

CONSTRUCTION ENGINEERING AND INSPECTION TRAINING

March 14, 2013

Agenda

- CEI Process
- Contract Administration
- SAP Functions

CEI Process

- Request for CEI
- Division Workload
- Types of Agreements
- Selection Process
- Contract Development

CEI Process

The Request for CEI

- Division submits request to Chief Engineer
- Construction Unit will review Division workload and make recommendation to Chief Engineer
- Chief Engineer notifies:
 - Division
 - Professional Services Management Unit (PSMU)
 - Construction Unit

CEI Process

Division Workload

- **Projects**
 - Current
 - Future Projects (five year work program)
 - Purchase Order/Division Let Projects
 - Resurfacing
- **Staffing**
 - Field Technicians
 - Survey Technicians
 - QA lab
 - Office Technicians

DIVISION	ALL
Typical # of personnel / Survey parties=	3

		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	18	18	20	30	36+
	PROPOSED # OF INSPECTORS	1	1	1	1	2	2	3
	PROPOSED # OF SURVEY PARTIES	0.50	0.50	0.50	0.50	0.50	0.50	0.50
INTERSTATE (I)	\$ AMOUNT (MILLIONS)	<1	1-2	2-5	5-10	10-25	25-50	>50
	MONTHS	6	9	12	18	24	36	36
	PROPOSED # OF INSPECTORS	2	2	3	4	6	8	10
	PROPOSED # OF SURVEY PARTIES	0.50	0.50	1.00	1.00	1.00	1.00	1.00
RURAL (R)	\$ AMOUNT (MILLIONS)	<1	1-2	2-5	5-10	10-25	25-50	>50
	MONTHS	6	9	15	24	36	40	40
	PROPOSED # OF INSPECTORS	1	2	3	4	5	6	8
	PROPOSED # OF SURVEY PARTIES	0.50	0.50	0.50	1.00	1.00	1.00	1.00
URBAN (U)	\$ AMOUNT (MILLIONS)	<1	1-2	2-5	5-10	10-25	25-50	>50
	MONTHS	6	10	18	24	30	36	36
	PROPOSED # OF INSPECTORS	2	2	3	4	5	6	8
	PROPOSED # OF SURVEY PARTIES	0.50	0.50	1.00	1.00	1.00	1.00	1.00
REST AREA (K)	\$ AMOUNT (MILLIONS)	ALL						
	MONTHS	9						
	PROPOSED # OF INSPECTORS	1						
	PROPOSED # OF SURVEY PARTIES	0.50						
SAFETY (W)	\$ AMOUNT (MILLIONS)	ALL						
	MONTHS	6						
	PROPOSED # OF INSPECTORS	1						
	PROPOSED # OF SURVEY PARTIES	0.50						

Division Workload

4							
5			PROJECT A	PROJECT B	PROJECT C	PROJECT D	PROJECT E
6	BRIDGE(B)	\$ AMOUNT (MILLIONS)	<0.5	0.5-1	1-1.5	1.5-2	2-5
7		MONTHS	9	12	16	18	20
8		PROPOSED # OF INSPECTORS	1	1	1	1	2
9		PROPOSED # OF SURVEY PARTIES	0.50	0.50	0.50	0.50	0.50
10							

