NORTH CAROLINA
Department of Transportation

2018 TMSD LSC

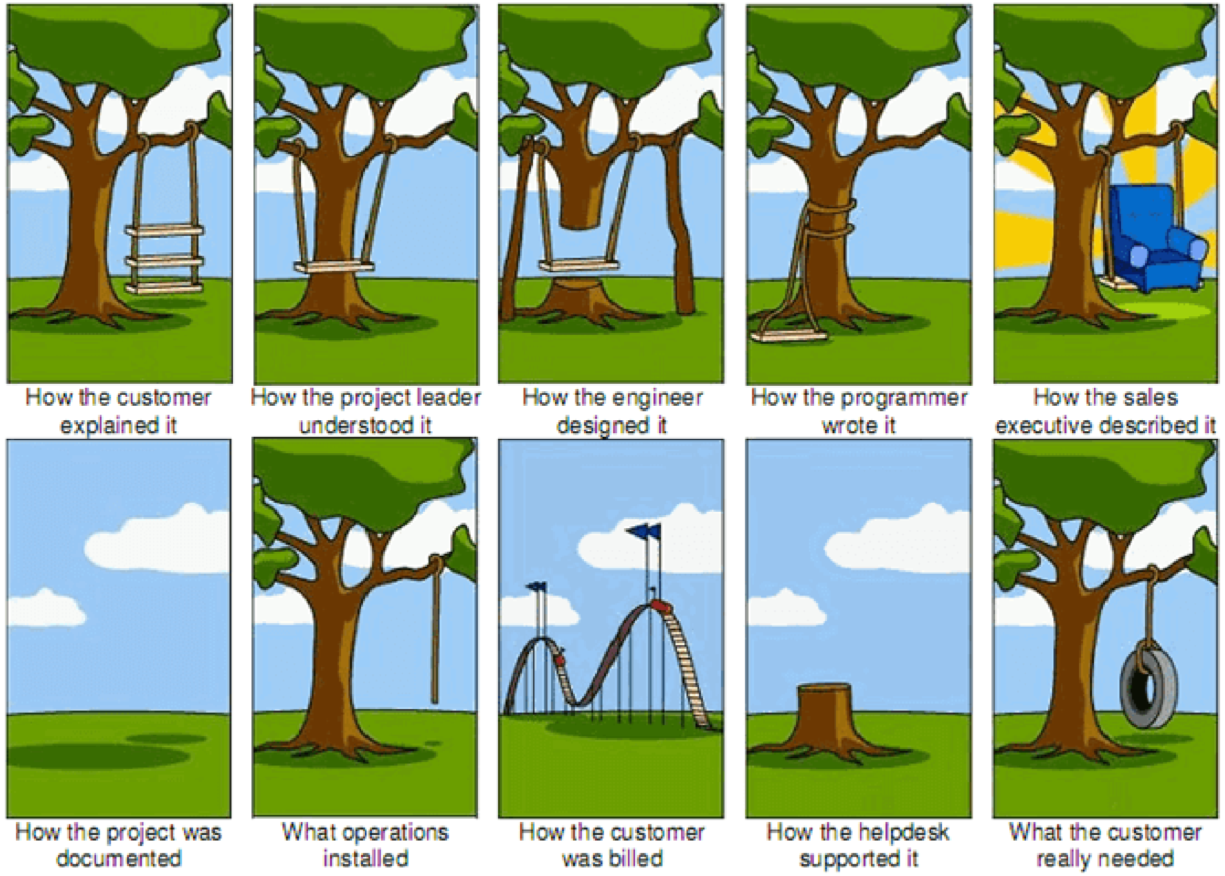
Task Order Training for Engineering Firms

Dom Ciaramitaro, P.E., Staff Engineer

August 28, 2018

Outline

- Roles of the Project Manager and NTP Issuer
- What's new from PMSU
- Highlights of 2018 LSC
- Project Management Paradigm
- Scoping for PMs
- NTP for new POs
- Supplements
- Invoices
- Assess and Evaluate
- Comments



NC DOT Project Manager

- Accountable for the success or failure of a project
  - Face of NC DOT to a Private Engineer Firm
  - Manages money, scoping, negotiations, project progress, invoicing, closing out the project, assessing and evaluating
- Requires empathy and rigidity
  - Has to understand what is being asked of the firm
  - Has to hold the firm to the same standard as the NC DOT and others
  - If facing an ethical dilemma, conflict of interest, or any gray area; don’t go it alone – ask for help
  - Always remember; manage the State’s money how you would manage your own money

NTP Issuer

- Responsible for issuing a Notice To Proceed
  - Instructs the firm to start work on a specified date; obligates the State
  - Indicates an independent review of the final negotiated cost proposal and makes a determination that it is consistent with a LSC's salaries and rates
- Requires fairness
  - Can not do own NTP (Issue NTP and negotiate contract)
  - Rigid process and step driven; subject to Federal audits
  - Most critical "checker" throughout the whole process
  - If facing an ethical dilemma, conflict of interest, or any gray area, contact Unit Head or Division Staff Engineer to address

NTP Issuers for TMSD

- **Division**: Dom Ciaramitaro
- **Traffic Safety:** Jeff Jaeger, Chris Oliver
- **Signing & Delineation:** Mitch Eaton, Dale Stokes, Jose Martinez
- **Traffic Management:** Joe Hummer
- **ITS / Signals:** Tim Williams
- **Traffic Operations:** Zach Clark

Updates from PMSU

- Memo from January 24, 2018
- Increasing Standard Fee over 9%
  - Takes into account the size, complexity, duration, degree of risk involved in the work and schedule
  - Approval by PMSU and STE
- Limited Notice to Proceed
  - Maximum value of $50,000
- Manday Estimates and Negotiations will no longer use NCDOT in-house rates
- PSMU NTP Process

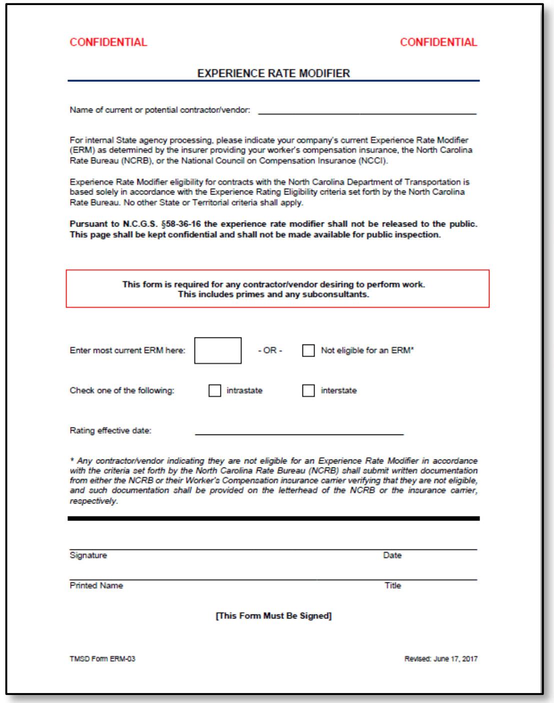
Highlights of 2018 LSC Updates

- **Notice to Proceed Dates for most**: June 29, 2018 (2 yr contract w/ option to extend for 1 yr)
- **Description of Work Required:** Traffic Management, ITS & Signals, Traffic Systems Operations, Traffic Safety, Signing & Delineation, Mobility and Safety (***Not by discipline code – must be prequalified, though***)
- **Subconsultants:**
  - **Permitted**
  - Must maintain same qualifications (ERM, COI, prequalifications) as Prime
  - Primes can't be subs
  - Can either be previously identified on LOI or during project proposal
  - NC DOT can approve or reject the **Prime's** or **Sub's** PM, project engineer, design engineer, technicians, and other technical or supervisory personnel assigned to project

Highlights of 2018 LSC Updates

Things to Check (all firms to be tracked on a single spreadsheet)

- **ERM:** Experience Rate Modifier (Collected by TMSD)
  - Numeric representation of a business' claims history and safety record as compared to other businesses in the same industry, within the same state
  - Determined by insurer for worker's compensation, NC Rate Bureau, or National Council on Compensation Insurance (NCCI)
    - > 1.0: Riskier than average
    - = 1.0: No more or no less risky than average
    - < 1.0: Safer than average
    - ***Contract requires ≤ 1.3 ERM, provided on an annual basis; confidential***
- **Insurances:** (Certificate of Insurance (COI) Collected by TMSD)
  - Worker's Compensation
  - Automobile Insurance
  - General (Prime and Subs) and Professional Liability (Prime Only)



CONFIDENTIAL CONFIDENTIAL

EXPERIENCE RATE MODIFIER

Name of current or potential contractor/vendor: ____________________

For internal State agency processing, please indicate your company's current Experience Rate Modifier (ERM) as determined by the insurer providing your worker's compensation insurance, the North Carolina Rate Bureau (NCRB), or the National Council on Compensation Insurance (NCCI).

Experience Rate Modifier eligibility for contracts with the North Carolina Department of Transportation is based solely in accordance with the Experience Rating Eligibility criteria set forth by the North Carolina Rate Bureau. No other State or Territorial criteria shall apply.

Pursuant to N.C.G.S. §58-36-16 the experience rate modifier shall not be released to the public. This page shall be kept confidential and shall not be made available for public inspection.

This form is required for any contractor/vendor desiring to perform work. This includes primes and any subconsultants.

Enter most current ERM here: ☐ - OR - ☐ Not eligible for an ERM*

Check one of the following: ☐ intrastate ☐ interstate

Rating effective date: ____________________

** Any contractor/vendor indicating they are not eligible for an Experience Rate Modifier in accordance with the criteria set forth by the North Carolina Rate Bureau (NCRB) shall submit written documentation from either the NCRB or their Worker's Compensation insurance carrier verifying that they are not eligible, and such documentation shall be provided on the letterhead of the NCRB or the insurance carrier, respectively.*

Signature Date

Printed Name Title

[This Form Must Be Signed]

TMSD Form ERM-03 Revised: June 17, 2017

Highlights of 2018 LSC Updates

- **Progress Reports:** covers accomplishments to date, % of tasks completed, current and updated project schedules, and identify outstanding issues or problems
  - With invoice, provide cumulative total of all payments to subs, regardless of a sub's current engagement on the tasks
- **Payments**
  - Either partial payment for lump sum or payment of actual costs incurred on cost-plus
  - Monthly basis upon submission of progress report
  - Prime pays subs for work performed w/i 7 x days after prime gets paid
- **Salary Rates:** Update after first year of LSC (o/a July 2019 for relook)
- **No guarantee of Need for Services**
  - LSC is not a funding source, it's "availability" – Unit still has to identify the funding

Highlights of 2018 LSC Updates

- **Supplemental Agreements**
  - When expenditures approach 75% of NTE amount, Prime notifies PM in writing
  - PM and Prime review work progress and determine probability of cost overruns
  - Review doesn’t interrupt work
  - Prime must notify PM when cumulative value of all Task Orders approach 90% (I.E. $900K of $1Mil)
- **Consultant Responsibilities**
  - If Prime is directed to do work outside of SOW, all work suspended until resolved
    - Prime notifies PM in writing of the description and justification for extra work
    - Does not continue work until issued a new NTP (a supplement)
  - If Prime receives incorrect instruction or direction on a SOW
    - Contact NC DOT PM with the details of the work beyond the negotiated SOW
    - Prime and DOT PM will mutually agree upon what direction to pursue before any additional work is undertaken for that specific assignment
    - If additional services are required, then DOT will prepare a new SOW (a supplement)

Highlights of 2018 LSC Updates

- **Changes, Delays, Extensions, Termination/Abandonment**
  - **Changes**: need supplements
  - **Delays**: must have mutual written consent
  - **Termination / Abandonment**: PM notifies Prime 30 days in advance, Prime immediately ceases work – but brings tasks to a reasonable stage of completion, and turn-over all work to PM, final fee paid to Prime should be proportional to % work completed
- **Subletting, Assignment, or Transfers**
  - No assignment, subletting or transfer of the interest of the Prime without the written consent of the NC DOT
  - Prime may, with prior notification, sublet property searches and related services without further approval of the DOT
- **Endorsement of Plans**
  - Prime will sign and professional seal all environnemental documents, reports, surveys, computations, maps, plans, specifications, estimates, and engineering data furnished by it

New 2018 LSC Updates

Firm	LSC #
Accelerate	7000019051
AECOM	7000019052
Atkins	7000019053
Davenport	7000019054
Dewberry	7000019055
DRMP	7000019056
Exult	7000019057
HDR	7000019058
HNTB	7000019059
Kimley-Horn	7000019060
Kittelson	7000019061
Mattern&Craig	7000019062

Firm	LSC #
Mekuria	7000019063
Mott MacDonald	7000019064
Parsons	7000019065
Patriot Transportation	7000019066
Ramey Kemp	7000019067
RKK	7000019068
RS&H	7000019069
Stantec	7000019070
Summit	7000019071
Three Oaks Engineering	7000019072
VHB	7000019073
WSP	7000019074

Data Collection Contract

As of: June 30, 2017

- For firms selected for a LSC and are prequalified for traffic data collection, they can do traffic data collection via their LSA contract # if:
  - LSC firm was currently prequalified for traffic data collection (discipline 309)
  - Cost of the data collection did not exceed the maximum amount for that type/location on the bid contract
  - Cost of the data collection for the LSC task order work was incidental to the overall cost of the work (i.e. 1%-2%)
  - Requires State Traffic Engineer approval each time this condition is considered ***prior*** to submitting any estimates

But wait, what about the 2016 LSC?

- 2016 LSC firms extended through February 2019
- Intent is to fully transition to new 2018 LSC
- **Existing POs on 2016 LSC:** Should only have supplements on the 2016 LSCs
- **New POs on 2016 LSC**: Unit Head to State Traffic Engineer approval

2016 Mobility and Safety Limited Services Contract Availability

Firm Name	LSC#	Contract Amount
Accelerate	7000016599	$ 1,000,000.00
AECOM	7000016700	$ 5,500,000.00
Atkins	7000016701	$ 3,000,000.00
CDM Smith	7000016702	$ 1,000,000.00
Davenport	7000016703	$ 500,000.00
HDR Engineering	7000016704	$ 1,500,000.00
Hatch Mott	7000016705	$ 5,000,000.00
HNTB	7000016706	$ 7,500,000.00
ICA	7000016707	$ 2,000,000.00
Kimley Horn	7000016708	$ 3,500,000.00
Mattern & Craig	7000016709	$ 1,000,000.00
Mekuria	7000016710	$ 1,000,000.00
Parsons	7000016711	$ 1,000,000.00
Patriot	7000016712	$ 2,000,000.00
Progressive Design Group	7000016713	$ 1,500,000.00
RK&K	7000016714	$ 500,000.00
RS&H	7000016715	$ 3,500,000.00
Sepi	7000016716	$ 1,000,000.00
Stantec	7000016717	$ 6,500,000.00
STV	7000016718	$ 2,000,000.00
VHB	7000016719	$ 3,000,000.00
WSP	7000016720	$ 1,000,000.00
		$ 54,500,000.00

