CONSTRUCTION PROJECT ADMINISTRATION MANUAL (CPAM)

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INTRODUCTION

CONSTRUCTION PROJECT ADMINISTRATION MANUAL

I.1 PURPOSE

The ***Construction Project Administration Manual (CPAM)*** contains instructions for administering Department of Transportation Construction contracts and describes requirements and procedures for Final Estimate preparation associated with those contracts. This ***Manual*** provides instructions to Department representatives for administering items mandated in Florida Statutes, rules and/or contract specifications and for the successful completion of construction contracts Including instructions to assist those charged with the responsibility of documenting final quantities and preparing final estimates. This ***Manual*** ensures consistency in carrying out Department of Transportation policies and helps ensure that all construction contracts are successfully administered on a fair and equal basis.

I.2 AUTHORITY

Sections 20.23(3)(a), 119.07, 119.011, and 334.048(3), Florida Statutes (F.S.)

Authority for the ***Manual*** will be cited on a chapter-by-chapter basis.

I.3 SCOPE

This ***Manual*** is intended to be used by Department and Consultant Construction Inspectors, Project Engineers, Resident Engineers, and other Department and Consultant personnel involved in the administration of construction contracts. These instructions for the Final Estimates process are not to supersede or circumvent project specific documents such as: specifications, special provisions, plans, and/or plan notes or ***Florida Statutes***. As the Department's evolution continues, these procedures will require updates and revisions.

I.4 Definitions

The following terms and their definitions are applicable to the Chapters and Sections of this ***Manual*** as appropriate:

Acquisition Period or Procurement Time: A number of calendar days allowed prior to the first day that time is charged to a contract. This period is to allow time for acquisition of some materials on specialized contracts.

Allowed Contract Time: The number of days set forth in the contract plus any time extension granted by the Department under the contract specifications.

Assessment Category: One of the major categories of construction work within the overall project such as, roadway base construction, drainage construction or signal installation. Each category of construction or "Assessment Category" has a corresponding list of Inspection Requirements referred to as a ***Statewide Inspection Quality Control Guidelist*** and a corresponding list of Critical Requirements called a ***Statewide Quality Assessment (QA) Critical Requirements List***. The latter is used in evaluating how well the Quality Assessment Critical Requirements are performed, by the CEI staff. Assessment categories are identified along with a district and central office contact for each category as shown on the ***Staff Responsibilities for Quality Assessment/Quality Control (QA/QC) Categories Table,*** published on the Florida Department of Transportation's State Construction Office (SCO) Internet website.

Baseline Schedule: The required schedule of work activities that is initiated by the Contractor. This schedule defines the Contractor's plan to complete the construction project within the allotted time consistent with the contract documents.

Basis for Estimate for a Contract Change Issue: This is a statement which is a required part of the ***Engineer's Estimate***. This statement details the methods used to determine the costs and time impacts for those issues shown in the ***Engineer's Estimate*** (refer to ***Guidance Document 7-3-A***).

Best Practices: An activity, step, or task that when completed, produces extraordinary and unique results; a demonstration of excellence.

Compliance: A satisfactory performance of critical requirements as determined by a Process Review.

Compressed Time or Time Priority: Compressed time is achieved by increasing the normal production rates. The contractor will have to make corresponding increases in the hours worked as well as crew size and equipment to complete the project within the shortened time. Compressed time is used when projects must be completed by a certain date or there are special considerations relating to traffic congestion or high public visibility.

Construction Engineering and Inspection (CEI): In this ***Manual*** it refers to the Consultant personnel performing CEI services or the Florida Department of Transportation (Department) personnel group performing CEI services.

Construction Contract Claim (Claim): A written demand submitted to the Florida Department of Transportation (Department) by the Contractor, in compliance with ***Specification 5-12***, seeking additional monetary compensation, time, or other adjustments to the contract, the entitlement or impact of which is disputed by the Department. Refer to the flow chart of the claims process published on the State Construction Office website section for flowcharts.

Construction Project Manager: The Florida Department of Transportation (Department) employee in responsible charge of the construction project and responsible for administering and managing the CEI Consultant contract.

Consultant Project Manager: The Department's employee responsible for administering and managing the CEI Consultant contract.

Consultant CEI: A consulting engineering firm pre-qualified by the Department to perform Construction Engineering and Inspection (CEI) and under contract to perform such services on a project or series of projects.

Consultant Inspector: The Consultant's technical field personnel assigned to a particular aspect of the inspection process.

Consultant Principal-in-Charge: That person designated by the consulting firm under contract who, as a corporate officer or principal in that firm, serves as the person in responsible charge of the management of the contract on the firm's behalf.

Consultant Project Administrator: The Consultant's administrator in charge of more than one aspect of the construction or administration of the project CEI.

Consultant Senior Project Engineer: The Consultant's leading engineer assigned to a construction project. In some cases the Senior Project Engineer may oversee more than one construction project.

Consultant Quality Control Plan: A monitoring plan that provides the means by which measures/data will be derived. This plan is developed and used by the DFEO/Consultant Construction Engineering Inspection (CCEI) to determine the degree of performance to specified requirements.

Contract Documents: All the documents that constitute the contract between the Department and the Contractor for construction of a project and which are listed in ***Section 3.2.3.1*** of this ***Manual***.

Contract Duration: The number of calendar days allowed for the completion of a contract, excluding additional time granted for inclement weather or for holidays or special events.

Contract Funds Management System: A web based application which communicates with the Florida Department of Transportation mainframe computer via a web browser. Users may access the application Monday-Saturday, 6:00 am to 9:00 pm and manage the encumbrance of funds for a contract and/or purchase order. The system checks for available budget as well as financial project cost estimate and authorizations in the Department's Financial Management System. Once the encumbrance request has passed all system edits, it will be included in the daily batch processing through the ***Florida Accounting Information Resource (FLAIR)*** system.

Contract Information & Monitoring (CIM): The Department's project database used to monitor and track the performance dates of a VAF during the warranty period.

Contract Time Extension: Contract time extensions are defined in ***Section 8-7.3*** of the ***Standard Specifications***. ***Section 7.2*** of this ***Manual*** provides detailed instructions for granting contract time extensions.

Contractor Delinquency Report: A monthly computerized listing of projects and pertinent project data for all projects which are delinquent as of the last monthly estimate of completed work.

Contractor Suspension Report: A computerized listing of Contractors whose Certificates of Qualification to bid on Department projects are currently suspended or have previously been suspended, and the number of projects/times such Contractors have had their certificate suspended either due to the delinquent condition of a project or for other reasons which constitute good cause as per ***Section 337.16, Florida Statutes***.

Contractor Quality Control (CQC): A requirement of the contract documents that makes the Contractor responsible for gathering material samples; for acceptance testing of those samples; for performing quality control inspection of the work; and for generating and maintaining all mandatory records associated with these responsibilities.

Contractor Quality Control Plan: A written plan developed by the Contractor and approved by the Department that details the policies, methods and procedures that the

Contractor intends to use to ensure that the level of quality required by the contract documents is achieved.

Contractual Lapse: The perceived or verified inability of the Consultant CEI to perform one or more aspects of its contractual obligations in any aspect or phase of the Contract.

Controlling Work Items: Refer to ***Section 1*** of the ***Standard Specifications***. In a Critical Path Method Schedule, these work items or activities are on the critical path. A delay to a critical work item will cause an increase in the project duration.

Cost Savings Initiative Proposal (CSIP): A type of RFM submitted by the Contractor that if approved, will initiate a change to the contract documents resulting in a reduction of project costs that are shared by the Department and the Contractor.

Critical Path Method (CPM) Schedule: A special provision for critical path scheduling is used for more complex projects. With large projects, compressed time, or incentive/disincentive projects the Department is looking for assurance that the contractor will manage the project in a manner that will assure timely completion. Management at this level of complexity is very difficult without a tool like ***CPM***. The ***CPM*** schedule will also provide additional documentation needed for negotiating contract changes and claims.

Critical Requirement: Activities/steps/tasks that are measurable and verifiable in a construction contract. Their intent is to outline vital requirements and identify problems that could potentially compromise the desired outcome. An essential construction inspection and/or administrative requirement that must be performed properly in order to ensure that a quality CEI process is achieved or that a customer satisfaction concern is addressed. Also, a non-critical requirement becomes critical because it is performed improperly on a frequent and widespread basis and is therefore a persistent problem. When Critical Requirement CEI activities are not done, they could compromise the satisfaction of the customer, the quality of the product, use or the safety of the public. These Critical Requirements also serve as indicators of the quality of those items not being checked.

Daily Diary: Term used in SiteManager to refer to a collection of all ***Daily Work Reports*** and presents information on contract activity for a given day. The diary should contain information on significant events, conditions or circumstances which immediately affect or have future impact on the project or contract.

Daily Work Report (DWR): This is the term used in SiteManager to refer to the ***Daily Report of Construction*** **Form No. 700-010-13** that was used by Florida Department of Transportation before the implementation of SiteManager. Data is collected on every

phase of work performed by a Contractor, subcontractor, subordinate subcontractor or utility company. Recorded information must be clear, detailed, accurate, complete and objective.

Delinquent Contract: The allowed contract time for performing the work has expired and the Contractor has not completed the contract work.

Delinquent Contractor: A Contractor with whom the Department has a contractual agreement for completion of the work on a delinquent contract.

Demonstration Pile: This is the pile which the Contractor is asked to construct to demonstrate the dependability of the equipment, techniques and source material prior to the start of production pile to the satisfaction of the Engineer (***Section 455-39.1***).

Department Prestressed Concrete Specialist (DPCS): The Department's local prestressed concrete quality assurance inspector or verification inspector who may be either a Department employee of the District or an employee of a Consultant CEI firm retained by the Department. In the context of this ***Manual***, the DPCS is the Department's representative in charge at the prestressed concrete plant at which the component is being produced.

Dispute: A disagreement between the Department and the Contractor where the Contractor has submitted, in accordance with ***Standard Specification 5-12***, a notice of intent to seek additional compensation but has not yet submitted a written claim in accordance with ***Standard Specification 5-12***.

District Construction Engineer: The engineer so appointed by the District Secretary to hold the title of District Construction Engineer and who serves to manage all District functions pertaining to construction of Department projects managed by either in-house CEI or Consultant CEI personnel.

District Construction Consultant Manager: The Department representative working for the District Construction Engineer, who administers the Consultant CEI work program.

District General Counsel: The Department attorney working for the District Secretary regarding legal matters of the District.

District Level Staff: The staff assigned to the district construction office, which includes the District Construction Engineers (DCEs) or their delegates. This may include other offices that perform independent quality assessments (i.e. Materials Office, District Bituminous Engineer's Office, acceptance/maintaining agencies, etc.).

District Process Review Representative: Each district may elect to have a representative selected by the DCE from the district office to participate in Central Office Process Reviews. This is to allow individuals to share training opportunities found during the review with other project staff and residencies or operation centers.

District Scheduling Manager: The Florida Department of Transportation (Department) employee or Department representative identified by the District Construction Engineer to be responsible for coordination of all scheduling activities related to construction projects in their District. This person establishes the contract time used for scheduling construction projects.

District Warranty Coordinator (DWC): Department employee designated by the District Construction Engineer or Operations Engineer/Resident Engineer, responsible for the administration of VAF under the warranty provisions of a contract.

Engineer's Estimate: The estimate of the actual cost and time impacts to the Contractor caused by extra work without regard to fault or the percentage of those cost and time impacts the Contractor may be entitled to recover. For each extra work issue, the ***Engineer's Estimate*** will show the pay items involved along with quantities, unit prices, any time impacts, and the basis for the estimate (refer to ***Guidance Document 7-3-A*** for a description of the basis).

Engineer's Weekly Summary, Form No. 700-010-14: This document provides a summary that gives project status and documents significant events, conditions or circumstances, which immediately affect, or have future impact on, the project or contract. This is not required if ***Daily Work Reports*** and ***Daily Diaries*** are entered directly into SiteManager. This is only required for those projects or contracts that are being done manually but is recommended on all projects.

Entitlement Analysis: A document, signed and dated by the preparing Project Administrator or Engineer, containing statements relevant to each issue of extra work, detailing the reason(s) each issue of extra work was needed. The ***Entitlement Analysis*** shall cite specific contract references which establish why the Contractor is, or is not, entitled to recover the time and cost impacts calculated for that contract change issue in the ***Engineer's Estimate***. If some of the time or cost impacts determined in the ***Engineer's Estimate*** are the responsibility of the contractor, the ***Entitlement Analysis*** for each issue should also include a numeric percentage of those cost and time impacts for which the reasons previously detailed justify the Contractor's entitlement. Each contract change issue should include all the pay items associated with that issue. A copy of relevant project correspondence may be attached to or referred to in the ***Entitlement Analysis***.

Final Acceptance: Acceptance of a project by the Engineer after all items of work have been completed satisfactorily.

Errors and Omissions: A general term used to describe deficiencies in the performance of Consultant contractual obligations on a project.

Final Inspection: An inspection conducted by the Engineer which finds that all work has been satisfactorily completed.

Flextime: Flextime allows a contractor an additional amount of time after the notice to proceed to begin work. The day the project work starts is set by the contractor within a window of time established in the special provisions. The extra time allowed the contractor is used for scheduling materials, equipment, subcontractors and acquiring materials. Flextime may be granted where material procurement is needed for items such as mast arms, signalization equipment, etc. When this special provision is used, the contractor is not given an additional material acquisition period before contract time begins. The contractors are provided the additional flexibility, and flextime jobs normally will have fewer overruns and time extensions. The negative side of flextime is that it pushes out the calendar date for the completion of the project.

Geotechnical Engineer: In this ***Manual***, the Geotechnical Engineer may be the District Geotechnical Engineer (DGE), any Department Engineer assigned for the project by the DGE, the Consultant Geotechnical Engineer working directly for the DGE, or the Geotechnical Engineer employed by the Department's Consultant CEI and performing under the direction of the DCE and DGE. The Engineer engaged by the Department to review all foundation construction documents submitted by the Design-Build (DB) Firm and provide recommendations to the CEI on foundation issues. In this ***Manual***, the Geotechnical Engineer may be the District Geotechnical Engineer (DGE), any Department Engineer assigned for the project by the DGE, the Consultant Geotechnical Engineer working directly for the District Geotechnical Engineer, or the Geotechnical Engineer employed by the Department's Consultant CEI and performing under the direction of the DCE and the DGE. If the Geotechnical Engineer is engaged by the Consultant CEI, the District Level Responsibilities in this ***Manual*** will also be the Resident Level Responsibilities. The CEI Geotechnical Engineer shall coordinate with the DGE in performing his/her responsibilities.

Guidelist: A list of major contract document requirements that inspectors are expected to verify without fail. A guidelist is not intended to be a comprehensive list of all contract document requirements since the contract documents and Department procedures contain many other requirements that are not major. To view the guidelists online, go to the website address in item 10, ***Section 3.2.3.2*** of this ***Manual***.

Incentive/Disincentive: The total "incentive payment" or "disincentive deduction" is a dollar per day amount which the contractor will be entitled to or charged based upon the accrued amount multiplied by the time (calendar days) established in the contract for the contractor to complete a specified activity or to complete the project. The time begins with the first chargeable day and ends with the completion of the project or the specified activity or milestone.

Innovative Practice: A unique method for superior performance, or an innovative concept that has already produced excellent results, which the reviewer believes can be duplicated by using this practice on other Florida Department of Transportation construction contracts. These practices should be noted in the Process Reviews and passed along for future replication as best practices.

Lane Rental: The Contractor is permitted to "rent" travel lanes during construction in order to decrease the production duration, and minimize the amount of time lanes are closed to traffic.

Liquidated Savings: A Savings intended to encourage the contractor to finish a project early by providing a financial incentive for each day the project is completed prior to the approved project duration.

Major Item of Work: Any item of work having an original contract value in excess of five (5) percent of the original total contract amount.

Minor Change: When the character of the work as altered is within the scope of the contract and such work is totally defined by existing items of work at previously established contract unit prices; and when no major item of work is increased in excess of one hundred twenty-five (125) percent or decreased below seventy-five (75) percent of the original total contract quantity; and when the Contractor's work effort to perform the change does not exceed five (5) percent of the original total contract amount.

Minor Overrun: Overrun in the quantity of one or more previously established pay items at contract unit price the sum of which totals two and one-half (2.5) percent or less of the original total contract amount.

Negotiated Settlement: The Department recognizes that a contract change is not a claim if the most recently modified ***Entitlement Analysis*** and ***Engineer's Estimate*** does not completely justify the amount the Department is agreeing to pay for a contract change. In this case the contract change is defined as a Negotiated Settlement and the Department does not dispute the amount owed. This contract change will not be called a claim even though there may have been some initial disagreement on entitlement, contract time, unit prices, and quantities.

Net Overrun: Overruns dollar value minus the underruns dollar value.

No Excuse Bonus: A Bonus paid to the contractor as an incentive to complete a project within set number of calendar days or a specified time frame (calendar date) regardless of any problems or unforeseen conditions that may arise.

Non-Compliance: A Non-Satisfactory performance of a critical requirement as determined through the QAR process.

Non-complying Components: Non-complying components are components that have been damaged, that do not meet the specified tolerances, or that contain defects.

Nonconformance/Noncompliance Report (NCR): A Request for Correction (see the definition of Request for Correction) that requires the Contractor's submitted documents to include official Florida Department of Transportation (Department) ***Form No. 675-010-10, Nonconforming Structural Steel and Miscellaneous Metal Component Data Sheet,*** *or* ***Form No. 700-030-10, Noncomplying Prestressed/Precast Concrete Component Data sheet***, when the correction involves a structural steel or miscellaneous metal product including mechanical and electrical components or a prestressed/precast product.

Other Warranty Items (OW): An item or segment of work, which by agreement of the contracting parties, will be warranted or guaranteed for a specific period of time.

Partial Acceptance: Acceptance of a portion of a project for which all contract work has been satisfactorily completed and inspected.

Pavement Condition Survey: A LOT-by-LOT in-depth evaluation of the pavement for the ride quality, rutting, and other performance thresholds associated with Value Added pavements. The evaluation is conducted by the Pavement Section of the District Materials office (DMO) or the State Materials Office (SMO) in Gainesville.

Phase III Review: One of the last technical reviews of a set of roadway plans prior to being let to bid. At this review, all plan sheets are complete with the exception of the quantities for maintenance of traffic pay items. The only work remaining will be to reply to comments that result from the Phase III review, which is also known as biddability review. All phases are described in the ***Plan and Preparation Manual (PPM), Chapter 2, Volume II***. If the plans are available at Phase II for biddability review then, those items may be reviewed during this period.

Post Preconstruction Conference: If there is a requirement for On-The-Job Training (OJT), a meeting will be held between all interested parties no more than thirty days prior to beginning any construction work on the project and no sooner than the Project's

Work Schedule has been approved. The Contractor's representative, Department representatives and all other parties contractually obligated to or having an interest in Disadvantaged Business Enterprise (DBE), or Equal Employment Opportunity (EEO) requirements, and OJT will attend. If there is no OJT requirement the District may elect to schedule a separate meeting to discuss DBE/EEO requirements.

Preconstruction Conference: A meeting held between all interested parties prior to beginning any construction work on the project. The Contractor's representatives, Department representatives and all other parties having an interest in the project are expected to attend.

Premium Cost: The additional cost of a contract change that would not have been incurred if the work had been included in the original contract. More specifically, premium costs are dollar amounts paid for non-value added work. Delays, inefficiencies, rework, or extra work as shown below, other than those caused by the Contractor and/or his subcontractors or suppliers, will be considered as non-value added work. Non-value added work can occur in three distinct situations:

(1) Work delays or inefficiencies - In this situation, the premium costs are the total delay/inefficiency damages paid to the Contractor.
(2) Rework - The premium costs are the dollar amount of the original items of work that have to be removed and the costs to remove these items.
(3) Extra Work - In this situation, the premium costs are computed as the net difference between the final agreed prices paid to the Contractor and what the cost would have been had the extra work been included in the original bid at letting.

Prime Contractor: One that enters into a contract with the Department.

Process Reviews: A review of project, resident and district compliance with ***QA/QC Guidelists*** and ***Critical Requirements*** published by the SCO will be included as part of SCO Specialty Engineer's reviews of their respective specialty areas. Additional to SCO is participation of State Materials Office and Federal Highway Administration (FHWA) as needed and available. Upon discovery of any deficiencies, participants in the Process Review are tasked with educating the project personnel on the correct way to do the task. This information is reported to the residency and district so that the district can share the training opportunity with other residencies. Central Office Process Reviewers are tasked with looking for the same deficiency during their next Process Review to determine if the previously discovered deficiency was exclusive to a single district or if it is more widespread and requires statewide training. The emphasis of the reviews is to assure that CEI personnel are in compliance with procedures and policies and to assure that when errors or deficiencies are discovered that they are quickly corrected while those making the error are educated on the correct way to do the task.

Production Rates: A ratio of units of work to a period of time; (i.e., 1,500 square yards/day or X yards/hour.)

Project Administrator (PA): The Administrator who shall be responsible for the everyday construction activity at the project under the direction of the Resident Engineer/Senior Project Engineer.

Project Diary: Refers to all documents that present a recorded collection of events, data, occurrences, instructions, situations, circumstances and work performed each day during a construction project. ***Project Diary*** includes, ***Daily Work Reports***, ***Daily Diaries***, ***Work Plan Controlling items of work.***

Project Level Staff: The staff assigned to the project, which may include lead or senior level inspectors, project administrator and senior project administrators. This includes both in-house and Consultant staff.

Quality Assessment (QA): The process used by the Project, Resident, and District Level staff to monitor and ensure that CEI activities are in compliance with predetermined standards. Quality Assessment is not intended to be a project specific review, but is instead a process-oriented review. State Construction Office Process Reviews will review the project, resident, and district QA process.

Quality Assurance: The process for monitoring the Contractor's level of compliance with the Quality Control Plan as well as evaluating the effectiveness of the Plan.

Quality Assurance Review (QAR): The process used by the SFEO to monitor and measure compliance with predetermined standards/targets.

Quality Control (QC): The process of monitoring and documenting the Contractor's operations and performance as well as evaluating the acceptability of the Contractor's product and performance. Product acceptability is established by determining if the product complies with the Contract Documents. Performance is determined according to ***CPAM Section 13.1***. In performing the monitoring process, an inspector is often in the position of affecting the Contractor's progress since in some instances construction should not proceed until the inspector is sure that the Contractor complies with the contract documents. It is because of this authority vested in the inspector that the process is referred to as Quality Control since the inspector can be in control of the Contractor's quality and progress. Project level activities performed daily by the Contractor's and the project level staff in monitoring established Florida Department of Transportation requirements, procedures, and standards to assure compliance with contract documents. Inspection and acceptance of the Contractor's work is Quality Control. Inspection of the Contractor's work by the Contractor's QC Manager and that of the QC Manager's inspection staff is also Quality Control.

Remedial Work (RW): Corrective measures performed by the Responsible Party on a VAF feature to restore the feature to compliance with the specification.

Request for Correction (RFC): A document initiated by the Contractor entitled RFC, which has pertinent supporting documents and data attached, proposing a method for correction of work that is not in compliance with the contract documents that is submitted to the Project Administrator (PA) for coordination with the Department and others on a response to the proposal.

Request for Information (RFI): A written document initiated by the Contractor entitled RFI that is submitted to the PA for coordination with the Department and others on a response to any of the following issues:

- Interpretation of a contract document provision, the meaning of which, is not clear to the Contractor
- Errors, omissions or conflicts in the contract documents that are identified by the Contractor
- Pay adjustment or entitlement

Request for Modification (RFM): A document initiated by, and for the benefit of, the Contractor entitled RFM, requesting a modification to the contact documents that is submitted to the PA for coordination with the Department and others on a response to the request.

Resident Engineer: The Florida Department of Transportation's local area representative who reports directly to the District Construction Engineer (DCE) and may be either a Department employee of the District or an employee of an engineering firm which is serving as the Department's Consultant Construction Engineering and Inspection (CEI) representative. The Engineer supervising CEI personnel responsible for the construction activities in the residency. In this ***Manual*** this could be the Consultant Senior Project Engineer responsible for the construction activities of the project. For the purposes of this ***Manual***, the Construction Engineer in responsible charge for all Construction Contracts managed by an Operations Center is considered equivalent to the Resident Engineer.

Resident Level Staff: The staff assigned to the resident construction offices or operations centers, which may include Consultant project managers, construction project managers or Consultant program managers and the resident engineers or their delegates.

Responsible Party (RP): The party contractually obligated to ensure that a VAF performs in full compliance with the contract requirements for the designated period of time following final acceptance.

Second Tier Subcontractors - a.k.a., Subordinate Subcontractor; any person who enters into a subordinate contract with a subcontractor for the performance of any part of such subcontractor's contract.

Second Tier Supplier: Any person who furnishes materials under subordinate contract to a subcontractor for direct delivery, specially fabricated materials or off site improvement, and who performs no labor in the installation.

Semifinal Inspection: An inspection conducted by the Engineer within seven days after notice from the Contractor of presumptive completion of a unit of a project or the entire project.

Significant Change: When the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction; or when a major item of work is increased in excess of one hundred twenty-five (125) percent or decreased below seventy-five (75) percent of the original contract quantity.

Special Working Hours: Certain hours of the day or limited days of the week when work can be performed. These limitations are usually site specific and can increase the duration of the construction contract.

Statement of Claim Settlement Cost: The claim settlement costs are those costs disputed by the Department but paid solely to avoid the risk of additional costs associated with resolving the claim by dispute review board, arbitration or litigation. Claim settlement costs are the sum calculated by subtracting from the Claim ***Supplemental Agreement*** amount paid, that amount justified by the Engineer's Estimate and Entitlement Analysis percentages. Specifically, that amount justified by the Engineer's Estimate and Entitlement Analysis is the summation, for all claim issues, of the most recently amended Entitlement Analysis percentage for each claim issue, multiplied by the most recently amended Engineer's Estimate of cost impact for that issue. The ***Statement of Claim Settlement Costs*** is simply a page signed and dated by the engineer preparing it that lists the claim issues, shows the calculation described above and includes the following: the relevant amounts for each issue, the total amount justified, the total amount paid and the resulting claim settlement cost. Even though a contract adjustment may settle several disputed issues for amounts greater than justified in the Entitlement Analysis and Engineers Estimate, the contract adjustment will have only one ***Claim Settlement Cost*** which is the sum of all such costs for the issues settled in the contract adjustment.

Statewide Critical Requirements List: For each assessment category, this is a minimum list of requirements which should be reviewed during Process Reviews. Note that where warranted, in the opinion of the Process Reviewer, additional items from the ***Statewide Inspection Guidelist*** may also be reviewed during any Process Review.

These guidelists are worded in such a way as to focus the Reviewer's attention on theCEI staff's performance of inspection and management duties related to the critical requirements. The ***Statewide Critical Requirements Lists*** are available on the Florida Department of Transportation's State Construction Office infonet and internet websites and may be downloaded and printed for field use. Although these guidelists are to be updated annually; where warranted, they may be changed in midyear.

Statewide Inspection Guidelist: A list of major items that assists the CEI staff in their inspections of work related to each assessment category. These are principally to be used with ***CPAM Section 3.2, Quality Control Inspection*** and are only applicable to this section to the extent described in the definition of ***Statewide Critical Requirements Lists*** shown above. The guidelists are worded in such a way as to focus the CEI staff's attention on insuring the Contractor's performance. Each of the assessment categories has a guidelist that covers the significant inspection requirements corresponding to that category. The guidelists are not a comprehensive source for identifying everything, which an inspector or construction manager must know. Instead, they are intended to be a guide for identifying significant and critical areas of concern, the details of which are covered in the contract documents. The guidelists are available on the Florida Department of Transportation's State Construction Office infonet and internet websites and may be downloaded and printed for field use. These guidelists are also to be updated annually, but where warranted they may be changed in midyear.The State Construction Office may also solicit participation of a specialist from one of the districts or other offices when the SCO reviewer does not have the level of expertise needed for the review. This person would participate in Process Reviews conducted in all of the Districts.

Streamline Projects: This alternative type was developed to simplify the administration of the contract by selecting minor projects that were less than $2,000,000 dollars and less than 2,000 tons of asphalt. There are two types of Streamline projects: 1.) Streamline Plan Quantity and 2.) Streamline Lump Sum.

Subcontractor: One that enters into a contract with the prime Contractor; one who furnishes labor, materials or equipment and work by equipment rental under rental agreement with the prime Contractor.

Substantial Overrun: Overrun in the quantity of one or more pay items which totals more than two point five (2.5) percent of the original total contract amount.

Supplier: Any person who furnishes materials under contract to the prime Contractor for direct delivery, specially fabricated materials or off site improvement, and who performs no labor in the installation.

Tentative Acceptance Agreement (TAA): An agreement to partially refund a Utility Agency Owner for an over estimated deposit on a utility project.

Time plus Money Bidding: Shortens the contract time by allowing each contractor to bid the number of days in which the work can be accomplished.

Training Opportunities: Deficient performance of a Critical Requirement or other area of CEI responsibility as determined through the Process Review.

Updated Schedule: A schedule is updated by the addition of actual start dates, actual finish dates, percent complete to activity data, added activities, changes in sequence, and project duration.

Value Added Feature (VAF): A feature designated by the specifications that requires a Responsible Party to be contractually obligated for and warrant the performance of the feature as described by the contract.

Verification Testing Geotechnical Engineer (VTGE): The Engineer engaged by the Department to perform verification testing. Verification testing could be dynamic testing and integrity testing. It could be the same consultant geotechnical sub consultant working for the CEI, DGE, in-house Department personnel from the DGE, or a consultant working directly for the DGE.

Warranty Period: The period of time designated in the contract or by agreement for which the Responsible Party is contractually obligated for the performance of the VAF.

Work Plan - Controlling Item of Work, Form No. 700-010-15: This documents the Contractor's planned scheduled of work identifying those items of work that will control the over-all progress of the Contractor's work effort on projects without Critical Path Method (CPM) Schedule.

I.5 DISTRIBUTION

CPAM Coordinator: Each District Construction Engineer (DCE) shall appoint a District CPAM Coordinator for the District. The DCE shall also notify the State Construction Engineer whenever a new District CPAM coordinator is appointed. The State Construction Office (SCO) will publish the current list of CPAM coordinators, including their position, titles, postal addresses and email addresses at the end of this section ***(See Attachment I-1)***. The District CPAM Coordinator will act as a district contact for CPAM revision comments or suggestions. The State Construction Office shall appoint a CPAM Coordinator. The State Construction Engineer shall notify the DCEs and District CPAM Coordinators of any such appointments or changes in appointment thereof. The SCO-CPAM Coordinator is responsible for coordinating the review and publishing of the CPAM in accordance with this ***Manual***.

Access: The ***CPAM*** and its associated ***Construction Bulletins (CBs)*** and ***Guidance Documents*** are public documents as defined in ***Section 119.011(1), F.S.***, and must be made available to the public. The principal avenue of availability to all external customers, including the public, should be through the State Construction Office website at www.dot.state.fl.us/Construction. All external customers and consultants should be advised of the opportunity to review and or print the ***CPAM*** free at the State Construction Office website. Department of Transportation staff may also access the ***CPAM*** from the Construction Office website on the Infonet/Intranet. Although the document is intended for Department personnel and Consultant CEI personnel with active Consultant CEI contracts, other requests for paper copies are to be expected.

Access to Paper Copies for External Customers: When an external customer still wants a paper copy after being advised of the free availability on the SCO website, then that request within any District should be handled by the District Construction Office. ***CPAM*** distribution is now electronic and the Office of Maps and Publications no longer handles sales of the ***CPAM***. Paper copies of individual pages or of whole sections may be requested from a District. A reproduction fee is specified in ***Section 119.07, F.S.*** Any monies received should be submitted to the Comptroller in accordance with the latest version of the ***Recording, Transmitting, and Depositing Receipts and Refunding Moneys, Procedure No. 350-080-300***.

Access to Paper Copies for Internal Customers: All internal customers shall access the ***CPAM*** and its associated ***CBs*** and ***Guidance Documents*** online, printing only those sections required to satisfy their immediate needs.

Notice of Changes: Each DCE and District CPAM Coordinator will receive an email notice when any portion of the ***CPAM*** published on the SCO website has changed. Such changes are posted on the Construction website under Manuals Online, or posted under Memos and Bulletins when implemented by a ***Construction Bulletin***. The DCEs and District CPAM Coordinators shall be responsible for the distribution of that notice to all Resident Engineers and Project Engineers within their areas of responsibility. The SCO shall be responsible for notifying the Office of the General Counsel, Office of the Comptroller, the Director of Administration, DCEs, the Forms and Procedures Office, and the District CPAM Coordinators and those individuals within the SCO of any updates/revisions to the ***CPAM***.

Maintenance of Record Copies and Review Files: The SCO shall be responsible for maintaining the ***CPAM*** review files; original copies of ***CBs***; original copies of ***Guidance Documents*** and overseeing the timely incorporation of ***CBs*** into the correct section of the ***CPAM***.

I.5.1 ELECTRONIC DOCUMENT DISTRIBUTION

The Department utilizes the Electronic Document Management System (EDMS) for the purpose of providing secure electronic storage, retrieval, and archiving of electronic documents. Construction is a Business area within the EDMS - Construction Document Management (CDMS) - which is utilized to store, retrieve, and archive all construction project records. CDMS is an electronic recordkeeping system containing all construction project documentation and correspondence generated or received by the Department throughout the construction phase including the final estimate and project completion. Records created and/or maintained within EDMS shall serve as the official record if the source record was created for or by the Department with CDMS serving as the central repository for official construction records. This process for electronic storage and retrieval shall replace the requirements for paper copies as called for throughout this ***Manual***.

(A) District Level Responsibilities

The District Construction Engineer shall have a policy for electronic distribution and storage of documents in lieu of paper copies as called for throughout this ***Manual***.

(B) Resident Level Responsibilities

Subject to the District's policy, documents shall be electronically distributed and stored in lieu of paper copies as called for throughout this ***Manual***.

I.6 COMMENTS OR SUGGESTIONS FOR CPAM REVISIONS

Any comments or suggestions on the ***CPAM*** should be sent to the District CPAM Coordinator. Comments from District personnel will be routed through the District Construction Engineer for concurrence/comments before forwarding to the SCO-CPAM coordinator in Tallahassee. Central Office employees may send their comments directly to the SCO-CPAM Coordinator. ***Attachment I-2, Suggestions and Comments***, is provided at the end of this section to show users the minimum information required to submit comments/recommendations. Suggestions containing the same minimum information may also be emailed to the appropriate CPAM Coordinator or submitted directly to the comments section of the SCO Website. As comments and suggestions are received at the SCO, they will be assigned for action by the SCO-CPAM Coordinator to the appropriate staff person.

I.7 REVIEW

The ***CPAM*** is a dynamic document which will require periodic review. Each section of this ***Manual*** will be reviewed on a bi-yearly basis: even numbered chapters on even

numbered years and odd numbered chapters on odd numbered years. This review will be conducted by the SCO staff person assigned to be the contact person for the section. The SCO-CPAM Coordinator will route any comments received during the 24 months to the appropriate section contact person for the bi-yearly section review. Separate files will be maintained on each section including original draft, final adopted copy, revisions, comments received, and history of any changes made to the section. The SCO staff person assigned as the section contact person will ensure that all comments received during the 24 months are reviewed, responded to and if appropriate, incorporated into any revision of the section. The SCO-CPAM Coordinator will also make sure that any revisions involving substantive content changes to an existing section are reviewed by all District Construction Engineers.

I.8 REVISIONS AND ADDITIONS

I.8.1 New Chapter/Section

When a new item appears which cannot be adequately addressed within the ***Manual's*** present chapters/sections, then a new section will be written by the SCO. New chapters or sections will be circulated for preliminary and executive review in accordance with ***Section 5*** of the Department's ***Standard Operating System, Procedure No. 025-020-002***, and approved by the Executive Board. New sections of ***CPAM*** will be distributed in accordance with instructions in ***Subsection I.5, Distribution***.

I.8.2 Revised Chapter/Section

The State Construction Engineer will decide if revisions involve substantive content or minor and/or editorial revisions. Revised sections of the ***CPAM*** will be distributed in accordance with the instructions in ***Subsection I.5, Distribution***.

I.8.2.1 Substantive Revisions

Adoption of revisions shall begin by majority vote with each District Construction Engineer having one vote (8 votes), and the Central Office having three votes, for a total of 11 votes. These individuals shall make up the ***Construction Project Administration Manual*** Committee (CPAM Committee).

After adoption by the CPAM Committee, substantive revisions will be coordinated with the Office of the General Counsel, Office of the Comptroller, Director of Administration, and the Forms and Procedures Office. After all comments are received and resolved, the draft revision shall be put on the Executive Board Agenda for approval.

After Executive Board approval, the State Construction Office will prepare a summary of changes for the history section, update table of contents and forms section as needed, and coordinate with the Forms and Procedures Office for final publication.

I.8.2.2 Minor and/or Editorial Revisions

Minor and/or editorial revisions may be issued by the State Construction Engineer, after coordination with the Forms and Procedures Office and the Director, Office of Construction.

I.8.3 Construction Bulletins (CBs)

CBs may be issued by the State Construction Engineer's Office. This action should only be used when immediate implementation is needed, such as to implement a mandatory legislative change, FHWA directive, judicial court ruling, new Department policy, or other time sensitive issue. ***CBs*** will be distributed in accord with the instructions in ***Subsection I.5, Distribution***.

A ***CB*** shall have temporary authority. A ***CB*** shall expire once the requirements of the CB have been incorporated into the appropriate chapter/section of this ***Manual*** as part of the review process described in ***Subsection 1.6, Review***.

CBs will be sequentially numbered followed by the last two digits of the year issued, (i.e., 10-01, 11-01, 12-02, etc.). ***CBs*** shall be issued in memorandum format ending with a signature block for the Director, Office of Construction.

CBs will be published on the SCO website. Prior to being placed on the District Construction Engineers' agenda, a ***CB*** must be put into the ***Construction Manual*** format. This can be a page revision/insertion, section revision/insertion, or chapter revision/insertion. They will also be distributed to all DCEs and District CPAM Coordinators. The DCEs shall be responsible to notify all Resident Engineers and Project Engineers within their district when a new ***CB*** is received. The DCE shall distribute the ***CB*** as needed in order to ensure that their areas of responsibility are in compliance. The SCO will distribute the ***CB*** to the SCO Specialty Engineers and other affected Central Office personnel.

I.9 GUIDANCE DOCUMENTS

In the event that the State Construction Engineer determines that written advice should be provided to the Districts, a sequentially numbered ***"Guidance Document"*** may be issued. ***Guidance Documents*** will receive only the review determined by the State Construction Engineer to be absolutely necessary prior to its issuance. While adherence to the procedure is mandatory, ***Guidance Documents*** are only advisory. Information

included in the ***Guidance Documents*** is intended to convey "best practices", and is not considered mandatory.

The first page of any ***Guidance Document*** will show the ***CPAM*** section name and number that the document is intended to clarify. Such ***Guidance Documents*** will be maintained in the ***CPAM*** at the end of the section they are intended to clarify. ***Guidance Documents*** will be distributed in accord with the instructions in ***Subsection I.5, Distribution***.

I.10 CONSTRUCTION MEMOS

Construction Memos will be issued by the SCO to provide interpretations of specifications, specification changes, information on policies and standards and construction related issues. All issues concerning standard specifications, policies, and procedures will subsequently be incorporated into those documents. Each ***Construction Memo*** will be identified with a number indicating its numerical sequence in the year of issue.

Construction Memos expire at the end of the calendar year in which they are issued and will be removed from the SCO Current Memos webpage. ***Memos***, which must remain active through the next calendar year, will remain on the SCO Current Memos webpage as active memos with its original identification number. Expired ***Construction Memos*** will be marked “This Memo Has Expired.”

I.11 TRAINING

Training in the use of this ***Manual*** is not required. Training is provided through the Construction Training and Qualification Program (CTQP). Courses are available within the Department of Transportation in individual subject areas There are two levels of Final Estimates training and training is required of all users of this ***Manual***. See the ***Topic No. 700-000-001, Construction Training and Qualifications Manual, Chapter 9*** for Final Estimates qualifications. Contact the Construction Office should more information about training be needed.

I.12 FORMS

Forms will be listed on a chapter-by-chapter basis, with accessibility identified if not available from the Department’s Forms Library.

Attachment I-1
CONTACT LIST FOR FDOT CPAM COORDINATORS

District 1
Marshall Douberley
P.O. Box 1249
Bartow, FL 33831-1249
marshall.douberley@dot.state.fl.us

District 2
Michael Sandow
P.O. Box 1089
Lake City, FL 32056-1089
Michael.Sandow@dot.state.fl.us

District 3
Kim Weaver
P.O. Box 607
Chipley, FL 42428-9990
kim.weaver@dot.state.fl.us

District 4
Jeannette Harris
3400 W. Commercial Blvd.
Ft. Lauderdale, FL 33309-3421
Jeannette.Harris@dot.state.fl.us

District 5
Jennifer Smith
719 So. Woodland Blvd.
Deland, FL 32720-6800
jennifer.smith@dot.state.fl.us

District 6
Franck Demorcy
1000 N.W. 111th Ave.
Miami, FL 33172-5802
Franck.Demorcy@dot.state.fl.us

District 7
Megan Arasteh
11201 N. McKinley Dr.
Tampa, FL 33612-6403
megan.arasheh@dot.state.fl.us

Turnpike
William Sears
P.O. Box 9828
Ft. Lauderdale, FL 33310-9828
William.Sears@dot.state.fl.us

Materials Office
Cristina Croft
5007 N.E. 39th Avenue
Gainesville, FL 32609
cristina.croft@dot.state.fl.us

Central Office
Rose Hudson
605 Suwannee St. MS 31
Tallahassee, FL 32399-0450
Rose.Hudson@dot.state.fl.us

Attachment I-2
SUGGESTIONS AND COMMENTS
CONSTRUCTION PROJECT ADMINISTRATION MANUAL

Document Name and Number: _____
Suggestions or Comments: _____
_____
_____
_____
_____
_____
_____

Name: _____
Address: _____
City, State, Zip: _____
Phone No.: _____
Email: _____
Date: _____

Please make a copy for your files, then send the original and one copy through the appropriate District Construction Engineer to:

Department of Transportation
SCO-CPAM Coordinator
Construction Office, MS 31
605 Suwannee Street
Tallahassee, Florida 32399-0450

-OR-

FAX: (850) 412-8021

-OR-

Email: Rose.Hudson@dot.state.fl.us

Chapter 1

PRE-LETTING ACTIVITIES

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Section 1.1

Plans Review and Comments

1.1.1 Purpose

The Department provides opportunities for the District Construction Offices to become involved in the design element of the project development process. By taking advantage of this opportunity, the construction offices can provide comments that will improve the design of the transportation facility, improve construction duration, and address potential issues which may otherwise arise during the actual construction of the project. This procedure, ***Volumes 1*** and ***2*** of the ***Plans Preparation Manual***, ***Topic Nos. 625-000-007*** and ***625-000-008***, and the ***Structures Manual, Topic No. 625-020-018*** describe the responsibilities and duties of various offices in the Department to perform phase reviews.

1.1.2 Authority

Section 20.23(3)(a), Florida Statutes
Section 334.048(3), Florida Statutes

1.1.3 General

Any person performing reviews must be familiar with ***Volumes 1*** and ***2*** of the ***Plans Preparation Manual***, ***Topic Nos. 625-000-007*** and ***625-000-008***, the designers ***Scope of Services*** and ***Request for Proposal*** documents as applicable. The ***Plans Preparation Manual*** describes the review stages and submittal requirements for each review stage.

This ***Manual***, adheres to the terminology used in the ***Volumes 1*** and ***2*** of the ***Plans Preparation Manual***, ***Topic Nos. 625-000-007*** and ***625-000-008***.

For conventional design-bid-build projects, the Phase II review is referred to as the constructability review when performed by the District Construction Office. When the District Construction Office performs a Phase III review, it is referred to as a biddability review. Constructability and biddability should be addressed at each review.

For bridges there are four stages of plan development on conventional design-bid-build projects. Stage 1 occurs during the Project Development & Environment (PD&E) process. Stage 2 consists of the Bridge Development Report (BDR) and Phase I plans. Construction and maintenance considerations should be addressed in the BDR. Stage 3 includes the Phase III plans and technical specification submittal. Stage 4 is the Phase

IV plans and complete specifications. Only a foundation submittal is required for Phase II structure plans except for Category 2 bridges that require a full submittal.

The plan reviewer must look for potential issues that can or will cause increased project duration and cost when the project is being constructed, as applicable. A plan review may be an opportunity to provide suggestions to improve the end product.

The Designer must give the District Construction Offices a reasonable amount of time, in accordance with Department policy, to perform the reviews. The District Construction Office must assign knowledgeable personnel with adequate time to perform the reviews. Comments will be provided in a timely manner so as not to delay development of the project.

The District Construction Offices must involve the respective resident office in each review to the maximum extent possible.

Comments made should relate to the Department's ability to receive favorable bids, construct the project as designed, and to address issues that might occur during construction.

All plan reviews shall be facilitated using the Departments ***Electronic Review Comment*** (***ERC***) system. The designer must provide responses to each plan review comment submitted which indicates a response is required. The plan reviewer must review and either reject or accept each comment response. All comments related to any specific plan development phase shall be adequately addressed to the satisfaction of the plan reviewer before any subsequent phase review submittals may be entered into the ***ERC*** system.

The following direction applies to all discipline phase plan reviewers performing Component Plan Reviews on Design-Build and Public-Private-Partnership projects:

Separate component plan review comments into categories which consist of comments that do and comments that do not refer to direct violations of the Contract as follows.

- Comments that do refer to direct violations of the Contract require a written response by the Design-Build Firm or Concessionaire. Where possible, the plan reviewer is expected to include the specific contract reference or requirement that is being violated. Examples may include, but are not limited to:
    - an ***AASHTO*** provision being violated;
    - a Governing Regulation, e.g. ***Plans Preparation Manual (PPM)***, ***Structures Design Guidelines (SDG)***, requirement being violated;
    - a ***Technical Proposal*** commitment not being met;

- a ***Request For Proposal*** requirement being omitted or violated;
- omission in the plans or calculations;
- inconsistencies between the plans and calculations;
- an environmental commitment or permit commitment not being met.

- Comments that do not refer to direct violations of the Contract do not require a written response by the Design-Build Firm or Concessionaire. At the end of each comment the plan reviewer shall indicate that the comment is for information only and a written response is not required.

For additional requirements related to Component Plan Reviews on Design-Build and/or other non-conventional type projects, refer to the ***Request for Proposal*** document and ***Volume 1***, ***Chapter 20*** of the ***Plans Preparation Manual***.

During each phase of review, time charges should be made against the appropriate in-house support project corresponding to the construction project review.

1.1.4 Scope Development

District Level Responsibility

The Quality Control Plans for many districts require the participation of the District Construction Office in developing the scope of the project. The project scope shall be complete and anticipate future improvements if necessary.

1.1.5 Phase I Review (Roadway)

District Level Responsibility

At this review stage, no decisions have been finalized and there is an opportunity to change the aspects of the project that may have serious consequences as the project progresses from concept to completion. The key to designing a successful project involves establishing early in the design all restraints to constructing the project so that permits, Right of Way (R/W) easements, utility relocations, etc., will lead to a constructible project. The plan reviewer should concentrate on assisting the designer in determining these restraints. This provides an opportunity for the plan reviewer to provide input on how the project should be constructed.

1.1.5.1 Roadway Plans

District Level Responsibility

The plan reviewer should be familiar with the ***Plans Preparation Manual*, *Topic Nos. 625-000-007 and 625-000-008,*** and be familiar with the information that is required to be in the plans for a Phase I review. If any of this information is missing, its absence should be noted and corrected. Particular attention should be placed on reviewing alignments, typical sections, topography, benchmarks, and geometry for layout, right-of-way requirements and the traffic control conceptual plan.

Right-of-way at intersections should be checked to make sure there is sufficient room for sidewalks, drainage structure connections, and signal poles. Right-of-way widths should be sufficient to provide for adequate front slopes and back slopes to ditches, transitions to driveways, and future drainage structures.

The traffic control conceptual plan will have a substantial impact on the project's duration. The number of phases should be minimized. Staged construction and sequence of operations should be reviewed to minimize the impact on business.

If possible, utilities should be identified that could or should be relocated before construction. If utilities cannot be relocated before construction, encourage the use of Joint Project Agreements for relocation during construction by the Department's Contractor.

1.1.5.2 Bridge Plans

District Level Responsibility

The development of bridge plans will trail behind roadway plans at this stage because the bridge plans require the vertical and horizontal geography, approved typical section, and Traffic Control Plan developed in the roadway plans.

1.1.6 Phase II Reviews (Roadway) and Bridge Plan Reviews

District Level Responsibility

For projects which consist of roadway and structures, the Phase II reviews for roadway and the latest set of structures plans should be submitted as a unit. At this review, the project layout is complete. Most R/W requirements should be identified and all phases of construction should be detailed on the plan set.

1.1.6.1 Roadway Plans

District Level Responsibility

The most important aspect of this review is the drainage structures, cross and side drains, and outfall locations and right-of-way requirements. The plan reviewer must assure that:

(1) Pipe and drainage structure locations will not adversely affect the project duration by forcing an additional work phase.

(2) Sufficient right-of-way has been allowed for trenching drainage structures and for outfall locations.

(3) Apparent conflicts with utilities have been addressed.

(4) Utility contract plans have been coordinated with phasing of the roadway.

(5) Provisions have been made for positive drainage during each phase of construction.

(6) All necessary pay items are included in pay item list.

(7) Conflicts between light standards and utilities and drainage (especially where foundations are required) are resolved.

1.1.6.2 Bridge Plans

District Level Responsibility

At the BDR/Phase I bridge plan stage, the District Construction Office review should concentrate on the ability of the Contractor to get materials to the site and the ability to perform the work. Specific bridge details are not developed at this time. Some specific areas to be reviewed should include:

(1) Beam length and weight for transportability either by road or barge.

(2) Right-of-way requirements especially for haul route, access and staging areas.

(3) Ability to locate appropriately sized equipment on the project (i.e., is there room between bridges? Will the soil beneath the bridge or on access roads support very heavy equipment? Is water depth sufficient for barges?).

(4) Are the assumed construction methods appropriate for the site?

(5) Are utilities properly located?

(6) Will there be any difficulties encountered during installation of the foundations?

(7) Can utilities be relocated before construction? (This is especially important when utilities are hung from bridges or utilities will be in the area where piles, drilled shafts, or temporary sheeting will be installed.) And, has the designer made any decisions about project phasing that will increase the project duration by impacting phase transitions? Is there a viable alternative?

(8) Does the design of the various bridge elements allow for reuse of formwork?

(9) Is removal of lead-based paint involved on the project? Asbestos removal? Creosote materials? Excavation in contaminated areas?

1.1.7 Phase III Review and Stage 3

District Level Responsibility

The designer must submit roadway plans, specifications, structures plans (if any), and specifications for this review. Conflicts and ambiguities between or among these elements must be resolved. The District Construction Office conducts a constructability/biddability review to establish whether a Contractor can submit a competitive bid based on the information shown in the plans and specifications. At this stage, many decisions have been made that cannot be undone; but it is still an important review because it provides an opportunity to remove some of the more common problems. The constructability review should concentrate on the ability of specific details to be constructed within the requirements of the plans and specifications and to propose better details if possible.

Other common problems are caused by plan notes. Plan notes should avoid directing means and methods to a Contractor. Plan notes should be clear and concise and relay important information without conflicting with plan details and specifications. Plan notes should never reiterate or circumvent the requirements of the specifications.

One of the most common problems relates to pay items. There must not be any missing or incorrect pay items (Refer to the Basis of Estimates Manual or specifications for the correct use of pay items). There must be a clear method of payment for all items of work. Also, there should not be double pay for the same work. The CES Summary of Quantities and plans must agree.

The biddability review should concentrate on quantities for each item of work called for in the plans and specifications. What is material used for? How much? Where does it go on the project? Are the quantities correct? Reasonable? Misleading? Duplicated? Unnecessary? Contingent?

The District Construction Office needs to identify the following needs:

(1) Traffic Control Officers' hours and Speed and Law Enforcement Officers

(2) Partnering

(3) Disputes Review Board

(4) Pre-Bid Meetings

1.1.8 Phase IV Plans Review

District Level Responsibility

This review is to assure that all previous comments are resolved and plans and specifications are complete. There should not be conflicts between or among contract documents.

1.1.9 Checklist

District Level Responsibility

A sample checklist as shown in ***Guidance Document 1-1-A*** provides a guide for the phase reviews. Comments should not be limited to items on the checklist. Each plan reviewer is encouraged to expand on this checklist by adding other items.

Guidance Document 1-1-A

PHASE REVIEW CHECKLISTS

FINANCIAL PROJECT ID NO.: _____

Review Phase: I II III IV

NAME OF REVIEWER: _____

DATE:

1. CLEARING/GRUBBING/EXCAVATION

Item No.	Feature to be Checked	Ok	Not Ok	N/A
1-1.	Delineation of limits of grubbing, clearing and landscaping.			
1-2.	Sites for temporary fill and top soil storage. Laydown area on same side of road as fill area. Room for storage of excavated muck to be used as muck blanket. Indication of dump sites.			
1-3.	Measurement of borrow. Percentage shrinkage used satisfactorily.			
1-4.	Underground obstructions clearly marked.			
1-5.	Stabilization limits clearly shown.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	
Designer's Comments	

2. SITE SURVEY/PLAN/PROFILE

Item No.	Feature to be Checked	Ok	Not Ok	N/A
2-1.	Right-of-way and property line dimensions in the plan.			
2-2.	Site conditions conform to those represented in plan.			
2-3.	Existing topography accurate and up-to-date and the profile fits the terrain.			
2-4.	Work elements identified clearly and all corresponding pay items are included with adequate quantities to construct project.			
2-5.	Plans clear and legible. Any apparent conflict between plans and specifications.			
2-6.	Existing drainage patterns shown. Its conflict with new work depicted.			
2-7.	Typical section against existing and proposed right-of-way.			
2-8.	Line and grade of ditches and fences for conflict with existing cross-section.			
2-9.	Benchmark data, needed elevations, curve data in the plan.			
2-10.	Water table elevations and requirement of dewatering.			
2-11.	Check cross-sections for grade changes at phase tie ins.			
2-12.	Appropriate general notes and special provisions required for construction.			
2-13.	Pavement design shown graphically matches with the verbal description on sections.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	

3. REMOVAL/DEMOLITION

Item No.	Feature to be Checked	Ok	Not Ok	N/A
3-1.	If structures to be removed or renovated, asbestos survey?			
3-2.	If asbestos or creosote timber is being removed, are special instructions and disposal defined? Who will handle?			
3-3.	Are there clear limits of removal? Horizontally and vertically?			
3-4.	Is there adequate construction access for demolition?			
3-5.	Is there a clear method of disposal?			
3-6.	Adequate provisions if signs or road markers to be removed.			
3-7.	Appropriate milling details (e.g., limits are identified; special treatment at bridge ends; bridge overpass, etc.).			
3-8.	Availability of demolition site.			
3-9.	Are there contamination sites delineated? Utility relocation in or near these sites?			
3-10.	Depth of embedment, required excavation and inside details of removable items.			
3-11.	Depiction of valve boxes, manholes, hydrants and provisions for relocation.			
3-12.	Disassembly and adequate specified protection requirements. Disassembly of plant, structure, utility or equipment and adequate specified protection requirements to existing utility or structure.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	
Designer's Comments	

4. STRUCTURES

Item No.	Feature to be Checked	Ok	Not Ok	N/A
4-1.	Does Corp. of Engineers or WMD permit require work not shown on plans?			
4-2.	Is TCP coordinated with roadwork phasing?			
4-3.	If battered pile used will leads be over moving traffic? Will they miss R.E. walls?			
4-4.	Do plans show all utilities, existing pile locations and existing foundations in temporary and permanent pile driving area?			
4-5.	Water depth sufficient to float barges? Will barges block boat traffic? prop wash?			
4-6.	If access not practical by barges, have temporary work bridges or fill been considered? Is method consistent with permits?			
4-7.	Have power service points for signing, lighting, signals been confirmed?			
4-8.	Is highway lighting properly detailed for bridge? pilaster detail?			
4-9.	Are there any problems with R/W, i.e. Reimbursement Agreements and easements?			
4-10.	Has TCP Plan addressed channeling traffic from under overhead work?			
4-11.	If Federal-Aid Project, Is foreign steel required on the project? If so has the EOR obtained a design variance and waiver of the Buy America requirements from FHWA?			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	
Designer's Comments	

5. UTILITIES

Item No.	Feature to be Checked	Ok	Not Ok	N/A
5-1.	List of all utility owners and contact numbers.			
5-2.	Existing utility location marked in the plan.			
5-3.	Utility conflicts and their relocation indicated in design.			
5-4.	Disruptions of other utilities and provisions for restoration.			
5-5.	Responsibility to relocate utility and provisions.			
5-6.	Verification of new utilities connecting with existing.			
5-7.	Adequate description of connection and reconnection points.			
5-8.	Availability of indicated existing utility ducts and their proximity to highway facility and traffic.			
5-9.	Other utilities which new underground ducts intersect or traverse.			
5-10.	Utility crossings resolved via scheduling restrictions (i.e., weekends, after hours) or temporary structures.			
5-11.	Overhead utilities, guy wires for potential conflict with operations and access of large equipment.			
5-12.	Utilities required for construction operation and field offices.			
5-13.	Sewer lines below water mains and gas lines above other utilities.			
5-14.	Space between R/W line and drainage structure to allow for construction.			
5-15.	Utility conflicts with drainage.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	

6. DRAINAGE

Item No.	Feature to be Checked	Ok	Not Ok	N/A
6-1.	Existing drainage patterns, their continuity and high water indications.			
6-2.	Drainage easement, if required, in the plan.			
6-3.	Identification and adequacy of all drainage items and quantities.			
6-4.	Ditches compatible with existing and proposed drainage structures.			
6-5.	Needed elevations shown in the plan and compatibility of location of design with existing conditions.			
6-6.	Drainage when FC-2 (open graded friction course) is specified.			
6-7.	Drainage of construction area during work.			
6-8.	Drainage facility provided with the lanes on which traffic is to be maintained during work.			
6-9.	Proposed method of connecting new and old drainage facility.			
6-10.	Effect of overlay on intersections, gutters, curbs as regards to drainage and their adjustment.			
6-11.	Outfall locations of temporary and permanent drainage facility, if any.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	

7. MAINTENANCE OF TRAFFIC

Item No.	Feature to be Checked	Ok	Not Ok	N/A
7-1.	TCP (Traffic Control Plan) clear, complete, approved and conform to FDOT Standard Index.			
7-2.	Temporary safety devices requirement and provision (i.e., guard rail, attenuators, earth mounds, etc.)			
7-3.	Location of traffic control signs, warning devices and barricades. Check if they are encroaching on lanes.			
7-4.	Detour facility, if any, and maintenance of traffic. Traffic addressed on side streets as per Index 600 of Standard Index.			
7-5.	Traffic operation requirements properly addressed (i.e., signing, pavement markings, signal, etc.).			
7-6.	Relocation item for barrier wall or fence.			
7-7.	Location of flashing arrow boards, if needed, at appropriate places.			
7-8.	Lanes on which traffic is to be maintained compatible to local conditions and intended to be paved.			
7-9.	Is there sufficient clearance within the work zone for the operation (such as crane swing room)?			
7-10.	Adequate accommodations for intersecting and crossing traffic.			
7-11.	Address pedestrian and bicycle accommodations.			
7-12.	Are exits and entrances to the work zone adequate and safe?			
7-13.	Method of containing bridge slopes during phased construction (at end bent) and approach grade separations.			
7-14.	Restrictions (e.g., lane closure, general construction or peak-hour restrictions in urban areas) indicated in plan.			
7-15.	Note covering traffic signal modifications for phased construction.			
7-16.	Note covering pay for traffic control items.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	

8. SIGNALIZATION

Item No.	Feature to be Checked	Ok	Not Ok	N/A
8-1.	Pole locations and their conflict with utilities and drainage structures.			
8-2.	Controller, signal heads, pull boxes, pedestrian pole locations.			
8-3.	Vertical conduit.			
8-4.	Verification of conduit street crossing to become overhead.			
8-5.	Existing controller compatible to added items.			
8-6.	Fiberglass insulators needed for span wire due to power overhead lines and adequate provisions.			
8-7.	Number of detectors is right.			
8-8.	Any signs attached to the overhead span wire for the traffic signal.			
8-9.	Disposition of existing signal poles and other equipment, if they are removed.			
8-10.	Signal arms far enough to provide sidewalk access.			
8-11.	Pole embedment conforms to proper depth criteria.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	
Designer's Comments	

9. SCHEDULE/PHASING/ACCESS

Item No.	Feature to be Checked	Ok	Not Ok	N/A
9-1.	Review of design and construction schedule for feasibility.			
9-2.	Scheduling and phasing with activity needs.			
9-3.	Access maintenance to all occupied spaces by reviewing scheduling restrictions, sequence of work restrictions, delineated work areas.			
9-4.	Type and limits of fence to be used for limited access highways.			
9-5.	Defined and designated lay down area and sufficient space for trailers, material storage and operations.			
9-6.	Requirements for local/state special permits.			
9-7.	Haul route different from most direct route and indicated in TCP.			
9-8.	Any walls or special access required to adjacent property.			
9-9.	Easement of available adjacent property for storage & construction.			
9-10.	Safe pedestrian access and access to business and residences provided.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	
Designer's Comments	

10. NATURE & ENVIRONMENT PROTECTION

Item No.	Feature to be Checked	Ok	Not Ok	N/A
10-1.	Erosion and pollution control items/measures.			
10-2.	Depiction of all existing trees and shrubs to remain and those to be removed.			
10-3.	Are the NPDES permit requirements addressed?			
10-4.	DEP and local agency requirements are clearly identified.			
10-5.	Provisions to prevent groundwater contamination/other environmental pollution.			
10-6.	Project's environmental protection safeguards with respect to dust control, erosion and disposal of wastes.			
10-7.	Provisions for noise abatement (e.g., permanent noise walls)			
10-8.	Does the plan try to accommodate local noise ordinances?			
10-9.	Verification of landscaping and planting requirement and their conflicts with utilities (e.g., irrigation lines).			
10-10.	Where additional trees are planted, is there sufficient space (25-30') for power mowers?			
10-11.	Provisions for silt fences, turbidity barriers, etc.			

Suggested Changes: (to be completed for items checked "NOT OK")

Item No.	Description of Change
Designer's Comments	
Designer's Comments	
Designer's Comments	
Designer's Comments	

11. RECONSTRUCTIBILITY

When this project needs to be reconstructed, (i.e., repaving, widening, utility/drainage work, etc.) in the future, which of the following project components, as designed, will facilitate reconstruction?

Item No.	Feature to be Checked	Ok	Not Ok	N/A
11-1.	Earthwork design (e.g., "temporary" borrow, "additional excess," detour material, embankment, etc.).			
11-2.	Right-of-way acquisition (e.g., for signal and lighting foundations, redesigned radii of drainage structures, utility relocation, construction easements, adequate work space, desirable clear zone, etc.).			
11-3.	Geometrics and roadway alignment (e.g. curve data, sight distance, vertical datum, centerline, etc.).			
11-4.	Utilities (e.g., accuracy of location, proposed relocation, conflicts with other structures, future MOT impact, etc.).			
11-5.	Pavement (e.g., design criteria, flexibility to change, material alter- natives, etc.).			
11-6.	Drainage structures (e.g., new and standardized structures, size of pipe, low head piping, interim drainage).			
11-7.	Lighting and signs (e.g., conduit size, service point locations, design of structures, compatibility, power source, etc.).			
11-8.	Other structures (e.g., mix design, strength, pile information, finishes, concrete and steel requirements, etc.).			

Item No.	Comments

Section 1.2
CONTRACT DURATION AND ALTERNATIVE CONTRACTING TECHNIQUES

1.2.1 Purpose

The purpose of this section is to provide a uniform methodology for establishing contract durations on construction contracts.

1.2.2 Authority

Sections 20.23(4)(a), 337.015(5), and 337.18, F. S., Plans Preparation Manual, Topic Nos. 625-000-007 and 625-000-008.

1.2.3 Scope

This document was created to assist the District Scheduling Engineer and/or the Construction Consultant Engineering and Inspection services in establishing contract duration and to assist in determining which type of contract technique would be used on that project.

1.2.4 Background

Project duration is an integral part of every construction project let by the Florida Department of Transportation (Department). In the past, the time was set based on historical information of how long it took to complete similar projects. The methodology and forms used were rather rigid and implied that tasks followed one behind the other with no opportunity for two or more tasks to be performed concurrently.

The Department has instituted changes that affect the establishment of the contract duration. These changes place emphasis on decreased project duration and the overall time required from conception to completion of the construction improvement to decrease user costs and the cost of contract administration. The methods, outlined in this procedure, allow the District Construction Offices more flexibility in establishing contract duration.

1.2.5 Definitions

Acquisition Period or Procurement Time: A number of calendar days allowed prior to the first day that time is charged to a contract. This period is to allow time for acquisition of some materials on specialized contracts.

Compressed Time or Time Priority: Compressed time is achieved by increasing the normal production rates. The contractor will have to make corresponding increases in the hours worked as well as crew size and equipment to complete the project within the shortened time. Compressed time is used when projects must be completed by a certain date or there are special considerations relating to traffic congestion or high public visibility.

Contract Duration: The number of calendar days allowed for the completion of a contract, excluding additional time granted for inclement weather or for holidays or special events.

Critical Path Method (CPM) Schedule: A special provision for critical path scheduling is used for more complex projects. With large projects, compressed time, or incentive/disincentive projects the Department is looking for assurance that the contractor will manage the project in a manner that will assure timely completion. Management at this level of complexity is very difficult without a tool like ***CPM***. The ***CPM*** schedule will also provide additional documentation needed for negotiating contract changes and claims.

Flextime: Flextime allows a contractor an additional amount of time after the notice to proceed to begin work. The day the project work starts is set by the contractor within a window of time established in the special provisions. The extra time allowed the contractor is used for scheduling materials, equipment, subcontractors and acquiring materials. Flextime may be granted where material procurement is needed for items such as mast arms, signalization equipment, etc. When this special provision is used, the contractor is not given an additional material acquisition period before contract time begins. The contractors are provided the additional flexibility, and flextime jobs normally will have fewer overruns and time extensions. The negative side of flextime is that it pushes out the calendar date for the completion of the project.

Incentive/Disincentive: The total “incentive payment” or “disincentive deduction” is a dollar per day amount which the contractor will be entitled to or charged based upon the accrued amount multiplied by the time (calendar days) established in the contract for the contractor to complete a specified activity or to complete the project. The time begins with the first chargeable day and ends with the completion of the project or the specified activity or milestone.

Lane Rental: The Contractor is permitted to "rent" travel lanes during construction in order to decrease the production duration, and minimize the amount of time lanes are closed to traffic.

Liquidated Savings: A Savings intended to encourage the contractor to finish a project early by providing a financial incentive for each day the project is completed prior to the approved project duration.

No Excuse Bonus: A Bonus paid to the contractor as an incentive to complete a project within set number of calendar days or a specified time frame (calendar date) regardless of any problems or unforeseen conditions that may arise.

Phase III Review: One of the last technical reviews of a set of roadway plans prior to being let to bid. At this review, all plan sheets are complete with the exception of the quantities for maintenance of traffic pay items. The only work remaining will be to reply to comments that result from the Phase III review, which is also known as biddability review. All phases are described in the ***Plan and Preparation Manual (PPM), Chapter 2, Volume II***. If the plans are available at Phase II for biddability review then, those items may be reviewed during this period.

Production Rates: A ratio of units of work to a period of time; (i.e., 1,500 square yards/day or X yards/hour.)

Special Working Hours: Certain hours of the day or limited days of the week when work can be performed. These limitations are usually site specific and can increase the duration of the construction contract.

Streamline Projects: This alternative type was developed to simplify the administration of the contract by selecting minor projects that were less than $2,000,000 dollars and less than 2,000 tons of asphalt. There are two types of Streamline projects: 1.) Streamline Plan Quantity and 2.) Streamline Lump Sum.

Time plus Money Bidding: Shortens the contract time by allowing each contractor to bid the number of days in which the work can be accomplished.

1.2.6 General Considerations

The Department establishes the contract duration on each construction contract. Several factors must be considered when establishing contract duration, such as:

1. Historical records of contractor performance on similar work.

2. Importance of the project to the implementation of Department Work Program.
3. Emergency conditions.
4. Annoyances in residential areas.
5. Traffic disruption and delay in high traffic areas and coordination with MOT plans.
6. Coordination with other activities, such as existing utilities and installation of new utilities.
7. Political sensitivity and public awareness.
8. Cost of Construction & Engineering Inspection (CEI) activities.
9. Projects under $2,000,000 dollars and less than 2,000 tons of asphalt.

Many of these factors can conflict with others and not all of them will have the same importance for each project.

The contract duration shall be established in conjunction with design's Phase III review. If there are quantity changes following the Phase III review, the contract duration may require revision. It must, in any case, be firmly established in sufficient time for the Design Project Manager to calculate the quantities for the maintenance of traffic pay items before the Phase IV review. (see ***PPM Volume I, Section 16.4*** for additional Plans Phase Reviews.)

To assist the engineer establishing the contract duration, the Department has established guidelines for production rates. These guidelines will be periodically revised and improved. Questions regarding the setting of contract duration should be directed to the District Scheduling Engineer.

Every effort should be made to involve the Resident Office in the Phase Review and in establishing the contract duration.

1.2.7 Initiating Specifications/Alternative Contracting Techniques

(a) District Level Responsibilities

The first step in setting duration for a contract is to determine if any special provisions apply. Establishing the contract duration requires familiarity with the project specifications and may require the addition of other specifications. Make sure these do not conflict with Department objectives or with local ordinances.

NOTE: Any contract utilizing the special provision(s) shown below such as; Flextime, Incentive/Disincentive, No Excuse Bonus, A+B, Lane Rental, and Liquidated Savings shall be pre-approved by the appropriate authority as detailed in the Usage Notes on the applicable Specifications Workbook.

Examples of these are:

1. Flextime

Flextime start time is a contracting method intended to minimize disruption to the public. The contractor can use this additional time to mobilize sub-contractors, to coordinate with utilities, to submit shop drawings, to acquire material and equipment, and maximize all resources for the project. Flextime should also be used in cases where material procurement will dictate the start or finish of a project. Project duration for flextime projects can be minimized as a result of the opportunity for efficiency in building the project.

Flextime is meant to be used on minor projects where the extra time allowed to the contractor will result in reduced impact to the traveling public. If flextime is used, general time added to the contract duration should be eliminated, meaning that of normal schedules such as 8am-5pm, Monday – Friday (normal 5 (five) day work week). On a flextime job, contract time for utility conflicts should be included in the contract duration only if the utilities cannot relocate during the flextime period. The contractor must know by specification requirement what utility relocation must occur during flextime.

Flextime should not be used if its use will negatively affect the health, safety, or welfare of the public or an early completion date for a project critical to the Department's work program. Flextime should not be used if the physical condition or capacity problems that will be improved by the project need to be addressed immediately. On projects that would be inspected by consultant firms, consideration should be given to the impact of the flex-time on the consultant staffing and any price considerations.

The District Scheduling Engineer initiates the request to include a flextime contract provision with consultation with the Resident Engineer and the District Specifications Office.

The flextime period shall not exceed 120 days, unless otherwise approved by the Chief Engineer.

2. Special Working Hours & Periods

The District Scheduling Engineer shall coordinate the establishment of any restriction of working hours and periods of time with the District Traffic Operations Office and the Resident/Operations Office that will administer the construction contract. The District Scheduling Engineer will also coordinate with the District Specifications Office.

3. Special Events

The District Scheduling Engineer should seek the input of the Resident Office that will administer the construction contract and the Public Information Office regarding any

special events that may impact the project. The District Scheduling Engineer should coordinate with Design Project Manager to identify Special Events which may restrict any or all contract operations and list such Special Events in the Contract Plans or in the Request for Proposal on Design-Build projects.

4. Schedule

The District Scheduling Engineer will determine the type of scheduling to be required for each specific project; e.g., bar charts, ***CPM***, etc., and coordinate with the District Specifications Office to include the correct Special Provisions to require this type of schedule. A bar chart is allowed to be used only for the smallest projects (i.e., under $1 million), however, ***CPM*** schedules are encouraged. ***CPM*** schedules are required for large and complex projects; e.g., those over $5 million, urban projects with three (3) or more traffic phases or others deemed appropriate such as alternative contracting projects, buildings, Variable Message Sign(s), etc. ***CPM*** schedules are not required but are encouraged on simple projects such as 3R (Resurfacing, Rehabilitation, Restoration) or minor bridges, unless there are unusual conditions.

5. Compressed Time or Time Priority

The District Secretary or his delegate initiates and approves a list of time priority projects. This determination should be made early so that it will influence the design of the project and the times negotiated on the utility relocation agreements. Placement on the list of time priority projects will be considered in the establishment of the project duration and the coordination with the District Specifications Office.

6. Incentive/Disincentive

One of the most important considerations for justifying the use of an Incentive/Disincentive (I/D) provision is whether payment for early completion of the project or portion of the project is cost beneficial to the traveling public. This means that if the project is completed in a timely manner there will be limited disruptive effects, due to the construction project providing substantial safety, health and welfare to the traveling public. The I/D monetary amount set for a selected project shall be supported by an estimated cost of damages expected to be mitigated by early completion of the overall project or critical phase of work.

The amount of such I/D payment or such additional damages shall be established in the contract based on an analysis of the cost savings to the traveling public or revenue projections for a revenue-producing project. This determination of whether to use an I/D provision is made when developing the daily amount of I/D payment. This analysis may be done by using the departments model software and may be verified if there is a need by an approved process such as “QUEWZ-98”, FHWA approved “Quickzone”, ADOT model, software to calculate the daily I/D amount. The District level shall be responsible to determine if the use of these software packages or an equivalent process will be a

reasonable representative cost analysis and shall be pre-approved by the State Construction Office. **Detailed calculations must be maintained and available for any further analysis.** Further guidelines for calculating the cost may be found in ***AASHTO's (Red Book) "Manual on User Benefit Analysis"***. If the per day amount exceeds $50,000 then that amount will require approval by the Director, Office of Construction.

The beginning and ending dates (calendar day or contract date) for which the I/D applies must be clearly identified in the special provisions. The project schedule should clearly show the beginning and ending milestone dates for I/D work. If the I/D clause applies to the complete contract then this should be stated in a special provision and shown on the contractor's schedule. Contract work items or any portion of the contract work items that are to be considered for I/D must be identified.

There are two other special provisions to consider for I/D provisions. Lane Rental and A + B Bidding allow for I/D payments or deductions. This incentive payment or disincentive deduction shall not exceed the dollar amount established in the provision. The total allowable number of Lane Rental Days is determined by the Engineer. If the Contractor uses less Lane Rental Days than allowed then the Department will pay an incentive at an established amount in the contract. If the Contractor uses more Lane Rental Days than allowed, the Department will make a disincentive deduction established in the provision. A+B Bidding incentive payment or disincentive deduction shall be an established amount set in the provisions and will be based on original contract time.

There may be a re-evaluation of the incentive/disincentive amount if the contract amount changes from the original estimate or if the scope of work changes. You should be sure to review the incentive/disincentive amounts and make the appropriate adjustments. Also retain any documentation created to reflect these changes.

Each "Plans to Tallahassee" package for projects containing I/D provisions shall include a calculation sheet, attached to the District's recommendation for construction contract time, which documents the basis for the incentive/disincentive provisions. Impact cost estimates are to be included whenever it is feasible to calculate their value. In other words, the I/D and the monetary amount is set based on the Road User Cost to determine the damages or cost savings to the traveling public. This documentation shall be kept in the project file.

Projects containing the I/D Special Provision and which are Federal Aid participating shall have a copy of the justification sheet/s (back-up documentation) included with the contract documents for FHWA approval. The "justification sheet/s" should include several factors such as Daily Road User Cost, Accident Rates, CEI Cost, Maintenance Cost and other justifications such as impacts to community services or access to residential or business areas during construction.

When the Specifications Office preparing the project specifications reviews the project specification package, jobs with an I/D special provision must be identified. This will be detailed on the Transmittal of Plans, Specifications and Estimates Package sheet. (see ***PPM Volume I, Chapter 20, Exhibit 20-A***)

After the letting and the contract is being processed for award, the Contracts Administration Office shall make an I/D notation on the "Availability of Funds" memorandum which is sent to the Office of Comptroller, Contract Funds Management Section. The I/D notation shall include the maximum number of allowable dollars ($). The Office of Comptroller, Contract Funds Management Section will encumber an amount that includes the awarded construction cost and the maximum amount of the incentive cost that can be charged to the contract.

On those projects containing the I/D Special Provision, which are Federal Aid oversight, prior to issuing payments to the contractor for any portion or the full I/D amount, FHWA approval must be obtained.

Adjusting contract time during the I/D phase defeats the purpose of an I/D clause, and is not allowed.

7. No Excuse Bonus

No Excuse Bonuses should be used only on projects that have the highest levels of impact on abutting businesses and the traveling public. A designation Level of ***Community Awareness 4*** is a prerequisite. The No Excuse Bonus concept can be used to achieve particular milestones or for total project completion by a certain contract day or a specified date. The Scheduling Engineer must provide a maximum number of days and set the bonus date based on calendar date or an actual contract day.

Projects containing the No Excuse Special Provision and which are Federal Aid participating shall have a copy of the justification sheet/s (back-up documentation) included with the contract documents for FHWA approval. The "justification sheet/s" should include several factors such as Daily Road User Cost, Accident Rates, CEI Cost, Maintenance Cost and other justifications such as impacts to community services or access to residential or business areas during construction.

On those projects containing the No Excuse Special Provision, which are Federal Aid oversight, prior to issuing payments to the contractor for any portion or the full I/D amount, FHWA approval must be obtained.

8. Time plus Money (A+B)

This provision is used on projects that may have a significant level of community impact, Level of ***Community Awareness 3***. Bidding Time plus Money provides the potential for decreasing contract time. A dollar per day figure must be calculated by the Department and included in the bid documents. A maximum number of days the contractor may bid must be provided.

9. Lane Rental

Use Lane Rental to minimize lane closures. Lane rental should be used where lane closures will severely inconvenience the traveling public, (for example, on Interstates, ramps, urban arterials, etc). Maximum daily lane rental fee shall be established in the contract based on an analysis of the cost savings to the traveling public or revenue projections for a revenue-producing project. The dollar value of each lane rental day is established by the Department and included in the bid documents. Since the intent is to reduce lane closures, project duration should be calculated normally.

Projects containing the Lane Rental Special Provision and which are Federal Aid participating shall have a copy of the justification sheet/s (back-up documentation) included with the contract documents for FHWA approval. The "justification sheet/s" should include several factors such as Daily Road User Cost, Accident Rates, CEI Cost, Maintenance Cost and other justifications such as impacts to community services or access to residential or business areas during construction.

On those projects containing the Lane Rental Special Provision, which are Federal Aid oversight, prior to issuing payments to the contractor for any portion or the full I/D amount, FHWA approval must be obtained.

10. Liquidated Savings

The contractor will be rewarded for each calendar day the contract is completed and accepted prior to the expiration of the allowable contract time. The daily amount of liquidated savings should be equal to the liquidated damages.

Projects containing the Liquidated Savings Special Provision and which are Federal Aid participating shall have a copy of the justification sheet/s (back-up documentation) included with the contract documents for FHWA approval. The "justification sheet/s" should include several factors such as Daily Road User Cost, Accident Rates, CEI Cost, Maintenance Cost and other justifications such as impacts to community services or access to residential or business areas during construction.

On those projects containing the Liquidated Savings Special Provision, which are Federal

Aid oversight, prior to issuing payments to the contractor for any portion or the full I/D amount, FHWA approval must be obtained.

11. Damage Recovery and ITS Damage Recovery

This provision is similar to Lane Rental provisions to assess a fee to the Contractor for not having all lanes open to traffic at a designated time as defined in the Traffic Control Plans. The dollar values are set for the first 30 minutes with proportional fees for each additional 30 minutes with a cap on the cost not to exceed a set amount within the 24 hour period. The dollar value of each assessment is established by the Department and included in the bid documents. These fees may be calculated using the Department's Road User Cost program.

The ITS Damage Recovery is also similar to Lane Rental provisions that assess a fee to the Contractor for not restoring Department ITS and related components in a designated time as defined within this Special Provision. The dollar values are set for the first 30 minutes with proportional fees for each additional 30 minutes with a cap on the cost not to exceed a set amount within the 24 hour period. The dollar value of each assessment is established by the Department and included in the bid documents. These fees may be calculated using the Department's Road User Cost program.

12. Streamline Contracts

Streamline Contracts will be contracts that are less than $2,000,000 dollars with less than 2,000 tons of asphalt. There are two types of these contracts, 1.) Streamline Plan Quantity and 2.) Streamline Lump Sum. These are similar to the conventional Plan Quantity and Lump Sum projects with the exception of simplifying the administration of the contract. (See ***Section 5.15.3*** of this ***Manual*** for additional information).

There may be exceptions to the use of Streamline Contracting, such as any project where the scope of work cannot be clearly defined in the contract documents that may have unknown variables such as, spalled areas on a bridge repair project or concrete rehabilitation project. Any exceptions shall be authorized by the DCE and noted on the Contract Time Memo.

13. Special Notices/Directions to Contractor

(A) Inform contractor if contract time is reduced from normal.

(B) Inform contractor if additional contract time is supplied for anticipated utility conflicts.

(C) Direct contractor to begin project by a specific day.

(D) Inform contractor if work by others will be underway at either end or within the project limits, contractor will coordinate with other contractors. Include proper Special Provision with the contract.

1.2.8 Establishing Contract Durations

(a) District Level Responsibilities

The ***Guidelines for Establishing Contract Duration*** is published on the State Construction Office's web page under the title "Engineering Areas/Scheduling Engineer." This guide also contains a set of production rates for many of the activities that occur in highway/bridge construction projects. Production rates for all possible activities are not included, nor are all production rates used in each construction job. The production rates may have to be supplemented with information from other sources and should be tempered with good engineering judgment and past experience with similar work. Other sources could be information provided from contractors and or suppliers relating to unique activities or resources. Establishing a project's duration can be accomplished with the following steps:

1. Review the project plans with special emphasis on maintenance of traffic. Verify that the work to be performed in each phase of the projects Traffic Control Plan is constructible as shown. These phases should have been agreed upon at the production phase. If the project has more than one phase, determine what work can be done in each of the phases.

2. List the required activities for each phase. This list does not need to be exhaustive but does need to include all controlling items of work or activities on the critical path. Most schedules are calculated using Primavera software and activities (items of work) are detailed in order to establish critical path on a project. Some are very detailed and others aren't, depending on the complexity of a project. These controlling items determine the time which in essence is the critical path. Some use a standard bar chart, others use more complex charts that tie dates and activities to drive the critical path.

3. List each quantity of the unit of work that will be used as a basis for estimating the duration of that activity; e.g., for storm sewers this would be the number of linear feet of pipe, etc.

On a project with more than one phase, use only that quantity associated with that phase. If the list of pay items show, for instance, 10,000 cubic yards of excavation for a project, that has two phases, that have approximately the same amount on each phase, put 5,000 cubic yards as the unit of work for excavation in Phase 1 and 5,000 cubic yards as the unit of work for excavation in Phase 2. Extreme accuracy is not required. It is only necessary that the parts of a quantity of a pay item sum to the whole, but a percent or two of error on any phase will not affect the results. For a project with two phases, this may be a 50%-50% split for a particular pay item. This is just as accurate as using a 45%-55% split.

4. Use the production rates and charts to convert the units of work into workdays. Do this for each activity in each phase. These rates and activities may be recorded on ***Form No. 700-010-04, Estimate of Contract Time***..

5. Review the appropriate approved Utility Work Schedule and or Agreements to determine what part of the requested utility adjustment potentially impacts the Contractor's work. A delay occurs only if the prime contractor cannot work as a result of utility conflicts or due to other unforeseeable conditions as spelled out in ***Supplemental Specifications 8-7.3.2***. Assume good cooperation between the utility and the contractor during the actual construction of the project. Utility relocation duration should be handled as an activity if they will contribute to the project duration.

6. Multiply each of the workdays by a factor of 1.40 to convert them to contract days.

(1) The factor of 1.40 is based on 5 (five) working days per week. Implicit in this factor is the assumption that the contractor will use "normal" crews and equipment, and will work a "normal" workday.

(2) If special provisions modify the time requirements of the project, then it may be appropriate to use another factor based on number of allowable working days and allowable working hours, either larger or smaller. For a project with incentive/disincentive, a factor of 1.0 or less could be used. This would be based on the assumption that the contractor would work 7 (seven) days per week with extended work hours. On the other hand, if the special provisions curtail the number of hours per day the contractor may work, the factor used may be larger than 1.40.

On Compressed Time or Time Priority Projects, the Scheduling Engineer may assume longer working hours, multiple crews, and 6 (six) or 7 (seven) day work weeks to accomplish a decrease in the project duration. Projects

containing a No Excuse Bonus provision should have reduced project durations. Projects with a Liquidated Savings provision should be calculated using a 6 (six) day work week.

On A+B projects, the maximum number of days is calculated using normal production rates and 5 (five) day work week.

When using a computerized scheduling software package, workdays will be converted to calendar days using the calendar function in the program.

The report(s) from the scheduling software and/or non-computerized form should show, as a minimum, for each activity: id, description, quantity (of work), unit (of work), duration, early start, early finish, and days of total float.

1.2.9 Documentation

(a) District Level Responsibilities

On each worksheet establishing Project Duration, add the Financial Project ID, county name, the contract time, and the name and phone number of the person who established the contract duration. Also provide the back up documentations of how time was established. (***Form No. 700-010-04, Estimate of Contract Time***).
Schedules are considered a part of the "Plans to Tallahassee" package. Instructions for submitting the complete "Plans to Tallahassee" package are included in ***Volumes 1*** and ***2*** of the ***Plans Preparation Manual***, ***Topic Nos. 625-000-007*** and ***625-000-008***.

1.2.10 Prosecution

(a) District Level Responsibilities

The contract duration is not final until the project is bid. Up to this point in time, the project duration can be influenced by changes in design or by other external reasons. The designer (Project Manager) and the District Scheduling Engineer shall coordinate all changes that would affect the contract duration.

The Design Project Manager and or Utility Project Manager should notify the District Scheduling Engineer when revisions or changes are made, such as approved Utility Work Schedule changes. These revisions/changes could impact the contract duration that was established by the Scheduling Engineer.

1.2.11 Training

The training of staff for establishing Contract Duration will usually be the responsibility of each District. However, there are times when the State Construction Office may coordinate or suggest a particular course or class to attend in helping to calculate Contract Time.

1.2.12 Forms

To assist in calculating contract time on a project ***Form No. 700-010-04, Estimate of Contract Time*** may be used. See ***Section 1.2.8(a) 4 & 6*** above for detail in using this form.

GUIDELINES FOR COMMUNITY AWARENESS PROCESS

This guideline is for the use of the District Construction Offices. Some, if not all districts have internal procedures for Community Awareness activities. These plans are not uniform from district to district. This guideline is meant to supplement and complement district procedures.

1. Definition

Community Awareness is a term used to describe both the minimization of negative impacts to the community and traveling public of a construction project and the Department activities that take place to keep the community informed.

2. Team Approach

Several districts have already developed quality control plans that require a multi-disciplinary team approach to plans development. In addition to this various offices in the Central Office are recommending a team approach to solve specific deficiencies in our project development process. Community Awareness is one of those things for which a team is being recommended. It will be interesting to see how each district handles all of these recommendations to form teams. Instead of several teams, the District probably will identify some, but not all, of the projects that require a team to guide it along its way. There will be a core team that will continue during the duration of the project with additional people providing expertise as required.

The importance of this team approach is that it allows the district construction offices to have input to the project beginning with the definition of what the project will be until the project is let.

3. Involvement in Project Development

Scope Development and Definition: Several districts, as part of their District Quality Control Plans, have required the participation of the District Construction Office in establishing the scope of each project. Subsequent reviews have indicated that an incomplete scope at the very start as one of the Department's major problems. Projects with scopes that evolve as the project develops will contribute to extra cost, rework, and poor quality control on the plans. Worse, in terms of community involvement, they can create conditions that will be difficult to overcome during the construction process. The District Construction Office needs to take advantage of every opportunity offered to it to be on a team or otherwise prevent problems on our construction projects - beginning with scope development.

Define level of Community Awareness needed: The Department has developed a "Commitment Compliance Tracking System" to record commitments made during project development. The District Construction Offices need to take advantage of this new system. At scope development, a level of public concern should be associated with the

project from level 1, the least, to level 4, the most. The level definition is provided below to assist in this designation. The designation of a particular level of concern does not, however, designate or restrict required actions. This designation should be entered into the Commitment Compliance Tracking System.

- **Level 1:** Project is not controversial, causes negligible access impacts and traffic disruption. Examples are work outside the roadway, simple rural resurfacing, some signal work, pavement markings, bridge or other maintenance.

- **Level 2:** Project has general public acceptance, little impact on access and reasonable degree of traffic disruption. Examples are urban resurfacing, bridge repairs, and median revisions (not access control) that require lane closures.

- **Level 3:** Project is controversial, will significantly impact traffic flow or will adversely affect access to properties (temporarily or permanently). Examples are parking removal, median opening closures, traffic signal removal, roadway widening, major reconstruction, and projects with detours.

- **Level 4:** Project involves interstate work including maintenance work, road widening, temporary ramp closures, construction of new interchanges, and major reconstruction. Also included in Level 4 are all projects that require total closure, either temporary or permanent, of roadways, bridges, or railroad crossings.

Designate Time Critical Project: For numerous reasons, including minimizing community impact, there are projects that the districts desire to be performed in a period of time much less than that which would be normally established for a project duration. For this desire to be realistically attained the district should designate the project as “Time Critical” as early as practicable. This should also be recorded on the Commitment Compliance Tracking System. This should be a signal to the designer to give short project duration a priority consideration when designing the project. This should also be a signal for utility relocations to be started early and for utility relocation agreements to contain expedited times.

4. Design Phase

Plans Reviews: Access management driveways and median openings: Decisions on access management and median openings are made very early in the design process. These decisions cause some of the more contentious issues during construction, but there probably is not anything the construction personnel can do about them.

The Phase I Plans Review is the most important phase review for minimizing community impacts. Major decisions are made at this stage that cannot be ameliorated during construction. Decisions that effect MOT, access, and drainage are made and cannot be undone in future phases.

This phase review package should contain a Conceptual Maintenance of Traffic Plan. This plan should be reviewed to assure minimum impact on abutting property owners. Any condition that would make it difficult to provide simple and direct access to property on both sides of the road should be avoided. The reviewer should make sure that the designer has attempted to strike some happy medium between a small number of MOT phases, of long length and duration, and a higher number of MOT phases of short length and duration. A smaller number is conducive to a shorter overall project duration. MOT phases of short duration cause less inconvenience to abutting businesses.

Another aspect of the plans that merits careful review is any change in vertical alignment. On an urban reconstruction or widening the designer should maintain the existing alignment to the extent possible. Changes in vertical alignment make it very difficult to maintain access on the main roadway and even on side streets. Lowering the alignment can also cause unforeseen utility relocations if there is not sufficient cover for mainline utilities and service connects after the grade is lowered. Access to property on side streets will also be affected when grades are changed on the main roadway.

The combination of MOT and vertical alignment will also impact drainage during the construction process. The reviewer should make sure that the designer does not set up a situation where water will pond on the project or where a heavy rain will cause delays. Additional guidance on plans phase reviews is in the Construction Project Administration Manual Chapter 1, Section 1, Plans Review and Comments.

Specifications: The District Construction Office can recommend that special provisions, that help minimize community impact, be included in the specification package for the project. Examples of this are restricted working hours, night work, contractor suspended operations on specific days, day certain starting and day certain project completion, restricted work length (train spec), and alternative contracting methods.

Project Duration: The District Construction Office establishes the project duration. They have the option of shortening this project duration if it will minimize the community impact of the project. Additional guidance for establishing project duration is included in the Construction Project Administration Manual Chapter 1, Section 2, Contract Duration and Alternative Contracting Techniques.

Alternative Contracting: The Department has developed a battery of innovative contracting schemes to minimize community impact. Examples are Incentive/Disincentive and no excuse bonuses. These schemes also require that special provisions are included in the specification package. Additional guidance is contained the Alternative Contracting User's Guide.

5. Construction Phase Best Practices

The Project Engineer/ Project Manager must develop a Community Awareness Plan as early as practicable. If a Consultant CEI will be involved, community awareness activities must be included in the scope of services. The extent, of which, is dependent on the Level of Concern. On Level of Concern 3 or 4 projects, the Project Engineer/Manager should consult with the District PIO or Community Awareness Coordinator when developing the plan or RFP and scope.

Listed below are the minimal elements for a Community Awareness Plan:

- Date of the plan and each revision
- Name of the person initiating the plan
- A brief, but detailed, description of the project and summary of traffic impact.
- Description of the community and properties affected by the project.
- Discussion of any removal any off street parking (if any) and how it will affect adjacent properties and businesses.
- Special features/amenities that will be included in the project, including, but not limited to, landscaping by whom and who will maintain it.
- A list of known community concerns and a strategy for addressing them. (*Where appropriate*)
- A list of all PD&E and Right of Way commitments made to the public and how they will be addressed. (*Where appropriate*)

An additional topic should to added to the pre-construction conference agenda. On projects where there are known community concerns, these should be addressed. The contractor should be requested to assist the Department to minimize public complaints by keeping access to business well maintained and to keep the stock piling of materials in front of businesses to a minimum. The contractor should also be requested to remove trash as soon as possible. (*All projects*)

1 month prior to construction start: “Dear Neighbor” flyer with construction dates and specific project impact to traffic information. This flyer should contain the name of the contractor, contractor’s superintendent, and FDOT Project Engineer, with field office locations and the appropriate telephone numbers. The preferred method for distributing

this flyer is for the Project Engineer to hand deliver door to door. (*All projects*)

1 week prior to construction: News release of project start date, pertinent project information and specific traffic information. This is usually done working through the District PIO and the District Community Awareness Coordinator. (*All projects*)

Throughout construction: The project Engineer should keep the District Public Information Office(PIO) and the Public Information CEI, if there is one, informed of all issues affecting the public. Weekly news releases with specific traffic impact should be issued by the PIO and Public Information CEI. (*All Projects*)

Other elements that may be considered:

2 to 4 weeks prior to construction start: Pre-construction public information meeting/open house for all interested persons to review plans, construction schedule, and traffic impacts, particularly dates of total closure. Conducting additional meetings during the project as milestones are reached should also be considered. Meetings can be open house style, held at field office locations or locations close to the project. Project staff may also make presentations at local community or homeowner association meetings. (*Level of Concern 3 and 4*)

A newsletter may be used to keep those interested informed about the current project status and specific issues. (*Level of Concern 3 and 4*)

An internet site to supplement other forms of notification and to provide another means for input of questions and concerns. (*Level of Concern 3 and 4*)

Information kiosks can be used to provide information to the general public on projects of community wide interest. (*Level of Concern 4*)

Supplemental meetings with Home Owner Associations, the Chamber of Commerce, or other interested groups can be held upon request. (*Level of Concern 3 and 4*).

6. Listen and Be Responsive:

On the construction project, it is important that every DOT/CEI employee be willing to listen to problems and complaints from property owners and the traveling public. When possible try to do something about the problem the people are complaining about. When it is not possible to do something, such as median closings, limited driveways and loss of parking, be sympathetic and try to explain the reasons for these changes.

All communications with abutting businesses and residents should be recorded. When possible, all concerns should be responded to in writing.

Acknowledgements: This guideline was drafted using, to a large degree, the content of the Community Awareness guidelines from Districts 4 and 7.

Section 1.3

PRE-BID QUESTIONS AND ANSWERS

1.3.1 Purpose

In an effort to improve the quality and interpretation of the contract plans, the Department has developed a process to provide bidders the opportunity to ask questions or seek clarifications prior to submitting bids. As a result of this effort, the Department has established a website for bidders to submit questions and/or clarification requests to the Department. The Department will post responses to those questions and/or clarification requests to the same website.

This section describes the Department's process of listing advertised projects on a Pre-Bid Question and Answer website, receiving questions and/or clarification requests submitted by bidders and providing appropriate responses to those questions and/or clarification requests.

1.3.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

1.3.3 Reference

Section 2, Standard Specifications for Road and Bridge Construction, Section 2-4, Special Provision (SP0020400), Examination of Contract Documents and Site of Work, applicable to all projects

1.3.4 General

Bidders may submit pre-bid questions and/or clarification requests to the Department by posting them to the Department's website at the following URL address: ***www2.dot.state.fl.us/construction/bidquestionmain.asp***. Bidders will review and be familiar with all questions and responses posted to this website prior to the bid opening and to make necessary adjustments to the bid proposal, accordingly.

The Department will utilize the same Pre-bid Question and Answer website to post responses for questions and/or clarification requests submitted by bidders.

The Pre-Bid Question and Answer website shall not be used by the Department to correct errors in the Contract Documents identified by the Department or Contractors.

Clarifications and/or corrections of errors identified by the Department shall be handled in accordance with current processes governing the issuance of ***Contract Addendums***.

1.3.5 Operation and Maintenance of the Pre-Bid Question and Answer Website

District Responsibilities

The District Construction Office (DCO), with support from the Office of Information Systems (OIS), is responsible for administration of the Pre-bid Question and Answer website on all projects in their respective District.

1.3.6 Listing Advertised Projects on the Pre-bid Question and Answer Website

District Responsibilities

DCO staff shall ensure that all advertised Central and District Let projects in their District are listed on the Pre-Bid Question and Answer website. DCO staff shall ensure that the Pre-Bid Question and Answer website is capable of receiving questions and/or clarification requests from bidders as of the date the project advertisement appears on the Central and/or District Contracts Administration Office website.

1.3.7 Responding to Questions and/or Clarification Requests Submitted to the Pre-bid Question and Answer website

District Responsibilities

The Department should not make modifications to questions and/or clarification requests submitted to the Pre-bid Q&A website to the extent that such modifications would change the original intent of the question and/or clarification request as submitted by the bidder. In those situations where inappropriate content (i.e. derogatory comments, personal, proprietary or sensitive information, etc.) is included as part of a legitimate question and/or clarification request submitted to the site, the Department may modify the questions and/or clarification by removing the inappropriate content. Such modifications are not intended to be used to correct spelling, grammar, syntax, etc. errors and should be used in limited circumstances so as to avoid potentially changing the original intent of any question and/or clarification request submitted by the bidder. As pre-bid questions and/or clarification requests are received, DCO staff shall review each question and/or clarification request for the purpose of developing a response and posting the response to the Pre-Bid Question and Answer website. DCO

staff assigned with this responsibility shall be familiar with the project and Contract Administration procedures. DCO staff assigned with this responsibility shall coordinate with Department personnel and/or Consultants involved in project development (i.e. Design Project Manager, Construction Project Manager, Utility Project Manager, Engineer of Record, etc.), when necessary for the purpose of developing a response to the question and/or clarification request.

The District Construction Engineer (DCE), or designee, shall review each question and/or clarification request submitted as well as each proposed response to questions and/or clarification requests and shall approve each response prior to posting the response to the website. In the event a previously posted response is to be revised, the DCE, or designee, shall review and approve each revised response prior to posting the revised response to the website. The DCE may delegate such review and approval authority, in writing, to an individual within the DCO staff, but not to a Consultant or Resident Engineer. Such delegation shall be maintained on file in the DCO. An email from the DCE, or designee, which signifies review and approval of the question and proposed response, will suffice as documentation of review and approval.

For bid openings in the months of January through November, the DCE, or designee, shall respond to all pre-bid questions and/or clarification requests submitted to the Pre-Bid Question and Answer website prior to 5:00 PM (EST) on the seventh (7th) calendar day prior to the bid opening.

For bid openings in the month of December, the DCE, or designee, shall respond to all pre-bid questions and/or clarification requests submitted to the Pre-Bid Question and Answer website prior to 5:00 PM (EST) on the tenth (10th) calendar day prior to the bid opening.

Responses cannot be assured to the bidder for questions and/or clarification requests submitted to the website after these deadlines.

Regardless of the bid opening month, the DCE, or designee, shall ensure responses are posted to the website by 8:00 AM (EST) the second (2nd) calendar day prior to the bid opening day.

In the event a previously posted response is to be revised, the DCE, or designee, shall ensure the original response (including the date and time the original response was posted to the website) and the revised response (including the date and time the revised response was posted to the website) are posted to the website.

The DCE, or designee, shall ensure that no responses (original and/or revised) are posted to the website and no modifications are made to previously posted responses after 8:00 AM (EST) the second (2nd) calendar day prior to the bid opening day.

1.3.8 Providing all Questions, Clarification Requests and Responses to the Contracts Administration Office

District Responsibilities

After the bid opening, DCO staff shall ensure that all questions and/or clarification requests submitted by bidders and all responses posted by the Department are submitted to the Contracts Administration Office. This submission shall occur no later than 5:00 PM (EST) on the business day immediately following the bid opening. For Central Let projects, this submission shall be made to Central Office Contracts Administration. For District Let projects, this submission shall be made to District Office Contracts Administration.

1.3.9 Compliance with this Section

District Responsibilities

The District shall identify and maintain a list of the following in the DCO files:

A. DCO staff responsible for administration of the Pre-Bid Question & Answer website on the District Level;
B. DCO staff responsible for receiving pre-bid questions and/or clarification requests;
C. DCO staff responsible for coordinating and developing proposed Department responses;
D. DCO staff, if other than the DCE, responsible for reviewing and approving all proposed responses and all subsequent revisions to previously posted responses;

Central Office Responsibilities

The State Construction Office will review a sampling of bid questions, clarification requests and Department developed responses and report significant findings to the DCE as necessary.

Chapter 2

OFFICE PREPARATION

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Section 2.1

PROJECT SCHEDULING

2.1.1 Purpose

To provide a uniform procedure for monitoring construction contract time and schedules.

2.1.2 Authority

Sections 20.23(4) and 334.048(3), Florida Statutes(F.S.),

2.1.3 Definitions

Baseline Schedule: The required schedule of work activities that is initiated by the Contractor. This schedule defines the Contractor's plan to complete the construction project within the allotted time consistent with the contract documents.

Controlling Work Items: Refer to ***Section 1*** of the ***Standard Specifications***. In a Critical Path Method Schedule, these work items or activities are on the critical path. A delay to a critical work item will cause an increase in the project duration.

District Scheduling Engineer: The Florida Department of Transportation (Department) employee or Department representative identified by the District Construction Engineer to be responsible for coordination of all scheduling activities related to construction projects in their District. This person establishes the contract time used for scheduling construction projects.

Updated Schedule: A schedule is updated by the addition of actual start dates, actual finish dates, percent complete to activity data, added activities, changes in sequence, and project duration.

2.1.4 General

The project schedules required on each project should be working documents used by the Contractor to plan and direct the construction project. If the project schedule is not updated by the contractor in a timely manner, this could reflect on the CPPR (Contractor Past Performance Rating) grading as outlined in ***Chapter 13*** of the ***CPAM (Construction***

Project Administration Manual). This would be considered a category 3 (Timely and Complete Submittal of Documents). The Contractor must coordinate their own work with that of the subcontractors and utilities. If used properly, the schedule is a management and communications tool that can be used to anticipate and prevent problems from occurring. It is very beneficial that these issues be discussed during monthly progress meetings.

2.1.5 Contractor's Schedule

(A) Resident Level Responsibilities

Once the project is awarded, the Contractor prepares a proposed work schedule in accordance with contract documents. The Contractor's schedule is submitted to the Project Engineer. The Project Engineer, with the involvement of the District Scheduling Engineer, reviews the schedule, and if it meets contract requirements, submits it to the Resident Engineer for acceptance. If the district doesn't have a designated Scheduling Engineer then the Resident Engineer would review the schedule. If the schedule does not reflect a reasonable or feasible plan to construct the project in the authorized contract time or the schedule is not prepared according to the specifications, the schedule will be returned to the Contractor for modification. Schedules should indicate the completion of the project within the allowable contract time.

The following items should be checked:

(1) The schedule reflects the phases in the MOT plan.

(2) Activities are broken-out by phase.

(3) Phases are in correct sequence.

(4) Order of the activities is logical.

(5) The schedule contains all milestones specified.

(6) Utility work is shown.

(7) Activity durations appear reasonable.

(8) Level of detail reflects the complexity of the project.

(9) Complete and concise description of the Contractor's Construction Plan.

(10) The submittal is complete as per the contract documents and contains preparation (Contractor's time) review and approval (Department's time), and fabrication and delivery (manufacturer's/supplier's time) activities for each category of submittal required.

(11) Activities include procurement time for material including shop drawing submittal and approval process.

(12) All non-workdays are shown.

(13) Check constrained activities.

(14) Any activity that applies cost loading (has a budgeted cost) should conform reasonably well within the amount bid for same type work.

If the schedule submitted by the Contractor shows an early completion date, the schedule should be reviewed thoroughly. The early completion date shown on the schedule could be attributable, in whole or in part, to errors in logic, unrealistic production rates, or the absence of critical activities. A schedule may not be rejected solely on the basis of having a completion date earlier than that shown on the contract.

All schedule rejections should be in writing detailing the reasons for rejection. Schedule acceptance must be in writing.

2.1.6 Schedule Distribution

(A) Resident Level Responsibilities

After acceptance, this schedule becomes the baseline schedule. This baseline schedule is the progress schedule by which progress of the project is gauged. Copies of the baseline schedule will be kept in the District Office job file or the Resident Engineer's Office.

2.1.7 Schedule Revision

(A) Resident Level Responsibilities

When the contract time is significantly altered by time extensions or supplemental agreements, the Department may request the Contractor to submit a revised ***Bar Chart*** or

Critical Path Method (CPM) Schedule. Requests for revised schedules should be in writing and their subsequent acceptance must be in writing.

When the contract specifies a ***CPM Schedule***, the schedule should be updated on a monthly basis to coincide with the progress payment period. These updates should include all approved time extensions, and supplemental agreements. The updates should be reviewed for accuracy and any significant revisions in logic or duration from the baseline schedule must be addressed in writing when found to be in conflict with the contract. Copies of updates will be kept at the Resident Engineer's Office.

The following items should be considered when reviewing updated schedules:

(1) Check to make sure that the actual dates (for activities either in-progress or completed) and the percents complete/days remaining are historically accurate.

(2) Run the scheduling calculation in "view" mode and Primavera will itemize the "open ends" (unfortunately, this will not work with SureTrak). With SureTrak, display the predecessors and successors as columns on the left side of the bar chart. Check to make sure that all "open ends" are closed, so that all calculated float values are accurate and not inflated. All activities except the first one should have predecessors, and all activities except the last one should have successors.

(3) Similarly, run the scheduling calculation in "view" mode and Primavera will itemize the "out-of-sequence progress" (unfortunately, this will not work with SureTrak). Remedy the out-of-sequence progress by making logic changes that are agreed to between the Engineer and the contractor.

(4) Ensure on a continuous basis that the Contractor is pursuing the critical path work activities. The "two-week look ahead schedules" and "controlling items of work" that the Contractor submits should indicate that he is primarily working on the critical or near critical activities, as a minimum.

(5) Run a comparison using "Claim Digger" between the current monthly update and the previous update and the baseline to see if the Contractor made any unauthorized changes to either the original durations or logic or, if he added any unauthorized constraints. If he did, bring it to his attention and resolve it with the Contractor.

(6) In addition, the "Claim Digger" comparison will itemize the "activities that should have started this update, but did not" and the "activities that should have finished

this update, but did not". Bring these to the Contractor's attention, particularly the critical or near critical activities, in order to help get him back on track.

(7) Lastly, check to make sure that all holidays and weather days granted through the update are put into the schedule's calendar as "non-work" days, so that they are considered when the schedule is calculated."

2.1.8 Withholding Progress Payments

(A) Resident Level Responsibilities

Specifications for project schedules allow the withholding of progress payments to the Contractor if the Contractor fails to finalize either the initial or a revised schedule in the time specified in the specifications. If a Contractor is making a good faith effort at developing a schedule, withholding payments may not be appropriate. If a Contractor is not making a good faith effort, the project personnel can use withholding payment to convince a Contractor that the Department is sincere in its desire to have an acceptable schedule. An acceptable schedule implies good coordination and good communication.

If the Contractor submits a ***Schedule Revision*** which indicates completion of the project after the expiration of allowable contract time, Resident staff shall consult with the District Construction Office, State Construction Office and the Office of General Counsel prior to notifying the Contractor of ***Schedule Revision*** acceptance.

Section 2.2
FINAL ESTIMATES PRE-PLANNING

2.2.1 PURPOSE

This chapter introduces procedures for the pre-planning of required final estimates documentation to assist those charged with the responsibility of recording final quantities and preparing final estimates.

2.2.2 GENERAL INFORMATION

Information contained in this chapter presents pre-planning procedures to be used statewide for documenting final pay quantities. It is intended to help construction personnel determine the pay item information that is to be documented, reviewed, and forwarded with the final estimates package to the District Final Estimates Office (DFEO).

2.2.3 CONSTRUCTION FIELD OPERATIONS

The Project Administrator (PA) and/or designee responsible for the final estimate must be familiar with the ***Specifications,*** method of measurement, and payment for each pay item on the project. Accurate and up-to-date field records must be kept as the project progresses to ensure that final estimates are compiled in an efficient and timely manner.

The following guidelines shall be observed:

(A) Always check to ensure there is a summary box for each item in the Plans before construction begins. The summary boxes shall show the location, quantity and applicable design notes.

(B) Verify that the documentation to support each pay item quantity (i.e., electronic shape file, calculations, sketches, or spreadsheets) is included in the Plans Digital Delivery package. (See ***CPAM 5.14.9*** and ***CADD Manual***.)

(C) Verify the contract information is entered into SiteManager correctly (i.e., pay items, quantities, unit prices, and fuel flag selected when applicable).

(D) Schedule a final estimates kick-off meeting with the DFEO to review final estimate documentation requirements, if needed. Any question on pay item interpretation,

adjustment, extra work, or final estimate documentation for any item shall be resolved with the District Final Estimates Manager (DFEM) as it occurs. Do not wait until the end of project.

(E) Open project-specific forms via the Construction Automated Reporting System (CARS), send to the Contractor via email or email directly to the collaboration site. Inform the Contractor that all other forms are located on the Construction website and on the Forms and Procedures Office website.

(F) Errors in plan quantity items shall be addressed per ***Section 5.13*** of this ***Manual***.

(G) Final measured items shall be reviewed to make a determination of which type of measurements, sketches, and/or calculations are necessary to document final payment, as well as identify the appropriate site source record to be used. Field Records shall be maintained per ***Section 5.14*** of this ***Manual***.

a. Once a final measure pay item is included in a progress estimate, supporting documentation for that quantity shall be available in the project files for review.

(H) Removal items (i.e., existing pavement (if a separate pay item), guardrail, pavement markings, etc.) shall be measured and recorded before that item is removed.

(I) Decisions regarding earthwork items cross-sections shall be made before clearing and grubbing work has started. Earthwork documentation shall be maintained per ***Section 5.16*** of this ***Manual***.

(J) Designate the digital file(s) to be used for the Final As-Built Plans prior to the start of construction and update as the work progresses to support progress payments. Final As-Built Plans shall be separated by component and maintained per ***Section 5.12*** of this ***Manual***.

Note: Only final measured pay items shall be final measured. Plan quantity items are not final measured. Only field changes and plan errors are measured and documented for payment backup.

Chapter 3

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Section 3.1

PRECONSTRUCTION CONFERENCE

3.1.1 Purpose

This chapter details who should be included and the information to be covered and discussed in the preconstruction conference, as well as the meeting scheduling, notification, agenda, and minute requirements.

3.1.2 Authority

Sections 20.23(3)(a), and 334.048(3) Florida Statutes (F.S.)

3.1.3 References

Section 337.125, F.S.

3.1.4 General

The forms referenced in this chapter can be found on the Department's website:
http://www.dot.state.fl.us/proceduraldocuments/formsandprocedures.shtm

3.1.5 Scheduling

Resident Level Responsibilities

The Project Administrator shall schedule and conduct a preconstruction conference after receipt of a copy of the ***Notice of Award*** and prior to any work beginning. The scheduled date of the conference shall be selected to accommodate the interests of all affected parties. Notice of the scheduled date must include a brief description of the project. The project description must be written in terms easily understood by the general public.

A utility coordination meeting will also be held with the Contractor and all utility companies. This meeting should be held as soon as possible after receipt of a copy of the ***Notice of Award***. The purpose of the meeting is to determine the utilities'

progress/status of proposed relocation.

Once the Resident Engineer's staff, the Contractor, or the contract requirements dictate that there is a need for a Post Preconstruction Conference, the Project Administrator notifies all affected parties in writing and conducts said meeting.

3.1.6 Notices

Resident Level Responsibilities

Prior to scheduling the Preconstruction Conference, the Project Administrator will request, in writing, that the Contractor submit a list of plan errors, omissions, or ambiguities and any other issues that need to be discussed at the preconstruction conference to clarify the Plans and Special Provisions. If the project requires a Dispute Review Board, the Project Administrator will request the name of the Contractor's representative so that the Department's member can meet with that representative and they can jointly name the third member of the board.

The preconstruction conference notice shall contain the date, time, and the location of the meeting. The notice shall be sent to the parties known to have an interest in the proposed project including, but not limited to:

(1) Utility Companies

(2) City

(3) County

(4) Federal Highway Administration

(5) Coast Guard

(6) Police, Highway Patrol, Sheriff

(7) Department of Environmental Protection

(8) Department District Representatives

(9) Contractor Representatives

(10) Subcontractor Representatives, including Disadvantaged Business Enterprise

(DBE) Subcontractor Representatives

(11) Contractor Supplier Representatives

(12) Special Interest Representatives

(13) Engineer of Record

(14) Department Design Project Manager

(15) Any agency having permitting authority

(16) State Toll Facilities Coordinator

(17) Emergency Medical Personnel

(18) Local Transit and/or Port Authority

(19) Florida Jobs and Benefits

(20) District Public Relations Office

(21) WAGES (Work and Gain Economic Self Sufficiency) Program Office

(22) Dispute Review Board

(23) U.S. Department of Labor

(24) Army Corps of Engineers (ACOE)

(25) Water Management District(s) (WMD)

The notice addressed to the Contractor shall contain a list of items it is required to submit prior to the conference such as: Equal Employment Opportunity documents, erosion control and storm water pollution prevention plan, maintenance of traffic plan, channelizing device supplier (CDS), proposed work schedule, list of equipment including the model number, serial number, and date of manufacture, certificate of maintenance of traffic supervisor, vehicle registration affidavit, Quality Control Plan, etc. The above listed plans must have written approval before any construction activities begin per specification requirements.

A notice to the Florida Department of Environmental Protection (DEP) shall contain the DEP file number assigned to the permit when some of the work is covered under a DEP permit.

Pursuant to ***Section 337.125(2), F.S.***, notice of the preconstruction conference must be sent to each DBE subcontractor anticipated to perform work on the contract.

3.1.7 Agenda

Resident Level Responsibilities

The Project Administrator will prepare an agenda similar to one shown in ***Guidance Document 3-1-A***. The agenda should include the submittal requirements required by the Contract.

3.1.8 Minutes

Resident Level Responsibilities

The minutes of the preconstruction conference shall be reduced to typewritten form as soon as practical. A copy of the completed minutes shall be sent to all attendees of the preconstruction conference and any other interested parties within fourteen (14) calendar days from the date of the meeting with a request that any errors and omissions in the minutes be returned to the writer within fourteen (14) calendar days. All preconstruction construction dialogue must be recorded by digital recorder or video. The recording will be retained as part of the project records.

NOTE: Before the start of any project level meeting the following statement must be read: “This meeting is being audio/video recorded and will become part of the construction project records.” These recordings should be converted to a digital format (MPEG, AVI, FLV, or WMV) and loaded into the Electronic Document Management System as part of the project files.

Guidance Document 3-1-A

Sample Preconstruction Conference Agenda

(1) Project Description

(2) Delineation of lines of authority. Names and emergency telephone numbers for the Contractor, Department and others will be entered into the record and established issues escalation matrix.

(3) Proposed Starting Dates - Contractors and subcontractors -- flextime (selected projects) - lead-in time and number of shifts or extra hours they propose to be working, etc.

(4) Each utility representative to give an up-to-date report of the status of utility adjustments, relocations, removal, and new installation. In addition, the utility representative shall furnish the names and phone numbers of contact persons who will be available on call. A Contractor/utility meeting schedule shall also be established.

(5) Contractor to discuss errors, omissions, and ambiguities in the Contract Documents that are known to exist. Preconstruction minutes should document, in detail, the Contractor's knowledge of errors, omissions, and ambiguities.

(6) Maintenance of Traffic Plans review and discussion. (Remind Contractor, plans must have written approval before construction activities can begin.) Also, Alternative Traffic Control Plans must have written approval before work begins. (Refer to CPAM Chapter 9 for additional information)

(7) Construction schedules and progress chart submittals. When appropriate, establish meeting schedules (weekly-monthly) and locations to discuss job progress and to determine controlling work items for the next review period. Reiterate that schedule updates are required when there are significant changes to the planned order or duration of an activity. Also, updates should be submitted within 7 calendar days after the monthly estimate cut-off date for projects requiring a critical path method schedule (refer to project special provisions).

(8) Business and Community Impact Plan

(9) Hurricane or other emergency evacuation plans should be discussed (i.e., securing project, responsibilities, etc.). Project-specific evacuation plans should be developed as soon as possible, and provide details as to phases or major activities that could possibly be affected.

(10) Partnering session with approved facilitator, if required.

(11) Dispute Review Board and Regional Disputes Review Board (as applicable)

(12) Insurance policy requirements

(13) Contractor's vehicles registered in State of Florida. The Contractor's affidavit is due on the first working day of the project.

(14) Erosion control and storm water pollution prevention plans and discussion. (Remind Contractor that plans must have written approval before construction activities can begin.)

(15) Environmental permits review and discussion – National Pollutant Discharge Elimination System (NPDES) requirements

(16) Special requirements when the Contractor is required to furnish borrow pits (if applicable)

(17) Contractor's request for an endangered species biological investigation (if applicable)

(18) Consultant CEI or materials testing – procedures, relationships, responsibilities

(19) For Mass Concrete elements that are identified in the Plans, the Project Administrator will establish the following:

a. The Contractor shall submit proposed Mass Concrete Temperature Control Plans for review and acceptance by the Department at least ten working days prior to the proposed Mass Concrete placement.

b. Rejected Plans must be resubmitted, addressing the Department's comments. A re-submittal of the Plan may require an additional ten working days for review and acceptance by the Department.

(20) When a project includes bridge construction or drilled shaft, the following items are to be considered:

a. Level II Concrete Plan

b. Pile Installation Plan

c. Drilled Shaft Installation Plan

d. Auger Cast Pile Installation Plan

e. Provide the District Structures Maintenance Engineer with a tentative schedule showing when a bridge is scheduled to be opened to traffic at least 30 days before the scheduled opening date. This will provide the District Structures Maintenance Engineer an opportunity to inspect the bridge before it is scheduled to be opened to traffic. A minimum of 24 hours before the bridge is opened to traffic, notify the District Structures Maintenance Engineer.

(21) Shop drawing submittal procedure. Refer to CPAM 8.4

(22) Copy of the ***QP–2 Certification*** for the Contractor performing any lead-based painting work (prime or sub-contractor)

a. Contractor needs to submit a written certification that is signed by an officer of the company, stating that the company will comply fully with all applicable Occupational Safety and Health Administration (OSHA) and Code of Federal Regulation (CFR) worker protection requirements for the duration of the contract.

(23) Contractor Quality Control (CQC) Plan

a. QC firm and identification of key personnel from the Contractor, QC firm and the Department. The Contractor shall name all CTQP qualified technicians that are to work on the project and shall list each of their CTQP qualification categories along with the date that each qualification expires. If a named technician has a qualification that will expire during the project and if requalification training is not available before the qualification expires then the technician is not permitted to perform the duties of that qualification category until requalification is obtained. The Project Administrator shall emphasize this concern during the preconstruction conference.

b. Lines of Communication

c. Report and test result data entry. (Provide forms of quality control reports, Excel spreadsheet for composite pay factor calculations for asphalt projects, and Instructions for ordering Sample Transmittal Cards to the Contractor).

d. Monthly/final certification, ***Form No. 700-020-02***, ***Construction Compliance with Specifications and Plans***. Provide a copy of the form to the Contractor.

e. Remove Restriction Materials (R^2)

1) Asphalt – Will Contractor be using ***Section 334 of the Standard***

Specifications, Acceptance Option 1 or ***Option 2*** on Contract (if it qualifies for use of ***Option 2***)

2) Earthwork – Are there any areas on the project that meet the "shoulder-only, bike/shared use paths, and sidewalk areas"?

(24) When the project includes signalization, and/or highway lighting, review and discuss the Contract Documents to ensure compliance with the requests of the maintaining agencies. Also discuss holding a pre-installation meeting with maintaining agency, the subcontractor, and supplier (If necessary).

(25) Contractor to discuss any Cost Savings Initiative (CSI) Proposal along with the need for CSI Workshop.

(26) DBE, Equal Employment Opportunity (EEO) and On the Job Training (OJT), to be discussed either at Primary preconstruction conference or Post preconstruction conference are as follows:

a. Establish lines of communications between the Department and the Contractor's Contract Compliance personnel.

b. Proposed starting dates for Contractor and subcontractor

c. EEO

d. Affirmative Action

e. OJT Training Goals

f. OJT Banking Opportunities

g. Utilization of Banking Credits

h. OJT Proficiency Standards/Graduation Requirements

i. Recruitment

j. Contractor to address any Value Engineering Change Proposal (VECP) or Cost Savings Initiative (CSI) Proposal that may affect OJT achievement.

k. DBE

l. Payrolls

m. Wage Rates

n. Posters

o. Field Interviews

(27) Inform the Contractor that, prior to any paving operation, another meeting will be held at which time the Contractor will present the following material:

a. The proposed starting date of the paving operations

b. The location of the asphalt plant(s) to be used

c. The maximum production of the asphalt plant(s) and the expected rate of production.

d. The average haul distance(s)

e. The pavers speed for each placement operation in feet per minute

f. The number of trucks to be used. (The rate of delivery shall be sufficient to assure a continuous paving operation.)

g. The width of the mat for each placement operation

h. The number and types of rollers for each placement operation

i. A sketch of the typical section showing the sequence of the paving for each placement operation, if needed

j. The type of controls to be used for each placement operation

k. The type of milling equipment and street sweeping equipment and when they will demonstrate it

l. Lighting plan if work is to be performed at night

Inform the Contractor that, prior to any paving operation, another meeting will be held, at which time the QC Plan, and the QA/QC specifications as it relates to the paving operations such as the Design Mixes to be used, core frequency and handling of the cores, frequency for covering the milled surface, cross slope correction, smoothness, etc., shall be discussed.

NOTE: No paving operation shall begin before a conference is held to discuss the above items.

(28) A discussion on payment for stock piled materials, ***Form No. 700-010-42***,

Certification and Request for Payment for Stockpiled Materials.

(29) Requirements for submitting requests to sublet, specialty work, ***Form No. 700-010-36, Certification of Sublet Work***, and ***Form No.700-010-11***, ***Notice of Rental Agreement***

(30) WAGES (Work and Gain Economic Self Sufficiency) Program Office

(31) Submittal procedure for time extensions and claims. (Refer to CPAM 7.2 and 7.5)

(32) Contract time extensions requests - adjustments - initiating time extension requests - justifications for time extensions (controlling work items affected - conditions beyond Contractor's control, etc.). The Contractor is to be furnished a copy of ***Form No. 700-010-56***, ***Contractor's Time Extension Request***.

(33) Discuss actions to be taken if an unpaid bill letter is received by the Department. (Refer to CPAM 6.1)

(34) The Project Administrator shall provide the Contractor a copy of ***Form No. 700-010-25***, ***Contractor's Past Performance Rating***, at the Preconstruction Conference and explain the documentation of the Contractor's performance. (Refer to CPAM 13.1)

(35) Warranties, Warranty/Maintenance Bond, Guaranteed Specifications, if required

(36) The Contractor shall provide certifications under oath made by an officer or director of the Contractor with authority to bind the Contractor for the following:

a. A listing of on-site clerical staff, supervisory personnel and their pro-rated time assigned to the Contract

b. Actual Rate for items listed in ***Table 4-3.2.1*** in ***Specification 4-3.2.1***

c. Existence of employee benefit plan for holiday, sick, vacation benefits, and a retirement plan

d. Payment of per diem is a company practice for instances when compensation for per diem is requested

(37) Provide the following statement at the bottom of each agenda where audio or video recording is expected to take place: “This meeting will be digitally audio/video recorded, and the recording will become part of the construction project records.”

Section 3.2

QUALITY ASSURANCE AND QUALITY CONTROL OF FIELD CONSTRUCTION OPERATIONS

3.2.1 Purpose

The purpose of this section is to explain the Quality Assurance (QA) and Quality Control (QC) process for construction operations. This section also addresses the procedures that construction inspectors use to perform their duties as the Department's representatives in the field.

3.2.2 Authority

Section 334.048, Florida Statutes

3.2.3 Definitions

Contractor Quality Control: A contract requirement that makes the Contractor responsible for material sampling and testing, inspection of the work, and maintaining associated records.

Guidelist: A list of major contract document requirements that inspectors are expected to verify without fail. A guidelist is not a comprehensive list of all contract document requirements.

Quality Assurance: The process for monitoring the Contractor's level of compliance with, and the effectiveness of the Quality Control Plan.

Quality Control Plan (QCP): A written plan developed by the Contractor and approved by the Department that details the qualified personnel, methods and materials that the Contractor intends to use to ensure that the work complies with the contract documents.

3.2.4 General

The Contract Documents set forth the requirements of the Contractor Quality Control program. Since the Contractor Quality Control specification requires the Contractor to be responsible for the Quality Control inspection of applicable materials, Construction

Engineering and Inspection (CEI) personnel do not have this responsibility as a primary function. Instead, CEI personnel have the primary function of monitoring the Contractor's level of compliance with the Quality Control Plan and evaluating the effectiveness of the Plan. In-person Quality Assurance inspections of work in progress are also required. These inspections should be selected on an as needed basis and are typically at a less frequent interval than Quality Control inspections.

Quality Control inspections of materials or inspection activities not covered by the Contractor Quality Control specification must be performed by CEI personnel.

3.2.5 Quality Assurance

3.2.5.1 General

CEI personnel must determine how well the Contactor is following the Quality Control Plan and the effectiveness of the Plan. If the QCP is not being followed, this must be brought to the attention of the Quality Control Manager and the CEI Project Administrator (PA). Depending on the degree of noncompliance with the QCP, the PA will either approve the immediate adjustment of a minor QC lapse, or the PA will suspend work on the applicable part of the QCP until the Contractor revises it and receives re-approval from the PA. If the Contractor is following the QCP but the result is unacceptable quality then the inspector must notify the PA so the QCP can be revised. The inspector should always document instances of noncompliance with the QCP as well as instances where the QCP was followed but was not effective. This documentation must be kept in the Daily Work Report or Daily Report of Construction. These instances should also be discussed at work progress meetings and the PA should note QCP violations and failures in the Contractor's Past Performance Report.

3.2.5.2 Performing Quality Assurance

To perform effective Quality Assurance, CEI personnel must become familiar with the provisions and procedures of the approved QCP. CEI personnel must verify that the individuals identified in the QCP as responsible for Quality Control fulfill this responsibility and that their efforts minimize Quality Control lapses. If their efforts are not effective then this should be discussed with the Quality Control Manager and PA so that improvements are implemented in a timely manner. To determine if there are Quality Control lapses during construction operations, inspectors must perform in-person inspections on an as needed basis. Thought must be given as to which Contractor operations have had consistently good Quality Control and which operations have not. Operations that have not had good QC should be visited more often.

3.2.6 Quality Control

3.2.6.1 General

It is a construction inspector's responsibility to ensure compliance with the contract documents through direct observation of construction operations, examination of completed construction, sampling and testing of materials, and review of records to verify compliance with instructions for those records. It is also the inspector's responsibility to produce the required performance records. Performance of these responsibilities requires training, preparation, observation of field operations and record keeping.

3.2.6.2 Training Requirements

Prior to performing an inspection, an inspector should have completed training related to the construction operation to be inspected. Classroom or self-study courses must be completed prior to being in direct charge of an inspection. The inspection of certain construction operations requires formal certification, such as pile driving and drill shaft inspection. Inspectors should receive field training sessions from a lead inspector, PA or other qualified instructor. The inspector should be able to observe a complete construction operation and its related inspection activities prior to being assigned to inspect that operation.

3.2.6.3 Preparation for Inspection

(1) Document Review

Inspectors must be familiar with the contract documents. This requires studying and annotating the contract documents until a full understanding is achieved.

The following contract documents and others may require review:

(1) Specifications (Standard specifications, special provisions and technical special provisions);

(2) Plans and plan notes;

(3) Design standards;

(4) Contractor Quality Control Plans and Foundation Installation Plans

(5) Material design mixes;

(6) Job guide schedule for materials;

(7) Material sampling procedures;

(8) Quality Control Guidelists;

(9) Safety Manuals; and

(10) Basis of Estimates Manual.

(2) Planning

A meeting, arranged and chaired by the Project Administrator referred to as a Pre-Operations Meeting, should be held between CEI staff, the Contractor and any relevant Subcontractors prior to the initial performance of any major construction activity. During this meeting, the Project Administrator should clearly establish lines of communication between project staff members, identify those in authority, and discuss issue escalation procedures.

As many CEI and Contractor personnel who will be involved in the activity as possible should attend the meeting. At the meeting, applicable specifications, plans and guidelists should be available for review. Applicable specifications should be reviewed and a “What If” discussion should take place regarding the Contractor’s plans to deal with unexpected issues during the operation. All inspectors who will be inspecting the operation should attend the Pre-operations Meeting. If they are unable to attend they should discuss the operation with the Project Administrator and the Lead Inspector prior to the operation.

3.2.6.4 Performance of Field Inspections

(1) Field Reference Documents

The following documents must be available for reference by the inspector: ***Standard Specifications for Road and Bridge Construction***, ***Design Standards***, all applicable

guidelists, plans sheets, sampling and testing logs, and material design mixes. Complete sets of these documents must be available in the field office.

(2) Documenting the Inspection

Inspectors must record a variety of construction related information. For guidance about proper accuracy, see the ***Basis of Estimates Handbook*** which lists each pay item in the Contract Estimating System. For documentation requirements and for these records, see the ***CPAM Section 5.11 Final Estimates Documents***.

An inspector must record details of construction activities each day for all assigned construction activities into Site Manager. The computer record that results from the inspector's input is the "***The Daily Work Report***". For details about Site Manager and the requirements of The ***Daily Work Report***, see ***CPAM Section 5.1***. The information covered in the "***Contractor QC Lapses***" section that followings should be entered into the comments section of the form and into the "Remarks" section of the ***Daily Work Report*** under remarks category: QC Plan Compliance.

Contractor QC Lapses: The inspector must record lapses of the Contractor’s QC effort, including failure to adhere to the approved QC Plan or failing of the Plan. These lapses are used in the computation of the Contractor’s Past Performance Rating.

Section 3.3

CONTRACTOR'S QUALITY CONTROL PLAN

3.3.1 Purpose

This section describes the review and approval process of the ***Contractor's Quality Control Plan (QCP)*** when required per ***Contract Documents***. This section also describes the process of suspending Contractor's work due to inadequate QC Operations.

3.3.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

3.3.3 Reference

Federal-Aid Policy Guide, 23 CFR 637
Standard Specifications for Road and Bridge Construction
Materials Manual

3.3.4 General

In compliance with FHWA 23 CFR 637, the Department chose to implement the "Contractor option". This option requires the Contractor to be responsible for Quality Control (QC) on Department projects. ***Specifications Section 105*** details the requirements of a Contractor's QCP.

3.3.5 Review and Approval

The Contractor will submit the Contractor's QCP, in accordance with ***Specifications Section 105***, to the Project Administrator (PA) for approval seven (7) calendar days prior to beginning work on QC Program applicable material. The submittal is accomplished by providing the laboratories, technicians, production facilities, and concrete mix designs in the Department's Materials Acceptance and Certification (MAC) system. MAC provides some feedback on the proposed data acceptability at the time of submittal.

The PA shall review the QCP using the checklist provided as a guide in ***Attachment 3-3-1, Quality Control Plan Review Checklist***. MAC will update the information with any

status change to a technician, laboratory, production facility, or concrete mix design. The following information on the template needs to be reviewed by the PA and acceptability determined manually;

1. Laboratories – MAC provides a general laboratory status, but does not indicate if a laboratory is qualified in the specific test method(s) for the material. For example, if a laboratory is listed as an Earthwork Laboratory, the PA will review the test methods assigned on the laboratory profile to ensure they include the appropriate test methods for Soils/Earthwork Testing, such as FM 1-T180.
2. Bridge related supervisory personnel – The QC Manager must provide backup documentation by attaching the qualification information to the template and the PA must review to ensure the proposed personnel meet requirements of ***Specifications Section 105-8.7***.
3. Grouting Technicians and Post Tensioning Technicians – The PA must confirm the technician holds a current certification. Construction Training Qualification Program (CTQP) database information may not be up to date, so the PA will confirm with the technician.
4. Commercial Inspection – The PA must indicate if there will be commercial inspection on items on the contract that do not typically require commercial inspection and/or if there are steel and miscellaneous metal items on the contract that will not be commercially inspected. The PA must ensure that the Contractor attaches the fabrication schedule for items commercially inspected 30 days before fabrication has begun.

The Department will accept or reject the proposed QC Plan within ten (10) calendar days. No phase of work covered under the QC Program, as specified in ***Specifications Section 105***, can begin until the PA has accepted the QCP in MAC for that phase of work. If a portion of the QCP is in compliance, the Contractor may begin work for that phase, but not for phases that are non-compliant.

(A) Resident Level Responsibilities

The PA will review the QCP to ensure the QC Manager has included information on all QC Program materials in the contract, review any status indicators with the QC Manager and determine if any status indicators will be a cause for concern at the time the phase of work will begin. If the status indicator can be resolved before the work begins, the PA shall accept that portion or portions of the QC Plan in MAC.

The PA shall furnish a fee schedule that will be used to establish a credit on the monthly estimate in the event that resolution tests performed by a Department compare favorably with the Verification test results. The PA can obtain the fee schedule from the State Materials Office (SMO) website at:

http://www.fdot.gov/materials/navigation/documents.shtm

In the event the work is suspended due to QC Operations, such suspension must clearly state area(s) of concern and non-compliance with the ***Specifications*** and requirements of the Contract.

A sample letter for suspension of work for failure to provide adequate QC Operations is provided in the ***Guidance Document 3-3-A, Suspension of Work Due to Inadequate Quality Control Operations***.

(B) District Level Responsibilities

The District Materials and Research Office (DMRO) concrete personnel will review the concrete mix designs submitted in the structural concrete portion of the QCP to ensure they meet the contract requirements. The DMRO will make appropriate recommendations in MAC to the PA within the 10 calendar days after the data is input by the Contractor into MAC for original submittals and 7 calendar days for addendums.

(C) State Materials Office Level Responsibilities

The Director, Office of Materials shall publish a fee schedule that will be used to establish a credit on the monthly estimate for resolution tests performed by a Department's laboratory that compare, in accordance with the ***Specifications***, with the Department's Verification test results. Such fee schedule shall be published annually, at the beginning of the fiscal year, for contracts let that fiscal year.

3.3.6 Suspension of Work due to Inadequate QC Operations

The following conditions may result in the suspension of the QC operations, in part or all-inclusive:

1. Failure to comply with the requirements of ***Specifications Section 105***, such as failure to timely supply information

2. Repeated failure of materials to meet specification requirements

3. Failure to take immediate corrective action relative to deficiencies in the performance of the QC program

4. Notification from the State Materials and/or District Materials and Research

Office in accordance with ***Materials Manual Section 5.6***, such as certifying materials that are not produced under an approved Quality Control Program for use on Department projects.

(A) Resident Level Responsibilities

The RE or designee shall notify the Contractor, within two (2) working days of finding a condition or conditions warranting the suspension of work due to non-conformance of the QC Operations. Notification of such disapproval shall clearly state area(s) of concern and non-compliance with the ***Specifications*** and requirements of the Contract. Any verbal warning to the Contractor that all or part of his QC Operations is in non-conformance will be addressed by the PA in the Daily Report of Construction or Daily Work Report. The PA shall issue a ***Deficiency Warning Letter (DWL)*** if the Contractor does not correct the finding(s) after receiving a verbal warning.

The PA shall issue a ***DWL*** to notify the Contractor of shortcomings/non-compliances with QC Operations. Prior to issuing a ***DWL***, the PA will discuss the performance concerns with the RE. A single ***DWL*** can be used to address concerns in more than one performance category. However, blatant violations or non-compliances may result in a ***Deficiency Letter (DL)*** being issued by the RE without a warning. Suspension of work due to QC Operations could result in issuance of a ***DL*** by the RE if the Contractor neglects to correct his QC Operations or continues to perform without sufficient QC Operations or Specifications. Refer to ***CPAM Section 13.1, Contractor's Performance*** for processing ***DWL*** and ***DL***.

3.3.7 QCP Updates

The Contractor's QCP often needs revising due to changes in personnel, design mixes, or production facilities. The Contractor will submit the proper information required to fulfill the changes/modifications of their QCP updates and additional information through MAC per ***Specifications Section 105-5.1***. These changes can be accepted and approved by the PA when added by the Contractor to the already approved QCP. The Department will accept or reject the proposed QC Plan addendum within seven (7) calendar days after submittal.

Attachment 3-3-1
Quality Control Plan Review Checklist

QCP Item	Y	N	N/A
105-5.2 Personnel Qualifications			
Ensure all qualified personnel are listed with their corresponding level of qualification and Technician Identification Number (TIN). The PA will review with the QC Manager any qualifications designated as anything other than qualified.			
Bridge Personnel			
The PA will confirm the bridge personnel qualifications, if applicable.			
Post Tensioning Level I			
Post Tensioning Level II			
Grouting Technician Level I			
Grouting Technician Level II			
Supervisory Personnel (Project Manager, Superintendent, Foreman, Surveyor)			
105-5.3 Production Facilities			
Are the production facilities listed?			
The PA will confirm that production facilities are included for all Quality Control Program materials that will be used on the project.			
The PA will review with the QC Manager production facilities designated as anything other than accepted/approved.			
105-5.3.1 Structural Concrete Mix Designs			
Are the concrete mix designs listed, if applicable?			
The PA will review the District Materials and Research Office (DMRO) Concrete personnel recommendations for use of concrete mix designs on the project. Do not approve the concrete portion of the Contractor QC Plan until the DMRO concrete personnel complete the review.			
105-5.4 Testing Laboratories			
Are the laboratories listed?			
The laboratory status provided by MAC is not sufficient to determine if the laboratory is approved for the designated material. The PA will review the laboratory test methods to ensure the laboratory is valid for the material designated. The PA will review any concerns with the listed laboratories with the QC Manager.			
105-1.2.3 Notification of Placing Order			
The PA will ensure the Contractor has identified if there will be commercial inspection need on the project.			
The PA will provide additional information about commercial inspection needed for items not normally covered by commercial inspection (per PA's request).			
The PA will indicate if there are other steel and miscellaneous items on the project that will not be commercially inspected.			
The PA will ensure that the Contractor attaches the fabrication schedule 30 days before the fabrication begins.			

Guidance Document 3-3-A
Suspension of Work Due to Inadequate Quality Control Operations

Date

Contractor Name
Contractor Address
City, State Zip

RE: <u>SUSPENSION OF WORK DUE TO INADEQUATE QUALITY CONTROL OPERATIONS</u>

Dear Sir or Madam:

The Department has suspended operations due to Inadequate Quality Control Operations as defined below:

<Provide details>

The Department directs the Contractor to cease the phases of work deemed to be non-compliant. Resumption of such phases of work shall be dependent upon approval of the Engineer.

If you have any questions, please feel free to contact <Name of the Project Administrator> at <telephone number>.

Sincerely,

Resident Engineer

cc: District Materials and Research Engineer

Section 3.4

DISPUTE REVIEW BOARD

3.4.1 Purpose

The purpose of this procedure is to provide for uniformity in the use of Dispute Review Boards (DRB).

3.4.2 Initiating Specifications

(A) Resident Level Responsibilities

All contracts should contain a special provision for either a contract specific Dispute Review Board (DRB) or a Regional DRB (RDRB). Conventional contracts over $15 million should contain a special provision for a contract specific Dispute Review Board (DRB). The Resident Engineer (RE) also has the option to add a contract specific DRB to projects less than $15 million, for complex projects, or for projects with a higher than normal probability of issues. For capacity only projects, a RDRB can be deemed sufficient based on the complexity of the project or a decreased probability of issues. Complex Design-Build contracts over $30 million should contain a contract specific DRB, while smaller and/or less complex Design-Build contracts can utilize a RDRB. If there is no special provision for a contract specific DRB, then there should be one for a Regional DRB (RDRB).

3.4.3 Contract Specific DRB

3.4.3.1 Member Selection

(A) Resident Level Responsibilities

Projects with contract specific DRBs require the appointment of the three members. The process of appointing the three members should be completed early enough that the members can attend the pre-construction meeting.

The RE will select an appointee from the Florida Department of Transportation's (Department's) list of candidate members. The name of the proposed DRB member selected by the RE should be reviewed by the District Construction Engineer (DCE) prior to submitting to the Contractor for review. In selecting a member, keep in mind, we

are not looking for someone who will take our side, but someone knowledgeable of the type of work that will understand the issues that may come up and who is able to knowledgeably evaluate a dispute. The RE should review the resume and disclosure statement, other DRB workload (recommend 10 days per month or fewer that are committed to DRB meetings) and availability of the members of the proposed Department selection, the Contractor selected member and the proposed chairperson. Copies of these resumes should also be forwarded to the DCE.

When the Contractor submits its appointee, the RE should seek the advice of the DCE before approving the appointment. The RE and the DCE should carefully review the resume of the appointee and solicit references if unknown.

3.4.3.2 Three Party Agreement

(A) Resident Level Responsibilities

A contract specific DRB requires a ***DRB Three Party Agreement, Form No. 700-011-02*** be executed before the pre-construction meeting. This document is not included in contracts but is to be downloaded off the Forms and Procedures website. The Project Administrator (PA) should take the lead in getting this agreement executed. The DRB and Contractor should execute 2 copies of the agreement. The copies should then be sent to the DCE for execution. The agreement will be returned to the PE for distribution, one original retained by the Department, the other original to the Contractor, and one copy each to the DRB members.

(B) District Level Responsibilities

The DCE is responsible for executing the Three Party Agreement, unless delegated. In the case of delegation, documentation of such delegation should be maintained in files.

3.4.3.3 Meeting

(A) Resident Level Responsibilities

Meeting frequency should be determined on a project-by-project basis. Meetings should generally be held monthly at least for the first six months to acclimate the DRB, as problems often become apparent in the early part of a project. If the project is behind schedule, or the Contractor is submitting numerous ***Notices of Intent to Claim***, a monthly meeting is necessary. Projects that are running smoothly with few claims and on schedule should evaluate the meeting frequency. The RE and the Contractor must agree to changes to the frequency of meetings. This is not meant to be a unilateral

decision by the Department.

When possible, DRB meetings should be scheduled to coincide with regular periodic progress meetings. DRB meetings are scheduled well in advance. The RE must assure that these meetings occur when scheduled. The RE should not cancel a meeting without adequate notice. DRB members should be paid for a meeting canceled with less than 5 working days advance notice unless the Board initiates such cancellation.

