

# **Construction Engineering & Inspection**

## **Contract Administration Guidelines**



**NCDOT CONSTRUCTION UNIT**

October 2023

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## Contact Information

The information contained in this training material is designed to assist North Carolina Department of Transportation (NCDOT) employees in understanding and administering Construction Engineering and Inspection Agreements (Agreements) and is provided by the NCDOT Construction Unit. If you should have any questions or require additional information regarding Construction Engineering and Inspection Agreements, please contact the NCDOT Construction Unit.

For questions or additional information regarding prequalification of private engineering firms for Construction Engineering and Inspection services, please visit the NCDOT Connect page located at the following web address:

<https://connect.ncdot.gov/business/Prequal/Pages/default.aspx>

## **How to Use this Manual**

This reference manual is a guide that will assist individuals in understanding the processes and terminologies for the documentation of workload, the selection of a Construction Engineering and Inspection (CEI) firm, and the development, award, administration, and closeout of a CEI Engineering Agreement for NCDOT Construction Projects. This manual provides examples of various calculations and correspondence as a resource for the practical application of this material.

Current policy and references should be reviewed prior to making policy-related implementation.

## **Goals**

The goals are to provide a clear and complete understanding of the use of Construction Engineering and Inspection (CEI) by Private Engineering Firms (PEF) for the NCDOT and to provide NCDOT employees with a resource that will assist them in the day-to-day administration of CEI Agreements (Agreements).

## Introduction

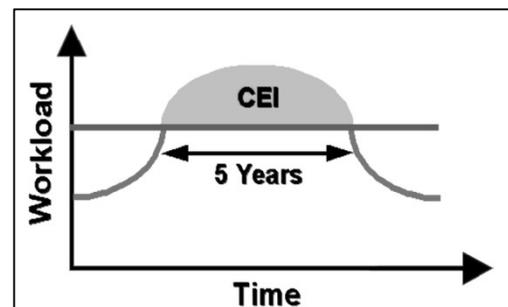
To address the North Carolina Department of Transportation's (NCDOT) increasing need for construction inspection personnel in a timely and effective manner, while maintaining a specific quality inspection level, NCDOT recognizes the necessity of contracting construction engineering and inspection services to qualified Private Engineering Firms.

To ensure these services are developed and administered uniformly across the state, the Construction Unit has created these guidelines to assist Department personnel, Private Engineering Firms and other entities in the understanding and administration of these agreements. These Guidelines are developed as a guide for how to assess project personnel needs, decide on specific methods to satisfy these needs and the process to follow in initiating, contracting, and administering these CEI services agreements.

## History of CEI in North Carolina

In the early 1990's, the Department's complement of field personnel was not sufficient to inspect the projected peak workload for the 1987 Highway Trust Fund. Projected workloads for the Department at that time indicated that a significant number of additional personnel were necessary to accomplish the Department's mission. The Department began to investigate ways to minimize the "staff up – staff down" scenario it faced.

As the Department began to look at new ways of doing business, the possibility of private engineering firms providing these additional resources was appealing. This alternative would allow the Department to fulfill its mission and would avoid the task of reducing staff once the peak of the Highway Trust Fund had passed. As shown in the diagram, the Department's goal was to staff the peak of the workload with private engineering firm personnel, thus avoiding future reductions in force among state employees. Once implemented, the goal of the Construction Engineering and Inspection (CEI) program was to help bridge the gap for personnel across the State.



## **CEI Today in North Carolina**

There are currently two major types of CEI Agreements being utilized to help provide services in North Carolina. They are Project Specific, also referred to as “Traditional,” and Statewide On-call, also known as “Limited Service Agreements.” Statewide contracts have included: On-call CEI, Division Design Construct, and Materials & Tests. Other areas of service may be identified and implemented, as necessary.

## **Workload Needs Assessment**

Construction workload projections for each highway division are updated at least every two (2) years for the next three (3) years of construction seasons. This process is not intended to establish an exact number of technicians needed or limit the Division’s ability to request additional personnel assistance, when necessary. Instead, this projection is used to anticipate trends and sudden increases or spikes in a division’s workload. It also affords the Division staff the opportunity to become more familiar with the future anticipated workloads beyond the upcoming construction season.

The Division Construction Engineer should consider the project staffing requirements for the Division’s anticipated workload and determine the minimum number of technicians to adequately staff the projects. The Construction Unit assists with the workload projections.

## **Workload Documentation**

Division personnel update their personnel projection spreadsheet with the current 12 month let list, State Transportation Improvement Plan (STIP), resurfacing and state funded division let projects. The 12-month let list and STIP may be found on the Department’s web pages. Other information, such as division let and resurfacing projects, is obtained within the Division to complete the full personnel projection for the next three (3) years. The Division Construction Engineers estimate the number of personnel they will need for each project in the spreadsheet based on general criteria that have been established by the Department. This criterion assigns a specific number of personnel to projects based on the type of project and the dollar amount of the project. See [Appendix A](#) for the Personnel Projection Staffing Criteria.

Information for each project is entered into a spreadsheet to calculate and graph the anticipated number of technicians needed to be able to perform the work including inspection, surveying, and office technicians.

This needs assessment is vital in the CEI administration process and plays a significant role in the following ways:

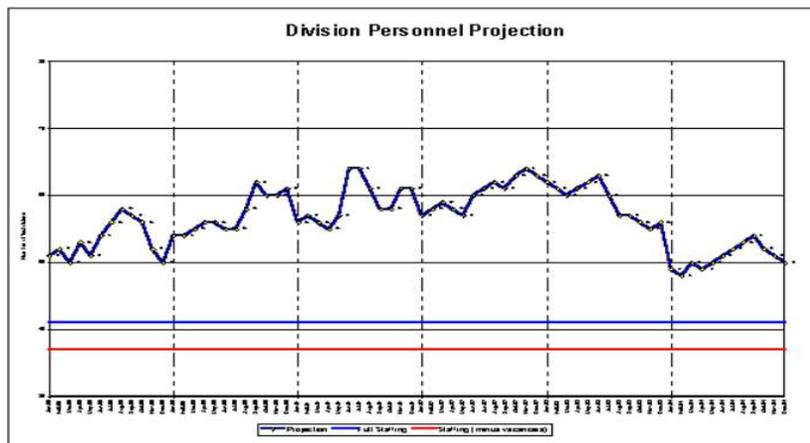
1. It establishes documentation of the need for additional resources in a specific Division or area.
2. It allows the Department to efficiently assign CEI personnel, share internal resources and manage its workload statewide.
3. It assists the Division and the Construction Unit staff in anticipating what the needs will be for engineering and inspection.
4. It provides information critical to PEFs to anticipate and prepare for future staffing trends.

## Types of Workloads

Three categories of workloads are typically seen. They are Sustained, Seasonal, and Combination workloads. Each one is treated differently when utilizing CEI services.

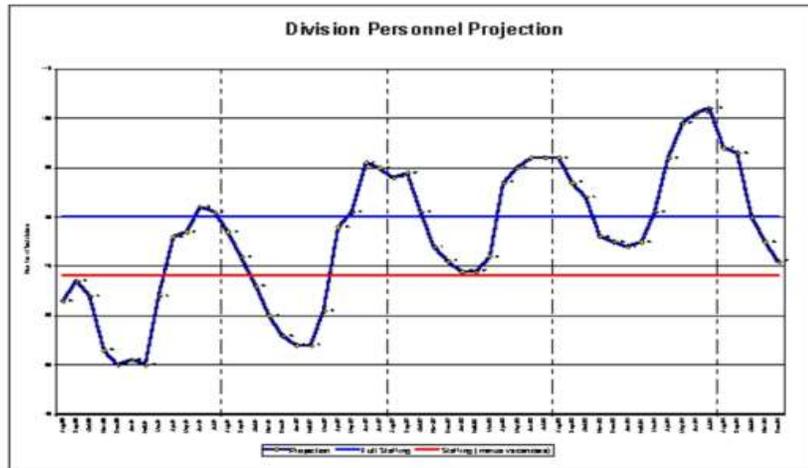
### ***Sustained Workloads***

Sustained workloads show a steady demand for personnel greater than the Division's workforce for an extended period of at least two construction seasons. As seen in the diagram, the need stays well above the Division's available resources and may require a more long-term Project Specific CEI approach.



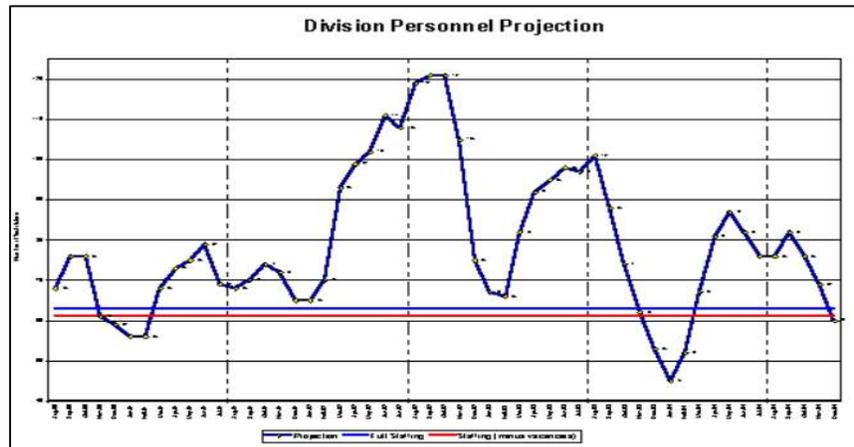
### **Peak Season Workloads**

Peak season workloads show a demand for personnel greater than the Division's workforce during the peak construction season only, with needs returning to normal or below normal during the winter season. The use of short-term or Statewide On-call services may be a good fit to cover the peaks in the workload.



### **Combination Workloads**

Combination workloads show a demand for personnel greater than the Division's workforce for an extended period of at least two consecutive seasons along with spikes during the peak construction season. In these instances, a combination of Project Specific and Statewide CEI services will allow the Division to meet its staffing needs.



## **Identifying Projects for CEI Services**

The Division Staff reviews their needs and identifies resource gaps. Typically, the Division staff will review upcoming projects to determine if Project Specific / Traditional CEI services are a good match. Corridor type projects are most suitable for Project Specific CEI services, as they provide an opportunity for efficient use of CEI personnel. A combination of two or more projects or a cluster may also be a good candidate for Project Specific CEI services.

When selecting projects for Project Specific CEI services, a rule of thumb is that the project(s) should have a minimum duration of two (2) years, do not contain any gaps in staffing due to

letting schedules and require a minimum of eight (8) personnel. The Department will consider Project Specific CEI services for projects which require specialized expertise or geographical needs.

The Division then sends a memorandum to the Chief Engineer requesting to utilize Project Specific CEI services. The request should include the Division's workload assessment. The Construction Unit should be copied on the request. The request will be reviewed to assure that all potential work in the Division is included and the numbers of technicians on projects meet the general criteria.

Once the review has been completed, the Construction Unit will contact the Division Construction Engineer for details regarding the advertisement for Project Specific CEI services and whether additional services should be included in the advertisement such as construction surveying, project engineers, and a field office. The number of technicians and the breakdown of their requested levels are included in the advertisement.

If the Division staff determines their workforce may need to be supplemented by Statewide On-call contracts, then they may begin negotiation with a firm and notify the Professional Services Management Unit a cost estimate is ready for review and a pre-award audit. The Professional Services Management Unit should contact the Construction Unit if large numbers of CEI personnel are requested thru the Statewide On-call contracts.

# Chapter 1 – Project Specific CEI Agreements

## Selection Process

### *Advertisements*

The advertisement for the Project Specific CEI agreement is drafted by the Construction Unit with details provided by Division staff. Once the advertisement is finalized, it is sent to the Professional Services Management Unit for posting. Projects are typically advertised four months prior to the date personnel are needed on the project(s). This time frame is required for the selection process, scoping the services with the selected firm, a pre-award audit of the firm's estimate, acquiring approval by the Secretary of Transportation, executing the agreement, and supplying the actual technicians.

The Construction Unit will need the following general project information for the advertisement:

- Construction Contract Number(s), WBS Number(s), TIP Number(s)
- Project Route(s)
- County
- Length of project(s)
- Estimated construction cost
- Description of work
- Let date(s)
- Date(s) of availability (Construction and CEI Contract personnel)
- Completion date(s)
- Number of desired technicians, their classifications, and their area of discipline.
- Project Staffing Chart

The Division staff should consider the specific project requirements and determine the minimum number of technicians to adequately staff the project. **The Department's Field Engineer should complete a project staffing chart including time to "staff up" and "staff down" the project as it nears completion.** In addition, sufficient time should be allotted to complete the final estimate assembly, if necessary. Examples of staffing charts for single and multiple projects are included in the [Appendix B](#). The Construction Unit will use the staffing chart to determine the number of technician positions to be included in the advertisement. The maximum number of technicians from the project staffing chart will be advertised as the

maximum number of technicians needed. During the contract, additional technicians may be needed for inspection, depending on how the construction contractor pursues the work. Contingency funds are included in the agreement to cover the unanticipated additional technicians needed to complete the project. If staffing needs change during the life of the project from the original scope of the work and the associated costs exceed the original agreement, NCDOT Secretary of Transportation approval by Supplemental Agreement will be required.

The project staffing chart should also be utilized to develop the estimated number of hours for the work at each technician level. This will be utilized to establish the amount contracted with the selected Private Engineering Firm. During the life of the agreement, the Department's Field Engineer should use the project staffing chart to compare actual technicians with the number and level of technicians estimated. This will help track whether the agreement is within the budgeted amount.

Once the advertisement has been completed and approved by the Division and the Construction Unit, the Professional Services Management Unit will advertise the need for CEI assistance on the NCDOT Connect Private Engineering Firms advertisement page.

<https://connect.ncdot.gov/letting/Pages/Private-Engineering-Firm-Advertisements-.aspx>

Advertisements may be posted on either the first or the fifteenth of each month. The website may list many advertisements such as design, public transit, aviation, environmental, etc. The duration of the advertisement is approximately two to three weeks.

Interested firms view the advertisement and submit a "Letter of Interest" (LOI) to perform the advertised work. Any firm submitting a LOI must be prequalified with the Department to perform the advertised work. This also includes subconsultant firms.

For information regarding prequalification, please see the Department's Connect page under "Doing Business." <https://connect.ncdot.gov/business/Prequal/Pages/default.aspx>

After the advertisement is posted, all questions concerning the advertised work should be directed to the person named in the advertisement to ensure all information is available to all firms equitably. This is typically the Manager of the Professional Services Management Unit.

## **Disclosure of Preconstruction Work Performed by Private Engineering Firms**

In order to minimize any concern with design errors and omissions, the Department requires that if the Private Engineering Firm or their subconsultants provided preconstruction services on the advertised project, they are required to disclose their involvement in the preconstruction phase of the work and how they plan to mitigate any conflicts of interest while performing the inspection of the project. This disclosure should be included in the firm's letter of interest. The Selection Committee will make the determination if the firm's plan to mitigate any conflicts of interest is satisfactory.

### ***Selection Committee***

The Selection Committee is appointed by the Construction Unit with input from the Division Construction Engineer. A selection committee typically consists of the Division Construction Engineer, the Resident Engineer, the Assistant Resident Engineer(s) and the Regional Bridge Construction Engineer or Area Construction Engineer serving as voting members. In addition, if the project involves federal funding, a representative of the FHWA may serve on the committee as a non-voting member. A representative of the Professional Services Management Unit will chair the committee and serve as a non-voting member. In addition, a representative from the Construction Unit will also serve as a non-voting member. All questions from firms during the selection process regarding the subject advertisement should be directed to the Manager of the Professional Services Management Unit.

Other Department employees may attend selection committee meetings, depending on the type of work involved in the project. For example, if a project contains significant specialty work, such as signalization, the Division Traffic Engineer may be asked to attend and contribute their expertise.

Selection committee members are required to attend the following meetings:

- Selection Meeting (ranking of firms); (if interviews are needed, this meeting becomes the "Short List Meeting")
- Oral Interviews (optional meeting) and the final ranking of firms.

The selection committee is responsible for reviewing all Letters of Interest, technical proposals and attending all oral presentations.

### ***Pre-Advertisement Meeting***

Divisions may elect to conduct a Pre-Advertisement Meeting prior to the advertisement of the project. This meeting provides an opportunity for the interested firms to obtain details of the contract and the Department's expectations. The firms will be allowed to ask specific questions regarding the project during this meeting. The Pre-Advertisement Meeting generally occurs within the month prior to the advertisement of the project for CEI services. The Professional Services Management Unit and the Division Construction Engineer generally facilitate the Pre-Advertisement Meeting.

During the meeting, the Department's Field Engineer is typically called upon to give a general overview of the project and discuss areas of concern. The Department's Field Engineer should also consider the following prior to the meeting and be prepared to discuss these items:

- Office space and location
- Survey equipment needed
- Testing – nuclear and conventional
- Project specific inspection needs (environmentally sensitive areas, concrete pavement, ITS, etc.)

### ***Letters of Interest***

The advertisement is posted requesting that firms submit Letters of Interest (LOI) regarding CEI needs for specific projects. An LOI is an introductory publication in which the Private Engineering Firm (PEF) demonstrates their working knowledge and previous work history on projects similar to the advertised project. The LOI also includes information about the firm's proposed inspection team and their individual qualifications. The Department expects the inspection team will be supplied, as listed in the LOI.

The Professional Services Management Unit (PMSU) is responsible for receiving and distributing the LOI's for each advertisement. After the deadline for the acceptance of the LOIs, the selection process is carried out in the Department's **LOI Submittal Management System (LOISS)**, which can be assessed using <https://connect.ncdot.gov/site/psmu/default.aspx>. The following items will be available within the LOI Submittal Management System (LOISS).

- Letter of Interest from each firm
- Copy of the advertisement
- Listing of PEFs submitting LOIs
- Pre-Qualification information
- Evaluation Form

Members of the selection committee are responsible for reviewing, evaluating, and ranking each of the firms that submitted LOI's prior to the short-listing meeting through LOISS. The Professional Services Management Unit will establish a deadline to submit the initial scoring of the LOI's prior to the short-listing meeting and will compile the initial results and an initial ranking of the firms by the selection committee. This information is used to begin discussions for the selection committee during the short - list meeting.

While reviewing the LOI's, each selection committee member should complete the evaluation form, assigning a score for each selection criterion for each firm. Strengths and concerns with the firms' LOI's should be noted in preparation for discussions with the selection committee. Prior to the short-list meeting, members of the selection committee are encouraged to check references of firms and personnel, including supervisors of projects to which the firm or proposed personnel is currently assigned.

### ***Ranking/Short-listing of Firms***

The selection committee will meet to discuss the evaluation of each firm based on the LOI's submitted. Each member will discuss his/her evaluation, concerns and/or recommendations, and give an initial ranking of the proposed firms. Each member's initial ranking will be compiled into an overall initial ranking of the firms. This initial ranking allows the group to begin discussing the results and move toward a consensus regarding the short-listed firms.

The ranking/short-listing meeting typically involves selection committee members openly discussing the firm's history, workload, and proposed personnel. Comments made during the short-listing meeting should not be discussed with people who are not on the selection committee. The Professional Services Management Unit will combine the comments and provide a debrief meeting with the private engineering firms upon their request.

If the selection committee determines that oral interviews are required, a minimum of three private engineering firms should be short-listed during the selection committee meeting (except where fewer than three (3) are available). No more than three firms are typically short-listed as the presentations become time consuming and costly for the firms.

At the conclusion of the ranking/short-listing meeting, the chairperson will put together the evaluation forms from the selection committee members and the comments received during the meeting. The completed forms will not be made available for public viewing. Comments received during the meeting will be summarized and used to provide feedback to the firms who were not selected so that they may improve their LOI's in the future.

The Professional Services Management Unit will notify the firm that is selected or the firms that are short-listed, if it is determined that oral interviews are required, by email. If members of the selection committee have specific items they want addressed during the Oral Interviews, the Professional Services Management Unit will discuss those items with the short-listed firms upon notification. Firms who were not short-listed will not be contacted.

### ***Pre-Interview / Pre-proposal Meeting***

The Pre-interview / Pre-Proposal Meetings are no longer held on a regular basis.

### ***Technical Proposal***

Technical Proposals are required when the advertised project contains specific technical issues that need to be addressed. Technical proposals provide details regarding the firm's approach to technical issues contained in the construction project(s). If required, the Professional Services Management Unit is responsible for receiving the Technical Proposals and distributing them to the selection committee. The selection committee evaluates and ranks the Technical Proposal for each firm. The evaluations are discussed at the Oral Interview / Ranking Meeting. (Note – Technical Proposals are not typically required.)

### ***Oral Interviews / Ranking Meeting***

Oral interviews are held with each short-listed firm. The oral interviews allow each firm an opportunity to provide the selection committee insight as to how they plan to staff the project and address any project specific issues.

Times regarding oral interviews are determined by the Professional Services Management Unit. In most cases, representatives of each of the short-listed firms will be allowed up to 30 minutes to give a presentation regarding their firm and its ability to perform the work. Members of the selection committee will then have time to ask questions of each of the firms. Their oral interviews will be timed and will be terminated at the maximum time designated by the Professional Services Management Unit. This allows each firm the same amount of time to present material to the selection committee.