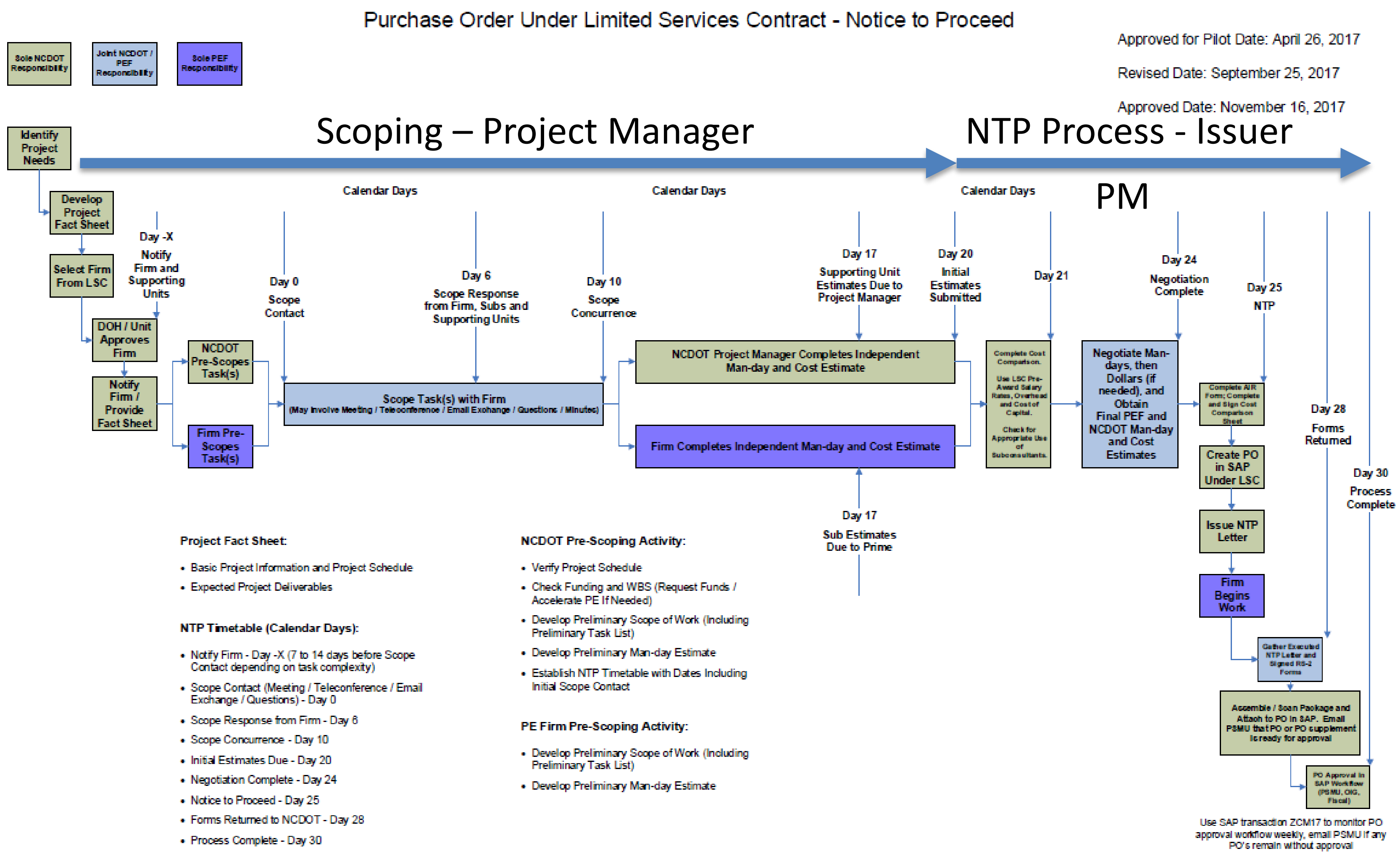
2016 Firms not on 2018 LSC

- CDM Smith
- ICA
- Progressive Design Group
- SEPI
- STV

2018 Firms not on 2016 LSC

- Dewberry
- DRMP
- Exult
- Kittelson
- Ramey Kemp
- Summit
- Three Oaks

The Project Management Paradigm



- Establishes roles
- Sets goals for a 30-day timeline
- Outlines required activities and deliverables
- Breaks down into:
  - Scoping
  - NTP Process

The Project Management Paradigm

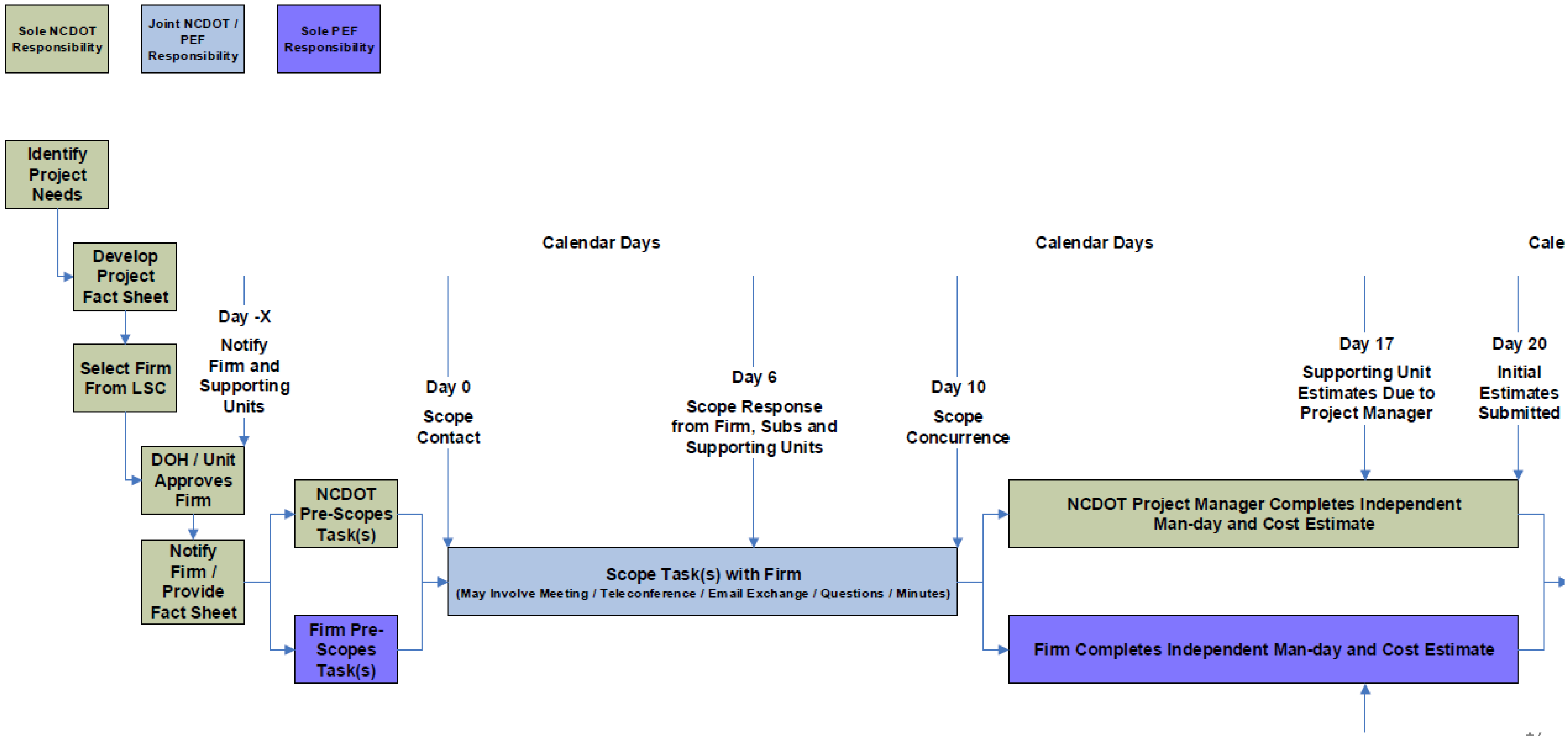
NTP Timetable (Calendar Days):

- Notify Firm - Day -X (7 to 14 days before Scope Contact depending on task complexity)
- Scope Contact (Meeting / Teleconference / Email Exchange / Questions) - Day 0
- Scope Response from Firm - Day 6
- Scope Concurrence - Day 10
- Initial Estimates Due - Day 20
- Negotiation Complete - Day 24 ← **Project Manager & NTP Issuer**
- Notice to Proceed - Day 25 **"Limited (optional per memo)"**
- Forms Returned to NCDOT - Day 28
- Process Complete - Day 30 **"Executed NTP"**

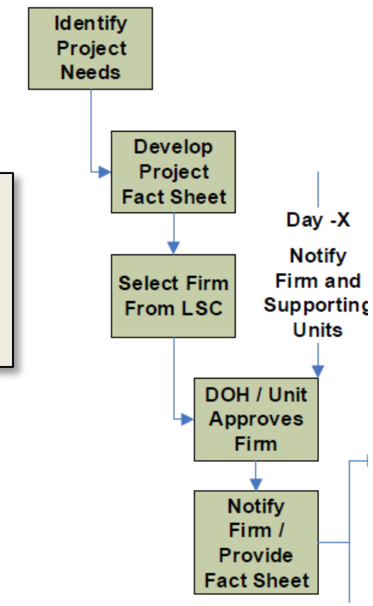
Project Manager

NTP Issuer

Scoping Process (1 of 5)

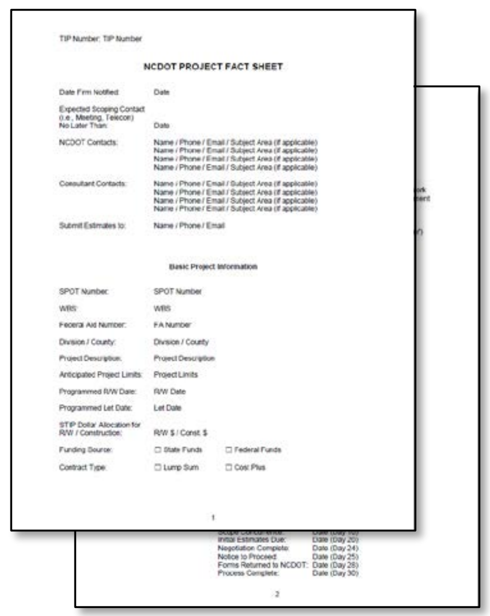


Scoping Process (2 of 5)



Links to current forms:
[Professional Services Management Guidelines and Forms]

- **Identify Project Needs**
- **Develop Project Fact Sheet**
  - Basic Project Information (SPOT #, WBS, project description, ***contract type***, etc)
  - Expected Project Task Description
  - Other Important Information (special considerations, milestones, NTP timetable and the **"Issuer"**, etc)
- **Select Firm**
  - Check availability and capacity with TMSD Business Officer
  - Check availability and capacity with potential firms
  - Try to use full breadth of 23 firms selected
  - Identify potential #2 and #3 firm
- **Unit Approves Firm** (via email or other written form)
- **Notify Firm / Provide Fact Sheet**


NCDOT PROJECT FACT SHEET

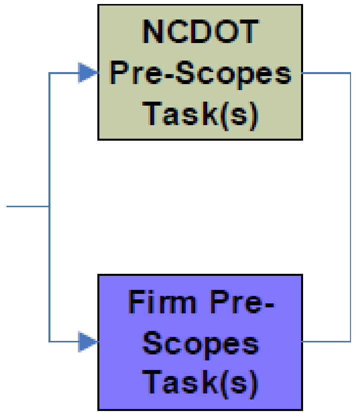
Basic Project Information

Contract / Payment Type
Lump Sum vs Cost-Plus

- **Lump Sum**
  - PEF is responsible for completing the project within the agreed-upon fixed cost
  - If the PEF completes project under total cost, PEF keeps the difference
  - Supplements only allowed for extra work (not poor scoping)
  - **Risk:** DOT – Lower, PEF - Higher
  - **Advantages**: easy to manage, payments based on % work completed
  - **Disadvantages:** dealing with cost overruns and lack of flexibility (poor estimates during scoping cause problems)

- **Cost Plus**
  - Cannot initially or sufficiently detail SOW
  - PEF reimbursed for actual cost of work (plus overhead and profit); typically has an agreed upon Not To Exceed amount (NTE)
  - **Risk:** DOT – Higher, PEF - Lower
  - **Advantages:** Ideal for fast-tracked projects or situations, allows most flexibility to increase amounts or change things as project proceeds
  - **Disadvantages**: Cost can rise quickly - unit must verify all costs;

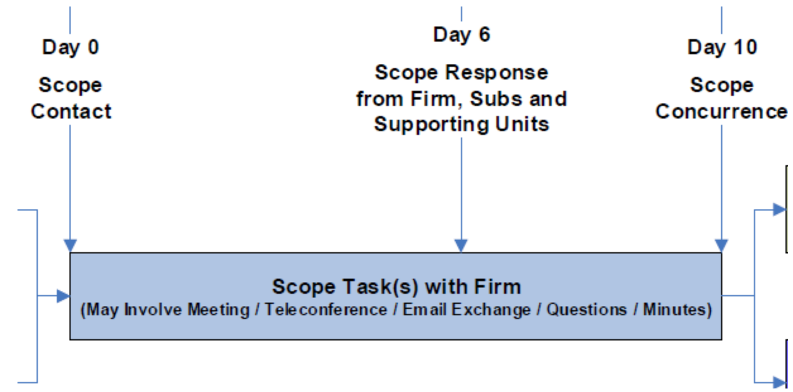
Scoping Process (3 of 5)



- **Pre-scoping**
  - Business unit needs to understand their own practices
    - Man day estimates to do tasks
    - Level of effort for each task
  - TMSD units have different methods of determining work effort
  - Scoping is about time and effort to complete and less about $ (must use the firm's rates)
  - NCDOT
    - Verify Project Schedule
    - Submit a projected estimate to reserve amount to Business Officer
    - Develop preliminary scope of work and tasks, and preliminary man-day estimate
    - Establish NTP timetable with milestones
    - If multiple units involved, determine lead for each unit and lead for overall project
  - Firm
    - Develop preliminary scope of work and tasks, and preliminary man-day estimate

Scoping Process (4 of 5)

- **Scope tasks with firm**
  - Should be about 6 days to scope, and 4 days to agree
  - Must agree / have shared understanding:
    - Required tasks
    - Need for sub consultants
    - NTP milestones
  - Can do via email, meetings, teleconferences, etc (involve all unit POCs and subs)
  - Normally, firm completes final scope of work documents
  - Typically covers (firm / unit specific)
    - Glossary
    - Project Overview (Problem Statement and Goals)
    - Tasks
    - Responsibilities of Firm / Subs and DOT
    - Deliverables
    - Schedule and Milestones

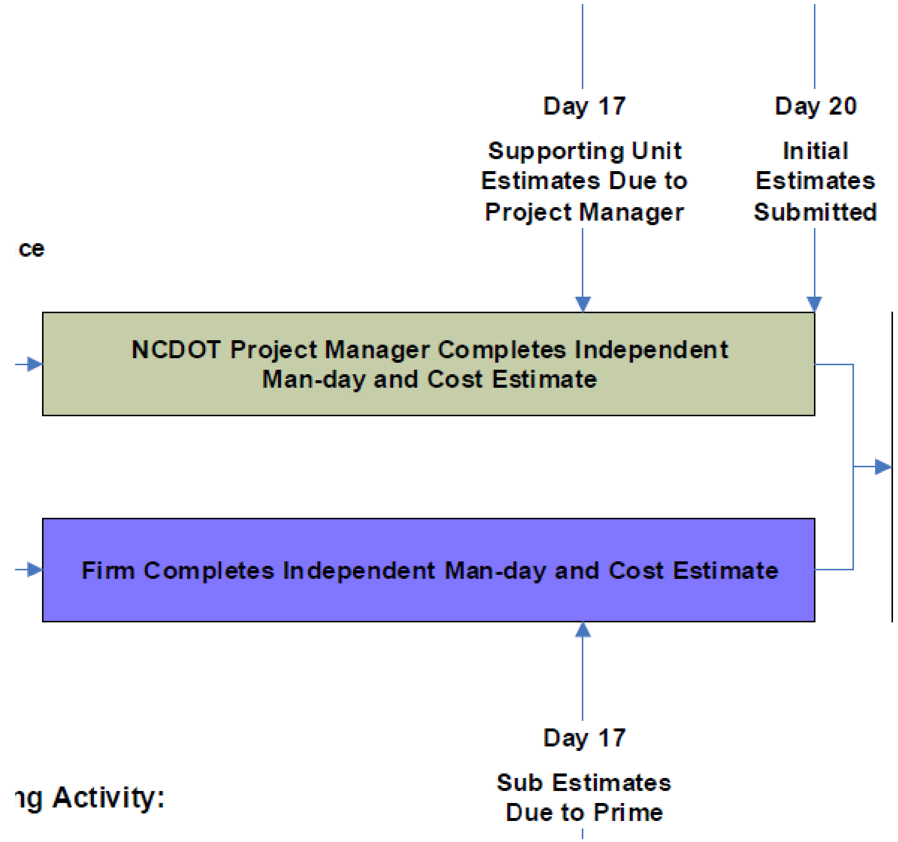


Less descriptive SOW
- Higher risk to not get what you want

Too descriptive SOW (a novel)
- Higher risk to not get what you want

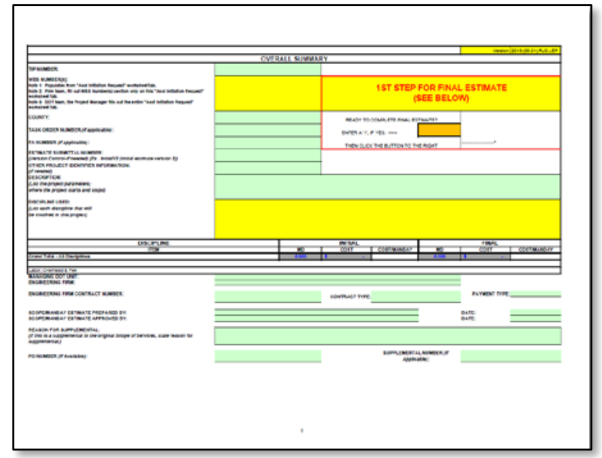
Scoping Process (5 of 5)