On a contract specific DRB, all three members should attend each scheduled periodic meeting. In the event that one member of the Board is unable to attend a regular scheduled meeting, the Chairman should attempt to reschedule the meeting. Should rescheduling not be possible, the other two members may attend the meeting without the third member. Only the members attending should be compensated. No hearing will be conducted without all three members present.

The Department project staff will take minutes of the regular periodic meetings, including that portion devoted to DRB discussion.

(B) District Level Responsibilities

The District Construction Office is responsible for initiating a request to include the DRB special provision for a contract and should provide a projected quantity for meetings. The quantity should allow for the life of the contract. Generally, one meeting per month for the first six months and a meeting once every other month should be followed, unless circumstance dictates otherwise.

3.4.3.4 Use of the DRB

(A) Resident Level Responsibilities

On all matters that relate to DRBs, communicate only with the Chairman. All personnel on the project should understand that there should be no communication with any DRB member outside of a meeting. The only exception is communication between the parties and the DRB Chairman relating to scheduling meetings or administrative matters relating to a hearing.

On rare occasions, the Department or the Contractor may bring an issue that is unusually complex or request that a detailed analysis be developed. In this instance it may be appropriate for the DRB to request additional compensation. It is important that there be agreement among all parties as to what the expectations and compensation will be as it relates to the number of days the DRB members are to be compensated

and level of detail of the recommendation, prior to presenting the issue to the DRB.

The default of a Contractor does not terminate the contract. The DRB is still in existence and all parties have the same responsibilities as existed prior to a default.

If a Contractor refuses to participate in a hearing, they should be reminded that the hearing is a condition precedent to any other forum of resolution. The hearing should then take place absent the Contractor. The Department will not refuse to participate in a hearing unless determined appropriate after consultation with the State Construction Office and the Central Office Civil Litigation Section. The only exception would be if all parties agree that the issue is one over which the Department has no jurisdiction or the issue involves a third party which cannot come before the DRB.

3.4.3.5 Payment

(A) Resident Level Responsibilities

Costs associated with a contract specific DRB are reimbursed to the Contractor through an established pay item. The Contractor pays the members of the DRB and the Department reimburses the Contractor using this pay item. Invoices must be prepared by the DRB Chairman and submitted to the Contractor, with a copy sent to the Project Engineer showing the date and nature of the services provided and support and document the quantity for the estimate, particularly when the services provided were not in attendance at a regularly scheduled meeting. Normally the pay quantity for a meeting is 1.0, however, the pay quantity can be a fractional quantity. No payment is made until the Three Party Agreement is executed.

It is possible that a DRB meeting could occur after the Contractor has submitted a qualified acceptance letter. In that case, the PE will process another estimate to reimburse the Contractor for payments to the individual members.

3.4.4 Regional DRB

3.4.4.1 Member Selection

(A) Central Office Level Responsibilities

There are three regular members and two alternates designated for each RDRB for a period of one calendar year. The list of the members is available on the State Construction Office’s web site.

3.4.4.2 Three Party Agreement

(A) Central Office Level Responsibilities

The Three Party Agreement for RDRB has been executed and is maintained in the State Construction Office.

3.4.4.3 Meeting Frequency

A RDRB does not have regular periodic meetings unless requested by the DCE. When a hearing is requested by the RE or the Contractor, a pre-hearing (orientation) meeting may be appropriate to acquaint the RDRB with the project and any issue to be heard.

(A) Resident Level Responsibilities

The RE initiates a request to the DCE that the RE, or the Contractor, intends to present a dispute to the RDRB.

(B) District Level Responsibilities

The DCE or designee shall schedule the RDRB meeting to hear the dispute submitted by the RE.

3.4.4.4 Payment

(A) Resident Level Responsibilities

RDRB is paid using a work order against a contingency pay-item or Contingency Supplemental Agreement. If the RDRB meets to hear issues on more than one project, the meeting should be paid for using contingency funds from only one project.

It is possible that a RDRB meeting could occur after the Contractor has submitted a qualified acceptance letter. In that case, since the project is still open in Transport, another estimate will be processed to reimburse the Contractor for payments to the individual members.

If the project is closed out, as may be the case on a project that contains a Warranty/Guarantee specification, a ***Contract Invoice Transmittal, Form No. 350-060-02***, will be issued, in accordance with the ***Disbursement Handbook,*** to reimburse the Contractor for payments to the individual members.

3.4.5 Request for Hearing

(A) Resident Level Responsibilities

Exemplar Operating Guidelines are posted on the State Construction Office website. The Department and the Contractor have the responsibility to resolve issues in a timely manner. On Partnered projects, there is a clearly defined escalation process. On other projects, the escalation process may not be clearly defined.

The Department does not have to wait for the Contractor to bring an issue to the DRB or RDRB. It is important that issues be escalated soon enough to mitigate impacts to the project. Once the project personnel recognize that a resolution, that is mutually agreeable to the Contractor and the Department, will not come about, or that the partnering process dictates, then the issue should be brought to the DRB or RDRB. The PA and the RE should consult with the DCE prior to requesting a hearing.

If the Department requests a hearing, the initial request should be for entitlement only. A request by either the Department or the Contractor for a hearing on quantum should be made only after a finding or recommendation on entitlement was issued and the Department and Contractor have made a sincere effort to resolve the quantum issue, or such is not otherwise reasonably possible. The Department should resist any effort made by the Contractor to have the entitlement and quantum issues heard by the DRB at the same hearing because it deprives both sides of an opportunity to arrive at a mutually agreeable solution.

3.4.6 Preparation for the Hearing

(A) Resident Level Responsibilities

The Department's position must be based on facts, plans, specifications, and contract documents. Send copies of the Department's position papers and rebuttals to the DCE for review prior to submitting to the DRB or RDRB.

The person(s) who will be representing the Department at the hearing should be familiar with how a hearing is conducted. A "dry run" should be conducted to make sure the Department's position is presented clearly.

Send copies of Contractor's position papers and rebuttals to the DCE for review.

3.4.7 During the Hearing

(A) Resident Level Responsibilities

Prior to the start of the hearing, request the DRB or RDRB to go over the Operating Guidelines

Keep in mind that neither party is to be permitted to present information that hasn't been previously given to the other party prior to the hearing without the other party's consent.

3.4.8 Recommendation of the Board

(A) Resident Level Responsibilities

The RE should discuss the recommendation with the DCE to determine whether to accept or reject the recommendation. The RE should accept or reject the recommendation in writing within the time period stated in the Specification. If the RE wants to reject the recommendation, the rejection has to be based on the DRB or RDRB disregarding or failing to recognize specifications and contract documents. If the recommendation does not provide sufficient information to indicate which facts or contract provisions were used to support the decision, request further information. Consultation with the State Construction Office and Central Office Civil Litigation Section will be necessary before the RE decides to reject any recommendation.

A copy of the Board's recommendation shall be sent to the State Construction Office.

Section 3.5

QUALITY CONTROL / QUALITY ASSURANCE REVIEW FOR FINAL ESTIMATES

3.5.1 PURPOSE

The purpose of this chapter is to provide guidelines for checking and monitoring the Final Estimates Process from the initial phase of construction through the closeout phase. The goal of the State Final Estimates Office (SFEO) is to provide consistent and quality practices statewide.

3.5.2 GENERAL

This procedure explains what is required to perform an effective Quality Control (QC) Review and a Quality Assurance Review (QAR). Each District Final Estimate Manager (DFEM) will submit their current QC Plan to the SFEO. The QAR by the SFEO is to periodically monitor quantities, payments, procedures, and guidelines to assist in obtaining an accurate and quality estimate. The QARs will determine how effective the District's QC Plan is implemented.

The QC Reviews by the District Final Estimates Offices (DFEO) should facilitate the Final Estimate process by addressing any possible findings during the progress of the project.

3.5.3 REFERENCES

The following standards are referenced within this procedure and are included in the term "Contract Documents":

- Special and Technical Provisions,
- Plans,
- Roadway Design Standards,
- Structures Standards,
- Traffic Operations Standards,
- Developmental Specifications,
- Supplemental Specifications, and
- Standard Specifications.

The following resources are referenced for use in preparation for QARs:

- ***Construction Project Administration Manual (CPAM) (Topic No.700-000-000)***,
- ***Basis of Estimates Handbook***,
- ***Review and Administration Manual (Topic No.700-050-005)***,
- ***Final Estimates Guidelist (FEG)***,
- ***Computation Method for Design, Construction & Final Estimates Handbook (Topic No.700-050-001)*** (**Note:** Only for projects still utilizing this Handbook.)

3.5.4 DISTRICT

The DFEO is responsible for all checking and measurement monitoring within the District. The DFEO will monitor the estimate process and the quality of estimates, on consultant and In-House projects. Requirements, such as completeness, accuracy and useable data, must be included on all ***Final Estimates Field Review Form 700-050-36***.

3.5.4.1 FREQUENCY OF QUALITY CONTROL REVIEWS

Each DFEO shall have a QC Plan which outlines how reviews will be performed. The District QC Plan will list the frequency of the reviews.

The DFEOs will complete a QC Review of each project at the following construction completion milestones: 30% (minimum), 60%, and/or 90%. A minimum of one QC Review shall be completed for projects at the frequency shown on the table below. If only one QC Review is conducted, It is recommended that the 60% milestone be given high priority due to the quantity of work completed and contract time remaining from completion of project.

Minimum Requirements for QC Review Frequencies

	<$2M	**$2M or >**
QC Review	15%	100%

3.5.4.2 FINDINGS

All findings from QC Reviews, such as Summary of Quantity entries, Final "As-Built" Plans not updated, adjustments not recorded, shall be entered on the ***Final Estimates Field Review Form 700-050-36***. The DFEO will submit the completed Review Form to the Project Administrator (PA). The ***Final Estimates Field Review Form*** shall include steps to be taken to improve the Final Estimates Process. Any ratings, such as Non-Compliance

or Best Practices, will be addressed in the Review Form. Significant findings will inform the DFEO as to what areas and what course of action in the area of training is needed at the Resident Office (RO) Level. The DFEM will conduct reviews when deemed necessary, until the satisfactory performance levels have been reached.

Records of all reviews will be kept in the DFEO's office files.

3.5.5 STATE FINAL ESTIMATES OFFICE

The SFEO is responsible for all QARs at the District, CCEI, and Project levels. The purpose of the SFEO QAR is to ensure efficient and effective processes in the delivery of desired outcomes and to determine whether the CCEI and In-House project processes are being conducted in accordance with the procedures and guidelines. Determination of jobs to be reviewed in each District will be the SFEO's responsibility. Asphalt, Concrete, Earthwork, Bridge Quantities and Final "As-Built" Plans are critical areas of high interest. The SFEO is responsible for determining the frequency of reviews. At least one QAR will be completed in each District annually. Depending on QAR results, the frequency may be increased based on need.

3.5.6 FINAL ESTIMATES GUIDELIST (FEG)

The ***FEG*** consists of major items that assist Project Administrators and Inspectors in identifying critical areas that require monitoring. It also includes the Critical Requirements used for the QA/QC reviews performed by the SFEO and District Offices. This guidelist also provides several check-off/reminders to help the Construction staff meet the pay item requirements. The ***FEG*** is found on the Construction Website at:

http://www.dot.state.fl.us/construction/CONSTADM/Guidelist/FinalEst/FEGuidelist.shtm

3.5.7 QUALITY ASSURANCE REVIEW CLOSE-OUT PROCESS

(1.) Informal Close-Out

The State Final Estimates Engineer (SFEE) or Designee will conduct an Informal Close-out meeting with the Resident Engineer or CCEI/Project Administrator after each QA Review, to discuss any findings and what corrective actions, if any, need to be taken to improve the estimate process. Non-Compliance along with Best Practices will be addressed by the SFEE. If there is a problem, critical requirements should be the main topic of discussion.

(2.) Formal Close-Out

The SFEE or Designee will conduct a Formal Close-out meeting with the District Construction Engineer (DCE) and DFEM to discuss any significant or major findings from a QAR. Topics identified for discussion or improvement include additional training for personnel, practice improvements, or process improvements to ensure staff has resources to properly finalize each estimate. If QAR findings have statewide significance, they should be communicated to all DFEMs.

(3.) Quality Assurance Report

A Quality Assurance Report (QA Report) will be prepared by the SFEO and submitted to the following:

- Chief Engineer
- Director of Construction
- District Secretary
- Director of Transportation Operations
- DCE
- DFEM

This report will contain data supported findings. The DFEM will submit a written response to the SFEE within 30 days after receipt of the QA Report addressing any findings, including a reasonable solution to the areas identified for improvement. Any comments and questions concerning the QA Report should be discussed with the SFEE or Designee prior to submitting the written response to the SFEE.

Chapter 4

CONSULTANT CEI MANAGEMENT

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Section 4.1

ADMINISTRATION OF CONSULTANT CEI CONTRACTS

4.1.1 Purpose

To set forth general instructions concerning the administration of Consultant Construction Engineering and Inspection (CCEI) contracts.

4.1.2 Authority

Sections 20.23(4)(a) and 334.048(3), Florida Statutes (F.S)

FHWA Approved (12-14-11)

4.1.3 Background

The Department must ensure the Consultant CEI is performing services in accordance with the scope of services and the contract.

The following is a list of Professional Consultant Contract Administration Procedures and Guidelines pertinent to procurement and administration of Consultant CEI.

350-020-200	Contract Funds Management Funds Approval
360-050-005	Project Cost Reporting
375-020-010	Identifying and Assigning Responsibility for Errors, Omissions, and Contractual Breaches by PE
375-030-001	Professional Consultant Qualification
375-030-002	Acquisition of Professional Services
375-030-004	Audit Process for Professional Services Consultants and Contracts
375-030-005	Invoicing for Service Agreements
375-030-006	Restriction on Consultants' Eligibility to Compete for Department Contracts
375-030-007	Professional Services Consultant Work Performance Evaluation
375-030-010	Amendments and Task Work Orders for Professional Services Agreements

4.1.4 Role of Consultant CEI

The Department has representation in administering construction projects through Professional Services contracts. Hence, the authority of the CCEI firm's lead person, such as the Senior Project Engineer, and the CCEI Project Administrator shall be identical to the Department's Resident Engineer and Project Administrator respectively and shall be interpreted as such. The Consultant is required to exercise their professional judgment in performing their obligations and responsibilities under the contract. However, the Consultant must seek input from the Construction Project Manager. Therefore, the Department vests the Consultant with the responsibility of administering the project(s) and to implement actions based on their authority, subject to the requirements of ***Section 4.1.6***.

The Consultant shall render the services consistent with the standard of care, skill, and diligence exercised by members of the same profession providing similar services under similar conditions at the locale of the project and at the time the services are to be performed. Consultants' standard of care shall not be altered by the application, interpretation, or construction of any other provision of the contract.

4.1.5 Pre-Service Phase

(A) Resident Level Responsibilities

A pre-service meeting is required on all Consultant CEI (CCEI) contracts following execution of the contract and prior to the pre-construction conference. Generally, those in attendance will be representatives of the Department's Professional Services Unit, the Construction Project Manager, District Construction Consultant Manager or designee, and the Consultant to discuss administration of the Consultant contract. The Construction Project Manager will be responsible for the meeting. The pre-services meeting can be optional if the Firm is already performing services in the District and District Construction Consultant Manager does not believe the pre-services meeting is needed.

Subjects covered at the meeting will include, but not be limited to:

(1) Department lines of authority concerning administration of the Consultant contract and the administration of the construction contract.

(2) Consultant's schedule (with datelines determined) for establishing field offices, assigning personnel and equipment.

(3) Terms of the Consultant contract (e.g., approval of Consultant's personnel qualifications, approval of personnel and equipment assignments, rates, etc.). Clarify any portions of the Consultant CEI Scope of Services that are unclear to any parties.

(4) Invoice procedure as outlined in ***Invoicing for Service Agreements, Procedure No. 375-030-005***.

(5) The coordination between the Construction Project Manager, District Construction Consultant Manager, Professional Services Administrator, and Consultant CEI for processing CCEI supplemental amendments and CCEI invoices.

(6) Review the process for the CCEI to contact the Design Consultant for post-design services and clarification or correction of plans and specifications.

(7) Discuss Disadvantaged Business Enterprise (DBE), On-the-Job Training (O.J.T.), and Equal Employment Opportunity (EEO) monitoring and documentation submission requirements.

(8) The ***Professional Services Consultant Work Performance Evaluation***, ***Procedure No. 375-030-007***.

(9) Action required by CCEI prior to start of construction.

(10) Review of the critical items for successful administration of the construction contract.

(11) Consultant CEI's Quality Control (Q.C.) Review process.

A complete and concise record (including the names, titles, addresses, and telephone numbers of all participants) of the proceedings of the meeting shall be prepared by the Consultant CEI and approved by the Construction Project Manager. Record of the meeting shall be distributed to all participants and other interested parties within 2 weeks following adjournment of the meeting.

4.1.6 Service Phase

(A) Resident Level Responsibilities

The Construction Project Manager, under direct supervision of the Department Resident Engineer or the District Construction Consultant Manager and in turn the District Construction Engineer, administers the Consultant CEI Contract(s) and monitors the activities of the Consultant(s) engaged in construction contract administration and is in responsible charge of the project(s) at all times. The Construction Project Manager will serve as the liaison to the FHWA and the Department as it relates to various contract

administration issues. The areas of responsibility of the District Construction Consultant Manager and Construction Project Manager include:

4.1.7 Consultant Personnel

(A) Resident Level Responsibilities

The Construction Project Manager or the District Construction Consultant Manager shall compare the personnel proposed by the Consultant with the Technical Proposal for any changes in personnel. Replacements for the original personnel must have equal or better qualifications than the personnel being replaced. The Construction Project Manager or Resident Engineer and the District Construction Consultant Manager shall jointly review and approve all subsequent additions and deletions to Consultant staffing of a project and all salary increases. All overtime usage is subject to the terms of the Consultant CEI contract. All salary and personnel approvals shall be in writing.

4.1.8 Office Space and Equipment

Shall be in accordance with the Consultant CEI contract.

4.1.9 Travel

All travel expenses of the Consultant with reimbursement are not to exceed State of Florida rates, Department policies and limitations, and within the terms of the Consultant CEI contract.

4.1.10 Training Courses

(A) District Level Responsibilities

The District Construction Training Administrator or designee shall advise the Consultant, through the Construction Project Manager, of any construction training courses presented by the Department. The District Construction Engineer shall make space available to the Consultant for training that is normally available to Department field personnel. Training is an overhead expense in accordance with Federal Acquisition Regulations. Therefore, training costs are not to be charged directly to Department projects. However, the District Construction Engineer can authorize Consultants in that District to attend District specific informational sessions; in which case, the Consultants will be reimbursed for the hours spent in travel and in the session as part of their billable hours. No additional reimbursement will be made for travel, including but not limited to, mileage, lodging, meals, etc.

4.1.11 Consultant Billings

(A) Resident Level Responsibilities

The Construction Project Manager shall review and process Consultant monthly and final invoices according to ***Invoicing for Service Agreements, Procedure No. 375-030-005***.

Consultant CEI Firm's Quality Assurance (Q.A.) Reviews: The quarterly Consultant's performance evaluation will note whether the Consultant's Q.A. reviews were performed every six (6) months by the CCEI Firm. Provide written explanation with supporting backup documentation as necessary for areas identified as "unacceptable" performance.

4.1.12 Consultant Performance

(A) Resident Level Responsibilities

During the early stages of the construction project, the Construction Project Manager shall thoroughly evaluate the performance of the CCEI Firm to ensure the CCEI Firm is demonstrating the necessary knowledge, skills and experience to make decisions in accordance with the Consultant's Contract. Any deficiencies in the performance of the CCEI Firm will necessitate remedial action, including but not limited to, reassignment of personnel, replacement of personnel, and increase in the frequency of monitoring and inspection activities, and increase the scope and frequency of training of the Consultant personnel. Such deficiencies shall be handled in accordance with section 4.2.5. The Construction Project Manager shall maintain a continuing overview of Consultant performance of duties by quarterly interim reviews of records, inspection procedures, testing procedures, sampling procedures, etc. These performance reviews shall be conducted beginning with the first full Quarter, (during the months of February, May, August, and November) in accordance with ***Professional Services Consultant Work Performance Evaluation, Procedure No. 375-030-007.*** The Construction Project Manager shall use the ***Professional Services Information System (PSIS)*** using the ***Project Managers Grades System (PMGS)*** to record quarterly interim and final grades.

The Construction Project Manager may obtain comments from other appropriate District personnel on Consultant's performance.

4.1.13 Initial In-Depth Review

(A) Resident Level Responsibilities

The Construction Project Manager shall conduct an Initial In-depth review for each Consultant CEI contract. The Initial In-depth review should be conducted within six (6)

months of commencement of CCEI services and be documented on ***Consultant CEI 6 Month In-Depth Review Report, Form No. 700-010-03***.

Written records of each review are to be maintained in a contract management file for each Consultant CEI contract for the life of the contract.

The review areas of each CCEI contract shall consist of:

(1) **Personnel** - The Construction Project Manager shall review Consultant staffing to determine if the individuals assigned to the project are those identified in the technical proposal, and that project staffing is in accordance with the approved staffing plan. All replacement personnel shall have been properly approved and be equally or better qualified to perform in their respective positions, and their rates of pay must be in accordance with the CCEI contract requirements.

(2) **Equipment** - The Construction Project Manager shall check to insure all equipment as required in the Consultant CEI contract has been provided, is in proper operating condition, is being maintained and calibrated, and is adequate for ongoing and projected construction activities.

(3) **Construction Contract Administration** - The Construction Project Manager shall determine if the CCEI staff has the appropriate construction contract, plans, specifications, design standards, Department procedures, and other pertinent documents available in the project office and that the Consultant is complying with material testing, inspection, documentation, and contract administration requirements.

4.1.14 Final Evaluation

(A) Resident Level Responsibilities

The Construction Project Manager shall prepare and submit a final evaluation on the Consultant CEI's work performance within 30 days after completion and acceptance of basic services, in accordance with ***Professional Services Consultant Work Performance Evaluation, Procedure No. 375-030-007***. The Construction Project Manager shall conduct a performance review for the period since the last quarterly grade was determined to that day of acceptance of basic services. The final grade for the Consultant CEI should be representative of the performance of the Consultant for the duration of the CEI contract and will be determined by averaging all the quarterly grades including the grade for the partial period prior to acceptance.

The Construction Project Manager shall obtain written comments from the District Final Estimates Manager (DFEM) if the DFEM performed a review of the Consultant's final estimates.

If close out of the Consultant CEI contract is requested in order to unencumber the remaining contract funds and a Final Consultant CEI work performance evaluation is required before the final estimate package has been completely checked by the District Final Estimates Office, then a Final Evaluation Grade can be given leaving the Final Estimate Package section blank. A second Final Evaluation Grade shall be given once the Consultant's final estimate package has been completely checked by the District Final Estimates Office, in order to determine an accurate performance grade.

4.1.15 Design-Build Contracts

(A) Resident Level Responsibilities

On Design-Build contracts that include CEI services, the Construction Project Manager shall conduct an Initial In-Depth Review, Quarterly Interim Reviews, and Final Evaluation in accordance with this procedure for the Design-Build CEI.

Section 4.2

CONSULTANT CEI ACCOUNTABILITY

4.2.1 Purpose

To establish procedures for the assignment of responsibilities when a Consultant Construction Engineering and Inspection (CCEI) has been determined to have performed work for the Department that has been identified as having errors, omissions, or contractual breaches. This procedure is for use by the Department to document the deficiency and the additional costs and damages sustained and establish the requirement for a recommendation for action against the Consultant.

The identification of errors and/or omissions as a result of incorrect final estimate shall be in accordance with ***the Review and Administration Manual***, ***Procedure No. 700-050-005***.

4.2.2 Authority

Sections 334.048, 20.23(4)(a) and 337.015, Florida Statutes (F.S.)

FHWA Approved: 12-14-11

4.2.3 Background

Throughout the construction phase of the Department's construction contract under the management of a Consultant CEI, quality assurance reviews are performed. Reviews performed by both the District Construction Engineer's staff and the State Construction Office staff, as well as reviews performed by the FHWA, are intended to determine whether the work performed on the project is of an acceptable level of quality as established in the contract documents for the project.

There have been instances in the past whereby Consultant CEI firms have not performed in full conformity with the Consultant Contract. These instances have at times cost the Department, either through additional work paid to the construction Contractor or through remedial costs to correct defective work in the contract administration or documentation.

This procedure outlines the assessment of responsibility that the Department's Construction Project Manager in charge of the Consultant CEI Contract must complete after reviewing the project performance.

4.2.4 Definitions

Construction Project Manager: The Department representative working for the Department Resident Engineer or the District Construction Consultant Manager who manages one or more Consultant CEI contract(s).

Consultant CEI: A consulting engineering firm pre-qualified by the Department to perform Construction Engineering and Inspection (CEI) and under contract to perform such services on a project or series of projects.

Consultant Inspector: The Consultant's technical field personnel assigned to a particular aspect of the inspection process.

Consultant Principal-in-Charge: That person designated by the consulting firm under contract who, as a corporate officer or principal in that firm, serves as the person in responsible charge of the management of the contract on the firm's behalf.

Consultant Project Administrator: The Consultant's administrator in charge of more than one aspect of the construction or administration of the project CEI.

Consultant Senior Project Engineer: The Consultant's leading engineer assigned to a construction project. In some cases the Senior Project Engineer may oversee more than one construction project.

Contractual Lapse: The perceived or verified inability of the Consultant CEI to perform one or more aspects of its contractual obligations in any aspect or phase of the Contract.

District Construction Engineer: The engineer so appointed by the District Secretary to hold the title of District Construction Engineer and who serves to manage all District functions pertaining to construction of Department projects managed by either in-house CEI or Consultant CEI personnel.

District Construction Consultant Manager: The Department representative working for the District Construction Engineer, who administers the Consultant CEI work program.

District General Counsel: The Department attorney working for the District Secretary regarding legal matters of the District.

Errors and Omissions: A general term used to describe deficiencies in the performance of Consultant contractual obligations on a project.

4.2.5 Identification of Errors, Omissions, or Contractual Breaches

4.2.5.1 Resident Level Responsibilities

The initial identification of the errors, omissions, or contractual breaches is the responsibility of the Construction Project Manager. This is accomplished through routine project and quality assurance (Q.A.) reviews of the Consultant's work product, records, performance grades. Reviews should be made on a continual basis and will be documented during the Consultant’s quarterly performance evaluation.

If the Consultant CEI contractual performance, staffing, equipment, or contract administration is found unacceptable and not in agreement with Department historical decisions during a Department QA review, the deficiency shall be clearly defined in writing, and the authority (contract section, article, page, etc.) cited. The Construction Project Manager shall prepare appropriate correspondence for the District Construction Engineer's (or his designee) signature outlining the deficiency and identifying a reasonable time frame for Consultant corrective action.

If the noted deficiencies are directly attributable to the Project Administrator or the inspectors, corrective action shall first be directed in writing to the Consultant Senior Project Engineer, and/or the Consultant Principal-in-Charge, with copies to the District Construction Consultant Manager, and the District General Counsel. If no apparent action is taken within 30 days, the concerns shall be clearly conveyed directly to the Consultant Principal-in-Charge, with a copy to the Consultant Senior Project Engineer, the District Construction Consultant Manager, and the District General Counsel.

If the issues are directly attributable to the Consultant Senior Project Engineer, the concerns shall be conveyed to the Consultant Principal-in-Charge and a copy to the District Construction Consultant Manager and the District General Counsel. During the period of correction, the Consultant's actions and progress shall be closely monitored. The relationship involved here is contractual, and the Department must allow the Consultant sufficient and reasonable time to correct noted deficiencies with their contract performance, as appropriate under the circumstances.

If appropriate action is not taken to correct the deficiencies, the District Construction Engineer (or his designee) will direct the Consultant in writing to provide a written response to the deficiencies addressing the reasons why the issues have not been addressed and a plan outlining the time frame within which all issues will be addressed. If the response is acceptable to the Department, corrective actions and a time frame for corrective action shall be approved in writing. Continued monitoring by District staff will be required. A

follow-up at the end of the specified correction period will be prepared based on the staff's investigation at that time. A copy of the report should be sent to the District General Counsel, the District Director of Transportation Operations, and the District Professional Service Administrator.

The District Construction Engineer, through his staff and with the advice of the District General Counsel, shall perform a comprehensive review after-the-fact to determine if the Department or the Contractor suffered any damages during this period. If damages were sustained, the recovery of any identified costs and damages shall be in accordance with the procedure for ***Errors, Omissions, and Contractual Breaches by Professional Engineers On Department Contracts, Procedure No. 375-020-010***.

4.2.6 Consultant Contract Termination

If the Consultant CEI does not follow through with the corrective action or the action taken is unsuccessful, the District Construction Engineer will summarize the findings, recommend termination, and present these to a committee comprised of the District Secretary, the District Director of Transportation Operations, and the State Construction Engineer or his designee. The Chief Construction Litigation Attorney, or designee, shall be a non-voting legal advisor to the committee. The FHWA shall be given a copy of the written finding from the committee on all Federal Aid projects.

If the committee concurs with the recommendation, the District Construction Engineer will forward a copy of the findings, with a recommendation for execution of a Termination Agreement (or, in the event the Consultant refuses to agree to termination, a unilateral termination) to the District Professional Services Administrator. The contract shall then be terminated for cause. The District will then be responsible for completing the CEI on the project, either through another Consultant or with in-house personnel.

(A) If this action is followed through to termination, the District Construction Engineer will need to ensure the following become the possession of the Department:

(1) All files, records, and documents given to the Consultant, or kept by the Consultant as part of his contractual obligation;

(2) All record books (piling, density log, etc.);

(3) All equipment supplied by the Department;

(4) All files, records, and documents kept by subconsultants, as well as certification of payment;

(5) All personal logs or diaries pertaining to the construction or CEI contracts kept by the Senior Project Engineer, Project Administrator, or Inspectors.

(B) The District Construction Engineer will immediately notify the construction Contractor that the termination of the Consultant CEI has taken place. The Contractor will then be notified who will be assigned the CEI responsibilities. As soon as possible, the District Construction Engineer shall arrange for a meeting between the Contractor and the newly appointed Resident Engineer or the Senior Project Engineer in case of a Consultant CEI.

(C) The Construction Project Manager will notify the District Office of Information Systems of the termination. A list of all Consultant personnel associated with the project who have computer access authority will be provided so that the access privileges will be revoked immediately.

(D) Upon securing the records and reassigning the responsibilities of the construction project management, the District Construction Engineer shall perform a comprehensive investigation of all costs incurred by the Department or its Contractor due to this termination and/or the actions (or inactions) of the Consultant leading up to the termination. This shall include all administrative, construction, or legal costs incurred. If damages were sustained, the recovery of any identified costs and damages shall be in accordance with the procedure for ***Errors, Omissions and Contractual Breaches by Professional Engineers, Procedure No. 375-020-010***.

(E) The District Professional Services Administrator will process a final ***Consultant CEI Work Performance Evaluation*** completed by the Construction Project Manager in accordance with ***Professional Services Consultant Work Performance Evaluation, Procedure No. 375-030-007***. This information shall be considered in selection of future CEI Consultants throughout the State.

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Section 5.1

PROJECT DIARY

5.1.1 Purpose

To provide a uniform standard for daily and weekly construction project reporting.

5.1.2 Authority

Section 334.048, Florida Statutes

Section 20.23(4)(a), Florida Statutes

5.1.3 Background

The ***Daily Report of Construction, Form No. 700-010-13*** was originally developed for completion by an inspector for each Contractor that was present on the jobsite each day. With the implementation of SiteManager, this form was changed to more logically resemble the order that a technician will need to enter data into SiteManager. The ***Daily Work Report*** in SiteManager (SM) is to be completed by each technician doing construction inspection daily and covers all work of all Contractors, subcontractors, subordinate subcontractors and utility companies that the technician observes during that day's operations. One ***Daily Work Report*** per inspector, per day per contract, is required.

This procedure provides information on requirements for completing the ***Daily Work Report*** with the automated process contained in SiteManager.

5.1.4 Definitions

Daily Diary: Term used in SiteManager to refer to a collection of all ***Daily Work Reports*** and presents information on contract activity for a given day. The diary should contain information on significant events, conditions or circumstances which immediately affect or have future impact on the project or contract.

Daily Work Report (DWR): This is the term used in SiteManager to refer to the ***Daily Report of Construction*** **Form No. 700-010-13** that was used by Florida Department of Transportation before the implementation of SiteManager. Data is collected on every phase of work performed by a Contractor, subcontractor, subordinate subcontractor or utility company. Recorded information must be clear, detailed, accurate, complete and

objective.

Engineer's Weekly Summary, Form No. 700-010-14: This document provides a summary that gives project status and documents significant events, conditions or circumstances, which immediately affect, or have future impact on, the project or contract. This is not required if ***Daily Work Reports*** and ***Daily Diaries*** are entered directly into SiteManager. This is only required for those projects or contracts that are being done manually but is recommended on all projects.

Project Diary: Refers to all documents that present a recorded collection of events, data, occurrences, instructions, situations, circumstances and work performed each day during a construction project. ***Project Diary*** includes, ***Daily Work Reports***, ***Daily Diaries***, ***Work Plan Controlling items of work.***

Work Plan - Controlling Item of Work, Form No. 700-010-15: This documents the Contractor's planned scheduled of work identifying those items of work that will control the over-all progress of the Contractor's work effort on projects without Critical Path Method (CPM) Schedule.

5.1.5 Responsibility

Completing the ***DWR*** in SiteManager:

(A) Resident Level Responsibilities

(1) Each technician responsible for the inspection of work must report all work, events, etc, using the ***DWR*** function within SiteManager (for detailed instructions on how to use this function in SiteManager, please refer to the SiteManager User Instruction Manual posted on the State Construction Office InfoNet WEB page).

(2) The Project Administrator (PA) is responsible for reviewing and approving each ***DWR*** using the ***Daily Diary*** functions within SiteManager. The PA shall complete a ***Diary*** for each Contract day so that time may be charged correctly. The Project Administrator shall record all comments as necessary to provide information on events or circumstances that might impact the project or contract in the future. The Project Administrator may also complete a ***DWR*** for any work personally inspected.

(3) The Project Administrator and the Contractor, in accordance with ***Section 5.1.6.3(A)***, are responsible for completing the ***Work Plan - Controlling Item of***

Work, ***Form No. 700-010-15***, for the controlling work items on projects without a CPM schedule on either a weekly or biweekly basis.

5.1.6 Information Collection

5.1.6.1 Daily Work Report

(A) Resident Level Responsibilities

(1) A ***DWR*** is completed by each Department technician or Consultant Construction Engineering Inspection (CCEI) technician responsible for the inspection of work during each contract workday. The prime Contractor, subcontractor, or subordinate subcontractor may perform the work.

(2) A ***DWR*** should be prepared for every contract day for the Prime Contractor, regardless whether the Prime is working on the project or not. This ***DWR*** should also reflect all subcontractors on the project for that day. In the event that the subcontractor leaves the project for a long period, the sub contractor need not be shown on the ***DWR*** during a period of absence, provided, it is noted on the ***DWR*** for the day the subcontractor last worked that the subcontractor intended to leave the project and on the ***DWR*** for the day the subcontractor resumes work that the subcontractor did not perform any work for the period with specific dates. When utility companies are performing non-reimbursable work, the utility personnel and equipment should be tracked using the Utility remark in the ***DWR*** Information Tab.

(3) A new week starts on a Monday and ends on a Sunday.

(4) Electronic information to be collected includes but is not limited to the following:

a. ***DWR*** Information Tab:

1. Weather conditions (AM and PM)
2. Use terms such as: clear, partly cloudy, heavy clouds, light rain, heavy rain, intermittent showers, etc,
3. State length of time, i.e., all day, 4 hours, 8:00 - 10:00 A.M., etc.,
4. Report soil conditions: dry soil, wet soil, extremely wet soil.

b. Working Conditions

1. Effects of weather on major work items,
2. Remarks include anything pertinent to the progress of the projects

such as:

(1) Instructions given to the Contractor or subcontractor or their representatives,

(2) Work or materials rejected and why,

(3) Any delays, including any items of work affected,

(4) Any extraordinary work being performed,

(5) Unusual or unexpected conditions such as flooding, sinkhole, etc,

(6) Any discussions with representatives of the Contractor, subcontractor or utility company,

(7) Observations by the technician of significant importance to the project progress,

(8) Lane closure, traffic disruption, etc.,

(9) Contacts with property owners, media, etc.,

(10) CPM activity ID number (when applicable),

(11) Observations by the technician of unacceptable Contractor quality control practices,

(12) Operation (work) being performed,

(13) Materials received (general description).

3. Date

(5) Contractor's Tab:

a. Contractor's or subcontractor's name,

b. Number of Contractor or subcontractor personnel,

c. Number of hours on the project for personnel.

(6) Equipment Tab:

a. Equipment idle or active,

1. Contractor drop down,

2. The "Equipment ID" space will be used to record a unique identifier for a single piece of equipment whenever necessary to track a

specific piece of equipment or a unique group identifier when grouping several like pieces of equipment together.

3. "number of Pieces" will be used to record the number of pieces of equipment present on or at the job site. If "Equipment ID" was for a unique piece of equipment then the quantity shown would be one, otherwise it would be the total number contained within the group identified by the "Equipment ID".
4. "number Used" will be used to record the number of pieces on or at the job site that is being actively used that day.
5. "Hours Used" is the total number of hours that the identified equipment is being used. If number hours used is zero, then equipment is considered inactive.

(7) Work Items Tab:

a. Financial Project number,
b. Pay Item Code,
c. Line Item Number,
d. Project location,
e. Quantities,
f. Contractor or Subcontractor performing the work.

(8) Within SiteManager, each ***DWR*** is electronically marked by user ID, date and time stamp as belonging to that technician. When the Project Administrator creates a ***Diary*** for that day, and approves the ***DWR*** for each technician, the ***DWRs*** are locked to any changes that can be made by the inspector until unlocked by the Project Administrator. After a SiteManager Estimate has been paid, the ***DWRs*** are permanently locked where no changes can be made by anyone. This method assures accountability by the technician for the information that was included on each of the ***DWRs***. The system also maintains an electronic stamp of the Project Administrator's user ID, time and date stamp when approvals were done.

5.6.1.2 Engineer's Weekly Summary

(A) Resident Level Responsibilities

(1) The ***Engineer's Weekly Summary, Form No. 700-010-14***, is to be completed by

each Project Administrator for each project or contract for which documentation is done manually on the **Daily Report of Construction, Form No. 700-010-13,** and not using SiteManager for contract documentation. A Summary is not required for contracts being managed through SiteManager but is strongly recommended. The weekly period is from Monday through Sunday. A Summary is completed every week including periods of no work.

(2) The Summary must give project status and document significant events, conditions or circumstances which immediately affect, or have future impact on, the project or contract. The Summary includes completion percentages for job progress and elapsed time. The Engineer must note items such as:

a. Contractor's or subcontractor's progress versus schedule or work plan,

b. The day of the week the Contractor or subcontractor stopped work or began work,

c. The day of the week the Contractor elected not to work or was unable to work at least 50 % of the normal work day on a pre-determined controlling item of work item due to adverse weather conditions.

d. The items which change the plans, specifications or contract which could lead to:

1. Contractor claim,
2. Request for a time extension,
3. A supplemental agreement.

e. For utility relocation construction, it is important to note the contract agreement number, the beginning date and the ending date of work.

f. Contractor made repairs to work damaged by weather.

g. State if a particular subcontractor finished all the contract work and has left the project for good. If the Prime or the Sub has not been on a project, state accordingly the last date they worked on the project.

h. Other items affecting the contract or project.

5.1.6.3 Work Plan

The objective of the "***Work Plan - Controlling Item of Work", Form No. 700-010-15*** is to provide the Contractor a uniform method to communicate what work Items are considered to control the overall progress of the work on projects without a ***CPM*** schedule. In order for the Contractor to be eligible for weather related time extensions, "predetermined controlling items of work" must be impeded more than 50% of the normal work day.

"Controlling Items of Work" are defined in the ***Standard Specifications for Road and Bridge Construction***. "Predetermined" means that the items are as defined in the Contractor's ***CPM*** schedule or on projects without a ***CPM*** schedule, the Contractor must tell the Project Administrator prior to beginning the work which items are "controlling items of work". The Project Administrator should give the Contractor the "***Work Plan - Controlling Item of Work"*** form during the preconstruction meeting on projects without a ***CPM*** schedule specification. While the Contractor is not mandated to use ***Form No. 700-010-15***, the information is required if the Contractor wants to receive consideration for weather related time extensions.

In addition to listing the controlling items of work on projects without a ***CPM*** schedule, this is the form for the Contractor to notify the Project Administrator of the planned work schedule. The planned work schedule is crucial documentation in determining any days that may be granted due to the effects of weather. Calculation of weather days is to be done in accordance with the ***CPAM Chapter 7 Section 7, Time Extensions***. The work plan will be for either a one or two week period.

(A) Resident Level Responsibility

On projects with a ***CPM*** schedule, the accepted and updated CPM schedule defines the ***Controlling Items of Work***. On projects without a ***CPM*** schedule, the Contractor is responsible for identifying and notifying the Project Administrator of Controlling Items of Work. The Project Administrator shall review the Contractor's list of ***Controlling Items of Work*** and comments. Both the Contractor and the Project Administrator have a place on the form for each other's comments. If the Project Administrator disagrees with items of work listed or disagrees with the Contractor's comments, this disagreement must be noted in the Project Administrator's comment section. The Project Administrator must insure that the work proposed by the Contractor complies with any sequencing or other requirements established in the contract provisions, plans or the ***Standard Specifications***.

Department approval of the work plan is by the Resident or designee.

5.1.6.3.1 Work Plan Meeting

(A) Resident Level Responsibility

The Contractor's superintendent and the Project Administrator will meet to discuss the contractor's proposed operations for the upcoming period. The Project Administrator will review the Contractor's planned operations to verify that listed ***Controlling Items of Work*** planned work activities are consistent with the accepted schedule. For projects without a ***CPM*** schedule, that plan identifies controlling work items expected to be underway during the upcoming weekly or biweekly period. The first ***Work Plan - Controlling Item of Work*** is to be submitted to the Resident Engineer or Project Administrator on the first Monday preceding the first chargeable contract day. Subsequent submittals will be on Mondays or as established by the Project Administrator at the preconstruction meeting. The submittal frequency will be based upon the size, complexity and duration of the project.

On projects without a ***CPM*** schedule, a work plan will become a part of the Project Diary and shall be included with the ***Engineer's Weekly Summary, Form No. 700-010-14***, each week.

The work plan is required during periods of no work. The Contractor should detail how the Maintenance of Traffic plan will be inspected and maintained during periods of no work.

Section 5.2

CONTRACTOR VEHICLE REGISTRATION

5.2.1 Purpose

The 1987 Florida Legislature enacted legislation requiring Florida registration of all motor vehicles operated or caused to be operated in Florida by Contractors.

5.2.2 Authority

Section 334.048, Florida Statutes

Section 337.11(13), Florida Statutes

Section 337.141(2), Florida Statutes

5.2.3 General

All Contractor vehicles used on Department construction or maintenance projects shall be registered in Florida. The Contractor is required to sign an affidavit ***Contractor's Affidavit Vehicle Registration, Form No. 700-010-52,*** that all Contractor vehicles (owned or rented) to be operated on the project are registered in the State of Florida. Private vehicles and farm tractors do not have to be registered in Florida.

If the Contractor has registered their company vehicle through the International Registration Plan (IRP) or in a State that has an Intrastate Reciprocal Agreement (IRA) with the State of Florida, the Contractor shall provide documentation from the Florida Department of Highway Safety and Motor Vehicles verifying this registration. This documentation shall be attached to the completed ***Contractor's Affidavit Vehicle Registration, Form No. 700-010-52.***

5.2.4 Preconstruction Conference

Resident Level Responsibilities

The Contractor should be reminded of the requirement to have motor vehicles registered in the State of Florida at the preconstruction conference.

The affidavit is due on the first working day of the project.

5.2.5 Affidavit

The signed and notarized affidavit shall become a part of the contract file.

5.2.6 Contractor Failure

Resident Level Responsibilities

(1) If the Contractor fails to return the affidavit, progress payments are to be withheld. Failure to register motor vehicles may result in suspension or revocation of a Contractor's Certificate of Qualification.

(2) If Department personnel or their representatives observe that a vehicle is being used on a project with an out-of-state license tag, the Contractor is to be immediately notified of this observation. Upon this notification, the Contractor will be required to correct this violation no later than the cutoff date of the second monthly pay estimate from such notification. Removal of the vehicle from the project or proof of Florida registration will correct this violation.

(3) The Office of Construction is to be notified of willful violations on the part of any Contractor.

Section 5.3

SUBLETTING OF CONTRACT

5.3.1 Purpose

To provide uniform standards for subletting contracts.

5.3.2 Authority

Sections 334.048 and 337.137, Florida Statutes

Federal Aid Policy Guide, 23 CFR 635.116(b)

5.3.3 General

The Contractor shall certify that each subcontract arrangement will be in the form of a written agreement containing all the requirements and pertinent provisions of the prime contract. Upon request, the prime shall furnish the Department with a copy of the subcontract.

5.3.4 Certification of Sublet Work

(A) Resident Level Responsibilities

The prime Contractor will be required to submit ***Form No. 700-010-36, Certification of Sublet Work,*** and a schedule showing the appropriate pay items to be sublet.

The schedule shall include pay item numbers, description, actual quantities to be sublet (partial, if appropriate), unit prices (price subcontractor to receive) and the total dollar amount for each item. For lump sum projects, the schedule shall show a breakdown of item of work to a level of detail that the work can be clearly identifiable and description of work in lieu of pay item number and item description and total dollar amount on the certification of sublet work.

(A) When a ***Certification of Sublet Work*** is submitted, a review to insure item

numbers are correct, legible, and work clearly identifiable, shall be performed in conjunction with the remaining review. This information is made available to others (i.e, ***BAMS System***) and shall be written and/or typed in a manner that can be clearly understood. If the Contractor sublets a part of a contract item, the Department will use only sublet proportional cost in determining the percentage of subcontracted normal work.

(B) When a subcontractor (Firm "A") fails to complete work and another subcontractor (Firm "B") is authorized to complete the remaining portion of the work, a sublet certification identifying work actually performed by the subcontractor (Firm "A") shall be submitted to revise the first certification. This revision will replace/modify the original certification and should be so specified. A new certification shall be submitted by the replacement subcontractor (Firm "B") reflecting work to be performed, whether totally or partially.

5.3.5 Responsibilities

(A) Resident Level Responsibilities

(1) Certification of sublet work and schedule will be retained by the Department and kept on file until the project has been final accepted, at which time this copy will be forwarded to Central Files in Tallahassee.

(2) A copy of each certification to sublet shall be made a part of the Resident Engineer's file.

(3) The Resident Engineer shall review at least one (1) ***Certification of Sublet Work*** per contract to ensure that the Contractor has met all State and Federal requirements.

(B) District Level Responsibilities

(1) The District office shall also make review part of their QA plan.

5.3.6 Form Processing

(A) Resident Level Responsibilities

(1) The Resident Office will examine at least one (1) ***Certification of Sublet Work per*** project (more if non-compliance is found).

(2) The percent of normal work sublet must be less than the percent (noted in the contract) of the total normal work in the contract, excluding the contingency pay items.

(3) Unit prices on the certification shall be contract prices or designated with a "P" (partial) with appropriate explanation.

(4) The subcontractor whose name appears on the ***Contractor's Suspension Report*** shall not be considered for subcontract work. A copy of the ***Contractor's Suspension Report*** is available from the State Construction Office.

(5) Upon completion of the review of a sublet certification, distribution will be made within five (5) days according to the following list:

Original (to the project file)

One (1) copy to the District Compliance Officer

One (1) copy to the District Construction Engineer

5.3.7 Documentation

(A) Resident Level Responsibilities

Documentation of the review of the subcontract upon request (including the attachments) must be kept on file in the Resident Office with the Resident's copy of ***Form No. 700-010-36, Certification of Sublet Work***. Such documentation can be a signed memorandum to the file or a stamp on the office copy of the ***Certification of Sublet Work*** signed by the reviewer. A copy of any terms pertaining to labor, material, or equipment necessary to monitor and/or administer the contract will be made available to field staff.

5.3.8 Partial Unit Prices

Regardless of the prices agreed upon with the subcontractor, the total amount shown on the sublet certification form shall be the same as those in the contract with the Department where it is proposed to sublet all work in a pay item. If it is proposed to sublet only part of the work in a pay item, such item shall be designated with "P" and the unit price shown

shall be the actual price agreed upon with the subcontractor.

On the certification forms for pay item with "P" designation, the Contractor will be required to include a brief description of that portion of the work in that pay item which is to be sublet. The description shall contain sufficient information for determination as to what work the subcontractor will perform. In his review, the Resident Engineer shall make a determination as to whether the unit price shown for the "P" item appears reasonable for the partial work to be accomplished by the subcontractor. If the price for the "P" item appears too low, the prime Contractor shall be requested to provide further justification.

5.3.9 Subordinate Sublets

The same form including prices with subcontractor as well as the procedure indicated above will be required for subordinate sublet certifications. Both the subcontractor's and the subordinate's names shall appear in the space provided.

Calculations determining Total Proportion of Normal Work Certified to Sublet are to be excluded on Subordinate Requests.

Section 5.4

CONTRACT WAGE REQUIREMENTS

5.4.1 Purpose

To provide a uniform process for reviewing and processing Contractor payroll submittals, conducting labor interviews, issuing violations and adding wage classifications to the contract, that are requirements on all Federally-funded Construction Contracts over $2,000.00.

5.4.2 Authority

Sections 20.23(4)(a) and 334.048 (3), Florida Statutes (F.S.)

Required Contract Provisions - Federal Aid Construction Contracts (Form FHWA-1273) Note: FHWA -1273 was revised May 1, 2012 and this version applies to contracts let after August 10, 2012. Regulated under Title 23 CFR 633.102.

5.4.3 General

The Contractor is required to comply with the “government contract acts”, (***Davis Bacon Act, the Copeland Act and the Contract Work Hours and Safety Standards Act (CWHSSA)),*** which are regulated by the ***U.S. Department of Labor***. The government contract acts regulate payment of wages, record keeping and reporting, and overtime pay respectively. Construction workers shall be paid at rates no less than those prescribed in the wage tables of the contract. Payrolls and basic records relating thereto shall be maintained by the Contractor/subcontractor during the course of the work and preserved as required. All overtime hours (all those over 40 in a work week) shall be paid at rates no less than 1.5 times the employee's basic rate of pay. Coverage by these acts will be indicated in the contract by inclusion of ***Special Provision Sub-article 7-1.1*** which invokes the ***Form FHWA-1273***. Florida has a minimum wage law that applies to workers on all Florida Department of Transportation (FDOT) construction projects including those federally funded. On federally-funded construction projects, where the Florida minimum wage is higher than a required minimum rate on a Wage Determination, the Florida minimum wage must be paid. Compliance is enforced on a day-to-day basis by the FDOT, as the contracting agency.

5.4.4 Federal Wage Rate Table(s) & Poster

(A) Resident Level Responsibilities

The wage determination (including any additional classification and conformed wage rate) and the ***Davis Bacon Poster (WH-1321)*** shall be posted at all times by the contractor at the site of the work in a prominent and accessible place where it can be easily seen by the workers. ***The Additional Federal Wage Rate Decision Form No. 700-010-67*** is provided to make posting of additional classifications and conformed wage rates on the project bulletin board easier. A copy of the appropriate table(s) is provided in the contract. The poster can be obtained from the Department's website. The poster is also available from the FDOT Equal Opportunity Office (EEO) website. And the wage determinations can be obtained from the USDOL "Wage Determinations OnLine.gov" site.

The prime Contractor is required to post the applicable wage table(s) on the job site bulletin board. This is the wage table(s) in the contract unless an amendment has been made to the contract. Amendments are sometimes made because the award date exceeds 90 days past the letting.

5.4.5 Payroll Requirements

(A) Resident Level Responsibilities

Each Contractor shall furnish an original certified payroll or a scanned copy of the original, to the Resident Engineer (or their designee) for wages paid each of its employees (including apprentices, trainees, watchmen and guards engaged in work during the preceding weekly payroll period), each week in which any contract work is performed. The Contractor is also responsible for submitting the payrolls for all of his subcontractors. The payrolls submitted shall state accurately and completely all of the information required. All payroll records submitted shall contain the employee's name, the employee's id number (applies to contracts let 2009 or later), correct work classification(s), and hourly rate(s) of wages paid including any fringe benefits (as set forth in ***Section 1(6)2(b)*** of the ***Davis-Bacon Act***), daily and weekly number of hours worked on the project, gross wages on the project and all projects, the amount and purpose of each deduction(s) made, and actual net wages paid. All employee deductions must be shown on each payroll, or submitted on supplemental data attached to the payroll, specifying the purpose and amount of each deduction. The prime Contractor is responsible for the submission of certified payrolls by all subcontractors. The payrolls are due within seven (7) days of the regular payment date of the payroll. On contracts let before January 19, 2009, the employee's address should be reported

and the employee's social security number would be used for the employee identification.

On all contracts the contractor and subcontractor shall maintain records that document the full social security number, race, gender and current address of each covered worker and shall provide these records upon request to the Department. It is not a contract violation for the prime contractor to require the subcontractor to provide employee information such as race, gender, addresses and social security numbers to the prime for their records. ***(See FHWA 1273 Section IV 3(b))***.

Payrolls shall be checked for completeness and accuracy. Whiteouts are not acceptable. Corrections may be struck through and initialed by the person filling out the payroll. Though it is not possible to check every entry on every payroll, the following minimums shall be adhered to for guidelines and additional checks may be required if deemed necessary. The first payroll each Contractor/subcontractor submits on the project shall be checked completely for, but not limited to, errors, omissions, misclassifications, unauthorized deductions, or inadequate pay. Thereafter, spot checks shall be made at no less than 1 in every 10 entries on payrolls. The entries checked will be initialed by the Resident Compliance Specialist (RCS) to signify and acknowledge the entry verification. Upon satisfaction by the RCS of the accuracy of payrolls submitted by an individual Contractor and upon approval of the District Contract Compliance Manager (DCCM) or their designated representative, the minimum checking requirements may be lessened.

5.4.6 Statement of Compliance

(A) Resident Level Responsibilities

Each payroll submitted shall be accompanied by a ***Payroll Form WH-347 or Form No. 700-010-69*** (or an equivalent document containing all required information), signed by the Contractor or subcontractor, or his/her agent who pays or supervises the payment of the persons employed under the contract, and must certify the following:

(1) That the payroll for the pay period contains the information required and that such information is correct and complete. That such laborer(s) or mechanic(s) (including apprentices and trainees) employed on the contract during the payroll period have been paid the full wages earned and that no deductions, directly or indirectly have been made other than those permissible.

(2) That any payrolls under this contract required to be submitted for the payroll period are correct and complete and that each laborer or mechanic has been

paid no less than the applicable wage rates for the classification of work performed, as specified in the applicable wage rate determination incorporated into the contract.

(3) That any apprentices employed in the pay period are registered in a bona fide apprenticeship program registered with the StateThat in addition to the basic hourly wage, fringe benefits are either paid into approved plans, funds or programs or are paid in cash to the employee.

Payroll Form WH-347 or Form No. 700-010-69 (or an equivalent), shall be furnished by all Contractors/subcontractors working on Federal Aid Projects. This form must be furnished when the Contractor/subcontractor begins work and required to be submitted to the Resident Engineer (or their designee) each week thereafter with respect to the wages paid each employee.

5.4.7 Notification of Payroll Violation

(A) Resident Level Responsibilities

A ***Notification of Payroll Violation, Form No. 700-010-59,*** detailing the type of violation and requesting correction or clarification shall be issued by the Resident Engineer (or their designee) when it is determined that certified payrolls contain errors, or that required wage/payroll information is omitted or erroneous. Phone calls shall not be placed in lieu of issuance of this form; however, phone calls should be used to obtain clarification in making a determination on whether information is omitted or erroneous. The violation shall be recorded in the Construction Automated Reporting System (CARS). Instructions for the system can be found in the ***Construction Systems User's Manual*** found on the Construction web site.

The prime contractor is responsible for obtaining and forwarding to the RCS all documentation and records required to satisfactorily resolve all notices of noncompliance and payroll violations issued for their own workforce, their subcontractors, temporary employment agencies, and rental agreements with operators.

See ***Guidance document 5.4.C*** for examples of payroll violations which may help you discern which code violation to use.

Payroll violations are identified by a code number. The codes range from 1-7 and some are considered more severe than others.

Table 5.4.1
PAYROLL VIOLATION CODES

CODE	DESCRIPTION
1	Time and one-half rates were not paid for work performed in excess of 40 hours.
3	Improper classification of employees.
4	Hourly rate paid is less than minimum authorized wage rate for classification of work shown and included in the construction contract.
5	Certified payroll contains mathematical errors that indicate payment made to the employee violated federal labor or contract provisions.
6	Unauthorized payroll deductions.
7	Other violation not listed above.

If the violation indicated is a Code 1, a violation penalty of $10.00 per day is assessed plus additional gross wages due. The RCS will generate three copies of the ***Notification of Payroll Violation***, ***Form No. 700-010-59*** as well as three copies of the cited payroll. Once this information has been compiled, the RCS will take the following action for Code 1 violations:

(1) Review the violation(s) and prepare a letter for the Resident Engineer's signature and send a letter by Certified Mail, Return Receipt Requested, (See ***Guidance Document 5-4-A*** for this ***section***), to the prime Contractor. The letter shall identify the violation(s) and dollar amount of wages owed, and requesting that supplemental payrolls, canceled payroll checks or some other proof or evidence that restitution has been made to the employee, and an explanation regarding the cause for noncompliance be furnished to the RCS. The labor violation ***Notification of Payroll Violation Form No 700-010-59*** and the ***Labor Overtime Violation Withholding/Release, Form No. 700-010-54*** shall be attached thereto. Copies of these documents shall be distributed to District Final Estimates Office, District Compliance Office, and District Construction Engineer.

(2) Upon receipt and subsequent review of the certified supplemental payroll, and an approved method of evidence of payment and an explanation provided by the Contractor, the RCS will prepare a

letter for the Resident Engineer's signature and send a letter (***See Guidance Document 5-4-B*** for this section) to District Final Estimates Office recommending a course of action for the disposition of the monies withheld. Copies of this distribution shall be made to the District Compliance Office and District Construction Engineer.

(3) Following the District's recommendation for the final disposition of the Contractor's monies withheld, the RCS shall prepare a letter for the Resident Engineer's signature and send another ***Labor Overtime Violation Withholding/Release letter*** indicating the required action to the District Compliance Office.

(4) The Resident Engineer shall notify the prime Contractor in writing of the final disposition of the violation monies withheld and a copy of this notification shall be forwarded to the District Construction Engineer's Office that issued the violation.

The prime Contractor is responsible for obtaining and forwarding to the RCS, all documentation and records required to satisfactorily resolve Code 1 violations issued for contract work performed by their subcontractors or under rental agreements. In the event that resolution could not be met between the Department and the Contractor the Payroll Violation will be forwarded to FHWA for a decision from the Division Administrator of FHWA or his designee. This decision is final and binding on the Department and the Contractor, subject to the contractors appeal as set forth below. Therefore the total amount of additional wages due and penalties have been withheld from progress or final payment on this contract pending final determination by the FHWA and or appeal by the Contractor.

Any appeal from the finding of fact and determinations of the FHWA must be filed within 60 days from the date of the withholding of funds on this contract. The 60 days begins with the date on which this formal notice of the withholding of funds is received by the contractor by certified mail (return receipt requested). The aggrieved Contractor or Sub-contractor shall have the right of appeal to the Federal Highway Administrator, the Secretary of Labor, and/or the Court of Claims. Such appeals must be submitted through the Department who will make proper distribution.

If the violation indicated is a Code 3, 4, or 5, the Contractor must furnish to the Resident Engineer's Office, within 20 days, a Certified Supplemental Payroll showing the payments made as restitution along with a copy of canceled checks, an electronic statement of deposit to the employees account, pay stub or an affidavit stating payment

by the contractor with the affected employee's signature, as evidence that the restitution has been made. The date the Payroll Violation is received by the prime contractor is counted as day one (1) of the twenty (20) calendar day resolution period.

If the review of the certified supplemental payroll by the RCS substantiates that the cited violation has been corrected, the Contractor will be considered to be in compliance and no further action is required. Comments shall be entered into CARS reflecting that corrections have been satisfied.

If a certified supplemental payroll is required and is not received within the (20) twenty days allotted, or is received and does not satisfy the infraction, then a Performance Deficiency Letter is issued to the contractor and withholding of the progress pay as outlined in ***Section 5.4.10(1)*** shall be exercised.

If the violation identified is a Code 6, the Contractor must furnish a certified supplemental payroll to the RCS, within 20 days and the disposition of the violation will be the same as specified above for Code 3, 4, and 5.

If the violation identified is a Code 7, the corrective action, documentation and time restraints afforded for corrective action shall be specified in the comments section on the ***Notification of Payroll Violation***.

If the corrective documentation received substantiates that the error cited has been corrected and this documentation was made available for review in the allotted time frame, CARS shall be updated to reflect this and no further action is required.

If the corrective action does not satisfy the violation cited, then withholding of the progress payment as outlined in ***Section 5.4.10(1)*** shall be exercised.
The DCCM shall insure that all wage violations are entered into the ***Contractor Noncompliance Program*** of the ***Construction Automated Reporting System (CARS)***.

All information entered into the ***Contractor Noncompliance Program*** shall be input by personnel selected and assigned by the Resident Engineer. A current listing of these people shall be maintained by the DCE's Office. Access to this program is granted by the State Construction Office Systems Support.

The DCCM shall provide instructions for entering data into the ***Contractor Noncompliance Program*** to all personnel assigned this task.

Violation Types are explained on the ***Notification of Payroll Violation, Form No. 700-***

010-59.

5.4.8 Additional Notes on Violations

(A) Resident Level Responsibilities

(1) Violations requesting certified supplemental payrolls under violation Codes 3 through 7 will be forwarded as indicated:

(A) Original - Sent to the prime Contractor

(B) Copy 1 - Retain in a project file with a copy of the cited payroll attached.

(C) Copy 2 - Forward this copy of the violation to the DCCM

(D) Copy 3 - Forward this copy of violation to the subcontractor if the violation is issued to subcontractor

(2) When a violation is discovered in reviewing a payroll it is essential that a ***Notification of Payroll Violation, Form No. 700-010-59,*** be issued in each instance (Code 1 through 7) in order that frequency of violations can be monitored. Violations are monitored by the State Construction Office (SCO) as follows:

(A) Wage violations are monitored through the CARS System. Contractors with excessive violations are required to submit a written plan that demonstrates how they intend to eliminate their payroll violations and those of their subcontractors.

The Contractor's wage violations are then monitored by the SCO for one (1) year.

Labor regulation compliance should be outlined at the pre-construction conference. The requirements as related to submittal of payroll and weekly statements, as well as withholding of progress estimate until cited infractions have been satisfied, shall be emphasized.

5.4.9 Request for Additional Wage Classifications

(A) Resident Level Responsibilities

The ***Additional Classification – Request, Form No. 700-010-07,*** shall be submitted by the prime Contractor when a work craft is required but not included in the ***Federal Wage Rate Table(s)*** that are prescribed in the contract. The request shall be submitted to wd.conformance.dot.state.fl.us (or fax or send by US Mail to the Prevailing Wage Rate Coordinator in the SCO) and a copy sent to the RCS for the project. E-mail submission is preferred as this method creates a documented record and allows for rapid response time. The Contractor may pay the employee at least the minimum amount requested on the request document until a response is received from the USDOL. The contractor will then be given 20 days from the date of notification from FDOT to make retroactive pay adjustments if needed for the conformed classification.

A wage determination may contain two separate requirements for any individual classification, an “hourly rate” and a “fringe benefit” the sum of which is the prevailing wage for the classification. A contractor is required to pay overtime (time and a half) on the hourly rate but is only required to pay straight time on fringes. This needs to be calculated when doing reimbursements for retroactive pay.

5.4.10 Failure to Submit Required Records

(A) Resident Level Responsibilities

If the Contractor or subcontractor fails to submit the required records or does not make the records available to the aforementioned agencies, these agencies may, after written notice to the Contractor, take such actions as may be necessary to cause the suspension of any further payment, advance or guarantee of funds. Furthermore, failure to submit the required records upon request or to make the records available may be grounds for debarment action.

When a Contractor/subcontractor fails to comply with contract requirements for submittal of payrolls, EEO forms, corrected payrolls, etc., and continues to ignore requests for compliance, the District is authorized to take the following action:

(1) With the authorization of the DCE, and consultation with the DCCM, the Resident Engineer may withhold payment of the monthly progress estimate. The Resident Engineer may withhold the sub-contractor’s pro-rate share of the monthly progress estimate in the event a subcontractor fails to comply with contract requirements. Subsequent non-compliance on the part of the subcontractor may result in withholding the entire payment to the Contractor of the monthly progress estimate.

(2) The Resident Engineer shall notify the Contractor in writing of the intent to withhold payment in advance of this action. The notification shall include the following:

(a) Specific reasons for withholding payment.

(b) Specific actions required by the Contractor/subcontractor to gain release of payment.

(3) The Resident Engineer shall provide copies of this notification to the Director, Office of Construction and the District Contract Compliance Office.

(4) The Resident Engineer's Office shall prepare the work sheet for the progress estimate to be withheld along with other estimates, and forward it to the District Office for processing.

(5) After processing, the DCE shall hold the progress estimate until notified by the Resident Engineer that the Contractor/subcontractor is back in compliance.

5.4.11 Employee Interview Report – Labor/EEO Compliance

(A) Resident Level Responsibilities

The Contractor shall allow authorized representatives of the Department, FHWA, and/or the Department of Labor access to their employees on the project, and shall permit such representatives to interview employees on the job during working hours. The Department has an ***Employee Interview Report – Labor/EEO Compliance, Form No. 700-010-63,*** which is to be completed by the Resident Engineer's Office per the instructions on the form.

Note: This form shall be kept in a separate confidential file and not with the rest of the project files.

The number of required Labor/EEO interviews shall be based on the dollar amount of the contract. The RCS will ensure that the required minimum number of interviews, are completed each month as shown in the following ***Table 5.4.2:***

Table 5.4.2
Monthly Labor/EEO Interview Schedule

Original Contract Amount	Minimum Number of Interviews
Under $ 1,000,000	2
Over $1,000,000 - $3,000,000	3
Over $3,000,000 - $5,000,000	4
Over $5,000,000 - $10,000,000	5
Over $10,000,000 - $15,000,000	6
Over $15,000,000 - $20,000,000	7
Over $20,000,000 - *	8 *

* For every additional $5,000,000 dollars in the original contract amount the minimum number of interviews will increase by one (1).

(1) When the interviewer has a reasonable basis to believe the Contractor and/or subcontractor may not be in compliance with the provisions of the ***Davis-Bacon Act***, a copy of the employee's paycheck shall be secured and the pay rate checked against certified payroll.

(2) The date and action(s) taken to resolve any discrepancies or violations, determined as a result of the interview, shall be indicated in the space provided on the report. The employee being interviewed must sign the report.

(3) A cross section of employees shall be interviewed if possible. Examples of this would be minorities, non-minorities, skilled, unskilled, trainees and foremen.

5.4.12 Retention of Payroll Records

(A) Resident Level Responsibilities

Both FDOT and the Contractor have retention responsibilities for payroll records. Payrolls and basic records, relating to payrolls shall be maintained by the prime contractor, during the course of the work, and preserved for a period of three (3) years from the date of completion of the project. These records are required to be available for inspection, copying, or transcription, by FDOT, FHWA, USDOL, or authorized representatives. These provisions are governed under ***29 CFR part 5.5*** and ***FHWA 1273, section IV.***

Payrolls submitted by the Contractor to the Department and associated payroll records

shall be maintained by the Department's representative during the duration of the contract. After final payment to the Contractor is made, the payroll records will be boxed and submitted to FDOT Central Office Records Center. These provisions are governed under FDOT procedure, ***Records Management Topic No. 050-020-025.***

5.4.13 Wage Surveys

(A) Resident Level Responsibilities

Wage surveys will be conducted when the US Department of Labor (USDOL) initiates them and commits to publishing new wage tables from the surveys. USDOL will outline the time period for which survey data will be collected, which is usually for a year's time period. The Prevailing Wage Rate Coordinator, along with the District Compliance personnel, will encourage Contractor participation by means of announcements and workshops in the districts and communication through the Contractor's associations. The points will be stressed that (1) the results of the survey's accuracy are determined by the amount of participation (poor participation creates erratic rates in the wage tables) (2) once the survey is done, rates will be in effect for at least the next three years and (3) if voluntary participation is not successful the Department will have no choice but to return to a contract requirement method of collecting data. USDOL will provide the forms and assemble the data when collected. An instruction booklet will be created and distributed to help guide Contractors and Department personnel through the survey process.

GUIDANCE DOCUMENT 5-4-A
(SAMPLE LETTER)

Date

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
_____
_____
_____

RE: Financial Project ID:_____
FAP No.:_____
County:_____

Dear Mr./Ms. _____

Enclosed are copies of Form No. 700-010-59 listing _____violations of Section IV of the "Required Contract Provisions - Federal Aid Construction Contracts" (FHWA-1273) which is included in the contract for the above referenced project. The _____ violations involved were disclosed by examination of the payroll listings for the payroll period ending _____.

A total of $ _____ in additional wages is due, in accordance with Section IV of the aforementioned contract provisions, $ _____ in liquidated damages have been assessed. Therefore, $_____ will be withheld by the Department of Transportation and deducted from the payment due on the next Progress Estimate.

Please forward directly to this office, three (3) copies of Certified Supplemental Payrolls and canceled payroll checks or some other proof or evidence that restitution has been made to the employee indicating that corrective action has been taken in regard to this citation.

In addition to the above, we ask that you furnish this office with an explanation of the facts surrounding this underpayment. This information will be utilized in preparing a recommendation as to whether the liquidated damages should be retained or remitted.

We urge you to re-examine your payroll procedures and take appropriate action to prevent recurrence of similar violations.

Sincerely,

Resident Engineer

cc: District Final Estimates Office
District Compliance Office
District Construction Engineer

GUIDANCE DOCUMENT 5-4-B

(SAMPLE LETTER)

Date

_____
District Final Estimates Office

Attention: _____

RE: Financial Project ID: _____
FAP No.: _____
County: _____

Dear Mr./Ms. _____:

You received a copy of our letter, dated _____ to the Contractor for the above referenced project, whereby the Contractor was notified of a violation of Section IV of the "Required Contract Provisions - Federal Aid Construction Contracts" (FHWA -1273).

As a result of this violation, $_____ in additional wages due and $ _____ in assessed liquidated damages were withheld from payment due on the progress estimate.

In response to our notification, the Contractor submitted certified supplemental payrolls indicating that corrective action has been taken in regard to the violations. The Contractor also explained the circumstances surrounding the violations.

The District Construction Office has reviewed the supplemental payrolls and is of the opinion that the affected employees have been properly compensated. Therefore, by copy of this letter, we are requesting that you release the $ _____ being withheld as unpaid wages.

The District Construction Office is also of the opinion that the violations were caused inadvertently. We therefore recommend that the $ _____ being withheld as liquidated damages be released.

Sincerely,

Resident Engineer

cc:
District Compliance Office
District Construction Engineer

GUIDANCE DOCUMENT 5-4-C

(Examples of Code Violations)

Code 1

A code 1 violation is issued when the contractor paid the employee straight time for all time worked on the project. This would include all hours over 40 where the employee should have been paid time and one-half.

- For example: If an employee's base rate of pay is $15/hour and he/she worked 50 hours, and the contractor paid them $15/hour for the entire 50 hour, when payment should have been made at 40 hours @ $15/hour and 10 hours @ $22.50/hour for a total of $825.

Code 3

A code 3 violation is issued when the contractor paid the employee under a classification which the employee did not work or paid him under a classification even when he worked under a different higher classification all or part of the time. If the contractor chooses to carry the employee in the highest classification that he/she works, for the entire pay period then that is OK, but if an employee works in a higher classification than what he is listed, then a payroll violation has occurred, regardless of whether the employee is paid enough to cover that classification or not.

Code 4

A code 4 violation is issued when the contractor is paying an employee less than the approved rate on the wage classification for the type of work the employee is doing. It could also result from using the wrong general wage decision. If the wrong numbers were inadvertently applied to the contract from a wrong general wage decision then wages would be off for certain classifications if not all.

Code 5

A code 5 violation is issued when mathematical errors on the certified payroll indicate that the payment made to an employee violated federal labor laws and/or contract provisions. This could be a simple mathematical error, applied by human input and resulted in the wage of an employee not being calculated properly. An example would be if the employee was inadvertently paid for 4 hours instead of 14 hours in a certain classification.

Code 6

A code 6 violation is issued when deductions made to an employee's paycheck were not previously approved, either by the USDOL if that applies or by the employee for deductions that are more personal in nature.

Code 7

An employee that was interviewed on the job does not show up on payroll for the date that he/she was interviewed. (A discrepancy has occurred with the Employee interview and the Payroll). Any violation that is not listed above.

Section 5.5

EQUIPMENT RENTAL

5.5.1 Purpose

This chapter is to be used for receiving and verifying the information on ***Notice of Rental Agreement, Form No. 700-010-11.***

5.5.2 Authority

Section 334.048, Florida Statutes

Section 8-2, Standard Specifications for Road and Bridge Construction

5.5.3 Notice of Rental Agreement

Resident Level Responsibilities

When the Contractor proposes to accomplish any work on the project using rental equipment, he shall notify the Project Engineer in writing in accordance with ***Section 8-2*** of the ***Standard Specifications***. The exception to this requirement is when the Contractor rents a piece of equipment from an equipment dealer or from a firm whose principal business is renting or leasing equipment. Under those circumstances, the notice provisions herein set forth need not be followed.

The Contractor may rent the equipment with or without an operator. When equipment is rented with an operator, it must be the type of equipment that substantially requires the constant attention of a trained operator. Renting of a crew, including non-operator personnel, is not permitted, with the exception of when a crew is required specifically for maintenance and operation of the equipment, and is in no way associated with the work being performed.

5.5.3.1 Notice of Rental Agreement Form

Resident Level Responsibilities

The Contractor may notify the Project Engineer using ***Notice of Rental Agreement, Form No. 700-010-11,*** or similar format as long as it contains all of the required information. The notice must contain a listing and description of the equipment, a description of the work to be performed with the equipment, an indication of whether the rental includes an operator, project information, the name of the prime Contractor and the name of the company from which the equipment is being rented.

5.5.3.2 Equipment Rented With An Operator

Resident Level Responsibilities

If the rental is to include an operator, the operator's wages become subject to all wage rate requirements applicable to the project.

(A) When equipment is rented on a "with operator" basis, the Project Engineer shall request that the Contractor submit certified copies of the lessor's weekly payrolls listing the operator, on Federal Aid projects.

(B) When rental of equipment on a "with operator" basis exceeds $10,000, the lessor will be subject to all the AA/EEO provisions contained in the original contract.

5.5.3.3 Equipment Rented Without An Operator

Resident Level Responsibilities

When the rental of equipment does not include an operator, the operator will be shown on the Contractor's payroll. All operators are subject to applicable wage rate provisions included in the contract.

5.5.3.4 Delinquent, Debarred and/or Disqualified Contractors

Resident Level Responsibilities

If a Contractor is declared delinquent or becomes disqualified by the Department as per ***Section 8-8*** of the ***Standard Specifications***, said delinquent and/or disqualified Contractor may supply or rent equipment without an operator on Department contracts.

If a Contractor had been found to be Non-Responsible as per ***Chapter 14.22.0141*** of the ***Florida Administrative Code,*** then they cannot supply or rent equipment on Department contracts.

A Contractor who has been debarred by the federal government cannot act as a Contractor or supplier of materials for federal aid projects.

5.5.3.5 Delivery of Purchased Material

Resident Level Responsibilities

If a Contractor elects to purchase material and the price includes the delivery cost, ***Notice of Rental Agreement, Form No. 700-010-11,*** is not required. The project personnel should check the delivery ticket to insure that the hauler has been retained by the vendor.

5.5.3.6 Subcontractor or Supplier of Rental Equipment

Resident Level Responsibilities

A ***Notice of Rental Agreement, Form No. 700-010-11,*** should not be used as a substitute for a subcontractor agreement. When a task job, or work item requires a supervised crew, (i.e., a crew with a supervisor, foreman, lead man or other work directing personnel) then a ***Notice of Rental Agreement*** does not apply. A ***Certification of Sublet Work, Form No. 700-010-36***, is required

An equipment rental agreement is not required when MOT items are leased from a company whose principal business is renting or leasing MOT items. When MOT items are initially installed, maintained, moved, and retrieved by an independent company, then a ***Certification of Sublet Work*** is needed. If MOT items are initially delivered, maintained and retrieved by an independent company but placed and relocated by the prime Contractor's personnel then a ***Certification of Sublet Work*** is not required.

5.5.4 Verification of the Agreement

Resident Level Responsibilities

The Project Engineer is responsible for verifying the information contained on the ***Notice of Rental Agreement, Form No. 700-010-11***. Both the physical equipment and the equipment operator shall be verified on a periodic basis.

5.5.4.1 Equipment and Operator Verification

Resident Level Responsibilities

The Project Engineer is responsible for seeing that the information contained in the "equipment and personnel" section of the ***Daily Report of Construction, Form No. 700-010-13,*** is accurate and complete. By comparing the information contained on ***Daily Report of Construction*** and ***Notice of Rental Agreement, Form No. 700-010-11,*** the type, location and status of the rental equipment and hours, wages and status of the equipment operator can be verified.

5.5.4.2 EEO Requirements

Requirements for EEO are contained in the latest version of ***Equal Opportunity Construction Contract Compliance, Procedure No. 275-020-002***.

5.5.4.3 Distribution of the Notice

Resident Level Responsibilities

When the ***Project/Resident Engineer receives the Notice of Rental Agreement, Form No. 700-010-11,*** from the Contractor and is satisfied that it meets all the requirements, they will keep one copy and send one copy to the District Compliance Officer or Resident Compliance Specialist. The original shall be retained with the other original project documents.

Section 5.6

UTILITY WORK

5.6.1 Purpose

To provide a uniform standard for monitoring, documenting and managing the installation and/or adjustment of utilities within the Department's construction projects. This section does not apply to Design-Build projects.

5.6.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

5.6.3 General

(A) Resident Level Responsibilities

The Project Administrator is responsible for monitoring and documenting Contractor and Utility Agency/Owner (UAO) activities to ensure all work proceeds as scheduled and permitted. The below sections specify the minimum documentation required.

(B) District Level Responsibilities

Facilities such as, electric lines, telephone lines, other communication lines, pole lines, sewer lines; water lines, gas mains, or storm water lines not discharged onto Department right-of-way (R/W) that are not the property of the Department are generally referred as utilities. These utilities are sometimes owned by utility agencies regulated by the Public Service Commission, but a utility can also be owned by a citizen, business or government not regulated by the Public Service Commission. Utilities occupy the Department's R/W in a number of ways and the Department's ability to exercise its authority over any UAO owning a utility in the Department's R/W can be a complicated and time consuming process. Consequently, when utility work needs to be performed during a construction project, the District Utilities Office is required to have the Department execute utility agreements to ensure the UAO's work is scheduled or the UAO's work is included in the construction contract for the Contractor to complete.

Under certain conditions it may be determined that the Department is legally obligated to reimburse the UAO for all or part of its utility work. This determination can only be made

through the District Utilities Office with consultation with the Office of General Counsel. In reimbursable cases an estimate and reimbursement agreement are also needed. Once all agreements are executed, the District Utilities Office certifies all necessary utility arrangements have been executed to ensure the construction project can be constructed in accordance with the construction plans as they existed at the time of execution. This certification is done prior to advertisement and the documents executed for these purposes are the Utility Work Schedule (UWS), Utility Work by Highway Contractor Agreements (UWHC), master utility agreements with appropriate task work orders, and construction project specific utility agreements.

The Construction Office has a responsibility to ensure that any change to the construction contract after advertisement has not voided any UWS or other utility work agreements. Caution must be exercised in allowing these changes to move forward since the UAO is only obligated to operate in accordance with the executed UWS and utility agreements as they were executed. The UAO is not obligated to quickly agree to new requirements and the Department may not have a timely means to exercise its legal authority to compel the UAO to comply with new requirements. Refer to **Section 5.6.6.4** below for information on rescheduling utility work.

5.6.4 Preconstruction Conference

Resident Level Responsibilities

The Project Administrator will schedule and conduct a preconstruction conference that includes UAOs and will hold a utility coordination meeting as described in ***Section 3.1, Preconstruction Conference*** where the Department, Contractor, and UAOs will discuss scheduling and methods to accomplish the construction project in an expeditious manner. All UAOs within the limits of construction, including UAOs with an executed UWS will be invited.

The Contractor's schedule must not conflict with any UWS. However, the Contractor can negotiate and facilitate the execution of a new UWS between the UAO and the Department. Caution must be exercised in renegotiating a new UWS. The Department is under no obligation to agree to a new UWS, and the UAO is under no obligation to agree. Furthermore, the Department may not have a timely means to exercise its authority to compel the UAO to comply with new requirements. Refer to **Section 5.6.6.4** below for information on rescheduling utility work.

5.6.5 Utility Work by Utility Agency/Owner

(A) Resident Level Responsibilities

All utility work by the UAO within the limits of a construction project requires both an executed UWS and a Utility Permit issued by the Department unless otherwise approved by the General Counsel's Office. The Project Administrator is responsible for monitoring and documenting the UAO activities to ensure all work proceeds as scheduled, and permitted. ***Daily Work Reports*** will be used to check the UAO's invoice for payment and will be used to substantiate or refute claims by the Contractor or the UAO.

Complete and submit the ***Notice of Utility Construction Work, Form No. 700-010-48***, at the beginning and end of utility work. In the ***Daily Work Report*** under the remarks category for utilities in SiteManager, document the UAO's work when the UAO is within the construction project limits and the Contractor's work when the Contractor is working within areas where there is scheduled utility work. Document where the work took place, what work was being accomplished, who was doing the work, if the work was done in accordance with the construction project schedule, UWS, and utility permit. Document any impacts or delays to either party.

(B) District Level Responsibilities

When it has been determined that the Department is legally obligated to reimburse the UAO for all or part of its utility work, the Project Administrator and/or the District Utility Office will request in writing that the UAO submit an invoice detailing labor, equipment, materials and markups, if applicable, for review. The District Utility Office and/or the Project Administrator will check the invoice against the ***Daily Work Reports*** and the Utility Agreements and Estimates for discrepancies. Upon completion of review, the Project Administrator or District Utility Office will forward the UAO's invoice to the District Financial Services Office for payment using Phase 56 funds.

If the UAO fails to comply with the UWS or Utility Permit refer to **Section 5.6.8**.

5.6.6 Utility Work by Contractor

Resident Level Responsibilities

The Department and UAO may agree to include the UAO's utility work in the Department construction contract. The work is treated the same as any other work included the contract with the exception that the UAO is allowed to inspect the Contractor's work in accordance with the executed UWHC agreement. Document any concerns the UAO has as a result of their inspection in the ***Daily Work Report*** under the remarks category for utilities in SiteManager.

The Department will pay the Contractor for the utility work included in the contract using either Phase 52 or Phase 56 funds. See ***Section 8.12*** of the ***CPAM*** for more information.

5.6.7 Utility Work (Unforeseen)

Resident Level Responsibilities

During the course of the construction project unforeseen utility work may arise for a variety of reasons. In some cases, the UAO may not be able to perform this work on the Contractor's schedule. Below are examples of unforeseen utility work encountered during a construction project.

5.6.7.1 Emergency Utility Work

By law, the UAO is obligated to respond to emergencies and the Contractor must allow this work to be done. What constitutes an emergency is described in the ***2010 Utility Accommodation Manual*** ***(UAM Section 4.1.1)***

The Project Administrator is responsible for monitoring and documenting the UAO emergency activities to determine impact on other UAO or Contractor activities in the ***Daily Work Reports***. The Project Administrator shall request the UAO to provide the utility permit number issued, for inclusion in the report, if and once the utility permit is obtained by the UAO. The ***Daily Work Reports*** will be used to verify any Contractor delay claims due to the emergency work. The UAO is required to perform the emergency work, however, they may also be required to indemnify the Department for the Contractor delay claims.

5.6.7.2 Utility Work Not Requiring New Utility Permits

The UAOs continually perform maintenance activities on their permitted facilities. In some cases they do not need to obtain new utility permits to do this work. The ***2010 Utility Accommodation Manual*** ***(UAM Section 3.3.1)*** lists the types of work that can be done under an existing utility permit.

If the UAO desires to perform the utility work described above during the construction project, the UAO must obtain a UWS approved by the Contractor and the Department. The ***2010 Utility Accommodation Manual*** ***(UAM Section 3.3.2)*** lists the work constraints that must be followed when performing the types of utility work listed above.

Once the UWS is executed the utility work is to be monitored and documented per the requirements in **Section 5.6.5**.

If a UWS cannot be agreed to, the UAO must perform their maintenance activities after the construction project is completed.

5.6.7.3 Unforeseen Utility Conflicts

Occasionally, unforeseen utility conflicts arise as the construction project progresses. When an unplanned utility adjustment or utility relocation is required the Project Administrator must immediately contact the District Utilities Office regarding whether the utility work is reimbursable and to execute a UWS or other necessary utility agreements, notices or orders. The Project Administrator is responsible for monitoring and documenting impacts on other UAOs' or the Contractor's activities in the ***Daily Work Reports***.

Once the UWS and Utility Permit are executed the utility work is to be monitored and documented per the requirements in **Section 5.6.5**.

If the UAO is not cooperative refer to **Section 5.6.8**.

5.6.7.4 Revised Utility Work Schedules (UWS)

Occasionally, a UWS cannot be performed in accordance with the executed UWS which can occur because of many reasons, including but not limited to, the plans may have been changed after the UWS executed, the buried utilities may not have been in the planned location, etc. In any event, the existing UWS and utility work estimates may need to be revised. The Project Administrator must determine if funds are needed to cover the new estimate and additional work, if appropriate. The Project Administrator is responsible for monitoring and documenting impacts on other UAOs' or the Contractor's activities in the ***Daily Work Reports*** and contacting the District Utility Office who will assist the Contractor and UAO in executing a new UWS.

Once the UWS is executed, the utility work is to be monitored and documented per the requirements in **Section 5.6.5.**

If a UWS cannot be agreed to, refer to **Section 5.6.8.2**

5.6.8 UOA Non-Compliance

UAO's have numerous reasons for not complying with requests by the Contractor and/or the Department. Many of these reasons may be because of safety concerns, difficulties with their utility contractor, limited staffing, inability to respond to a change in the

Contractor's schedule, etc. The Project Administrator should assist the Contractor and the UAO to find common ground to prevent or minimize delays to the contract. However, when common ground cannot be found and the Contractor's work cannot be reasonably adjusted, the Project Administrator must take the appropriate actions to compel the UAO to comply with the Department's directions. The necessary actions needed to compel the UAO to comply for the most common cases are as follows:

5.6.8.1 UAO Non-Compliance with Valid Utility Work Schedules (UWS)

If the UAO does not comply with the UWS and/or Utility Permit, the Project Administrator must immediately notify the UAO of its non-compliance. This notification may be verbal, but must be immediately followed by a letter from the Resident Engineer. The notification letter should be formatted in compliance with the Secretary's Style Book available from the Office of Public Information and, include the following:

a) The UWS, permit, or other agreements that controls the utilities activities,
b) The contractor's activities that are or may be impacted,
c) The corrective actions needed.
d) A statement that the UAO may be liable for any added costs to the Department.

The Contractor, and the Project Administrator are to be provided a courtesy copy of this notification.

Once the notice on non-compliance is given, the Project Administrator is responsible for monitoring and documenting impacts on other UAOs' or the Contractor's activities in the ***Daily Work Reports*** and documenting the notice of non-compliance and the date the UAO received the verbal and written notification.

If the UAO is not responsive, the Project Administrator must consult the District Utilities Office and the General Counsel's Office for resolution. The Project Administrator is responsible for monitoring and documenting impacts on other UAOs' or the Contractor's activities in the ***Daily Work Reports***. This documentation will be used to limit and seek repayment for any construction delay claims and/or other related costs.

5.6.8.2 UAO Non-Compliance without Valid Utility Work Schedules (UWS)

This section covers executing the needed UWS, when the UAO is non-responsive or refuses to adjust or relocate its facilities and the Contractor's work cannot be reasonably adjusted to avoid the utility conflict. The Project Administrator must immediately consult the District Utilities Office and the General Counsel's Office for issuance of a 30-Day Notice/Order. No Guidance Document for a 30-Day Notice/Order is provided since they are drafted with the assistance of the General Counsel's Office on a case by case basis.

A copy of the 30-Day Notice/Orders must be sent to the Project Administrator, District Construction Engineer, District Utilities Engineer, Director, Office of Construction, Office of General Counsel, District Chief Counsel, and State Utilities Engineer.

Once the District Office and General Counsel's Office are consulted, the Project Administrator is responsible for monitoring and documenting impacts on other UAOs' or the Contractor's activities in the ***Daily Work Reports***. The Project Administrator is also responsible for documenting in the ***Daily Work Reports*** when the 30-Day Notice/Order was issued, when the Department received the UWS from the UAO, and when it was executed. This documentation will be used to limit and seek repayment for attributable construction delay claims and/or other related costs.

If the UAO is not responsive to the 30-Day Notice/Order, the Project Administrator must consult the District Utilities Office and the General Counsel's Office to coordinate the Department's next actions. The Department may add the utility work to the contract and bill the UAO for the utility work, or may file a complaint to effect a court order. In either case, the Project Administrator must document in the ***Daily Work Reports*** all delays and impacts because of the UAO's non-compliance.

Section 5.7
FEDERAL-AID PROJECT REQUIREMENTS

5.7.1 Purpose

The purpose of this section is to provide a uniform process for compliance with Federal-Aid project requirements.

5.7.2 Authority

Sections 20.23(4)(a) and 334.048(3), Florida Statutes

5.7.3 Reference

Part 23, Section 635, Code of Federal Regulations (CFR), and Section 6, Standard Specifications for Road and Bridge Construction

5.7.4 Correspondence

On Federal-Aid Projects, all correspondence shall include the Federal-Aid Project Number, as well as, the Financial Project Identification Number. All other appropriate project reference information shall be included in the subject heading, and the designation of FHWA Full Oversight or Delegated shall be shown.

5.7.5 Interstate System Projects

Projects on the interstate system funded with Federal-Aid Discretionary Funds shall be under construction within ninety (90) days of the FHWA's authorization to advertise for bids. This is generally earlier than other projects. The contractor's stockpiling of materials or placing of an order for major materials constitutes starting work. This must be properly documented in the ***Project Diary***.

5.7.6 Federal-Aid Participating/Non-participating

Certain work included in a Federal-Aid Project may be designated as Federal-Aid Participating or Federal-Aid Non-participating during the design phase, the Plans

Specifications & Estimates Review phase, or when contract modifications are necessary during construction. The designer will document the appropriate breakdown in the plans. Examples of such work are: work being done for and paid for by another agency under the joint project agreement; work on a cross street beyond the limits considered necessary to develop an adequate crossing; salvage value of materials or equipment originally purchased with federal funds which are to be salvaged into a Department warehouse; and work which the FHWA deems to be a periodic maintenance function.

The ***Federal-Aid Policy Guide*** requires that all project financial documents, such as ***Supplemental Agreements***, ***Monthly Progress Estimates***, monthly billing to the FHWA, ***Final Estimates*** and final billing to FHWA, accurately reflect all costs which have been determined to be Federal-Aid Participating and Federal-Aid Non-participating. In accordance with this requirement, plan preparation procedures and the integrated contract system have been modified to allow designation of those pay items which are Federal-Aid Non-participating and to split pay quantities for those items with partial Federal-Aid Participation.

The Project Administrator shall properly separate Federal-Aid Non-participating items and/or quantities from Federal-Aid Participating items and/or quantities when preparing a ***Supplemental Agreement***, ***Unilateral Payment*** or ***Work Order***. Guidelines for determining Federal-Aid Participation of cost and time increases or decreases are contained in ***Section 7.3.11*** of this ***Manual***.

On FHWA Full Oversight projects, it is essential that the Resident Engineer on In-house Construction Engineering and Inspection administered projects and the Consultant Project Manager on Consultant Construction Engineering and Inspection administered projects make every effort to obtain from the FHWA Transportation Engineer a determination as to Federal-Aid Participating or Federal-Aid Non-participating for contract modifications, in accordance with ***Section 7.3.11.2*** of this ***Manual***. On FHWA Delegated projects, the determination as to Federal-Aid Participating or Federal-Aid Non-participating shall be obtained from the District Construction Engineer in accordance with ***Section 7.3.11.3*** of this ***Manual***.

5.7.7 Revised Plan Sheets

Resident Level Responsibilities

The Project Administrator shall furnish to the FHWA a copy, for written approval, of all plan revisions initiated during construction on Federal-Aid oversight projects. For major plan revisions, FHWA approval shall be obtained prior to issuing the ***Notice to Proceed*** to the contractor for work associated with the proposed plan revision. Copies of all

revised plan sheets will be furnished to the FHWA along with a copy of the executed ***Supplemental Agreement, Form No. 700-010-45***, ***Unilateral Payment, Form No. 700-010-05*** or ***Work Order, Form No. 700-010-80*** used for the purpose of incorporating the revised plan sheets into the contract.

5.7.8 Construction Zone Accident Reports

Engineer's Maintenance of Traffic Evaluation at Crash Site, Form No. 700-010-64, will be completed by the Project Administrator for each accident occurring within the limits of the Federal-Aid Project. Refer to the ***Maintenance of Traffic*** chapter of this ***Manual*** for further instructions.

5.7.9 Buy America

Buy America Requirements, as promulgated by the ***FHWA (Part 23, Section 635.410,***
CFR, as amended***)***, as they pertain to steel and iron specify the Contractor must use only those materials and products which contain steel and iron, wholly or as a component, manufactured in the United States. The producer must provide certification to this effect. The Exception related to minimal quantities of material produced outside the United States incorporated into the project, as outlined in ***Section 6, Standard Specifications for Road and Bridge Construction*** and ***FHWA (Part 23, Section 635.410, CFR)***, are applicable to this section.

5.7.9.1 Product Certification

Resident Level Responsibilities

Certification per product, per project will be required as shown in the ***Section 5, Materials Manual, Topic No. 675-000-000***. The Project Administrator shall be responsible for obtaining the certification prior to permitting the incorporation of any products into the project.

5.7.9.2 Change of Source

Resident Level Responsibilities

If there is any indication or reason to believe that the producer may have switched sources of steel or iron during the life of the project, the Project Administrator will require an updated ***Certification of Compliance*** from the producer.

5.7.10 Retention of Salvageable Materials or Equipment Produced from a Federal-Aid Project and Retained by the Department

Consistent with ***Federal Office of Management and Budget (OMB) Circular A-102*** and ***Federal DOT Common Regulation 49 CFR, Part 18***, the Florida Department of Transportation shall not require a credit or reimbursement to the project for the value of any salvageable materials or equipment resulting from a Federal Aid project. Exempt from this requirement is all railroad work performed pursuant to ***49 CFR 266*** and ***23 CFR 140***.

5.7.11 FHWA Final Inspection

Final inspection of a Federal Aid oversight project shall, whenever possible, include the FHWA Transportation Engineer for inspection conducted at the Department's semifinal inspection. It is imperative that sufficient notice of the date, time, etc., be given for this inspection to accommodate scheduling. By following this procedure, a determination can be made as to what corrective action or additional work is required by FHWA to be accomplished as a condition of accepting the project prior to the Department's acceptance from the Contractor. Refer to the ***Project Closeout*** chapters of this ***Manual*** for instructions on project acceptance.

5.7.12 Notice to FHWA of Final Acceptance of Federal-Aid Project

Refer to the ***Project Acceptance*** chapter of this ***Manual*** for discussion and sample of***, Final Inspection and Acceptance of Federal-Aid Project, Form No. 700-010-32***, which is required by ***Florida – Exemption Agreement and 23 USC 106 Exception Process***.

5.7.13 Notice to FHWA prior to payment of Incentive, No Excuse Bonus, Lane Rental or Liquidated Savings Monies

On FHWA Full Oversight projects containing Incentive/Disincentive, No Excuse Bonus, Lane Rental or Liquidated Savings Special Provisions, FHWA approval must be obtained prior to issuing payments to the contractor for any portion of or the full Incentive, No Excuse Bonus, Lane Rental or Liquidated Savings amount.

Section 5.8

CONTROL OF MATERIALS

5.8.1 Purpose

To establish a uniform standard for the control of materials on construction projects.

5.8.2 Authority

Florida Department of Transportation Specifications for Road and Bridge Construction

Federal-Aid Policy Guide (FAPG), 23 CFR, Chapter I, Subchapter G – Engineering and Traffic Operations, Part 637 - Construction Inspection and Approval.

5.8.3 General

The contract documents contain specifications or references for all materials that are to be incorporated into a project. The Florida Department of Transportation's (FDOT) ***Sampling, Testing and Reporting Guide (STRG)***, included in ***Procedure No. 675-000-000, Materials Manual*** (published by the State Materials Office), indicates who samples and tests each of these materials and at what frequency. Certification of materials used on a project will be accomplished according to instructions from the State Materials Office.

A ***Job Guide Schedule*** based on the ***STRG*** is developed for each contract. It contains a listing of all pay items that will be used for sampling and testing on the project. This computer printout will serve as a reminder of the required sampling and testing frequencies. The ***Job Guide Schedule*** also lists material numbers designating the methods of acceptance normally required under each pay item. For Lump Sum contracts the Contractor will submit a project specific ***Job Guide Schedule*** for acceptance in accordance with ***Article 105-2*** of the ***Standard Specifications***.

There are three methods of acceptance: 1) certification; 2) sampling and testing; and visual inspection. Certification is subdivided into Producer Certification and acceptance using the Qualified Products List (QPL).

5.8.4 Method of Acceptance

5.8.4.1 Producer Certification

A manufacturer or supplier has provided a written certification stating the material supplied meets Department specification requirements at the time of delivery or prior to placement. The Department Inspector shall verify that the certification is complete, correct and meets specification requirements. Verification of an approved product/source should not only accompany the proper certification, ie; the bill of lading/ticket with the phrase "Certified for FDOT" or "Cert. for FDOT", the Inspector should visually inspect or verify that these products or materials actually meet all the specifications and requirements.

Product certification from an approved aggregate source should include the bill of lading/shipping ticket with the phrase "Certified for FDOT" or "Cert. for FDOT", FDOT Source number, date, FDOT material code, aggregate description, and quantity in tons.,

The Inspector should visually inspect or verify that the delivered products or materials match the certification document descriptions in expected appearance and size, and are free from defects and contamination.

In some instances where the Department requires that manufacturers submit samples of certified materials for independent verification purposes, the Department Inspector shall collect the sample or verify that the sample has been submitted for testing.

5.8.4.2 Approved Materials, Producers, and Products

The Department maintains a list of materials, producers and products acceptable for use on Department construction projects. Materials, producers and products will be included on Department lists when documentation (certification, periodic test results, etc.) is received assuring that the material conforms to ***FDOT Specification*** requirements. The Department Inspector shall verify that such approved materials, producers and products meets specification requirements. These lists are available at: Approved Product List, Qualified Products List, and Materials/Producers Listing.

5.8.4.3 Visual Examination

The specifications provide guidelines concerning material that may be accepted by visual examination, for example non-structural sidewalk or certain materials incorporated into Witness-and-Hold projects. The Inspector should visually inspect or verify that the delivered products or materials match the expected appearance and size, and are free from defects and contamination.

5.8.4.4 Sampling and Testing

(A) Resident Level Responsibilities

Regardless of the method of acceptance, it is the Project Administrator's responsibility to assure that only materials meeting the specifications, or properly documented and approved exceptions, are incorporated into the project. A current record of samples taken and tests run is maintained during the project using the Department's database***.*** A report by pay item will be used as a record of the test sample(s) performed for each project. The Project Administrator (PA) will make sure the samples are current **at all times** by insuring prompt entry of sample data and field test results into the Department's database.

It is the responsibility of the Project Personnel to sample and test materials based on the quantity mandated by the Contract on Lump Sum Contracts.

5.8.4.5 Contractor Installation Certification

The contractor is to provide installation certifications as required by the Department ***Specifications*** prior to installation of material on the project.

5.8.5 Defective Materials

Defective materials will be processed in accordance with ***Article 6-4 of FDOT Standard Specifications***, with a ***Disposition of Defective Material (DDM), Form No. 700-011-01***. This process will also apply when the Contractor submits an ***Engineering Analysis Report (EAR)*** in accordance with the material specific specifications. The procedure is outlined in the ***Flow Chart – Resolution Process of Defective Material (Attachment 5-8-1)***.

For straightedge deficiencies, the procedures shall follow the requirements of ***CPAM Section 11.2, Testing and Correction of Surface Deficiencies on Asphalt Pavement***.

(A) Resident Level Responsibilities

The Contractor will request the use of an ***EAR*** to the Project Administrator/Resident Engineer (PA/RE). Prior to the approval of the use of an **EAR**, the PA/RE will coordinate with the District Materials and Research Engineer (DMRE) or designee regarding the parameters of the ***EAR***. The DMRE or designee will recommend the types of testing needed to ensure the ***EAR*** will yield the necessary information to determine the disposition of the defective material.

Once the ***EAR*** is submitted, the PA/RE will forward a copy of the ***EAR*** and a completed ***DDM*** to the DMRE or designee. Upon receipt of the District Construction Engineer (DCE) disposition, the PA will process the material and payment accordingly.

(B) District Level Responsibilities

The DMRE or designee will determine the disposition of the material and forward the ***DDM*** to the DCE.

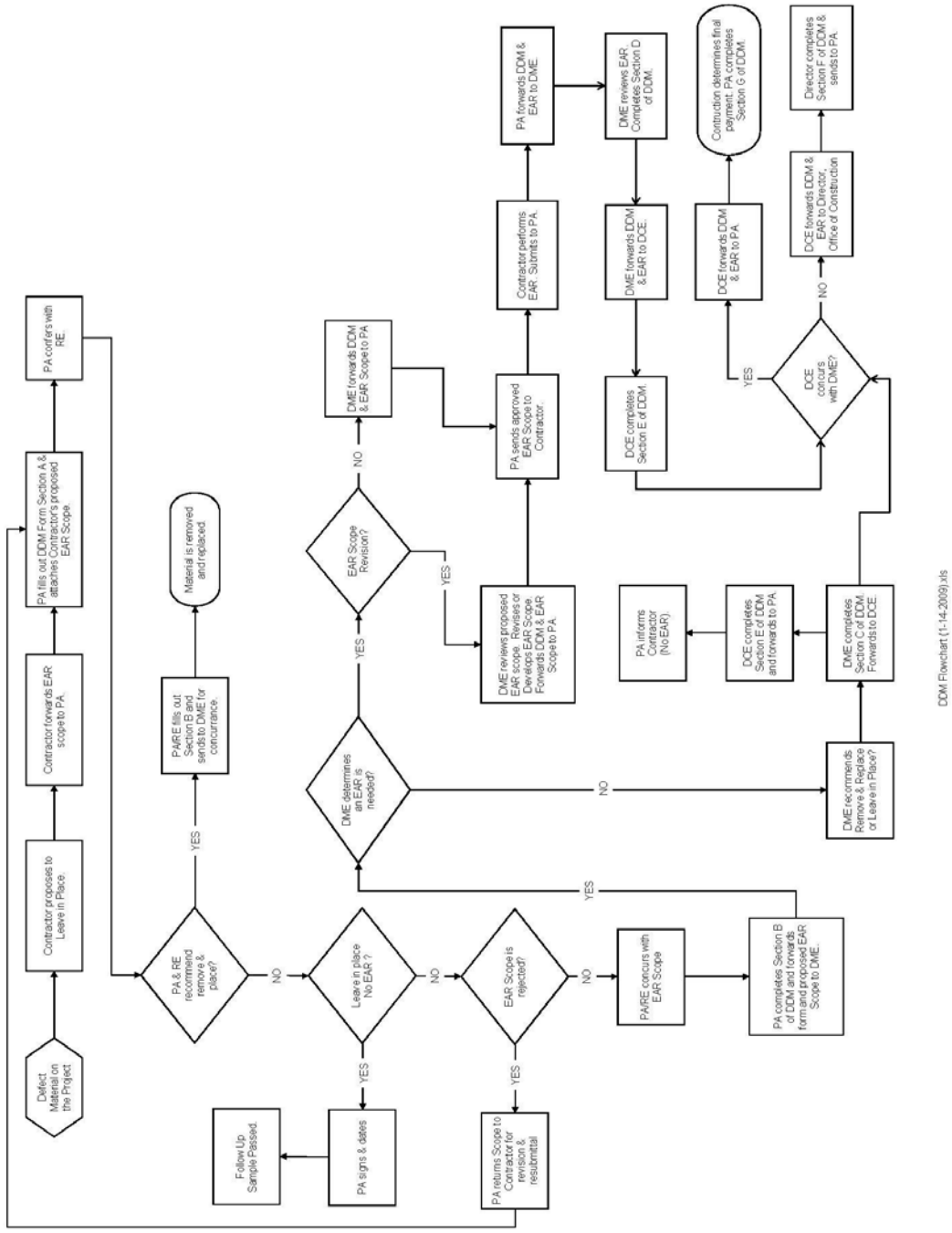
If the DCE concurs with the DMRE's proposed disposition, the DCE will forward the ***DDM*** to the PA.

If the DCE does not concur with the DMRE's disposition of materials, the DCE will forward the ***DDM***, the DMRE's disposition and the DCE's recommendation to the Director, Office of Construction, for final disposition.

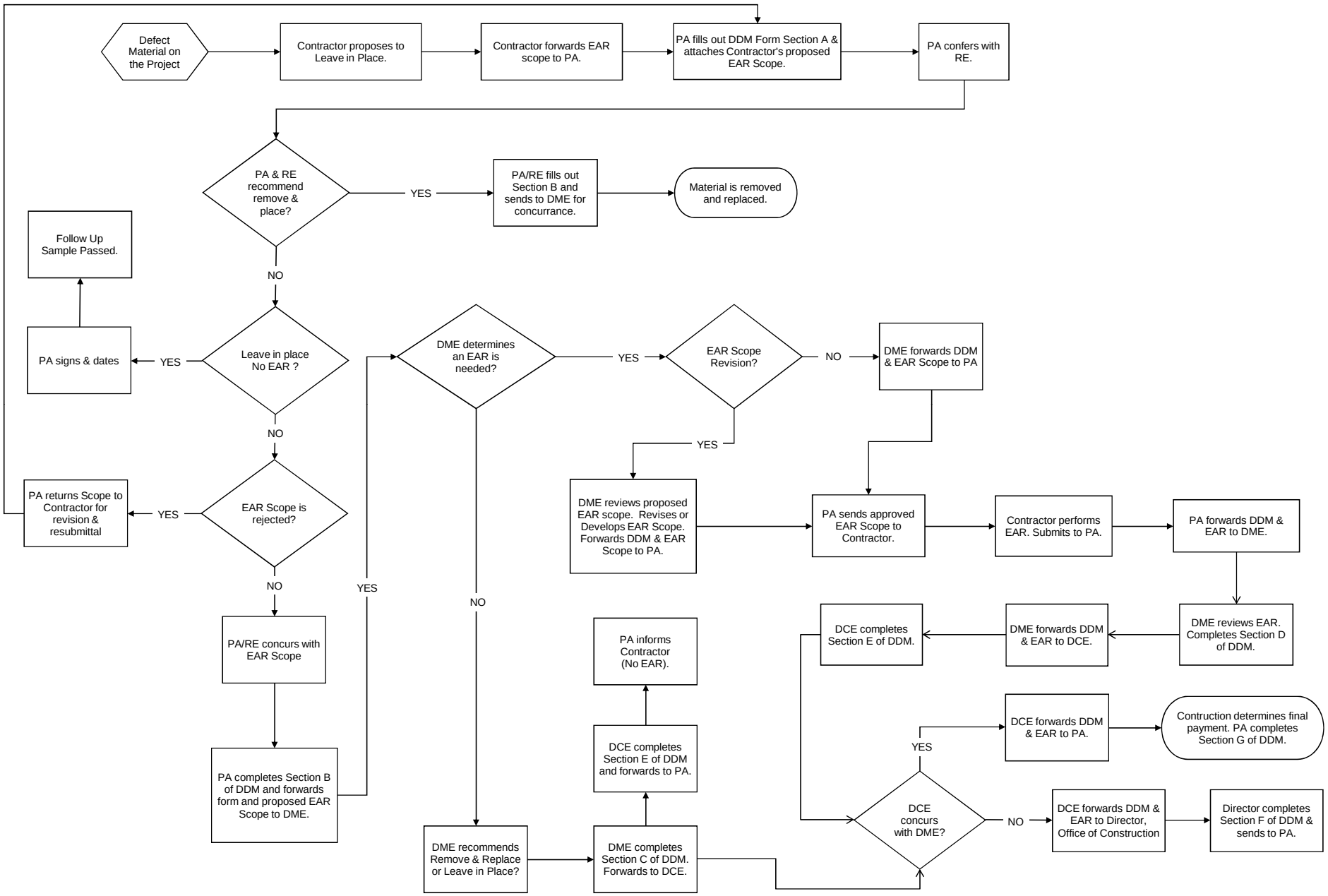
(C) Central Office Responsibilities

The Director, Office of Construction, will make the final decision and notify the following offices with a copy of the ***DDM***: District's Final Estimates Engineer, District Materials and Research Engineer, Director, Office of Materials, and the Resident Engineer's Office.

ATTACHMENT 5-8-1
FLOW CHART
RESOLUTION OF DEFECTIVE MATERIAL



ATTACHMENT 5-8-1
FLOW CHART
RESOLUTION OF DEFECTIVE MATERIAL



Section 5.9

STATE CONSTRUCTION OFFICE PROCESS REVIEW OF CONSTRUCTION ENGINEERING AND INSPECTION

5.9.1 Purpose

This section describes the State Construction Office Process Review procedures for its Specialty Engineers and Specialists reviewing Construction Engineering and Inspection (CEI) processes in the Districts. The purpose of this Process Review procedure is to provide a uniform, statewide, documentable, management system to ensure CEI requirements are being met and include an emphasis on training and educating field staff when errors or deficiencies are found. The procedure applies to all construction personnel administering construction contracts of any type.

This chapter also addresses the Central Office role in assurance of the district's compliance with this chapter via Process Reviews. This process does not require mandatory process reviews to be conducted by the District, Resident or Project level staff, but this is optional to the Districts if they wish to develop such a review process.

5.9.2 Authority

Sections 20.23(4)(a) and 334.048(3), Florida Statutes

5.9.3 Definitions

Refer to the Introduction section of this ***Manual***.

5.9.4 Overview

This Process Review procedure and guidance document explains what the Florida Department of Transportation's construction organization must do to conduct an effective Statewide QA program. The goal of the Process Review program is to continually improve CEI performance.

In order to accomplish this goal, the procedure requires staff from the State Construction Office, the State Materials Office, the FHWA and the District Construction Office (optional)

to review the performance of personnel charged with CEI duties.

Construction staff from the Central Office, the State Materials Office, and the FHWA conduct Process Reviews to determine how well CEI personnel are performing the most important responsibilities they are assigned. These responsibilities are referred to as Critical Requirements and they are displayed on the internet/infonet under Construction QA Critical Requirements Lists. The Process Review team will use the QA/QC guidelists and critical requirements list in their evaluation of the field personnel performance. District personnel are encouraged to continue use of the QA/QC guidelists and critical requirements during their day to day operations; however, the State Construction Office will still be focusing their reviews on this Process Review.

The results of Process Reviews are reported to the DCE with the District Process Review representative, where applicable, in a close out meeting prior to the review team returning to the Central Office. Additionally, each review team will issue a report of their findings to the District Secretary, Chief Engineer, Director of Construction, and DCE. The report should emphasize findings of areas where the District is performing well; cite the areas where improvements were needed and the steps taken during the review to correct those areas, and how well the QA/QC guidelists and critical requirements were being followed. Reviewers also record innovative CEI practices that are discovered during reviews so that these may be considered for implementation as improved ways of doing business in the future. The Reviewers should emphasize what is being done well and educate the correct method in areas found to be lacking.

The Process Review procedure also provides a process for reporting training needs and innovative practices to higher levels of management in order to ensure that this vital information is addressed properly and is communicated to everyone who might also benefit from it. When needs for improvements are found, the DCE or the District Process Review participant is tasked with evaluating the other Residencies or Operations Centers to determine if the same need exists in the other locations. Central Office Process Reviewers are tasked with the responsibility to determine in remaining reviews if similar training needs exist in other districts which would indicate a potential need for Statewide Training on the subject.

5.9.4.1 Review Frequency

Construction staff from the Central Office will perform Process Reviews of the CEI processes for which they are responsible. The Process Reviews on most categories will be done as a minimum once every two years per District.

The SCO lead reviewer should contact the DCE to find out who will be the District's

contact person for Process Reviews. The lead reviewer will work with that person to schedule Process Review dates, the specific job sites to be reviewed, and an exit interview with the DCE. Each reviewer will be responsible for several QC categories and wherever possible should review multiple categories during a single visit to a District.

5.9.4.2 Review Participation and District Response

District Level Responsibilities

The DCE is responsible for all QA activities at the District Level. The primary focus of the District Level activities will be to implement the actions and training recommended by QA Reviews. During the State Construction Office Process Reviews, the District is encouraged to provide a knowledgeable staff member to participate in the review and escort the Process Review team during its visits to various district offices and jobsites. The DCE or delegate will participate in a brief kick off meeting at the beginning of the Process Review and will also participate in a close out interview at the conclusion of the Process Review.

5.9.4.3 Process Review Performance

Central Office Level Responsibilities

Process Reviews will be assigned by the Director, Office of Construction to various members Director's staff in accordance with the QA Category Responsibility Table published on the website of the Office of Construction. The Assigned Staff will schedule the review with the DCE or delegate at least 30 days in advance. The assigned Reviewer will solicit the participation of the State Materials Office (where appropriate), the FHWA and may also wish to solicit the participation of a specialist from one of the districts or other offices when that specialist can bring a level of expertise to the review not available in the Office of Construction. This person would participate in Process Reviews for that area of expertise conducted in all of the districts.

If a Process Review results in finding a training opportunity, those findings should be discussed with the field staff involved in order to educate them regarding that training opportunity. Those opportunities for improvement should also be discussed with the DCE at the close out interview. The DCE should ensure that the findings are discussed at the next Resident and District level staff meetings. Where findings have statewide significance, the Process Review team is tasked with communicating in writing to the Office of Construction their findings for presentation at the next DCE Meeting or immediate distribution to all districts and for consideration of future statewide training opportunities.

A ***Process Review Report (Report)*** shall be made in a memo format as a Microsoft Word document by the review team member from the Office of Construction for every Process Review performed within 14 days of the completion of the review. The ***Process Review Report Memo*** shall be addressed to the Director; Office of Construction with a copy to the District Secretary, Chief Engineer, and DCE. Copies shall be distributed by email. The ***Report*** shall state the Process Review date, category reviewed, locations reviewed and personnel involved. The ***Report*** shall describe the kickoff meeting and exit interview with the DCE or delegate. The ***Report*** shall comment on each of the critical requirements to the effect that they are or are not being accomplished. The ***Report*** may, at the Reviewers discretion, also comment on any of the ***QC Guidelist*** items to the effect that they are or are not being accomplished. Where ever the ***Report*** notes that a critical requirement or ***QC Guidelist*** item is not being accomplished satisfactorily, this may be considered as a training opportunity. The ***Report*** shall also recommend the appropriate corrective actions and or training required to make use of the training opportunity by getting the Districts CEI Staff to start performing the critical requirement or guidelist task correctly.

When a response from the district is required, the ***Report*** should clearly state the issue on which a response is required and the DCE should respond to the issue within 30 days.

The findings and dispositions of each Process Review will be maintained on file in the SCO.

Guidance Document 5-9
Conducting a Process Review

I. OVERVIEW

This guidance document is intended to be used by a Process Reviewer. By fully using these ***Guidelines***, a reviewer will be aware of important QA requirements that should be examined during a review. The review must cover the following major QA concerns: Verification that Critical Requirements are being met, verification that actions and training recommended in previous QA Reviews have been implemented.

II. VERIFICATION OF CRITICAL REQUIREMENTS

Guidelist Possession – This is strongly encouraged for all technicians but not mandatory. The ***Statewide Inspection Guidelists*** include critical requirements and many other requirements that QA and QC personnel must be familiar with, so it is important that those working for the Florida Department of Transportation have access to a current copy of the ***Statewide Inspection Guidelists*** readily available. The reviewer should encourage the inspector or other Quality Control (QC) personnel have a current fiscal year copy of the ***Statewide Inspection Guidelists*** immediately available while in the field, either with them or in their truck, or for office personnel, immediately available at their desk.

Critical Requirements Verification - The reviewer must conduct reviews on Construction Engineering and Inspection (CEI) personnel as if they were, reviewing the field CEI effort. This means that the reviewer must check the QC performance of inspectors and other CEI staff for compliance with the requirements of a specific assessment category. If the reviewer finds Critical Requirements (CR) that have significant Opportunities for Improvement (OFIs), the reviewer may also want to check non-critical requirements since OFIs on Critical Requirements may be an indication that non-critical requirements may also show opportunities for improvement.

QA Log - The DCE is encouraged to maintain a log containing a copy of all ***QA Review Reports*** done in the district for the last four years. This ***Log*** should be made available to Process Reviewers at the start of each review.

Section 5.10

VERIFICATION INSPECTION AND TESTING

5.10.1 Purpose

This section provides a minimum verification inspection and testing frequency, when not established in the ***Specifications*** or is at the "Discretion of the Engineer". The purpose is to monitor and verify the Contractor's construction processes to ensure that quality of construction are in compliance with ***Specification*** requirements.

5.10.2 Authority

Section 334.048(3) and 20.23(4)(a), Florida Statutes (F.S.)
Standard Specifications for Road and Bridge Construction

5.10.3 Inspection Frequency

5.10.3.1 Asphalt

(A) Resident Level Responsibilities

In addition to the required frequency of verification, resolution, and independent sample verification of material properties and construction inspections required in the ***Specifications***, the Qualified Asphalt Technicians shall also perform the inspection and verification activities randomly at the job site to determine the reliability and uniformity requirements of Contractor's Quality Control operations and document the findings/results in the ***Asphalt Verification Reports***, ***Asphalt Plant Worksheet, Form No. 675-030-25, and Asphalt Roadway – Verification Report, Form No. 675-030-21***. Plant information should be uploaded to the ***Laboratory Information Management System (LIMS)***, however Roadway information is not required to be entered in ***LIMS***. The inspection frequencies for various characteristics are listed as follows:

(1) For contracts let before January 2011:

Tack Coat Spread Rate	Once / Day
HMA Spread Rate (Yield)	Once per layer / Day
HMA Temperature	Twice / Day
Depth and Cross Slope (Milling)	Once / Day A minimum of ten measurements for each verification.
Milling Surface Texture	Once / Day
Cross Slope (Paving)	Once / Day A minimum of ten cross slope measurements for each verification.

(2) For contracts let after January 2011:

Tack Coat Spread Rate	Once / Day
HMA Spread Rate (Yield)	Once per layer / Day
HMA Temperature	Twice / Day
Depth and Cross Slope (Milling)	
Tangent Sections:	10 / lane mile
Transition Sections:	At control points in plans.
Super-elevated Sections:	Minimum of 3 measurements.
Milling Surface Texture	Once / Day
Cross Slope (Paving)	
Tangent Sections:	10 / lane mile
Transition Sections:	At control points in plans.
Super-elevated Sections:	Minimum of 3 measurements.

The findings of cross slopes (milling and paving) shall be documented in the ***Cross Slope Measurement Data Form, Form No. 700-010-98*** and the findings of milling surface texture shall be documented in the Remark Section of ***Asphalt Roadway - Daily Report of Quality Control, Form No. 675-030-20 or Form No. 675-030-20A***.

In addition to the above verifications and inspections, the Roadway Verification Technician (VT) also monitors and inspects the Contractor's construction processes in accordance with the ***Statewide Construction Inspection Guidelists (SCIG)*** as specified in ***CPAM Section 3.2*** at a frequency of once per day during production. For example, the Asphalt Roadway VT shall use the SCIG Category No. 7B in order to ensure that the construction is being performed consistently and accurately according to the Contract documents.

The frequencies stated above are minimum frequencies. If visual inspection of the performance indicates the need, the frequency shall be increased to ensure that quality of construction and materials incorporated into the project are in compliance with the ***Specifications***.

5.10.3.1.1 Corrective Action

(A) Resident Level Responsibilities

In case of deficiencies, the inspector shall inform the Contractor's Quality Control (QC) Manager about the deficiencies and advise the QC Manager that corrective action shall be made immediately. Once the corrective action has been made, the inspector shall perform a recheck. If the recheck indicates that the operation is still not in compliance with the ***Specifications***, the inspector is to advise the Project Engineer of the same. The Project Engineer upon verification of facts shall disapprove the Asphalt Portion of the Contractor's QC Plan in accordance with ***CPAM Chapter 3.3, Contractor's Quality Control Plan***.

The disposition of the areas represented by such deficiencies shall be evaluated separately in accordance with the ***Specifications***.

5.10.4 Testing Frequency

5.10.4.1 Finish Soil Layer

(A) Resident Level Responsibilities

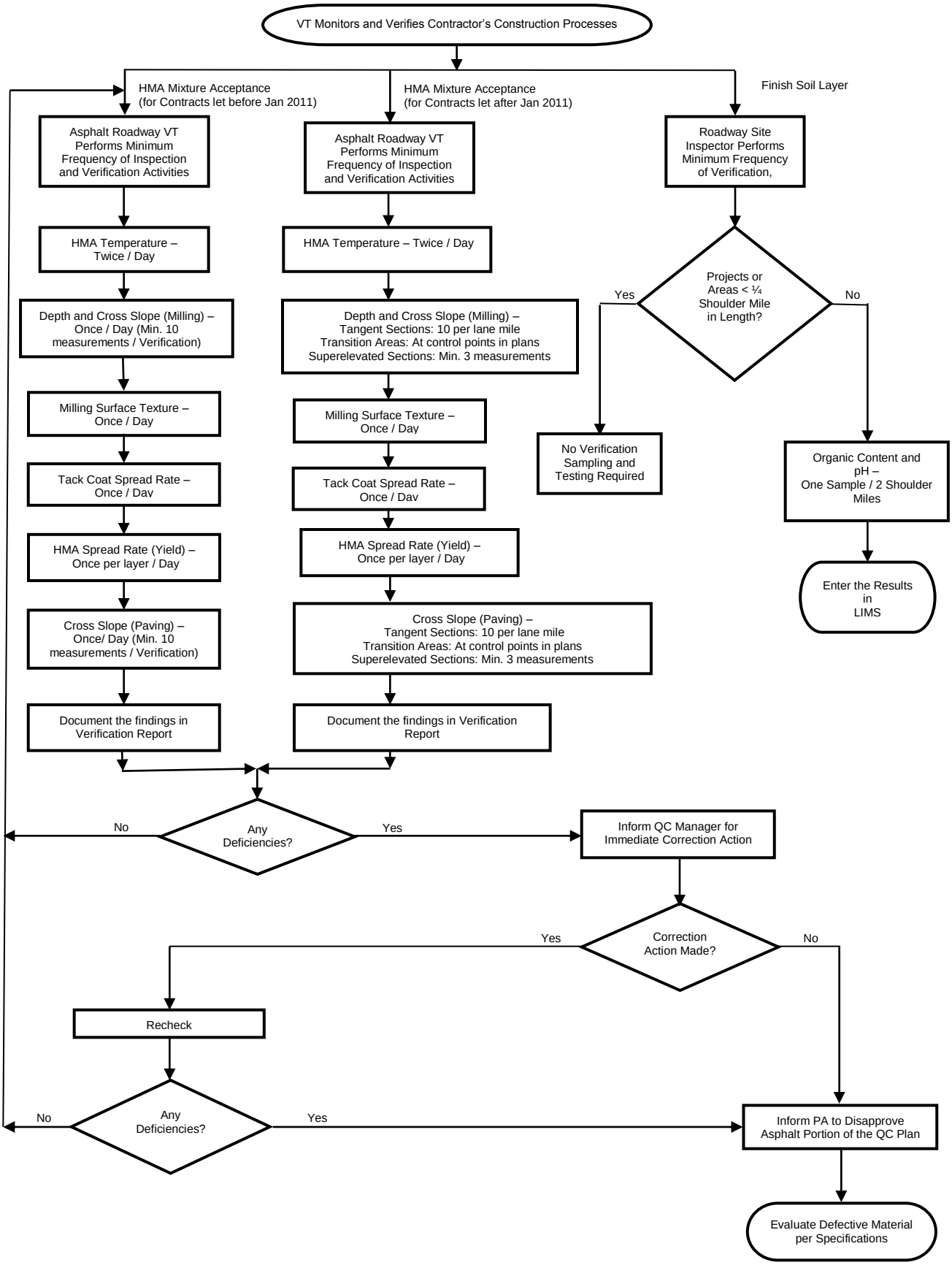
For contracts let after January 2003, the Florida Department of Transportation personnel shall sample and test verification samples at the job site to determine specification compliance, reliability, and uniformity requirements of Contractor's Quality Control operations and enter the results in ***LIMS***. The sampling frequency shall be as follows:

Organic Content and pH	One sample / 2 shoulder miles

The frequencies stated above are minimum frequencies. If visual inspection of the performance indicates the need, the frequency shall be increased to ensure that quality of construction and materials incorporated into the project are in compliance with the ***Specifications***.

On projects or areas less than 1/4 shoulder mile in length, no verification sampling and testing is required.

Attachment 5-10
FLOW CHART
CPAM SECTION 5.10 VERIFICATION INSPECTION AND TESTING



SECTION 5.11
FINAL ESTIMATES DOCUMENTS

5.11.1 PURPOSE

This procedure provides a uniform standard for processing monthly progress payments to the contractors and summarizes the legal documents, affidavits, and other documents required for the preparation, checking, and payment of final estimates.

5.11.2 AUTHORITY

Sections 20.23(3) (a) and 334.048(3), Florida Statutes (F.S.)

5.11.2.1 REFERENCES

Sections 337.11 and 337.145, F.S.

5.11.3 GENERAL

Progress estimates will be prepared and submitted monthly for each project to determine the amount payable to the Contractor. A certification by the contractor that subcontractors and suppliers of material and equipment have been paid their proportionate share from the last progress payment is required each month. This is required in ***Section 9-5.6*** of the ***Specifications*** and shall be explained at the preconstruction conference.

The documents required to close out a final estimate will vary from project to project. It is the responsibility of the Project Administrator (PA)/District Final Estimates Manager (DFEM) to check the Contract and ***Specification*** requirements to ascertain that each Final Estimate Package is complete with all essential documents. Any outstanding Contractor documents must be requested from the Contractor with instructions to forward them to the District Final Estimates Office (DFEO), ***See Figure 5-11.1***.

It is the PA's/DFEO's responsibility to inform the Contractor of the ***Department's*** required documents to complete the contract payment. When complete documents are received by the Department or its designee, the payment clock begins and interest can be assessed on monies due if a delay is experienced in the final payment of the contract.

Note: The time of receipt is the time the intended recipient acquired the document. If any e-mail or electronic document is received after five (5:00) PM Eastern Standard Time (EST) [four (4:00) PM Central Standard Time (CST)], the document will be considered as received the next business day.

5.11.3.1 Time of Submittal

Monthly progress estimates are prepared and submitted for each project underway as determined by each District, by no later than the first Tuesday following the Sunday cutoff each month. Dates may be adjusted in some situations to allow for holidays and the end of the fiscal year. It is necessary that all progress estimates be received in the Office of the Comptroller, Disbursement Operations, no later than 8:00 a.m. on the fifth working day (Friday) after the cutoff date. Cutoff estimate dates are located on the Construction website at the following link:
http://www.dot.state.fl.us/construction/CONSTADM/EstimatesCutOff.shtm

5.11.3.2 Preparation of Estimate

The monthly progress estimate is prepared to show the quantity increases (sometimes decreases) for all items completed, underway or stockpiled for use on the project. For items underway, the estimate of work completed is accomplished by using the **Pay Items Eligible for Partial Payment,** as shown in the Link under ***Attachment 5-11-1***. Field measurements must be taken and percent completion calculated for each separate segment of a pay item. Partial payment for stockpiled material, when requested by the Contractor, will be in accordance with ***Section 5.11.6*** of this ***Manual***.

5.11.3.3 Retainage

Retainage shall be in accordance with ***Section 9-5*** of the ***Specifications***. Some contracts may have special provision requirements, which change the standard schedule.

5.11.3.4 Liquidated Damages

When the Contract time is exceeded, liquidated damages must be withheld from the contractor. The contractor is charged for the defaulting days, which are the calendar days between expiration of the present contract time and the cut-off date of the estimate. This amount is to be calculated and entered on the estimate worksheet. For multi-job contracts, liquidated damages will be pro-rated between jobs based on the original contract amount. When ***Supplemental Agreements*** and time extensions are pending that would add sufficient contract time so that the contract time is not exceeded, liquidated damages may not be assessed pending execution of these instruments.

5.11.4 OTHER SUBMITTAL DOCUMENTATION

The following is a summary of the more prevalent forms, affidavits and records necessary to prepare and process the final estimate for payment:

(1) Notice to Proceed (NTP) Letter

The NTP is prepared in letter form and is sent via e-mail by the appropriate District Construction Office to the Contractor. The NTP notifies the Contractor to begin work on the project in keeping with the time limitations stipulated in the Contract Documents. This letter is to be included as part of the Contract Time folder as noted in ***Section 5.11.4; (10)*** of this ***Manual***. See ***Figure 5-11. 2*** for an example NTP.

(2) Notice of Beginning/Ending of Construction, Final Acceptance Letter

This notice document is sent by the appropriate District Construction Office to the Contractor. It notes the date time began by the Contractor and the date the project was completed and/or final accepted. (***See Figure 5-11.3***).

(3) Roadway and Bridge Daily Work Report (DWR) and/or Construction Diary

The project Daily Work Report (DWR) for projects within Site Manager, or a Construction Diary (Diary) for projects not in Site Manager, are used on each project. They are recordation of events, data, occurrences, instructions, situations, circumstances, and work performed each day during a construction project. Data is collected on every phase of work performed by a Contractor, Subcontractor, or Utility Company. Recorded information must be clear, detailed, accurate, complete, and objective. Anyone reading the project DWR or Diary should be able to comprehend the project status and determine the work performed.

It is mandatory that documentation be maintained to justify quantity increases (sometimes decreases) for the monthly progress estimates. The use of these reports will prove to be helpful and may be considered adequate documentation; however, any method that provides complete and accurate records of pay quantity changes is acceptable.

The reports are not to be considered for final payment purposes when reflecting quantities. Quantities that appear on the DWR or in the Diary are typically not recorded with appropriate computations and measurements at the site and are crudely done with no intent for final payment. Most often these entries will be duplications of past entries. Therefore, actual measurements, dimensions, computations, and quantities for final payment purposes shall be recorded on the appropriate site source forms or records (such as spreadsheets).

Note: For detailed instructions on completion of the above forms, see ***Section 5.1*** of this ***Manual***.

(4) Certifications

A. ***Certification Disbursement of Previous Periodic Payment to Subcontractors, Form No. 700-010-38***, states that the subcontractors have been paid their proportionate share from the last progress payment. The Contractor is required to submit this form each month at estimate time. If this certification is routinely late, then non-compliance letters should be issued and sent to the contractor.

B. ***Construction Compliance with Specifications and Plans, Form No. 700-020-02*** states that all Quality Control functions and all Quality Control sampling and test results are in substantial compliance with the pertinent specification requirements. Any outstanding issues or exceptions are listed on this form. This form is required each month at estimate time and a final version documenting all exceptions is required before the final estimate can be processed.

If the PA has not received these certifications in time to send them with the estimate to the District Office, the estimate will not be forwarded.

Note: The ***Certification Disbursement of Previous Periodic Payment to Subcontractors, Form No. 700-010-38***, is not needed for final payment, since ***Form 21-A*** contains essentially the same certification and is required for project closeout. (Refer to ***Section 5.11.3*** in this ***Manual***). ***Form No. 700-020-02***, is needed for the final estimate since it details all final outstanding exceptions to Contractor Quality Control sampling and testing as required by the Plans and ***Specifications***. (Refer to***. Chapter 14*** of the ***Review & Administration Manual***, ***Topic No. 700-050-005)***

(5) Affidavit for Motor Vehicle Registration

The Contractor is required to furnish an affidavit before any progress payments are made stating that all motor vehicles operated or caused to be operated on the project are registered in Florida. The procedure described above for withholding progress payments will be used if this document is not received. Only the prime Contractor is required to provide this certification on a one-time basis at the beginning of the project.

(6) Explanations of Overruns and Underruns

An explanation of variations between the designer's original estimated quantities and the construction final quantities must be made (***See Figure 5-11.*** **4**)***.*** **This is a**

very important document. It is suggested the PA prepare it. When these variations have been properly researched, accurate explanations can be made. These explanations are key-board entered for items that have significant overruns or underruns and in the order the items are shown on the contract.

(A) Items paid under Final Measure Quantity, Plan Quantity or Lump Sum Concept that have no change or have changes which are not significant need not be explained on the overruns and underruns document. A change is considered significant when its dollar value exceeds $10,000.

(B) Deviation of Plan Dimensions by the Contractor equaling the aggregate change of $10,000.00 must be explained on the overruns and underruns document.

(C) The PA will generate an ***Overruns and Underrun Report*** in Site Manager AD HOC (also known as Dashboard), and export the file to an Excel document or a Microsoft Word document and save this report to a hard drive. When the report is opened in Excel or Word, one is then able to edit the document per requirements. AD HOC generates a report of all pay items on a project, but one cannot edit a report in AD HOC. ***Figure 5-11.4*** shows an example of an AD HOC file exported to an Excel spread sheet and edited to comply with the current requirements.

Guidelines for documenting and submitting explanations of overruns and underruns:

(1) Each contract item's overrun/underrun shall be summarized from the brief notes and remarks recorded in the Plan Summary Box at the time the final quantities are calculated.

(2) Explanations for Federal Aid participating and non-participating items shall be shown separately.

(3) Contracts that include more than one job will have the overrun and underrun explanations broken down for each job.

(4) ***Supplemental Agreements*** that alter the original plan quantities more than $10,000.00 should be tabulated as explanations of overruns and underruns for the appropriate items.

(5) These explanations are to be submitted with the final estimate package to the DFEM. The DFEM will submit to the Federal Highway Administration (FHWA) on all FHWA Projects of Corporate Interest

and on those FHWA Projects Division Interest (PoDI) when identified in the project specific PoDI plan.

(6) Final quantities are subject to change during the checking of the estimate. This may also necessitate a change or correction in the explanation of an overrun or underrun. Therefore, the original electronic version sent to the DFEM shall be plainly marked as tentative.

Note: Net overruns to existing pay items may be funded once a contract expends 75% of the original contract amount. Requests for additional funding must be based on reviewing the project and estimating the overruns. See ***Section 6.2*** and ***7.3.6.4*** of this ***Manual*** that covers this process.

(7) Job Correspondence

All correspondence related to Final Estimates and/or final pay quantities on each project and maintained by the PA or Resident Office (RO) shall be submitted along with the final estimates package. Each document will be sequenced in chronological order upon receipt and scanned into EDMS

(A) All pertinent correspondence that is received by the PA after the estimate is turned in shall be forwarded to the DFEO for inclusion in with the Job Correspondence submittal folder.

(8) Final Plans and Estimate Transmittal Form

Upon completion of a project, the final plans and estimate documents must be submitted by the RO to the DFEO. The ***Final Plans and Estimates Transmittal Form No. 700-050-20*** must include, but not be limited to, the following:

(A) A tabulation of the ***Final As-Built Plans***, which will include the ***Plan Summary Boxes*** in the plans, Field records, and other records showing the title, and general description of the contents of each item.

(B) The date work began and the date work was completed. If the work was not completed, note briefly the conditions for acceptance.

(C) Pending ***Supplemental Agreements*** which have not been submitted to the District Office (include information as to the scope, the approximate cost and the additional contract time involved and the ***Agreement***.)

(D) Any unresolved claims which may be pending at the time the estimate is

submitted.

(E) Failing materials, the disposition of which remains unresolved at the time of submittal.

(9) Final Estimates Office Record of Final Plans and Documents

The ***Final Estimates Office of Final Plans and Documents Form 700-050-28*** was developed to aid in organizing and completing the transmittal packages. The RO's project personnel are responsible for initiating this form with the information shown in the items below and completed at the time the final estimates package is sent to the DFEO. This form is generated by accessing the Department's application CARS (Construction Automated Reporting System), which is found on the Construction Office's internal website labeled "Final Estimates Status." The majority of items below will be populated automatically within the form (provided the information is input properly into Site Manager). If data is incorrect or errors are found, the PA can make corrections in Site Manager.

(A) Financial Project ID, Contract ID, Contract Type, FDOT Specifications Year, Federal Aid Project Number(s), County(ies), Road Number(s), Name(s) of Contractor(s), Name of Surety, District Engineer and RE/PA.

(B) Contract Time shown in calendar days with Federal Aid Participation noted, including; Granted Days, Time Extensions, Calendar Days Allowed, Calendar Days Elapsed, Calendar Days Overrun or Underrun, and associated liquidated damages, penalties and/or incentive dollar amounts (if applicable).

(C) ***Supplemental Agreements (SAs)/Work Orders, Contingency SAs*** and a statement of Contract Monies.

(D) Other dates such as Plans Received, Certification of Compliance with Specifications & Plans, Certification of Materials, Notification of Findings Letter(s), Acceptance Letter(s), Overpayment Letter, etc. will be input as they occur and such items as these will be filled out by the DFEO.

Once all information has been completed the DFEO will "validate" this form which then is automatically transferred to CDMS for retention.

(10) Time Folder

Maintain a **time folder** containing all contract time changes occurring during the life of the contract. These are letters from the District Construction Engineer (DCE) to

the Contractor stating the length of any extension. This folder must be submitted as a part of the final estimate package. This folder shall contain the following:

(A) Notice to Proceed Letter (***See Figure 5-11.2***)

(B) Copies of all letters granting an extension of contract time.

(C) Copies of any executed or pending ***Supplemental Agreements, Work Orders, or Unilateral Payments*** that affect contract time (Do not include backup documentation for these documents in the time file).

(D) Copies of any other documents such as court orders, takeover agreements that affect contract time.

(E) A summary sheet showing a full accounting of the contract time, both state and federal aid. The original contract time, the time added by each supplemental agreement, time extension, and any other documents shall be submitted.

(F) Begin Time/Construction Letter(s) and Final Acceptance Letter.

Note: EACH DOCUMENT REQUIRED UNDER THIS SECTION SHOULD CONTAIN THE BREAKDOWN OF FEDERAL AID PARTICIPATION AND THE ACTION TAKEN BY THAT DOCUMENT. In the event that a response has not been received on the federal aid participation in time actions on all FHWA Projects of Corporate Interest and on those FHWA PoDIs governed by project specific PoDI plan wherein FHWA has retained responsibility for the determination of FHWA participation and certification acceptance projects, a District's request shall be submitted and included in the time folder. The DFEM shall follow up on the status of the participation request.

On FHWA PoDIs which are not governed by a project specific PoDI plan wherein FHWA has retained responsibility for the determination of FHWA participation, the DCE has the responsibility of determining and approving federal aid participation in time changes, therefore all item-changing documents on this type of project must show the breakdown of federal aid participation.

5.11.5 DOCUMENTING CONTRACT CHANGES

5.11.5.1 Common Types of Contract Changes

Contract changes, which are necessary and desirable within statutory limitations, usually fall within one of two categories of work added or eliminated. These categories are:

(1) Supplemental Agreement (SA) (Form No. 700-010-45)

Work of a different general character from that shown in the original plans and contract. This work was unforeseen or could not reasonably have been contemplated in the original ***Plans*** and ***Specifications***. Work in this category requires a ***SA***. For more information on SAs, see **Section 7.3** of this ***Manual***.

Note: A ***SA*** must be approved by the District Secretary or designee before final payment can be made. (Refer to ***Section 7.3.10*** of this ***Manual***).

(2) Unilaterally Directed Extra Work (Form No. 700-010-05)

Used for extra or unforeseen work for which a unit price cannot be agreed upon in advance of performing the work. This work requires a ***Unilateral Payment (UP)*** to establish a price and amount of extra work to be paid for. The pay items, quantities and unit prices used in a ***UP*** for unilaterally directed work should be determined in accordance with ***Section 7.3.5.2*** of this ***Manual.*** Daily records of the work performed in connection with this type of ***UP*** should be kept in accordance with ***Section 7.3.8*** of this ***Manual***.

(3) Contractor's Claim

When the PA receives notice of a claim from the Contractor, it is the responsibility of the PA to maintain accurate records to document the work being claimed by the Contractor, in accordance with ***Section 7.3.14*** of this ***Manual***. The ultimate dispensation of the claim will be determined by the DCE. Should the Contractor disagree with the DCE's determination, he may take it to arbitration or litigation, in accordance with Contract terms and conditions.

(4) Contingency Supplemental Agreement (Form No. 700-010-79)

Due to the complexity or size of construction projects, unforeseen additional work may be necessary on some projects to complete the work and make the project functionally operational in accordance with the intent of the original contract. Expeditious authorization for unforeseen additional work may be required to avoid delay to the progress of the work and to avoid potential delay claims. (Refer to ***Section 7.4*** of this ***Manual***)

(5) Work Order for Unforeseen Additional Work (***Form No. 700-010-80***)

Work Orders shall be fully executed prior to allowing the Contractor to begin the work. The intent of this procedure is to allow delegation of authority for execution of the ***Work Order*** to a responsible Department designee who can make timely decisions for completing the unforeseen additional work. Authority for execution of the ***Work Order*** may be delegated to the PA at the discretion of the District (refer to ***Section 7.3*** of this ***Manual***).

(6) Cost Savings Initiative Proposal (CSIP)

CSIPs are cost reduction change proposals initiated and developed by the Contractor with the incentive of sharing a net savings in the performance of the contract without impairing any essential functions and characteristics. These proposals must be accepted and approved by the Engineer. CSIPs shall be finalized through an equitable adjustment in the contract price and time by the execution of a ***SA*** pursuant to specification provisions of ***Section 4-3*** of the ***Specifications***.

5.11.6 PARTIAL PAYMENT FOR CERTAIN MATERIAL

5.11.6.1 General

Partial payments will be allowed for new materials that will be permanently incorporated into the project and that are stockpiled on the project, in approved locations in the vicinity of the project, and in approved locations remote from the project. Partial payments must be made in accordance with ***Section 9-5 of the Specifications*** and the ***Pay Items Eligible for Partial Payment*** as mentioned in ***Section 5.11.3.2*** of this ***Manual*** and pay items shown in the Link under ***Attachment 5-11-1***. This procedure and ***Certification and Request for Payment for Stockpiled Materials, Form No. 700-010-42***, shall be explained at all preconstruction conferences. Partial payments will be controlled by the following provisions in addition to the specifications:

(1) Certification and Request for Payment for Stockpiled Materials

A ***Certification and Request for Payment for Stockpiled Materials, Form No. 700-010-42***, executed by a person employed by the prime contractor in a supervisory capacity and all accompanying invoices, must be in the project records prior to any payment for materials being included in a progress estimate. The request for partial payment for materials stockpiled off-site shall be submitted in a timely manner. Payment for such items is to be based on the invoice price including delivery charges for delivered materials. The certification/request form must contain verification from the vendor that the material has been fabricated for specific use on the project; the material meets all the contract requirements, and is properly stored

in a secured manner for the sole use of the prime contractor and the specified project.