Division Workload

TIP No.	Contract Bid Amount	Availlibility Date	Completion Date	Max. Staffing
B-2500	\$215,777,000.00	8/29/2011	8/29/2011	20
0	\$57,137,126.15	6/27/2011	6/27/2011	10
0	\$32,818,830.00	4/25/2011	4/25/2011	10
R-2507A	\$54,500,000.00	8/29/2011	8/29/2011	8
BD-5101F	\$3,880,920.99	2/28/2011	2/28/2011	2
BD-5101E	\$4,667,000.00	5/31/2011	5/31/2011	2
BD-5101H	\$4,871,995.00	1/30/2012	1/30/2012	2
R-5517	\$13,378,477.27	2/27/2012	2/27/2012	5
B-4599	\$10,191,663.83	7/30/2012	7/30/2012	3
B-4463	\$1,099,372.47	2/27/2012	2/27/2012	1
B-4551	\$1,760,889.23	2/27/2012	2/27/2012	1
0	\$1,942,949.56	2/27/2012	2/27/2012	2
R-2414B	\$23,378,567.09	4/30/2012	4/30/2012	6
B-4494	\$883,360.00	6/1/2012	6/1/2012	1
B-4647	\$3,141,460.47	6/1/2012	6/1/2012	2
R-5519, W-5016	\$3,036,219.71	7/30/2012	7/30/2012	3
B-5014C	\$1,839,513.00	8/27/2012	8/27/2012	1
B-4452	\$1,028,266.98	6/10/2011	6/10/2011	
0	\$58,695.00	5/2/2011	5/2/2011	2
ER-2973A	\$61,325.00	5/16/2011	5/16/2011	1
BD-5101D	\$670,981.65	6/4/2012	6/4/2012	1
BD-5101C	\$817,558.35	6/4/2012	6/4/2012	1
	\$537,278.88	1/9/2012		0
ER-2973A	\$31,653.50	3/5/2012	3/5/2012	1
R-5150	\$462,137.00	8/20/2012	8/20/2012	1
0	\$0.00	1/0/1900	1/0/1900	
0	\$0.00	1/0/1900	1/0/1900	
Resurfacing				15
Survey				12
QA				3
Office				4
Div PO's				0