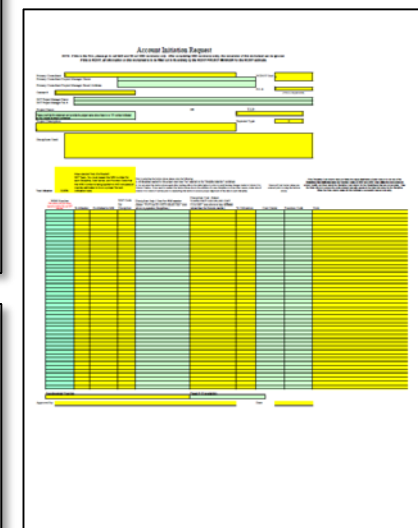
- **Complete Independent Estimates**
  - Firm (w/ subconsultants)
  - NCDOT PM (w/ supporting unit PMs)
  - Should take 7 days to complete initial manday and cost estimates
  - PM reviews supporting unit estimates and firm reviews subconsultant estimates (~ 3 days)
  - By day 20, initial estimates submitted to NTP issuer

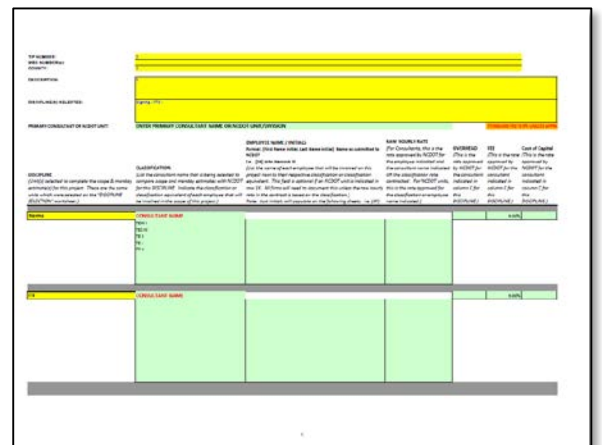


Scope and Manday Estimate Form (1 of 9)

- Located on PMSU Site or TEPPL
- NCDOT preferred method for estimating
  - Verified calculations
  - Merges all units into estimate
  - Auto-populates many fields
  - Primes, Subs, and PMs should use
- Provides
  - Overall Summary of Project
  - Ability to Select Disciplines
  - Account Initiation Request (AIR)
  - Individual tabs for discipline estimates
  - Consolidated costs comparison
  - Initial and final estimate tool for negotiations



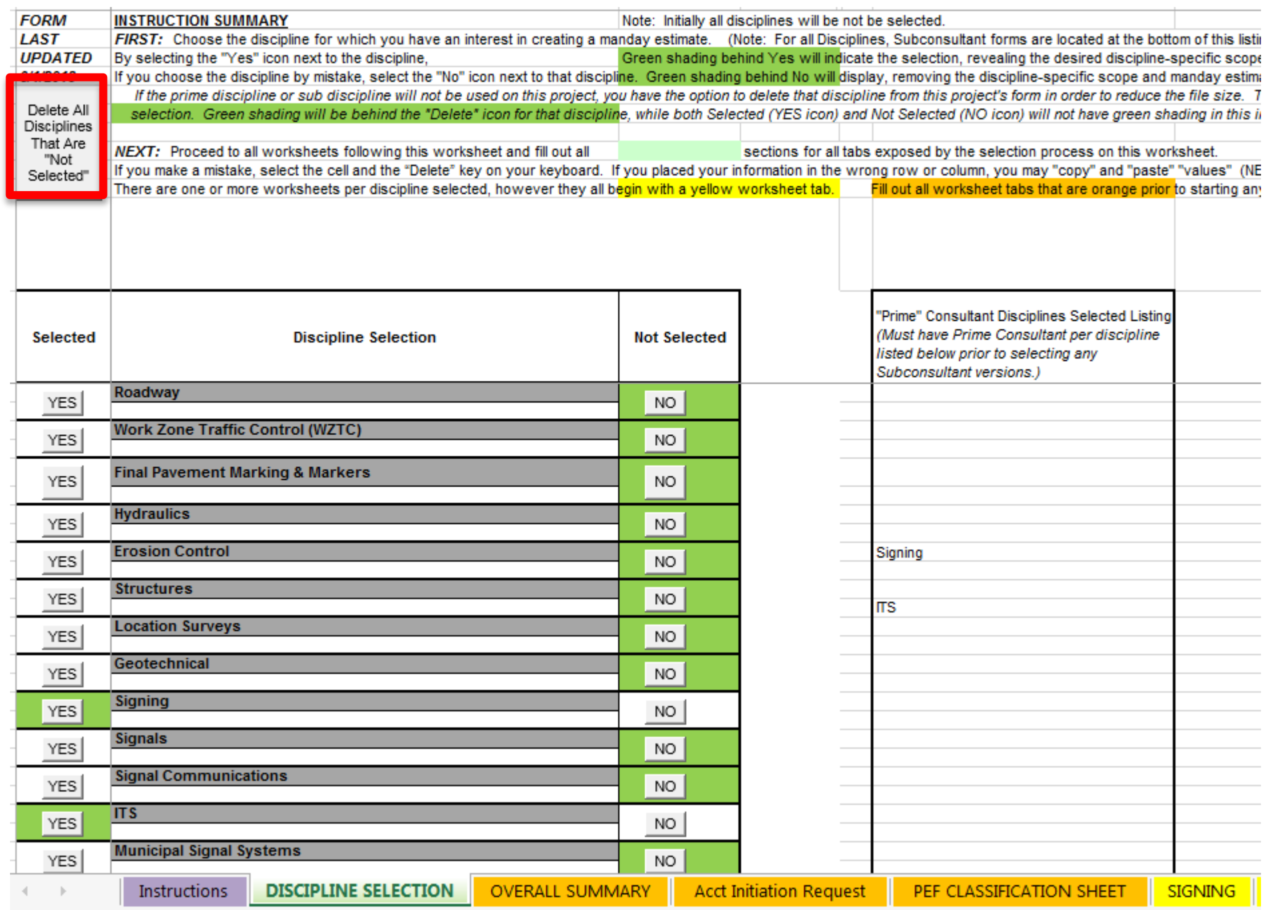




** Cannot be changed. **
** Can be changed **

Scope and Manday Estimate Form (2 of 9)

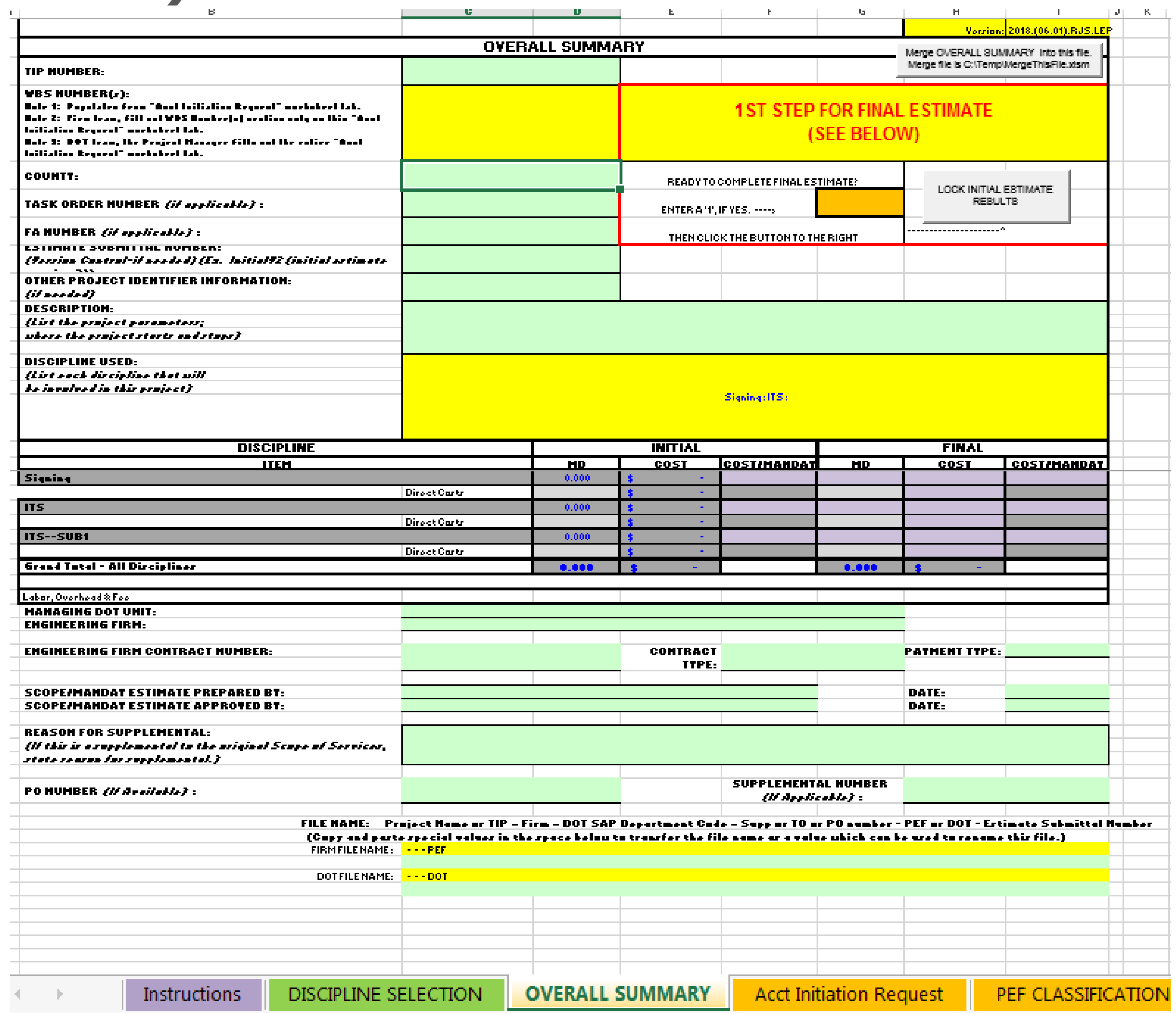
- **Step 1. Select Disciplines**
  - Go to Discipline Selection Worksheet
  - Click “Yes” to select a discipline
  - Click “No” to unselect a discipline
  - WZTC, Signing, Signals, ITS, Congestion Management, etc (Subs use SUB version)
  - Can delete all other disciplines if not being used



** **Note:** Complete all **Orange** Worksheets before completing **Yellow** Worksheets

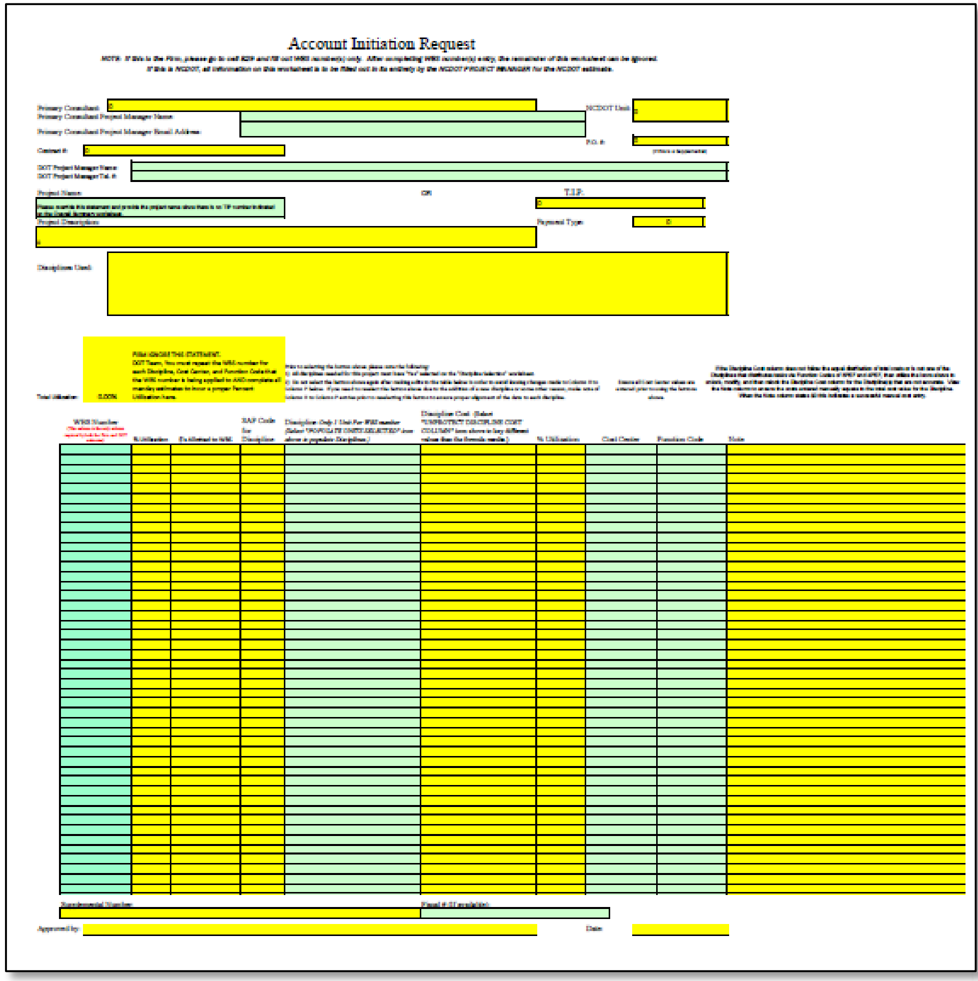
Scope and Manday Estimate Form (3 of 9)

- **Step 2. Complete Overall Summary**
  - Fill out all **Green** blocks (may have some pull-downs)
  - TIP #, County, Task Order #, Estimate Submittal #, Other ID, Description, **Managing DOT Unit,** Firm, Firm Contract #, ***Contract Type, Payment Type,*** Preparer / Approver, Reason for Supplemental, PO #, Sup #



Scope and Manday Estimate Form (4 of 9)

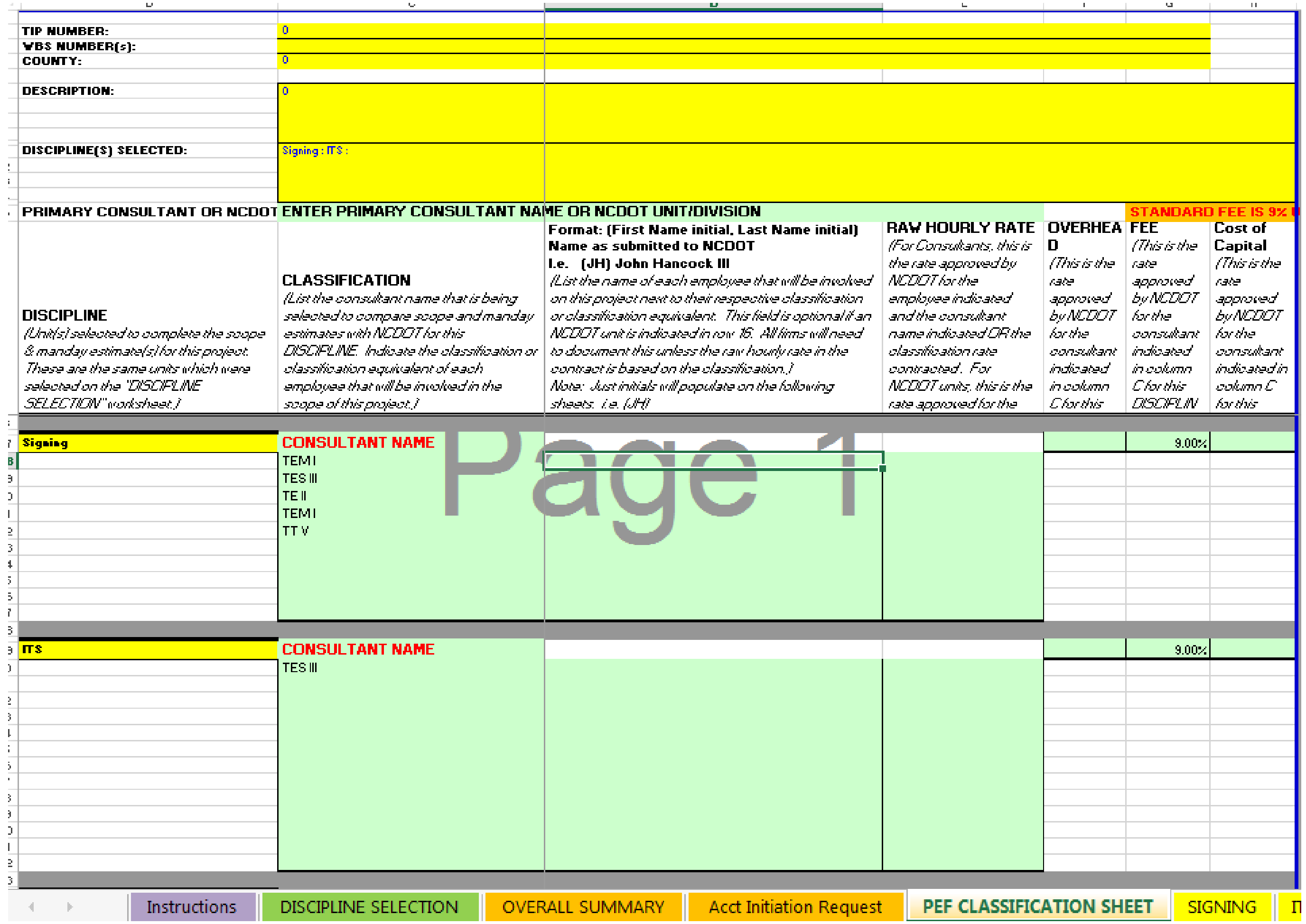
- **Step 3. Complete AIR**
  - Firm and PM have different responsibility
    - Firm fills out all Blue-**Green (WBS)** blocks (may have some pull-downs)
    - PM fills out all **Green** and Blue-**Green (WBS)** blocks
    - PM Clicks "Populate Units Selected"
    - You can Hide / Unhide unused rows