(2) Location of Materials

Most of the materials eligible for partial payment will be stockpiled "in the vicinity of the project." Fabricated structural steel, precast pre-stressed elements, precast drainage structures and any other items specified in the special provisions may be stockpiled at approved locations other than "in the vicinity of the project."

"In the vicinity of the project" is defined as a location readily accessible to the PA or other designated Department representative for verification of quantities and periodic review to ascertain that materials are reserved for exclusive use of the projects under which payment is made.

All materials must be stockpiled in a manner such that it is readily discernible that such materials are being reserved for exclusive use of the project under which payment is requested. An aggregate for use in asphalt mixes or Portland cement concrete pavement must be in a stockpile set aside for exclusive use in producing mix for Department projects. If a stockpile contains material for more than one Department project, a control procedure submitted by the Contractor and approved by the Engineer/Administrator must be established to properly allocate costs between projects.

(3) Verification

Prior to entering payment for stockpiled material on a progress estimate, the PA must verify that the quantity of material for which the Contractor has requested payment is in fact stockpiled at the location designated. For aggregates, measurements, calculations, or documented observations to approximate the quantity of material in each stockpile must be made.

If a material is stockpiled at a precast yard or structural steel fabrication plant, verification may be by a written statement from the Department's representative at that facility.

The PA, prior to submitting each progress estimate, must verify that materials for which payment has been made on earlier progress estimates remain stockpiled as designated and stored in a manner so as to prevent deterioration and damage.

(4) Materials Certification

The PA must ascertain prior to payment that the materials for which payment is requested comply with applicable specifications. Material invoices that are used to determine the amount of partial payment for fabricated structural steel materials shall have attached with the invoice test data showing approval and compliance with the specifications. The test data and the invoice shall contain identifying mark numbers and weights for each fabricated component as detailed on approved shop drawings together with the price per pound and the total amount of the invoice. Invoices that are submitted without the information described shall not be used as a basis of partial payment.

a) Material Certification Requirements

It is required that all personnel, at the construction level, be familiar with the Statewide Inspection Guidelist (Asphalt plant/Lab, Milling/Paving, Prime and Tack Coat, ARMI, and Friction Course), the Contractor's Quality Control (CQC) Manager and Verification Technician's (VT) responsibilities noted in the ***Specifications***, the ***Materials Manual, Topic No. 675-000-000, Section 5.4***, and in this ***Manual, Chapter 3, Section 3.3.***

Documents Required For Certification – Project Files

Refer to Material's website for more information regarding material certification:
http://www.dot.state.fl.us/statematerialsoffice/quality/construction/documents/certificationguide.pdf
The documents are:

1. Supplements Agreements
2. All correspondence relating to failing materials
3. All field test results
4. All lab test results
5. Thickness core-out reports
6. Final straightedge reports
7. Certification of pre-stressed items
8. Final commercial inspection report
9. Sign inspection reports
10. Completed Disposition of Defective Material
11. Mill analysis sent to "CL" (sent to appropriate labs)
12. Final Job Guide Schedule

For more information on CQC procedures, forms and documentation. See ***Chapter 11, Section 11.7*** of this ***Manual***.

(5) Proof of Payment

The Prime Contractor must provide proof of payment to its subcontractors and vendors before the next estimate after the partial payment is initially made.

A certification by the Contractor that it has paid its subcontractors their proportionate share from the last progress payment, as defined in ***Section 5.11.4, (4)*** of this ***Manual, Certification Disbursement of Previous Periodic Payment to Subcontractors, Form No. 700-010-38***, is acceptable for this action.

As stockpiled materials are incorporated into the project, the PA must adjust payments accordingly.

A) Certification Compliance with Equal Employment Opportunity (EEO), *Form No. 700-011-13* (for Contracts let prior to September 1, 2012)

The Prime Contractor must submit this monthly certification to the PA no later than the Friday before the monthly estimate cutoff date (generally the 3rd Sunday of the month). ***Form No. 700-011-13*** must be submitted on Federal Aid Contracts. This form is to be signed by an officer or director of the Contractor with the authority to bind the Contractor and must be notarized.

The Prime Contractor may require their subcontractor to submit any type of data that is deemed necessary or warranted in order to certify their subcontractor's compliance.

(6) Documentation

Project files shall include a separate section for payments of stockpiled materials. The stockpiled materials file shall include all information on the material being stockpiled; i.e., name and address of supplier; how material was verified and eligible for payment including the place, date, and the individual who has examined the stockpiled materials; how records are maintained and adjusted as stockpiled materials are incorporated into the project; calculations on how payments for materials are determined, calculations should also indicate which is stockpiled and which is installed materials; invoices for pre-stressed products and structural steel must include the pay item numbers; and inspector's identification numbers or stamp; and paid invoices and other documents as may be required by this procedure.

5.11.7 OFFSETTING PAYMENTS

5.11.7.1 General

This procedure shall be applied to any construction contract on which the Department desires to recover funds from the Contractor and such funds cannot be recovered through the normal process of adjusting subsequent monthly progress estimates of payments to the Contractor.

5.11.7.2 District Authorization

For construction contracts on which final payment to the Contractor will be determined and authorized by the District:

(1) The DCE/DFEM will be responsible for identifying construction contracts on which the Department desires to recover funds from the Contractor of such project and said funds cannot be recovered through the normal process of adjusting subsequent monthly progress estimated payments to the Contractor.

(2) The DCE/DFEM will coordinate with the Office of General Counsel assuring that the Department's intent of recovery is the result of a bona fide judgment, settlement, arbitration order, or final adjudication determining the amount due the Department, and that intent of recovery excludes amounts owed by the Contractor to subcontractors, suppliers, and laborers due to the performance of that contract.

(3) The DCE/DFEM will notify the Contractor in writing of the Department's request for reimbursement, specifying the exact amount due the Department, the contract number, the project number and the reasons for which the Department seeks reimbursement, and that receipt of payment by the Department will be due within 60 days from receipt of said notice by the Contractor or the Department will seek reimbursement as per ***Section 337.145, F.S.***

(4) If the Department does not receive payment within 60 days, the DCE/DFEM will notify the State Construction Engineer.

5.11.7.3 All Construction Contracts

The State Construction Engineer, in consultation with the appropriate District Construction Engineers, will identify another contract (herein known as the donor contract) from which recovery of funds can be offset from payments due the Contractor.

The State Construction Engineer will notify the Comptroller's Office on the donor contract selected with ***Memorandum of Overpayment, Form No. 700-010-31***.

The Office of the Comptroller will review the selected donor contract for compatibility of FHWA funding.

The Office of the Comptroller will withhold offsetting payments from payments due the Contractor on a donor contract, if necessary. Other legal means will be used if there is no donor contract.

5.11.8 ATTACHMENTS

Attachment 5-11-1 ..... Link to Pay Items Eligible for Partial Payment

5.11.9 FIGURES

Figure No. 5-11.1 ..... .Notice of Outstanding Documents
Figure No. 5-11.2 ..... Notice to Proceed Letter
Figure No. 5-11.3 ..... Notice of Beginning/Ending of Construction
Figure No. 5-11.4 ..... .Explanation of Overruns and Underruns

Attachment 5-11-1

PAY ITEMS ELIGIBLE FOR PARTIAL PAYMENT

To access, please follow instruction located here.

Note: The above link will generate the latest list of pay items with their percentages for partial payment. This report is updated daily at 11:00 AM.

Figure 5-11.1
NOTICE OF OUTSTANDING DOCUMENTS

FDOT

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

December 12, 2015

Mr. Contractor, Inc.
2000 Sunshine Lane
Any Town, Florida 32308

RE:
Federal Aid Project Number: MY-M-6234(8)
Financial Project ID: 1979341 52 02
Contract Number: T3103
County: Leon

Gentlemen:

Before the final estimate can be finalized, and the offer made to you, the following information, as required in Section 9-8.1 of the Specifications, must be submitted to this office.

1. Mill Test and Analysis Report;
2. Federal Wage Rate Affidavit
3. Construction Compliance with Specifications and Plans Certification Form

Your cooperation in quickly submitting any outstanding documents will expedite the processing of closing out this contract.

Very Truly Yours,
J. C. Long
J. C. Long
Resident Office

KB/sv

Figure 5-11.2
NOTICE TO PROCEED LETTER

FDOT

Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

District Construction office
1000 Orange Court
Somewhere, Florida 32416

December 12, 2015

Joe's Construction
2000 Sunshine lane
Any Town, Florida 32308

RE: Project Name: Kelley Memorial Causeway Construction
Contract Number: T1345
Financial Project ID: 1979341 52 02
Federal Job Number: MA-M-617(9)
County: Dade

NOTICE TO PROCEED:

Your Contract, number T1345 covering work to be performed on the above project, was executed and dated December 12, 2015.

You are hereby authorized to begin work in keeping with time limitations stipulated in the Contract.

A Certification of Payment to the subcontractors is required for the second thru the last monthly estimate. Also, a federal Wage Rate Affidavit must accompany the final monthly estimate.

The Program Manager is in charge of this project:

Chris Layman
2500 Beach Circle
Any Town, Florida 32308
(850) 429-2777

Sincerely
J.C. Long
J.C. Long
District Secretary

Figure 5-11.3

NOTICE OF BEGINNING/ENDING OF CONSTRUCTION

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

NOTICE OF BEGINNING AND COMPLETION
OF CONSTRUCTION CONTRACTS

Date: 12-12-2015

State Job No.: 123456-1-52-01 **W.P.I. No.:** N/A

Contract No.: T1234 **FAP No.:** N/A

County: Okaloosa **Road No.** SR 30 (US98)

Description: The improvements under this contract consist of cleaning the existing pre-stressed concrete piles and furnishing and installing the sacrificial protection systems as detailed in the plans and according to Specifications on Bridge No. 570034 over ICWW and Brooks Street in Okaloosa County.

Contractor Name: L & S Concrete Restoration, Inc.

Address: 8445 Lone Eagle Way, Sarasota, FL 34241

Construction Engineer: Harold Jasons – Ponce De Leon Area Operations Engineer

Consultant Engineer: **Bill Kendrick –Senior Project Engineer, OTIS**

Date Time Began: 12/08/2015 **Date Final Acceptance:** _____

Date Work Began: 12/11/2015

Recommendation for Maintenance:

_____

_____

DGA

Director of Transportation Operations

DISTRIBUTION:

Copy 1 - Project Engineer
Copy 2 - Contractor
Copy 3 - District Final Estimates Office
Copy 4 - District Maintenance Engineer
Copy 5 - District Materials Engineer
Copy 6 - District Contracts Administrator
Copy 7 - District Production Management Engineer
Copy 8 - District Planning Engineer
Copy 9 - District Traffic Operations Engineer
Copy 10 - Consultant Engineer
Original - File

Figure 5-11.4

EXPLANATION OF OVERRUNS AND UNDERRUNS

Contract ID: T2513
Proj. ID: 42975125201
Managing District: 02
FAP No.: 2955307I

Proj. ID: 42975125201

ITM_CD	Desc	UntMea	OrgQty	InstQty	QtyPaid	AmtPaid	SA Amt	UntPri	Chg In Qty	Qty%	ChgInAmt
0110 4	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	1391.000	802.000	802.000	19,248.00	.00	24.00	-589.00	-42.34	- 14,136.00

Explanation: The underrun was a result of removing only the necessary amount of existing slope pavement to construct the concrete gravity wall. All removal areas were field measures and documented on lat/dat sheets.

0334 1 13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	TN	4891.200	4217.800	4217.800	430,215.60	.00	102.00	-673.40	-13.77	- 68,686.80

Explanation: The underrun was a result of placing the overbuild asphalt necessary to correct the cross slopes on SR-208 and the adjacent ramps as depicted in the Contract plans.

0337 7 43	ASPHALT CONCRETE FRICTION COURSE,TRAFFIC C, FC-12.5,	TN	2515.900	2637.000	2637.000	316,440.00	.00	120.00	121.10	4.81	14,532.00

Explanation: The overrun was a result of placing the friction course as depicted in the Contract plans and within the allowable spread rate tolerances of up to 105% of the project average spread rate target.

Chapter 5.12
FINAL AS-BUILT PLANS PROCESS

5.12.1 PURPOSE

This procedure defines the process for preparing Final As-Built Plans. The standards provided are applicable to recording final quantities, revisions, and changes during construction in the ***Final As-Built Plans***, as well as detailing the process to digitally sign and seal revisions, where applicable.

5.12.2 AUTHORITY

Section 334.048(3), Florida Statutes (F.S.)
Section 20.23 (3)(a), F.S.

5.12.3 REFERENCES

Section 337.015(3), F.S.
Section 471, F. S.
Rule 61G15-23, Florida Administrative Code (F.A.C.)

5.12.4 GENERAL

One complete set of the original digitally signed and sealed Plans shall be saved in the project files. A separate complete set of extracted Plans shall be maintained as the ***Final As-Built Plans*** for each complete construction project.

Contents of the ***Final As-Built Plans*** will vary, but shall always contain those sheets necessary to completely cover all work performed. The ***Final As-Built Plans*** shall include all changes, both design and construction, that indicate precisely how the project was constructed. At the conclusion of the project, the ***Final As-Built Plans*** shall be made available for review to the District Final Estimates Office (DFEO).

The forms referenced in this Section can be found on the Department's website: ***http://www.fdot.gov/procedures/formsandprocedures.shtm***.

5.12.5 DIGITAL SIGNING, SEALING AND CERTIFYING FOR AS-BUILT PLANS

The Department requires the use of digital certificates meeting National Institute of Standards and Technology (NIST) assurance level of three (3) or higher when signing

documents digitally. The digital certificate contains a unique digital ID that can be validated for authenticity. ***Section 668.003(3), F.S.*** defines using a certificate as a digital signature. For more information on digital signatures:
http://www.fdot.gov/Construction/eConstruction/DigitalSignatures.shtm

Rule 61G-15.23, F.A.C. states that affixing a digital signature shall constitute the sealing of engineering work as defined in ***Section 471.025, F.S.*** The pictorial representation of the seal is not required.

When a document is digitally signed, it is locked to prevent any modifications to the document. The document must be extracted to "break" the certificate and allow editing. Plans and revisions from the Engineer of Record are digitally signed.

When a document is digitally certified, the document is certified for accuracy and locked to prevent changes, but will allow markups and digital signatures to be added. Signatures can be validated after markups are added. The ***Final As-Built Plans*** shall be digitally certified by the Resident Engineer (RE) prior to submittal to DFEO.

5.12.6 RECEIVING THE SET OF CONTRACT PLANS

(A) District Level Responsibilities

The District Construction Office will be responsible for providing the Plans and Back up Files to the Resident Office (RO) for use during construction.

(B) Resident Level Responsibilities

The original electronic Plans set should be saved in the project files upon receipt. If not provided by component, the plans should be extracted by the RO into the different components and saved to the ***Final As-Built Plans*** folder of the project files. Any and all changes made to the project will be electronically reflected on the extracted plans. No pages shall be discarded from this set of plans. All revisions will be added to this set of plans. This set of plans will be the ***Final As-Built Plans*** and made a part of the final estimates package.

5.12.7 UPDATING THE PLANS AFTER CONTRACT AWARD

(A) Changes By Engineer of Record (EOR)

There are situations when it is necessary or desirable to require the modification of the Plans by the EOR after a project is awarded: the Plans may have contained errors or omissions; field conditions may have changed; or the scope of the project may have been

revised. Once the EOR has provided the electronically revised sheet(s) to the District, it is the responsibility of the Resident Engineer (RE) to ensure the sheet(s) are saved in the project file. The revised sheets will be extracted from the signed and sealed file and inserted into the ***Final As-Built Plans*** file. The original sheet(s) will be voided out.

(B) Revisions for As-Built Conditions

When a Professional Engineer (PE) is making certain changes that reflect the as-built conditions, it has been determined by the statement below, the PE is not considered a "successor engineer".

"Where changes arise relating to the fact that an engineering engagement to provide as-built design documents may not be the same professional service as performing engineering design services. Many PE's design and provide as-built services for the same project, there is no requirement that the same PE who designs the project must perform the as-built services. Therefore, since the services being provided are different in each case, a PE who only prepares, and digitally signs and seals the as-built drawings is not a "successor engineer" as discussed in ***Rule 61G15-27.001, F.A.C.*** and need not follow the provisions of that Rule."

For revisions not made by the EOR, the proper language of qualification is required on the ***Final As-Built Plans***. The statement will be added to the **Final As-Built Signature Sheet(s)**. This language should note that, by signing and sealing the disclaimer, the responsible PE is only taking responsibility: (1) for the changes in the plans and not the entire set of plans; (2) and for the specific change(s) only shown in redline, not for the entire page.

Disclaimer to use when changes have been made:

> *"The above named professional engineer shall be responsible for the following changes, indicated in redline revision, in accordance with Rule 61G15-23.004, F.A.C. This project was constructed in substantial compliance with these plans as provided by the Engineer of Record."*

If ***Final As-Built Plan*** sets have no changes, the RE shall digitally sign and seal the ***Final As-Built Signature Sheet(s)*** with a disclaimer that states:

> *"This project was constructed in substantial compliance with these plans as provided by the Engineer of Record. These plans reflect "as-built" conditions and no changes were made to the plan sheets."*

(C) Revisions by Others

Changes made by the Contractor's EOR or Specialty Engineer shall follow the criteria in the ***Specifications*** and ***Plans Preparation Manual (PPM)*** for revisions.

(D) Revisions using CADD

If CADD is utilized to make changes, the requirements in this chapter, and the ***CADD Manual, Topic No. 625-050-001*** must be met.

Resident Level Responsibilities

If a Resident's Office chooses to make changes electronically using the native CADD files to show as-built conditions (i.e., field changes, such as extended sidewalk, or curb and gutter), they may use the cloud revision utility from the Bar Menu in MicroStation or other mark-up tools in other software. The ***CADD Manual, Section 5.14*** describes the process of generating the proper naming convention and standards for updating the CADD files electronically. If revisions are performed other than by cloud revision, such as completely manipulating the native CADD file, all changes will conform to the same procedures and requirements outlined in the ***CADD Manual, Chapters 2, 4 & 5*** and the ***PPM, Volume 1, Chapters 19 & 20*** and ***Volume 2, Chapter 30***. After the native CADD file has been revised to reflect as-built conditions, a PDF version shall be created for the ***Final As-Built Plans*** folder.

(E) Revision Process

Resident Level Responsibilities

The ***Final As-Built Plans*** shall be updated as the project progresses. All additions, deletions, and revisions shall be clearly delineated to reflect the actual conditions of the completed project. If an entire plan sheet is revised, the original plan sheet shall have **VOID** imprinted using red text on it and the new plan sheet shall be inserted after the original (old) sheet in the set of ***Final As-Built Plans***, with the exception of the ***Key Sheet***. The voided ***Key Sheet*(s)** should follow the revised ***Key Sheet*(s)**. All revised sheets will be defined on the ***Key Sheet(s)*** of the appropriate component.

Each plan component will have its own ***Final As-Built Signature Sheet(s)*** inserted behind the ***Key Sheet(s)***. All changes made in the field not requiring an engineering analysis will be indexed on the ***Final As-Built Signature Sheet(s)*** and digitally certified and signed and sealed by the PE in charge of the project. The ***Final As-Built Plans*** will be digitally certified, per ***CPAM, Section 5.12.5***, to allow the DFEO personnel to make comments where appropriate. No pages shall be discarded from this set.

(1) Marking Conventions

The following procedure shall be performed when making changes to the ***Final As-Built Plan*** set(s):

a. Resident Level Responsibilities

All changes shall be made electronically on the ***Final As-Built Plan*** Set(s) with redline revision.

b. District Level Responsibilities

All markups by the Initial Reviewer shall be made with blue line revision.

All markups by the Overviewer shall be made with green line revision.

If a consultant is hired, on behalf of the District Final Estimates Office, they shall follow the appropriate marking conventions for the role they are supplementing. The function of the DFEO Initial Reviewer and Overviewer are detailed in the ***Review and Administration Manual, Section 4.2.1***.

5.12.8 FINAL AS-BUILT PLANS REVISIONS

The following information shall be the minimum standard for preparing ***Final As-Built Plans*** on a typical project.

Resident Level Responsibilities

(1) The Key Sheet

The ***Key Sheet*** of the set of ***Final As-Built Plans*** shall show the following data ***(***see ***Figure No. 5.12-1)***:

a. ***Final As-Built Plans*** shall be prominently redlined across the top of the sheet in place of or above the “Contract Plans” preprinted line and those words shall be lined through or completely deleted.

b. On the right side and near the lower corner, the following information shall be displayed in red ink on the ***Key Sheet***:

1. Name of Prime Contractor

2. Name of Prime Consultant Construction Engineering Inspection (CCEI) (If In-House Project, so state)

3. Name of District Secretary, RE, and Project Manager

4. Project Administrator

5. Date Work Started

6. Date of Final Acceptance

c. A complete Index of the related documents shall be shown on the left side of the ***Key Sheet, not to exclude the following:***

1. A complete list of permanent field books and a general description of their contents shall be shown.

   Note: It is recommended to use Form No. 700-050-61 - Final Measurement "Miscellaneous“ instead of field books as a cost savings to the Department.

2. Additional plans such as shop drawings, working drawings, etc.

3. Other As-Built Plans or Drawings, such as Jack & Bore, Boring Path Reports, Bore Logs, Plowing, or Signalization shall be listed as well.

(2) The Design and Final As-Built Signature Sheet

a. Design changes made by the professional’s area of responsibility shall follow the guidelines set forth in the ***PPM, Volume 1***, ***Chapter 20***. This chapter defines how changes or revisions should be indexed on the ***Final As-Built Signature Sheet(s)*** along with the digital signature.

b. All major revisions to the ***Final As-Built Plans*** during construction shall be shown on the ***Final As-Built Signature Sheet(s)*** for each component. The information shall include:

1. Sheet number on which the change is shown in the plans

2. A brief description of the revision

c. All project descriptions, Financial Project ID Numbers, length, etc., shown on the ***Key Sheet*** shall be corrected to agree with the actual construction.

(3) Typical Section Sheets

Authorized revisions to the typical section shall be marked appropriately. Documentation for such revisions shall be included as a part of the final estimates package. Some typical examples include:

a. Increase or decrease in thickness

b. Change in type of material

c. Substitution of pay items

d. Change in limits of work

e. Addition/Deletion of items of work

f. Other Geometric designs (such as varied cross slope)

(4) Asphalt Roadway - As-Built Pavement Data Form

The purpose of the ***Roadway-As-Built Pavement Data, Form No. 700-050-12*** is to record main line pavement data as the pavement operation progresses. This form is to be completed after paving operations and will provide a complete record of the composite make-up of the pavement applied to each project. The objective is to provide a Pavement Design Engineer with sufficient information and necessary data that can be used to develop and apply proper engineering practices for future roadway development, design, maintenance, etc. The RE will be responsible for ensuring that this data is available.

NOTE: Only reflect pavement data for the mainline (through lane). Data for ramps, shoulders, side roads, auxiliary lanes, or non-state road facilities are not needed. The Roadway Verification Technician should perform this operation and complete the form to reflect the actual pavement composition. Once the form(s) have been generated, upload into Electronic Document Management System (EDMS), under the Final Estimates folder, and record the EDMS number on the ***Final Plans and Estimates Transmittal Form No. 700-050-20.***

(5) Summary of Pay Items

The ***Plan Summary Sheets*** for each of the major groups of pay items are to be included in the ***Final As-Built Plans***. Pay item quantities shall be updated on the Summary of Pay Items in the appropriate ***Pay Item Summary Box*** as detailed in ***CPAM, Section 5.13***.

(6) Plan Sheets

The ***Plan Sheet*** details for all the major groups of plans become the permanent historical record of the construction project. All changes in construction that would constitute a conflict in this record shall be clearly delineated on the ***Final Plan Sheets***. Insert revisions and cross out all incorrect data. The following revisions must be noted:

a. Revisions to the horizontal and vertical alignments as shown on the original plans

b. Stations or equations that have been introduced or revised during construction

c. Intersection and crossover details that have been modified or relocated

d. Inlets, manholes, box culverts, and end walls that were added, relocated, revised, or deleted

e. All sidewalk that was modified in thickness or otherwise, and all curb and gutter, and shoulder gutter that was added, revised, or deleted

f. All driveways that were not shown on the original plans, or were shown but are no longer in existence, or were modified in thickness or otherwise

g. All ditch locations and grades that were adjusted during construction

h. Changes in fencing items, including gate location

i. Sign locations changed and pavement markings that were modified

j. All signal details that changed during construction

k. All Bridge, Approach Slab, and Lighting details that are different from the actual construction

l. Bench Marks (BM) and their descriptions that were set during construction shall be added to the profile portion of the ***Plan Sheets***

m. All Utility relocates and/or conflicts shall be reflected on the ***Utility Adjustment Sheets***

(7) Summary of Drainage Structures, Optional Materials Tabulation and Drainage Structure Sheets

Revisions shall be made on the ***Final As-Built Plans*** set, to reflect:

a. Plan lengths changed to reflect the actual construction length when an authorized field change is made or a plan error is noted

b. Changes in flow line elevations shall be shown on the ***Plan Profile Sheets***

c. Changes in stations or offset dimensions

d. Changes in size of structures

e. Added/Deleted structures

f. Type of pipe material and thickness used at each structure shall be shown on the ***Drainage Structures Sheets*** and the ***Optional Materials Tabulation Sheets***. The as-built column will be checked to indicate what type of pipe material and thickness was used at each structure.

g. Types of inlets and manholes constructed shall be indicated

h. When the method of measurement is plan quantity for cross drain and storm sewer pipes, plan errors shall be distinguished from field revisions due to different tolerances being applicable.

i. ***Lateral Ditch Sheets:*** All adjustments in horizontal alignment of flow line grade shall be delineated on the ***Plan and Profile Sheets***. The cross section shall be adjusted to reflect the revision if a pay quantity adjustment is required.

(8) Cross Section Sheets

The disposition of the ***Cross Section Sheets*** with regard to a set of ***Final As-Built Plans*** depends on the method of payment set up for the earthwork items (refer to the ***Special Provisions*** of each Contract).

a. **Excavation Borrow Pits, Excavation Subsoil,** and **Excavation Channel on Cubic Yard Basis*:*** Final ***Cross Section Sheets*** and volumetric computations are to be prepared and included in the ***Final As-Built Plans***. They are required to reflect the actual work accomplished and are the basis of final pay quantities. The original plan cross sections shall remain a part of the ***Final As-Built Plans***.

b. **Embankment, Regular Excavation,** and **Lateral Ditch Excavation on Cubic Yard Plan Quantity Basis*:*** The original design cross sections are used as the basis for both plan and final pay quantities and to control grading operations. They are to be retained as part of the ***Final As-Built Plans***. Additional cross sections to correct plan errors and/or to reflect field revisions are prepared and added to the ***Final As-Built Plans***. Detailed instructions pertaining to earthwork are included in ***Section 5.16***.

(9) Final As-Built Bridge Plans

The Structures Designer and Facilities Engineers need to have accurate bridge records available for inspection, maintenance, rehabilitation, and emergency repair operations, and any future widening operations. The following information shall be recorded on the proper matrices, plans sheets, log books, and forms for bridge projects:

a. As-Built load rating calculations, input files, output files and load rating summary sheets or letter from EOR stating that the as-bid load ratings represent the as-built condition. Clearly list casting dates and stressing dates for all post-tensioned concrete components in the as-built load rating calculations. Load Ratings, based on as-built condition shall be recorded on the appropriate forms and scanned into EDMS in the appropriate group and document type with structure number identified.

b. Drill Shaft Inspection Records shall be kept with the ***Final As-Built Plans***.

c. Pile Driving Log Books/Pile Driving records shall be recorded and appropriately marked as permanent record and scanned into EDMS.

d. All crack observations on the structures shall be documented either through detailed sketches or "Crack Maps", it is the responsibility of the CCEI Inspector to perform this inspection (as outlined in the ***CPAM, Section 10.3.5***).

e. Shop Drawings

f. Engineer approved repairs due to Request for Corrections (RFC) not included in the ***Final As-Built Plans***. For further explanation see ***CPAM, Section 8.11***.

The above items should be documented in the appropriate manner and should be stored in EDMS in the appropriate directory. Original documents may be turned over to the District Structures and Maintenance Engineers for their use. Ensure all documents have been Quality Control reviewed to ensure correctness and legibility.

The electronic design files for the Category II (see ***PPM Volume 1, Chapter 26*** for category definitions) bridge plans will be updated to reflect as-built conditions in the native CADD format. The Districts will have the option to have the appropriate EOR or the CCEI consultant perform this CADD service. The plans shall be submitted with the final estimate. The EOR shall update the bridge load ratings based on the as-built bridge plans or review load ratings submitted by the Contractor's EOR for contractor initiated revisions per ***CPAM, Section 10.11***.

The RE will markup sheets requiring minor (non-engineering analysis) as-built changes and show those changes on the ***Final As-Built Signature Sheet(s)***. For major changes, the RE will send these changes back to the appropriate EOR as outlined in ***PPM Volume 1, Chapter 20***. Any changes made by value engineering decisions will be digitally signed and sealed by the Contractor's EOR. This may be a Cost Savings Initiative Proposal (CSIP) redesign or an original design of certain components including Shop Drawings. The Contractor's EOR will send the signed and sealed plan changes back to the RE for inclusion into the ***Final As-Built Plan*** set.

Prior to submittal of the final estimate package, the electronic as-built bridge plans will be secured with a digital certification.

5.12.9 CHANGES AFTER SUBMITTAL OF FINAL ESTIMATES PACKAGE

Resident Level Responsibilities

It will be the ROs responsibility to make any changes, required due to findings by the DFEO during the PAR, that modify the final plans. All changes will be made in accordance with this Manual.

Exception to the above: Updates to an item's quantity by the DFEO after submittal of the final estimates package with no corresponding modifications to the plans will not require changes or new digital signature by the RO.

5.12.10 FINAL AS-BUILT PLANS HANDLING PROCESS

District Level Responsibilities

After the final close-out/Post Audit Reviews (PARs), the DFEO will ensure all required documents are included in the electronic files in EDMS.

Projects pending litigation will be kept available until they are finalized.

The Department's procedure for Record Retention shall be adhered to as outlined in the ***Records Management Procedure, Topic No. 050-020-025***.

5.12.11 LIST OF FIGURES FOLLOWING THIS CHAPTER

Figure No. 5.12-1 .....Key Sheet

Figure No. 5.12-2 ..... Final As-Built Plans Process

Figure No. 5.12-3 .....Final As-Built Signature Sheet

Figure 5.12-1
KEY SHEET

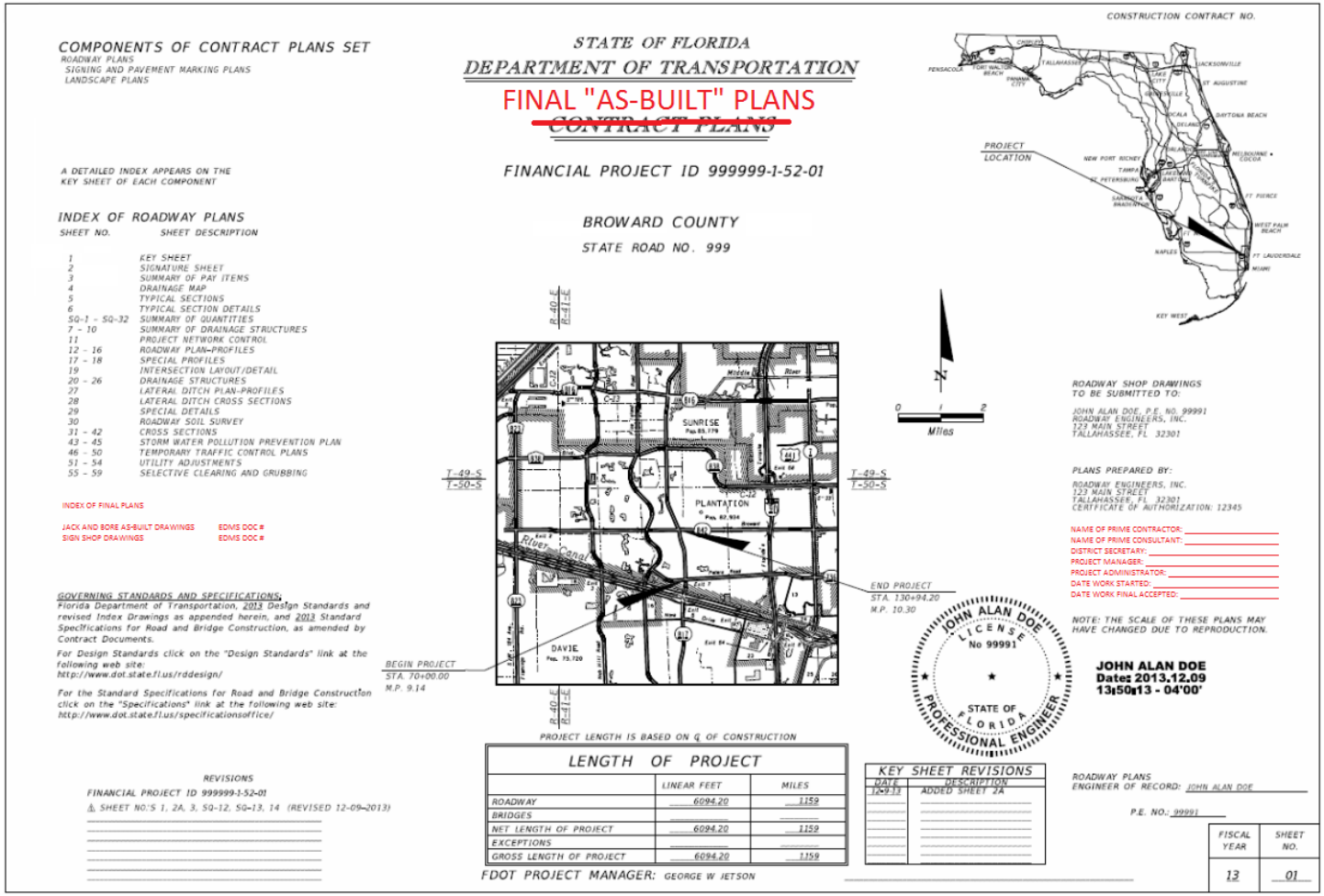


Figure 5.12-2
FINAL PLANS PROCESS

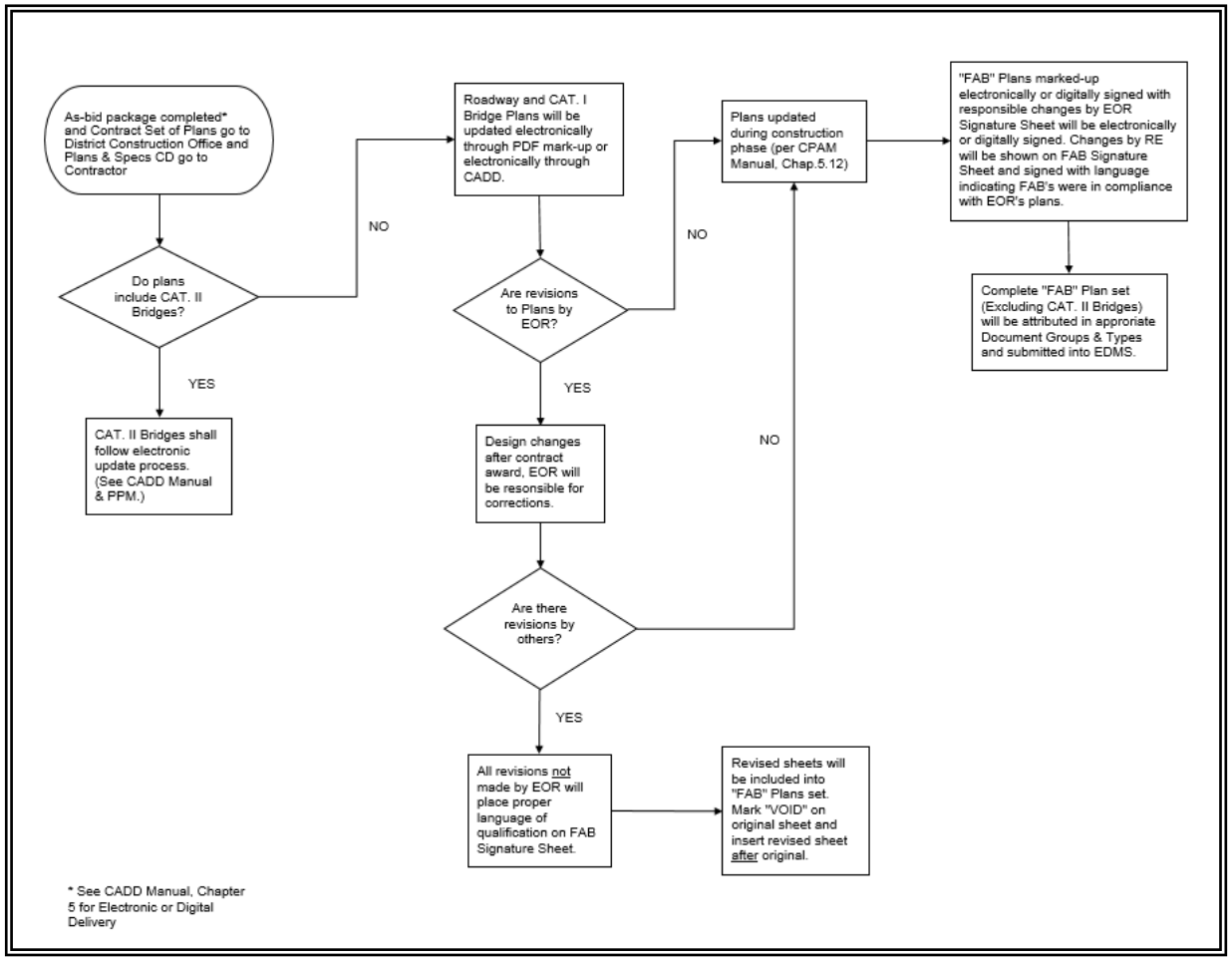
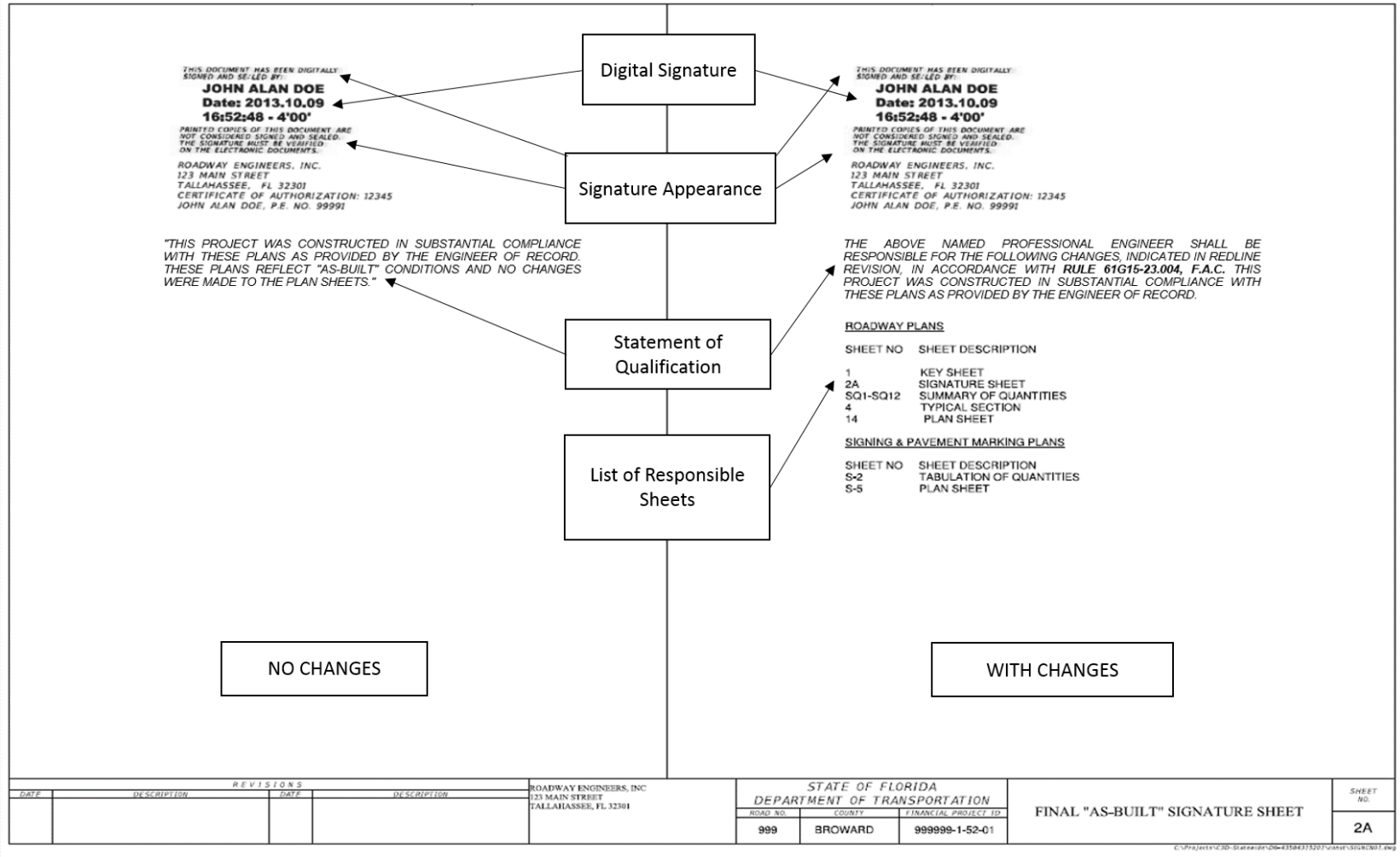


Figure 5.12-3
FINAL AS-BUILT SIGNATURE SHEET



SECTION 5.13
PLAN SUMMARY BOXES

5.13.1 PURPOSE

This chapter provides instructions for the Department's Construction personnel in charge of compiling and documenting the information necessary to substantiate the final pay quantities. The final pay quantities will be documented in the Plan Summary Boxes located on the Summary of Quantity Sheets in the Plans.

5.13.2 AUTHORITY

Sections 20.23(3) (a) and 334.048 (3), Florida Statutes (F.S.)

5.13.3 REFERENCES

Sections 337.11(10), 337.145(1) (2) and 334.044(30), F.S.
Plans Preparation Manual (PPM)
Review & Administration Manual
Computer Aided Digital Design (CADD) Manual
Structures Manual
Basis of Estimates (BOE) Manual

5.13.4 GENERAL CONCEPT

The Plan Summary Boxes were created to replace the Computation Book. The Engineer of Record (EOR) will also provide backup calculations in Excel spreadsheets that are required to support the pay item quantities shown in the Contract.

The EOR will provide the quantities for the pay items in the ***Plan Summary Boxes*** with .DGN files for reference to support all quantities. The method used by EOR to develop some quantities for pay items **IN NO WAY** reflects the method to be used to determine final pay quantities.

For Design requirements regarding the ***Plan Summary Boxes***, their quantities, and supporting calculations for roadway projects, please see the ***CADD Manual***, ***Chapter 4.*** Design requirements for bridge projects can be found in the ***Structures Manual***. Also see the ***Plans Preparation Manual*** for further requirements. For a list of all the ***Plan***

Summary Boxes available and their descriptions, please see the ***Basis of Estimates (BOE) Manual, Chapter 8***.

The Construction personnel will document the Final Quantities and include any supporting computations for all changes made during construction.

5.13.5 RESIDENT OFFICE RESPONSIBILITIES

Construction staff that have been assigned a project will have the following responsibilities regarding ***Plan Summary Boxes***:

1. Once a project has been assigned, a responsible person shall spot check Plan Quantity (PQ) Designer quantities. If a dispute arises before or during the construction of a project involving quantities for one or more of the plan quantity items, address and correct the quantities in the following manner:

    a) PQ Errors of Minor Nature: an example would be if the EOR reported 100 LF of curb and gutter rather than the actual quantity of 1,000 LF. In this case, a simple correction would suffice.

    b). PQ Errors of Major Nature: an example would be if the EOR omitted the southwest quadrant of an intersection. Errors of major nature are to be resolved by the EOR. Construction will request, in writing, that the EOR submit detailed documentation or verify the concern for the plan quantity item(s) in question, per the ***BOE Manual, Chapter 8.*** The EOR shall submit the supporting documentation within five (5) business days of the request from Construction.

2. Any markups in the Plan Summary Boxes will be done using red font color throughout the construction and final acceptance phases. For the District Final Estimates Offices (DFEO) color convention see ***Section 5-12*** of this ***Manual*** and ***Chapter 14*** of the ***Review & Administration Manual***.

3. All back up documentation will be submitted with the Plan Summary Boxes.

4. To add a new ***Plan Summary Box*** to the original plans during construction, refer to the ***CADD Manual*** and ***Section 5.14*** of this ***Manual***.

5.13.6 BASIS OF ESTIMATING

A standard method of calculation and rate of application has been established for each

pay item, so all design estimating functions will use the same methods and rates for contingent items.

The basis of estimating, and the accuracy required, are shown in the publication titled ***Basis of Estimates Manual*** produced by the State Estimates Office.

5.13.7 FINAL ESTIMATES BACKUP DOCUMENTATION

All backup documentation for each pay item within a Summary Box will be submitted with the Final As-Built Plans. See ***Section 5.14*** of this ***Manual*** for information on forms and field records that are required to be submitted with the ***Plan Summary Boxes*** within the Final As-Built Plans. See ***Attachment 5-13.1 A*** and ***B*** for examples of a ***Plan Summary Box*** back up document. All changes by Supplemental Agreements (SA) and/or Work Orders, etc., must be reflected in the quantities with their supporting computations.

Standard construction forms may be used to record field measurements for final quantities, such as latitude and departure sheets. All required field measurements shall be recorded on the appropriate form.

All changes in rates of application, limits, etc., shall be documented in the ***Plan Summary Box*** along with the revised calculations of final quantities.

Backup Documentation Submittal Options:

1. **Using the Excel CADD Zip File:**

   Construction personnel may use the Excel version of the Plan Summary Box that is in the CADD [FPID].zip file included with the project delivery. (See ***Section 5.14*** of this ***Manual*** or the ***CADD Manual*** for further instructions.)

   A. The remarks column on the right side of each Plan Summary Box should be used to reference where to find further supporting documentation or show changes.

   B. Additional information (i.e., explanations, comments, and calculations) can be recorded in the “Final Backup” tab of each Plan Summary Box Excel workbook file when necessary. (See ***Attachment 5.11.1 A*** and ***B*** for an example.)

C. A PDF file of the Excel file (Plan Summary Box) with all the necessary backup information added in red font can be inserted into the Final As-Built Plans PDF file. This can be inserted behind the original PDF Summary Sheet, which will be voided.

D. The backup documentation can be created in Excel or Word, saved as a PDF version and then inserted into the Final As-Built Plans behind the original Plan Summary Box Sheet.

E. Regardless of how the backup is created, indicate in the "Remarks Column" of the Plan Summary Box where the backup can be found.

2. After Extracting the Original Plans to a PDF Version

A. The "Remarks Column" on the right side of each ***Plan Summary Box*** in the PDF version can also be used to reference where to find further supporting documentation, show changes, or reference where to find the backup documentation. (See ***Attachment 5.11-13 A*** and ***B*** for example.)

B. Department forms, Excel, or Word formatted documents can be used to show any changes or backup calculations to substantiate a quantity change.

C. Backup documentation can be inserted behind the Plan Summary Box, or saved in a "backup documentation folder" in the Department's collaboration site and in EDMS.

D. Always reference where the backup documentation is on the Plan Summary Box.

3. ***Pay Item Summary and Certification Sheet***, located on the Construction Website, shall be generated at the end of the project, to incorporate all the necessary data, such as pay items, quantities, adjustments, Supplemental Agreements (SA) and Work Orders, etc. This document will be submitted with the Final Estimates Package. The steps below explain how to locate this form:

- Access the ***Infonet***
- Select *Office Sites*
- Select *Construction Internal*
- Select *Ad-Hoc Report System*

- Select *Statewide Construction Dashboard*
- Select the *Estimate* tab
- Select *FE Computation Pay Sheet Report*

To create the report, enter the contract number, select the desired output format (i.e., PDF, HTML, or Excel) and select *Submit.* The ***Pay Item Summary and Certification Sheet*** will be generated, obtaining data from Site Manager.

Note: Only final measured pay items should be final measured. Plan quantity items are not final measured. Only field changes and plan errors are measured and documented in the appropriate forms, as stated in ***Section 5.14*** of this ***Manual***.

5.13.8 ATTACHMENTS

Attachment 5-13-1A……Plan Summary Box and Backup Documentation Example
Attachment 5-13-1B……...Plan Summary Box Backup Documentation Example
Attachment 5-13-2A……Plan Summary Box and Backup Documentation Example
Attachment 5-13-2B ……..Plan Summary Box and Backup Documentation Example

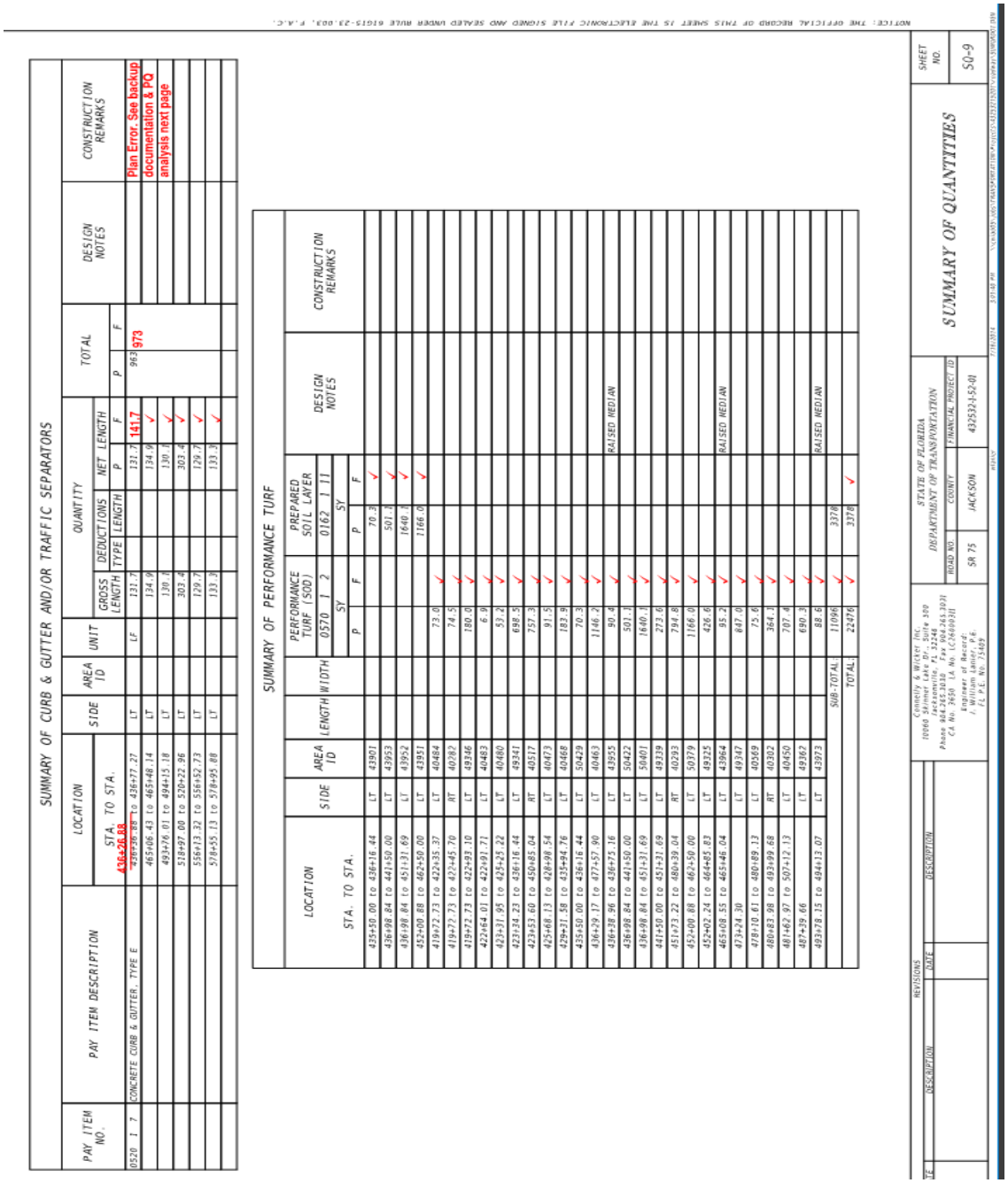
ATTACHMENT 5-13-1A
PLAN SUMMARY BOX AND BACKUP DOCUMENTATION EXAMPLE

ATTACHMENT 5-13-1B
PLAN SUMMARY BOX AND BACKUP DOCUMENTATION EXAMPLE

	A	B	C	D
1	PAY ITEM NUMBER	DETAILED REMARKS	DFEO REMARKS	
2			SHEET/CELL	DESCRIPTION
3	285-709	CPF Adjutment Calculations		
4		CPF Lot 1 = 1.03		
5		CPF Lot 2 = 0.98		
6		CPF Lot 3 = 0.99		
7		Unit Price = $50,35		
8		Lot CPF unit price Adjusted Unit Price		
9		1 1.03 $ 50.35 + 1.5105		
10		2 0.98 $ 50.35 – 1.0070		
11		3 0.99 $ 50.35 – 0.5035		
12				
13				
14		Total Line Item Adjustments in SiteManager:		
15		CPF 1.03= 1.5105 X 17,451 = + $ 26,359.73		
16		CPF 0.88 = - 1.0070 X 3,780 = – $ 3,806.46		
17		CPF 0.99 = - 0.5035 X 1,659 = – $ 835.31		
18		Negative Pay Adjustment = – 947 SY X $ 50.35 =		
19		($47,681.45)		
20				
21				
22				
23				

Box1 | DESIGN BACKUP | FINAL BACKUP

ATTACHMENT 5-13-2A
PLAN SUMMARY BOX AND BACKUP DOCUMENTATION EXAMPLE



SUMMARY OF CURB & GUTTER AND/OR TRAFFIC SEPARATORS

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION STA. TO STA.	SIDE	AREA ID	UNIT	QUANTITY GROSS LENGTH	DEDUCTIONS TYPE	DEDUCTIONS LENGTH	NET LENGTH P	NET LENGTH F	TOTAL P	TOTAL F	DESIGN NOTES	CONSTRUCTION REMARKS
0520 1 7	CONCRETE CURB & GUTTER, TYPE E	~~436+39.88~~ to 436+77.27 436+26.88	LT		LF	131.7			131.7	141.7	963	973		Plan Error. See backup
		465+06.43 to 465+48.14	LT			134.9			134.9	✓				documentation & PQ
		493+76.01 to 494+15.18	LT			130.1			130.1	✓				analysis next page
		518+97.00 to 520+22.96	LT			303.4			303.4	✓				
		556+13.32 to 556+52.73	LT			129.7			129.7	✓				
		578+55.13 to 578+95.88	LT			133.3			133.3	✓				

SUMMARY OF PERFORMANCE TURF

LOCATION STA. TO STA.	SIDE	AREA ID	LENGTH	WIDTH	PERFORMANCE TURF (SOD) 0570 1 2 SY P	PERFORMANCE TURF (SOD) 0570 1 2 SY F	PREPARED SOIL LAYER 0162 1 11 SY P	PREPARED SOIL LAYER 0162 1 11 SY F	DESIGN NOTES	CONSTRUCTION REMARKS
435+50.00 to 436+16.44	LT	43901					70.3	✓		
436+98.84 to 441+50.00	LT	43953					501.1	✓		
436+98.84 to 451+31.69	LT	43952					1640.1	✓		
452+00.88 to 462+50.00	LT	43951					1166.0	✓		
419+72.73 to 422+35.37	LT	40484			73.0	✓				
419+77.73 to 422+45.70	RT	40282			74.5	✓				
419+72.73 to 422+93.10	LT	49346			180.0	✓				
422+64.01 to 422+91.71	LT	40483			6.9	✓				
423+31.95 to 425+25.22	LT	40480			53.2	✓				
423+34.23 to 436+16.44	LT	49341			698.5	✓				
423+53.60 to 450+85.04	RT	40517			757.3	✓				
425+68.13 to 428+98.54	LT	40473			91.5	✓				
429+31.58 to 435+94.76	LT	40468			183.9	✓				
435+50.00 to 436+16.44	LT	50429			70.3	✓				
436+39.17 to 477+57.90	LT	40463			1146.2	✓				
436+38.96 to 436+75.16	LT	43955			90.4	✓			RAISED MEDIAN	
436+98.84 to 441+50.00	LT	50422			501.1	✓				
436+98.84 to 451+31.69	LT	50401			1640.1	✓				
441+50.00 to 451+31.69	LT	49339			273.6	✓				
451+73.22 to 480+39.04	RT	40293			794.8	✓				
452+00.88 to 462+50.00	LT	50379			1166.0	✓				
452+02.24 to 464+85.83	LT	49325			426.6	✓				
465+08.55 to 465+46.04	LT	43964			95.2	✓			RAISED MEDIAN	
473+24.30	LT	49347			847.0	✓				
478+10.61 to 480+89.13	LT	40569			75.6	✓				
480+83.98 to 493+99.68	RT	40302			364.1	✓				
481+62.97 to 507+12.13	LT	40450			707.4	✓				
487+39.66	LT	49362			690.3	✓				
493+73.15 to 494+13.07	LT	43973			88.6	✓			RAISED MEDIAN	
SUB-TOTAL:					11096	✓	3378	✓		
TOTAL:					22476	✓	3378			

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION

Connelly & Wicker Inc.
10060 Skinner Lake Dr., Suite 300
Jacksonville, FL 32246
Phone: 904-642-8551 Fax: 904-645-3021
CA No. 3650 LA No. LC26000331
Engineer of Record:
J. William Lanier, P.E.
FL P.E. No. 73403

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 75	JACKSON	432532-1-52-01

SUMMARY OF QUANTITIES

SHEET NO. SQ-9

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

ATTACHMENT 5-13-2B
PLAN SUMMARY BOX AND BACKUP DOCUMENTATION EXAMPLE

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
FINAL MEASUREMENTS "MISCELLANEOUS"

700-050-61
CONSTRUCTION
12/07
Page No. 1___ of __1_

Date: 12/29/2015

Pay item #: 520-17 CONCRETE CURB AND GUTTER, TYPE E

Plan ERROR; STA.436+36.88 SHOULD HAVE BEEN 436+26.88

Gross Length PQ from STA 436+36.88 to 436+77.27 =131.7 LF

Plan Error from STA 436+26.88 to 436+26.27 = 141.7 LF
Added additional of 10 LF

Unit Price = $ 14.00 per LF

Total PQ = 963 LF

Plan Quantity Analysis:

10 LF X $ 14.00 = $ 140.00 < $ 5,000

(10 ÷ 973) 100 = 1.03% < 5% both scenarios do not qualify to change PQ.

Therefore Pay PQ of 963 LF

Section 5.14

FIELD RECORDS AND CONTRACTOR'S CERTIFICATIONS

5.14.1 PURPOSE

This procedure describes the methods of maintaining the various field records required by the Florida Department of Transportation (Department) to substantiate final estimates quantities. The methods outlined are generally applicable to any field notes, but they are particularly pertinent to those used in the calculation or verification of final pay quantities.

The Contractor's Certification of Quantities forms are also described herein. These Certification forms are required by the Department for the Contractor to document and certify the quantities of specific installed items that will be included in a progress report.

5.14.2 FIELD RECORDS

Field records should be prepared assuming that the user has no familiarity with the work being recorded. The field records are important site source records for establishing pay quantities. They may be required as evidence in any arbitration or lawsuit. Below are the allowed type of field records:

a. ***Standard Bound Field Book*****:** a Surveying/Engineering Field Book that is typically hard covered. Most have gridlines, table or graph paper. Its pages are typically waxed or specially coated to withstand moisture from ruining its contents. These book covers are typically bright orange or yellow in color.

b. ***Non-Standard Bound Field Book*****:** any ring binder notebook or other type binder suitable for keeping supporting documentation.

c. ***Final Measurement Miscellaneous*** ***Form 700-050-61***: The use of this form is preferred since it results in savings to the Department.

The ***Final Measurement Miscellaneous Form No. 700-050-061*** is used to record data and to simulate a ***Field Book*** page. Survey notes or other field measured items can be documented on this form. Use the ***Final Measurements Site Source Record Form 700-050-53*** to document quantities using the ***Latitude*** and ***Departure*** method. A Technician may use as many pages as needed for individual pay items. These sheet(s) will be submitted with the ***Final Estimate Package***.

5.14.3 GENERAL INSTRUCTION

(A) Identify the front cover of each ***Standard/Non-Standard Bound Field Book*** used by including the Federal Aid Project Number, Financial Project ID Number, Contract Number, Field Book Number, State Road Number, and the general contents of that book in bold letters. On the back binding (spine) of each ***Field Book***, show the Field Book Number and the Financial Project ID Number. (*See* ***Figure 5.14-1***.)

(B) When the ***Final Measurement Miscellaneous Form*** is utilized, include the same project information listed in (A) above.

(C) Each ***Field Book*** shall be clearly indexed with a complete list of the contents beginning on the first lined page, which is to be numbered page one. All following pages that are used to record notes shall be numbered sequentially in the upper right corner of each page.

(D) The date, weather conditions, and the name(s) of the field party shall be shown on the field records at the beginning of each day's notes. Well documented field records are indispensable in the event of litigation.

(E) Corrections shall be made by striking through the incorrect data and inserting the correct data. All corrections shall be initialed and dated by the person making the correction.

(F) Do not cut or otherwise remove pages from any ***Field Book***. If an entire page is found in error, mark the original page as **VOID** and make a note referring to the page where that item of work was corrected.

(G) Keeping notes on loose-leaf or scratch pads and transferring them to the ***Field Books*** or ***Final Measurement Miscellaneous Form*** is prohibited. Field notes shall be entered directly into the field book(s) or the Department's form that will be the site source document.

(H) Field Records shall always be legible, and include sufficient sketches and explanatory notes to convey the intent to a person who is not familiar with the job. Pay item numbers, original/final x-sections, and other relevant information shall be included. Good sketches are most important when recording final measurements. The details of the sketches shall be sufficient to clearly show the extent of the work as well as any exceptions.

(I) Use standard symbols and abbreviations. Keep the notes simple and avoid making ambiguous statements.

(J) Show all pertinent measurements and observations. Use a degree of accuracy that will be consistent with operations. If there is any doubt about the need for data, record it. Review the data for accuracy and completeness before leaving the field.

(K) A complete summary shall be made for each item at the end of its field notes. The summary total for each item will then be checked by the personnel doing the final estimate and entered on the Summary of Quantity Sheet(s). The summary, and the ***Final Measurement Miscellaneous Form*** and/or ***Field Book*** shall be properly cross-referenced.

(L) Keep the calculations and measurements for Federal Aid participating and non-participating items separated. This also applies to ***Utility Agreements*** known as ***Joint Participation Agreement*** items (***JPAs***) and ***Locally Funded Agreements*** (***LFAs***).

(M) When more than one project (state or federal) is constructed under the same Contract, separate ***Final Measurement Miscellaneous Form*** or ***Field Books*** shall be kept for each project, keeping measurements and other data separate for each project.

(N) ***Field Records*** for projects let under separate contracts shall never be recorded in the same ***Final Measurement Miscellaneous Form*** or ***Field Book***.

(O) All ***Field Records*** used in a project will become the property of the Department, and shall have a unique six-digit number assigned.

(P) When documenting any data on the grid sheets, neatness and legibility give credence to the accuracy of field notes and the calculations which they support.

(Q) ***Field Records*** containing alignment data shall be submitted with the Final Estimate Package. These records shall contain all the necessary information for horizontal control for new construction projects and major widening projects.

(R) ***Pile Driving Record, Form 700-010-60***:

a. Individual pile record data will be entered on the ***Pile Driving Record*** forms by bent or pier numbers.

b. Data for alignment and pile driving shall be entered on the ***Pile Driving Records*** forms. These are permanent records and will be retained until the structure in which the piles in reference were incorporated is removed.

5.14.4 TABULATION FORMS

Tabulation Forms are site source records for establishing pay quantities.

(1) ***Daily Report of Truck-Measured Material Site Source Record*, *Form 700-050-54*** is used to record truck quantities. When the final quantities are determined by certification/measurements of loose volume in truck bodies, the following procedures will satisfy the requirements for final pay records:

(A) All trucks shall have an assigned unique number, along with the manufacturer's certification, or permanent decal, showing the truck capacity rounded to the nearest tenth of a cubic yard and placed on both sides of the truck. This includes the truck body capacity only, and any sideboards added will not be included in the certified truck body capacity provided by the contractor. The Project Administrator (PA) will randomly check the certified capacity on a selective number of trucks for accuracy by using the ***Truck Measured Sketch (Regular Bed)*** ***Form 700-050-54A*** and/or the ***Truck Measured Sketch (Irregular Shape Bed)*** ***Form 700-050-54B***. This will not require the field personnel to climb into the body of the truck. When applicable, sideboard measurements will be transposed on these sheets and added to the certified capacity. These forms will be submitted with the ***Final Estimate Package***.

(B) It is the PA's responsibility to measure any addition of sideboards and add this volume to the certified capacity. Sketches, calculations, and dimensions of the sideboards will provide the documentation needed to support this change and must be submitted with the ***Final Estimate Package***.

(C) Using the trucks unique identification number and capacity, this form is used to record the quantity for each truck as it delivers a load of the material to the project.

(D) The volume entered on this form for borrow material shall reflect the struck-measured volume (the dry measure having the contents leveled off and not heaped). The use of the struck-measured capacity shall apply to trucks, pans, or any other means of transport used. Documentation on loose volume bases, as measured in other hauling equipment, shall be made at the point of dumping on the construction site.

(E) The PA shall request, at the preconstruction meeting, the Contractor to provide a list of trucks that will be used on Department's projects, along with their assigned numbers and their certified capacity. This list shall be submitted with the ***Final Estimate Package***.

(F) A separate line on the form will be used for each truck showing:

(1) Hauling company

(2) Truck number

(3) Capacity certified

(4) Load count & time recorded

(5) Total volume for that truck that day

(6) Inspector's signature and title at the bottom of the page

(G) Typical materials paid for by volume and recorded on the form include:

(1) Borrow material

(2) Stabilizing material

(3) Cover material

(2) ***Daily Log Sheet Miscellaneous Tabulation Form Site Source Record*, *Form 700-050-56*** is used when material is paid by weight. The ***Field Records*** are also kept for each truck load of material hauled. This Form is only used for Riprap and Sand-Cement Riprap. (See below.)

a. **Riprap**: quantities used and approved in each day's operation shall be recorded in this form. In the Remarks column, include the station, offset, and structure number of the placement location.

(3) **Sand-Cement Riprap:** Document the volume (in cubic yards) of sand used in the sand-cement mixture per day or for each location. If the sand cement is proportioned by weight, use the conversion factor for sand of 85 lbs/ft^3, per ***Specifications, Subarticle 530-4.1***. Delivery tickets showing the batch weights of sand and cement used shall be submitted. (See ***Figures 5.14-3*** and ***5.14-5***.)

Payment for riprap shall not be made solely on the quantity delivered by truck and placed by the Contractor. See ***Design Standards Index 258***. For example, the quantity of riprap for a triple concrete pipe 84" in diameter is 31.1 CY and this quantity shall be adhered to as maximum payment. If the Contractor places material beyond the neat lines shown in the ***Index***, no compensation will be made, provided this material was unauthorized. A sketch of the riprap structure must be submitted with authorized dimensions and volume calculations if not constructed according to ***Index 258***. This sketch must be included in the ***Field Records***. (See ***Figure 5.14-4*** and ***5.14-5***.)

In order to achieve this objective, the PA must maintain and exercise control of the riprap placement operation as follows:

If during the course of riprap placement, the PA determines that the Contractor is placing the material too thick or beyond required limits, the PA must submit written notification to the Contractor. In addition, the Inspector shall include the station, offset structure, and the words "**partial pay"** or "**no pay"** on the form collected for materials which are either partially or completely placed outside the limits authorized by the PA.

Note: When box beam scales are used and the net weight is given automatically, only the net weight is required to be recorded.

5.14.5 Contractor's Certification of Quantities

(A) ***Contractor's Certification of Quantities*** **(MOT, Signs, etc.)** ***Form 700-050-62***. This form is currently provided in the Construction Automated Reporting System (***CARS***) on the Construction Intranet website, under "Construction Forms". The Contractor will document and certify all 102 pay items. This form will be downloaded by the PA, once the project is awarded and before Contractor begins work, and emailed to the Contractor for their use. All MOT pay items within a Contract will be listed on the form.

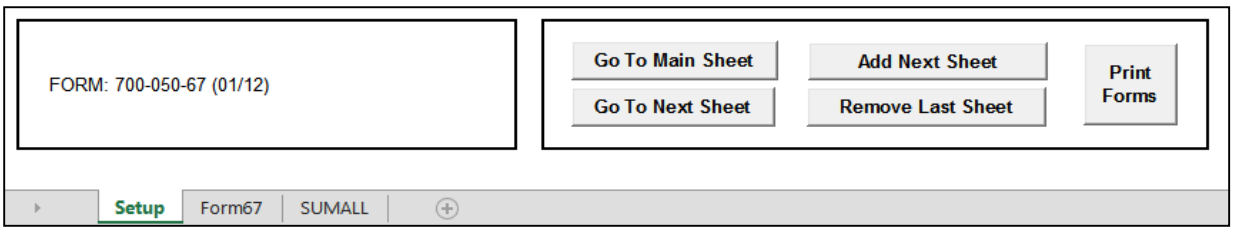
The form shall be signed by the Contractor's Authorized Agent (such as a subcontractor) and the Prime Contractor's Work Site Supervisor, and submitted monthly to the PA for payment. The PA will submit these certifications with the ***Final Estimates Package***.

(B) ***MOT Painted Pavement Markings: Daily Worksheet*** ***Form No. 700-050-67*** and ***Contractor's Monthly Certifications of Quantities*** ***Form No. 700-050-68*** are to be used by the Contractor for all the Traffic Striping and Marking pay items. These forms include the following pay items: 701, 702, 705, 706, 709, 710, 711, 713, and 102. The Contractor is responsible for the measurements/counts for these items, with the NOTE below.

Note: For the Lump Sum Pay Item 710-90, the Contractor should document the quantity as a percentage (in decimal form) on the daily worksheet, so when monthly certified sheet is tabulated the cumulative quantity will be reported. The total quantity should be 1 LS once the Contractor completes this pay item.

The 102 striping pay items are also listed in this worksheet to eliminate the need for filling out two different forms.

Contractor will fill out the required information and select the pay items in the in the "Setup" tab of the Worksheet. After selecting the "Add Next Sheet" control, a ***Daily Worksheet*** will be generated ("Form67" tab), where the Contractor can then record the quantities of a day's work. The form provides space for recording the location and any necessary remarks.



This will be repeated for each day of work, as applicable, until the cut-off date for that month. By selecting the "Update Totals" command in the "SUMALL" tab of the worksheet, the quantities will be updated to show the latest totals for that month in the ***Contractor's Monthly Certification of Quantities*** (***700-050-68***). This certification form shall be signed by the appropriate and designated persons listed on the form and turned in monthly to the PA with the daily worksheets for that month.

See ***CPAM Section 6.2, Alternative Contracts Invoices & Payments*** for the requirements for Design-Build and Lump Sum Projects.

(C) ***Traffic Marking Certification (Worksheet), Form No. 700-050-70***, is used for recording Initial Retroreflectivity Reading of White /Yellow Pavement Markings, Thickness and Wet Weather in accordance with Florida method ***FM 5-541***, per ***Section 710 of the Specifications***.

The Contractor will have the responsibility of measuring, recording and certifying the Retroreflectivity on the Department's approved form and submitting to the PA. This form will be signed by the Contractor or his representative and the Work Site Supervisor. The Department reserves the right to test the markings after three (3) days of receipt of the ***Contractor's Certification***. Failure to allow the Department to complete this task will result in non-payment to the Contractor.

This form will also be utilized on Lump Sum and Design-Build Projects.

Note: The Department's representative will not have the task of checking or recording MOT Signs and Striping quantities on a daily basis. During the certification or invoice period, random spot checks need to be made and documented. These checks could be achieved in a combined effort with the Contractor. This approach should minimize disputed quantities. The Contractor will be responsible for supplying the Department with accurate documentation of quantities. These forms are to be submitted with the ***Final Estimate Package***.

5.14.5.1 Documentation for Multiple Financial Identification Numbers (FIN) Under One Contract Including Non-Federal Aid (NFA) Participating

All ***Certification of Quantities*** shall be reported on the Lead Financial Identification Number (FIN) for multiple projects under one Contract. This also includes Non-Federal Aid (NFA) participating projects. The quantities for each FIN number will be determined by the PA by prorating the pay item breakout. This will be done by dividing the total quantities shown in the Summary Boxes for each FIN number by the total quantity for the Contract, then multiplying this amount by the total number placed. (See below.) This shall be done monthly, the day of the estimate cutoff, based on the ***Contractor's Certification of Quantities***.

$$\frac{(Total\ Quantity\ for\ each\ FIN)}{(Total\ Quantity\ for\ the\ Contract)} \times (Total\ Quantity\ Placed)$$

Example: Channelizing Devices Type II – Pay Item 102-74-1 pay Each Day (ED)

- Project "A": 10,543 ED Federal Aid (FA) participating and 4,589 ED NFA participating
- Project "B" Summary of Quantities shows 64,940 ED Federal Aid participating
- Total Summary of Quantities for Contract = 80,072 ED
- Total placed this month = 23,455 ED
- Calculate Project "A" FA:

$$\left(\frac{10{,}543}{80{,}072}\right) \times 23{,}455 = 3{,}088.3\ or\ 3{,}088\ ED$$

- Calculate Project "A" NFA:

$$\left(\frac{4{,}589}{80{,}072}\right) \times 23{,}455 = 1{,}344.2\ or\ 1{,}344\ ED$$

- Calculate Project "B" FA:

$$\left(\frac{64{,}940}{80{,}072}\right) \times 23{,}455 = 19{,}022.5\ or\ 19{,}023\ ED$$

- To confirm the total placed for this month, add the three outcomes:

$$3{,}088 + 1{,}344 + 19{,}023 = 23{,}455\ ED$$

5.14.6 PAYMENT

The Contractor will request payment by submitting a ***Certification of Quantities*** no later than twelve o'clock noon Monday after the estimate cut-off or as directed by the PA. This will be in accordance with ***Sections 102***, and ***701*** through ***713*** of the ***Specifications*** for each Contract. The Contractor's submitted quantities must be approved by the PA. Any disputed quantities need to be reconciled as soon as possible.

5.14.7 NOTIFYING THE DISTRICT MATERIALS OFFICE OF ROCK BASE MEASUREMENTS

5.14.7.1 Resident Level Responsibilities

Base Depth Check

The PA shall notify the District Earthwork Coordinator or designee of the anticipated date and time of base measurements, whenever there is a measurement that requires Construction Training and Qualification Program (CTQP) qualified Earthwork Technicians to perform field measurements of base thickness. This notification process is the only efficient way the District Materials Office Staff can learn of upcoming base depth measurements.

5.14.8 BULK-WEIGHT FINAL PAY RECORDS

Certified weight tickets for certain bulk weight shipments are acceptable as final payment records under the following conditions:

(A) All weighing is done on state certified scales. The ticket must indicate gross, tare, and net weight.

(B) The State of Florida will recognize any scale that has been certified by a state agency outside Florida using traceable standards. All 50 states have adopted and use the same laws as Florida ***(National Institute of Standards and Technology ((NIST) Handbook-44)***.

(C) Project personnel will record each truck number and time of loading, on a ***Daily Log Sheet Miscellaneous Tabulation Form Site Source Record, Form No. 700-050-56*** at the rail head site.

(D) All rail cars are visually inspected to ensure all material has been unloaded.

(E) Material remaining in cars after job completion is to be hauled by truck to state certified scales and determine gross, tare, and net weights in order to make appropriate deductions from the car weights.

(F) Hauling will be done in covered trucks in order to minimize loss of material. The single car weight is more accurate than weighing numerous trucks and with the ***Miscellaneous Tabulation*** ***Form No. 700-050-56*** system as outlined above. All requirements for pay records will be fulfilled.

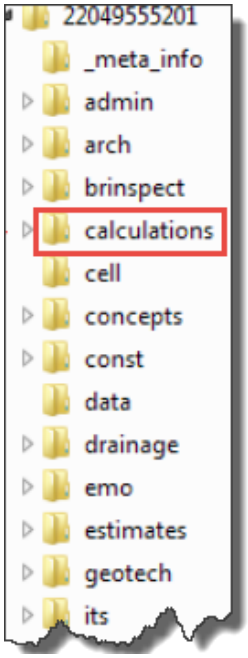
5.14.9 DOCUMENTATION

The material quantities represented in the forms shall be reconciled. Multiple trucks may be recorded on one form as long as each individual truck is identified by number and company name.

The Financial Project Number, Pay Item Numbers and Date shall be shown in each column or row for the type of form being used.

Department forms shall be cross-checked with the Contractor or subcontractor's records on a regular basis (daily or weekly). Any differences that may exist in pay quantities will be reconciled immediately. This systematic comparison of source records will avoid misinterpretations concerning final pay quantities.

(A) A summary shall be made from the form totals in the ***Plan Summary Boxes***. Additional summary boxes can be created from the Excel spreadsheets included in the ***CADD_[FPID].zip file***, in the ***Calculations*** directory. (See figure below.)



(B) When the computer is used, the output shall be submitted with the final estimate and shall be cross-referenced in the Plan Summary Boxes.

(C) A complete tabulation of all forms shall be shown on the ***Final Plans and Estimate Transmittal Form 700-050-20*** when the final estimate package is submitted.

5.14.10 FUEL AND BITUMINOUS ADJUSTMENTS

(A) Fuel Adjustments

On Contracts with an original Contract Time in excess of 120 calendar days, the Department will make price adjustments on each applicable progress estimate to reflect increases or decreases in the price of gasoline or diesel from those in effect for the month in which bids were received. (See ***Standard Specifications***, ***Sub-article 9-2.1.1***.) When an estimate is generated, Fuel Adjustments will be automatically calculated per specifications using pre-determined fuel factors for applicable pay items and the Price Index Tables. A complete list of Items that require fuel adjustments can be found on the Department's Construction Web site at:

http://www.dot.state.fl.us/construction/fuel&bit/Fuel&Bit.shtm

Note: A list of pay items receiving a fuel adjustment can be found at the above website. This fuel list will be generated automatically in SiteManager.

Any adjustment for contract time overrun will be made in SiteManager.

Fuel adjustment for the following pay items will be calculated in the ***Fuel Report System***:

- Clearing and grubbing
- Structural steel
- Black base option
- Composite base option

(See ***Section 5.14.10(B)*** below)

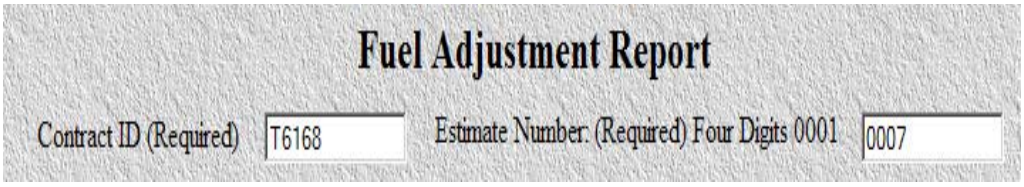
(B) Fuel Adjustment Report

To access the ***Fuel Adjustment Report***, follow the steps below:

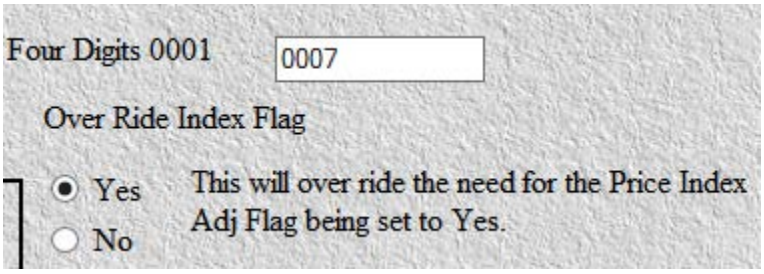
- Access the Infonet
- Select *Office Sites*
- Select *Construction Internal*
- Select *Ad-Hoc Report System*
- Select *Statewide Construction Dashboard*
- Select the *Estimates* tab
- Select *Fuel Adjustment Report – With NEW Base Options*

The steps below explain how to create the ***Fuel Adjustment Report***:

Enter the Contract ID and the estimate number the Adjustment Report is being created for. The estimate number is a four digit field. Reports can only be created for one estimate at a time.

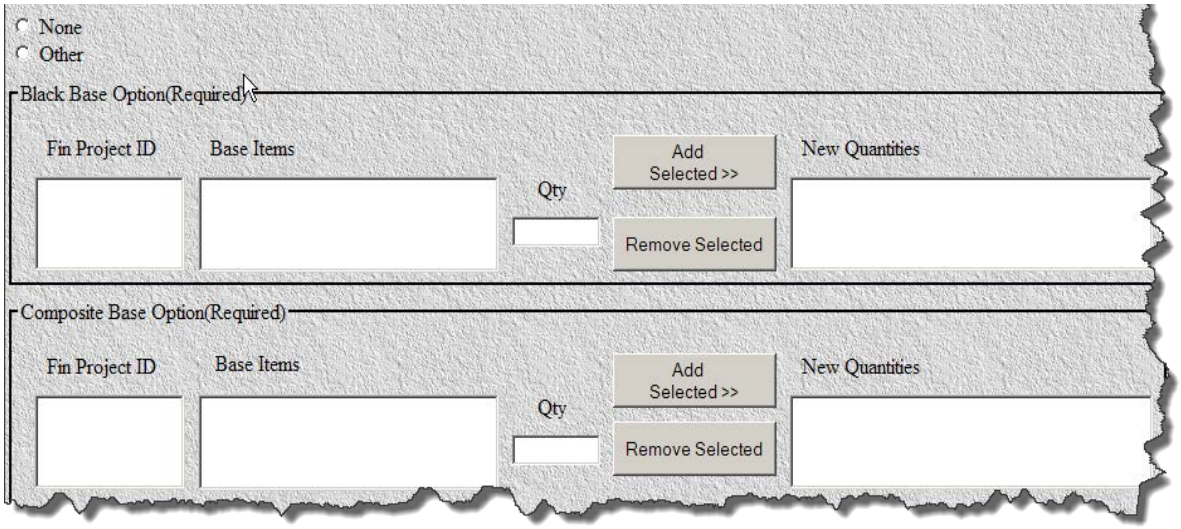


If the Fuel Adjustment "flag" was not set in SiteManager, select the "Over Ride Index Flag" option (in the ***Fuel Adjustment Report***) and enter the manual adjustments in SiteManager as a line item adjustment. The report cannot write the adjustments back to SiteManager.

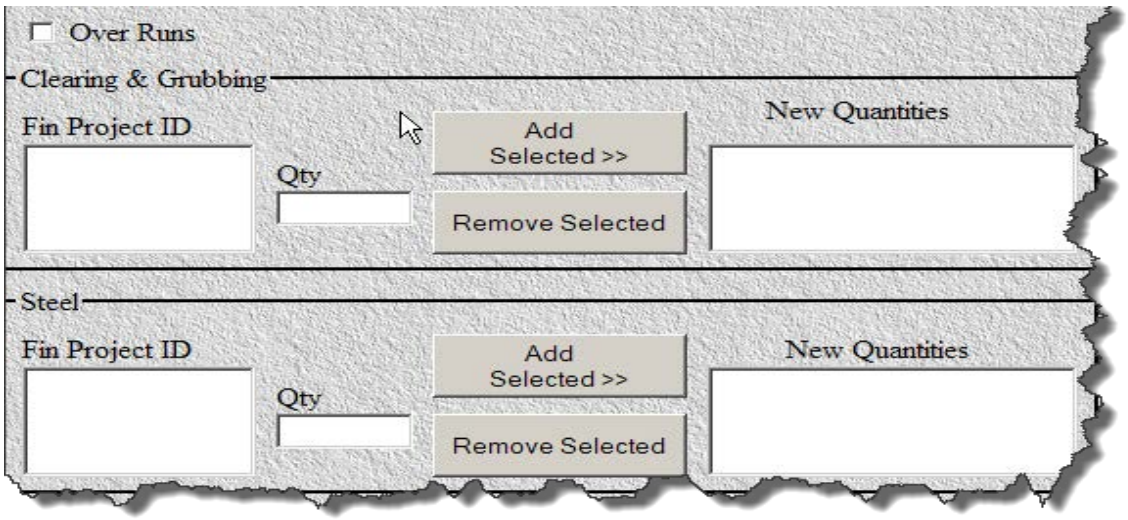


In the main screen, select the Option Base Items which have the All Black Base Option (ABBO) associated with them. If there is not an ABBO included in the Contract, then select the “None” radio button. Otherwise, select the ***"***Other***"*** radio button. A list of all the Optional Base Items will show up for the user to select.

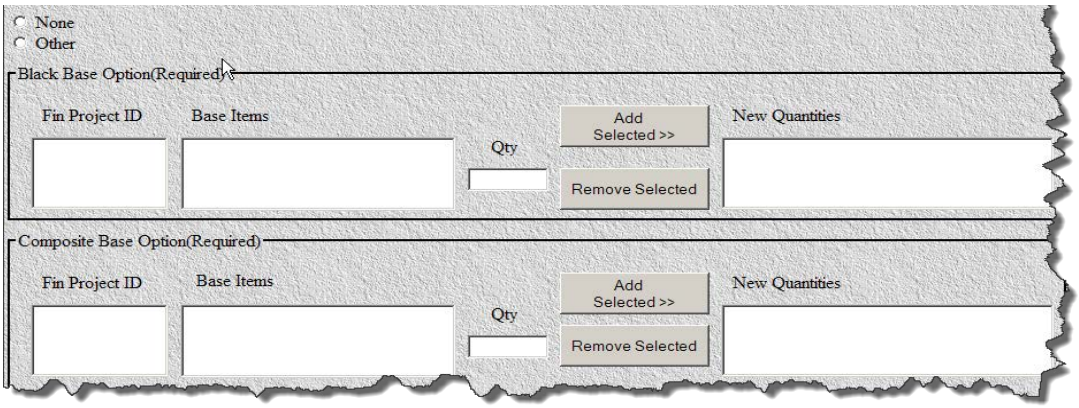
Enter the amount of the total Optional Base quantity reported on the ***Daily Work Report*** (***DWR***) to be used to for the calculation of the Black Base or Composite Base Option (CBO) fuel adjustment (or both), to be entered as a line item adjustment in SiteManager.



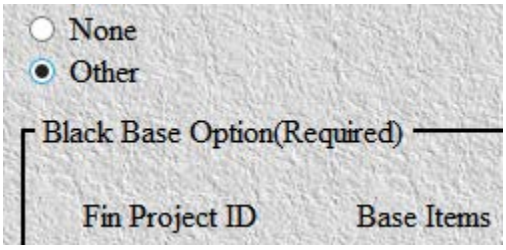
The added fuel cost for the overrun to LS clearing and grubbing and LS Steel can be calculated.



Using the Black Base or Composite Base Option

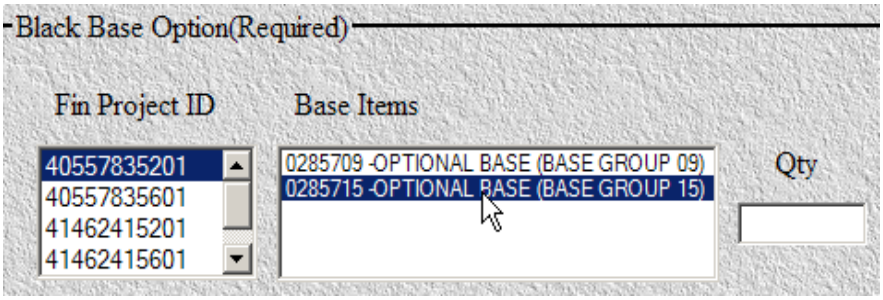


Select whether payment or no payment will be made for ABBO or CBO on an estimate. Select the "None" radio button if there is no ABBO or CBO on the estimate.

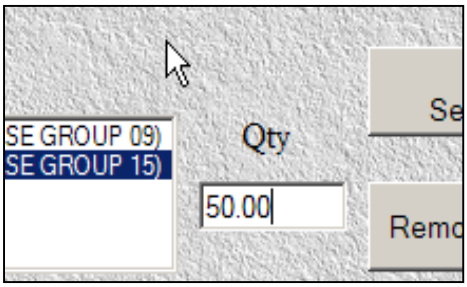


After selecting the "Other" radio button, the FIN Project ID and the Base Items fields will

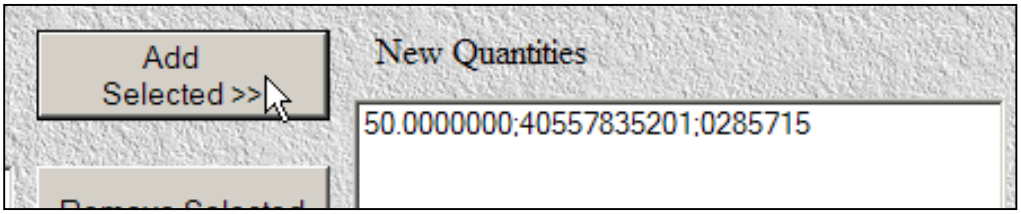
be populated with any associated pay items to the contract. Select the FIN Project ID and Optional Base Item to calculate the fuel adjustment for the Black Asphalt quantity. If paying for a mixture of optional bases on this estimate, the DWR quantity will be the total of Asphalt and Limerock pay areas.



In this example, the total DWR quantity is 192.24 SY, of which 50.0 SY is Asphalt Base.

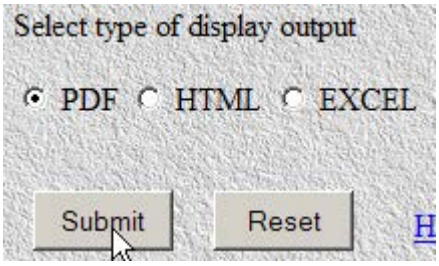


Once the measured quantity of Asphalt Base has been recorded (see figure above), select the “Add Selected” button.



The fuel report will calculate the dollar amount for fuel adjustment that will need to be added to SiteManager as a manual line item adjustment.

The report can be created in PDF or EXCEL formats. (See figure below.)



Below is an example of the report showing the adjustment amount for diesel for the Asphalt Base. The adjustment amount generated in this report ($38.38) needs to be added to SiteManager as a line item adjustment. (See below.).

adjustments ==========

SM Total Diesel Adjustment Amount:	**$**	**165.30**
Manual Total Diesel Adjustment Amount:	**$**	**.00**
Total Diesel Adjustment Amount:	**$**	**165.30**
**** Adjusted Amount for Diesel :**	**$**	**38.38**
Adjusted Total for Diesel :	**$**	**203.68**

However, if all of the DWR quantity (192.24 SY) is Asphalt Base, enter this amount into the quantity field. This will make the adjustment on all of the DWR quantity.

Financial Project ID: 40557835201

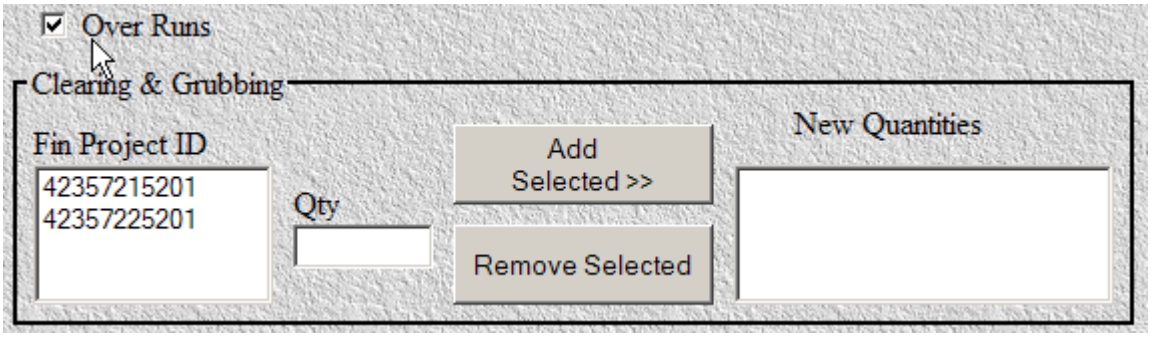
Ln#	Item Code	Est Qty	Unit	Qty	Unit	Adjustm! Factor	Index Differen!		Adjustmen Amount
Diesel Adjustment									
0105	0160 4	25.300	SY			.1196	.6594	$	2.00
0110	0285715	192.240	SY			.4350	.6594	$	55.26
			Asphalt Base option for Qty 192.24 Fuel adj of $				**147.56 ****		
0120	0334 1 13	22.430	TN			4.6220	.6594	$	68.36

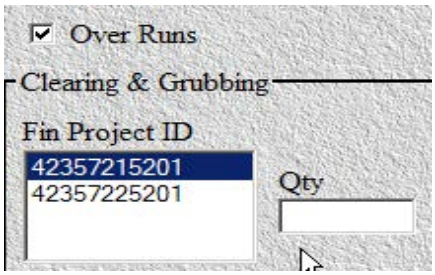
Using the Clearing & Grubbing or Steel LS overrun

To use the Clearing and Grubbing Overrun part of the new report, the Acres that this LS pay item is to be adjusted by must be known. The Steel overrun portion will work in a similar way.

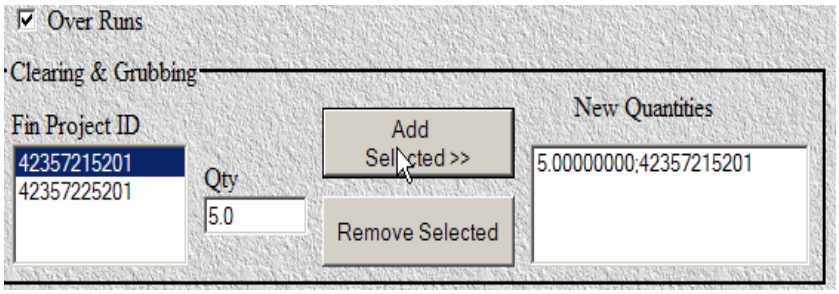
NOTE: The report will allow overrun adjustments on estimates regardless of whether a payment on the Clearing and Grubbing pay item or the Steel Item was made. A $0.00 Work Item on a DWR for Clearing and Grubbing or the Steel LS pay item will be required.

The FIN Project ID list will automatically be populated when the "Over Runs" box is checked.





After selecting the project to which the adjustment will be made, enter the quantity (in Acres) of the overrun adjustment. Then select the "*Add Selected*" button to add the quantity to the "*New Quantities"* box. (See below.)



By selecting the "Submit" button, the report will be generated. The overrun of Clearing and Grubbing can be found under the Diesel and Gasoline adjustment for this pay item. The project personnel will need to make individual line item adjustments for each dollar amount associated with Clearing and Grubbing in SiteManager.

Florida Department of Transportation
Estimated Fuel Adjustment Report

Vendor Id: F592871935
Contract ID: T3276
Sys Unit Code: E

Vendor Name: ANDERSON COLUMBIA CO., INC.
For Est Nbr: 0002
Price Adjustment Flag: Y
Pay Period: 01/19/2009 **to** 02/15/2009

Financial Project ID: 42357215201

Ln#	Item Code	Est Qty	Unit	Qty	Unit	Adjustment Factor	Index Difference		Adjustment Amount	
Diesel Adjustment										
0075	0110 1 1	.900	LS	2.900	AC	45.6400	-2.1755	$	-259.15	**
				Item 0110 1 1 Over Run		**5.000 AC adj of $**			**-496.45 ****	
0085	0120 1	3895.000	CY			.2015	-2.1755	$	-1,707.57	*
0095	0285709	6181.000	SY			.4369	-2.1755	$	-5,862.06	*
0100	0327 70 8	6307.000	SY			.0912	-2.1755	$	-1,251.31	*
0105	0334 1 24	5222.980	TN			4.6220	-2.1755	$	-52,522.81	*

*** Note: Adjustment Amount calculated by SiteManager**
**** Note: Adjustment Amounts for LS items and Asphalt Base adjustments**

==========

Total Diesel Adjustment Amount: $ -61,343.75

**** Adjusted Amount for Diesel : $ -755.60**

Adjusted Total for Diesel : $ -62,099.35

Index Values and Dates Used for Diesel Adjustment

Estimates End Date: 02/15/2009
Current Index Date: 02/01/2009
Price Index Base Date: 06/18/2008
Base Price: 3.89980
Current Price: 1.52930

The report will automatically add the total dollar amount for all Diesel adjustments.

Total Diesel Adjustment Amount:	$	-61,343.75
** Adjusted Amount for Diesel :	$	-755.60
Adjusted Total for Diesel :	$	-62,099.35

Example: -$259.15 + (- $496.45) = - $755.60

Steel LS overrun will be accomplished in the same general direction as Clearing and Grubbing.

(C) Bituminous Adjustment

Conventional projects will receive a bituminous adjustment if the Contract has an original contract time of more than 365 calendar days or more than 5,000 tons of asphalt concrete. The Department will adjust the price for bituminous material, excluding cutback and emulsified asphalt to reflect either increases or decreases in the ***Asphalt Price Index*** (API) of bituminous material from that in effect during the month in which bids were received. (See ***Standard Specifications***, ***Sub-article 9-2.1.2***.) The Department will

determine the API for each month and post it on the Construction website. When an estimate is generated, Bituminous Adjustments must be calculated per ***Specifications*** using the ***Asphalt Price Index*** and adding a line item adjustment to the estimate. ***Asphalt Price Indexes*** can be found on the Department's Construction website at:

http://www.dot.state.fl.us/construction/fuel&bit/Fuel&Bit.shtm

For each progress estimate, the Contractor will prepare a ***Contractor's Certification of Quantities*** using the Department's current approved ***Form 700-050-66***, which can be found at:

http://www.dot.state.fl.us/construction/fuel&bit/FuelForms.shtm

This form will include the tonnage placed and accepted of the asphalt items that will receive a bituminous adjustment during the progress estimate. (See ***Figure 5.14-2***.)

Note: For Push Button Renewable Contracts see ***Section 6.2*** of this manual. The Department will make a Bituminous Adjustment for Polymer PG76-22 Binder on all Contracts. The Criteria for Polymer PG76-22 will be as stated above. When a Composite Base item is specified in the Plans, a price adjustment for bituminous material will apply to that asphalt portion of the base **only**, according to ***Sub-article 9-2.1.2*** of the ***Specifications***.

5.14.11 CUTOFF PERIOD

All ***Certifications of Quantities*** worksheets submitted by the Contractor need to represent the amount of material placed on the project and accepted by the Department for the estimate cutoff period. The estimates cutoff dates are provided on the State Construction Office website:

http://www.dot.state.fl.us/construction/CONSTADM/EstimatesCutOff.shtm

5.14.12 RESIDENT OFFICE PERSONNEL RESPONSIBILITY

The Resident Office (RO) personnel will verify monthly the fuel and bituminous material on projects that meet the criteria specified in ***Section 9*** of the ***Specifications***.

Note: For Fuel and Bituminous Material Adjustments on Lump Sum and Design-Build Projects, refer to ***Section 6.2*** of this ***Manual***.

5.14.13 LIST OF FIGURES FOLLOWING THIS CHAPTER

Figure 5.14-1 ..... Note Book Spine
Figure 5.14-2 ..... Example of a Contractor's Certification of Quantities
Figure 5.14-3 ..... Delivery Ticket
Figure 5.14-4 ..... Sample Sketch of Riprap Structure
Figure 5.14-5 ..... Sand Cement Riprap Pay Analysis

Figure 5.14-1
NOTEBOOK SPINE

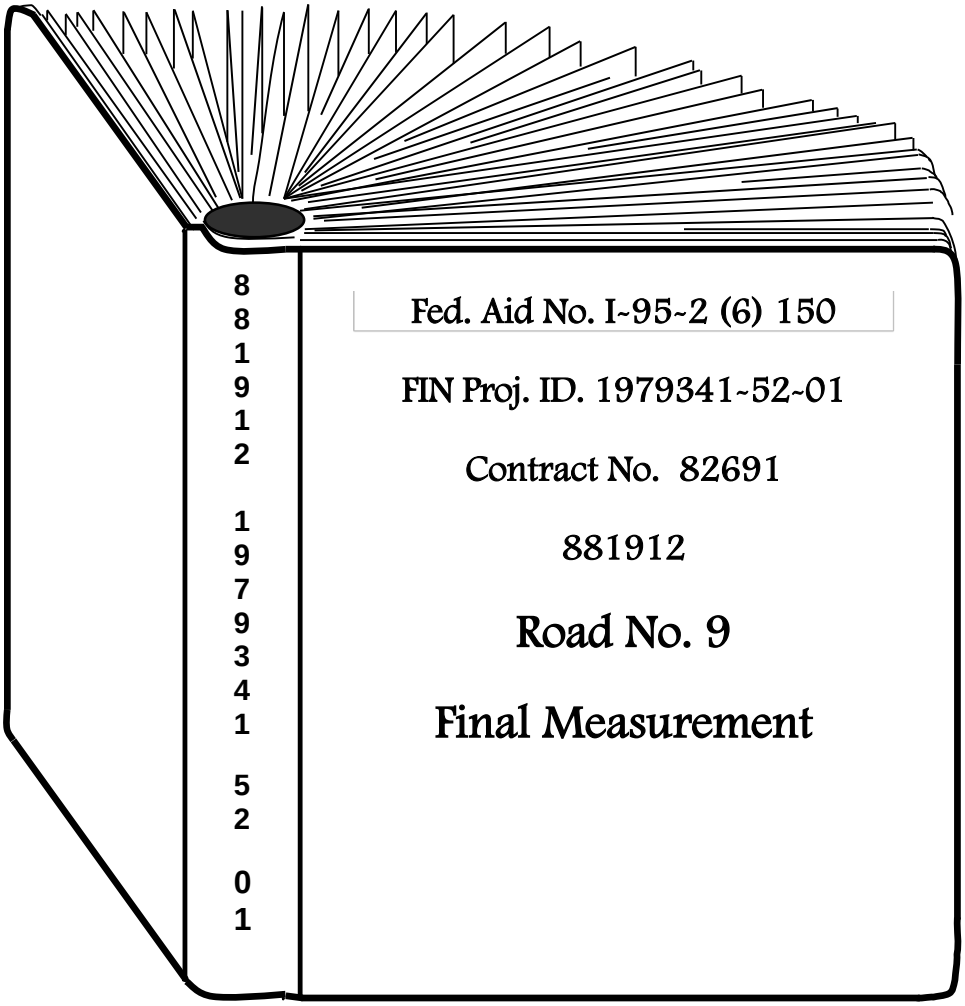


Figure 15.14-2
EXAMPLE OF A CONTRACTOR'S CERTIFICATION OF QUANTITIES (FORM 700-050-66)

Contractor's Certification of Quantities
Asphalt Mixes with Modified and Unmodified Binders
(Conventional Projects)
Certification No. 9

Financial Project ID:	65321-1-52-01		
Contractor:	We Got Asphalt, Inc.		
Contract Number:	X1234		
From (Mo/Day/Yr):	01/18/16	**To (Mo/Day/Yr):**	02/21/16

Asphalt Mixes with Unmodified Binders (PG 67 & Lower)

Pay Item Number:	334-1-13	**Tonnage Placed:**	341.4
Pay Item Number:		**Tonnage Placed:**	
Pay Item Number:		**Tonnage Placed:**	
Additional Gallons (ARMI*):			
Base Index Month:	May-15	**Base Asphalt Price Index:**	1.9365
Current Index Month:	Feb-16	**Current Asphalt Price Index:**	1.5536
		Asphalt Index Difference:	-0.2861

Asphalt Mixes with Modified Binders (PG 76 & Higher)

Pay Item Number:		**Tonnage Placed:**	
Pay Item Number:		**Tonnage Placed:**	
Pay Item Number:		**Tonnage Placed:**	
Base Index Month:		**Base Polymer Price Index:**	
Current Index Month:		**Current Polymer Price Index:**	
		Polymer Index Difference:	

Asphalt Material
(ASPHALT TREATED PERMEABLE BASE)

Pay Item Number:		**Tonnage Placed:**	
Base Index Month:		**Base Asphalt Price Index:**	
Current Index Month:		**Current Asphalt Price Index:**	
		Asphalt Index Difference:	

Navigation and Printing Functions

Go To Main Sheet | Go To Last Month Sheet
Save As Month Sheet | Remove Last Month Sheet

Effective January 2007 Letting
FORM: 700-050-66 (7/21/2015)

Figure 15.14-2
EXAMPLE OF A CONTRACTOR'S CERTIFICATION OF QUANTITIES
(FORM 700-050-66, Continued)

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION

FORM 700-050-66
CONSTRUCTION
07/15

CONTRACTOR'S CERTIFICATION OF QUANTITIES
ASPHALT MIXES WITH MODIFIED AND UNMODIFIED BINDERS
(CONVENTIONAL PROJECTS)

CERTIFICATION NO. 9

FINANCIAL PROJECT ID. 65321-1-52-01
CONTRACTOR We Got Asphalt, Inc.
CONTRACT NO. X1234

PERIOD REPRESENTED BY CERTIFICATION:
FROM (MO/DAY/YR) 01/18/16 TO (MO/DAY/YR) 02/21/16

ASPHALT MIXES WITH UNMODIFIED BINDERS (PG 67 & LOWER)

BASE PRICE INDEX: 1.3365 CURRENT PRICE INDEX: 1.5536 INDEX DIFFERENCE: -0.2861

	TONNAGE	GALLONS	MONTHLY PAYMENT
PAY ITEM NUMBER 334-1-13	341.4	4,373	-$1,422.78
PAY ITEM NUMBER			
PAY ITEM NUMBER			
GALLONS OF ASPHALT CEMENT USED IN MIX: *		4,373	-$1,422.78
ADDITIONAL GALLONS (ARMI):			
TOTAL GALLONS:		4,373	
TOTAL MONTHLY PAYMENT:			-$1,422.78

ASPHALT MIXES WITH MODIFIED BINDERS (PG 76 & HIGHER)

BASE PRICE INDEX: _____ CURRENT PRICE INDEX: _____ INDEX DIFFERENCE: _____

	TONNAGE	GALLONS	MONTHLY PAYMENT
PAY ITEM NUMBER			
PAY ITEM NUMBER			
PAY ITEM NUMBER			
TOTAL GALLONS OF POLYMER USED IN MIX: *			
TOTAL MONTHLY PAYMENT:			

ASPHALT MATERIAL (ASPHALT TREATED PERMEABLE BASE)

BASE PRICE INDEX: _____ CURRENT PRICE INDEX: _____ INDEX DIFFERENCE: _____

	TONNAGE	GALLONS	MONTHLY PAYMENT
PAY ITEM NUMBER			
TOTAL MONTHLY PAYMENT:			

I certify that, based on my personal knowledge and well-founded belief following my own reasonable investigation, the tons and gallons (metric tons and liters) represented by this Certification are true and correct.

Contractor's Authorized Agent (Print Name & Co.) _____

Contractor's Authorized Agent (Signature) _____ Date _____

* Calculations based on Specifications.

Figure 5.14-3
DELIVERY TICKET

FLORIDA MINING & MATERIALS
CONCRETE PRODUCTS
LEE DIVISION
P.O. BOX 2376, 2858 FORD STREET, FT. MYERS, FLORIDA 33902, PHONE (813)334-4521

Plant No. 03-004

Del. Ticket _____
Serial No. _____
Date: _____ 19

Delivered To: _____

Address _____

F.D.O.T. Fin. Proj. ID. _____

Truck No.	DOT Class	DOT Mix NO.	Cubic Yards This Load
Time Loaded	Arrived	Discharged	Cubic Yards Total Today
Allowable Jobsite Water Addition gals./cu. yd.		Mixing Revolutions: At Plant: At Jobsite:	

FILL OUT ON FIRST DELIVERY AND ON EACH CHANGE OF AGGREGATE WEIGHTS

Cement _____ Brand Amount	Air MBVR _____ oz. Amount
Course Agg. _____ % Moisture Amount	Retarder MBL-80 _____ oz. Amount
Fine Agg. _____ % Moisture Amount	Fly Ash _____ Source _____ Amount
Batch Water (Gals.) _____ Amount	Cousr Agg. DOT Pit # _____ S.C. _____ Fine Agg. DOT Pit # _____ S.C. _____

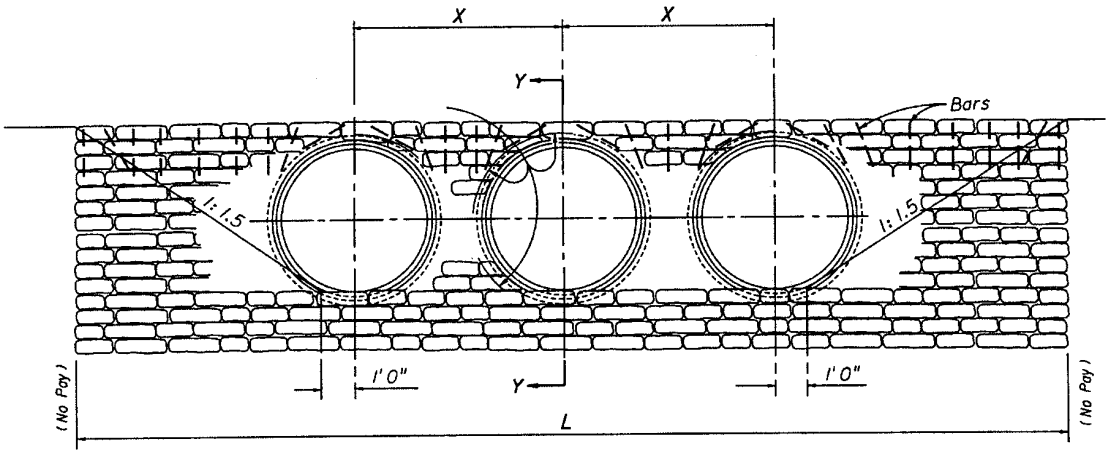
Issuance of this ticket constitutes certification to the accuracy of the above recorded information

_____
Signature of Plant Operator or Company Rep.

WATER ADDED ON JOBSITE _____ GALLONS

ADDITIONAL MIXING REVOLUTIONS _____

Figure 5.14-4
SAMPLE SKETCH OF RIPRAP STRUCTURE



Note: Sketches must be submitted when pay is authorized outside limits as shown on the indexes. (No sketches will be required if built as per index).

Example:

(1) Index No. 258 shows 31.1 cubic yards.
Delivery Tickets show 36.0 cubic yards.
We will pay _____ 31.1 cubic yards.

(2) Index No. 258 shows 31.1 cubic yards.
Delivery Tickets show 25.0 cubic yards.
We will pay _____ 25.0 cubic yards.

Figure 5.14-5
SAND CEMENT RIPRAP PAY ANALYSIS

Step 1
STRUCTURE QUANTITY DETERMINATION

Approved Quantity Dimension = 31.1 cu. yds.

A sketch must be submitted when : (1) pay is authorized outside limits as shown on the index, or (2) the structure constructed is not described by the index. No sketch will be required if built per index.

Step 2
DELIVERY QUANTITY DETERMINATION

Prebag ticket
Delivery tickets

Delivery tickets must be submitted showing the weights of sand & cement actually used for each delivery Ticket.

Example
Tally Book Summary

Jan. 9, 1990 = 8 cy = sand = 18,360 lbs.
= cement = 4,064 lbs.
Jan.10,1990 = 8 cy = sand = 18,360 lbs.
= cement = 4,064 lbs.
Jan.11,1990 = 8 cy = sand = 18,360 lbs.
= cement = 4,064 lbs.
Jan.12,1990 = 8 cy = sand = 18,360 lbs.
= cement = 4,064 lbs.
32 cu. yds.

Note: Whichever is the lesser of Step 1 or Step 2 above, shall be paid.
In the above example the structure quantity should be paid. If the delivery ticket quantity had been less than the structure quantity, the actual quantity delivered would have been paid.

Step 3
5:1 DETERMINATION

I. Computations to check for the actual ratio of the 5:1 mix :
18,360 lbs sand ÷ 85 lbs/cf = 216 cf
4,064 lbs cement ÷ 94 lbs/cf = 43.2 cf
216 ÷ 43.2 = 5.0 , therefore this is a 5:1 mix, as required.

II. CONSIDER: If the 5:1 mix had not been achieved, and the mix was allowed to be placed on the project, the following documentation is required:
A. C-165 with negotiated pay reduction.
B. Supplemental Agreement revising the unit price.

Section 5.15

FINAL MEASUREMENTS

5.15.1 PURPOSE

To compile final measurement requirements and techniques to ensure that Final Measured, Plan Quantity, and Lump Sum Pay Items are accurately and efficiently done, without needless and costly refinements.

5.15.2 GENERAL

Measurements for bituminous material, earthwork, and loose volume material in trucks have been addressed in other procedures of this ***Manual***. Measured items for Area, Linear, Volume, Per Each, and Per Day under Final Measured pay items will be addressed along with Plan Quantity and Lump Sum Pay Items in this chapter. Requirements for final measurements of pay quantities are found in the ***Florida Department of Transportation's (FDOT) Specifications***.

5.15.3 GENERAL REQUIREMENTS

5.15.3.1 Final Measured Pay Items

On many items, quantities for progress and final estimates must be documented by final measurements (in the field) as the work is actually accomplished. By summarizing these items, the monthly progress estimate is generated to reflect the work completed during this period using the final measured quantities recorded. When the project is completed, ***Plan Summary Boxes*** in the plans, ***Field Books***, and other ***Department*** approved forms are submitted along with the other final estimate data to substantiate the final quantities. Final measurement of pay quantities in ***Field Books*** will generally fall into one of the following categories:

(A) **Area Measurement Pay Items:** When items are paid for on the basis of the area of the finished work, the dimensions for calculating these areas shall be documented in the field records. This shall be done in accordance with one of the following methods:

(1) The length shall be the dimension shown on the plans or the station-to-station dimension actually constructed within the project limits

designated by the Engineer. The width shall be the dimension actually constructed within the neat lines shown in the plans or designated by the Engineer/Project Administrator (PA) within the project limits.

(2) The length and width as measured in place, usually with length measured along the centerline of the construction work, and width measured at a right angle to the tangent of the centerline.

(3) Stations and offsets must be recorded and used as latitudes and departures to calculate area. Curve corrections to account for a curved baseline must be applied to area calculations. When the baseline used for measuring areas is neither the project's centerline of construction nor a baseline for stationing shown in the plans, the baseline must be straight lined with beginning and ending points referenced to the centerline of construction by station and offset.

(4) When changes are encountered in the field, the back up documentation and calculations must be incorporated in the ***Plan Summary Boxes*** located within the ***Summary of Quantity Sheets*** in the Plans or referenced to a separate file, final measured form or ***Field Book***, as documentation for final area measurements. (If computer programs are used, the calculations shall be checked and the actual site source measurements submitted with the computer output.)

(B) **Linear Measurement Pay Items:** The dimension documented for items paid for on the basis of linear foot shall be the length shown on the plans and in the ***Plan Summary Box*** in the plans or the length measured along the finished surface of the item as required.

(C) **Volumetric Measurements Pay Items:** Field quantities for items paid for on the basis of volume in cubic units, are usually determined by one of the following methods:

(1) Concrete quantities are generally paid for on the Plan Quantity basis unless authorized field changes have been made subject to ***Section 9-3.2*** of the ***Specifications***, or unless final field measurements are dictated by the particular pay item such as miscellaneous concrete for contingent use (see ***Section 346-9*** and ***346-10*** of the ***Specifications***). See ***Attachment 1*** at end of this chapter for examples of pay adjustments for low strength concrete calculations.

(2) Cross-Section notes are recorded along both the original surface and for the surface of the completed work either by field parties, or as determined by aerial photography and the volumes calculated by hand or by use of the computer facilities. Cross-sections with end area and volume computations can also be used advantageously in calculating buildup volumes of spalled concrete members. See ***Figure Nos. 5.15-1 & 5.15-2***.

(D) **Per Each Measurement Pay Items:** Items paid for as a unit, such as fence gates, etc., shall be tabulated by location in the ***Plan Summary Boxes*** located in the Plans with references to ***Field Books***, or other final measured records.

(E) **Each Day Pay Item for Engineer's Field Office:** As of July 2015, this pay item will no longer be used. An engineer's field office, if needed, will be provided by the consultant CEI.

5.15.3.2 Lump Sum Pay Items

Where the pay quantity for an item is designated to be a lump sum and the plans show an estimated plan quantity, compensation for that item will be adjusted proportionately when a plan change results in a significant increase or decrease in the quantity from the estimated plan quantity (***see Section 9-3.2.1*** of the ***Specifications***). When the plans do not provide adjustments for contingencies, establishment of a new unit price through a Supplemental Agreement shall compensate for changes in the cost of completing the item.

Note: for Lump Sum Pay Items and Tabulation Forms, see ***Section 5-14.5*** of this Manual. For Lump Sum Projects, please see ***Section 6.2*** of this Manual.

5.15.3.3 Plan Quantity Pay Items

Plan Quantity Items under ***Section 9-3*** of the ***Specifications*** are design supported. Documentation requirements are as follows:

(1) The ***Plan Summary Box*** located within the ***Summary of Quantity Sheets*** in the Plans will show the Pay Item, Pay Item Description, Unit of Measure, Quantity, Location and Stationing.

(2) With the new ***Plan Summary Boxes*** incorporated into the ***Summary of Quantity Sheets*** in the Plans, "sketches" are no longer required. The plan sheets are the "sketches" for the location

of the areas along with the station and offset (L or R) columns. The only difference now is that you do not have the AREA ID numbers labeled/shown in the plans nor the area boundaries. Most shapes are self-explanatory given the station and offset information. If more information is needed, it should be added to the Design Notes column. See the ***FDOT CADD Manual***.

(3) The designer must keep all supporting information in their files until the project is completed and paid off, and in compliance with the ***Records Retention and Disposal Schedule*** requirements. (See specifically the following Sections: Schedule #s & Item #s (RO-67(1), A-271(1), A-318(1), A-402(1), A-400(1), A-319(2), A-382(1), A-279(1), and A-319(3))

(4) Should a dispute arise involving quantities for one or more of the plan quantity items, the Construction Office will request in writing, that the Designer provide detailed documentation or verify the concern for the plan quantity item(s) in question. The backup documentation must be produced within five (5) working days of the request from construction.

(5) The Construction Office will not make detailed calculation entries when no changes are made. The Plan Quantity Item will not be final measured in a ***Field Book*** or on other final measured forms, only changes in the field or plan errors, as set forth in ***Section 9-3*** of the ***Specifications***, are required to be documented.

(6) When no changes are made (no Plan Errors and/or Field changes) and only Plan Quantity is to be paid, a simple red check (√) should be shown under the "F" or “Final” column, within the ***Plan Summary Box***. If a change occurs, then the differing quantity should be tabulated in the “Final” column of the ***Plan Summary Box***.

(7) Deviation from the Plan Dimensions: ***Section 9-3.4*** of the ***Specifications*** requires 5% or $5000 change for earthwork and $100 for other items.

(8) When changes in limits are authorized, the PA must show the revised quantities by showing revisions alongside the original Designer’s calculations. If an additional area is added, the PA could show this under a new empty row within the same pay item in the ***Plan***

Summary Box, and under the "Remarks" column reference where the calculations for the new quantity can be located for back up. **Do not remove Designer quantity and work, please strike through**.

(9) Some method must be employed by the PA to prove or revise the Plan Quantity. Some of the suggested methods are as follows:

(a) Field measure
(b) Scale from plans
(c) Station to station calculations
(d) Joint counts (with cut-offs deducted)

(10) Plan Quantity Items on multi-project contracts are to be evaluated per contract total, not per project total. Evaluation for multi project contracts must employ a correction to the "contract total."

Note: If each project had been on a separate contract, the revised final measured quantity would have been paid. However, when two or more projects are on the same contract and the total combined change falls within the Plan Quantity Parameters, no change is made to the Plan Quantity.

See ***Attachment 2*** for an example of a PQ analysis of a Contract with two projects showing plan errors on both projects and where the final PQ will not change.

See ***Attachment 3*** for an example of a PQ analysis for one Contract with two projects showing plan errors and field changes, and where the final PQ will change.

(11) The PA must make his/her own analysis of the accuracy of plan quantity items. It is not the intent of the Plan Quantity concept to require more laborious measurements than the old method. It is intended to save man hours through less field survey work.

(12) Type 'A' and Type 'B' Fencing are Plan Quantity pay items. The **Payment for Extra Length Posts** will require an invoice from the Contractor. Compensation will be at invoice price plus 10%, per ***Specifications, Section 550-6.2***.

Example: Contractor submits an invoice for 20 extra length posts

at an invoice price of $250.00. An additional 10 percent = $25.00. The compensation will be $275.00 for the extra length posts. An adjusted fencing item will be shown with a quantity of one (1) at a unit price of $275.00. A copy of the invoice will be submitted with the Final Estimate Package.

Gates are to be paid as each. Location and summary needs to be provided to document quantity(s).

5.15.4 DEGREE OF ACCURACY

Degrees of Accuracy for pay items shall be as indicated in ***Chapters 2*** of the ***Basis of Estimates Manual***.

5.15.5 LIST OF FIGURES AND ATTACHMENTS FOLLOWING THIS SECTION

Figure No. 5.15-1 ..... Spalled Area Sketches
Figure No. 5.15-2 ..... Spalled Area Sketches

Attachment 1……Examples of Pay Adjustments for Low Strength Concrete
Attachment 2 …....Plan Quantity Analysis Example - Two Projects under One Contract
Attachment 3 ……Plan Quantity Analysis Example - One Contract

Figure 5.15-1
SPALLED AREAS SKETCHES

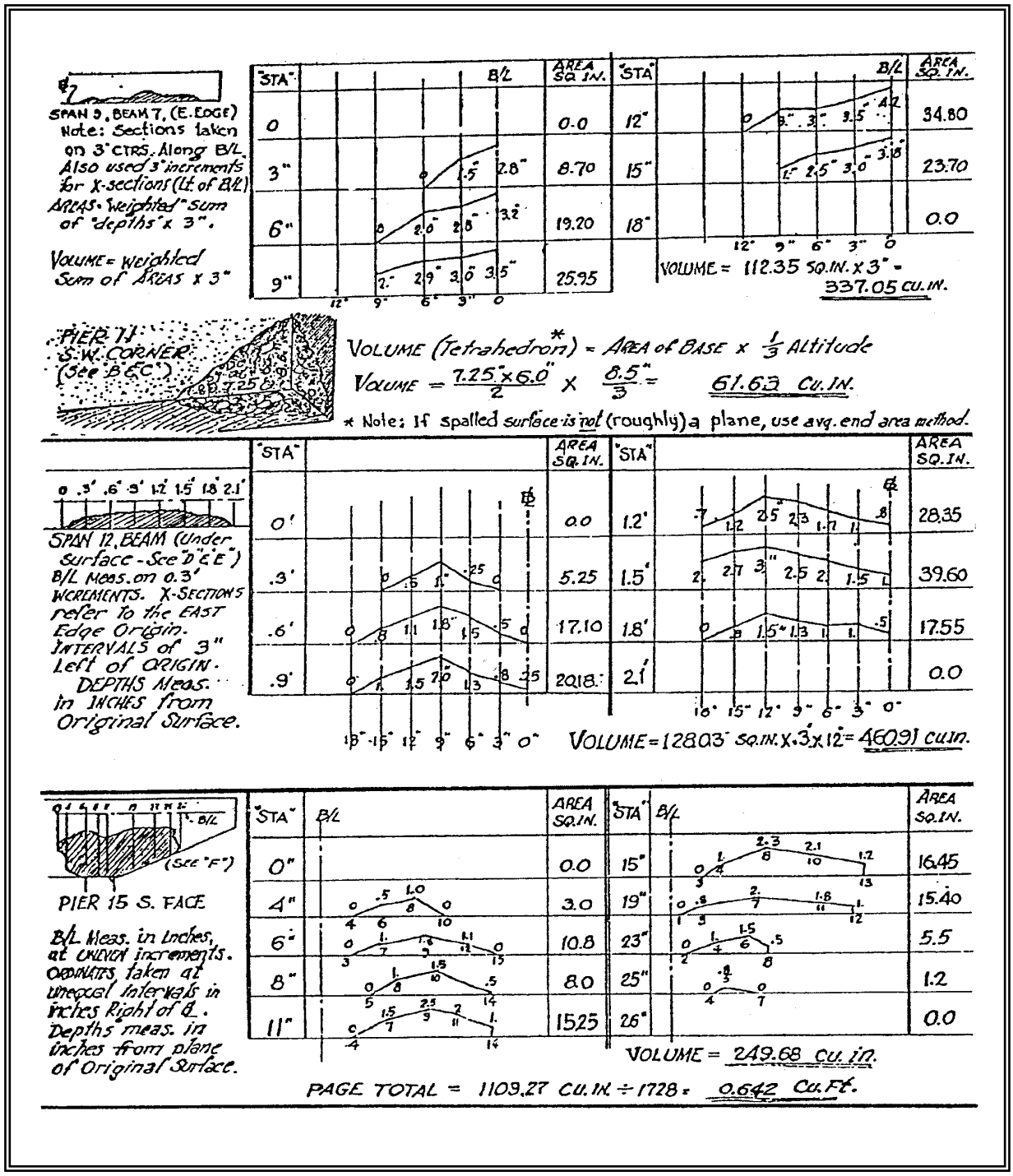
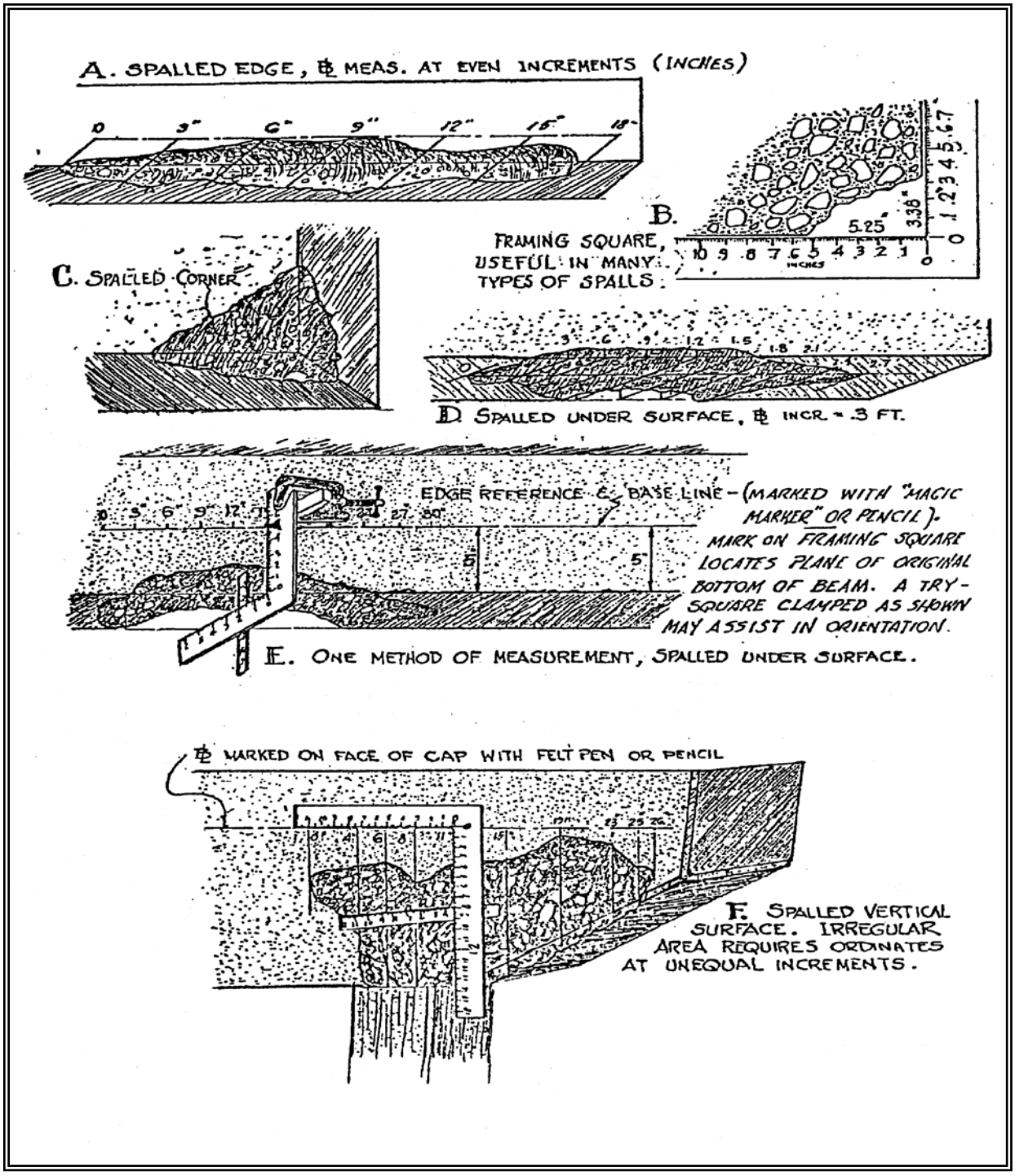


Figure 5.15-2
SPALLED AREAS SKETCHES



ATTACHMENT 1
Examples of Pay Adjustments for Low Strength Concrete

1. Linear Foot Pay Item Penalty Example:

Given Information:

- Item #521-5-5, Concrete Traffic Railing (42″ Vertical Shape), is paid as Concrete Class II in units of Linear Feet.
- One pour today was 14 CY and covered 98.7 LF = 99 LF of railing
- Unit Price = $575.00/LF
- Quantity of Concrete within the LOT = 14 CY
- 3 Cylinders were taken for the LOT. After 28 days all cylinders failed.
- Required Strength of Class II Concrete = 3,400 Pounds per Square Inch (PSI)
- Average Actual Cylinder Strength (after 28 days) = 2,850 PSI

Concrete Strength Deficiency (PSI) = 2,850 PSI – 3,400 PSI = - 550 PSI

$$\text{Percent Deficiency} = \frac{-550\ \text{PSI}}{3{,}400\ \text{PSI}} = -0.16 \quad \text{OR} \quad 0.16 \times 100 = -16\%$$

This Pay Item is paid to the nearest LF. This LOT represents the entire 99 LF; therefore:

$575.00/LF × -0.16 = -$92.00/LF at **NO PAY**

In SiteManager, Create a Line Item Adjustment: Compressive Strength Failure.

99 LF × -$92.00/LF = -$9,108.00

Under Remarks: Reduction is due to 16% Compressive Strength Failure.

99 LF × -$92.00/LF = -$9,108.00

2. Cubic Yard Pay Item Penalty Example:

Given Information:

- Original pay item = 400-4-2 Concrete Class IV End Walls
- This LOT represents 3 failed cylinders and 25 CY.
- Original Unit Price = $570.00/CY
- Pay Item is paid to the 10th of a CY
- Required Strength of Class IV Concrete = 5,500 PSI
- Average Actual Cylinder Strength (after 28 days) = 5,000 PSI

Concrete Strength Deficiency (PSI) = 5,000 PSI - 5,500 PSI = - 500 PSI

$$\text{Deficiency Percentage} = \frac{-550\ \text{PSI}}{5{,}500\ \text{PSI}} = -0.09 \quad \text{OR} \quad 0.09 \times 100 = -9\%$$

This Pay Item is paid to the nearest CY. This LOT represents the entire 25 CY; therefore:

25 CY × -0.09 = -2.25 CY = - 2.3 CY at **NO PAY**

In SiteManager, create a line item adjustment:

Compressive Strength Failure.

-2.3 CY × $570.00/CY = -$1,311.00

Under Remarks:

Reduction is due to 9% Compressive Strength Failure.

-2.3 CY × $570.00/CY = -$1,311.00

ATTACHMENT 2
Plan Quantity Analysis Example - Two Projects under One Contract

Given:

- Type B Stabilization (*Item #160-4*)
- Plan Quantity = 70,000 SY at a unit price of $1.00/SY

Plan Quantity Analysis			
Contract T1234	Original Plan Quantity	New Quantity	Plan Errors
Project 1 of 2	50,000 SY	42,000 SY	(−) 8,000 SY
Project 2 of 2	20,000 SY	30,000 SY	(+) 10,000 SY
	70,000 SY	72,000 SY	**(+) 2,000 SY**

What is the Final Pay Quantity for each job?

Step 1: Determine if the error exceeds 5%

$$\left(\frac{2{,}000\text{ SY}}{7{,}000\text{ SY}}\right) \text{x } 100 = 2.9\% \quad < \quad 5\%$$

Step 2: Determine if the error exceeds $5,000

$$2{,}000\text{ SY} \times \$\ 1.00/\text{SY} = \$2{,}000.00 \quad < \quad \$\ 5{,}000.00$$

Both calculations in Step 1 and Step 2 do not qualify to change the original plan quantity for the contract; therefore, plan quantity for both projects will be paid due to final adjustment being less than 5% and less than $5,000.00

Final Stabilization Quantity for Project 1 of 2 = 50,000 SY
Final Stabilization Quantity for Project 2 of 2 = 20,000 SY

ATTACHMENT 3
Plan Quantity Analysis Example - One Contract

Given:

- Type B Stabilization (Item #160-4)
- Plan Quantity = 70,000 SY at a unit price of $1.00/SY;
- Two projects under one Contract

(1) Job 1 of 2: Plan Quantity = 50,000 SY
Plan Error = − 3,000 SY
Field Changes = +300 SY, −120 SY, − 500 SY

(2) Job 2 of 2: Plan Quantity = 20,000 SY
Plan Error = + 8,000 SY
Field Revisions = − 250 SY, −150 SY

What is the Final Pay Quantity for each job?

Plan Quantity Analysis			
Contract T1234	Original Plan Quantity	Plan Errors	Field Changes
Project 1 of 2	50,000 SY	− 3,000 SY	- 320 SY
Project 2 or 2	20,000 SY	+ 8,000 SY	- 400 SY
	70,000 SY	**+ 5,000 SY**	**− 720 SY**

Step 1: Determine if the error exceeds 5%

$$\left(\frac{5{,}000\ \text{SY}}{7{,}000\ \text{SY}}\right) \text{x}\ 100 = 7.1\% \quad > \ 5\%$$

Step 2: Determine if the error exceeds $5,000

$$(5{,}000\ \text{SY} \times \$1.00/\text{SY}) = \$5{,}000 \quad (\text{Equal to } \$\ 5{,}000)$$

Only one of the criteria above must be met for plan errors to qualify for additional payment. Although the error did not exceed $5,000, it did exceed 5% and qualifies for additional payment.

Note: All Field Changes will be added or subtracted under each job for final pay regardless of plan errors.

Project 1 of 2:

Original Plan Quantity =	50,000 SY
Plan Error =	-3,000 SY
Field Change =	-320 SY
Final Quantity =	**46,600 SY**

Project 2 of 2:

Original Plan Quantity =	20,000 SY
Plan Error =	+8,000 SY
Field Change =	-400 SY
Final Quantity =	**27,600 SY**

Section 5.16

EARTHWORK NOTES AND DOCUMENTATION

5.16.1 PURPOSE

This section includes the accepted methods for recording cross-section notes for final pay quantities and provides procedures for documenting various excavation items, such as channel, borrow, and subsoil excavation. Guidelines for verifying earthwork items and FDOT radial survey requirements for construction surveys are also defined in this section. It is not the intent of these procedures to supersede the requirements in the ***Surveying and Mapping Handbook***, but to enhance the process for documentation of quantities for the submittal of the Final Estimates Package.

5.16.2 AUTHORITY

Section 20.23(3)(a), Florida Statutes
Section 334.048(3), Florida Statutes

5.16.3 REFERENCE

Rule 5J-17.051, Florida Administrative Code
Rule 5J-17.052, Florida Administrative Code
Surveying and Mapping (***Procedure Topic 550-030-101***)

5.16.4 Minimum Requirements for Final Measured Earthwork Pay Item Notes

Cross-section notes are an important part of the Final Estimates field records for earthwork quantities. The following requirements are specifically written for final pay earthwork notes and are intended as minimum standards for any required note keeping. The Project Administrator (PA) shall ensure that minimum standard requirements are met.

(A) The ***Final Measurement Miscellaneous Form 700-050-61*** or ***Field Books*** shall be used, (See ***CPAM 5.14*** for requirements.) The use of the ***Final Measurement Miscellaneous Form*** is preferred since it results in savings to the Department.

(B) Contractor's records are not acceptable to meet these minimum requirements. As an exception, Contractor's survey notes may be used if obtained by a joint survey under the responsible charge by the Department or its representative.

(C) Identify Center Line or Base Line (CL/BL) shots, as well as their location in reference with the CL/BL (i.e., left or right). Sketches shall be plain and legible, and spaced so that figures are not written over one another. See the ***Surveying and Mapping Handbook*** for guidance. When recording data, use a 2H or 3H pencil; never use a pencil soft enough to blur.

(D) Rod readings for earthwork notes (ground shots) are to be recorded to the nearest tenth (0.1) of a foot. The rod readings on paved surfaces will be recorded to the nearest hundredth (0.01) of a foot.

(E) Check Levels: run a complete set of levels from the first to the last bench mark on the job, turning through all existing bench marks, without adjusting the height of instruments (HI) or "correcting up" for any differences at individual benches. If the Check Levels are within third order accuracy, no additional check levels will need to be run. Third Order Accuracy requires the closure to be within:

$$0.05 \text{ ft} \times \sqrt{(\text{distance in miles})}$$

(F) Project Bench Marks (BM) shall only be used after a complete set of check levels has been run. The HI is established from shots made to the BMs. For hand-recorded notes, record the HI to the nearest hundredth (0.01) of a foot (or better) above the first cross section to which it applies and at the top of the following pages until a different HI is established. Underscore each HI with double lines. Show BM location by description or station and offset in field notes and cross reference to field record and page to where BM elevations have been reestablished or verified. These cross-section level notes must carry the same closure tolerance as running bench levels.

(G) Temporary Bench Marks (TBM) should be set only after the project check levels have been completed, and shall be accomplished by running a complete level circuit from one of the project BMs to the TBM and back or to another established project BM.

(H) When multiple HIs are required within only one cross-section, clearly indicate by brackets or other means to which HI the different shots are referenced.

(I) The use of Direct Rod Readings are not acceptable.

(J) The same baseline and stationing of cross-sections must be used for both the original and final cross-sections. Care must be exercised where match lines are required to ensure that proper stationing on each baseline is reconciled, and that proper ties are made. Stations at which cut or fill begin (daylight lines) must be identified in the notes.

(K) The maximum distance between cross-sections shall be 100 feet for flat terrain, and 50 feet for rolling terrain or closer where conditions warrant. In all cases, the breaks in terrain that will substantially affect the final quantities must be reflected in the notes.

(L) To determine the volume at any station or run of stations, each station must have an original terrain cross-section (Existing Ground), final constructed cross-section and the proposed plans template. Full cross sections must be taken at all stations. Half sections are not acceptable for earthwork purposes.

5.16.5 MINIMUM FIELD RECORDS FOR PLAN QUANTITY PAY ITEMS

Payment for Regular Excavation, Lateral Ditch Excavation and Embankment made under the plan quantity concept are subject to the minimum standards as stated herein.

Field cross-sections shall be required if the Department or the Contractor contends that there is a quantity error. If either party questions the plan quantity in accordance with ***Section 9-3*** of the ***Specifications***, perform the data collection according to the methods outlined herein.

The Project Administrator (PA) shall verify a project's "plan terrain'' and ''final'' surfaces for conformity with the design plan representation through field survey, or by an alternate method approved by the District Final Estimates Manager (DFEM) or the District Construction Engineer (DCE). The following information shall be used in the determination of survey method, or to request a waiver of Department survey requirements.

5.16.6 ORIGINAL PLAN TERRAIN

Verify the method(s) used to derive the original cross-sections (i.e., location survey, aerial photos, old as-built, etc.) with the Engineer of Record. Also confirm the project's location and type (i.e., urban, rural, limited access, resurfacing, etc.).

Site inspection by the PA may be required to check for changed conditions such as commercial development, city or county projects, excessive erosion, or work performed by FDOT Maintenance. Other verification or Quick Checks such as spot elevation checks, slope stake verification, etc., may be required by the DFEM/DCE prior to waiving any survey requirements. The ***Final Measurement Miscellaneous Form 700-050-61*** or ***Field Books*** shall be used to record the data collected during field and/or Quick checks. The use of the ***Final Measurement Miscellaneous Form*** is preferred since it results in savings to the Department. (See ***CPAM 5.14***.)

The PA will submit the ***Earthwork Survey/Cross-Sections Waiver*** (***Form 700-050-35***) to the DFEM/DCE for approval (see ***Figure 5.16-1***). The DFEM/DCE will consider such

things as type of work, monetary exposure, possible claims, and additional considerations before a waiver of survey is issued.

The PA will submit written notification to the Contractor of the Department's findings regarding acceptance or rejection of the Original Ground line as shown in the plans, and obtain the Contractor's concurrence for actions taken. (See ***Figure 5.16-2***.) Should the Contractor reject the actions taken, a second notification may be submitted advising the Contractor of the requirements as the Claimant under ***Section 9-3*** of the ***Specifications***. (See ***Figure 5.16-3***.)

5.16.7 CROSS-SECTIONS TO VERIFY PLAN TERRAIN

When required, cross-sections to verify the plan terrain line must be taken before the clearing and grubbing operation to adequately address existing terrain conditions at full station locations shown in the plans.

When directed by the DFEM or the DCE, new construction projects will require complete original cross-sections that will be taken at intervals as directed by the DFEM. Major widening projects may also require cross-sections. The original ground line elevations are to be taken at break points shown in the plans and at other break points found to exist in the field within the Right-of-Way limits.

The Contractor shall be notified in writing if there could be substantial change in end-areas where the Department is taking cross-sections. A copy of the survey notes along with any revisions to the plan terrain lines resulting from the Department's survey will be provided to the Contractor. Should the Contractor wish to dispute the Department's survey, it must acquire their own survey of the disputed area, certified by a Professional Land Surveyor, and at no expense to the Department. This field survey must be completed before any clearing and grubbing operations. (See ***Section 9-3.2*** of the ***Specifications***.)

If supplemental field cross-sections show a significant difference, as defined in ***Section 9-3.2.1*** of the ***Specifications***, quantity adjustments will be considered.

If a deviation exists between the plan terrain line and the pre-construction survey terrain line, the latter will replace the plan terrain line at the cross-section stations.

The plans will be annotated with corrections to plan quantity (Areas/Volumes) regarding erroneous cross-sections discovered by pre-construction survey. All corrections and markups shall be done in red. The closest cross-section on either end of the area surveyed will be struck through on the plans. A new quantity shall be calculated by the approved method for the area surveyed using the plan template and the terrain lines with the replacements mentioned earlier. This information shall be submitted to the Contractor and the DFEM as soon as possible. A terrain comparison can increase or decrease the

quantities. Before allowing an adjustment, the difference in the increases and decreases (net result) must be checked against the limit set in ***Section 9-3.2*** of the ***Specifications***. Verify the Contract's Special Provisions for changes on the amount of this limit.

5.16.8 AS-BUILT SURFACES FOR COMPLIANCE

The PA is required to document the project's As-Built surfaces for compliance with plan dimensions.

The following **field checks** shall be used to require survey or to request waiver of survey.

(A) As soon as final dressing in a section of the project is done, Field "Quick Checks" such as spot surveys, slope or slope stake verification shall be performed at intervals or in areas deemed necessary by the DFEM/DCE.

(B) The date, weather conditions, and the names of the individuals making up the field crews shall be recorded on the page where each days notes begin or a record stored within the data.