Higher level technicians and Project Engineers, if applicable, proposed by the Private Engineering Firm should attend the oral interviews. Representatives from subconsulting firms, if applicable, may also attend.

The oral interview provides an opportunity for the selection committee members to ask specific questions to the proposed technical personnel. Questions for the firms should be developed prior to the oral interviews. For consistency, similar questions should be asked of all the firms during the oral interviews.

Once the oral interviews are complete, the selection committee will meet and rank the firms.

## **Engineering Agreement Development**

Upon notifying the firms, the Department begins the development of the Engineering Agreement with the top-ranked firm. If the Department is not able to negotiate the terms of the contract with the top-ranked firm, the Department will terminate the negotiations with the top ranked firm and begin negotiations with the second-ranked firm.

The Project Specific Engineering Agreement consists of the following parts:

1. *Engineering Agreement*: Agreement describing the General Recitals, scope of services and method of payment. Information obtained in the cost proposal will be incorporated into the agreement including overhead rates, fee, and firm information.
2. *Exhibit A – Certification Regarding Debarment, Suspension and other Responsibility Matters - Primary Covered Transactions*: This certifies that the firm and its subconsultants are actively certified firms that can legally enter into the agreement.
3. *Attachment A – Section Reserved for Future Use*.
4. *Attachment B –: CONSULTANT & SUBCONSULTANTS (IF APPLICABLE) MANDAY- and-FEE ESTIMATE (IF APPLICABLE) And NCDOT MAXIMUM ALLOWABLE NON-SALARY DIRECT COSTS and OTHER APPROVED NON-SALARY DIRECT COSTS*.  
This section may include support documentation of estimated costs such as Consultant and Subconsultant Manday and Fee Estimates, NCDOT Maximum Allowable Non-Salary Direct Costs, other Approved Non-Salary Direct Costs, and *Construction Engineering and Inspection Fee Provisions*: This lists the monthly vehicle payment rate, standard equipment required for each vehicle and the Basic Inspection Tools that may be required of each PEF technician.
5. Attachment C – Form RS-2(S)
6. Attachment D – CERTIFICATION(S) OF FINAL INDIRECT COSTS

### ***Fee Proposal***

A fee proposal is an engineering estimate for the cost of performing CEI work. The selected firm submits the fee proposal to the Department. The proposal includes the following: engineering and inspection technician costs, engineering management costs, direct costs, contingency, overhead costs, and operating margin. In order to streamline the process of fee negotiations, an in-house form for use by the firm has been developed by the Department. The form is a Microsoft Excel spreadsheet, which performs the majority of calculations reviewed during the pre-award audit. A copy of the electronic form may be found on the Department's Connect Page, "Professional Services Management" under the Forms Resource Type.

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

The purpose of the fee proposal is to develop the anticipated CEI costs that can be presented to the Secretary of Transportation for approval. This fee proposal becomes part of the agreement; however, payment is made to the firm for the actual costs plus additives as included in the agreement.

Components of the fee proposal include:

*Engineering and Inspection Technicians*

The direct labor cost for CEI technicians is based on the staffing chart provided to the firm by the Department. The number of hours and levels of technicians are taken directly from the staffing chart. The firms provide direct labor costs for each calendar year.

The reimbursable hourly rate for each technician must be within the Department's salary range for the technician's level. For estimate purposes, the direct labor costs are estimated at the maximum rates for each level of technician. The actual reimbursable rate must be reviewed and approved by the Department. Actual increases in the reimbursable rates must be approved by the Department in writing.

*Engineering Management Cost*

The Department will reimburse the firm's and subconsultants' project manager salaries for limited visits to the project. The Department does not limit salaries for engineering managers. However, the firm must provide verification of the engineering manager's billable rate during the pre-award audit. Engineering Managers' rates are verified through the Department's Consultant Rate System (CRS). The Consultant Rate System is an electronic database used by the NCDOT Office of Inspector General to approve firm overhead rates, cost of capital and the firm's staff rates. The Department's Field Engineers will also be able to use the system to streamline the negotiation process. (Additional information regarding the Consultant Rate System can be found on the Consultant website under "Resource Type: Guidelines", using the following link.)

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

The firm is allowed reimbursement for quarterly visits each year and the subconsultants are allowed reimbursement for semi-annual visits each year for up to eight (8) hours each. For example, the duration of an agreement is from February 1, 2020 through December 31, 2023 (47 months), the firm is eligible for 16 visits ( $47/3 = 15.6$ ) and the subconsultant is eligible for 8 visits ( $47/6 = 7.8$ ) each up to 8 hours.

In addition to reimbursement for engineering management salaries for these visits, the firm and the subconsultant will be compensated for round trip mileage from the Project Manager's assigned office location to the project(s) at the maximum allowable rate listed on the "Maximum Allowable Non-Salary Direct Costs."

#### Direct Costs

Direct costs include reimbursements of some testing equipment, office space, office utilities, field office Wi-Fi, vehicles, and other costs, which are not labor costs. Direct costs are reimbursed at the actual cost of the item, plus sales tax, if applicable. If a field office is included in the agreement, set-up costs for a field office may also be included. If a nuclear density gauge is required for the project, costs associated with the gauge and its storage are reimbursable items.

No overhead or profit is allowed on direct costs. When submitting the fee proposal, any direct costs shown by the firm should be accompanied by a catalog cut or estimate for the item with the price shown, when applicable.

Items for which direct reimbursements are made that have value after the project is complete (durable good) will require that the firm provide the Department with a salvage value for the item. The Department may not use CEI agreements to increase fixed assets.

Direct reimbursements will not be made for computer equipment, including tablets, desktops, laptops, mobile phones, and associated monthly use charges.

The Department's Field Engineer will review and approve all direct costs items prior to purchase by the firm.

#### Testing and Safety Equipment:

The Division may elect to provide testing equipment for the firm, or prices may be negotiated, and the firm may provide equipment under the agreement. The Department may provide "loaner" nuclear gauges for the firm to use. Firms will be reimbursed for the Yearly NCDENR License Fee, annual leak, calibration and lubrication tests and quarterly badge testing as part of the direct costs. Typically, nuclear gauges are calibrated annually when used for testing asphalt densities. The firms will be required to provide secure storage, separate from other NCDOT nuclear gauges. Contact Materials and Tests Unit for more information regarding the Nuclear Gauge Loaner Program.

Firms may also elect to provide nuclear gauges. The Department will provide the firm a monthly reimbursement rate for the use of the firm's nuclear gauge. The monthly reimbursement rate includes the following costs.

- Rental of nuclear gauge
- Yearly NCDENR License Fee
- Leak Test, calibration, Cleaning and Lubrication
- Quarterly Badge Test
- Mounted Transport Box
- Secure Storage

The firm may request to rent a nuclear gauge instead of buying a nuclear gauge if NCDOT does not have gauges to loan to the firm. When nuclear gauge rental is proposed, a cost comparison should be made to see if it is more cost effective to rent versus purchase a gauge.

The firm will discuss the following with the Department's Field Engineer when determining direct costs prior to the submission of the Fee Proposal:

- Office Space
- Testing Equipment
- Survey Equipment

Each inspector is expected to report for duty with a standard list of equipment such as a calculator, safety equipment, and measuring instruments. The current list of basic inspection equipment is included in [Appendix A](#). No direct cost reimbursement will be made for the basic inspection equipment.

#### Firm's Field Office

If the firm is to provide on-site office space, the following should be discussed:

- Office space specifications (size, bathrooms, etc.)
- Lot location
- Lot rent
- Office Furniture
- Parking lot preparation
- Utility bills (Water, sewer, phone, electricity, Wi-Fi)
- Copier
- Nuclear gauge storage

It is the intent of the Department to equip the PEF technicians and PEF provided field offices with the same equipment and amenities as Department employees and Department field offices.

### Vehicles

Vehicle costs will be paid at a monthly rental rate, for all vehicles provided under the agreement. The Department's field engineer will determine the number of two-wheel drive vehicles and four-wheel drive vehicles that need to be provided by the firm. Vehicles are reimbursed with a monthly vehicle base rate plus the actual project related miles multiplied by a fuel rate. (Note: Commuting miles are not reimbursable by the Department.) Miles allowed for reimbursement include on-site travel miles, miles required to transport samples to laboratories and miles to report from station (Department's field engineer's or field office) to the project. PEF technicians should track their daily project miles on a mileage log. Mileage logs should be submitted monthly with the firm's invoice to provide documentation for the miles submitted for reimbursement from the firm. It is also acceptable to submit the mileage weekly with the technicians' timesheets. PEF technicians should certify that the miles recorded are project miles.

The State Construction Engineer will establish the vehicle base rates for two-wheel and four-wheel drive vehicles. Vehicle base rates will be reviewed at least every two years by the State Construction Engineer. The vehicle base rates will be reviewed in December of the odd numbered years and any adjustment will become effective in January of the following year as updated on the Maximum Allowable Non - Salary Direct Cost. The fuel reimbursement rates will also be established by the State Construction Engineer and will be evaluated every six months in January and July of each year. The current rates for both the vehicle base rates and fuel reimbursement rates are posted on the NCDOT's website on the Maximum Allowable Non-Salary Direct Costs.

When providing vehicles, the specific make, model, and year of vehicles are not considered. It is the responsibility of the firm to provide a vehicle that will accommodate the technician's needs. The use of four-wheel drive vehicles should be commensurate with the Division's current practice. It is the intent of the Department to equip PEF personnel with similar equipment as Department employees based on project assignments. The Department's Field Engineer will determine the type of vehicle(s) needed for the assignment when the work is scoped (2-wheel drive or 4-wheel drive). The rate may change if the State Construction Engineer updates the vehicle base rate.

The current list of required equipment for all vehicles is listed below. This equipment is considered incidental to the monthly vehicle rate and no separate payment will be made.

- Truck toolbox or camper shell
- Caution lights
- Fire extinguisher
- First aid kit
- Water cooler

In addition to the equipment listed, the vehicle base rate includes the following vehicle costs:

- Maintenance
- Insurance
- Registration
- License tags
- Taxes

#### Communication / Technology

Phones, tablets and / or computers used by the PEF technicians are not reimbursable items. PEF technicians should be equipped with phones and tablets for communication and electronic documentation and inspection. Laptops may be used instead of tablets based on the firm's use of technology. The PEF technicians shall have either a tablet or laptop that is internet equipped to allow access to the Department's SharePoint Construction Team Sites. If iPads are used, the Share Plus app is required to access the Department's SharePoint Construction Team Sites. For a detailed list of apps required / recommended for the iPads, see the [iPad Set-up Guide for PEF Technicians](#). For access to the Department's systems including SharePoint Construction Team Sites and HiCAMS, see the [On-boarding Process for PEF Technicians](#). [The iPad Set-up Guide for PEF Technicians and the On-boarding Process for PEF Technicians are in \[Appendix A\]\(#\)](#).

#### Contingency

The contingency amount is included in the Engineering Agreement to cover costs not originally anticipated, such as additional labor for night work or extended duration of the project contract. The contingency amount is typically four to ten percent of the agreement amount and it is established by the Professional Services Management Unit. Overruns of the original agreement amount must be approved by the Secretary of Transportation and presented to the Board of Transportation for information purposes.

### Overhead Rate

The overhead rates are audited, computed rates established by an audit of the firm's financial records. The Department's Office of the Inspector General – Consultant, Utility, Railroad and Turnpike (CURT) Unit or a private CPA may perform this audit. If an audit is not performed, the CURT Unit may use the current overhead rate on file, negotiate an overhead rate, or ask the firm to provide an in-house computation of the rate until a formal audit is conducted. The computation of these rates considered general administrative costs and fringe benefits. These rates are applied to direct labor to allow a firm to recover the indirect costs allowable under the agreement. Overhead costs for the overtime hours and shift premium-hours will be calculated using the straight time salary. No overhead costs will be added to the overtime or shift premium rate. There are two rates that may be associated with CEI Engineering Agreements contracts, the home office overhead rate, which applies to the project manager and the field overhead rate, which applies to the field technician or engineer. These rates may be adjusted during the life of the Engineering Agreement based on the firm's actual filed audited overhead rates each year. The CURT Unit authorizes any adjustments to the firm's overhead rates under the terms of the agreement.

### Operating Margin

The operating margin is the engineering fee or profit of the firm. This rate is negotiated between the firm and the Professional Services Management Unit.

### **Award Process**

The Secretary of Transportation approves each Engineering Agreement prior to execution of the agreement. However, prior to award of the contract, the CURT Unit must perform a Pre-award Audit.

### Pre-award Audit

The CURT Unit conducts the Pre-award Audit. The Professional Services Management Unit transmits a copy of the fee proposal. During the Pre-award Audit, the following items in the fee proposal will be verified:

- Prime Consultant and Subconsultants Overhead rates
- Non-salary costs
- Reimbursable hourly rates
- All computations

The Pre-award Audit will determine any necessary changes to be made prior to signing of the Engineering Agreement by all parties.

### *Execution of the Engineering Agreement*

When all corrections have been made from the Pre-award Audit, the Secretary of Transportation approves the engineering agreement. The Professional Services Management Unit transmits the Engineering Agreement to the firm for review and signature. The firm returns a signed copy to the Professional Services Management Unit for execution by the Department.

The Professional Services Management Unit will return an executed original to the firm and post the executed agreement to SAP for the Department's reference. The engineering agreement contains a cost estimate for the work to be performed.

### ***Supplemental Engineering Agreements***

Supplemental agreements are required to document all changes in the CEI services prior to the change occurring. These include but are not limited to scope of services changes, reimbursement adjustments not included in the original agreement and supplemental engineering agreement fees when costs exceed the original estimate.

All supplemental agreements that exceed the original Engineering Agreement or change the scope of the services must be submitted to the Secretary of Transportation for approval and presented to the Board of Transportation for information. The Department must approve the supplemental agreement prior to performing the supplemental services.

### ***Encumbrance of Funds***

Costs associated with CEI engineering agreements are charged directly to the specific applicable projects. Encumbrance of funds against each project is required in order to pay the invoices. This process involves designating a specific amount of funds for the anticipated work to be performed on each project or WBS element.

When an engineering agreement is first established, it will have certain WBS elements related to it. The Professional Services Management Unit will create a Contract Management Purchase Order in SAP to encumber the funds for these WBS elements. Once this purchase order has been approved in the SAP workflow, the Department's Field Engineer may input invoices that are received for payment.

## **Administration of Project Specific CEI Agreements**

Administration of CEI contracts is divided between the Professional Services Management Unit (PSMU) and the Department's Field Engineer. The PSMU is responsible for the development and execution of the agreement. This includes issuing notices to proceed, encumbrance of funds, and supplemental agreements. The Department's Field Engineer is responsible for identifying projects in the scope of work, approval of personnel, the personnel's reimbursable hourly rates, the replacement of personnel, evaluations of the firms' performance, the approval of invoices for payment and closing the agreement.

### ***Notice to Proceed***

A Notice to Proceed is provided to a firm once the agreement has been executed and services are ready to begin on the project. This written notice authorizes the firm to begin services under the executed engineering agreement on or after the specified date. It further authorizes the firm to continue services until the completion of the project(s) or until the Department notifies the firm in writing that services are no longer needed.

The PSMU provides the Notice to Proceed. Prior to the Notice to Proceed, the Department's Field Engineer does not have the authority to direct the firm to begin work with CEI personnel. However, the Department's Field Engineer may begin receiving and reviewing resumes and approving proposed personnel for services under the terms of the agreement. If necessary, the Department's Field Engineer may interview proposed CEI personnel in person prior to approving them for services.

### ***Technician Approval***

When approving personnel for proposed positions, the Department's Field Engineer should review the technician's certifications and experience and compare it with the required experience level for the positions being filled. The following is a brief description of the requirements:

Transportation Technician I Trainee	No Experience – High School Diploma
Transportation Technician I	AAS Civil Engineering Technology
Transportation Technician II	AAS Civil Engineering Technology + 2 years exp.
Transportation Technician III	AAS Civil Engineering Technology + 3 years exp.
Transportation Technician IV	AAS Civil Engineering Technology + 5 years exp.
Transportation Technician V	AAS Civil Engineering Technology + 6 years exp.

Note that additional experience is directly related transportation experience. Additional transportation experience may be substituted for the AAS Degree in Civil Engineering Technology, if applicable at the rate of one (1) year for each year of formal education experience required.

### ***Personnel Reimbursable Hourly Rate Approval***

The Department's Field Engineer will review the proposed technician's proposed "salary" rate. The "salary" is the personnel's reimbursable hourly rate. The reimbursable hourly rate for firm personnel must not exceed the maximum rate in the range for a given classification. The firm must pay their employee at least the reimbursable hourly rate. A firm cannot invoice the Department for more than the actual hourly rate of the technician since the agreements are Cost Plus.

The Field Engineer should use the Salary Calculator as a tool in establishing the reimbursable hourly rates (for new assignments) based upon the technician's education and directly related work experience. The current Salary Calculator can be found using the following link.

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

### ***Increases in the Reimbursable Hourly Rate***

Lower level technicians may be eligible to receive a reimbursable hourly rate increase when there are vacancies on the project and those technicians are proposed for higher level positions. It should be noted that the Department does not promote CEI personnel in place due to gained experience or knowledge. Only their respective firms may offer promotions internally. However, a firm's personnel may be proposed for a higher-level classification if a vacancy exists on the project and they are qualified for the new classification. The Department's Field Engineer must approve this action in writing prior to the proposed change. When this occurs, an adjustment in the reimbursable hourly rate is allowed since this is a change in classification for the technician. Yearly adjustments to the reimbursable hourly rates may be made in accordance with the NCDOT Rate Study to the salary ranges. The Salary Calculator should not be used for in range adjustments based on yearly adjustments; rather it should only be used for new assignments. Guidance for the yearly adjustments is provided by the State Construction Engineer.

A CEI technician's actual salary and raises are subject to the firm's given pay raise policy. The Department does not review or approve these actions or rates. The reimbursable hourly rate is what the firm is invoicing the Department for and this does not necessarily represent the salary the firm is actually paying the employee. The firm may pay the technician at or above the

reimbursable rate; however, they may only invoice the Department within the allowed ranges for the classifications.

### ***Training and Certifications***

Firms may send their technicians to required training and can use Department training and certification classes while providing services for the Department. However, prior approval by the Department's Field Engineer is required. If mission critical work requires the technician's presence, the Department's Field Engineer may delay approval for the requested training until such work is complete. The firm is responsible for paying for the tuition, fees, travel expenses, and all other costs associated with such training. The Department continues to pay the vehicle monthly rate during this required training; however, the technician's time is not reimbursable.

If the firm determines that the required training is critical, they may propose to provide an equivalent, qualified replacement technician to render critical services on the project. This substitution must be approved by the Department's Field Engineer in writing. If approved, the Department will compensate the firm at the existing technician's reimbursable hourly rate during the training if a given task is mission critical and a replacement technician is required. No payment will be made for replacement technician or equipment.

Technicians must maintain their certifications to inspect and sample the work for project certification purposes. Firms should keep the Department's Field Engineer informed of technician class schedules.

### ***Engineering Technician I Trainee Training Program***

Firms may provide Engineering Technician I Trainees during the performance of their services, pending the approval of the Department's Field Engineer. A firm must make a request to the Department's Field Engineer for providing an Engineering Technician I Trainee under the agreement. All Engineering Technician I Trainees must be approved by the Department and registered through the Construction Unit prior to their service by the firm. The Engineering Technician I Trainee may replace a proposed Transportation Technician I included in the agreement. The Trainee's approved reimbursable hourly rate and progression must adhere to the provisions of the Department's current Engineering Technician I Trainee program. The Department reserves the right to preclude use of the Trainee at any time during the performance of their services or request removal of the Trainee if, in the Department's opinion, is not performing at expected levels as defined in the Engineering Technician I Trainee Program. The proposed Trainee must be at least a high school graduate. Once approved, the Trainee must complete the self-study courses, obtain certifications, and complete 24 months of the On-

the-Job Training (OJT) within the required time frames. Once a candidate has completed the requirements of the Training program, he/she will be reclassified to a full Engineering Technician I.

The Department will reimburse the approved reimbursable hourly rate and monthly vehicle costs for all approved Trainees under the terms of the agreement. The Trainee's initial salary will be determined by the current Engineering Technician I Trainee Program policy and his/her level of competency accomplished to date. An increase in the reimbursable hourly rate is allowed as the Trainee completes the various levels of the program. During this course of study, the firm will pay for books, materials, fees, and any other costs associated with this training.

Information on the Engineering Technician I Trainee Program may be found on the Construction Unit's Connect Page at the following link:

<https://connect.ncdot.gov/projects/construction/Pages/Construction-Memorandums.aspx>

### ***Invoices***

Firms will invoice monthly for their services. The Department's Field Engineer is responsible for reviewing these invoices for the correct number of personnel, vehicles, and other direct costs. It is not the responsibility of the Department's Field Engineer to check each calculation on the invoice. A cursory review or spot checking of calculations is recommended for the first few invoices to make sure the details are correct. The NCDOT Office of Inspector General - CURT Unit, will verify rates in accordance with the agreement and check calculations for each invoice.