Scope and Manday Estimate Form (5 of 9)

- **Step 4. Complete PEF Classification Sheet**
  - Fill out all Green blocks
  - Per Discipline
    - Add a Consultant Name
    - Select Classification Level
    - Add name for each classification level (follow format)
    - Add hourly rate per position / name
    - Add Overhead, fee, and cost of capital rates

Must have same names and rates between NCDOT & Firm



Scope and Manday Estimate Form (6 of 9)

- **Step 5. Complete each Discipline Worksheet**
  - Fill out all Green blocks
  - Each discipline has a unique worksheet
  - May need to add tasks
  - Add mandays for all tasks and for each individual
  - Add quantities or notes as needed
  - Add direct cost quantities as needed
  - Can hide or unhide rows

Merge Prime Consultant for ITS into this file. Merge file is C:\Temp\MergeThisFile.xlsm

Hide Unused Rows | Hide Unused Columns | Unhide all Columns and Rows

ITS Design

ITS

SCOPING ESTIMATE PREPARED

FOR

TIP | WBS

COUNTY

PROJECT DESCRIPTION

CONSULTANT NAME

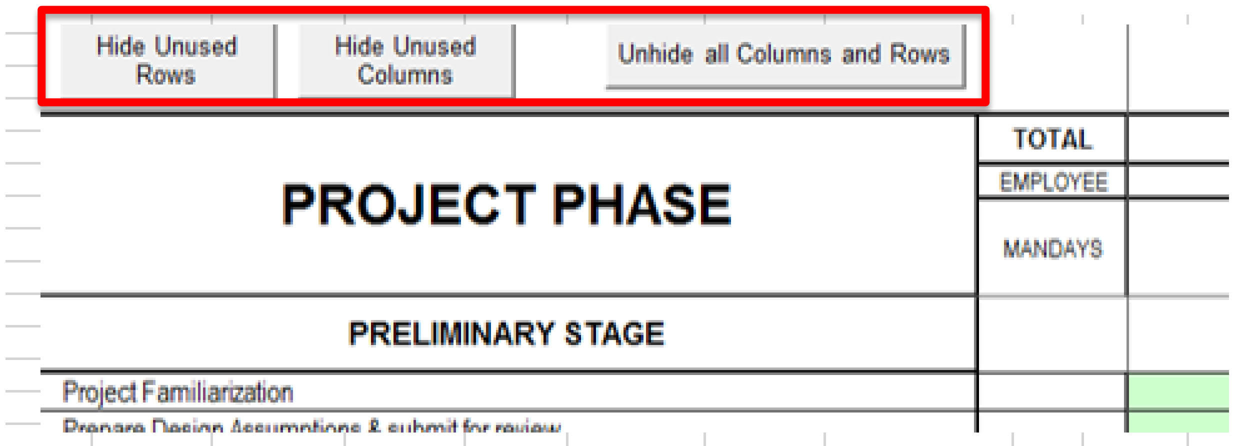
ESTIMATED MAN HOURS

TASK NUMBER	POSITION / EMPLOYEE NAME / RATE	TES III								
	RATE	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$
Task 1.0	Project Coordination									
1.1	Project Kick-Off Meeting									
1.2	Technology Review Meeting with Division									
1.3	90% PS&E Design Review Meeting									
1.4	100% PS&E Final Design Review Meeting									
1.5	Miscellaneous Coordination									
1.6										
1.7										
1.8										
1.9										
1.10										
	Subtotal (Hours)	0	0	0	0	0	0	0	0	0
	Subtotal (Dollars)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$
Task 2.0	Preliminary Design									
2.1	ITS Device Site Selections									
2.2	Communication Design									
2.3	Utility Coordination & Field Work (Power Service)									
2.4	Utility Coordination & Field Work (Utility Make-Ready)									
2.5										
2.6										
2.7										
2.8										

Must be independent from NCDOT and Firm!

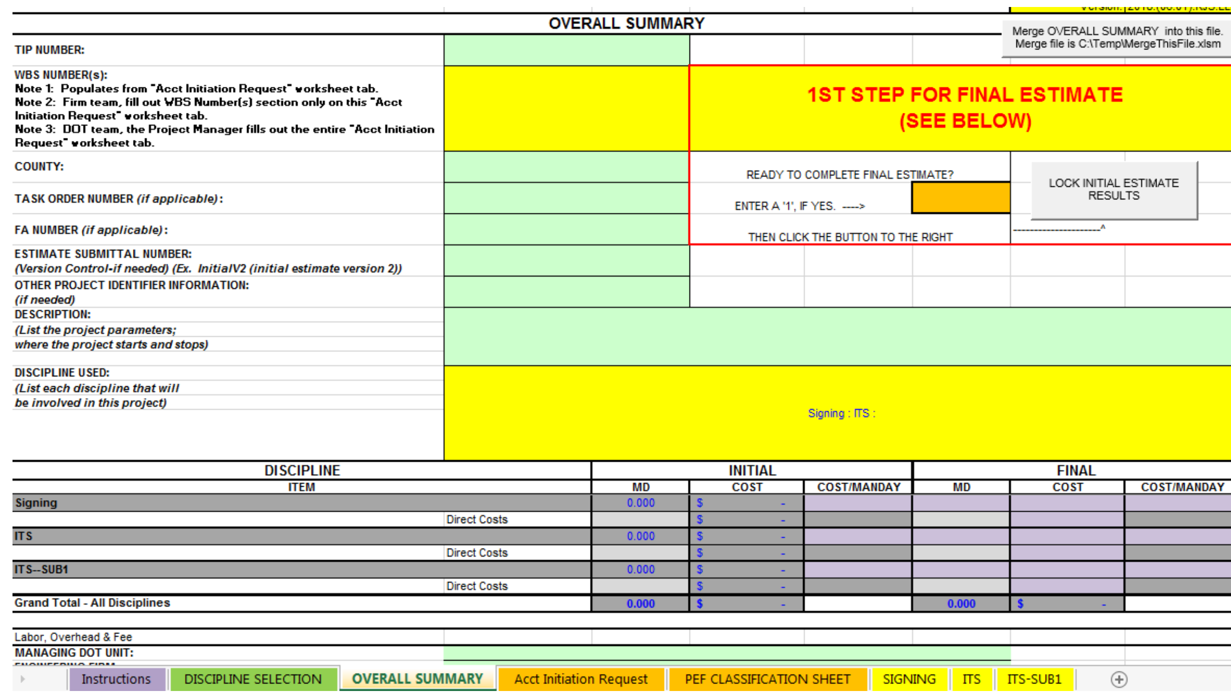
Scope and Manday Estimate Form (7 of 9)

- **Step 6. Hide or Unhide**
  - On the worksheets, hide unused rows and columns (delete, too)
  - Decreases size of workbook
  - Check:
    - Discipline Selection
    - AIR
    - PEF Sheets
- **Step 7. Repeat steps 5 & 6 for all PEF sheets**



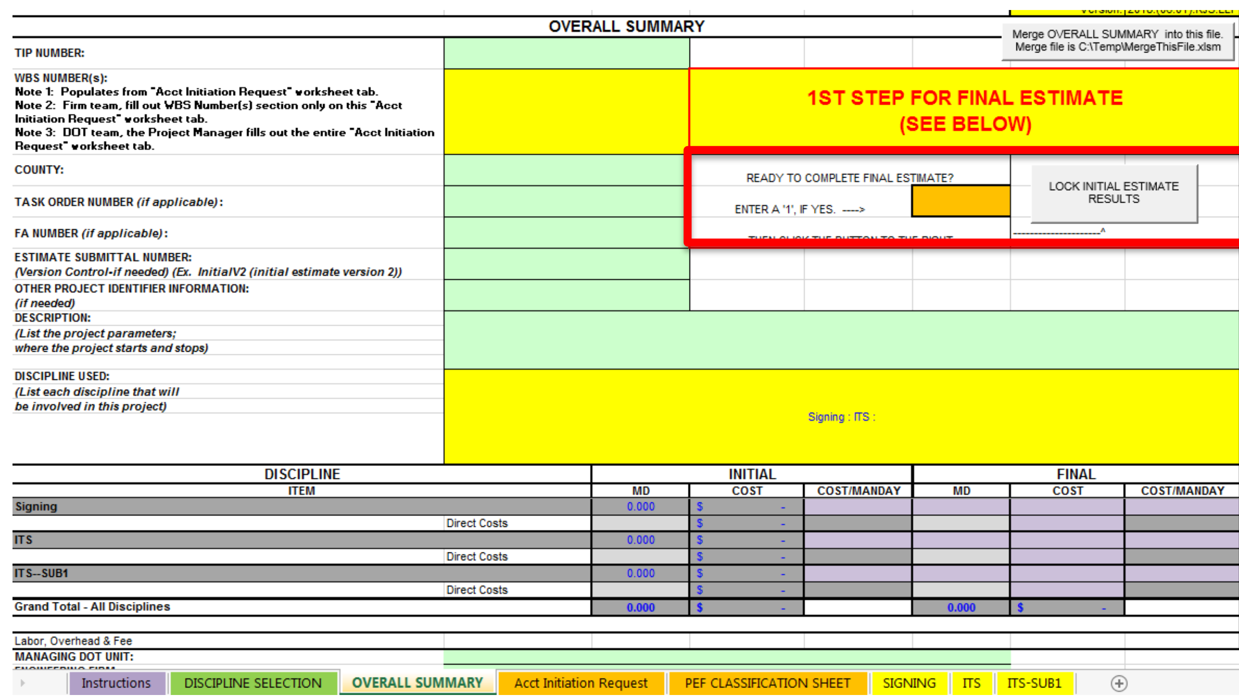
Scope and Manday Estimate Form (8 of 9)

- **Step 8. Review Overall Summary**
  - Check values for gross errors (check w/ supervisor if required)
  - Save as:
    - **DOT**: TIP # - Firm – DOT SAP Code (TRA …) – SUPP or PO# - DOT – Estimate Submittal #
    - **Firm**: TIP # - Firm – DOT SAP Code (TRA …) – SUPP or PO# - DOT – Estimate Submittal #
    - **Example**: B2500 – AECOM – TRA Signals – Supp 1 – DOT Initial V1



Scope and Manday Estimate Form (9 of 9)

- **Step 9. Initial and Final Estimates**
  - For initial estimate: Place “1” in orange field, press lock Initial Estimate Results
  - If estimate meets thresholds, use PEF estimate for actual #s
  - For final estimate: Work through steps 5-8 again (and negotiate)
  - If estimate meets thresholds, use PEF estimate for actual #s



OVERALL SUMMARY

Merge OVERALL SUMMARY into this file. Merge file is C:\Temp\MergeThisFile.xlsm

TIP NUMBER:

WBS NUMBER(s):
Note 1: Populates from "Acct Initiation Request" worksheet tab.
Note 2: Firm team, fill out WBS Number(s) section only on this "Acct Initiation Request" worksheet tab.
Note 3: DOT team, the Project Manager fills out the entire "Acct Initiation Request" worksheet tab.

1ST STEP FOR FINAL ESTIMATE (SEE BELOW)

COUNTY:

READY TO COMPLETE FINAL ESTIMATE?

ENTER A '1', IF YES. ---->

LOCK INITIAL ESTIMATE RESULTS

TASK ORDER NUMBER *(if applicable)*:

FA NUMBER *(if applicable)*:

ESTIMATE SUBMITTAL NUMBER:
(Version Control-if needed) (Ex. InitialV2 (initial estimate version 2))

OTHER PROJECT IDENTIFIER INFORMATION:
(if needed)

DESCRIPTION:
(List the project parameters; where the project starts and stops)

DISCIPLINE USED:
(List each discipline that will be involved in this project)

Signing : ITS :

DISCIPLINE		INITIAL			FINAL		
ITEM		MD	COST	COST/MANDAY	MD	COST	COST/MANDAY
Signing		0.000	$ -				
	Direct Costs		$ -				
ITS		0.000	$ -				
	Direct Costs		$ -				
ITS--SUB1		0.000	$ -				
	Direct Costs		$ -				
Grand Total - All Disciplines		0.000	$ -		0.000	$ -	

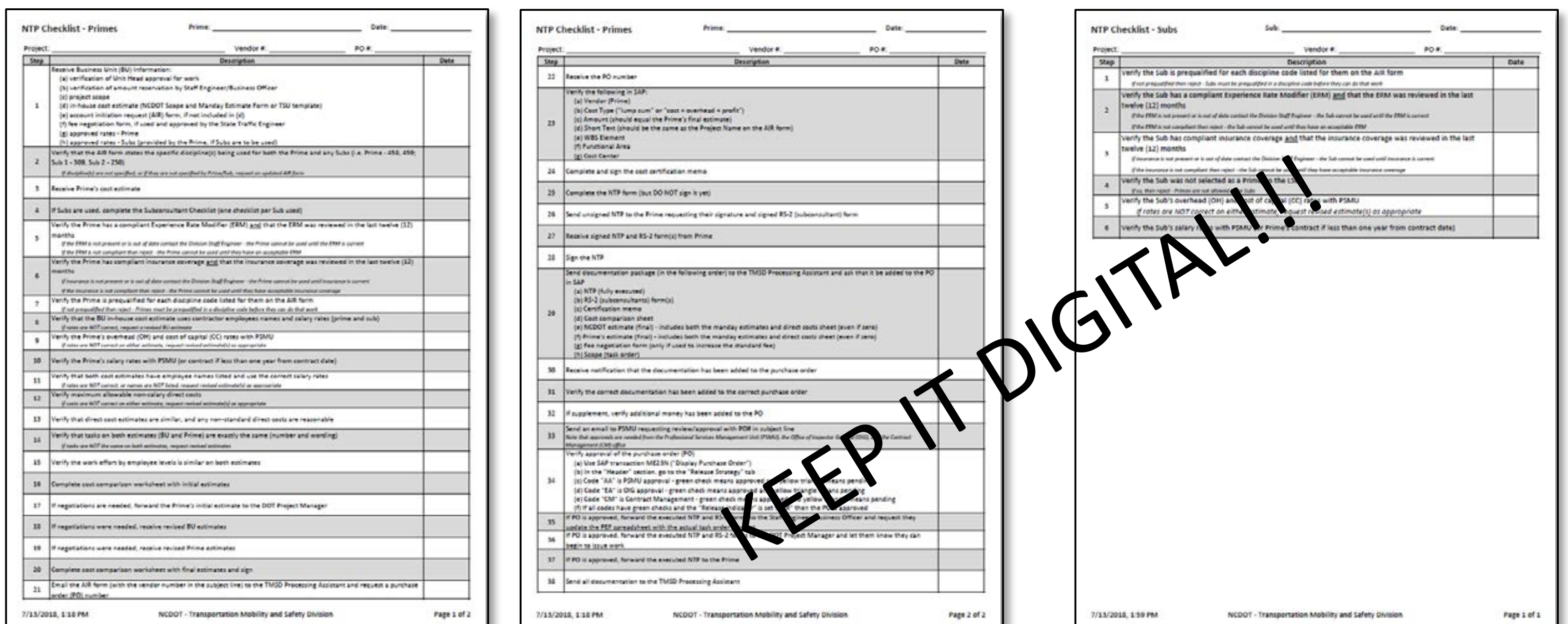
Labor, Overhead & Fee

MANAGING DOT UNIT:

Instructions | DISCIPLINE SELECTION | OVERALL SUMMARY | Acct Initiation Request | PEF CLASSIFICATION SHEET | SIGNING | ITS | ITS-SUB1