(C) The DFEM/DCE will consider such things as monetary exposure, possible claims, as well as supplemental information before a waiver of survey is issued.

(D) The PA will notify the Contractor of the Department's findings.

(E) If the field checks of the as-built cross-sections reveal any substantial differences from the plan template, then it will be necessary to either re-grade such areas to bring them into conformance (this is done at the Contractor's expense), or reduce the pay quantities for the appropriate earthwork items within the areas not constructed to plan dimensions. Selection of which method to use is at the Department's discretion. The decision shall be based on the circumstances which exist on the particular project.

(F) Cross-sections of the As-Built Template where deductions for areas not constructed to plan dimension are necessary, a full cross-section survey will be taken at plan intervals or in areas designated by the DFEE/DCE.

(G) Plot the as-built and plan template at the same scale used in the plans.

(H) The plan quantity (Areas/Volumes) between these cross-sections and extended to the closest cross-section on either end of the area surveyed will be struck through (in red) on the plans. A new quantity must be calculated by the approved method for the area surveyed using the plan template and the As-Built lines with the replacements mentioned earlier. This information will be submitted to the Contractor and the DFEM. An As-Built comparison can only decrease the quantities. Before allowing an adjustment, the difference in the decreases (net

result) must be checked to see if it exceeds the limit set in ***Section 9-3.2*** of the ***Specifications*** or the Contract's Special Provisions, as applicable.

(I) Deduction for the surveyed areas for the appropriate earthwork items shall be calculated by an approved method. The ***FDOT's Multiline Earthwork PC Program*** or other software approved by the DFEM can be used for earthwork volume calculations and adjustments for plan quantity items. However, the PE may manually calculate these adjustments. See the exceptions below:

(1.) Approved software, other than ***FDOT's Multiline Earthwork PC Program***, must produce the same electronic files and output reports containing the same information and in the same format as those generated by the ***FDOT's Multiline***.

(2.) Where any software has been used to calculate the earthwork volumes, the required ***Multiline*** compatible electronic files must be submitted with the final estimate package.

(3.) Should the Engineer choose to develop the adjustments for plan quantity items manually, then cross-sections for terrain comparison and as-built template comparison shall be plotted along with the original plan template and original plan terrain on cross-section sheets, in the same size and scale as the record set of plans for the project.

(J) No deduction will be made unless the dollar value of the deduction exceeds the limit set in ***Specifications*** for the Contractor's failure to construct to plan dimensions. Any reduction for final cross-section deficiencies in earthwork items is further limited to significant differences as defined in ***Section 9-3.2*** of the ***Specification*** unless, in the opinion of the Engineer, a deliberate attempt has been made to optimize the tolerances to increase borrow excavation in fill sections, or to decrease the required volume of roadway or lateral ditch excavation, or embankment. In such cases, appropriate measurements shall be taken and reductions in pay quantities shall be applied. The grading tolerance, as defined in ***Section 9-3.2*** *or* ***120-12*** of the ***Specifications***, will not be used or considered as a pay tolerance, nor shall the tolerance be construed as defining a revised authorized template.

Note: The above guidelines are not applicable to trench widening projects where the plan quantity for roadway excavation is based on the neat volume of the base trench. In this case, verification of the original terrain elevation is not required, but final cross-sections will be required if the shoulder elevations change horizontally or vertically, provided the project has a borrow pay item. If revision to plan quantity for roadway excavation is required, the computations will be based on the theoretical change in volume only for changes that exceed the limits set forth in ***Section 9-3.2*** of the ***Specifications***.

5.16.9 FIELD NOTES FOR BORROW EXCAVATION

Final Cross-sections are required on all projects with Borrow Excavation if the shoulder elevations move out horizontally and/or vertically. A waiver of survey or alternate method may be approved by the DFEM or the DCE. Listed below are some examples where surveys may be eliminated:

(A.) Milling and resurfacing projects where shoulder elevation does not change

(B.) Projects that involve only earthwork around box culvert extensions

(C.) Projects that involve restoring eroded sections

Fluff and shrinkage shall be considered when vehicle load count is involved in reconciling quantities. A suggested formula for calculating the **Equivalent Truck Measured Volume** is:

$$Compacted\ Fill\ Volume \times (1 + shrinkage\ factor) \times (1 + fluff\ factor)$$

Note: Shrinkage and fluff factors must be entered as a decimal.

Example:

Compacted Fill Vol.:	1 CY
Shrink Factor:	20%
Fluff Factor:	20%

$$1.00\ CY \times 1.20 \times 1.20\ =\ 1.44\ CY$$

Project flushed slopes that are constructed of borrow material and proposed for final payment are to be cross-sectioned. Any volume that is determined to be above the project template must be deducted.

Determine the volume of borrow placed in areas beyond the project's subsoil lateral limits (unauthorized excavating) and deduct this volume from the proposed borrow pay. Account for shrink and fluff.

Note: For truck measured borrow requirements see ***Section 5.14.4*** of this Manual.

5.16.10 FIELD NOTES FOR SUBSOIL EXCAVATION

The notes for subsoil excavation shall be detailed. Notes to explain the disposition of this material shall be freely used. Below are the minimum standards for these field notes: (See ***Figure 5.16-4*** through ***5.16-7***).

(A) The authorized limits of muck excavation, as staked in the field, shall be recorded in the earthwork notes for each pocket of muck excavation and should conform to control slopes set up by ***Standard Index 505***, or as shown in the plans.

(B) The listing of the limits is generally made up from the plan depth and checked as they are staked in the field. If, during the excavation, the muck is found to be deeper than the plan depth, the notes shall be corrected by striking through the original limit and recording the new authorized limit. Such corrections should be dated and initialed.

(C) If subsoil excavation is required in an area where ditch excavation or the roadway template falls below the original terrain, the roadway template must be developed to determine the authorized subsoil excavation. This condition shall be noted in the field notes.

(D) If extra depth muck excavation (depths greater than 5 feet) is encountered, a list of the controlling elevations shall be recorded. (See ***Figures 5.16-8*** through ***5.16-10***).

(E) The maximum interval for subsoil cross-sections shall be 50 feet. The beginning and ending of excavation shall always have a full cross-section and should be identified with a note (Begin Cut or End Cut), or designated as a zero area.

(F) Partial sections must be extended to the match line to produce a complete cross-section for each station.

(G) The earthwork notes for subsoil excavation shall always include a note for each pocket of excavation explaining the disposition of the unauthorized excavated material.

(H) Where subsoil excavation extends outside the plans lines or authorized by the PA (including allowable tolerances) and the space is backfilled with roadway or borrow excavation, the net fill, plus shrinkage allowance shall be deducted from additional authorized regular excavation or borrow excavation quantity, as applicable. (See ***Section 120-13*** of the ***Specifications***).

(I) When embankment or regular excavation is paid for under the Plan Quantity concept, original cross-sections for subsoil excavation are considered to be identical to location or plan originals. Any roadway areas within the subsoil limit in which the plan originals are found to be out of tolerance, as specified in ***Section 9-3.2.1*** of the ***Specifications***, shall be re-cross-sectioned for all earthwork items affected. Otherwise location originals shall be used as originals for subsoil. Original sections shall not be “picked-off” of plan cross-sections, and recorded in the field records.

(J) Station’s pluses needed to obtain the maximum 50 feet interval or to obtain begin and end sections may be interpolated from the original terrain sections.

(K) The baseline (or centerline) used for location original cross-sections is the centerline of survey. When the centerline of construction, as used for final cross-

sections and control slope limits, is different from the location centerline, some method must be employed to make the two centerlines compatible with each other. The horizontal alignment shift may be done through the use of the ***FDOT's Multiline Earthwork PC Program***.

5.16.11 FIELD NOTES FOR CHANNEL EXCAVATION

Channel Excavation is not a plan quantity item since constant scouring and shoaling is normal in locations where this item is used.

(A.) Pre-construction sections shall always be taken prior to beginning of excavation.

(B.) Final sections are always required and must be plotted in conjunction with the template to determine the limits of final pay quantity.

(C.) If shoaling occurs after final cross-sectioning and prior to final acceptance of the job and the Engineer authorizes the shoaled material to remain in place, re-cross-sectioning must be done. The volume of any such material remaining within the limits of channel excavation shown in the plans shall be deducted from the measured quantity of Channel Excavation.

5.16.12 ELECTRONIC DATA COLLECTION ON CONSTRUCTION PROJECTS

(A.) Definitions:

Digital Terrain Model (DTM): An irregular triangulation network that defines a surface.

Electronic Field Book (EFB): FDOT's system for survey data collection and processing. This system has defined formats for unprocessed observations, processed observations, and analysis reports created during survey data processing. More information about the ***EFB*** system can be found at:

http://www.dot.state.fl.us/surveyingandmapping/doc_pubs.shtm

New Alignment: A proposed plan alignment, which is different from the existing roadway alignment shown in the plans.

(B.) Requirements:

The methods described herein apply to surveys being performed on all Department contracts with automatic or semi-automatic total station equipment (radial survey). They are not intended to replace the methods for performing conventional cross-

section surveys as defined elsewhere in this manual, but are intended to supplement them.

Note: All survey data generated for construction must adhere to the Department's surveying standards.

In making the decision to use radial survey methods with total station equipment, the Consultant must assure the Department that the following field survey and data processing requirements can be met:

(1.) Sufficient project control data (horizontal and vertical) exists or can be established to provide for all radial survey coverage.

(2.) Perform radial survey that meets the Triangulated Irregular Network (TIN) criteria for generating a Digital Terrain Model (DTM).

(3.) Software to compute an acceptable DTM from the radial survey data points and break line data point strings.

(4.) Field check the DTM surface, using cross-sections or profiles extracted from the DTM as compared to actual supplemental field survey.

(5.) Compute cross-sections from the DTM surfaces, perpendicular to defined alignments.

(6.) Compute earthwork volumes by the method of average end areas using Department approved software and methods.

(7.) Furnish all deliverables in a file format and medium that is compatible with Department software, as defined in these procedures or in the contract scope of services.

(C.) Project Control System:

Radial surveys must be referenced to the same project control system (baseline/centerline coordinates and benchmark datum) that was used for the Location and Design work. This basic requirement is to ensure that all survey information for the project can be related to the same reference system. This requirement can be met by occupying the existing control points that were established during the Location survey. Or, if additional control is needed, the existing control system may be extended by:

(1.) Running a closed traverse and bench levels through the required point or points.

(2.) Setting an unknown point, occupying it with the total station instrument and taking sufficient observations to define its position relative to the existing control system, as further described later.

(3.) Using technology such as Global Positioning System (GPS) and bench levels to supplement existing survey control.

(D.) Calibration of Conventional Total Station equipment:

The surveyor must take every precaution to ensure that the total station equipment is in proper adjustment and is obtaining accurate field data. To identify systematic errors inherent in any angle-measuring device, an axis test of the instrument will be performed on a regular interval, at least once weekly.

An acceptable axis test consists of pointing at a fixed target three or more times in the Face 1 (direct) telescope orientation and recording the horizontal direction (H) and vertical direction (V) readings for each pointing. Then, transiting or “flopping” the telescope and pointing at the same target an equal number of times in the Face 2 (reverse) telescope orientation and recording those values. The values of the horizontal and vertical angle for each pointing at the target are used to perform the computations to determine if the instrument is in adjustment.

Each year and whenever the difference between the mean of the direct and the mean of the reverse readings depart from 180 degrees by more than 30 seconds, the instrument must be taken out of service and be adjusted for collimation error.

Readjustment of the instrument’s crosshairs and the level bubbles shall be done whenever their misadjustments affect the instrument reading by the amount of the least count, as specified for the Third Order Class II surveys. The total station instrument and retro-reflector prisms should be serviced on a regular basis and checked frequently on a calibration base line of known distance.

(E.) Establishing Position and Orientation of the Surveying Instrument:

When collecting field data by radial survey, there are two acceptable methods of establishing position and orientation of the instrument:

(1.) Setup Over Known Control Point: The instrument is setup over an existing control point, or one that can be related to the baseline or centerline of the project by the geometry and elevations furnished. The (XYZ) coordinate of the point setup over must be known. The height of the instrument above the control point must be measured and recorded. When the above is done, the position of the instrument has been established.

i. To establish orientation of the instrument, a back sight will be made by pointing to a target of a known height on a second control point with a known (XYZ) coordinate. The instrument's horizontal circle will be "zeroed" while pointing to the back sight control point. A back sight measurement of the horizontal direction, vertical direction, and distance (HVD) will be measured and recorded, including the target height. Position and orientation is now completed. Radial measurements (HVD) may be made and recorded for new survey points. All horizontal angles will be expressed as angles measured in the direct (Face 1) position.

ii. At the end of the field survey operations, the user shall again sight the original back sight control point and record the measurements, to ensure that the instrument was not disturbed during survey operations.

(2.) Setup Over an Unknown Point: When the instrument must be set-up in a location that does not have a prior known (XYZ) coordinate or is not tied to the control geometry and project bench mark datum, a semi-permanent monument should be set to perpetuate the location of the setup position. A bridge spike, hub and tack, iron rod or equivalent marker, which will last throughout the data gathering operations, will serve this purpose. When the instrument is set-up, the height of the instrument above the set monument will be measured and recorded.

i. To establish the position of, and orient the instrument setup over the unknown point, the setup must be tied by field measurements to two points of known position. A back sight will be made to the first control point with a known (XYZ) coordinate. The horizontal measuring circle will be "zeroed" and HVD measurements will be made and recorded. A second control point with known coordinates will be selected and HVD measurements made and recorded. If available, a third control point with known coordinates may be selected and measured as a check on the position of the instrument. Target heights will also be recorded for all measurements.

ii. With the setup position properly established, radial measurements (HVD) to additional new survey points may then be made and recorded. All horizontal angular values will be expressed as angles measured in the direct (Face 1) position.

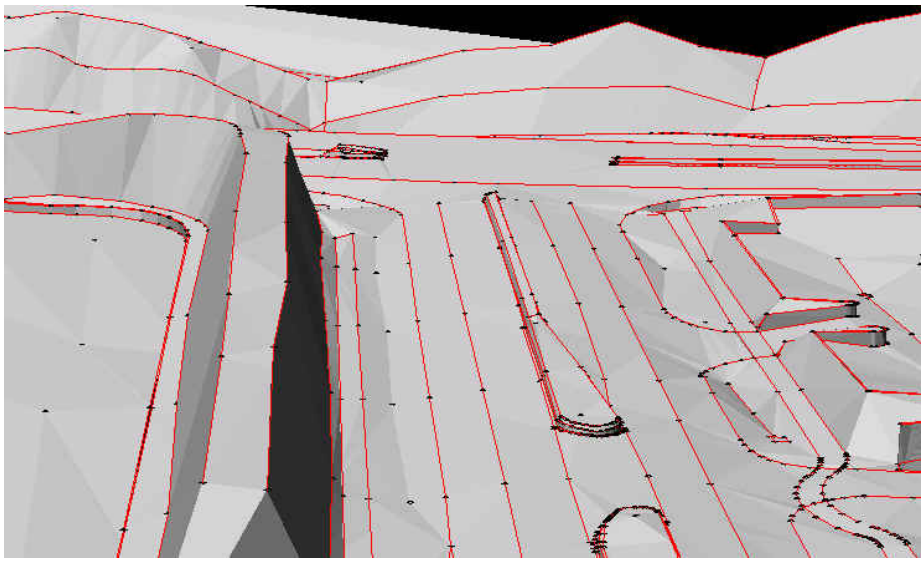
iii. At the end of the field measurements, the observer shall always sight the original back sight and take check measurements and record them. Again, this is to ensure that the instrument has not been disturbed during survey operations.

(F.) Field Observations (HVD) for DTM Surveys:

Radial survey procedures may be used to determine pre-construction surface elevations; and as the work of excavation or fill is accomplished, radial survey procedures may be used to determine final surface elevations. From DTM surfaces derived from radial survey methods, cross-sections can be generated as needed. This makes the DTM a valuable method for quantity surveys, since cross-sections can be generated at any interval along an alignment on any of the DTM surfaces.

(1.) Collect data points that represent surface elevations on the ground at reasonable proximity to accurately represent the surface. It is also important to define breaklines along boundaries in the terrain where sharp or abrupt changes in surfaces occur. Break lines along the terrain "discontinuities" will be defined by the surveyor, by indicating the connection of points representing the breakline profiles.

Below is an example of a terrain surface defined by points and breaklines:



(2.) The Department requires that the field measurements (raw field data) be recorded and submitted in an acceptable format, as backup records for all DTM's.

(3.) Most electronic data collectors (i.e., FDOT's EFB) are capable of recording HVD data. If the Consultant elects to use a data collection system that only produces XYZ coordinates, the raw field data (HVD) must be recorded in the field records. Reduced data, (XYZ) coordinates, alone will not be acceptable.

(4.) To assist in verifying the field notes and as an aid in checking the reduced data, the survey party shall prepare a sketch or layout of each setup and the area covered by observations. The sketch shall show the setup point, the back sight point(s), and the identification data for the location of all field data taken from the setup position.

(5.) ***Figures 5.16-11*** through ***5.16-14*** provide examples of manual field records used in lieu of electronically data collected records.

(G.) Generating the DTM Surfaces:

Surface-modeling techniques, such as using triangles to represent small continuous surface areas are known as the Triangulated Irregular Network (TIN). TIN has become the standard for terrain modeling for meeting engineering requirements. Each vertex of a triangle in the TIN is formed by a field measured data point, and is located by its (XYZ) coordinate. The TIN model is constructed by connecting these survey data points to their nearest neighboring points (in XY), forming a network (surface) of irregular triangles.

(1.) It is important that the survey crew understand the TIN methodology and the assumptions made by the software when they are taking the survey data points for a DTM using the TIN method.

(2.) Before the working cross-sections are generated for earthwork computations, the DTM surfaces shall be field checked using randomly generated cross-sections or profiles extracted from the model. These cross-sections and profiles are then compared to actual ground shots taken to determine if the model matches the real-world terrain surface. This quality control check shall be performed before TIN data is used in quantities calculations.

(H.) Cross-Sections from DTM Surfaces:

Once the DTM surface has been computed and field checked, cross-sections may be computed at the specified interval along the centerline or baseline. If final quantities are to be compared to original plan quantities, the location of TIN

extracted cross-sections must be the same as the cross-sections contained in the design plans.

(1.) Field measured quantities, such as subsoil excavation, may be referenced to a construction-established baseline, as long as the original and final measurements are from the same reference.

(2.) Design cross-sections, pre-construction cross-sections and final cross-sections must all be compared in order to determine final pay quantities. It is absolutely essential that all field data be referenced to the same alignment and station values.

(I.) Survey Deliverable Data:

Requirements necessitate the retention of surveying records and backup data to support the quantity computations. This requires that the consultant CEI or in-house project personnel deliver certain data in a format that can be retained, verified, and if necessary used to replicate the processed data at some future point in time.

(1.) When radial survey is used, project personnel shall use the approved survey data formats authorized for use on FDOT surveys. ***FDOT's Multiline Earthwork PC Program*** or any other FDOT approved software should be used to calculate final pay earthwork volumes. If a consultant or CEI prefers to use any other software for radial surveying than that authorized for use by FDOT, they must show the Department's District Location Surveyor (DLS) that an alternate system is able to produce the electronic files required for delivery to the Department as outlined later in this section. Prior to the work commencing, the consultant must receive an approval letter signed by the DLS stating that a proposed alternate system is able to produce the electronic files required by the Department.

(2.) The consultant and/or FDOT project personnel shall submit:

i. The original field survey data files produced by the data collection system used to gather the data, regardless of format.

ii. The original field survey measurements in the approved file format for raw survey measurements at FDOT (FDOT .OBS format).

iii. Any changes not observed in the field must be annotated in redline markup, and include an explanation of each change.

iv. The reduced and processed field survey data in the Department's .XYZ file format.

v. The survey control used to reduce and process the original field survey data in the Department's .CTL file format.

vi. All output reports generated by the programs used to reduce and process the field survey data.

Note: It is the responsibility of the DLS or the delegate to verify survey data processing results before being acceptable to the Department.

(3.) At the completion of work, submit to the DLS or the delegate all files described herein, any additional reports and forms required by the DLS, such as a ***DTM Certification Form*** (if applicable), and a ***Project Certification Letter***.

(4.) All reports related to the project.

(5.) All output files for interfacing to MultiLine, GEOPAK, etc. such as the cross-sections in MultiLine .GEN file format, and alignment and other geometric data (including profiles) in GEOPAK Input file format.

(6.) All graphics files of plan metric detail in both 2D and 3D MicroStation file format.

(7.) All DTM TIN models represented as 3D MicroStation files.

(8.) A project Journal file that describes:

i. For each DTM, a description of the surfaces, DTM settings used, survey data used to define the surface(s). The Journal shall include the alignment names and scan/pattern lines used to cut cross-sections, cross-section file names with their usage/application, and contour settings.

ii. For each output report generated, describe the purpose of the report and the information needed to re-generate the report.

iii. For each output file, describe the purpose of the file and the information needed to re-generate the file.

(9.) All data submitted must be identified with the Financial Project Identification Number, State Roadway number(s), Project Number(s), Consultant Identification (Names, addresses, etc.), and Contract number.

(10.) No project will be considered acceptable or complete until all deliverables are submitted and approved by the appropriate FDOT authority.

5.16.13 List of Figures Following This Chapter

Figure No. 5.16-1 .....Earthwork Survey/Cross-Sections Waiver
Figure No. 5.16-2 ..... Preconstruction Survey Waiver Letter
Figure No. 5.16-3 ..... Preconstruction Survey Waiver Letter
Figure No. 5.16-4 ..... Subsoil-Cross-section Notes
Figure No. 5.16-5 ..... Subsoil-Cross-section Notes
Figure No. 5.16-6 ..... Subsoil-Cross-section Notes
Figure No. 5.16-7 ..... Subsoil-Cross-section Notes
Figure No. 5.16-8 ..... Subsoil-Cross-section Notes (Extra-Depth Muck)
Figure No. 5.16-9 ..... Subsoil-Cross-section Notes (Extra-Depth Muck)
Figure No. 5.16-10 ..... Subsoil-Cross-section Notes (Extra-Depth Muck)
Figure No. 5.16-11 .....Manuscript Field Book Notes
Figure No. 5.16-12 .....Notes on Grid Paper
Figure No. 5.16-13 .....Manuscript Field Book Notes
Figure No. 5.16-14 .....Notes on Grid Paper

Figure 5.16-1
EARTHWORK SURVEY/CROSS-SECTIONS WAIVER

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

EARTHWORK SURVEY / CROSS SECTIONS WAIVER

700-050-35
CONSTRUCTION
10/13

FINANCIAL PROJECT ID.: _____ DATE: _____

F.A.P. No.: _____ SR. No.: _____ COUNTY: _____

CONTRACT No.: _____ C.E.I.: _____

RESIDENT ENGINEER / OFFICE: _____

PROJECT ENGINEER / MANAGER: _____

DESIGNER OF RECORD / FIRM: _____

CONTRACTOR: _____

Minor Widening Projects with Truck Measured Borrow

☐ Regular Excavation _____ LS ☐ Truck Measured Borrow _____ CY

Other Construction Projects with Earthwork

☐ Regular Excavation (LS)		☐ Regular Excavation	_____ CY
☐ Embankment (LS)		☐ Embankment	_____ CY
☐ Subsoil Excavation		☐ Channel Excavation	_____ CY
☐ Other	_____ CY	☐ Borrow (Truck Measured)	_____ CY

Comments:

FOR DISTRICT OFFICE USE ONLY

Verification of Plan Quantity:

The following check section survey requirements are **waived** as per Chapter 5.16 of the Construction Project Administration Manual (CPAM):

☐ Original Survey, Cross Sections ☐ Final Survey, Cross Sections

☐ Complete Bench Run ☐ Other Checks Required

Comments:

SIGNATURE: _____ DATE: _____

District Final Estimates Manager/District Construction Engineer

NOTE: TO BE USED FOR EARTHWORK ITEMS ONLY

Figure 5.16-2
PRECONSTRUCTION SURVEY WAIVER LETTER

READ RECEIPT

Resident/Consultant Office
Address
City, State Zip
Date

Contractor's Name
Address
City, State Zip

SUBJECT: PRECONSTRUCTION SURVEY
Job description:
Financial Project ID:
Work Program Item No. (old):
State Job No. (old):
Federal Project ID:
County/Section No.:

Dear Sir:

Preliminary checks of the original ground line, as shown in the plan cross-sections, have been made and the Department will take appropriate action as follows:

CHOICE # 1

Preliminary checks indicate that the original ground line, as shown in the plan cross-sections are in substantial compliance with Subarticle 9-1.3.1 and 9-3.2 of the Departments Standard Specification for Road & Bridge Construction. Therefore, no preconstruction survey will be performed and the original ground line, as shown in the plans, will be used for final pay purposes.

CHOICE # 2

Preliminary checks of the original ground line, as shown in the plan cross-sections, indicate that changed conditions may exist.

A complete Preconstruction Survey will be performed, as necessary, and final pay quantities will be adjusted per Subarticle 9-1.3.1 and 9-3.2 of the Departments Standard Specifications for Road & Bridge Construction as appropriate.

A copy of the preconstruction survey and any quantity adjustments will be available as they are completed; however, due to a limited amount of time prior to the start of construction, it is recommended that __CONTRACTOR'S NAME____take the appropriate action for "verification" prior to disturbance of the original ground as per the contract specifications. CONTRACTOR'S NAME_ representative upon request, may accompany our survey crew in a joint effort or as part of your own "verification" process.

THIS SECTION IS INCLUDED ON LETTER REGARDLESS OF WHICH VERSION CHOSEN

If you are in agreement with this action, please return this letter with your signature. If you have any questions or if we can be of further assistance, please contact me at _____PHONE NUMBER____. Your failure to respond by email or submittal of this form within ten (10) days from receipt of this notice shall be a waiver of your right to object to the Department's position as stated above.

Sincerely,

Project or Project Resident Engineer

XXX/xx

By signature of this letter, ___NAME OF CONTRACTOR____ herewith agrees to the recommendations outlined above.

_____ _____
Contractor's Signature Date

Figure 5.16-3
PRECONSTRUCTION SURVEY WAIVER LETTER

Resident/Consultant Office
Address
City, State Zip
Date

Contractor's Name
Address
City, State Zip

SUBJECT: PRECONSTRUCTION SURVEY
Job Description:
Financial Project ID:
Work Program Item No.(old):
State Job No.(old):
Federal Project ID:
County/Section No.:

Dear Sir:

In light of your refusal to respond to the letter submitted to you on ___DATE___ regarding preconstruction survey of the original ground line elevation, the Department takes the position that the cross-sections in the plans are correct as shown.

This letter is to remind you of the requirements of Subarticle 9-1.3.1, 9-3.2 and 9-3.3 of the Department's Standard Specifications for Road and Bridge Construction.

As you know, once the original ground has been disturbed, it will be impossible to take accurate original ground cross-sections. If you decide to take a cross-section survey of the original ground, we require that you notify the Department in advance so we will have the opportunity to verify your survey.

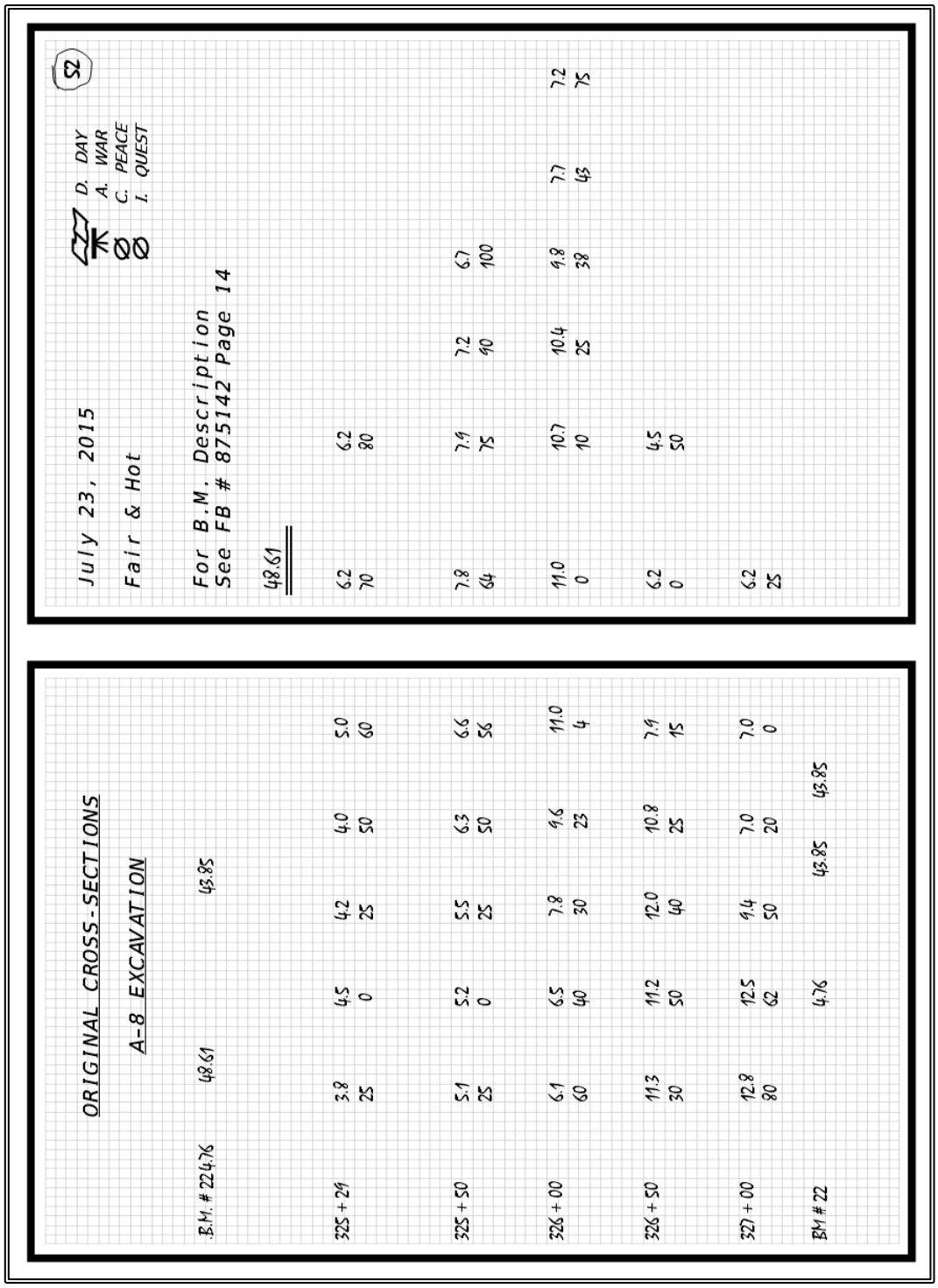
Your failure to respond within ten (10) days from receipt of this notice shall be a waiver of your right to object to the Department's position as stated above.

Sincerely,

Resident Engineer/Project Engineer

XXX/xx

Figure 5.16-4
SUBSOIL – CROSS-SECTION NOTES



ORIGINAL CROSS-SECTIONS

A-8 EXCAVATION

B.M. # 224.76	48.61				43.85																														
325 + 29	3.8	25	4.5	0	4.2	25	4.0	50	5.0	60																									
325 + 50	5.1	25	5.2	0	5.5	25	6.3	50	6.6	56																									
326 + 00	6.1	60	6.5	40	7.8	30	9.6	25	11.0	4																									
326 + 50	11.3	30	11.2	50	12.0	40	10.8	25	7.9	15																									
327 + 00	12.8	80	12.5	62	9.4	50	7.0	20	7.0	0																									
BM # 22			4.76								43.85																								

52

July 23, 2015

Fair & Hot

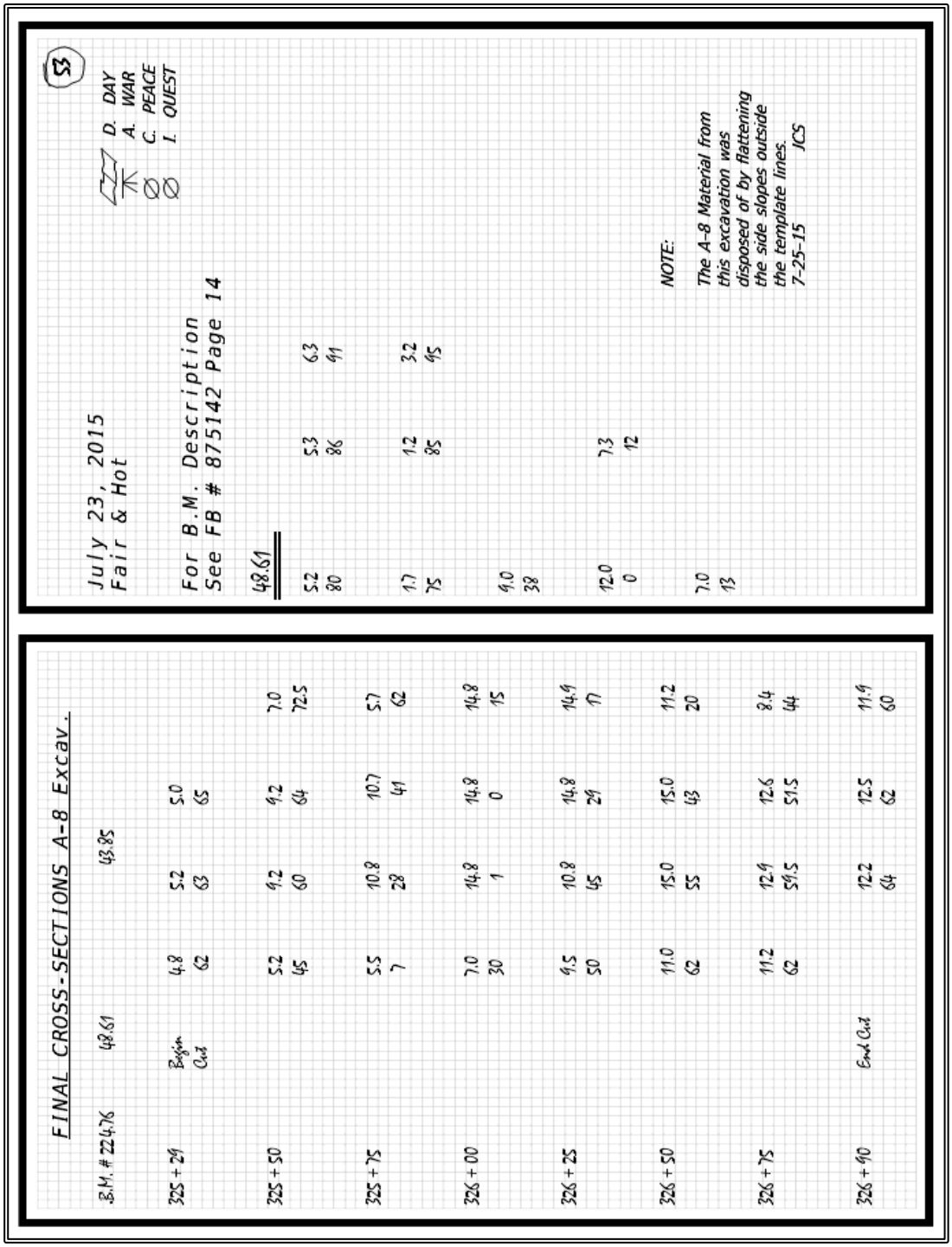
D. DAY
A. WAR
C. PEACE
I. QUEST

For B.M. Description
See FB # 875142 Page 14

48.61

325 + 29	6.2	70					6.2	80																											
325 + 50	7.8	64					7.9	75	7.2	90	6.7	100																							
326 + 00	11.0	0					10.7	10	10.4	25	9.8	38	7.7	43	7.2	75																			
326 + 50	6.2	0					4.5	50																											
327 + 00	6.2	25																																	

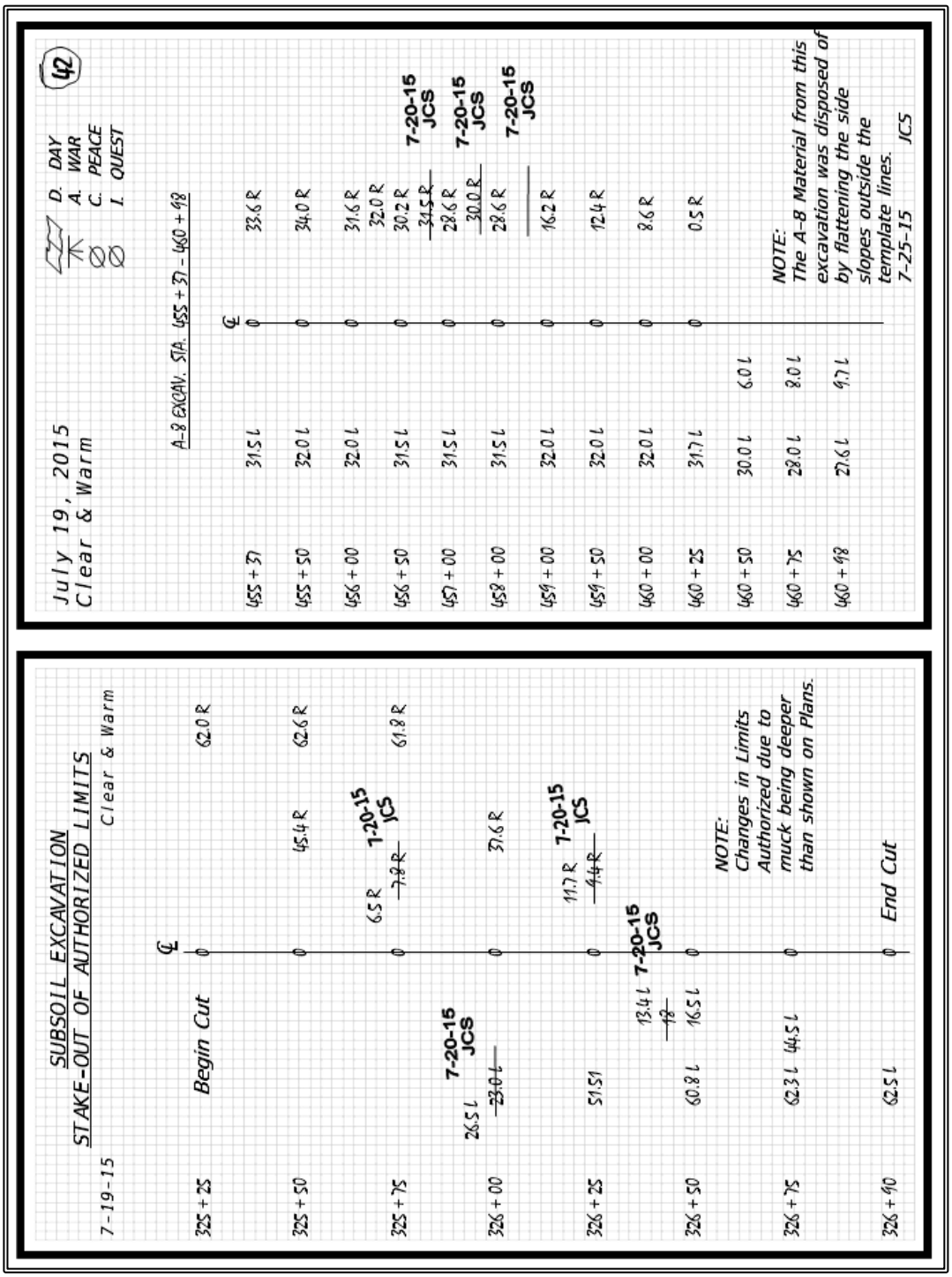
Figure 5.16-5
SUBSOIL – CROSS-SECTION NOTES



FINAL CROSS-SECTIONS A-8 Excav.

| | | |

Figure 5.16-6
SUBSOIL – CROSS-SECTION NOTES



SUBSOIL EXCAVATION
STAKE-OUT OF AUTHORIZED LIMITS
7-19-15 Clear & Warm

325+25	Begin Cut	℄ 0	62.0 R	
325+50		0	62.6 R	45.4 R
325+75		0	61.8 R	6.5 R ~~7.8 R~~ 7-20-15 JCS
326+00		0	37.6 R	26.5 L ~~23.0 L~~ 7-20-15 JCS
326+25		0	51.51	11.7 R ~~4.4 R~~ 7-20-15 JCS
326+50		0	60.8 L 16.5 L	13.4 L ~~12~~ 7-20-15 JCS
326+75		0	62.3 L 44.5 L	NOTE: Changes in Limits Authorized due to muck being deeper than shown on Plans.
326+90	End Cut	0	62.5 L	

July 19, 2015
Clear & Warm

D. DAY
A. WAR
C. PEACE
I. QUEST

42

A-8 EXCAV. STA. 455+37 - 460+98

455+37	31.5 L	℄ 0	33.6 R	
455+50	32.0 L	0	34.0 R	
456+00	32.0 L	0	31.6 R	
456+50	31.5 L	0	32.0 R 30.2 R ~~31.5 R~~ 7-20-15 JCS	
457+00	31.5 L	0	28.6 R ~~30.0 R~~ 7-20-15 JCS	
458+00	31.5 L	0	28.6 R 7-20-15 JCS	
459+00	32.0 L	0	16.2 R	
459+50	32.0 L	0	12.4 R	
460+00	32.0 L	0	8.6 R	
460+25	31.7 L	0	0.5 R	
460+50	30.0 L	6.0 L		
460+75	28.0 L	8.0 L		NOTE: The A-8 Material from this excavation was disposed of by flattening the side slopes outside the template lines. 7-25-15 JCS
460+98	27.6 L	9.7 L		

Figure 5.16-7
SUBSOIL – CROSS-SECTION NOTES

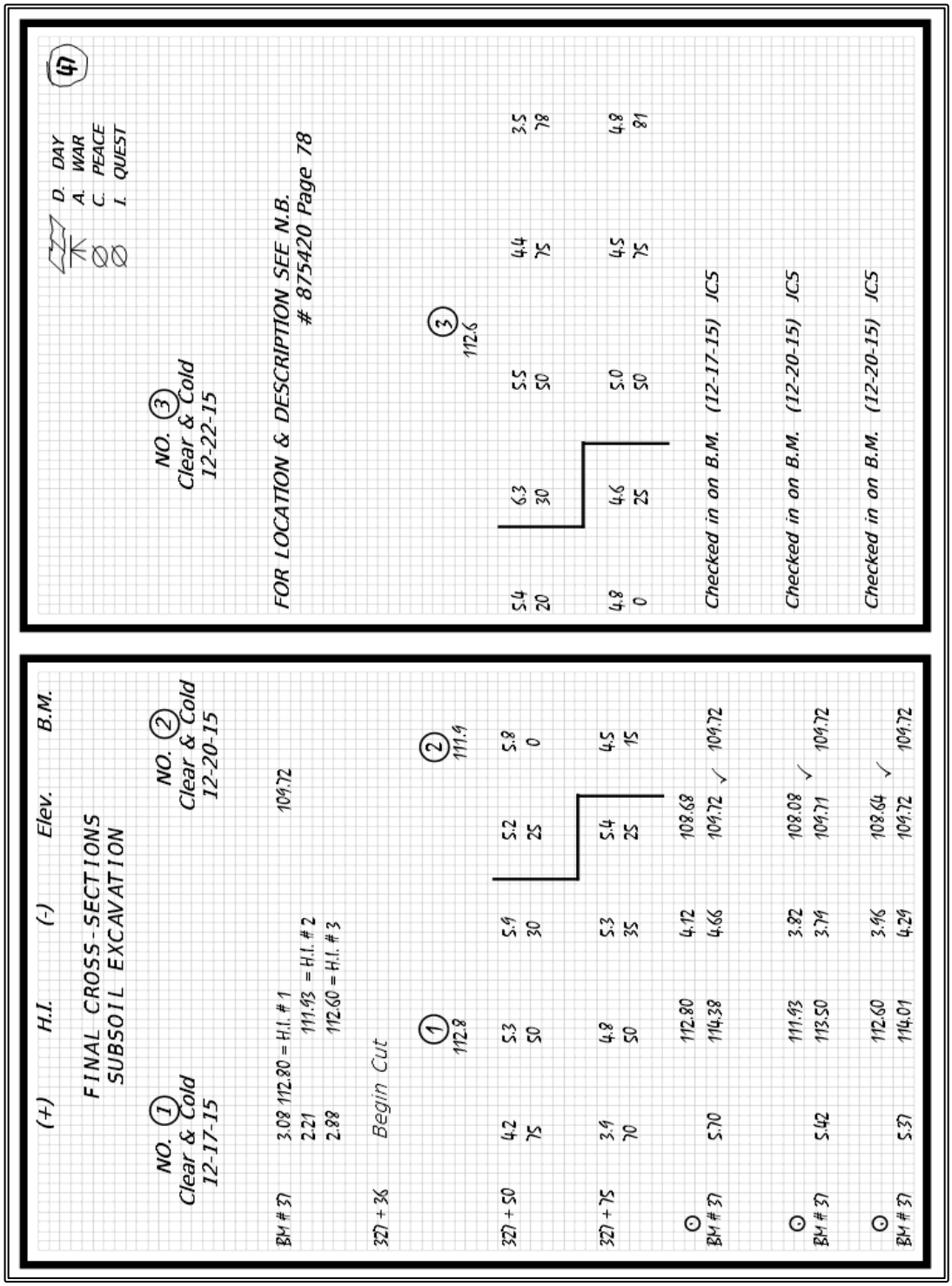
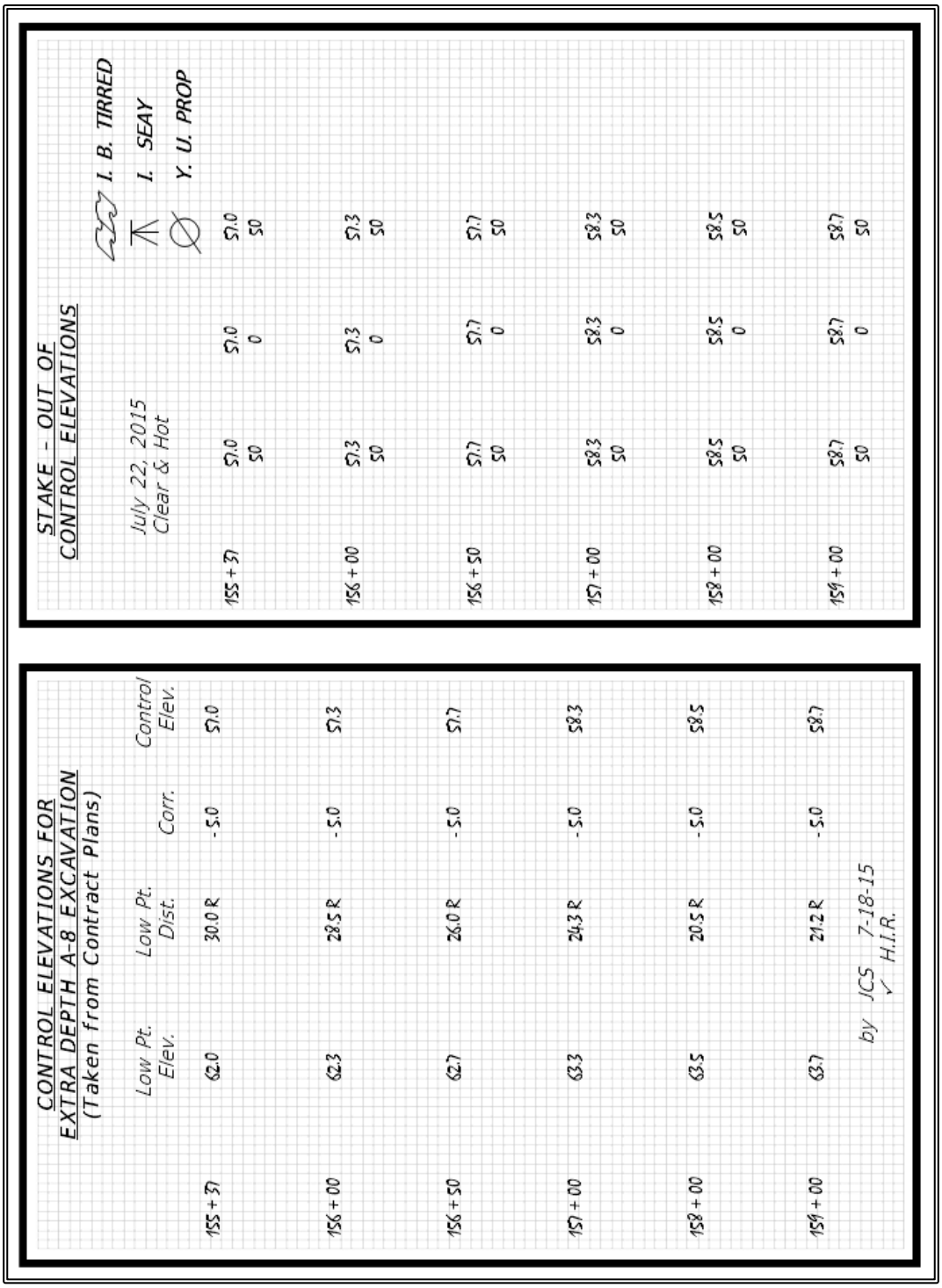


Figure 5.16-8
SUBSOIL – CROSS-SECTION NOTES (EXTRA-DEPTH MUCK)



CONTROL ELEVATIONS FOR
EXTRA DEPTH A-8 EXCAVATION
(Taken from Contract Plans)

	Low Pt. Elev.	Low Pt. Dist.	Corr.	Control Elev.
155 + 37	62.0	30.0 R	-5.0	57.0
156 + 00	62.3	28.5 R	-5.0	57.3
156 + 50	62.7	26.0 R	-5.0	57.7
157 + 00	63.3	24.3 R	-5.0	58.3
158 + 00	63.5	20.5 R	-5.0	58.5
159 + 00	63.7	21.2 R	-5.0	58.7

by JCS 7-18-15
✓ H.I.R.

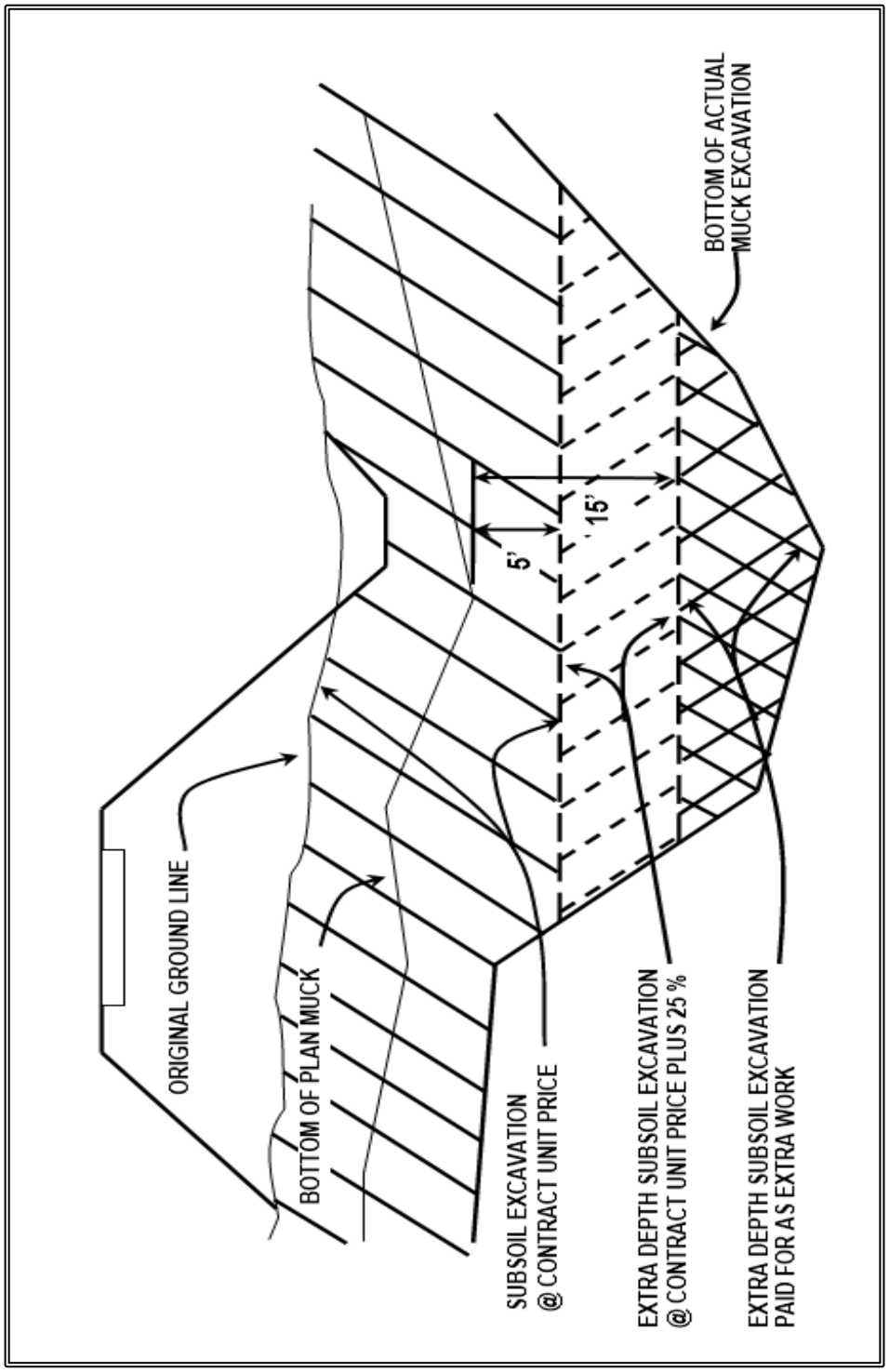
STAKE - OUT OF
CONTROL ELEVATIONS

July 22, 2015
Clear & Hot

155 + 37	57.0	57.0	57.0	57.0
	50	0	50	50
156 + 00	57.3	57.3	57.3	57.3
	50	0	50	50
156 + 50	57.7	57.7	57.7	57.7
	50	0	50	50
157 + 00	58.3	58.3	58.3	58.3
	50	0	50	50
158 + 00	58.5	58.5	58.5	58.5
	50	0	50	50
159 + 00	58.7	58.7	58.7	58.7
	50	0	50	50

I. B. TIRRED
I. SEAY
Y. U. PROP

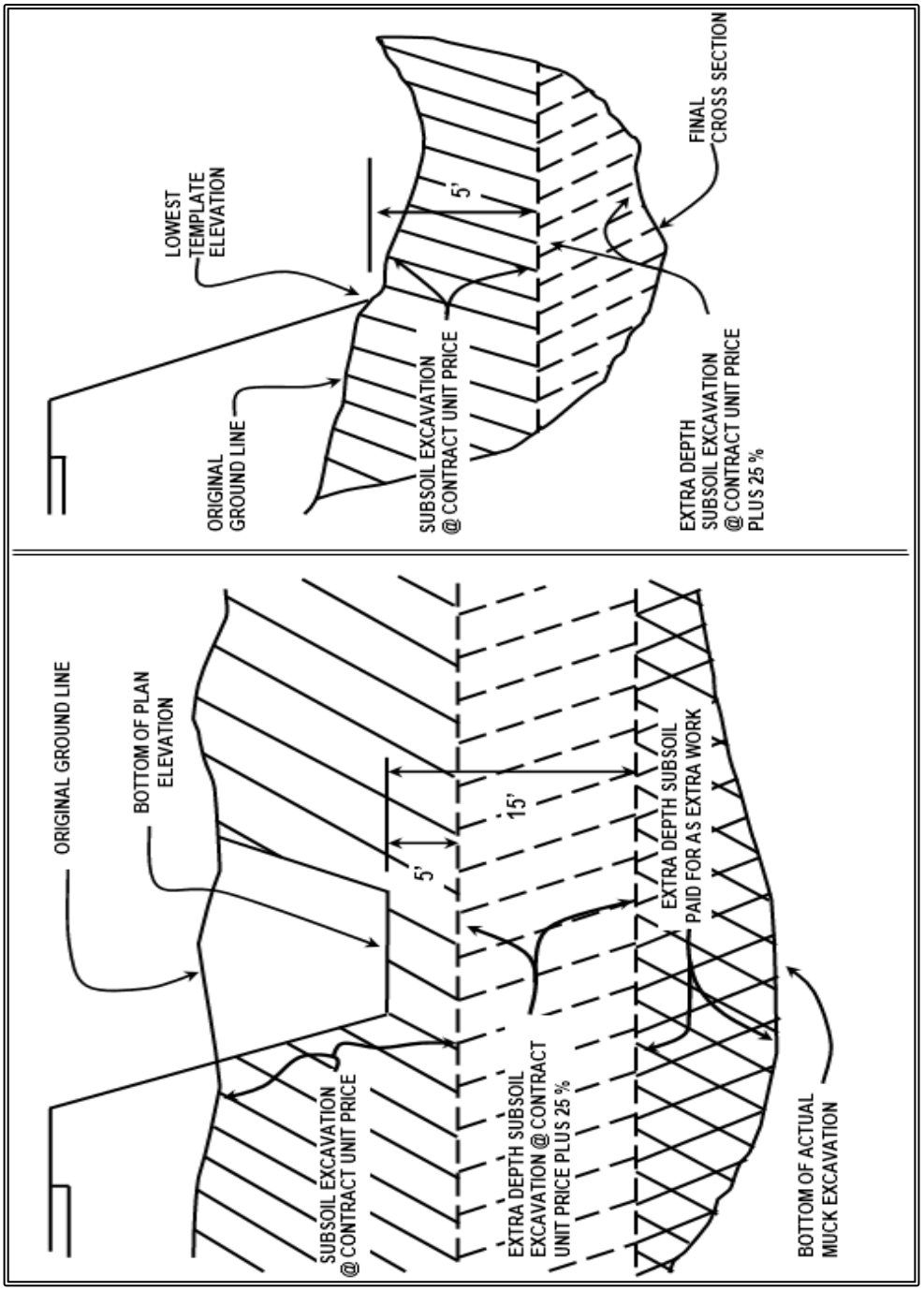
Figure 5.16-9
SUBSOIL – CROSS-SECTION NOTES (EXTRA-DEPTH MUCK)



CASE I:

IN EVERY CASE, THE POINT OF REFERENCE FOR DETERMINING EXTRA DEPTH SUBSOIL EXCAVATION SHOULD BE THE LOWEST ELEVATION THAT MUCK IS SHOWN ON THE PLAN CROSS-SECTION AND THIS ELEVATION PROJECTED HORIZONTALLY ACROSS THEIR ENTIRE CROSS-SECTION IN MAKING THIS DETERMINATION. EACH CROSS-SECTION SHALL BE CONSIDERED SEPARATELY.

Figure 5.16-10
SUBSOIL – CROSS-SECTION NOTES (EXTRA-DEPTH MUCK)



CASE II:

WHEN SUBSOIL EXCAVATION IS ENCOUNTERED WHERE NONE WAS SHOWN ON THE PLANS, EITHER IN SEPARATE AREAS OR AS AN EXTENSION TO AREAS THAT WERE SHOWN, THE POINT OF REFERENCE SHALL BE THE LOWEST ELEVATION ON THE GRADING TEMPLATE.

Figure 5.16-11
MANUSCRIPT FIELDBOOK NOTES

MANUSCRIPT FIELD BOOK NOTES-FDOT RADIAL & DTM FIELD SURVEYS

READER INFORMATION:

DATE: 05-26-15
FIELD PARTY:
Arnold Redman
Jerry Gypsum
Jack Ketchum

FIN PROJ. NO: 1979341-52-02
DSECS: Broward Blvd Connector

S.P. ZONE: E (N/E/W) MAD: 83 (27/83)
UNITS: ✓ ENGLISH: _____ METRIC

INSTRUMENT NAME: Top Con GTS-38
WEATHER DATA: Warm, partly cloudy
AXIS TEST:

	FACE 1 (direct)		FACE 2 (reversed)	
1)	H: 0 0 1	V: 105 0 10	H: 180 0 1	V: 254 59 46
2)	H: 0 0 1	V: 105 0 12	H: 179 59 57	V: 254 59 48
3)	H: 359 59 58	V: 105 0 10	H: 179 59 54	V: 254 59 45
4)	H: 0 0 1	V: 105 0 12	H: 180 0 2	V: 254 59 45

COMMENTS: See attached for instrument errors

INSTRUMENT SETUP INFORMATION:

NAME OF POINT OCCUPIED: A-1
STAMPING: RLS # 4508 (may be a known point or unknown point)

FEATURE INFO: 5/8" Rod & Cap SURFACE: Ground ✓ ON ____ OFF
MEASURED INTRUMENT HEIGHT: 4.87'
X: ____ Y: ____ Z: ____
COMMENTS: Pt. in front of 7-11 store Sta 12+29 112.6' Lt.

BACKSIGHT NO. 1

NAME OF CONTROL POINT SIGHTED: C-1
STAMPING: Jones 1936 (XY AND Z MUST BE KNOWN)
FEATURE INFO: Brass Disk SURFACE: N/A ____ ON ____ OFF
HORIZ ANGLE (DDDMMSS) 129 41 10 VERT ANGLE (DDDMMSS) 89 59 58
DISTANCE: 268.97' ____ SLOPE ✓ HORIZONTAL
TARGET HEIGHT: 5.0'
X: 929 493.730 Y: 667 143.749 Z: 435
COMMENTS:

BACKSIGHT NO. 2

NAME OF CONTROL POINT SIGHTED: C-2
STAMPING: Jones 1936 AZMK (XY AND Z MUST BE KNOWN)
FEATURE INFO: Brass Disk SURFACE: N/A ____ ON ____ OFF
HORIZ ANGLE (DDDMMSS) 65 28 44 VERT ANGLE (DDDMMSS) 90 0 1
DISTANCE: 428.15' ____ SLOPE ✓ HORIZONTAL
TARGET HEIGHT: 5.0'
X: 929 606.274 Y: 667 493.204 Z: ____
COMMENTS:

BACKSIGHT NO. 3

NAME OF CONTROL POINT SIGHTED: STA 12+75
STAMPING: ____ (XY AND Z MUST BE KNOWN)
FEATURE INFO: Nail in Cap SURFACE: N/A ____ ON ____ OFF
HORIZ ANGLE (DDDMMSS) 69 51 58 VERT ANGLE (DDDMMSS) 90 0 2
DISTANCE: 121.63' ____ SLOPE ✓ HORIZONTAL
TARGET HEIGHT: 5.0'
X: ____ Y: ____ Z: ____
COMMENTS: PC of 3 24 30 curve on Broward Blvd Connector

(Note: Horiz. Angle mandatory. Vert. Angle & distance optional)

Figure 5.16-12
NOTES ON GRID PAPER

	HORIZONTAL				VERTICAL		
D	0	0	1.0		105	0	10.0
D	0	0	1.0		106	0	12.0
D	359	59	58.0		105	0	10.0
D	0	0	1.0		105	0	11.0
MEAN	0	0	0.25		105	0	1.0
R	180	0	1.0		254	59	46.0
R	179	59	57.0		254	59	48.0
R	179	59	59.0		254	59	45.0
R	180	0	2.0		254	59	46.0
MEAN	179	59	58.5		254	59	46.0
-	180	0	0.25		254	59	49.0
=	-0	0	1.75		-254	59	46.0
12	-0	0	0.875	12	0	0	1.5

Figure 5.16-13
MANUSCRIPT FIELDBOOK NOTES

MANUSCRIPT FIELD BOOK NOTES – FDOT RADIAL & DTM FIELD SURVEYS

OBSERVATION:

POINT NAME EP - 1
FEATURE: ——
SURFACE: Ground ✓ ON ___ OFF
GEOMETRY: ✓ POINT ___ CURVE
HORIZ. ANGLE (DDDMMSS) 133 37 35
VERT. ANGLE (DDDMMSS) 89 59 59
DISTANCE 110.45' ___ SLOPE ✓ HORIZ
TARGET HEIGHT: 5'
ECCEN. DIST. ___ LT ___ RT ___ FR ___ BK
COMMENTS:

OBSERVATION:

POINT NAME EP - 2
FEATURE: ——
SURFACE: Ground ✓ ON ___ OFF
GEOMETRY: ✓ POINT ___ CURVE
HORIZ. ANGLE (DDDMMSS) 86 53 39
VERT. ANGLE (DDDMMSS) 89 59 20
DISTANCE 83.08' ___ SLOPE ✓ HORIZ
TARGET HEIGHT: 5'
ECCEN. DIST. ___ LT ___ RT ___ FR ___ BK
COMMENTS:

OBSERVATION:

POINT NAME EP - 3
FEATURE: —— OFF
SURFACE: Ground ✓ ON ___ OFF
GEOMETRY: ✓ POINT ___ CURVE
HORIZ. ANGLE (DDDMMSS) 46 50 54
VERT. ANGLE (DDDMMSS) 89 59 59
DISTANCE 123.96' ___ SLOPE ✓ HORIZ
TARGET HEIGHT: 5'
ECCEN. DIST. ___ LT ___ RT ___ FR ___ BK
COMMENTS: point at PC STA on edge of pavement

OBSERVATION:

POINT NAME EP - 4
FEATURE: ——
SURFACE: ✓ ON ___ OFF
GEOMETRY: ___ POINT ✓ CURVE
HORIZ. ANGLE (DDDMMSS) 32 30 6
VERT. ANGLE (DDDMMSS) 90 2 27
DISTANCE 194.78' ___ SLOPE ✓ HORIZ
TARGET HEIGHT: 5'
ECCEN. DIST. ___ LT ___ RT ___ FR ___ BK
COMMENTS:

OBSERVATION:

POINT NAME EP - 5
FEATURE: ——
SURFACE: Ground ✓ ON ___ OFF
GEOMETRY: ___ POINT ✓ CURVE
HORIZ. ANGLE (DDDMMSS) 26 33 1
VERT. ANGLE (DDDMMSS) 90 0 10
DISTANCE 271.92' ___ SLOPE ✓ HORIZ
TARGET HEIGHT: 5'
ECCEN. DIST. ___ LT ___ RT ___ FR ___ BK
COMMENTS:

OBSERVATION:

POINT NAME
FEATURE:
SURFACE: ___ ON ___ OFF
GEOMETRY: ___ POINT ___ CURVE
HORIZ. ANGLE (DDDMMSS)
VERT. ANGLE (DDDMMSS)
DISTANCE ___ SLOPE ___ HORIZ
TARGET HEIGHT:
ECCEN. DIST. ___ LT ___ RT ___ FR ___ BK
COMMENTS:

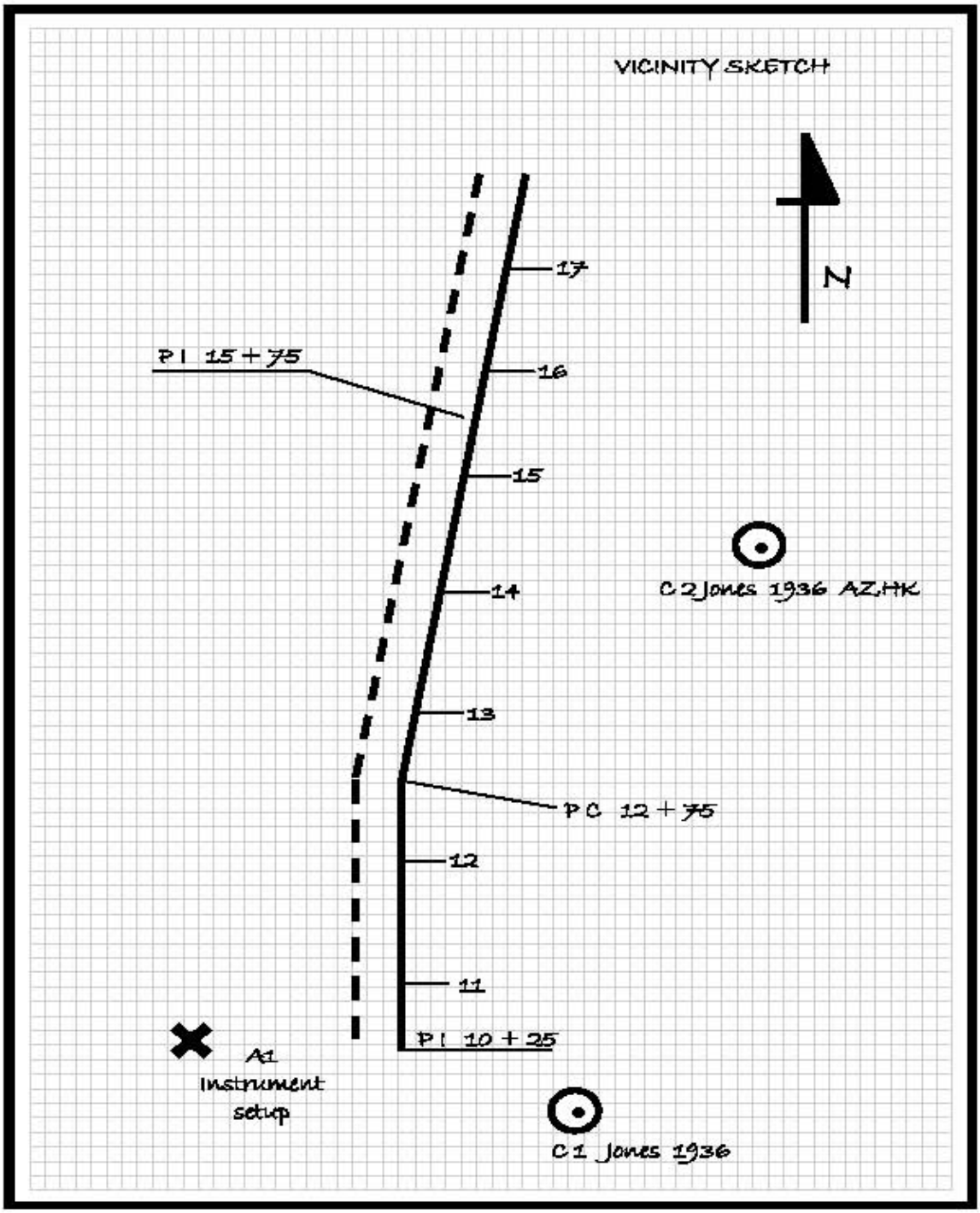
CHAIN FIELD NOTES

USER ASSIGNED CHAIN NAME: EP
FEATURE: edge of pavement (AP) SURFACE: ___ ON ___ OFF
STATIONING: ——
LIST OF POINTS IN CHAIN: EP - 1 → 5

COMMENTS: EOP @ inlets & midway between inlets & shot at PC

NOTE: A DETAILED SKETCH OF THE VICINITY MUST BE ATTACHED TO THESE NOTE FORMS.

Figure 5.16-14
NOTES ON GRID PAPER



Chapter 6

CONTRACT PAYMENTS

6.1 Unpaid Bills Processing 6-1-1
6.1.1 Purpose 6-1-1
6.1.2 Authority 6-1-1
6.1.3 Definitions 6-1-1
6.1.4 General 6-1-2
6.1.5 Certification Requirements 6-1-2
6.1.6 Receipt of Notice of Unpaid Bill from Subcontractor or Supplier 6-1-3
6.1.7 Receipt of Notice of Unpaid Bill from Second Tier Subcontractors/ Suppliers 6-1-4
6.1.8 Notice to Contractor of Withholding 6-1-4
6.1.9 Withholding of Payments 6-1-4
6.1.10 Processing for Falsification of Payment Certification 6-1-4

Guidance Document 6-1-A Sample Letter #1
Guidance Document 6-1-B Sample Letter #2
Guidance Document 6-1-C Sample Letter #3

CHAPTER 6.1

UNPAID BILLS PROCESSING

6.1.1 Purpose

To provide a uniform standard for withholding progress payments due to nonpayment of bills by Contractors on all contracts (construction or maintenance).

6.1.2 Authority

Sections 337.11(11)(a)-(c) and 255.05, Florida Statutes

Rule 14-22, Florida Administrative Code (F.A.C.)

Section 9-5.6 of Standard Specifications for Road and Bridge Construction

6.1.3 Definitions

Prime Contractor: One that enters into a contract with the Department.

Subcontractor: One that enters into a contract with the prime Contractor; one who furnishes labor, materials or equipment and work by equipment rental under rental agreement with the prime Contractor.

Second Tier Subcontractors - a.k.a., Subordinate Subcontractor; any person who enters into a subordinate contract with a subcontractor for the performance of any part of such subcontractor's contract.

Supplier: Any person who furnishes materials under contract to the prime Contractor for direct delivery, specially fabricated materials or off site improvement, and who performs no labor in the installation.

Second Tier Supplier: Any person who furnishes materials under subordinate contract to a subcontractor for direct delivery, specially fabricated materials or off site improvement, and who performs no labor in the installation.

6.1.4 General

There are two distinct cases in this procedure. One is for subcontractors and suppliers for which the prime Contractor is required to certify previous progress payment(s). The second is for sub-subcontractors or material suppliers to subcontractors for which the prime Contractor is not required to certify previous payments. These second or more tier subs/suppliers may desire their legal counsel's advice to protect their rights.

6.1.5 Certification Requirements

The prime Contractor is to certify that he/she has paid all subcontractors and suppliers their pro-rata share of previous progress payments. Any false certification submitted by the Contractor is grounds for denial or revocation of Certification of Qualification or determination of Contractor Non-Responsibility per ***Rule Chapter 14-22, F.A.C.*** Retain the envelope that the prime Contractor submits with the Certification.

(A) Resident Level Responsibilities

No progress payment is to be made after the initial payment until the Contractor provides the certification (***Certification Disbursement of Previous Periodic Payments to Subcontractors, Form No. 700-010-38***). The certification applies to previous progress payments, less any agreed upon retainage between the Contractor and subcontractor.

The certification must be completed as per the instructions on the form or it will be deemed incomplete and non-responsive. If the Contractor's submittal is deemed non-responsive then the matter should be discussed with prime Contractor and sent to the prime Contractor describing any deficiencies as shown in Guidance Documents for this section. The progress estimate will be held until a complete certification has been received.

An exception to the withholding of a progress estimate will be made if the Contractor:

(1) Provides detailed reasons for not making payment of the pro-rata share of progress payment and;

(2) Furnishes written notification of the same to the Department and affected subcontractor(s) and/or suppliers. Note: a copy of this documentation MUST be attached to the certification or it is incomplete.

6.1.6 Receipt of Notice of Unpaid Bill from Subcontractor or Supplier

(A) Resident Level Responsibilities

Upon receipt of unpaid bill notice, the Resident Engineer will send a letter as shown in Guidance Documents for this section, including a copy of the unpaid bill claim, to the prime Contractor, initiating an investigation into the claim. The Resident Engineer will send a copy of the letter and claim to the District Final Estimates Manager (DFEM), The Resident Engineer will investigate any good cause of nonpayment. If the Resident Engineer considers that good cause is demonstrated then progress payments will continue. A good cause is when the prime Contractor and the subcontractor/supplier have a legitimate dispute as to whether or not the money is due and the prime Contractor is only withholding the amount in dispute. The Resident Engineer is not to decide the dispute or determine who might win the dispute. The Resident Engineer must only determine whether a legitimate dispute exists. However, if the Resident Engineer considers that good cause is not demonstrated then the next progress estimate will be withheld. During the investigation, progress payments will continue. The Project Administrator / Resident Engineer shall coordinate their review with the DFEM and the State Construction Office throughout the duration of the investigation.

If a monthly certification is not received and good cause for the same is not demonstrated, the Resident Engineer will notify the District Construction Engineer who will then determine whether to withhold payment of the next progress estimate.

Should a notification of unpaid bills be received following Final Acceptance, the Resident Office will forward it to the DFEM.

(B) District Level Responsibilities

The District Final Estimate Manager (DFEM) will record any unpaid bill claim into the tracking system.

Should a notification of unpaid bills be received following Final Acceptance, the DFEM will follow instructions provided in the ***Final Estimates Review and Administration Manual, Topic No. 700-050-005.***

6.1.7 Receipt of Notice of Unpaid Bill from Second Tier Subcontractors/Suppliers

(A) Resident Level Responsibilities

The Resident Engineer will send second tier subcontractors/suppliers a letter as shown in Guidance Documents for this section, stating they do not fall within the class of claimants entitled to protection under ***Section 337.11, Florida Statutes,*** and they should consult with

their attorney on how to further protect their rights. A copy of the letter will be sent to the DFEM.

(B) District Level Responsibilities

The DFEM will input the claim into the tracking system.

6.1.8 Notice to Contractor of Withholding

(A) Resident Level Responsibilities

The Resident Engineer must notify the Contractor of discovery by certified mail with return receipt requested of the Resident Engineer's intent to make a recommendation to withhold payment for the lack of certification or lack of demonstration of good cause. This written notification must include the specific reasons for withholding payment and specific actions required of the Contractor to gain release of payment. A copy of this notification must be sent to the District Final Estimates Office and District Construction Office along with backup correspondence.

6.1.9 Withholding of Payments

(A) Resident Level Responsibilities

The Resident Engineer will prepare the work sheet for the disputed progress estimate and forward it to the District Construction Engineer.

After progress estimates have been computer processed, the District Construction Engineer will pull that specific estimate and hold it until he receives notice of Contractor compliance from the Resident Engineer. At that time, the progress estimate for payment will be released. The Resident Office will inform the DFEM of Contractor compliance, so that the issue may be resolved in the tracking system.

6.1.10 Processing for Falsification of Payment Certification

(A) Resident Level Responsibilities

If the Resident Engineer discovers that the Contractor does not have good cause for withholding payment to the subcontractor and/or suppliers and/or withholding sums more than the amount in dispute and in his opinion the prime Contractor has submitted a false certification of payment, the Resident Engineer must submit to the Director, Office of Construction a memorandum transmitting, ***on a monthly basis starting from the month a***

false certification may have occurred until the unpaid bill is resolved, all the appropriate documentation related to the non-payment, including copies of the unpaid bill notice and correspondence between the Department, the prime Contractor and the subcontractor/supplier, copies of monthly certifications, copies of sublet with the affected subcontractor/supplier and copies of monthly estimates highlighting payment to the prime Contractor for work performed by the subcontractor/supplier.

Guidance Document 6-1-A

SAMPLE LETTER #1

(Date)

(Prime Contractor)

Certified Mail #_____
Return Receipt Requested

SUBJECT: **UNPAID BILLS TO SUPPLIERS AND/OR SUBCONTRACTORS**
Financial Project ID: State Job No.: Federal Job Project ID: County/Section No.:
Contract No.:

Gentlemen:

Section 337.11(11)(a), Florida Statutes, requires that the Department shall not make any progress payments unless the Contractor submits a certification that they have paid their suppliers and subcontractors their pro rata shares of the payment out of previous progress payments from the Department. When the Department receives a complaint from a subcontractor or a supplier that they have not received payment, we are required to monitor such claims.

We have received a notice of non-payment from _____. I have attached their letter of _____, for your review. In order to clear the issue, you are required to address the claim of non-payment by your next monthly certification. Please prepare a detailed response explaining the disposition of this claim. Your submittal shall include copies of all pertinent information (i.e. canceled checks, agreements, etc.).

Your explanation will be thoroughly reviewed to assure compliance with Section 337.11(11)(a)-(c), Florida Statutes. Non-compliance of Florida Statutes is sufficient reason for stopping future progress payments. If you, the Prime Contractor, state that subcontractors or suppliers have received their pro rata share and they did not, you have filed a false document.

If you have falsely certified payment to subcontractors, you may be subject to the penalties described in the certification document.

In order to avoid withholding of your monthly estimate, please submit your response by (prior to next estimate cut-off date).

Sincerely,

Resident Engineer

initial/initial
Attachment

cc: _____, District Construction Engineer
_____, District Final Estimate Manager, w/ copy of claim
_____, Surety
_____, Claimant Sub/Supplier
_____, State Construction Engineer - Mail Station 31, w/ copy of claim
_____, District Compliance Officer (if DBE is involved)

Guidance Document 6-1-B

SAMPLE LETTER #2

(Date)

(Claimant)

SUBJECT: UNPAID BILLS NOTICE FROM SECOND TIER SUBCONTRACTORS/SUPPLIERS

Financial Project ID:
State Job No.:
Federal Job Project ID:
County/Section No.:
Contract No.:

Gentlemen:

We have received your notice of nonpayment on the above referenced project.

You do not fall within the class of claimants entitled to protection under Section 337.11, Florida Statutes. Therefore, we cannot participate in the resolution of this matter.

Consult with your attorney on how to further protect your rights.

Sincerely,

Resident Engineer

initial/initial
Attachment

cc: _____, District Construction Engineer
_____, Prime Contractor
_____, Surety
_____, District Final Estimate Manager, w/ copy of claim
_____, State Construction Engineer - Mail Station 31, w/ copy of claim
_____, District Compliance Officer (if DBE is involved)

Guidance Document 6-1-C

SAMPLE LETTER #3

(Date)

(Prime Contractor)

Certified Mail #_____

SUBJECT: INCOMPLETE CERTIFICATION DISBURSEMENT OF PREVIOUS PERIODIC PAYMENT TO SUBCONTRACTORS
Financial Project ID:
State Job No.:
Federal Job Project ID:
County/Section No.:
Contract No.:

Gentlemen:

Per our conversation on ____, this letter confirms that we have received your Certification Disbursement of Previous Periodic Payment To Subcontractors and found it incomplete and/or the form instructions have not been followed. (List specific deficiencies with the submittal here). Subsequent to the receipt of a complete certification, progress payments may be processed in accordance with the contract.

Section 337.11(11)(a), Florida Statutes, requires that the Department not make any progress payments unless the Contractor submits a certification that they have paid their subcontractors and suppliers their pro rata shares of the payment out of previous progress payments from the Department.

Your certification will be thoroughly reviewed to assure compliance with Section 337.11(11)(a)-(c), Florida Statutes. Non-compliance of Florida Statutes is sufficient reason for stopping future progress payments. If you, the Prime Contractor, state that everyone has received their pro rata share and they did not, you have filed a false document.

If you have falsely certified payment to subcontractors, you may be subject to the penalties described in the certification document.

In order to avoid delays in the processing of your monthly estimate, please submit your response as soon as possible.

Sincerely,

Resident Engineer

initial/initial
Attachment

cc: _____, District Construction Engineer
_____, District Final Estimate Manager

Chapter 6.2
ALTERNATIVE CONTRACTS

6.2.1 PURPOSE

This procedure is designed to provide computation and documentation methods for Alternative Contracts. This process establishes procedures and guidelines required by Alternative Contracts for the Project Administrator (PA) and staff to use in building and supporting the specific contract requirements.

6.2.2 SCOPE

The procedure consists of instructions for each type of Alternative Contract. The goal is to reduce the Consultant Engineering Inspection (CEI) cost and time as well as reducing construction impact on motorists, businesses, and homeowners within the transportation corridor.

6.2.3 AUTHORITY

Alternative Contracting Users Guide
http://www.dot.state.fl.us/construction/AltContract/AltContract.shtm

Construction Project Administration Manual (CPAM), Topic No. 700-000-000

FDOT Standard Specifications for Road and Bridge Construction

Florida Statutes (F.S.) 337.11(7a), 337.11(4) and 337.18(4a) 20.23(4)(a) and 334.048(3)

6.2.4 CONTRACTS WITH LANE RENTAL FEES

The lane rental concept requires a fee established during design and placed in the contract to be assessed for each day or half-day of lane closure(s) in excess of the number of total lane rental days originally bid by the Contractor (see contract for the applicable days). Once the number of lane rental days used exceeds the total number of lane rental days bid the predetermined lane rental fee will be multiplied by the excess time defined in the contract and the result will be deducted from the monthly estimate's payment.

All lane closures shall be documented on the ***Lane Rental Site Source Record, Form No. 700-050-57*** beginning and ending times, locations and unit of measure (full or half days) shall be tabulated for each lane rental to be charged. The actual full or half day lane rental shall be charged on the day in which the ending time falls. For example if a lane closure begins at 8:00 p.m. on Monday and reopens at 6:00 a.m. the next day (Tuesday), a half-day lane rental will be shown on Tuesday's ***Lane Rental Site Source Record, Form No. 700-050-57***. The Contractor and PA shall mutually agree upon the twenty four (24) hour clock beginning and ending times for lane rental purposes and such agreements shall be recorded in the Preconstruction Conference Minutes.

The ***Lane Rental Site Source Record, Form No. 700-050-57*** documentation shall be submitted with the Final Estimate reflecting both the Inspector and Contractor signatures agreeing to the total days charged. The Final Lane Rental Incentive/Disincentive dollar amount will be shown as a contract adjustment to the estimate on which it is to be paid. Appropriate adjustment comments will be made when the adjustment is created. (***see Figure 6.2-3***).

Damage Recovery, which states that in addition to the Daily Lane Rental Fee provided in ***Section 2-5.1*** of the ***Specifications***, a damage recovery/user cost will be assessed against the Contractor if all lanes are not open to traffic during the times as shown in the Traffic Control Plans. Costs will be assessed beginning at the appropriate time as shown in the Traffic Control Plans and continue until all lanes are open as recorded by the Engineer. This assessment will be in the following amounts:

First 30 minutes and under: $_____, and each additional 30 minute period or portion thereof: $_____. Such costs will not exceed $_____ over a 24 hour period.

At the discretion of the Engineer, damage recovery/user cost will not be assessed for failure to open traffic lanes if such cause is beyond the control of the Contractor, i.e., catastrophic events, accidents not related or caused by the Contractor's operations. The Florida Department of Transportation (Department) will have the right to apply as payment on such damages any money which is due to the Contractor by the Department.

6.2.5 CONTRACTS WITH A + B BIDDING

The A+B bidding concept is designed to shorten the total Contract Time by allowing each Contractor to bid the number of days in which the work can be accomplished.

In the A+B bidding method, a dollar value for each Contract day is established by the Department prior to the project being advertised. The Contractor will receive an incentive for each day the work is completed ahead of the Original Contract Time bid. If the Contractor completes the project late, a disincentive will be assessed as well as appropriate liquidated damages per the Contract. For the purpose of the disincentive, the Contract Time maybe adjusted for weather, unforeseen conditions, and extra work as approved.

The ***Daily Work Report and Diary in Site Manager*** ***Form No. 700.010-13*** will serve as the supporting documentation for appropriate payment as outlined in ***CPAM Section 5.1***. Each will show the following statements: 1) Today is the first day or the beginning milestone day of the A+B bidding phase of this Contract; 2) Today is the last day of the A + B bidding phase of this Contract.

The final incentive/disincentive dollar amount of the A+B bidding concept will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created.

6.2.6 CONTRACTS WITH NO EXCUSE BONUS

The No Excuse Bonus concept is designed to provide the Contractor with a substantial bonus to complete a project within a specified time frame (as shown in the ***Specifications***) regardless of any problems or unforeseen conditions (no time extensions allowed for the purpose of the bonus). The bonus is tied to a drop-dead date (time frame) that is either met or not met. The ***Daily Work Report and Diary in Site Manager*** will serve as the supporting documentation for appropriate payment as outlined in ***CPAM Section 5.1***. Each set of the above project forms will show the following statements: 1) Today is the first day or the beginning milestone day of the No Excuse Bonus phase of this Contract; 2) Today is the last day of the No Excuse Bonus phase of this Contract.

The final dollar amount of the No Excuse Bonus will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created.

6.2.7 LIQUIDATED SAVINGS CONTRACTS

The liquidated savings concept is to reward the Contractor for each calendar day the Contract is completed and accepted prior to the expiration of allowable Contract Time. Contract Time is adjusted for time extensions under this concept.

The ***Daily Work Report and Diary in Site Manager*** will serve as the supporting documentation for payment as outlined in ***CPAM Section 5.1***. Each set of the above project forms will show the following statements: 1) Today is the first day or the beginning milestone day of the Liquidated Saving phase of this Contract; 2) Today is the last day of the Liquidated Savings phase of this Contract.

The final dollar amount of the Liquidated Savings will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created. Payment shall be made to the Contractor on a progress estimate after final acceptance in accordance with ***Section 5*** of the ***Standard Specifications***.

Example:

1) Contract days allowed = 200
2) Days required to complete project = 180
3) Days to receive an adjustment = 20
4) $ Shown in Contract for early completion = $2,000 day
5) Progress estimate reflects 20 days x $2,000 = $40,000
   In liquidated savings

If time negotiations for unforeseen conditions, extra work and weather days are in progress with the Contractor after project final acceptance, payment shall be based on the PA's documented days until a settlement is agreed upon with the Contractor.

Example:

1) Contract days allowed = 200
2) Days required to complete project = 200
3) Days to receive an adjustment = 0
4) Negotiation (time extension)
5) Project Administrator Records = 30 days
6) Contractor Claims = 60 days
7) $ Shown in Contract for early completion = $2,000 day
8) Progress estimate reflects 30 days x $2,000 = $60,000
   Until an agreement is reached

6.2.8 DESIGN BUILD CONTRACTS

6.2.8.1 General

This section summarizes the legal documentation for processing the Final Estimates package on a Design-Build project. It is not the intent of these procedures to supersede the Contract Documents, but to enhance the process of the Final Estimates Package submittal. The documents required to close out a final estimate will vary from contract to contract. It is the responsibility of the CEI to insure that the Design-Build Firm complies with the Contract Documents.

6.2.8.2 Submittals

The Department and/or CEI firm hired by the Department will monitor the project and prepare and certify the Final Estimate Package. Records will be scanned into the Department's Construction Document Management System (CDMS). These documents and requirements can be viewed on our Construction website.
http://infonet.dot.state.fl.us/tlconstruction/CDMS/CDMS.htm

The Design Build Firm will prepare and submit to the Project Manager a Job Guide Schedule (JGS) using the Laboratory Information Management System (LIMS), 21 working days prior to commencement of Construction. Update the Job Guide Schedule in LIMS and submit it to the Department and/or the CEI hired by the Department prior to each monthly progress estimate. The Department may not authorize payment of any progress estimate not accompanied by an up-to-date Job Guide Schedule. Maintain the Job Guide Schedule in LIMS throughout the project including the quantity placed since the previous submittal, and any additional materials placed. Do not commence work activities that require testing until the Job Guide Schedule has been reviewed and accepted by the Department and/or the CEI hired by the Department. At final acceptance, submit a Final Job Guide Schedule that includes all materials used on the project in the same format as the monthly reports.

The ***Final Estimate Certification and Summary Sheets*** **Computation Pay Item Book** ***Form No. 700-050-10*** shall be bound in a folder or loose leaf binder with the front cover showing the Financial Project ID Number, name of the project, and county. The ***Final Estimate Certification and Summary Sheet*** shall show the Original Lump Sum amount with each adjustment, additions or deletions identified on a separate line (Supplemental Agreements Numbers and any adjustments as specified in ***Section 9*** of the ***Specification***. A Final Lump Sum amount with required signatures will be shown. Federal Highway Administration (FHWA) has agreed to accept this ***Final Estimate Certification and***

Summary Sheet in place of the required overruns and underruns explanations. On all Federal Aid Participation Contracts, a copy of the ***Final Estimate Certification and Summary Sheet*** will be submitted to the FHWA Office by the District Final Estimate Office (DFEO).

6.2.8.3 Certified Monthly Estimate & Payment

The CEI shall review and approve the pay out schedule (schedule of values) to avoid the "front loading" of payments and confirm that unit prices are reasonable for the work performed. The Design Build Firm will prepare and **submit the Contractor's Certified Monthly Estimate** no later than twelve o'clock noon Monday, after the estimate cut-off or as directed by the CEI in accordance with ***Section 9*** in the ***Special Provision*** for each project in the contract. This will be submitted to the CEI for approval and processing according to the time frame specified by the Contract Documents. A certified monthly estimate will be submitted by the Design Build Firm based on the completion or percent completion of major, well-defined tasks as defined in the approved Schedule of Values, (including approved delivery of certain materials) in accordance with ***Section 9*** of the ***Specifications*** also, any adjustments etc., shall be reflected on the current estimate.

The CEI will make approximate monthly estimate payments, and the Department will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The CEI will not process any estimate for pay until the Design Build Firm's certified monthly estimate is received and approved with the required certification of payment to Subcontractors included.

Note: Certification of Quantities for Maintenance of Traffic items, Painted Pavement marking items, Thermoplastic Traffic Stripe and Marking Items and Permanent Tape Stripes and Markings are not required on Design Build Projects. For the Traffic Marking Certification Worksheet requirements see ***Section 5.14.5(3)*** in this ***Manual***.

6.2.8.4 Pay Adjustments

Unit Price Adjustments, as required by ***Section 9*** of the ***Specifications***, will be determined using the six-month State wide pay item averages "Weighted Averages". The dates will be the six months prior to the letting date for the Contract. These adjustments will be made on the monthly estimates, the month that they occur. The CEI should insure that the Design Build Firm data is correct as submitted. The Design Build Firm will certify the number of gallons of fuel (gasoline and diesel), and bituminous material used on this Contract during the period represented by each certified monthly estimate. The CEI will review the gallons

generated on the spreadsheet and the Design Build Firm's certified monthly Estimate for comparison.

Documentation for these adjustments shall be submitted with each certified monthly progress estimate and included in the Final Estimate Submittal Package.

Note: See LS Quality Adjustments items examples in ***Section 6.2.9.4 of this manual.***

6.2.8.5 Retainage

Retainage withheld shall be in accordance with the ***Design Build Specifications*** at the following link: ***ftp://ftp.dot.state.fl.us/LTS/CO/Specifications/DesignBuild/Jan11/1-11DBBoilerplate-10-20-10.pdf.***

6.2.8.6 Fuel Adjustments

On Contracts with an original Contract time in excess of 120 calendar days, the Department will make fuel adjustments on each applicable progress estimate to reflect increase and decreases in the price of gasoline and diesel from those in effect during the month in which bids were received. The Contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments for these fuels will be made only when the current fuel price (CFP) varies by more than 5% from the price prevailing in the month when bids were received (Base Fuel Price - BFP), and then only on the portion that exceeds 5%. The Department will provide an application for fuel adjustment that will calculate and print gallons of gasoline and/or diesel for the items that these factors represent. Pay items receiving fuel adjustments, and can be found on the Construction website. The fuel amounts to be paid is generated from the worksheet by the contractor and posted on the Files Transfer Protocol (FTP) Site with each progress estimate. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the fuel index for the month the Contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at:
http://www.dot.state.fl.us/construction/fuel&bit/Fuel&Bit.shtm

The Contractor shall enter quantities on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of gasoline and/or diesel on the Contractor's Certified Monthly Estimate with the worksheet attached. The PM shall review and reconcile any differences on this certified monthly estimate before processing for payment.

6.2.8.7 Bituminous Adjustment

On Contracts with an Original Contract Time of more than 365 calendar days or more than 5,000 tons of asphalt concrete, the Department will adjust the bid unit price for bituminous material Asphalt Content or Polymer PG76-22, excluding cutback and emulsified asphalt to reflect increases or decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received. Bituminous Worksheets for the contractor are posted on the Construction website shown below. The Contractor will not be given the option of accepting or rejecting this adjustment. Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only on the portion that exceeds 5%. The Department will provide an application for bituminous adjustment that will calculate and print gallons of bituminous material. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the API index for the month the contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at
http://www.dot.state.fl.us/construction/fuel&bit/Fuel&Bit.shtm

The Contractor shall enter quantities of asphalt placed and accepted on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of bituminous material Asphalt Content or Polymer on the certified monthly estimate with the worksheet attached. The PM shall review and reconcile any differences on this certified monthly estimate before processing for payment.

Note: On renewable push button contracts, where the renewable contract is longer than 365 days, the Department will adjust the bid unit price for the bituminous material.

6.2.8.8 Shop Drawings

An approved set of shop drawings if applicable will be required. Scanning the shop drawing will be in accordance with CDMS requirements.

6.2.8.9 Record Set of Plans (Final "As-Built")

As the project progresses, the Design Build Firm shall update the final signed and sealed ***"As-Built" Plans***. The procedures set forth in ***Chapter 5.12, Final "As-Built" Plans*** of this ***Manual*** are to be utilized in the preparation for completing the set of final plans for submittal with the ***Final Estimates Package***. At the close out of the Final Estimate the Districts will send the Final Set of ***As-Built Plans*** to Image API located in Tallahassee, Florida to be scanned and indexed. A list of exceptions will be produced for those sheets

with indexing and quality problems. It will be the responsibility of the DFEO to clarify with Image API how those sheets should be indexed and corrected. Within ten (10) business days the documents should be available electronically.

(A) 1 hardcopy set of 11"x 17" signed and sealed as-built plans.

(B) 1 signed and sealed copy of the as-built Bridge Load Rating. (depends on type of project).

(C) A set of final CADD files that are to current CADD Standards on CD.

Note: For Design Build Projects the Designer is not required to provide quantities with matrixes in the plans. If the original quantities are provided with the matrix the final amount is not required to be entered.

6.2.9 LUMP SUM CONTRACTS

6.2.9.1 General

Documents required to close out a final estimate will vary from contract to contract. It is the responsibility of the PA and the District Final Estimate Manager (DFEM) to determine that all required documents are complete and accompany the final estimate in accordance with the Contract and Specifications on Lump Sum Projects.

If conditions change from the Plans and Extra and Unforeseen Work is involved, the Contractor along with the Department must negotiate and resolve those issues using Supplemental Agreements (SA) or Work Orders.

6.2.9.2 Submittals

The PA will prepare and certify the Final Estimate Package with the PM monitoring the process if applicable. Records will be scanned into the Department's Construction Document Management System (CDMS). These documents that require scanning can be viewed on the Construction website.
http://infonet.dot.state.fl.us/tlconstruction/CDMS/CDMS.htm

The Contractor will prepare and submit a project specific list of material items and quantities, 21 calendar days prior to beginning of construction, to be used to determine the material sampling and testing frequencies in the same format shown in the Department's ***Sampling, Testing, and Reporting Guide***. These quantities will not be considered

payment quantities. At final acceptance, submit a final Job Guide Schedule that includes all materials used on the project in the same format as the monthly reports. Payment shall be made in accordance with Project and Payment specific Contract Documents.

The Final Estimate Certification and ***Summary Sheets*** shall be bound in a folder or loose leaf binder with the front cover showing the Financial Project ID Number, Name of the project, and county. The Final Estimate Certification and ***Summary Sheet*** shall show the Original Lump Sum amount with each adjustment, additions or deletions identified on a separate line (SA no's and any adjustments as specified in ***Section 9*** of the ***Contract Specifications***). A Final Lump Sum amount with required signatures will be shown. FHWA has agreed to accept this Final Estimate Certification and ***Summary Sheets*** in place of the required overruns and underruns explanations. On all Federal Aid Participation Contracts, a copy of the Final Estimate Certification and ***Summary Sheet*** will be submitted to the FHWA Office by the District Final Estimate Office (DFEO).

Note: Construction Inspection Personnel should not be required to document quantities except for asphalt and other items subject to pay adjustments as defined in the ***Lump Sum Guidelines*** and can be addressed at the following link.
http://www.dot.state.fl.us/construction/LumpSum/LumpSumMain.shtm

6.2.9.3 Certified Monthly Estimate and Payment

The Contractor will prepare and certify the **Contractor's Certified Monthly Estimate** no later than twelve o'clock noon Monday, after the estimate cut-off or as directed by the PA/PM in accordance with ***Section 9*** of the ***Specifications***. This will be submitted to the PA/PM for approval and processing according to the time frame specified by the Contract Documents. A certified monthly estimate will be submitted by the Contractor based on the completion or percent completion of major, well-defined tasks as defined in the approved pay out schedule also, any adjustments (as shown in ***Section 9*** of the ***Specifications***), etc., shall be reflected on the current estimate.

The PA will not process any estimate for pay until the Contractor's certified monthly estimates is received and approved with the required certification of payment to subcontractors included and subject to ***Section 9*** of the ***Specifications***.

Note: Certification of Quantities for Maintenance of Traffic items and Painted Pavement Marking items, Thermoplastic Traffic Stripes and Markings Items, Permanent Tape Stripes and Markings are not required on Lump Sum Projects. For the Traffic Marking Certification worksheet requirements see ***Section 5.14.5(3)*** of this ***Manual***.

6.2.9.4 Pay Adjustments

The Contractor will certify the number of gallons of fuel (gasoline and diesel), and bituminous material used on this Contract during the period represented by each certified monthly estimate. The PA will review the gallons generated on the spreadsheet and the Contractor certified monthly(s) for comparison.

Documentations for these adjustments shall be submitted with each monthly estimate and included in the Final Estimate Submittal Package.

Once the PA has approved the certified monthly estimate, payment shall be made, less the amount of retainage withheld per provisions in the Contract. The Department shall base payments on the total value of the work the Contractor performs. Monthly estimates payments shall be approximate only, and shall be subject to decrease (overpayments) or increase (underpayments). Partial Payments less than $5000.00 will not be processed. The PA will adjust the lump sum price on all failures. This adjustment will be shown as a line item adjustment to the pay estimate on which it is to be paid. Appropriate remarks will be made when the adjustments are created. All tables listed in ***Section 9*** of the ***Specifications*** are to be completed with a predetermined unit price if these specific areas are address in the Contract. If no prices are shown in the Contract specifying that adjustment will be made, then contact the District Specification Engineer to determined if this was an oversight. If so, the District Specification Engineer should supply this information, if not, the unit price will be determined based on Statewide Averages. This will require a ***Work Order*** to amend the Contract. The PA will document that all adjustments are correct and have met the criteria as set forth in the Contract. Documentation of all failures shall accompany the Final Estimate Submittal Package. (**see Figures 6.2-1** thru **6.2-3** for deficiency area evaluation).

Deficiency Adjustment

Table 9-1

Item Description	Unit	Unit Prices
Optional Base/Superpave	SY	$8.78
Superpave (Traffic level B)	Ton	$48.62
Superpave ITraffic level C)	Ton	$52.99
Asph. Conc. Friction Course (FC 6)	Ton	$56.79

Concrete failures will be adjusted in accordance with the current ***Contract Document Specifications***. Asphalt Overbuild: The Project Administrator will ensure that the average

spread rate does not exceed 105% of the specified spread rate. (***See the following examples below***.)

Asphalt Overbuild Adjustment

Table 9-2

Item Description	Unit	Unit Prices
Superpave (Traffic level B)	Ton	$48.62
Superpave (Traffic level C)	Ton	$52.99

Example # 1

In this example; overbuild is less than the target.

- Item (Superpave SP 12.5) Traffic Level B
- Original Quantity= 323.3 Tons
- Final = 300.0 Tons
- Plan Area = 19,690 SY
- Final Area = 20,000 SY
- Plan Spread Rate = 33 Lbs/SY
- Actual Spread Rate = 30.00 Lbs/SY
- Final Pay Limited to 105%

Plan Thickness = 0.33"
Design Mix No.: XXXXXX
G_{mm} = 2.521
2.521 X 43.3 X 0.33 = 36.02 Lbs/SY
Target = 36 Lbs/SY
Based on this Design Mix, the Target Spread Rate is 36 Lbs/SY

36 Lbs/SY X 1.05 = 37.80 Lbs/SY
323.3 − 300 = − 23.3 Tons (This will be a negative, since the material is less than the Target Spread Rate.

However, per **Specifications**, the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-2.
30 ÷ 36 = 0.8333 = 0.83 (0.83 will be multiplied by the unit price listed in table 9-2)
$ 48.62 X 0.83 = $ 40.35 (the adjusted unit price)
23.3 X $ 40.35 = $ 940.16 (The quantity of the material placed is less than the specified spread rate (target). The material in question is 23.3 Tons. A line item adjustment will need to be made showing 1 LS @ − $ 940.16, which is a negative adjustment).

Example # 2

In this example; overbuild is more than target.

- Item (Superpave SP 12.5) Traffic Level B
- Original Quantity= 749.3 Tons

Plan Thickness = 1.77"
Design Mix No.: XXXXXX

- Final = 805.5 Tons G_{mm} = 2.521
- Plan Area = 8,482 SY 2.521 X 43.3 X 1.77 = 193.21 Lbs/SY
- Final Area = 8,300 SY Target = 193 Lbs/SY
- Plan Spread Rate = 177 Lbs/SY Based on this Design Mix, the
- Actual Spread Rate = 194.09 Lbs/SY Target Spread Rate is 193 Lbs/SY
- Final pay limited to 105%

193 Lbs/SY X 1.05 = 202.65 Lbs/SY
805.5 Tons – 749.3 Tons = + 56.2 Tons (here, the average spread rate exceeded the design spread rate)

Per Specifications, the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-2.
194.09 ÷ 193 = 1.0056 = 1.01 (1.01 will be multiplied by the unit price listed in table 9-2)
$ 48.62 X 1.01 = $ 49.11 (the adjusted unit price)
56.2 X $49.11 = $ 2,759.98 (The quantity of the material placed is greater than the specified spread rate (target). The material in question is 56.2 Tons. A line item adjustment will need to be made showing 1 LS @ + $2,759.98, which is a positive adjustment.)

Example # 3

In this example; overbuild is more than 105%.

Item (Superpave SP 12.5) Traffic Level B
- Original Quantity= 160.60 Tons
- Final = 193.50
- Plan Area = 7,300 SY
- Final Area = 7,400 SY
- Plan Spread Rate = 44 Lbs/SY
- Actual Spread rate = 52.30 Lbs/SY
- Final pay limited to 105%

Plan Thickness = 0.44"
Design Mix No.: XXXXXX
G_{mm} = 2.521
2.521 X 43.3 X 0.44 = 48.03 Lbs/SY
Target = 48 Lbs/SY
Based on this Design Mix, the
Target Spread Rate is 48 Lbs/SY

48 Lbs/SY X 1.05 = 50.40 Lbs/SY

$$\frac{(7{,}400 \text{ SY X } 50.40 \text{ Lbs/SY})}{2000 \text{ Lbs/Ton}} = 186.48 = 186.5 \text{ Tons Maximum pay}$$

186.5.0 – 160.60 = + 25.9 Tons

Per **Specifications,** the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-2.
52.30÷ 48 = 1.0896 = 1.09 (Per Specifications, we can't go over 105%. 1.09 is greater than 1.05, so 1.05 will be multiplied by the unit price listed in table 9-2)

$ 48.62 X 1.05 = $ 51.05 (the adjusted unit price)
25.9 X $ 51.05= $1,322.20 (The quantity of the material placed is greater than the specified spread rate (target). The material in question is 25.9 Tons. A line item adjustment will need to be made showing 1 LS @ + $ 1,322.20, which is a positive adjustment)

Foundations such as piling and Drilled Shafts will be adjusted to reflect the actual quantities needed and approved to complete these items. Additions or deletions will be determined from the pile/drilled shaft elevations shown in the **Contract Document.**

Foundation Adjustment
Table 9-3

Item Description	Unit	Unit Prices
Concrete Piling Prestressed (18")	LF	$45.25
Concrete Drilled Shafts (30")	LF	$80.33
Concrete Piling Prestressed (36")	LF	$69.33

Quality adjustments: such as, the composite pay factors for asphalt will be adjusted base on the Unit Price provided in the Quality table 9-4. (See example of a Composite Pay Factor below).

Quality Adjustment
Table 9-4

Item Description	Unit	Unit Prices
Optional Base/Superpave	SY	$8.78
Superpave (Traffic Level B)	Ton	$48.62
Superpave (Traffic level C)	Ton	$52.99
Friction Course (FC 6)	Ton	$56.79

Example: #4

Lot = 4,000 tons
Composite Pay Factor = 105% for lot #2

4,000 tons X 1.05 = 4,200 tons

4,200 – 4,000 = 200 tons
200 Tons x $48.62 = $9,724.00 will be the adjustment to the Lump Sum price.

All adjustments will be entered on the Final Estimates Certification and ***Summary Sheet*** as a line item adjustment.

Note: Emphasis needs to be made on the Contractors responsibility of providing accurate reports (SY/; overlapping joints; Show exact widths being placed and correct tonnage. These areas are very important in the evaluation of the spread.

If ***Section 330, Smoothness Specifications***, is listed in the ***Contract Document***, an adjustment for smoothness would be made based on the criteria specified in the ***Contract Documents.***

6.2.9.5 Adjustments due to an increase, Decrease or Alteration in the work

Adjustments Less than $ 5,000.00: If it is determined by the Engineer that an item is not needed on a project, such as a pipe culvert, an inlet, a manhole, a mitered end section, etc., and the item was shown in the plans originally, then a negative adjustment will be made based on the actual certified monthly estimate price for that item and the Contractor will retain ownership. ***(see Section 9*** of the ***Specifications)***

Adjustments Greater than $ 5,000.00: If the adjustment exceeds $ 5,000.00, which is considered to be a significant change, then the adjustment will be processed through a Supplemental Agreement or Work Order based on a negotiated amount for time and money. ***(see Section 4-3*** *of the* ***Specifications)****.*

6.2.9.6 Retainage

The Department will withhold retainage of 10% of the amount due on the current estimate as retainage when the percent of allowable Contract Time used exceeds the percent of the Contract amount earned by more than 15%. Retainage will not be withheld until 75% of the Contract Time has elapsed. This amount will not be released until payment of the Final Estimate (***Section 9*** of the ***Specifications***).

6.2.9.7 Fuel Adjustments

On Contracts with an original Contract Time in excess of 120 calendar days, the Department will make fuel adjustments on each applicable progress estimate to reflect increases and decreases in the price of gasoline and diesel from those in effect during the month in which bids were received. Pay items receiving a fuel adjustment, can be found on the Construction website. The fuel amounts to be paid is generated from the worksheet

and posted on the Files Transfer Protocol (FTP) Site with each progress estimate. The Contractor will not be given the option of accepting or rejecting these adjustments. Price adjustments for these fuels will be made only when the current fuel price (CFP) varies by more than 5% from the price prevailing in the month when bids were received (BFP), and then only on the portion that exceeds 5%. The Department will provide an application for fuel adjustment that will calculate and print gallons of gasoline and/or diesel for the items that these factors represent. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the fuel index for the month the Contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at **http://www.dot.state.fl.us/construction/fuel&bit/Fuel&Bit.shtm**. The Contractor shall enter quantities on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of gasoline and/or diesel on the Certified Monthly Estimate with the worksheet attached. The PM shall review and reconcile any differences on this certified monthly estimate prior to payment.

6.2.9.8 Bituminous Adjustment

A bituminous adjustment shall be required on contracts having an Original Contract Time of more than 365 calendar days or more than 5000 tons of asphalt concrete base on the Schedule of Values. The Department will adjust the bid price for bituminous material Asphalt Content or Polymer PG76-22, excluding cutback and emulsified asphalt to reflect increases and decreases in the Asphalt Price Index (API) of bituminous material from that in effect during the month in which bids were received. Bituminous Worksheets for the contractor are posted on the Construction website shown below Contractor will not be given the option of accepting or rejecting this adjustment. Bituminous adjustments will be made only when the current API (CAPI) varies by more than 5% of the API prevailing in the month when bids were received (BAPI), and then only the portion that exceeds 5%. The Department will provide an application for bituminous adjustment that will calculate and print gallons of bituminous material. This application can be downloaded or completed on line from the State Construction Office website. The Contractor will enter the API index for the month the Contract was bid and the index for the month of the current estimate. These price indexes are posted on the Construction Office website at **http://www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm**.

The Contractor shall enter quantities of asphalt placed and accepted on this application that represents the work performed during the month of the progress estimate. The Contractor shall enter the gallons of bituminous material Asphalt Content or Polymer on the certified monthly estimate and attach the worksheet to the certified monthly

estimate. The PM shall review and reconcile any differences on this certified monthly estimate before processing for payment.

6.2.9.9 Final Signed and Sealed "As-Built" Plans

The PA will update the Final Signed and Sealed ***"As-Built" Plans*** as the project progresses. A complete set of Final Signed and Sealed "As-Built" will accompany the Final Estimates Package at the close out of the Final Estimate the Districts will send the Final Set of "***As-Built" Plans*** to Image API located in Tallahassee, Florida to be scanned and indexed. A list of exceptions will be produced for those sheets with indexing and quality problems. It will be the responsibility of the DFEO to clarify with Image API on how those sheets should be indexed and corrected. Within ten (10) business days the documents should be available electronically.

(A) 1 hardcopy set of 11"x 17" signed and sealed as-built plans.

(B) 1 signed and sealed copy of the as-built Bridge Load Rating. (depend on type of project).

(C) A set of final CADD files that are to current CADD Standards on CD.

Refer to ***Chapter 5.12*** of this ***Manual*** for ***Final "As-Built" Plan*** requirements.

Note: For Lump Sum Projects the Designer is not required to provide an estimated quantity within a Matrix (Summary Sheet/Box) in the plans under the appropriate column without displaying the pay item number or a final quantity.

6.2.9.10 Shop Drawings

An approved set of shop drawings if applicable will be required. Scanning the shop drawing will be in accordance with CDMS requirements.

6.2.10 CONTRACTS WITH INCENTIVE/DISINCENTIVE

The Incentive/Disincentive (I/D) concept is designed to reduce the overall Contract Time by giving the Contractor an incentive for every day that the Contract is completed early and a disincentive for everyday that the Contract is completed late.

The ***Daily Work Report and Diary in Site Manager*** is the supporting documentation for payment as outlined in the ***CPAM, Section 5.1***. Each set of the above project form will show the following statements: 1) Today is the first day or the beginning milestone day of the Incentive/Disincentive phase of this Contract; 2) Today is the last day of the incentive/disincentive phase of this Contract. The final dollar amount of the incentive/disincentive will be shown as a Contract adjustment to the estimate on which it is to be paid. Appropriate comments will be made when the adjustment is created.

6.2.11 STREAMLINE CONTRACTS (ONLY)

The goal of Streamline Contracts is to simplify administration along with reducing many of the final estimates requirements. There should be no reduction in inspection only sampling, testing and verification will be done at a minimum frequency involving these areas 120, 125, 160, 200, and 346 in accordance with the Contract. For a Lump Sum Streamline Contract the project must be under $2,000,000 with less than 2,000 tons of asphalt.

6.2.11.1 Certified Monthly Estimates and Payment

For the Contractors to receive payment for the work completed during the month (including delivery of certain material) they must provide to the Engineer a certified monthly estimate. The Contractor must make a request for payment no later than 12 O'clock noon after the estimate cutoff date in accordance with ***sub-article 9-5.1*** of the ***Contract.***

6.2.11.2 Pay Adjustments

The only two items, subject to receive adjustments are Overbuild & Foundations. Adjustment in the Lump Sum payment will be made for actual quantities installed of asphalt overbuild, as additions or deletions for the total project quantity determined from the asphalt overbuild quantity shown in the Contract Documents. The upward tonnage shall not exceed 5% of the asphalt overbuild quantity shown in the Contract Documents. The Engineer will base all adjustments in payment on the unit prices shown in ***Table 9-2*** of the ***Contract***. The following examples for overbuild adjustments are provided below.

Asphalt Overbuild Adjustment

Table 9-2

Item Description	Unit	Unit Prices
Superpave (Traffic Level B)	Ton	$ 48.62
Superpave (Traffic Level C)	Ton	$ 52.99

Example # 1

In this example; overbuild is less than what is in the Contract.

- Item (Superpave SP 12.5) Traffic Level B
- Original Quantity = 323.3 Tons
- Final = 300.0 Tons
- Final Pay Limited to 105%

323.3 X 1.05 = 339.5 Tons (maximum Tonnage that can be paid)
However, 300.0 Tons were placed
300 − 323.3 = − 23.3 Tons (This will be a negative, since the material is less than what's in the Contract).
$ 48.62 X 23.3 = -$1,132.85 (The quantity of the material placed is less than the specified Tonnage in the Contract). A line item adjustment will need to be made showing 1 LS @ − $ 1,132.85, which is a negative adjustment).

Example # 2

In this example; overbuild is more than what is in the Contract.

- Item (Superpave SP 12.5) Traffic Level B
- Original Quantity= 749.3 Tons
- Final = 780.1 Tons
- Final Pay Limited to 105%

749.3 Tons X 1.05 = 786.8 Tons (maximum Tonnage that can be paid)
However, 780.1 Tons were placed
780.1− 749.3 = + 30.8 Tons (over the Contract Tonnage - we are still under the 5%)
48.62 X 30.8 = + $ 1,497.50 (The quantity of the material placed is greater than what's in the Contract). It's within the 5% limit. A line item adjustment will need to be made showing 1 LS @ + $1,497.50, which is a positive adjustment.)

Example # 3

In this example; overbuild is more than 105%.

- Item (Superpave SP 12.5) Traffic Level B

- Original Quantity= 160.60 Tons
- Final = 193.50
- Final pay limited to 105%

160.60 Tons X 1.05 = 168.6 Tons (maximum Tons that we can be paid)
However, 193.5 Tons were placed
168.6 – 160.60 = + 8 Tons (over the Contract Tonnage – here we are at the 5% limit)
$ 48.62 X 8 Tons = $ 388.96 (The quantity of the material placed is greater than what's in the Contract). It also exceeds the 5% limit. The upward Tonnage adjustment, in this example, is limited to the maximum payable). A line item adjustment will need to be made showing 1 LS @ + $ 388.96, which is a positive adjustment)

For foundations the Lump Sum payment may increase or decrease. Payment will be based on the actual quantity installed of piling and drilled shaft. All adjustments will be applied to the unit prices shown in Table 9-3 of the Contract.

Also, for any other type material/item that the Contractor may fail to construct in compliance with the Contract requirements will result in; reconstruction to acceptable tolerances at no cost to the Department; or acceptance at no pay at the Engineer's discretion. For acceptance at no pay items other than the two items mentioned above, you will need to use the unit prices as determined using the Six Month Moving Statewide Averages. This date will be six months prior to the letting date.

Note: There will be No Fuel, Bituminous, Composite Pay Factors or Thickness/Spread Rate adjustments on these Contracts.

6.2.11.3 Final Acceptance

Upon final acceptance the PA will need to email the Contractor a Reminder Notice Letter and forward a copy to the District Final Estimates Office (DFEO) for Streamline Contract Closeout Process. This is a reminder that the final certified monthly estimate once approved by the PA will not be paid until the requirements of Section 9-8 of the Contract are met and approved. The submittal of the final certified monthly estimate will be handled by the DFEO. The Contractor needs to forward all required documents to the DFEO.

6.2.11.4 Submittal

In preparing the Final Estimates Package, the PA needs to show all modifications made to the original LS amount on the certification sheet. This Package will be sent to the DFEO.

Note: For additional information see the Final Estimates Guidelines on Streamline Contracts at the following link.
http://www.dot.state.fl.us/construction/CONSTADM/Guidelist/FinalEst/FEGuidelist.shtm

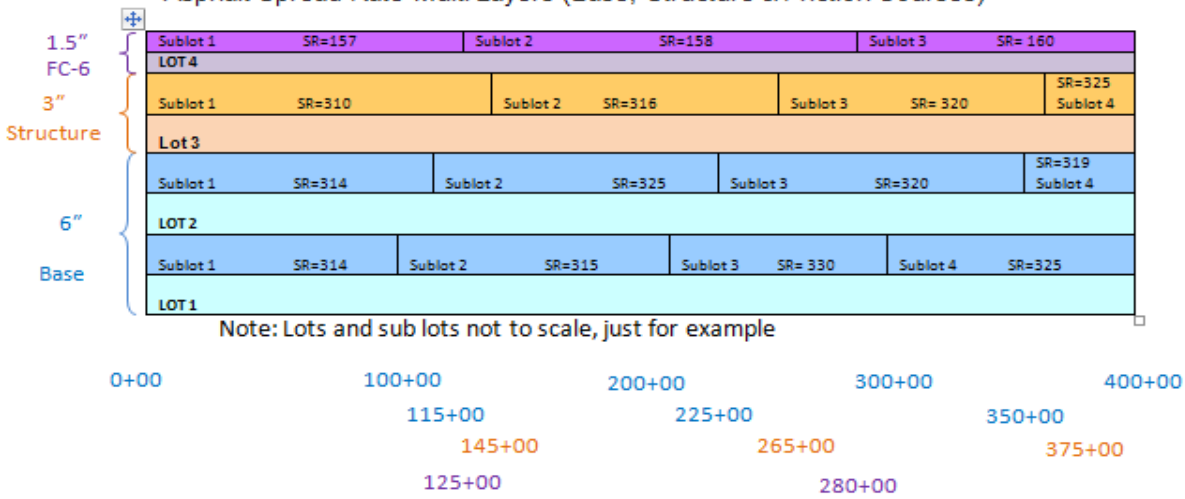
6.2.12 LIST OF FIGURES FOLLOWING THIS CHAPTER

Figures 6.2.1 thru 6.2.2 ..... Example of Lump Sum Spread Rate
Figure 6.2.3 .....Example of Lane Rental Site Source Record

Figure 6.2-1

Lump Sum Projects Asphalt Deficiency (Example1)

Asphalt Spread Rate Multi Layers (Base, Structure & Friction Courses)



Note: Lots and sub lots not to scale, just for example

FC-6 1.5″: Spread Rate = 165Lbs/SY:
± Spread Rate= 157Lbs/SY Minimum Low and 173 Lbs/SY Maximum High
Structure 3″: Spread Rate=330 Lbs/SY:
± Spread Rate= 314 Lbs/SY Minimum Low & 347 Lbs/SY Maximum High
Base 6″ : Spread Rate 660 Lbs/SY :
± Spread Rate= 627 Lbs/SY Minimum Low & 693 Lbs/SY Maximum High
Total Target Spread Rate = 1,155 Lbs/SY:
± Spread Rate = 1097 Lbs/SY Minimum Low & 1213 Lbs/SY Maximum High

Deficiency Adjustment

Station to Station	Total Spread Rate	=	
00+00 to 100+00	628+310+157	=	1095
100+00 to 115+00	629+310+157	=	1096
115+00 to 125+00	640+310+157	=	1107
125+00 to 145+00	640+310+158	=	1108
145+00 to 200+00	640+316+158	=	1114
200+00 to 225+00	655+316+158	=	1129
225+00 to 265+00	650+316+158	=	1124
265+00 to 280+00	650+320+158	=	1128
280+00 to 300+00	650+320+160	=	1130
300+00 to 350+00	645+320+160	=	1125
350+00 to 375+00	644+320+160	=	1124
375+00 to 400+00	644+325+160	=	1129

Deficiency applied to these locations, Stations 0+00 TO 100+00 and 100+00 TO 115+00

(Continuation) 6.2-1

How to calculate the deficient tonnage (since the deficiency is under the Structural):
Length of deficient area:
Area 1: Sta. 0+00 to 100+00 = 10,000 Ft.
Area 2: Sta. 100+00 to 115+00 = 1,500 Ft.
Total Width of Road = 12 Ft.
Area 1 = (10,000 X 12) ÷ 9 = 13,333 SY
Area 2= (1,500 X 12) ÷ 9 = 2,000 SY
Total Deficient Area = 13,333.00 + 2,000.00 = 15,333 SY

We must get the tonnage used on these shy areas:

Total Target Spread Rate = 1155 Lbs/SY
Shy Area 1 = 1155 – 1095 = 60 Lbs/SY (Spread Rate for Shy Area 1)
Shy Area 2 = 1155 – 1096 = 59 Lbs/SY (Spread Rate for Shy Area 2)

Tons Area 1= (Area in SY X Spread Rate Lbs/SY) ÷ 2000 Lbs/Ton

(13,333 SY X 60 Lbs/SY) ÷ 2000 Lbs/Ton = 399.99 = 400.0 Tons to be deducted

Tons Area 2=
(2,000 SY X 59 Lbs/SY) ÷ 2000 Lbs/Ton = 59.0 Tons to be deducted

Total Tons =400.0 + 59.0 = 459.0 Tons to be deducted

And per Specifications, the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-1.

Proportional Ratio = [(1095+1096) ÷ 2] ÷ 1155 = 0. 9485

Unit Price from Table 9-1 (for example = $ 45.90 for Structure)

Note: for Design Build Project, use the 6 months pay item averages. 0.9485 X $ 45.90 = $ 43.54 New Unit Price

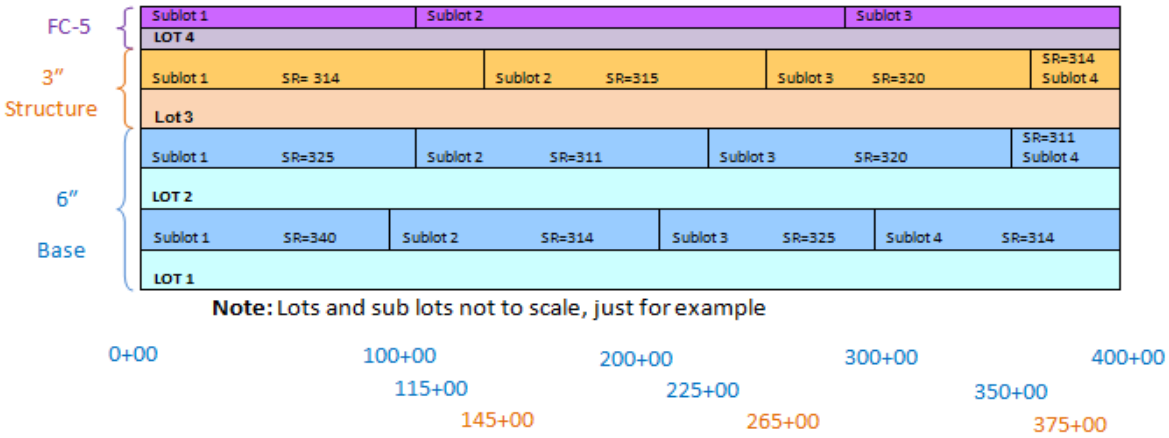
459.0 Tons X $ 43.54 = $ 19,984.86 Deduct

A new Lump Sum Line Item Adjustment with a unit price of – $ 19,984.86 will be entered in Site Manager

Figure 6.2-2

Lump Sum Projects Asphalt Deficiency (Example 2)

Asphalt Spread Rate Multi Layers (Base, Structure & Open Graded Friction Course. FC-5 which will not be included in the calculation of the deficiency, per Specifications)



Note: Lots and sub lots not to scale, just for example

Structure 3": Spread Rate=330 Lbs/SY:
± Spread Rate= 314 Lbs/SY Minimum Low & 347 Lbs/SY Maximum High
Base 6" : Spread Rate 660 Lbs/SY :
± Spread Rate= 627 Lbs/SY Minimum Low & 693 Lbs/SY Maximum High
Total Target Spread Rate = 990 Lbs/SY:
± Spread Rate = 941 Lbs/SY Minimum Low & 1040 Lbs/SY Maximum High

Deficiency Adjustment

Station to Station	Total Spread Rate	=		
00+00 to 100+00	665 +314	=	979	
100+00 to 115+00	639 +314	=	953	
115+00 to 145+00	625 +314	=	939	Deficiency applied to this location from Stations 115+00 TO 145+00 and 145+00 TO 200+00
145+00 to 200+00	625 +315	=	940	
200+00 to 225+00	636 +315	=	951	
225+00 to 265+00	645 +315	=	960	
265+00 to 300+00	645 +320	=	965	
300+00 to 350+00	634 +320	=	954	
350+00 to 375+00	625 +320	=	945	Deficiency applied to this location from Station 375+00 TO 400+00
375+00 to 400+00	625 +314	=	939	

(Continuation) 6.2-2

The shy areas all appear in the base, therefore the penalty will be applied to the Base in Square Yards. If the Structural had been shy the penalty would be applied on tonnage.

How to calculate the deficient Square Yards:

Length of deficient area 1 = 115+00 – 145+00 = 3,000 Ft.
Length of Deficient area 2 = 145+00 – 200+00 = 5,500 Ft.
Length of Deficient area 3 = 375+00 – 400+00 = 2,500 Ft.

Total Width of Road = 12 Ft.
Total Deficient Area 1 = (3,000 X 12) ÷ 9 = 4,000.00 SY= 4,000 SY
Total Deficient Area 2 = (5,500 X 12) ÷ 9 = 7,333.33 SY= 7,333 SY
Total Deficient Area 3 = (2,500 X 12) ÷ 9 = 3,333.33 SY= 3,333 SY

We must get the SY used on the shy areas:

Total Target Spread Rate = 990 Lbs/SY
Total Shy Area Spread Rate = Area 1 and 3 = 939 Lbs/SY
Area 2 = 940 Lbs/SY

$$\text{Square Yards (Area)} = \text{Shy Area in (SY)} \frac{(\text{Target Spread Rate Lbs/SY} - \text{Shy Spread Rate (Lbs/SY)})}{(\text{Target Spread Rate Lbs/SY})}$$

Areas 1 & 3 = 4,000 SY + 3,333 SY = 7,333 SY $\frac{(990 \text{ Lbs/SY} - 939 \text{ Lbs/SY})}{990 \text{ Lbs/SY}}$
= 378 SY to be deducted (Area 1 & 3)

Area 2 = 7,333 SY = 7,333 SY $\frac{(990 \text{ Lbs/SY} - 940 \text{ Lbs/SY})}{990 \text{ Lbs/SY}}$
= 370 SY to be deducted (Area 2)

Total Area to be deducted = 378 + 370 = 748 SY

Per Specifications, the adjustment will be based on a ratio of the average spread rate to the design spread rate. The outcome will be applied to the unit price shown in table 9-1.

Unit Price from Table 9-1 (for example = $ 8.78 for Base)
Note: for Design Build Project, use the 6 months pay item averages

Proportional Ratio = [(939+939+940) ÷ 3] ÷ 990 = 0.9488
= 0.9488 X $ 8.78 = $ 8.33

748 SY X $ 8.33 = $ 6,230.84 Deduct

A new Lump Sum Line Item Adjustment with a unit price of – $ 6,230.84 will be entered in Site Manager

Figure 6.2-3

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

LANE RENTAL
SITE SOURCE RECORD

Page No. _____

FORM 700-050-57
CONSTRUCTION
06/98

FINANCIAL PROJECT ID.: _____

INSPECTOR NAME (PRINT)	CLOSURE NO.	PURPOSE OF LANE CLOSURE AND LOCATION	INSPECTOR SIGNATURE	TIME AND DATE OF LANE CLOSURE					TOTAL DAYS CHARGED	CONTRACTOR SIGN
				START DATE	TIME (am/pm)	CONTRACTOR SIGN	END DATE	TIME (am/pm)		
								PAGE TOTAL =		

Sheet _____ of _____

RECYCLED PAPER

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Section 7.1

POST AWARD PLAN AND CONTRACT CHANGES

SECTION TO BE DELETED

Information for this section has been incorporated into the Preparation and Documentation Manual.

Section 7.2

TIME EXTENSIONS

7.2.1 Purpose

To provide a uniform process for administering construction contract time extension requests and for documenting, executing and distributing time extensions.

7.2.2 Authority

Sections 20.23(4)(a), 334.048(3), 337.015, Florida Statutes (F.S.)
Articles 8-6 and 8-7, Specifications for Road and Bridge Construction

FHWA Approved: February 6, 2015

7.2.3 General

This section will address the three specification conditions that will occur.

(1) The granting of time extensions to account for effects of inclement weather: These contracts will contain specifications requiring an ongoing evaluation to occur and time adjustments, when justified, will be granted by the Districts. This condition is covered in detail under ***Section 7.2.4***.

(2) The granting of time extensions for reasons other than the effects of inclement weather, Holidays or Special Events. The contract specifications and operating procedures for these contracts will require early identification and resolution of time extension requests. This condition is covered in detail under ***Section 7.2.5***.

(3) The granting of time extensions to account for effects caused by the suspension of contractors operations for Holiday(s) and Special Events as defined in ***Specification 8-6***, contract plans or Request for Proposal. These contracts will contain specifications requiring an evaluation to occur and time adjustments, when justified, will be granted by the Districts. This condition is covered in detail under ***Section 7.2.6***.

7.2.4 Time Extensions for Delays Caused by Weather

Resident Level Responsibilities

7.2.4.1 Weather Delays to Controlling Items of Work

Extensions of contract time for delays caused by the effects of inclement weather are justified only when rain or other inclement weather conditions or related adverse soil conditions prevent the Contractor from productively performing controlling items of work resulting in:

(1) The Contractor being unable to work at least 50% of the normal work day on predetermined controlling work items; or

(2) The Contractor must make major repairs to work damaged by weather, providing the damage was not attributable to a failure to perform or neglect by the Contractor.

7.2.4.2 Project Administrator's Weather Time Recommendations

The Project Administrator will continually monitor the effects of weather and when found justified, recommend to the Resident Engineer time extensions, on either a bimonthly or monthly basis. The Contractor will not be required to submit a request for additional time due to the effects of weather. The following procedures are to be followed in completing these time extensions.

(1) The Project Administrator will be directly responsible for accurately documenting weather data for each assigned construction project and the extent that work is performed on a controlling items of work on the ***Daily Report of Construction, Form No. 700-010-13***.

(2) The Project Administrator will make a recommendation to the Resident Engineer to grant time as a result of the effects of weather as defined. The recommendation will include a copy of the ***Daily Report of Construction, Form No. 700-010-13*** and the ***Work Plan - Controlling Item of Work, Form No. 700-010-15*** as back-up if a Critical Path Method schedule is not a contract requirement. This recommendation may not be contingent on whether the Contractor actually appears at the project on any given day but had intentions of doing so. If it is reasonable to conclude, based on the weather forecast, that there is little likelihood of productive work being accomplished on a controlling work item for 50% of that day, a time extension should be granted and the Contractor should not be expected to mobilize labor and equipment that day. Such determinations can be made in advance for a period no greater than a week.

7.2.4.3 Weather Delays For Projects

Time extensions will be granted on a contract day per delayed day.

(1) The contractor provides a schedule which identifies the intended work week, thus determining the scheduled work days and the controlling items of work. If inclement weather effects the contractors ability to productively perform controlling items of work on one of the scheduled work days as allowed by ***Specification 8-7***, a day is granted. Weekend days are eligible for weather days provided the weekend day is a scheduled workday and is shown as a scheduled workday on the accepted schedule or ***Work Plan - Controlling Item of Work, Form No. 700-010-15***. The Project Administrator and the Contractor's representative must agree ahead of time as to the controlling items of work and the number of days of the week to be worked. No weather delays will be recognized before the Contractor actually begins work or attempts to begin work in accordance with the approved project work schedule. Weather days will be granted only during the authorized Contract Time Period.

(2) The Resident Engineer will notify the Contractor of the number of weather days granted. This notice will be mailed out either on a bimonthly or monthly basis. See ***Guidance Document 7-2-A*** for a sample letter.

7.2.5 Time Extensions Not Related to Weather Delays, Holidays or Special Events

Resident Level Responsibilities

Contract time extensions will be considered only for the reasons set forth under the terms of the contract. A time extension letter shall not be used to document a contract time reduction. A ***Supplemental Agreemen***t or ***Work Order*** must be used for that purpose. Time extensions may be granted during the contract time period or authorized extensions of the contract time period. The time needed by a Contractor for permit applications and approval is not an allowable reason to grant additional contract time, except as may be allowable under the provisions of ***Specification 120-6.2***. The following establishes the process for evaluating, documenting and making decisions to approve or deny time extensions.

(1) The Contractor is to be furnished a copy of ***Contractor's Time Extension Request, Form No. 700-010-56***, at the pre-construction conference.

(2) Within ten (10) days after the commencement of a delay to a controlling item of work, the contractor shall submit a preliminary time extension

request. The Contractor should use the standard time extension request form provided at the pre-construction meeting. Other time extension request formats are acceptable providing the letter includes the documentation related to the delay. Failure to submit the required notice of time extension request in the time periods specified shall constitute an irrevocable waiver of any right to extension to the contract time for the subject delay.

(3) Within thirty (30) days after elimination of the delay or receipt of a written request by the Project Administrator, the Contractor shall submit all documentation pertaining to the delay. The Contractor should use the standard time extension request form provided at the pre-construction meeting. Other time extension request formats are acceptable providing the letter includes the documentation related to the delay. Failure to submit the required notice of time extension request in the time periods specified shall constitute an irrevocable waiver of any right to extension to the contract time for the subject delay.

(4) The Resident Engineer shall provide written acknowledgment of each Contractor's time extension request. If the information submitted on the standard form is determined to be incomplete or fails to meet the requirements of the contract for consideration as a time extension request, the Resident Engineer will reject it. See ***Guidance Document 7-2-D*** for a sample response for these actions.

(5) The Resident Engineer has the authority to approve time extension requests up to a cumulative maximum of thirty (30) days or 5% of the original contract time, whichever is greater. The District Construction Engineer (DCE) shall approve all time extension requests in excess of thirty (30) days or 5% of the original contract time, whichever is greater. Documentation of the reasons for decisions on granting or denying time extension requests shall be maintained in the project file. When a decision on approval for a time extension is made by the DCE, the DCE will inform the Resident Engineer of that decision including the reasons for it. The Resident Engineer will send a letter to the Contractor granting the additional time or denying the request. The denial or approval should include a concise response explaining the findings and decision for each issue raised by the Contractor's request. Time granted as part of a work order does not require a separate letter to the contractor. All backup documentation would still be required in the project file.

Time extension approval letters not related to Weather, Holidays and Special Events shall include the following standard disclaimer statement:

"By your acceptance of this time extension, you agree to pursue no further claim in connection with the above request. Please sign and return one copy of this letter, to acknowledge your agreement with these terms and conditions."
Terms and Conditions Accepted
(Contractor's corporate name)

By: _____ *Date:* _____

7.2.6 Time Extensions for Delays Caused by Suspension of Contractors Operations for Holidays and Special Events

Resident Level Responsibilities

7.2.6.1 Suspension of Contractors Operations – Holidays and Special Events Delays to Controlling Items of Work

Extensions of contract time caused by the suspension of contractors operations for Holidays and Special Events as defined in ***Specification 8-6*** are justified only when said suspension prevents the Contractor from productively performing controlling items of work on scheduled work days.

7.2.6.2 Project Administrator's Recommendation

The Project Administrator will monitor the effects that Holidays and Special Events as defined in ***Specification 8-6*** have on controlling items of work and recommend to the Resident Engineer Holiday and Special Event related time extensions. The Contractor is to submit a written request to work on a Holiday or Special Event at least ten (10) days in advance of the requested date and receive written approval from the Engineer. Holiday or Special Event time extensions do not require DCE approval and do not count toward the time extensions approval thresholds under **Section 7.2.5 (5)**. Holiday or Special Event days will be granted only during the authorized Contract Time Period.

The contractor provides a schedule which identifies the intended work week, thus determining the scheduled work days and the controlling items of work. If the contractor is unable to productively perform controlling items of work on a scheduled work day(s) due to the suspension of operations for a defined Holiday or Special Event, the contractor would be granted time for the scheduled work day(s) effected by the Holiday or Special Event suspension. The contractor will

not receive a time extension for Holiday or Special Event suspensions occurring on non-scheduled work days.

The Resident Engineer will notify the Contractor of the number of days granted related to the Holiday or Special Event suspension. See ***Guidance Document 7-2-B*** and ***Guidance Document 7-2-C*** for a sample letters.

7.2.7 Appeals

District Level Responsibilities

In the event the Contractor appeals the Department's decision, the DCE will evaluate any new facts. All needed coordination will be accomplished with the district's support staff, the district's legal counsel, the central office staff and the FHWA. The DCE will coordinate with the District Director of Operations and the District Secretary to notify the Contractor of the results of the Department's review of the appeal.

7.2.8 Federal-Aid Participation

7.2.8.1 FHWA Oversight Projects

Construction projects with Federal funding require that Department staff must have considered and decided on Federal-Aid participation or requested Federal-Aid participation in any time extension. The FHWA shall decide the amount, if any, of Federal-Aid participation time extensions granted for FHWA full oversight projects. The District will determine the amount on Delegated Federal-Aid projects.

Resident Level Responsibilities

On FHWA Oversight Projects, a letter shall be prepared by the Resident Engineer on In-House CEI projects and the Department's Construction Project Manager on Consultant CEI Projects, requesting FHWA for Federal Aid participation based on the facts stated in the letter. See ***Guidance Document 7-2-E*** for a sample letter.

When the stamped copy of the request for a time extension indicating FHWA denial (partial or whole) is received, the Resident Engineer on In-House CEI projects and the Department's Construction Project Manager on Consultant CEI Projects, will decide whether or not to appeal the decision.

When the appeal of the FHWA's denial of a time extension receives another denial, such denial may be considered final FHWA determination, and their stamped copy of the transmittal will be distributed as previously described.

7.2.8.2 Delegated State Oversight Projects

Neither FHWA approval nor State Construction Office concurrence in Federal Aid participation is required for time extensions granted on FHWA Delegated Projects.

(A) Resident Level Responsibilities

The Resident Engineer's staff shall develop the contract change document, submit the document to the DCE for review and solicit a determination of FHWA participation before any time extension is granted.

(B) District Level Responsibilities

The DCE shall determine the number of days eligible for Federal Aid participation. The guidelines contained in the latest version of the ***Florida Federal-Aid Partnership Agreement, Procedure No. 700-000-005***, ***CPAM 7.3.11.1***, as well as past precedents, should be used in determining Federal Aid participation. The DCE shall approve, in writing, the number of days determined to be Federal-Aid Participating or Non-Participating. The approval from the DCE, identifying the number of days which are Federal-Aid Participating or Non-Participating, shall be maintained in the project file. An email from the DCE or delegate will suffice as documentation of approval. The DCE can delegate such approval authority to a person within District Construction Office staff, but not to a Resident Engineer. Such delegation shall be maintained on file in the District Construction Office.

7.2.9 Contract Change Tracking System

District Level Responsibilities

Within fifteen (15) calendar days after the date of a time extension letter, the DCE, or designee, shall decide upon the final contract change coding and enter the time extension information into SiteManager and/or the Contract Change Tracking System. Time Extensions granted for Weather, Holidays and Special Events are to be entered into SiteManager only and are not to be entered into the Contract Change Tracking System. All other Time Extensions granted to the Contractor are to be entered into both systems. If the DCE's designee is not a

member of the District Construction Office staff, the DCE's delegation shall be maintained on file in the District Construction Office. Further, if the DCE's designee is not a member of the District Construction Office staff, the DCE shall develop a quality assurance process to ensure accurate contract change coding and compliance with this section. Such process shall be documented and maintained on file in the District Construction office.

For an explanation of the codes involved, see the information published under "Coding Contract Changes" heading as an attachment to ***CPAM Section 7.3*** on the State Construction Office website at: http://www.dot.state.fl.us/construction/Manuals/cpam/New%20Clean%20Chapters/CodingContractChanges.pdf

7.2.10 Quality Control Process for Contract Changes

District Level Responsibilities

The DCE shall develop a process to review a representative sample of all time extensions to ensure such changes were necessary and comply with the construction contract documents. Such process will be documented and maintained on file in the District Construction Office.

Guidance Document 7-2-A
SAMPLE WEATHER LETTER TO CONTRACTOR

Date:

Contractor's NAME
ADDRESS
CITY, STATE, ZIP CODE

Re: Adjustment to Contract Time for the Effects of Inclement Weather
Financial Project ID:
Project No.:
State Job No:
Contract No.:
F.A.P. No.:
County:

Dear Sir or Madam:

The daily reports documenting the effects of inclement weather have been evaluated for the period beginning (date) through (date). It has been determined (number) of calendar day(s) meet the criteria established by the contract for granting additional contract time due to the effects of inclement weather. It has been determined that (number) contract day(s) will be added to the total authorized contract time.

Your company has ten (10) days from receipt of this notice to appeal the number of days granted herein. Any such appeal must be accompanied by all available specific facts that support your position. Failure to make an appeal or to provide the specific facts supporting your positions within ten (10) days from receipt of this notice shall constitute a waiver of any rights to appeal the Department's decision at a later date.

Sincerely,

Resident Engineer

cc: District Construction Engineer

Guidance Document 7-2-B
SAMPLE HOLIDAY LETTER TO CONTRACTOR

Date:

Contractor's NAME
ADDRESS
CITY, STATE, ZIP CODE

Re: Adjustment to Contract Time for the Effects of Holiday Suspensions
Financial Project ID:
Project No.:
State Job No:
Contract No.:
F.A.P. No.:
County:

Dear Sir or Madam:

Since your firm did not request to work during the holiday period specified above, as outlined in Supplemental Specification Subarticle 8-6.4, the Daily Report documenting this holiday period have been evaluated. It has been determined (*number*) calendar day*(s)* meet*(s)* the criteria established by the Contract for granting additional time due to the suspension of operations for this holiday period. Pursuant to Supplemental Specification Subarticle 8-7.3.2, *(number) c*ontract day*(s)* will be added to the total authorized contract time.