Along with the invoice, the firm should include an invoice coversheet titled Invoice Form – Cost Plus. This form will replace the cover letter written for each invoice that summarizes the amount invoiced for each WBS Element charged on the invoice. The Invoice Form- Cost Plus is located on the Consultant webpage at the following link.

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

### ***Reviewing and Paying Invoices***

The firms are required to submit invoices on every 30 days or on a monthly basis. The invoice should include a completed Invoice Form – Cost Plus which summarizes the charges for the invoice and provides a status of all the charges to date. The Invoice Form – Cost Plus is a tool to guide the firms in providing all the invoice information in a structured and concise manner that will assist the Department in reviewing the invoices in an efficient and timely manner. The Invoice Form – Cost Plus can be accessed on the Consultant Webpage under forms at the following link.

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

The Department's Field Engineer is responsible for reviewing invoices to verify that timesheets accurately reflect the actual time worked, the reimbursable hourly rates are within the ranges

for the classifications, there is one truck per technician, mileage logs are submitted, mileage amounts appear reasonable for project miles, and that direct expenses are reasonable and approved by the Department. The Department's Field Engineer should advise the CURT Unit of any discrepancies when the invoice is submitted for payment through SAP. Payment is made only for time worked by the employee. If the firm's personnel take time off for holidays, vacation, or sick leave, these are included in the firm's field overhead rate and should not appear on the invoice. All hours worked under 40 per week are paid as regular time. All hours over 40 per week are considered overtime and are paid accordingly. Work performed during holidays will be paid as regular work time; however, applicable holiday pay will be the responsibility of the firm.

When invoices include a direct expense items with a salvage value, the Department's Field Engineer must verify that the firm has either:

1. Invoiced the purchase amount minus the salvage value

**OR**

2. **Invoice the purchase amount and acknowledge the actual salvage value will be credited to the Department prior to payment of the final invoice.** In this case, the Department's Field Engineer must provide documentation he/she is responsible to ensure the salvage value is deducted prior to payment of the final invoice. The documentation should be sent to the PEF Project Manager and a copy attached to the invoice when scanned in SAP. Example Documentation is in [Appendix B](#).

A comprehensive list of invoice responsibilities for the Field Engineer can be found in [Appendix A](#).

The CURT Unit will check each invoice thoroughly including overhead rates, reimbursable rates, direct expenses and extend all calculations included in the invoice. If the invoiced amount exceeds the agreement maximum, the CURT Unit will stop payment on the invoice and contact the Department's Field Engineer and the Professional Services Management Unit for further advisement regarding the agreement.

The following are general rules associated with all Cost Plus CEI agreements:

- Firms cannot invoice the Department for more than they are actually paying their personnel. For example, a firm cannot invoice the Department for \$16 per hour for a technician and then only pay that technician wages of \$15 per hour.
- Vehicles are paid as a flat monthly rental rate as included in the Agreement and included in Appendix D (fee proposal) of the agreement. Partial monthly rates may be applicable for the first and last months of use. No more than twelve (12) months of vehicle base rates should be billed per year.
- No per diem (technician commuting mileage, meals, or lodging) is allowed for any reason on Cost Plus CEI engineering agreements.

### ***Project Manager Visits***

Project Manager visit mileage and time are permissible in accordance with the terms of the agreement. To be eligible for reimbursement, the visits must actually take place, the Project Manager should spend time coordinating and working with provided technicians and Department staff. The Contract Administrator or designee should sign a timesheet to document the visit. Project Managers should contact the Contract Administrator in advance of the visit.

Project Manager visits are an opportunity to review project records with the technicians to ensure compliance with the Department's policies and procedures. Items which could be reviewed during the project visits include the following:

- Project diary entries
- Pay Record entries
- Earthwork calculations
- Ticket book review
- Materials Received Reports
- Minimum sampling guidelines
- Technician's certifications and upcoming training
- Force Account Records
- As-built plans
- Subcontract Agreements
- Supplemental Agreements
- Erosion Control/ permits and NPDES documentation
- Special items of work
- Project Staffing

Managers are allowed to visit frequently but are not reimbursed for visits beyond that which are defined in the agreement. When invoiced in accordance with the agreement, the manager's salary for visits may be distributed over several projects at the discretion of the Department's Field Engineer.

### ***Shift Premium Pay***

Depending on an employee's work schedule, he/she may be entitled to Shift Premium Pay for some or all of the hours worked. Shift Premium Pay is in addition to what personnel get paid for their regular and overtime pay. CEI personnel will be paid Shift Premium Pay in accordance with the current Department policy. Shift Premium Pay is paid only for time worked and is an allowable direct labor reimbursement cost defined by the agreement.

For most situations, eligible personnel must be regularly scheduled with more than one-half (1/2) of the work hours occurring between 4:00 p.m. and 8:00 a.m. Regularly scheduled is defined as a position that requires a daily schedule that is repeated at specific intervals for an

indefinite period of time. It is not intended to apply to personnel who are temporarily placed on a shift for short durations. Please refer to the appropriate division personnel representative with questions regarding Shift Premium Pay eligibility. A copy of the Shift Premium Policy is included in [Appendix A](#).

### ***Submission of Invoices to Consultant Audit Unit***

The Department's Field Engineer will scan and submit the firm's invoices into SAP with an Invoice Form - Cost Plus. This Invoice Form – Cost Plus will include a table illustrating the breakdown of WBS Elements and their respective invoiced amounts along. The Department's Field Engineer should ensure that all WBS Elements included in the Invoice Coversheet have been encumbered to accept charges for the agreement. If WBS Elements are not encumbered, payment of the invoice cannot be made. The Invoice Form - Cost Plus can be accessed from the Consultant webpage using the link below. An example of the Invoice Form – Cost Plus is included in [Appendix B](#).

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

### ***Encumbrance***

Costs associated with CEI engineering agreements are charged directly to the specific applicable projects. Encumbrance of funds against each project is required to pay the invoices. This process involves designating a specific amount of funds for the anticipated work to be performed on each project(s).

When an engineering agreement is first established, it will have certain WBS Elements (project) related to it. The Professional Services Management Unit will create line items on the original purchase order (PO) and associate it with the WBS Element(s) and establish the not -to-exceed dollar amount as stated in the engineering agreement.

### ***Staffing Procedure for CEI***

The Department's Field Engineer has the authority to review and approve all CEI personnel and reimbursable hourly rates of technicians in accordance with the aforementioned guidelines and policies. It is not the responsibility of the Department's Field Engineer to approve a firm's project manager's salary.

The following procedure should be used to review and approve proposed personnel:

- 1) The firm supplies résumés and a written request for a reimbursable hourly rate for the proposed personnel.
- 2) The Department's Field Engineer may request to interview the proposed personnel.

- 3) The Department's Field Engineer reviews the firm's request to make sure the personnel are qualified to perform the duties and are qualified for the hourly rate requested under NCDOT's Personnel Policy for new hires.
- 4) Once the Department's Field Engineer has determined that the firm's personnel are acceptable and qualified for the requested classifications, he/she will respond in writing to the firm with the approved reimbursable hourly rate and authorized start date for each of the personnel. The Department's Field Engineer should copy the CURT Unit on approval letters, referencing the Agreement and Vendor Number for that agreement. If the Department's Field Engineer does not have the Agreement and Vendor numbers, he/she should contact the Professional Services Management Unit.

If, for any reason, the Department's Field Engineer determines the firm's personnel are not performing as necessary or are not qualified after reporting to the project, the Department's Field Engineer should contact the firm and advise the project manager of the situation. If issues are not resolved in a timely and satisfactory manner, the Department's Field Engineer may request replacement of the personnel. Replacement personnel are approved through the same process as described above.

An employee may leave a firm to pursue other work opportunities. The firm should be allowed to provide a resume' for replacement if the vacancy needs to be filled.

The firm's personnel for CEI agreements report to the project as directed by the Department's Field Engineer.

### ***Evaluation***

The Department's Field Engineers should evaluate the firm and any subconsultants for each Agreement assigned to their office. The Department's Field Engineer should evaluate the firm's performance in providing quality services during the specified period. The firm's handling of the projects, reporting, documentation, communication, and decision-making capabilities of their personnel should be considered in the evaluation.

The evaluations should provide feedback to the firm as to their performance on the project(s) for which they are providing services. Upon completion of the evaluation form, the form should be signed by the firm's Project Manager and the NCDOT representative completing the form. Copies of the signed forms should be sent to the Professional Services Management Unit Manager and the State Construction Engineer. These evaluations also assist the Department in reviewing current CEI performance statewide. A copy of the evaluation form and the associated instructions are included in [Appendix A](#).

### ***Close Out of Project Specific Engineering Agreements***

As construction projects near completion or when the Department determines that CEI services are no longer necessary, the Department's Field Engineer should advise the firm in writing at least thirty days prior to removal of the remaining firm staff. Upon removal of all of the firm's staff and receipt of the firm's final invoice, the Department's Field Engineer should review the invoice, verify a salvage value has been submitted for all applicable direct cost items, ensure the firm returns any NCDOT nuclear Gauges to the M & T Unit and enter the invoice in SAP. Then, using transaction ME22N put the purchase order in a "closed" status by doing the following:

- Mark the invoice as "Final Invoice" on the Invoice Tab in the Item section.
- Lock all the line items associated with the purchase order in the Item Overview section. (a closed locked icon should be to the left of each line item.)
- Close the purchase order by selecting the "P.O. Closed" field on the Customer Data Tab in the Header.

Once the Department's Field Engineer "closes" the purchase order, notify the CURT Unit in writing that the work for the purchase order is complete and attach to the final invoice in SAP. (An example letter is included in [Appendix B.](#))

## Chapter 2 – Statewide On-Call CEI Agreements

### Selection Process

#### *Advertisement*

For the purpose of developing an advertisement, the Construction Unit will contact the Department's Division Construction Engineers to collect anticipated staffing information or workload projections. Statewide contract needs are typically advertised at least four months prior to the date personnel are needed. This time frame is required for the selection process, acquiring Secretary of Transportation approval, executing the agreement, scoping the work, and supplying the actual technicians.

The Construction Unit utilizes the workload projections from each of the Divisions to determine the need for statewide PEF technicians. This Statewide On-Call mechanism is used to fill the short-termed needs of the Divisions.

The Construction Unit drafts the advertisement, and the Professional Services Management Unit posts the advertisement on the Department's Connect Private Engineering Firms advertisement page at the following link:

<https://connect.ncdot.gov/letting/Pages/Private-Engineering-Firm-Advertisements-.aspx>

An example of an advertisement is included in [Appendix B](#). The advertisement is published on either the first or the fifteenth of the month. The website may list many advertisements such as design, public transit, aviation, environmental, etc. The duration of the advertisement is approximately two to three weeks.

Interested firms view the advertisement and submit a "Letter of Interest" (LOI) to perform the advertised work. Any firm submitting an LOI, including subconsulting firms, must be prequalified with the Department. For information regarding prequalification, please see the Department's Connect page under "Doing Business."

After the advertisement is posted, all questions concerning the advertised work should be directed to the person named in the advertisement to ensure all information is available to all firms equitably. This is typically the Manager of the Professional Services Management Unit.

#### *Selection Committee*

The Selection Committee for statewide on-call CEI contracts is a group of Department employees selected by the Construction Unit who provide representation for the type of projects being advertised for Divisions throughout the state. Voting members of the statewide selection committee typically include Division Construction Engineers, Resident Engineers,

Regional Bridge Construction Engineers, and Area Construction Engineers. A representative of the Professional Services Management Unit will chair the committee and serve as a non-voting member. All questions from firms regarding the subject agreement should be directed to the Professional Services Management Unit during the selection process.

Selection committee members are required to attend the meeting to select the firms for services. Statewide selection committee members are responsible for reviewing all the Letters of Interests and ranking the firms prior to the meeting to select the firms for services.

### ***Letters of Interest***

The advertisement is a request for firms to submit Letters of Interests (LOI's). An LOI is an introductory publication in which the PEF demonstrates their company history and previous work experience. Also, included in the LOI is information about the firm's proposed inspection personnel, their qualifications and availability to pursue statewide CEI work.

The Professional Services Management Unit is responsible for receiving and distributing the LOI's for each advertisement. After the deadline for acceptance of the LOIs, the selection process is carried out through the Department's **LOI Submittal Management System (LOISS)**, which can be accessed using <https://connect.ncdot.gov/site/psmu/default.aspx>. The following items will be available within the LOI Submittal Management System (LOISS).

- Letter of Interest from each firm.
- Copy of the advertisement
- Listing of PEFs submitting LOI's
- Pre-Qualification information
- Evaluation Form

Members of the selection committee are responsible for reviewing, evaluating, and ranking each of the firms that submitted LOI's prior to the selection meeting through LOISS. The Professional Services Management Unit will establish a deadline to submit the initial scoring of the LOI's prior to the selection meeting.

Each selection committee member should familiarize themselves with the guidelines included with the LOI package. When reviewing the LOI's, committee members should keep in mind the criteria by which the firms are evaluated. After reviewing the LOI's, each selection committee member should complete the evaluation form, assign a ranking to each firm, and note strengths and concerns with the firm's LOIs in preparation for discussion with the selection committee. Members of the selection committee are encouraged to check references of firms and personnel and to inquire with supervisors of projects to which the firm or proposed personnel are currently assigned prior to the meeting to select firms for services.

The Professional Services Management Unit compiles the initial results and provides an initial ranking of the firms by the selection committee. This information is used to begin discussions for the selection committee during the meeting to select firms.

### ***Meeting to Select Firms for Services***

Members of the selection committee will meet to select the firms to provide services. The number of firms selected for these contracts will vary depending on the workload in the highway divisions throughout the state and the firms' ability to provide services statewide.

The selection committee will meet and discuss the evaluation of each firm based on the LOI. The Professional Services Management Unit facilitates the meeting. Each member of the selection committee should have completed the evaluation forms prior to the meeting and be prepared to discuss their results. Each member will discuss their findings, concerns and/or recommendations, and give an initial ranking of the proposed firms. The meeting to select firms for services typically involves selection committee members openly discussing the firm's history, workload, statewide coverage and proposed personnel and their availability.

Each member's initial ranking of the firms will be compiled to receive an overall initial ranking of the firms by the selection committee. This initial ranking allows the group to begin discussing the results and to move towards consensus regarding the selection of firms to provide services.

At the conclusion of the meeting to select firms for services, the chairperson will compile the comments contained in the evaluation forms which will be used along with comments received during the meeting to provide feedback to the firms who were not selected so they may improve their LOIs in the future.

The Professional Services Management Unit will notify the firms that are selected to provide services. Firms who were not selected will not be contacted. Firms that were not selected to provide CEI services may contact PSMU to review comments from the selection process.

### ***Pre-Interview/ Pre-Proposal Meeting***

Pre-interview/Pre-proposal meetings are typically not held for Statewide On-Call CEI contracts.

### ***Oral Interviews/Ranking Firms***

Oral Interviews and ranking meetings are typically not held for Statewide On-Call CEI contracts.

## Engineering Agreement Development

Upon notifying the firms, the Department begins the development of the Engineering Agreement with the selected firms.

An Engineering Agreement is developed for each firm selected for a statewide contract. The Engineering Agreements have a duration of two or three years with a maximum payable amount. The Engineering Agreement consists of the following parts:

1. *Engineering Agreement*: Engineering Agreement describing the general recitals, scope of services and method of payment. Information obtained from the negotiation meeting will be incorporated into the draft agreement including overhead rates, fee, and firm information. It also contains miscellaneous provisions, such as ownership of engineering documents, delays and extensions, termination or abandonment and general compliance with laws.
2. *Exhibit A: - Certification Regarding Debarment, Suspension, and other Responsibility Matters Primary Covered Transactions* – This certifies that the firm and its subconsultants are actively certified firms and can legally enter into the agreement.
3. Attachment A: - Section Reserved for Future Use
4. *Attachment B: - CONSULTANT & SUBCONSULTANTS (IF APPLICABLE) MANDAY-and-FEE ESTIMATE (IF APPLICABLE) and NCDOT MAXIMUM ALLOWABLE NON-SALARY DIRECT COSTS and OTHER APPROVED NON-SALARY DIRECT COSTS.*  
This section may include support documentation of estimated costs such as Consultant and Subconsultant Manday and Fee Estimates, NCDOT Maximum Allowable Non-Salary Direct Costs, other Approved Non-Salary Direct Costs, and *Construction Engineering and Inspection Fee Provisions*. This also lists the standard equipment required for each vehicle and the Basic Inspection Tools that may be required for each PEF technician.
5. *Attachment C - Forms RS-2(S)*
6. *Attachment D - CERTIFICATION(S) OF FINAL INDIRECT COSTS*

The Engineering Agreement has a maximum reimbursable amount that cannot be exceeded unless a supplement has been approved by the Secretary of Transportation.

## ***Award Process***

The NCDOT Secretary of Transportation must approve each Engineering Agreement prior to execution of the agreement. However, prior to award of the agreement, the Department's Consultant, Utility, Rail and Turnpike (CURT) Unit, must perform a Pre-award Audit.

### ***Pre-award Audit***

The Pre-award Audit will determine any necessary changes prior to all parties signing the Engineering Agreement.

The CURT Unit conducts a Pre-award Audit. The Professional Services Management Unit will transmit a draft copy of the Engineering Agreement to the CURT Unit. During the Pre-award Audit the following items in the fee proposal will be verified:

- Prime Consultants' and Subconsultants' Overhead rates
- Operating Margins
- Duration of the Engineering Agreement
- Maximum amount of the Engineering Agreement

### ***Secretary of Transportation and Board of Transportation***

The NCDOT Secretary of Transportation awards agreements for CEI services. The awarded agreements are presented to the Board of Transportation (BOT) for informational purposes, during their regularly scheduled meetings. The meeting dates can be confirmed on the NCDOT website. The Professional Services Management Unit will submit the agreement for inclusion on the BOT Agenda.

The Department does not have to obtain Secretary of Transportation approval for the award of individual task orders for statewide agreements.

### ***Execution of Engineering Agreement***

When the Secretary of Transportation has awarded the Engineering Agreement, the Professional Services Management Unit transmits the Engineering Agreement to the firm for review and signature. The firm will return the signed Engineering Agreement to the Professional Services Management Unit for execution by the Department. The fully executed agreement is scanned into SAP for use by Department personnel.

## ***Task Order Process***

A task order scopes the requested CEI services for a specified duration, typically a construction season. The task order includes a staffing chart with the required levels and certifications of PEF technicians, a fee proposal, and necessary equipment.

The firms will be contacted to perform a task order, as the need is determined for short-term CEI services. The task order includes the fee proposal submitted by the firm, which contains a detailed breakdown of labor rates, personnel scheduling, overhead, profit and direct costs.

Each task order will be negotiated separately, up to the maximum total amount of the engineering agreement. The total of all task orders must not exceed the contract (LSC) maximum. The Department does not guarantee a minimum number of task orders to be performed.

Task Orders can be supplemented if needed, however invoices cannot be processed until the supplement is approved. The Department's Field Engineer should take this into account before requesting supplements. The typical duration for a supplement to be processed is three to five days once the Division notifies PSMU the supplemental documentation has been entered in SAP.

### ***Fee Negotiations***

In order to streamline the process of fee negotiations, an in-house form for use by the firm has been developed. The form is a Microsoft EXCEL spreadsheet, which performs the majority of calculations reviewed during the pre-award audit. A copy of the electronic form may be found on the Department's Connect Page, "Private Engineering Firm Resources."

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

### ***Fee Proposal***

A fee proposal is an engineering estimate for the cost of performing CEI work for the task order. The selected firm develops the fee proposal for review by the Department. It includes the direct labor costs, direct costs, overhead costs, and profit.

The following describes the individual parts of the fee proposal:

#### ***Engineering and Inspection Technicians***

The direct labor costs for CEI technicians are based on the staffing chart provided to the firm by the Department. The number of hours and levels of technicians are taken directly from the staffing chart for each task order. The firms provide a separate sheet reflecting direct labor cost for each fiscal year (July-June) or calendar year. The billable hourly rate for each technician must be within the Department's salary range for the technician's level.

#### ***Engineering Management***

The Department will reimburse the firm's and subconsultants' contract administration (project manager) salaries for limited visits to the project. Salaries for project managers are not limited

by the Department. However, the firm must provide verification of the engineering managers' billable rate during the pre-award audit. Project Managers' rates are verified through the Department's Consultant Rate System (CRS). The Consultant Rate System is an electronic database used by the NCDOT Office of Inspector General to approve firm overhead rates, cost of capital and the firm's staff rates. The Department's Field Engineers will also be able to use the system to streamline the negotiation process. (Additional information regarding the Consultant Rate System can be found on the Consultant website under "Resource Type: Guidelines", using the following link.)

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

The firms, both prime and subconsultants, are allowed reimbursement for project manager visits based on the number of technicians included on the task order (upon initial negotiation). The number of Project Manager visit hours per quarter are listed below. This allows the Project Manager the opportunity to visit technicians and gives consideration of mileage between assigned personnel.

Number of Technicians per Task Order	Number of Billable Project Manager Visits Hours per Quarter (Prime and Subconsultants)
1-8	8
9-16	16
17 or more	24

For example, the duration of a Task Order is from March 1, 2020 through December 31, 2020 (10 months) and it has 9 technicians on the task order, the Task Order has 4 ( $10/3 = 3.3$ ) quarters with up to 16 hours of allowable project manager visits per quarter. The number of quarters and hours of visit should be calculated per Task Order.