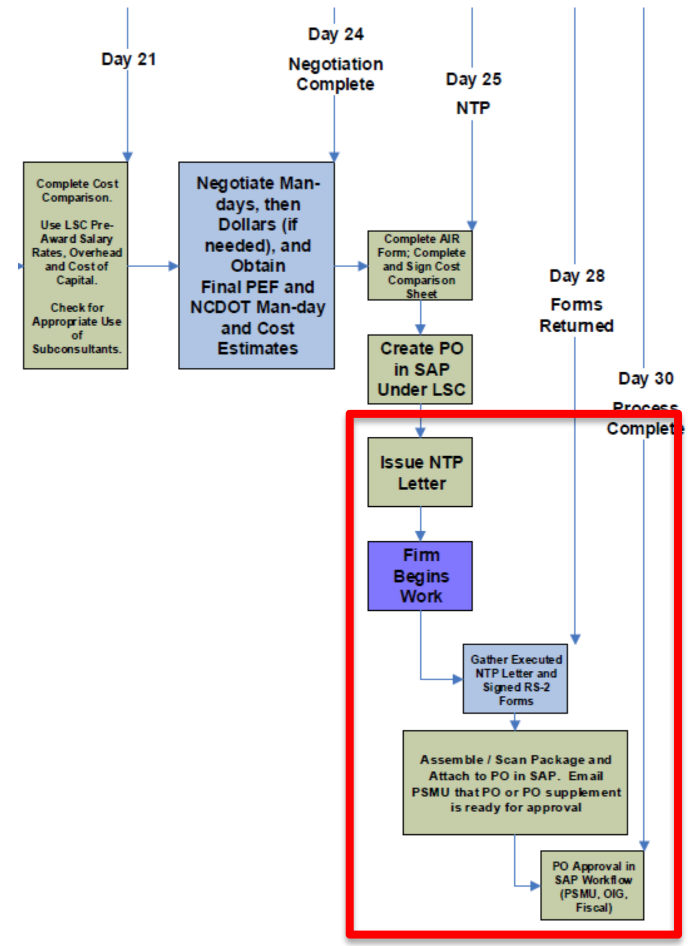
NTP Process for TMSD (1 of 14)

- All up-to-date forms and docs in TEPPL
  - NTP Checklist: Primes and Subs



PRIME NTP Checklist

SUB NTP Checklist



NTP Process for TMSD (2 of 14)

Step	Description
1	Receive Business Unit (BU) Information: (a) verification of Unit Head approval for work (b) verification of amount reservation by Staff Engineer/Business Officer (c) project scope (d) in-house cost estimate (NCDOT Scope and Manday Estimate Form or TSU template) (e) account initiation request (AIR) form, if not included in (d) (f) fee negotiation form, if used and approved by the State Traffic Engineer (g) approved rates - Prime (h) approved rates - Subs (provided by the Prime, if Subs are to be used)

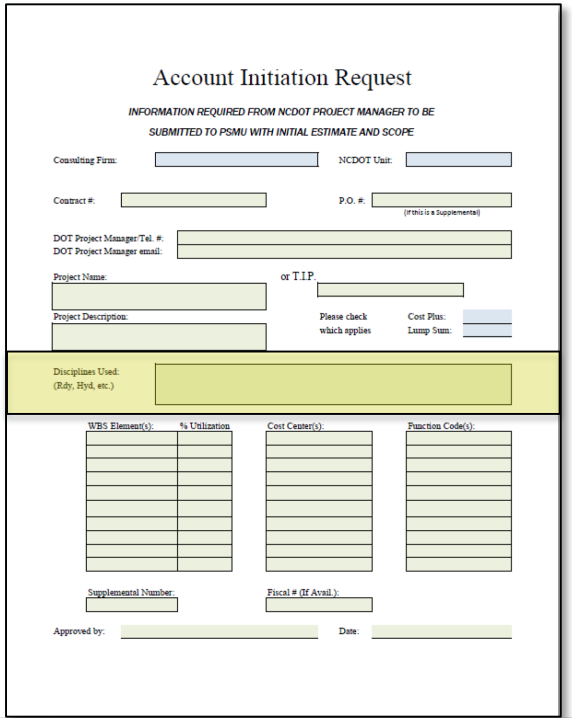
- Information gathered by Project Manager
- Scope and Manday Estimate Form or Simplified Form

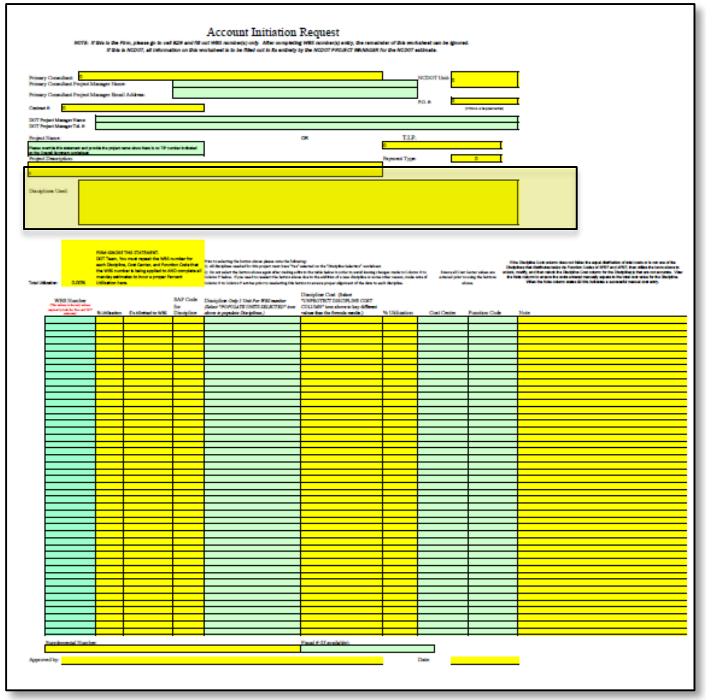
** **Reminder**:

- Salary rates are locked-in for 1st year for Primes
- OIG maintains current lists (new hires, cost of capital, and overhead rates)

NTP Process for TMSD (3 of 14)

2	Verify that the AIR form states the specific discipline(s) being used for both the Prime and any Subs (i.e. Prime - 458, 459; Sub 1 - 309, Sub 2 - 250) *If discipline(s) are not specified, or if they are not specified by Prime/Sub, request an updated AIR form*
3	Receive Prime's cost estimate
4	If Subs are used, complete the Subconsultant Checklist (one checklist per Sub used)





NTP Checklist - Subs Sub: ______ Date: ______

Project: ______ Vendor #: ______ PO #: ______

Step	Description	Date
1	Verify the Sub is prequalified for each discipline code listed for them on the AIR form *If not prequalified then reject - Subs must be prequalified in a discipline code before they can do that work*	
2	Verify the Sub has a compliant Experience Rate Modifier (ERM) and that the ERM was reviewed in the last twelve (12) months *If the ERM is not present or is out of date contact the Division Staff Engineer - the Sub cannot be used until the ERM is current* *If the ERM is not compliant then reject - the Sub cannot be used until they have an acceptable ERM*	
3	Verify the Sub has compliant insurance coverage and that the insurance coverage was reviewed in the last twelve (12) months *If insurance is not present or is out of date contact the Division Staff Engineer - the Sub cannot be used until insurance is current* *If the insurance is not compliant then reject - the Sub cannot be used until they have acceptable insurance coverage*	
4	Verify the Sub was not selected as a Prime on the LSC *If so, then reject - Primes are not allowed to be Subs*	
5	Verify the Sub's overhead (OH) and cost of capital (CC) rates with PSMU *If rates are NOT correct on either estimate, request revised estimate(s) as appropriate*	
6	Verify the Sub's salary rates with PSMU (or Prime's contract if less than one year from contract date)	

NTP Process for TMSD (Subs)

	Step	Description
Slide 5 of 14	1	Verify the Sub is prequalified for each discipline code listed for them on the AIR form ***If not prequalified then reject - Subs must be prequalified in a discipline code before they can do that work***
Slide 4 of 14	2	Verify the Sub has a compliant Experience Rate Modifier (ERM) <u>and</u> that the ERM was reviewed in the last twelve (12) months *If the ERM is not present or is out of date contact the Division Staff Engineer - the Sub cannot be used until the ERM is current* *If the ERM is not compliant then reject - the Sub cannot be used until they have an acceptable ERM*
	3	Verify the Sub has compliant insurance coverage <u>and</u> that the insurance coverage was reviewed in the last twelve (12) months *If insurance is not present or is out of date contact the Division Staff Engineer - the Sub cannot be used until insurance is current* *If the insurance is not compliant then reject - the Sub cannot be used until they have acceptable insurance coverage*
LSC Slide	4	Verify the Sub was not selected as a Prime on the LSC *If so, then reject - Primes are not allowed to be Subs*
Slide 6 of 14	5	Verify the Sub's overhead (OH) and cost of capital (CC) rates with PSMU *If rates are NOT correct on either estimate, request revised estimate(s) as appropriate*
	6	Verify the Sub's salary rates with PSMU (or Prime's contract if less than one year from contract date)

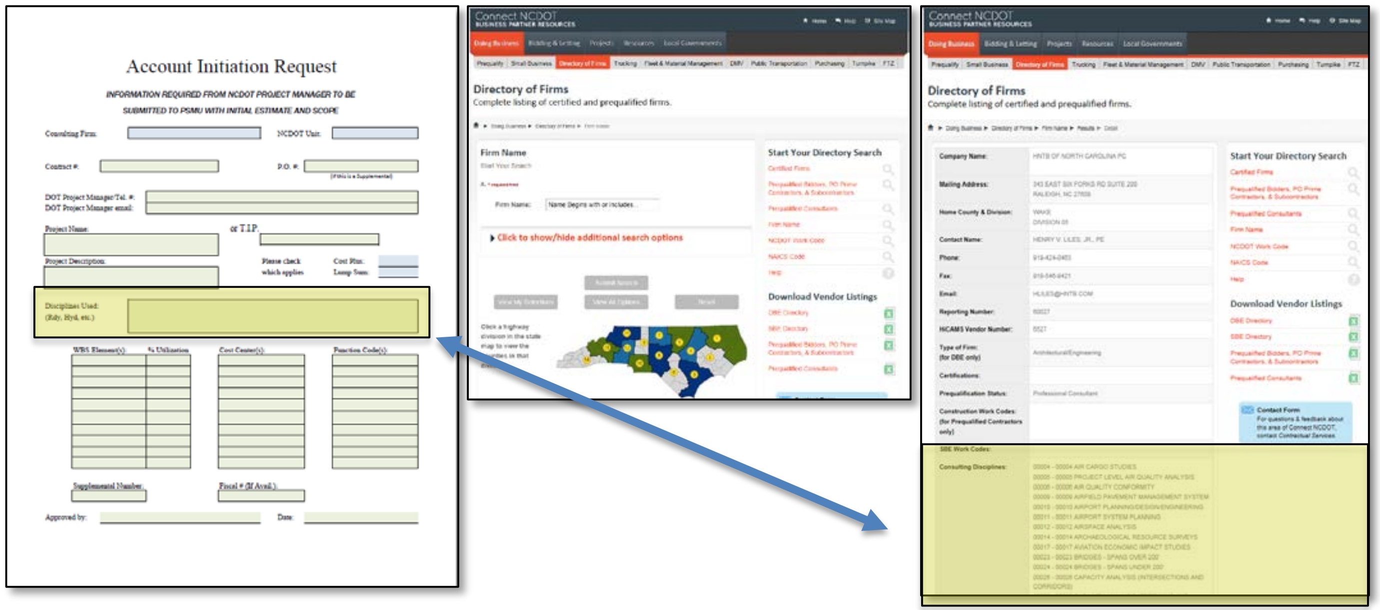
NTP Process for TMSD (4 of 14)

5	Verify the Prime has a compliant Experience Rate Modifier (ERM) and that the ERM was reviewed in the last twelve (12) months *If the ERM is not present or is out of date contact the Division Staff Engineer - the Prime cannot be used until the ERM is current* *If the ERM is not compliant then reject - the Prime cannot be used until they have an acceptable ERM*
6	Verify the Prime has compliant insurance coverage and that the insurance coverage was reviewed in the last twelve (12) months *If insurance is not present or is out of date contact the Division Staff Engineer - the Prime cannot be used until insurance is current* *If the insurance is not compliant then reject - the Prime cannot be used until they have acceptable insurance coverage*

- Since ERMs are confidential, NC DOT PMs and NTP Issuers only have access to spreadsheet that indicate either Go / No-Go (Primes and subs, as needed)
- ** **"Red"** in the row means no-go **

NTP Process for TMSD (5 of 14)

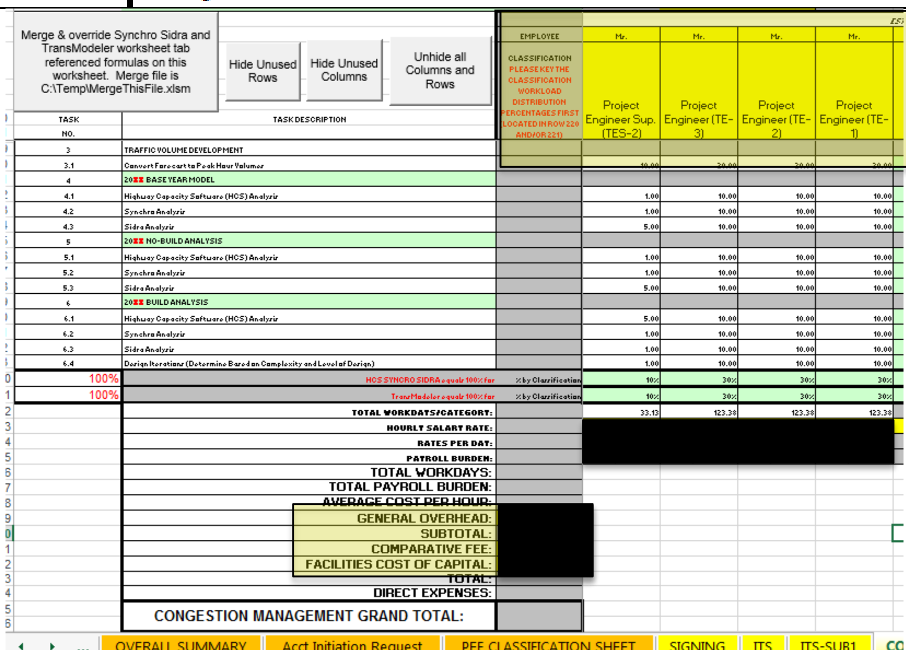
7	Verify the Prime is prequalified for each discipline code listed for them on the AIR form *If not prequalified then reject - Primes must be prequalified in a discipline code before they can do that work*

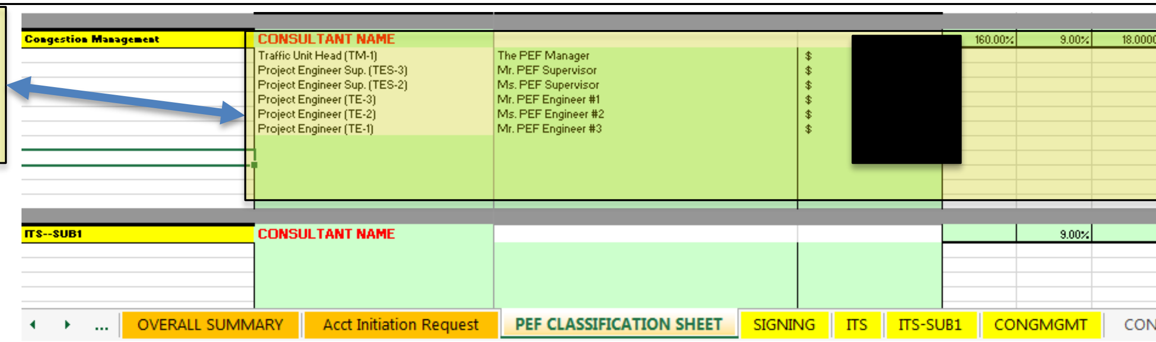


Search Firm Name on Prequalification Site

NTP Process for TMSD (6 of 14)

8	Verify that the BU in-house cost estimate uses contractor employees names and salary rates (prime and sub) *If rates are NOT correct, request a revised BU estimate*
9	Verify the Prime's overhead (OH) and cost of capital (CC) rates with PSMU *If rates are NOT correct on either estimate, request revised estimate(s) as appropriate*
10	Verify the Prime's salary rates with PSMU (or contract if less than one year from contract date)
11	Verify that both cost estimates have employee names listed and use the correct salary rates *If rates are NOT correct, or names are NOT listed, request revised estimate(s) as appropriate*