Your company has ten (10) days from receipt of this notice to appeal the number of days granted herein. Any such appeal must be accompanied by all available specific facts supporting your position. Failure to make an appeal or to provide the specific facts within ten (10) days from receipt of this notice shall constitute a waiver of any rights to appeal the Department's decision at a later date.

Sincerely,

Resident Engineer

cc: District Construction Engineer

Guidance Document 7-2-C
SAMPLE SPECIAL EVENT LETTER TO CONTRACTOR

Date:

Contractor's NAME
ADDRESS
CITY, STATE, ZIP CODE

Re: Adjustment to Contract Time for the Effects of Special Event Suspensions
Financial Project ID:
Project No.:
State Job No:
Contract No.:
F.A.P. No.:
County:

Dear Sir or Madam:

Since your firm did not request to work during the Special Event period specified above, as outlined in Supplemental Specification Subarticle 8-6.4, the Daily Report documenting this Special Event period have been evaluated. It has been determined (*number*) calendar day*(s)* meet*(s)* the criteria established by the Contract for granting additional time due to the suspension of operations for this Special Event period. Pursuant to Supplemental Specification Subarticle 8-7.3.2, *(number) c*ontract day*(s)* will be added to the total authorized contract time.

Your company has ten (10) days from receipt of this notice to appeal the number of days granted herein. Any such appeal must be accompanied by all available specific facts supporting your position. Failure to make an appeal or to provide the specific facts within ten (10) days from receipt of this notice shall constitute a waiver of any rights to appeal the Department's decision at a later date.

Sincerely,

Resident Engineer

cc: District Construction Engineer

Guidance Document 7-2-D

SAMPLE LETTER
RESIDENT ENGINEER TIME EXTENSION RESPONSE

Date:

Contractor NAME/ADDRESS
TOWN, STATE, ZIP CODE

SUBJECT: Time Extension Request
Financial Project ID:
Project No.:
State Job No:
Contract No.:
F.A.P. No.:
County:

Dear Sir or Madam:

On___(date)___, you submitted a request for an extension of the contract time for State Project No. _____.

(This request has been received by this office and is presently under review. Upon completion of the Department's review, you will be notified of the approval or denial of the time extension. It is anticipated that this notification will be given on or before (date)).

or

(This information you submitted is incomplete and is being returned. Upon receipt of complete information, we will continue to process your request.)

or

(Your request fails to meet the requirements of the contract for consideration as a time extension for the following reasons:)

(State Reasons)

Sincerely,

Resident Engineer

cc: District Construction Engineer

Guidance Document 7-2-E

SAMPLE LETTER TO FHWA REQUESTING CONCURRENCE AND PARTICIPATION OF AN APPROVED TIME EXTENSION UNDER FHWA FULL OVERSIGHT

Date:

Mr. (Division Administrator)
Division Administrator
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Attention: (Area Engineer)

Subject: Recommendation on Time Extension Request
Financial Project ID:

Contract No.:
Federal Aid Project No.:
Contractor's Request No.:

Enclosed is a copy of the District staff's evaluation of the subject time extension request. Our analysis concludes the following time extension item(s) is/are justified:

> (List each item identified by the time extension, the number of days requested, and the number of days to be granted. Include a short summary of the basis for the decision to grant or not grant time.)

We respectfully request FHWA concurrence and participation.

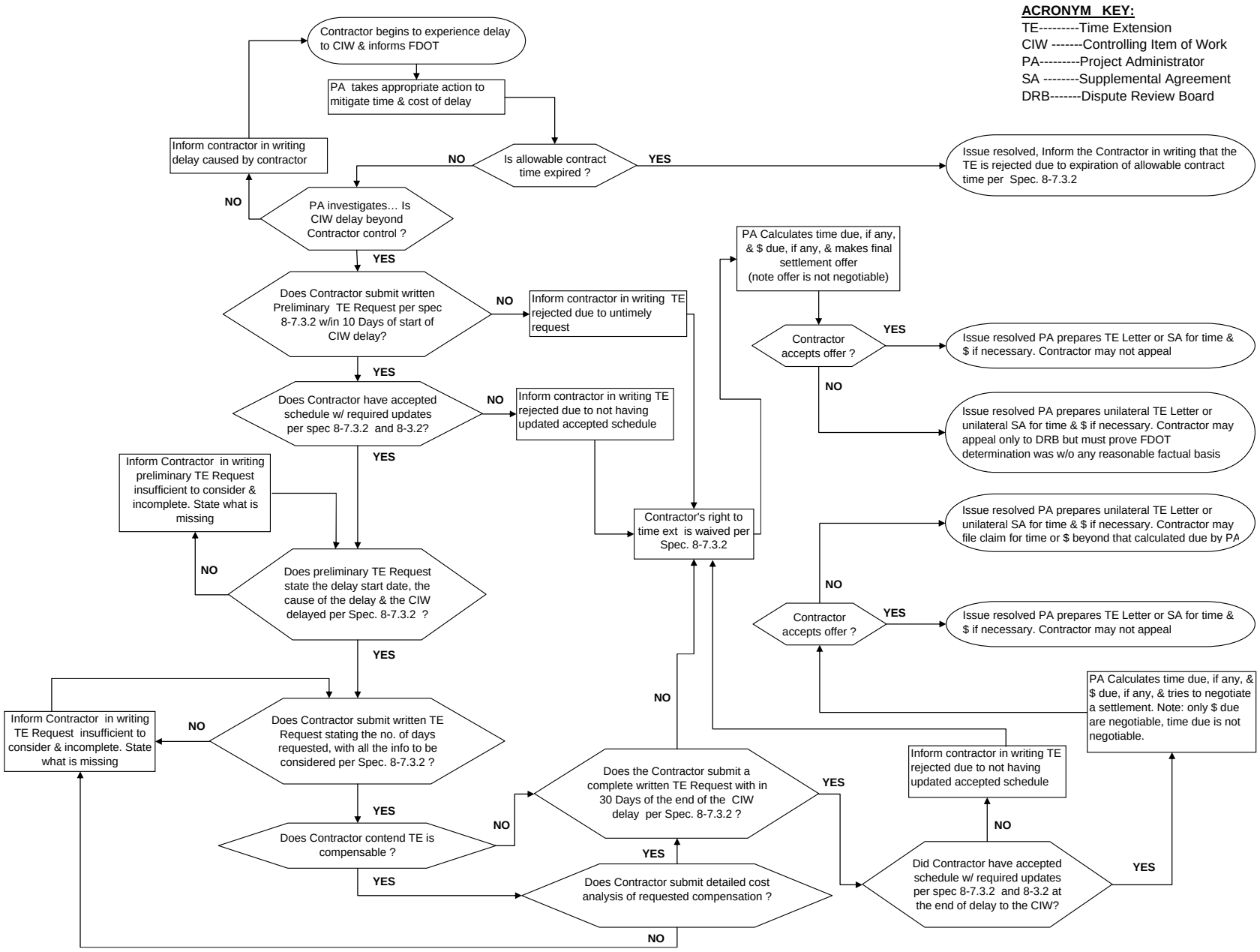
Sincerely,

Resident Engineer or
Construction Project Manager

Attachment 7-2-1

02/07/07

FLOWCHART FOR CONTRACTOR REQUESTED TIME EXTENSIONS NOT RELATED TO WEATHER DELAYS



Section 7.3

SUPPLEMENTAL AGREEMENTS AND UNILATERAL PAYMENTS

7.3.1 Purpose

To provide a uniform procedure for District Construction Offices to initiate, document, execute and distribute construction contract changes by ***Supplemental Agreements*** and ***Unilateral Payments***.

7.3.2 Authority

Sections 20.23(3)(a), 334.048(3), 334.185, 337.11(9), 337.11(12), 337.185, 339.135(6)(a), Florida Statutes (F.S.)

Federal Aid Policy Guide (23 CFR 635)

FHWA Approved: February 26, 2015

7.3.3 Reference

Chapter 7, Section 4 - Contingency Supplemental Agreements

Procedure No. 375-020-010, Errors Omissions, and Contractual Breaches by Professional Engineers on Department Contracts

Procedure No. 700-000-005, Florida Federal-Aid Partnership Agreement

Section 4, Standard Specifications for Road and Bridge Construction

7.3.4 Definitions

Refer to the Introduction section of this ***Manual*.**

7.3.5 Identifying the need for a Supplemental Agreement or Unilateral Payment

7.3.5.1 Supplemental Agreements or Unilateral Payments shall be used to:

(A) Clarify the plans and specifications of a contract.

(B) Provide for unforeseen work, grade changes, or alterations in plans that could not reasonably have been contemplated or foreseen in the original plans and specifications.

(C) Change the limits of construction to meet field conditions.

(D) Provide a safe and functional connection to an existing pavement.

(E) Settle contract claims (for ***Supplemental Agreements*** only).

(F) Make the project functionally operational in accordance with the intent of the original contract.

(G) Expand the physical limits of a project only to the extent necessary to make the project functionally operational in accordance with the intent of the original contract. The cost of any such additional work extending the physical limits of a project shall not exceed $100,000.00 or ten (10) percent of the original contract price, whichever is greater.

(H) Give effect to the negotiated settlement of a dispute.

7.3.5.2 Unilateral Payments will be used to pay the Contractor for work performed on a project when:

(A) The Contractor agrees to perform the work at an agreed upon cost but refuses to timely execute a ***Supplemental Agreement*** so as to allow timely payment for the work by the Department or,

(B) The Department and the Contractor cannot agree on the cost of additional work, and the Contractor refuses to execute a ***Supplemental Agreement*** or,

(C) The Department determines it is in its best interest to make a ***Unilateral Payment*** for work the Department directed to be performed in lieu of pursuing a ***Supplemental Agreement***.

(D) The Department and Contractor cannot agree on the value of work deleted from the Contract. When this occurs on ***Lump Sum Contracts***, an encumbrance should be processed through the Contract Funds Management System to reduce the contractual obligation commensurate to value of the negative ***Unilateral Payment***. The estimate should be loaded into ***SiteManager*** with the ‘reduced’ regular work amount (total work less the negative ***Unilateral Payment*** amount). The negative ***Unilateral Payment*** should not be loaded into ***SiteManager*** as it will be reflected in the reduced amount of regular work. The supporting documentation for the negative encumbrance should be included as documentation for the negative ***Unilateral Payment***.

7.3.6 Initiating Supplemental Agreements and Unilateral Payments

The District Operations staff will ensure that the terms of all ***Supplemental Agreements and Unilateral Payments*** are in the best interest of the Department and comply with procedures, specifications, and statutory requirements governing construction contract administration.

Before a ***Supplemental Agreements*** or ***Unilateral Payment*** can be issued against any Non-State Highway System, federally funded project being constructed by the Department for a Local Government, the Project Administrator shall ensure that the Design Project Manager has obtained a Maintenance Agreement between the Department and the Local Government (Refer to ***Financial Provisions for Department Funded Agreements, Procedure 350-020-301*)**. The Maintenance Agreement shall establish that the Local Government is responsible for additional project costs determined to be Federal Aid Non-Participating.

All ***Supplemental Agreements and Unilateral Payments***, including those initiated in response to contract claims, will be supported and documented by an ***Engineer's Estimate*** and an ***Entitlement Analysis*** (see ***Guidance Document 7-3-A***). Lump sum items shall not be used without detailed itemization stating the quantities and unit prices the lump sum item was based on.

When a ***Supplemental Agreement or Unilateral Payment*** must be initiated on a project with consultant-prepared plans and contract documents, refer to ***Procedure No. 375-020-010, Errors, Omissions, and Contractual Breaches by Professional Engineers on Department Contracts***.

7.3.6.1 Significant Changes

All significant changes causing an increase or decrease in the unit cost of a pay item must be documented with a completely executed ***Supplemental Agreement or Unilateral Payment***. Note that either of these types of contract changes will require an ***Entitlement Analysis*** and an ***Engineer's Estimate***. Certification of availability of funds must be obtained from the Comptroller's Office prior to directing the Contractor to perform the work when the change results in an increase in the cost of the project.

7.3.6.2 Project Limit and Construction Limit Extensions

(A) Resident Level Responsibilities

Section 337.11(9)(b), F. S. states that ***Supplemental Agreements*** may only be used to expand the physical limits of a project only to the extent necessary to make the project functionally operational in accordance with the intent of the

original contract. The cost of any such agreement extending the physical limits of a project shall not exceed $100,000, or ten (10) percent of the original contract amount, whichever is greater. For the purpose of this section, the term physical limits means the length or width of any project and specifically includes drainage facilities not running parallel to the project.

Authorization from the Director, Office of Construction is required before extending the project limits (as depicted on the contract plans) to perform work other than feathering (milling and resurfacing), friction course placement, guardrail, drainage, signing, pavement marking, sidewalk, and transitions for maintenance of traffic. Authorization from the District Construction Engineer (DCE) is required before extending the project limits (as depicted on the contract plans) to perform feathering (milling and resurfacing), friction course placement, guardrail, drainage, signing, pavement marking, sidewalk, and transitions for maintenance of traffic. Authorization from the Director, Office of Construction is required before extending the construction limits (as depicted on the contract plans) on any project.

On FHWA Oversight Projects, FHWA concurrence for project limit and construction limit extensions must be obtained in accord with ***CPAM Section 7.3.11.2***.

Prior to processing a project limit or construction limit extension, for Department-prepared plans, notify the Department's Engineer of Record. For consultant-prepared plans, notify the Department's Design Project Manager.

(B) District Level Responsibilities

The DCE shall approve project limit (as depicted on the contract plans) extension requests to perform feathering (milling and resurfacing), friction course placement, guardrail, drainage, signing, pavement marking, sidewalk, and transitions for maintenance of traffic. The DCE recommendation must be included on all requests for extending project limits (as depicted on the contract plans) to perform work other than feathering (milling and resurfacing), friction course placement, guardrail, drainage, signing, pavement marking, sidewalk, and transitions for maintenance of traffic. The DCE recommendation must be included on all requests for extending construction limits (as depicted on the contract plans).

(C) Central Office Level Responsibilities

The Director, Office of Construction will review project limit (as depicted on the contract plans) extension requests to perform work other than feathering (milling and resurfacing), friction course placement, guardrail, drainage, signing, pavement marking, sidewalk, and transitions for maintenance of traffic. and construction limit extension (as depicted on the contract plans) requests to

assure they have received the recommendation of the District Construction Engineer and that they comply with ***Section 337.11(9)(b), F.S.***

7.3.6.3 Plan or Specification Changes

(A) Resident Level Responsibilities

All changes to the contract plans or specifications must be documented with a completely executed ***Supplemental Agreement or Unilateral Payment***, with prior certification of availability of funds from the Comptroller's Office required.

Prior to initiating a plan or specification change, for Department-prepared plans, notify the Department's Engineer of Record. For consultant-prepared plans, notify the Department's Design Project Manager.

Prior authorization from the Director, Office of Construction shall be obtained before implementing any changes to contract specifications on all contracts (including District let contracts).

On FHWA Oversight Projects, FHWA concurrence for plan and or specification changes must be obtained in accord with ***CPAM Section 7.3.11.2***.

When a ***Supplemental Agreement or Unilateral Payment*** documents plan changes, the plan sheets being revised and the date of revision for each must be listed in the document.

(B) District Level Responsibilities

The District Construction Engineer's recommendation must be included on all requests for contract specification changes. The DCE may authorize a no-cost change which extends the material acquisition or flexible start time after issuance of the Notice To Proceed.

For projects on which the DCE has authorized the above change, the DCE also has the authority to revise, by no cost specification change, the submittal times for the Project Schedule and Quality Control Plan.

(C) Central Office Level Responsibilities

The Director, Office of Construction will review and approve any changes to contract specifications.

7.3.6.4 Quantity Overruns

The passage and signing into law of ***HB 1681 (2005)*** eliminated the requirement

of a ***Supplemental Agreement*** for major quantity differences resulting in the Contractor's work effort exceeding the original contract amount by more than five (5) percent Therefore, in an effort to manage the potential overrun of quantities on contracts the Department has implemented the following procedure.

(A) Resident Level Responsibilities

Without encumbering any additional funds, projects with an original contract amount of $5 million or less, may incur overruns to the current contract amount up to the Allowable Unencumbered Overruns Amounts (AUOA) which is calculated as follows. To find the AUOA, the initial Contingency Pay Item amount is subtracted from the Original Contract amount and the result is multiplied by two and one-half (2.5) percent. Although overruns up to the AUOA may be paid as unencumbered disbursements, management encourages project managers to program and encumber additional funds for any outstanding unencumbered overrun amount prior to the expenditures exceeding the contract amount. Overruns in excess of the AUOA must have additional funds encumbered prior to the authorization of the work that will cause the contract (not pay item or project) to overrun.

Projects with an original contract amount more than $5 million are required to have additional funds encumbered to cover overruns to the contract (not pay item or project) on regular work prior to the authorization of the work that will cause the contract (not pay item or project) to overrun. Contingency funds may not be used for overruns.

In the interest of proper construction contract administration, it is essential that dollar amounts of overruns and underruns be tracked in an overrun/underrun log throughout the life of the project.

Construction Project Managers are encouraged to keep this log as a Microsoft Excel spreadsheet file, however, a hard copy will be acceptable. For each overrun or underrun, this log should include the pay item, the quantity, the location, the dollar amount involved and a brief explanation of the reason for the overrun or underrun. An immediate, comprehensive analysis of the impact on the final contract amount of any substantial overrun or underrun in one or more pay items should also be made as soon as the probability of such a substantial overrun or underrun becomes apparent. Reasons for all overruns or underruns should be documented in the overrun/underrun log mentioned above when those overruns or underruns occur. An accumulation of overruns could result in a net overrun requiring justification and documentation to be included with a funds encumbrance request approved by the Comptroller's Office.

If funds are not approved/encumbered prior to overrunning the current contract amount on contracts greater than $5 million, or the net overruns exceed the AUOA on contracts for $5 million or less, then an after the fact memo to the

Department's Comptroller from the Turnpike Executive Director or District/Assistant Secretary, as appropriate, will be required. The letter should request authorization for an after-the-fact funds approval detailing the situation, the cause of non-compliance, and the measures put into place to prevent a repeat occurrence of non-compliance.

NOTE: Any price adjustment for a significant change involving an increase in quantity to a Major Item of Work will apply only to that portion of the work in excess of one hundred twenty-five (125) percent of the original contract quantity for that item. In case of a decrease in the original contract quantity below seventy-five (75) percent of the original contract quantity, the price adjustment will apply to the actual amount of work performed. Such adjustments must be documented on a fully executed ***Supplemental Agreement***.

(B) District Level Responsibilities

The District Federal Aid Coordinator will request federal funds approval by initiating a federal authorization request through the Federal Aid Management Office in the Office of Work Program. The ***Authorization Request*** must be in one of the following status states: Reviewed, Certified, Transmitted or Approved in order to encumber the funds though the Contract Funds Management system (CFM). The CFM system will check Financial Management system (FM) daily to see if the authorization has been approved and if so, CFM will change the encumbrance to Status 10 (available for payment). Payments for contract overruns will not be made until the ***Authorization Request*** is approved by the Federal Highway Administration (FHWA). In order to ensure prompt payment on these projects, the Federal Aid Coordinator must be informed of the expected payout date. Function (work activity) code 240 must be used for monitoring and tracking expenditures related to overruns. Requests for additional funding must be based on an analysis of the project and calculated estimated overruns.

NOTE: When projects are authorized with Federal Funds, the District Federal Aid Coordinator must submit an ***Authorization Request*** for changes to the project costs. A justification for these changes must be given to the Federal Aid Coordinator for all adjustments to the initial authorization. The justification does not need to be in detail but should include all major pay items that are overrun, such as asphalt, etc., (not 20 pcs of guardrail, 60 lag bolts, 30 posts). However, an analysis of the contract and an explanation of the work or material required shall be included for anticipated future overruns. In some cases a FHWA Oversight project may require more detailed information in order for the ***Authorization Request*** to be approved by FHWA. Failure to comply with this will prolong the process for obtaining approval from FHWA, and reimbursement for costs could be jeopardized.

7.3.7 Establishing Fair and Equitable Value for Significant Change

Resident Level Responsibilities

Additional work of the type for which a contract unit price is provided shall be paid at such contract unit price unless the additional work constitutes a significant change.

Additional work of the type for which no contract unit price is provided will be paid at negotiated prices or pursuant to ***Standard Specification 4-3.2***. After notification has been given by the Construction Project Manager to the Engineer of Record or to the Design Project Manager, the Engineer of Record should be invited to participate in negotiations/determinations of prices for the added work if the cost of the work involves potential premium costs. The Construction Project Manager should not delay the contract administration process with the Contractor waiting on the Engineer of Record to participate.

The Engineer will typically attempt to negotiate with the Contractor, as outlined below, to resolve all outstanding issues, including time adjustments and attempt to reach an agreement on fair and equitable prices for a significant change.

For any contract change involving monetary compensation:

(1) As soon as a need for additional work is established, the Resident Engineer's staff should prepare an ***Entitlement Analysis*** and an ***Engineer's Estimate*** (Refer to ***Guidance Document 7-3-A***).

(2) The Resident Engineer's staff should then begin negotiations for the work. The Resident Engineer's staff shall make an appropriate revision to the amount of the ***Engineer's Estimate*** if new information is recognized, supported, and documented during negotiations (See ***Guidance Document 7-3-A*** for revision details). **NOTE:** Where the dispute has been considered by a Disputes Review Board (DRB) acting in accord with procedures established under the contract, the recommendations of the DRB should be given consideration in negotiations. However the DRB recommendations are not binding on the Department or the Contractor and should be considered important, but not controlling, factors in negotiating revisions to the amount of the Engineer's Estimate.

(3) For additional assistance in valuing contract changes, the Office of Construction may be contacted in accordance with the District's guidelines on such contacts. The District Construction Engineer shall approve any request for review by Central Office staff. The District Construction Engineer will set the District's guidelines which establish when such contacts are appropriate.

The assistance of the Office of Construction may be requested by email from the DCE to the Director, Office of Construction.

(4) If the negotiations have not resulted in an agreement and the Department may

be liable for delays, the Resident Engineer's staff should then immediately request an encumbrance for the part of the total contract change costs estimated to be due to the Contractor. Certification of availability of funds must be obtained from the Comptroller's Office prior to directing the Contractor to perform the work when the change results in an increase in the cost of the project. Once the Comptrollers Office certifies the funds availability, the Resident Engineer's staff should then direct the contractor to proceed with the work while continuing to negotiate a ***Supplemental Agreement*** to cover it until the work is completed or negotiations are terminated.

(5) If the work has been completed and Contractor and the Department still cannot agree on the compensation owed to the Contractor, then:

a. Where the Resident Engineer's staff (or higher District management personnel, as determined by the District) determines that no further upward revision of the ***Engineer's Estimate*** is justified, then the Resident Engineer's staff will attempt to negotiate a settlement at or below an amount considered reasonable to avoid delay to the project due to continued escalation. If the Contractor accepts the Department's offer, the individual authorizing that decision for the District will attach a signed and dated cover sheet to a package containing the most recently amended ***Engineer's Estimate***. This cover sheet will be labeled ***Negotiated Settlement amount***. The sheet will show only the increase in the amount paid to settle that is justified solely to avoid delay to the project by continued escalation. A ***Supplemental Agreement*** to settle the issue will then be prepared; or,

b. If the Contractor refuses to accept the maximum amount developed in the previous scenario; the Resident Engineer's staff will prepare a ***Unilateral Payment*** to pay the Contractor the amount of the justified costs. The method to calculate these costs is stated in ***Standard Specification 4-3*** and the ***Engineer's Estimate*** and ***Entitlement Analysis*** must be adjusted accordingly. The methods of calculating any claims settlement costs beyond those developed under ***Standard Specification 4-3*** are covered in ***Standard Specification 5-12***; and, regarding such costs, it should be noted that only delay costs will be considered. The Contractor will then be required to handle any further request for compensation as a claim in accordance with ***Specification 5-12.3***. Refer to ***CPAM Section 7.5***.

(6) Idle asphalt plants should only be compensable for delays if the plant is dedicated to the project. If the asphalt plant provides asphalt to multiple projects or sells commercially and not dedicated to the project, it would not be compensable for delays.

If a claim includes costs for a non-dedicated idle asphalt plant, the costs should be removed from the subject claim.

7.3.8 Determining and Documenting the Basis for Contract Time Adjustments

Resident Level Responsibilities

When the value of a contract is increased or decreased due to work added, work deleted, or a significant change, a statement of adjustment of contract time shall be included in the negotiations between the Department and the Contractor, and included in the ***Supplemental Agreement or Unilateral Payment*** documenting work added, work deleted, or a significant change (Refer to the ***Guidance Document 7-3-A and 7-3-D*** regarding additional contract time). Additional time should be commensurate with the estimated effects the changes will have on the controlling items of work shown on the approved work schedule except when the approved work schedule is clearly not representative of actual project performance. When additional time is granted because controlling items of work are delayed, the supporting documentation for the contract change shall list the controlling items of work delayed and number of non-overlapping delay days attributable to each.

When a ***Unilateral Payment*** is executed in lieu of a ***Supplemental Agreement***, additional contract time will be determined by the Engineer based on the impact to controlling items of work shown on the approved work schedule except when the approved work schedule is clearly not representative of actual project performance. Any additional contract time due the Contractor for work paid by ***Unilateral Payment*** will be granted on the ***Unilateral Payment*** document. The ***Unilateral Payment*** document will include the reasons for all time extensions. Non-compensable Time Extensions should not be granted using the ***Unilateral Payment*** document.

7.3.9 Obtaining Department Legal Approval

Resident Level Responsibilities

Section 334.185, F. S., requires the Department's legal staff to review and comment on all contracts prior to award, and on all proposed contractual changes, to determine the legal responsibility for construction, material, or design failures, and to advise on ways to minimize responsibility for such failures.

It is also important that close coordination between the construction staff and legal staff be maintained during the ***Supplemental Agreement*** negotiations process to ensure all applicable legal requirements are fulfilled and to obtain legal advice on matters related to contract disputes.

Each District will obtain legal review for ***Supplemental Agreements*** to construction contracts and ***Unilateral Payments*** from its respective District General Counsel prior to forwarding these documents to the Contractor for execution or notice respectively.

Space has been provided on the ***Supplemental Agreement, Form No. 700-010-45*** and the ***Unilateral Payment, Form No. 700-010-05***, to document Department legal review. The ***Supplemental Agreement*** document shall be reviewed by a Department

attorney to document legal review prior to forwarding the ***Supplemental Agreement*** to the Contractor for execution. Evidence of the legal review shall be retained in the ***Supplemental Agreement*** file as part of the backup documentation. Each ***Unilateral Payment*** shall be reviewed and signed by a Department attorney. A copy of any contract change document sent to the Contractor for execution shall be maintained in the project files until and unless it is superseded by a copy of the same contract change executed by the Contractor without alteration. Note that in case of a ***Supplemental Agreement***, the Contractor will receive a fully executed copy only at the conclusion of the process. If a Contractor modifies a ***Supplemental Agreement***, the ***Supplemental Agreement*** is to be revised with the new language that both parties agree to and the revised document is to be resubmitted to the Contractor for execution. **NOTE:** No ***Supplemental Agreement*** altered unilaterally by the contractor shall be accepted by the Department without the review and approval of the District Chief Counsel. Where paragraph 4 of the ***Supplemental Agreement*** has been altered, the review and approval of the Director, Office of Construction and the Office of General Counsel is also required before accepting the altered ***Supplemental Agreement***.

7.3.10 Requesting Certification of Funds from the Department's Comptroller's Office

District Level Responsibilities

(1) The District budget/work program staff will review all funds requested, to determine that the work program can support the expenditures prior to transmitting the funds request back to the District Construction Engineer or designee. The Contract Funds Management (CFM) will check the Financial Management system to verify that sufficient remaining authorization has been pulled before certifying availability of funds. The District Work Program Office must ensure the authorization has been approved. The authorization must be approved before work begins.

(2) For a ***Supplemental Agreement***, the District Construction Engineer or designee must obtain funds approval through the CFM system prior to obtaining approval of the Secretary or designee on a draft copy of the ***Supplemental Agreement*** and prior to transmitting the ***Supplemental Agreement*** to the Contractor or giving the Contractor written notice to proceed with the work. For a ***Unilateral Payment*** the District Construction Engineer or designee must obtain funds approval through the CFM system prior to obtaining the approval of the Secretary or designee on a draft copy of the ***Unilateral Payment*** and prior to giving the Contractor notice to proceed with work which will be documented and paid with a ***Unilateral Payment***.

(3) The CFM system is located on the Comptroller's website. To obtain access to the CFM system, the requestor must have completed the training course for the CFM system provided by District/Central Train the Trainer personnel.

(4) When funds are encumbered for construction contract changes on separate

projects within the same contract with different fund categories, these changes must be documented separately for each fund category. The District Construction Engineer or designee will request funds approval for the project whose number is indicated in the request for certification of availability of funds as designated by the District Operations staff.

(5) Funds certified for ***Contingency Supplemental Agreements*** and funds made available for ***Work Orders*** by Contingency Pay Items may only be used temporarily for ***Unilateral Payments*** if the conditions for that use set forth in the ***CPAM Section*** on ***Contingency Supplemental Agreements*** are met. (See ***CPAM Section 7.4***).

(6) For ***Supplemental Agreements*** issued for unforeseen utility work during construction, the District Construction Engineer or designee must notify the District Office of Work Program (immediately, but no later than the business day following the identified need for such a ***Supplemental Agreement***) requesting LFU funds be programmed to the project commensurate to the value of the ***Supplemental Agreement***. This notification shall be made via e-mail, with copies to the Comptroller, Financial Development Office and Central Office Work Program. The e-mail notification shall include: Contract Number, Financial Project Number, ***Supplemental Agreement*** Number, Utility Agency/Owner and the amount of the ***Supplemental Agreement***.

7.3.11 Obtaining Federal Highway Administration Approval and Participation for Construction Contract Changes on Federal Aid Projects

7.3.11.1 General

Federal Aid participation in all changes to Department Construction Contracts shall be determined as required by ***Federal Aid Policy Guide 23, CFR Section 635.120***.

The following project changes shall be Federal Aid Non-Participating:

(A) Spare parts turned over to the maintaining agency and not incorporated into the construction.

(B) Material or equipment called for in the plans but not used in the construction.

(C) Closed drainage systems on structures not justified in the environmental process.

(D) Fishing Piers.

(E) Drainage items, including water retention ponds, not supported through

the environmental process.

(F) Premium costs due to design or CEI errors or omissions.

(G) Sole source items unless specifically approved by the Federal Highway Administration prior to project authorization.

(H) Construction changes for items that were set up as alternate bid items.

(I) Repairing items that had not been properly maintained (cleaning pipe, etc.)

(J) Additional contract time and/or costs for utility or right of way delays beyond what was identified in the contract documents.

(K) Additional contract time and/or costs to attain greater vertical or horizontal bridge clearance than deemed necessary to fulfill the intent of the original project documents.

(L) Additional contract time and/or costs due to arbitrary one foot or less backwater criteria in construction or reconstruction of Interstate Highway Bridges.

(M) MOT items for Federal Aid Non-participating time extensions.

(N) Work resulting from insufficient subsoil investigation.

(O) Claim Settlement Costs paid solely to avoid the risk associated with failing to settle the claim as defined in ***CPAM Section 7.5.3***.

7.3.11.2 FHWA Oversight Projects

Resident Level Responsibilities

The Resident Engineer on In-house CEI projects and the Department's Construction Project Manager on Consultant CEI projects shall solicit FHWA approval of and participation in all construction contract changes on all FHWA Oversight projects. Federal-Aid participation shall be documented on the ***FHWA Approval - Major and Minor Construction Changes, Form No. 700-010-47***, FHWA refusal to participate in any construction contract change should be followed-up with an additional attempt to obtain Federal Aid participation by supplying all necessary additional information or explanations. The Resident Engineer on In-house CEI projects and the Department's Construction Project Manager on Consultant CEI projects should solicit the reason for any FHWA refusal to participate in any construction contract change. Such reason for non-participation shall be noted in the ***FHWA Approval - Major and Minor***

Construction Changes form or attachment thereto. Should FHWA refuse to supply a reason, such refusal should also be noted in the document or on the attachment as part of the pertinent information included in the complete contract change package.

(1) **Major Changes** - All major changes in the plans and specifications must be approved in writing by FHWA on the ***FHWA Approval - Major and Minor Construction Changes*** form prior to approval of the changes by the Secretary or designee prior to giving the Contractor written notice to proceed with work. When emergency or unusual conditions exist, FHWA may give tentative prior approval verbally and ratify such approval in writing as soon thereafter as practical.

Major changes include the following:

- Revisions of geometric design (main roadway, ramps, frontage roads, or crossroads) including any project and construction limit extensions.

  (**NOTE:** Project and Construction Limit Extension approval requests must be forwarded through the State Construction Office in accord with ***CPAM Section 7.3.6.2***).

- Revisions of pavement structural sections.

- Revisions in conflict with standards.

- Revisions, additions, deletions, or relocation of structures.

- Any changes in the plan access control.

- Any changes that alter specifications, special provisions or other contract requirements, including previously approved provisions.

- Any changes in material type or quality.

- The grant of any additional contract time in a ***Supplemental Agreement***.

- Any time extensions.

- Any adjustments to the contract made by the engineer because of a significant change when acceptable prices cannot be obtained through negotiations.

- Contract claim settlements.

- ***Supplemental Agreements and Unilateral Payments*** that total $50,000.00 or more, or five (5) percent or more of the original total contract amount, whichever is less.

- Substantial overruns or underruns.

FHWA prior written approval for all major changes in the plans and contract provisions shall be documented on the ***FHWA Approval - Major and Minor Construction Changes*** form. FHWA may give tentative prior verbal approval for major changes, when justified by emergency or unusual conditions. When this occurs, it shall be documented on the ***FHWA Approval - Major and Minor Construction Changes*** form. The document should note who granted the verbal approval, the date granted, and who received the verbal approval before submitting that document for FHWA written approval. That document shall be submitted for FHWA written approval as soon as practical following receipt of verbal approval.

A copy of all pertinent information justifying the request for FHWA approval and participation must be included with the document prepared for FHWA approval. Such information shall include, but not be limited to:

- The reasons for quantity overruns and underruns.

- The ***Entitlement Analysis***, the ***Engineer's Estimate*** and, where claim settlement costs have been incurred, a ***Statement of Claim Settlement Cost*** (see ***CPAM Section 7.5.3*** for a description of that statement).

- Documentation of concurrence from the Director, Office of Construction for all changes to contract specifications and extensions of the project and construction limits.

- All related correspondence that may be pertinent to FHWA concerns.

(2) **Minor Changes** - All minor changes in the plans and specifications shall be approved in writing by FHWA retroactively. All project changes other than major changes shall be classified as minor changes.

FHWA retroactive written approval for all minor changes shall be documented on ***FHWA Approval - Major and Minor Construction Changes, Form No. 700-010-47***. FHWA may elect to approve minor changes by having the document sent to them for signature or by signing the document at the time of a routine field visit.

A copy of all pertinent information justifying the request for FHWA approval and participation must be included with the document prepared for FHWA approval. Such information shall include, but not be limited to, the basis for determining the

need for the changes, the ***Engineer's Estimate***, and the ***Entitlement Analysis***, the basis for determining changes to contract time, and all related correspondence which may be pertinent to FHWA concerns.

(3) **Minor Overruns or Underruns** - Minor overruns or underruns will not require prior FHWA approval. Such overruns or underruns will be reviewed for approval by FHWA in its review of the project final estimate.

7.3.11.3 District Oversight (Delegated) Projects

Neither FHWA approval nor State Construction Office concurrence in Federal Aid participation is required on Delegated Projects.

(A) Resident Level Responsibilities

The Resident Engineer's staff shall develop the contract change document, submit the document to the District Construction Engineer for review and solicit a determination of FHWA participation before any payment is made on the contract change or any item included in the contract change.

(B) District Level Responsibilities

The District Construction Engineer shall determine the Federal Aid participation in accordance with the guidelines shown in ***CPAM Section 7.3.11.1***. The District Construction Engineer can delegate such approval authority, in writing, to a person within the District Construction Office staff, but not to a Resident Engineer. Such delegation shall be maintained on file in the District Construction Office. Approval shall be documented in writing showing the amount of federal aid participation for all pay items included in the contract change and must be signed and dated by the District Construction Engineer or delegate and included in the project file for that contract change. An email from the District Construction Engineer or delegate will suffice as documentation of approval.

7.3.12 Documenting and Approving the Work; Issuing the Notice to Proceed with the Work

Resident Level Responsibilities

The District Construction Engineer or designee must obtain funds approval though the Contract Funds Management System (CFM) prior to the Secretary or designee approving the work on ***Supplemental Agreement***, ***Form No. 700-010-45***, and before giving the Contractor written notice to proceed with the work.

If the Department and the Contractor agree on the need for and cost of the work, the Engineer shall accomplish the following before authorizing the Contractor to proceed

with the work:

(1) Prepare an ***Engineer's Estimate***, ***Entitlement Analysis*** and a draft copy of the ***Supplemental Agreement*** form used for approval of form and language.

(2) Ensure that the District Construction Engineer or designee has obtained a certification of the availability of the required funds from the CFM System (see ***CPAM Section 7.3.10***).

If the Department and the Contractor cannot agree on the cost and or time allowed for some of the work, then the terms of the ***Supplemental Agreement*** may be changed by adding an exception to paragraph (4) of the document that reserves the right of the Contractor to dispute only that portion of the costs and or time on which the Department and the Contractor cannot agree. Such modifications shall only be made with the assistance and approval of the District Legal Counsel, the Director, Office of Construction and the Office of General Counsel. The District Construction Staff shall obtain the approval of the District Legal Counsel for such modifications before forwarding for the Director, Office of Construction's and the Office of General Counsel approval. When such modifications are initiated by the Department, the approval of the District Legal Counsel, the Director, Office of Construction and the Office of General Counsel shall be obtained before forwarding the ***Supplemental Agreement*** to the Contractor for signature. When such modifications are made unilaterally by the Contractor to the signed copy the Contractor returns to the Department, the approval of the District Legal Counsel and the Director, Office of Construction shall be obtained before returning a fully executed copy of the ***Supplemental Agreement*** to the Contractor.

If the Department and the Contractor cannot agree on the terms of a ***Supplemental Agreement***, or the Contractor fails to timely execute ***Supplemental Agreement, Form No. 700-010-45****,* the Department has unilateral authority to pay the Contractor the sums the Department determines to be due the Contractor for work performed on a project. The Department shall make a ***Unilateral Payment*** considered fair and equitable by the Department for work ordered and documented by the Department on the ***Entitlement Analysis*** and ***Engineer's Estimate***. Such payment shall be made by executing ***Unilateral Payment, Form 700-010-05***, in lieu of the ***Supplemental Agreement*** document. All other requirements of this section will apply.

If the Department and the Contractor cannot agree on the cost of the work, and the Contractor has stated his refusal to execute any ***Supplemental Agreement*** for the issue, then a ***Supplemental Agreement*** need not be prepared. The Engineer will document the Contractor's refusal to execute a ***Supplemental Agreement***. A ***Unilateral Payment*** may be used to pay the Contractor the sums the Department determines to be due the Contractor for work performed. For a ***Unilateral Payment***, the District Construction Engineer or designee must obtain funds approval from the CFM System and the Secretary or designee must approve the work prior to giving the Contractor notice to proceed with work that will be documented and paid with a

Unilateral Payment.

Such unilateral authority for the Department to pay the Contractor does not preclude or limit the rights of the Department or the Contractor to negotiate and agree on the cost of the work. By acceptance of any such ***Unilateral Payment***, the Contractor does not waive any rights for payment by the Department for additional sums that the Contractor claims are due for the work.

Notice to proceed with work to be documented with a ***Supplemental Agreement*** or ***Unilateral Payment*** may be issued by the Resident Engineer after sufficient funds have been encumbered and the work has been tentatively approved by the Secretary or designee.

After issuing the notice to proceed, the Engineer shall ensure timely preparation of the ***Supplemental Agreement***, since the Contractor cannot be paid for the work until the ***Supplemental Agreement*** document has been completely executed.

A ***Unilateral Payment*** document shall be timely prepared and executed by the Department and presented to the Contractor when required. Payment will be made based on a ***Unilateral Payment*** document only after completion of the work described therein to the satisfaction of the Engineer.

7.3.13 Forms and Guidance Documents

The following forms are available on the Office of Forms and Procedures Web sites:

Contract Funds Management Access Request, Form No. 350-020-07. This form can be obtained after CFM training has been completed.

Supplemental Agreement, Form No. 700-010-45. Execution of contract changes by both the Contractor and the Secretary or designee.

Unilateral Payment, Form No. 700-010-05. Unilateral execution of contract changes by the Secretary or designee.

FHWA Approval - Major and Minor Construction Changes, Form No. 700-010-47. FHWA approval of construction changes and approval for Federal Aid participation on FHWA Oversight Projects.

The following guidance documents are available at the end of this section:

Guidance Document 7-3-A Documenting the "Engineer's Estimate", the "Basis for Estimate", and the "Entitlement Analysis" for a Contract Change Impacts.

Guidance Document 7-3-B Sample - Transmittal Letter for Unilateral Payment.

Guidance Document 7-3-C, Examples of Premium Cost Determinations.

7.3.14 Executing and Processing Supplemental Agreement and Unilateral Payment Documents

District Level Responsibilities

(1) A ***Supplemental Agreement*** or ***Unilateral Payment*** must not be dated prior to the date of certification of availability of funds by the Comptroller's office.

Supplemental Agreements and ***Unilateral Payments*** shall be dated and effective on the same date as the date of Execution by the Department.

Supplemental Agreements and ***Unilateral Payments*** will incorporate the same numbering system used for the SiteManager program contract modification number. No ***Unilateral Payment*** shall have the same number as a ***Supplemental Agreement*** or a ***Contingency Supplemental Agreement*** to that contract.

(2) Only the Secretary of Transportation can delegate authority for approval and execution of ***Supplemental Agreements*** and ***Unilateral Payments***. That authority is delegated as follows:

a. For contract changes up to $150,000, all ***Supplemental Agreement*** and ***Unilateral Payment documents*** shall be approved by the Resident Engineer and shall be executed by the District Construction Engineer;

b. For contract changes more than $150,000 and up to $500,000, all ***Supplemental Agreement and Unilateral Payment*** documents shall be approved and executed by the District Construction Engineer; and

c. For contract changes more than $500,000.00, all ***Supplemental Agreement*** and ***Unilateral Payment*** documents shall be approved and executed by the Director of Transportation Operations, except as follows, the District Construction Engineer may execute these ***Supplemental Agreement*** and ***Unilateral Payment*** documents after the Director of Transportation Operations has approved a draft copy of that ***Supplemental Agreement*** or ***Unilateral Payment*** showing the language and terms to be used. For contract changes more than $500,000 the District Construction Engineer or Director of Transportation Operations, as appropriate, may execute these documents after the Director, Office of Construction has approved a draft copy of the document showing the language and terms to be used. Director, Office of Construction approval may be obtained via e-mail provided all electronic correspondence documenting said approval is maintained in the contract change file.

The above limits apply regardless of whether the amount is an increase or decrease to the contract.

Payment will be made on ***Unilateral Payment*** documents only after the work has been completed to the satisfaction of the Engineer.

In the event that an agreement with the Contractor is concluded after a ***Unilateral Payment*** has been executed and processed for that work, a standard ***Supplemental Agreement*** will be executed to document any additional reconciliation required. A ***Work Order*** shall not be used for this purpose.

NOTE: The ***Unilateral Payment*** document will not be rescinded.

(3) All original ***Supplemental Agreement*** documents must be manually executed.

a. Execution by the Contractor

- Corporation

Must be executed by the President or Vice President or, if executed by another person, must include a certified copy of that person's authority to bind the Corporation. When the ***Supplemental Agreement*** is not executed by either the President or Vice President, then a Corporate Resolution which designates those individuals who have authority to legally bind the Corporation should be obtained.

The Seal of the Corporation must be affixed.

The above signature must be attested by the Secretary of the Corporation (or an Assistant Secretary).

- Partnership

Must be executed by at least two of the general or senior partners, and each signature must be witnessed by two persons.

Individual Signature must be witnessed by two persons.

- Joint Venture

Must be executed by the attorney-in-fact currently on file with the Department.

- Manager-Managed Limited Liability Company (LLC)

Must be executed by a managing member of the LLC or, if executed by another person, must include a certified copy of that person's authority to bind the Company.

The above signature must be attested by managing member of the LLC.

- Member-Managed Limited Liability Company

Must be executed by a majority-in-interest of the members of the LLC or, if executed by another person, must include a certified copy of that person's authority to bind the Company.

The above signature must be attested by managing member of the LLC.

b. Execution by the Surety (only required when the cumulative value of all contract changes on this contract will exceed 25% of the original contract amount as a result of this contract change.)

- The Seal of the Surety must be affixed.
- If the attorney-in-fact for the Surety is not a Florida Resident Agent, the document must be counter signed by a Florida Resident Agent.

- The Surety's attorney-in-fact and Florida Resident Agent must attach their ***Power of Attorney***, which must be original, or be certified by manual signature, unless an original signature is on file with the Department, or unless evidence is furnished that the Surety has authorized the use of facsimile signatures.

- The ***Power of Attorney*** must not contain a limit less than the total contract amount including the amount increased by all contract changes. The ***Power of Attorney*** must be certified as valid as of the date the Agent executes the ***Supplemental Agreement***.

(4) All ***Supplemental Agreement*** documents are to be processed within the following timeframes:

- Thirty (30) days are allowed from the day the negotiations with the Contractor are finalized until the ***Supplemental Agreement*** is mailed to the Contractor for execution.

- Ten (10) days are allowed for the Contractor to receive, execute, and return the ***Supplemental Agreement*** to the Department.

- Five (5) days are allowed after receipt for the Department to execute the ***Supplemental Agreement*** and enter document information into the Contract Change Tracking System and CES/TRNS*PORT program.

- After entry of document information into the CES/TRNS*PORT program

and receipt by the Comptroller's Office of a progress estimate showing completed work, the Comptroller's Office will make payment for that work on the progress estimate.

7.3.15 Obtaining an Updated Project Schedule

Resident Level Responsibilities

An updated project schedule should be requested at the time the Contractor executes a ***Supplemental Agreement*** or the Engineer grants additional contract time by ***Unilateral Payment*** if the contract has an original contract time of ninety (90) days or more, and the time granted is fifteen (15) days or more. The contract duration, the amount of time granted, the status of work progress, and any special circumstances that may exist will also indicate the appropriateness of requesting an updated schedule. When additional time is granted and an updated schedule is not requested, the basis for that decision must be documented in the project files by the Resident Engineer.

When additional time is granted, back-up documentation for the contract change shall list the controlling items of work delayed and number of non-overlapping delay days attributable to each item.

7.3.16 Distributing Executed Supplemental Agreement and Unilateral Payment Documents

District Level Responsibilities

After final execution, the District Construction staff will distribute copies of the ***Supplemental Agreement, Form No. 700-010-45*** or ***Unilateral Payment, Form No. 700-010-05*** to:

- **Comptroller's Office *** - One copy.

- **District Construction Engineer *** - One original of each with all attachments including a copy of all plan sheets revised by the ***Supplemental Agreement*** or ***Unilateral Payment*** and, where applicable copies of the ***FHWA Approval - Major and Minor Construction Changes, Form No. 700-010-47*** and the ***State Construction Concurrence, Form No. 700-010-43***.

- **Contractor** - One original of the ***Supplemental Agreement or Unilateral Payment*** and a copy of all plan sheets revised by the ***Supplemental Agreement or Unilateral Payment***.

- **Director, Office of Construction *** - (ONLY on projects with an original contract amount exceeding $10 million.) One copy of each with all

attachments including, where applicable copies of the ***FHWA Approval - Major and Minor Construction Changes, Form No. 700-010-47*** and the Director, Office of Construction, ***State Construction Concurrence, Form No. 700-010-43***. Distribution will be made to the Director, Office of Construction prior to submitting an estimate for payment of the work.

- **Resident Engineer *** - One copy of each with all attachments including a copy of all plan sheets revised by the ***Supplemental Agreement*** or ***Unilateral Payment*** and, where applicable, copies of the ***FHWA Approval - Major and Minor Construction Changes Form*** and the Director, Office of Construction, ***State Construction Concurrence, Form No. 700-010-43***.

- **State Materials Office *** - One copy of the ***Supplemental Agreement or Unilateral Payment*** (Only on contracts where the State Materials Office is providing the materials certification).

- **District Materials Office *** - One copy of the ***Supplemental Agreement*** or ***Unilateral Payment*** (Only on contracts where the District Materials Office is providing the materials certification).

- **District Director for Production *** (at the discretion of the District) - One copy of the ***Supplemental Agreement or Unilateral Payment***.

- **Design Project Manager *** - Responsible for managing the Design Consultant on contracts with consultant-prepared contract documents - One copy of the ***Supplemental Agreement or Unilateral Payment*** document.

- **Surety** - One copy of the Unilateral Payment document. (Only required when the cumulative value of all contract changes on this contract will exceed twenty five (25) percent of the original contract amount as a result of this contract change.)

* **NOTE:** Distribution to this party should be made by either sending an electronic copy of the documentation or by sending the Electronic Document Management System Document Number via email.

A copy of all pertinent information must be attached to the ***Supplemental Agreement or Unilateral Payment*** documents distributed to the Director, Office of Construction, the District Construction Engineer and the Resident Engineer. The attachments mentioned in this section include but are not limited to:

- The ***Entitlement Analysis***, the ***Engineer's Estimate*** and, if there are claim settlement costs paid solely to avoid the risk of failing to resolve the disputed issues, the ***Statement of Claim Settlement Costs***.

- The reasons for any quantity overruns or underruns and extra work.

- Documentation of the Contractor's refusal to execute a ***Supplemental Agreement*** where this occurs.
- Documentation of concurrence from the Director, Office of Construction for all changes to contract specifications and extensions of the project and construction limits.

7.3.17 Contract Change Tracking

District Level Responsibilities

Within fifteen (15) calendar days after payment on an approved estimate of all or a portion of the work identified within the ***Supplemental Agreement*** or ***Unilateral Payment***, the District Construction Engineer or designee shall decide upon the final contract change coding and enter the ***Supplemental Agreement or Unilateral Payment*** information into the ***Contract Change Tracking System*** and ***SiteManager***. If the DCE's designee is not a member of the District Construction office staff, the DCE's delegation shall be maintained on file in the District Construction office. Further, if the DCE's designee is not a member of the District Construction office staff the DCE shall develop a quality assurance process to ensure accurate contract change coding and compliance with this section. Such process shall be documented and maintained on file in the District Construction office.

For an explanation of the codes involved, see the information published under "Coding Contract Changes" heading as an attachment to this section on the State Construction Office website at : http://www.dot.state.fl.us/construction/Manuals/cpam/New%20Clean%20Chapters/CodingContractChanges.pdf

7.3.18 Quality Control Process for Contract Changes

District Level Responsibilities

The District Construction Engineer shall develop a process to review a representative sample of all contract changes to ensure such changes were necessary and comply with the construction contract documents. Such process will be documented and kept on file in each District.

Guidance Document 7-3-A

Documenting the "Engineer's Estimate," the "Basis for Estimate," and the "Entitlement Analysis" for a Contract Change

Documenting the Engineer's Estimate:

The ***Engineer's Estimate*** serves two purposes. First it is an independent estimate of the additional cost and time prepared by the CEI staff for each contract change. Second, it documents the final disposition of each contract change after completion of any negotiations. The following documents should be included in the documentation:

- Basis of Estimate
- Engineer's Estimate
- Contractor's Quote
- Final Disposition

Basis of Estimate:

The Basis of Estimate is a statement explaining the methods used to compute estimated costs and time associated with a contract change.

A Basis of Estimate could be but is not limited to:

- Review of historical bid prices.
- Review of area and/or regional averages.
- Review of recent winning bids on a Department contract.
- Overrun at a unit price included in the original contract.
- The documented actual costs of the Contractor.
- Using the resource approach, a detailed estimate of the quantities and unit costs of the manpower, material and equipment resources required.

Estimate:

The estimate is the cost and time estimate as determined from the above method.

If the resource approach is used, the estimated cost impacts should be based on the costs of equipment, labor, material and supplies anticipated, as well as, General Liability Insurance and Bond, subcontracted work and mark-ups for each shown in ***Standard***

Specifications, Section 4-3. Note that the work associated with contract changes is occasionally complete before settlement is reached. When this happens then no estimate is prepared.

If the estimate includes contract time impacts, the time estimate should be commensurate with the estimated effects the changes have on the controlling items of work shown on the approved work schedule except when the approved work schedule is clearly not representative of actual project performance.

The ***Engineer's Estimate***, including the attached basis, should be labeled ***Engineer's Estimate*** and must be signed and dated by the Engineer producing the estimate. The ***Engineer's Estimate*** may subsequently be amended by adding a cover sheet to the original estimate. The cover sheet must state the new justifiable amount of contract days and/or dollars for one or more of the issues covered in the estimate and the reason for each such change. This amendment should be labeled Amendment to ***Engineer's Estimate*** and it should be signed and dated by the Department's Engineer producing the amended estimate. An ***Engineer's Estimate*** should be prepared prior to the Engineer receiving the contractors price proposal for work.

Contractor's Quote:

This is the contractor's proposal of additional costs and time for the contract change.

Final Disposition:

Once the Estimate and Contractor's quote are compared by the CEI, and negotiations are completed, the CEI will prepare a listing of agreed costs/time and a statement to explain how the final costs and time due were determined.

Examples:

- Contractor agreed to costs/time proposed by the Department.
- After negotiations the Department agreed to accept the contractor's price/time OR agreed to accept a price/time above the Engineer Estimate in order avoid delay or further cost/time impact to the project.
- Department agreed to pay for change based on actual costs.

Documenting the Entitlement Analysis:

In the ***Entitlement Analysis***, the preparer should mention each of the contract change issues as follows. For each issue, state description and reason for each change A copy of project correspondence must be attached to and made a part of the ***Entitlement Analysis***. This can be an email from the Engineer of Record as an example. The ***Entitlement Analysis*** should be signed and dated by the Engineer

producing it.

Dispute Review Board Recommendations:

Where a Dispute Review Board (DRB) has considered a dispute and has made recommendations, the recommendations should ALWAYS be included in the required documentation for that contract change.

The impact of the DRB's recommendation on Entitlement should be discussed in and made a part of the ***Entitlement Analysis*** only when the Department's engineer feels the DRB recommendation contains sufficient new information to change his or her previous decision on the degree (percentage amount) of the Contractor's entitlement to recover the total reasonable quantity of additional compensation and contract time associated with the dispute.

The impact of the DRB's recommendation on Entitlement or Quantum should be discussed in and made a part of the Engineer's Estimate only when the Department's Engineer feels the DRB recommendation contain sufficient new information to change his or her previous decision on the total reasonable quantity of additional compensation and contract time associated with the dispute.

Where the Department accepts the DRB's ruling and the quantity of additional compensation and contract time associated with the dispute exceeds the amounts of the most recently updated ***Engineer's Estimate*** and ***Entitlement Analysis***, then the DRB's recommendation should be used as justification for and made a part of the ***Statement of Claim Settlement Costs*** (see ***CPAM Section 7.5.3***).

Guidance Document 7-3-B
Sample - Transmittal Letter for Unilateral Payment

_____
(Date)

_____
(Contractor's Name)

_____
(Contractor's Address)

Re: Fin. Proj. ID. _____
Contract No. _____
FAP No.: _____
County _____

UNILATERAL PAYMENT AMOUNT $ _____

Enclosed please find a copy of a ***Unilateral Payment*** document which has been duly executed by the Department in accordance with ***Section 337.11(11), Florida Statutes***.

The Department has determined that you, as Contractor, are entitled to payment for the work described in that ***Unilateral Payment*** document in the amount set forth in that document.

The funds have been approved for payment and you, as Contractor, should expect to receive payment for the items described in that ***Unilateral Payment*** document in the near future.

By acceptance of the payment you, as Contractor, do not waive any rights you may have against the Department for payment of any additional sums you claim may be due for the work described in that ***Unilateral Payment*** document.

Sincerely,

_____
(Engineer)

Guidance Document 7-3-C
Premium Costs Determinations

Premium Costs are defined as dollar amounts paid to a Contractor for non-value added work. Delays, inefficiencies, rework, or extra work as shown below other than those caused by the Contractor and/or his subcontractors or suppliers will be considered as non-value added work. Non-value added work can occur in three distinct situations:

1. Work delays or inefficiencies. In this situation, premium costs are the total delay/inefficiency damages paid to the Contractor.
2. Rework. Premium costs are the dollar amount of the original items of work that have to be removed and the costs to remove these items.
3. Extra work. In this situation, premium costs are computed as the net difference between the final agreed prices paid to the Contractor and the ***Engineer's Estimate***.

NOTE:

- All extra work does not necessarily result in premium costs.
- All extra work that is determined to be the result of design errors or omissions does not necessarily result in premium costs.
- Contract increases due strictly to overruns of contract pay items are not premium costs, unless those contract pay item overruns are associated with re-work.
- Premium vs. Non-premium is not determined by whether the plans were designed by a production Consultant.
- Premium costs are strictly a numerical calculation: the difference between the amount paid vs. what we should have paid.

Premium Cost associated with issues determined to have the following Avoidablity Codes shall also be coded with Cost Recovery Code R – Action Recommended:

Avoidable: Production Consultant
Avoidable: Consultant CEI
Avoidable: 3rd Party

The following are examples of premium cost determinations.

Work Delay or inefficiency

Example 1:

During construction of a roadway widening project, it was discovered that the planned surcharge would affect an existing buried fiber optic line that was not scheduled to be relocated. The impact to the fiber optic line was that it would not be able to withstand the planned settlements due to the surcharge. The Department delayed the Contractor's work in this area to allow the utility owner to relocate its fiber optic cable. The Contractor was able to mitigate the majority of the delay by working in other areas

and on other phases of work. Submitted extra costs for delays and inefficiencies agreed to by the Department for this issue was 100% premium cost.

Example 2:

A Contractor submits a claim for delays and inefficiencies on a project. The Department disputes the claims entitlement but settles the issue to avoid future litigation. Settlement costs paid for this issued would be 100% premium cost.

Example 3:

A Contractor submits a claim for delays and inefficiencies on a project. The Department disputes the claims entitlement so the Contractor takes the matter to a DRB. The DRB rules entitlement and quantum for the issue. The Department accepts the ruling and pays the quantum. Quantum for this issue would be 100% premium cost.

Example 4:

A Contractor mobilized to a project to begin test pile driving. It was then discovered that an existing utility cable, that according to the Utility relocation schedule should have been relocated, was still active. The Contractor had to stop all work on this critical path activity in this area until the new line was installed and the old line abandoned. All costs associated with this delay (overhead, idled equipment and labor, any demobilization or remobilization) are premium costs. Cost recovery from the utility company should be recommended.

Rework

Example 1:

The Contractor built driveway as identified in plans. The Department directed the Contractor to remove that driveway and place it at a different location due to agreement with local owner. Payment was handled as an overrun to existing pay items. The cost of the original driveway and it's removal is 100% premium cost.

> **NOTE:** Any time any existing pay item is paid as an overrun to compensate a Contractor for rework, the cost of the original work is now non-value added and must be accounted for as premium cost.

Example 2:

The Department directs the Contractor to remove some installed 30" RCP and replace it with 36" RCP. Since contract did not include pay item for 36" RCP, a ***Supplemental Agreement*** was required. The cost of removal of 30" RCP, the cost of the installed 30" RCP that was removed, and the cost difference of 36" RCP over what would have been considered a reasonable bid price are 100% premium costs.

.

Extra Work

EXAMPLE 1:

On a Lump Sum milling & resurfacing construction project let in January 2008, the Department discovers in January 2009 that an error has been made by the Engineer of Record. The EOR has omitted a turn lane from the construction plans which was identified as required when the project was in the early design stages. The Contractor has completed all paving operations except for the Friction Course. The District decides to proceed with adding that turn lane to the project. The Engineer has determined that this issue qualifies as a "significant change" as defined in Standard Specification 4-3.1 due to a change in the character of the work. The Contractor submits a price to the Department for mobilizing of grading equipment, excavation, stabilization, base, additional asphalt costs due to pricing increases above the 2008 bid prices, overhead and additional time to perform the work. The Contractor's price is reviewed and accepted by the Department. The premium costs associated with this issue would be:

- Price difference between asphalt quoted in the 2008 bid vs. the pricing quoted when the work is added in 2009
- Mobilization of grading equipment
- Overhead costs associated with added time to complete turn lane

Example 2:

On a Pay Item reconstruction construction project let in January 2008, the Department elects to add a turn lane to the project in January 2009. The Contractor has completed all grading and paving operations except for Friction Course. The Engineer has determined that this issue does not qualify as a "significant change" as defined in Standard Specification 4-3.1 due to the fact that there is no change in the character of the work nor do any of the work items associated with this change meet the definition of a "Major Item of Work" which will be increased by 125% or decreased below 75% of the original Contract quantity. The Contractor submits a price to the Department for remobilizing of grading equipment, overrun of existing items for: excavation-stabilization-base, additional asphalt costs due to pricing increases above the 2007 bid prices, overhead and additional time to perform the work. The Contractor's price is reviewed and accepted by the Department with the exception of the asphalt price increases. The premium costs associated with this issue would be:

- Remobilization of grading equipment
- Overhead costs associated with added time to complete turn lane

Example 3:

A utility conflict was discovered with a proposed drainage installation. The Contractor has to stop, move to another location until further direction given. The direction given is

to construct a conflict manhole. Premium will be the contractor's labor/equipment costs to stop and move, costs to move back to the original site, and the cost differential between conflict manhole as agreed to and the price if in the original contract.

Example 4:

After drainage work was completed, a low spot is discovered that requires another inlet and pipe to correct the situation. In discussing this with the Engineer of Record it's discovered that the Department furnished the survey for the project. The project included the inlet and pipe items needed to do the work, but the contractor would not accept these costs because the extra work was an isolated condition, the drainage was sub-contracted work and the subcontractor was off the project. Premium costs would be the costs for subcontractor to re-mobilize, demobilize, and the cost differential between the inlet and pipe prices agreed to and the bid unit prices. Note: In order for the Department to accept the contractor position, the Engineer must determine that this represents a significant change per Standard Specification 4-3.1 and there is justification for not overrunning the inlet and pipe pay items.

Guidance Document 7-3-D

Contract Time Adjustments

The contractor is required to submit and maintain a project schedule that details the timing for controlling items of work or critical path activities from start to finish of the project. The schedule should depict the planned operation by day or week and the operation may take the form of a critical path. A review of the critical path activity can identify the impacts to controlling items of work or critical path activities.

If work covered by a contract change affects controlling items of work or critical path activities, a change in the contact time may be warranted. If the controlling items of work or critical path activities are unaffected, a change in contract time is not warranted.

Occasionally, there are events that are beyond the control of the contractor which affect either controlling items of work or critical path activities and are acceptable to support an extension of contract time (i.e. hurricanes). But there are events that are normally considered to be under control of the contractor which do not warrant a time extension (i.e. plant breakdown, suspensions for violation of safety or environmental regulations)

Contract time granted

The contractor encountered existing drainage structures during the removal of a 48" pipe across a road. Due to the nature of the work specified, this additional structure removal required the use of additional equipment not anticipated and additional man hours not originally accounted for. As a result, two additional days were granted due to the impact on production to this controlling work item or critical path activity. An Engineer's Estimate was prepared detailing the additional equipment and man hours required to complete this work and an analysis for additional granted time was attached to the Supplemental Agreement as back up showing the impacts to this controlling item of work or critical path activity.

Contract time not granted

The contractor submitted a request for time delays associated with a changed condition based on the soil that was available from the ponds. The type of soil material resulted in additional effort to dry the soil before use. The contractor contends this resulted in 17 delay days in drying the material thereby delaying completion of the project. The Department performed its own independent analysis and reviewed the delays requested during the time frame and the weather days granted to insure there was no overlap. The Department determined no controlling items of work or critical path activities were affected by this alleged delay and the end date of the project was not impacted. As a result, no time was granted to the contractor.

Concurrent delays resulting in contract time granted

The contractor submitted a request for time delays associated with paving the roadway

due to the revisions needed to the maintenance of traffic contract plans. The contractor is requesting a 3 day time extension. The Department performed an independent evaluation of the impact and determined the controlling items of work or critical path activities were affected in waiting to obtain the revised maintenance of traffic plans. However, it was learned that contractor's asphalt plant was broke down for 5 days during this 3 day time extension request and the contractor was unable to produce asphalt during these 5 days. Per ***Specification 4-3.2.1***, the contractor shall be entitled to a time extension for each day that a controlling work item is delayed by the Department, but shall have no right to nor receive any monetary compensation for any indirect costs for any days of concurrent delay. As a result, the contractor is entitled to three non-compensable days.

State Construction Office
David Sadler, Director, Office of Construction
CODING CONTRACT CHANGES
Effective September 16, 2014

Including Root Cause Codes, Avoidability Codes, Cost Recovery Codes, Premium Costs and Claim Settlement Costs with Examples

The last pages of this memo contain the list of the codes which must be used in the Contract Change Tracking Systems to classify the Root Cause, Avoidability, Cost Recovery or Claim/Extend Limits disposition of Contract Changes as documented in Supplemental Agreements, Unilateral Payment Documents, Work Orders and Time Extensions. Note that Premium Cost values must also be evaluated and properly assigned to all these items except Time Extensions. Following are examples resulting from discussions between Design and Construction. These examples are intended to clarify the definitions of the terms "Avoidable" and "Premium Cost." An **Avoidable contract change** is a contract change which requires modification to a project feature or delay to a contract which should have been foreseen using standard design practices and appropriate project management activities.

Note that Avoidability codes refer only to the need for a contract change. The Avoidability codes do not indicate that the work or the costs associated with that work were avoidable.

Examples of Avoidable vs. Unavoidable Contract Changes

(1) In house designer fails to include erosion control features at the end of a large drainage system outlet and severe erosion occurs. Stone is added by SA or by overrun of existing pay items in an amount large enough to trigger encumbrance of funds before all unfunded contract overruns exceed 2.5% of the original $4M contract amount.

> **101 - Necessary pay item(s) not included in contract, 2 - Avoidable Production FDOT**. When new pay items are required there will be some non-premium costs as the feature was needed to begin with and was merely added. If the resulting cost is much higher than a normal bid would have been, then the excess costs are premium and no recovery action should be recommended. . . . Or . . . **115 - Required Drainage Modification, 2 - Avoidable Production FDOT.** Here, existing pay items are used to address the work even though the designer did not anticipate it. The resulting overruns are large enough to trigger encumbrance of funds before all unfunded contract overruns exceed 2.5% of the original contract amount. There are some non-premium costs as a needed feature was added... if the resulting cost is much higher than a normal bid would

have been, then the excess costs are premium and no recovery action should be recommended.

(2) A consultant traffic engineer fails to include the proper wiring for power source connections. The contractor requests instruction on where to locate the power source for the signal. The FDOT project administrator documents that the contractor is delayed 18 days while awaiting a response from the designer. The Contractor files a claim for delay damages in accord with the specification 5-12.

118 – Improper or inadequate signing, signalization or pavement marking design or features, 1 -Avoidable Production Consultant. There are some non-premium costs as the feature was needed to begin with but the power source connection cost is much higher than a normal bid would have been. The excess costs are premium as are the delay claim costs. Recovery from the Production Consultant should be recommended.

(3) A utility company fails to identify a 10" sanitary sewer line on its relocation plans creating delays and forcing the use of additional conflict drainage structures.

106 Utility Owner/Agency caused Conflicts: wrong size, wrong location, not constructable as shown in plans, plan errors. No Utility Owner/Agency Agreement/Contract. The costs associated with the work and any delay costs classified as premium costs should be coded as recoverable from the utility agency/owner.

(4) A city or county government agency requests additional work after the contract is Let.

007 - Work added or deleted by a 3rd Party request or from a 3rd Party Agreement provided the city or county government agency ***WAS*** given a chance to review the plans and request the work prior to letting. No premium costs where full cost is paid by the city or county government agency and no recovery action should be recommended. Or; **007 - Work added to or deleted by a 3rd Party request or from a 3rd Party Agreement, 2 - Avoidable Production FDOT** provided the city or county government agency ***WAS NOT*** given a chance to review the plans and request the work prior to letting. No premium costs where full cost is paid by the city or county government agency and no recovery action should be recommended.

(5) A commitment for a driveway made by FDOT's right of way agent is not shown on the plans.

008 - Contract Changes at Right of Way Office's request (litigation, court orders, negotiations etc), **2 - Avoidable Production FDOT**. The *excess* costs associated with the construction of the driveway may be premium. Only the unit costs in excess of the unit costs for similar driveways shown in the plans will be considered premium.

(6) A commitment for a driveway made by a consultant right of way agent is not shown on the plans.

008 - Contract Changes at Right of Way Office's request (litigation, court orders, negotiations etc), **1 - Avoidable Production Consultant**. The excess costs associated with the construction of the driveway may be premium and recovery from the Production Consultant should be recommended. Only the unit costs in excess of the unit costs for similar driveways shown in the plans will be considered premium.

(7) The value of property acquired by an Imminent Domain case is contested, the court ordered settlement stipulates a driveway at a location not shown in the In house produced plans.

008 - Contract Changes at Right of Way Office's request (litigation, court orders, negotiations etc), **2 - Avoidable Production FDOT**. If the settlement order was available before final plans review. Only the unit costs in excess of the unit costs for similar driveways shown in the plans will be considered premium. Or;

008 - Contract Changes at Right of Way Office's request (litigation, court orders, negotiations etc), **0 – Unavoidable**. If the settlement order was not available before final plans review. Only the unit costs in excess of the unit costs for similar driveways shown in the plans will be considered premium.

(8) The contractor requests clarification of an apparent stationing conflict between the side street curb and gutter and the planned width for side street turnouts. The FDOT project administrator does not respond until after curb and gutter for the turnouts is constructed at the stationing shown in the plans which is too wide to tie into the side street curb and gutter placed by the county 2 weeks earlier. The turnout must be reconstructed and the project is delayed.

130 - Indecision or delayed response by or on behalf of FDOT causing contract delay, 4 Avoidable FDOT CEI. The costs and time associated with the reconstruction of the turnout are premium and no recovery action should be recommended.

(9) The contractor requests instruction from the Consultant CEI's Senior Inspector after encountering a telephone duct bank at a location not shown on the plans. The inspector mistakenly assumes the duct bank encountered is the duct bank shown as abandoned at a location close by on the plans. The inspector directs the contractor to remove a section of duct bank in conflict with a proposed drainage structure and the project is delayed while telephone cables within the damaged section of duct bank are spliced.

> **502 - Inaccurate directions given to contractor by or on behalf of FDOT during construction, 3 - Avoidable Consultant CEI**. The delay costs associated with splicing the telephone cables and reconstructing the duct bank are premium and recovery from the Consultant CEI should be recommended.

<u>Clarification on Premium Cost</u>

Note that premium costs are commonly associated with avoidable work and the excess costs of unavoidable work. The term premium cost is defined in CPAM Section 7.3.4 as follows:

Premium Cost is the additional cost of a contract change that would not have been incurred if the work had been included in the original contract. More specifically, premium costs are dollar amounts paid for non-value added work. Delays, inefficiencies, rework, or extra work as shown below, other than those caused by the Contractor and/or his subcontractors or suppliers, will be considered as non-value added work. Non-value added work can occur in three distinct situations:

a) Work delays or inefficiencies: In this situation, the premium costs are the total delay/inefficiency damages paid to the Contractor.

b) Rework: The premium costs are the dollar amount of the original items of work that have to be removed and the costs to remove these items.

c) Extra Work: In this situation, the premium costs are computed as the net difference between the final agreed prices paid to the Contractor and what the cost would have been had the extra work been included in the original bid at letting.

Premium costs associated with EOR and CCEI Errors and Omissions shall be Federal-Aid nonparticipating.

For example: The Project Administrator's Entitlement Analysis justifies the Engineer's Estimate for drainage changes requested by the Engineer of Record (EOR). These changes correct a drainage calculation error, made by the EOR's drainage sub

consultant, which seriously underestimated the collection area and resulting runoff from the design storm event. The correction lowers by 3' the bottom elevation shown in the plans for a detention pond and its associated outlet structure. The correction also increases the diameter from 24" to 36" on the run of pipe from the pond outlet to an existing adjacent storm water drainage canal. The original $3,528,623 contract includes pipe pay items for 24" dia. at $40/LF and 36" dia. at $65/LF, neither is a major item of work amounting to 5% of the original contract. The original contract also includes a pay item for 23,700 CY of regular excavation at $8.00/CY. The regular excavation is a major item of work. The existing outlet structure S-58 was bid at $4,000. This contractor has removed, modified, and reset a similar structure on an adjacent job for $5,000.

The Contractor responds within 48 hours to the Project Administrator's Wednesday morning request for a quote. By then the Project Administrator has worked up an Engineer's Estimate of $81,350. The Contractor must remobilize the drainage subcontractor, which would not have been necessary if the work was included in the original contract so the $6,000 remobilization costs are shown in the Engineer's Estimate as justifiable premium costs. The $2,000 cost of removal and disposal and the $4,000 cost of furnishing and installing the original 100' run of 24" concrete pipe is shown as premium although the contractor has already been paid for the furnish and install. The $5,000 cost to modify and reset outlet structure S-58 is shown in the Engineer's Estimate as 100% premium cost. The 6500 CY of regular excavation is shown as non premium costs valued at 6,500 CY times the contract unit price of $8/CY = $52,000 per Spec. 12-14.

The Contractor estimates the work will take 20 days. The contractor has been working a 5 day week so far. Based on production rates experienced on the job to date the Project Administrator estimates it will take 26 days. The contract is almost complete with 17 days left by the contractor estimate. When the Contractor's quote is delivered on Friday morning, the contract time has 77 days remaining and the contractor is on track to finish 60 days early collecting an incentive of $3,000/day.

The contractor states the work can occur concurrently with the remaining critical path items of work, and that if we will agree to a fixed lump sum price based on his quote, then he will forgo any delay claims. The contractor is asking for $9,000 in lost bonus compensation and 3 days extended overhead at $1,200/day. By the formula in Spec 5-12, the contractor is due only $850/day and only then when the cumulative delay extends beyond 10 days. Eight days of FDOT caused delay have occurred to date and the contractor has not been compensated for them. The contractor will accept the existing unit price for the 36" pipe and asks for $5,000 to remove, modify and reset S-58. The contractor also asks for a 25% increase on the unit price of the regular

excavation to $10/CY. At 1:00 pm on Friday, the Resident Engineer phones the contractor. The contractor refuses to settle for the Resident Engineer's offer of the $83,150 Engineer's Estimate, which can be justified within the specifications and insists on the $97,100 amount of his quote delivered that morning. The contractor reminds the Resident Engineer delay costs are already accruing and his offer of a lump sum price was prepared in haste to mitigate delay damages in a spirit of partnering which puts the contractor at considerable risk if he can't complete the work in 20 days.

The Resident Engineer considers that they are only $15,750 apart and the contractor will be claiming $4,200/day in delay damages with a likely entitlement of $3850/day, he'll loose 2 days over the weekend, and the contractor may be unwilling to settle for a lump sum fixed price on Monday. If not, additional resources may be required by the CCEI to survey and monitor the excavation quantities. Finally, the contractor may also be less than motivated to finish quickly where the sole remaining work and therefore any delay costs are on the Department. The Resident Engineer calls the District Construction Engineer and briefs him on the situation at 1:30 pm on Friday.

1) At 3:30 pm, the Department's Design, Construction and Legal staff agree it is in the Department's best interest to do the work for $97,100 rather than drag out the negotiations or go to a Dispute Review Board even though this exceeds the Engineer's Estimate. The Project Administrator is informed and gives the Contractor a speed letter informing him that we have accepted his offered quote. The resulting Supplemental Agreement would be coded with 2 issues.

    a) The first would be an $83,150 issue with Root Cause Reason Code "**115 Required drainage modifications"**, with Avoidability coded Avoidable Production Consultant, with Cost Recovery coded Action Recommended, with Claim Extended Limits coded as Claim, and premium cost shown as $26,850. Note: the issue premium costs include $4,000 for the unusable 24" pipe paid under the original contract and that fact should be noted in the space provided for comments or description.

    b) The second issue would be the settlement costs. A $15,750 issue with Root Cause Reason Code "**860 FDOT determined risk avoidance cost paid solely to avoid risk in failing to settle disputes**", with Avoidability coded Unavoidable, with Cost Recovery coded No Action Recommended, with Claim Extended Limits coded as Claim, and Premium cost shown as $15,750 provided it is determined that all of the settlement cost meet either condition a (work delay or inefficiency), b (re-work) or c (extra work) as shown above.

2) If the Department's staff was unable to reach a settlement, the Contractor finished 57 days early and a DRB had resolved the issue for $97,100, then the issues would be coded just as shown above except that the Root Cause Reason Code for the second issue would be "**861, DRB recommended cost in excess of Engineer's Estimate and Entitlement Analysis**."

3) Similarly … If the Department's staff was unable to reach a settlement and the State Arbitration Board had resolved the issue for $97,100 based on the circumstances in (2) above, then the issues would be coded just as shown above except that the Root Cause Reason Code for the second issue would be "**862, Arbitration Board recommended cost in excess of Engineer's Estimate and Entitlement Analysis**."

4) Finally… If the Department's staff was unable to reach a settlement and a judge had resolved the issue by Court Order for $97,100, then the issues would be coded just as shown above except that the Root Cause Reason Code for the second issue would be "**863, Court ordered costs in excess of Engineer's Estimate and Entitlement Analysis**." Note that this will be the case even if the payment is made by a Receiving Report and Invoice Transmittal (RRIT). RRIT's are tracked in the Contract Change Tracking System with all the same codes used for SA's.

Note that any pre or post judgment interest allowed the Contractor in cases (2) thru (4) above will be added to the Claim Settlement Costs reported in the second issue.

Single Digit Description Codes for Contract Changes

Shown below is a complete list of contract change description codes. The "Avoidable and Unavoidable" contract change codes in the examples above are drawn from this list.

Avoidability Codes

0 - Unavoidable: No Remedial Action Required
1 - Avoidable: Production* Consultant
2 - Avoidable: Production* FDOT
3 - Avoidable: Consultant CEI
4 - Avoidable: FDOT CEI
5 - Avoidable: 3rd Party

Cost Recovery Codes

R - Action Recommended
N - No Action Recommended

Claim/Extended Limits Codes

C – Claim Settlement
N – Neither
E – Extend Project Limits

* Note: "Production" includes Design, Design Project Manager, Survey, R/W, and Environmental Office

CONTRACT CHANGE ROOT CAUSE REASON CODES WITH DESCRIPTIONS

001 Subsurface material or feature not shown in plan
003 Harmonize project with adjacent projects or right of way
004 Design Standards, Specification or Policy change after contract letting
005 Utility Owner/Agency caused Adjustment delays w/no Utility Owner/Agency Project Agreement/Contract (Premium Cost / Avoidable 3rd party)
007 Work added or deleted by a 3rd Party request or from a 3rd Party Agreement
008 Contract Changes at Right of Way Office's request (litigation, court orders, negotiations etc)
009 Permit related issues
010 Weather Related new work, repairs, overruns or contract changes due to weather
012 Deterioration of, or damage to, project after design (not weather related)
013 Test features not included prior to letting
015 Utility Owner/Agency caused Changes to Utility Owner/Agency Project Agreement/Contract (No cost to FDOT) (Change to Phase 56 and associated Funds included in Original Contract)
016 Extend Material Acquisition Time, Flexible Start Time or Mandatory Start Date
017 Research Request (**this code may only be used with Change Order type Research Request**) – Research features not included prior to Contract Letting
018 Impacts from special events not shown in the Original Contract Plans or RFP (i.e. Delays & MOT for Super Bowl)
019 Conflicts between contractors, from overlapping project limits, pay items, schedules etc.
021 Damage to Existing Property caused by **known** 3rd Party **(This code may only be used on Projects Let in or after January 2014)**
022 Damage to installed Work caused by **known** 3rd Party **(This code may only be used on Projects Let in or after January 2014)**
023 Damage to Existing Property (no fault of Contractor) caused by **unknown** 3rd Party **(This code may only be used on Projects Let in or after January 2014)**
024 Damage to installed Work (no fault of Contractor) caused by **unknown** 3rd Party **(This code may only be used on Projects Let in or after January 2014)**
101 Necessary pay item(s) not included in contract
103 Incorrect or insufficient subsoil information included in plans but not accurate (not code 001)
104 Incorrect pay items for earthwork, embankment & excavation jobs on one contract
105 Discrepancies between plan notes, plan details, pay items, standard indexes and specifications
106 Utility Owner/Agency caused Conflicts: wrong size, wrong location, not constructable as shown in plans, plan errors. No Utility Owner/Agency Agreement/Contract
107 MOT: Modification of Maintenance of Traffic for pedestrians, boats, cars, bikes, etc.
108 Plans do not describe scope of work (use a more specific reason in lieu of this when possible)
112 Phasing or plan components not constructible as shown in plans
113 Modification to pavement design required
115 Required drainage modifications
116 Inadequate Right of Way to construct project as shown on plans
117 Access Management issues
118 Improper or inadequate signing, signalization or pavement marking design or features
119 Revisions required related to major structural component changes
120 Hazardous materials encountered requiring contract changes
122 Bike, pedestrian, ADA or other public transit requirement not properly addressed: not MOT related
123 Landscaping issues not adequately addressed
126 Computation errors in pay item work amounts
128 Inaccurate or inadequate survey information used in plans preparation
130 Indecision or delayed response by or on behalf of FDOT causing contract delay
131 Architectural feature related issue (generally for building modifications)
208 No specification provided for item of work
300 Value Engineering Change Proposal (should be a negative amount)
305 Cost Savings Initiative
325 Partnering (should be overrun only; if adding Partnering specification to contract use 004)
350 Dispute Review Board Member Fees (should be overrun only; if adding DRB specification to contract use 004)
401 Industry wide Material shortages, Concrete **(this code may only be used for non-compensable time extensions)**
402 Industry wide Material shortages, Aggregate **(this code may only be used for non-compensable time extensions)**
403 Industry wide Material shortages, Liquid AC **(this code may only be used for non-compensable time extensions)**

CONTRACT CHANGE ROOT CAUSE REASON CODES WITH DESCRIPTIONS, Cont.

404 Industry wide Material shortages, Steel **(this code may only be used for non-compensable time extensions)**
405 Industry wide Material shortages, Thermoplastic **(this code may only be used for non-compensable time extensions)**
450 Time Extensions for Holidays or Special Events shown in the Original Contract Plans or RFP **(this code may only be used for non-compensable time extensions)**
502 Inaccurate directions given to contractor by or on behalf of FDOT during construction
503 Change resulting from engineering decision (use specific reason in lieu of this when possible)
700 Overrun of pay items on all contracts >$5M; or Overruns of pay items in excess of the AUOA on contracts ≤ $5M
725 Defective materials (should be a negative SA or Work Order)
850 Secondary or Subsequent Contingency Supplemental Agreement (do not use this to code individual Work Orders)
860 FDOT determined risk avoidance cost paid solely to avoid risk in failing to settle disputes
861 DRB recommended cost in excess of Engineer's Estimate and Entitlement Analysis
862 Arbitration Board recommended costs in excess of Engineer's Estimate and Entitlement Analysis
863 Court ordered costs in excess of Engineer's Estimate and Entitlement Analysis
901 Weather related new work/repairs/overruns/contract changes due to Hurricane Charley 2004
902 Weather related new work/repairs/overruns/contract changes due to Hurricane Frances 2004
903 Weather related new work/repairs/overruns/contract changes due to Hurricane Ivan 2004
904 Weather related new work/repairs/overruns/contract changes due to Hurricane Jeanne 2004
905 Weather related new work/repairs/overruns/contract changes due to Hurricane Dennis 2005
906 Weather related new work/repairs/overruns/contract changes due to Hurricane Katrina 2005
907 Weather related new work/repairs/overruns/contract changes due to Hurricane Rita 2005
908 Weather related new work/repairs/overruns/contract changes due to Hurricane Wilma 2005
909 Weather related new work/repairs/overruns/contract changes due to Tropical Storm Ernesto 2006
910 Weather related new work/repairs/overruns/contract changes due to Tropical Storm Fay 2008
911 Weather related new work/repairs/overruns/contract changes due to Hurricane Ike 2008
912 Weather related new work/repairs/overruns/contract changes due to Tropical Storm Debby 2012
913 Weather related new work/repairs/overruns/contract changes due to Tropical Storm Isaac 2012

For questions on these examples or the definition of avoidable contract changes, please contact:

Alan Autry - 850-414-4195 / email - alan.autry@dot.state.fl.us

Section 7.4

CONTINGENCY SUPPLEMENTAL AGREEMENTS AND WORK ORDERS

7.4.1 Purpose

To establish a uniform procedure for initiation, execution, and distribution of ***Contingency Supplemental Agreements*** and ***Work Orders***.

7.4.2 Authority

Sections 20.23(3)(a), 334.048(3), 334.185, 337.11(1), 337.11(9), 339.135(6)(a), Florida Statutes (F.S.)

FHWA Approved: April 16, 2015

7.4.3 Reference

Construction Project Administration Manual
Chapter 7, Section 3 - Supplemental Agreements and Unilateral Payments

Section 4 of the Standard Specifications for Road and Bridge Construction

Procedure No. 375-020-010, Errors, Omissions, and Contractual Breaches by Professional Engineers on Department Contracts

7.4.4 Definitions

Refer to the Introduction section of this ***Manual***.

7.4.5 Identifying the Need for a Contingency Supplemental Agreement or Work Order

Resident Level Responsibilities

The Project Administrator shall initiate a request for a ***Contingency Supplemental Agreement*** when it is determined that additional work is necessary and the amount of

such work exceeds the amount not committed against the ***Initial Contingency Amount Pay Item***.

The Project Administrator shall initiate a request for subsequent ***Contingency Supplemental Agreements*** when it is determined that additional work is necessary and the amount of such work exceeds the amount not committed against any previously executed ***Contingency Supplemental Agreement***.

The Project Administrator shall initiate a request for a ***Work Order*** when it is determined that additional work is necessary and the amount of such work is less than the amount not committed against the ***Initial Contingency Amount Pay Item*** or a ***Contingency Supplemental Agreement***.

7.4.6 Funding

Work Orders may be funded through an ***Initial Contingency Amount Pay Item (999-25)***; or a ***Contingency Supplemental Agreemen*t***. These funds shall not be used for ***SUPPLEMENTAL AGREEMENTS*** or ***UNILATERAL PAYMENTS*** except as shown in ***CPAM Section 7.4.6.2***. Function (work activity) codes established by the Office of Comptroller for monitoring Department expenditures require these costs be identified separately.

7.4.6.1 Maximum Funding Limits

District Level Responsibilities

The following funding limits have been established for all ***Contingency Supplemental Agreements*** and the ***Initial Contingency Amount Pay Item***.

(1) If the Original Contract Amount* is $5,000,000 or less, the amount authorized shall not exceed five percent (5%) of the Original Contract Amount or $50,000, whichever is less.

(2) If the Original Contract Amount is more than $5,000,000, the amount shall not exceed one percent (1%) of the Original Contract Amount or $150,000, whichever is less.

* When calculating the Original Contract Amount for the purpose of establishing maximum funding limits for ***Contingency Supplemental Agreements*** or the ***Initial Contingency Amount Pay Item***, include only

amounts programmed as Phases 52 and 56. Amounts programmed as other Phases (i.e. Phase 58) should not be considered as part of the Original Contract Amount.

In the event multiple projects are included in the contract, the funding limits referenced above would apply to the contract as a whole: therefore, the pro-rated amount of the funds encumbered to the individual projects on the contract under a ***Contingency Supplemental Agreement*** or the ***Initial Contingency Amount Pay Item*** will not exceed the funding limits set forth above with the following exception. The District Secretary may request an exception to these funding limits for a specific ***Contingency Supplemental Agreement*** as stated in ***CPAM Section 7.4.8.2***.

In the event the contract is locally funded or is associated with a ***Locally Funded Agreement,*** contingency fund amounts from the local entities are allowed on the contract to the extent money is on deposit with the Department and not subject to the thresholds set above .

7.4.6.2 Funds Used for Expediting Unilateral Payments

In order to make timely payment to the Contractor via a ***Unilateral Payment*** in accordance with ***CPAM Chapter 7.3***, the District may temporarily borrow funds, which have already been encumbered for a ***Contingency Supplemental Agreement*** on the same project, and have not yet been used to fund a ***Work Order***. The following process will be applied:

(1) The District Construction Engineer (DCE) or designee must obtain funds approval through the Contract Funds Management (CFM) System for the required amount of funds for the ***Unilateral Payment***.

(2) The ***Contingency Supplemental Agreement*** to be used must be in an executed status.

(3) The DCE or designee will reduce the Florida Account Information Resource (FLAIR) “6”s line by the requested amount and re-encumber on a new FLAIR “6”s line with a Function Code/ Work Activity of 230 to indicate a ***Unilateral Payment*** through the Contract Funds Management (CFM) system.

(4) The FLAIR contract amendment file will be updated to indicate the change. The funds for the ***Unilateral Payment*** will be placed in a pending

status (03).

(5) The DCE or designee's encumbrance request will be approved by the CFM system when the encumbrance is processed through FLAIR and then the ***Unilateral Payment*** can be executed.

The funds for the ***Unilateral Payment*** will remain in a pending status (03) (unable to pay) until an executed copy of the ***Unilateral Payment*** document is received by the Office of Comptroller's (OOC) Disbursement Operations Office Contract Payment Section and the funds "borrowed" are re-encumbered against the original ***Contingency Supplemental Agreement***. This re-encumbering of the "borrowed" funds is to be done through the standard encumbrance request process.

NOTE: The request to re-encumber the "borrowed" funds must explain that the funds being encumbered are to replace contingency funds that were used for an expedited ***Unilateral Payment***. This information is to be in the brief description field and must reference the specific ***Contingency Supplemental Agreement*** number.

7.4.7 Initial Contingency Amount Pay Item

District Level Responsibilities

The Department has created an ***Initial Contingency Amount Pay Item*** that can be included in a contract prior to bid. The ***Initial Contingency Amount Pay Item*** has been established for funding additional work. The ***Initial Contingency Amount Pay Item*** is an alternate method of obtaining funds for performing additional work, as opposed to obtaining certification of availability of funds and executing a ***Supplemental Agreement*** or a ***Contingency Supplemental Agreement***. The funds encumbered for this pay item will be available for ***Work Orders*** just as ***Work Orders*** are used on a ***Contingency Supplemental Agreement***, but without the delay caused by obtaining certification of availability of funds and preparing and executing a ***Contingency Supplemental Agreement***. When the funds made available by the ***Initial Contingency Amount Pay Item*** are at least 50% authorized for payment and the Project Administrator has determined that additional work is necessary in accordance with ***CPAM Section 7.4.5***, additional funds must be certified as available by the Office of Comptroller, and a ***Contingency Supplemental Agreement*** must be prepared and executed to provide additional contingency funds. An ***Initial Contingency Amount Pay Item*** quantity cannot overrun.

The ***Initial Contingency Amount Pay Item*** that has been established for use is 999-25. The ***Initial Contingency Amount Pay Item*** will be based on the Department's estimate for the construction contract subject to the limitations in ***CPAM Section 7.4.6.1***.

Per the ***Work Program Instructions,*** the ***Initial Contingency Amount Pay Item*** should be shown as Federal-Aid non-participating in the Trns*port Proposal and Estimating System (PES). This pay item is to be used solely for ***Work Orders*** needed during project construction. The final FHWA participating or FHWA non-participating determination of funds associated with ***Work Orders*** issued against the ***Initial Contingency Amount Pay Item*** will be per ***CPAM Section 7.4.9.7***. The designer must not associate any pay item notes or work items identified in the plans with this pay item.

The District Estimates Coordinator must enter an amount for this pay item in accordance with the limits established in ***CPAM Section 7.4.6.1***. This pay item should be initiated at the same time that the contract duration is provided.

The ***Initial Contingency Amount Pay Item*** shall not be included in Fast Response and/or Push-button Contracts.

Before an ***Initial Contingency Amount Pay Item*** can be established on any Non-State Highway System, federally funded project to be constructed by the Department for a Local Government, the Design Project Manager shall obtain a Maintenance Agreement between the Department and the Local Government (Refer to ***Financial Provisions For All Department Agreements, Procedure 350-020-301***). The Maintenance Agreement shall establish that the Local Government is responsible for additional project costs determined to be Federal Aid Non-Participating.

7.4.8 Contingency Supplemental Agreement

7.4.8.1 General

A ***Contingency Supplemental Agreement, Form No. 700-010-79***, authorizing commitment of funds for an amount not to exceed the limits defined above shall be executed for the encumbered funds designated for additional work after the encumbrance has been certified by the Office of Comptroller. Only the Secretary of Transportation can delegate authority for approval and execution of ***Contingency Supplemental Agreements*** by the Department. The Secretary delegates the authority for Department approval of ***Contingency Supplemental Agreements*** and the authority for Department execution of ***Contingency Supplemental Agreements***, in accordance with the limitations described in

CPAM Chapter 7.3.14. A ***Contingency Supplemental Agreement*** shall not be executed until the DCE or designee has obtained funds approval for that ***Contingency Supplemental Agreement*** through the CFM system. ***Work Orders*** shall not be executed against the ***Contingency Supplemental Agreement*** until the ***Contingency Supplemental Agreement*** authorizing commitment of the funds has been executed.

Contractor execution of ***Contingency Supplemental Agreements*** shall be in accordance with ***CPAM Chapter 7.3.14***.

In order to ensure that funds are readily available for additional work, a ***Contingency Supplemental Agreement*** for an additional amount not to exceed the limits defined in ***CPAM Section 7.4.6*** may be executed prior to executing ***Work Orders*** that deplete all funds committed by a previous ***Contingency Supplemental Agreement or Initial Contingency Amount Pay Item*** for that project. See ***Contract Funds Management Funds Approval, Procedure No. 350-020-200*** for restrictions.

All terms specified on the ***Contingency Supplemental Agreement*** shall apply; no additional terms or disclaimers concerning costs of additional work shall be accepted. The terms of the ***Contingency Supplemental Agreement*** shall not be modified. If an agreement for performance of additional work or a contract change cannot be obtained between the Department and the Contractor within the terms of the ***Contingency Supplemental Agreement*** or ***Supplemental Agreement*** then a ***Unilateral Payment*** document shall be prepared and executed (refer to ***CPAM Chapter 7.3***).

Contingency Supplemental Agreements shall not be issued against Fast Response and/or Push-button Contracts.

Before a ***Contingency Supplemental Agreement*** can be issued against the contract, 50% of the ***Initial Contingency Amount Pay Item*** must be authorized for payment. Include with the request for ***Contingency Supplemental Agreement*** an ***Initial Contingency Amount Pay Item*** funds authorization summary.

Before a second or subsequent ***Contingency Supplemental Agreement*** can be issued against the project, 50% of the previous ***Contingency Supplemental Agreement*** for the project must be authorized for payment. Include with each request for additional ***Contingency Supplemental Agreement,*** a commitment summary showing that a minimum of 50% of the funds associated with the

previous ***Contingency Supplemental Agreement*** has been authorized for payment. As an exception; in the event a contract has local funds involved, and the local funding entity has placed the money on deposit with the Department, then the previous ***Contingency Supplemental Agreement*** must be in a status 10. However, the 50% authorization restriction for ***Work Orders*** issued against previous ***Contingency Supplemental Agreements*** will not apply to ***Contingency Supplemental Agreements*** funded solely by those local funds.

Before a ***Contingency Supplemental Agreement*** can be issued against any Non-State Highway System, federally funded project being constructed by the Department for a Local Government, the Project Administrator shall ensure that the Design Project Manager has obtained a Maintenance Agreement between the Department and the Local Government (Refer to ***Financial Provisions For All Department Agreements, Procedure 350-020-301***). The Maintenance Agreement shall establish that the Local Government is responsible for additional project costs determined to be Federal Aid Non-Participating.

7.4.8.2 Certification of Availability of Funds for a Contingency Supplemental Agreement

District Level Responsibilities

Certification of availability of funds is required before executing a ***Contingency Supplemental Agreement***. Certification of availability of funds not to exceed the limits defined in ***CPAM Section 7.4.6.1***, except as shown in this subsection, may be requested by the DCE or designee through the CFM system. Funds shall be encumbered using the project number for which the funds will be used. Funds may be encumbered separately and or concurrently for more than one project included in the contract. Where funds are encumbered on multiple projects within one contract, the limits stated in ***CPAM Section 7.4.6.1*** apply to the contract as a whole; so that the pro-rated amount of funds encumbered to the individual projects on the contract under a ***Contingency Supplemental Agreement*** will not exceed the limits set forth in ***CPAM Section 7.4.6.1***. Funds encumbered for one project number cannot be used on a different project number included in the same contract.

The District Secretary may request an exception to the above limits by providing the Comptroller with the reason(s) for the exception. The Comptroller must approve such exception prior to certification of availability of funds. The District Secretary may delegate authority to request an exception to the District Director of

Operations.

The certification of availability of additional funds not to exceed the limits defined in ***CPAM Section 7.4.6.1*** may be requested for not more than one additional ***Contingency Supplemental Agreement*** prior to the complete depletion of all previous encumbrances for ***Contingency Supplemental Agreements*** on that contract by executed ***Work Orders***.

Unused ***Contingency Supplemental Agreement*** funds and ***Initial Contingency Amount Pay Item*** funds should be unencumbered after the Department has issued Offer of Final Payment to the Contractor.

Upon issuance of the Offer of Final Payment, the District Final Estimates Engineer (or delegate) shall submit a statement by e-mail to the Contract Funds Payment Section, with the following certification: "I certify that the contract is in Final Acceptance status; that the funds are not needed for the Regional Disputes Review Board, and that the uncommitted contingency amount is $ _____."

7.4.8.3 Numbers, Dates, Codes

District Level Responsibilities

The first ***Contingency Supplemental Agreement*** **Item Number** on a contract shall be ***Item No. 9999 21;*** the second ***Contingency Supplemental Agreement*** Item Number on the contract shall be ***Item No. 9999 22;*** etc.

No two (2) ***Contingency Supplemental Agreements*** to any construction contract shall be dated with the same date. No ***Contingency Supplemental Agreement*** shall be dated with the same date as a ***Standard Supplemental Agreement*** **or** ***Unilateral Payment*** to the contract. ***Contingency Supplemental Agreements***, ***Standard Supplemental Agreements*** and ***Unilateral Payments*** will incorporate the same numbering system used for the SiteManager program contract modification number.

No ***Contingency Supplemental Agreement*** can have the same number as a ***Standard Supplemental Agreement*** or ***Unilateral Payment*** to that contract. A ***Contingency Supplemental Agreement*** must not be dated prior to the date of certification of availability of funds by the Office of Comptroller.

All executed ***Contingency Supplemental Agreements*** shall be entered into the

Contract Change Tracking System and the CES/TRNS*PORT program per the requirements of ***CPAM Section 7.3***. ***Supplemental Agreement Description Code No. 850*** shall identify all ***Contingency Supplemental Agreements***.

7.4.8.4 Contract Time

No additional contract time shall be granted on a ***Contingency Supplemental Agreement***.

7.4.8.5 Document Distribution

District Level Responsibilities

When a ***Contingency Supplemental Agreement*** has been executed authorizing funds for additional work, the executed document with all supporting documentation shall be immediately distributed as follows:

(1) **Disbursement Operations Office Contract Payment Section*** – One (1) copy.

(2) **DCE*** - One (1) original.

(3) **Contractor** – One (1) original.

(4) **Resident Engineer*** – One (1) copy.

(5) **Director, Office of Construction*** - (ONLY projects with an original contract amount exceeding $10 million.) One (1) copy.

***Note:** distribution should be made by either submitting an electronic copy of the documentation or by submitting the Electronic Document Management System Document Number via email.

7.4.9 Work Orders

7.4.9.1 General

A ***Work Order*** shall not be executed before the ***Contingency Supplemental Agreement***, which that ***Work Order*** is a part of, has been executed.

The ***Work Order*** form ***(No. 700-010-80)*** shall be used to document additional work

or contract changes in accordance with ***CPAM Section 7.3.5.1*** with the following restrictions:

- ***Work Orders*** shall not be written to include normal overruns of existing contract items for work at established contract unit prices shown in the contract documents.

- ***Work Orders*** shall not be used to settle certified claims or certified requests for equitable adjustment.

- ***Work Orders*** shall not be used to reconcile any agreement made with the Contractor subsequent to the completion of work related to a previously executed and processed ***Unilateral Payment*** document.

- ***Work Orders*** shall not be used to settle costs associated with unforeseen utility work during construction, unless the Utility Agency/Owner has funded the contingency item upon which the ***Work Order*** will be drawn.

- ***Work Orders*** should not include lump sum items without a detailed itemization stating the quantities and unit prices the lump sum item was based on.

- ***Work Orders*** may be used to document the Department's reimbursement to the Contractor for the Contractor's fee payments made to the individual board members of a Regional Disputes Review Board (RDRB) for those board members participation in RDRB meetings held to resolve disputes related to the contract.

- ***Work Orders*** may be used, along with the appropriate approvals from the Director, Office of Construction, and the FHWA as documentation to effect a specification change or extend the physical limits of a project (see ***CPAM Section 7.4.9.6***).

The terms of the ***Work Order*** shall provide for full and complete settlement of all issues described therein.

Resident Level Responsibilities

Authority for Department execution of ***Work Orders*** is delegated to the Project Administrator provided the cost included as part of the ***Work Order*** is within the financial limitations of ***CPAM Chapter 7.3.14*** and the Project Administrator has obtained prior approval of the Resident Engineer or District Construction Engineer

as appropriate.

Contractor execution of ***Work Orders*** may be performed at the project level (Project Superintendent, Project Manager, etc.). A Power of Attorney or Corporate Resolution for ***Work Order*** execution shall not be required.

A ***Notice to Proceed*** with work to be documented by a ***Work Order*** shall be issued to the contractor by the Resident Engineer after the Project Administrator has confirmed that sufficient funds are available in the ***Initial Contingency Amount Pay Item or Contingency Supplemental Agreement*** established for funding the additional work. The ***Notice to Proceed*** shall include sufficient detail to adequately describe the additional work.

When additional work or a contract change is identified, a ***Work Order*** shall be executed to document a complete DESCRIPTION of the additional work to be performed and the REASON why this work is necessary with references to the contract for entitlement.

The ***Work Order*** shall designate whether or not the work described results from a Design Error or Omission.

The Project Administrator shall comply with the requirements of ***Procedure No. 375-020-010, Errors, Omissions, and Contractual Breaches by Professional Engineers on Department Contracts,*** when a ***Work Order*** indicates the work described is the result of a Design Error or Omission.

7.4.9.2 Numbers, Dates, and Codes

Resident Level Responsibilities

The first ***Work Order*** authorizing additional work to be performed, or a contract change, against an executed ***Contingency Supplemental Agreement*** or a ***Contingency Pay Item*** respectively shall be ***Work Order No. 01***; the second ***Work Order*** authorizing additional work to be performed, or a contract change, against the same executed ***Contingency Supplemental Agreement*** or ***Contingency Pay Item*** shall be ***Work Order No. 02***; etc. This numbering sequence shall be repeated with each ***Contingency Supplemental Agreement*** or ***Contingency Pay Item***.

A ***Work Order*** must not be dated or executed prior to the execution date of the

Contingency Supplemental Agreement authorizing commitment of the funds.

All ***Work Orders*** shall be entered into the ***Contract Change Tracking System*** with description codes. For an explanation of the codes involved, see the information published under "Coding Contract Changes" heading on the State Construction Office website.

7.4.9.3 Documentation & Costs

Resident Level Responsibilities

(1) ***Work Order*** documents and/or all supporting documents shall address the following in sufficient detail to adequately explain the additional work to anyone not familiar with details of the project. An ***Entitlement Analysis*** and ***Engineers Estimate*** shall be included in the supporting documentation for each ***Work Order*** which increases or decreases costs and/or time to the project or contract.

(a) What work was done?

(b) Why the work was necessary?

(c) Cite references to the contract which establish contractor entitlement.

(d) Why the costs and time extensions were considered reasonable?

All costs for additional work shall be:

a) Negotiated and documented on the ***Work Order*** and attachments thereto, including the basis for all negotiated costs, or;

b) Justified through an analysis or comparison of reasonable costs, or;

c) Based on material invoice costs and labor payroll costs including mark-ups shown in ***Sub-Article 4-3.2 of the Specifications***. Work Sheets itemizing the costs will be attached. No disclaimers or clauses allowing the Contractor to reserve its rights to request other costs shall be accepted. If an agreement on costs cannot be obtained as shown above, the additional work will be administered in accordance with ***CPAM Section 7.3***.

(2) The ***Work Order*** shall identify any Premium Cost associated with additional work. The supporting documentation for all ***Work Orders*** shall include a Premium Cost analysis and Premium Cost determination. When Premium Cost is identified, reasons justifying FHWA participation shall be included in the supporting documentation for the ***Work Order***.

The total cost documented in any ***Work Order*** shall not exceed the limits defined above. More than one ***Work Order*** can document additional work associated with any incident.

When the work associated with one incident is to be performed in phases, a separate ***Work Order*** may be executed to document the description, reason, and costs of each phase of the work, respectively.

When the work associated with one incident, or one phase of the work associated with one incident, is to be paid from funds committed in part by more than one ***Contingency Supplemental Agreement***, or by a combination of the ***Initial Contingency Amount Pay Item*** and any subsequent ***Contingency Supplemental Agreement***, a separate ***Work Order*** shall be executed to identify the ***Contingency Pay Item*** and each ***Contingency Supplemental Agreement*** committing each part of the funds, respectively. Each ***Work Order*** shall contain the same total work description, reason, and total negotiated cost for the work described, and the part of the total cost to be funded by the ***Initial Contingency Amount Pay Item*** or ***Contingency Supplemental Agreement*** identified in the ***Work Order*** respectively.

Work Orders shall be executed authorizing work committing all remaining funds available from an ***Initial Contingency Amount Pay Item*** or an executed ***Contingency Supplemental Agreement*** prior to executing a ***Work Order*** committing funds from any successive ***Contingency Supplemental Agreement*** for the project.

The total cost of all additional work associated with any incident shall not exceed the limits defined in ***CPAM SECTION 7.4.6*** regardless of the ***Contingency Pay Item*** or the number of ***Contingency Supplemental Agreements*** which authorize commitment of funds for the work or the number of ***Work Orders*** executed to authorize the work associated with that incident. The ***Work Order*** shall contain the same project number as the ***Contingency Supplemental Agreement*** authorizing commitment of the funds if funds are provided by a ***Contingency Supplemental Agreement***. Adjustments may be necessary when the Department and the Contractor agree to pay for the cost of the work associated with a ***Work***

Order based on agreed upon unit prices and estimated quantities and must then execute a lump sum ***Work Order*** before the work is performed. When this occurs, the agreed upon unit prices and estimated quantities should be stated in the description of work in the ***Work Order***.

When the net cost for the actual quantities of additional work exceeds the estimated amount shown in the ***Work Order***, another ***Work Order*** may be prepared and executed to pay for that portion of the actual quantities exceeding the estimated amounts. The description of work in this adjustment ***Work Order*** should reference the original ***Work Order*** and should state the additional quantities and agreed on unit prices upon which it is based.

When the net cost for the actual quantities of additional work are less than the estimated amount shown in the ***Work Order***, another ***Work Order*** should be prepared and executed in a negative amount to reduce the Contractor's final pay for that portion of the actual quantities under running the estimated amounts. The description of work in this adjustment ***Work Order*** should reference the original ***Work Order*** and should state the reduction in the original quantities and unit prices agreed on, upon which it is based.

For ***Work Orders*** issued against the ***Contingency Pay Item***, markups by the Contractor for contract bond are not allowed as this bond amount has been included as part of the bid. A Bond markup as allowed by the ***Standard Specifications*** is allowable for work paid from funds drawn against any ***Contingency Supplemental Agreement***.

Note: When making payments on estimates, do not pay an aggregate percentage of the pay item for the ***Work Order*** resulting in a partial payment amount greater than is justified by the work completed. In this way, the ***Work Order*** for a negative amount and the balance of the original ***Work Order*** can be paid on the same estimate. This will avoid any adverse impact to the Contractor's cash flow from the ***Work Order*** for a negative amount.

7.4.9.4 Funds Used for Credits on Projects

A ***Work Order*** may be used for the purpose of documenting the deletion of work for Lump Sum projects (receiving credits from the contractor for deleted work). This will be accomplished by selecting the proper type "**Adj. for deleted work-LS jobs only**" in SiteManager while doing the Line Item Adjustment. This adjustment will be made to the Lump Sum Project Bid Item. This ensures that funding is

credited back to the proper function (usually 200 or 203), and not to the contingency funds (202).

7.4.9.5 Contract Time

Resident Level Responsibilities

Additional contract time required for performing additional work or a contract change may be granted on a ***Work Order***. Time extensions will be determined based upon impacts caused by the additional work to controlling items of work as shown in the Contractor's approved work progress schedule. The ***Work Order*** shall document the reasons for all time extensions. Approval authority for time extensions is outlined in ***CPAM Section 7.2***. The Project Administrator shall obtain prior approval of either the Resident Engineer or DCE, as appropriate, for all ***Work Orders*** which include time extensions in accordance with ***CPAM Chapter 7.2.5*** and include such approval in the supporting documentation for the ***Work Order***.

7.4.9.6 Director, Office of Construction Authorizations

(A) Resident Level Responsibilities

Prior authorization from the Director, Office of Construction shall be obtained before implementing project limit extensions, construction limit extensions, or changes to contract specifications on all contracts as required by ***CPAM 7.3.6***.

(B) District Level Responsibilities

The DCE shall recommend requests for extending project limits, extending construction limits, or contract specification changes as required by ***CPAM 7.3.6***. The DCE may also authorize a no cost specification change which extends the material acquisition or flexible start time after issuance of the Notice to Proceed. These recommendations and authorizations shall be documented, attached to the contract change and placed in the contract ***Work Order*** file. Where the recommendation or authorization is transmitted by e-mail, a copy of that e-mail originating from the DCE is acceptable. A copy of the notification letter to the contractor regarding the project limit extension, construction limit extension, or specification changes will also be placed with the contract change in the ***Work Order*** file.

7.4.9.7 FHWA Approval

District Level Responsibilities

FHWA concurrence will be obtained by the Project Administrator on in-house CEI projects and by the Department's Construction Project Manager on Consultant CEI projects for FHWA oversight projects when required.

CPAM Section 7.3.11, Obtaining Federal Highway Administration Approval and Participation for Construction Contract Changes on Federal-Aid Projects, list the contract changes that are Federal-Aid non-participating.

FHWA written approval for additional work or contract changes shall be obtained retroactively and documented on the ***Work Order***. FHWA may elect to approve additional work by having the ***Work Order*** sent to them for signature or by signing the ***Work Order*** at the time of a routine field visit.

The FHWA determines the participation on Federal Oversight projects; the DCE shall determine the Federal-Aid participation on Delegated Projects. The DCE can delegate such approval authority to a person within District Construction office staff, but not to a Resident Engineer. Such delegation shall be maintained on file in the District Construction Office.

Written documentation of the DCE's Federal-Aid participation decision on Delegated Projects shall be included in the ***Work Order*** back up documentation file. An e-mail from the DCE or delegate is an acceptable form of documentation approval.

7.4.9.8 Accounting

Resident Level Responsibilities

Requests for payment of work authorized by the ***Initial Contingency Amount Pay Item*** or an executed ***Contingency Supplemental Agreement*** shall be made separately for each ***Work Order*** and in accordance with the Federal Participation/Non-Participation schedule for the ***Work Order***. Any ***Work Order*** may be partially Federal participating. Two ***Work Orders*** need not be executed to separate Federal participating and Non-Federal participating work. If only a portion of the work authorized by a specific ***Work Order*** was completed during the

payment period, then the quantity will be shown as a percentage of the lump sum.

Each successive ***Work Order*** authorized by an ***Initial Contingency Amount Pay Item*** or ***Contingency Supplemental Agreement*** will require additional adjustment or adjustments be added to the pay estimate.

The total of the unit prices of the added items shall not exceed the limits defined above.

Comments shall be added to the estimate on each adjustment to reflect the ***Work Order*** number or other pertinent information as deemed necessary.

Contact the District SiteManager Coordinator and / or refer to the ***SiteManager User Handbook*** regarding the pay item adjustment issues discussed in the previous paragraphs. The ***SiteManager User Handbook*** and contact information for District SiteManager Coordinators is available on the State Construction Office website under the heading SiteManager at the following URL. http://www.dot.state.fl.us/construction/trnsport/TrnsPort.shtm

7.4.9.9 Contract Change Tracking Systems

District Level Responsibilities

Within fifteen (15) calendar days after payment on an approved estimate for all or a portion of the work identified within the ***Work Order*** document, the DCE or designee shall decide upon the final contract change coding and enter the ***Work Order*** information into the ***Contract Change Tracking System*** and ***SiteManager***. If the DCE's designee is not a member of the District Construction Office staff, the DCE's delegation shall be maintained on file in the District Construction Office. Further, if the DCE's designee is not a member of the District Construction Office staff, the DCE shall develop a quality assurance process to ensure accurate contract change coding and compliance with this section. Such process shall be documented and maintained on file in the District Construction office.

For an explanation of the codes involved, see the information published under "Coding Contract Changes" heading as an attachment to ***CPAM Section 7.3*** on the State Construction Office website at:
http://www.dot.state.fl.us/construction/Manuals/cpam/New%20Clean%20Chapters/CodingContractChanges.pdf

7.4.9.10 Document Distribution

Resident Level Responsibilities

(1) When ***Work Orders*** have been executed the ***Work Order*** and all supporting documentation as designated below shall be immediately distributed as follows:

(a) **Disbursement Operations Office Contract Payment Section* –** one (1) copy when requested

(b) **DCE***- One (1) original of the ***Work Order*** with a copy of all attachments

(c) **Contractor –** One (1) original of the ***Work Order*** only.

(d) **Director, Office of Construction*** - (ONLY projects with an original contract amount exceeding $10 million.) One (1) copy of the ***Work Order*** with a copy of all attachments. Distribution will be made to the Director, Office of Construction, prior to submitting an estimate for payment of the work.

(e) **Resident Engineer*** - One (1) copy of the ***Work Order*** with a copy of all attachments.

(f) **District Director for Production*** (at the discretion of the District) - One (1) copy of the ***Work Order***.

(g) Design **Project Manager*** responsible for managing the Design Consultant on contracts with Consultant prepared contract documents - One (1) copy of the ***Work Order***.

(h) **State Materials Office*** – One (1) copy of the ***Work Order***.

***Note:** distribution should be made by either submitting an electronic copy of the documentation or by submitting the Electronic Document Management System Document Number via email.

(2) Attachments indicated below shall be distributed with the ***Work Order***.

(a) Documentation forming the basis for all costs.

(b) Copies of all documentation forming the basis for all time extensions, including a statement of the critical work items delayed showing the non-overlapping delay days attributable to each critical item of work delayed.

7.4.10 Quality Control Process for Contract Changes

District Level Responsibilities

The DCE shall develop a process to review a representative sample of all contract changes to ensure such changes were necessary and comply with the construction contract documents. Such process will be documented and kept on file in each district for review by the State Construction Office.

Section 7.5

CONSTRUCTION CONTRACT CLAIMS

7.5.1 Purpose

To describe the contract administration procedure to be followed for documenting and analyzing construction contract claims to insure comprehensive and supportable recommendations are developed for use in the resolution of claims.

7.5.2 Authority

Sections 20.23(3)(a), 334.048(3), 337.11(8), 337.185 and 337.221, Florida Statutes

Federal Aid Policy Guide (23 CFR 635.124)

FHWA Approved: May 11, 2015

7.5.3 Definitions

Refer to the Introduction section of this ***Manual*.**

7.5.4 Notice

Project Level Responsibilities

Specification 5-12 requires that the Contractor provide notification in writing to the Project Administrator (PA) when the Contractor intends to file a claim and documentation of the work effort resulting from such claims. The notice must be given before the Contractor begins any work on which the claim is based. The notification by the Contractor allows the PA the opportunity to mitigate the impacts of the claim or begin documenting the impacts and actual costs associated with the claim. Failure of the Contractor to notify the PA before beginning work on disputed items of work waives the Contractor's right to claim (refer to ***Specification 5-12***). If the Contractor has failed to afford the Engineer the opportunity to keep strict account of the actual labor, material, equipment and time used by failing to provide written notice of intent to file claims before beginning the work on which the claim is based, the Contractor will be paid no claim settlement costs (see definition of ***Statement of Claim Settlement Costs CPAM Section 7.5.3***). Specifically, the Contractor will be paid no more for each claim issue than the

amount calculated by multiplying the amount of the most recent Engineer's Estimate for that issue multiplied by the percentage shown for that issue in the most recent Entitlement Analysis. Refer to ***Guidance Document 7-3-A*** for a description of an Engineer's Estimate and an Entitlement Analysis.

Enforcement of the written notice requirement is important in effective management of claims. If the Contractor indicates verbally during the prosecution of the work that added costs are being incurred, or changes to the contract document are occurring, the PA should instruct the Contractor to provide the required written notice of the intent to file any claims. A record of any verbal notices or possible notices should be recorded on the ***Daily Work Report*** in the "Comments" section. It should be made clear to the Contractor that adequate written notice of intent to file a claim is required if the claim or any portion of the claim is to be considered by the Department.

The PA can accept a notification of intent to file a claim only from the prime Contractor. The notice of intent should contain:

(1) A statement as to what changed, including a description of the nature and extent of the change.

(2) An indication of who directed or what caused the change.

(3) A description of how the change has or will impact the Contractor, including reference to any impacted critical activities on the Contractor's latest accepted schedule update.

(4) A statement of damages, or an estimate of damages, if available, detailing the amount of compensation, time and/or other adjustment to the contract that is being requested.

7.5.5 Claim Recognition

Project Level Responsibilities

The PA is responsible for recognizing a claim situation, and usually makes the initial determination whether an adjustment or a demand made by the Contractor is contested and processed as a claim, or is resolved by a routine ***Supplemental Agreement***. The recognition of a claim or an adjustment with the potential to escalate to a claim is extremely important so that steps can be taken to resolve the claim in a timely manner. Although claims occur for many different reasons, they are usually based upon an

adjustment or alleged adjustment in the Contractor's operation.

7.5.6 Coordination

(A) Project Level Responsibilities

After receiving the Contractor's written notice of intent to claim or becoming aware of a possible claim, the PA will notify the Resident Engineer.

(B) Resident Level Responsibilities

The Resident Engineer will inform the District Construction Engineer (DCE) of the notice of intent to claim. When a written notice of intent to claim is received, a copy of the notice should be sent to the DCE immediately,

When a written notice of an intent to claim is received, the Resident Engineer shall immediately send a copy of the notice to any Third Party involved (County, Utility owner or others).

(C) District Level Responsibilities

The DCE will inform the FHWA Transportation Engineer when a notice of intent to claim and/or when a written claim has been received from the Contractor on FHWA Full Oversight projects. A copy of the notice of intent to claim and/or a copy of the written claim received from the Contractor on FHWA Full Oversight projects will also be sent to the State Construction Office.

The DCE will inform the State Construction Office, the Office of General Counsel (attention: Special Counsel to Construction) and District Chief Counsel on all projects where the DCE has received the notice of intent to claim and the amount of the claim is estimated to be $150,000 or more.

7.5.6.1 Claims Involving a Utility

(A) Project Level Responsibilities

If a claim involves a utility, the PA must also immediately notify the affected utility owner that the Contractor has notified the Department of its intention to file a claim. This notification may be verbal, but must be immediately followed by a letter signed by the Resident Engineer as described below.

(B) Resident Level Responsibilities

The Resident Engineer must immediately notify by letter the affected utility owner that the Contractor has notified the Department of its intention to file a claim (refer to ***Sample Letter No. 1, Utility Company Notification***, ***Guidance Document 7-5-A***).

7.5.6.2 Assistance

7.5.6.2.1 District Utilities Office

Resident Level Responsibilities

If a claim involves a utility, the District Utilities Office shall be asked to provide a review of all pertinent documents to assist with determining if the claimed changed condition was caused by the Utility's failure to perform work in accordance with the utility work schedules or other relocation agreements.

7.5.6.2.2 Office of General Counsel

(A) Resident Level Responsibilities

The Office of General Counsel shall be asked to provide legal review of all pertinent documents and to identify potential legal liabilities, rights, obligations and confidentiality. For additional assistance on difficult claims, the Office of the General Counsel may be contacted in accord with the district's guidelines on such contacts. The DCE shall approve any request for review by the Central Office.

(B) District Level Responsibilities

The DCE will set the district's guidelines on when such contacts are appropriate. The Office of the General Counsel can be contacted as follows:

Telephone: Voice: (850) 414-5265
Fax: (850) 414-5264
FDOT Office of the General Counsel
Attention: Special Counsel to Construction
605 Suwannee Street, Mail Station 58
Tallahassee, Florida 32399-0458

7.5.6.3 Coordinating Claim Response Development with FHWA and State Construction Office Staff on Federal Aid Participation (F.A.P.) Projects Including Full Oversight Projects and Delegated Projects

Resident Level Responsibilities

On Federal Aid projects, the extent of Federal Aid participation is determined on a case-by-case basis. For this reason it is important that early coordination be made with the FHWA and with the FHWA's representatives required in the ***Federal Aid Policy Guide (23 CFR 635.124)***. The Resident Engineer should discuss the merits of the claim and the basis for the Department's position on the claim, with the FHWA Transportation Engineer and the State Construction Office. For more on F.A.P. dollar amount determinations see ***CPAM Claim Settlement, Section 7.5.11***.

7.5.7 Minimum Documentation

Justification for all contract claims for which payment includes Claim Settlement Costs, requires, at a minimum, three (3) pieces of written documentation. The first two are drafted by the project level staff while the last is drafted by the resident engineer's staff. Justification for contract claims for which payment does not include Claim Settlement Costs, requires at a minimum the Entitlement Analysis and Engineers Estimate.

(A) Project Level Responsibilities

1) An Entitlement Analysis showing the percentage entitlement for each of the various claim issues and the reasons supporting the contractor's entitlement (refer to ***CPAM Guidance Document 7-3-A***). For those claims in excess of $150,000 draft Entitlement Analysis should be prepared and submitted to the DCE for review prior to finalization of the claim documentation.

2) An Engineer's Estimate, which will be stated in dollars for extra work and days for any impacts to controlling items of work or critical path activities (see definitions in ***CPAM, Section 7.3.4 and CPAM Guidance Document 7-3-A***), For those claims in excess of $150,000 draft Entitlement Analysis should be prepared and submitted to the DCE for review prior to finalization of the claim documentation.

(B) Resident Level Responsibilities

3) A ***Statement of Claim Settlement Cost***, identifying those costs the Department

does not believe it owes the Contractor but is willing to pay to avoid the risks associated with not resolving the claim (see definitions in ***CPAM, Section 7.5.3***).

For all claims, the Entitlement Analysis and the Engineer's Estimate shall be done before starting negotiations with the Contractor. It is advisable, but not mandatory, that the Entitlement Analysis and the Engineer's Estimate be committed to writing before starting negotiations with the Contractor. It is mandatory that the Entitlement Analysis, the Engineer's Estimate and a ***Statement of Claim Settlement Cost*** (if there are any) shall be committed to writing before sending the contract change document to the Contractor for signature.

(C) District Level Responsibilities

For those claims in excess of $150,000 the draft Entitlement Analysis and Engineers Estimate will be prepared and submitted to the DCE by the Resident Engineers staff and shall be submitted to the District Chief Counsel for review prior to finalization of the claim documentation.

7.5.7.1 Comprehensive Documentation

(A) Project Level Responsibilities

To be worthwhile, documentation must include all relevant facts and be objective in its coverage. Frequently the most valuable sources of information are the daily and weekly construction project reports of the ***Project Diary*** which are produced by the Department's CEI project staff. ***CPAM Section 5.1*** provides guidance for completing these reports and should be reviewed by the project CEI staff carefully when a claim situation arises to insure that they are complete and factual.

Specifications 5-12 and ***100*** require specific content in the Contractor's written notice of intent to claim including information on equipment, delays, and the reason for the claim. In addition to the normal, required daily documentation specified above, a claim file should be established for every "Notice of Intent" filed by the Contractor. The PA shall review these notices along with ***Specifications 5-12*** and ***100***. Where the contractor's notice of intent to claim is incomplete or untimely the PA shall notify the contractor of that defect in writing. Both the Contractor's notice of intent to claim and the PA's response shall be included in the claim file. The weekly statements of cost provided by the Contractor pursuant to ***Specification 5-12*** should also be reviewed as received, with notations indicating any conflicts or inconsistencies with the Department's project records or observations of project personnel. The weekly statements of cost with appropriate

notations should be placed in the claim file along with the independent records maintained by project personnel. If the Contractor fails to provide the weekly statements of cost, the PA or designee shall notify the Contractor in writing of their obligation under the contract documents to keep such records and provide them weekly to the Department. Copies of this correspondence shall be included in the claim file. The claim file is also to include any notifications to utilities or property owners that are affected by the claim as well as any correspondence received from the Contractor relating to the identified claim issue(s).

(B) Resident Level Responsibilities

The Resident Engineer should also review the ***Project Diary*** documents for completeness when a claim or disputed work is involved. For a list of the ***Project Diary*** documents see the definition of ***Project Diary*** in ***CPAM Section 5.1.4, Project Diary***.

7.5.7.2 Concurrent Documentation

Project Level Responsibilities

Concurrent documentation is often a major factor in determining the weight or impact of a given document during administrative and legal considerations. A brief note on the ***Daily Work Report***, which was made at the time of a particular occurrence, will often have more validity than a carefully worded, memo to the file prepared weeks or months after the fact. Project personnel are to make notes and comments on the ***Project Diary*** reports and documents (see definition ***CPAM Section 5.1.4***) to describe events or record their observations of the situation at the time of occurrence, and take dated photographs or video records of the conditions. These notes should be objective and professional, relating to the facts, without bias or opinions.

7.5.7.3 Record of Contractor's Equipment, Labor and Material

Project Level Responsibilities

When the PA receives a notice of intent to make a claim from the Contractor, the Contractor's equipment, labor and material used on the disputed work must be documented. The PA must keep an accurate record of the types of equipment, including equipment serial numbers, and lengths of time each piece of equipment is used in performing disputed work, required to be on standby, or idled because of the disputed work. The number of workers, their job classification and time spent in performing the work related to the claim must be recorded as well as material types and quantities of

each material type used. On larger projects, with multiple claims, location of crews by foreman and station number should be recorded on the daily construction project report. Accurately tracking this information will allow the Contractor's statement of damages to be verified upon submittal.

7.5.7.4 Claim File

(A) Project Level Responsibilities

Once a claim situation has been identified by receipt of a written notice from the Contractor of the Contractor's intention to make a claim, the PA should establish a separate file and keep copies of all documents related to the claim.

(B) Resident Level Responsibilities

The Resident Engineer and PA may share the same file if they work in the same office. These claim files will serve as the primary source of information relating to the claim. These files should be kept current and orderly, such that a review of the files will provide a full understanding of the claim and a logical progression of events. Contact the District Chief Counsel or the Office of the General Counsel to determine if and how these claim files or other related files should be stamped or marked to be treated as "Attorney's Work Product." Such claim files are privileged information to assure the confidentiality of the Department's claim analysis and recommendations during certain claim settlement investigations undertaken with direction of legal counsel.

7.5.7.5 Sources of Documentation

Project Level Responsibilities

Good documentation comes from many sources and in various forms. Some of the most important types of documentation are excerpts from the contract documents specifically related to the claim issue. These should be made part of the supporting documentation in the claim file. When notice of intent to file a claim is given to the Department, the first thing that the PA must do is research the contract documents to determine exactly what the contract says with respect to the claim. All pertinent drawings, notes, specifications, and special provisions should be included or referenced in the claim file. Project personnel must remain aware of the many sources, which can provide information regarding a claim, and make the required effort to review those sources and document the findings. ***Guidance Document 7-5-B*** provides a listing of these sources.

7.5.8 Contractor's Submission of Claim

(A) Project Level Responsibilities

The Contractor's notice requirements and the content of the Contractor's written claim submission, including the Contractor's certification of the truthfulness of that written claim submission, are stated in ***Specification 5-12***. These requirements are to be enforced. Refer to ***CPAM Section 7.5.4*** for a discussion of the calculation of compensation when the Contractor has failed to file a timely notice of intent to claim. At some point, either after completing the work or resolving the situation over which the Contractor has submitted a notice of intent to file a claim, the Contractor should submit a claim package to the PA stating the amount of compensation and contract time or other adjustments to the contract that are being requested.

(1) The PA should encourage the Contractor to submit the claim package for review as soon as possible. It is the prime Contractor's responsibility to submit claims. Claim packages will not be accepted from a subcontractor.

(2) It is incumbent upon the Contractor to provide a complete claim package. The claim package should state the Contractor's position and the alleged reasons for the claim. The claim package should explain how the Contractor was impacted and what the costs associated with the impacts were. The impacts and cost should be certified in accordance with ***Specification 5-12*** to be accurate and complete to the best of the Contractor's knowledge and stated in enough detail to support the resolution of any claim determined to have merit.

(3) If adequate detail is not provided in the Contractor's submission of the claim package, the PA should clearly specify the additional information needed, and return the claim package to the Contractor. If the PA finds the claim to be without merit, the reasoning for this determination should also be clearly provided to the Contractor. The Contractor should determine the amount of damages asserted due in a claim situation and present those damages to the PA for review.

(4) For claims against utilities, upon receipt of any written notice of intent to claim or any written claim package materials from the Contractor: the PA shall immediately discuss the merits of the claim with the Resident Engineer. A copy of the written notice of intent to claim and or any written claim package materials from the Contractor shall be sent to the Resident Engineer.

(B) Resident Level Responsibilities

(5) For claims against utilities, upon receipt of any written notice of intent to claim or any written claim package materials from the Contractor: the Resident Engineer shall forward a copy of the Contractor's intent to claim notice and any related claim materials received from the Contractor to the utility owner. Refer to ***Sample Letter No. 1, Utility Company Notification***, (***Guidance Document 7-5-A***). After discussing the merits of the claim with the PA, a copy shall also be sent to the DCE.

(6) For claims against utilities, upon receipt of a complete claim package, the Resident Engineer should consult with the District Utility Engineer and shall notify the utility owner in writing that the claim package has been received. The intent of this letter is to allow the utility owner the opportunity to investigate and negotiate a settlement directly with the Contractor if desired. Refer to ***Sample Letter No. 2, Utility Company Notification,*** (***Guidance Document 7-5-C***). With that notification letter the Resident Engineer shall also forward a copy of the Contractor's claim package to the utility owner.

7.5.9 Analysis of Claim Packages

(A) Project Level Responsibilities

Upon receipt of a complete claim package, the PA will review the claim and compile any additional documents deemed relevant and forward to the Resident Engineer for review.

(B) Resident Level Responsibilities

On claims of $150,000 or more, informational copies of the complete claims package shall also be sent to the Office of the General Counsel, the Office of the Inspector General, and the State Construction Office through the appropriate channels. The reviewer should first prepare a draft Entitlement Analysis to determine if the claim is valid, and then, if entitlement is recognized, prepare a draft Engineer's Estimate to determine the extent of compensation. To perform these two steps, the reviewer must have all necessary facts relating to the claim available. Refer to ***Guidance Document 7-3-A*** for a description of an Engineer's Estimate and an Entitlement Analysis.

(C) District Level Responsibilities

The DCE shall approve any request for review by the Central Office, in accordance with the guidelines of ***CPAM 7.5.6.2.2*** described herein.

7.5.9.1 Establishing the Facts

Project Level Responsibilities

The availability of facts will vary depending on the level of review. As a claim is processed for higher level review, all pertinent facts must be provided to the next level. The first level of review for a claim will usually be at the PA's level. It is at this level that all facts are documented from project records and the original Entitlement Analysis and Engineer's Estimate are produced.

The initial source of information and facts are contained in the Contractor's claim package. The project records must be reviewed to determine if the facts presented by the Contractor can be verified, and to determine if the Contractor's information is incomplete or misleading. Relevant additional information and any conflicting information should be identified. The reviewer should separate the facts into three categories: those the Department and the Contractor agree on; those which are unsubstantiated or incomplete; and those which are disputed by the Department.

For facts, which are disputed, the reviewer should identify what the correct facts are believed to be, with references to backup documentation.

Gathering and establishing of the facts should be done before beginning the two-step review process. The facts will need to be available to adequately perform each step.

7.5.9.2 Entitlement Analysis

Project Level Responsibilities

The reviewer must first determine whether the claim has any basic merit, or whether it should be denied because there is no basis for entitlement. Input from the Office of the General Counsel should be obtained at this point to assess the potential legal liability. The reviewer should make this determination on the individual merits and available facts pertaining to the claim situation. When determining claim entitlement, the reviewer should address the following questions for each claim issue.

(1) Did the Contractor provide the required notice of intent to claim?

(2) Was there a change to the original contract requirement that led to the claim?

(3) Who or what caused the identified change?

(4) What were the impacts to the Contractor due to each identified change?

(5) Were the impacts unexpected or unreasonable?

(6) Could the Contractor have avoided any adverse impacts through proper action?

(7) Was it reasonable to have anticipated the identified changes at the time of bid?

(8) Did the Contractor attempt to mitigate the claim or its effects?

(9) Was complete claim documentation provided in the timeframe outlined in the contract or in accord with ***Specification 5-12***?

(10) Determine any percentage of entitlement on each claim issue as follows:

When the items above completely support the Contractor's position, percent entitlement would be one hundred percent. When the items above completely refute the Contractor's position, the percent entitlement would be zero percent. When items above support only a partial entitlement based on the fact that the Contractor was partially responsible for the claim issue state the partial percentage of the total cost and time impacts the Contractor is entitled to recover along with the reasons supporting the contractors entitlement.

7.5.9.3 Extent of Compensation

Project Level Responsibilities

Determining the extent of compensation is the second step in the analysis of a claim package after it has been determined that the Contractor has some entitlement for the claim. In this step the reasonable costs the Contractor incurred must be determined.

The Contractor is responsible for providing a claim package, which includes a detailed breakdown of the costs incurred. These costs should relate to the impacts on the construction identified in step one which established the basis for eligibility. The State Construction Office's Senior Construction Accountant may be contacted if the reviewer is unfamiliar with the Contractor's method of cost justification. Follow district policy on making this contact (See ***CPAM Section 7.5.6.2.3***).

In determining the extent of compensation due in a claim situation, only the actual costs incurred by the Contractor are reimbursable, up to a reasonable amount. Compensation is not computed on a force account basis unless expressly provided for in the contract documents. The following costs are frequently included in claim submissions:

Operating Equipment Costs: Compensation must be based on a supportable length of time for the equipment operation cost. The Contractor should provide the basis for the ownership or rental costs, and the operating costs. Equipment costs are to be determined as per ***Specification 4*** of the applicable contract specifications.

Idle Equipment Costs: If idle equipment was identified as an impact in the eligibility step, then compensation must be based on a supportable length of time that required equipment was idle, and the actual ownership or rental costs incurred by the Contractor. Based upon the situation, it may be cheaper to keep idled equipment on the project site if demobilization and remobilization of that equipment will cost more than the idle equipment charges. Idle equipment charges must be determined in accord with ***Specification 4*** of the applicable contract specifications. Idle asphalt plants should only be compensable for delays if the plant is dedicated to the project. If the asphalt plant provides asphalt to multiple projects or sells commercially and not dedicated to the project, it would not be compensable for delays. If a claim includes costs for a non-dedicated idle asphalt plant, the costs should be removed from the subject claim.

Labor Costs: Compensation will be paid for actual costs based on documented work hours and certified payroll statements. Lost labor efficiency based on work elements performed out of sequence or over longer time frames than originally scheduled may be considered with proper documentation. Labor costs are to be determined as shown in ***Specification 4*** of the contract specifications.

Material Costs: Compensation will be paid for the actual cost of materials being used, based on a supportable quantity of materials and invoices showing the materials costs. A markup may be allowed as shown in ***Specification 4*** of the contract specifications.

Unit Price Costs: Compensation may be based on a unit price including material, labor, equipment overhead, and profit. If this method is used, the number of units involved should be verifiable and the unit price should be reasonable. The Contractor should be required to provide a breakdown of the unit price. Items priced at a unit price must be separated from other items in the claim since overhead and profit cannot be included twice. Lump sum items shall not be accepted without detailed itemization stating the quantities and unit prices the lump sum item was based upon.

Delay Damages: If delay was identified as an impact in the eligibility step, then compensation will be paid in accord with ***Specification 4-3*** for the delay. The Contractor

should separately identify all associated delay costs so they can be verified and a determination made as to their reasonableness. The granting of additional contract time must be reasonable and supportable based on delays in the controlling items of work.

Indirect Costs, Expenses and Profit: Compensation for all indirect costs, expenses and profit of the Contractor, including but not limited to overhead of any kind, whether jobsite, field office, division office, regional office, home office, or otherwise will be paid in accord with ***Specification* 4-3**. Care should be used to insure that profit is not allowed more than once, such as applying a profit markup to total cost which includes unit price items already allowing for profit. Anticipated profits should not be allowed due to the difficulty in verifying whether or not such profits are under the realm of Contractor risk. Profits or markups on the additional expenses Contractor's incur as a result of a disruption/delay claim are not allowed.

These costs are to be provided by the Contractor and may be subject to audit by either the Department's Senior Construction Accountant or the Department's Inspector General's staff.

Prime Contractor Markups on Subcontract Invoices: Markups are to be allowed as per ***Specification 4-3***.

Interest: Compensation should not be allowed for any interest added to a Contractor's claim except as provided in the ***Specification 9-9*** for interest payments after the settlement of the claim.

Insurance and Bond Premium: General Liability Insurance and Bond will be allowed as per ***Specification 4-3***.

7.5.9.4 Negotiations and Resolution Processing

For any contract change involving monetary compensation see ***CPAM Section 7.3.7***.

7.5.10 Claims Against Utility Performance

Project Level Responsibilities

This section applies only to claims against the utility owner or its agents.

(1) If the utility owner, having been notified under ***CPAM Section 7.5.8(6)*** of this procedure, fails to reach an agreement with the Contractor by 60 days after receipt of

such notice, the Resident Engineer should schedule negotiations with the Contractor. Prior to negotiations the Resident Engineer shall notify the utility owner of time and location of the scheduled negotiations. Refer to ***Sample Letter No. 3, Utility Company Notification***, (***Guidance Document 7-5-D***). A copy of the ***Utility Company Notification*** letter shall be sent to the Office of Comptroller-General Accounting Office, Locally Funded Agreement Section.

(2) Representatives of the utility owner who may be in attendance at the negotiations meeting may present facts relating to the conditions that existed.

(3) If necessary following negotiations, the Resident Engineer will initiate a request for funds and a ***Supplemental Agreement*** as appropriate to settle the claim and, within 60 days, make any necessary demands against the utility owner for reimbursement of costs for which the Utility was found to be responsible. Refer to ***Sample Letter No. 4, Utility Company Notification of Demand for Reimbursement***, (***Guidance Document 7-5-E***). A copy of the ***Supplemental Agreement*** and ***Utility Company Notification*** letter shall be sent to the Office of Comptroller-General Accounting Office, Locally Funded Agreement Section.

(4) If the claim is not settled within 60 days, the matter shall be referred to the District Counsel for litigation. A copy of the referral notification to the District Counsel shall also be sent to the Office of the Inspector General and to the Office of Comptroller-General Accounting Office, Locally Funded Agreement Section.

(5) The collection of all funds due to the Department must be in accordance with the collection effort provisions outlined in ***Procedure No. 350-060-303, Accounts Receivable***.

7.5.11 Claim Settlement

7.5.11.1 Federal Aid Participation (F.A.P.) Projects With Claim Settlements Less Than $200,000

Claims on F.A.P. projects having claim settlements less than $200,000, which do not involve claims for acceleration or delay, and are not the result of arbitration, court judgment or administrative review, shall be proposed for Federal Aid participation.

The Office of Inspector General, if asked by the FHWA Division Administrator, must review and evaluate any claim submitted to the FHWA for participation with an audit.

(1) FHWA Full Oversight Projects

District Level Responsibilities

The DCE shall prepare a letter asking for FHWA concurrence with the District's recommendations on Full Oversight projects. Refer to ***Sample Letter*** to FHWA Requesting Concurrence and Participation in a Claim Settlement, (***Guidance Document 7-5-F***).

The FHWA will stamp a copy of the Department's request letter. On the stamped portion, they will indicate their disposition of the Department's request. This will be expressed in days and dollars. The stamped copy of the letter will be returned to the DCE with a copy to the State Construction Office. The DCE shall note reasons for non-concurrence and any appeal made on the district copy.

(2) Delegated Projects

District Level Responsibilities

The District Construction Engineer will determine FHWA participation on delegated projects. This will be done at the time of recommending approval for the Supplemental Agreement. The guidelines contained in the latest version of the ***Florida Federal Aid Partnership Agreement, Procedure No. 700-000-005***, as well as past precedents and ***CPAM Section 7.3.11*** shall be used in determining Federal Aid participation.

7.5.11.2 F.A.P. Projects With Claim Settlements of $200,000 or More

F.A.P. projects that have delay and/or acceleration claims, claim settlements totaling $200,000 or more and claims involving arbitration, court judgments, or administrative board review shall be submitted to the FHWA for concurrence. The Office of Inspector General, if asked by the FHWA Division Administrator, must review and evaluate any claim submitted to the FHWA for participation with an audit.

(A) Resident Level Responsibilities

For claims over $200,000 and claims the district anticipates will be over $200,000, the Resident Engineer will notify the State Construction Office of the claim by memo as soon as the Resident Engineer becomes aware of it.

(B) District Level Responsibilities

The DCE will keep the Director, Office of Construction advised of the progress in resolving the claim by forwarding to the State Construction Office copies of the Contractor's correspondence on the claim and copies of all letters from district personnel to the Contractor, offering or confirming a resolution of the claim.

The DCE shall prepare a formal request for FHWA participation, setting forth in writing the legal and contractual basis for the claim, together with the cost data and other facts supporting the settlement. The request will be sent to the Director, Office of Construction for concurrence. The Director will either send the claim back to the District for further review/clarification or forward the claim package to the FHWA with a letter of concurrence.

7.5.11.3 Claim Settlement Greater Than $500,000

District Level Responsibilities

For each claim resolution resulting in a ***Supplemental Agreement*** or other contract modification that increases the value of the contract by more than $500,000, the District Director of Operations will certify in writing that there are no facts or circumstances relating to the settlement, ***Supplemental Agreement***, or other contract modification that would indicate that such was affected by any improper influences or by any improper intervention on behalf of the Consultant or Contractor by any state officer, state employee or any other person outside the Department. Place a copy of this certification in all the contract claim files mentioned in ***CPAM 7.5.7.4*** and attach a copy of it to all copies of the contract change used to pay the claim settlement which are distributed with back-up documentation in accord with ***CPAM 7.3.16***. On Federal-Aid contracts only send a copy to the District Federal-Aid coordinator. Refer to ***Sample Letter***, ***Claims Settlement Certification***, (***Guidance Document 7-5-F***).

If a written request is submitted to the Department's Inspector General by the District Secretary or the Director, Office of Construction, then the Inspector General shall perform an independent audit on a claim which results in a settlement, ***Supplemental Agreement*** or other contract modification which increases the value of the contract by more than $500,000 and shall determine whether the claim has been processed in accordance with all applicable laws, rules and procedures.

