

Structures Construction Pre-Work Checklist

PRE-WORK SHEET FOR PROJECT MANAGERS

- 1 Proposal & Plans Received?
- 2 Review Proposal, highlight important facts. Know proposal well to be able to find answers quickly. Check errata sheets and special provisions for any changes in procedures and review bridge manual
- 3 Review and check quantities for accuracy.
Be familiar with the different classes of excavation and their boundaries.
- 4 Check plan profile grade & structure elevations
- 5 Ask the contractor to write a letter accepting plan quantity on bid items they agree with the precon
- 6 Is the contract on CMS?
- 7 Is the contract downloaded on project manager's laptop?
- 8 Print Contract Materials Report Final and Contract Bill of Materials Report now.
- 9 Have "Mix Designs" been submitted by the contractor and put on CMS by Materials?
 If over 250 yards of concrete, has boil test been completed and passed for each mix?
- 10 Once mix designs have been created, check and/or correct all "Primary Material Codes" for those line items. Review all remaining line items for proper material codes.
- 11 Remove any components to line items on CMS materials report that will not be used on project.
- 12 Determine which materials will be accepted based on field test results then obtain appropriate test equipment & determine if any necessary calibrations are current.
- 13 Create All Field Books using the documentation manual
- 14 Make personnel assignments for job and proper certifications for work assigned.
- 15 Are all Subcontractors approved for this project?
- 16 Did you get Traffic Control certifications at Preconstruction Meeting?
- 17 Form 219 For storm water pollution been filled out and submitted to District
 If SWPPP required, make sure approved by a P.E. and a copy sent to KDHE
- 18 Has "Notice to Proceed" been issued? Make sure it has been issued by early/late starting date
- 19 Inventory traffic control signs. Is the **quantity and quality** correct for this project.
Are the signs / stands NCHRP 350 Compliant? Need letter stating this in file.
- 20 Have a copy of the original 402 on hand at all times to see how the design was done. (If applicable)
- 21 Notify "District Materials" as soon as possible for witnessing.
- 22 Check to make sure utility relocation is completed. (if required)
- 23 Get names & telephone numbers of all person(s) responsible for maintaining traffic control.
- 24 Get names & telephone no.'s of all responsible parties (KDOT & Contractors).
- 25 Get pile hammer information from contractor. (If applicable)
- 26 Download log of pile driving and field pile driving worksheet
- 27 Is a test pile or test pile (special) required on this project?
 If yes contact Geology for test pile (special) and record the test pile
- 28 If un-official detour is designated, review and video the detour with county official
- 29 Check for false work and whether it has been submitted and approved. (Cat. 1 or 2)
- 30 Review Geology report and keep on file at the project
- 31 Has the work schedule been reviewed and approved?
- 32 Have the preconstruction notes available for review of agreements made at the meeting
- 33 Review current specification for Polymer Overlay if applicable
- 34 Review contract to check if an erection supervisor is needed
 if yes, check if on the PQL list
- 35 If drilled shafts are used download drilled shaft concrete spreadsheet (contact Bridge Manual engineer)
- 36 Download evaporation program and know how to use it
- 37 Pre-construction meeting for the drilled shafts in applicable

Bridge Construction Checklist

"DAILY FIELD DATA"

Use this check list in conjunction with Part IV of the KDOT Construction Manual

Daily Diary Items

- 1 Traffic control checked & document. Inform contractor of any needed corrections.
- 2 Reason for **NOT** charging a working day.
- 3 Diary states work being done by contractor or sub-contractor.
- 4 Weather conditions.
- 5 List Controlling Item(s) of Work only when it changes.
- 6 Equipment and Personnel listed.
- 7 Length and cause of delays.
- 8 Disputed items. (Not a place for personal opinions)
- 9 Record all visitors on site and their purpose for being there. (Area Engineer, District Engineer, City or County Engineer, Topeka Personal/Representatives, etc)
- 10 Record of unsafe condition on project. (contractor notified)
- 11 If liquidated damages Type A or B and why charged.
- 12 During winter shut down period, record the number of day that the contractor could have performed work and whether a working day could be charged.

Field book Items

- 13 Record Traffic Control Checks.
- 14 Record Concrete Test Data & enter into CMS.
- 15 Record Concrete Placement Data
- 16 Record Concrete Form's Checks
- 17 Record Reinforcing Steel Placement Data and Type A certifications received
- 18 Record Pile Driving Data (if applicable)
- 19 Record Drilled Shaft Data (if applicable)
- 20 Record Structural Steel Erection Data (if applicable)
- 21 Record Field Bolting Data (if applicable)
- 22 Record Field Welding Data (if applicable)
- 23 Record Concrete Vibrator Checks Data
- 24 Record Field Installation Data (Abut Strip Drain, Headed Stud Anchors, ect)
- 25 Record Concrete Deck Patches Data (if applicable) (will be eliminated not applicable)
- 26 Record Performed Density Profiles on Bridge Overlay. (if applicable)
- 27 Record pile material and Type A certification delivered to project (length, heat #, label marking system for tracking)
- 28 Record soil density & location (if required by contract)
- 29 Record bituminous material placement for Br. Approaches, shoofly, ect. (if applicable)
- 30 Record of certified lab (type A,B,C ect) (if applicable)
- 31 Record of continuous log of pile driving. (mark piling in ft increments)