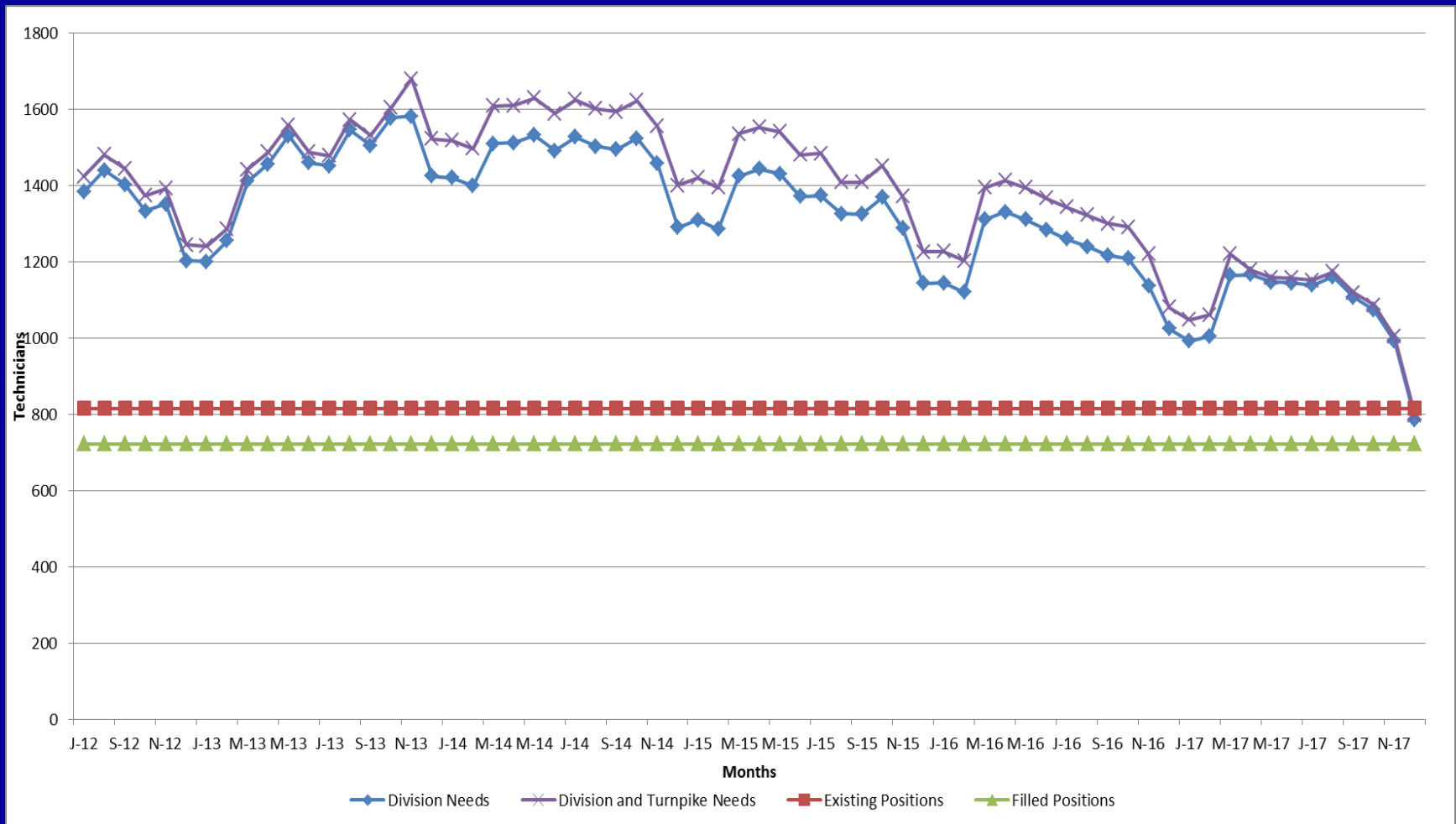
Division Workload

TIP No.	Contract Bid Amount	Avail. Date	Compl. Date	Max. Staffing	2012						2013											
					J-12	A-12	S-12	O-12	N-12	D-12	J-13	F-13	M-13	A-13	M-13	J-13	J-13	A-13	S-13	O-13	N-13	D-13
B-2500	\$215,777,000.00	8/29/2011	8/29/2011	0	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	
R-2507A	\$54,500,000.00	8/29/2011	8/29/2011	0	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
BD-5101F	\$3,880,920.99	2/28/2011	2/28/2011	0	2	2	2	2	2	2	2	2	2	2								

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Division Workload

Statewide Workload 5 Year Work Plan



Types of CEI Agreements

- On-Call Agreements
 - Short term work (3-12 months)
 - Specific short duration project or multiple projects
- Project Specific Agreements
 - 2 – 4 year duration
 - Project or group of 2 or 3 projects

Selection Process

On-Call CEI

- Limited Services Contracts
 - 12 firms (Current Agreements)
 - 2 year contracts (1 year extension optional)
 - Maximum dollar amount

Selection Process

On-Call CEI

- Task Orders
 - Division contacts PSMU
 - Numbers & Levels of Technicians
 - Duration
 - PSMU Contacts Private Engineering Firm (PEF)
 - Rotation List
 - Ability to provide technicians to meet the Division needs

Selection Process

Project Specific CEI

- Advertisement
 - Project(s)
 - Technicians
 - Type
 - Level
 - Number

Selection Process

Project Specific CEI

- Selection Process
 - Selection Committee
 - Statements of Interest
 - Shortlist Meeting
 - Interviews (optional)

Contract Development

- Staffing
 - Estimated Schedule
 - Night Work

I-3049B

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Contract Development

- Direct Costs
 - Field Office
 - Communication
 - Laptops/Tablets
 - Vehicles
 - Testing/Inspection Equipment

Contract Development Vehicle Equipment

Each project vehicle shall come equipped with the following:

- Truck tool box or camper shell
- Amber caution lights
- Fire extinguisher
- First aid kit
- Water cooler

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

Contract Development

Basic Personal Inspection Equipment

Each Technician shall come equipped with the following:

Calculator	Hard Hat
Chase Air Indicator	Four-foot Level
Clipboard	Plumb Bob with Sheath
Engineer's Scale	Flat Shovel
Flashlight	100 Foot Tape with Case
Folding Ruler	Asphalt Thermometer
Safety Goggles	Concrete Thermometer
Safety Vest	Miscellaneous Office Supplies
Safety Shoes	

These items are considered incidental to the contract.