Claim Settlements greater than $500,000 require the advance approval of the Chief Engineer.

7.5.11.4 Settlement Supplemental Agreement

Resident Level Responsibilities

Once the Department has agreed on a resolution, participation has been solicited from FHWA and the availability of funds has been certified by the Comptroller's Office, the Resident Engineer's staff shall process a supplemental agreement to pay the claim in accord with ***CPAM Section 7.3***.

7.5.11.5 Court Ordered Claim Settlement

District Level Responsibilities

Upon receipt from the Department's attorney of a properly executed "Final Judgment" related to a court ordered payment, the DCE will produce a ***Receiving Report and Invoice Transmittal*** (***RRIT***), ***Form No. 350-060-02***. The date of the Judge's signature of the "Final Judgment Against FDOT" must be placed on the line labeled "DATE SERVICES RECEIVED." The words "FINAL JUDGMENT MADE AGAINST FDOT" shall be typed in above the "DATE SERVICES RECEIVED" line. **Note:** the RRIT for a Claims Settlement must be properly coded for FHWA participation and non-participation by FHWA or the DCE's staff personnel. The RRIT will be executed by the DCE's staff personnel on the "SUBMITTED BY" line and by the DCE or his delegate on the "APPROVED FOR PAYMENT" line. The executed RRIT, the properly executed Final Judgment, and a cover memorandum from the DCE to the Department's Comptroller stating that this is an "URGENT CLAIM SETTLEMENT RESULTING FROM A FINAL JUDGMENT AGAINST FDOT" will then be submitted. The DCE will also send a copy of this package to the Department's attorney who had advised the district on this claim settlement.

Upon receipt of the package of documents from the DCE, the Department's Comptroller will calculate the amount of any post-judgment interest due and forward the package to the State Comptroller for payment with a letter stating the judgment amount and the amount of any post-judgment interest which may be due. A copy of this cover letter will also be sent to the Department's Attorney and the DCE.

7.5.12 Claim Denial

District Level Responsibilities

The DCE shall send a letter to the Contractor denying the claim after consulting with the Office of General Counsel.

If any issues contained in the Contractor's claim merit full or partial pay but the Contractor refuses to settle that portion of the claim; then a unilateral supplemental agreement may

be used to make that payment as outlined in the discussion of unilateral payments or supplemental agreements in ***CPAM 7.3***.

7.5.13 Claim Appeal

District Level Responsibilities

When the Contractor will not accept the District's denial or settlement offer on a claim, then the appeal process will be governed by the contract.
Note: If the contract contains ***Specification 8-3.7 Disputes Review Board***, then the appeal process must be handled by the Disputes Review Board before the Contractor can take the issue to arbitration or litigation as outlined in ***Specification 8-3.7***.

7.5.14 Claim Records Storage and Retention

Resident Level Responsibilities

All of the claim files mentioned in ***CPAM 7.5.7.4*** are to be combined into a single claim file and any of the following items not already included in that file are to be added to it including the claim package, the Entitlement Analysis, the Engineer's Estimate, the ***Statement of Claim Settlement Costs***, any related supplemental documentation, any related review analysis, any related recommendations, any related settlement or denial documentation, any related letters, any related certifications and any other related correspondence. This claim file shall be stored with the other project records. If a Consultant CEI was used on the project, the file should be given to the Construction Program Manager for storage. File retention, disclosure, exemptions, and privileges are subject to existing Florida law.

A flow chart of the claims process is shown on the State Construction Office website section for ***CPAM***.

Guidance Document 7-5-A

SAMPLE LETTER NO 1 UTILITY COMPANY NOTIFICATION

XYZ Utility Company DATE:

RE: Financial Project ID: XXXXXX-X-XX-XX

FAP No.:	XXX-X (XX)
Contract No.:	XXXXXXXX
Local Description:	
County:	XXXXXXXXXXXX

Dear Sir or Madam:

Please be advised that the Florida Department of Transportation has been notified by (Contractor's Name) ____, the Contractor for the above referred project that they intend to submit a claim for additional compensation due to a changed condition caused by your company's alleged failure to perform work in accordance with the utility work schedules or other relocation agreements.

Pursuant to Florida Law your company may be responsible for these additional costs. This office will furnish you additional information in regard to the circumstances the Contractor is claiming. The Department will keep records to document the conditions we observe during the period in question.

Sincerely,

Resident Engineer

cc: Contractor
Project Administrator
District Construction Engineer
District Utilities Engineer
Director, Office of Construction
Office of General Counsel
District Chief Counsel

Guidance Document 7-5-B

RESOURCES OF INFORMATION AND DOCUMENTATION

1. CONTRACT DOCUMENTS

    1. Special Provisions
    2. Plan Notes
    3. Plan Drawings
    4. Roadway and Traffic Design Standards
    5. Developmental Specifications
    6. Supplemental Specifications
    7. Standard Specifications
    8. Contract Bid Proposal and Bid Tabulations

2. PROJECT RECORDS

    1. Daily and Weekly Reports of Construction
    2. Test Reports
    3. Progress Estimates
    4. Daily Ledger
    5. Weekly Estimate Worksheets
    6. Utility Diaries
    7. Record of Preconstruction Reports and Records
    8. Various Construction Reports and Records for Items of Work
    9. Time Extensions
    10. Change Orders
    11. Supplemental Agreements
    12. Shop Drawings
    13. Work Progress Schedules and Revisions
    14. Records of Equipment, Labor and Material Used on Claim Related Work

3. CONTRACTOR'S RECORDS

    1. Time Sheets
    2. Certified Payrolls
    3. Material Invoices
    4. Equipment Rental Invoices
    5. Subcontracts
    6. Prequalification Records

Guidance Document 7-5-B

4. CORRESPONDENCE

    1. Contractor's Notice of Intent to File Claim
    2. Correspondence to and from Contractor
    3. Correspondence to and from Designer
    4. Inter-Department Correspondence and Memos
    5. Correspondence to and from FHWA
    6. Inspection Reports

5. MISCELLANEOUS

    1. Phone Records
    2. Meeting Minutes
    3. Photographs
    4. Statements of Witnesses
    5. Weather Data
    6. As-Built Schedules
    7. Estimates Desk Review
    8. Designer's Files
    9. Specifications and Estimates File
    10. Utility Files
    11. Video Tapes

Guidance Document 7-5-C

SAMPLE LETTER NO. 2
UTILITY COMPANY NOTIFICATION

XYZ Utility Company DATE:

RE: Financial Project ID: XXXXXX-X-XX-XX
FAP No.: XXX-X (XX)
Contract No.: XXXXXXXX
Local Description:
County: XXXXXXXXXXXX

Dear Sir or Madam:

By letter dated _____ from _____, you were advised that__(Contractor's Name)____, the Departments Contractor for the referenced project, had notified us of its intent to submit a claim for additional compensation due to a changed condition caused by your company's alleged failure to perform work in accordance with the utility work schedules or other relocation agreements. The Department has received a detailed statement of claim from the Contractor. We, request that you respond directly to the Contractor to settle the matter, and notify this office within 15 days as to your position concerning this claim.

If both you and the Contractor agree that negotiations are progressing but a final settlement has not been reached within 60 days, then a time extension (up to 60 days, 120 days total) may be requested.

If you and the Contractor fail to reach a settlement within 60 days and any requested time extension or fail to reach a settlement within 120 days, the Department will negotiate a settlement with the Contractor and seek reimbursement from your company of any costs that you are responsible for.

Sincerely,

Resident Engineer

cc: Contractor
Project Administrator
District Construction Engineer
District Utility Engineer
Director, Office of Construction
Office of General Counsel
District Chief Counsel

Guidance Document 7-5-D

SAMPLE LETTER NO. 3
UTILITY COMPANY NOTIFICATION

Date

XYZ Utility Company

RE: Financial Project ID: XXXXXX-X-XX-XX
FAP No.: XXX-X (XX)

Contract No.: XXXXXXXX
Local Description: XXXXXXXXXXXX
County: XXXXXXXXXXXX

Dear Sir or Madam:

By letter dated _____ we advised your company that____(Contractor's Name)__, the Departments Contractor for the referenced project, has submitted a detailed statement of claim for additional compensation due to a changed condition caused by your company's alleged failure to perform work in accordance with the utility work schedules or other relocation agreements.

INSTRUCTION: ***USE* ONLY 1** OF THE 2 FOLLOWING PARAGRAPHS

Sixty days from the date of that letter have elapsed and we have not received any notification that your company has reached an agreement with the Contractor on a settlement of this claim. During this period we have not received a time extension request from your Company, stating that your company and the Contractor agree that negotiations are progressing and that a settlement is expected within the next 60 days. Accordingly, we intend to proceed with the negotiation of a settlement with the Contractor on this claim.

- OR -

Since 120 days from the date of that letter have elapsed and we have not received any notification that your company has reached an agreement with the Contractor on a settlement, we intend to proceed with the negotiation of a settlement with the Contractor on this claim.

Please be advised that representatives of the Department and the Contractor will meet at__(Time) on _____(Date)_____ at__(location of meeting)_____ to negotiate a settlement with the Contractor. We urge your attendance since the Department will seek reimbursement from your company of any costs that you are responsible for.

Sincerely,

Resident Engineer

cc: Contractor
Project Administrator
District Utility Engineer
District Construction Engineer
Director, Office of Construction
Office of General Counsel
District Chief Counsel
Office of Comptroller, Attention: General Accounting Office, LFA Section

Guidance Document 7-5-E

SAMPLE LETTER NO. 4
UTILITY COMPANY NOTIFICATION OF DEMAND FOR REIMBURSEMENT

XYZ Utility Company DATE:

RE: Financial Project ID: XXXXXX-X-XX-XX
FAP No.: XXX-X (XX)

Contract No.: XXXXXXXX
Local Description: XXXXXXXXXXXX
County: XXXXXXXXXXXX

By letter dated (_____) your company was advised that (Contractors Name) the Departments Contractor for the referenced project, has submitted a detailed statement of claim for additional compensation due to a changed condition caused by your company's alleged failure to perform work in accordance with the utility work schedules or other relocation agreements.

A settlement meeting was held on (Date) between representatives of your firm, the Contractor and the Department's representatives in an attempt to settle the claim. The meeting resulted in an impasse between your firm and the Contractor.

The Department has reviewed the claim from the Contractor and has determined that the Contractor's claim is justified. The Department has entered into an Agreement with the Contractor to provide additional compensation in the amount of ($ AMOUNT) to resolve the Contractor's claim associated with the changed condition caused by your company's failure to perform work in accordance with the utility work schedules or other relocation agreements.

The Department has also determined that your company is liable for costs in the amount of ($ AMOUNT) and hereby demands reimbursement to the Department.

Sincerely,

Resident Engineer

cc: Contractor
Project Administrator
District Utility Engineer
District Construction Engineer
Director, Office of Construction
Office of General Counsel
District Chief Counsel
Office of Comptroller, Attention: General Accounting Office, LFA Section

Guidance Document 7-5-F

SAMPLE LETTER TO FHWA REQUESTING CONCURRENCE AND PARTICIPATION IN A CLAIM SETTLEMENT

Date

FHWA Division Administrator
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Attention: _____(Transportation Engineer)

Subject: Recommendation for FHWA participation in a claim settlement
Financial Project ID.: XXXXXX-X-XX-XX

Contract No.: XXXXXXXX
F.A.P. No.: XXXX-XXX-X
County: XXXXXXXXXXXX
Contractor's Request No.: XXXXXXXXXXXX

Enclosed is a copy of the Department's evaluation of the subject claim. Our analysis concludes the following claim for $ _____is justified.

We respectfully request FHWA concurrence and participation.

Sincerely,

District Construction Engineer

cc: Director, Office of Construction
Resident Engineer
District Federal-Aid Coordinator

Guidance Document 7-5-G

SAMPLE LETTER
CLAIMS SETTLEMENT CERTIFICATION

Pursuant to Section 337.221, Florida Statutes, the following certification is made as to the terms of Supplemental Agreement No._____, dated Month XX, XXXX, on the Florida Department of Transportation Contract No. XXXXX:

> I,____(NAME)_____, District Director of Operations, hereby acknowledge, attest and affirm that I have made reasonable inquiry and, based upon my personal knowledge as to the negotiations and circumstances; there are no facts or circumstances relating to Supplemental Agreement No._____that would indicate that the agreement was affected by any improper influences or by any improper intervention on behalf of the Contractor, by any state officer, state employee, or any other person outside the Department.

(NAME)
District Director of Operations

Sworn to and subscribed to me this _____ day of _____, XXXX.

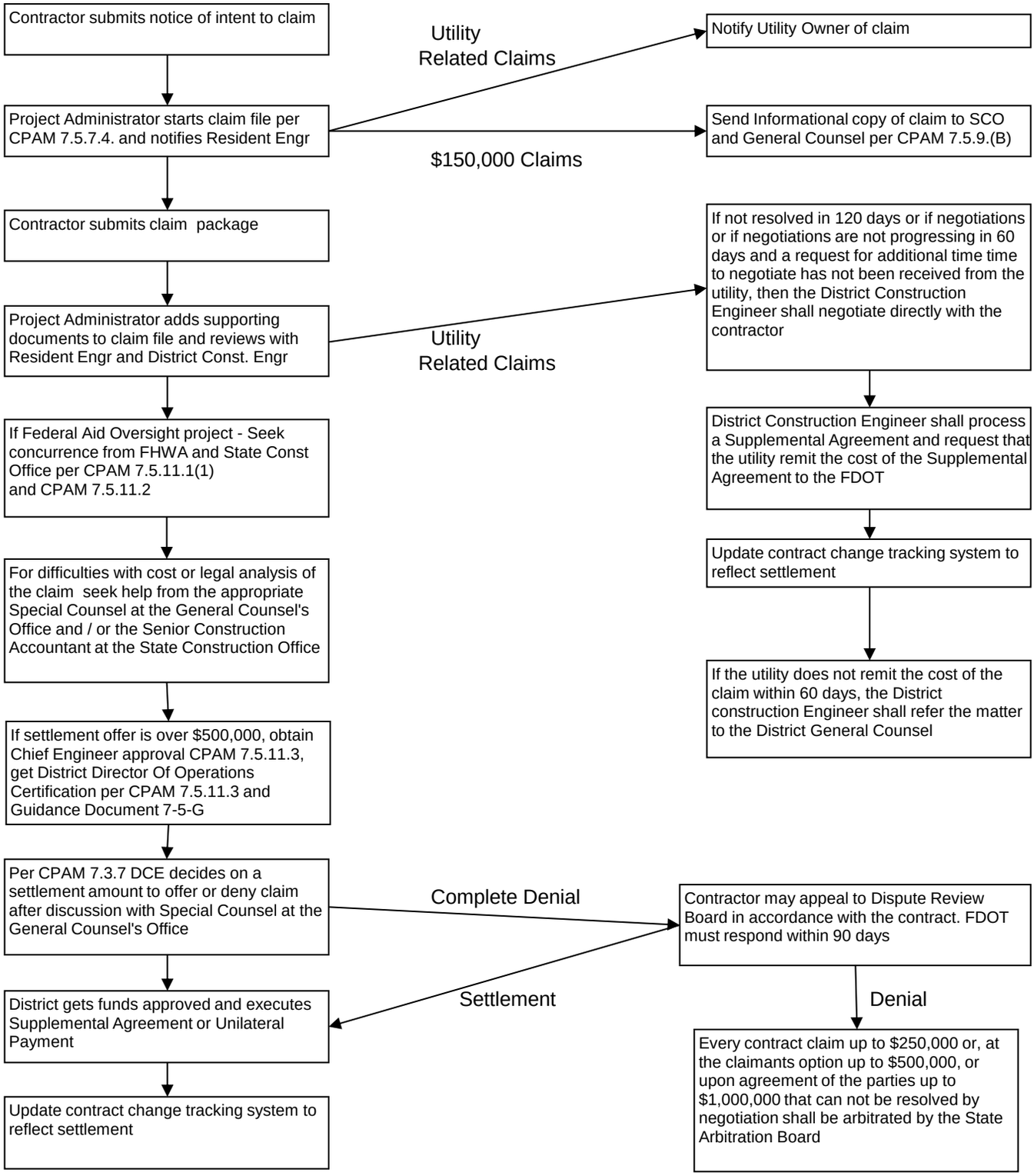
Notary Signature

Commission Expires on _____, XXXX.

Distribution: District Federal-Aid Coordinator (on Federal-Aid contracts only)
All contract claims files mentioned in CPAM Section 7.5.7.4
Attach to all copies of the contract change used to pay the claim settlement which are distributed with back-up documentation

03/01/12

Attachment 7-5
CONSTRUCTION CLAIMS FLOWCHART



Section 7.6

CONTRACTING FOR GOVERNOR DECLARED EMERGENCIES

7.6.1 Purpose

To establish a uniform procedure for the initiation, execution and administration of emergency contracts and to standardize the Department's responses to contractors related to impacts to construction projects in advance of and following natural disasters covered by Governor declared emergencies.

7.6.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

7.6.3 Reference

Title XVII, Chapter 252, F.S., Emergency Management
Sections 4-3, 7-14, 8-7 and 104-7, Standard Specifications for Road and Bridge Construction
Article IV, Section 1(a), Florida Constitution

7.6.4 Emergency Contracts

Form ***375-040-61***, ***Emergency Contract*** (herein referenced as ***H-Contract***), ***Supplemental Agreement***, ***Unilateral Payment***, ***Work Order***, or one of the Departments Standard Form Contracts with an "H" contract number, may be used to facilitate the contracting process for Governor declared emergencies as outlined in ***Emergency Procurement During Governor Declared Emergencies, Procedure No. 375-040-130***. These contract forms are available from the Department's Infonet forms site and include detailed instructions for preparation and execution.

An ***H-Contract*** can be used to provide for emergency and/or permanent restoration on existing construction contracts. The emergency and/or permanent restoration work is to be negotiated with the contractor who has the existing construction contract without the need for competitive bids. Some advantages of using ***H-Contracts*** are: facilitated tracking, reporting, records retention, and federal reimbursement from either the Federal Highway Administration (FHWA) or the Federal Emergency Management Agency (FEMA).

Emergency related contracts will need an ***H-Contract*** number, the appropriate emergency financial numbers for each activity, and are to include all of the emergency and/or permanent restoration work. Obtain the ***H-Contract*** number from the District Financial Services Office and the emergency financial number from the District Work Program Office. The ***H-Contract*** should be fully executed by both parties prior to the emergency work starting, but shall be executed prior to the expiration of the Governor's declaration. Funding for the emergency work should be encumbered by the next business day following the work beginning or execution of the contract whichever is first.

When seeking FHWA reimbursement, attach the following to the ***H-contract Supplemental Agreements***, ***Unilateral Payments***, and/or ***Work Orders***:

- ***Form 1273 – Required Contract Provisions Federal-Aid Construction Contracts*** – This form shall be attached to the ***H-Contract*** for construction related services where there is, or there is potential for, federal reimbursement. See link below:

  http://www.fhwa.dot.gov/programadmin/contracts/index.cfm

- **Wage Rate Tables** – The appropriate wage rate table shall be attached if the services being provided are subject to the U.S. Department of Labor, Davis Bacon Act. See link below:

  http://www.dot.state.fl.us/construction/Wage.shtm

A separate ***H-Contract*** may be issued with the Consultant Construction Engineering and Inspection (CCEI) managing the existing construction contract to oversee the emergency and/or permanent restoration work on existing construction contracts. Amendments to the existing CCEI contract can also be issued to oversee the emergency and/or permanent restoration work on existing construction contracts. Work is to be negotiated with the firm who has the existing CCEI contract. If these contract amendments are used, they must have the appropriate emergency financial number for each work activity to facilitate tracking, reporting, records retention and federal reimbursement (FHWA and FEMA). The appropriate emergency financial number should be obtained from the District Work Program Office.

H-Contracts related to reimbursement requests under the FHWA Emergency Relief (ER) program must be documented on a FHWA Detailed Damage Inspection Report (DDIR) to be completed by FHWA. If practical, all DDIR's associated with the ***H-Contract*** should be referenced therein.

Supplemental Agreements, ***Unilateral Payments***, and/or ***Work Orders*** can also be used for emergency and/or permanent restoration on existing construction contracts. Work is to be negotiated with the contractor who has the existing construction contract without the need for competitive bids. If these contract changes are used, they must have the appropriate emergency financial number for each work activity, and a contract change root cause reason code to facilitate tracking, reporting, records retention and federal reimbursement (FHWA and FEMA). The appropriate emergency financial number should be obtained from the District Work Program Office.

Do not use ***H-Contracts***, ***Supplemental Agreements***, ***Unilateral Payments***, **or** ***Work Orders*** to contract with a local government for reimbursable FHWA funding. Form ***350-000-15***, ***Emergency Local Government Emergency Relief Reimbursement Agreement***, is to be used for this purpose. Emergency and permanent work to be performed by a Local Government shall be in accordance with ***Emergency Procurement During Governor Declared Emergencies, Procedure No. 375-040-130***.

7.6.5 Governor Declared Emergencies

To account for the potential impacts natural disasters covered by Governor declared emergencies have on active construction projects, the following process will be utilized, pursuant to ***Specifications 7-14 and 8-7.3.2***. Suspension and resumption of operations on projects shall be implemented by the Districts on a case by case basis. No statewide closures will be implemented in advance of a natural disaster covered by a Governor declared emergency unless directed by the Chief Engineer.

1. A State of Emergency must be declared by the Governor of the State of Florida.

2. During the period of the State of Emergency, the Department elects to compensate the Contractor for the following and/or grant time extensions for the following, where the Contractor has taken every reasonable precaution to prepare for the natural disaster covered by a Governor declared emergency:

    - Damage to material that was incorporated into the projects (Federal-aid participating*; FHWA Emergency Relief (ER) eligible);
    - Damage to stored materials at the project site that would otherwise be permanently incorporated into the project (Federal-aid non-participating*; FHWA ER ineligible);
    - Reconstruction of permanent or temporary erosion control features in accordance with ***sub-article 104-7.1*** (Federal-aid participating*; FHWA ER eligible);

- Taking down and replacing Maintenance of Traffic (MOT) devices as directed by the District Construction Office (Federal-aid participating*; FHWA ER ineligible);
- Repair of damaged post-mounted MOT signs, deemed to be essential by the Engineer and damaged where left in place; and repair of damaged Changeable (Variable) Message Signs that were specifically directed by the Department to be placed on projects during the storm (Federal-aid participating*; FHWA ER eligible);
- In the days immediately preceding a natural disaster covered by a Governor declared emergency, the Department may prohibit lane closures to allow departing travelers unrestricted egress from evacuation areas. These days, up to two (2) calendar days with prohibited lane closures, would not be eligible for compensation. For any days exceeding the two (2) calendar days, the Department will compensate idle equipment and labor per ***sub-article 4-3.2*** for the days on which the contractor could have prosecuted the work but for the District directed suspension of operations (Federal-aid participating*; FHWA ER ineligible);
- In the days immediately following a natural disaster covered by a Governor declared emergency, the Department may prohibit lane closures to allow returning travelers and assistance service vehicles unrestricted ingress to evacuation areas. These days, up to two (2) calendar days with prohibited lane closures, would not be eligible for compensation. For any days exceeding the two (2) calendar days, the Department will compensate idle equipment and labor per ***sub-article 4-3.2*** for the days on which the contractor could have prosecuted the work but for the District directed suspension of operations. Each contract will be evaluated on a case by case basis and factors such as adverse conditions at the job site, loss of power, etc. shall be considered in the determination of whether the contractor could have prosecuted work (Federal-aid participating*; FHWA ER ineligible).

  * Reference to "*Federal-aid participating*" in this section refers to use of regular Federal-aid funds.

The Project Administrator and the Contractor must establish the extent of damage. The Department will pay these costs no later than the second (2nd) estimate following submittal by the contractor provided that all information and documentation requirements have been met.

No compensation will be paid to the contractor for the following items:

- Per day MOT devices not in place on a project;

- Damage to MOT devices, whether in place or elsewhere, except under the exception provided above;
- Temporary works or material damage, except under the exception provided above;
- Idle labor except as stated above;
- Idle equipment except as stated above;
- Reduced production rates due to effects of inclement weather;
- Loss of Profits; and
- Home Office Overhead, Jobsite Overhead, and any other Overhead except as stated above.

3. Pursuant to ***Specification 8-7.3.2***, the Department may grant a non-compensable time extension for the effects of the inclement weather related to the natural disaster covered by a Governor declared emergency.

   If project resources (equipment and/or personnel) documented to be allocated to critical path or controlling items of work are diverted for emergency work for other governmental agencies or for restoring water, electricity service, and signalization, the Department will grant non-compensable weather days equal to the duration those resources were reasonably diverted. For project resources that are documented to initially not be allocated to critical path but due to their diversion from the project become critical, the Department may consider granting non-compensable weather days only to the duration equal to the time documented to be on the critical path.

   For contracts with No-Excuse Completion/Milestone/Incentive dates the Chief Engineer delegates authority to the District Construction Engineers (DCE) to approve requests to modify No-Excuse Completion/Milestone/Incentive dates which are the result of natural disaster covered by a Governor declared emergency. The Director, Office of Construction shall be sent copies of all No-Excuse Completion/Milestone/Incentive dates approved by the DCE.

   All requests for modification of a No-Excuse Completion/Milestone/Incentive date which are the result of a natural disaster covered by a Governor declared emergency in excess of four (4) days must be submitted to the Director, Office of Construction for review and recommendation to the Chief Engineer for review and approval/disapproval.

   Such No-Excuse Completion/Milestone/Incentive dates will only be adjusted by the Department in its sole and absolute discretion, by action of the DCE or Chief Engineer as appropriate, based on the following criterion, and then only to the extent of whichever time calculation is greater:

a. The amount of time that serious adverse conditions existed on the project (i.e., flooding, substantial erosion, etc.); and
b. The amount of time that the Department suspended the Contractor's operations during normal (scheduled) work days (i.e., If contractor had five day work week scheduled or the contract prohibited work on Saturday and Sunday, then time will not be granted for such days).

There shall be no right of any kind on behalf of the contractor to challenge or otherwise seek review or appeal in any forum of any determination made by the Chief Engineer under this section.

4. The Contractor will be required to submit, at a minimum, the following below listed items, along with a certification under oath and in writing, in accordance with the formalities required by Florida law, that the request for compensation, time extension, or modification of a No-Excuse Completion/Milestone/Incentive date is made in good faith, that any supportive data provided are accurate and complete to the Contractor's best knowledge and belief, and that the amount of compensation or days requested accurately reflects what the Contractor in good faith believes to be well founded under the criteria provided above for consideration by the Department. Such certification must be made by an officer or director of the Contractor with the authority to bind the Contractor. Items required to be provided, and certified as to under oath and in writing, to the Department are:

a. A detailed description of the activities and justification, with associated dates.
b. A detailed cost estimate for work to be performed or actual costs for work already performed. Work should be priced based on bid items to the maximum extent possible or in accordance with ***Specification 4-3.2***.
c. If applicable, listing of labor and idle equipment present at the job site the day prior to the suspension, (including its identification number with serial number, manufacturer, year manufactured, model and description), the standby rate determined in accordance with ***Specification 4-3.2*** and the number of hours.

The above information shall be submitted no later than six weeks following the cessation of all natural disasters covered by a Governor declared emergency related impacts to the project or two weeks after Final Acceptance of the contract, whichever is sooner. A timely request is a condition precedent to any right for the Contractor to recover any time and/or compensation. Any request that fails to fully comply with the certification requirements will not be reviewed by

the Department.

5. Incorporate the following into the terms of any ***Supplemental Agreement*** issued for the purpose of compensating the contractor for impacts caused by natural disasters covered by a Governor declared emergency:

   "*Notwithstanding the provisions of paragraph 4, this **Supplemental Agreement** is entered into pursuant to applicable provisions of the contract including **Article 7-14** of the applicable **Standard Specifications**, and to the extent this Supplemental Agreement covers rebuild, repair, restore and make good costs under **Article 7-14** it is expressly accepted by the Contractor as being the result of the exercise of the Department's discretion under **Article 7-14**. Further, it is expressly understood and agreed to by the Parties that any time adjustment or sum to be paid pursuant to this **Supplemental Agreement** shall have no precedential value for purposes of constituting a basis for determining any potential future grant of time or money on this or any other project, and the facts, basis for, and particulars underlying the granting of any time or money hereunder shall also be inadmissible in any administrative, arbitration or legal proceeding arising out of this project, or any other project, for purposes of or relating to a claim of entitlement to time or money, whether as a settlement document or otherwise. The Department and the Contractor agree that the contract time adjustment, if any, and the sum agreed to in this **Supplemental Agreement** constitute a full and complete settlement of any and all issues of entitlement to either time or money and the Contractor hereby accepts the terms of this **Supplemental Agreement** as full compensation for all costs of equipment, manpower, materials, overhead, profit and delay damages and for all their costs, whether direct or indirect, whether incurred now or in the future, related to any of the issues set forth in this **Supplemental Agreement**.*"

6. All time extensions and costs paid in relation to a natural disaster covered by a Governor declared emergency shall be coded as "weather related new work, repairs, overruns or contract changes due to declared emergency". Refer to ***Section 7.3*** of this ***Manual*** for the specific reason code for each natural disaster covered by a Governor declared emergency. See link below:

   http://www.dot.state.fl.us/construction/Manuals/ManualsMain.shtm

Pursuant to ***Specification 8-7.3.2***, the Department's determination as to entitlement to time extensions related to natural disasters covered by a Governor declared emergency will be final, unless the Contractor can prove by clear and convincing evidence to a Disputes Review Board that the Department's determination was without any reasonable factual basis.

Pursuant to ***Specification 7-14***, the Department's determination as to entitlement to compensation related to natural disasters covered by a Governor declared emergency will be final and there shall be no right of any kind on behalf of the contractor to challenge or otherwise seek review or appeal in any forum of any determination made by the Department under this provision.

Applicability of this section and/or specific inclusions and/or exclusions of items that are to be compensated which are related to natural disasters covered by a Governor declared emergency can only be appealed to the Director, Office of Construction.

7. FHWA ER on Active Construction Projects:

The primary intent of this section is to address the Department's and FHWA's position on reimbursing the contractor for damages on active construction projects as a result of natural disasters covered by a Governor declared emergency. It is FHWA's position that a roadway under construction should be treated the same as a roadway with an inherent deficient condition unless a roadway segment cross section has been completed in conformance with the project's contract requirements. Therefore, FHWA generally will NOT reimburse for fixing damages on active construction projects with ER funding unless damage occurs on a segment of the roadway in which the cross section has been completed. Regular federal aid funds may still be used for the repairs provided the repair work is determined to be outside the requirements of the construction contract, thus it is not the contractor's responsibility to make the repairs at no additional cost under the contract terms.

Below is the FHWA program position for reimbursement eligibility under the ER program:

a. Only those project sites located in counties covered by the declared State of Emergency sustaining at least $5,000 in ER related damages are eligible for reimbursement.

b. In addition to FHWA making an ER eligibility determination, the FHWA District

Transportation Engineer must also determine if the repair is an Emergency Repair or Permanent Repair. Emergency Repairs are reimbursed at 100% if completed within 180 days after the event. Permanent Repairs are reimbursed at the normal pro-rata share for that particular facility (Interstate 90%, other 80%). FHWA approval must be obtained prior to performing repairs classified as Permanent Repairs. Any reimbursement request under the FHWA ER program

must be documented on a ***FHWA Detailed Damage Inspection Report*** to be completed by FHWA.

c. The following bulleted items may be eligible subject to review and approval by the FHWA District Transportation Engineer on a case by case basis:

- Damage to material that was incorporated into the projects.
- Reconstruction of permanent or temporary erosion control features in accordance with ***Specification 104-7.1***.
- Repair of damaged post-mounted MOT signs, deemed to be essential by the Engineer and damaged where left in place; and repair of damaged Changeable (Variable) Message Signs that were specifically directed by the Department to be placed on projects during the storms.

Section 7.7

Payment and Recovery of Property Damage Costs

7.7.1 Purpose

To establish a uniform procedure for the administration of property damage caused by a third-party occurring within construction projects.

7.7.2 Authority

Sections 20.23(3)(a) and 334.048 (3), Florida Statutes, F.S.

7.7.3 Reference

Standard Specifications for Road and Bridge Construction
Section 4, Article 4-4
Section 7, Articles 7-11 and 7-14

Construction Project Administration Manual
Chapter 7 Section 3
Chapter 7 Section 4

Procedure No. 225-085-002, Submission and Recovery of Property Damage Claims

7.7.4 Payment

Repair cost associated with damage to existing property and for damage to installed materials caused by known and/or unknown third parties will be determined in accordance with ***Articles 4-4, 7-11, and 7-14*** of the ***Standard Specifications for Road and Bridge Construction***. Payment for eligible repairs will be made in accordance with ***Chapter 7, Section 3*** or ***Chapter 7, Section 4*** of this ***Manual***.

7.7.5 Recovery of Property Damage Claims

Resident Level Responsibilities

The Resident Engineer will initiate recovery of Department incurred costs associated with repairs to existing property and/or installed materials caused by known and/or unknown third parties in accordance with ***Procedure No. 225-085-002, Submission and***

Recovery of Property Damage Claims. When submitting ***Property Damage Claims*** to the Office of General Counsel, the Resident Engineer shall provide contact information (i.e. Name, Address, Phone Number, Email Address) for the individual who can substantiate damages and costs and who may be contacted by the Office of General Counsel.

Upon notice of receipt and amount of recovery by the Office of General Counsel, the Resident Engineer shall coordinate an encumbrance of the necessary funds and make payment of the prorated portion of the recovery amount (as applicable) to the contractor on the next monthly estimate as a line item adjustment. Notice received after the contract is closed will require the contract to be reopened, funds encumbered, and payment of the prorated portion of the recovery amount (as applicable) made to the contractor as a line item adjustment.

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Section 8.1

FEDERAL-AID INELIGIBILITY NOTICE RESOLUTION

8.1.1 Purpose

To establish a procedure for resolving Federal-Aid Ineligibility Notices (FAIN) by the State Construction Office (SCO). Federal-Aid Ineligibility Notices are issued for numerous reasons by the Federal Highway Administration (FHWA), i.e., failure to meet specifications, work done by nonqualified personnel, skid test failure, material failure, etc.

8.1.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes

8.1.3 Resolution Process

Central Office Level Responsibilities

The following action shall be taken by the SCO after the FHWA issues a FAIN.

(1) The FAIN is referred to the affected District Construction Engineer.

(2) The State Construction Administration Specialist will work with appropriate District Construction Engineer to resolve and/or restore eligibility. Responsibility for the resolution of the FAIN is that of the District. Upon resolution, a ***Federal Aid Ineligibility Notice - Response, Form No. 700-010-62*** is filled out by the State Construction Administration Specialist and distributed as follows:

Copy - Internal Audit Manager
Copy - Federal Aid Programs Manager
Copy - Comptroller MS 42 (Federal Project Administration – Federal Bill)
Copy - District Construction Engineer (Response form only)
Copy – District Federal-Aid Coordinator
Original – Office File

Section 8.2

ENVIRONMENTAL PERMIT COMPLIANCE

8.2.1 Purpose

To assure effective compliance within all areas of environmental concern during construction projects.

8.2.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

8.2.3 Reference

Form No. 650-040-01, Permit Transmittal Memorandum

8.2.4 Review

The Project Administrator shall review and be familiar with all contract documents for the project and the project site including all natural features protected by federal and state regulations.

8.2.5 Preconstruction Conference

Project Administrator Responsibilities

The Project Administrator shall notify each outside agency and all Department offices having jurisdiction or input into areas of construction covered by project permits that a Preconstruction Conference with the contractor has been scheduled.

(1) The Project Administrator may schedule an internal meeting with Department personnel, including the District Environmental Administrator, Permit Compliance Coordinator, and District Permits Coordinator to discuss questions or concerns regarding permit requirements or project commitments prior to the Preconstruction Conference.

(2) The Preconstruction Conference shall include a comprehensive review of all permits to familiarize the Contractor with all permit requirements and conditions.

(3) The Preconstruction Conference minutes shall reflect the details of all tasks, responsibilities and discussions relating to environmental issues and copies should be furnished to all parties per ***Construction Project Administration Manual (CPAM) Chapter 3.1.7***.

8.2.6 Monitoring Regulated Activities

Project Administrator Responsibilities

The Project Administrator shall monitor all regulated activities to assure that they are conducted in accordance with the permit(s) and all permit conditions are met.

(1) When required, the Project Administrator will notify the regulatory agencies of the permitted activity start date immediately after the permitted activity begins or as directed by the permit. A copy of the notification letter will be sent to the District Permits Coordinator and the Permit Compliance Monitor.

(2) The Project Administrator will monitor all permit expiration dates for projects under construction and will advise the District Permits Coordinator at least six months prior to an applicable permit's expiration date if the permit will expire before the permitted activity is complete.

(3) Prior to final acceptance, the Project Administrator will assure that the Contractor has provided signed and sealed as-built drawings and certified surveys for surface water management systems, bridge clearances, and authorized work as directed by the permit conditions and the contract documents.

(4) The Project Administrator will notify the applicable regulatory agencies, with reference to the applicable permit(s), of the completion of permitted activities immediately after the permitted activity is completed or as directed by the permit. The Resident Engineer/Consultant Resident Engineer will sign and seal all completion/certification statements when required by the permit. The office sending the notification will send a copy of the notification letter(s) to the District Permits Coordinator.

8.2.7 Special Requirements of National Pollutant Discharge Elimination System (NPDES)

(A) Project Administrator Responsibilities

The State of Florida Department of Environmental Protection Generic Permit for Storm Water Discharge from Large and Small Construction Activities contains specific management and reporting activities. The Project Administrator must make sure that the Contractor signs the certification statement, ***Contractor Certification Preparation of Documents - NPDES General Permit for Storm Water Discharges from Construction Sites, Form No. 650-040-05)***. The Contractor and each subcontractor that is directly involved in or responsible for maintaining and placing erosion control items, including environmental sampling and testing activities, must sign the certification statement, ***Contractor Certification - NPDES General Permit for Storm Water Discharges From Construction Sites, Form No. 650-040-07)***. If the Contractor or any subcontractor refuses to comply with the requirements of the erosion control plan specification or to sign the required certifications, the Project Administrator must, notify the District Construction Engineer or designee and document all deficiencies associated with environmental compliance as described in the Contractor's Past Performance Rating System defined in ***Chapter 13.1*** of ***CPAM***. Under no circumstances must any earth be disturbed until these requirements are met.

The Project Administrator will verify that the Contractor posts a copy of the Notification of Permit Coverage and copies of other applicable permits in a prominent location on the construction site for public viewing in accordance with permit requirements and conditions.

The Project Administrator is responsible for verifying that all deficiencies identified and documented on the ***Daily Work Reports*** are corrected by the Contractor in a timely manner and in accordance with the permit requirements and the applicable specifications.

The Project Administrator will send a copy of the ***Notice of Acceptance of Construction***, if applicable, and the ***Notice of Completion of Construction*** to the District Environmental Permit Coordinator.

(B) Construction Engineer Responsibilities

The District Construction Engineer will furnish a copy of the signed and completed ***Storm Water Pollution Prevention Plan (SWPPP)*** and certification statements to the District Permits Coordinator.

The District Construction Engineer should notify the District Permits Coordinator of any changes in the project that may have a significant effect on the potential for discharges of pollutants to waters of the State. The following situations may require amendments to the SWPPP and notification to the District Permits Coordinator for possible permit modifications:

1) Significant changes in design, construction, operation, or maintenance activities;

2) Addition of new, or changes in location of, existing discharge points (outfalls) to waters of the state when controls identified in the plan prove to be ineffective in preventing or controlling discharges of pollutants; or

3) Identification of a new Contractor or subcontractor(s) who will implement a part of the ***SWPPP***.

8.2.8 REPORTING AND ENFORCEMENT

(1) Environmental issues that arise or are discovered during construction, whether or not covered by the contract documents, shall require immediate attention and action.

a) If environmental noncompliance conditions are discovered (such as runoff causing silting, etc., of environmentally sensitive or protected areas, or violations of permit general or specific conditions) and the Contractor does not immediately take action to correct the problem, a stop work order should be issued to the Contractor for those activities causing the problem. The Project Administrator should notify the Resident Engineer, District Environmental Administrator, District Permits Coordinator and the appropriate Regulatory Agency immediately upon discovery of the violation. After consulting with the Resident Engineer and the District Environmental Administrator if available, a stop work order should be issued no later than 48 hours after discovery of the violation if the Contractor fails to implement corrective actions or if otherwise deemed appropriate.

b) The Project Administrator should seek an effective solution by requesting assistance from the District Permits Coordinator, District

Environmental Administrator and any other district unit or local or state agency responsible for that function.

(2) If the Contractor fails to comply with any federal and state environmental regulations, including permits conditions, and does not promptly (within 24 hours) identify and correct all deficiencies on the project site, the Project Administrator will document all environmental noncompliance in the Contractor Past Performance Rating system defined in ***Chapter 13.1*** of the ***CPAM***.

Section 8.3

OPERATION WITHIN RAILROAD RIGHT OF WAY

8.3.1 Purpose

To describe requirements and procedures involving Department operations that take place within Railroad Company right of way and/or involve the construction or reconstruction of a rail or highway grade crossing and/or signals.

8.3.2 Authority

Section 334.048, Florida Statutes

Sections 7-11.5 and 7-13, Standard Specifications for Road and Bridge Construction

8.3.3 Plans for Track Embankment Protection

To obtain uniformity in administrative procedures for processing Contractor's detailed plans for track embankment protection within the railroad right of way, the following sequence must be followed.

(A) Resident Level Responsibilities

(1) The Contractor submits required plans to the Project Administrator as a result of instructions defined in plan notes and preconstruction conference.

(2) The Project Administrator submits the Contractor's plans directly to the District Structures Engineer (Design), District Geotechnical Engineer, and District Rail Office, with a copy of the transmittal letter to the District Construction Engineer.

(B) District Level Responsibilities

(1) The District Structures Engineer (Design) approves or disapproves the Contractor's plans based on the input from the District Geotechnical Engineer and the District Rail Office. If approved, the District Structures Engineer will distribute them according to District requirements. If disapproved, the plans will be returned to the Contractor for correction and reprocessing.

8.3.4 Advance Notification

(A) Resident Level Responsibilities

The Contractor shall notify the Department's Project Administrator and the District Rail Office at least 72 hours advance notice of his intent to do any work within the railroad right of way or of any operation requiring the movement of employees, trucks or other equipment across the tracks at other than a public crossing. The Project Administrator is responsible for ensuring that the Contractor adheres to the schedule established by the 72 hours advance notification.

In most cases the Railroad Company requires a 45 day advance notice prior to the Contractor performing any work within the railroad right of way due to the bidding process for flagman services. This will be stipulated in the special provisions.

8.3.5 Liability Insurance

(A) Resident Level Responsibilities

At the preconstruction conference or prior to work within the railroad right of way, the Contractor shall provide one original and one copy of the following to the Project Administrator and the District Rail Office:

- Contractor’s Railroad Protective Insurance policy
- Contractor's Certification of Public Liability and Property Damage Liability Insurance on himself and similar insurance on his subcontractors.

No work will be allowed which affects the railroad until both the railroad policy and the certificate have been approved by the Railroad Company or Companies involved for the time specified.

Section 7-13 of the ***Standard Specifications*** includes more information on insurance requirements that may apply.

8.3.6 Watchman or Flagman Services

(A) Resident Level Responsibilities

When protective services, such as watchmen or flagmen, are needed to ensure the safety of the railroad operations during Contractor activities within the railroad right of way, the

Railroad Company will furnish such services. The Department will reimburse the Railroad Company for all valid charges. Project personnel will record on the daily work report all times during which a flagman was needed and present and submit weekly to the District Rail Office.

The Contractor shall schedule work in an effort to minimize the need for protective services by the Railroad Company and as further noted in the plans.

When a flagman is being used, the Contractor shall provide, through the Project Administrator and the District Rail Office, to the Railroad Company at least 24 hours notice when the flagman's services will no longer be needed. The railroad must be given 24 hours notice or the Department will pay for the railroad's flagman until the 24 hour notice is given.

8.3.7 Advance Warning Signs, Pavement Markings, and Traffic Control Devices

All traffic control devices shall conform to the Manual on Uniform Traffic Control Devices.

During the entire period of construction operations at railroad crossings, it shall be the Contractor's responsibility to maintain in a satisfactory and clearly legible condition the advance warning signs that are normally installed by railroad or state forces (Sign No. W10-1). When such signs are not to be installed by railroad or state forces, the Contractor shall install and properly maintain adequate temporary advance warning signs furnished by the Department.

8.3.8 Reporting Requirements

(A) Resident Level Responsibilities

The ***Notice of Utility Construction Work, Form No. 700-010-48,*** has been developed for giving notification of construction work accomplished by Railroad Companies under terms of a Reimbursable Agreement. It must be used on all projects involving work by Railroad Company forces and/or their contractor. This form will be completed and distributed at the beginning and completion of reimbursable work.

The distribution as described on the bottom of the form will also include a copy to the District Rail Office. Copy numbers 3 and 4 will be forwarded to the Federal Aid Office (MS 21), which will be responsible for forwarding one copy to the FHWA.

> **Note:** Since Federal reimbursement will be withheld until pavement markings and advance warning signs are in place, it is necessary to describe the condition of those items under the "Remarks" section of the form. The Project Administrator will

arrange for the markings and signs to be placed when a highway construction project is involved.

(B) District Level Responsibilities

When the reimbursable work is being performed other than in conjunction with highway construction, the District Rail Office will coordinate the placement of markings and signs.

When the work accomplished under an agreement involves the installation of a railroad crossing protective device, it is necessary that the following information be included in the "Remarks" section of the form:

(1) Date of operational check

(2) Railroad, District Rail Office and FHWA personnel involved in the operational check

(3) Results of the operational check

Section 8.4

SHOP AND ERECTION DRAWINGS PROCESS

8.4.1 Purpose

To make Construction Engineering and Inspection (CEI) staff aware of what their responsibilities are with regard to administration of the construction project shop and erection drawing process.

8.4.2 Authority

Section 5, Control of the Work, Standard Specifications for Road and Bridge Construction

FHWA Approved: July 28, 2004

8.4.3 Responsibilities

(A) Resident Level Responsibilities

This process primarily involves the Contractor, Engineer of Record (EOR), CEI staff and the Department State and/or District Design Office and is governed by ***Standard Specification 5-1.4*** and the Florida Department of Transportation ***Plans Preparation Manual, Number 625-000-007, Volume I, Chapter 28, Shop and Erection Drawings***.

CEI staff ensure that the parties involved perform timely reviews as well as track submittals through each stage of review and approval. CEI staff should remind the Contractor that ***Specification 5-1.4*** requires the submittal of a schedule of shop drawing submittals within 60 days of the start of the contract. A standing agenda item for discussion of the status of shop and erection drawings should be part of weekly construction progress meetings. Also at the meeting, the priority of submittals should be reviewed and adjustments to priorities agreed to with the Contractor.

CEI staff shall ensure that all approved shop and erection drawings are incorporated in the final As-Built drawings where appropriate.

8.4.4 Flow of the Process

(A) Resident Level Responsibilities

The Department's ***Plans Preparation Manual Number 625-000-007, Volume I, Chapter 28, Shop and Erection Drawings, Exhibits 28-A, 28-B*** and ***28-C*** are process flow charts that start from the time submittals leave the originator to the time that approved submittals are sent to the parties that require copies. ***Exhibit 28-A*** charts the process for projects that require EOR review but do not require a review by the Department; ***Exhibit 28-B*** charts projects that require both EOR and Department review; and ***Exhibit 28-C*** charts projects that require only Department review. The Project Administrator shall consult the District Structures Design Office prior to the preconstruction conference to determine which process will apply to the project and the Contractor shall be informed of this at the preconstruction conference. For typical projects, the CEI staff receives copies of submittal transmittal letters from the groups involved in the process in order to track the progress of submittal reviews. With this arrangement, CEI staff does not receive the actual submittals until the process is complete but is aware of where they have been sent and who has possession. CEI staff shall confirm receipt of submittals by the various parties involved to track their location and review duration. The approving Engineer of Record or (when required), the Department Design Office (District or State), makes the final distribution of approved submittals.

For projects that are complex and/or have a large volume of shop drawings for which approval is on the critical path of the project, CEI staff should consider direct handling of all submittals to maintain control over the transmittal process. In this case, the Contractor would send submittals to the CEI staff and not to the Engineer of Record. The CEI staff would then transmit the submittals to the Engineer of Record and (when required) to the Department. Reviewed submittals are returned to the CEI for final distribution or return to the originator to address review comments.

8.4.5 Tracking Logs

(A) Resident Level Responsibilities

CEI staff shall maintain a current tracking log. The tracking log shall contain the following information. Other information may be added as necessary:

1) Submittal/Transmittal Number.

2) Submittal Description: Example - Seawall Layout Drawing Number 5.

3) Date the Contractor transmitted the submittal.

4) Engineer of Record review status: This is an indication of what the results of the review are, such as: Approved, Approved as Noted, Approved as Corrected, Revise and Resubmit, Not Approved.

5) Date the Engineer of Record submitted to the Department Design Office (when required).

6) Department Design Office review status (when required): This is an indication of what the results of the review are as listed in ***Item 4*** above.

7) Date the Engineer of Record or when required the Department Design Office, sent the submittal back to the Contractor.

8) Total duration of the review.

9) Comments: These may have to do with involvement of reviewers that are not usually part of the process, supplementary documents, final distribution of submittals to specific recipients, and any other information that warrants documentation due to some unique circumstance of the specific submittal being reviewed.

Section 8.5

CONTRACT DELINQUENCY

8.5.1 Purpose

To provide an efficient, uniform method for identifying, monitoring, and acting upon delinquent contracts so as to encourage Contractors to concentrate their manpower and equipment on their delinquent contracts.

8.5.2 Authority

Section 337.16, Florida Statutes (F.S.) - Establishes grounds for disqualifying Contractors from bidding on Florida Department of Transportation (Department) projects. Instructs the Department to deny or revoke the Certificate of Qualification of a Contractor receiving repeated suspensions within specified time periods. This rule also defines the additional suspension periods to be applied.

Section 120.57, Florida Statutes - Establishes the Contractor's rights to an Administrative Proceeding.

Rule 14-22.012, Florida Administrative Code (F.A.C.)

1) Allows the Department to suspend any Certificate of Qualification, prohibiting the Contractor from bidding on Department contracts regardless of the dollar amount of the bid, and from acting as a subcontractor or material supplier on any Department contract or project during the period of suspension, if the Contractor is determined to be delinquent in progress on a previously awarded contract.

2) Allows the Department to suspend any Certificate of Qualification of any Contractor who is an affiliate of a Contractor which has had its ~~a~~ Certificate of Qualification suspended, and the Contractor is dependent on the affiliate for personnel, equipment, bonding capacity, or financial resources.

3) Instructs the Department to inform the Contractor in writing of its intent to suspend the Contractor's Certificate of Qualification prior to suspending any Certificate of Qualification. This rule also defines the method of notification to be used by the Department, and the recourse available to the Contractor.

Section 14-22.0011, F.A.C. - Defines the conditions under which companies are considered affiliates of each other for purposes of this provision.

Standard Specifications, Section 8-3.2 - Failure to finalize either the initial or a revised schedule in the time specified will result in withholding of all contract payments until the schedule is approved.

FHWA Approved: July 28, 2004

8.5.3 Definitions

Allowed Contract Time: The number of days set forth in the contract plus any time extension granted by the Department under the contract specifications.

Contractor Delinquency Report: A monthly computerized listing of projects and pertinent project data for all projects which are delinquent as of the last monthly estimate of completed work.

Contractor Suspension Report: A computerized listing of Contractors whose Certificates of Qualification to bid on Department projects are currently suspended or have previously been suspended, and the number of projects/times such Contractors have had their certificate suspended either due to the delinquent condition of a project or for other reasons which constitute good cause as per ***Section 337.16, Florida Statutes***.

Delinquent Contract: The allowed contract time for performing the work has expired and the Contractor has not completed the contract work.

Delinquent Contractor: A Contractor with whom the Department has a contractual agreement for completion of the work on a delinquent contract.

8.5.4 Contractor Delinquency Report

(A) District Level Responsibilities

Delinquent contracts are identified on the ***Contractor Delinquency Report***. A preliminary ***Contractor Delinquency Report*** can be obtained by each District from the Construction Automated Reporting System (CARS). This report should be obtained immediately after each District has updated the file with the latest estimated data for progress payments to Contractors for completed work.

1) This Delinquent District contract will not appear on the ***Contractor Delinquency Report***, but must be identified and reviewed by the Districts.

2) Each District Construction Engineer or a designee (Assistant District Construction Engineer) will review the projects in their District appearing on the ***Contractor Delinquency Report***, as well as delinquent District contracts, within three (3) working days of receipt of the preliminary ***Contractor Delinquency Report***.

3) The District Construction Engineer makes recommendations for agency actions in a memorandum or electronic mail message to the Director, Office of Construction. Recommendations for actions on delinquent District contracts will be included.

8.5.5 Delinquency Notices

(A) Central Office Level Respon~~si~~bilities

Delinquency Notices for all Department construction contracts, including District contracts, will be prepared by the State Construction Office to ensure uniform and consistent criteria for those actions, and signed by the Secretary of the Department of Transportaiton since they represent final agency actions. The Secretary of the Department has delegated to the Chief Engineer the authority to sign the ***Delinquency Notice***. The ***Delinquency Notices*** will be sent via Certified Mail, "next day delivery", ***Return Receipt Requested***.

Delinquency Notices will be issued by the State Construction Office when the allowable contract time for performing the work has expired and the contract work is not complete.

8.5.6 Suspension of Certificate of Qualification

(A) Central Office Level Responsibilities

A ***Delinquency Notice*** shall inform the Contractor of the Department's intent to suspend the ***Certificate of Qualification*** of the Contractor and its affiliates to bid on Department projects.

(1) The written notice shall contain:

a) The specific facts which show that the Contractor is delinquent and which justify the suspension.

b) A statement that within ten (10) days of receipt of the notice of intent to suspend, the Contractor has the right to request an Administrative Hearing pursuant to

Section 120.57, F.S., by filing a written request with the Clerk of Agency Proceedings. The Contractor's request for hearing shall be in writing and shall be filed with the Clerk of Agency Proceedings, Mail Station 58, Haydon Burns Building, 605 Suwannee Street, Tallahassee, Florida 32399-0450 within ten (10) days of receipt of the notice of intent to suspend.

The request for hearing shall include:

- The name and address of the party making the request.
- A statement that the party is requesting a formal hearing. ***Florida Statutes*** require a formal proceeding whenever the proceeding involves a disputed issue of material fact, unless waived by all parties. Department policy is not to waive a formal proceeding in any case involving a disputed issue of material fact. All specific facts and circumstances that the Contractor believes legally excuse the unsatisfactory progress on the project.

c) A statement that the suspension shall be conclusive and final agency action if no request for a hearing is filed with the Clerk of Agency Proceedings within ten (10) days of receipt of the notice of intent to suspend.

If the Contractor fails to file a request for hearing within ten (10) days of receipt of the notice of intent to suspend, the suspension shall become conclusive and final agency action, and the period of suspension of the ***Certificates of Qualification*** of the Contractor and its affiliates shall begin on the eleventh (11th) calendar day following the Contractor's receipt of the notice of intent to suspend, and shall continue as set forth in ***Rule 14-22.012, (F.A.C.)***.

If the Contractor files a timely request for hearing, the hearing shall be held within thirty (30) days of receipt by the hearing officer of the request for hearing. The officer shall complete and submit to the agency and all parties a recommended order within fifteen (15) days after the hearing.

If the Contractor is determined to be administratively delinquent, the ***Certificates of Qualification*** of the Contractor and affiliates shall be suspended for a period as set forth in ***Rule 14-22.012, F.A.C.***, even if the delinquency is cured during the pending administrative proceedings.

The suspension shall begin on the date of the final order and run continuously for the number of days the Contractor is determined to be delinquent as set forth in ***Rule 14-22.012, F.A.C.***

8.5.7 Administrative Hearings

(A) District Level Responsibilities

The District Construction Engineer and any necessary support staff will be required to defend the Department's position at any administrative proceeding pertinent to a declaration of delinquency by the Department.

8.5.8 Period of Suspension of Certificate of Qualification

When a Contractor is declared administratively delinquent, the period of suspension of the ***Certificates of Qualification*** of the Contractor and affiliates to bid on Department projects due to a final declaration of delinquency shall be for a period of time equal to the number of days between the calendar day that the allowed contract time expired and the calendar day of conditional or final acceptance of the work by the Department plus additional days as may be required by ***Section 337.16 (1)(c), F.S.***

8.5.9 Conditions of Suspension of Certificate of Qualification

During the period of suspension of the ***Contractor's Certificate of Qualification***, the Contractor and affiliates may not bid on any Department contract, regardless of dollar amount, nor be a subcontractor on any Department contract.

8.5.10 Work Progress Schedule

(A) Resident Level Responsibilities

The Project Administrator will ensure that each Contractor submits to the Department, on a prescribed form, an acceptable work progress schedule for the project, showing in detail the working days on which he expects to begin and complete each of the various major items of work.

It is also important that when a contract time extension is granted or a significant amount of time is authorized by Supplemental Agreement, the Contractor be required to submit a revised work progress schedule for acceptance by the District Scheduling Engineer or Resident Engineer.

8.5.11 Contractor Suspension Report

(A) Central Office Level Responsibilities

The State Construction Office has developed and will maintain a file in the Construction Automated Systems Database and the list will also be posted on the State Construction Office web site in both the internet and the Department infonet which identifies Contractors whose Certificate of Qualification to bid on Department projects is currently or has previously been suspended, either due to the delinquent condition of a project or for other reasons which constitute good cause as per ***Section 337.16, F.S.***

This historical record of certificate suspensions (***Contractor Suspension Report***) will be used by the State Construction Office in administering ***Section 337.16(1)(c), F. S.***, which provides for an additional period of suspension of a ***Contractor's Certificate of Qualification*** to bid on Department projects as a result of repeated suspensions.

(B) District and Resident Level

The Construction Automated Reporting System provides instructions allowing all Districts to browse this file and to request a printout of the current ***Contractor Suspension Report***.

Section 8.6

CONTRACT DEFAULT

8.6.1 Purpose

To establish the definition of default and reasons Fla. Department of Transportation (Department) and Contractors; to establish remedies for completion of the defaulted contract; to establish cost liability and damage assessments; to establish details necessary for the pursuit of default proceedings.

8.6.2 Authority

Florida Statutes (F.S.), Sections 120.57, 334.048, 337.16(2), 337.18

Florida Administrative Code (F.A.C.) 14-22

FHWA Approved: July 28, 2004

8.6.3 Default Provision

The Department shall provide in its contracts for the determination of default on the part of any Contractor and on the part of any Surety for cause attributable to such Contractor or Surety.

8.6.4 Reasons for Default

The Department will give notice in writing to the Contractor and his Surety of delay, neglect, or default, due to reasons stated in ***Standard Specifications, Article 8-9***.

8.6.5 Recourse and Remedies

If the Contractor, within a period of ten (10) calendar days after receiving the notice described above, fails to correct the conditions of which complaint is made, the Department shall, upon written certification from the Engineer of the fact of such delay, neglect or default, and the Contractor's failure to correct such conditions, have full power and authority, without violating the contract, to take the prosecution of the work out of the hands of the Contractor and to declare the contract in default.

Upon declaration of default, the Department shall look to the Surety to provide a completion Contractor to complete the work. If the Surety refuses to complete the work, becomes unacceptable or unreliable in satisfactory completion of the work, the Department will have full power to appropriate or use any and all materials and equipment on the site which are suitable and acceptable, and may enter into an agreement with others for the completion of the work under the contract, or may use other methods which in the opinion of the Engineer are required for the completion of the work in an acceptable manner.

If after the ten (10) days notice period, and prior to any action by the Department to otherwise complete the work under the contract, the Contractor should establish his intent to prosecute the work in accordance with the Department's requirements, the Department may elect to permit the Contractor to resume the work.

A Contractor declared in default by the Department does not have hearing rights pursuant to ***Section 120.57, F. S.*** for challenging the Department's declaration of default.

8.6.6 Cost Liability

All costs and charges incurred by the Department because of the Contractor's default, including the costs of completing the work under the contract, shall be charged against the Contractor and the Surety. In case the expense incurred by the Department is less than the sum which would have been payable under the contract if it had been completed by the defaulting Contractor or the Surety, the defaulting Contractor or the Surety shall be entitled to receive the difference. In case the expense exceeds the sum that would have been payable under the contract, then the Contractor and the Surety shall be liable and shall pay the State the amount of the excess.

In the event the Department elects to permit the defaulting Contractor to resume the work, any costs to the Department incurred by the delay, or for any reason attributable to the delay, will be deducted from any moneys owed the Contractor or which may become due under the contract.

The Department shall have no liability for anticipated profits for unfinished work on a contract that has been determined to be in default.

8.6.7 Determination of Number of Days of Default

For all contracts, regardless of whether the contract time is stipulated in calendar days or working days, default days shall be counted in calendar days.

8.6.8 Liquidated Damages During Default

Should the Contractor or, in case of his default, the Surety fail to complete the work within the time stipulated in the contract, or within such extra time as may have been granted by the Department, the Contractor or, in case of his default, the Surety shall pay to the Department, not as a penalty but as liquidated damages, the amount due as determined by ***Standard Specification, Article 8-10.2***.

In case of Contractor default and completion of the work by the Department, the Contractor and his Surety shall be liable for the liquidated damages under the contract, but no liquidated damages shall be chargeable for any delay in the final completion of the work by the Department due to any unreasonable action or delay on the part of the Department.

Permitting the Contractor to continue and to finish the work, or any part of it, after the expiration of the contract time allowed, including extensions of time granted the Contractor, shall in no way act as a waiver on the part of the Department of the liquidated damages due under the contract.

8.6.9 Termination of Contractor's and Surety's Responsibility

The contract will be considered complete when all work has been completed and has been accepted by the Department.

8.6.10 Default Proceedings

(A) District Level Responsibilities

Since the primary responsibility for the implementation of the Department's transportation programs has been delegated to the Districts, each District Construction Engineer will be responsible for identifying conditions of delay, neglect, or default on the projects in his/her district. After consulting with the District Director of Operations, the District Construction Engineer will recommend that the Director, Office of Construction sends a ***Notice of Default*** to the Contractor.

The District Construction Engineer will keep the Director, Office of Construction apprised of developments on such project during the ten-calendar day periods.

(B) Central Office Level Responsibilities

In conjunction with its monitoring function to ensure uniform compliance and quality performance by the Districts, the State Construction Office will review the Districts' recommendations in regard to declaration of default, consult with legal counsel, and issue the written notice of intent to default to the Contractor and his Surety.

If the Contractor, within ten (10) calendar days after receipt of the ***Notice of Intent to Default***, does not correct the conditions of which complaint is made, final Agency action, in the form of a written ***Notice of Default***, taking the prosecution of the work out of the hands of the Contractor and declaring the contract in default, will be issued by the Chief Engineer or designee.

If the Surety becomes unacceptable or unreliable in satisfactory completion of the work, the Director, Office of Construction will issue a written Notice of Intent to Default to the Surety. And if the Surety, within ten (10) calendar days after the Notice of Intent to Default, does not proceed to correct the conditions of which complaint is made, final Agency action, in the form of a written notice of default, taking the prosecution of the work out of the hands of the Surety and declaring the Surety as unacceptable and unreliable, will be issued by the Chief Engineer or designee.

The Department shall refuse to accept as a Surety on subsequently awarded contracts to any company that it deems to be unreliable or otherwise unsatisfactory as a result of its actions on a previously awarded contract.

8.6.11 Suspension of Certificate of Qualification

Department ***Rule 14-22, Florida Administrative Code (F.A.C)*** allows the Department to suspend, for a specified period of time, or revoke, or deny for good cause, any Contractor's qualification to bid. A suspension, revocation, or denial for good cause shall prohibit the Contractor from bidding on any Department contract regardless of the dollar amount of the bid, and from acting as a material supplier, subcontractor or a Consultant on any Department contract or project during the period of suspension, revocation, or denial. Good cause shall include the Contractor default~~s~~ on any Department contract or the contract surety takes over any Department contract from the Contractor.

(A) Central Office Level Responsibilities

A notice of the Department's intent to suspend, revoke, or deny any Contractor's qualification to bid on Department contracts as a result of default on a previously awarded contract is subject to the Contractor's right to request an Administrative Hearing pursuant to ***Section 120.57, F.S.*** and Department ***Rule 14-22 F.A.C.***

(1) The written notice shall contain:

(A) The specific facts relied upon to show that the Contractor has defaulted on a Department contract, justifying the suspension.

(B) A statement that within ten (10) days of receipt of the ***Notice of Intent*** to suspend, the Contractor has the right to request an Administrative Hearing pursuant to ***Section 120.57, F.S.***, by filing a written request with the Clerk of Agency Proceedings. The Contractor's request for hearing shall be in writing and shall be filed with the Clerk of Agency Proceedings, 605 Suwannee Street, Tallahassee, Florida 32399-0450 within ten (10) days of receipt of the notice of intent to suspend.

The request for hearing shall include:

- The name and address of the party making the request.
- A statement that the party is requesting a formal hearing. Florida Statutes require a formal proceeding whenever the proceeding involves a disputed issue of material fact, unless waived by all parties. Department policy is not to waive a formal proceeding in any case involving a disputed issue of material fact.
- All specific facts and circumstances that the Contractor believes legally excuses him from the Department's determination of default.

(C) A statement that the suspension shall be conclusive and final agency action if no request for a hearing is filed with the Clerk of Agency Proceedings within ten (10) days of receipt of the notice of intent to suspend.

(D) If the Contractor fails to file a request for hearing within ten (10) days of receipt of the notice of intent to suspend, the suspension shall become conclusive and final Agency action.

(E) If the Contractor files a timely request for hearing, the hearing officer shall hold a hearing within thirty (30) days of receipt of the request for hearing. The officer shall complete and submit to the Agency and all parties a recommended order within fifteen (15) days after the hearing.

8.6.12 Contractor Suspension Report

A Defaulted Contractor who's Certificates of Qualification has been suspended or revoked, and unacceptable Sureties will be shown in the computerized Contractor Suspension file being maintained by the State Construction Office in the Construction Automated Systems Database.

Section 8.7

CONTRACTOR NON-RESPONSIBILITY FOR CONSTRUCTION CONTRACT

8.7.1 Purpose

To provide guidance for complying with Florida Administrative Code Rule 14-22.0141, Contractor Non-responsibility.

8.7.2 Authority

Section 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

8.7.3 References

Section 337.16(2), F.S.

Rule 14-22.0011 and 14-22.0141, Florida Administrative Code (F.A.C.)

8.7.4 General

The Department considers Contractor performance on construction contracts to be a critical issue. On construction contracts of $250,000 or less, all Contractors are presumed to be responsible Contractors and allowed to bid if and only if they comply with requirements that are included in the bid package. Contractors who demonstrate an inability or unwillingness to comply with contract requirements in a timely and proficient manner on a project will be declared non-responsible, and their bidding privileges suspended. The Department will review the performance of each Contractor on construction contracts of $250,000 or less and prepare a ***Contractor Past Performance Report, Form No. 700-010-25***. If a Contractor is deemed deficient in performance, that Contractor will be suspended from bidding on all Department projects for a specified period of time.

8.7.5 Declaration of Contractor Non-responsibility

The Contractor may be declared non-responsible and bidding privileges suspended and, if applicable, Certificate of Qualification revoked when, it is determined by the Department that one of the following applies:

(a) The Contractor becomes insolvent or is the subject of a bankruptcy proceeding;

(b) The Contractor defaults on any Department contract or the contract surety takes over any Department contract from the Contractor;

(c) The Contractor is suspended for good cause from qualification to bid or denied qualification to bid by any public agency;

(d) The Contractor or affiliate(s) has been convicted of a contract crime within the jurisdiction of any state or federal court within the previous three years;

(e) The Contractor made or submitted to the Department false, or fraudulent statements, documents, or other submittals in any bid proposal to the Department, any application for a Certification of Qualification, any certification of payment pursuant to ***337.11(11), F.S.***, or in any administrative or judicial proceeding;

(f) The Contractor fails to comply with contract requirements, in terms of payment or performance record, or to timely furnish contract documents as required by the contract or by any state or federal statute or regulation;

(g) The Contractor wrongfully employs or otherwise provides to any employee or officer of the Department compensation or any pecuniary or other benefit with the intent to influence the employee or officer's official action or judgment;

(h) The Contractor is an affiliate of a Contractor whose certification of qualification has been suspended or revoked and the affiliate is dependent upon such Contractor for personnel, equipment, bonding capacity or finances;

(i) The Contractor fails to register motor vehicles that he/she operates in this state pursuant to ***Chapter 320, F.S.***; or

(j) The Department documents instances of poor or unsatisfactory performance, deficient management resulting in project delay or poor quality workmanship as evidenced by a score of 69 or less on the Contractor Past Performance Report.

8.7.6 Determination

(A) Resident Level Responsibilities

If any of the conditions enumerated in 8.7.4 (a) through (j) occur, the Resident Engineer or his designee will review the project circumstances and facts and make a recommendation of non-responsibility to the District Construction Engineer.

(B) District Level Responsibilities

The District Construction Engineer shall review the recommendation made by the Resident Engineer and in the event of concurrence, shall make recommendations for non-responsibility actions to the Director, Office of Construction with all the project circumstances and facts included.

(C) Central Office Level Responsibilities

The Office of Construction shall review the project circumstances and facts and make a recommendation of non-responsibility. The suspension period for non-responsibility shall be determined in accordance with Rule ***14-22.012, F.A.C***.

Non-Responsibility notices for all Department construction contracts, including District contracts, will be prepared by the Office of Construction to ensure uniform and consistent criteria for those actions, and signed by the Chief Engineer, or in his absence his delegate (Director, Office of Construction). Non-Responsibility notices will be sent via Certified Mail, “next day delivery”, Return Receipt Requested.

During the period of suspension the Contractor and affiliates shall not bid on any Department contracts, regardless of dollar amount, nor be a subcontractor or a material supplier on any Department contract.

Any decision by the Department to suspend a Contractor(s) bidding privileges will be provided to the Contractor in accordance with ***Rule 28-106.111, F.A.C***. The Department’s action will become final unless a timely petition for a hearing is filed in accordance with Rules ***28-106.104, 28-106.201,*** and ***28-106.301, F.A.C.***

Section 8.8

STATE ARBITRATION BOARD

8.8.1 Purpose

To enable the personnel of the Florida Department of Transportation to effectively communicate with the State Arbitration Board. The Board was established by the Legislature to facilitate the prompt settlement of claims arising out of construction contracts.

8.8.2 Authority

Sections 334.048, 337.185, and 120.68, Florida Statutes

FHWA Approved: July 28, 2004

8.8.3 Definitions

Claim: For the purpose of this section, a claim is the aggregate of all outstanding claims.

8.8.4 General

The Board is a creation of the Florida Legislature. It is not part of the Department of Transportation and it has the authority to establish its own operating procedures. Therefore, this section includes only those activities required of Department personnel when interacting with the Board. Information and procedures are available on the Florida Transportation Builder's Association's web site, http://www.ftba.com/.

8.8.5 Consideration of a Claim

The Board will consider a claim only after the project is final accepted by the Department. The claim must deal only with disputed issues that have been submitted to the other party of the contract and could not be resolved by negotiation.
If a Dispute Review Board (DRB) was constituted for the project, only issues that were heard by the DRB may be submitted to the Board.

Statutory Law requires that the Board arbitrate every contractual claim in an amount up to $250,000 per contract or, at the claimant's option, up to $500,000 per contract or, upon agreement of the parties, up to $1,000,000 per contract. As an exception, either party to the dispute may request binding private arbitration.

(A) District Level Responsibilities

If the Department is filing a claim against a Contractor, the District Construction Engineer will make a request to the Board for an informational package. The Board will then send the forms and a copy of the procedure for initiating arbitration to the District Construction Engineer.

The "Request for Arbitration of a Claim" must be accompanied by a warrant made payable to the Board for the administrative fee established by the Board. The fee schedule is included in the procedure provided by the Board in their informational package.

The Board will set a time and date for the evidentiary hearing and notify the parties at least twenty one (21) calendar days in advance. This notice is sent to the District Director of Operations.

The Board will send a copy of the "Request for Arbitration of a Claim" package to the respondent. Normally, the respondent is the Department. If so, the package is sent to the District Director of Operations. The respondent prepares a rebuttal to the claim package and furnishes a copy to the party requesting arbitration and to each of the members of the Board ten (10) calendar days prior to the date scheduled for the evidentiary hearing. The Director, Office of Construction will be responsible for assuring the Board has an up-to-date list of Directors of Operations and their addresses.

Ascertain from the Contractor if he is going to have a legal counsel present at these proceedings. If so, immediately notify the Chief Civil Litigation Counsel in Central Office, Office of the General Counsel or the District's General Counsel to obtain representation.

The materials provided to the Board must be complete, clear and include all pertinent information.

8.8.6 Evidentiary Hearing and Order

The Board will hold an evidentiary hearing and will meet within sixty (60) calendar days to issue its written Order. The Board will deliver a copy of the Order and a certified copy of the transcript to the District Director of Operations and to the Contractor.

The Board may also transmit an invoice for the Department's prorated share of the court reporting costs. The court reporting costs are to be paid using Receiving Report and Invoice Transmittal – Contracts (RRIT), Form No. 350-060-02.

The original Order of the Board and the certified transcript are to be stored in the project files in the Resident Office.

(A) District Level Responsibilities

If the Department does not plan to appeal the Order, the District must encumber the appropriate funds to comply with the Order and prepare a final estimate to pay the amount of the order, and also specify the appropriate amount of Federal-Aid Participation. The estimate is then sent to the Contractor with a proposed acceptance letter identifying the arbitration number and amount. The Contractor signs the acceptance letter, returns it to the District Final Estimates Office and the Department pays the firm.

8.8.7 Appeal

(A) District Level Responsibilities

There is a narrow basis for appeals as defined in ***Section 120.68, Florida Statutes***. If the Department wishes to appeal the Order, the proper forum is through the District Court of Appeals. This must be initiated through your District General Counsel or the Chief Civil Litigation Counsel.

Section 8.9

CONTRACT TERMINATION

8.9.1 Purpose

To establish a uniform procedure for termination of construction contracts entered into between the Department of Transportation (Department) and Contractors.

8.9.2 Authority

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

8.9.3 Reference

Article 8-9, Standard Specifications for Road and Bridge Construction

Sections 120.57, and 337.18, F.S.

8.9.4 Termination Provision

The Department shall provide in its contracts a provision for the determination of termination of any Contractor and unacceptability of any Surety for cause attributable to such Contractor or Surety.

8.9.5 Reasons for Termination

The Department will give notice in writing to the Contractor of termination, for reasons stated in ***Standard Specifications, Article 8-9***.

A Contractor whose contract is terminated by the Department does not have hearing rights pursuant to ***Section 120.57, Florida Statutes***.

8.9.6 Termination Proceedings

(A) District Level Responsibilities

Since the primary responsibility for the implementation of the Department's transportation programs has been delegated to the Districts, each District Construction Engineer will be

responsible for identifying conditions meriting termination on the projects in his/her District. After consulting with the District Director of Operations, the District Construction Engineer will recommend that the Director, Office of Construction send a Notice of Termination to the Contractor.

(B) Central Office Level Responsibilities

In conjunction with its monitoring function to ensure uniform compliance and quality performance by the Districts, the Director, Office of Construction will review the District's recommendations of termination, consult with legal counsel, and provide a recommendation to the Chief Engineer.

The Secretary of Transportation appoints the Chief Engineer as a designee to issue a Notice of Termination of contract.

The Chief Engineer, based on the recommendations of the Director, Office of Construction, will issue the written notice of termination of contract to the Contractor and its Surety.

After the issuance of the Notice of Termination of Contract, the Office of Construction will distribute copies of such notice to the Contractor, Contractor Surety Company, District Construction Engineer, Comptroller, General Counsel, and other appropriate personnel.

Section 8.10

NOISE AND VIBRATION ABATEMENT

8.10.1 Purpose

To set forth an internal procedure for monitoring contractor's performance in controlling noise and vibration in compliance with the Contract Documents and applicable Laws.

8.10.2 Authority

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

8.10.3 REFERENCES

Section 335.17 Florida Statutes (F.S.)
Title 23, Part 772, Code of Federal Regulation
Section 108, Standard Specifications

8.10.4 General

This chapter emphasizes the enforcement of contract provisions requiring Districts and the State Construction Office to conduct Quality Assurance (QA) reviews of noise and vibration issues during construction.

8.10.5 Definitions

For the purpose of this procedure, all references to the Project Administrator (PA), the Resident Engineer (RE) or the Project/Program Manager (PM) who oversee Consultant CEI shall be either Florida Department of Transportation (Department) or Consultant personnel, whichever is applicable.

8.10.6 Resident Level Responsibilities

The RE (or PA) shall review the project construction schedule and the nature of the activities

generating noise and/or vibration, which may disturb residents or businesses in the area. Some Contracts include Special Provisions, Technical Special Provisions or Plan notes requiring special monitoring for noise and/or vibration, settlement monitoring as well as pre-construction and post-construction surveys of adjacent buildings. Also, there may be working time restrictions (for example, night or weekend work). The RE, PA, and the inspection staff should review and become familiar with these documents. The RE (or PA) shall ensure the Contractor performs the monitoring and inspection requirements indicated in the Contract Documents.

The RE (or PA) shall ensure that the Construction Inspection ***QC Critical Requirements*** are met. The ***QC Critical Requirements*** are located at the following web site:

http://www.dot.state.fl.us/construction/CONSTADM/guidelist/CriticalReq/CriticalRequirement1314.shtm

The RE (or PA) shall document any complaints received during construction. Documentation should include, at a minimum:

a. The nature of the complaint.
b. The name and address of the individual making the complaint.
c. The area affected by the problem.
d. The type of construction operation generating the noise and/or vibration.

Upon receiving any noise or vibration complaint including verbal complaints, the RE (or PA) shall promptly request the Contractor to address it. In addition, the RE (or PA) shall:

a. Make sure the Contractor documents the alleged damage and addresses it.
b. If necessary, request the Contractor to measure and record noise and/or vibration levels, and conduct settlement monitoring.
c. Review and file any documentation and monitoring report submitted by the Contractor or Contractor's specialty consultant.
d. Document any remedial action or modification to the Contractor's construction methods.

The RE (or PA) shall review any repeated noise or vibration complaints or any patterns of noise and vibration complaints including verbal complaints, particularly if the complaints are widespread or if a change of construction method is being proposed by the Contractor. The RE (or PA) shall also consider scheduling noise and/or vibration monitoring during construction operations utilizing a specialty consultant or the District Materials Office. Conduct the monitoring at noise and/or vibration sensitive sites or during specific operations

for which complaints have been received. In addition, the RE (or PA) shall document any remedial action or modifications undertaken by the Contractor to its construction methods or schedule.

The RE (or PA) shall also contact property owners and arrange access to a property for inspection by the Contractor. The RE (or PA) shall prepare letters on behalf of the Department and deliver them to the property owners to allow inspection by personnel engaged by the Contractor. These letters shall be sent via Certified Mail. Property Inspection will be required in the following instances:

- To investigate a complaint by an owner that Contractor's activities have impacted or are impacting a property.
- To perform the inspections required in accordance with subarticle 108-2.1.4 of the Standard Specifications.

The RE (or PA) shall maintain, in the project files, the letters requesting access to properties and any responses received from the property owners in the project files. When an owner does not respond to a certified letter, the RE (or PA) shall document, in the project files, all attempts made to contact the owner to procure access to the property, including information showing whether the owner responded to the Department's requests.

8.10.7 District Level Responsibilities

The District Construction Office (DCO) shall perform QA reviews of the Residencies to verify that the Contractor is in compliance with all Contract Documents and with all applicable laws and commitments relating to noise and/or vibration mitigation. The DCO shall notify other appropriate State Agencies in the event of complaints or non-compliance.

8.10.8 State Construction Responsibilities

State Construction Office shall perform Process Reviews of the Districts periodically.

Section 8.11

CONTRACTOR INITIATED SUBMITTALS

8.11.1 Purpose

The purpose of this section is to provide a standard procedure for the processing of Contractor initiated submittals related to the following issues: interpretation of the Contract Documents, notification of Contract Document errors or omissions and pay adjustment or entitlement; modification of Contract Documents initiated by the Contractor; and correction of noncomplying work.

8.11.2 Authority

FHWA Approved: March 18, 2009

Section 20.23(4)(a), Florida Statutes

Section 334.048(3), Florida Statutes

Section 336.045, Florida Statutes

8.11.3 General

Contractor initiated submittals are routinely received by the Florida Department of Transportation during a construction project and pertain to a variety of issues that fall into three general categories: (1) Request for information (RFI), (2) Request for modification (RFM), and (3) Request for Correction (RFC). Refer to ***CPAM Introduction*** for the definition of these categories. It is the responsibility of the Construction Engineering and Inspection (CEI) staff (consultant or in-house) to process these submittals in a timely and efficient manner and to track the stages of the process through issuance of an official response. These submittals shall be labeled as RFI, RFM or RFC on correspondence and in tracking logs. A description of the process for each of the three categories follows as well as a description of how submittals shall be tracked. The steps of the submittal process from start to finish for all three categories may vary to a minor degree; however, the contents of a routine tracking log presented in ***CPAM Section 8.11.7*** include items that are typical of the process and that cover most of the situations that arise.

For an RFI, RFM, or RFC concerning design related issues of a Category 1 bridge (see ***CPAM Section 10.10*** for a Category 1 definition) that require recommendations by the Engineer of Record (EOR), the District Structures Design Engineer must be given the option to review any EOR recommendation, by an EOR established deadline, prior to finalizing any response back to the Contractor and CEI staff must verify that this takes place. The District Structures Design Engineer's failure to respond on or before the deadline, unless an extension is requested, shall signify that the District Structures Design Engineer chooses not to review.

8.11.4 Request for Information (RFI)

RFI's pertain to issues that are usually not the responsibility of the Contractor to resolve such as errors or omissions in the contract documents caused by the Engineer of Record (EOR) or by any number of Department offices involved in preparing the contract documents. There are three general types of RFI's and a description of each follows. Under certain circumstances, as specified below, the PA may respond to the Contractor without consulting with others such as the EOR or Department staff if there is no doubt about the accuracy of the response. However, in most cases or if there is doubt, the PA shall consult with the EOR or Department employees including but not limited to the Construction Project Manager, Resident Engineer/Operations Center Manager or experts in the following offices: District Construction, District Structures Design, District Roadway Design, District Materials, State Construction and State Materials. Under certain circumstances, resolution of the RFI will require a Supplemental Agreement in order to formally revise the contract documents due to errors, omissions or conflicts.

(1) Contract Document Interpretation: When a provision, detail or drawing in the contract documents seems to have more than one meaning, have an unclear meaning or have conflicts between plans and specifications, in the opinion of the Contractor, the Contractor shall submit a request to the PA for interpretation of the issue by the Department. The PA may respond back to the Contractor without consulting with others such as the EOR or Department staff if there is no doubt about the accuracy of the response; otherwise, the individuals or offices listed above shall be consulted. For the interpretation of a non-design related structures technical matter involving complex superstructure members or complex issues (see ***CPAM Section 10.10*** for definitions of complex members and issues) for a "Category 2" bridge, the State Construction Structures Engineer (SCSE) of the Office of Construction shall be consulted to provide the proper interpretation for the Department (see ***CPAM Section 10.10*** for details). For a design related interpretation concerning a Category 2 complex superstructure member or complex issue, the EOR shall be the first point of contact and the SCSE shall be given the option to review any EOR recommendation, by an EOR established

deadline, prior to preparation of a response back to the Contractor. The SCSE's failure to respond on or before the deadline, unless an extension is requested, shall signify that the SCSE chooses not to review. If the Contractor disagrees with the response then additional cycles of submittal and response may be required in order to come to final resolution of the issue. This process may lead to a Supplemental Agreement in order to officially change the contract document in question, to Dispute Review Board (DRB) action or to a claim.

(2) Contractor Identified Errors, Omissions or conflicts: When the Contractor identifies errors, omissions or conflicts in the contract documents that may impact the project then they shall be identified in a Contactor submittal sent to the PA for resolution by the Department. This type RFI submittal by the Contractor will not be considered "***Notice of Claim***." ***Notice of Claim*** must be submitted in accordance with ***Specification 5-12.2***. The PA shall consult with the appropriate individuals or offices identified above in order to determine if there really is an error, omission or conflict and if there is, a supplemental agreement to officially revise the contract documents to correct the error, omission or conflict may be required. The Department may not agree that there is an error, omission or conflict which may lead to additional cycles of submittal and response, to DRB action or to a claim.

(3) Pay Adjustment or Entitlement: The Contractor may be entitled to an adjustment of pay or be entitled to pay not previously authorized. When the Contractor identifies one of these cases, a request shall be submitted to the PA that identifies the pay issues in question. The PA may respond back to the Contractor without consulting with others, such as the District Final Estimates Office, if there is no doubt about the accuracy of the response otherwise the appropriate individuals or offices listed above shall be consulted. The Department may not agree that there is a pay issue which may lead to additional cycles of submittal and response, to DRB action or to a claim.

8.11.5 Request for Modification (RFM)

The Contractor may be of the opinion that the contract documents can be modified in order to provide a benefit to the Contractor **without diminishing the performance or durability of the finished work** or the Contractor may chose to initiate a CSIP. If possible, the Contractor should discuss this with the PA prior to a formal submittal of the modification proposal and based on this discussion the PA shall consult with the appropriate experts that are listed in ***CPAM Section 8.11.4*** in order to determine if the Department is receptive to the modification. For a modification related to a non-design technical structures issue involving complex superstructure members or complex issues of a Category 2 bridge, the SCSE of the Office of Construction shall be consulted to determine whether or not the

Department will even consider a modification (see ***CPAM Section 10.10*** for details). If the complex superstructure member or complex issue is design related then the EOR shall be the first point of contact for a recommendation related to consideration of the modification and the SCSE shall be given the option to review any EOR recommendation, by an EOR established deadline, prior to preparation of a response back to the Contractor. The SCSE's failure to respond on or before the deadline, unless an extension is requested, shall signify that the SCSE chooses not to review.

If the Department is receptive to the modification then the Contractor shall submit the modification proposal along with supporting documents to the PA for processing. The PA shall transmit the proposal package to the appropriate experts for review and response. If the proposal is related to a non-design technical structures matter involving complex superstructure members or complex issues for a Category 2 bridge, the SCSE shall be the first point of contact for formulating a response to the proposal in accordance with ***CPAM Section 10.10***. If the matter concerns a Category 2 complex superstructure member or complex issue that is design related then the EOR shall be the first point of contact for formulating a recommendation and the SCSE shall be given the option to review any EOR recommendation, by an EOR established deadline, prior to the official transmittal of the response to the Contractor. The SCSE's failure to respond on or before the deadline, unless an extension is requested, shall signify that the SCSE chooses not to review**.** Department experts involved with the review may request additional supporting information from the Contractor in order to be able to make a final decision on the proposal and there may be multiple cycles of submittals as a result. The final decision about whether to approve or disapprove the modification rests with the District Construction Engineer. If the modification is approved then a supplemental agreement must be processed to officially reflect the changes to the contract documents.

8.11.6 Request for Correction (RFC)

When either the Contractor or the Department identifies noncomplying work that is the fault of the Contractor and that is not an elemental material issue such as that covered by ***CPAM Section 5.8*** *and* ***Specification 6-11***, then the Contactor shall submit a request for correcting the noncomplying work. Noncomplying work can be caused by Contractor mistakes or by damage and include some of the following examples: defective concrete or steel components such as beams and piles caused by fabrication or production errors; chipped, spalled, cracked, dented or gouged components caused by mishandling; or electrical and mechanical devices that fail to function or perform as specified. The Contractor's correction request shall include supporting documents that may require the involvement of the Contractor's Engineer of Record or a Specialty Engineer and shall be submitted to the PA for processing.

For issues related to structural steel and miscellaneous metal products or for prestressed/precast products, the supporting documents shall include the required ***Nonconformance/Noncompliance Report (NCR)*** (see ***CPAM Introduction*** for a definition of NCR). The PA shall transmit the request package to the appropriate experts for review and response If the damage or defect involves complex superstructure members, components or elements for a Category 2 bridge, the EOR shall be the first point of contact for formulating a response to the request in accordance with ***CPAM Section 10.10*** and the SCSE must be given the option to review any EOR recommendation, by an EOR established deadline, prior to the official transmittal of the response to the Contractor. The SCSE's failure to review on or before the deadline, unless an extension is requested, shall signify that the SCSE chooses not to review**.** Supplemental sampling, testing, surveying and data collection may be required by Department experts involved with the review and additional supporting information may be requested from the Contractor in order to be able to make a final decision on the request and there may be multiple cycles of submittals as a result. The final decision about whether to approve or disapprove the request shall be made by the District Construction Engineer after considering the recommendations of the EOR and the various supporting offices.

8.11.7 Tracking Logs

The CEI staff shall monitor the progress of Contractor initiated requests by maintaining a continually updated tracking log using an electronic spreadsheet. The spreadsheet should have the appropriate project identification information at the top of the sheet and should be entitled ***Contractor Initiated Submittal Log***. The preferred practice is that each submittal type (RFI, RFC, RFM) have an individual spread sheet; however, all three types of submittals may be tracked on the same spread sheet, but if so, there shall be a spread sheet column entitled "Submittal Type." CSIPs shall be identified as such in the RFM log. The tracking information for each request received from the Contractor should be entered on the spread sheet in an individual row: one request, one row. If the reviewers of the request require the submittal of a significant amount of additional information then the resubmitted information should be treated as a new request with its own row. A spreadsheet shall contain the information that follows for the typical submittal process; however, depending on the project and submittal type more or less information may be appropriate as determined by the CEI staff.

1) **Submittal Type:** Enter RFI, RFM or RFC – this column is not required if an individual spread sheet is used for each submittal type.

2) **Request (RFI, RFM or RFC) Number:** A unique sequential number assigned by the CEI staff that identifies the request for ease of tracking.

3) **RFI, RFM or RFC Number:** An identification number assigned by the Contractor for internal tracking purposes.

4) **Reason for the Request:** Provide a brief reason for the request.

5) **In Reference to What Contract Document?** If the request refers to a contract document then its type (standard specification, special provision, standard index, plans sheet, shop drawing, etc.) and identifier (specification number, sheet number, etc.) shall be listed.

6) **Resulted in a plans revision?** If the resolution of the request results in a plans revision then a YES or NO shall be entered along with the revision number which reminds CEI staff to verify that the revision has been reflected in the as-built plans.

7) **Date of Request:** The date on the request as entered by the Contractor and which will usually be the date of mailing or transmittal by the Contractor to the CEI staff.

8) **Date Received:** The date that the CEI staff received the request from the Contractor.

9) **Reviewer Identification:** If the CEI staff consults with other reviewers then list reviewer names and, if they work for the Department, the name of the office they work in, or if they work for a consultant, the name of the firm for which they work.

10) **Date to Reviewer:** The date that the CEI staff sent the request or other information to reviewers (EOR, Department Offices, special consultants, etc.).

11) **Date from Reviewer:** The date that the CEI staff received responses from reviewers.

12) **FDOT Approval Date and Name:** The date that a Department official (include the Official's name) approved the response to the Contractor's request as prepared by the CEI staff.

13) **Contractor Preferred Response Date:** A Contactor established date before which a response to the request is desired by the Contractor from the Department and which should be based on legitimate constraints in the approved schedule. The Contractor should not establish a date that requires a quick response if the decision will not impact an event that is scheduled months or years in advance of the request.

14) **Response Date:** The date the CEI staff sent the Department's response to the Contractor.

15) **Elapsed Time:** Time in days from the "Date Received" to the "Response Date."

16) **Response Description:** A brief description of the Department's response to the Contractor's request including the reasons for approving or disapproving the request.

17) **Party in Control of the Response:** The name of the party (EOR, Department reviewer, Consultant reviewer, approving official) that is in control of the request because the CEI staff is awaiting their response and which includes CEI staff members. This field may change often during the response preparation period.

Section 8.12
JOINT PARTICIPATION AGREEMENTS (JPA)/UTILITY WORK BY HIGHWAY CONTRACTOR'S AGREEMENT (UWHCA)

8.12.1 PURPOSE

This procedure outlines the District Final Estimates Office (DFEO) personnel's responsibility with the different entities known as the Utility Agency Owners (UAOs) that do business with the Department. To avoid duplication of text, this procedure will refer you to the necessary websites for the appropriate information on paid off status, refunds, review and approval of a Tentative Acceptance Agreement (TAA), etc. between these UAOs and the Department.

8.12.2 AUTHORITY

Section 339.135(6) (a), Florida Statutes (F.S.)

8.12.3 DEFINITIONS

Tentative Acceptance Agreement (TAA): An agreement to partially refund a Utility Agency Owner for an over estimated deposit on a utility project.

Non PTO: Non Public Transportation Office.

Boilerplate Language: Standard pre-approved financial provision language.

8.12.4 REFERENCES

ProcedureNo.350-020-300, Locally Funded Agreements (LFA) (Non PTO) Financial Provisions and Processing- Office of Comptroller.

Procedure No. 350-020-301, Financial Provisions For Joint Participation Agreements (Non PTO) Office of Comptroller.

Procedure No. 350-020-305, Partial Utility Refund/ Tentative Acceptance Agreement (TAA), Office of Comptroller.

Local Funded Agreements Handbook – Office of Comptroller.

Procedure No. 700-050-005, Review & Administration Manual

8.12.4 SCOPE

This procedure will be used by Construction, Final Estimates, Office of Comptroller, General Accounting Office (OOC-GAO), and UAO personnel who are charged with the responsibility of documenting and verifying tentative final pay quantities related to the utility project and processing appropriate documentation to determine if a refund from any excess funds on deposit from the UAO is warranted.

8.12.5 BACKGROUND

In order to expedite construction projects, the Department may let utility projects with the Construction Contractor's Contract. By ***Florida Statute*** (***Section 339.135 (6) (a) F.S.***), UAO's are required to deposit their share of the cost of doing the utility work prior to awarding the Contract. Historically, refunds of any excess deposit (deposited amount less recorded costs of the utility work including allowances) to the UAO did not usually occur until completion of the entire Construction Contract (longer in duration than the time required for the utility work). This procedure will refer you to the proper links to establish the necessary steps to follow, and to allow the refund of the utility participant's portion of any excess deposit before completion of the entire Construction Contract.

8.12.6 GENERAL INFORMATION

Prior to 2001, all utility agreements were labeled Joint Participation Agreements (JPA). Today, JPA's are stand-alone Contracts between the Department and another entity. Pursuant to these JPA's, the Department will reimburse the participant for the work the participant performed. TAA's will not be submitted for the completion of a JPA. Use the standard financial provisions to reimburse the participant for the work the participant performs. JPA's are to be processed in accordance to the ***Contract Funds Management Approval Manual*** and the ***Disbursement Handbook***. Any reimbursement agreement drafted without the standards financial provisions from Office of Comptroller - ***Procedure No. 350-020-301 – Financial Provisions for Joint Participation Agreements (Non PTO)*** shall be considered a modified agreement. All modified agreements must be submitted to the Department's Comptroller or designee for approval.

See ***Procedure No. 350-020-301*** ***Financial Provisions for Joint Participation Agreements (Non PTO)*** for modifications to standard financial provisions, submittals, etc.

There are many types of JPA's that are available: An LFA is a type of a JPA. (If the Department receives an estimated amount of money from the participant prior to work, it is an LFA. If money is not received from the participant, it is not considered an LFA.) The OOC-GAO LFA Section only processes LFAs.

8.12.6.1 Locally Funded Agreement (LFA)

On LFA's, local funds are deposited with the Department in order to fund the project specified in the agreement, and because LFA projects are essential to the production of the Department's Work Program; financial provisions in the agreement establish criteria (boilerplate language) for the deposit and maintenance of the funds to be used for the project.

TAA's are used only when the UAO contacts the District, and asks to be partially refunded. After receipt of all the necessary documentation, a review will be performed by the District Final Estimates Manager (DFEM) in accordance with the Review & Administration Manual (R & AM). The Department's DFEM should then sign the TAA and forward the agreement and a copy of the latest progress estimate to the Department's District Utility Office (DUO). After the DUO's review, the original TAA with a cover letter and the copy of the progress estimate is then sent to the Office of Comptroller – GAO LFA Section. For further information, see ***Procedure No. 350-020-305 - Partial Utility Refund/TAA***.

See Procedure No. 350-020-300 - Locally Funded Agreements (Non PTO) Financial Provisions and Processing for guidance on how to process an LFA.

Note: It is also recommended that you refer to the ***LFA Handbook***. This handbook goes into detail explanations on LFAs, it provides you with the necessary contact persons for questions, and provides the necessary forms needed, and more.

The Districts are advised to contact their District JPA-LFA Coordinator for any information before they contact the DOT Office of Comptroller.

Section 8.13

PIPE INSPECTION, EVALUATION AND REPAIR

8.13.1 Purpose

To establish a standard procedure to ensure consistent review of all post installation pipe inspections associated with construction projects.

8.13.2 Authority

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

8.13.3 Reference

Section 430 of the Standard Specifications for Road and Bridge Construction

8.13.4 Review

The Project Administrator (PA) will review all of the equipment, inspection, and reporting criteria for the post installation pipe inspection to ensure compliance with the Standard Specifications. Prior to final acceptance, the PA will evaluate the nature and severity of any observed defects and provide the Contractor with the Department's perspective on pipe repairs.

8.13.5 Preconstruction Conference

Project Administrator Responsibilities

The PA, or their delegate, shall provide a comprehensive review of the equipment, inspection, and reporting criteria found in Section 430 of the Standard Specifications to familiarize the Contractor with all of the requirements for the post installation inspection. Discussion topics should include:

(1) Providing certification statements to the Department from the Contractor doing the work that the laser profiling and measurement technology is in compliance with the calibration criteria found on the Department's website.

(2) Discussion of all components of the pipe inspection report to be submitted to the Department.

(3) Providing the Department with a video report in the correct format and resolution.

(4) Providing the Department with video images that are clear, easy to review, and correctly identified with their respective project number, structure number, pipe type, and size, and any notes associated with the inspection.

(5) Ensuring that the video camera moves through all pipe runs at the speed designated in the Standard Specifications and that all defects are documented in their entirety.

8.13.6 Report Review, Evaluation and Repair Guidance

Project Administrator Responsibilities

The PA, or their delegate, is responsible for reviewing and evaluating the laser profiling and video inspection reports as well as any proposed repair methods submitted by the Contractor. The PA must ensure that each component of the pipe inspection and repair process is in compliance with the Standard Specifications and completed before the culvert installation can be accepted.

8.13.6.1 Report Review

The PA is responsible for ensuring that the report submitted by the Contractor meets the criteria found in Section 430 of the Standard Specifications before any defects are evaluated. If the Contractor fails to submit the necessary certifications or reporting requirements, the PA is responsible for contacting the Contractor to inform them that their submittal does not meet the Standard Specifications. The PA should be able to provide a list of deficiencies for the Contractor to review. Once any reported deficiencies have been resolved, the PA can evaluate it for pipe defects.

8.13.6.2 Report Evaluation

When evaluating defects found in pipe inspection reports, the PA must consider the following policy previously set forth by the Department:

(1) Cracking in concrete pipe: The Department relies on both the American Society for Testing and Materials (ASTM) C 76 and the America Association

of State Highway and Transportation Officials (AASHTO) Load and Resistance Factor Design (LRFD) Chapter 27 when evaluating cracks in concrete pipe. Cracks less than 0.01" in width and less than 12" in length should be recorded as an observation but are not candidates for repair unless there is evidence of active infiltration. Any crack exceeding the length and width tolerances must be evaluated by a Specialty Engineer as being acceptable or in need of repair.

(2) Stains in pipe: Stains in concrete pipe are not considered a defect in need of repair unless the stain, is associated with a crack in excess of the tolerances referenced in ASTM C 76 and AASHTO LRFD Chp. 27, is associated with active infiltration regardless of its location or size of crack, or it's associated with any other defect eligible for repair. Stains in aluminized steel pipe shall be evaluated to determine the presence of damage to the aluminized coating. Stains in thermoplastic pipe shall be evaluated to determine the presence of cracking.

(3) Infiltration: The Standard Specifications require that Storm, Cross, and Gutter drains be water tight to 5 psi. If the Contractor has a leaking pipe, and states that the infiltration does not need to be repaired, he must demonstrate that the head pressure generated by the height of the water table exceeds that 5 psi requirement found in the Standard Specifications. If the water table head pressure does not exceed 5 psi at the top of the pipe then all infiltration must be repaired.

(4) Joint gaps in optional pipe materials: The Standard Specifications do not have joint gap tolerances for metal, PVC, Polypropylene, or HDPE pipes. Since there is no joint gap tolerance for these pipe types, the Contractor is not required to repair joints with gaps in them. Repair is limited to hanging gaskets, joint damage, and infiltration.

(5) Deflection: All optional pipe materials have a deflection tolerance of 5% or more of the certified actual mean diameter of the pipe. Any pipe with deflections greater than the 5% tolerance must be replaced or repaired at no cost to the Department. The only repair accepted by the Department at this time is to cut out the deflected sections and replace them using field joints.

8.13.6.3 Repair Guidance

The Department maintains the expectation that all culvert installations will be defect free and installed in accordance with the Standard Specifications. In the event that

a defect is found in a pipe run, the first option of the Department would be to remove and replace the defective pipe at no cost. In situations where this is not practical, then consideration should be given to different repair remedies.

Project Administrator Responsibilities: The PA is responsible for reviewing the proposed repair procedures submitted by the Contractor and coordinating the review of the proposed repairs with the District Drainage Office to ensure hydraulic capacity is maintained. Proposed repair procedures should conform to the Pipe Repair Matrix as found on the Department's website and the policy previously set forth by the Department. Specifically:

(1) Use of Grout for repair: The Department does not accept the hand application of grout for pipe repair. All proposed grout repairs must utilize pressurized injection to ensure that the grout completely fills the defect and any voids associated with it.

(2) Use of Cured in Place point repairs: The Department does not accept cured in place point repairs due to quality assurance and maintenance concerns. All point repairs proposed by the Contractor must consist of steel, aluminum, or rubber per Section 948 of the Standard Specifications.

In the event that a Contractor proposes a repair method that is not found on the Pipe Repair Matrix, it must be evaluated and accepted by the State Construction Office prior to use.

Section 8.14

VALUE ADDED FEATURES

8.14.1 PURPOSE

To establish a standard administrative procedure for tracking and monitoring Value Added Features (VAF) for compliance with the contract specifications. The procedure sets forth the responsibilities for inspecting and accepting remedial work (RW) required to bring the features in compliance with the specifications. This procedure is primarily for the use of District Construction and Maintenance personnel responsible for monitoring and tracking VAF. In order to maximize the use of Department resources, the Department's routine Maintenance Inspection Program should be utilized as much as possible for inspections to evaluate projects with Value Added Features.

This procedure covers all VAF listed below. The VAF have certain procedural steps that are common to all as well as steps that are unique to each. Therefore, the following includes one subsection for common procedural steps as well as individual subsections for each of the unique steps pertaining to the VAF

8.14.2 AUTHORITY

Sections 334.048(3) and 20.23(4)(a), Florida Statutes

8.14.3 REFERENCES

The following contract specifications deal with Value Added Features (VAF):

(1) Specification Section 338, Value Added Asphalt Pavement
(2) Specification Section 338B, Value Added Reworked Asphalt Concrete Pavement
(3) Specification Section 338C, Value Added Repaved Asphalt Concrete Pavement
(4) Specification Section 355, Value Added Portland Cement Concrete Pavement
(5) Specification Section 475, Value Added Bridge Components Design Build Only
(6) Specification Section 570, Performance Turf
(7) Specification Section 580, Landscape Installation
(8) Specification Section 649, Galvanized Steel Strain Poles, Mast Arms and Monotube Assemblies

(9) Specification Sections 701, 702, 709, 711 and 713 Traffic Stripes and Markings
(10) Specification Section 725, Value Added Highway Lighting Systems Design Build Only
(11) Other Warranty Items

8.14.5 GENERAL

Districts will designate an individual or individuals from the Operations Centers/ Residence Offices as the District Warranty Coordinator (DWC). This individual administers the warranty program for the District. The common procedural steps primarily cover duties of the District Warranty Coordinator (DWC) that must take place prior to the steps unique to each feature.

8.14.6 COMMON PROCEDURE STEPS

(1) The DWC shall develop and maintain a list of projects that have VAFs. The list should be updated by adding projects after award and execution of a project with value added features. The information gathered for each project should include at a minimum, the identification of each VAF to be incorporated into the project and contact information for all individuals responsible for administration and performance of the feature. Once a VAF has been identified based on the contract, it can be selected from the pre-defined drop down menu in the CIM system. The durations for the warranty period for a VAF are pre-loaded by the CIM system based on the warranty duration designated by the specifications.

(2) Project personnel responsible for the administration of the project should identify and enter the required warranty data into the CIM system prior to or at final acceptance of the project. Information pertaining to the VAF is identified in the applicable specifications for the contract. The appropriate contact information for each VAF should include the responsible party (RP) for the feature as well as the maintenance and construction personnel involved in the administration of the project. Project personnel responsible for entering the warranty information shall notify the appropriate DWC once the information has been entered into the system.

(3) The DWC shall review the VAF data entered into CIM by the project personnel for accuracy and completeness. The DWC shall ensure that any revisions are addressed correctly. The DWC will be responsible for the administration of the warranty throughout the warranty period.

(4) The DWC will be responsible for coordinating with District and SMO personnel responsible for performing inspections or evaluations of the VAFs. Warranty inspections for the VAF shall, at a minimum, be done at intervals as assigned by the CIM system.

The CIM tracking system will automatically notify the DWC of upcoming warranty inspection needs.

(5) The inspections results, for the interim and final inspections shall be input into the CIM tracking system. All comments, reports and inspection documentation generated during the inspection may be input in the CIM using the General tabs located in the upper right corner of the Value Added Feature page. Additional guidance on use of the CIM Tracking system is provided by the “VAF User Guide” located in the upper left corner of the Value Added Feature page. Upon completion of the interim or final inspection of the feature, the status of the inspection shall be entered into the system as “COMPLETED” or “ONGOING”. The warranty inspections status will be designated as “COMPLETED” when no deficiencies are found and “ONGOING” when deficiencies are detected. The “ONGOING” inspection status will remain until such time as all deficiencies have been corrected.

(6) The DWC will be responsible for coordinating the required remedial work performed by the RP and District personnel responsible for oversight and acceptance of the remedial work.

(7) The DWC will coordinate a final inspection of the VAF to ensure that the final inspection occurs prior to the end of the warranty period. The Final inspection is defined in the contract and is to occur in advance of the warranty end date to allow for any administrative actions required under the warranty provisions for the feature. All notifications for required remedial actions shall be provided in writing to the RP prior to the end date of the warranty period. The DWC will document the RP’s receipt of the notification. If corrections are needed for the project, the DWC will manage and coordinate the RW for the feature in accordance with the specifications and this procedure.

(8) For Design Build Projects, the Contractor or the designated RP shall be responsible for the RW for the duration specified in the VAF specifications. The DWC should review the ***Request for Proposal (RFP)*** and the Contractors Technical proposal to determine the actual items and durations covered by the warranty provisions of the contract.

8.14.7 DISPUTE RESOLUTION

The Statewide Disputes Review Board (SDRB), as provided in the appropriate specification, shall be used to resolve disputes that arise on contracts which contain VAF. A SDRB will be used to resolve any and all disputes that may develop involving the administration and enforcement of the specifications. The determinations of a SDRB shall be binding on both the RP and the Department, with no right of appeal by either party. The RP party will be responsible for requesting and scheduling the disputes

review board hearing. The DWC will coordinate all aspects of the hearing on behalf of the Department. SDRB decisions shall be sent to the State Construction Office for review.
All correspondence and documentation pertaining to the SDRB proceedings shall be input into the CIM tracking system.

8.14.8 FAILURE TO PERFORM

Should the RP fail to timely submit and schedule a hearing before the SDRB, fail to satisfactorily perform the remedial work, or fail to compensate the Department for any remedial work performed by the Department which is determined to be the responsibility of the Responsible Party, the DWC, with concurrence from the DCE, shall provide notification to the Statewide Warranty Coordinator in the State Construction Office (SCO) to initiate the appropriate action in accordance with the specifications.

Upon notification by the District, the SCO will review and initiate the appropriate action pursuant to the terms of the contract. The SCO will review the contract as well as the information provided by the DWC and make a determination as to the appropriate action(s) to be taken in accordance with the terms of the contract.

The SCO will initiate available administrative or contractual actions as a result of a RPs failure to perform the contract requirements for VAF.

8.14.9 VALUE ADDED ASPHALT PAVEMENT (Spec. Section 338)

8.14.9.1 Pavement Performance Monitoring Operations

(1) The DWC will be responsible for coordinating inspections of the value added asphalt pavement at intervals as prescribed by the specifications. The CIM tracking system will automatically notify DWC of need for inspections at pre-determined intervals. The CIM system allows additional interim inspections to be scheduled on an as needed basis. Any comments or notations pertaining to observations made during the inspections should be entered into the system using the notes tab on the VAF page. All pertinent documentation pertaining to the inspection/evaluation of VAF shall be entered into the system under the “File” tab as attachments for the inspection.

(2) District inspection personnel should perform periodic inspections by driving through the project and randomly stopping at locations to visually inspect the pavement for any distresses. Pavement deficiencies shall be classified and documented in accordance with the “Category of Pavement” as defined by the Valued Added Asphalt Pavement specifications. The frequency of inspections will be annually (as a minimum). Inspection personnel shall document the inspection results with photographs or video recordings

and with sufficient detail to allow the DWC to make a determination whether further evaluation is required. The inspection results shall be sent to the DWC for review and disposition to the appropriate parties. The DWC will coordinate with the appropriate District Materials Office personnel and other Department personnel as required. All pertinent information and documentation shall be input into the tracking system. When possible, document the location where photographs were taken.

8.14.9.2 Assessment of Pavement Distresses

(1) The Department's Pavement Condition Survey (PCS) Program, along with observations and inspections by Department personnel, will be used as the basis for determining the extent and magnitude of the pavement distresses that exceed the threshold values defined by the specification. The Department, as a function of Pavement Management Program, annually surveys all highways on the State Highway System. The survey is conducted normally in the outside lane only. The Pavement Management Office analyzes the Pavement Condition Survey information and develops a report annually providing information for all asphalt warranty projects exceeding the rut threshold. The report is available at the following link:
http://infonet.dot.state.fl.us/PavementManagement/OnlineReports/performanceInfo.htm

The Department will perform annual inspections (as a minimum) to monitor the pavement performance throughout the warranty period. If deficiencies are observed during the inspections, the observations shall be documented with sufficient supporting documentation to enable the DWC to determine if further evaluation is required. The District may, based on the visual observations during the interim inspections or the analysis of the annual Pavement Condition Surveys, request a more detailed PCS by contacting the SMO or use the online request form at the following link:

http://www.dot.state.fl.us/statematerialsoffice/pavement

The DWC will be responsible for coordinating inspections during the warranty period.
The DWC will notify the RP in writing if the Department determines that a PCS will be conducted.

(2) If the survey is conducted at or near the end of the warranty period, the SMO or DMO should be contacted sufficiently in advance of the expiration date to allow the survey to be conducted and notification (if required) to the RP within the timeframes established in the contract that remedial work will be required. The RP must receive written notification of "Required Remedial Action" prior to the expiration of the warranty period. The DWC will document the RP's receipt of notification. If no deficiencies are observed during the inspections (interim or final) the inspection result will be entered into the CIM tracking system as "COMPLETE" and no further action is required. All

documentation produced as a result of the inspections shall be entered into the CIM tracking system. If the inspection reveals pavement deficiencies, the DWC will send a copy of the inspection report and all other documentation to the DMO for review. The DWC shall request the District Materials & Research Engineer (DMRE) to provide an assessment of the pavement distresses and provide recommendations as to whether remedial work is required and whether the remedial work is the responsibility of the RP.

(3) The DWC will consult with the DMO and review the inspection information and the PCS (if performed) to determine whether immediate corrective work is required based on the type and severity of the pavement deficiencies. If the pavement distresses do not require immediate RW, the DWC will provide the RP with a copy of the results of the inspections (including the PCS if performed) for their review. The RP will be advised that the Department will monitor the pavement performance for the remainder of the warranty period and that RW will be required prior to the end date of the warranty period.

Note: The DWC should review the contract specifications carefully and adhere to the specified timeframes within the specifications.

8.14.9.3 Remedial Work Required

After review of the documentation and the recommendations of the DBE and DMRE, the DWC determines that RW is required, the DWC will immediately provide verbal or electronic notification (email) to the RP that remedial work will be required under the warranty provisions of the contract. The verbal or electronic notification shall be followed with written “Notice of Required Remedial Action” (Notice) to the RP by certified mail with the appropriate backup documentation including date of receipt of the Notice by the RP. The Notice shall be signed by the District Construction Engineer. The Statewide Warranty Coordinator in the SCO shall be copied on all correspondence pertaining to the remedial work. It is important to note that under Section 338 of the Standard Specifications, the Contractor may designate a RP for maintaining the Value Added Asphalt Pavement by using form ***Value Added Assumptions of Obligations by a Subcontractor as the Responsible Party,*** # 700-010-53.

The Notice of Required Remedial Action shall request the RP to provide the Department with its plan detailing how the RW will be accomplished and that repairs must begin within 45 calendar days of notification in accordance with the Value Added specifications. The RP will also be advised that, if they dispute the Departments findings, they are to provide written notification to the Department within 30 calendar days of receipt of the notification and to request a hearing before the SDRB. It will be the obligation of the RP to schedule and coordinate the hearing. A copy of the letter and accompanying documentation will be sent to the District Construction Office and the

DWC will be responsible for coordination of the SDRB hearing or the RP's performance of the required RW.

8.14.9.4 Responsible Party Not Responsible for Remedial Work

(1) If the RW is determined not to be the responsibility of the RP, the DWC will refer the issue to the District Construction Engineer (DCE) or the District Maintenance Engineer (DME) for a determination as to how the RW work will be accomplished. The DWC will notify the RP (in writing), that it is not responsible for the RW.

(2) When the Remedial Work is completed, the DWC will update the CIM tracking system with all appropriate information.

(3) The DWC will send a copy of the updated records from the tracking system to the RP for information if requested.

8.14.9.5 Performance of the Remedial Work by the Responsible Party

(1) The DWC (or designee) will be responsible for coordinating the inspection and oversight on behalf of the Department to ensure that the construction operations of the RW are in compliance with all provisions of the contract specifications. The DWC (or designee) will arrange for a qualified inspector to monitor the construction activities of the RP for acceptance of the RW.

(2) If any Remedial Work is unacceptable, the RP shall be required to correct the deficiency to the satisfaction of the Engineer in accordance with the specifications.

(3) When the Remedial Work is completed and accepted, the DWC shall notify the Responsible Party in writing of acceptance of the work and update the information in the CIM tracking system for the project.

8.14.10 VALUE ADDED REWORKED ASPHALT CONCRETE PAVEMENT (Spec. Section 338B) and VALUE ADDED REPAVED ASPHALT PAVEMENT (Spec. Section 338C)

The administration of the warranty for Value Added Reworked Asphalt Concrete Pavement and Value Added Repaved Asphalt Concrete Pavement are similar to the administration of the Value Added Asphalt Pavement (Section 338) above, except that the Reworked and Repaved Asphalt Concrete Pavements are subject to a warranty period, and a warranty/maintenance bond, warranting the asphalt pavement for the duration of the warranty period.

The DWC shall be responsible for the administration of the Warranty after final acceptance of the Contract. If during the warranty period, deficiencies are detected that require remedial repairs, the DWC will coordinate all such requests with the Statewide Warranty Coordinator in the State Construction Office.

Should any administrative actions become necessary under the Warranty/Bond provisions of the Contract, the DWC shall contact the Statewide Warranty Coordinator prior to notification of the Contractor.

8.14.11 VALUE ADDED PORTLAND CEMENT CONCRETE PAVEMENT (Spec. Section 355)

8.14.11.1 Pavement Performance Monitoring Operations

(1) District inspection personnel should perform periodic inspections by driving through the project and randomly stopping at locations to visually inspect the pavement for any distresses. Concrete Pavement deficiencies shall be classified and documented in accordance with the threshold values established in the specification. RW of deficient concrete pavement areas shall be accomplished as defined in the specification. The frequency of inspection should be annually (as a minimum). The DWC has the option to schedule intermediate inspections as deemed necessary. Inspection personnel shall document the inspection results with sufficient detail to allow the DWC to make a determination whether further evaluation is required. The inspection results shall be sent to the DWC for review and disposition to the appropriate parties. The DWC will coordinate with the appropriate DMO personnel and other Department personnel as required.

8.14.11.2 Assessment of Pavement Distresses

(1) The Department's Pavement Condition Survey (PCS) Program along with observations and inspections by Department inspection personnel will be used as the basis for determining the extent and magnitude of the pavement distresses occurring on a project. The Department will perform annual inspections (as a minimum) to monitor the pavement performance throughout the warranty period. If deficiencies are observed during the inspections, the observations shall be documented with sufficient supporting documentation including photographs and video recordings to enable the DWC to determine if further evaluation is required. The District may, based on the visual observations during the interim inspections request a PCS by contacting the SMO or use the online request form at the following link:

http://www.dot.state.fl.us/statematerialsoffice/pavement

The DWC will be responsible for coordinating inspections during the warranty period. The
The DWC will notify the RP in writing if the Department determines that a PCS will be conducted.

(2) If the survey is conducted at or near the end of the warranty period, the SMO or DMO should be contacted sufficiently in advance of the expiration date (not less than 45 days) to allow the survey to be conducted and notification (if required) to the RP that remedial work will be required. The RP must receive written notification of "Required Remedial Action" prior to the expiration of the warranty period. The contract may contain more specific notice requirements. All documentation produced as a result of the inspections shall be entered into the CIM.

(3) The DWC will consult with the DMO and review the inspection information and the PCS (if performed) to determine whether immediate corrective work is required based on the type and severity of the pavement deficiencies. If the pavement distresses do not require immediate RW, the DWC will provide the RP with a copy of the results of the inspections (including the PCS if performed) for their review. The RP will be advised that the Department will monitor the pavement performance for the remainder of the warranty period and the RP will be notified of any required RW prior to the end date of the warranty period. Upon completion of the interim or final inspection of the feature, the status of the inspection shall be entered into the system as "COMPLETED" or "ONGOING". The warranty inspections status will be designated as "COMPLETED" when no deficiencies are found and "ONGOING" when deficiencies are detected. The "ONGOING" inspection status will remain until such time as all deficiencies have been corrected.

Note: The DWC should review the contract specifications carefully and adhere to the specified timeframes within the specifications.

8.14.12 VALUE ADDED BRIDGE COMPONENTS (Spec. Section 475) DESIGN BUILD PROJECTS ONLY

8.14.12.1 Bridge Components Covered By the VABC Specifications

The Value Added Bridge Components (VABC) specification provides a materials and workmanship warranty. For the purpose of this procedure, the prime contractor shall be the Responsible Party in accordance with the specifications. The components covered under the specifications are as follows:

(1) Bridge Deck Expansion Joints Devices and Hardware
(2) Coatings
(3) Bearing Devices
(4) Bridge Lighting/Electrical System
(5) Drainage Systems

8.14.12.2 Determining the Category of Deficiency

(1) The District Structures Maintenance Office (DSMO) is responsible for inspection of bridges on the State Highway System (SHS). Conventional bridges are required to be inspected at a minimum of every two years and bascule (movable) bridges are required to be inspected once per year. Bridge inspections shall be done in accordance with approved Department procedures. The bridge inspection report will identify deficiencies discovered during the routine inspections. The DWC will coordinate with the DSMO to identify bridges which contain VABC. The DWC will coordinate with the DSMO to assure the features covered by the Value Added specifications are given the appropriate attention and documentation during the inspection process. The DWC shall coordinate with the DSMO to ensure that all inspection reports and supporting documentation are input into the CIM tracking system.

(2) The DWC will review the inspection report in conjunction with the DSMO and determine if RW is required. If the DWC/DSMO determines that RW is required, the DWC shall provide written notification to the Contractor that RW is required under the materials and workmanship warranty provisions of the contract. A copy of the inspection report with supporting documentation shall be provided with the notification. When deficiencies are identified, but immediate RW is not required, the “Element Inspection Notes” of the DSMO inspection report must be transmitted to the Contractor for information. The Element Inspection Notes provide the Contractor with information for making an informed decision about whether or not to perform preventive maintenance on a deficiency before it requires more expensive RW. On occasion, a deficiency will be reported by non-DSMO maintenance personnel, a local government or from the general public. The DSMO must be notified of the deficiency as soon as possible.

Once the deficiencies are determined which require RW based on the Element Inspection Notes. The DSMO will notify the DWC of the RW with a priority indicated by email, and provide a description of the signing and traffic control that will be required for the repairs. Emergency remedial work requires immediate verbal notification by the DSMO to the RP and the DWC. The verbal notification shall be followed-up with a DSMO Priority 1 Work Order; Non-emergency remedial work requires a priority 2 or 3 (routine priority) DSMO Work Order; and for deficiencies that do not require remedial work, Element Inspection Notes are required in lieu of a work order and these will be sent to the DWC with a copy to the SCO and the Resident Construction Office (RCO).

8.14.12.3 Emergency Remedial Work-DSMO Work Order

(1) When the DWC receives verbal notification from the DSMO, the DWC will immediately provide verbal notification to the RP and to the RCO that will be performing inspection and acceptance of the RW. The DWC shall document the notification in the CIM Tracking System. The RCO shall follow-up verbal notification in writing and shall document the RW operations in the CIM Tracking System. RW shall be accomplished in accordance with the timeframes established in the specifications and in accordance with the contract specifications. RW required under the materials and workmanship warranty provisions of the contract shall be done at no additional cost to the Department.

(2) During the notification conversation with the RP, the DWC must provide the RP with the details and location of the RW as well as the requirements for signing and maintenance of traffic.. If, during the notification conversation or shortly thereafter, the RP is unable to perform or refuses to perform the RW, the DWC should refer the issue to the District Construction Engineer (DCE) or the District Maintenance Engineer (DME) for a determination as to how the RW work will be accomplished. If the RW requires immediate traffic control and the RP is unable to provide it, then the Department will arrange for traffic control and the RP will be required to reimburse the Department for the expenses.

8.14.12.4 Responsible Party Unable To Perform

(1) If the RP is unable to perform the RW, but acknowledges the responsibility, then the cost of performing the work with an alternative qualified contractor will be documented and reimbursed by the RP. The DWC will coordinate with the DCE or DME for the procurement of the alternative qualified contractor to perform the RW.

(2) If the RW is determined to be urgent, the Department will provide traffic control as required, at the time of discovery. The RP shall assume the responsibility of the traffic control as soon as possible. The RP shall provide a verbal description of the traffic control plan which must be approved by the RCO. The RP shall follow-up the verbal request with a written Traffic Control Plan for approval as soon as possible.

(3) If the RW is of an immediate concern and the RP is unable or unwilling to perform the RW, the Department will provide the traffic control as necessary based on the severity of the deficiency. The DWC will coordinate with the RCO and the DSMO to develop a work plan to accomplish the RW. The Department shall document all cost associated with the RW with intent to recover from the RP.

8.14.12.5 Performing and accepting remedial work

(1) Once the RP has an approved Work Plan and if applicable, a Traffic Control Plan, work may begin. The RCO in conjunction with the DSMO will inspect and document the RW for compliance with the contract specifications.

(2) The RCO and DSMO will perform a joint final acceptance inspection and any unacceptable work will be corrected by the RP before final acceptance is issued.

8.14.12 PERFORMANCE TURF (Spec. Section 570)

8.14.12.1 Performance Monitoring

The Performance Turf procedure defines the administrative process for monitoring and tracking the establishment of a growing, healthy turf in accordance with the specification. The project personnel responsible for the administration of the contract shall be responsible for monitoring the turf installation and establishment for the life of the contract. The project personnel shall document all inspection results into the CIM tracking system.

If the turf areas designated in the plans have not met the requirements as set forth in the Contract for establishment at the time that all other work is completed, the RP shall continuously maintain all turf areas until the requirements for established turf set forth in Section 570-4 of the specifications are met. Project personnel shall notify and coordinate with the DWC that the establishment period for a contract will continue after Final Acceptance of a contract. Upon notification by the contractor the DWC will schedule and coordinate inspections required by the contract.

(1) After Final Acceptance, the DWC should continue conducting inspections of the turf at 90 day intervals during the establishment period to determine establishment. Provide results of the inspection to the Contractor within seven days of the date of inspection.

(2) The DWC will review the inspection report in conjunction with project personnel and determine if RW is required. If the DWC/project personnel determines that RW is required, the DWC shall provide written notification to the Contractor that RW is required under the materials and workmanship warranty provisions of the contract. A copy of the inspection report with supporting documentation shall be provided with the notification.

(3) Upon determination that the requirements of 570-4 have been met and an established turf has been achieved, ensure the Contractor has removed all erosion

prevention and sediment control devices and release the Contractor, in writing, from any further responsibility.

8.14.12.2 Performance of the Remedial Work by the Responsible Party

(1) The DWC (or designee) will be responsible for coordinating the inspection and oversight on behalf of the Department to ensure that the operations of the RW are in compliance with all provisions of the contract specifications. The DWC (or designee) will arrange for a qualified inspector to monitor the construction activities of the RP for acceptance of the RW.

(2) If any Remedial Work is unacceptable, the RP shall be required to correct the deficiency to the satisfaction of the Engineer in accordance with the specifications.

(3) When the Remedial Work is completed and accepted, the DWC shall notify the Responsible Party in writing of acceptance of the work and update the information in the CIM tracking system for the project.

8.14.14 PAINTED GALVANIZED STEEL STRAIN POLES, MAST ARMS AND MONOTUBE ASSEMBLIES (Spec. Section 649)

This section describes the administrative process for tracking and monitoring the performance of painted strain poles, mast arms and monotube assemblies for compliance with the specification. The strain poles, mast arms and monotube assemblies are subject to a warranty, provided by the fabricator, for adhesion and color retention of the coating system. The contract specifications require the fabricator of the strain poles, mast arms or monotube assemblies be listed on the Department's list of Prequalified Fabricators of Painted Galvanized Steel Strain Poles, Mast Arms and Monotube Assemblies which is maintained by the State Construction Office. The list can be accessed by the following link:

http://www.dot.state.fl.us/construction/ContractorIssues/PaintedPole/PaintedPoleSuppliers.shtm

Project personnel responsible for the administration of the contract shall inspect and monitor the installation of the strain poles, mast arms and monotube assemblies for compliance with the specifications. Any deficiencies or defects with the assemblies that require touch-up or remedial work shall be coordinated with the Statewide Warranty Coordinator in the State Construction Office. Project personnel shall document all inspection and/or remedial repairs and enter the information into the CIM tracking

system. Project personnel shall notify the DWC upon final acceptance of a project containing strain poles, mast arms and monotube assemblies. All documentation required by the specifications shall be scanned into the CIM tracking system.

Strain Pole, mast arms, and monotube assemblies are subject to a five (5) year warranty period. The DWC shall be responsible for the administration of the warranty after final acceptance of the contract. If during the warranty period, deficiencies are detected that require remedial repairs, the DWC will coordinate all such requests with the Statewide Warranty Coordinator in the State Construction Office.

8.14.15 VALUE ADDED HIGHWAY LIGHTING SYSTEM (Spec. Section 725) DESIGN BUILD PROJECTS ONLY

8.14.15.1 Performance Monitoring

The Value Added Highway Lighting System procedure defines the administrative process for monitoring and tracking the performance of highway lighting installations in accordance with the specification. The performance and acceptance criteria for the VAF are defined by the contract specifications. Components covered under the warranty period are defined in the Value Added Highway Lighting System specification.

Note: The Value Added Highway Lighting System specifications provide exceptions to the warranty period for specific components of the lighting system. The Contractor's responsibility for warranty and remedial work for those designated components with time periods less than the three (3) warranty period will terminate at the end of the time period stated in the specification. The contractor will remain responsible for the materials and workmanship of the overall installation of the lighting system as required by the Specification.

Project personnel responsible for the administration of the project shall notify (by email correspondence) the DWC upon final acceptance of a project containing the Value Added Signal Installation provisions. All documentation required by the specifications shall be scanned into the CIM tracking system.

The DWC shall be responsible for the administration of the Value Added feature after final acceptance of the contract. The DWC will coordinate with the Maintaining Agency and the Responsible Party for all requests for remedial repairs necessary under the warranty provisions of the contract. The DWC will be responsible for coordinating with the Maintaining Agency for participation in the DRB process (if required).

8.14.16 TRAFFIC STRIPES AND MARKINGS

This section defines the administrative process for monitoring and tracking the performance of traffic stripes and marking installations in accordance with the contract specifications. The specifications provide for a 180 day Observation Period after Final Acceptance of the contract. The following sections contain this requirement: Sections 701, 702 709, 711 and 713. The DWC shall coordinate the Inspection with the appropriate RCO or OCO. The results of the inspection shall be documented in CIM.

8.14.17 OTHER WARRANTY ITEMS

This section is provided to allow warranty tracking for items of the work, which by agreement of the contracting parties, will be warranted for a specific period of time. The documentation which formalizes the agreement will be provided by the State Construction Office or District Construction Office. All documentation pertaining to the warranty shall be scanned into the CIM Tracking System. The DWC will be responsible for the administration of the warranty during the warranty period.

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Section 9.1

MAINTENANCE OF TRAFFIC

9.1.1 Purpose

To establish a uniform standard for inspection and review of Maintenance of Traffic (MOT) operations used in construction projects.

9.1.2 Authority

Section 334.048(3), Florida Statutes

Section 20.23(3)(a), Florida Statutes

9.1.3 References

FDOT Specifications, Section 8 and Section 102

Manual on Uniform Traffic Control Devices (MUTCD), Part VI

FDOT Design Standards, Topic No. 625-010-003

9.1.4 General

The Department oftentimes uses consultants in administering construction projects through engineering contracts. The authority of the Senior Project Engineer on Consultant Construction Engineering Inspection (CCEI) projects is identical to the Department Resident Engineer and shall be interpreted as such. Likewise, the role of the Consultant's personnel is identical to the Department's project personnel.

9.1.5 Selection of Traffic Control Plan (TCP)

A Traffic Control Plan (TCP) is included with each Department construction contract. The Contractor will furnish a letter to the Resident Engineer stating whether they plan to use the Department designed TCP or will submit an alternate TCP for approval. The alternate TCP must be signed and sealed by a Professional Engineer licensed by the State of Florida and shall be reviewed, discussed, and approved by the Resident Engineer.

When the Contractor proposes a modification to the TCP, particular attention should be given to the utility adjustment plan of the project. If the proposed TCP modification affects the scheduled adjustment of utilities in any measure, the Contractor must obtain written approval from the affected utilities. The District Utilities Engineer should be given the opportunity to review and comment on the modified TCP submittal.

The Resident Engineer shall coordinate with the District Design, District Traffic Operations, District Utilities, and the District Construction Offices before approving/disapproving the proposed alternate TCP. Emergency Services should be notified in advance of any major modifications affecting traffic flow or patterns.

The TCP approval letter must include a statement to the effect that any additional costs or delays, including any increase to the cost of utility adjustments will be borne by the Contractor. The change will be documented by a Supplemental Agreement or Work Order with the Contractor's revised plans.

The Contractor will not begin work using an alternate TCP until the Resident Engineer has approved such plan.

9.1.6 Discussion of Traffic Control Plan at Pre-Construction Conference

The TCP to be utilized on the project, as detailed within the Contract, will be reviewed and discussed at the pre-construction conference. The review of the TCP shall consist of reviewing the different phases of work and the provisions to maintain traffic during each phase. Any errors or omissions shall be noted for corrective action.

The discussion at the pre-construction conference shall include:

(1) Inspections performed by the Contractor and corrective actions taken,

(2) Responsibilities of the Worksite Traffic Supervisor (WTS),

(3) The Contractor's work notification to the Engineer,

(4) Traffic safety,

(5) Changes to the TCP,

(6) Independent Channelizing Device Supplier,

(7) Sign installations and removal or covering of existing signs,

(8) Installation and removal of pavement markings,

(9) Crash reporting,

(10) Night work,

(11) Flaggers,

(12) Motorist Awareness System (MAS),

(13) Work zone clearances,

(14) Inactive work zones,

(15) Portable changeable message boards, etc.

(16) Proper use of Traffic Control Law Enforcement Officers,

(17) Proper use of Speed Control Law Enforcement Officers.

(18) Pedestrian and ADA accommodations, including proper closure of sidewalks in the construction area.

The Contractor's role in implementing any corrective actions must be clarified before the project begins. This will ensure that needed changes are performed with minimum disruption to work activities. A list of trained flaggers must be submitted to the Project Administrator before construction begins.

9.1.7 Work Zone Inspections

Project personnel shall perform work zone inspections. Also, as required by the Contract Documents, the Contractor's WTS will perform inspections of the project. When possible, project personnel should perform work zone inspections with the WTS. If deficiencies are not corrected, then the Department/Representative will use the ***Contractor's Past Performance Rating, Section 2, Form No. 700-010-25*** to enforce compliance.

9.1.8 Recommended Action to Shut Down a Project Due to MOT Deficiencies

(1) Any MOT deficiency that is considered a severe hazard and life threatening will require immediate corrective action by the Contractor. Failure to correct the hazard immediately is basis to shut down the project and obtain other means to correct the hazard. Prior to any such shut

down, document the deficiency with photographs sufficient to support the action.

(2) If corrective action on the deficiencies of which the Contractor has been given written notification has not been corrected within the 24-hour time limit, the Project Administrator shall deduct payment for the uncorrected areas until corrective action is made and use the ***Contractor's Past Performance Rating, Section 2, Form No. 700-010-25*** to enforce compliance.

The WTS shall be disqualified if corrective action is not completed within the 24-hour time limit on three notifications to the Contractor within a twelve (12) months period.

The following shall apply to disqualification of WTS:

- First Notification - Verbal (documented) warning
  If no other notifications are issued within one year (365 days) from the first notification, then the record of the first error shall be deleted from the WTS record.

- Second Notification - Written warning
  If no other notifications are issued within one year (365 days) from the second notification, then the record of the first and second notifications shall be deleted.

- Third Notification - Suspension of qualification (all projects)

This decision may be appealed to the District Construction Engineer. The District Construction Engineer's decision is final. Submit all Notifications issued to the WTS to the State Construction Office.

Prior to having the qualification reinstated, the WTS must take the required training course and pass the examination.

9.1.9 Other Requirements

Department personnel will report crashes occurring within the project limits as described in ***Section 9.3.5, Report Traffic Crashes***.

Section 9.2
(Deleted)

Section 9.3

WORK ZONE TRAFFIC INCIDENT EVALUATION AND REPORTING

9.3.1 Purpose

To standardize a procedure for reporting traffic crashes that occur in construction work zones and to analyze construction work zone operations at crash sites.

9.3.2 Authority

Section 334.048(3), Florida Statutes

Section 20.23(3)(a), Florida Statutes

Title 23 Code of Federal Regulations (CFR), Part 630, Subpart J

9.3.3 Background

The Federal Highway Administration (FHWA) requires that each State develop a system to report traffic crashes in construction work zones. The crash reports are reviewed to locate and isolate problem areas in order to evaluate and enhance the safety measures in the work zone, if deemed necessary.

9.3.4 Notification of Traffic Crashes

Resident Level Responsibilities

(1) A traffic crash occurring within a work zone is brought to the attention of the Project Administrator through actual observation, notification by others, or through signs of a crash aftermath such as debris, extensive damage to work zone devices, etc. Conduct a monthly inquiry of local police departments and/or county traffic engineering departments for crash reports.

(2) If made aware of the crash, the Project Administrator will conduct an evaluation of the maintenance of traffic features and devices in the immediate area of the crash site.

9.3.5 Reporting Traffic Crashes

Resident Level Responsibilities

(1) Fill out the ***Engineer's Maintenance of Traffic (MOT) Evaluation at Crash Site Form No. 700-010-64*****,** along with detailed diagrams and narratives. Include digital photos and a copy of the Traffic Control Plan (TCP) of the immediate area of the crash.

(2) Do not fill out the ***Engineer's MOT Evaluation at Crash Site Form No. 700-010-64*** for minor occurrences such as skid marks, damaged barricades, etc. However, if these incidents begin to be localized, then the traffic control plan and traffic movements should be analyzed to determine the cause and subsequent cure. It is recommended that a project file be kept of minor occurrences for future reference.

(3) Appropriate corrective action is to be taken immediately and noted on the form.

(4) Obtain all supporting documents if possible, such as crash reports, photos, TCP, etc., and attach to the ***Engineer's MOT Evaluation at Crash Site Form No. 700-010-64***. Do not wait for such documentation, complete the report immediately.

(5) When a crash report contains information contrary to the facts that project personnel are aware of, and the crash is correct, be sure to amend the ***Engineer's MOT Evaluation at Crash Site Form No. 700-010-64***. If it is unclear if the crash report is correct, acknowledge the discrepancies on Form No. 700-010-64.

(6) Discuss crashes and subsequent corrective actions at the weekly Progress Meetings.

9.3.6 MOT Evaluation at Crash Site

Once the Project Administrator becomes aware that a crash occurred, all possible steps shall be taken to determine its cause and to make corrections that will reduce the probability of additional crashes. However, the occurrence of a crash does not automatically mean that a change in work zone traffic controls is required. Crashes usually are a result of a combination of factors.

The Project Administrator shall examine the relationship of the crash to the existing work

zone traffic controls and evaluate all warning signs, pavement markings, and barricades in the immediate vicinity of the crash site. A night inspection is required if the crash occurred at night. If any enhancements or corrective measures are to be taken, list them on the ***Engineer's MOT Evaluation at Crash Site Form No. 700-010-64*** and document the action on the Daily Work Report in Site Manager.

No changes to the Traffic Control Plans shall be made which will change traffic patterns or movements without the approval of the Resident Engineer.

9.3.7 Other Actions

The FHWA "Emergency Reporting Procedures, Order 5181.1A" has certain criteria for immediate reporting of incidents to their office. Criteria for reporting incidents can be found in paragraph # 6 of FHWA's Emergency Reporting Procedure, Order 5181.1A. Report these incidents to the District Traffic Safety Office, who will relay the information to FHWA.

The MOT Evaluation Form should be prepared and distributed within two weeks of the incident. Documentation such as crash reports and photographs should be collected and forwarded as received.

If a fatality occurs, email a copy of the ***Engineer's Maintenance of Traffic Evaluation at Crash Site Form No. 700-010-64*** to the State Construction Engineer.

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Section 10.1

PILES

10.1.1 Purpose

To establish a procedure for obtaining production pile lengths and driving criteria to be used in structures. This chapter also provides the procedure for documentation of pile installation. This procedure applies to conventional projects; for Design Build projects refer to ***Section 10.12***.

10.1.2 Authority

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

10.1.3 References

Section 455, Standard Specifications for Road and Bridge Construction and any supplements thereto.

10.1.4 Definitions

District Construction Engineer (DCE): The authority on the entire construction activity in the District.

Construction Engineering and Inspection (CEI): In this procedure, it refers to the Consultant personnel performing CEI services or the Florida Department of Transportation (Department) personnel group performing CEI services.

Geotechnical Engineer: In this procedure, the Geotechnical Engineer may be the District Geotechnical Engineer (DGE), any Department Engineer assigned for the project by the DGE, the Consultant Geotechnical Engineer working directly for the DGE, or the Geotechnical Engineer employed by the Department's Consultant CEI and performing under the direction of the DCE and DGE.

Project Administrator (PA): The Administrator who shall be responsible for the everyday construction activity at the project under the direction of the Resident Engineer/Senior Project Engineer.

Resident Engineer (RE): The Engineer supervising the CEI personnel and is responsible for the construction activities in the residency. In this procedure this could be the Senior Project Engineer responsible for the construction activities of the project.

10.1.5 General

The steps to establish pile lengths and driving criteria consist of reviewing the Contractor's hammer system as detailed in the pile installation plan, recording test pile data, and setting of production pile lengths and driving criteria in accordance with ***Section 455, Structures Foundations, Standard Specifications (Section 455)***.

10.1.6 Pile Installation Plan

(A) Resident Level Responsibilities

The RE (or PA) shall receive from the Contractor at the preconstruction conference or at least thirty (30) days prior to the driving of the initial test pile a completed ***Pile Driving Installation Plan Form, No. 700-020-01***. Within two (2) working days, the RE (or PA) shall forward the Pile Installation Plan (PIP), including the ***Pile Driving Installation Plan Form*** to the Geotechnical Engineer for review and recommendations.

The RE (or PA), within two (2) working days of receipt of the Geotechnical Engineer's comments shall forward them to the Contractor. The RE (or PA) shall perform a concurrent separate review of the PIP, incorporate their own comments to the ones received from the Geotechnical Engineer, and forward them to the Contractor.

The RE (or PA) shall contact as soon as possible the Geotechnical Engineer if the pile driving system does not appear to drive the piles satisfactorily. A satisfactory driving system means a system being able to drive the piles in compliance with all the requirements of ***Section 455***.

If, after field observations and evaluation of dynamic test data and driving records, the Geotechnical Engineer recommends rejecting the PIP, the RE (or PA) shall notify the Contractor of this rejection within one (1) working day of receiving the recommendation for rejection. The notification shall contain the reason(s) for rejection of the PIP plan.

(B) District Level Responsibilities

The DGE shall make comments to the RE (or PA) on the driving system within five (5) working days of receiving the PIP.

If, after field observations, the pile driving system does not perform satisfactorily, the Geotechnical Engineer shall evaluate dynamic testing data, driving records, and other pertinent data. Additional dynamic testing may be required. If it is established that the driving system does not produce results within the specifications, the Geotechnical Engineer shall issue a notification to the RE (or PA) recommending the rejection of the PIP. The notification shall include the reasons for the rejection of the PIP. This notification shall be made immediately after evaluating the field and dynamic test data.

10.1.7 Test Pile Installation

(A) Resident Level Responsibilities

Test pile installation, whether it is for a permanent or temporary structure, shall be documented in the pile driving record. As soon as the Contractor's schedule for driving test piles is known, the RE (or PA) shall notify the Geotechnical Engineer of the schedule so the Geotechnical Engineer may observe the installation of the test piles to aid in setting production pile lengths.

Every test pile driven on the project shall be recorded in the ***Pile Driving Log, Form No. 700-010-60***. It shall contain all the data and observations pertaining to the driving of the test pile. The test pile lengths and any special requirements for piles can be found in the plans or specifications.

Two to four pages of the ***Pile Driving Log, Form No. 700-010-60*** are dedicated for recording information relating to each pile driven. Page 1 contains the general information about the project, driving criteria, and procedures. Page 2 (there could be up to Page 4 depending on the pile length) contains the ***driving log record*** and comments. The test pile information must be completed as soon as practical.

Most of the items on Page 1 are self-explanatory. The subcontractor's name should be noted only if someone other than the prime Contractor drives the piling.

The notes section shall describe any occurrences during the driving of the pile or any information that the recorder feels may be beneficial to the Geotechnical Engineer or the PA.

Page 2 (there could be up to Page 4 depending on the pile length) describes the actual pile driving. All of the field information shall be completed for each foot of driving. The specifications require the Contractor to furnish high and low ground elevations at each pile group and bent. This elevation shall be of the ground line, not of the water line.

The measured hammer energy is the hammer energy determined during driving by observed stroke lengths, pressure gauges or hammer instrumentation (other methods may be used when proposed and approved). Stroke/pressure details must be documented.

The pile rebound shall be monitored and recorded accurately with the amount of rebound shown in inches and the elevation limits of rebound shown.