In addition to reimbursement for engineering management salaries for these visits, the prime firm and the subconsultant will be compensated for round trip mileage from the firm's nearest office location to the project(s) at the current mileage rate on the Maximum Allowable Non-Salary Direct Cost form. The round-trip mileage reimbursement will be for an eight-hour visit.

Direct Costs

Direct costs include reimbursement of testing equipment, vehicles, and any other costs, which are not labor costs. Direct costs will be reimbursed at the actual rate of the item, plus sales tax, if applicable. No overhead or profit is allowed on direct costs. When submitting the fee proposal, any direct costs shown by the firm should be accompanied by a catalog cut for the item with the price shown, when applicable.

Items for which direct reimbursements are made that have value after the project is complete (durable good) will require that the firm provide the Department with a salvage value for the item. The Department may not use CEI agreements to increase fixed assets.

Direct reimbursements will not be made for computer equipment, including tablets, desktops, laptops, mobile phones, and associated monthly use charges.

#### Testing and Safety Equipment

The Division may choose to provide testing equipment to the firm, or prices for equipment may be negotiated and the firm may provide this under the agreement. The Department may provide “loaner” nuclear gauges for the firm to use. Firms will be reimbursed for the Yearly NCDENR License Fee, annual leak, calibration and lubrication tests and quarterly badge testing as part of the direct costs. Typically, nuclear gauges are calibrated annually when used for testing asphalt densities.

The firms will be required to provide secure storage, separate from other NCDOT nuclear gauges. Contact Materials and Tests Unit for more information regarding the Nuclear Gauge Loaner Program.

Firms may also elect to provide nuclear gauges. The Department will provide the firm a monthly reimbursement rate for the use of the firm’s nuclear gauge. The monthly reimbursement rate includes the following costs.

- Rental of nuclear gauge
- Yearly NCDENR License Fee
- Leak Test, calibration, Cleaning and Lubrication
- Quarterly Badge Test
- Mounted Transport Box
- Secure Storage

The firm may request to rent a nuclear gauge instead of buying a nuclear gauge if NCDOT does not have gauges to loan to the firm. When nuclear gauge rental is proposed, a cost comparison should be made to see if it is more cost effective to rent versus purchase a gauge.

The Department’s field engineer will review and approve all direct cost items prior to purchase by the firm.

In an effort to make the administration of the Engineering Agreement easier, each inspector is expected to report for duty with a standard list of equipment such as calculator, safety equipment, and measuring instruments. An example of an *Engineering Agreement (Attachment*

B) that includes the current list of supplies and equipment required for the firm's personnel is included in [Appendix B](#). The items listed are not considered as direct cost reimbursable items.

### Vehicles

Vehicle costs will be paid at a monthly rental rate, for all vehicles provided under the agreement. The Department's field engineer will determine the number of two-wheel drive vehicles and four-wheel drive vehicles that need to be provided by the firm. Vehicles are reimbursed with a monthly vehicle base rate plus the actual project miles multiplied by a fuel factor. (Note that commuting miles are not reimbursable by the Department.) Miles allowed for reimbursement include on-site travel miles, miles required to transport samples to laboratories and miles to report from station (Department's field engineer's office or field office) to project. PEF technicians should track their daily project miles on a mileage log. Mileage logs will be submitted monthly with the firm's invoice to provide documentation for the miles submitted for reimbursement from the firm. It is also acceptable to submit the mileage weekly with the technicians' timesheets. PEF technicians should certify that the miles recorded are project miles.

The State Construction Engineer will establish the vehicle base rates for two-wheel and four-wheel drive vehicles. Modifications to the vehicle base rates will be evaluated at least every two years by the State Construction Engineer. The vehicle base rates will be reviewed in December of odd years and any adjustment will become effective the following January on the Maximum Allowable Non-Salary Direct Costs. The fuel adjustment factor will also be established by the State Construction Engineer and will be evaluated every six months in January and July of each year. The current rates for both the vehicle base rates and fuel adjustment factors are posted on the NCDOT's website on the Maximum Allowable Non-Salary Direct Costs.

When providing vehicles, the specific make, model, and year of vehicles are not considered. It is the responsibility of the firm to provide a vehicle that will accommodate the technician's needs. The use of four-wheel drive vehicles should be commensurate with the Division's current practice. It is the intent of the Department to equip PEF personnel with similar equipment as Department employees based on project assignments. The Department's Field Engineer will determine the type of vehicle(s) needed for the assignment when the work is scoped (2-wheel drive or 4-wheel drive). The rate may change if the State Construction Engineer updates the vehicle base rates.

The current list of required equipment for all vehicles is listed below. This equipment is considered incidental to the monthly vehicle rate and no separate payment will be made.

- Truck toolbox or camper shell
- Caution lights – (23” or 48” LED light bar and four (4) LED perimeter lights)
- Fire extinguisher
- First aid kit
- Water cooler

In addition to the equipment listed, the vehicle base rate includes the following vehicle costs:

- Maintenance
- Insurance
- Registration
- License tags
- Taxes

#### Communication / Technology

Phones, tablets and / or computers used by the PEF technicians are not reimbursable items. PEF technicians should be equipped with phones and tablets for communication and electronic documentation and inspection. Laptops may be used instead of tablets based on the firm’s use of technology. The PEF technicians shall have either a tablet or laptop that is internet equipped to allow access to the Department’s SharePoint Construction Team Sites. If iPads are used, the Share Plus app is needed to access the Department’s SharePoint Construction Team Sites. For a detailed list of apps needed / recommended for the iPads, see the *iPad Set-up Guide for PEF Technicians*. For access to the Department’s systems including SharePoint Construction Team Sites and HiCAMS, see the *On-boarding Process for PEF Technicians. Both the iPad Set-up Guide for PEF Technicians and iPad and the On-boarding Process for PEF Technicians are in Appendix B.*

#### Contingency

Contingency amounts are not included as part of the task orders. Task Orders are open-ended and typically have a short duration.

#### Overhead Rate

The overhead rates are audited, computed rates that are established by the CURT Unit. The computation of these rates considers general and administrative costs and fringe benefits. These rates are applied to direct labor to allow a firm to recover the indirect costs allowable

under the agreement. There are two rates that may be associated with CEI Engineering Agreements contracts, the home office overhead rate, which applies to the project manager and the field overhead rate, which applies to the field technician or engineer. These rates may be adjusted during the life of the Engineering Agreement based on the firm's actual field audited overhead rate each year.

### *Operating Margin*

The operating margin is the engineering fee or profit of the firm. This standard rate is 9% but may be increased for various reasons with the approval of the Business Unit/Division. The Department negotiates the same engineering fee for all similar statewide agreements.

### ***Task Order Review***

Prior to providing the firm with the Notice to Proceed, a review of each task order must be conducted by the CURT Unit. During the review, the following items for each task order will be verified:

- Prime consultant and Subconsultants Overhead rates
- Non-salary costs
- Reimbursable hourly rates
- Amounts of previous task orders
- Balance remaining for the engineering agreement
- All computations

The task order review will determine any necessary changes required prior to providing the firm the Notice to Proceed for the specific CEI services. The approved task order will be included with the Notice to Proceed. The Department does not have to obtain Secretary of Transportation approval for the award of individual task orders for statewide agreements.

### ***Supplemental Engineering Agreements***

Supplemental Engineering Agreements are required to document all changes in CEI services prior to that change occurring. These include but are not limited to scope of services changes, reimbursement adjustments not included in the original agreement and supplemental engineering agreement fees.

All supplemental engineering agreements that exceed the original amount set-up on the limited service contract must be submitted to the Secretary of Transportation for approval. The Department must approve the supplemental engineering agreement prior to performing the supplemental services. Otherwise, the firm is not guaranteed that the Department will pay for those services.

## **Administration of Engineering Agreements for Statewide CEI Agreements**

### ***Notice to Proceed for Limited Services Contract (LSC)***

A Notice to Proceed is provided to a firm once the contract has been executed and services are ready to begin on the project. This written notice authorizes the firm to begin negotiating Task Orders. The LSC can only be extended or supplemented in writing by authorization of the Professional Services Management Unit.

### ***Notice to Proceed for Task Orders***

The Divisions negotiate the Task Orders with the firms, creates the Task Orders in SAP and sends the firm a Notice to Proceed for signature. The Notice to Proceed contains language that defines the duration for the given Task Order and establishes an expiration date. Once the Division receives the signed Notice to Proceed from the firm, assemble the Notice to Proceed, cost estimate, Subconsultant RS-2 Forms and any additional backup documentation and attach to the Task Order (purchase order (PO)) in SAP. Notify the Professional Services Management Unit (PMSU) by email the PO is ready in SAP for approval. A presentation for creating POs by the Units is located at the following link.

<https://inside.ncdot.gov/TransportationServices/professional-services-management/Pages/default.aspx>

Prior to the Division receiving the signed Notice from the firm, the Department's Field Engineer does not have authority to direct the firm to begin work with CEI personnel. However, the Department's Field Engineer may begin receiving and reviewing résumés and approving proposed personnel for services under the terms of the agreement and Task Order. If necessary, the Department's Field Engineer may interview proposed CEI personnel face-to-face prior to approving them for services.

### ***Technician Approval***

When approving personnel for proposed positions, the Department's Field Engineer should review the technicians' certifications and experience and compare it with the required experience level for the positions being filled. The following is a brief description of the requirements:

Transportation Technician I Trainee	No Experience – High School Diploma
Transportation Technician I	AAS Civil Engineering Technology
Transportation Technician II	AAS Civil Engineering Technology + 2 years exp.
Transportation Technician III	AAS Civil Engineering Technology + 3 years exp.
Transportation Technician IV	AAS Civil Engineering Technology + 5 years exp.
Transportation Technician V	AAS Civil Engineering Technology + 6 years exp.

Note that additional experience is directly related transportation experience. Additional transportation experience may be substituted for the AAS Degree in Civil Engineering Technology, if applicable at the rate of one (1) year experience for each year of formal education experience required. A list of other degrees that may be considered in lieu of the AAS Degree in Civil Engineering Technology can be found in [Appendix A](#).

Military experience may be applicable at the rate of one to one ratio when the job duties are applicable to the technician classification or key roles.

### ***Personnel Reimbursable Rate Approval***

The Department's Field Engineer will review the proposed technician's proposed reimbursable rate. The reimbursable hourly rate for firm personnel must not exceed the maximum in the range for a given classification. The firm must pay their employee at least the reimbursable hourly rate. A firm cannot invoice the Department for more than the actual hourly rate of the technician since the agreements are Cost Plus.

### ***Increases in the Reimbursable Hourly Rate***

Lower level technicians may be eligible to receive a reimbursable hourly rate increase when there are vacancies on the project and those technicians are proposed for higher level positions. It should be noted that the Department does not promote CEI personnel in place due to gained experience or knowledge. Only their respective firms may offer promotions internally. However, firm's personnel may be proposed for higher level classification if a vacancy exists on the project and they are qualified for the new classification. The Department's Field Engineer must approve this action in writing prior to the proposed change. When this occurs, an adjustment in the reimbursable hourly rate is allowed since this is a change in classification for the technician. Yearly adjustments to the reimbursable hourly rates may be made in accordance with the NCDOT Rate Study to the salary ranges. The Salary Calculator should not be used for in range adjustments based on yearly adjustments; rather it should only be used for new assignments. Guidance for the yearly adjustments is provided by the State Construction Engineer.

A CEI technician's actual salary and raises are subject to the firm's given pay raise policy. The Department does not review or approve these actions or rates. The reimbursable hourly rate is what the firm is invoicing the Department for and this does not necessarily represent the salary the firm is actually paying the employee. The firm may pay the technician at or above the reimbursable rate; however, they can only invoice the Department within the allowed ranges for the classifications.

### ***Training and Certifications***

Personnel proposed for Statewide agreements should have the appropriate certifications to perform the necessary testing for work included in the Task Order. Project Managers should consult with the Department's Field Engineer prior to scheduling technicians for training/recertification classes. Training for statewide contracts will be considered on a case-by-case basis depending on the type of training requested and the duration of the Task Order. Typically, re-certification is allowed, if necessary, during the Task Order.

Firms may send their technicians to required training and are allowed to use Department training and certification classes while providing services for the Department. However, prior approval by the Department's Field Engineer is required. If mission critical work requires the technician's presence, the Department's Field Engineer may delay approval for the requested training until such work is complete.

If the firm determines that the required training is critical, they may propose to provide an equivalent, qualified replacement technician to render critical services on the project. This substitution must be approved by the Department's Field Engineer in writing. If approved, the Department will reimburse the existing technician's reimbursable hourly rate during the training if a given task is mission critical and a replacement technician is required. No payment will be made for any replacement technician or equipment.

The firm is responsible for paying for the tuition, fees, travel expenses, and all other costs associated with such training. The Department continues to pay the vehicle monthly rate during this required training; however, the technician's time is not reimbursable.

Technicians must maintain their certifications to inspect and sample the work for project certification purposes. Firms should keep the Department's Field Engineer informed of technician class schedules.

### ***Engineering Technician I Trainee Training Program***

Firms may provide Engineering Technician I Trainees during the performance of their services, pending the approval of the Department's Field Engineer. A firm must make a request to the Department's Field Engineer for providing an Engineering Technician I Trainee under the agreement. All Engineering Technician I Trainees must be approved by the Department and registered through the Construction Unit prior to their use by the firm. The Engineering Technician I Trainee may replace a proposed Transportation Technician I included in the agreement. The Department reserves the right to preclude use of the Trainee at any time

during the performance of their services or request removal of the Trainee if, in the Department's opinion, is not performing at expected levels as defined in the Engineering Technician I Training Program.

The proposed Trainee must be at least a high school graduate. Once approved, the Trainee must complete the self-study courses, obtain certifications, and complete 24 months of On-the-Job Training (OJT) within the required time frames. Once a candidate has completed the requirements of the Trainee program, he/she will be reclassified to a full Engineering Technician I.

The Department will reimburse the approved reimbursable hourly rate and monthly vehicle costs for all approved Trainees under the terms of the agreement. The Trainee's initial salary will be determined by the current Engineering Technician I Trainee Program policy and his/her level of competency accomplished to date. Increases in the reimbursable hourly rate are allowed as the Trainee completes the various levels of the program. During this course of study, the firm will pay for books, materials, fees and any other costs associated with this training.

Information on the Engineering Technician I Training Program may be found on the Department's Connect Page at the following link:

<https://connect.ncdot.gov/projects/construction/Pages/Construction-Meetings-Events.aspx>

### ***Reviewing and Paying Invoices***

The firms are required to submit invoices on every 30 days or on a monthly basis. The invoice should include a completed Invoice Form – Cost Plus which summarizes the charges for the invoice and provides a status of all the charges to date. The Invoice Form – Cost Plus is a tool to guide the firms in providing all the invoice information in a structured and concise manner that will assist the Department in reviewing the invoices in an efficient and timely manner. The Invoice Form – Cost Plus can be accessed on the Consultant Webpage under forms at the following link.

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

The Department's Field Engineer is responsible for reviewing invoices to verify that time sheets accurately reflect the actual time worked, the billable hourly rates are within the ranges for the classifications, there is one truck per technician, mileage logs are submitted, mileage amounts appear reasonable for project miles, and that direct expenses are reasonable and approved by the Department. The Department's Field Engineer should include any discrepancies on the Invoice Form -Cost Plus to the CURT Unit, when the invoice is submitted for payment. Payment is made only for time worked by the employee. If the firm's personnel take time off for

holidays, vacation, or sick leave, these are included in the firm's field overhead rate and should not appear on the invoice. All hours worked under 40 per week are paid as regular time. All hours over 40 per week are considered overtime and are paid accordingly. Work performed during holidays will be paid as regular work time; however, applicable holiday pay will be the responsibility of the firm.

When invoices include direct expense items with a salvage value, the Department's Field Engineer must verify that the firm has either

1. Invoiced the amount minus the salvage value

**OR**

2. Invoiced the purchase amount and acknowledge the actual salvage value will be credited to the Department prior to payment of the final invoice. In this case, the Department's Field Engineer must provide documentation he/she is responsible to ensure the salvage value is deducted prior to payment of the final invoice. Example documentation is in [Appendix A](#).

A comprehensive list of invoice responsibilities of the Field Engineer can be found in [Appendix B](#).

The CURT Unit will check each invoice including overhead rates, personnel salaries, direct expenses and extend all calculations included in the invoice. If the invoiced amount exceeds the agreement maximum for the Task Order, the CURT Unit, will stop payment on the invoice and contact the Department's Field Engineer for further advisement regarding the Task Order.

The following are general rules associated with all Cost Plus CEI agreements:

- Firms cannot invoice the Department for more than they are actually paying their personnel. For example, a firm cannot invoice the Department for \$16 per hour for a technician and then only actually pay that technician wages of \$15 per hour.
- Vehicles are paid as a flat monthly rental rate as included in the Agreement and included in fee proposal (cost estimate). Partial monthly rates may be applicable for the first and last months of use. No more than twelve (12) months of vehicle base rates should be billed per year.
- No per diem (technician commuting mileage, meals, or lodging) is allowed for any reason on Cost Plus CEI engineering agreements.

### ***Project Manager Visits***

Project Manager visit mileage and time are permissible in accordance with the terms of the agreement and Task Order. To be eligible for reimbursements, the visits must actually take place, the Project Manager should spend time coordinating and working with the provided technicians and Department staff and the Contract Administrator or designee should sign a

time sheet for the visit. The Project Manager should contact the Contract Administrator in advance of the visit.

Project Manager visits are an opportunity to review project records with the technicians to ensure compliance with the Department’s policies and procedures. Items which could be reviewed during the project visits include the following:

- Project diary entries
- Pay Record entries
- Earthwork calculations
- Ticket book review
- Materials Received Reports
- Minimum sampling guidelines
- Technician’s certifications and upcoming training
- Force Account Records
- As-built plans
- Subcontract Agreements
- Supplemental Agreements
- Erosion Control/ permits and NPDES documentation
- Special items of work
- Project Staffing

Managers are allowed to visit frequently but are not reimbursed for visits beyond that which is defined in the agreement and Task Order. When invoiced in accordance with the Task Order, the manager's salary for visits may be distributed over several projects at the discretion of the Department’s Field Engineer. The reimbursement hours per quarter for Project Manager visits on Statewide On-Call Task Orders are listed below. This allows the Project Manager the opportunity to visit technicians and gives consideration of mileage between assigned personnel.

Number of Technicians per Task Order	Number of Billable Project Visit Hours per Quarter (Prime Consultant and Subconsultant)
1-8	8
7-16	16
17 or more	24

***Shift Premium Pay***

Depending on an employee's work schedule, he/she may be entitled to Shift Premium Pay for some or all of the hours worked. Shift Premium Pay is in addition to what personnel get paid for their regular and overtime pay. CEI personnel will be paid Shift Premium Pay in accordance

with the current Department policy. Shift Premium Pay is paid only for time worked and is an allowable direct labor reimbursement cost defined by the agreement.

For most situations, eligible personnel must be regularly scheduled with more than one-half (1/2) of the work hours occurring between 4:00 p.m. and 8:00 a.m. Regularly scheduled is defined as a position that requires a daily schedule that is repeated at specific intervals for an indefinite period of time. It is not intended to apply to personnel who are temporarily placed on a shift for short durations. Please refer to the appropriate division personnel representative with questions regarding Shift Premium Pay eligibility. A copy of the Shift Premium Policy is included in [Appendix A](#).

### ***Submission of Invoices to Consultant Audit Unit***

The Department's Field Engineer will scan and submit the firm's invoices into SAP with an Invoice Form – Cost Plus. The Invoice Form – Cost Plus includes a table to list the WBS Elements and their respective invoiced amounts for the specific invoice. The Department's Contract Administrator should ensure that all WBS Elements included on the Invoice Form – Cost Plus have been encumbered to accept charges for the agreement. If WBS Elements are not encumbered, payment of the invoice cannot be made. See the *Encumbrance* section of these guidelines for further details. An example of Invoice Form – Cost Plus is included in [Appendix B](#).

### ***Encumbrance***

Costs associated with CEI engineering agreements are charged directly to the specific applicable projects. Encumbrance of funds against each project is required by the CURT Unit, in order to pay the invoices. This process involves designating a specific amount of funds for the anticipated work to be performed on each project(s). The Division will create Purchase Orders in SAP for the Task Orders and include the T.I.P. numbers, WBS Elements and a dollar value for each WBS used on the purchase order. It is the responsibility of the Department's Field Engineer to make sure the WBS Elements included in the purchase order are in the correct status prior to charges being placed against the WBS Element. The status of WBS Elements can be verified in SAP using the Transaction Code ZPSR04A. Accounts Payable will review the WBS Elements included in the purchase order prior to approval. Once this encumbrance occurs, the CURT Unit can authorize payment for invoices received.

### ***Staffing Procedure for CEI***

The Department's Field Engineer has the authority to review and approve all CEI personnel and reimbursable hourly rates of technicians in accordance with the guidelines and policies. It is not the responsibility of the Department's Field Engineer to approve a firm's project manager's salary.