Contract Development Project Inspection/Testing Equipment

Typical Project Items Include:

- Concrete Air Pots
- Density Testing Equipment
- Nuclear Gauges

Contract Development Items Provided by NCDOT

- Construction Manuals
- Specifications
- Standard Drawings
- Plans
- Contract Provisions

Agreement Approval and Execution

- Contract Execution
 - Cost Estimate generated
 - PSMU prepares Agreement
 - Agreement reviewed by External Audit
- Board of Transportation

Questions

Contract Administration

- Staffing
- Direct Costs
- Project Management Visits
- Invoices
- Evaluations
- Monitoring Expenditures

Contract Administration

Staffing- Training and Certifications

- Training Classes
- Technician Certifications
 - Reciprocity
 - Materials and Tests website for scheduled training

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

Contract Administration Technician Trainee Program

- Revised Program information can be located on the Construction Unit website

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

Contract Administration

- Direct Costs
 - Office Space
 - Vehicles
 - Communication
 - Inspection/Testing Equipment

Contract Administration

Direct Costs - Vehicles

- Estimated Project Miles
- Yearly Gas Price Review

Contract Administration Project Management Visits

- Prime Consultant – Quarterly visits
- Sub consultant – Semi-annual visits
- Meet with the Resident Engineer
- Reimbursements

Contract Administration


Invoices

- Invoice Frequency
- Invoice Review
- Monitor Expenditures
- Supplemental Agreements

Invoice Review

- Total Invoice Amount – breakdown by WBS Element
- Summary of Labor Cost
 - Technicians and Project Managers
 - Overtime and Shift Differential
 - Overhead, Fees and FCC
- Summary of Direct Expenses
- Back-up documentation
 - Timesheets
 - Receipts
 - Bills/invoices

Contract Administration Evaluations


JUN 22 2010
Received
SEP 22 2010
State Highway
Administrator's Office
EUGENE A. CONTI, JR.
SECRETARY

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION


BEVERLY EAVES PERDUE
GOVERNOR

MEMO TO: Susan Coward; Anthony Roper, PE; Terry Gibson, PE; Westmoreland, PE; and David Joyner

FROM: J. Victor Barbour, PE *J. Victor Barbour*
Technical Services Administrator

DATE: September 14, 2010

SUBJECT: Evaluation of Consultant Performance



The North Carolina Department of Transportation (NCDOT) and the American Counsel of Engineering Companies (ACEC) have worked jointly over the past year reviewing NCDOT's process of evaluating performance of private consulting firms. The committee found inconsistencies in the scoring system used by the Department, inconsistencies in performing evaluations, and lack of feedback to the firm and back to the department. The purpose of the evaluation is for the consultant to understand any areas which need improvement. The evaluation of performance is one element in the process of future selections. The firms desire to have feedback, positive and/or negative, so they can improve their performance, better serve the Department, and have more opportunities in the future.

Each Division/Branch/Unit is required to evaluate the performance of firms under contract. The scoring will consist of a ten point scale as follows:

1. Unacceptable
2. Very poor
3. Poor
4. Needs improvement
5. Marginal
6. Acceptable
7. Expected
8. Very good
9. Outstanding
10. Perfect

MAILING ADDRESS:
NC DEPARTMENT OF TRANSPORTATION
TECHNICAL SERVICES DIVISION
1516 MAIL SERVICE CENTER
RALEIGH NC 27699-1516

TELEPHONE: 919-715-5663
FAX: 919-715-5361
WEBSITE: WWW.NCDOT.ORG

LOCATION:
TRANSPORTATION BUILDING
FIRST FLOOR, ROOM 102
1 SOUTH WILMINGTON STREET
RALEIGH NC

Written feedback is also required. For ratings of "5" or less a detailed explanation is needed outlining the performance issue and necessary corrective measures.