Miscellaneous Data (Record necessary data in field book, anything measured need to be recorded)

- 32 Check contractor's staking and make sure dual surveys for bridge elements. (temp B.M., Alignment, Level runs, ect.)
- 33 Check excavation boundaries & trench safety, does it comply with standard?
- 34 Check bearing pile layout & orientation of flanges.
- 35 Check false work refection. Is it according to approved submitted plan?
- 36 Record Material Received on Project Site. Ask for Material Certifications.
DO NOT INCORPORATE ITEMS WITHOUT CERTS.
- 37 Record Measurement & Computation for Field Pay Quantities.
- 38 Measure & Document deck thickness (slip form barrier) & reinforcing steel clearance with deck finishing screed. (Dry Run) Monitor tattle tails if applicable
- 39 Perform & record 10 ft straight edge measurements & mark spots to be ground.
- 40 Set benchmark brass monument in hub guard or on exit ends of corral rails prefer this is done during the pour. (if applicable)
- 41 Record of Shot Rock installation. (if applicable)
- 42 Record of Aggregate slope protection / ditch liner. (if applicable)
- 43 Check & record pile cutoff elevation(s). Record other critical elevations.
- 44 Inspection record of soil placement & compaction. (Soil proctor from dist. Received?)
- 45 Document that contractor has enough curing materials for deck placement.
- 46 Check reinforcing steel certification quantities as delivered.

Bridge Construction Checklist

"DAILY FIELD DATA"

- 48 Keep, maintain, protect, & label core of foundation material taken from Investigative Core Hole & keep on project for review by KDOT
- 49 Verify depth & elevation of excavated Drilled Shafts and plan tip elevation & record in a field book
- 50 Measure, record the length of the Sonic Testing pipes and elevation of any pipe joints & fill pipes with water before concrete placement in a field book
- 51 Has contractor done a trial batch of concrete for Drilled Shafts
- 52 Important: If more than 4" of water flows into the shaft in 5 minutes or less & if 2" or more of water is standing at time of concrete placement, use the wet pour method
- 53 On wet pours, keep the end of the tremie tube or pipe embedded in at least 7' of fresh concrete while pouring
- 54 On all wet pours, make sure the contractor over-pumps the concrete at the top of the shaft & then make cylinders from the concrete

For SWPPP plan (if applicable) (Record correctly maintained on site)

- 55 Have SWPPP on project site
- 56 Record proper erosion control measures have been taken
- 57 Record that weekly maintenance report have been received
- 58 Record maintenance report after rainfall events
- 59 Record that contractor is following SWPPP

Box Construction Checklist
"DAILY FIELD DATA"

Use this check list in conjunction with Part IV of the KDOT Construction Manual

Daily Diary Items

- 1 Traffic control checked & document. Inform contractor of any needed corrections.
- 2 Reason for **NOT** charging a working day.
- 3 Diary states work being done by contractor or sub-contractor.
- 4 Weather conditions.
- 5 List Controlling Item(s) of Work only when it changes.
- 6 Equipment and Personnel listed.
- 7 Length and cause of delays.
- 8 Disputed items. (Not a place for personal opinions)
- 9 Record all visitors on site and their purpose for being there. (Area Engineer, District Engineer, City or County Engineer, Topeka Personal/Representatives, etc)
- 10 Record of unsafe condition on project. (contractor notified)
- 11 If liquidated damages Type A or B and why charged.

Field book Items

- 12 Record Traffic Control Checks.
- 13 Record Concrete Test Data & enter into CMS.
- 14 Record Concrete Placement Data
- 15 Record Concrete Form's Checks (barrel length, thickness, ect)
- 16 Record Reinforcing Steel Placement Data
- 17 Record Concrete Vibrator Checks Data
- 18 Record Field Installation Data (Drainage pipes, strip drains, pre-cast sections ect)
- 19 Record soil density & location (if required by contract)
- 20 Record bituminous material placement for Roadway, shoofly, ect. (if applicable)
- 21 Record of certified lab (type A,B,C ect) (if applicable)
- 22 Record any elevations of rock that is encountered if it differs from what is on the plans
- 23 Record elevation of water if encountered

Miscellaneous Data (Record necessary data in field book, anything measured need to be recorded)

- 24 Check contractor's staking flow line elevation and location
- 25 Check excavation boundaries & trench safety, does it comply with standard?
- 26 Check false work erection. Is it according to approved submitted plan? (if applicable)
- 27 Record Material Received on Project Site. Ask for Material Certifications.