The notes column must describe, accurately and completely, the manner in which the pile driving proceeded noting any irregularities, unexpected occurrences, deviations from driving criteria or procedures, actual elevations where the jets were turned on and off, relationship between the pile tip and jet tip, depth to which the pile penetrated under its own weight, spalling, cracks, where cushions were changed, etc.

Upon completion of test pile driving documentation, the inspector must sign the form in the appropriate place. The original is retained in the project files. A completed form is to be sent to the Geotechnical Engineer within 24 hours of completion for review and use in setting the production pile lengths.

Additional information will need to be sent to the Geotechnical Engineer to aid in setting pile lengths. This information would include field data notes, including notes obtained for the monitoring of equipment, any dynamic load test information obtained, static/Statnamic load test results, and any other information that explains or records the events occurring during the driving of the piles.

This information shall be attached to the test pile record. Construction Training Qualification Program (***CTQP***) qualified inspectors shall be employed to document the pile driving logs for both permanent and temporary piles.

10.1.8 Production Pile Installation

Production pile lengths for permanent structures are established utilizing the results of the test pile program and contract documents. Pile driving of every production pile (permanent or temporary) shall be inspected and documented on the ***Pile Driving Log*** in accordance with ***Section 10.1.7*** of this procedure.

(A) District Level Responsibilities

Within four (4) working days of the performance of the test pile dynamic and/or static load test data, the Geotechnical Engineer shall review and examine the test pile data and set up the production pile length. A Production Pile Lengths letter shall be sent to the RE recommending production pile lengths to be used on the project. Refer to ***Guidance Documents 10-1-A*** and ***10-1-B*** for ***sample letters***. This letter is to be

signed by the Geotechnical Engineer. When the Geotechnical Consultant generates the letter, the DGE shall review the letter and recommend acceptance or rejection to the RE (or PA). The final produced letter submitted to the Contractor will include the signature of the DGE recommending acceptance of the Consultant's recommendations. A letter of recommendation (Driving Criteria Letter) containing pile driving criteria shall be sent to the RE (or PA) recommending the blow count criteria vs. stroke (or chamber pressure) for acceptance, practical refusal criteria, minimum tip elevation or penetration requirements, the maximum allowable strokes to control installation stresses, special instructions to increase or reduce the stroke, the pile driving equipment for which the criteria is applicable, and any other special considerations that the inspector should follow during the installation of the piles. If using a diesel hammer, a table of blow count versus stroke (open-end diesel hammers) or blow count versus chamber pressure (closed-end diesel hammers) shall also be furnished and attached to the Driving Criteria letter. For air hammers, the blow count shall be given for a fixed stroke determined as appropriate to mobilize capacity within the specifications. For hydraulic hammers, the blow count shall be given for one or more equivalent strokes, or one or more energy levels (measured automatically by a sensor) determined as appropriate to mobilize capacity within the specifications. This Driving Criteria letter must be prepared and submitted within three (3) working days of furnishing the Production Pile Lengths letter to the RE (or PA). Refer to ***Guidance Documents 10-1-C*** and ***10-1-D*** for ***sample letters***.

Production Pile Lengths and Driving Criteria letters shall include the dynamic load test data and wave equation analyses performed to establish authorized lengths and driving criteria.

(B) Resident Level Responsibilities

Upon receipt of the Production Pile Lengths letter from the Geotechnical Engineer, the RE shall approve the recommendation and send it to the Contractor within one (1) working day. Upon receipt of the Driving Criteria letter from the Geotechnical Engineer, the RE shall forward it to the Contractor within one (1) working day.

The RE (or PA) shall upload the PIP submittals, all pile driving logs, and Production Pile Lengths and Driving Criteria letters into the Department's electronic document management system, including the dynamic load test data and analyses data.

10.1.9 Pile Lengths and Driving Criteria for Temporary Piles

(A) Resident Level Responsibilities

Upon receipt of the pile lengths and driving criteria packages from the Contractor, the RE (or PA) shall forward them to the DGE and the Geotechnical Engineer for review. Upon receipt of comments from the Geotechnical Engineer, the RE (or PA), shall forward them to the Contractor.

The RE (or PA) shall coordinate the activities to make sure the review process of this submittal is performed within the deadlines set forth by the specifications.

(B) District Level Responsibilities

Within three (3) working days of receiving the Production Pile Lengths letter, the Geotechnical Engineer shall perform a review of the proposed lengths and submit comments in a notification to the RE (or PA).

Within three (3) working days of receiving the Driving Criteria letter, the Geotechnical Engineer shall perform a review of the analysis, proposed blow count, and driving directions, and shall submit a notification to the RE (or PA) recommending approval or rejection of the driving criteria. If the Contractor submits lengths and driving criteria in one package, pile lengths comments and driving criteria recommendation for approval or rejection shall be performed within three (3) working days. If the Driving Criteria letter is not approved, the notification must include the reasons for rejection. Review comments, approvals, or rejection performed by a consultant geotechnical engineer shall be discussed with and concurred by the DGE before submitting them to the RE (or PA).

Guidance Document 10-1-A

SAMPLE LETTER No. 1
PRODUCTION PILE LENGTHS

(Date)

(ADDRESSEE)

Re: PRODUCTION PILE LENGTHS
Financial Project ID:
FAP No.:
Contract No.:
County:
Structure #

Dear (_____):

The District __(put in which District, 1-7, or Turnpike Enterprise)_ Geotechnical Office has completed its review of the dynamic test/test load/core boring data for the subject bridge. The recommended production pile lengths are as follows:

LOCATION	PILE SIZE	RECOMMENDED PILE LENGTH

Recommended by:

_____
District Geotechnical Engineer

Authorized for contract administration purpose by:

_____
Resident Engineer

(Initials/Initials)

cc: State Construction Geotechnical Engineer
State Structures Engineer's Office (State Geotechnical Engineer)
FHWA (only if Federal Aid oversight project)

Guidance Document 10-1-B

SAMPLE LETTER No. 2
PRODUCTION PILE LENGTHS

(Date)

(ADDRESSEE)

Re: PRODUCTION PILE LENGTHS
Financial Project ID:
FAP No.:
Contract No.:
County:
Structure #

Dear (_____):

The (Geotechnical Consultant Firm name) has completed its review of the dynamic test/test load/core boring data for the subject bridge. The recommended production pile lengths are as follows:

LOCATION	PILE SIZE	RECOMMENDED PILE LENGTH

.

Recommended by: _____
Consultant Geotechnical Engineer

Recommended for acceptance by:

_____
District Geotechnical Engineer

Authorized for contract administration purpose by:

_____
Resident Engineer

(INITIALS/INITIALS)

cc: State Construction Geotechnical Engineer
State Structures Engineer's Office (State Geotechnical Engineer)
FHWA (only if Federal Aid oversight project)

Guidance Document 10-1-C

SAMPLE LETTER No. 3
DRIVING CRITERIA LETTER (OPEN-END DIESEL HAMMER)

(Date)

(ADDRESSEE)

Re: DRIVING CRITERIA
Financial Project ID:
FAP No.:
Contract No.:
County:
Structure #

Dear (_____):

The District ____(put in which District, 1-8)__ Geotechnical Office (or Geotechnical Consultant Firm name) has completed its review of the dynamic load test data, pile driving records, and other information for the subject bridge. The recommended driving criteria are as follows:

BENT (OR PIER) #
Pile Driving for the ____foot long, ____ tons (___ Kips) Nominal Bearing Capacity production piles may be stopped if one of the following conditions is achieved:

1. Practical refusal (20 blows per 1 inch or less with a hammer stroke of at least ___ ft and pile rebound less than 0.25 inch) is achieved during the driving and the minimum tip elevation presented in the plans is achieved.
2. The required blow count at the respective stroke height presented in the following table is achieved for 2 consecutive feet with less than 0.25 inch rebound and the minimum tip elevation is achieved. The blow count over the last two feet must be increasing.

Stroke Height (ft) **Blows Per Foot**
(several rows of stroke vs. Blows per foot)

Firm Material Definition: (Note: Include this paragraph if no minimum tip elevation is specified) For purposes of penetration, firm material is defined as the material that offers a driving resistance of at least ___ per foot, at a minimum stroke of ____ ft.

Driving Requirements: (Indicate here at what maximum stroke and/or setting to start the driving, and the instructions to gradually increase the stroke, or reduce the stroke if the blow count reduces significantly and may create tension stresses) (Indicate also the maximum stroke allowed at any time of driving to prevent excessive stresses)

(Indicate special instructions for predrilling and performing if applicable)

(Indicate instructions regarding pile cushions) (Indicate that a new pile cushion shall be used for every pile) (Indicate the thickness required for the cushion) (Include the expected number of blows a cushion will need to be replaced) (Indicate the number of blows required, after a cushion change, before the driving criteria can be applied)

(Indicate the equipment to which the criteria applies) The above Driving Criteria are based on the (Hammer Type) , serial number _____, using a hammer cushion consisting of ____ inch thick of (Material) and __ inch of (Material) as utilized during the test piles. If there is a change in the driving system please notify us immediately so that a new driving criteria can be determined.

Recommended by: _____
Geotechnical Engineer (If a Consultant generates the letter)

Recommended for acceptance by:

_____
District Geotechnical Engineer

(Initials/Initials)

cc: State Construction Geotechnical Engineer
State Structures Engineer's Office (State Geotechnical Engineer)
FHWA (only if Federal Aid oversight project)

Guidance Document 10-1-D

SAMPLE LETTER No. 4
DRIVING CRITERIA LETTER (HYDRAULIC HAMMER)

(Date)

(ADDRESSEE)

Re: DRIVING CRITERIA
Financial Project ID:
FAP No.:
Contract No.:
County:
Structure #

Dear (_____):

The District ____(put in which District, 1-8)__ Geotechnical Office (or Geotechnical Consultant Firm name) has completed its review of the dynamic load test data, pile driving records, and other information for the subject bridge. The recommended driving criteria are as follows:

BENT (OR PIER) #
Pile Driving for the ____foot long, ____ tons (___ Kips) Nominal Bearing Capacity production piles may be stopped if one of the following conditions is achieved:

1. Practical refusal (20 blows per 1 inch or less with a hammer equivalent stroke of at least ___ ft (or an energy of ___ K-ft) and pile rebound less than 0.25 inch) is achieved during the driving and the minimum tip elevation presented in the plans is achieved.
2. The required blow count at the respective equivalent stroke height presented in the following table is achieved for 2 consecutive feet with less than 0.25 inch rebound and the minimum tip elevation is achieved. The blow count over the last two feet must be increasing.

Equivalent Stroke Height (ft) (or Energy (K-ft) Blows Per Foot
(one to three rows of stroke or Energy vs. Blows per foot)

Note: Energy to be measured by a (name of the remote device measuring energy)

Firm Material Definition: (Note: Include this paragraph if no minimum tip elevation is specified. This step may be omitted if dynamic load test data and other field observations indicate that all production piles will not reach the required blow count criterion until a minimum penetration of 20 feet is exceeded.) For purposes of penetration, firm material is defined as the material that offers a driving resistance of at least ___ per foot, at a minimum equivalent stroke (or energy) of ____ ft (or K-ft).

Driving Requirements: (Indicate here at what maximum equivalent stroke and/or energy to start the driving, and the instructions to gradually increase the equivalent stroke, or reduce the equivalent stroke if the blow count reduces significantly and may create tension stresses) (Indicate also the maximum equivalent stroke (or energy) allowed at any time of driving to prevent excessive stresses)

(Indicate special instructions for predrilling and performing if applicable)

(Indicate instructions regarding pile cushions) (Indicate that a new pile cushion shall be used for every pile) (Indicate the thickness required for the cushion) (Include the expected number of blows a cushion will need to be replaced) (Indicate the number of blows required, after a cushion change, before the driving criteria can be applied)

(Indicate the equipment to which the criteria applies) The above Driving Criteria are based on the (Hammer Type) , serial number _____, using a hammer cushion consisting of ___ inch thick of (Material) and __ inch of (Material) as utilized during the test piles. If there is a change in the driving system please notify us immediately so that a new driving criteria can be determined.

Recommended by: _____
Geotechnical Engineer (If a Consultant generates the letter)

Recommended for acceptance by:

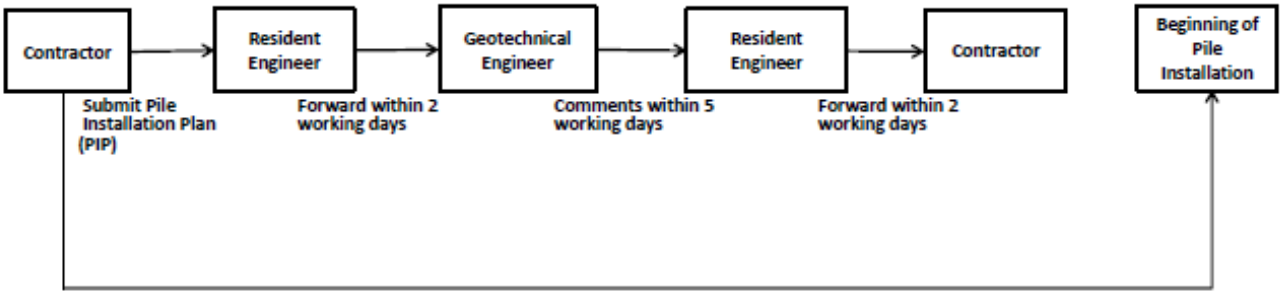
_____
District Geotechnical Engineer

(Initials/Initials)

cc: State Construction Geotechnical Engineer
State Structures Engineer's Office (State Geotechnical Engineer)
FHWA (only if Federal Aid oversight project)

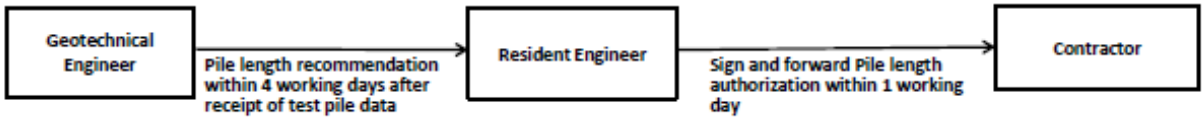
Attachment 10-1
Flow Charts

REVIEW OF PILE INSTALLATION PLAN

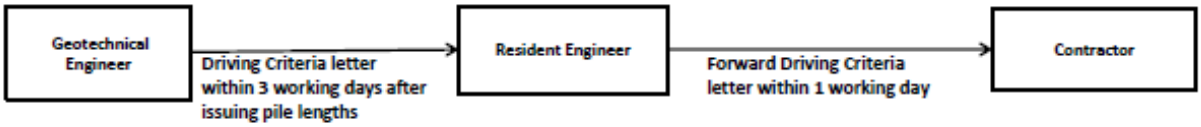


Contractor shall submit PIP at the preconstruction conference or 30 days prior to beginning of pile driving

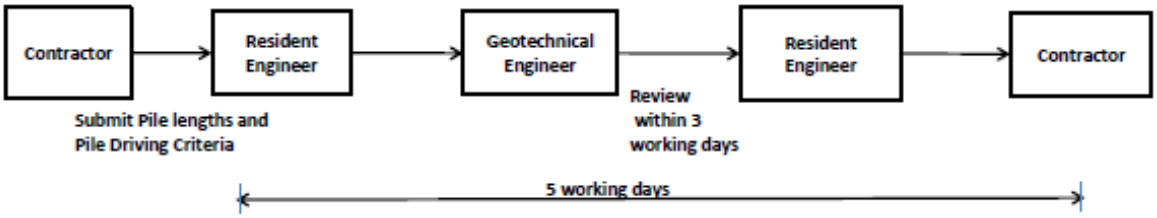
PRODUCTION PILE LENGTHS-PERMANENT PILES



DRIVING CRITERIA-PERMANENT PILES

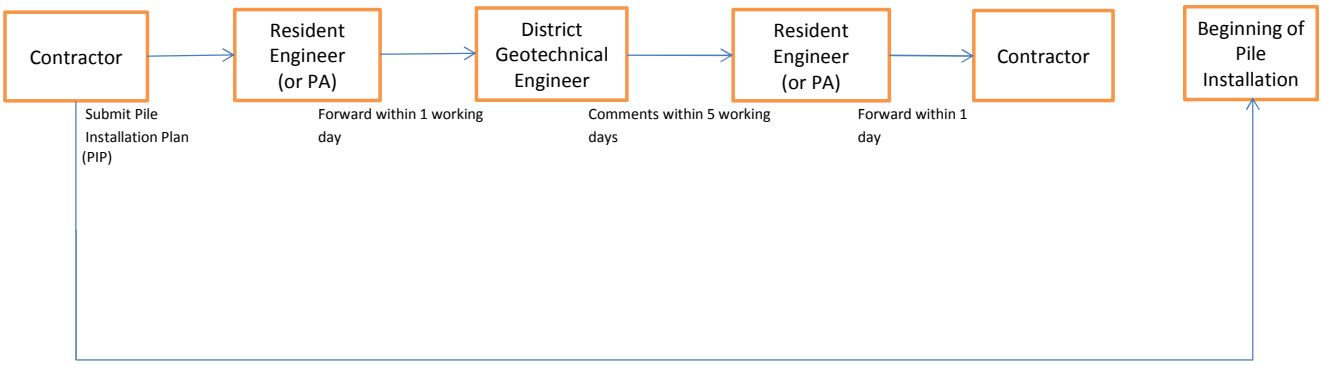


PILE LENGTHS AND DRIVING CRITERIA-TEMPORARY PILES



Attachment 10-1
Flow Charts

REVIEW OF PILE INSTALLATION PLAN



Contractor shall submit PIP at the preconstruction conference or 30 days prior to beginning of pile driving

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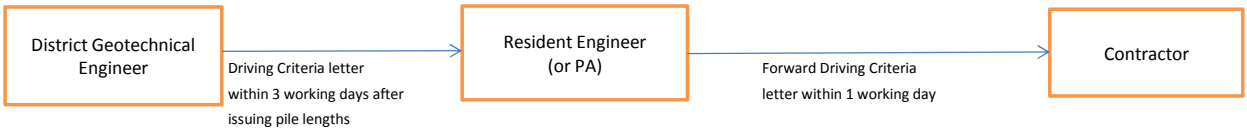
PRODUCTION PILE LENGTHS

DRIVING CRITERIA



Section 10.2

PRECAST PRESTRESSED CONCRETE COMPONENTS

10.2.1 Purpose

To provide a process for the evaluation and disposition of proposals for acceptance of prestressed concrete components that are not in compliance with the contract plans and specifications. This procedure is intended for use with the occasional non-complying component that is defective or damaged, and where replacement is deemed unnecessary or inappropriate. This procedure has corresponding ***Flow Chart 10-2***, which graphically displays each major step of this procedure starting with the identification of a defect by the Producer.

10.2.2 Authority

Sections 20.23(4)(a) and 334.048(3), Florida Statutes (F.S.)

10.2.3 Reference

Section 450, "Precast Prestressed Concrete Construction," Standard Specifications for Road and Bridge Construction

10.2.4 General

For the purpose of this procedure the Producer of a prestressed concrete product is the party expected to directly address the disposition of defects; however, the Contractor always has the total and final responsibility for the quality of all products and must concur with all Producer proposals prior to review by the Department. Repeated production of non-complying components is not acceptable and the cause of such problems must be resolved. Non-complying components containing specific defects or damage which are classified as minor by ***Specification 450-12*** are not covered by this procedure and are not subject to the disposition requirements in this procedure but instead must be repaired in accordance with ***Specification 450-13***. However, if for a minor defect, an alternate nonstandard repair method not covered by ***Specification 450-13*** is proposed by the Producer or if the defect will be encased within the diaphragm concrete, then this procedure applies. For defects covered by this procedure, the Producer must comply with ***Specification 450-14***, which requires the submittal of a repair proposal to the Project Administrator and specifies what the contents of the proposal shall be.

A separate repair proposal is not required if the repair procedure for the defect has been pre-approved in the Producer's Quality Control Plan (QCP). However, if the type, location or size of the defect is not the same as for a QCP pre-approved defect then an individual repair proposal must be submitted. Components in the casting yard which require repair shall not be shipped to the project site until such repairs are complete and the component has been accepted by the Department. If the component is repaired and determined to be acceptable to the Department, the component shall be stamped by the Producer as approved. Producer-stamped prestressed components arriving at the job site shall not be rejected by project personnel for reasons other than obvious shipping damage which makes the component unacceptable. If the CEI personnel on the project site have questions about the acceptability of stamped components, these questions shall be resolved only after consulting with the District Materials Verification personnel at the shipping point.

10.2.5 Proposal Format and Requirements

The Contractor's proposal must be prepared in accordance with ***Specification 450-14*** and must include the following information:

(A) A cover letter prepared on the Contractor's letterhead and addressed to the Project Administrator briefly describing the component.

(B) A completed ***Non-complying Prestressed/Precast Concrete Component Data Sheet, Form No. 700-030-10***, prepared by the Producer or Contractor and countersigned by the DPCS to indicate agreement with the described defect or noncompliance feature. If not in agreement with the information or description, the DPCS shall either reject the submittal indicating reason(s) for rejection or modify the submittal as necessary. In the latter event, the preparer shall initial and date the submittal indicating agreement or disagreement with the modifications. When a defect or noncompliance feature has a prior occurrence of the same type, with the DPCS's approval, the Contractor will only be required to submit a ***Non-complying Prestressed/Precast Concrete Component Data Sheet*** on which the prior occurrence's ***Non-complying Prestressed/Precast Concrete Component Data Sheet*** is clearly identified for reference. In addition, the Contractor should state on the form that the referenced ***Non-complying Prestressed/Precast Concrete Component Data Sheet*** is intended to cover the current defect and, if applicable, should also propose a credit to the contract proportionate to the defect or specification noncompliance.

When the volume of supporting information exceeds the space available on the ***Non-complying Prestressed/Precast Concrete Component Data Sheet***, the information shall instead be provided as an attachment. Attached supporting sketches, records,

calculations, and any other documents, shall be listed for reference on the ***Non-complying Prestressed/Precast Concrete Component Data Sheet***. All the supporting information must be prepared by the Contractor's Engineer of Record who shall sign and seal one (1) complete copy of the supporting information which shall serve as the Project Administrator's record copy.

10.2.6 Review and Evaluation

(A) Resident Level Responsibilities

The Project Administrator shall review the Producer's proposal and when warranted enlist the assistance of various offices within the Department (State Construction Office, District Structures Design Office, State Structures Design Office, District Materials Office, State Materials Office), the Engineer of Record and the FHWA as deemed appropriate. Upon completion of the evaluation, the Project Administrator may accept the Contractor's proposed repair method, negotiate a more satisfactory repair method, or reject the proposal. Department costs associated with proposal review shall be addressed per ***Specification 450-14.2***. With approval by the Resident Engineer, cosmetic or minor defects that will be completely encased by the end diaphragm may be filled with diaphragm concrete in lieu of patching at the casting yard. This does not include major defects as defined by ***Specification 450-12***. Beam end defects that begin within the limits of the diaphragm and extend beyond the limits of the diaphragm must be repaired prior to diaphragm construction. Cleaning and preparation of all defects prior to diaphragm concrete placement shall be in accordance with the Specification or as approved by the Resident Engineer. Prior to the Project Administrator's transmittal of the official Department response to the Producer's proposal, the Project Administrator must receive concurrence for the response from the DCE for the district the project is in, the Engineer of Record, and if requested the District Materials Engineer (DME) of the district in which the products are produced. For Category I structures, the Project Administrator must also receive concurrence from the District Structures Design Engineer for the district the project is located in. For Category II structures, the Project Administrator must receive concurrence from the State Construction Structures Engineer. It is very important that a copy of the official Department response be sent by the Project Administrator to the DPCS so that the Department's staff at the prestressed plant will be fully aware of what actions are required of the Producer for disposition of the defective product.

10.2.7 Disposition and Distribution

(A) Resident Level Responsibilities

The Project Administrator shall indicate acceptance in the response and distribute the proposal and the disposition to appropriate District personnel in addition to the following offices:

Project File ..... 1 copy (signed and sealed)
State Materials Office ..... 1 copy
FHWA Area Engineer ..... 1 copy (Federal-Aid Full Oversight Jobs Only)
DPCS ..... 1 copy

The Department's Official response as transmitted by the Project Administrator will require one of three actions by the Producer as follows:

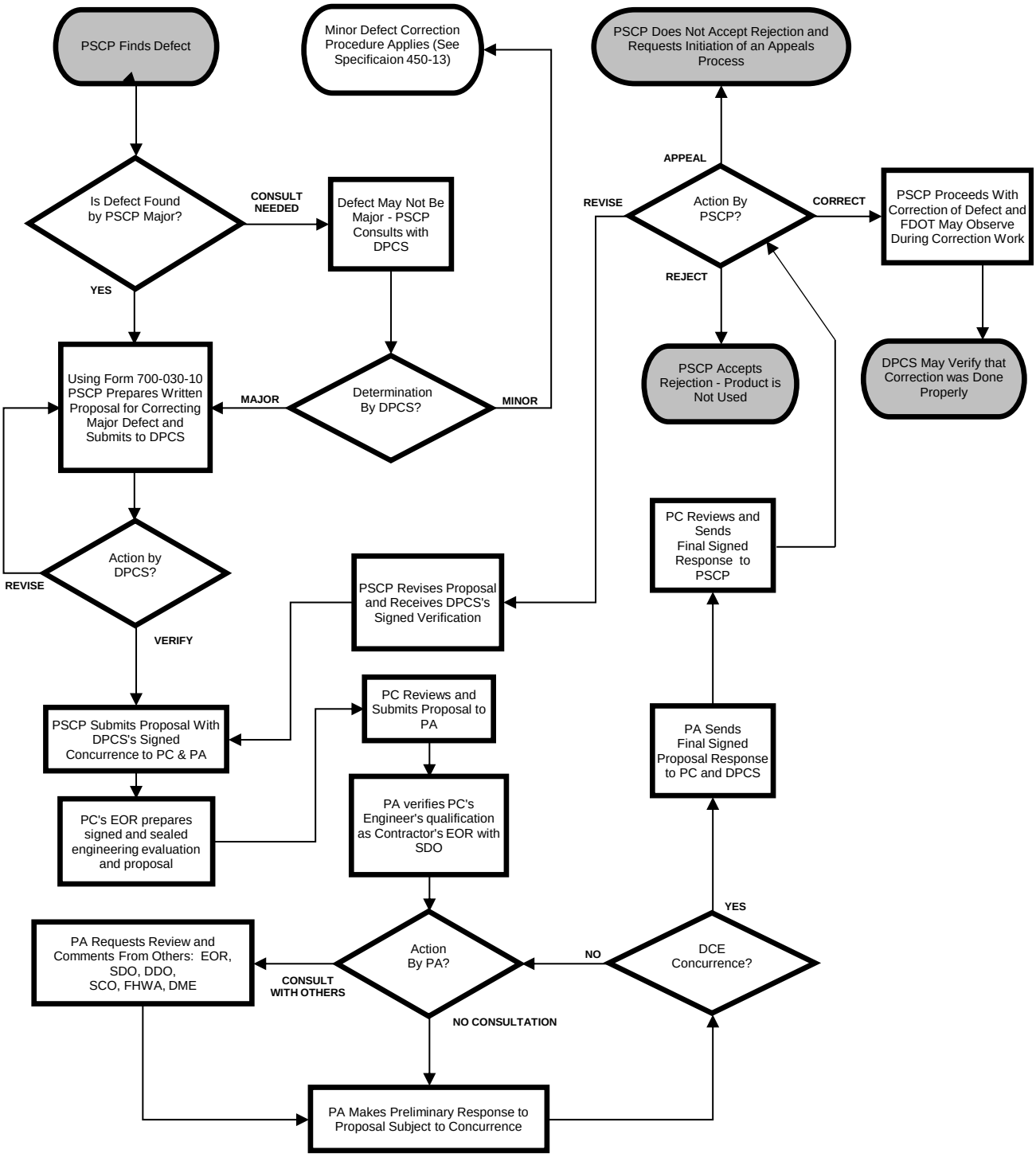
Correct: The Producer will be permitted to correct the defect and the correction may be witnessed by a DPCS. A credit to the Department may be required since the defective component, even if satisfactorily repaired, is not considered by the Department to be fully equivalent to a component that has never had a defect.

Reject: The Producer will not be permitted to correct the defect and the component must not be used on any Department project.

Revise: The Producer's proposal is such that the Department cannot make a final decision about the proposal due to incomplete or unclear information and; therefore, the Producer has the option of revising the proposal and then resubmitting it to the Department.

If the Producer disagrees with any of the three (3) actions above, the Producer may appeal to the DCE of the project district for a hearing. The DCE shall have the discretion to hear or not hear the appeal but if heard, will make the final decision on the disposition of the defect.

Attachment 10-2
FLOW CHART
CPAM SECTION 10.2 PRESTRESSED / PRECAST CONCRETE COMPONENTS



ACRONYM KEY

DCE ------District Construction Engineer
DME ----- District Materials Engineer
DDO ----- District Structures Design Office
EOR ----- Engineer of Record

FHWA --- Federal Highway Administration
PA -------- Project Administrator
PC ------- Prime Contractor
PSCP ---- Prestressed Concrete Producer

DPCS --- Dept. PS Concrete Specialist
SCO ---- State Construction Office
SDO ---- State Structures Design Office

Section 10.3

CONCRETE CONSTRUCTION

10.3.1 Purpose

The purpose of this section is to ensure that CEI and Materials staff are aware of the inspection and monitoring responsibilities required to ensure quality cast-in-place concrete construction. This procedure is primarily intended to be used by CEI staff familiar with bridge construction.

10.3.2 Authority

Section 20.23(4)(a), Florida Statutes

Section 334.048(3), Florida Statutes

Section 336.045, Florida Statutes

Florida Department of Transportation, ***Standard Specifications for Road and Bridge Construction***

10.3.3 Bridge Decks

10.3.3.1 General

To verify the total thickness and the thickness of the concrete cover over the top mat of reinforcing steel in bridge decks, thickness measurements shall be made in the plastic concrete directly behind the final pass of the screed. A minimum of two measurements - the first representing the concrete thickness over the top mat of reinforcing steel and the second representing the thickness of the deck concrete - shall be made for each five hundred square feet of bridge deck.

Measurement locations shall be spaced randomly to represent all areas of the bridge deck.

10.3.3.2 Measurements - Total Deck Thickness

All measurements shall be taken in the portion of the deck between beam flanges in order to avoid including beam buildups in the measurement. For corrugated stay-in-place forms, total deck thickness measurements shall be taken from the upper surface of the corrugation. The use of aluminum probing/measuring devices is prohibited.

10.3.3.3 Measurements - Concrete Cover Thickness

Measure the thickness of the concrete cover over the top mat of reinforcing steel by inserting a metal plate edgewise into the plastic concrete to the top mat of reinforcing steel. Orient the plate so that it is transverse to the top most reinforcing bars. The plate should be in contact with at least two transverse reinforcing bars to ensure an accurate measurement.

10.3.3.4 Documentation

Record thickness measurements in a permanent field notebook to be submitted with the final estimate records. The notebook shall contain the information that follows in addition to the financial identification number; contract number, etc. Include in the notebook, all items necessary to provide clarity. Each bridge shall be listed separately by bridge number and name. Information regarding the thickness measurements shall include the following under the appropriate span number: deck placement location (Station to Station), distance right or left of a centerline, date, time period (from am/pm to am/pm) and inspector's name. The average thickness of the concrete cover over the top mat of reinforcing steel and the average deck thickness shall be computed for each deck concrete placement.

District Construction Engineers or assigned designees are requested to monitor these records and assure compliance with specified plan dimensions. These measurements are made to provide the basis for making corrections to deficient placements and corrections to construction techniques prior to subsequent deck placements.

10.3.4 Mass Concrete

10.3.4.1 Background

During the curing process, massive concrete components such as footings, caps and columns, generate much higher levels of heat at their cores than at their exterior surfaces. If the temperature differential between the core and exterior surfaces exceeds 35^0F, or if the maximum core temperature exceeds 180^0 F then potentially damaging cracks can form. To prevent these temperature levels from being exceeded, the Contractor must take actions to insulate exterior surfaces of the concrete and actively cooling the core of the concrete component. These actions must be described in a document referred to as the ***Mass Concrete Temperature Control Plan (Plan)*** which must be approved by the Florida Department of Transportation before construction of any mass concrete component can begin. The Contractor is also required to demonstrate that the temperature differential and maximum core temperature is being properly controlled by installing temperature monitoring devices within the concrete which are read at 6 hour intervals.

10.3.4.2 Submittal and Acceptance of the Mass Concrete Temperature Control Plan

(A) Resident Level Responsibilities

The Contractor will be required to submit ***Plans*** to the Project Administrator in charge of the project.

The Project Administrator will review the Contractor's proposed ***Plan*** for compliance with the ***Specifications***. The review will confirm that these ***Plans*** include, but are not limited to, the following:

(a) Identification of the Specialty Engineer.

(b) A copy of the approved mix design.

(c) Sketches of the Mass Concrete elements showing the locations of temperature monitoring devices.

(d) Adiabatic temperature rise curves.

Within two working days of receipt of any ***Plan***, the Project Administrator will forward the ***Plan*** along with his comments to the District Concrete Engineer and the State Structural Materials Engineer for their review.

The Project Administrator will notify the Contractor of ***Plan*** acceptance and rejection within ten working days of ***Plan*** submittal by the Contractor. The Project Administrator will also request any required additional information and necessary ***Plan*** re-submittals from the Contractor. Required additional information may extend the review and acceptance time. A ***Plan*** re-submittal may require as much as an additional ten working days for review and acceptance which will be determined by the State Materials Office Reviewer.

Project Administrator: Mass concrete must not be placed before the Contractor has received the Department's full approval of the ***Plan***.

(B) District Level Responsibilities

The District Concrete Engineer will review all ***Plans*** upon notification from the Project Administrator. The District Concrete Engineer will transmit his comments to the State Structural Materials Engineer within five working days of receipt of the ***Plan***.

(C) Central Office Level Responsibilities

The State Structural Materials Engineer will timely review the ***Plan***, including comments from the Project Administrator and the District Concrete Engineer, document ***Plan*** acceptance or rejection with any qualifying notes or reasons for rejection, and notify the Project Administrator and the District Concrete Engineer accordingly in writing. Reviews will be made so as to permit notification to the Contractor by the Project Administrator within ten working days from ***Plan*** submittal. Any necessary additional information required from the Contractor will be requested through the Project Administrator. Requirements for additional information may extend the time necessary for review. A ***Plan*** re-submittal may require an additional ten working days for review and acceptance.

10.3.4.3 Implementation of Accepted Mass Concrete Temperature Control Plans

(A) Resident Level Responsibilities

The Project Administrator shall verify that the following Contractor actions are performed in compliance with the ***Specifications*** and the ***Plan***:

(a) Mass concrete components are instrumented for recording and monitoring temperature readings according to the ***Plan***.

(b) The Mass Concrete Specialty Engineer, or his designee, has inspected the installation and has confirmed that it has been installed properly and functions according to the ***Plan*** in accordance with the ***Specifications***.

(c) Temperature readings are obtained at intervals required by the ***Specifications.*** Temperature readings for a given element may be terminated only when all monitoring points within the element depict that the maximum temperature has been reached and that decreasing temperature differentials are confirmed in accordance with the ***Specifications***.

(d) Temperature readings are analyzed in a timely manner and the Mass Concrete Specialty Engineer is consulted and approves of temperature control adjustments required for mass components that have excessive temperature differentials or core temperatures during the monitoring period.

(e) The Mass Concrete Specialty Engineer has generated and/or approved revisions to the ***Plan*** when temperature control provisions have failed to prevent the temperature differential or the maximum core temperature from being exceeded. The revised ***Plan*** must be approved by the Department before any other mass placements can proceed.

Concrete temperatures and temperature differentials will vary with local ambient temperatures, different heats of hydration produced by different LOTs of cement, element geometry and other factors. The Contractor may

request approval for diminished monitoring. The ***Specifications*** set forth the requirements for reduced monitoring. The Project Administrator may allow reduced monitoring based on these requirements and previous successful implementations of the ***Plan*** and compliance with the ***Specifications***.

The Project Administrator will require a copy of all Mass Concrete temperature monitoring records for the project files. The Project Administrator will send a copy of all Mass Concrete temperature monitoring records to the District Concrete Engineer. The Project Administrator will review all Mass Concrete temperature monitoring records to ensure compliance with project ***Specifications***.

Although established models are used to prepare ***Plans***, the process is not always reliable. Maximum allowed temperature differentials may, at times, be exceeded when the Contractor has an accepted ***Plan*** and has adhered to the ***Plan*** requirements. In such instances, the Project Administrator will ensure that:

(a) The Contractor takes immediate action to limit further increase of temperature differentials or maximum core temperatures for that placement.

(b) The Contractor submits revisions to the ***Plan*** to keep temperature differentials or core temperatures within the limit allowed by the specifications for future Mass Concrete placements.

When the maximum allowed Mass Concrete temperature differentials are exceeded, the Project Administrator will transmit the Contractor's proposed revisions to the ***Plan*** to the District Concrete Engineer for review and acceptance.

One or two temperature readings below the previous reading may not necessarily indicate that the maximum temperature differential has been reached. The Project Administrator shall verify that temperature readings are not discontinued until decreasing temperature differentials have been definitively confirmed.

(B) District Level Responsibilities

The District Concrete Engineer will review and keep a copy of all Mass Concrete temperature monitoring records so he may advise the Project Administrator on Mass Concrete temperature control. These records shall include all temperature readings taken during curing. These records shall be transmitted to the District Concrete Engineer as soon as possible after collection. The District Concrete Engineer monitors the readings in order to determine if a Quality Assurance review is needed or if modification to the ***Plan*** is necessary.

When the Contractor has an accepted ***Plan*** and Mass Concrete temperature differentials are exceeded, the District Concrete Engineer will review the Contractor's proposed revisions to his ***Plan*** for acceptance. The District Concrete Engineer will notify the Project Administrator of his acceptance or rejection of the Contractor's proposed revisions with any qualifying requirements or reasons for rejection.

10.3.5 Crack Inspection

(A) Resident Level Responsibilities

10.3.5.1 Searching For Cracks

Concrete components must have all visible surfaces inspected for cracks on the following three cycles:

(1) As soon as concrete surfaces are fully visible after casting

(2) Between 7 and 31 days after the component has been burdened with all dead loads, except for loads from components cast or mounted to the deck, and before Class V finish has been applied

(3) A minimum of 7 complete days after the bridge is fully open to the public for unrestricted use. Inspection of decks may be an exception to this cycle of inspection since close observation of all surfaces may not be justified if traffic disruption and/or maintenance of traffic costs are excessive as judged by the Project Administrator. If no significant cracks have developed prior to the time that public traffic begins, it is unlikely that adding traffic loads will cause cracking that has not developed

previously.

Unless there is a strong suspicion that cracks exist in the faces of buried components, inspection cycle 2 and 3 are not required for these components or for any other component faces that are permanently hidden from view. For underwater components, inspection cycle 2 is not required unless there is strong suspicion of cracks. Inspection cycle 3 is always required as specified in ***CPAM 10.6***.

Concrete cracks are often only a few mils (1/1000 inch) wide and can be very hard to find. To aid in finding these cracks, use of the following should be considered:

- A magnifying glass
- Artificial light
- Spraying the concrete surface with water or observing it after it has rained and is still damp

10.3.5.2 Documenting Observations

The width, length, depth, termination points, and location of concrete cracks relative to a fixed reference point must be properly documented. A pocket microscope must be used to measure cracks 25 mils wide or less. Cracks that are less than 4 mils wide (hairline cracks) require less rigorous documentation as explained below. Perform all final bridge deck crack measurements, after profile grinding and before transverse grooving. With concurrence of the District Materials Office, request that selected cracks be cored by the Contractor when an accurate measurement of crack depth cannot be determined by use of a mechanical probe. Consult with the District Materials Office and/or the State Materials Office for guidance and approval of location, depth and size of cores so that the most information will be gathered with the least effort and damage to the concrete. Documented cracks shall be monitored at an appropriate interval such as once a month as determined by the Project Administrator with input from the Engineer of Record (EOR) and State Construction Structures Engineer to determine if they are dormant or are active and continuing to grow. The date that cracks were first observed, and if known, what caused them shall be documented. Immediately report all cracks to the Project Administrator so that their status can be addressed appropriately.

Detailed sketches or "Crack Maps" shall be prepared to scale in order to document the width, length, depth and location of all cracks discovered as specified above, including the name of the Inspector, date, weather conditions and other pertinent circumstances under which the cracks were discovered. Hairline cracks may be drawn in their approximate location on the Crack Map with a reference dimension from the edge of a component face to one end of the crack. For hairline cracks, location of both termination points, crack length, and depth are not required. If cracks are found, the CEI Inspector must notify the Project Administrator and/or Senior Project Engineer to determine what action should be taken to address the cracking situation. On or before the project is complete, all crack maps and related documents must be entered into the Electronic Document Management System (EDMS).

10.3.5.3 Disposition of Cracks

Follow the correct crack disposition administrative process as required in the Crack Inspection and ***Repair Flow Chart, Attachment 10-3-5***, for structural and nonstructural cracks. The Senior Project Engineer or Project Administrator shall determine if the cracks are structural or nonstructural. See ***Specification 400-21*** for a definition of structural and nonstructural cracks. If technical assistance is needed to do this, consult the Construction Project Manager, EOR and District Structures Design Engineer for Category 1 bridges or the State Construction Structures Engineer for Complex Superstructure Members of Category 2 bridges. Cracks in the top slab of culverts that will be covered by embankment do not require repair as long as the EOR and District Structures Design Engineer agree that repair is unnecessary. For Category 2 bridges, the State Construction Structures Engineer will make the final determination of structural or nonstructural if the CEI staff is unable to do so.

If cracks are determined to be nonstructural, then the specific corrective action required of the Contractor is listed in Table 1 or 2 of ***Specification 400-21***. However, in order to select the correct table listing, ***Specification 400-21*** requires the Project Administrator to determine a number of parameters including a representative surface area that a group of cracks falls within for measuring the significance of the cracks. The ***Specification*** refers to this surface area, measured in square feet, as a LOT.

Within a LOT, the greater the surface area is of all the cracks added together, the greater is the significance of the cracking as well as the corresponding action required to repair the cracks. The Project Administrator will have to use judgment in determining the area of a LOT and ***Section 10.3.5.4*** provides guidance for how best to do this. However, when a crack is too isolated to be grouped with other cracks to form a LOT (see LOT definition in ***10.3.5.4***) then by using a table in ***Specification 400-21***, a repair can be determined by first computing the average crack width: see Key of Abbreviations and Footnotes, Footnote (1), in ***Specification 400-21*** for how to compute the average crack width.

Once the average crack width is known, then select the appropriate table row for Crack Width Range that the average crack width falls within. Where this range horizontally intersects the appropriate table column for the Cracking Significance Range that is labeled "Isolated," will be the table entry for the required repair. When a LOT consists of more than one crack, the Project Administrator will determine the cracking significance and required repair for each crack by using ***Tables 1 or 2***. This shall be done by first selecting the applicable Elevation Range then select the applicable Crack Width Range that the crack width of each individual crack falls within. Next, using the selected Crack Width Range, select the corresponding Cracking Significance Range in accordance with ***Specification 400-21.3.1***, to identify the required repair method.

For structural cracks, the Contractor's Engineer of Record (not a Specialty Engineer) must perform an Engineering Review and Evaluation to determine the Contractor's recommendations for corrective action. If the project is a Category 1 bridge or a miscellaneous structure, the District Structures Design Office will review the Contractor's recommendations. If the project is a Category 2 bridge, the State Construction Office will review the Contractor's recommendations. The ultimate decision to accept or reject the Contractor's recommendations rests with the District Construction Engineer who shall take into consideration the recommendations of the State Construction Structures Engineer or District Structures Design Engineer. If the Contractor's recommendations are rejected and the Contractor is unwilling to propose a satisfactory method of repair to the Department, then the Department will direct the Contractor to perform a repair developed by the Department which may include plans, drawings and specifications if needed.

10.3.5.4 LOT Size Determination

(a) Deck Surfaces - Determine LOT size as Follows (see ***Attachment 10.3.5-1, LOT Size Determination Examples***, for example drawings):

- Measure the "Longitudinal Crack Range ($\mathbf{L_{cr}}$)" and the "Transverse Crack Range ($\mathbf{T_{cr}}$)" when two or more cracks exist.

  Where: $\mathbf{L_{cr}}$ is the longitudinal distance from the first crack to the last crack in the LOT as measured by a tape in direct contact with the concrete surface and on an alignment parallel to the centerline of construction. Since cracks usually have an irregular alignment that is not a straight line, the distance from the first to last crack should start at the point on the first crack that represents the farthest possible point out and end at a point on the last crack that is the farthest out. This results in the maximum value of distance between the first and last crack.

  $\mathbf{T_{cr}}$ is the transverse distance from first to last crack in the LOT as measured by a tape in direct contact with the concrete surface and on an alignment that is 90 degrees to the centerline of construction.

- Multiply $\mathbf{L_{cr}}$ times $\mathbf{T_{cr}}$ to get the "Preliminary Area" ($\mathbf{A_p}$) of the LOT.

- If $\mathbf{A_p}$ is less than or equal to 100 square feet (ft^2) then use 100 ft^2 for the "Final Area" ($\mathbf{A_L}$) of the LOT.

- If $\mathbf{A_p}$ is greater than 100 ft^2 but less than 400 ft^2 then use $\mathbf{A_p}$ for $\mathbf{A_L}$.

- If $\mathbf{A_p}$ is greater than 400 ft^2 then create 2 LOT's.

- If $\mathbf{A_p}$ is greater than 800 ft^2 then create 3 LOT's and so on.

(b) Surfaces Other Than Decks (footings, columns, caps, walls, etc.) – A LOT must be contained within a single concrete face of a member (side, top, or bottom). Determine LOT size as Follows (see ***Attachment 10.3.5-1*** for example drawings):

- For vertical or predominantly vertical faces (sides of footings, columns and caps, etc), measure the Crack Range of the height dimension (**H_{cr}**) and the Crack Range of the width dimension (**W_{cr}**) when two or more cracks exist.

  Where: **H_{cr}** is the distance from the first crack to the last crack as measured by a tape in direct contact with the concrete surface, including curved surfaces, and on an alignment that is vertical.

  W_{cr} is the distance from the first crack to the last crack as measured by a tape in direct contact with the concrete surface, including curved surfaces, on a width alignment that is level.

- Multiply **H_{cr}** times **W_{cr}** to get the **A_p** of the LOT.

- If **A_p** is less than or equal to 25 ft^2 then use 25 ft^2 for the **A_L** of the LOT.

- If **A_p** is greater than 25 ft^2 but less than or equal to 100 ft^2 then use **A_p** for **A_L**.

- If **A_p** is greater than 100 ft^2 then create 2 LOT's.

- If **A_p** is greater than 200 ft^2 then create 3 LOT's and so on.

- For horizontal and predominately horizontal faces (tops and bottoms of footings and caps, etc.), measure the Crack Range of the longitudinal (parallel to the centerline of construction for the bridge) dimension (**L_{cr}**) and the Crack Range of the transverse (90 degrees to centerline of construction) dimension (**T_{cr}**) when two or more cracks exist.

  Where: **L_{cr}** is distance from the first crack to the last crack as measured by a tape in direct contact with the concrete surface, including curved surfaces, and on an alignment that is longitudinal.

T_{cr} is the distance from the first crack to the last crack as measured by a tape in contact with the concrete surface, including curved surfaces, and on an alignment that is transverse.

Determine LOT size for horizontal surfaces as specified for vertical surfaces above, using **L_{cr}** and **T_{cr}** instead of **H_{cr}** and **W_{cr}**.

10.3.6 Notifying the District Materials Office of Concrete Placements, Pre-operations Meetings, Reduced Concrete Sampling Frequencies and the Occurrence of Lumps and Balls

(A) Resident Level Responsibilities

10.3.6.1 Concrete Placements

The Project Administrator shall notify the District Concrete Engineer of the anticipated date and time of a placement whenever there is a cast-in-place (CIP) concrete placement that requires Construction Training and Qualification Program (CTQP) Qualified Concrete Field Technicians to perform field sampling and testing of concrete. Provide notification at least 48 hours prior to the beginning of the concrete placement whenever possible and include the Training Identification Number (TIN) of the technician(s) that will be performing field sampling and testing of the concrete.

10.3.6.2 Pre-operations Meetings

The Project Administrator shall notify the District Concrete Engineer or designee at least 5 days prior to pre-operations meetings at which Department, CEI, Contractor, Concrete Producer and other involved personnel discuss a planned first time placement of a significant CIP concrete component for any project (bridge, roadway, drainage, etc.). The Project Administrator should encourage the Contractor to invite a representative of the concrete producer to attend the pre-operations meeting.

10.3.6.3 Reduced Concrete Sampling Frequencies

Specification 346-9.2.1, allows the Contractor to reduce the frequency of concrete sampling from every 50 cubic yards to every 100 cubic yards when numerous consecutive loads of concrete have been consistently uniform. This reduced frequency requires the approval of the Engineer.

Prior to the first concrete placement of the project, the Project Administrator shall make the Contractor aware of this specification requirement and shall verify during the progress of the project that the Contractor complies. When the Contractor requests a reduced sampling frequency, the Project Administrator shall obtain District Materials Office approval of the request prior to responding to the Contractor. District Materials Office approval is required because the Contractor must meet specific criteria in order to receive approval. This is best evaluated by the District Materials Office.

Once approval is given and the Contractor is using the reduced frequency, the Project Administrator shall monitor the Contractor's sampling and testing performance in order to be certain that the conditions for higher frequency are being consistently met and if not, a return to the 50 cubic yard rate shall be required.

10.3.6.4 Occurrence of Lumps and Balls

When concrete is delivered to the project containing lumps and balls which require removal prior to placement, the Project Administrator shall notify the District Materials Office as soon as possible.

10.3.7 Observing Concrete Consistency

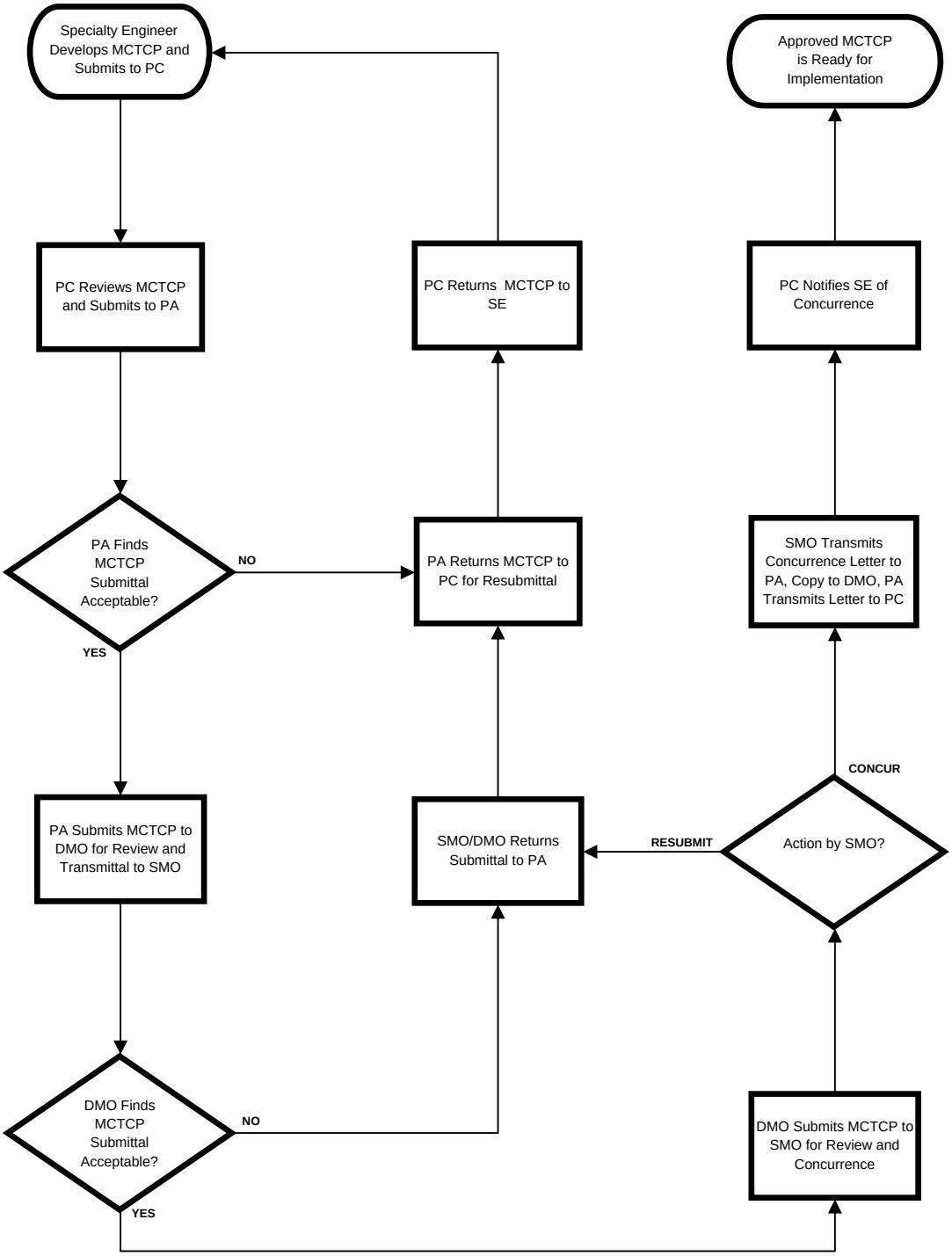
(A) Resident Level Responsibilities

A CTQP qualified Concrete Field Technician (CEI or Contractor) shall observe the consistency of the concrete as discharge begins for each truck arriving at the project site. The technician shall look for signs of excessive dryness or wetness and if in the technician's judgment, one of these conditions exists then discharge shall be stopped and a slump test shall be performed to verify that the concrete consistency is within the slump

tolerance range. This shall also be done for loads that are scheduled for acceptance testing. If the slump test shows an out of tolerance condition then the load shall be rejected and the concrete shall not be placed in the component.

Prior to the start of any concrete placement on the project, the PA shall consult with the Contractor as to which technicians (CEI, Contractor or both) will be assigned the responsibility for observing concrete consistency as required above. Once an agreement is reached, the PA shall verify that the assigned technician, whether CEI or Contractor, is present and observing the concrete consistency during the initial discharge of all concrete loads.

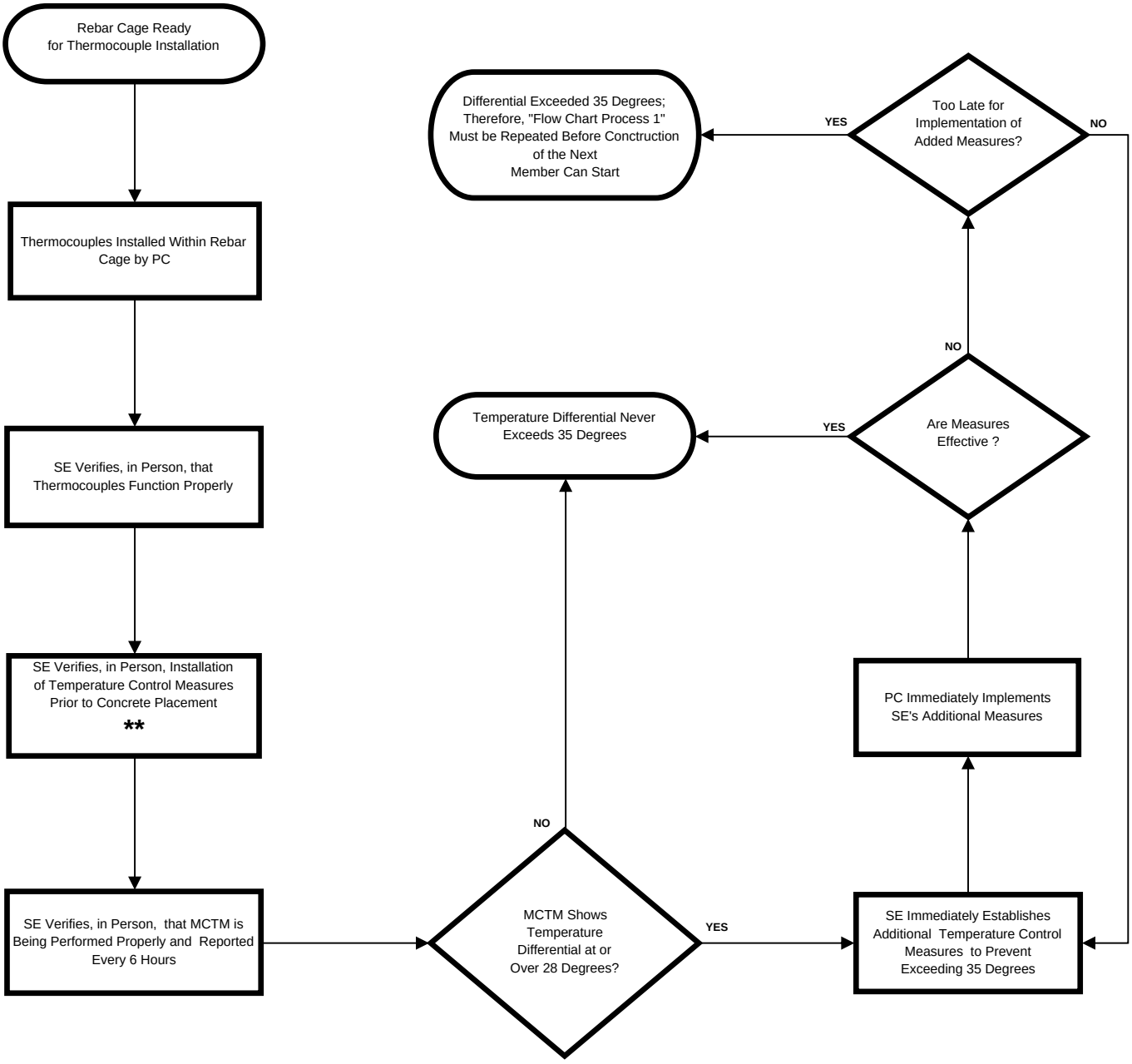
Attachment 10 - 3 - 4 - 1
CPAM SECTION 10.3 -- FLOW CHART PROCESS 1
MASS CONCRETE TEMPERATURE CONTROL PLAN APPROVAL PROCESS



ACRONYM KEY

DMO ------ District Materials Office
MCTCP -- Mass Concrete Temperature Control Plan
PA --- Project Administrator
PC --- Prime Contractor
SE ------- Specialty Engineer
SMO ---- State Materials Office

Attachment 10 - 3 - 4 - 2
CPAM SECTION 10.3 -- FLOW CHART PROCESS 2
CEI VERIFICATION * PROCESS FOR CONTRACTOR MASS CONCRETE TEMPERATURE MONITORING



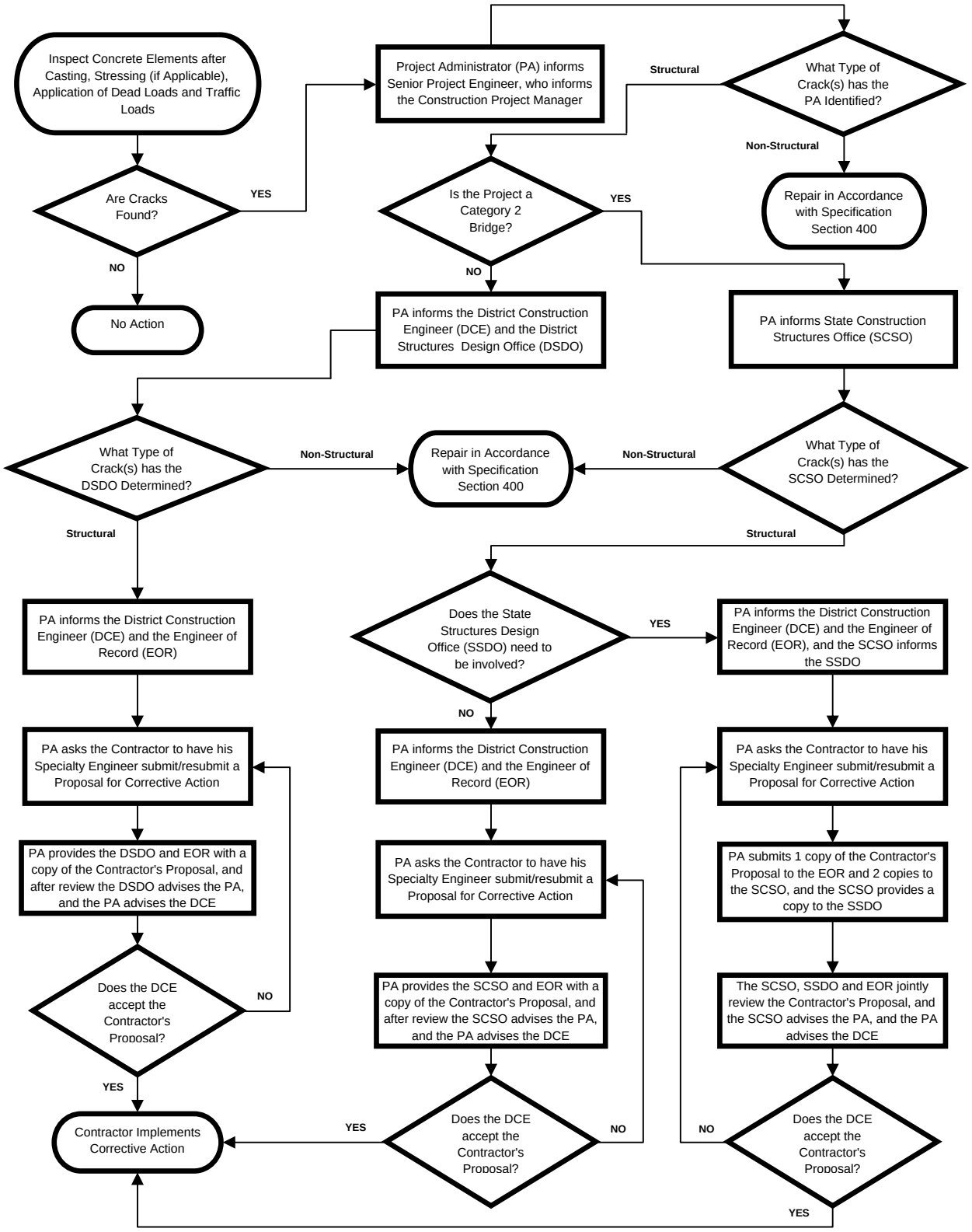
ACRONYM KEY

CEI ------- Construction Engineering and Inspection
MCTM --- Mass Concrete Temperature Monitoring
PC -------- Prime Contractor
SE -------- Specialty Engineer

* Each step in this process should be verified by CEI staff

**Examples of Temperature Control Measures include insulating blankets, external heat application and cooled mixing water

Attachment 10 - 3 - 5
CPAM SECTION 10.3 -- FLOW CHART PROCESS 3
CRACK INSPECTION AND REPAIR

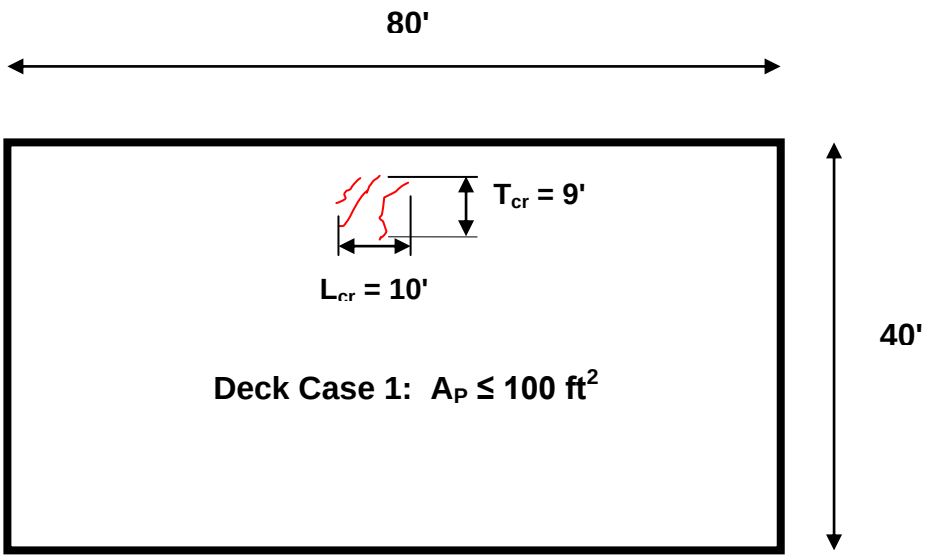


CPAM Attachment 10.3.5-1
LOT Size Determination Examples

ACRONYM KEY

A_L -- Final LOT Area (ft^2)
A_P -- Preliminary LOT Area (ft^2)
H_{cr} -- Distance from first crack to last Crack on a vertical height alignment within a LOT
L_{cr} -- Distance from first crack to last Crack on a longitudinal alignment within a LOT
T_{cr} -- Distance from first crack to last Crack on a transverse alignment within a LOT
W_{cr} -- Distance from first crack to last Crack on a level width alignment within a LOT

DECKS

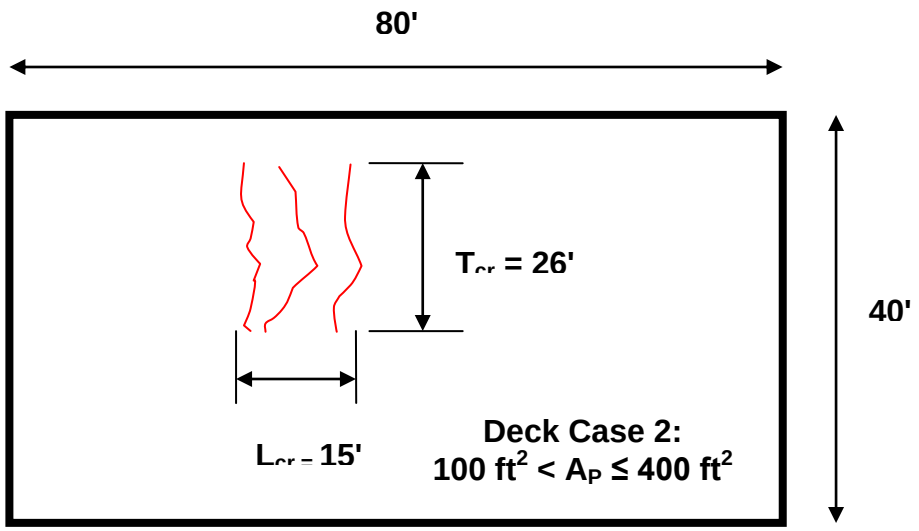


Bridge Deck Plan View

Lot Size Determination for Deck Case 1: $A_P \leq 100\ ft^2$

$A_P = L_{cr} \times T_{cr} = 10' \times 9' = 90\ ft^2 < 100\ ft^2$,

Therefore $A_L = 100\ ft^2$

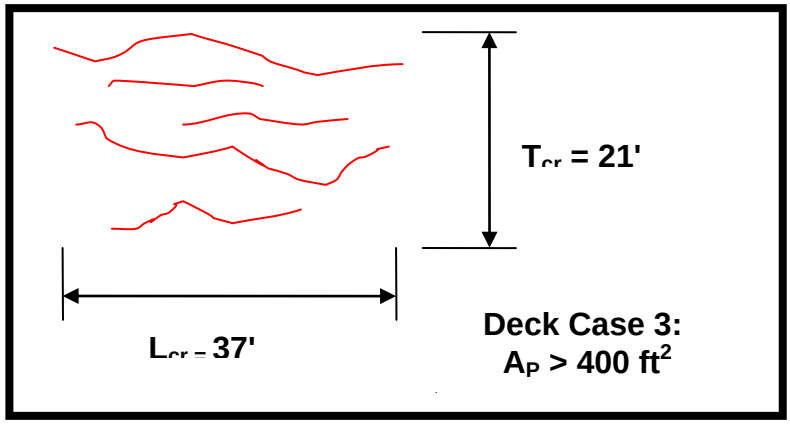


Bridge Deck Plan View

<u>Lot Size Determination for Deck Case 2: 100 ft^2 < A_P ≤ 400 ft^2</u>

$A_P = L_{cr} \times T_{cr}$ = 15' X 26' = 390 ft^2 < 400 ft^2,

Therefore, A_L = 390 ft^2



Bridge Deck Plan View

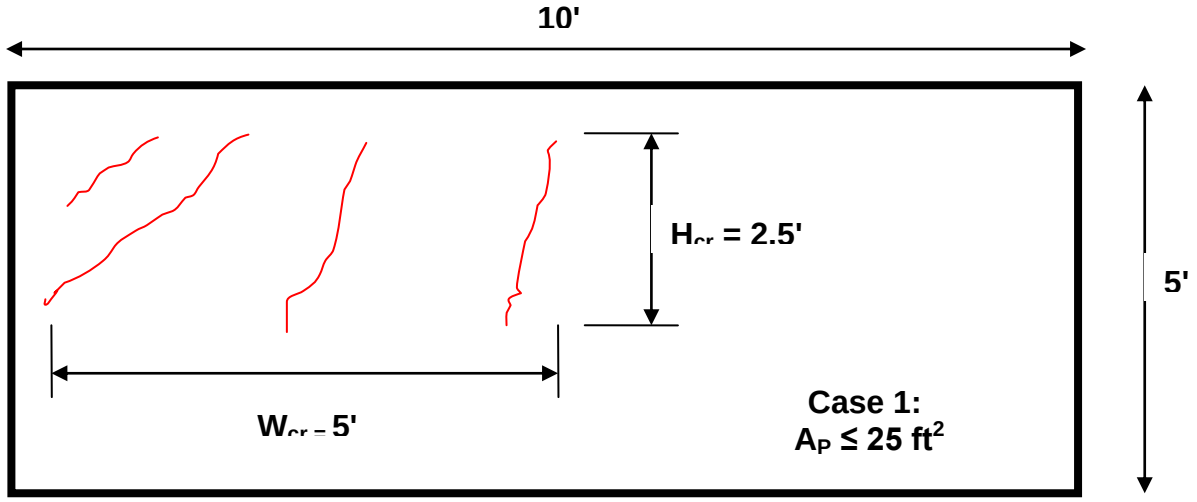
<u>Lot Size Determination for Deck Case 3: A_P > 400 ft^2</u>

$A_P = L_{cr} \times T_{cr}$ = 37' X 21' = 777 ft^2 > 400 ft^2,

Therefore, Use 2 LOT's each with A_L less than or equal to 400 ft^2

FOOTINGS, COLUMNS, CAPS, ETC.

NOTE: LOT size may never exceed the area of a single component face

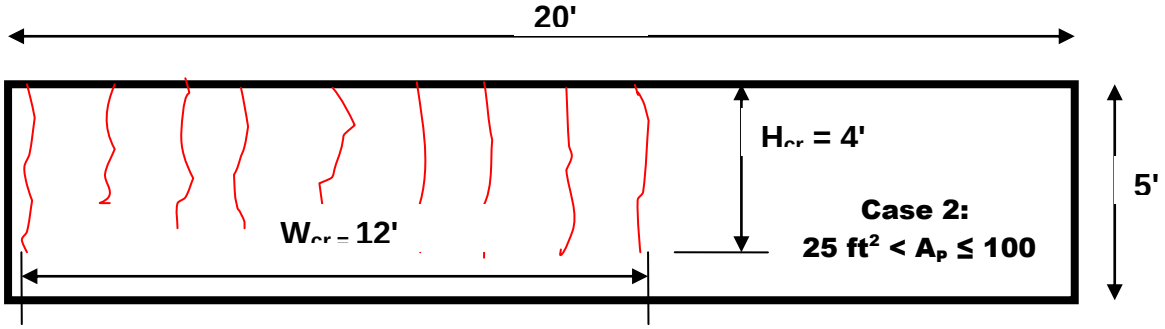


Vertical Face of a Footing, Column or Cap

Lot Size Determination for Case 1: $A_P \leq 25\ ft^2$

$$A_P = H_{cr} \times W_{cr} = 2.5' \times 5' = 12.5\ ft^2 < 25\ ft^2,$$

$$\text{Therefore, } A_L = 25\ ft^2$$

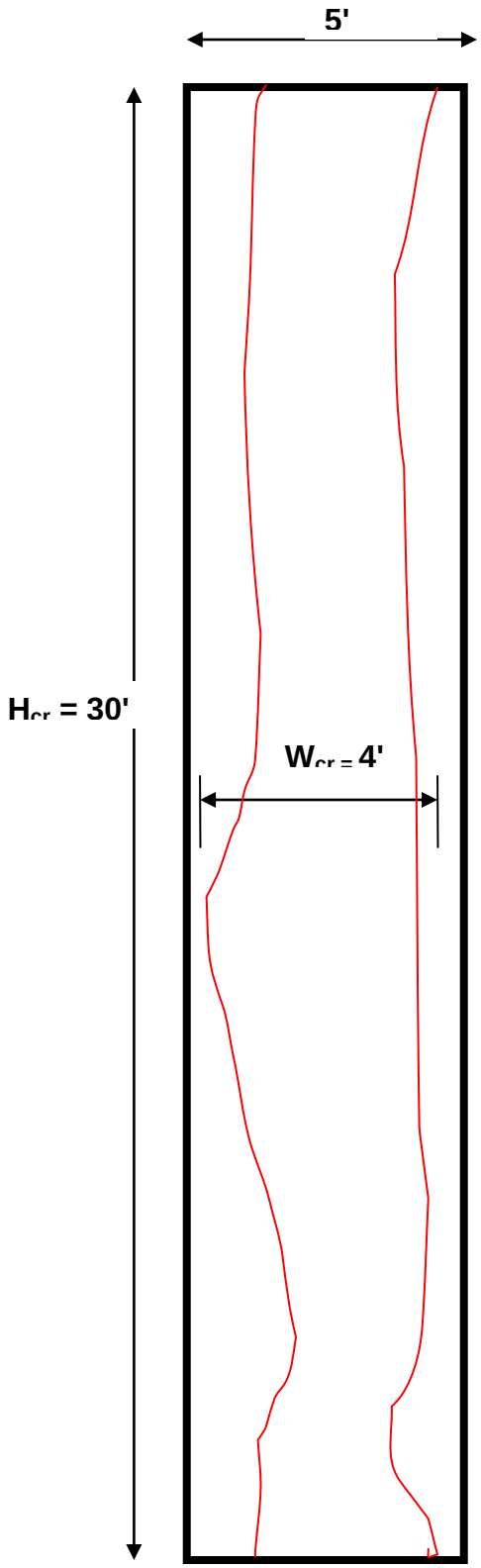


Vertical Face of a Footing, Column or Cap

Lot Size Determination for Case 2: $25\ ft^2 < A_P \leq 100\ ft^2$

$$A_P = H_{cr} \times W_{cr} = 4' \times 12' = 48\ ft^2 < 100\ ft^2,$$

$$\text{Therefore, } A_L = 48\ ft^2$$



Case 3:
A_P > 100 ft^2

<u>Lot Size Determination for Case 3:</u>
<u>A_P > 100 ft^2</u>

$A_P = H_{cr} \times W_{cr}$ = 30' X 4' = 120 ft^2 > 100 ft^2,

Therefore, Use 2 LOT's each with A_L less than or equal to 100 ft^2

NOTE: A_L for horizontal faces of footings, columns, caps, etc. is computed as shown here for vertical faces except that the dimensions are L_{cr} and T_{cr}

Vertical Face of a Footing, Column or Cap

Section 10.4

COATINGS AND ASBESTOS REMOVAL, HANDLING AND DISPOSAL AND STRUCTURAL STEEL COATING ISSUES

10.4.1 Purpose

To ensure hazardous or potentially hazardous waste including toxic metal (lead, cadmium, zinc, chromium, etc.) based paint residue or other waste material removed from bridges during repair, painting, demolition or disposal projects is identified, handled, stored, transported and disposed of in accordance with applicable local, state and federal regulations.

To ensure that asbestos-containing materials (ACM) are removed, handled, stored, transported and disposed of in accordance with the applicable local, state and federal regulations and to ensure that the human and natural environment are protected from exposure to airborne asbestos fibers.

The purpose is to heighten the awareness of Construction Engineering and Inspection (CEI) personnel (in-house and consultant) with regard to critical responsibilities for managing steel structure coating projects.

10.4.2 Authority

Section 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

10.4.3 Reference

29 CFR 1910

29 CFR 1926.62

29 CFR 1926.1101

40 CFR 61

40 CFR 261.24

40 CFR 763

Florida Department of Transportation Loss Prevention Manual (Topic No. 500-000-015)

Florida Department of Transportation Procedure Number 500-000-015, Loss Prevention Manual

Florida Department of Transportation, Standard Specifications for Road and Bridge Construction, Section 8-4, 110, 560 and 561

Florida Department of Transportation, Construction Training and Qualification Manual (CTQM), Chapter 8, Topic No. 700-000-001

10.4.4 Paint and Asbestos Removal, Handling and Disposal

10.4.4.1 General

Ensure that all painting, repainting, spot painting, removal or repairs that involve removal of materials that contain hazardous waste is done in conformance with this procedure and all local, state and federal regulations. The disposal of existing structures containing hazardous waste must also comply.

Ensure that the identification, abatement, handling and disposal of asbestos-containing materials are done in conformance with local, state and federal asbestos regulations and this procedure.

10.4.4.2 Construction Activities – Hazardous Coatings and Asbestos Removal

(A) Resident Level Responsibilities

(1) The Project Administrator must ensure that the Contractor's work plan and schedule complies with requirements of the ***Specifications***. For removal of coatings containing hazardous materials, the Contractor's Lead in Construction Compliance Program must also meet the requirements of the Specifications. Ensure that the Contractor doing the painting and/or removal holds a QP2 certification from the Society for Protective Coatings (SSPC), Painting Contractor's Certification Program and that the certification remains active for the duration of the project. The Contractor shall not begin construction involving hazardous materials and coatings until the work plan has been reviewed and approved.

(2) CEI inspectors involved in the inspection of paint projects must have proof of

successful completion of a bridge coating inspection course accredited by the Florida Department of Transportation prior to the start of work. For projects that have significant amounts of hazardous waste removal, CEI staff must have a certificate for successful completion of the following SSPC course: C-3, Lead Paint Removal. For a determination of what is significant hazardous waste removal versus incidental, contact the State Chemical Material Systems Engineer of the State Materials Office. The CEI staff must also ensure that the Contractor conforms to the site-specific specification.

Provide all inspection personnel with the safety and environmental considerations required in accordance with ***29 CFR 1926.62***.

(3) All removal and disposal of existing structures and related debris containing hazardous waste shall be performed in accordance with the specifications and all local, state and federal regulations.

(4) Consultant Design Project Managers have the responsibility to assure that National Emissions Standards for Hazardous Air Pollutants (NESHAP) inspection and notification regulations are complied with during the Design and/or PD&E phases of a Construction project. If asbestos containing materials (ACM) are identified on a bridge, an Asbestos Abatement Plan to remove the ACM must be developed by a Licensed Asbestos Consultant (LAC). The Asbestos Abatement Plan must be included in the scope of work for bridge demolition/renovation. Any asbestos abatement activities must be completed prior to bridge demolition and prior to conducting renovations that may disturb ACM.

If ACM were not identified prior to the construction phase, the Project Administrator shall notify the District Contamination Assessment Coordinator who will obtain the services of the Department's Asbestos Contractor or Contamination Assessment/Remediation Contractor (CAR) or a LAC, as appropriate, to determine the existence, nature and quantities of any suspect ACM and if needed, develop an Asbestos Abatement Plan. All removal, handling, storage, staging, transportation and disposal of existing structures containing ACM shall be performed in accordance with the site-specific asbestos abatement plans and specifications. The Project Administrator shall submit a notification to the Department of Environmental Protection (DEP) or the appropriate delegated local government agency prior to any bridge demolition, even if ACM is not identified. This form - Florida Department of Environmental Protection, ***Notice of Demolitions or Asbestos Renovation (DEP Form 62-257.900(1))*** is available from DEP. The Contractor shall coordinate the work with the Engineer and the Department's CAR Contractor for the safe removal, handling, transportation and disposal of ACM prior to the commencement of any

renovation or demolition activities. A staging area for the handling of asbestos-containing materials may be required.

10.4.5 Structural Steel Coating Issues

10.4.5.1 General

(A) Resident Level Responsibilities

10.4.5.2 Monitoring for Compliance with Non-Department Documents

Obtain copies of all documents referenced in the ***Specification 560 and 561*** that are published by Non-Department sources and keep them on file in the project office for the duration of the work. Verify Contractor compliance with these documents in the ***Daily Work Report*** or other appropriate project record. If the Contractor is not in compliance then the Project Administrator shall take appropriate action to correct the noncompliance.

10.4.5.3 Coating Inspection

The following issues shall be given special attention and their importance shall be emphasized in meetings and discussions with the Contractor.

1) **Coating of bolts:** Verify that bolts are prepared properly before painting and that they meet the specification cleanliness requirements before any paint is applied. Surfaces and edges of bolt heads and nuts must have the specified coating thickness and coverage, gaps between nuts and washers and between washers and plates must be sealed. When the Contract Documents call for bolts to be stripe coated by brush, verify that no other application method except a brush is used. See ***Specification 560-9.7, 560-10 and 561-9*** for requirements related to coating of bolts.

2) **Surfaces that are visually difficult to inspect and access:** Pay particular attention to surfaces that are difficult to view and access and reinspect them as often as necessary to confirm that proper cleaning and coating has been performed. Particular attention should be given to areas where stripe coats are used.

3) **Caulking gaps and seams:** Verify that caulking of gaps or seams, is performed in accordance with ***Section 560-9.3 and 561-8.3***. Verify that all seams and gaps are

properly caulked before coatings are applied. When gaps are too wide to be sealed with caulk, inspectors shall immediately report this to the Project Administrator. The Project Administrator shall consult with the appropriate individuals within the Department or with the Engineer of Record to determine how best to seal these gaps.

4) **Testing for chloride, sulfate and nitrate concentrations:** Testing for the presences of chlorides, sulfates and nitrates on surfaces to be painted is the responsibility of the Contractor. The concentration of these contaminants is determined by using a Soluble Salts Test Kit. Inspectors must be knowledgeable about this testing process in order to perform Contractor verification. See ***Section 560-7.5 and 561-6.5***, for this testing.

5) **Stripe Coating:** ***Specification 560-9.7 and 561-8.7*** requires the stripe coating of welds, corners, crevices, sharp edges, bolts, nuts, rivets, and rough or pitted surfaces. Verify that two stripe coats are applied or that the correct number of coats are applied as specified by the Contract Documents.

Section 10.5

DRILLED SHAFTS

10.5.1 Purpose

To establish a procedure to obtain drilled shaft lengths to be used in bridge structures. This procedure applies to conventional projects; for Design Build projects refer to ***Section 10.12***.

10.5.2 Authority

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

10.5.3 References

Section 455, Standard Specifications for Road and Bridge Construction and any supplements thereto

10.5.4 Definitions

District Construction Engineer (DCE): The authority on the entire construction activity in the District.

Construction Engineering and Inspection (CEI): In this procedure, it refers to the Consultant personnel performing CEI services or the Department's personnel group performing CEI services.

Geotechnical Engineer: In this procedure the Geotechnical Engineer may be the District Geotechnical Engineer (DGE), any Department Engineer assigned for the project by the DGE, the Consultant Geotechnical Engineer working directly for the DGE, or the Geotechnical Engineer employed by the Department's Consultant CEI performing under the direction of the DCE and DGE.

Project Administrator (PA): The Administrator who shall be responsible for the everyday construction activity at the project under the direction of the Resident Engineer/Senior Project Engineer.

Resident Engineer (RE): The Department's local area representative who reports directly to the DCE and may be either a Department employee of the District or an employee of an engineering firm which is serving as the Department's Consultant CEI representative.

10.5.5 General

The steps to establish shaft lengths consist of approval of the Contractor's shaft installation plan, recording of test hole installation, monitoring and analyzing load test data, if applicable, and/or the data from the core borings performed at every shaft location if available, and authorizing production shaft lengths in accordance with ***Section 455, Standard Specifications for Road and Bridge Construction,*** and any supplements thereto.

10.5.6 Drilled Shaft Installation Plan

(A) Resident Level Responsibilities

The RE (or PA) shall receive from the Contractor at the preconstruction conference a completed drilled shaft installation plan (DSIP). The plan shall provide detailed information about Contractor's equipment and methods suitable for the intended purpose and the materials encountered. The Project Administrator shall submit this plan to the Geotechnical Engineer within two (2) working days for evaluation.

The RE (or PA) will submit the DSIP to the Geotechnical Engineer for review and recommendations. The RE (or PA) shall perform a concurrent separate review of the DSIP and incorporate their own comments to the ones received from the Geotechnical Engineer. Within two (2) working days of the receipt of the Geotechnical Engineer’s comments and/or recommendations, the RE (or PA) shall notify the Contractor of acceptance, rejection, or request additional information and/or changes that may be necessary to construct the drilled shafts. The letter of rejection shall contain the reason(s) for rejection of the plan.

All approvals given by the RE shall be subject to trial and satisfactory installation of the test hole, load test shafts, and production shafts.

(B) District Level Responsibilities

Within five (5) working days of receiving the drilled shaft installation plan, the DGE shall make comments and/or recommendation to the RE (or PA) of the acceptance or rejection of the drilling system.

As soon as the Contractor's schedule for installation of test holes/test shafts is known, the PA shall notify the Geotechnical Engineer of the schedule so the Geotechnical Engineer shall be present.

A drilling log shall be maintained during pilot hole operations on *the* ***Pilot Hole Log, Form No. 700-010-35*** by the Department or by the CEI to record the soils and rocks encountered, and document rock core measurements during the drilling of the pilot hole**.** A drilling log shall be maintained during coring operations on the **Rock Core** page of the ***Drilled Shaft for Major Structures, Form No. 700-010-85,*** by the Department or by the CEI to document rock core measurements and rock description from cores taken at the base of the shaft.

10.5.7 Test Hole, Test Shaft, and Production Shaft Installation

Production shaft lengths are established utilizing the results of the pilot holes, test hole installation, and load test/core boring program and contract documents. Actual shaft length of a particular shaft may vary from the Plans length depending on the subsurface soil conditions encountered during shaft installation. (If no new information is available since the plans were developed, plan shaft tip elevations are the authorized tip elevations and no shaft authorization letter is required).

(A) Resident Level Responsibilities

Upon receipt of the ***Production Drilled Shaft Tip Elevations*** letter from the Geotechnical Engineer, the RE shall approve the recommendation and send it to the Contractor within one (1) working day.

Any Drilled Shaft installation shall be documented on either ***Drilled Shaft for Miscellaneous Structures, Form No. 700-010-84***, ***or Drilled Shaft for Major Structures, Form No. 700-010-85 depending of the type of structure***. These forms contain several pages to document all the phases of the Drilled Shaft Installation. There are several areas on these forms to include notes and comments. These notes or comments may describe any relevant incidents that occurred during the shaft installation, or any information that the recorder feels may be beneficial to the Geotechnical Engineer/PA.

Completed forms shall be sent to the Geotechnical Engineer within twenty-four (24) hours of completion for review and use in recommending the production shaft lengths. All load test data, pilot hole logs and core boring reports, if any, shall also be sent to the Geotechnical Engineer within twenty-four (24) hours after being received from the Contractor. Installation of all drilled shafts including Test Holes, Load Test Shafts, major structure production drilled shafts, and drilled shafts for miscellaneous structures must be inspected by Construction Training Qualification Program (***CTQP)*** Qualified Drilled Shaft Inspectors. Completed installation forms for all production drilled shafts shall be sent to the Geotechnical Engineer within twenty-four (24) hours of drilled shaft completion for review.

(B) District Level Responsibilities

Within seven (7) working days of receipt of the completed ***Test Hole Logs, Pilot Hole Logs***, and any ***Load Test Reports***, the Geotechnical Engineer shall write a ***Production Drilled Shaft Tip Elevations*** letter to the RE or higher authority recommending the shaft tip elevations to be used on the project. The RE or higher authority shall send this letter to the prime Contractor authorizing production shaft lengths as indicated in section 10.5.7 (A). A sample letter is included in this chapter. Refer to ***Guidance Document 10-5-A*** for sample letter and distribution.

During production shaft installation, the Geotechnical Engineer may decide to lengthen the shaft based on the cores taken from the shaft bottom. In these instances, a shaft authorization letter is required.

If requested, the Geotechnical Engineer may make a telephone call or send an electronic mail to notify the PA of the shaft lengths. The Drilled Shaft installation documents for the ***Test Hole Log***, ***Load Test Report***, ***Pilot Hole Log***, and any attachments shall be included with the letter of authorization.

Completed installation forms of the Pilot Holes, Test Hole and Load Test Shafts shall be sent to the Geotechnical Engineer within 24 hours of completion for review and use in recommending the production shaft lengths.

10.5.8 Drilled Shafts for Miscellaneous Structures

To improve the quality of the installation of Drilled Shafts for miscellaneous structures, DCEs shall obtain technical support from the District Geotechnical Office on drilled shaft projects involving mast arms, cantilever signs, overhead truss signs, high mast light poles, or other miscellaneous structures shown in the ***Contract Documents***. This

process includes review of DSIP, conduct at the earliest pre-drill/pre-concrete pour meetings, quality assurance checks and inspector assistance, etc. PAs shall notify the District Geotechnical Offices of the construction schedules of the drilled shafts for miscellaneous structures for the projects so they can schedule time to assist.

Completed forms of every drilled shaft installation shall be sent to the Geotechnical Engineer within 24 hours of completion for review.

Guidance Document 10-5-A

(DATE)
(ADDRESSEE)

Re:
Financial Project ID:
Contract No.:
County:
Structure #

Dear (_____):

This office (or the Geotechnical Engineering Form) has completed its review of the test load/core boring data for the subject bridge. Recommended Drilled Shaft Tip Elevations and rock socket lengths are as follows:

LOCATION	SHAFT SIZE	RECOMMENDED SHAFT TIP ELEVATION	MINIMUM SOCKET LENGTH

If you have any questions or require further information, please let us know.

Recommended by: _____
District Geotechnical Engineer/ Geotechnical Engineer

Recommended for acceptance by: (when consultant generates the letter)

_____
District Geotechnical Engineer

Authorized for contract administration purpose by:

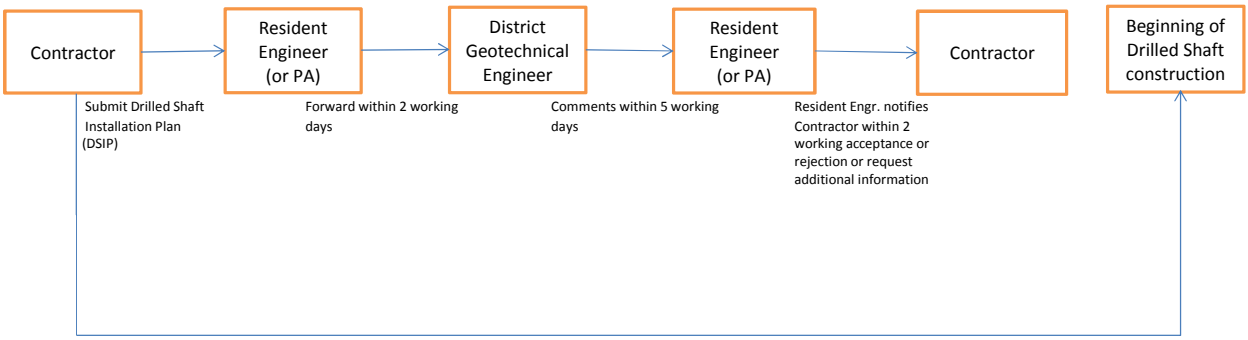
_____
Resident Engineer

(INITIALS/INITIALS)

cc: State Construction Geotechnical Engineer
State Structures Design Engineer's Office (State Design Geotechnical Engineer)
FHWA (only if Federal Aid oversight project)

Attachment 10-5
Flow Charts

APPROVAL OF DRILLED SHAFT INSTALLATION PLAN



Contractor shall submit DSIP at the preconstruction conference or 30 days prior beginning of drilled shaft construction

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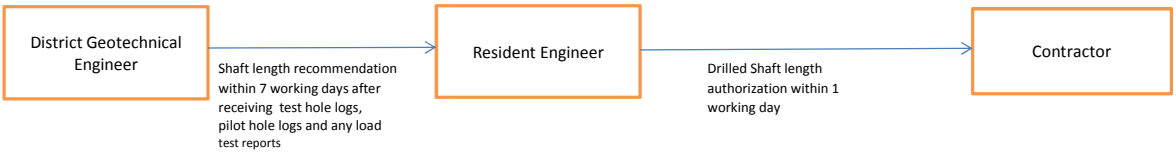
PRODUCTION SHAFT LENGTHS/TIP ELEVATIONS

(usually not applicable for signs and light pole foundations)



Section 10.6

UNDERWATER BRIDGE CONSTRUCTION INSPECTION

10.6.1 Purpose

The purpose of this section is to provide a standard procedure for conducting underwater bridge construction inspections on active bridge construction projects. The procedure specifies the type of bridge member that requires underwater inspection, the type of underwater inspection required and the frequency of inspections. The qualification requirements for firms and individuals performing underwater inspections are also specified.

10.6.2 Authority

Section 20.23(4)(a), Florida Statutes

Section 344.048(3), Florida Statutes

Section 336.045, Florida Statutes

10.6.3 General

Procedures for performing underwater inspections are presented herein and the contractual requirements for providing consultant CEI services for underwater inspections are specified in the Standard CEI Scope of Services ***Section 9.3, On-Site Inspection***.

The CEI scope of services for projects having underwater members must address the requirements herein. The individual responsible for scope of services development shall consult with the District Structures Maintenance Engineer and District Structures Design Engineer to determine if the project will utilize members with a history of underwater defects as described in ***Section 10.6.4.1(a)***. If the project will utilize these type members then the CEI scope of services must include the higher level of underwater inspection effort required by ***Sections 10.6.4.1 (a) and 10.6.4.2 (a)***. If the District chooses to have a comprehensive underwater debris survey done for the bed of the body of water on the alignment of the project prior to letting, then this should be added to the scope of services. These type surveys are not required by this procedure but they may be added at the discretion of the District.

Initial and progress inspections for projects managed by CEI Consultants shall be performed by a commercial diving service or by a qualified bridge maintenance consultant hired by the CEI consultant. The diver/inspector in charge of the work in the field for the commercial diving service and who shall personally perform the required inspections underwater shall have successfully completed National Highway Institute (NHI) training course number 130091, Underwater Bridge Inspection, or an equivalent course as determined by the Project Administrator (PA). Assistant divers are not required to take the NHI course. In lieu of NHI course completion, the diver/inspector in charge may be a Certified Bridge Inspector (CBI). CBI certification is administered by the Florida Department of Transportation Office of Maintenance, Structures Maintenance Section which issues inspector certificates as proof of certification. Inspectors/divers shall submit written proof of successful NHI course completion or CBI certification to the PA prior to commencement of services.

Initial and progress inspections for projects managed by in-house CEI staff may be performed by a commercial dive service, bridge maintenance consultant or by Department inspector/divers as determined by the District Construction Engineer based on consultation with the District Structures Maintenance Engineer. Commercial or consultant inspectors/divers must meet the NHI or CBI requirements above and may be provided through a District Construction Office General Engineering Consultant (GEC) services contract or through a local CEI consultant residency contact.

Final inspections for projects managed by CEI Consultants shall be performed by the CEI consultant or by a subconsultant hired by the CEI Consultant; however, the firm providing the service shall be prequalified to perform bridge maintenance inspections and related services as required by ***Florida Administrative Code (FAC) No. 14-75.003(5)(d)2, Qualification Requirements for Bridge Maintenance Inspection Consultants***. Final inspections may also be performed by in-house Department Certified Bridge Inspectors. The decision to use Department inspectors will be determined by the District Construction Engineer based on consultation with the District Structures Maintenance Engineer.

Final inspections for projects managed by in-house CEI staff may be performed by Department CBIs or consultant inspectors. The decision to use Department or Consultant inspectors will be determined by the District Construction Engineer based on consultation with the District Structures Maintenance Engineer. If consultant inspectors/divers are used for in-house CEI projects then they must meet the requirements of ***FAC 14-75.003*** above and may be provided through a District Construction Office GEC services contract or through a local CEI consultant residency contract.

10.6.4 Underwater Inspection of Concrete Piles and Uncased Drilled Shafts

10.6.4.1 Initial Inspection

When time permits and within the allotted time (typically 8 hours) for underwater foundation member inspections, initial inspections may include a search for prohibited underwater construction debris that may have been deposited by the Contractor during construction operations. The need for a debris inspection will be determined by the PA with concurrence of the Department's Construction Project Manager based on whether or not there is reason to believe that the Contractor's debris disposal practices are questionable.

(a) Voided piles, cylinder piles and uncased drilled shafts with concrete surfaces directly exposed to open water

The purpose of the initial inspection is to revise pile driving or drilled shaft installation procedures and/or designs if defects develop during installation of the first members of the project. An initial underwater inspection of members shall be performed after all foundation members of the first pier or bent have been installed and if possible, before member installation for the next pier or bent begins and before footing or cap formwork is placed. Inspection operations shall not delay or impact the Contractors construction operations. In certain environments, marine growth on the surface of members can advance enough to obscure the view of that surface within 7 days. The PA must determine if the rate of marine growth will affect inspection of underwater surfaces. During initial inspections, underwater inspectors shall inspect every visible submerged surface of designated members. If marine growth has obscured the view of concrete surfaces by the time inspections take place then perform inspections as covered in ***FDOT Bridge Underwater Operations, Procedure No. 850-010-011, Section 7.2.1 and 7.2.2***.

An initial inspection shall be preformed for each member installation system where the installation system is defined herein as the combination of one type member with its corresponding installation machinery as established during the member test program. Any significant change, as determined by the PA, of the installation system will require another initial inspection. The PA may also call for an initial inspection any time it is felt that member installation conditions (soil resistance, soil type, member depth, etc.) or procedures have changed enough to be considered a different installation system.

If the initial inspection reveals defects then the PA will take action as defined in applicable sections of the contract documents that may mandate repair, removal, etc. If action is not specifically covered by the contract documents then a written notice shall immediately be issued by the PA with a description of the defects and a request that the Contractor respond to the notice with a proposal for correcting current defects and for preventing future defects. The notice shall also recommend that the Contractor suspend the operation that is producing defects until an approved solution to the defect problem is agreed upon between the Department and Contractor. If the Contractor chooses not to suspend member installation operations after receipt of the defects notice, then the PA shall send a letter to the Contractor advising that if member installation continues, it is at the Contractor's risk and the consequence could be mandatory removal of defective members. The PA shall consult with appropriate parties (Project and District Geotechnical Engineer, EOR, District Structures Design Engineer, State Construction Structures Engineer, etc.) to develop a response to the Contractor's proposal for preventing further defects and to determine what action will be required to correct existing defects in accordance with ***Specification 6-11, 400-21 and CPAM Section 5.8.5, Defective Materials***.

Once member installation operations resume, another initial inspection must be performed and if defects are not revealed then progress inspections as described herein shall be performed. When defects are not found during the initial inspection then installation process and member design and may continue contingent on the results of progress inspections.

(b) Members covered by 10.6.4 that rarely develop underwater defects

The PA will decide if an initial inspection is needed based on the effectiveness of the installation system's performance after the first pier or bent has been completed. If the PA is confident that members are not developing cracks, spalls or other defects during the first installation then an initial underwater inspection should not be needed. However, if the PA is uncertain about the development of defects then an initial inspection should be considered and the Construction Project Manager and project Geotechnical Engineer shall be consulted for concurrence prior to proceeding with an inspection.

10.6.4.2 Progress Inspection

When time permits and within the allotted time (typically 8 hours) for member inspections, progress inspections may include a search for prohibited underwater construction debris that may have been deposited by the Contractor during operations. The need for a debris

inspection will be determined by the PA with concurrence of the Department's Construction Project Manager based on whether or not there is reason to believe that the Contractor's debris disposal practices are questionable.

(a) Voided piles, cylinder piles and uncased drilled shafts with concrete surfaces directly exposed to open

The first and only progress inspection for bridges with 10 or less piers/bents having members exposed to open water (water piers/bents) shall be performed on all members in the pier/bent that contains the member closest to that representing 33% of all the members that will be installed in open water. An example is a bridge that has a total of 10 piers of which 5 are water piers each with 10 piles which makes a total of 50 water pier piles. So for this example the progress inspection will be performed on all piles in the second water pier because it contains pile 17 (33% of 50 = 17) of 50 or the pile that is closest to 33% of all water pier piles. For bridges with more than 10 water piers/bents, progress inspections shall be performed on all members in the water pier with the member closest to representing 25% of all water members installed and then again on all water members in the pier with the member closest to representing 65% of all water members installed. This selection criterion applies individually to each type member installation system that received an initial inspection. For example: if a bridge has 20 bents with solid 24 inch square piles and 10 piers with 30 inch square voided piles then one progress inspection would be performed at 25% and one at 65% for the 24 inch piles and one progress inspection would be performed at 25% and one at 65% for the 30 inch piles.

During progress inspections, inspectors shall inspect every visible submerged surface of designated members. If possible, the members in the progress inspection pier/bent shall be inspected before member installation for the next pier/bent begins and before footing/cap forms are installed. However, inspection operations shall in no way delay or impact the Contractors construction operations. Also, comply with ***Section 10.6.4.1(a)*** for determining the significance of marine growth with regard to a time limit for inspections. If all members in the progress inspection pier have been inspected before the end of the routine inspection team day (typically 8 hours), then as directed by the PA, the inspection team shall also inspect as many members as possible in adjacent piers before the end of the routine inspection team day.

If a progress inspection reveals defects, the PA will take action as defined in applicable sections of the contract documents that may mandate repair, removal, etc. If action is not specifically covered by the contract documents then a written notice shall immediately be issued by the PA with a description of the defects and a request that the Contractor

respond to the notice with a proposal for correcting current defects and for preventing future defects. The notice shall also recommend that the Contractor suspend the operation that is producing defects until an approved solution to the defect problem is agreed upon between the Department and Contractor thus preventing additional defects. If the Contractor chooses not to suspend member installation operations after receipt of the defects notice, then the PA shall send a letter to the Contractor advising that if member installation continues, it is at the Contractor's risk the consequence of which could be mandatory removal of defective members. The PA shall consult with appropriate parties (Project and District Geotechnical Engineer, EOR, District Structures Design Engineer, State Construction Structures Engineer, etc.) in order to develop a response to the Contractor's proposal for preventing further defects and to determine what action will be required to correct existing defects in accordance with ***Specification 6-11, 400-21*** and ***CPAM Section 5.8.5, Defective Materials***.

Once member installation operations resume, whether or not suspension has taken place, another initial inspection must be performed and if no defects are observed then progress inspections shall resume at a frequency determined by the PA with the concurrence of the Construction Project Manager. If defects are again observed, repeat this procedure.

(b) Members that rarely develop underwater defects

When the PA determines that an initial inspection is needed then depending on the results of that inspection, the PA may also consider requiring at least one progress inspection to confirm that defects are not developing as member installation progresses. Anytime defects are observed, comply with the procedure herein that covers what to do when defects are revealed.

10.6.4.3 Final Inspection (applies to all members covered by 10.6.4)

A final underwater inspection of piles, including fender piles, and uncased drilled shafts shall be performed prior to final acceptance of the project but not before the bridge has been carrying full unrestricted public vehicular traffic for at least 7 days. The written record of the bridge inspection shall be signed and sealed by a Professional Engineer registered in the State of Florida. Inspections shall be conducted in accordance ***FDOT Bridge Underwater Operations, Topic No. 850-010-011*** and be in full compliance with FDOT District Structures Maintenance Office procedures for routine underwater maintenance inspections. Prior to the start of any final inspection, the District Structures Maintenance Engineer (DSME) shall be consulted and inspections shall be performed according to the DSME's direction with concurrence of the Construction Project Manager. A copy of the

records that are produced as a result of inspections shall be transmitted to the District Structures Maintenance Office and will be incorporated into the permanent bridge maintenance record and may serve as the official initial underwater bridge maintenance inspection report.

Final inspections shall include a search for prohibited underwater construction debris that may have been deposited by the Contractor during construction operations.

10.6.5 Underwater Inspection of Footings, Columns, Piers and Walls

10.6.5.1 Initial Inspection

An initial inspection will be required for the first members (footings, columns, piers or walls) constructed on the project that will be fully submerged during their service life. Cracks or other defects must be corrected prior to flooding the cofferdam. The initial underwater inspection of the first fully submerged members of the project shall not take place until the superstructure load with the exception of traffic and pedestrian barriers, lighting, signing, signals, etc., has been applied to the pier and which shall be referred to as the "Initial Inspection Load".

Footings that will be partially submerged (waterline footings) during their service life will receive a final underwater inspection only and will not receive an initial or progress inspection unless cracks above water are found during the routine inspection required by ***CPAM 10.3.5***. If a crack starts above water and ends below the water then underwater inspection procedures herein for fully submerged components shall apply to that waterline footing.

A significant amount of time will pass between flooding of the cofferdam and completion of the deck so aquatic growth will have developed on submerged concrete surfaces to a degree that is governed by the aquatic environment. Because of the growth, both a level I and II underwater inspection shall be performed in accordance with ***FDOT Bridge Underwater Operations, Topic No. 850-010-011, Section 7.2.1 and 7.2.2***.

If defects are found during the initial inspection then a decision about what action, if any, shall be taken to correct the defects, and to prevent further defects in members not yet built, shall be pursued by the PA in accordance with ***Specification 6-11, Specification 400-21*** and ***CPAM Section 8.11*** and with assistance from the following participants as needed: Construction Project Manager, District Materials Office, District Structures Design Office, State Materials Office, State Construction Office and State Structures Design

Office. When defects are found in the first pier of the project then an initial inspection shall be performed on the second pier of the project immediately or as soon as the Initial Inspection Load is applied. If defects are found in the second pier then the initial inspection process will continue to the third pier, and so on, until the PA has required initial inspection of all piers or until the PA is satisfied that the defects are unlikely to occur on subsequent piers due to a change in construction practice or for some other rational reason.

If no defects are found during the initial inspection of the first fully submerged members of the project then the PA has the option of either performing Progress Inspections as the project advances or to continue Initial Inspections due to knowledge of construction problems during the building of other members.

10.6.5.2 Progress Inspection

Within the allotted time for member inspections (typically 8 hours), progress inspections may include a search for prohibited underwater construction debris that may have been deposited by the Contractor during operations. The need for a debris inspection will be determined by the PA with concurrence of the Department's Construction Project Manager based on whether or not there is reason to believe that the Contractor's debris disposal practices are questionable.

Once all Initial Inspections are complete then Progress Inspections shall be performed according to the provisions herein and in accordance with ***FDOT Bridge Underwater Operations, Topic No. 850-010-011, Section 7.2.1 and 7.2.2***. For bridges with 10 or less water piers, perform one progress inspection on the water pier closest to that representing 33% of all the water piers installed. For example, if the bridge has 12 total piers and 8 are water piers then 33% of 8 is 2.6 which rounded off is 3; therefore, the third water pier would receive the only progress inspection required if no defects are found. For bridges with more than 10 water piers, progress inspections shall be performed on the water pier closest to representing 25% of all water piers in the project and then again on the water pier closest to representing 65% of all water piers in the project. If the designated pier has been inspected before the end of the routine inspection team day (typically 8 hours), then as directed by the PA, the inspection team shall also inspect as many other piers as possible before the end of the routine inspection team day. If defects are found during a progress inspection then the PA shall take action as described in ***Section 10.6.5.1*** for dealing with defects as well as with requiring inspection of other piers.

10.6.5.3 Final Inspection

A final underwater inspection of fully and partially submerged members including bulkheads, seawalls, etc. shall be performed prior to final acceptance of the project but not before the bridge has been carrying full unrestricted public vehicular traffic for at least 7 days. Perform final inspections of piers, footings, columns and walls in accordance with ***Section 10.6.4.3***.

Final inspections may include a search for prohibited underwater construction debris that may have been deposited by the Contractor during construction operations. The need for a debris inspection will be determined by the PA with concurrence of the Department's Construction Project Manager based on whether or not there is reason to believe that the Contractor's debris disposal practices are questionable.

Section 10.7

POST-TENSIONED BRIDGES

10.7.1 Purpose

The purpose of this procedure is to direct Construction Engineering and Inspection (CEI) personnel in the inspection, monitoring and engineering duties required to assure quality post-tensioned (PT) bridge construction in compliance with the Contract Documents. This procedure is primarily intended to be used by CEI staff familiar with PT bridge construction.

10.7.2 Authority

Section 334.048, Florida Statutes

Rule Chapter 5J-17, Florida Administrative Code

10.7.3 CEI Responsibility Categories

In Person Observations: The responsibilities of this category require CEI staff to be physically present when a construction activity is being performed by the Contractor or shortly before a critical operation is to be performed and to visually verify that the activity is being performed in accordance with the Contract Documents. Responsibilities of this category also include personally performing, while in the field, surveying, documenting, testing and measuring. At a minimum, conduct a pre-operation meeting with the Contractor prior to the first time a construction activity of a given type (control survey, casting, erection, stressing, grouting) is to be performed.

Verification of Contractor's Procedures and Records: The responsibilities of this category require CEI staff to review Contractor procedures and records to verify their accuracy and compliance with the Contract Documents. These reviews may not require CEI staff to directly observe the specific construction operation performed by the Contractor. Responsibilities involve review of Contractor calculations, observation of Contractor Quality Control (CQC) test procedures and other QC procedures, review of contractor survey data, verification of data collection form accuracy and completeness as well as other required Contractor records.

Record Keeping: The responsibilities of this category require CEI staff to personally gather and record data for entry into various forms and other records. These forms and records shall be on file at the CEI field office. Other forms may be developed by the CEI as necessary. Upon approval of the State Construction

Structures Engineer (SCSE), CEI staff may use copies of Contractor forms or records that are verified by the CEI staff to be accurate and complete but the copy shall bear a statement that it was verified by the CEI and shall include the signature of the CEI employee that performed the verification. The CEI shall retain an independent copy of all such verified records.

10.7.4 Additional Requirements

Verify that all Contractor operations are conducted in accordance with the following QC Guidelists:

8B Concrete Materials

10A Bridge Structures – General Concrete

10C Bridge Structures – Concrete Decks

10D Bridge Structures – Post-tensioning (PT).

10.7.5 Segmental Casting Yard Operations

A. Activities Required Prior to Casting a Segment

1. In Person Observations

   a. Survey tower and casting beds are rigidly constructed and will not deflect. Perform periodic independent surveys to verify tower position throughout the course of the project. Perform independent surveys to develop and maintain survey control data throughout the course of the project.

   b. Record independent horizontal and vertical measurements at formwork control points for each segment. Verification measurements may be taken at the same time that Contractor QC measurements are taken. If permitted by the Contractor, Contractor survey equipment may be used by the CEI for performing formwork surveys prior to casting a segment.

   c. FORMS – Observe and verify the following:

      - Forms are rigidly constructed and have sufficient strength to prevent deformation while supporting plastic concrete.
      - Form surfaces are in good condition.
      - Form and match-cast surfaces are coated with form release compound.
      - Mandrels or other devices used to secure duct openings at the bulkhead are rigid and properly positioned.
      - Form joints are sufficiently tight to prevent leakage of concrete slurry.

   d. REINFORCEMENT – Observe and verify the following:

      - Size, spacing, position, grade and cover are correct. (For segmental construction, extra attention should be paid to reinforcing in pier segments and deviator segments.)
      - Spacers, chairs and bolsters have sufficient strength to prevent deformation during concrete placement and are listed on the Department's ***Approved Products List***.
      - Tie wires do not protrude into the concrete cover.

- Reinforcing and prestressing steel are free from loose rust, dirt, paint, etc.

- Reinforcing is securely tied.

e. DUCTS – Observe and verify the following:

- All PT system components are as depicted on the Structures Design Office (SDO) Approved PT Systems website. No substitutions of any PT components are allowed without consent from the SDO and the SCSE.

- Post-tensioning ducts are free from debris and are securely capped.

- Pipe deviator position and rotation are correct.

- Duct size, position, alignment and cover are correct. (For segmental construction, extra attention should be paid to ducts in pier segments and deviator segments.)

- Ducts are properly sealed with no cuts, breaks or unacceptable deviations.

- Duct couplers are properly installed within the match-cast segment.

2. Verification of Contractor's Procedures and Records

a. Prior to commencement of field survey operations, verify that the segment geometry control methodology proposed in the ***Contractor's Casting Manual*** and proposed method for geometry adjustments provide the accuracy and precision required in the Contract Documents.

b. Segment geometry measurements are accurate and have been correctly recorded.

c. Check Contractor's calculations for revised segment geometry to correct segment alignment per the theoretical casting curve.

3. Record Keeping

a. Generate and maintain independent records and geometry adjustment calculations for elevations and horizontal measurements at survey control points for comparison with the Contractor's records.

b. Generate checklists to track the Observations and Verifications listed above. See ***Attachments 10-7-1(a) and 10-7-1(b) "Sample Segment Casting Record"***.

B. Casting Activities

1. In Person Observations

   a. Concrete is placed according to the Contract Documents. Vibrators are only used in accordance with ***Specification***.

   b. Verify the "Mass Concrete Plan" has been approved by the Department (if applicable).

2. Verification of Contractor's Procedures and Records

   a. Contractor concrete QC test specimens are taken from the point of placement.

   b. Curing compound application rate is calculated by contractor, that there are records documenting this and that it meets the requirements of the Contract Documents.

3. Record Keeping

   a. Generate checklists to track the Observations and Verifications listed above.

C. Post-Casting Activities

1. In Person Observations

   a. Record independent horizontal and vertical measurements at segment control points for each segment. Verification measurements may be taken at the same time that QC measurements are taken. If permitted by the Contractor, Contractor survey equipment may be used by the CEI for performing segment surveys.

   b. Visually inspect segment surface per ***CPAM 10.3***. Use a pocket microscope to accurately measure crack widths smaller than 25 mils.

   c. Follow ***CPAM 10.2*** for the disposition of defects.

   d. All duct end openings are capped such that water or other foreign material cannot enter duct.

   e. Verify mass concrete temperature readings are within allowable Specification limits (if applicable).

f. Lifting, transportation, and storage of segments are per ***Specification 452-7***.

g. If segment post-tensioning is required prior to removing the segment from the form, complete the procedures in ***Section 10.7.6 (B)*** of this chapter.

h. Mark segments which have passed all inspections and which are ready for delivery to erection site by means of a stamp applied with indelible ink. Record date that each segment is stamped.

2. Verification of Contractor's Procedures and Records

a. Elevations and horizontal measurements of as-cast segment are accurate and have been correctly recorded.

b. Concrete has reached strength required in the Contract Documents prior to tendon stressing, removal from formwork and lifting as applicable.

c. Segment dimensions agree with those required by ***Contractor Casting Manual*** and theoretical casting curve to within the tolerances specified in the Contract Documents.

3. Record Keeping

a. Develop and maintain forms to track the Observations and Verifications listed above.

b. Graphically depict crack maps, spalls, honeycombs, or other concrete surface flaws or repairs on an accurately scaled drawing of each segment (refer to ***CPAM 10.3*** for detailed requirements).

10.7.6 Field Construction Operations

A. Segmental Erection Activities

1. In Person Observations

a. All erection operations are in accordance with the Contract Documents and approved ***Erection Manual***. Verify forces in temporary erection PT components.

b. Elevations and horizontal measurements at survey control points, and bearing seats are recorded before and after segment erection. Review QC survey information for compliance with theoretical alignment.

c. Only approved shimming procedures and materials or other methods are used to correct vertical and/or horizontal misalignments. Notify the SCSE if shimming frequency exceeds every other segment for one full span or full cantilever.

d. Duct couplers are correctly installed in all continuous ducts.

e. Allowable mixing/application time of epoxy jointing material is not exceeded. Verify epoxy temperature limits are not exceeded.

f. Epoxy jointing material between segments is uniformly applied immediately before segment erection. At closure pours, epoxy bonding compound, if used, has been uniformly applied on adjacent segments immediately before placing concrete.

g. Contractor's method for preventing epoxy from falling beneath the bridge is effective.

h. Verify PT ducts permit passage of a torpedo through duct immediately after initial stressing of bars or tendons.

i. Epoxy "squeeze out" is visible along entire length of joint.

2. Verification of Contractor's Procedures and Records

a. Check the Contractor's proposed erection manual and method for calculating adjustments to elevations and horizontal measurements at survey control points.

b. Contractor's erection manual and temporary loads are in accordance with the Contract Documents.

c. Elevations and horizontal measurements at survey control points are accurate and have been correctly recorded.

d. Check calculations to adjust elevations and horizontal measurements at survey control points.

e. Verify with the Project Administrator the Contractor's proposed methods to correct vertical and/or horizontal misalignment.

f. Proposed epoxy jointing material properties comply with the Contract Documents.

3. Record Keeping

a. Generate independent records and geometry adjustment calculations for elevations and horizontal measurements at survey control points, for comparison with the Contractor's records.

b. If cracks or spalls occur during erection or stressing, graphically depict crack maps or spalls on an accurately scaled drawing of each segment (refer to ***CPAM 10.3.5*** for detailed requirements).

c. Develop and maintain epoxy jointing records of all epoxy jointing operations. ***See Attachment 10-7-2 "Sample Epoxy Joint Record"***.

B. Stressing Operations for all PT Bridge Types

1. In Person Observations

a. PT steel is properly stored and protected.

b. PT steel is placed into the ducts properly without damage to prestressing steel or ducts with a clean strand surface.

c. Concrete has reached strength required in the Contract Documents prior to erection and tendon stressing.

d. Witness and record all PT stressing operations, including: hydraulic jack gauge pressure readings and tendon or PT bar elongation measurements.

2. Verification of Contractor's Procedures and Records

a. Hydraulic jacks have been properly calibrated and certified calibration curves have been provided for each hydraulic jack, in compliance with the Specifications.

b. In-place friction tests have been performed.

c. Verify the Contractor's procedures, measurement, calculation and documentation of tendon elongations and documentation of hydraulic jack gauge pressure readings.

d. The Project Administrator shall coordinate a resolution to all differences between the CEI and the Contractor in the measurement and/or documentation of tendon elongations. In the event that measured elongations do not match those predicted by the Specialty Engineer and/or differences exist between the CEI and the Contractor in the way hydraulic jack readings and/or elongations are measured and recorded, the Project Administrator shall contact the State Construction Structures Engineer and notify the

Contractor that his Specialty Engineer needs to be involved in resolving these differences. If approved by the State Construction Structures Engineer, the stress in a tendon can be verified using lift-off tests at either the live or dead end of a tendon, if deemed appropriate, on a case-by-case basis.

3. Record Keeping

Develop and maintain independent stressing records of all PT stressing operations. See ***Attachment 10-7-3 "Sample Stressing Record"***.

C. Grouting Operations for all PT Bridge Types

1. In Person Observations

   a. Air pressure tests are performed successfully.

   b. Confirm location of all leaks and/or crossovers during the Duct Field Pressure Test for each tendon.

   c. Field grout operations are performed as specified, within specified time, and in conjunction with specified tests. A minimum of two CEI Inspectors shall be present during field grouting operations, one to observe grout mixing and pumping operations, and one to observe grout discharge at outlet locations.

   d. Confirm duct high points and anchorages have been drilled out, inspected for voids using an endoscope, and pressure or vacuum grouted to fill voids where needed.

2. Verification of Contractor's Procedures and Records

   a. Verify acceptance of the Contractor's Grouting Operation Plan.

   b. Prepackaged grout is on the ***Approved Products List***, and proposed equipment is in compliance with the Specifications.

   c. Obtain grout manufacturer's Quality Certificate of Analysis and delivery tickets to obtain specific density parameters and to verify time that grout has been on project.

   d. Verify submittal of the Contractor's Grouting Report after each grouting operation.

   e. Verify the accuracy and completeness of the Contractor's Grouting Records after each grouting operation.

f. Confirm all required grout testing have been performed and documented on the grouting record sheet. See ***Attachment 10-7-4*** for required testing information.

3. Record Keeping

a. Develop and maintain Grouting Records, separate from the Contractor's records. See ***Attachment 10-7-4 "Sample Grouting Record"***.

b. Document the results of the post grouting inspection. See ***Attachment 10-7-5 "Sample Post-Grouting Inspection Record"***.

E. Inspection of External Tendon Ducts and Couplers

1. In Person Observations

a. Inspect external tendon ducts and couplers for grout voids, fractured grout, delamination, as well as duct and coupler material punctures, splits or other damage by sounding them and by visual inspection of all visible duct and coupler surfaces. Sound each duct and coupler a minimum of seven days after grouting is complete by tapping the surface using a 16 ounce hammer with a steel head. Use a tapping force that will not cause the duct or coupler material to split, dent, crush or incur any other damage and that will not cause fracturing, chipping or damage to the grout within the duct or coupler. Sound each duct and coupler at 12 inch intervals along their length and at each interval, as a minimum, tap them on the top sides and bottom.

b. Mark the limits of any defect on the surface of the duct or coupler with a high visibility permanent marker and when it can be determined for sounding or observation alone, label the defect type as one or more of the following: void, fracture, delamination, split, other.

2. Verification of Contractor's Procedures and Records

Verify that the Contractor repairs all defects. Before corrective action is taken, verify Contractor's proposed course of action in accordance with ***CPAM 10.10.6.3***. Prior to the any void investigation, the Project Administrator shall contact the State Materials Office Corrosion and Durability Lab for guidance regarding how fluid contained in a void is to be captured as well as to establish what the State Material Office role will be in the investigation of the fluid.

3. Record Keeping

a. Document the location and type of all defects found.

b. Document all corrective actions.

ATTACHMENT 10-7-1(a)
SAMPLE SEGMENT CASTING RECORD

FDOT Project No:_____ **Bridge No:**_____ **CEI Inspectors:**_____

Casting Date:_____ **Segment Type:** **Pier / Typical / Deviator / Expansion Joint** **Drawings Used:**_____

Form Removal Date:_____ **Curing Method:**_____

Formwork			
Item	**Inspected & Date**		**Remarks**
Form Dimensions			
Match Segment Aligned			
Form Clean / Oiled			
Joints Tight / Sealed			
Form Ties / Supports			
Match Cast Debonding Agent			
Core Form Setup			
Form Venting			
Blockouts Installed			
Drip Edge Installed			
Blister Dimensions			
Deviator Dimensions			
Shear Keys (at Bulkhead)			
Alignment Keys (at bulkhead)			
Chamfer Form			
Duct/Anchorage Position			

Embedded Items			
Item	**Inspected & Date**		**Remarks**
Access Openings			
Lifting holes / lugs			
All Debris Cleaned			
Embedded Bearing Plates			
Blockouts			
Geometry Control Insert			
PT Bar Sleeves			
Grouting Vents			
Steel Pipe (at Deviator or Diaphragm)			
Drainage Opening			
Special Inserts for Erection Equipment			
Plumbing / Elec. Conduits			

Note: This standard data collection forms is provided as an example of minimum data collection requirements. Additional fields may be added by the Senior Project Engineer. All data fields on the attached forms shall be incorporated into the forms used for the project. If certain data fields are not applicable for a project, these fields may be omitted from project forms with written approval of the SCSE.

ATTACHMENT 10-7-1(b)
SAMPLE SEGMENT CASTING RECORD

Reinforcing			
Item	**Inspected & Date**		**Remarks**
Bottom Slab, Web, Top Slab Rebar			
Blister Rebar			
Deviator Rebar			
Diaphragm Rebar – Position / Congestion			
Cathodic Protection (if applicable)			
Bar Spacing			
Clear Cover (including tie wire)			
Bar stability - % tied - Walls			
Bar stability - % tied – Slabs			
Bar stability - % tied – Diaphragm/ Deviator			
Embedded PT anchorages			
Splice Lengths			
Local Zone Anchorage Reinforcement			
PT Duct alignment			
Duct couplers			
Ducts secure?			
Transverse Tendons Inserted			

Post Tensioning			
Item	**Inspected & Date**		**Remarks**
Cantilever PT Ducts			
Cantilever PT Anchorages			
Transverse PT Ducts			
Transverse PT Anchorages			
Ducts Securely Tied			
Grout Outlets Plugged			
Ducts Capped			
Continuity PT Ducts			
Continuity PT Anchorages			
Grout Tubes			
Bulkhead Mandrels in Place			
Match Cast Duct Coupler			
Contingency Ducts			
Vertical PT in Diaphragm			
Horizontal PT in Diaphragm			
Vertical Web PT			
Deviator Pipe Orientation/ Rotation			
Temporary PT Ducts			

Note: This standard data collection form is provided as an example of minimum data collection requirements. Additional fields may be added by the Senior Project Engineer. All data fields on the attached forms shall be incorporated into the forms used for the project. If certain data fields are not applicable for a project, these fields may be omitted from project forms with written approval of the SCSE.

ATTACHMENT 10-7-2
SAMPLE EPOXY JOINT RECORD

FDOT Project No:_____ **CEI Inspectors:**_____ **Contractor Personnel**_____

Bridge No:_____ **Contractor:**_____ _____

Manufacturer & Epoxy Bonding Agent Components:_____

Joint Location	Date	Ambient Temp.	Concrete Temp.	Lot Nos. (for all Epoxy Bonding Agent Compounds)	Time Mixing Started	Time Applied	Time Stressed	Epoxy Volume	Weather Conditions	Shims – TBR (Top, Bottom, Right, etc)

Remarks:

Method of Application; Repairs (include locations and reason for repairs) _____

_____

_____

_____

Note: This standard data collection form is provided as an example of minimum data collection requirements. Additional fields may be added by the Senior Project Engineer. All data fields on the attached forms shall be incorporated into the forms used for the project. If certain data fields are not applicable for a project, these fields may be omitted from project forms with written approval of the SCSE.

ATTACHMENT 10-7-3
SAMPLE STRESSING RECORD

FDOT Project No:_____ **Tendon Position:**_____ **CEI Inspector(s):**_____

Bridge No:_____ **# of Strands/Diam:** _____ **Contractor:**_____

Location:_____ **Strand Area:**_____ **Contractor Personnel:**_____

Jack No. End 1:_____ **Elongation in Jack:**_____**(d)** _____

Jack No. End 2:_____ **Jacking Force:**_____ **Date Installed:**_____

Gauge No. End 1:_____ **Reel/Heat #:**_____ **Date Stressed:**_____

Gauge No. End 2:_____ **Pack #:**_____

Theoretical Dead End Anchor Set:_____ **Theoretical Live End Anchor Set:**_____

Actual Dead End Anchor Set:_____ **Actual Live End Anchor Set:**_____

Theoretical Dead End Anchor Set (100%-20%):_____**(c)** **Theoretical Modulus of Elasticity:**_____**(f)**

Actual Modulus of Elasticity:_____**(g)** **Ratio (R=f/g):**_____**(R)**

Sequence	Tendon Number	Stressing Mode: Single End or Double End	20% Stressing Force Gauge Pressure	100% Stressing Force Gauge Pressure	Elongation at 20% Stressing Force (b)	Elongation at 100% Stressing Force (a)	Theoretical Elongation Between Wedges (e)	Expected Elongation 100%-20% (0.8x(e+d)+c)xR	Actual Elongation (a-b)	Percent Elongation Actual vs. Expected	Elongation Pass (P) of Fail (F)

Notes:

1. 100% Elongation measurement is before lock-off.
2. The Contractor's Engineer of Record will determine whether Live End Anchor Set is to be measured separately and added to the Expected Elongations.

Remarks:_____

_____

Note: This standard data collection form is provided as an example of minimum data collection requirements. Additional fields may be added by the Senior Project Engineer. All data fields on the attached forms shall be incorporated into the forms used for the project. If certain data fields are not applicable for a project, these fields may be omitted from project forms with written approval of the SCSE.

ATTACHMENT 10-7-4
SAMPLE GROUTING RECORD

FDOT Project No:_____ **Grout Type:**_____ **Inspectors:**_____

Bridge No:_____ **Grout Manufacturer:**_____ **Contractor:**_____

Location:_____ **Lot Number:**_____ **Contractor Personnel:**_____

Bag Weight:_____ **Bag Date:**_____ _____

Bags (Grout Batching):_____ **Water (Grout Batching):**_____ **Date:**_____

Water/Cement Ratio:_____ **Grout Temperature:**_____ **Ambient Temperature:**_____

Tendon No.	Tendon Length	Bleed Test	Efflux Time (Fluidity Test)			Maximum Pressure (psi)	Estimated Time (sec)	Actual Time (sec)	Theoretical Grout Volume	Measured Grout Volume	Gallons of Grout Discharged	Post Grout Inspection	Date Tendon Installed	Date Tendon Stressed
			Batch	High Point	Discharge									

Tendon #:_____ **Wick Bleed Test Results:** 15min:_____ 30min:_____ 45min:_____ 60min:_____ 120min:_____ 180min:_____ **Air Test Pressure Loss**:_____

Tendon #:_____ **Wick Bleed Test Results:** 15min:_____ 30min:_____ 45min:_____ 60min:_____ 120min:_____ 180min:_____ **Air Test Pressure Loss**:_____

Tendon #:_____ **Wick Bleed Test Results:** 15min:_____ 30min:_____ 45min:_____ 60min:_____ 120min:_____ 180min:_____ **Air Test Pressure Loss**:_____

Tendon #:_____ **Wick Bleed Test Results:** 15min:_____ 30min:_____ 45min:_____ 60min:_____ 120min:_____ 180min:_____ **Air Test Pressure Loss**:_____

Tendon #:_____ **Wick Bleed Test Results:** 15min:_____ 30min:_____ 45min:_____ 60min:_____ 120min:_____ 180min:_____ **Air Test Pressure Loss**:_____

Remarks:

(Note whether Standard or Modified Fluidity test was used, problems encountered, variations to approved grouting plan, etc)_____

_____

Note: This standard data collection form is provided as an example of minimum data collection requirements. Additional fields may be added by the Senior Project Engineer. All data fields on the attached forms shall be incorporated into the forms used for the project. If certain data fields are not applicable for a project, these fields may be omitted from project forms with written approval of the SCSE.

ATTACHMENT 10-7-5
SAMPLE POST-GROUTING INSPECTION RECORD

FDOT Project No:_____ **Inspectors:**_____ **Bridge No:**_____

Anchor Location	Span	Tendon Designation	Anchor Cap					Grout Tube				
			Location of Inspection	Void Found?	Estimate % of Void	Grout Condition (Solid/Wet/Soft)	Depth Probed with Wire	Void Found?	Depth of Endoscope Inspection	Grout Condition (Solid/Wet/Soft	Exposed Strands?	Free Water?

Anchor Location	Span	Tendon Designation	Anchor Cap					Grout Tube				
			Location of Inspection	Void Found?	Estimate % of Void	Grout Condition (Solid/Wet/Soft)	Depth Probed with Wire	Void Found?	Depth of Endoscope Inspection	Grout Condition (Solid/Wet/Soft	Exposed Strands?	Free Water?

Void in External Tendon Duct? _____
If yes, indicate size and location below.

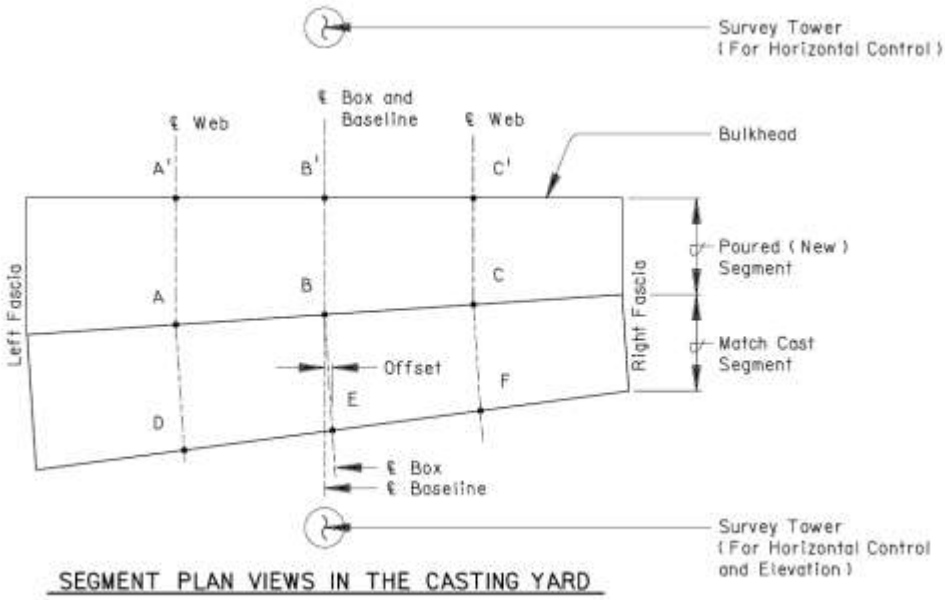
(Shade in voided area)

Notes:_____

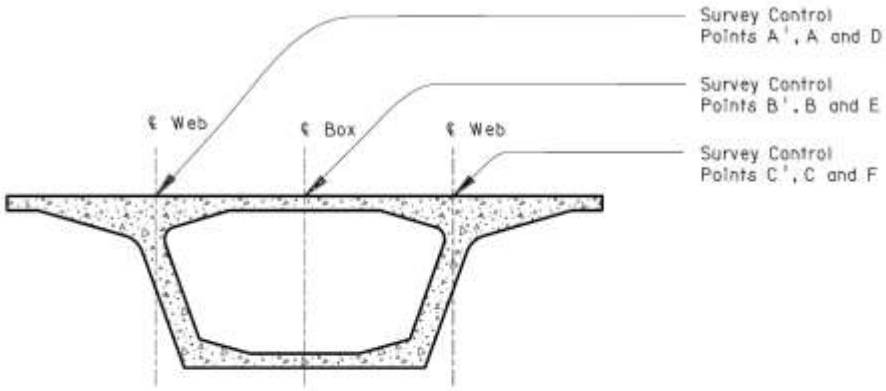
_____

Note: This standard data collection form is provided as an example of minimum data collection requirements. Additional fields may be added by the Senior Project Engineer. All data fields on the attached forms shall be incorporated into the forms used for the project. If certain data fields are not applicable for a project, these fields may be omitted from project forms with written approval of the SCSE.

ATTACHMENT 10-7-6
SAMPLE CASTING YARD SURVEY CONTROL POINTS FOR SEGMENTAL SUPERSTRUCTURES



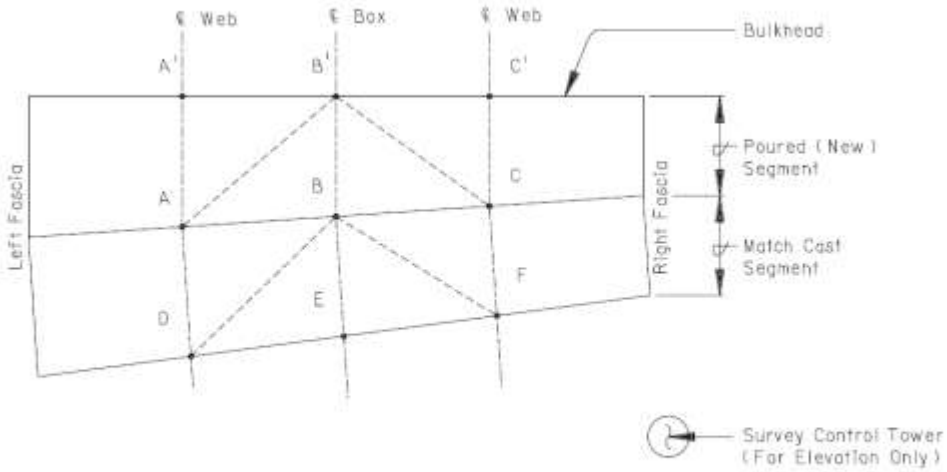
SEGMENT PLAN VIEWS IN THE CASTING YARD



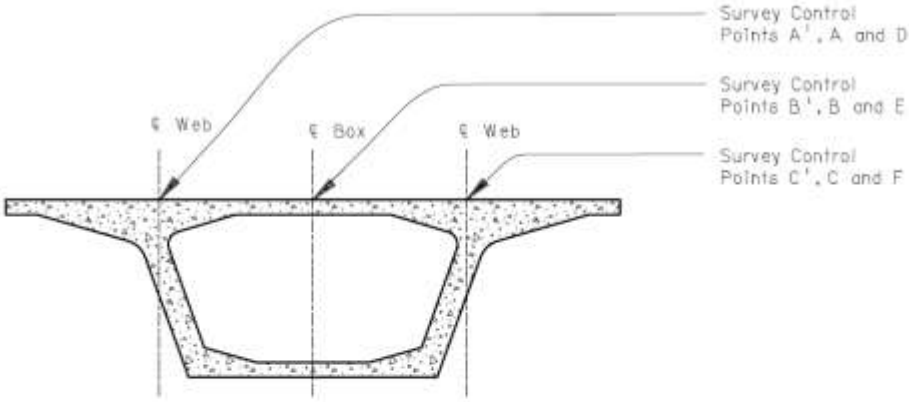
SEGMENT CROSS SECTION

NOTES:
1. The horizontal Baseline is established between Survey Towers, and the bulkhead is set perpendicular to this Baseline.
2. Points B' and B are on the Baseline, and Point E is offset from the Baseline as shown.
3. Horizontal Measurements are taken between Control Points A-A', B-B' and C-C'.
4. Elevations are taken at Points A', C', A, C, D and F.
5. All elevations and measurements are taken before and after casting the Poured (New) Segment.

ATTACHMENT 10-7-7
ALTERNATE SAMPLE CASTING YARD SURVEY CONTROL POINTS FOR SEGMENTAL SUPERSTRUCTURES



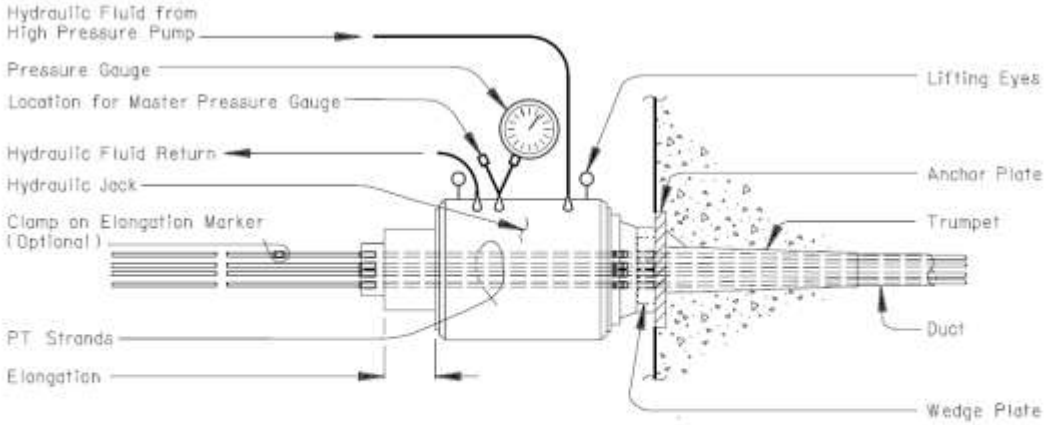
SEGMENT PLAN VIEWS IN THE CASTING YARD



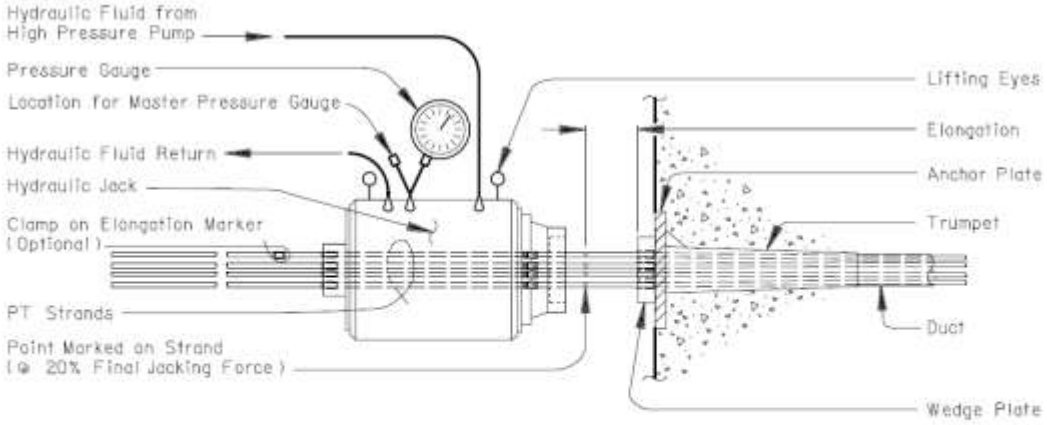
SEGMENT CROSS SECTION

NOTES:
1. Horizontal measurements are taken between Control Points A-A', C-C', A-B', C-B', A-D, C-F, B-D and B-F before casting the Poured (New) Segment.
2. Elevations are taken at Points A', C', A, C, D and F before and after casting the Poured (New) Segment.
3. Horizontal measurments are taken between Control Points A-A, C-C, A-B and C-B after casting the Poured (New) Segment.