Evaluation criteria can vary depending on the needs of the Division/Branch/Unit. Recommended examples of evaluation criteria are:

- Ability to meet schedule
- Amount of assistance and coordination required
- Responsiveness
- Expertise Exhibited
- Accuracy of work product or deliverable

Evaluations will be done consistently, timely, and will be associated with specific milestones, deliverables, or timeframes. Evaluations must be signed by the NCDOT Project Manager and then sent to the firm's Project Manager. The firm should sign and return the evaluation. The firm will have an opportunity to discuss grades and can respond in writing to their evaluation.

All NCDOT Divisions/Branches/Units who do not currently have a mechanism to evaluate consultant performance should have this process in place by November 1, 2010. The Professional Services Management Unit is available to assist those groups in establishing their evaluation format.

The other NCDOT Divisions/Branches/Units currently performing evaluations are required to update their grading system to include all the recommendations shown above.

Copies of all evaluations should be forwarded to Scott Blevins, PE, in the Professional Services Management Unit (1592 MSC). This information will be stored in a database and provided to future selection committees.

If you have any questions or need assistance in initiating a performance evaluation system, please contact Scott Blevins, PE at 919-250-3004 or by email at sblevins@ncdot.gov.

SDB/

cc: Secretary Gene Conti
Jim Trogden, PE
Ellis Powell, PE
Kathyn Sawyer Westcott, Executive Director -ACEC of NC
Division Engineers
Branch Managers
Unit Heads
Scott Blevins, PE

Contract Administration Evaluations

- Provides feedback to firm regarding performance
- It's important to provide feedback during the contract to correct any performance concerns.
- Used in future selections

PEF Evaluation Form for CEI

N. C. DEPARTMENT OF TRANSPORTATION Evaluation of Private Engineering Firm for Construction, Engineering, and Inspection

PEF Contract: _____ Firm Name: _____
Task Order #: _____ WBS #: _____ Division: _____ County: _____
Construction Contract: _____ TIP #: _____ Contractor: _____
Rating Period: From: _____ To: _____

Rate 1 through 10 (1 - Unacceptable, 2 - Very poor, 3 - Poor, 4 - Needs improvement, 5 - Marginal, 6 - Acceptable, 7 - Expected, 8 - Very good, 9 - Outstanding, 10 - Perfect) and explain.

1. Provides adequate inspection (oversight of work/sampling and testing) to assure conformity with plans, specifications, and contract provisions. _____
2. Provides technical and administrative personnel in appropriate numbers and at proper times. Inspection staff possesses the necessary certifications to perform the work. Certifications are kept current. _____
3. Personnel are familiar with and adhere to standard practices and procedures of the Department. _____
4. Maintains close coordination with the Department and the Contractor. _____
5. 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. _____
6. Remains current with Department construction and materials resource manuals (i.e. Construction Manual, Minimum Sampling Guide, QMS Manual, etc.). _____
7. Provides Contractors with timely interpretations of plans, specifications, and contract provisions. _____

Average Rating: _____

Other comments: _____

Rated By	Title	Date
_____ Firm Representative	_____ Title	_____ Date

cc: Professional Services Management Unit Manager
State Construction Engineer

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, an initial evaluation should be performed at 90 days into the contract/task order, then once every six months thereafter. A final evaluation should be performed at 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 from six months to 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 at 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 at the end of the contract/task order, incorporating the preparation of the final estimate, if included in the firm's assigned tasks.

When completing the form, if additional space than that provided on the form is needed to provide comments and examples, attach additional pages to the form. If areas of improvement are noted, provide specific examples and information to convey noted concerns and where improvements are needed.

Upon completion of the evaluation form, the form should be signed by the Firm's Project Manager and by 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.

For firms receiving an evaluation rating of "5 - Marginal" or less on any criteria, 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.

SAP Functions

- Setting Up the Agreement
- Adding line items
- Moving funds
- Closing Agreement/Final Invoice

SAP

Adding Line Items

- Line Items can be added only to On-Call Task Orders.

Questions