DO NOT INCORPORATE ITEMS WITHOUT CERTS.

- 28 Record Measurement & Computation for Field Pay Quantities.
- 29 Measure & Document reinforcing steel clearance
- 30 Set benchmark brass monument in hub guard prefer this is done during the pour (if applicable)
- 31 Record of Shot Rock installation. (if applicable)
- 32 Record of Aggregate slope protection / ditch liner. (if applicable)
- 33 Inspection record of soil placement & compaction. (Soil proctor from dist. Received?)
- 34 Document that contractor has enough curing materials for concrete placement.
- 35 Check reinforcing steel certification quantities as delivered.

For SWPPP plan (if applicable) (Record correctly maintained on site)

- 36 Have SWPPP on project site
- 37 Record proper erosion control measures have been taken
- 38 Record that weekly maintenance report have been received
- 39 Record maintenance report after rainfall events
- 40 Record that contractor is following SWPPP

Deck Repair Construction Checklist

"DAILY FIELD DATA"

Use this check list in conjunction with Part IV of the KDOT Construction Manual

Daily Diary Items

- 1 Traffic control checked & document. Inform contractor of any needed corrections.
- 2 Reason for **NOT** charging a working day.
- 3 Diary states work being done by contractor or sub-contractor.
- 4 Weather conditions.
- 5 List Controlling Item(s) of Work only when it changes.
- 6 Equipment and Personnel listed.
- 7 Length and cause of delays.
- 8 Disputed items. (Not a place for personal opinions)
- 9 Record all visitors on site and their purpose for being there.(Area Engineer, District Engineer, City or County Engineer, Topeka Personal/Representatives, etc)
- 10 Record of unsafe condition on project. (contractor notified)
- 11 If liquidated damages Type A or B and why charged.

Field book Items

- 12 Record Traffic Control Checks.
- 13 Record Concrete Test Data & enter into CMS.
- 14 Record Concrete Placement Data
- 15 Record Concrete Form's Checks
- 16 Record Reinforcing Steel Placement Data
- 17 Record Concrete Vibrator Checks Data
- 18 Record Field Installation Data (Abut Strip Drain, Headed Stud Anchors, ect)
- 19 Record Concrete Deck Patches Data (if applicable)
If using grid method make sure to note that in the change order
- 20 Record Performed Density Profiles on Bridge Overlay. (if applicable)
- 21 Record bituminous material placement for Br. Approaches, shoofly, ect. (if applicable)
- 22 Record of certified lab (type A,B,C ect) (if applicable)

Miscellaneous Data (Record necessary data in field book, anything measured need to be recorded)

- 23 Check false work erection. Is it according to approved submitted plan?
 - 24 Record Material Received on Project Site. Ask for Material Certifications.
- DO NOT INCORPORATE ITEMS WITHOUT CERTS.**
- 25 Record Measurement & Computation for Field Pay Quantities.
 - 26 Measure & Document deck thickness & reinforcing steel clearance with deck finishing screed.
 - 27 Perform & record 10 ft straight edge measurements & mark spots to be ground.
 - 28 Set benchmark brass monument in hub guard or on exit ends of corral rails (if applicable)
 - 29 Document that contractor has enough curing materials for deck placement.
 - 30 Check reinforcing steel certification quantities as delivered.
 - 31 Do a dry run on deck pour to check clearance of steel and thickness of deck.

Structures Construction Final Checklist

Final

- 1 Complete all change orders & once approved make all adjustments in final pay templates.
- 2 All change orders completed, sent to contractor and approved by Director
- 3 Final estimate sent to contractor see line 12
- 4 Print "Material Report Final" from CMS (both "acceptance" and "non-acceptance" reports).
- 5 Are all the "Primary Material Codes" correct at this point. If not, it would be best at this point to simply make the incorrect ones a "substitute" instead of trying to correct them completely by transferring materials off and then back.
- 6 Are all dates entered in CMS? (Work Completed, Acceptance, etc)
- 7 Did the verification samples pass that were sent in to Topeka?
- 8 Make any necessary material re-assignments.
- 9 Work on writing test reports to match final pay quantities to balance (zero out) Final Material Report. Remember that the primary material & substitute materials are added together to make final material quantities.
- 10 Final contract material report zeroed
- 11 Prepare deviation report as per "District Policy".
- 12 Make sure that contractor turns in all field surveying notebooks that complies with all of the special provision. Pay final amount according to specs.
- 13 Complete bridge inspection " IN Depth " report with appropriate photographs so the Construction Engineer can forward it to Bridge Maintenance Section (Topeka).
- 14 Clean & return to storage all test testing equipment.
- 15 Complete "as built" for structure and submit.
- 16 Finals and proper forms sent to District