The following procedure should be used to review and approve proposed personnel:

- 1) The firm supplies résumés and a written request for a reimbursable hourly rate for the proposed personnel.
- 2) The Department's Field Engineer may request to interview the proposed personnel.
- 3) The Department's Field Engineer reviews the firm's request to make sure the personnel are qualified to perform the duties and determines or confirms the billable hourly rate requested. The Salary Calculator Spreadsheet may be used as a tool to determine the billable hourly rate.
- 4) Once the Department's Field Engineer has determined that the firm's personnel are acceptable and qualified for the requested classifications, he/she will respond in writing to the firm with the approved reimbursable hourly rate and authorized start date for each of the personnel. The Department's Field Engineer should copy the CURT Unit on approval letters, referencing the Agreement and Vendor Number for that agreement. If the Department's Field Engineer does not have these numbers, he/she should contact the Professional Services Management Unit.

If, for any reason, the Department's Field Engineer determines the firm's personnel are not performing as necessary or are not qualified after reporting to the project, the Department's Field Engineer should contact the firm and advise the project manager of the situation. If issues are not resolved in a timely and satisfactory manner, the Department's Field Engineer may request replacement of the personnel. Replacement personnel are approved through the same process as described above.

An employee may leave a firm to pursue other work opportunities. The firm should be allowed to provide a résumé for replacement if the vacancy needs to be filled.

The firm's personnel for CEI agreements report to the project as directed by the Department's Field Engineer.

### ***Evaluation***

The Department's Field Engineers should evaluate the firm and any subconsultants for each Task Order assigned to their office. If the Division uses division wide task orders, then the Division Construction Engineer is responsible for completing the evaluations. The Department's Field Engineer should evaluate the firm's performance in providing quality services during the specified period. The firm's handling of the projects, reporting, documentation, communication, and decision-making capabilities of their personnel should be considered in the evaluation.

The evaluations should provide feedback to the firm as to their performance on the project(s) for which they are providing services. Upon completion of the evaluation form, the form should be signed by the firm's Project Manager and the NCDOT representative completing the

form. Copies of the signed forms should be sent to the Professional Services Management Unit Manager and the State Construction Engineer. These evaluations also assist the Department in reviewing current CEI performance statewide. A copy of the evaluation form is included in [Appendix A](#).

### ***Close Out of Statewide Engineering Agreements***

As a Task Order nears expiration or when the Department determines that CEI services are no longer necessary, the Department's Field Engineer should advise the firm in writing at least two weeks prior to removal of the remaining firm staff. If CEI services will be utilized up to the expiration date of a task order, written notice by the Department's Field Engineer is suggested as a reminder to the firm but is not required.

Upon removal of all of the firm's staff and receipt of the firm's final invoice for all Task Orders, the Department's Field Engineer should ensure the firm returns any NCDOT nuclear gauges to the M & T Unit and verify a salvage value has been submitted for all applicable direct cost items. The final invoice should be reviewed and entered in SAP. Using transaction ME22N, the purchase order should be put in a "closed" status by doing the following:

- Mark the invoice as "Final Invoice" on the Invoice Tab in the Item section.
- Lock all the line items associated with the purchase order in the Items Overview section. (A closed lock icon should be to the left of each line item).
- Close the purchase order by selecting the "P.O. Closed" field on the Customer Data Tab in the Header.

Once the Department's Field Engineer "closes" the purchase order, notify the CURT Unit in writing that the work for the purchase order is complete and attach to the invoice as backup documentation in SAP. An example of the written notification is included in [Appendix B](#).

# Glossary of Terms

**Billable Hourly Rates** – The approved hourly rate the Department uses to reimburse a firm for each non-managing Private Engineering (PEF) employee. The billable hourly rates will be established individually for each approved PEF employee, based on their experience and the minimum qualifications for the classification.

**Cost Plus** – A method of compensation based on the actual allowable and documented cost for labor, overhead, and other non-salary cost incurred by the firm performing the work plus a pre-established fixed fee rate.

**Fee Proposal** – A detailed submittal specifying the duration required and the compensation requested for the performance of the specified scope of services as defined by the Department.

**Department Field Engineer** – The Department’s Engineer responsible for administering the construction contract or Purchase Order (i.e., Resident Engineer, District Engineer, Division Construction Engineer)

**Fixed Fee** – A percentage established for operating margin which is not allocable to overhead. The establishment of a fixed fee shall be project specific and shall consider the size, complexity, duration and degree of risk involved in the work.

**Overhead** – A firm’s indirect costs, stated as a percentage of direct labor, including general administrative expenses plus employee fringe benefits. Fringe benefits may include employer’s portion of F. I. C. A., comprehensive health insurance, group life insurance, unemployment contributions to the state, vacation, sick leave, workers’ compensation, and other such benefits.

**Private Engineering Firm** – A private agency, corporation, organization, business or individual offering qualified professional services such as project management, construction engineering and inspection, feasibility studies, planning and environmental studies, preliminary engineering, design engineering, design, engineering, surveying, mapping geotechnical investigation, and architectural related services.

**Project Specific Agreement (Traditional)** – A contract established for professional services or specialized services for a specified construction project or group of projects. Generally used when a Division’s personnel demand is greater than its workforce for an extended period of time (at least two construction seasons).

**Shift Premium Pay** – An increase of the billable hourly rate for performance of work during non-traditional work hours, in accordance with the Department’s Shift Premium Policy.

**Short Listed firms** – Private Engineering firms that have been top ranked based on the submitted Letters of Interest for a project specific Engineering Agreement.

**“Staff up – Staff down” scenario** – An increase or decrease in the number of inspection personnel assigned to a construction project as required by the workload of a project.

**Letter of Interest (L.O.I.)** – Introductory publication by a firm expressing interest for performing specific services as advertised by the Department. The firm demonstrates their working knowledge and previous work history in projects similar to the advertised project and information about their proposed inspection team.

**Statewide Agreement (Limited Services Agreement)** – An "as-needed basis" contract for a maximum dollar amount for professional or specialized services to be performed during a specified contract period, generally not to exceed three years. As needed during the contract period, a scope of services, a schedule and total compensation are negotiated with the firm for the performance of an individual assignment of professional or specialized services, as defined by the Agreement. The scope of services, a schedule and compensation for each individual assignment are documented in a Notice to Proceed. The Department may elect to utilize the maximum amount of the agreement during the contract period or may elect not to negotiate with firm for any services during the contract period.



# Appendix A - Resources

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## References

NCDOT Construction Unit web site:

<https://connect.ncdot.gov/projects/construction/Pages/default.aspx>

NCDOT Private Engineering Firm Resources:

The CEI estimate form, Salary Calculator, and the “Maximum Allowable Non-Salary Direct Costs” may be found under the “Forms” link:

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

NCDOT Private Engineering Firm Advertisements:

<https://connect.ncdot.gov/letting/Pages/Private-Engineering-Firm-Advertisements-.aspx>

NCDOT Office of the Inspector General, Consultant, Utility, Railroad and Turnpike Audit Unit:

<https://www.ncdot.gov/about-us/board-offices/offices/inspector-general/Pages/consultant-audit.aspx>

## Web Links

Links to various websites are provided below for your convenience in accessing technician training information.

### NCDOT Specific Training for Technicians

Use these sites to obtain information concerning NCDOT Training courses and certifications.

For information concerning:

- ABC Sampling School
- Asphalt Mixture Design Certification Class
- Conventional Density School or Recertification for Conventional Density School
- Nuclear Safety and Hazardous Material Training
- Portland Cement Concrete Certification Schools
- Portland Cement Concrete Pavement Schools
- QC/QA Aggregate Sampling and Testing Class
- QMS Asphalt Training Schools

Visit the NCDOT Materials & Tests Unit website:

<https://connect.ncdot.gov/resources/Materials/Pages/default.aspx>

Erosion & Sediment Control / Stormwater Certification for NCDOT Projects:  
(offered through NC State University)

<https://cals.ncsu.edu/crop-and-soil-sciences/extension/training-programs/workshops/erosion-and-sediment-control/>

Additional construction training resources can be found at the following links

NCDOT Construction Unit Videos

<https://www.youtube.com/user/NCDOTcommunications/videos>

Learning Management System (LMS)

<https://ncgov.csod.com/client/ncgov/default.aspx>

NCDOT Construction Unit, Engineering Technician Training Program:

<https://connect.ncdot.gov/projects/construction/Pages/Construction-Memorandums.aspx>

## Personnel Projection Staffing Chart

DIVISION	ALL								
		PROJECT A	PROJECT B	PROJECT C	PROJECT D	PROJECT E	PROJECT F	PROJECT G	
BRIDGE(B)	\$ AMOUNT (MILLIONS)	<0.5	0.5-1	1-1.5	1.5-2	2-5	5-10	>10	
	MONTHS	9	12	15	18	28	30	36+	
	PROPOSED # OF INSPECTORS	1	1	1	1	2	2	4	
INTERSTATE (I)	\$ AMOUNT (MILLIONS)	<1	1-2	2-5	5-10	10-25	25-50	50-100	>100
	MONTHS	9	12	15	18	27	30	40	50
	PROPOSED # OF INSPECTORS	2	2	3	4	5	8	8	20
RURAL(R)	\$ AMOUNT (MILLIONS)	<1	1-2	2-5	5-10	10-25	25-50	50-100	>100
	MONTHS	12	18	20	26	36	50	60	60
	PROPOSED # OF INSPECTORS	1	1	2	2	4	5	10	18
URBAN(U)	\$ AMOUNT (MILLIONS)	<1	1-2	2-5	5-10	10-25	25-50	50-100	>100
	MONTHS	12	15	20	26	36	50	50	60
	PROPOSED # OF INSPECTORS	1	1	2	2	4	6	12	17
REST AREA (K)	\$ AMOUNT (MILLIONS)	ALL							
	MONTHS	9							
	PROPOSED # OF INSPECTORS	1							
SAFETY (W)	\$ AMOUNT (MILLIONS)	<2	2-5	5-10	<10				
	MONTHS	12	20	24	30				
	PROPOSED # OF INSPECTORS	1	2	2	4				

# Monthly Vehicle Rates / Basic Inspection Tools

Construction Engineering & Inspection

## Fee Provisions

### A. Monthly Vehicle Rates

The monthly payment rate for two-wheel drive project vehicles is \$835.00

The monthly payment rate for four-wheel drive project vehicles is \$915.00

Each project vehicle shall come equipped with the following:

- Truck toolbox or camper shell
- Water Cooler
- Caution lights – (23” or 48” LED light Bar and four (4) LED perimeter lights
- Fire extinguisher
- First aid kit

The equipment listed above is considered incidental to the monthly vehicle rate and no separate payment will be made.

### B. Basic Inspection Tools

Each transportation technician shall come equipped with the following:

• Calculator	• Safety toed shoes
• Chase air indicator	• Four-foot level
• Clipboard	• Flat shovel
• Engineer’s scale	• 100-foot tape with case
• Flashlight	• Digital asphalt thermometer
• Folding ruler	• Concrete thermometer
• Safety goggles	• Miscellaneous office supplies
• Safety vest	• iPad/Tablet/Laptop (with data service)
• Hard hat	

The above listed basic inspection tools are considered incidental to the SERVICES provided and no separate payments will be made.

# **NCDOT Shift Premium Pay – Exception, Standard Operating Procedures (SOP)**

Rev. 7/2021

The Office of State Personnel has approved an exception to the shift premium pay policy for NCDOT Division field forces that have employees working during shift time.

The NCDOT recognizes that nighttime work is hazardous, demanding, and occurs during quality time normally spent with family. It is recognized that it is advantageous to both employees and the State to provide compensation for those employees who are required to work during these conditions. These conditions may include administration of nighttime contract work, construction and routine maintenance work in major urban areas, major snow and ice storms, and relief work for disaster cleanup from hurricanes or tornadoes.

Exception to the shift premium policy provides that permanent, probationary, or trainee employees in certain classifications located in the Division field forces (Please see list of eligible classes listed below) who are assigned to a shift and have more than one-half of the scheduled working hours occurring between 4:00 p.m. and 8:00 a. m. are eligible to receive shift premium pay at a rate of 10% of their regular hourly salary rate. Shift Premium Pay would apply to the entire shift that the employee worked. Any classifications outside of this policy must be approved by the Human Resources Director.

The procedures for this exception are as follows:

1. Situations that create nighttime work that would qualify for shift premium pay:
  - a. cleanup in operations for emergency situations (major snow and ice storms and disaster cleanup for hurricanes or tornadoes).
  - b. perform highway contract administration and construction work, and routine maintenance work in major urban areas.
2. Eligible Employee – A permanent, probationary, or trainee employee
3. Eligible Shift – Employees who are scheduled and approved by the Division Engineer to work for a period consisting of at least eight (8) hours shall be eligible for shift premium pay provided more than one-half of the hours worked occur between 4:00 p.m. and 8:00 a.m.
4. All hours worked on an approved shift need not fall between 4:00 p.m. and 8:00 a.m. to be eligible for shift premium pay; however, more than one half of the hours worked would have to occur between 4:00 p.m. and 8:00a.m.
5. The rate of shift premium pay shall be 10% percent of the regular hourly salary rate.
6. Employees shall not receive shift pay for hours not actually worked. This includes vacation, holidays, sick leave, jury duty, military leave, comp time, etc.
7. Shift premium pay shall be granted in addition to any other premium pay the employee may be entitled to, such as holiday premium pay.
8. Shift premium pay shall be included in the calculation of the regular hourly rate of pay for the purpose of computing overtime.
9. Shift pay is not a part of the annual base pay for classification and pay purposes.
10. Temporary employees are not eligible for shift premium pay. They are paid for hours worked at the regular rate only.

11. Time sheets and time submitted for payment must reflect the code established for reporting this shift premium pay.

Supervisors are charged with the responsibility of monitoring the assignment of employees on shifts, correctly documenting time, and approving time records for pay. The code for reporting this time is "E" (shift pay exception).

**DOT Shift Premium / Shift Premium Exception Classifications  
(Applicable to CEI Agreements)**

**DOH Divisions 1-14**

Engineering Technician (all levels)

Engineer I

### Shift Premium Pay – Example of Overtime Computation

(State Human Resources Manual, Salary Administration, Section 4, Revised January 1, 2009)

**EXAMPLE:** Should an employee work overtime within a week in which the regular schedule included both a first shift and a second or third shift, two different rates of pay are involved in computing overtime. The regular rate is derived by dividing the employee's total straight-time earnings, including shift premium pay, callback and on-call when appropriate, for the week by the total number of hours worked during that week.

Example: Employee's hourly rate: \$ 13.00

Shift pay: \$ 1.30/hr. (or 10%)

	M	T	W	Th	F	
Shift	First	First	First	Second	Second	
Hrs. Worked	10	8	8	8	8	= 42 hrs. worked
	X	X	X	X	X	X
Hourly Rate	\$13.00	\$13.00	\$13.00	\$14.30	\$14.30	
	\$130.00	\$104.00	\$104.00	\$114.40	\$114.40	= \$566.80 (Straight Time Earnings)
Premium Pay	2 hours (overtime) x \$13.50 x 0.5 (\$566.80/42 = \$13.50)					= \$13.50
	Total Earnings					= \$580.30

## Invoice Responsibilities for Field Engineers

The information below is a list of items to verify when reviewing a CEI Invoice

1. Verify a completed Invoice Form \_ Cost Plus is attached to the Invoice
  - a. Verify Vendor name on invoice matches what NCDOT has on file in SAP
  - b. Verify the remittance address on the invoice must match NCDOT has on file
  - c. Verify the invoice number should be unique number with no characters
  - d. Verify the invoice number does not have more than 16 characters
  - e. Verify Overhead rates, and cost of capital rate fields are completed
  - f. Very firm has summarized WBS invoice amounts
  - g. Verify firm has completed invoice certification fields
2. Verify time sheets reflect time worked and are signed by NCDOT personnel
3. Verify reimbursable hourly rates are within the ranges for each classification
4. Verify vehicles match number of technicians
5. Verify milage logs are include with invoice and the mileage is reasonable for project
6. Verify direct expenses are approved and have backup documentation (receipts, bills, etc.)
7. Verify hours of work are paid accordingly
  - a. Regular Time
  - b. Overtime
  - c. Shift Premium
  - d. Time worked on holiday paid as regular time
8. Verify Project Manager Visits invoiced
9. Verify remaining balance of Purchase Order is more than the invoice amount
10. Verify the DBE-IS form is complete and attached
11. Verify the invoice is approved by NCDOT personnel and has signature

## **Engineering Degree Equivalents**

**\*Utilize to determine year of experience for the Technician Salary Calculator only\***

### **4 Year Engineering Degrees**

Civil Engineering / Civil Engineering Technology  
Architectural Engineering  
Mechanical Engineering  
Surveying Engineering / Survey Engineering and Management  
Industrial Engineering  
Construction Engineering and Management  
Traffic Engineering\*  
Electrical Engineering\*

### **Location and Surveys**

Survey Engineering / Survey Engineering Technology \*

### **Roadside Environmental**

Biological & Agricultural Engineering\*  
Biosystems Engineering\*  
Environmental Design in Landscaping Architecture\*  
Biology Degrees\*

### **Certifications (only applicable to technicians without a 4-year engineering degree)**

PE / Professional Engineer certification can be substituted for any engineering degree  
HEC / Highway Engineering Concepts certification counts as 24 months education credit  
FE Fundamentals of Engineering certification counts as 24 months education credit

### **Notes:**

- All 4-year degrees must be received from an accredited institution to receive full credit.
- The engineering degrees noted with an asterisk will only count as 2-year degrees.
- Construction Management Degrees for any university can count towards 2 years of education credit, except from NCSU, the person receives full 4-year credit.
- The maximum allowed combine credits for education and certifications is 4 years.
- The certifications above cannot be combined, for example if a technician has the HEC and FE, he/she will only get credit for one or the other.

Based on NCDOT Human Resources information dated (5-2023)

## **Transcript Credit for Engineers and Technician Classifications**

Credit may be given as follows:

- 4 – English
- 4 – Math
- 2 – Physics
- 2 – Chemistry
- 2 – Chemistry Lab
- All Civil Engineering Courses
- All Computer Courses
- All Engineering Graphics Courses
- All Drafting Courses

The credit hours convert to months of experience. Only a maximum of 12 months of educational credit can be given for a transcript.

In addition to the above courses, credit may also be given for other courses depending upon where the position is located and the type of degree. These should be reviewed on an individual basis.

# **Evaluation of Private Engineering Firm for Construction, Engineering, and Inspection**

(Rev. 2023)

## **N. C. DEPARTMENT OF TRANSPORTATION**

### **Evaluation of Private Engineering Firm for Construction, Engineering, and Inspection**

#### **Procedures**

Private Engineering Firms providing services to the North Carolina Department of Transportation should be evaluated during their contract/task order assignment. Evaluations should provide feedback to the firm as to their performance on the project(s) for which they are providing services. The evaluation form should be completed by the NCDOT Engineer in charge of the work/Project Manager or his/her designee.

The frequency of evaluations is dependent on the length of the contract/task order:

- For contracts/task orders with a duration greater than one year and broader scopes, an initial evaluation should be performed at 90 days into the contract/task order, then once every six months from NTP date as long as the contract is open. A final evaluation should be performed no later than 30 days after the end of the contract/task order, incorporating the preparation of the final estimate, if included in the firm's assigned tasks.
- For contracts/task orders with a duration less than one year, an initial evaluation should be performed at 30 days into the contract/task order, then once every six months. A final evaluation should be performed no later than 30 days after the end of the contract/task order, incorporating the preparation of the final estimate, if included in the firm's assigned tasks.
- For contracts/task orders with a duration of less than six months, an initial evaluation should be performed at 30 days into the contract/task order. A final evaluation should be performed no later than 30 days after the end of the contract/task order, incorporating the preparation of the final estimate, if included in the firm's assigned tasks.

Additional evaluations may be required for the following reasons:

- Recognition of outstanding performance
- Notification of poor performance
- Requests from the consultant based on possible improved performance.

If areas of improvement are noted, provide specific examples and information to convey noted concerns and where improvements are needed.

The Consultant Evaluation Form can be accessed at [Consultant Evaluation Management System](#). The Project Manager / Contract Administrator will review and compare deliverables to standard criteria (see *Performance Criteria below*) and complete all fields on the online form (including comments). The Project Manager/ Contract Administrator will affix a digital signature to the form and forward the evaluation to the consultant (for review and/or comment and signature) and cc: NCDOT supervisor. After the evaluation has been signed by both parties, a copy should be attached to the CEMS evaluation.

For firms receiving an evaluation rating of "1 – Unacceptable" a meeting will be scheduled between the firm, the evaluator, and a representative of the Construction Unit to discuss the deficiencies noted and to outline process improvements to correct the area(s) of concern. The Professional Services Management Unit should be invited to the meeting if the Private Engineering Firm disputes their rating. The Resident Engineer will be responsible for scheduling this meeting. Written documentation including a detailed explanation outlining the performance issue and necessary corrective measures should be provided.

Private Engineering Firms, who disagree with the evaluation or wish to provide additional information regarding the evaluation, may submit this information jointly to the NCDOT Engineer in responsible charge of the work/Project Manager, the Professional Services Management Unit, and the State Construction Engineer.