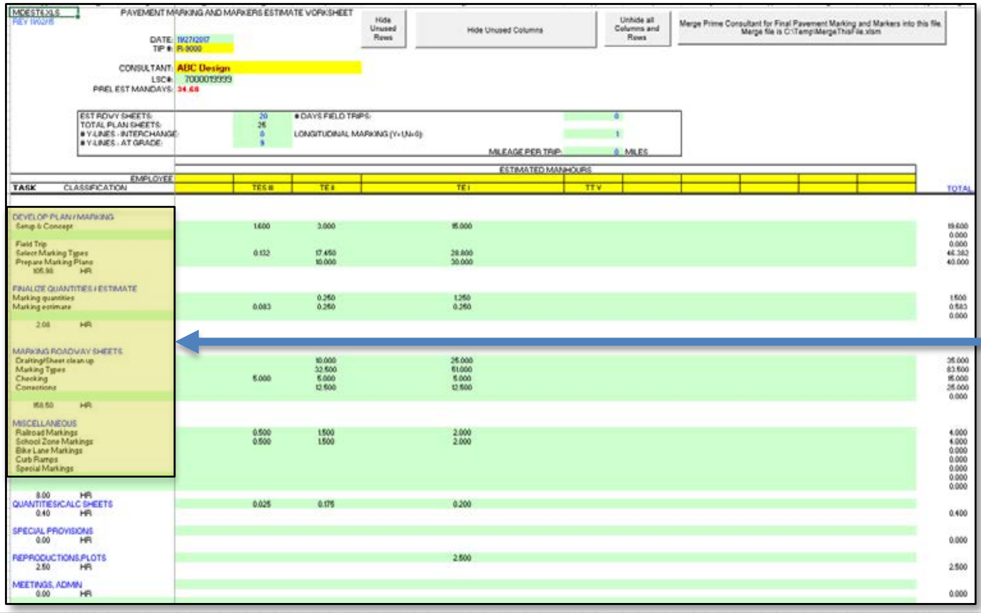


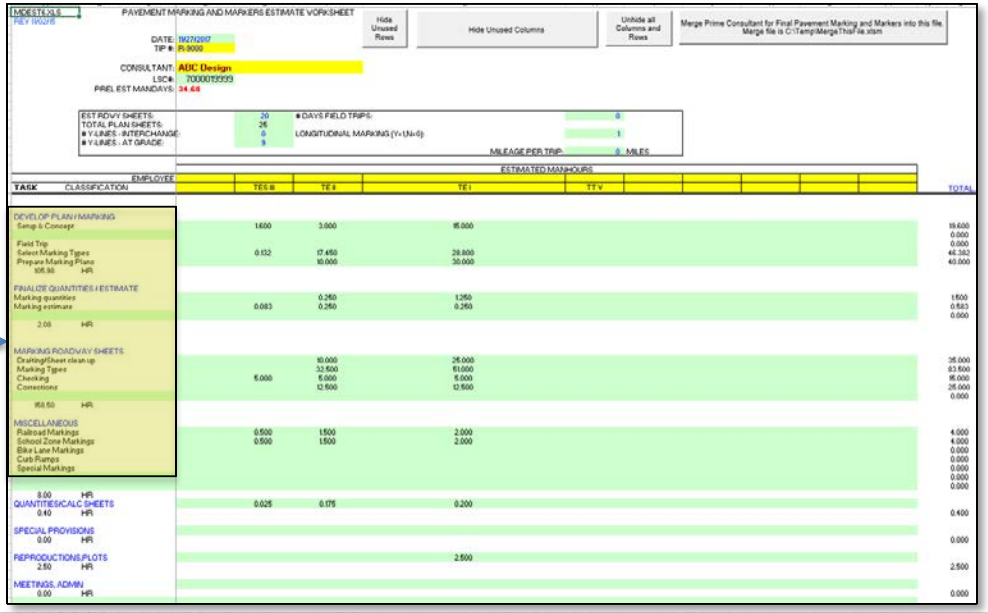
What if Firm wants to use a higher level employee to do entry level work?

- Can use lower rates for an individual, just as long as they don't exceed the maximum amount that they were approved for on the certified rate sheet
- Can reduce the hours of the higher level individual (gain efficiency)
- Rates should be in line with the others at the same classification
- 2 x Methods:
  - Complete DOT estimate with hours and classifications, then fill in the salary rates once you get the firm's estimate
  - Have the firm provide the rates up front when scoping the project (prior to sending initial estimates to NTP issuer)

NTP Process for TMSD (7 of 14)

12	Verify maximum allowable non-salary direct costs *If costs are NOT correct on either estimate, request revised estimate(s) as appropriate*
13	Verify that direct cost estimates are similar, and any non-standard direct costs are reasonable
14	Verify that tasks on both estimates (BU and Prime) are exactly the same (number and wording) *If tasks are NOT the same on both estimates, request revised estimates*
15	Verify the work effort by employee levels is similar on both estimates





NTP Process for TMSD (8 of 14)

16	Complete cost comparison worksheet with initial estimates
17	If negotiations are needed, forward the Prime's initial estimate to the DOT Project Manager
18	If negotiations were needed, receive revised BU estimates
19	If negotiations were needed, receive revised Prime estimates

Wait – Didn't you say we only need to worry about mandays?

- Scope / negotiate the mandays and classifications with the firm.
- 5% Mandays is the goal
  - 5-10% Unit Head Authority
  - >10% Technical Services Director Authority
- $ do not require higher authority signature
  - Gap in $ is an indication that you have further negotiation needs regarding manday classification assignment
- Cost comparison worksheet flags 10% or greater differences in cost differences per unit between NCDOT and the firm
  - Flag will help you identify those instances of large manday classification assignment differences
  - Not required to use automated worksheet, but all the more reason why it's a good idea

Manday estimates and negotiations will no longer use NCDOT in-house rates
NCDOT is in the process of preparing an updated assessment of reasonableness for wage rates (or establishment of wage rate benchmarks). Until this has been completed, NCDOT will, in accordance with Federal Law and Department Policy and Procedures, use the respective firm's actual salary rates during the negotiations of task orders. Once details of the scope of services are determined, the NCDOT Business Unit/Division, or its representative, shall prepare a cost estimate for the work which includes the level of effort for each classification of staffing required. Level of effort for each classification will then be negotiated. The cost of the scope of work will then be a result of the negotiated effort, the firm's actual salary rates, the firm's approved overhead rate, and the fee. Please note, the NCDOT Business Unit/Division ***must prepare an in-house cost estimate for all work required***, and in the appropriate level of detail which will allow for negotiations of level of effort for each major task. Given these changes, detailed below are revised requirements to issue a NTP for the various types of contracts with assignments issued on a task order basis:

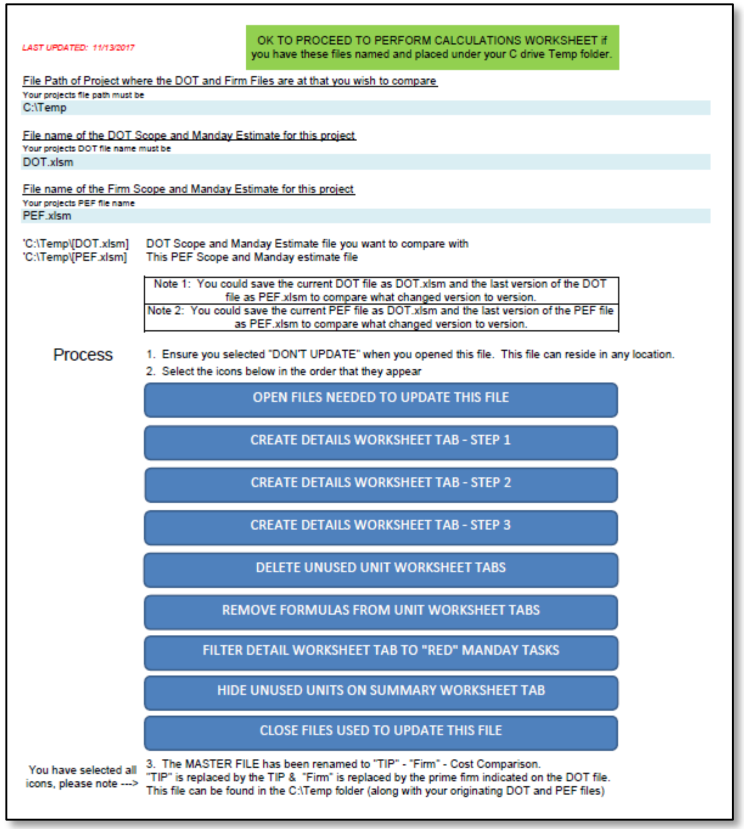
7. Negotiate the mandays and classifications with the firm. The firm *manday* estimate must be within 5% of the NCDOT manday estimate by discipline. The Business Unit representative may use sound judgement to exceed these limits up to 10% of mandays, provided that the Business Unit Head or Division Engineer co-signs the certification memo required herein. Any firm estimate that exceeds the NCDOT manday estimate by more than 10% will require approval by the Director of Technical Services.

Tips on Negotiating

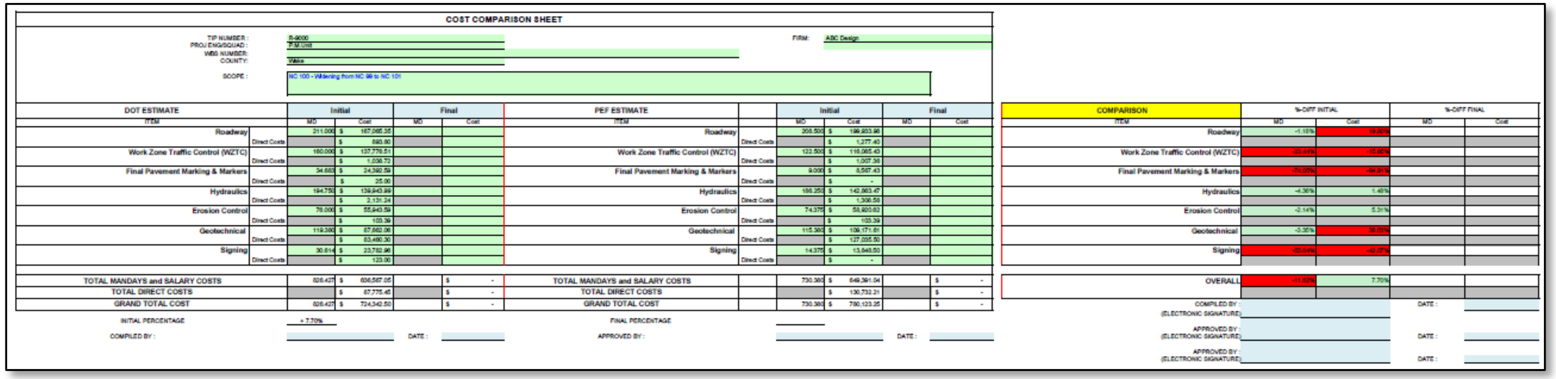
- **Goal of NC DOT:** *Get to a reasonable cost for delivering the task within the time you need, within budget you have, and to the quality you require (not to break the firm)*
- **Goal of Firm:** *Provide a service to the NC DOT that delivers a task within the time you need and the quality you require, while maximizing profit*
- Understand the firm's perspective, strengths, and limitations (empathy)
  - Time and effort for a task may be different
  - Partner in growing capability, as long as it's in NC DOT's best interest
  - Is the firm pricing "risk" too high?
- Finding common ground vs. giving in
- Cadillac Escalade vs Ford Fiesta, and only $20K
- It's ok to say no and move on to #2 or #3

NTP Process for TMSD (9 of 14)

16	Complete cost comparison worksheet with initial estimates



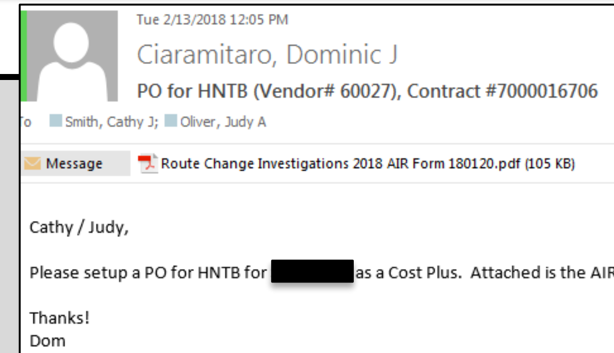
- Link to Cost Comparison Tool to Merge PEF and NCDOT "Scope and Manday Estimate" workbooks: [PMSU Cost Comparison Tool]
- Cost Comparison Tool provides details at the task level vs overall project



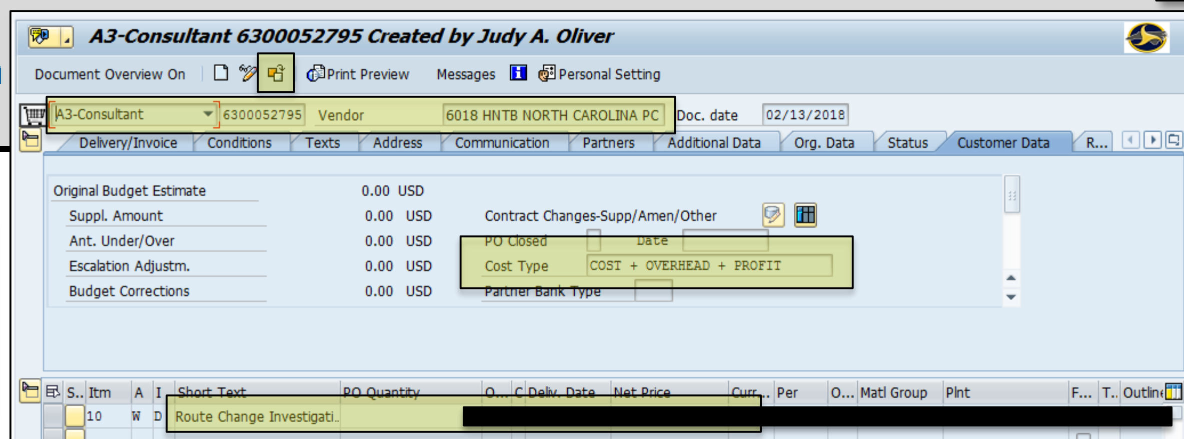
NTP Process for TMSD (10 of 14)

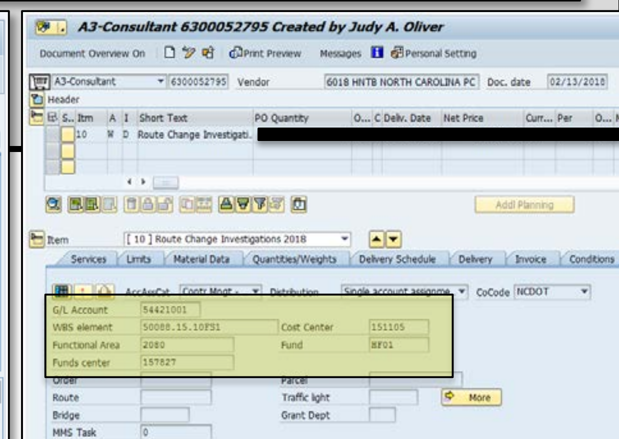
20	Complete cost comparison worksheet with final estimates and sign
21	Email the AIR form (with the vendor number in the subject line) to the TMSD Processing Assistant and request a purchase order (PO) number
22	Receive the PO number
23	Verify the following in SAP: (a) Vendor (Prime) (b) Cost Type ("lump sum" or "cost + overhead + profit") (c) Amount (should equal the Prime's final estimate) (d) Short Text (should be the same as the Project Name on the AIR form) (e) WBS Element (f) Functional Area (g) Cost Center

****Include:*** PEF Final Estimate and Contract Type



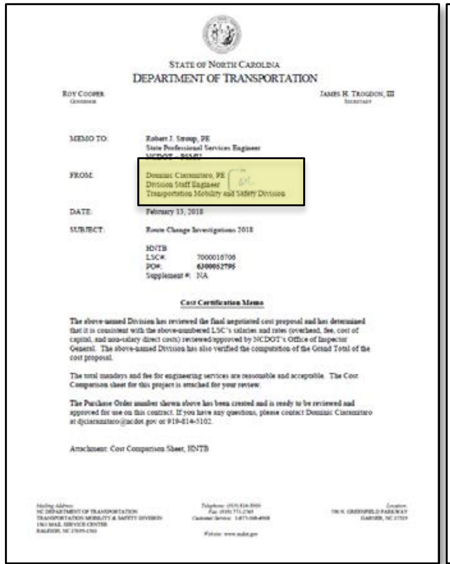
SAP CODE: ME23N,"Display Purchase Order"
Enter PO #

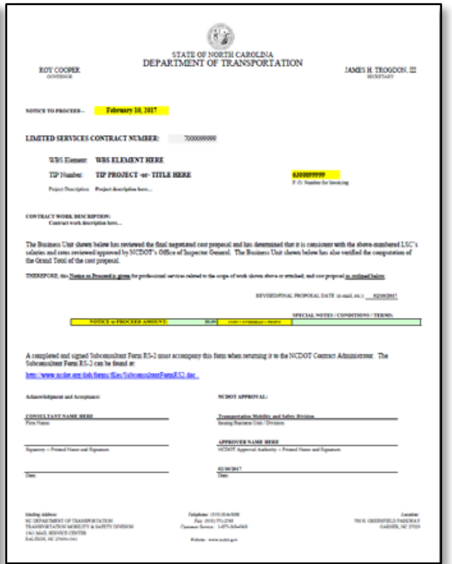


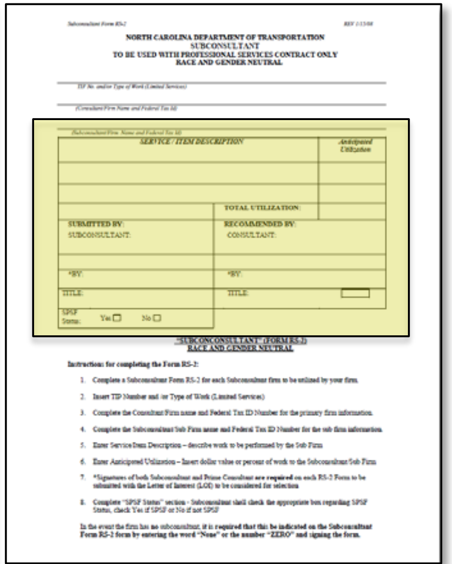


NTP Process for TMSD (11 of 14)