**N. C. DEPARTMENT OF TRANSPORTATION**

**Evaluation of Private Engineering Firm for Construction, Engineering, and Inspection**

Division/Unit/Section: \_\_\_\_\_

LSC #: \_\_\_\_\_ Task Order #: \_\_\_\_\_

Firm Name: \_\_\_\_\_ Vendor/Reporting #: \_\_\_\_\_

Assignment Location: \_\_\_\_\_

Contract Type: Project Specific  or On-Call

Inspection Type(s) (i.e. Resurfacing, TIP, Bridge Replacement): \_\_\_\_\_

Rating Period: From: \_\_\_\_\_ To: \_\_\_\_\_

**Rate 1 through 5 and Explain**

**(1 - Unacceptable, 2 - Needs improvement, 3 - Acceptable, 4 - Very good, 5 - Outstanding)**

***Management of Staff:***

***Rating***

<b><i>Provides Proper Training:</i></b> Consultant provide necessary training for their staff. Certifications are kept current	Comments:	
<b><i>Project Staffing:</i></b> Makes recommendations or submits a plan on project staffing, coordinates staffing needs and inspector assignments	Comments:	
<b><i>Provides Qualified Staff:</i></b> Inspection staff possess the necessary qualifications to perform the work	Comments:	
<b><i>Firm's Documentation:</i></b>		
<b><i>Timely Response Work Orders/ Change Orders:</i></b> Maintains close coordination with the Department when new work orders or change orders are required for the firm	Comments:	
<b><i>Coordinates Funding Needs:</i></b> Communicates with the Department when expenditures approach 75 % of the not-to-exceed amount for individual task orders/ purchase orders (PO)	Comments:	
<b><i>Timely Submittal and Accuracy Invoices:</i></b> Submits in a consistent timeframe with minimal errors	Comments:	

***Construction Administration (Overall Inspection):***

<b><i>Provides Adequate Inspection:</i></b> Provides adequate inspection and/or testing to assure conformity with plans, specifications, and contract provisions. This includes inspection to ensure project compliance (i.e., Safety, Erosion Control, and Traffic Control)	Comments:	
<b><i>Adheres to Standards Practices/ Procedures:</i></b> Personnel are familiar with and adhere to standard practices and procedures of the Department.	Comments:	
<b><i>Provides Timely Interpretations of the Plans:</i></b> Provides contractor with timely interpretations of plans, specifications, contract provisions.	Comments:	
<b><i>Keeps Detailed/ Accurate Records:</i></b> Keeps detailed and accurate records of Contractor's daily operations and significant events. Utilizes current NCDOT forms to provide written project documentation. Submits records in accordance with established procedures.	Comments:	

**Average Rating:** \_\_\_\_\_

Other Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

_____ Rated By	_____ Title	_____ Date
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_____ Firm Representative	_____ Title	_____ Date
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cc: Professional Services Management Unit Manager  
State Construction Engineer

## iPad Set-up Guide for CEI – PEF Technicians

# iPad Set-up Guide for CEI – PEF Technicians

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6-30-2015

The target audience for these procedures is private engineering firm employees who are setting up iPads for Construction Engineering and Inspection (CEI) use on NCDOT construction projects.

### Contacts

- DOT Help Desk: [dothelp@ncdot.gov](mailto:dothelp@ncdot.gov) , (919)707-7000, 1-800-DOT-ASST (1-800-368-2778)
- iPad support from Apple: <http://www.apple.com/support/ipad/>
- Sherell Williams: [sherellwilliams@ncdot.gov](mailto:sherellwilliams@ncdot.gov)

### Prerequisites

- You should have an Active Directory (AD) and North Carolina ID (NCID) account.
- Be sure you are within range of your Wi-Fi network to perform this set-up.

### Initial Set-up

1. Turn on the iPad.
2. Swipe the text **slide to set-up** to the right.
3. Tap **English**.
4. Tap **United States**.
5. Tap your Wi-Fi network.
6. Enter your AD name and password.
  - a. Tap **Join**.
  - b. Tap **Accept** to accept the certificate. This step may take a few minutes.
  - c. Tap **Next** in the upper right corner.
7. Tap **Enable Location Services**.
8. Tap **Set-up as New iPad**, then take one of these paths, depending upon whether you are setting up or resetting an iPad.

Reset an Existing iPad	Set Up a New iPad
<p>a. On the Apple ID page, tap <b>Skip This Step</b>, then tap <b>Skip</b> in the dialog box.</p>	<p>a. Tap <b>Create a Free Apple ID</b>.</p> <p>b. Enter your birthday and tap <b>Next</b> in the top right corner of the display.</p> <p>c. Enter your name and tap <b>Next</b>.</p> <p>d. Tap <b>Use your current email address</b> and tap <b>Next</b>.</p> <p>e. Enter your NC DOT email address and tap <b>Next</b>.</p> <p>f. Enter a complex password; it must contain eight characters with a number, an uppercase letter, and a lowercase letter. Tap <b>Next</b>.</p> <p>g. Choose and answer three security questions and tap <b>Next</b>.</p> <p>h. Enter a rescue email address (optional).</p> <p>i. Slide the button to the left to not receive <b>Email Updates</b> and tap <b>Next</b>.</p>

9. When the Terms and Conditions appear, tap **Agree** at the bottom right. Tap **Agree** again in the dialog box.
10. If prompted to use iCloud, tap the option to not use it and tap **Next**.
11. On the Create a Passcode page, choose a passcode for the iPad and re-enter it to verify, then tap **Continue** in the dialog box.
12. On the Siri page, tap **Use Siri**. Siri is a voice recognition system designed to answer questions and perform tasks.
13. On the Diagnostics page, tap **Don't Send**.

## 14. Tap **Get Started**.

<b>Reset an Existing iPad</b>	<b>Set Up a New iPad</b>
<p>a. Tap the <b>Settings</b> icon, tap <b>General</b> in the left column, then tap <b>About</b> in the right column.</p> <p>b. Tap <b>Name</b>. Enter a name created from your work group (such your company initials or name) followed by an identifying number (such as 123456).</p> <p>c. Tap <b>Done</b>, then exit the Settings menu.</p>	<p>a. Open your DOT email and verify the email address entered earlier. The link takes you to apple.com. Sign in to iTunes to verify the email account, using the Apple ID password entered earlier.</p> <p>b. A pop-up states that the email address has been verified and asks if you want to use FaceTime and iMessage. FaceTime is a video chat application developed by Apple; the iMessage service provides free messaging with other Apple users. Tap <b>Yes</b>.</p> <p>c. A second pop-up asks you to <b>Allow iCloud to Use the Location of Your iPad</b>. Tap <b>Don't Allow</b>.</p> <p>d. Tap the <b>Settings</b> icon, scroll to and tap <b>iTunes &amp; App Store</b> in the left column, enter the Apple ID password entered earlier, and tap <b>Sign In</b>.</p> <p>e. A pop-up notes that <b>This Apple ID has not yet been used in the iTunes Store</b>. Tap <b>Review</b> to continue.</p> <p>f. On the Account Settings screen, tap <b>United States</b> and tap <b>Next</b>.</p> <p>g. Scroll to the bottom, tap <b>Agree</b>, then tap <b>Agree</b> again.</p> <p>h. Enter the required information (title, billing address &amp; phone number), then tap <b>Next</b>.</p> <p>i. Tap <b>Done</b> to complete the setup.</p>

## Set-up Bluetooth

If the iPad has an external keyboard, turn Bluetooth on and pair the keyboard with the iPad.

## Apps

- **NCDOT Mobile** – displays the mobile version of [www.ncdot.gov](http://www.ncdot.gov)
- **Inside NCDOT** – displays [inside.ncdot.gov](http://inside.ncdot.gov)
- **SharePlus** – use SharePoint on an iPad to access NCDOT Connect
- **Citrix Receiver** – access files and enterprise applications (such as HiCAMS or SAP) via Citrix
- **Penultimate** – take notes or make sketches with this digital handwriting app
- **Find My iPhone** – use another iOS device to find a lost iPad
- **Adobe Reader** – view and interact with PDF documents
- **The Weather Channel** – view forecasts, maps, and severe weather alerts
- **iBooks** – download and read books
- **Calculator** – perform normal and scientific calculations

- **Rail Crossing Locator** – locate rail crossings, view accident information, and report grade-crossing emergencies
- **Google Earth** – see street views, get directions, search for locations, and view roads and borders
- **Merriam Webster Dictionary HD** – contains definitions, synonyms and antonyms
- **GPS Device Data** – displays latitude, longitude, bearing, course, speed, and altitude in different formats and units of measure
- **48GX Calculator** – emulates the HP 48GX graphing calculator, offering functions for scientific and engineering applications, formulas and constants
- **CamScanner HD** – scan, sync, share and manage documents and other content
- **DocScan HD** – scan and transmit multi-page documents and other content
- **ArcGIS Explorer** – access maps, search and visualize data, and display presentations
- **Word** – use the Microsoft word processing application
- **Excel** – use the Microsoft spreadsheet application
- **PowerPoint** – use the Microsoft presentation application

When installation seems to be complete, some apps may not appear on the home screen. If this occurs, you must install them manually.

1. Click the **App Catalog** icon, then click **Refresh** to see which apps have a status of **Installed**.
2. Install the other apps from the App Catalog. Click the **Free** or **Prepaid** button by the app name, then click **OK** and **Install**.

## Logging into Citrix Workspace with an iPad

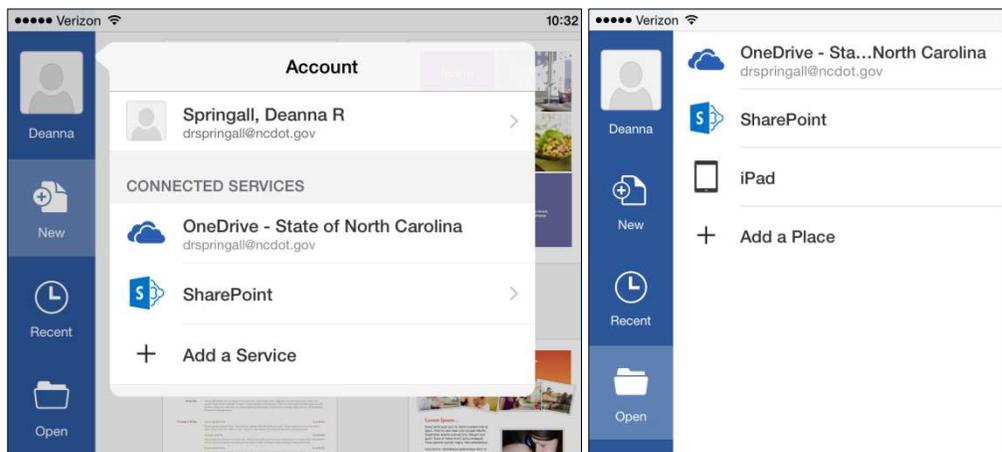
1. Open the Workspace App



2. Press Get Started
3. Type in this URL, **<https://remote.services.ncdot.gov>**
4. Press Continue
5. Type in your AD Account username and password (Your AD account is what you use to sign into an NCDOT Computer). If you do not have an AD Account type in your NCID username and password.
6. Press Sign In
7. Press the “+” button to add apps to your Citrix home screen
8. Choose the apps from the selection available
9. Press HiCAMS icon
10. Sign in using your HiCAMS username and password

### Important Note on OneDrive and SharePoint

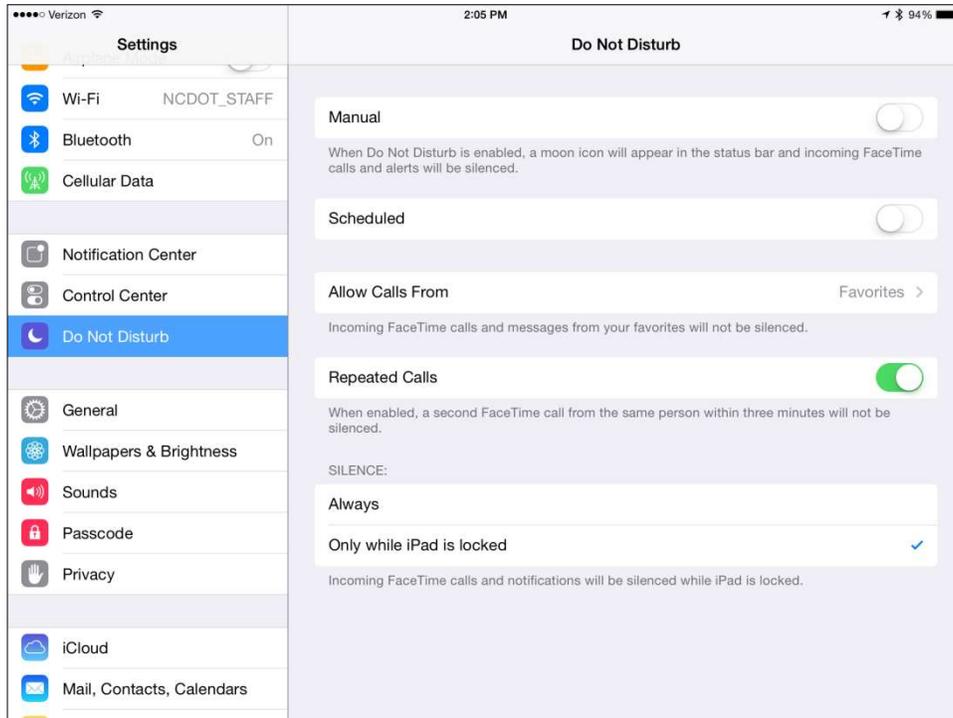
Do **NOT** use the options within Office 365 to connect to or open files from **OneDrive** and **SharePoint**. These Office 365 features are not available for NCDOT use. This is an example of those options in Word.



Although you will use your iPad to work with SharePoint, you must use the **SharePlus** interface to work with NCDOT SharePoint servers.

## Configure iPad Settings

1. Tap the **Settings** icon on the home page.



2. If you do not have your cellular data set-up yet, turn off **Cellular Data** to avoid prompts.
  - a. In the left column, tap **Cellular Data**.
  - b. In the right column, slide the **Cellular Data** button to the left to turn cellular data off.
3. Turn on **Do Not Disturb** to silence calls, alerts, and notifications.
  - a. In the left column, tap **Do Not Disturb**.
  - b. In the right column, choose options to set the time frame, to allow calls from selected people, etc.
4. Extend the time it takes for the iPad to lock when inactive.
  - a. In the left column, tap **General**.
  - b. In the right column, scroll down and tap **Auto-Lock**.
  - c. Change the time from **2 minutes** to **10 minutes**.
5. If needed, change the iPad passcode.
  - a. In the left column, tap **Passcode**.
  - b. Enter the current passcode.
  - c. Tap **Change Passcode**.
  - d. Enter the current passcode again.
  - e. Enter the new passcode and tap **Next**.



## **Process to On-Board CEI – PEF Technicians**

### **Process to Add Private Engineering Firm, Construction Engineering and Inspection Personnel to NCDOT Systems**

(Rev 4-22-2015)

In order to obtain access to NCDOT technology, accounts, and information systems at NCDOT, CEI-PEF technicians will go through Onboarding. Onboarding is the process of obtaining necessary information for accounts and access, acknowledging, and signing policies and agreements, and receiving training.

*(Note – These procedures are intended to provide guidance for Divisions adding CEI-PEF technicians to NCDOT SharePoint Construction Team Sites. Divisions may have other personnel in their Divisions assigned to the roles listed herein. The appropriate responsible person within the Division should be contacted for this process, if different from the positions listed in these guidelines.)*

- First, the Resident Engineer should contact the Division Personnel Technician to obtain and to complete the on-boarding request form after the CEI-PEF has provided His NCID username and password. NCID is the standard identity management and access service provided to state, local, business, and individual users. NCID provides a high degree of security and access control to real-time resources. Registration for an NCID may be found at the following link and click on Register.

<https://ncid.nc.gov/idmdash/#/default> .

- The Division Personnel Technician or Division Technology Support Analyst will request the accounts needed for CEI-PEF technicians just as they do for their own personnel, except the CEI-PEF technicians will have “Contractor Accounts.” Note that “Contractor Accounts expire after one year.” The accounts may be renewed in one-year intervals.
- CEI-PEF technicians will need to read and sign the following agreements and policies: Acceptable Use (for computers, technology, and information systems), Ethics Policy, and Third Party Confidentiality Agreement.
- The Division should provide an opportunity for training on the following topics: Fraud Education, Security Awareness, Ethics Policy, and Email Retention and Archiving Policy.

The signed documents and the record of training will be kept in the Divisions.

## **Adding CEI-PEF technicians to the SharePoint Construction Team sites**

The Division Technology Support Analyst will add the CEI-PEF Technicians to the appropriate SharePoint Construction Team Sites, assigned to the office(s) where the CEI-PEF Technician will be working.

## **HiCAMS**

To update office locations and to discuss HiCAMS needs, Division personnel should contact either Sherell Williams ([sherellwilliams@ncdot.gov](mailto:sherellwilliams@ncdot.gov)) or Jean Debnam ([jdebnam@ncdot.gov](mailto:jdebnam@ncdot.gov)) in the Construction Unit. The main number for the Construction Unit is (919)707-2400.

## **NCDOT Email and Calendar (Optional)**

Division personnel may request an email with calendar account through the NCDOT IT. NCDOT Email and Calendar Options should only be used for or PEF personnel serving as a Resident or Assistant Resident Engineer or embedded PEF personnel. (An embedded PEF employee is a person where the Department provides an office and a computer and accesses items on the Unit's shared drive. This request is often handled by the Division Technology Support Analyst and may be requested through an account modification form or through the Help Desk by email.

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### **Checklist:**

- Complete the On-boarding form for NCDOT system access  
This form will be completed by the Unit Manager or the Unit's Personnel Technician.  
(Both must be copied).
- Obtain NCID account. <https://ncid.nc.gov/idmdash/#/default>
- Obtain the following access, accounts, or update information:
  - SharePoint Access to Construction Team Sites
  - HiCAMS
  - Active Directory Account (Embedded employees or Resident Engineer or Assistant Resident Engineer)
  - Outlook Email and Calendar (optional)

- Ensure that the contract employee reviews and signs that they have received and reviewed the following policies and agreements:
  - Acceptable Use Policy (signature required)
  - Third Party Confidentiality Agreement (signature required)
  - Email Retention and Archiving Policy (document that training was received)
- Ensure the contract employee has completed the following training:
  - Fraud Education (OIG-105)
  - Security Awareness (PER-210)
  - Ethics Policy (PER-725)
  - Managing Your Inbox. Email as a Public Record (PER-644)

**Attachments:**

- NCID Information
- Acceptable Use Policy (*signature required*)
- Third Party Confidentiality Agreement (*signature required*)
- Email Retention and Archiving Policy

## **Appendix B-Examples**

### Staffing Chart Examples

Single Project Staffing Chart

B-1

Multiple Projects Staffing Chart

B-2

### Advertisement Example

Statewide On-Call

B-3

Project Specific Advertisement

B-4

Invoice Form – Cost Plus Example

B-5

Documentation for Invoice Direct Cost Items with Salvage Value

B-6

Purchase Order Closure Letter Example

B-7



# Multiple Project Staffing Chart

## ESTIMATED STAFFING REQUIREMENTS U-2524BA, U-2525BB AND I-2201 S

U-2524BA		2014												2015												2016												2016												2017													
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
TT IV			1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
TT III						1	1	1	1	2	2	2	2	2	2	2	2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	2	2	2	2	2	2	2	2	2	2	2										
TT II					1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	2	1	1	1	1	1	1	1	1	1	1											
TT I			1	1	1	1	1	1	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	1	1	1	1	1	1	1	1	1	1	1											
<b>totals</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>14</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>11</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>2</b>	<b>1</b>																																

U-2524BB		2014												2015												2016												2016												2017											
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D											
TT IV			1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2											
TT III						1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1										
TT II					1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1								
TT I			1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1								
<b>totals</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>4</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>9</b>	<b>8</b>	<b>8</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>5</b>	<b>2</b>	<b>1</b>																																				

I-2201S		2014												2015												2016													
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
TT IV																																							
TT III			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
TT II																																							
TT I																																							
<b>totals</b>	<b>0</b>	<b>1</b>																																					

Totals for Projects U-2524BA, U-2524BB and I-2201S		2014												2015												2016												2016												2017											
	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D											
TT IV			2	2	2	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2											
TT III			1	1	1	1	3	3	3	3	4	5	5	5	5	5	5	8	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	6	6	6	6	6	6	4	4	3	2	2	2	2	2	2	2	2											
TT II					2	2	2	4	5	4	4	4	4	4	4	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	4	3	2	2	2	2	2	2	2	2	2	2										
TT I			2	2	2	2	2	3	4	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	3	2	2	2	2	2	2	2	2	2	2	2										
<b>totals</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>5</b>	<b>7</b>	<b>9</b>	<b>9</b>	<b>13</b>	<b>15</b>	<b>16</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>23</b>	<b>22</b>	<b>22</b>	<b>23</b>	<b>22</b>	<b>22</b>	<b>21</b>	<b>21</b>	<b>17</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>10</b>	<b>4</b>	<b>2</b>																														

\*Please note: chart was based on the information available at the time of generation. Changes in the letting date or contract time may effect the duration of the contract.

# Statewide On-Call Advertisement Example

6/15/2020

NCDOT Advertisements - CHE\_2020 Statewide On-Call Construction Engineering...

**NCDOT Letterhead**

Template Version: 2019.10.25.RJS--SharePoint (04.30.2020).RJS  
 ADVERTISEMENT DATE: 6/15/2020  
 ADDENDUM Number (N/A if blank):  
 ADDENDUM DATE (N/A if blank):  
 ADVERTISEMENT Title: CHE\_2020 Statewide On-Call Construction Engineering & Inspection Services LSC -- FINAL (06.15.2020)  
 LOI Submittal Management System (LOISS) Opportunity Number: 132  
 NCDOT UNIT NAME / USING AGENCY: NCDOT DIVISION OF HIGHWAYS - CHIEF ENGINEER'S OFFICE  
 REQUEST for LETTERS of INTEREST (RFLOI): REQUEST for LETTERS of INTEREST (RFLOI)  
 CONTRACT TITLE: 2020 Statewide On-Call Construction Engineering & Inspection Services LSC  
 ISSUE DATE: 6/15/2020  
 SUBMITTAL DEADLINE (Eastern Time Zone): 7/13/2020 12:00 PM  
 ISSUING AGENCY: North Carolina Department of Transportation -- Technical Services Division -- Professional Services Management Unit  
 LETTER of INTEREST (LOI) Submittal Link (Ctrl + Click to open link): [https://connect.ncdot.gov/sites/psmu/Pages/LOI-Submission.aspx?Oppty=132&Title=CHE\\_2020%20Statewide%20On-Call%20Construction%20Engineering%20&%20Inspection%20Services%20LSC](https://connect.ncdot.gov/sites/psmu/Pages/LOI-Submission.aspx?Oppty=132&Title=CHE_2020%20Statewide%20On-Call%20Construction%20Engineering%20&%20Inspection%20Services%20LSC)  
 NEW ONLINE SUBMITTAL PROCESS AND REQUIREMENTS -- SEE PAGE & ff.  
 SYNOPSIS

2  
**SUBCONSULTANTS' USAGE SHALL FOLLOW THE PRESCRIPTIONS AS LISTED IN THE SECTION 'SUBCONSULTANTS PERMITTED UNDER THIS CONTRACT'.**

The primary and/or subconsultant firm(s) (if Subconsultants are allowed under this RFLOI) shall be pre-qualified to perform the Discipline Codes listed below in the 'DISCIPLINE CODES' section.

Discipline Codes required are shown in the 'DISCIPLINE CODES' section.

**DISCIPLINE CODES for each primary and/or subconsultant firm(s) (if Subconsultants are allowed under this RFLOI) SHALL be listed on the respective RS-2 FORMS (see section 'SUBMISSION ORGANIZATION AND INFORMATION REQUIREMENTS').**

Except as provided below any firm wishing to be considered must be properly registered with the Office of the Secretary of State and with the North Carolina Board of Examiners for Engineers and Surveyors. Any firm proposing to use corporate subsidiaries or subcontractors must include a statement that these companies are properly registered with the North Carolina Board of Examiners for Engineers and Surveyors and/or the NC Board for Licensing of Geologists. The Engineers performing the work and in responsible charge of the work must be registered Professional Engineers in the State of North Carolina and must have a good ethical and professional standing. It will be the responsibility of the selected private firm to verify the registration of any corporate subsidiary or subcontractor prior to submitting a Letter of Interest. Firms which are not providing engineering services need not be registered with the North Carolina Board of Examiners for Engineers and Surveyors. Some of the services being solicited may not require a license. It is the responsibility of each firm to adhere to all laws of the State of North Carolina.

The firm must have the financial ability to undertake the work and assume the liability. The selected firm(s) will be required to furnish proof of Professional Liability insurance coverage in the minimum amount of \$1,000,000.00. The firm(s) must have an adequate accounting system to identify costs chargeable to the project.

**SUBCONSULTANTS PERMITTED UNDER THIS CONTRACT?**

YES

**COMBINATION OF DISCIPLINE CODES**

ALL DISCIPLINE CODES ARE REQUIRED

**DISCIPLINE CODES**

00125 INTELLIGENT TRANSPORTATION SYSTEMS (ITS) INSPECTION; 00195 ROADWAY CONSTRUCTION ENGINEERING & INSPECTION; 00233 STRUCTURES CONSTRUCTION ENGINEERING & INSPECTION

**CONTRACT SCOPE**

The North Carolina Department of Transportation (NCDOT) is soliciting proposals for the services of a firm/team for the following contract scope of work.

**SCOPE OF WORK**

NOTE THE FOLLOWING RULES WILL APPLY FOR THIS SUBMITTAL:

1. THE PRIME FIRM WILL BE ALLOWED THREE (3) SUBCONSULTANTS, WHICH MAY BE SUBMITTED WITH THE LETTERS OF INTEREST OR MAY BE NAMED AT A LATER DATE. ADDITIONAL SUBCONSULTANTS WILL BE CONSIDERED, UPON REQUEST, PROVIDED THAT THE ADDITIONAL SUBCONSULTANTS PROVIDE ADDITIONAL CEI RESOURCES TO THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION.
2. A FIRM APPLYING AS A PRIME WILL NOT BE ALLOWED TO BE A SUBCONSULTANT ON ANY TEAM DURING THE SELECTION PROCESS.
3. A FIRM WHO IS A SUBCONSULTANT WILL ONLY BE ALLOWED TO BE ON ONE (1) TEAM.
4. FIRMS WHO SUBMITTED AS PART OF A TEAM THAT WAS NOT SELECTED, MAY BE NAMED AS SUBCONSULTANTS AT A LATER DATE TO PRIMES WHO ARE SELECTED.

**SCOPE OF WORK:**

The private engineering firm will be responsible for providing engineers and technicians with the appropriate skills and qualifications to perform construction contract administration, inspection, materials sampling, materials testing, documentation of pay quantities, project closeout documentation and claims avoidance. In addition, the private engineering firms may provide staff to assist the Department with other program delivery related tasks. The scope of work will be identified for each assignment on an as needed basis. The same degree of assistance will not be required on all assignments.

The technicians performing the inspection work must be NCDOT certified to perform materials sampling and testing or be able to obtain provisional certifications based on their combination of education, experience and training.

Employees of the Department of Transportation will be in direct control and responsible for the management of the construction engineering, inspection, and contract administration. Any off-site material testing will be performed by the Department.

The firms will be responsible for the tracking and billing various types of work orders or purchase orders for services performed.

**PROPOSED CONTRACT TERM**

TWO (2) YEARS

<https://connect.sharepoint.com/sites/psmu/Lists/RFLOIAdvertisementWritingPage/DispForm.aspx?ID=42&Source=https%3A%2F%2Fconnect%...> 1/5

6/15/2020

NCDOT Advertisements - CHE\_2020 Statewide On-Call Construction Engineering...

PROPOSED CONTRACT EXTENSIONS  
PROPOSED CONTRACT PAYMENT TYPE  
NUMBER OF PAGES (#)  
NUMBER OF PAGES (words)  
SUBMITTAL REQUIREMENTS

ONE (1) @ 1-YEAR  
COST-PLUS Task Orders  
15  
FIFTEEN

All LOIs are limited to those pages prescribed in the above sections 'NUMBER OF PAGES (#)' and 'NUMBER OF PAGES (words)' -  
- Inclusive of the cover sheet, and shall be typed on 8-1/2" x 11" sheets, single-spaced, one-sided (RS-2 forms are not included in the page count).

LOIs containing more than those pages prescribed in the above sections 'NUMBER OF PAGES (#)' and 'NUMBER OF PAGES (words)' pages will not be considered.

**DISCIPLINE CODES** for each primary and/or subconsultant firm(s) (if Subconsultants are allowed under this RFO) SHALL be listed on the respective RS-2 FORMS (see section 'SUBMISSION ORGANIZATION AND INFORMATION REQUIREMENTS').

ONLY ELECTRONIC LOIs WILL BE ACCEPTED.

LOIs should be submitted in .pdf format using software such as Adobe, CutePDF, PDF Writer, DocuDesk, deskPDF, etc.

=====

NCDOT now utilizes its online LOI Submittal Management System (LOISS) located at: <https://connect.ncdot.gov/site/psmu/default.aspx>. To submit an LOI utilizing this system, the "submitting employee" at each "submitting Firm" must have their own, individual NCID (as a note, each prequalified Firm should already have an individual in the company with an NCID - as required by the online Prequalification System). NCIDs may be obtained at this website: <https://ncid.nc.gov/> (locked NCIDs may also be unlocked via the self-service portion of the NCID website). Once the "submitting employee" has their completed NCID, they may proceed to upload their firm's LOI to NCDOT's LOISS. This site is very similar to other web-based upload and form-fill sites.

**NCID sync Issues - Help contact:** Once a user has an NCID (whether prior to this advertisement, or pursuant to this advertisement) and said user receives an error message, or has issues, when attempting to login to LOISS, please contact NCDOT - CM Support at [dot.cmsupport@ncdot.gov](mailto:dot.cmsupport@ncdot.gov) to have your NCID synchronized. Please explain that you are trying to access the LOISS application on the PSMU site and include your NCID (do not include your password) and the error message you are receiving. This syncing of your NCID to LOISS should be a one-time occurrence. Firms' users are urged to early create an NCID (if needed) and have it synced with LOISS (if necessary) to avoid any potential delays or missed deadlines when submitting your firm's LOI.

NCDOT strongly urges Firms to use Google Chrome browser to access LOISS in order to ensure the best experience possible.

Once logged into LOISS, the Firm should locate and click the 'LOI Submission' button in the left menu bar. After clicking the 'LOI Submission' button, the Firm should identify the specific Opportunity for which they wish to submit an LOI. The Firm will click the link for their desired Opportunity, and **UPLOAD** one copy of their LOI, as a .pdf file, to NCDOT's LOISS at the Advertisement/Opportunity-Specific 'LOI Submittal' LINK shown in the section above entitled '**LETTER OF INTEREST (LOI) Submittal Link**'.

Your Firm's Letter of Interest (LOI) may be uploaded at the Advertisement/Opportunity-Specific 'LOI Submittal' LINK for this specific Advertisement/Opportunity shown in the section above entitled '**LETTER OF INTEREST (LOI) Submittal Link**'.

LOISS will **close** the Advertisement / Opportunity at the appropriate time and **will not** allow Firms to submit LOIs **after** the deadline.

Upon successful **UPLOAD** of your Firm's LOI to LOISS, the system will notify you with a confirmation screen. You will also receive an e-mail stating that you have successfully submitted your Letter of Interest (LOI).

Paper copies are not required. The subject line should contain the Firm's Name, and the text prescribed in the section given below '**SUBJECT LINE OF PPF SUBMITTAL**'.

LOIs SHALL be received electronically no later than 12:00 P.M. (NOON) Eastern, on the date given in the section entitled '**SUBMITTAL DEADLINE**' at the beginning of this Advertisement.

LOISS **will not allow** LOIs to be **UPLOADED** nor be received after the above deadline and such LOIs **will not** be considered.

Firms are encouraged to begin this submittal process early as there are now several more steps involved with LOI-submission than were involved with the previous FTS methodology of LOI-submission.

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Firms submitting LOIs are encouraged to carefully check them for conformance to the requirements stated above (and any other requirements in this Advertisement). If LOIs are submitted late, exceed the maximum number of pages, are sent by any means other than NCDOT's LOI Submittal Management System (LOISS), or are UPLOADED to any Advertisement/Opportunity-Specific 'LOI Submittal' LINK other than that given in this Advertisement they will be

<https://nconnect.sharepoint.com/sites/psmu/Lists/RFOLOIAdvertisementWritingPage/DispForm.aspx?ID=42&Source=https%3A%2F%2Fnconnect%...> 2/5

6/15/2020

NCDOT Advertisements - CHE\_2020 Statewide On-Call Construction Engineering...

	<p><u>disqualified.</u></p> <p><b>The Department reserves the right to reject all LOIs and not proceed with procurement.</b></p> <p><b>The Department reserves the right to waive any technicality in LOIs, or notify the Firm(s) of such technicality and allow the Firm(s) up to two (2) business days to rectify the technicality. The Department has sole right and discretion in the determination of technicality and its meaning.</b></p>
SUBJECT LINE OF PEF SUBMITTAL	FIRM NAME_2020 Statewide On-Call Construction Engineering & Inspection Services LSC
SELECTION PROCESS	<p>Following is a general description of the selection process:</p> <ul style="list-style-type: none"><li>• The NCDOT Selection Committee will review all qualifying LOI submittals.</li><li>• For <u>Limited Services Contracts (On-Call type contracts)</u>, the NCDOT Selection Committee <u>MAY</u>, at the Department's discretion, choose any number of firms to provide the services being solicited.</li><li>• For <u>Project-Specific Contracts</u> (non On-Call type contracts), the Selection Committee <u>MAY</u>, at the Department's discretion, shortlist a minimum of three (3) firms to be interviewed. IF APPLICABLE, dates of shortlisting and dates for interviews are shown in the section <b>'SUBMISSION SCHEDULE AND KEY DATES'</b> at the end of this RFLOI.</li><li>• In order to be considered for selection, consultants must submit a complete response to this RFLOI prior to the specified deadlines. Failure to submit all information in a timely manner will result in disqualification.</li></ul>
TITLE VI NONDISCRIMINATION NOTIFICATION	<p>The North Carolina Department of Transportation, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations, hereby notifies all RESPONDENTS that it will affirmatively ensure that any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit LETTERS of INTEREST (LOIs) in response to this ADVERTISEMENT and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.</p>
SMALL PROFESSIONAL SERVICES FIRM (SPSF) PARTICIPATION	<p>The Department encourages the use of Small Professional Services Firms (SPSF). Small businesses determined to be eligible for participation in the SPSF program are those meeting size standards defined by Small Business Administration (SBA) regulations, 13 CFR Part 121 in Sector 54 under the North American Industrial Classification System (NAICS). The SPSF program is a race, ethnicity, and gender neutral program designed to increase the availability of contracting opportunities for small businesses on federal, state or locally funded contracts. SPSF participation is not contingent upon the funding source.</p> <p>The Firm, at the time the Letter of Interest is submitted, shall submit a listing of all known SPSF firms that will participate in the performance of the identified work. The participation shall be submitted on the Department's Subconsultant Form RS-2. RS-2 forms may be accessed on the Department's website at NCDOT Connect Guidelines &amp; Forms (<a href="https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx">https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx</a>).</p> <p>The SPSF must be qualified with the Department to perform the work for which they are listed.</p> <p>The Department maintains on file the qualifications and key personnel for each approved discipline, as well as any required samples of work. Each year on the anniversary date of the company, the firm shall renew their prequalified disciplines. If your firm has not renewed its application as required by your anniversary date or if your firm is not currently prequalified, please submit an application to the Department <u>prior to submittal of your LOI</u>. An application may be accessed on the Department's website at <u>Prequalifying Private Consulting Firms</u> (<a href="https://connect.ncdot.gov/business/Prequal/Pages/Private-Consulting-Firm.aspx">https://connect.ncdot.gov/business/Prequal/Pages/Private-Consulting-Firm.aspx</a>) -- Learn how to become Prequalified as a Private Consulting Firm with NCDOT. Having this data on file with the Department eliminates the need to resubmit this data with each letter of interest.</p> <p>Professional Services Contracts are race and gender neutral and do not contain goals. However, the Respondent is encouraged to give every opportunity to allow Disadvantaged, Minority-Owned and Women-Owned Business Enterprises (DBE/MBE/WBE) subconsultant utilization on all LOIs, contracts and supplemental agreements. The Firm, subconsultant and subfirm shall not discriminate on the basis of race, religion, color, national origin, age, disability or sex in the performance of this contract.</p>
PREQUALIFICATION	<p>Real-time information about firms doing business with the Department, and information regarding their prequalifications and certifications, is available in the Directory of Transportation Firms. The Directory can be accessed on the Department's website at <u>Directory of Firms</u> (<a href="https://www.ats.nc.gov/VendorDirectory/default.html">https://www.ats.nc.gov/VendorDirectory/default.html</a>) -- Complete listing of certified and prequalified firms.</p> <p><u>The listing of an individual firm in the Department's directory shall not be construed as an endorsement of the firm.</u></p>
DIRECTORY OF FIRMS AND DEPARTMENT ENDORSEMENT	
SELECTION CRITERIA	<p><b>All prequalified firms who submit responsive letters of interest will be considered.</b></p> <p>In selecting a firm/team, the selection committee will take into consideration qualification information including such factors as those listed in the <b>'SELECTION CRITERIA..'</b> sections shown below.</p> <p>After reviewing qualifications, if firms are equal on the evaluation review, then those qualified firms with proposed SPSF participation will be given priority consideration.</p>
SELECTION CRITERIA #1 %:	20 %
SELECTION CRITERIA #1 DEFINITION:	The Firm's previous performance on construction engineering and inspection contracts with the North Carolina Department of Transportation.
SELECTION CRITERIA #2 %:	30 %
SELECTION CRITERIA #2 DEFINITION:	The Firm's experience to perform the type of work required.
SELECTION CRITERIA #3 %:	50 %
SELECTION CRITERIA #3 DEFINITION:	The Firm's staff to perform the type of work required. Firms should demonstrate the capacity of the firm to provide construction engineering and inspection resources, listing the staff available and their current location.
SELECTION CRITERIA #4 %:	0 %
SELECTION CRITERIA #4 DEFINITION:	
SELECTION CRITERIA #5 %:	0 %
SELECTION CRITERIA #5 DEFINITION:	

<https://nconnect.sharepoint.com/sites/psmu/Lists/RFLOIAdvertisementWritingPage/DispForm.aspx?ID=42&Source=https%3A%2F%2Fnconnect%...> 3/5

6/15/2020

NCDOT Advertisements - CHE\_2020 Statewide On-Call Construction Engineering...

NCDOT ADDRESSEE

Robert J. Stroup, PE

SUBMISSION ORGANIZATION AND INFORMATION REQUIREMENTS

The LOI should be addressed to the person shown in the 'NCDOT ADDRESSEE' section shown above and must include the name, address, telephone number, and e-mail address of the prime consultant's contact person for this RFLOI.

The LOI must also include the information outlined below:

Chapter 1 - Introduction

The Introduction should demonstrate the consultant's overall qualifications to fulfill the requirements of the scope of work and should contain the following elements of information:

- Expression of firm's interest in the work;
- Statement of whether firm is on register;
- Date of most recent private engineering firm qualification;
- Statement regarding firm's(\*) possible conflict of interest for the work; and
- Summation of information contained in the letter of interest.

Chapter 2 - Team Qualifications

This chapter should elaborate on the general information presented in the introduction, to establish the credentials and experience of the consultant to undertake this type of effort. The following must be included:

1. Identify recent, similar projects the firm, acting as the prime contractor, has conducted which demonstrates its ability to conduct and manage the project. Provide a synopsis of each project and include the date completed, and contact person.
2. If subconsultants are involved, provide corresponding information describing their qualifications as requested in bullet number 1 above.

Chapter 3 - Team Experience

This chapter must provide the names, classifications, and location of the firm's North Carolina employees and resources to be assigned to the advertised work; and the professional credentials and experience of the persons assigned to the project, along with any unique qualifications of key personnel. Although standard personnel resumes may be included, identify pertinent team experience to be applied to this project. Specifically, the Department is interested in the experience, expertise, and total quality of the consultant's proposed team. If principals of the firm will not be actively involved in the study/contract/project, do not list them. The submittal shall clearly indicate the Consultant's Project Manager, other key Team Members and his/her qualifications for the proposed work. Also, include the team's organization chart for the Project / Plan. A Capacity Chart / Graph (available work force) should also be included. Any other pertinent information should also be listed in this section.

**Note:** If a project team or subconsultant encounters personnel changes, or any other changes of significance dealing with the company, NCDOT should be notified immediately.

Chapter 4 - Technical Approach

The consultant shall provide information on its understanding of, and approach to accomplish, this project, including their envisioned scope for the work and any innovative ideas/approaches, and a schedule to achieve the dates outlined in this RFLOI (if any project-specific dates are outlined below).

PROJECT MILESTONE(s) and DATE(s) (IF APPLICABLE) -- see section 'PROJECT MILESTONE(s) and DATE(s)' below (if applicable).

APPENDICES-

CONSULTANT CERTIFICATION Form RS-2

Completed Form RS-2 forms SHALL be submitted with the firm's letter of interest. This section is limited to the number of pages required to provide the requested information.

Submit Form RS-2 forms for the following:

- **Prime Consultant firm**
  - Prime Consultant Form RS-2; and
- **ANY/ALL Subconsultant firms (if Subconsultants are allowed under this RFLOI)** to be, or anticipated to be, utilized by your firm.
  - Subconsultant Form RS-2.

6/15/2020

NCDOT Advertisements - CHE\_2020 Statewide On-Call Construction Engineering...

- o In the event the firm has no subconsultant, it is required that this be indicated on the Subconsultant Form RS-2 by entering the word "None" or the number "ZERO" and signing the form.

Complete and sign each Form RS-2 (Instructions are listed on the form).