24	Complete and sign the cost certification memo
25	Complete the NTP form (but DO NOT sign it yet)
26	Send unsigned NTP to the Prime requesting their signature and signed Subconsultant RS-2 form(s)
27	Receive signed NTP and Subconsultant RS-2 form(s) from Prime *Subconsultant RS-2 form is required even if no Subs are being used*







NTP Process for TMSD (12 of 14)

__**DO NOT SEND SIGNED NTP TO Prime PEF, YET **__
__IF NEED TO START IMMEDIATELY, ISSUE "LIMITED NOTICE TO PROCEED", AND MUST NOT EXCEED $50K OF WORK__

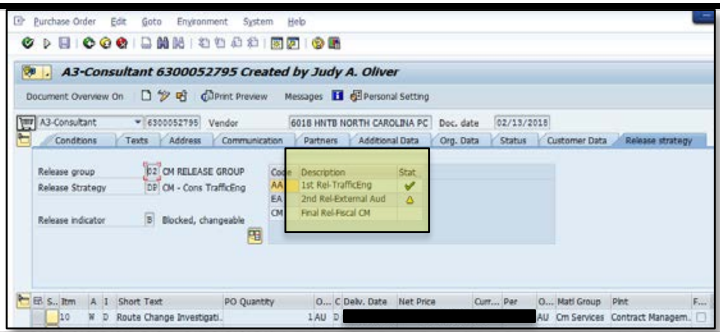
28	Sign the NTP
29	Send documentation package (in the following order) to the TMSD Processing Assistant and ask that it be added to the PO in SAP (a) NTP (fully executed) (b) RS-2 (subconsultants) form(s) (c) Certification memo (d) Cost comparison sheet (e) NCDOT estimate (final) - includes both the manday estimates and direct costs sheet (even if zero) (f) Prime's estimate (final) - includes both the manday estimates and direct costs sheet (even if zero) (g) Fee negotiation form (only if used to increase the standard fee) (h) Scope (task order)
30	Receive notification that the documentation has been added to the purchase order

***** Combine into 1 x File using Adobe Acrobat *****

NTP Process for TMSD (13 of 14)

31	Verify the correct documentation has been added to the correct purchase order ***In the "Attachment List"***
32	If supplement, verify additional money has been added to the PO
33	Send an email to PSMU requesting review/approval with PO# in subject line *Note that approvals are needed from the Professional Services Management Unit (PSMU), the Office of Inspector General (OIG), and the Contract Management (CM) office*
34	Verify approval of the purchase order (PO) (a) Use SAP transaction ME23N ("Display Purchase Order") (b) In the "Header" section, go to the "Release Strategy" tab (c) Code "AA" is PSMU approval - green check means approved and yellow triangle means pending (d) Code "EA" is OIG approval - green check means approved and yellow triangle means pending (e) Code "CM" is Contract Management - green check means approved and yellow triangle means pending (f) If all codes have green checks and the "Release indicator" is set to "R" then the PO is approved

As of July 2018, Terry Farr, Dan Shuller, Jennifer Hernandez



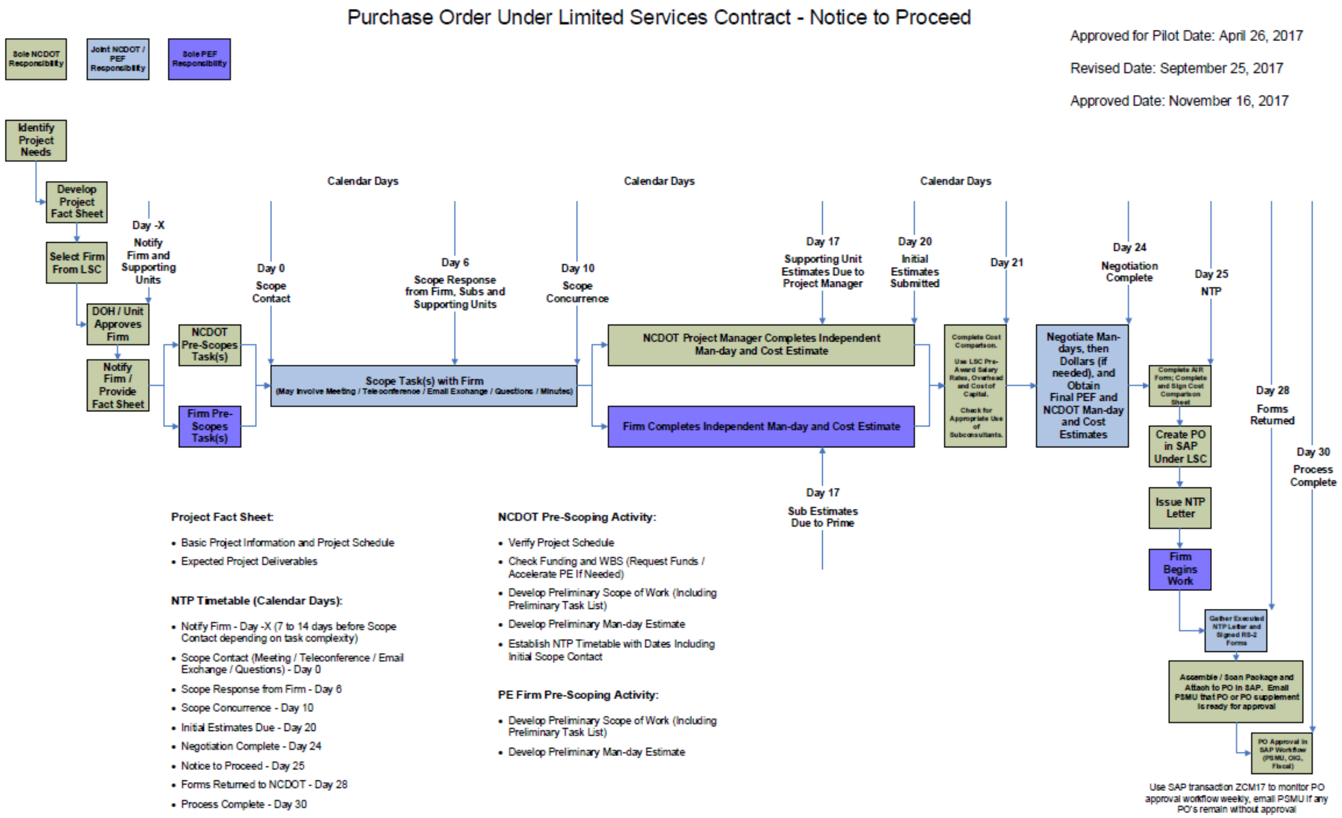
NTP Process for TMSD (14 of 14)

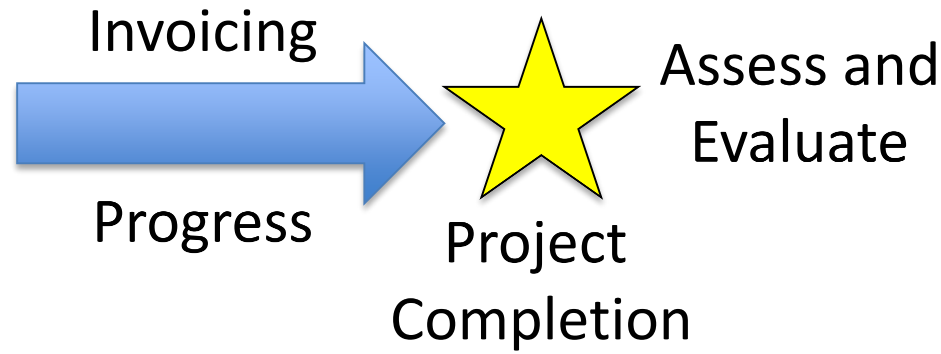
35	If PO is approved, forward the executed NTP and RS-2 forms to the Staff Engineer/Business Officer and request they update the PEF spreadsheet with the actual task order amount
36	If PO is approved, forward the executed NTP and RS-2 forms to the DOT Project Manager and let them know they can begin to issue work
37	If PO is approved, forward the executed NTP to the Prime
38	Send all documentation to the TMSD Processing Assistant — ***Not necessary if the documents didn't change***

What Changes with Supplements?

- Not much – must scope and negotiate (as needed) with PEF again
- Reminder on lump sums
  - Supplements only for extra work outside the scoped tasks (I.E. scoped 5 widgets, now you need 10 widgets)
  - Not for more $ of the same task (took too long or more effort than estimated, I.E. estimated 5 man-days to complete a task, but it actually took 15 man-days)
- **Step 1:** Project Scope and Estimates only include supplement; AIR keeps same PO - add a Supplement # and verify that the WBS did not change
- **Step 19 and Step 20:** Only receive confirmation that supplement was added to the PO and if any other adjustments were required; verify supplement was added to PO (a change in total amount, not a separate line)

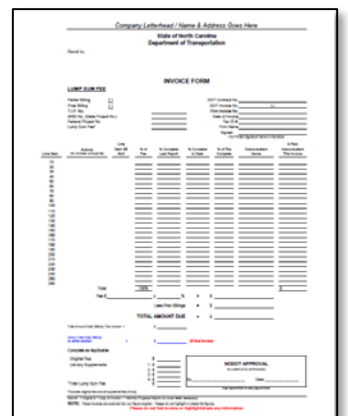
What’s after the Paradigm





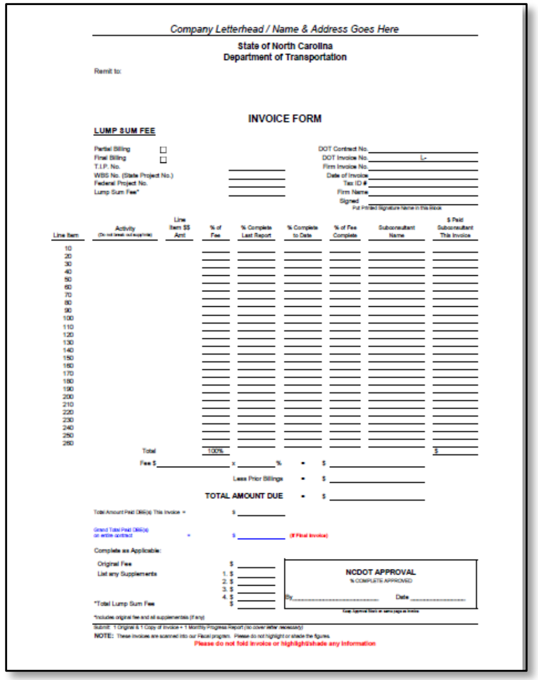
Invoicing (TMSD Processing Team)

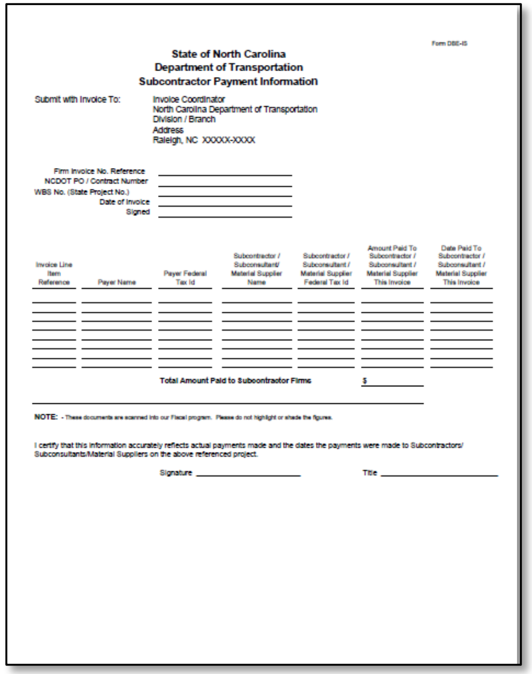
- PMs request to reserve funds for a PO through Business Officer during Scoping (LSA Contract #, WBS, Supplement # (if required), Reserve Estimate Amount)
- Business Officer reserves amount, responds back to PM confirming update to spreadsheet
  - If > $300K, requires Division Chief / State Traffic Engineer approval
  - If < $300K, requires unit head approval
- Follow NTP process through completion (includes sending final budgeted estimate to Business Officer for revising initial estimate)
  - Processing Assistant notifies the PM of the PO final approval in SAP by Contract Management
  - Limited Notice to Proceeds cannot be invoiced
- PM sends PEF sample invoice template

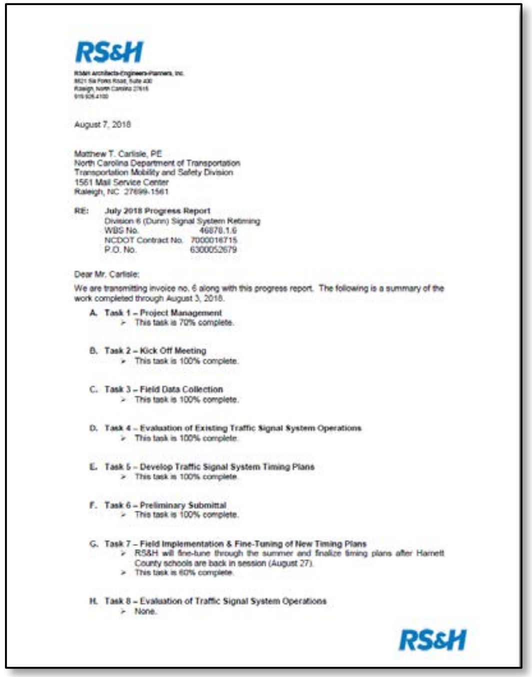

Company Letterhead / Name & Address Goes Here
State of North Carolina
Department of Transportation
INVOICE FORM

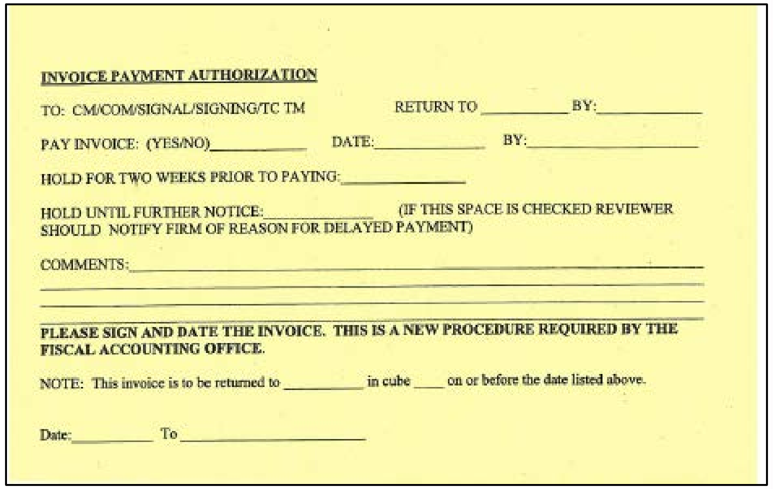
Invoicing (1 of 7)

- Invoice complete packet requires
  - Invoice template completed with firm letterhead
  - DBE–IS Form (provided by firm)
  - Progress Report Form (provided by firm)
  - Invoice Payment Authorization (Internal tracking form)


Company Letterhead / Name & Address Goes Here
State of North Carolina
Department of Transportation
INVOICE FORM
LUMP SUM FEE
TOTAL AMOUNT DUE
NCDOT APPROVAL


State of North Carolina
Department of Transportation
Subcontractor Payment Information
Total Amount Paid to Subcontractor Firms


RS&H
August 7, 2018
Dear Mr. Carlisle:


INVOICE PAYMENT AUTHORIZATION

TO: CM/COM/SIGNAL/SIGNING/TC TM RETURN TO ________ BY: ________

PAY INVOICE: (YES/NO)________ DATE: ________ BY: ________

HOLD FOR TWO WEEKS PRIOR TO PAYING: ________

HOLD UNTIL FURTHER NOTICE: ________ (IF THIS SPACE IS CHECKED REVIEWER SHOULD NOTIFY FIRM OF REASON FOR DELAYED PAYMENT)

COMMENTS: ________

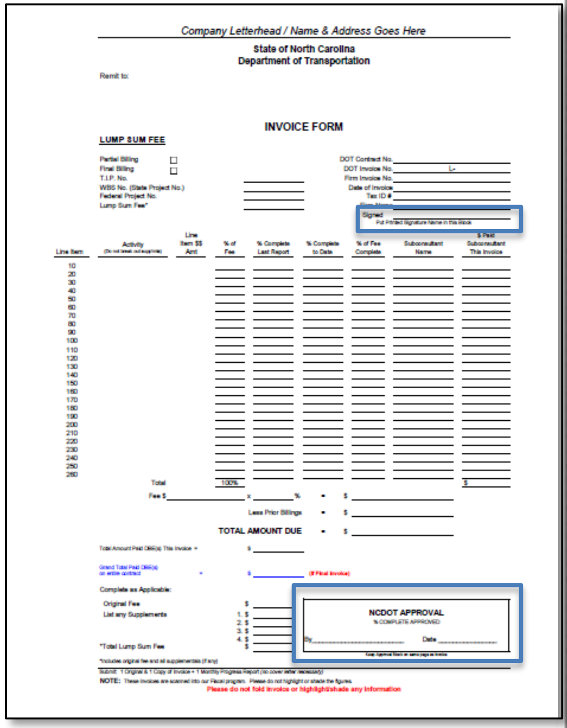
PLEASE SIGN AND DATE THE INVOICE. THIS IS A NEW PROCEDURE REQUIRED BY THE FISCAL ACCOUNTING OFFICE.