The required forms are available on the Department's website at:

<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

PRIME Form RS-2 (Contract Solicitations ONLY)

([https://connect.ncdot.gov/business/consultants/Roadway/PRIME%20Form%20RS-2%20\(Contract%20Solicitations%20ONLY\).xlsx](https://connect.ncdot.gov/business/consultants/Roadway/PRIME%20Form%20RS-2%20(Contract%20Solicitations%20ONLY).xlsx))

SUBCONSULTANT Form RS-2 (Contract Solicitations ONLY)

([https://connect.ncdot.gov/business/consultants/Roadway/SUBCONSULTANT%20Form%20RS-2%20\(Contract%20Solicitations%20ONLY\).xlsx](https://connect.ncdot.gov/business/consultants/Roadway/SUBCONSULTANT%20Form%20RS-2%20(Contract%20Solicitations%20ONLY).xlsx))

All correspondence and questions concerning this RFI should be directed to the person shown in the below section 'QUESTIONS send to'. However, the RFI itself must be UPLOADED via the 'RFI Submittal Link' shown in this Advertisement to NCDOT's RFI Submittal Management System (RFISS).

IF APPLICABLE (if dates for such are given in the below sections 'Deadline for Questions' and 'Issue Final Addendum'), questions may be submitted electronically only, to the contact shown in the below section 'QUESTIONS send to'. Responses will be issued in the form of an addendum available to all interested parties. Interested parties should also send a request, by email only, to the person listed in the below section 'QUESTIONS send to' to be placed on a public correspondence list to ensure future updates regarding the RFI or other project information can be conveyed. Questions must be submitted to the person listed in the below section 'QUESTIONS send to' no later than the date and time given in the below section 'Deadline for Questions'. The last addendum will be issued no later than the date shown in the below section 'Issue Final Addendum'.

NOTE: To adhere to the Timeframe, a Notice to Proceed is expected to be issued shortly after (a) firm(s)/team(s) is/are selected. All firm(s)/team(s) submitting a LETTER OF INTEREST should make sure that their rates and overheads are current and have been audited by NCDOT.

PROJECT MILESTONE(s) and DATE(s) (if applicable)

QUESTIONS send to: [rjstroup@ncdot.gov](mailto:rjstroup@ncdot.gov)

SUBMISSION SCHEDULE AND KEY DATES

RFI Release: 6/15/2020

Deadline for Questions (Eastern Time Zone)

Issue Final Addendum

Deadline for RFI Submission (Eastern Time Zone): 7/13/2020 12:00 PM

Shortlist Announced (\* Notification will ONLY be sent to shortlisted firms.)

Interviews - the week of

Firm Selection and Notification (\*\* Notification will ONLY be sent to selected firms.)

Anticipated Notice to Proceed

Version: 10.0  
 Created at 5/8/2020 10:35 AM by [Stroup, Robert J](#)  
 Last modified at 6/15/2020 3:12 PM by [Stroup, Robert J](#)

Close

## Project Specific Advertisement Example

Advertised: **MAY 01, 2019**

### NCDOT Division 14

## **REQUEST for LETTERS of INTEREST (RFLOI)**

### **I-4400BB/C - Construction Engineering and Inspection (CEI)**

TITLE: **I-4400BB/C - Construction Engineering and Inspection (CEI)**

USING AGENCY: North Carolina Department of Transportation  
**NCDOT Division 14**

ISSUE DATE: **MAY 01, 2019**

SUBMITTAL DEADLINE: **JUNE 04, 2019**

ISSUING AGENCY: North Carolina Department of Transportation  
Technical Services Division  
Professional Services Management Unit

### **SYNOPSIS**

**SUBCONSULTANTS ARE PERMITTED UNDER THIS CONTRACT.**

The primary and/or subconsultant firm(s) (*if Subconsultants are allowed under this RFLOI*) shall be pre-qualified to perform ALL of the work codes listed below for the NCDOT Division 14. Work Codes required are:

- 00195 - Roadway Constructon Engineering & Inspection
- 00233 - Structures Construction Engineering & Inspection

**WORK CODES for each primary and/or subconsultant firm(s) (*if Subconsultants are allowed under this RFLOI*) SHALL be listed on the respective RS-2 FORMS (see section 'SUBMISSION ORGANIZATION AND INFORMATION REQUIREMENTS').**

This RFLOI is to solicit responses (LETTERS of INTEREST, or LOIs) from qualified firms to provide professional consulting services to:

**The North Carolina Department of Transportation desires to engage a private consulting firm to provide Construction Engineering and Inspection (CEI) services for T. I. P. Projects I-4400BB (WBS 34232.3.GV8) and I-4400C (WBS 34232.3.5) involving the of widening I-26 from US 64 (Exit 49) to NC 280 (Exit 40) in Henderson County. The projects will included grading, drainage, paving, and structures..**

Except as provided below any firm wishing to be considered must be properly registered with the Office of the Secretary of State and with the North Carolina Board of Examiners for Engineers and Surveyors. Any firm proposing to use corporate subsidiaries or subcontractors must include a statement that these companies are properly registered with the North Carolina Board of Examiners for Engineers and Surveyors and/or the NC Board for Licensing of Geologists. The Engineers performing the work and in responsible charge of the work must be registered Professional Engineers in the State of North Carolina and must have a good ethical and professional standing. It will be the responsibility of the selected private firm to verify the registration of any corporate subsidiary or subcontractor prior to submitting a Letter of Interest. Firms which are not providing engineering services need not be registered with the North Carolina Board of Examiners for Engineers and Surveyors. Some of the services being solicited may not require a license. It is the responsibility of each firm to adhere to all laws of the State of North Carolina.

The firm must have the financial ability to undertake the work and assume the liability. The selected firm(s) will be required to furnish proof of Professional Liability insurance coverage in the minimum amount of \$1,000,000.00. The firm(s) must have an adequate accounting system to identify costs chargeable to the project.

## **SCOPE OF WORK**

The North Carolina Department of Transportation (NCDOT) is soliciting proposals for the services of a firm/team for the following contract scope of work:

**Provide Construction Engineering and Inspection (CEI) services on T. I. P. Projects I-4400BB (WBS 34232.3.GV8) and I-4400C (WBS 34232.3.5) involving the widening of I-26 from US 64 (Exit 49) to NC 280 (Exit 40) in Henderson County. The private consulting firm will be responsible for providing an engineer and technicians with the appropriate skills and qualifications to perform inspection, erosion control inspection, materials sampling and testing, surveying grade verification, documentation of pay quantities and claims avoidance.**

It is estimated that a maximum number of one (1) Transportation Engineer and twenty-six (26) technicians and one (1) Administrative Specialist will be needed during the life of the contract for the bridge and roadway construction inspection including:

**Engineering:**

One (1) - Transportation Engineer I with the experience to perform as an Assistant Resident Engineer

**Roadway Inspection:**

One (1) - Transportation Technician IV with experience as lead project inspector on a major project;

One (1) - Transportation Technician IV;

One (1) - Transportation Technician III should have knowledge of vertical construction for the construction of the rest area;

Two (2) - Transportation Technician III;

One (1) - Transportation Technician III with erosion control and permit compliance experience and knowledge;

Two (2) - Transportation Technician II;

One (1) - Transportation Technician II with erosion control and permit compliance experience and knowledge;

One (1) - Transportation Technician I;

One (1) - Transportation Technician I with experience in vertical construction;

Two (2) - Transportation Technician I Trainees;

**Structure Inspection:**

One (1) - Transportation Technician V with experience as lead structure inspector;

Two (2) - Transportation Technician IV

Three (3) - Transportation Technician III;

Two (2) - Transportation Technician II;

One (1) - Transportation Technician I; and

One (1) - Transportation Technician I Trainee.

**Surveying:**

One (1) - Transportation Technician IV with experience as a survey technician; and

One (1) - Transportation Technician I with experience as a survey technician

**Office:**

One (1) - Transportation Technician III to perform as an office technician with HiCAMS experience, payment and tracking of estimates;

One (1) - Administrative Specialist with experience in contractor payrolls and SharePoint file management

The private consulting firm will be required to supply a field office in proximity of the project. The size requirements and contents of the field office will be determined during the negotiation of the contract.

The Assistant Resident Engineer employed by the consulting firm should have contract administration experience and knowledge to administer the construction of a major project. One (1) Roadway Technician IV employed by the private consulting

firm should have experience and knowledge to perform as the Lead Inspector, one (1) Roadway Transportation Technician III should have extensive knowledge and experience in erosion control and serve as the Erosion Control Technician. One (1) Transportation Technician IV should have extensive knowledge and survey experience and perform as the Survey Party Chief. The Structure Transportation Technician V should have experience as a Lead Structure Technician. One (1) Transportation Technician III should have extensive experience with HiCAMS and SharePoint. The Administrative Specialist should be knowledgeable of the federal contractor payroll process, managing SharePoint files and performing general office duties.

The Resident Engineer will be an employee of the Department of Transportation. The Resident Engineer will be in direct control and responsible for the management of the construction engineering, inspection and contract administration. The Department will perform any off-site materials testing.

The technicians performing the inspection work must be NCDOT certified to perform materials sampling and testing or be able to obtain provisional certifications based on their combination of education, training and experience.

**PROPOSED CONTRACT TIME: November 2019 - August 2023.**

**PROPOSED CONTRACT PAYMENT TYPE: Cost-Plus.**

## **SUBMITTAL REQUIREMENTS**

All LOIs are limited to **EIGHTEEN (18)** pages (RS-2 forms are not included in the page count) inclusive of the cover sheet, and shall be typed on 8-1/2" x 11" sheets, single-spaced, one-sided.

LOIs containing more than EIGHTEEN (18) pages will not be considered.

**WORK CODES for each primary and/or subconsultant firm(s) (if Subconsultants are allowed under this RFLOI) SHALL be listed on the respective RS-2 FORMS (see section 'SUBMISSION ORGANIZATION AND INFORMATION REQUIREMENTS').**

**ONLY ELECTRONIC LOIs WILL BE ACCEPTED.**

**LOIs should be submitted in .pdf format using software such as Adobe, CutePDF PDF Writer, DocuDesk deskPDF, etc.**

One copy of the LOI should be sent as a .pdf file, **through NCDOT's FTS System**, to: [psmu-411@ncdot.gov](mailto:psmu-411@ncdot.gov). **The FTS system will send you an electronic receipt when your LOI is uploaded to NCDOT's FTS system.** Paper copies are not required. The subject line should contain the Firm's Name, and "LOI for I-4400BB/C - Construction Engineering and Inspection (CEI)".

If an interested firm does not have an FTS account they should send a request through regular e-mail to [psmu-411@ncdot.gov](mailto:psmu-411@ncdot.gov) . A response will be sent via the FTS system that will provide a login username, password, and login procedures.

**LOIs SHALL be received electronically no later than 12:00 P.M., JUNE 04, 2019.**

**LOIs received after this deadline will not be considered.**

**Firms submitting LOIs are encouraged to carefully check them for conformance to the requirements stated above (and any other requirements in this Advertisement). If LOIs are submitted late, exceed the maximum number of pages, are sent by any means other than NCDOT's FTS system, or are sent to any address other than psmu-411@ncdot.gov they will be disqualified.**

**The Department reserves the right to reject all LOIs and not proceed with procurement.**

**The Department reserves the right to waive any technicality in LOIs, or notify the Firm(s) of such technicality and allow the Firm(s) up to two (2) business days to rectify the technicality.**

## **SELECTION PROCESS**

Following is a general description of the selection process:

- The NCDOT Selection Committee will review all qualifying LOI submittals.
- For Limited Services Contracts (On-Call type contracts), the NCDOT Selection Committee MAY, at the Department's discretion, choose any number of firms to provide the services being solicited.
- For Project-Specific Contracts (non On-Call type contracts), the Selection Committee MAY, at the Department's discretion, shortlist a minimum of three (3) firms to be interviewed. IF APPLICABLE, dates of shortlisting and dates for interviews are shown in the section SUBMISSION SCHEDULE AND KEY DATES at the end of this RFLOI.
- In order to be considered for selection, consultants must submit a complete response to this RFLOI prior to the specified deadlines. Failure to submit all information in a timely manner will result in disqualification.

## **SMALL PROFESSIONAL SERVICE FIRM (SPSF) PARTICIPATION**

The Department encourages the use of Small Professional Services Firms (SPSF). Small businesses determined to be eligible for participation in the SPSF program are those meeting size standards defined by Small Business Administration (SBA) regulations, 13 CFR Part 121 in Sector 54 under the North American Industrial Classification System (NAICS). The SPSF program is a

race, ethnicity, and gender neutral program designed to increase the availability of contracting opportunities for small businesses on federal, state or locally funded contracts. SPSF participation is not contingent upon the funding source.

The Firm, at the time the Letter of Interest is submitted, shall submit a listing of all known SPSF firms that will participate in the performance of the identified work. The participation shall be submitted on the Department's Subconsultant Form RS-2. RS-2 forms may be accessed on the Department's website at [NCDOT Connect Guidelines & Forms](#).

The SPSF must be qualified with the Department to perform the work for which they are listed.

Real-time information about firms doing business with the Department and firms that are SPSF certified through the Contractual Services Unit is available in the Directory of Transportation Firms. The Directory can be accessed on the Department's website at [Directory of Firms](#) -- Complete listing of certified and prequalified firms.

The listing of an individual firm in the Department's directory shall not be construed as an endorsement of the firm.

## **PREQUALIFICATION**

The Department maintains on file the qualifications and key personnel for each approved discipline, as well as any required samples of work. Each year on the anniversary date of the company, the firm shall renew their prequalified disciplines. If your firm has not renewed its application as required by your anniversary date or if your firm is not currently prequalified, please submit an application to the Department **prior to submittal of your LOI**. An application may be accessed on the Department's website at [Prequalifying Private Consulting Firms](#) -- Learn how to become Prequalified as a Private Consulting Firm with NCDOT. Having this data on file with the Department eliminates the need to resubmit this data with each letter of interest.

Even though specific DBE/MBE/WBE goals are not required for this project, the Department of Transportation is committed to providing opportunity for small and disadvantaged businesses to perform on its contracts through established Department goals. The Firm, subconsultant and subfirm shall not discriminate on the basis of race, religion, color, national origin, age, disability or sex in the performance of this contract.

## **SELECTION CRITERIA**

**All prequalified firms who submit responsive letters of interest will be considered.**

In selecting a firm/team, the selection committee will take into consideration qualification information including such factors as:

1. **25%** = Firm's experience, knowledge, familiarity, and past performance with highway construction and CEI services.

2. **40%** = The experience of the firm's proposed staff to perform the type of work required.
3. **25%** = Firm's understanding of the project specific issues and their responsibility in delivering CEI services for the advertised project .
4. **10%** = Outstanding workload (CEI only) with NCDOT.
5. **N/A%** = N/A.

After reviewing qualifications, if firms are equal on the evaluation review, then those qualified firms with proposed SPSF participation will be given priority consideration.

## **SUBMISSION ORGANIZATION AND INFORMATION REQUIREMENTS**

The LOI should be addressed to **Mr. Robert J. Stroup, PE -- State Professional Services Engineer** and must include the name, address, telephone number, and e-mail address of the prime consultant's contact person for this RFLOI.

The LOI must also include the information outlined below:

### Chapter 1 - Introduction

The Introduction should demonstrate the consultant's overall qualifications to fulfill the requirements of the scope of work and should contain the following elements of information:

- Expression of firm's interest in the work;
- Statement of whether firm is on register;
- Date of most recent private engineering firm qualification;
- Statement regarding firm's(') possible conflict of interest for the work; and
- Summation of information contained in the letter of interest.

### Chapter 2 - Team Qualifications

This chapter should elaborate on the general information presented in the introduction, to establish the credentials and experience of the consultant to undertake this type of effort. The following must be included:

1. Identify recent, similar projects the firm, acting as the prime contractor, has conducted which demonstrates its ability to conduct and manage the project. Provide a synopsis of each project and include the date completed, and contact person.
2. If subconsultants are involved, provide corresponding information describing their qualifications as requested in bullet number 1 above.

### Chapter 3 - Team Experience

This chapter must provide the names, classifications, and location of the firm's North Carolina employees and resources to be assigned to the advertised work; and the

professional credentials and experience of the persons assigned to the project, along with any unique qualifications of key personnel. Although standard personnel resumes may be included, identify pertinent team experience to be applied to this project. Specifically, the Department is interested in the experience, expertise, and total quality of the consultant's proposed team. If principals of the firm will not be actively involved in the study/contract/project, do not list them. The submittal shall clearly indicate the Consultant's Project Manager, other key Team Members and his/her qualifications for the proposed work. Also, include the team's organization chart for the Project / Plan. A Capacity Chart / Graph (available work force) should also be included. Any other pertinent information should also be listed in this section.

**Note:** If a project team or subconsultant encounters personnel changes, or any other changes of significance dealing with the company, NCDOT should be notified immediately.

#### Chapter 4 - Technical Approach

The consultant shall provide information on its understanding of, and approach to accomplish, this project, including their envisioned scope for the work and any innovative ideas/approaches, and a schedule to achieve the dates outlined in this RFLOI (if any project-specific dates are outlined below).

Proposed availability for CEI personnel - November 2019

Proposed completion for CEI personnel - August 2023

#### APPENDICES-

##### CONSULTANT CERTIFICATION Form RS-2

Completed Form RS-2 forms SHALL be submitted with the firm's letter of interest. This section is limited to the number of pages required to provide the requested information.

Submit Form RS-2 forms for the following:

- **Prime Consultant firm**
  - Prime Consultant Form RS-2 Rev 1/14/08; and
- **ANY/ALL Subconsultant firms** (*If Subconsultants are allowed under this RFLOI*) to be, or anticipated to be, utilized by your firm.
  - Subconsultant Form RS-2 Rev 1/15/08.
  - In the event the firm has no subconsultant, it is required that this be indicated on the Subconsultant Form RS-2

by entering the word “None” or the number “ZERO” and signing the form.

**Complete and sign each Form RS-2 (instructions are listed on the form).**

The required forms are available on the Department’s website at:  
<https://connect.ncdot.gov/business/consultants/Pages/Guidelines-Forms.aspx>

[Prime Consultant Form RS-2](#)

[Subconsultant Form RS-2](#)

All submissions, correspondence, and questions concerning this RFLOI should be directed to **Mr. Tom Payne, PE** at [tpayne@ncdot.gov](mailto:tpayne@ncdot.gov). However, the LOI itself must be submitted to ‘[psmu-411@ncdot.gov](mailto:psmu-411@ncdot.gov)’ via NCDOT’s FTS System.



**NOTE: To adhere to the Timeframe, a Notice to Proceed is expected to be issued shortly after (a) firm(s)/team(s) is/are selected. All firm(s)/team(s) submitting a LETTER OF INTEREST should make sure that their rates and overheads are current and have been audited by NCDOT.**

## **SUBMISSION SCHEDULE AND KEY DATES**

RFLOI Release – **MAY 01, 2019**

Deadline for Questions -

Issue Final Addendum -

Deadline for LOI Submission – **JUNE 04, 2019**

Shortlist Announced \* - **TBD -- if the Department elects this option.**

Interviews - the week of **TBD -- if the Department elects this option.**

Firm Selection and Notification \*\* - **TBD.**

Anticipated Notice to Proceed – **TBD.**

\* Notification will **ONLY** be sent to shortlisted firms.

\*\* Notification will **ONLY** be sent to selected firms.



# Documentation for Invoice Direct Cost Items with Salvage Value

To: Project Manager

From: Contract Administrator

Subject: Salvage Value for \_\_\_\_\_ on P.O. 63000XXXXX

As Contract Administrator, I, John Engineer, Resident Engineer, will be responsible to ensure that a salvage value for \_\_\_\_\_ is deducted from the final invoice for Purchase Order 63000XXXXX.

This is to notify you the final invoice for the referenced purchase order will not be paid until Private Engineering Company provides the Department a salvage value for the above referenced item.

# Purchase Order Closure Letter Example



## STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

ROY COOPER  
GOVERNOR

J. ERIC BOYETTE  
SECRETARY

September 15, 2020

Projects: R-2517 (C205561), R-2604 (C205562), and R-5209 (C205564)  
Division: 13  
Description: Statewide Task Order #4  
Contract Number: 6300023456  
Vendor No.: 12345  
Firm: Professional Engineers, Inc.

### Memorandum

To: Ms. L. W. Raynor  
CURT Manager

From: Mr. I. M. Engineer, P. E.  
Division Engineer

### Subject: Purchase Order Invoice # 4 – Final Invoice

Attached for your review and further handling please find Professional Engineers Invoice No. 4 in the amount \$18,356.46 for the period March 31 – April 24, 2020. Please see the Invoice Form – Cost Plus for the list of WBS Element charges for this invoice. This invoice has been checked by this office and should be placed in line for payment.

This is to request the closure of the purchase order upon payment of the final invoice.

For additional information regarding this matter, contact Mr. John Smith, the Contract Administrator.

IME/

MAILING ADDRESS:  
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CONSTRUCTION UNIT  
1543 MAIL SERVICE CENTER  
RALEIGH, NC 27699-1543

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Fax: (919) 733-8441  
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1 SOUTH WILMINGTON STREET  
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