NOTE: This invoice is to be returned to ________ in cube ____ on or before the date listed above.

Date: ________ To ________

Invoicing (2 of 7)

- Invoice Template
  - Filled-in by firm
    - PEF can modify activity lines and fills in header info
      - Remit to address per W9 (firm not NC DOT)
    - Requires approval signatures on front page (PEF and PM)
      - PEF **typed name** and **signature** required
      - NC DOT PM **signature** block required
    - Subconsultants must be listed and match the DBE-IS Form
    - NC DOT Invoice # should be sequential and reference supplements
  - PM reviews / validates
    - %s and $s - compare to progress report
    - Reviews / validates %s and $s of sub-consultants
      - Sub-consultant pay cannot exceed invoice amount or total sub-consultant authorization
      - Sub-consultant pay must match DBE-IS Form
  - Upon review, NC DOT PM signs
    - Unless designated, Unit Head should not sign
    - NTP Issuer cannot sign because of conflict of interest



Company Letterhead / Name & Address Goes Here

State of North Carolina
Department of Transportation

Remit to:

INVOICE FORM

LUMP SUM FEE

Partial Billing ☐
Final Billing ☐
T.I.P. No.
WBS No. (State Project No.)
Federal Project No.
Lump Sum Fee*

DOT Contract No.
DOT Invoice No. L-
Firm Invoice No.
Date of Invoice
Tax ID #
Firm Name
Signed
Put Printed Signature Name in this Block

Line Item	Activity (Do not break out sup/mile)	Line Item $$ Amt	% of Fee	% Complete Last Report	% Complete to Date	% of Fee Complete	Subconsultant Name	$ Paid Subconsultant This Invoice
10								
20								
30								
40								
50								
60								
70								
80								
90								
100								
110								
120								
130								
140								
150								
160								
170								
180								
190								
200								
210								
220								
230								
240								
250								
260								
	Total		100%					$

Fee $ ______ x ______ % = $ ______

Less Prior Billings = $ ______

TOTAL AMOUNT DUE = $ ______

Total Amount Paid DBE(s) This Invoice = $ ______

Grand Total Paid DBE(s) on entire contract = $ ______ (If Final Invoice)

Complete as Applicable:

Original Fee $
List any Supplements 1. $ 2. $ 3. $ 4. $
*Total Lump Sum Fee $

*Includes original fee and all supplementals (if any)

NCDOT APPROVAL
% COMPLETE APPROVED
By ______ Date ______

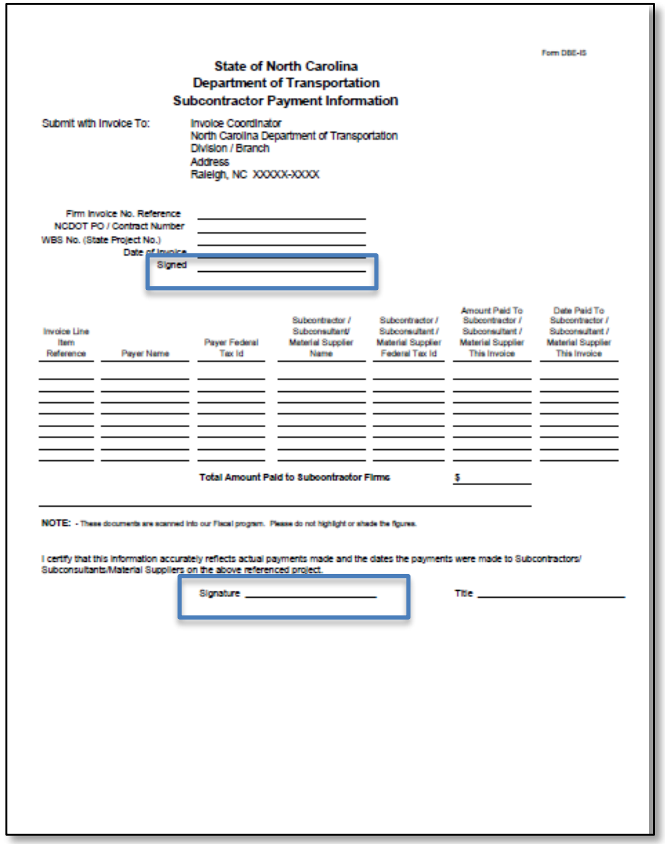
Submit: 1 Original & 1 Copy of Invoice + 1 Monthly Progress Report (no cover letter necessary)

NOTE: These invoices are scanned into our Fiscal program. Please do not highlight or shade the figures.

Please do not fold invoice or highlight/shade any information

Invoicing (3 of 7)

- DBE – IS Form
  - Filled-in by firm
    - Form is a validation that subs are being paid
    - Validation that subs are not primes (2018 LSC only)
    - Prime PEF must sign (twice)
    - Signature should match invoice approval signature
    - PM reviews / validates $s - compare to progress report
    - PM reviews / validates $s of sub-consultants
      - Sub-consultant pay must match Invoice Template



Form DBE-IS

State of North Carolina
Department of Transportation
Subcontractor Payment Information

Submit with Invoice To: Invoice Coordinator
North Carolina Department of Transportation
Division / Branch
Address
Raleigh, NC XXXXX-XXXX

Firm Invoice No. Reference ____________
NCDOT PO / Contract Number ____________
WBS No. (State Project No.) ____________
Date of Invoice ____________
Signed ____________

Invoice Line Item Reference	Payer Name	Payer Federal Tax Id	Subcontractor / Subconsultant/ Material Supplier Name	Subcontractor / Subconsultant / Material Supplier Federal Tax Id	Amount Paid To Subcontractor / Subconsultant / Material Supplier This Invoice	Date Paid To Subcontractor / Subconsultant / Material Supplier This Invoice

Total Amount Paid to Subcontractor Firms $ ____________

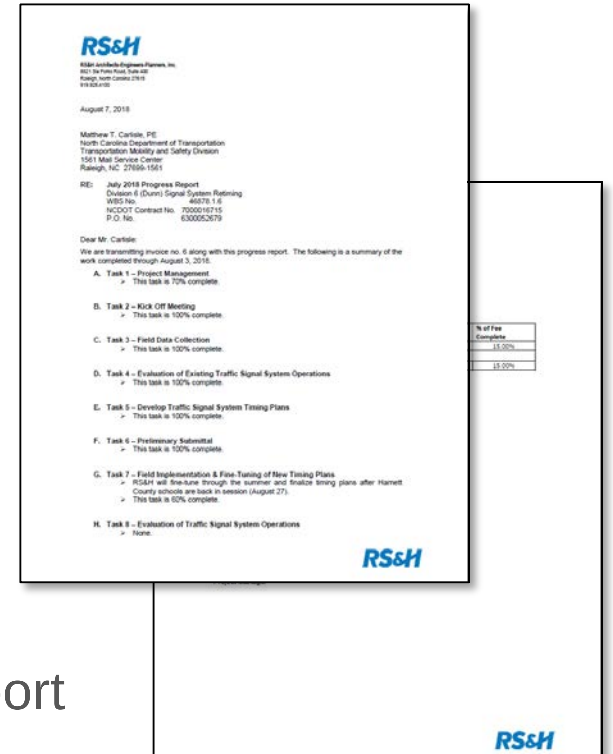
NOTE: - These documents are scanned into our Fiscal program. Please do not highlight or shade the figures.

I certify that this information accurately reflects actual payments made and the dates the payments were made to Subcontractors/ Subconsultants/Material Suppliers on the above referenced project.

Signature ____________ Title ____________

Invoicing (4 of 7)

- Progress Report
  - Prime PEF's template
  - Includes:
    - Accomplishments to date
    - % of tasks completed
    - Current and updated project schedules
    - Outstanding issues or problems
  - PM ensures that % work in line with rate of completion of work
  - PM clarifies with firm any questions / revisions with Progress Report
  - Signatures not required
  - **If subs, submit a report with the cumulative total of all payments to subconsultants, regardless of any particular subconsultant's engagement level under a particular task order**



RS&H

August 7, 2018

Matthew T. Carlisle, PE
North Carolina Department of Transportation
Transportation Mobility and Safety Division
1561 Mail Service Center
Raleigh, NC 27699-1561

RE: July 2018 Progress Report
Division 6 (Dunn) Signal System Retiming
WBS No. 46878.1.6
NCDOT Contract No. 7000016715
P.O. No. 6300052679

Dear Mr. Carlisle:

We are transmitting invoice no. 6 along with this progress report. The following is a summary of the work completed through August 3, 2018.

A. **Task 1 – Project Management**
   - This task is 70% complete.

B. **Task 2 – Kick Off Meeting**
   - This task is 100% complete.

C. **Task 3 – Field Data Collection**
   - This task is 100% complete.

D. **Task 4 – Evaluation of Existing Traffic Signal System Operations**
   - This task is 100% complete.

E. **Task 5 – Develop Traffic Signal System Timing Plans**
   - This task is 100% complete.

F. **Task 6 – Preliminary Submittal**
   - This task is 100% complete.

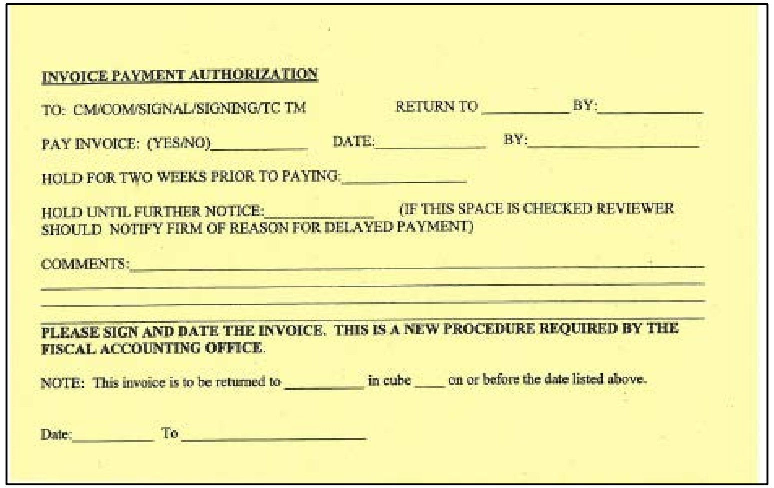
G. **Task 7 – Field Implementation & Fine-Tuning of New Timing Plans**
   - RS&H will fine-tune through the summer and finalize timing plans after Harnett County schools are back in session (August 27).
   - This task is 60% complete.

H. **Task 8 – Evaluation of Traffic Signal System Operations**
   - None.

RS&H

Invoicing (5 of 7)

- Invoice Payment Authorization (Internal NCDOT)
  - Initiated by Processing Assistant
    - PM name
    - Date invoice received
    - Cost of invoice
    - Return to Processing Assistant date
  - Completed by PM
    - Yes/No pay invoice
    - Yes/No date
    - ***<u>Sign only</u>*** if approved for payment
    - Any discrepancies or “no” annotated in comments
    - With multiple WBSs, PM annotates amounts paid per WBS in Comments section
    - PM must respond back to Processing Assistant by due-date
      - Any “no”, PM should respond back to Processing Assistant ASAP and PM resolves with firm



INVOICE PAYMENT AUTHORIZATION

TO: CM/COM/SIGNAL/SIGNING/TC TM RETURN TO ________ BY: ________

PAY INVOICE: (YES/NO)________ DATE:________ BY:________

HOLD FOR TWO WEEKS PRIOR TO PAYING:________

HOLD UNTIL FURTHER NOTICE:________ (IF THIS SPACE IS CHECKED REVIEWER SHOULD NOTIFY FIRM OF REASON FOR DELAYED PAYMENT)

COMMENTS:________

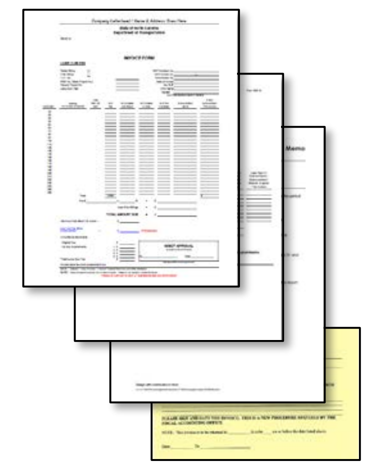
PLEASE SIGN AND DATE THE INVOICE. THIS IS A NEW PROCEDURE REQUIRED BY THE FISCAL ACCOUNTING OFFICE.

NOTE: This invoice is to be returned to ________ in cube ____ on or before the date listed above.

Date:________ To ________

Invoicing (6 of 7)

- Partial Billed / Monthly Invoices
  - PEF submits invoice to Processing Assistant / Staff Engineer via email or mail
  - Processing Assistant assembles and delivers to PM w/i 24 hrs of receiving
  - PM submits complete invoice packet to Processing Assistant by due date
  - Processing Assistant enters invoice packet into SAP
    - In transaction ZCM1, enters the PO, date of invoice, date received, firm invoice #, total amount due on invoice (per WBS, if required)
    - Records SAP documents # on invoice
    - Scan and uploads invoice documents into SAP
    - Business Officer / Staff Engineer approves releasing invoice in SAP
    - Workflow routed to OIG to Fiscal CM (no PMSU)
    - Any discrepancies, OIG contacts Processing Assistant who contacts PM to resolve with firm
    - Upon Fiscal CM approval, Prime Firm is paid (prime responsible for paying subs)



Invoicing (7 of 7)

- Closing out final invoice
  - When final invoice received, PEF must mark “final billing” on Invoice Form
  - PM reviews that final amounts are 100% spent (to the penny)
    - Invoice will be rejected by SAP if not exactly 100%
  - If there is a supplement pending,
    - Note in comments of Invoice Payment Authorization form that the invoice is **“not final”** (even though may be marked by PEF as final)
    - An invoice on a supplement will be delayed until PO receives final approval in SAP
  - Processing Assistant checks “final invoice” in SAP, Business Officer / Staff Engineer release
    - PO remains in SAP as “closed”
    - TMSD processing section has ability to reopen if needed

Evaluate

- Used in selection of future task orders on current LSC and future LSCs
- Upon completion of Task Order, PM completes Prime and Sub evaluations NLT 30 days
- Review work
  - Schedule: did they meet it, exceed it, fall behind? Quality – needed multiple corrections?
  - Work: Reports – meet, exceed, not meet expectations? Analysis – correct or need corrections?
  - Cost: Accuracy of estimate – overruns due to Prime?
  - Other factors: complexity, schedule, etc
- Determine an overall rating 0-10; 8 is baseline for acceptable – provide justification + or - 8
- Feedback to firm
  - Required for both positive and negative feedback
  - Clearly understanding and communicating the issues is more important than the # of the rating
  - Section / Unit head have responsibility to explain negative ratings to firm; elevate as required
  - Negative evaluation should not be the first time the firm hears about substandard performance (progress reports)

Assess

- Each project becomes a data point for refining future project estimates
- Highly recommend to document level of engineer expertise and supervision, and mandays required to completes tasks
- Units have different methods of documenting historical assessments of each firm and/or task; SAP, Scope and Manday Estimate Worksheet, etc
- Estimates for a task’s effort level should continue to improve
  - Reduces over or underestimating and the associated “Factor of Safety” or “Fluff”
  - Stretches the State’s Transportation $

Summary

- Roles and responsibilities
- NCDOT Policy and 2018 LSC changes
- Addressed some common questions
- Illustrated how you fit into the NC DOT's Project Management Paradigm and beyond
- Scoping, NTP Issuing, Project Progress, Invoicing, and Close-out