ATTACHMENT 10-7-8
TENDON ELONGATION MEASUREMENT FOR A TYPICAL HYDRAULIC JACK

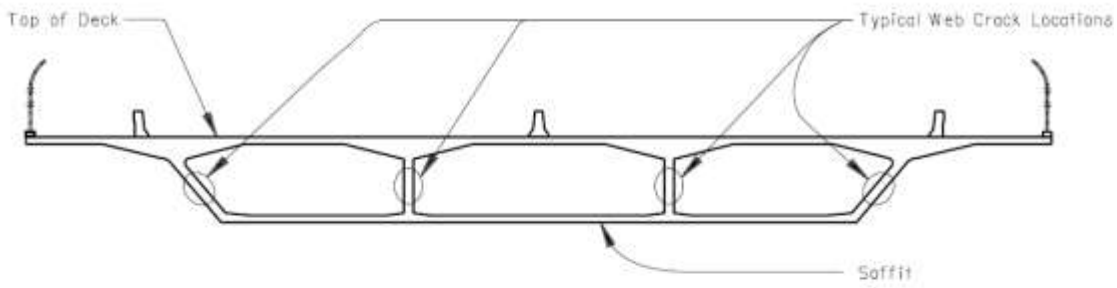


HYDRAULIC JACK DURING STRESSING

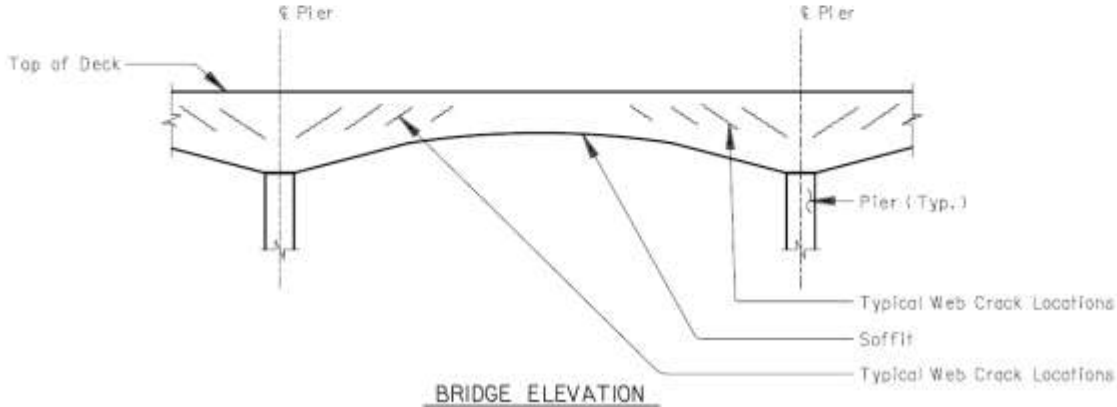


HYDRAULIC JACK AFTER STRESSING
(WHEN JACK IS PULLED BACK)

ATTACHMENT 10-7-9
TYPICAL WEB CRACKS ON SEGMENTAL SUPERSTRUCTURE

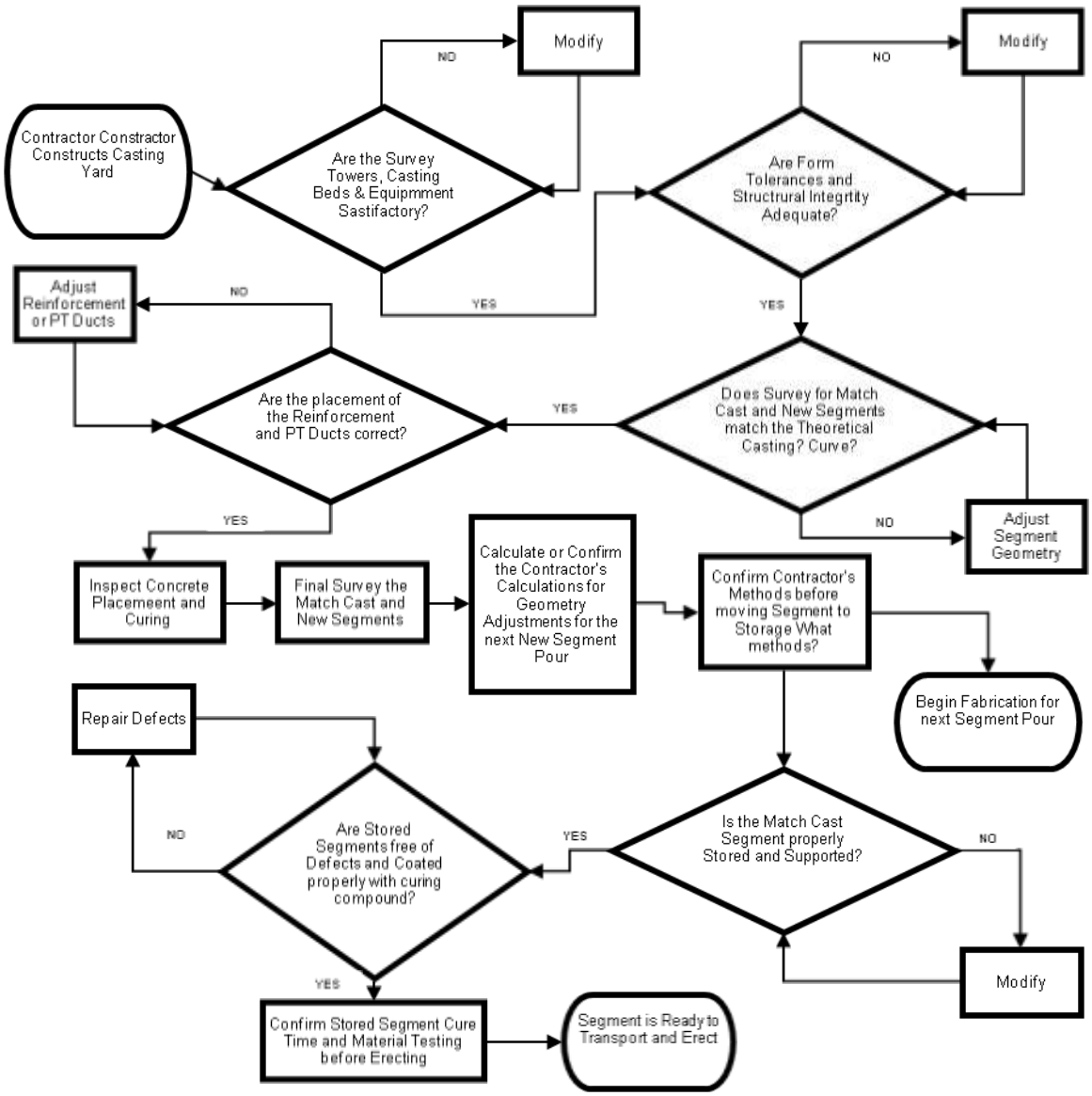


SEGMENT CROSS SECTION

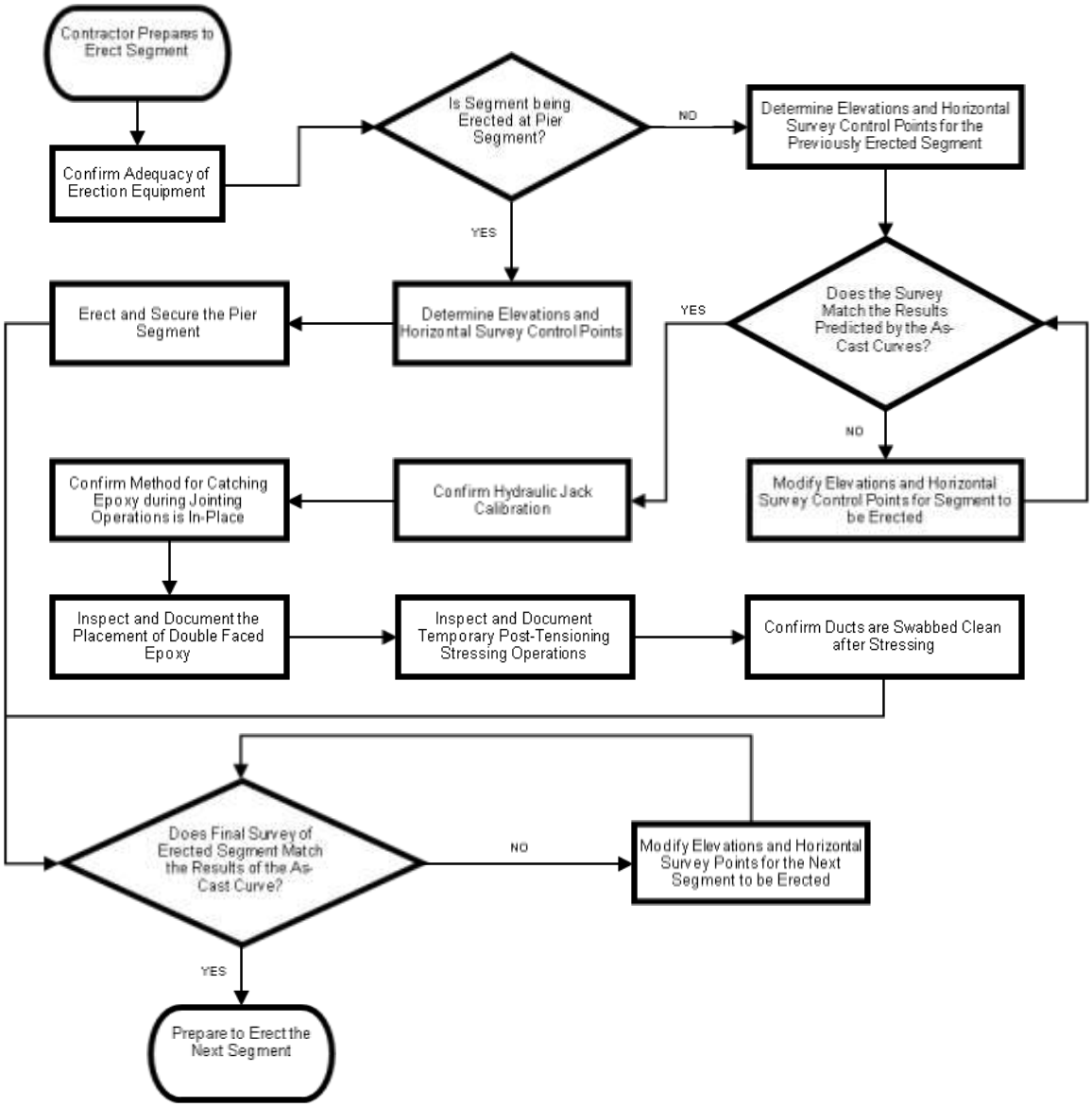


BRIDGE ELEVATION

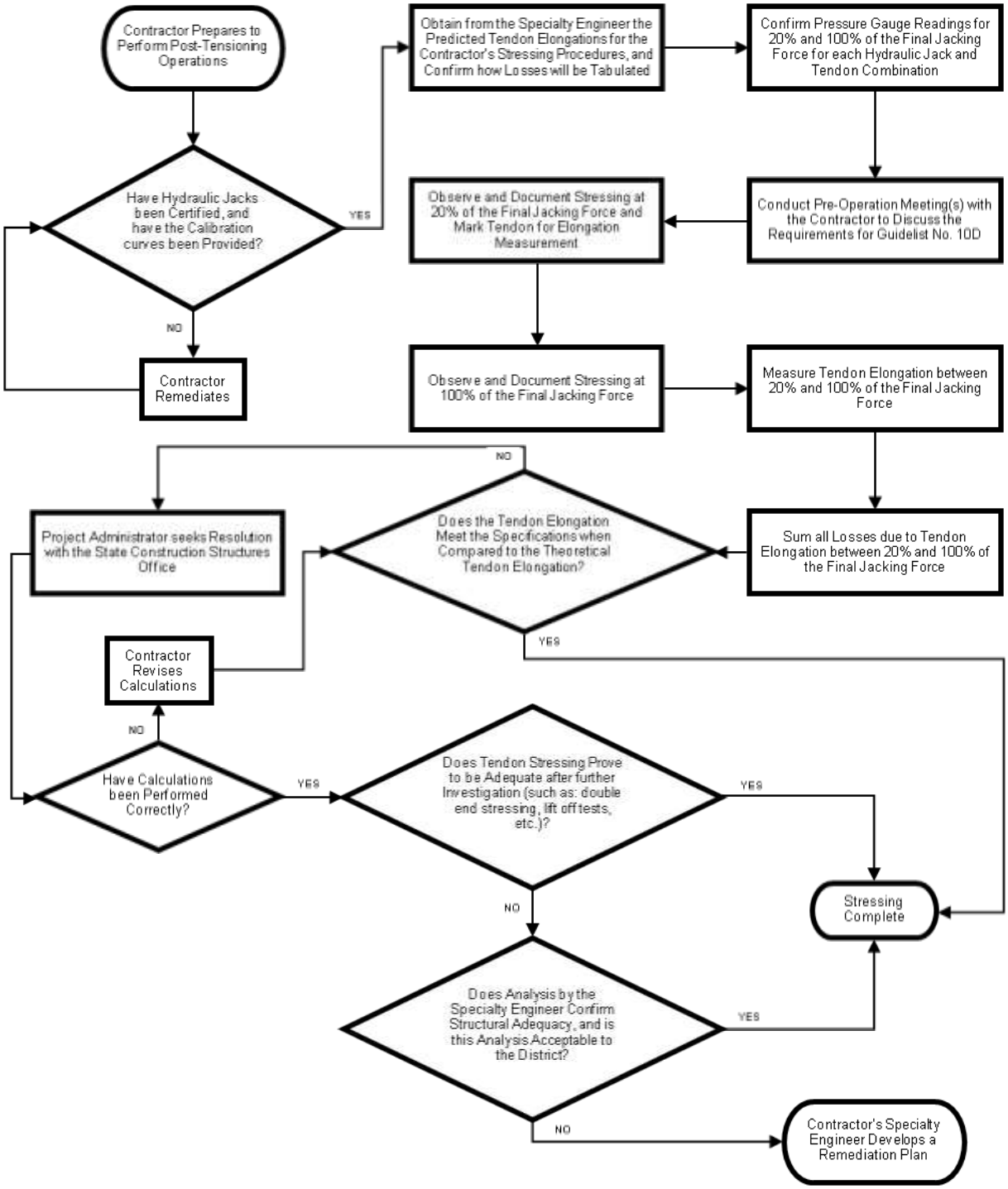
ATTACHMENT 10-7-10
CASTING YARD AND SEGEMENT FABRICATION



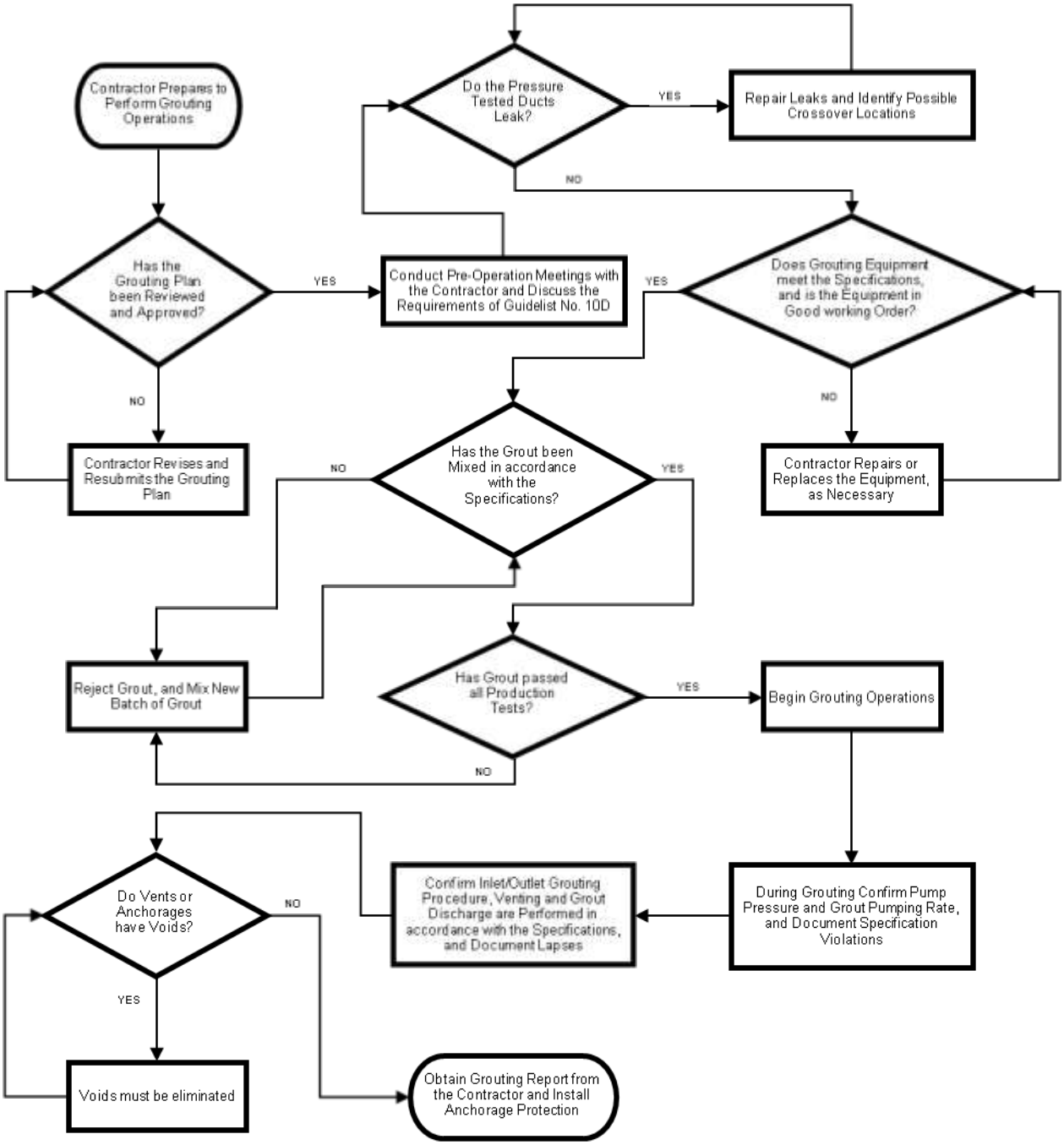
ATTACHMENT 10-7-11
SEGEMENT ERECTION AND JOINTING



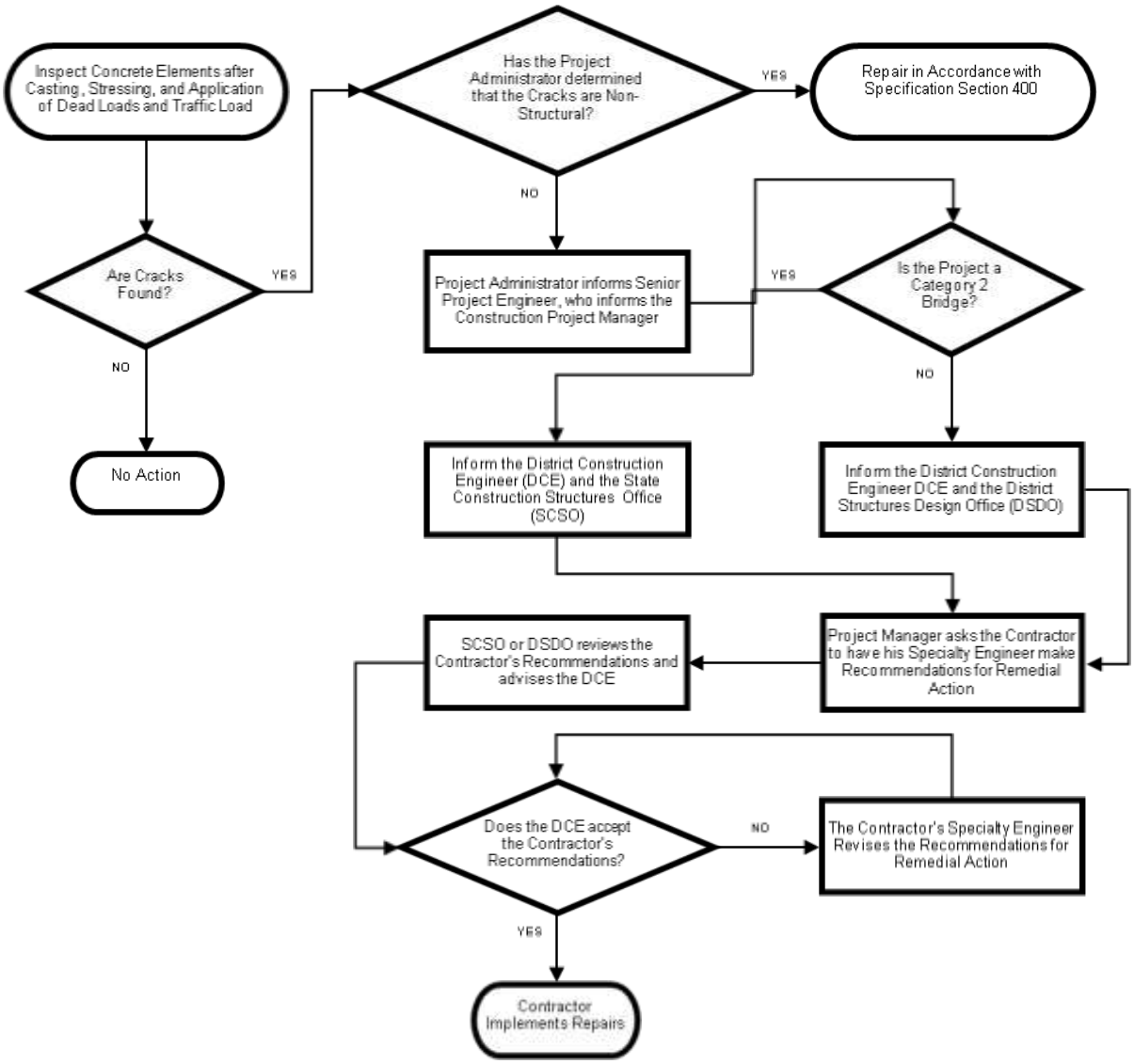
ATTACHMENT 10-7-12
POST TENSIONING



ATTACHMENT 10-7-13
GROUTING



ATTACHMENT 10-7-14
CRACK INSPECTION AND REPAIR



Section 10.8

AUGER CAST PILES

10.8.1 Purpose

To establish a procedure for the approval of the Contractor's Auger Cast Pile Installation Plan, inspection and approval of mixing, pumping and demonstration of cement grout, and inspection and approval of piles installed in accordance with ***Section 455, Structures Foundations, Standard Specifications*** and any supplements thereto. This chapter also provides the procedure for the documentation of pile installation. This procedure applies to conventional projects; for Design Build projects refer to ***Section 10.12***.

10.8.2 Authority

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

10.8.3 References

Section 455, Standard Specifications for Road and Bridge Construction and Supplements thereto.

10.8.4 Definitions

District Construction Engineer (DCE): The authority for the entire construction activity in the District.

Construction Engineering and Inspection (CEI): In this procedure it refers to the Consultant personnel performing CEI services or the Department's personnel group performing CEI services.

Geotechnical Engineer: In this procedure, the Geotechnical Engineer may be the District Geotechnical Engineer (DGE), any Department Engineer assigned to the project by the DGE, the Consultant Geotechnical Engineer working directly for the DGE, or the Geotechnical Engineer employed by the Department's Consultant CEI and performing under the direction of the DCE and DGE.

Resident Engineer (RE): The Engineer supervising the Project Administrator and is responsible for the construction activity in the residency.

Project Administrator (PA): The employee responsible for the everyday construction activity at the project under the direction of the Resident Engineer/Senior Project Engineer.

Demonstration Pile: The pile which the Contractor is asked to construct to demonstrate the dependability of the equipment, techniques, and source material prior to the start of production pile installation to the satisfaction of the Engineer (***Section 455-39.1***).

10.8.5 Approval of Pile Installation System

(A) Resident Level Responsibilities

The RE (or PA) shall receive from the Contractor at the preconstruction conference or at least 30 days prior to the construction of a demonstration pile a completed ***Auger Cast Pile Installation Plan (ACPIP)***. Within one (1) working day, the RE (or PA) shall forward the ACPIP to the Geotechnical Engineer for review and recommendations. The RE (or PA) shall perform a concurrent separate review of the ACPIP and incorporate their own comments to the ones received from the Geotechnical Engineer. The ACPIP shall be evaluated and approved separately from other Quality Control Plans submitted by the Contractor. If the Contractor includes the ACPIP in the Quality Control Plan submittal, the PA shall detach the ACPIP from the Quality Control Plan submittal and notify the Contractor in writing of such action.

The RE (or PA), within one (1) working day of receipt of the Geotechnical Engineer's comments and/or recommendations shall notify the Contractor of acceptance/ rejection or request additional information and/or changes that may be necessary for pile construction in accordance with the contract documents. The letter of rejection shall contain the reason(s) for rejection of the ACPIP.

(B) District Level Responsibilities

The Geotechnical Engineer shall make comments and/or recommendations to the RE of the acceptance or rejection of the proposed pile installation equipment and techniques within five (5) working days of receiving the ACPIP.

10.8.6 Demonstration Pile Installation

(A) Resident Level Responsibilities

Demonstration pile installation shall be documented on the ***Auger Cast-in-Place Pile Installation Record, Form Number 700-011-03***. As soon as the Contractor's schedule for installation of the demonstration pile is known, the PA shall notify the Geotechnical Engineer of the schedule so the Geotechnical Engineer may observe the installation of the demonstration pile and approve the suitability of equipment, techniques, and source of materials.

The comments section of ***Form Number 700-011-03*** shall describe any occurrences during the installation of the pile or any information the recorder feels may be beneficial to the Geotechnical Engineer or the PA.

During the demonstration pile installation, the inspector and the PA must verify the equipment and techniques described in the approved ACPIP were used to install the demonstration pile and sign the form in the appropriate place documenting this. The original is retained in the project files. A completed form is to be sent to the Geotechnical Engineer within 24 hours of completion for review and approval.

Upon receipt of the letter from the Geotechnical Engineer recommending approval of the Contractor's means and methods of installation, the RE shall approve the recommendation and send it to the Contractor within one (1) working day.

(B) District Level Responsibilities

Within two (2) working days of the receipt of the demonstration pile data, the Geotechnical Engineer shall review the demonstration pile data and give recommendations for the production pile installation. A letter shall be sent to the RE with the recommendations. Refer to ***Guidance Documents 10-8-A, 10-8-B*** for ***Sample Letters***.

10.8.7 Production Pile Installation

Production pile installation shall be documented in the ***Auger Cast-in-Place Pile Installation Record, Form Number 700-011-03***. Inspectors monitoring and documenting auger cast piles installation, including demonstration and production piles, shall have taken and passed the Department's Computer Based Training (CBT) ***Auger Cast Pile Inspector's Qualification Course***, before the beginning of the pile installation. The course is available at the following webpage:

http://wbt.dot.state.fl.us/ois/AugerCastPileCBT/index.shtm

Guidance Document 10-8-A

SAMPLE LETTER NO. 1
PRODUCTION AUGER CAST PILE INSTALLATION

(ADDRESSEE) (DATE)

Financial Project ID:
FAP No.:
Contract No.:
County:

Dear (_____):

The District (put in which District, 1-7, Turnpike Enterprise) Geotechnical Office has completed its review of the demonstration pile data of the Auger Cast Piles and recommends acceptance of the installation of Production Piles with the equipment, techniques, and source of materials utilized during installation of the Demonstration Pile.

If you have any questions or require further information, please let us know.

Recommended for acceptance by:

_____
District Geotechnical Engineer/Geotechnical Engineer

Authorized for contract administration purpose by:

_____
Resident Engineer

Guidance Document 10-8-B

SAMPLE LETTER No. 2
PRODUCTION AUGER CAST PILE INSTALLATION

(ADDRESSEE) (DATE)

Re: Financial Project ID:
FAP No.:
Contract No.:
County:

Dear (_____):

The District (put in which District, 1-7, Turnpike Enterprise) Geotechnical Office has completed its review of the demonstration pile data of the Auger Cast Piles and recommends acceptance of the installation of Production Piles with the equipment, techniques, and source of materials utilized during installation of the Demonstration Pile.

If you have any questions or require further information, please let us know.

Recommended for acceptance by:

_____
Consultant Geotechnical Engineer

Concurrence by: _____
District Geotechnical Engineer (if required by District)

Authorized for contract administration purpose by:

_____
Resident Engineer

Section 10.9

STRUCTURAL STEEL AND MISCELLANEOUS METAL COMPONENTS

10.9.1 Purpose

The purpose of this procedure is to provide a process for the evaluation and acceptance of fabricated structural steel and miscellaneous metal components. This procedure addresses occasional Non-complying components which are defective or damaged where replacement is deemed unnecessary. Repeated production of Non-complying components is not acceptable and the cause of such problems must be resolved.

10.9.2 Authority

Section 334.048(3), Florida Statutes

FHWA Approved: January 28, 2005

10.9.3 Definitions

Minor Defect: Any defect or damage (Non-complying work) that can be repaired using a Fabrication Facility's Approved Repair Procedure.

Major Defect: Any defect or damage (Non-complying work) that is not classified as a Minor Defect, as defined above.

Lead Verification Inspector: The representative of the Consultant CEI firm retained by the Department that is in charge of QA inspection at the fabrication facility at which the component is being produced.

10.9.4 Commercial Inspection of Fabricated Items

Specification 105-1.2.3 directs the Contractor to submit to the Engineer a fabrication schedule for all items requiring commercial inspection. The Project Administrator shall forward this schedule to the State Materials Office upon receipt from the Contractor. If the Contractor has not provided this list within 2 months prior to the anticipated delivery of fabricated elements (such as mast arms, overhead signs, plate girders, etc.) to the job site,

direct the Contractor to comply with this requirement. Fabricated products must be scheduled for inspection in sufficient time to allow State Materials Office inspection prior to delivery to the jobsite.

10.9.5 Evaluation and Disposition of Components not in Compliance with the Contract Documents

10.9.5.1 General

Non-complying components containing specific defects or damage which are classified as "Minor" shall be repaired in accordance with approved repair procedures.

For defects or damage covered by this procedure and which are classified as "Major", the Contractor must comply with ***Specification 460-4.6***, which requires the submittal of a repair proposal to the Project Administrator and specifies what the contents of the proposal shall be. Components in the fabricating facility, which require repairs, shall not be shipped to the project site until such repairs are complete and the member has been accepted by the Department. If the component is repaired and determined to be acceptable to the Department, the component shall be stamped by the fabricator indicating that it meets specification requirements. Producer stamped members arriving at the job site shall not be rejected by project personnel for reasons other than obvious shipping damage which makes the member unacceptable. Questions of acceptability of stamped members, which have not incurred shipping damage, are to be resolved with proper input from the Lead Verification Inspector at the shipping point prior to rejection at the job site.

10.9.5.2 Proposal Format and Requirements

The Contractor's proposal shall be in writing and include the following:

(A) A cover page prepared on the Contractor's letterhead describing the component and the proposed credit to the contract proportionate to the defect or specification nonconformance.

(B) A completed ***Nonconforming Structural Steel and Miscellaneous Metal Component Data Sheet (Data Sheet), Form No. 675-010-10***, prepared by the fabricator or Contractor and countersigned by the Lead Verification Inspector to indicate agreement with the described defect or nonconformance feature. If not in agreement with the information or description, the Lead Verification Inspector shall either reject the submittal indicating reason(s) for rejection or modify the submittal as necessary.

(C) A list of supporting information such as sketches, documentation, calculations, etc., must be included in the appropriate space on the ***Data Sheet***. Additional sheets may be attached as needed. All the supporting information required for the form must be prepared by, or be under the supervision of, the Contractor's Engineer of Record who shall sign and seal one (1) complete copy of the supporting information.

10.9.5.3 Review and Evaluation

(A) Resident Level Responsibilities

The Project Administrator shall review the Contractor's proposal and enlist the assistance of the various offices within the Department, the Engineer of Record, the Verification Inspection Consultant (fabrication plant inspection service) as deemed appropriate. Upon completion of the evaluation, the Project Administrator may accept the Contractor's proposed repair method and cost reduction, negotiate a fair cost for an acceptable repair method, or reject the unacceptable repair proposal.

If the review involves a complex superstructure member as defined in ***CPAM 10.10***, the Project Administrator shall consult with the Engineer of Record (EOR), State Construction Structures Engineer (SCSE) and the Department's fabrication plant inspection consultant regarding disposition of the Contractor's proposal. The PA shall concurrently send the Contractors proposal to the EOR, SCSE and the fabrication plant inspection service, manager in charge (Inspection Manager). The PA shall base the response to the Contractor on recommendations by the EOR and SCSE. The SCSE will respond to the PA after reviewing the comments of the EOR and Inspection Manager.

10.9.5.4 Disposition and Distribution

(A) Resident Level Responsibilities

The Project Administrator shall indicate acceptance in the response and distribute the proposal and the disposition to appropriate District personnel in addition to the following offices:

Project File ..... 1 copy (signed and sealed)
State Materials Office ..... 1 copy
FHWA Area Engineer ..... 1 copy (FHWA Oversight Jobs Only)
Lead Verification Inspector ..... 1 copy

10.9.6 Testing and Record Keeping for Structural Steel

10.9.6.1 Job Inspection Snug Tight Torque and Rotational Capacity Tests

Specification 460-5.4.8, Turn-of-Nut Tightening, requires a Job Inspection Snug Tight Torque (JIT) test be performed for each work shift. The test consists of determining a snug tight torque for a representative sample of 5 fastener assemblies of the type used on the day of the test. During the test, the assemblies are tightened to a snug tight level after which a prescribed degree of nut turn is applied (Turn-of-Nut). The test is performed with the aid of a Skidmore-Wilhelm Calibrator device which measures the bolt tension in kips for a given fastener assembly tightness. The bolt assembly passes the test if it has a tension that exceeds 1.05 times the minimum tension required in ***Specification Table 460-6*** which is 5% above the minimum tension. For example, a 7/8 inch diameter bolt passes the test if the bolt tension after turn-of-nut is equal to or greater than 40.95 k (1.05 times 39 k from ***Table 460-6***). To avoid damaging the fastener assembly, do not exceed 15% above the required minimum tension.

The Rotational Capacity (RC) Test required by ***Specification 460-5.2.1*** is performed according to ***FM 5-581***or ***5-582***. The RC Test verifies that fastener assemblies have at least 15% higher tension strength than the minimum. The Rotational Capacity test establishes the maximum tension limit (MTL) of 15% which for example, is 44.85 k for a 7/8 inch diameter bolt. The RC test does not establish how much beyond the MTL the bolt tension can be before it fails and this is why the JIT test should not exceed the MTL.

In the past, there has been confusion about how to determine the starting tension for the JIT test because some testers assume that the RC test snug tight torque which is required to be 15% or less of minimum tension (6 kips for a 7/8” diameter bolt), should also apply to the JIT test. This makes the JIT test easier because it can be started using a predetermined tension which is usually the maximum allowed of 15%. The 15% starting tension should not automatically be used for the JIT test because it routinely results in a final tension that greatly exceeds the MTL. Instead, a trial tension well below 15% should be used for the first JIT test of the day. If the tension produced after the turn-of-nut is not 5% or greater than the limit, then another trial with an increased initial tension must be performed and so on until the 5% is achieved but the MTL is not exceeded. Once an acceptable trial tension has been determined for the first bolt assembly of the five tested for that LOT then the acceptable trial tension should also work for the remaining four assemblies.

All JIT and RC tests shall be observed in-person by a CEI inspector and all test data and results must be recorded either by the Contractor or by the CEI inspector and the test procedures shall be addressed in the Contractor's Quality Control Plan. If test data and results are recorded by the Contractor, the CEI inspector shall verify that the data is accurate and complete. A copy shall be retained in the CEI files for the project.

10.9.6.2 Shear Connector Bend Tests

Specification 502-4.8, Testing, requires the Contractor to perform Shear Connector Bend Tests and the article specifies how the tests are to be performed. All Shear Connector Bend tests shall be observed in-person by a CEI inspector. The location of tested connectors and the results of the tests shall be recorded either by the Contractor or by the CEI inspector and the test procedure shall be addressed in the Contractor's Quality Control Plan. If test data is recorded by the Contactor, the CEI inspector shall verify that the data is accurate and complete. A copy shall be retained in the CEI files for the project.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

NONCONFORMING STRUCTURAL STEEL AND MISCELLANEOUS METAL COMPONENT DATA SHEET

Submittal No: _____

To: _____ Date: _____
Project Administrator

Firm/Agency: _____ Contractor: _____

Financial Project No: _____

Project Title: _____

Federal Project No: _____ Structural Steel Fabricator: _____

Contract No: _____

Pay Item No: _____

Shop Drawing No: _____ Component No: _____

Description of Defect or Nonconformance and name of plant representative providing the description:
Attestation that the description of the nonconformance is accurate _____ (Signature of Department's Lead QA Inspector)
Description of Proposed Repair:

Listing of attached supportive information:

_____ _____

_____ _____

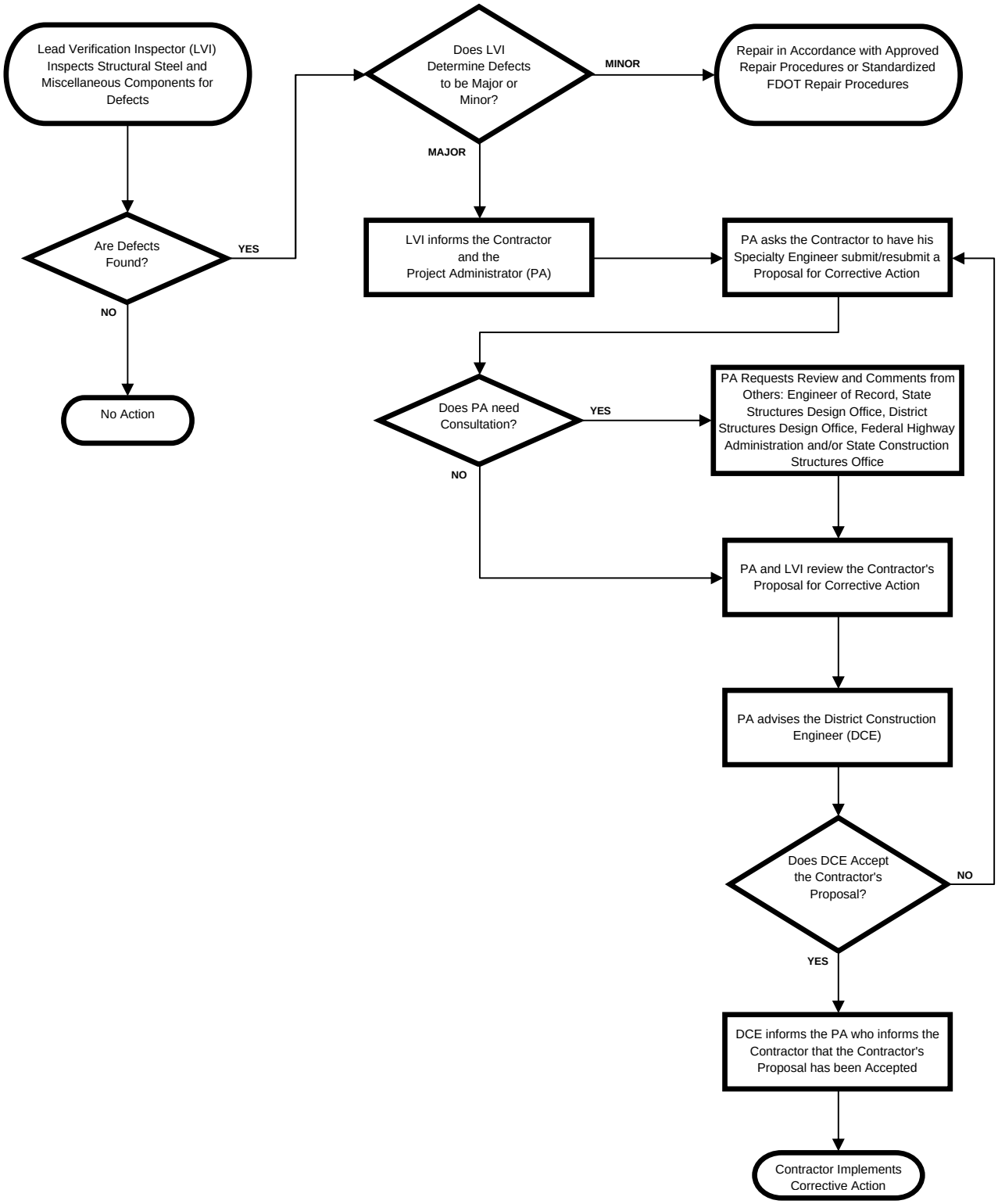
_____ _____

Prepared by:_____

(Structural Steel Fabricator Quality Control Manager) (Date)

FLOW CHART 10.9.1

INSPECTION AND REPAIR OF FABRICATION DEFECTS FOR STRUCTURAL STEEL & MISCELLANEOUS METAL COMPONENTS



Section 10.10

BRIDGE CONSTRUCTION ISSUES THAT MUST INVOLVE OFFICE OF CONSTRUCTION STAFF

10.10.1 Purpose

The purpose of this section is to make Construction Engineering and Inspection (CEI) personnel aware of the bridge construction project issues that must be addressed or resolved with the involvement of the Office of Construction (OOC) State Construction Structures Engineer (SCSE) and to present procedures that prescribe that involvement.

10.10.2 Authority

FHWA Approved: March 18, 2009

Section 20.23 (4) (a), Florida Statutes

Section 344.048 (3), Florida Statutes

Section 336.045, Florida Statutes

10.10.3 General

To ensure quality bridge construction, there are times at which the OOC must be involved with resolution of complex issues. This procedure describes the types of bridge issues that require OOC involvement as well as how OOC involvement shall take place.

10.10.4 DEFINITIONS:

Design Category 1 (C1) – All bridge member designs that are not defined below as C2 and that in general are common and routine designs for bridges that have uncomplicated structural members. For a detailed definition of C1, see ***Florida Department of Transportation, Plans Preparation Manual Volume 1, Section 26.3.1, Topic Number 625-000-007***.

Design Category 2 (C2) – C2 bridge are those with designs that have the complicated or unique structural members that follow: steel box girders, curved steel plate girders,

continuous straight steel plate girders with span lengths equal to or greater than 170 feet, cast-in-place concrete box girders, concrete segmental box girders, continuous post-tensioned spliced concrete beams with or without pretensioning, steel truss members, cable stayed structures, movable span members, post-tensioned substructure members, vessel collision designs and any members with design concepts, components, details or construction techniques with a history of less than five (5) years of use in Florida. The C2 definition also appears in the Florida Department of Transportation ***Plans Preparation Manual Volume 1, Section 26.3.2, Topic Number 625-000-007***.

10.10.5 Design Category 1 Members

Involvement by the SCSE is not usually required for C1 bridge construction issues or issues that are covered by ***CPAM Sections 10.10.6.1 thru 10.10.6.3*** When these issues arise on a project, the CEI staff shall consult with the Engineer of Record (EOR) for design issues and bridge engineers in the following District offices, whether design or construction issues, as appropriate: District Construction, District Structures Design, District Materials and District Structures Maintenance. The District Structures Design Engineer must be given the option of reviewing any EOR recommendation, by an EOR established deadline, prior to finalizing any response back to the Contractor and CEI staff must verify that this takes place. The District Structures Design Engineer's failure to concur on or before the deadline, unless an extension is requested, shall signify that the District Structures Design Engineer chooses not to review. If engineers in these District offices are unable to address or resolve an issue then CEI staff should contact the SCSE for assistance and the procedures that prescribe SCSE involvement shall be the same as for C2 members as set forth in ***CPAM Section 10.10.6***. Bridges often have both C1 and C2 members, for example, the superstructure has long span curved steel box girders that are C2 members and the substructure has cast-in-place concrete columns that are C1 members. When this is the case, ***CPAM 10.10.5*** shall be used for C1 issues, with the stated exceptions, and ***CPAM 10.10.6*** shall be used for C2 issues.

10.10.6 Design Category 2 Members

CEI staff shall resolve issues that follow in ***CPAM Sections 10.10.6.1 thru 10.10.6.3*** with coordination from the EOR and SCSE. The SCSE will address complex construction issues directly and make recommendations back to the CEI staff for resolution. Obtain EOR input on complex issues either prior to or concurrently with SCSE input.

10.10.6.1 Contractor Initiated Changes for Complex Superstructure Members and Complex Issues

When a Contractor proposes a change to the plans, shop drawings, specifications or means and approved methods plans (segment erection plans, post-tensioning plan, grouting plans, etc.) that are related to complex superstructure members or complex issues, the SCSE and the EOR, shall be informed of the Contractor's intent. If possible, this should be done prior to a formal submittal from the Contractor to allow the Department to provide a preliminary response regarding acceptability of the proposal. For design related proposals, the EOR shall be the initial point of contact with confirmation to be provided from the SCSE. CEI staff shall inform the EOR of this concurrence requirement. For proposals that are not design related, the initial point of contact shall be the SCSE who shall provide a response. This preliminary process will eliminate unnecessary written submittals by the Contractor along with the corresponding effort. Questions regarding the acceptability of a Contractor Initiated changes shall be directed to the SCSE.

If the Department agrees to consider the proposal then the Contractor shall formally submit the proposal to the CEI staff with appropriate supporting documents. CEI staff shall inform the Contractor that the Department's agreement to consider the proposal in no way obligates the Department to approve the proposal or to reimburse the Contractor for any costs that the Contractor may incur to prepare the proposal. CEI staff shall transmit a copy of the proposal to the EOR for design related proposals for review and comment, and concurrently to the SCSE, along with the desired response time. The EOR will prepare a response to the proposal after consultation with the SCSE, making every effort to stay within the desired response time, and submit it, with a copy to the District Structures Design Engineer, to the CEI staff for disposition and approval by the District Construction Engineer (DCE) or a designee prior to notification of the Contractor. For proposals that are not design related, the formal proposal shall be transmitted to the SCSE who shall provide a recommendation response within the requested time. The DCE or a designee must approve the SCSE recommendation prior to notification of the Contractor. The SCSE and/or EOR may also request additional supporting documents via the CEI staff after reviewing the initial proposal and the final response may be delayed pending their receipt. On occasion, more than one cycle of submittal of additional supporting documents by the Contractor may be required before a final response can be issued. The State Structures Design Office will work through, and be coordinated by, the SCSE if their involvement is required.

10.10.6.2 Contractor Noncompliance with Contract Documents for Complex Superstructure Members and Complex Issues

Following are examples of how a Contractor can be out of compliance with contract documents for complex superstructure members or complex issues:

- Structural components (rebars, tendons, ducts, bearings, etc.) are out of tolerance
- Post-tensioning strand elongation that is above or below the required value
- The alignment of beams in relation to their bearings is unacceptable
- Beams have sweep that exceeds specification tolerance
- Bolts are not installed and/or tightened according to specified procedures
- Grout pumping procedures are not in accordance with the approved grouting plan

Unless the DCE directs the Contractor to remove and replace the member or component in question, when the forgoing examples or other complex noncompliance issues arise, notify the SCSE and EOR as soon as the issue is identified in order to assist in developing the Department response. Any documents submitted by the Contractor for disposition of the issue shall be forwarded to the SCSE, and the EOR for review. The SCSE and EOR may also request additional supporting documents after reviewing the initial information and final recommendations may be delayed pending their receipt.

Recommendations may include requiring compliance regardless of impact; waiver of the noncompliance; or acceptance of the noncompliance with modifications that make it the equivalent of being in compliance. On-site meetings with the Contractor may be required to resolve the issue. The SCSE or EOR will make a recommendation, with a copy to the District Structures Design Engineer, to the CEI staff about how to resolve the issue in question. However, the final resolution shall be approved by the District Construction Engineer prior to notification of the Contactor.

Resolutions that result in a change to the As-Bid plans or drawings must be reflected in the final As-Built plans and drawings.

10.10.6.3 Resolution of Damage or Defects of Complex Superstructure Members and Complex Issues

Bridge members may be damaged during handling or placement and some examples include denting, kinking or buckling of steel girders during placement; chipping, spalling or cracking of concrete beams during and after installation; or the dropping of concrete bridge

segments during handling and erection. Some examples of typical bridge member defects include cracked concrete due to uncontrolled shrinkage; overstress or improper placement procedures; coating systems that do not adhere properly; secondary components such as bearings that are manufactured off site and that are unacceptable for incorporation into the project; or machinery or electrical components that do not perform as intended. As soon as damage or a defect is discovered, the SCSE shall be notified in order to assist in developing proper disposition by the Department unless the DCE directs the Contractor to remove and replace the member, in which case notification of the SCSE is not required. If the damage or defect is design related then the initial point of contact shall be the EOR who shall consult with the SCSE for concurrence of the Department prior to making a final disposition recommendation on the issue. CEI staff shall inform the EOR of this concurrence requirement. Disposition may include acceptance as is, rejection of a member or component, or acceptance with corrective action and/or credit. The SCSE may also choose to attend on-site meetings with the Contractor or with experts involved with resolution of the issue and may choose to personally inspect the damaged or defective work in place. The SCSE or EOR will make a recommendation to the CEI staff about what action to take; however, final action shall be approved by the District Construction Engineer or a designee. Actions that result in a change to the As-Bid plans or drawings must be reflected in the final As-Built plans and drawings.

10.10.5.4 Provision of On-Site CEI Training

At the option of project CEI staff, the SCSE is available to perform on-site training in complex bridge construction and inspection topics for inspectors and other staff. The following training topics are offered:

- High strength bolt installation and inspection
- Stressing and inspection of Post-tensioning tendons
- Grouting and inspection of Post-tensioning tendons

This training shall be requested by the Construction Project Manager or Resident Engineer. A minimum of four week's notice is preferred.

Section 10.11

GENERAL STRUCTURES CONSTRUCTION ISSUES

10.11.1 Purpose

The purpose of this section is to establish procedures that are required for use on most or all structures projects and that cover a variety of issues as follows:

10.11.3 - Notifying the District Structures Maintenance Engineer (DSME) of In-Service Dates and Acceptance Inspections

10.11.4 - Notification and Monitoring of Load Rating Requirements

10.11.5 - Electronic Filing of Bridge Construction Documents

10.11.6 - Contractor Applied Overloads on Department Owned Temporary Bridges

10.11.7 - Temporary Bridge Acquisition, Erection Verification and Maintenance Monitoring

10.11.2 Authority

FHWA Approved: March 18, 2009

Sections 20.23 (4)(a) and 334.048(3), Florida Statutes (F.S.)

10.11.3 Notifying the District Structures Maintenance Engineer of In-Service Dates and Acceptance Inspections

Within sixty (60) days of the start of work on the project and based on the Contractor's Accepted Work Progress Schedule, the Project Administrator (PA) shall provide the DSME with the tentative date that each bridge will be put into service for public use referred to herein as the in-service date. If these dates change by more than three (3) months as the project progresses, the PA shall notify the DSME of the revised dates as soon as possible.

The amount of time that District Structures Maintenance Inspectors (D

SMI) will need to perform a pre-acceptance inspection will vary based on the size and complexity of the structure. Therefore, the amount of advance notice needed to schedule the inspection will also vary. With this in mind, the PA shall contact the DSME well in advance of the in-service date to find out how much advanced notice maintenance inspection staff will need in order to be able to perform their inspection effectively. Using the DSME's advanced notice duration, the PA shall notify the DSME of the date that the pre-acceptance inspection should begin or the DSME should be notified when the bridge is 90% complete, whichever comes first. When possible, the inspection by maintenance staff should coincide with the 90% inspection recommended by ***CPAM Section 12.1*** and in which the Construction Engineering and Inspection (CEI) staff and Contractor participate.

Prior to the start of inspection by maintenance inspection staff, the PA shall confirm that the surfaces and components that will need to be inspected are fully accessible and visible for inspection. The PA shall facilitate the need for access equipment with the Contractor. Maintenance inspection staff will provide a written report of findings to the PA which may call for corrective action of defects or damage prior to final acceptance of the project or prior to the in-service date. Once the conditions reported by the DSME have been addressed by the Contractor, the results shall be reported in writing to the DSME who may choose to perform a follow-up inspection which may include the gathering of bridge data needed for the Bridge Management System (BMS).

One (1) week prior to any bridge, temporary or permanent, being put into service for public use, the PA shall notify the DSME of the final in-service date and time. This will allow the DSME to activate the bridge in the BMS in a timely manner in order to facilitate the issuance of permits to special vehicle operators requesting to use the bridge for an overweight and/or over-dimension load, as well as to inform the District Structures Maintenance Office of the existence of a temporary bridge.

The PA shall notify the DSME of the final acceptance inspection, required by ***CPAM Section 12.1***, at least 30 days in advance of performing the inspection when there is enough project time left to do so; otherwise, as much time in advance as possible. For bridges that the DSME has inspected prior to final acceptance and that have been in service, sometimes for an extended period of time, the CEI staff should pay particular attention to the final inspection of bridge elements that might have durability or performance problems within the first five years of service including: bearings, expansion joint seals and hardware, lighting and electrical systems, drainage systems, and coatings (paint systems for steel, Class 5 finish coatings for concrete, etc.). Any problems with these elements shall be reported to the DSME who may choose to perform a follow-up inspection of these elements.

10.11.4 Notification and Monitoring of Load Rating Requirements

The DSME is responsible for making sure that every bridge that is in service has an accurate load rating and this includes any bridge that is put into service before construction of the overall project is complete. The load rating shall be performed in accordance with the applicable Office of Maintenance ***Bridge Load Rating, Permitting and Posting Manual, Topic Number 850-010-035***. For load ratings of temporary bridges constructed using temporary bridging provided by the Department, contact the Office of Maintenance, Structures Operations Section.

Most of the time accurate bridge load rating information for a new bridge will be contained in the Bridge Load Rating sheet of the As-Bid Plans. However, if there are significant structural changes to the As-Bid Plans during construction then the load rating may change and an As-Built load rating will need to be determined prior to putting the bridge into service. To make certain that the DSME receives an accurate load rating before a bridge is put into service during construction, the PA shall notify the Engineer of Record (EOR), enough time in advance of the anticipated in-service date to allow the EOR to assess whether or not the As-Bid load rating has changed. The PA shall provide As-Built information as requested by the EOR which may include materials testing results, bridge member dimensions, differences from predicted prestressed concrete beam cambers and build-up adjustments, or other strength-related data that differs significantly from the As-Bid plans. If the EOR determines that the load rating has changed then the Bridge Load Rating sheet in the As-Bid plans shall be revised to reflect the As-Built load rating and this sheet shall be transmitted to the DSME prior to putting the bridge into service. For example, if the predicted prestress concrete beam cambers based on field measurements differ by more than +/- 1/2" from the theoretical "Net Beam Camber @120 Days" shown in the As-Bid plans, the EOR shall revise the As-Bid load ratings if warranted. If the EOR determines that a load rating has changed significantly, particularly if reduced, then the PA shall coordinate discussions between the EOR, District Structures Design Engineer, and the District Structures Maintenance Engineer to decide on an appropriate course of action. The revised ***Bridge Load Rating Sheet*** shall also be signed and sealed by the EOR and the sheet title shall be changed to **As-Built Bridge Load Rating** and shall be added to the final As-Built plans transmitted to the Final Estimates Office at the conclusion of the project.

If the EOR and Senior Project Engineer (consultant CEI projects) or Resident Engineer (In-house CEI projects) agree that the As-Bid load rating does not need to be changed because there were no significant modifications to the bridge during construction then the EOR shall produce a letter stating this and it shall be signed and sealed and be sent to the Senior Project Engineer/Resident Engineer with a copy to the DSME. In the letter, the

EOR should also indicate the source of information, as explained below, on which the EOR's opinion is based. A copy of this letter shall be filed in the CEI's project management records and shall be included in the documents transmitted to the Final Estimates Office at the conclusion of the project. The EOR's decision, that the As-Bid load rating is not in need of revision, shall be based on the final As-Built plans that are signed and sealed by the Senior Project Engineer/Resident Engineer. If final As-Built plans are not available prior to the in-service date of the bridge then the Senior Project Engineer/ Resident Engineer shall produce a signed and sealed letter that shall be sent to the EOR. The letter shall state that the Senior Project Engineer/Resident Engineer has notified the EOR in writing as the project has progressed of all changes to the bridge that took place during construction and that could impact the final load rating. In lieu of this statement, the letter may contain an attachment with preliminary As-Built plans showing all changes that could impact the final bridge load rating and shall state which information source is provided.

10.11.5 Electronic Filing of Bridge Construction Documents

The DSMO utilizes several documents in the Electronic Document Management System (EDMS). To facilitate access of these documents, bridge construction document profiles shall be attributed according to the table below. The following structure number types and format shall be entered into the document profile for these records as indicated:

Bridge Number: 6 digits, all numbers, and if more than one bridge is represented by the document then each bridge number shall be separated by a comma.

Overhead Sign Structure Number: 6 digits, 5 of which are numbers, and the third digit from the left, which with rare exception, is the letter S for "Sign"

Traffic Signal Mast Arm Structure Number: same as Overhead Sign except the alphabetic character is M for "Mast"

High Mast Light Pole Number: same as Overhead Sign except the alphabetic character is P for "pole"

If there is uncertainty about the structure's number, consult the DSMO for guidance.

BRIDGE CONSTRUCTION DOCUMENT PROFILE FIELDS			
DSMO Document Category	**Construction Document Type**	**EDMS Group/ Type No.**	**EDMS Document Subject/Description**
As-Built Load Rating Documents	Supporting Calculations, Input Files, Output Files, Load Rating Summary Sheets, EOR Letter stating As-Built Load Rating same as As-Bid Load Rating	15/141	As-Built Load Rating
Foundation Documents	Pile Driving Records	15/139	Pile Installation
	Drilled Shaft Records		Drilled Shaft Installation
	Geotechnical Reports & Related Docs.		General Geotechnical
Defect/Damage Records and Documents	Crack Maps, Crack Dimension Tables, Crack Growth Monitoring Logs	15/141	Crack Monitoring
	Request For Correction (RFC) Tracking Logs and Related Correspondence		Defect/Damage Resolution
Shop Drawings	Bridge Bearings	14/134	Bearings
	Electrical Components	14/134	Electrical
	Expansion Joints	14/134	Expansion Joints
	Mechanical Components	14/134	Mechanical
	Substructure Members/Components	14/134	Substructure
	Superstructure Members/Components	14/134	Superstructure
	High Mast Light Components	14/135	High Mast Lighting
	Miscellaneous	14/136	Miscellaneous
	Overhead Sign/Traffic Signal Structure Members/Components	14/138	Overhead Sign/Traffic Signal Structure
Punch List Documents	Final Punch List, Explanation of how Punch List Items were Resolved	15/141	Punch List
Post-Tensioned (PT) Bridge Records	Stressing Record/Log, Grouting Record/Log, Casting Record/Log	15/141	PT Bridge Record

10.11.6 Contractor Applied Overloads on Department Owned Temporary Bridges

One purpose of Construction ***Standard Specification 7-7.2***, in part, is to prevent the overloading of Department owned temporary bridge components that might be damaged by such loads. These temporary bridge components are generally designed to carry loads that do not exceed those allowed in the Florida Highway Patrol, ***Commercial Motor Vehicle Manual (CMVM)*** and; therefore, are not designed to carry overloaded construction vehicles or construction cranes along with the objects they are lifting. Overloading of temporary bridge components can cause serious damage or failure.

Exceptions to the overload policy above are permitted if provided for by the Engineer of Record in the ***Contract Documents***. The decision to allow erection overloads will be made prior to bid and will not be permitted through the use of a Cost Savings Initiative Proposal after bid. If overloads are permitted in the ***Contract Documents***, then cranes and other heavy loads may only be applied for the purpose of erecting the temporary bridge. Temporary bridges may not be used for the purpose of constructing the permanent bridge.

If the ***Contract Documents*** allow it and the Contractor wishes to apply overloads to the temporary bridge for the purpose of erecting the temporary bridge, then prior to the start of work the Contractor must submit shop drawings to the Florida Department of Transportation for approval, the contents of which will be specified in the ***Contract Documents***. Typically the shop drawings must include calculations, layout drawings, and erection drawings showing how the equipment is to be used so that the temporary bridge structure will not be overstressed. The Contractor's Engineer of Record must sign and seal copies of the drawings. The PA shall verify that the submittal package is in full compliance with the plans prior to submitting them to the State Structures Maintenance Office for review and approval.

If the shop drawings are approved then the PA shall confirm that the magnitude of the applied overloads (cranes, construction vehicles, etc.) which may require the use of distribution mats and their specific loading positions on the deck of the temporary bridge, are in full compliance with the shop drawings at all times during the progression of construction.

When the plans do not specifically allow the temporary bridge to be overloaded for erection purposes then the Contractor must comply fully with the CMVM and the PA shall monitor the Contractor's compliance for the duration of the project.

10.11.7 Temporary Bridge Acquisition, Erection Verification and Maintenance Monitoring

10.11.7.1 Acquisition

The acquisition of Department owned temporary bridge components and hardware shall be coordinated by the PA using the process outlined in ***Standard Specification 102-6.2.*** Upon receipt of the Contractor's letter and accompanying requested components list, confer with the State Aluminum Structures Shop (SASS) as necessary to finalize the components list within the timeframe given in ***Standard Specification 102-6.2***. Provide at least inspector to attend the mandatory training described in ***Standard Specification 102-6.2*** along with the Contractor.

10.11.7.2 Erection Verification

During the erection of temporary bridging, periodically verify that proper erection procedures are being followed by the Contractor. When temporary bridge components are supplied by the Department, the CEI will consult with the FDOT State Bridge Maintenance and Repair Engineer (SBMRE) of the State Structures Maintenance Office, for instruction regarding how verification is to be performed. Erection procedure violations by the Contractor shall be brought to the attention of the SBMRE immediately and the SBMRE will make recommendations about corrective actions that will be required of the Contractor. The PA shall verify that recommended actions are implemented properly and in a timely manner. When the entire temporary bridge is supplied by the Contractor, the CEI shall verify that the Contractor is constructing the temporary bridge in accordance with the signed and sealed temporary bridge shop drawings and erection plan. If the Contractor does not construct in accordance with the shop drawings and erection plan, the PA shall bring this to the attention of the Contractor and required corrective actions shall be completed prior to use of the bridge by the public.

The State Structures Maintenance Office shall perform a courtesy inspection of Department owned temporary bridges prior to their use by public traffic. The Project Administrator shall notify the SBMRE at least 30 days in advance of when public traffic will be permitted to use the bridge to schedule the required inspection. The PA shall coordinate with the Contractor to facilitate inspection of the bridge. Completion of corrective actions will be verified by the PA prior to opening any temporary bridge to the public.

10.11.7.3 Maintenance Monitoring

For Department owned temporary bridges, CEI staff shall monitor that the Contractor properly maintains the temporary bridge components once in service. CEI staff shall consult with the SBMRE for instructions regarding what procedures to use for proper maintenance monitoring. Maintenance lapses by the Contractor shall be brought to the attention of the SBMRE immediately and the SBMRE shall make recommendations about corrective actions that will be required of the Contractor. The PA shall verify that recommended actions are implemented properly and in a timely manner. For Contractor supplied temporary bridges, the PA shall verify that there is a Contractor developed temporary bridge maintenance plan and that the Contractor is in compliance with the plan. The PA shall discuss any maintenance plan noncompliance issues with the Contractor and corrective actions shall be implemented in a timely manner.

Section 10.12

FOUNDATIONS ON DESIGN-BUILD PROJECTS

10.12.1 Purpose

To establish a procedure for observing, reviewing, and accepting foundations installed by a Design Build Firm.

10.12.2 Authority

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

10.12.3 References

Section 455, Standard Specifications for Road and Bridge Construction and Supplements thereto.

10.12.4 Definitions

District Construction Engineer (DCE): The authority on the entire construction activity in the District.

Construction Engineering and Inspection (CEI): In this procedure, it refers to the Consultant personnel performing CEI services or the Department personnel group performing CEI services.

Geotechnical Engineer: The Engineer engaged by the Department to review all foundation construction documents submitted by the Design-Build (DB) Firm and provide recommendations to the CEI on foundation issues. In this procedure, the Geotechnical Engineer may be the District Geotechnical Engineer (DGE), any Department Engineer assigned for the project by the DGE, the Consultant Geotechnical Engineer working directly for the District Geotechnical Engineer, or the Geotechnical Engineer employed by the Department's Consultant CEI and performing under the direction of the DCE and the DGE. If the Geotechnical Engineer is engaged by the Consultant CEI, the District Level Responsibilities in this procedure will also be the Resident Level Responsibilities. The CEI Geotechnical Engineer shall coordinate with the DGE in performing his/her responsibilities.

Verification Testing Geotechnical Engineer (VTGE): The Engineer engaged by the Department to perform verification testing. Verification testing could be dynamic testing and integrity testing. It could be the same consultant geotechnical sub consultant working for the CEI, DGE, in-house Department personnel from the DGE, or a consultant working directly for the DGE.

Project Administrator (PA): The Administrator responsible for the everyday construction activity at the project under the direction of the Resident Engineer.

Resident Engineer (RE): The Engineer supervising the CEI and responsible for the construction activities in the residency. In this procedure, this could be the Senior Project Engineer responsible for the construction activities of the project.

10.12.5 Piles

10.12.5.1 General

The DB Firm is responsible for the determination of pile lengths and driving criteria, and inspecting and recording the pile installation using the proper FDOT forms. The CEI must perform a review and verification of the work performed by the DB Firm.

It will be the responsibility of the CEI to plan and coordinate with the DGE and other parties involved to make sure the deadlines specified in the contract documents are met, including reviewing, rejecting or accepting submittals, performing verification tests, and providing results to the DB Firm.

10.12.5.2 Acceptance of the Pile Installation Plan

(A) Resident Level Responsibilities

The RE (or PA) shall receive from the Contractor at the preconstruction conference or at least fifteen (15) days prior to driving the initial test pile a completed **Pile Installation Plan (PIP).**

Within one (1) working day after receiving the PIP from the DB Firm, the RE (or PA) shall forward the document to the DGE and the Geotechnical Engineer for review and comments. The CEI shall perform a concurrent separate review of the PIP. For a revised PIP, the RE (or PA) shall forward the document to the DGE and the Geotechnical Engineer within the same day of receiving it.

Within one (1) working day of receipt of the Geotechnical Engineer's comments, the RE (or PA) shall incorporate the CEI's comments and notify the Contractor of the acceptance or rejection and request additional information and/or changes that may be necessary to satisfy the Contract Documents. The letter of rejection shall contain the comments and reasons for rejection of the PIP. For a revised PIP, provide similar notification to the Contractor within one (1) working day after receipt of the Geotechnical Engineer's comments. The RE (or PA) must ensure that the deadlines allowed by the Specifications are met.

(B) District Level Responsibilities

The Geotechnical Engineer shall make comments and/or recommendations to the RE (or PA) for the acceptance or rejection of the PIP within three (3) working days of receiving it. For a revised PIP, the Geotechnical Engineer shall make comments and/or recommendations within one (1) working day of receiving the PIP.

10.12.5.3. Test Pile and Production Pile Installation

(A) Resident Level Responsibilities

The CEI must perform an over-the-shoulder inspection of the activities performed by the DB Firm during pile testing and production pile driving and ensure that the DB Firm is following FDOT procedures and documenting the installation using the proper FDOT forms. As soon as the Contractor's schedule for driving test piles is known, the RE (or PA) shall notify the DGE and the Geotechnical Engineer of the schedule so that they have the opportunity to observe the installation of the test piles.

The CEI must ensure the requirements in the Released for Construction (RFC) Plans, Specifications, accepted PIP, and other contract documents are followed throughout the installation of the test and production piles. In addition, the CEI personnel must observe over-the-shoulder and verify the driving criteria are followed during the installation of production piles.

The DB Firm is required to submit pile driving records within one (1) working day of driving piles. The CEI must forward this information to the DGE and the Geotechnical Engineer within one (1) working day.

(B) District Level Responsibilities

Since the deadline to review Foundation Certification Packages is only one (1) working day, the DGE and the Geotechnical Engineer should start reviewing the production pile driving records as soon as possible prior to receiving the Foundation Certification Packages.

10.12.5.4 Production Pile Lengths and Driving Criteria

Production pile lengths and driving criteria are established by the DB Firm utilizing the results of the test pile program and contract documents. Production lengths and driving criteria must be submitted by the DB Firm at least two (2) working days prior to the beginning of the production pile driving. The CEI is not required to submit a formal acceptance document on these submittals. However, if there are issues in the proposed lengths or driving criteria that are in conflict with the RFC Plans, accepted PIP, Specifications or other contract documents that may affect the integrity of the foundation**,** the RE (or PA) shall notify the DB firm upon receiving comments from the Geotechnical Engineer.

(A) Resident Level Responsibilities

Upon receipt of the production pile length and driving criteria letters from the DB Firm, the RE (or PA) shall forward the package to the DGE and the Geotechnical Engineer within one (1) working day. If comments are received from the Geotechnical Engineer (see item B below), forward them immediately to the DB Firm and request them to be addressed prior to driving piles.

(B) District Level Responsibilities

Within one (1) working day of receiving the production pile length and driving criteria letters the Geotechnical Engineer shall perform a brief review to check for problems in the letters such as whether the DB Firm used the correct nominal bearing resistance, that the lengths are determined based on dynamic test results and geotechnical conditions, that the blow count criteria were developed from analyses performed at the correct elevations, and whether there are stroke limitations in the letter to prevent pile overstress. Submit any concerns or comments to the RE (or PA).

10.12.5.5 Foundation Certification Packages

After completion of the piles driven in one foundation unit, the RE (or PA) will receive from the DB Firm a Foundation Certification Package.

(A) Resident Level Responsibilities

Upon receipt of the Foundation Certification Package from the DB Firm, the RE (or PA) shall forward the package to the DGE and the Geotechnical Engineer within the same working day and perform a concurrent review to verify that the package is complete. After the reviews are performed, the RE (or PA) shall notify the Contractor of the rejection or need for verification of the foundation unit within the same working day of receiving the notification from the Geotechnical Engineer.

(B) District Level Responsibilities

The Geotechnical Engineer shall perform a review of the Foundation Certification Package to make sure it addresses all the requirements for acceptance (such as load capacity, integrity, settlements). Also the Geotechnical Engineer shall verify that the language of the signed and sealed certification clearly certifies the foundation unit without disclaimers. Refer to ***Guidance Documents 10-12-A,*** for an ***Example of Acceptable Language in Certification Letters***. The Geotechnical Engineer shall perform additional analyses to verify the accuracy of the driving criteria prior to receiving the packages. These analyses shall commence at the time the DB team submits the pile length and driving criteria letters. A careful review of the driving logs shall be performed to determine whether there is a need to perform verification testing.

Within one (1) working day of the receipt of the Foundation Certification Package, the Geotechnical Engineer shall submit a notification to the RE (or PA) recommending one of the following actions:

- Rejection of the Foundation Certification Package indicating the reasons for its rejection.
- Requesting a verification test and the verification test location.

If the Geotechnical Engineer has no comments on the foundation package, no notification is required.

10.12.5.6 Verification Testing and Acceptance

(A) Resident Level Responsibilities

If verification testing is required by the Geotechnical Engineer, the RE (or PA) shall request the DB firm perform a verification test on the pile selected by the Geotechnical Engineer. Once the Contractor indicates when the verification set-check test will be performed, the RE (or PA) shall schedule the VTGE to instrument the pile selected for verification.

After receiving a notification from the Geotechnical Engineer indicating that the verification testing is complete and no further action is required (see item (B) below), the RE (or PA) shall immediately forward the results of the verification testing to the DB Firm and notify it that no further action is required. If the Geotechnical Engineer finds the tested pile unacceptable, the RE (or PA) shall immediately notify the DB Firm, provide the DB Firm with the verification test results and request the DB Firm to follow the corrective procedures specified in the Specifications and other contract documents.

(B) District Level Responsibilities

Within one (1) working day of testing, the Geotechnical Engineer shall provide the results of the verification testing to the RE (or PA). If the results are acceptable, the Geotechnical Engineer shall issue a notification to the RE (or PA) indicating that the verification testing is complete and no further action is required. If the verification test results are unacceptable, the Geotechnical Engineer shall issue a notification to the RE (or PA) recommending rejection of the foundation, provide the verification test results, and request the DB Firm to follow the corrective procedures specified in the Specifications and other contract documents.

10.12.6 Drilled Shafts

10.12.6.1 General

The DB Firm is responsible for the determination of drilled shaft lengths; tip elevations and rock socket lengths; inspection; and recording the drilled shaft installation using the proper FDOT forms. The CEI must perform a review and verification of the work performed by the DB Firm.

It will be the responsibility of the CEI to plan and coordinate with the DGE and other parties involved in this procedure to make sure the deadlines specified in the contract documents are met; including reviewing, rejecting or accepting submittals, performing verification tests, and providing results to the DB Firm.

10.12.6.2 Acceptance of the Drilled Shaft Installation Plan

(A) Resident Level Responsibilities

The RE (or PA) shall receive from the Contractor at the preconstruction conference or at least fifteen (15) days prior to the installing the first shaft in the project a completed **Drilled Shaft Installation Plan (DSIP).**

Within one (1) working day after receiving the DSIP from the DB Firm, the RE (or PA) shall forward the document to the DGE and the Geotechnical Engineer for review and recommendations. The RE (or PA) shall perform a concurrent separate review of the DSIP. For a revised DSIP, the RE (or PA) shall forward the document to the DGE and the Geotechnical Engineer within the same day of receiving it.

Within one (1) working day of receipt of the Geotechnical Engineer's comments, the RE (or PA) shall incorporate the CEI's comments and notify the Contractor of the acceptance or rejection and request additional information and/or changes that may be necessary. The letter of rejection shall contain the comments and reasons for rejection of the DSIP. For a revised DSIP, the RE (or PA) shall provide similar notification to the Contractor within the one (1) working day from receipt of the Geotechnical Engineer's comments. The RE (or PA) must ensure that the deadlines allowed by the Specifications are met.

(B) District Level Responsibilities

The Geotechnical Engineer shall make comments and/or recommendations to the RE (or PA) of the acceptance or rejection of the DSIP within three (3) working days of receiving it. For a revised DSIP, the Geotechnical Engineer shall make comments and/or recommendations within one (1) working day of receiving the DSIP.

10.12.6.3 Test Shafts and Production Drilled Shafts Installation

(A) Resident Level Responsibilities

The CEI must perform an over-the-shoulder inspection of the activities performed by the DB Firm during installation of test shafts (test holes and load test shafts) and production drilled shafts and ensure that the DB Firm is following FDOT procedures and documenting the installation using the proper FDOT forms. As soon as the Contractor's schedule to construct the test holes and load test shafts is known, the RE (or PA) shall notify the DGE and the Geotechnical Engineer of the schedule so that they have the opportunity of observing the installation of the test shafts.

The CEI must ensure that the requirements in the RFC Plans, Specifications, approved DSIP, and other contract documents are followed throughout the installation of the test and production shafts. In addition, the CEI must observe over-the-shoulder and verify that the DB team is properly recording the drilled shaft construction.

The DB Firm is required to submit drilled shaft logs within 24 hours after concrete placement. The CEI must forward this information to the DGE and the Geotechnical Engineer within the same day. The Geotechnical Engineer may select a shaft for integrity testing after reviewing the drilled shaft logs. The RE (or PA) shall notify the DB Firm of any required integrity testing within one (1) working day of receiving this request from the Geotechnical Engineer, making sure the deadline allowed by the Specifications is met.

(B) District Level Responsibilities

The Geotechnical Engineer shall review the production drilled shaft logs, determine if there are any potential quality problems, and decide if integrity testing is required. The Geotechnical Engineer shall submit the request to the RE (or PA) for integrity testing within one (1) working day after receiving the drilled shaft logs.

10.12.6.4 Pilot Holes, Production Drilled Shaft Tip Elevations and Minimum Rock Socket Lengths

Design production drilled shaft tip elevations, minimum rock socket lengths, and other criteria are established by the DB Firm utilizing the results of the geotechnical exploration, pilot holes, lab testing, and load testing results. Performance of pilot holes shall be witnessed by qualified geotechnical personnel supervised by the Geotechnical

Engineer. The final design drilled shaft tip elevations and rock socket information may be presented in the RFC plans or may be submitted in a document package prepared by the DB Firm after the pilot holes and load tests are completed. The RE (or PA) shall forward this information to the DGE and the Geotechnical Engineer the same day this package is received.

(A) Resident Level Responsibilities

As soon as the Contractor's schedule to perform the pilot holes is known, the RE (or PA) shall notify the DGE and the Geotechnical Engineer of the pilot hole schedule so that the Geotechnical Engineer may schedule his/her personnel to witness the pilot hole operation.

The RE (or PA) shall forward the final design drilled shaft elevations and rock socket lengths package to the DGE and the Geotechnical Engineer within one (1) working day for review. Upon receiving the comments from the Geotechnical Engineer, the RE (or PA) shall forward them to the DB Firm on the same day.

(B) District Level Responsibilities

The Geotechnical Engineer shall perform a review of the load test results, pilot hole, lab test information, calculations, and final drilled shaft tip elevations recommendations submitted by the DB Firm. Within three (3) working days after receiving the information, the Geotechnical Engineer shall make recommendations to the RE (or PA) of the acceptance or rejection of the proposed drilled shaft tip elevations. The letter of rejection shall contain the comments and reasons for rejection.

10.12.6.5 Foundation Certification Packages

After completion of the drilled shafts in one foundation unit, the RE (or PE) will receive from the DB Firm a Foundation Certification Package.

(A) Resident Level Responsibilities

The same day of the receipt of the Foundation Certification Package from the DB Firm, the RE (or PA) shall forward the package to the DGE and the Geotechnical Engineer. Perform a concurrent review to verify that the Foundation Certification Package is complete. After the reviews are performed, the RE (or PA) shall notify the Contractor of the rejection or need for verification of the foundation unit within the same working day of receiving the notification from the Geotechnical Engineer.

(B) District Level Responsibilities

The Geotechnical Engineer shall review the Foundation Certification Package to make sure it addresses all the requirements needed for acceptance (such as load capacity, integrity, and settlements). Also, the Geotechnical Engineer must verify that the language of the signed and sealed certification clearly certifies the foundation unit without disclaimers. Refer to ***Guidance Documents 10-12-A,*** for an ***Example of Minimum Language in Certification Letters***.

Within one (1) working day of the receipt of the Foundation Certification Package, the Geotechnical Engineer shall submit a notification to the RE (or PA) recommending one of the following actions:

- Rejection of the Foundation Certification Package indicating the reasons for its rejection.
- Requesting verification tests and the verification test locations.

If the Geotechnical Engineer has no comments on the foundation package, no notification is required.

10.12.6.6 Verification Testing

(A) Resident Level Responsibilities

If verification is required by the Geotechnical Engineer, the RE (or PA) shall coordinate with the VTGE. The test shall be performed within one (1) working day after the DB Firm has been notified on the need of verification testing. The results of the verification test shall be submitted to the DGE and the Geotechnical Engineer within two (2) working days after performing the test. After receiving a notification from the Geotechnical Engineer indicating that the verification testing is complete and no further action is required (see item (B) below), the RE (or PA) shall immediately forward the results of the verification testing to the DB Firm and notify it that no further action is required. If the Geotechnical Engineer finds any tested shaft unacceptable, the RE (or PA) shall immediately notify the DB Firm, provide the DB Firm with the verification test results, and request the DB Firm to address any deficient drilled shaft in accordance with the Specifications and other contract documents and submit a solution to the Department for review.

(B) District Level Responsibilities

After receipt of the verification test results from the RE (or PA), the Geotechnical Engineer shall review the results, determine the acceptability of the shaft or identify additional needs for verification testing, and provide recommendations to the RE (or PA) within two (2) working days.

If the verification testing is performed by the DGE (or a consultant working directly for the DGE), the Geotechnical Engineer shall coordinate with the DGE and shall submit the test results and recommendations to the RE (or PA) within two (2) working days of completing the test in the field.

If the results are acceptable, the Geotechnical Engineer shall issue a notification to the RE (or PA) indicating that the verification testing is complete and no further action is required. If the verification test results are unacceptable, the Geotechnical Engineer shall issue a notification to the RE (or PA) recommending rejection of the foundation, provide the verification test results, and request the DB Firm follow the corrective procedures specified in the Specifications and other contract documents.

10.12.7 Auger Cast Piles

10.12.7.1 General

The Design-Build (DB) Firm is responsible for the determination of auger cast pile lengths and inspecting and recording the pile installation using the proper FDOT forms. The CEI must perform a review and verification of the work performed by the DB Firm.

10.12.7.2 Acceptance of the Auger Cast Pile Installation Plan

(A) Resident Level Responsibilities

The RE (or PA) shall receive from the Contractor at the preconstruction conference or at least fifteen (15) days prior to the installation of the demonstration pile a completed **Auger Cast Pile Installation Plan (ACPIP).**

Within one (1) working day after receiving the ACPIP from the DB Firm, the RE (or PA) shall forward the document to the DGE and the Geotechnical Engineer for review and recommendations. The CEI shall perform a concurrent separate review of the ACPIP.

For a revised ACPIP, the RE (or PA) shall forward the document to the DGE and the Geotechnical Engineer within the same day of receiving it.

Within one (1) working day of receipt of the Geotechnical Engineer's comments, the RE (or PA) shall incorporate the CEI's comments, notify the Contractor of the acceptance or rejection, and request additional information and/or changes that may be necessary. The letter of rejection shall contain the comments and reasons for rejection of the ACPIP. For a revised ACPIP, the RE (or PA) shall provide similar notification to the Contractor within one (1) working day after receipt of the Geotechnical Engineer's comments. The RE (or PA) must ensure that the deadlines allowed by the Specifications are met.

If the CEI requires technical assistance from the Geotechnical Engineer, as soon as the Contractor's schedule to construct the demonstration pile is known, the RE (or PA) shall notify the DGE and the Geotechnical Engineer of the schedule so that they may observe the installation of the demonstration pile and provide technical assistance.

(B) District Level Responsibilities

The Geotechnical Engineer shall make comments and/or recommendations to the RE (or PA) of the acceptance or rejection of the ACPIP within three (3) working days of receiving it. For a revised ACPIP, the Geotechnical Engineer shall make comments and/or recommendations within one (1) working day of receiving the ACPIP.

10.12.7.3. Demonstration Pile and Production Piles Installation

(A) Resident Level Responsibilities

The CEI shall perform an over-the-shoulder inspection of the activities performed by the DB Firm during installation of demonstration auger cast pile and production auger cast piles and ensure that the DB Firm is following FDOT procedures and documenting the installation using the proper FDOT forms. The CEI must ensure the requirements in the RFC Plans, Specifications, accepted ACPIP, and other contract documents are followed throughout the installation of the demonstration and production piles. In addition, the CEI must observe over-the-shoulder and verify that the required auger cast pile tip elevations and other design requirements established by the DB firm are followed during the installation of the demonstration pile and production piles.

(B) District Level Responsibilities

The Geotechnical Engineer shall provide technical assistance as required by the CEI in resolving auger cast pile installation issues that may arise during construction. This assistance includes the observation of the demonstration pile, field visits, reviewing Engineering Analysis Reports on piles that did not meet the Specifications requirements, and review of the Foundation Certification Packages.

10.12.7.4 Foundation Certification Packages

After completion of the auger cast piles in one foundation unit, the RE (or PA) will receive from the DB Firm a Certification Package. A foundation unit is defined as a group of piles per wall segment or per full wall.

(A) Resident Level Responsibilities

Upon receipt of the Foundation Certification Package from the DB Firm, the RE (or PA) shall forward it to the DGE and the Geotechnical Engineer within the same working day and perform a concurrent review to verify that the package is complete. If after the reviews, the foundation package is considered deficient, the RE (or PA) shall notify the Contractor of the rejection of the foundation within the same working day of receiving the notification from the Geotechnical Engineer.

(B) District Level Responsibilities

The Geotechnical Engineer shall perform a review of the Foundation Certification Package to make sure it addresses all the requirements needed for acceptance (such as load capacity, integrity, and settlements). Also the Geotechnical Engineer must verify that the language of the signed and sealed certification clearly certifies the foundation unit without disclaimers. Refer to ***Guidance Documents 10-12-A,*** for an ***Example of Acceptable Language in Certification Letters***.

Within two (2) working days of the receipt of the Foundation Certification Package, if the certification is not acceptable, the Geotechnical Engineer shall submit a notification to the RE (or PA) recommending its acceptance or rejection including the reasons for rejection. If the Geotechnical Engineer has no comments on the Foundation Certification Package, no notification is required.

10.12.8 Spread Footings

10.12.8.1 General

The Design-Build (DB) Firm is responsible for the determination of spread footing design, inspection and recording the footing construction. CEI must perform a review and verification of the work performed by the DB Firm.

10.12.8.2 Spread Footing Construction

(A) Resident Level Responsibilities

The CEI must perform an over-the-shoulder inspection of the activities performed by the DB Firm during spread footing construction to ensure the DB Firm is following FDOT procedures and meets the requirements indicated in the RFC Plans, Specifications, and other pertinent contract documents. The CEI must observe and verify that the required foundation depths, dewatering, excavations, support of excavations, foundation subgrade materials, foundation materials and details, and foundation seals are in accordance with the design requirements established by the RFC Plans and Specifications.

(B) District Level Responsibilities

The Geotechnical Engineer shall provide technical assistance as required by the CEI in geotechnical construction issues that may arise during construction. This assistance includes field visits, records review, reviewing Engineering Analysis Reports on questionable footings, field testing, and technical recommendations.

10.12.8.3 Foundation Certification Packages

After completion of the spread footings in one foundation unit, the RE (or PA) will receive from the DB Firm a Foundation Certification Package. A foundation unit is defined as a spread footing.

(A) Resident Level Responsibilities

Upon receipt of the Foundation Certification Package from the DB Firm, the RE (or PA) shall forward it to the DGE and the Geotechnical Engineer within the same working day and perform a concurrent review to verify the package is complete. If after the reviews, the foundation package is considered deficient, the RE (or PA) shall notify the

Contractor of the rejection of the foundation within the same working day of receiving the notification from the Geotechnical Engineer.

(B) District Level Responsibilities

The Geotechnical Engineer shall perform a review of the Foundation Certification Package to make sure it addresses all the requirements needed for acceptance (such as load capacity, integrity, and settlements). Also the Geotechnical Engineer must verify that the language used in the signed and sealed certification letter clearly certifies the foundation unit without disclaimers Refer to ***Guidance Documents 10-12-A,*** for an ***Example of Acceptable Language in Certification Letters***.

Within one (1) working day of the receipt of the Foundation Certification Package, if the certification is not acceptable, the Geotechnical Engineer shall submit a notification to the RE (or PA) recommending its rejection, including the reasons for rejecting it. If the Geotechnical Engineer has no comments on the Foundation Certification Package, no notification is required.

Guidance Document 10-12-A

Example of Acceptable Language in Certification Letters

(ADDRESSEE) (DATE)

Financial Project ID:
FAP No.:
Contract No.:
County:
Subject: Foundation Certification Letter for Pier/Bent/structure
Project Name, Bridge/structure identification, Bridge #

Dear (_____):

Consultant Firm's Name has completed a review of the (list the documents that the consultant reviewed for this certification such as pile driving records/drilled shaft records/auger cast piles records, dynamic load test data, static, Statnamic, load test data, integrity test data, spread footing field inspection records, etc). All the production piles/shafts/auger cast piles (select one) were inspected by a CTQP certified pile driving/drilled shaft/auger cast pile (select one) inspector under our supervision and the final position and axial alignment were verified. (Note: in case of tolerances being exceeded, an evaluation must be included in the package).

Based on our review, we hereby certify that all these piles/drilled shafts/auger cast piles/spread footings meet the Design and Construction criteria established for this foundation which includes axial capacity including uplift, lateral stability, integrity, and foundation settlement.

Submitted by:

Firm's Name
FPBE CAT

_____
Geotechnical Foundation Design Engineer of Record Name
FBPE license #

Chapter 11

ASPHALT

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SECTION 11.1

ASPHALT PLANT TICKETS

11.1.1 PURPOSE

This procedure establishes guidelines to control asphalt plant tickets related to the daily measurement and documentation of bituminous quantities.

11.1.2 AUTHORITY

Sections 20.23(3) (a) and 334.048(3), Florida Statutes (F.S.)

11.1.3 GENERAL

Specifications ***Section 320*** includes the requirements for asphalt plant operations.
All asphalt plants shall have electronic weigh systems with automatic ticket printouts.

11.1.4 ASPHALT PRINTED TICKETS

Requirements/submittals:

(a) There must be an original and at least one (1) legible copy. The original is retained by the Plant Verification Technician and becomes part of the LOT Submittal Package, and one copy goes to the Roadway Verification Technician. See ***Attachment 11-1-1*** for example of an asphalt ticket.

(b) Printed tickets shall be bound in sets for each day's production run. A cover sheet (***Form 700-050-72***) shall be prepared for each set (see ***Attachment 11-1-2a***) showing the Financial Project ID Number, pay item numbers, date, book number, mix design number, type of material, ticket numbers included, and total quantity. Material of different types, pay items, waste, or private work for each day's production run shall be identified. These packets shall be available for review by the Plant Verification Technician one day after production and shall become part of the LOT Submittal Package. See ***Attachments 11-1-2 and 11-1-2a thru 11-1-2d***.

Note: The cover sheet is used for Conventional and Lump Sum (LS)/ Design Build (DB) projects. For LS/DB Projects, show the pay item for the asphalt quantity to which the pay adjustment (if applicable, per Specifications) will be applied.

(c) The **original weight tickets** (white tickets), that are part of the LOT Submittal Packages shall be scanned into the Electronic Document Management System (EDMS with the contents of the LOT Submittal Package. The hard copies will be destroyed.

11.1.5 ASPHALT PLANT OPERATIONS

All plant operations will be in accordance with ***Specifications Section 320***.

11.1.6 ATTACHMENTS

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ATTACHMENT 11-1-1
Automatic Printer Ticket

EAGLE ASPHALT COMPANY
SOMEWHERE FL
1-800-555-5555

Sold to:
FIN Project ID: 123456-1-52-01
Design No. SP 10-8280A

ACCOUNT	MIX	TRUCK	TONS
15	Super Pave	573	22.46

	Tons
GROSS	*35.75*
TARE	*13.29*
NET	*22.46*

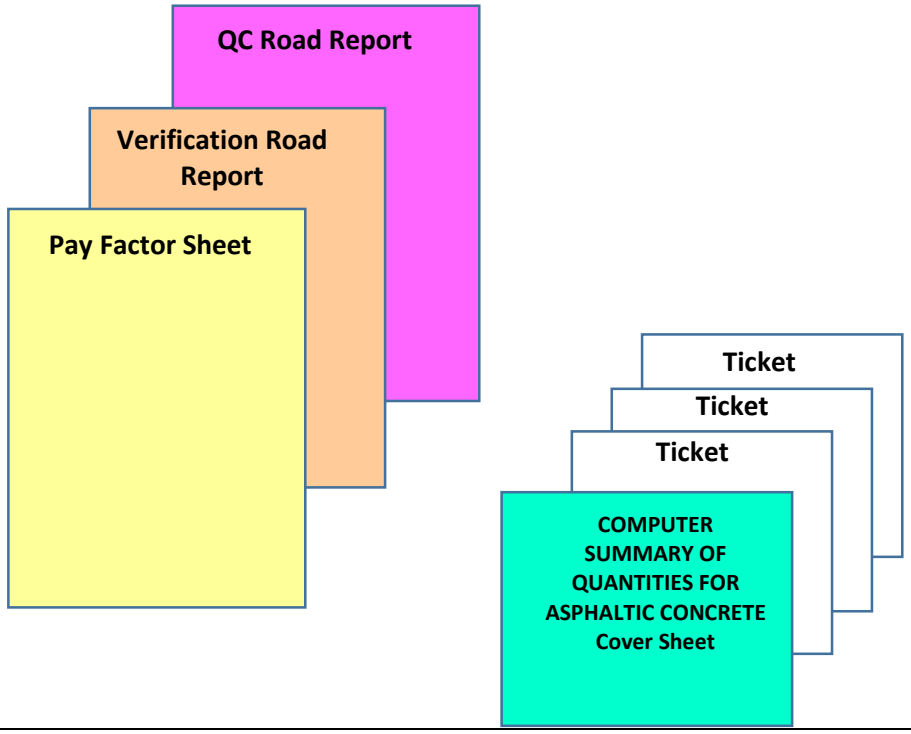
MIX TEMPERATURE: 325°
LOAD NO.: 10
ACC. TOTAL: 196.11 TONS
DATE/TIME: 01/01/2016 12:00 PM

Received by

ATTACHMENT 11-1-2

Lot Submittal Package

To be compiled by Roadway or Plant Verification Technician at the end of each LOT and Submitted to the Engineer



ATTACHMENT 11-1-2a

ASPHALT PACKAGE TICKET COVER SHEET Form 700-050-72

COMPUTER SUMMARY OF QUANTITIES FOR ASPHALTIC CONCRETE

Fin. Project ID: _____ Date: _____

Design Mix #: _____ Type of Material: _____

Total No. of Invoices for this bundle: _____ Total No. of Tons/MTs for this bundle: _____

Basis of Payment

Sample No.:	Pay Item No.:	Lot:	Tons / MT:	Waste:
Sample No.:	Pay Item No.:	Lot:	Tons / MT:	Waste:
Sample No.:	Pay Item No.:	Lot:	Tons / MT:	Waste:
Sample No.:	Pay Item No.:	Lot:	Tons / MT:	Waste:
			Total: _____	Total: _____

Plant Inspector: _____

Remarks: _____

MATERIAL DISPOSITION

Rejected: _____
Waste: _____
No Pay: _____
Total @ No Pay: _____

ATTACHMENT 11-1.2b
PAY FACTOR WORKSHEET

675-030-22
MATERIALS
APW: 07/10

Florida Department of Transportation

Asphalt Plant - Lot Verification and Pay Factor Worksheet for Superpave Mixtures

Specification Version(s) 7/05	Project Information				
Contractor: **P&S PAVING**				Fin. Project ID: **21042735201**	
Mix Type: **SP-12.5**	Design No.: **SP 10-8347B**	Plant No.: **A0712**		Reported By: **J. TULLY**	
LOT #: **3**	Intended Tons: **2000**	Actual Tons: **188.37**		Date Reported: **10/1/2010**	
Verification Sublot: **1**	Start Date: **8/13/2010**	End Date: **9/28/2010**	Tons in this lot requiring no density:	188.37	**100.0%**
Proj. Description: **A1A SUMMER HAVEN**					

Lot Verification

Property	P_{-8}	P_{-200}	P_b	Rice G_{mm}	Lab G_{mb}
QC	38.82	5.84	4.73	2.523	2.427
Verification	37.17	5.87	4.69	2.529	2.417
Tolerance	IN	IN	IN	IN	IN
Property	Core 1 G_{mb}	Core 2 G_{mb}	Core 3 G_{mb}	Core 4 G_{mb}	Core 5 G_{mb}
QC					
Verification					
Tolerance					

Lot Pay Factor Calculations

Property	P_{-8}	P_{-200}	P_b	Va	Density
Sublot 1	38.82	5.84	4.73	3.80	
Sublot 2					
Sublot 3					
Sublot 4					
Target	42.00	4.80	4.90	4.0	92.0
n=	1.00	1.00	1.00	1.00	
Mean	**38.82**	**5.84**	**4.73**	**3.80**	
SD					
Q_u					
P_u					
Q_l					
P_l					
PWL					
PF	**1.00**	**1.00**	**1.05**	**1.05**	**1.00**
Note: Sublot values which appear in RED are outside of the Master Production Range as specified in Table 334-5, refer to 334-5.1.4.4.			Composite Pay Factor		**1.03**

The Composite Pay Factor Worksheet is used to input the Contractor's test results for AC content, gradation, air voids and density for each sublot.

The Plant Verification Technician will test one predetermined sublot and input results. If verified, the composite pay factor will be used for the entire verified lot. If the sublot does not verify the whole lot goes to resolution.

The composite pay factor provided by the Plant Verification Technician, once verified by the PA, will be paid on the following Progress Estimate as a Line Item Adjustment.

ATTACHMENT 11-1-2c

ASPHALT ROADWAY – VERIFICATION REPORT

State Of Florida Department Of Transportation

Asphalt Roadway - Verification Report

Page No 2 of 2

Fin. Project ID:	408268-3-52-01	Material No.:	123L	Type of Mix:	FC-5	Mix Design No.:	SPM 13-11452B
Intended use:	Friction	Plant No.:	A0741	Lot No.:	34	Intended Lot Size:	2000 TNS

Verification of Spread Rate — **Verification Results Y/N**

Date	Sublot	Lane / Lift # of #	Station To Station				Loads	Linear Ft	Width	SY	Tons	Spread	
4/2/2015	1	RTL & SH / 1 of 1	1336	67	1330	86	4,11,1	581.00	##	1162.00	50.12	86.3	Y
4/2/2015	2	RTL / 1 of 1	1258	00	1255	20	9-10	280.00	##	466.67	25	107.1	N

Verification of Tack

Record Of Bituminous Materials

Date	04/02/15			
Sublot	1-2			
Pay Item No.	334-1-24			
Grade Of Asphalt	NTSS-1hm			
FDOT Calibration Tank No.	3159			
Beginning IN	16/8			
Gallons	1724			
Ending IN	25/6			
Gallons	1276			
Time of Day after Unloading	4:00 AM	AM PM	AM PM	AM PM
Temperature F	170			
Net Hot Gallons	448.00			
Correction Factor	0.9732			
Gallons @ 60F	435.9936			
SY Covered	9434.6			
Spread Rate Gal/SY	0.046			
Verification Results	Y			

Target Spread Rate	83
Verification of Established Temp.	320

Verification Results Y/N

Date	Sub.	Load No.	Temp.	
04/02/15	1	13	325	Y
04/02/15	2	6	325	Y

M32007080

Qualified Technician ID# (TH)

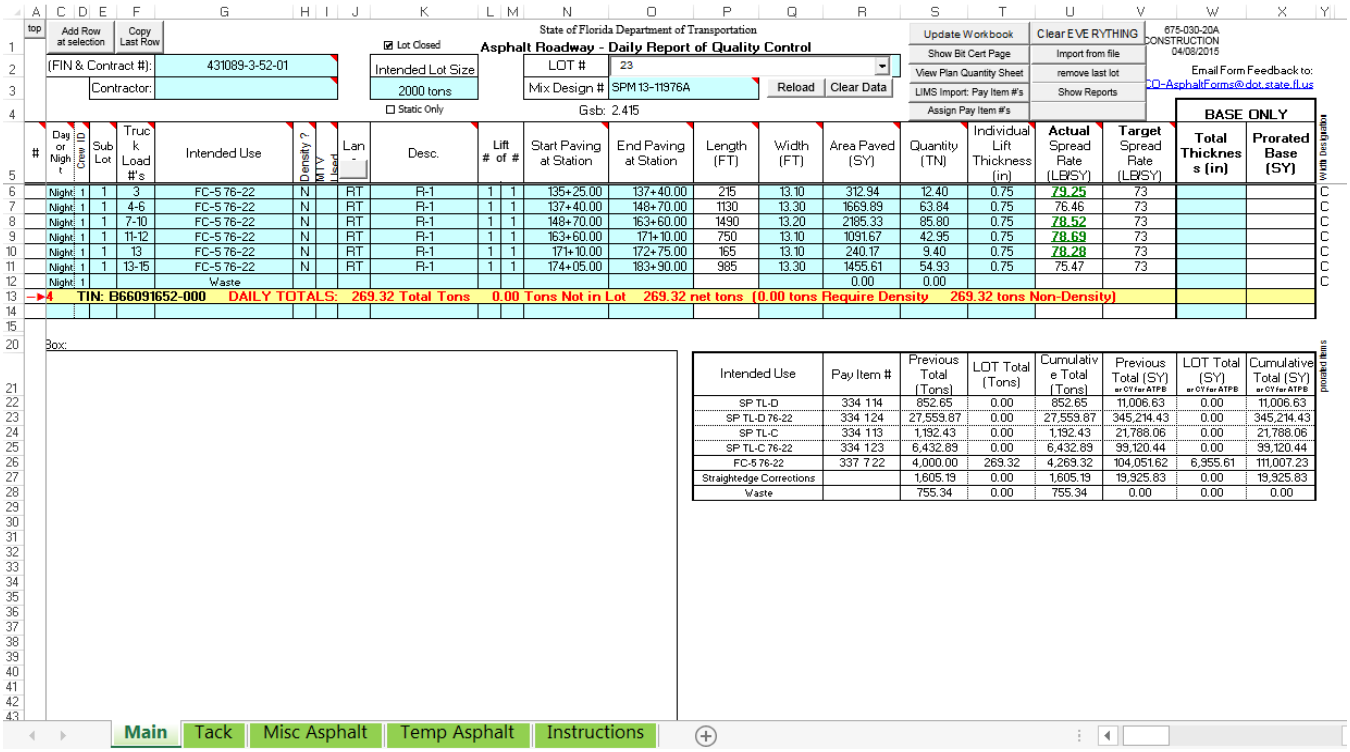
Remarks

04/02/15 William's crew: Placed FC-5 along LT outside Rdwy at the following areas: side streets of Colbert Rd, Publix entrance RTL/turnout, Clubhouse RTL/turnout, and partial clubhouse gore area. This crew used loads 1, 4, 11, 12, 13, 15, 19. Junior's crew: Placed FC-5 along LT Rdwy at OS 1311+85 - 1281+40, Hillside Heights RTL/OS, J Day side street, Church entrance side street and 540A RTL at 1255+20 - 1258+00 as well as on RT Rdwy at the RTL/OS at 1239+00 - 1249+35. This crew used loads 2, 3, 5, 7, 9, 10, 14, 21-23. 482.94 tons delivered, 455.91 tons placed, 27.03 tons waste.

The Asphalt Roadway – Verification Report is a field form used to verify spread rate, temperature and bituminous materials.

ATTACHMENT 11-1-2d

ASPHALT ROADWAY – DAILY REPORT OF QUALITY CONTROL



State of Florida Department of Transportation
Asphalt Roadway - Daily Report of Quality Control

(FIN & Contract #): 431089-3-52-01
Contractor:
Intended Lot Size: 2000 tons
Lot Closed
Static Only
LOT #: 23
Mix Design #: SPM13-11976A
Gsb: 2.415
Reload | Clear Data
Update Workbook | Clear EVERYTHING | Show Bit Cert Page | Import from file | View Plan Quantity Sheet | remove last lot | LIMS Import: Pay Item #'s | Show Reports | Assign Pay Item #'s
675-030-20A CONSTRUCTION 04/08/2015
Email Form Feedback to: CO-AsphaltForms@dot.state.fl.us

#	Day or Night	Crew ID	Sub Lot	Truck Load #'s	Intended Use	Density ?	MTV Used	Lane	Desc.	Lift #	of #	Start Paving at Station	End Paving at Station	Length (FT)	Width (FT)	Area Paved (SY)	Quantity (TN)	Individual Lift Thickness (in)	Actual Spread Rate (LB/SY)	Target Spread Rate (LB/SY)	BASE ONLY Total Thickness (in)	BASE ONLY Prorated Base (SY)	With Designation
6	Night	1	1	3	FC-5 76-22	N		RT	R-1	1	1	135+25.00	137+40.00	215	13.10	312.94	12.40	0.75	79.25	73			C
7	Night	1	1	4-6	FC-5 76-22	N		RT	R-1	1	1	137+40.00	148+70.00	1130	13.30	1669.89	63.84	0.75	76.46	73			C
8	Night	1	1	7-10	FC-5 76-22	N		RT	R-1	1	1	148+70.00	163+60.00	1490	13.20	2185.33	85.80	0.75	78.52	73			C
9	Night	1	1	11-12	FC-5 76-22	N		RT	R-1	1	1	163+60.00	171+10.00	750	13.10	1091.67	42.95	0.75	78.69	73			C
10	Night	1	1	13	FC-5 76-22	N		RT	R-1	1	1	171+10.00	172+75.00	165	13.10	240.17	9.40	0.75	78.28	73			C
11	Night	1	1	13-15	FC-5 76-22	N		RT	R-1	1	1	174+05.00	183+90.00	985	13.30	1455.61	54.93	0.75	75.47	73			C
12	Night	1			Waste											0.00	0.00						C
13	4	TIN: B66091652-000	DAILY TOTALS: 269.32 Total Tons 0.00 Tons Not in Lot 269.32 net tons (0.00 tons Require Density 269.32 tons Non-Density)																				

Box:

Intended Use	Pay Item #	Previous Total (Tons)	LOT Total (Tons)	Cumulative Total (Tons)	Previous Total (SY) or CY for ATPB	LOT Total (SY) or CY for ATPB	Cumulative Total (SY) or CY for ATPB	prorated items
SP TL-D	334 1 14	852.65	0.00	852.65	11,006.63	0.00	11,006.63	
SP TL-D 76-22	334 1 24	27,559.87	0.00	27,559.87	345,214.43	0.00	345,214.43	
SP TL-C	334 1 13	1,192.43	0.00	1,192.43	21,788.06	0.00	21,788.06	
SP TL-C 76-22	334 1 23	6,432.89	0.00	6,432.89	99,120.44	0.00	99,120.44	
FC-5 76-22	337 7 22	4,000.00	269.32	4,269.32	104,051.62	6,955.61	111,007.23	
Straightedge Corrections		1,605.19	0.00	1,605.19	19,925.83	0.00	19,925.83	
Waste		755.34	0.00	755.34	0.00	0.00	0.00	

Main | Tack | Misc Asphalt | Temp Asphalt | Instructions

The Daily Report of Quality Control is used to calculate spread rates and record asphalt and tack quantities.

Section 11.2

ASPHALT MIX TEMPERATURE CONTROL

11.2.1 Purpose

To provide a uniform procedure for acceptance of asphalt mix, based on temperature, for both the Asphalt Plant and Asphalt Paving Construction Training Qualification Program (CTQP) Qualified Technician on Contractor Quality Control (CQC) projects.

11.2.2 Authority

Section 334.048 and 20.23(4)(a), Florida Statutes (F.S.)

Section 320 and 330, Standard Specifications for Road and Bridge Construction

11.2.3 Temperature Measurement Procedures

(A) Resident Level Responsibilities

The Contractor's Technician, under the supervision of a CTQP Qualified Asphalt Plant Level II Technician, will take the temperature of the asphalt mix at the plant for each day, for each design mix on the first five loads, and an average of once every five loads thereafter. The Florida Department of Transportation's Qualified Asphalt Plant Level I or Level II Technician shall monitor and review the plant temperature readings and take additional temperature measurements at a minimum frequency of twice per day. The Contractor's Technician under the supervision of a CTQP Qualified Asphalt Paving Level II Technician will also take temperature readings at the same frequency as at the plant when the load arrives on the project. The following procedures should be followed:

(1) The frequency of the measurement may be increased, as deemed necessary, by the Department's Technician.

(2) The temperature measurements taken at the plant by the Contractor's Technician shall be compared to the mix design's mixing temperature and recorded on the respective delivery tickets. The temperature measurements taken at the roadway shall be compared to the mix design's compaction temperature and recorded on the front of the delivery ticket on the right hand side of the Contractor's Technician's temperature reading taken at the plant.

(3) The Department's Qualified Plant Technician or Paving Technician will verify Contractor's measurements periodically with a minimum frequency of twice per day.

(4) Rejection of the hot mix asphalt on the basis of the mix temperature shall be made in accordance with the ***Standard Specifications*** and necessary corrective action shall be made immediately.

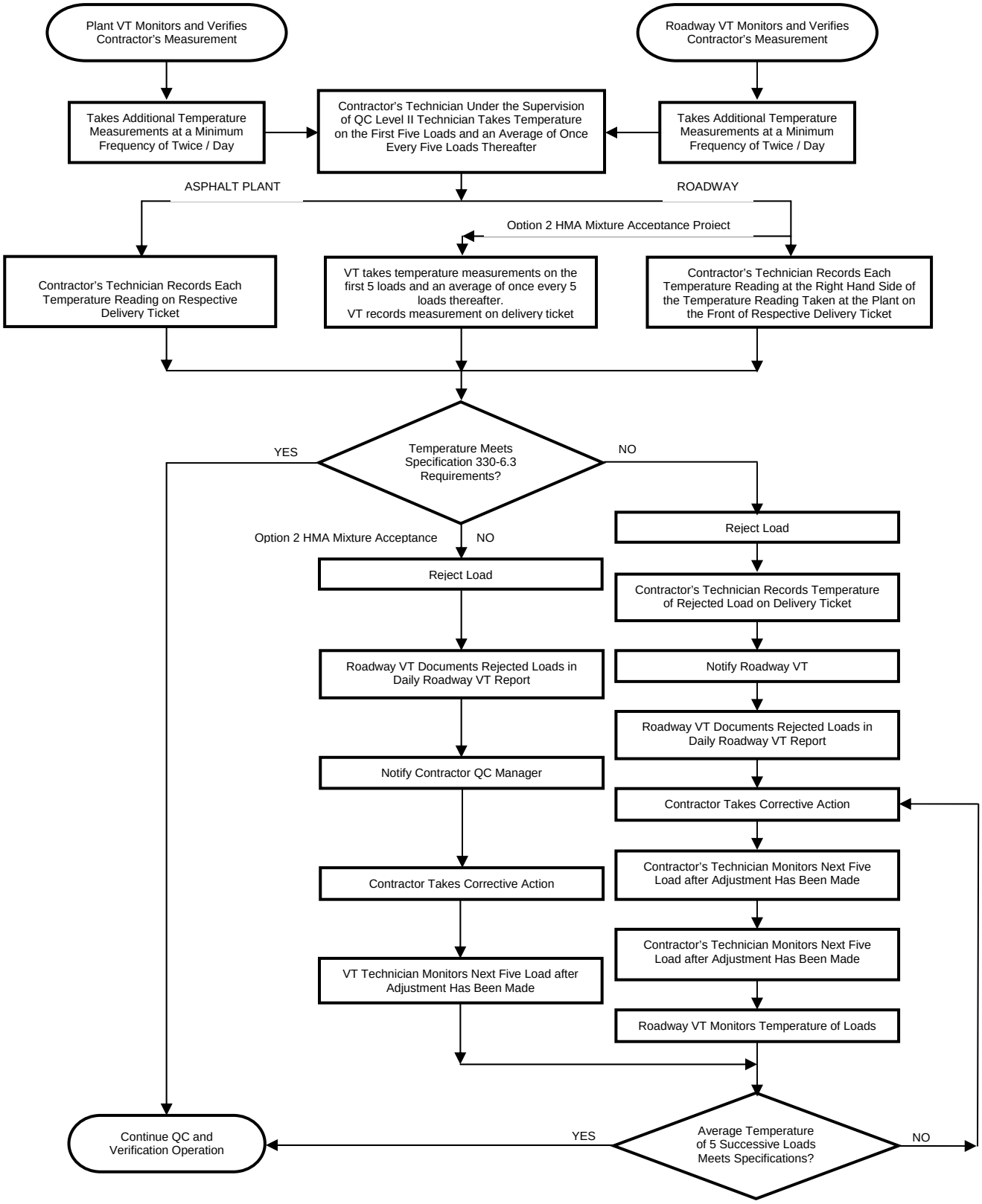
(5) The Contractor's Technician will record the temperature on the delivery tickets for the loads rejected and notify the Department's Technician of any such rejection. Department's Technician will report any rejected loads for contracts on ***Form No. 675-030-21, Asphalt Roadway – Verification Report***.

11.2.4 Corrective Action

(A) Resident Level Responsibilities

The Contractor's Technician will monitor the next five loads produced after the adjustment has been made to determine if the corrective action is effective. The Department will continue to monitor the loads until the average temperature of five successive loads is in compliance with the requirements of specifications at which time the Contractor's Technician can return to monitoring one out of every five loads.

Attachment 11-2-1
FLOW CHART
CPAM SECTION 11.2 ASPHALT MIX TEMPERATURE CONTROL
(December, 2008)



SECTION 11.3

CATEGORIZING ASPHALT & OTHER BASE COURSES

11.3.1 PURPOSE

This procedure provides a means for categorizing the different asphalt courses, mix types and illustrate the units of measure.

11.3.2 AUTHORITY

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

11.3.2.1 REFERENCES

Standard Specifications for Road and Bridge Construction (Specifications)

11.3.3 THE DIFFERENT COURSES

Asphalt and other base courses discussed in this Section are: Superpave Asphalt Concrete, Optional Base (excluding asphalt base), and Composite Base Courses.

11.3.3.1 SUPERPAVE ASPHALT CONCRETE

Superpave mixes are categorized fine graded.

Superpave mixes are divided into (A) Tonnage pay items and (B) Square Yard Pay Items. Each of these categories is divided into individual pay item groups.

(A) TONNAGE PAY ITEMS

Tonnage pay items include Friction Courses, Structural Courses, Turnout Construction (Asphalt), and Miscellaneous Asphalt.

Compensation for Tonnage Items shall be by automatic printer tickets, showing weights along with the ***Lot Submittal Package***, and shall be submitted with the Final Estimate for each project on the Contract.

1. **Asphalt Concrete Friction Courses**:

Friction course mixes are designated as FC-5, FC-9.5, and FC-12.5. These mixes must meet the plant and equipment requirements of ***Section 320*** of the ***Specifications***, the general construction requirements of ***Section 330*** of the ***Specifications***, Superpave Asphalt Concrete general requirements of ***Section 334*** of the ***Specifications***, and Asphalt Friction Course general requirements of ***Section 337*** of the ***Specifications***.

Friction courses are paid by the Ton. The pay quantity is based on the quantity placed on the project limited to a maximum of 105% of the adjusted plan quantity in accordance with ***Section 337-11*** of the ***Specifications.***

Refer to ***CPAM Chapter 11.4*** for explanation and examples of asphalt adjustments.

2. Asphalt Concrete Structural Courses:

Structural course mixes are designated as SP-9.5, SP-12.5, and SP-19.0. These mixes must meet the plant and equipment requirements of ***Section 320*** of the ***Specifications***, and the general construction requirements of ***Section 330*** and ***334*** of the ***Specifications***. These mixes are fine-graded mixes as defined in ***Section 334-3.2.2*** of the ***Specifications***.

Structural courses are paid by the Ton. The pay quantity is based on the quantity placed on the project limited to a maximum of 105% of the adjusted plan quantity in accordance with ***Section 334-7*** of the ***Specifications.***

Refer to ***CPAM Chapter 11.4*** for explanation and examples of asphalt adjustments.

3. Turnout Construction (Asphalt only)

Asphalt used on turnout construction can be any material specified by the Department, except for open-graded friction courses. Asphalt turnout construction is a tonnage pay item, and in general, the Department's Engineer will accept the material on the basis of visual inspection, with no testing required.

See **Sections 320-3 and *286*** of the ***Specifications*** for method of measurement and Basis of payment.

NOTE: There will be no Composite Pay Factor (CPF) adjustment (paid as CPF of 1) or thickness adjustment on Asphalt Turnout Construction.

4. Miscellaneous Asphalt

Miscellaneous asphalt is used where vehicular traffic does not travel, such as shared use paths, median pavement, sidewalks, pavement under guardrail. The soil underneath these areas must be treated before asphalt is paved to prevent plant growth.

See ***Sections 320-3*** and ***320-4*** of the ***Specifications*** for Method of Measurement: The quantity to be paid for is the weight in tons calculated by weighing trucks on scales meeting the requirements of ***Section 320-3*** of the ***Specifications*** or from the total weight of batches placed in trucks as determined by an automatic printer system meeting the requirements of ***Section 320-4*** of the ***Specifications.*** The pay quantity is based on the quantity placed on the projects, limited to a maximum of 105% of the adjusted plan quantity for the pay item. For calculation, a weight of 100 lbs/SY per inch thickness of asphalt will be used.

See ***Section 339-8*** of the ***Specifications*** for Basis of Payment: Price and payment will be full compensation for all work specified in this section, including shaping and compacting the foundation, soil sterilization treatment, furnishing of the bituminous material used in the mixture, and shaping of the adjacent earth surfaces.

An Example of how you would pay for miscellaneous asphalt for up to 105% is shown in *Section 11.4* of this Manual.

(B) SQUARE YARD PAY ITEMS:

The only asphalt square yard pay item is Superpave Base (optional base asphalt). See the ***Design Standards; Index No. 514*** “Optional Base Group and Structural Numbers”.

Superpave Base Courses:

Base course mixes are designated as B-12.5. However, the Contractor may use type SP-12.5 mixture (traffic level B or C) instead of type B-12.5.

Superpave Base is paid for on an area basis and in square yards. The area is the plan quantity subject to provisions of ***Section 9-3*** of the ***Specifications.*** The pay quantity is based on the quantity placed on the project limited to a maximum of 105% of the adjusted plan quantity.

1. The pay area shall not exceed 105% of the designed surface area.

2. There will be a Bituminous Adjustment where the plans include a typical cross-section which requires the construction of asphalt base option **only**, and only if the requirements of ***Section 9-2.1.2*** of the ***Specifications*** are met.

3. If plan quantity error exceeds the limitations established in ***Section 9-3*** of the ***Specifications***, then record documentation for the change only.
4. A CPF is also added if applicable.

(C) CUBIC YARD PAY ITEM

The only Cubic Yard Asphalt Pay Item is Asphalt Treated Permeable Base

Asphalt Treated Permeable Base (ATPB)

1. ATPB is used with outlet pipe under concrete pavement as shown in detail in the plans and in the ***Design Standards***, ***Index No. 287***.

2. ATPB must meet the plant and equipment requirements of ***Section 320*** and the general construction requirements of ***Section 330***, except as noted under ***Section 287-2*** of the ***Specifications***.

3. The ATPB mixture will be accepted at the plant with respect to ***Section 334-5.1*** of the ***Specifications,*** and with exceptions as mentioned in ***Section 287-5*** of the ***Specifications***. ATPB is composed of a combination of coarse aggregate and asphalt cement.

4. This pay item is plan quantity. It is completed and accepted subject to ***Section 9-3.2*** of the ***Specifications***. Only plan errors and field revisions are to be measured and documented on a site source record.

11.3.3.2 COMPOSITE BASE

Composite Base is a combination of granular material and asphalt. The Subbase (granular) is cored prior to placing asphalt. All areas over 1/2" or under 1/4" of specified granular thickness must be corrected prior to placing asphalt. The asphalt is placed according to ***Section 234-8*** of the ***Specifications*** and must be controlled within +/-5% of the specified spread rate. The average spread rate of the asphalt shall be converted to inches by reversing the formula specified in ***Section 234-8.1*** of the ***Specifications*** and added to the average thickness of the Subbase. The thickness adjustment is applied for the composite base pay item limited to a maximum 105% of the surface area, as specified in ***Section 285-8*** *of the* ***Specifications***. (See example, ***Section 11-4*** **"Adjustments"** under **"Appendix C: Composite Base Thickness Adjustment"**). For Bituminous Adjustments on Composite Base, refer to ***Chapter 11.4*** of this ***Manual***. For the requirements of the mixture and CPF, refer to ***Section 234*** of the ***Specifications***, ***Basis of Payment and Section 334*** of the ***Specifications.***

11.3.3.3 OPTIONAL BASE (EXCLUDING ASPHALT BASE)

See ***Section 285*** of the ***Specifications***. Optional base, such as Limerock, Cemented Coquina, Shell Base, Shell-Rock, and Graded Aggregate (known as white base) is paid for on an area basis and in square yards. The area is plan quantity subject to provisions of ***Section 9-3*** of the ***Specifications.***

1. Optional base receives a thickness adjustment, and the pay area shall not exceed 105% of the finished surface area.

2. There will be no Bituminous Adjustments where the plans include a typical cross-section providing the option of using either Limerock or Asphalt as Base.

3. If plan quantity changes or errors exceed the limitations established in ***Section 9-3*** of the ***Specifications***, then document in field books, computer forms, or computation book forms for the change only.

Note: Documentation on computation book forms will continue for all projects that have Computation Books. For projects with Plan Summary Boxes, calculations could be shown on the Summary Box or submitted with the plans and referenced in the Summary Box.

SECTION 11.4

ADJUSTMENTS

11.4.1 PURPOSE

This procedure provides guidance for determining the various pay adjustments associated with asphalt pay items (Pay Quantity Adjustments, Composite Pay Factor (CPF) Adjustments, and Bituminous Adjustments). Example calculations are provided in the Appendices at the end of this Chapter.

11.4.2 AUTHORITY

Sections 20.23(3)(a), and ***334.048(3)***, ***Florida Statutes***

11.4.2.1 REFERENCES

Sections 9, 234, 285, 330, 334, 337 and ***339*** of the ***Standard Specifications for Road and Bridge Construction***
Section 514, FDOT Design Standards

11.4.3 TYPES OF ADJUSTMENTS

11.4.3.1 PAY QUANTITY ADJUSTMENTS

The Department will pay for the asphalt placed up to 105% of the Adjusted Plan Quantity on Asphalt Square Yard and Tonnage Pay Items.

Exceptions: Temporary Asphalt, Turnout Construction (Asphalt), and Asphalt Cubic Yard Pay Items (Asphalt Treated Permeable Base (ATPB)), do not receive pay quantity adjustments. On conventional (pay item) projects, Overbuild and Turnout Construction are not limited to 105%. Of the Adjusted Plan Quantity. Payment is made for the quantity that is placed.

The Asphalt Roadway – Daily Report of Quality Control (QC Report) has been updated to include automation of some adjustments. The Project Administrator (PA) (or designee) will only need to enter the Plan Quantity Tonnage and any Engineer directed change(s) to the QC report. The QC Report will calculate the Tonnage-weighted G_{mm} (or G_{sb} for open graded Friction Course FC - 5) for each pay item based on the Tonnages and Mix Designs used on the project.

11.4.3.1.1 SQUARE YARD PAY ITEM ADJUSTMENTS

The only Asphalt Plan Quantity Square Yard pay items are the **Asphalt Base (Optional Base-Black Base**) groups.

The pay area will be determined based upon the following formula, where SY is square yards:

$$\text{Pay Area (SY)} = \text{Plan Surface Area (SY)} \times \frac{\text{Actual Tonnage Placed}}{\text{Adjusted Plan Quantity Tonnage}}$$

Where the Adjusted Plan Quantity (PQ) Tonnage is determined as follows:

$$\text{Adjusted PQ (TN)} = \frac{(\text{Plan Surface Area} \times t \times \text{Tonnage-Weighted Average } G_{mm} \times 43.3)}{2{,}000 \text{ Lbs/TN}}$$

And:
Plan Surface Area = PQ Area including any Engineer approved quantity revisions (SY)
t= Plan Thickness (in)
43.3 = Conversion Factor (a constant derived by the State Material's Office)
Tonnage-Weighted Average G_{mm} =

$$\frac{(\text{Tons}_{\text{Mix 1}})(G_{mm_\text{Mix 1}}) + (\text{Tons}_{\text{Mix 2}})(G_{mm_\text{Mix2}}) + (\text{Tons}_{\text{Mix n}})(G_{mm_\text{Mix n}})}{\text{Tons}_{\text{Mix 1}} + \text{Tons}_{\text{Mix 2}} + \text{Tons}_{\text{Mix n}}}$$

The Pay Adjustment (SY) is determined as follows:

Pay Adjustment (SY) = Pay Area (SY) – Plan Quantity (SY)

The Pay Adjustment can be positive, negative, or zero. The positive adjustment is limited to 105% of the Plan Quantity (SY)

See ***Appendix A*** for Example (1) Negative Adjustment; Example (2) Positive Adjustment within the 105%; and Example (3) Limit to 105% (when placement exceeds 105%)

11.4.3.1.2 CUBIC YARD PAY ITEM ADJUSTMENTS

The only Asphalt Cubic Yard Pay Item is Asphalt Treated Permeable Base (ATPB). This pay item **does not** allow for 105% pay adjustment. ATPB **does** receive CPF Adjustments and Fuel and Bituminous Adjustments (if applicable).

11.4.3.1.3 TONNAGE PAY ITEM ADJUSTMENTS

1. SUPERPAVE STRUCTURAL AND FRICTION COURSES

Note: Calculations shown below are now part of the QC Report as stated above in 11.4.3.1.

The maximum tonnage paid will be based upon the following formula:

Maximum Tons Pay = Adjusted PQ X 1.05

Where the Adjusted PQ Tonnage is determined as follows:

$$\text{Adjusted PQ (TN)} = \frac{\text{PQ (TN) X Tonnage-Weighted } G_{mm}}{\text{Design } G_{mm}}$$

PQ (TN) = Original PQ including any Engineer approved quantity revisions (TN)

Design G_{mm} = 2.540 (Dense Graded Structural Asphalt or Friction per 334-1.4 of the Specifications) or Design G_{sb} = 2.635 (Open Graded Friction Course – Section 337-8.2 of the Specifications)

The Tonnage-Weighted G_{mm} (or G_{sb} for FC-5) is determined from the **Asphalt Roadway-Daily Report of Quality Control Report** for each pay item used. The equation for this is as follows:

$$\text{Tonnage-Weighted } G_{mm} = \frac{(\text{Tons}_{\text{Mix 1}})(G_{mm_\text{Mix 1}}) + (\text{Tons}_{\text{Mix 2}})(G_{mm_\text{Mix2}}) + (\text{Tons}_{\text{Mix n}})(G_{mm\ \text{Mix n}}}{\text{Tons}_{\text{Mix 1}} + \text{Tons}_{\text{Mix 2}} + \text{Tons}_{\text{Mix n}}}$$

See ***Appendix A*** for Example (4) “No Adjustments”; Example (5) “Exceeding the 105% adjustment”; and Example (6) “within the 105% Adjustment”.

2. MISCELLANEOUS ASPHALT

The Designer quantity is determined based on a spread rate of 100 Lbs/SY/inch of design thickness of asphalt placed over the area in the plans.

The maximum tonnage paid will be based upon the following formula:

Maximum Tons Pay = Adjusted PQ X 1.05

Where the Adjusted PQ is determined as follows:

$$\text{Adjusted Plan Quantity} = \frac{\text{PQ (TN) X Tonnage-Weighted } G_{mm}}{\text{Design } G_{mm}}$$

And:
PQ (TN) = Original PQ including any Engineer approved quantity revisions (TN)

$$\text{Tonnage-weighted } G_{mm} = \frac{(\text{Tons}_{\text{Mix 1}})(G_{mm_\text{Mix 1}}) + (\text{Tons}_{\text{Mix 2}})(G_{mm_\text{Mix2}}) + (\text{Tons}_{\text{Mix n}})(G_{mm_\text{Mix n}})}{\text{Tons}_{\text{Mix 1}} + \text{Tons}_{\text{Mix 2}} + \text{Tons}_{\text{Mix n}}}$$

Design G_{mm} = 2.540 (per 334-1.4 of the Specifications)

See ***Appendix A***: Example (7) for paying up to 105% on Miscellaneous Asphalt.

3. TURNOUT CONSTRUCTION (ASPHALT)

Turnout Construction Asphalt is also a tonnage pay item, however, it does not receive pay quantity adjustments. It does not receive a CPF adjustment. It does receive Fuel & Bituminous adjustments, if applicable, per Specifications.

11.4.3.2 THICKNESS ADJUSTMENTS

11.4.3.2.1 (Core-Out Adjustments) (White Base)

This section is for Optional Base Courses (white base only) such as Limerock, Cemented Coquina, etc. This pay item group (see ***Section 285*** of the ***Specifications***) is Plan Quantity subject to the provisions of ***Section 9-3.2*** of the ***Specifications.***

The thickness is cored in accordance with ***Section 285-7*** of the ***Specifications.*** The core-out report is used to calculate the average thickness.

The pay area is calculated as follows:

$$\text{Pay Area} = \text{Surface Area X } \frac{\text{Calculated Average Thickness per 285-7}}{\text{Plan Thickness}}$$

The pay area shall not exceed 105% of the Surface Area. There will be no adjustment for base courses that are constructed using mixed-in-place material.

See ***Appendix B*** for Adjustment Examples.

11.4.3.2.2 THICKNESS/SPREAD RATE ADJUSTMENTS (COMPOSITE BASE)

For Composite Base, there is a granular Subbase (White Base) and an Asphalt Base. The construction of both the subbase and Type, B-12.5 is bid and used as Optional Base.

Granular subbases include Limerock, Cemented Coquina, Shell Rock, RCA Base at LBR 120, Bank Run Shell, and Graded Aggregate Base at LBR 100. All subbase thicknesses are 4" minimum.

The Asphalt Base is a Type B-12.5 with a thickness of 4” to 7” thick (see **Design Standards** – **Section 514**). The White Base will receive a thickness adjustment as shown above in 11.4.3.2, and the Asphalt Base will receive a thickness adjustment calculated from the spread rate (extracted from the **Asphalt Roadway – Daily Report of Quality Control** as shown in 11.4.3.1.3). However, the spread rate will be converted to inches. The inches are added to the thickness adjustment of the White Base, and a total is generated of the Composite Base for a thickness adjustment not to exceed 105%.

See ***Appendix C*** for Example of Composite Base Thickness Adjustment

11.4.3.3 COMPOSITE PAY FACTOR (CPF) ADJUSTMENTS

Once a LOT is closed and it has been determined by the Verification Technician (VT) that a CPF adjustment must be made, the adjustment shall be made during the month the LOT is closed and paid accordingly on the next progress estimate. The Engineer or designee shall calculate the unit price adjustment and enter the revised unit price adjustment and LOT tonnages on the monthly/progress estimate.

These revised unit price adjustments can range from 75% to 105%. LOTs shall be grouped together for each unit price adjustment when applicable.

CPF adjustments in Site Manager will be handled by adjusting the unit price by the appropriate CPF [see ***Appendix D,*** Example (2) (A) and (2) (B)]. Show the calculations under the pay item on the ***Plan Summary Box*** in the ***Plans*** or break out the percentage adjustments for the adjusted item(s). See ***Appendix D;*** Example (3).

Note: Plan Quantity vs. the quantity shown on the Asphalt Roadway – Daily Report of Quality Control (QCRR) - In some instances, this Report will show more or less square yards than the plan quantity. The Contractor should use due care when reporting square yards to accurately report the length and width of area being placed. Should the square yards in the QCRR not match plan quantity square yards; the square yards will be adjusted on the last CPF Adjustment to equal Plan Quantity. The PA needs to use reasonable investigation to see if plan quantity is in error and warrants an adjustment.

CPF Adjustments apply to Superpave Base, Friction, Structural, Composite Base (Asphalt portion), and Asphalt Treated Permeable Base Courses. There will be no CPF adjustments on Miscellaneous Asphalt, Turnout Construction (Asphalt), and Temporary Asphalt. (Reason: Temporary asphalt is placed and removed. The Department will not pay for temporary asphalt separately – it is always included in the quantity for another pay item such as temporary detour. Miscellaneous Asphalt and Turn out Construction Asphalt are not tested and are accepted on a visual basis. These pay items will have a CPF of 1.00 - no adjustment).

11.4.3.3.1 Resident Office's Responsibility

The Project Engineer and the Verification Technician (VT) are responsible for verifying the Contractor's Quality Control (CQC) Technician's test results entered in the Material's Acceptance and Certification (MAC) system and that the CPF reports are correct. The CPF adjustments shall be made at the closing of a LOT for the life of the Contract. See example of ***LOT Submittal Package*** (See ***Section 11.1; Attachment No. 11-1-2*** and ***11-1-2a*** thru ***11-1-2e*** *of this* ***Manual***). The reports along with the asphalt ticket packets shall be collected two working days after the closing of a LOT. The ***LOT Submittal Package*** shall be submitted with the ***Final Estimates Package electronically (the original asphalt tickets (white tickets) will be scanned with the LOT Submittal Package. The hard copies will be destroyed.***

11.4.3.3.2 Pay Factor Material Documentation- Materials Acceptance Resolution (MAR)

MAR (previously known as Disposition of Defective Materials (DDM)), in some instances, the Project Manager/Administrator will require removal and replacement of tonnage within a LOT due to material defect. This defective asphalt may be a partial sublot, an entire sublot, or an entire LOT. The QC Technician should identify the problem before an entire LOT is placed. The defective asphalt will then be milled and replaced with asphalt from another LOT. The original ***LOT Submittal Package*** will be explained with remarks as "No Pay" with reference to the new replacement ***LOT Submittal Package***. The replacement material is to be paid in the ***Lot Submittal Package*** at the appropriate CPF for that lot's production with references and remarks to the defective material LOT Submittal Package.

Note: The reports should reflect what actually happens in each LOT.

(A) Composite Pay Factors < 80 and ≥ 75

(1) Remove and replace the tonnage in this *LOT* at no cost to the Department. Notate ***LOT Submittal Packages*** as underlined above

(2) Obtain an Engineering Analysis, if agreed to by the PA, to determine if material may remain in place. If material is to remain in place, apply the

CPF for this LOT. If the material is to be removed and replaced, notate **LOT Submittal Packages** as underlined above.

(3) The Engineer, at his/her sole option, may perform an evaluation to leave the defective material in place and apply the CPF for this LOT.

(B) Composite Pay Factor < 75

Remove and replace the tonnage in this *LOT* at no cost to the Department. Notate ***LOT Submittal Packages*** as underlined above.

(C) Independent Verification (IV) Test Failure

Remove and replace the tonnage in this *LOT* at no cost to the Department. Notate ***LOT Submittal Packages*** as underlined above.

Example 1:

LOT 3 had defective asphalt for which the PA, after concurrence from the District Construction/Bituminous Engineer, required removal and replacement. The PA identified the area in writing to the Contractor. The Contractor removed the defective asphalt at the Contractor's expense and replaced with asphalt from LOT 5. The replacement asphalt will be paid based on LOT 5's CPF with remarks identifying the area and replacement tonnage represented in LOT 3.

For example, the replacement tonnage equals 249 tons. The ***LOT Submittal Package*** for LOT 3 will be explained with remarks as "No Pay" with reference to the replacement asphalt included in the ***LOT Submittal Package*** for LOT 5. The ***LOT Submittal Package*** for LOT 5 will clearly identify that 249 tons was produced to replace defective asphalt produced in LOT 3, with references and remarks. The 249 tons will be included in LOT 5 and paid at the LOT 5 CPF.

(D) Individual Quality Control (QC) Test

In some instances, an individual QC test will bring the CPF down and require removal and replacement (CPF <80). The original lot is then paid based on the outcome of the CPF (A or B above). The Contractor may perform an ***Engineering Analysis Report (EAR)***, if approved by the PA, to isolate the tonnage that needs to be removed rather than the entire LOT. The affected material will be deducted from the original ***LOT Submittal Package***. The original ***LOT Submittal Package*** will be explained with remarks for this material as "No Pay" with reference to the new replacement ***LOT Submittal Package***. The replacement material is to be paid in the ***LOT Submittal***

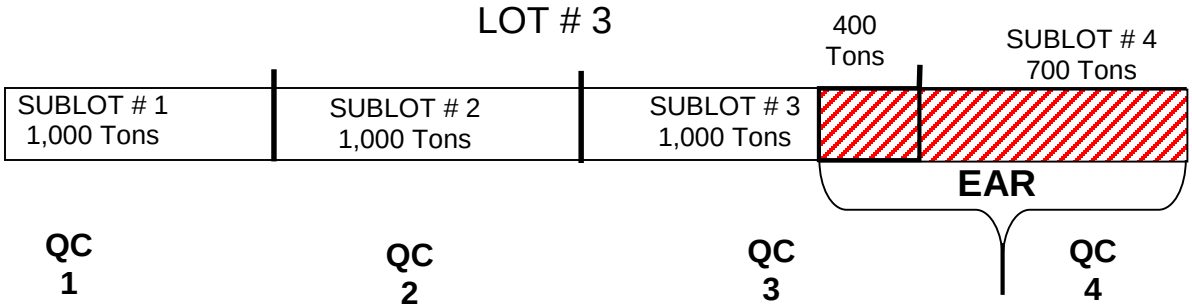
Package at the appropriate CPF for that lot's production with references and remarks to the defective material ***LOT Submittal Package***.

Note 1: If all material in a sublot is removed and replaced, the QC test for that sublot will be thrown out and the CPF for the LOT will be based on the remaining sublot QC test results. MAC will automatically adjust the CPF accordingly.

Note 2: When isolating tonnage where removal is required, the PA must evaluate the material between the previous QC test and the QC test that caused the LOT to fall into the Low Pay Factor and evaluate the material placed after previous or current QC test.

See ***Appendix D***; Example (1) e-mail from the District Material's Office (DMO) to the PA with Number of tests and costs, and Example (2) (A) and (2) (B) for reporting cost resolution testing in Site Manager.

Example of documenting Low Pay Factor Material due to Quality Control Test Failure



The production was shut down at 700 tons production in Sublot #4 due to a QC failure. After an EAR was performed it was determined that 400 tons in Sublot #3 was also affected.

All of Sublot #4 was removed therefore the remaining 3 QC test results are used to determine the CPF. The 3 QC test results represent the remainder of the LOT.
Total production for pay will be: 2,600 tons in LOT #3 based on the 3 QC tests. The 1,100 tons (400 tons Sublot #3 & 700 tons in Sublot #4) will be removed and replaced. The deduction will be handled in the remarks column of the ***LOT Submittal Package*** for LOT #3 with reference to the ***LOT Submittal Package*** where the replacement tonnage occurred. The replacement tonnage (1,100 tons) will be paid at the CPF for the LOT that produced the replacement tonnage with explanation in the remarks column referencing this material to LOT #3.

The Fuel & Bituminous Adjustments will follow the same process as removal and replacement of asphalt material (on MAR's). For example; the Bituminous Adjustment for the asphalt that was rejected by the amount of 1,100 Tons will be deducted on the monthly bituminous certification submitted by the Contractor for the period reflecting Sublots 3 & 4 that were placed previously.

Likewise, the monthly bituminous adjustment for the replaced 1,100 Tons of asphalt will be included on the monthly bituminous certification related to the period when the replacement will take place. Explanations and references will be made on the bituminous certification sheets and the ***LOT Submittal Packages*** in question to address the removal and replacement quantity.

See ***Appendix F*** for an example on how to handle removal and replacement tonnage on the QCRR. The link will take you to the State Construction Site where a MAR Removal Example is shown and a Straightedge Correction example is shown.

See **Appendix D;** Examples (4), (5), (6) and (7) for CPF calculations.

11.4.3.4 BITUMINOUS ADJUSTMENTS

Asphalt produced and accepted on a project will receive a bituminous adjustment if requirements are met, per ***Specifications 9-2.1.2*** (see note below for exceptions). The requirements are original Contract time of more than 365 calendar days or more than 5,000 tons of asphalt concrete on conventional and Lump Sum (LS)/Design Build (DB) Contracts.

There will be no Bituminous Adjustments on Optional Base Pay Items unless the Designer specifies Black Base only on the Typical Section in the Plans.

Bituminous Adjustments will be made on Superpave Asphalt Base, Structural and Friction Courses, Turnout Construction ”Asphalt”, Asphalt Treated Permeable Base, on Miscellaneous Asphalt Pavement, and on Asphalt Rubber Membrane Interlayer Pay Items.

The Department will adjust the price for bituminous material, excluding cutback and emulsified asphalt to reflect increases or decreases in the ***Asphalt Price Index*** **(API)** of bituminous material from that in effect during the month in which bids were received. The Department will determine the API for each month and place it on the State Construction Website. When an estimate is generated, Bituminous Adjustments must be calculated per ***Specifications*** using the ***Asphalt Price Index Table*** and a line item adjustment will be added to or subtracted from the estimate as a line item adjustment in Site Manager by the PA.

The Average Price Indexes for Bituminous and Polymer (for Unmodified Binders 67 & lower, and for Modified Binders 76 and higher) are posted on the State Construction Office Website. ***Asphalt Price Indexes*** can be found on the Department’s State Construction Website at www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm.

The Department will also make a Bituminous Adjustment for Polymer (Unmodified Binders 67 or lower and Modified Binders 67 and higher) on all Contracts that meet the criteria of ***Section 9-2.1.2*** of the ***Specifications***. The Criteria for Polymers will be as stated above.

Note: When a Composite Base item(s) is specified in the Plans, a price adjustment for bituminous material will apply to that asphalt portion of the base only, according to *Section 9-2.1.2* of the *Specifications*.

11.4.3.4.1 CONTRACTOR'S RESPONSIBILITY

It is the Contractor's responsibility to provide the Department a Certification of Quantities using the Department's forms available on the State Construction's website at: http://www.fdot.gov/construction/fuel&bit/FuelForms.shtm
The Certification will be turned in monthly to the PA for payment.

11.4.3.4.2 CUTOFF PERIOD

All ***Certifications of Quantities*** or worksheets provided by the Contractor will need to represent the amount of material placed on the project and accepted by the Department during the estimate cutoff period. The estimate cutoff dates are provided on the State Construction Office Website at http://www.dot.state.fl.us/Construction/CONSTADM/EstimatesCutOff.shtm.

Below is an example to show how the estimate cutoff dates are to be used in processing the ***Certification of Quantities*** or Worksheets submitted by the Contractor.

EXAMPLE 1: Conventional Project

The cutoff date for Progress Estimate #18 is July 17th, 2016. See the snapshot of the cutoff dates that are listed on the State Construction Website below.

The Contractor's Certification of Quantities should reflect all material placed and accepted from June 13th, 2016, thru July17th, 2016 (day after cutoff date of previous month to cutoff date of present month). On Conventional Projects, the Contractor will use ***Form 700-050-66*** which is the ***Certification of Quantities Form*** for Bituminous Material. On this Form, the July bituminous index will be used for the example mentioned above. Once the Contractor fills out the Set-Up sheet, and clicks on "Go to Main Sheet" (located at bottom of the form) the ***Certification of Quantities Form*** will appear all filled out with quantities for pay. The Contractor will sign this form and turn it in to the PA monthly for payment. Also see ***Appendix E,*** Example (1) (A) and (1) (B) of ***Form 700-050-66*** (Set up and certification sheets) filled out by a Contractor for a Conventional Project

Example of the Cut-Off dates for 2016 on the State Construction Website

2016		
January 17, 2016	February 21, 2016	March 20, 2016
April 17, 2016	May 15, 2016	June 12, 2016 (2nd Sunday)
July 17, 2016	August 21, 2016	September 18, 2016
October 16, 2016	November 13, 2016 (2nd Sunday)	December 18, 2016

Note: for LS/DB projects, the Contractor will use the worksheets, also provided on the State Construction Website.

11.4.3.4.3 RESIDENT OFFICE PERSONNEL RESPONSIBILITY

It is the responsibility of the Resident Office (RO)/Construction Consulting Engineering Inspection (CCEI) personnel to make sure that the Contractor adjusts the bituminous material monthly on each project assigned to them that meets the criteria specified in ***Section 9*** of the ***Specifications***. Once the Contractor turns in a certification or worksheet, the RO/CCEI personnel, in charge of the Contract, will spot check the form/worksheet for quantity errors, indexes, dates, etc.

It is the responsibility of the PA to enter the adjustments as a line item adjustment in Site Manager. The adjustments can be negative or positive.

11.4.4 LIST OF APPENDICES FOLLOWING THIS CHAPTER

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APPENDIX A
105% Adjustments on Square Yard Pay Items (Plan Quantity)

EXAMPLE (1): Negative Adjustment
A negative adjustment could occur when the Contractor places less tonnage than planned.

Given:
A project with Superpave Base Asphalt, Type B (12.5), Group 15 (pay Item 285-715) that is 9" thick.
Plan Quantity Area = 46,800 SY
Unit Price = $50.35 per SY
Design Thickness = 9"
G_{mm} used for PQ determination per Specification 334-1.4 = 2.540 for Dense Graded Asphalt
The Contractor will lay the 9" in 3 courses; 3" each course
The Design Spread Rate = 2.540 X 43.3 X 9 = 989.84 = 990 Lbs/SY
The Target Spread Rate = 330 Lbs/SY per Lift (990 ÷ 3 = 330 Lbs/SY based on the Specifications 334-1.4)
Total Tons Placed on the Project = 22,890 Tons
From the Asphalt Roadway – Daily Report of Quality Control, three Design Mixes were used and their recorded tonnages:
Mix 1 with 17,451 Tons at G_{mm} of 2.561
Mix 2 with 3,780 Tons at G_{mm} of 2.599, and
Mix 3 with 1,659 Tons at G_{mm} of 2.488
What is the Final Pay?

Solution:

1. The Tonnage-Weighted G_{mm} is calculated first

   Tonnage–Weighted G_{mm} = [(17,451 X 2.561) + (3,780 X 2.599) + (1,659 X 2.488)] ÷ (17,451 + 3,780 + 1,659)
   = (44,692 + 9,824.2 + 4,127.5) ÷ 22,890
   Tonnage-Weighted G_{mm} = 2.562

2. The Adjusted PQ Tonnage is calculated second

   $$\text{The Adjusted PQ Tons} = \frac{(\text{PQ Area} \pm \text{Any Revisions}) \times t \times 43.3 \times 2.562}{2000}$$

   $$= \frac{46{,}800 \text{ (there were no revisions)} \times 9 \times 43.3 \times 2.562}{2000}$$

   Adjusted PQ Tonnage = 23,362.8 Tons

3. Last we obtain the pay adjusted area

The Pay Adjustment = PQ Area X Ratio of (Tonnage Placed on Project) − 1
(Adjusted PQ Tons)

= 46,800 SY X [(22,890 ÷23,362.8) – 1]
= 46,800 [− 0.0202]
Pay Adjustment (SY) = −947 SY

Note:

1. Since there were no Plan Errors or Field Revisions in this example, the Contractor will receive payment for the full PQ Area of 46,800 SY in Site Manager (Asphalt Base is a PQ SY pay item). However,
2. Due to less asphalt being placed (per ***Specifications, Section 330-6.1.5***, the spread rate is within plus or minus 5% of the target spread rate). In this case, a minus 2% due to the negative ratio of 0.0202. This is within the 5% range, and since there were no other deficiencies, the Contractor will be deducted 947 SY; (— 947 X $ 50.35 = — $ 47,681.45). This will be entered in Site Manager as a negative Line Item Adjustment.
3. The Contractor will receive a Bituminous Adjustment for all the asphalt produced and accepted, per ***Specifications***, if applicable.
4. Fuel Adjustment: (see Typical Section in the Plans. Fuel Adjustments for Optional Base Asphalt should be the only option given. If not, this pay item will not receive a fuel adjustment). If there is an adjustment, a – 947 SY will be deducted from this pay item in Site Manager, entered as a negative Line Item Adjustment. See ***Chapter 5, Section 5.14*** of this Manual for Fuel Adjustments.
5. For CPF's to be deducted or added they must be < or > 1. See CPF calculations for SY pay items under ***Section 11.4.3.4.2 (E)***.

APPENDIX A
105% Adjustments on Square Yard Pay Items (Plan Quantity)

EXAMPLE 2: **Positive Adjustment within the maximum 105% allowed**

Given:
A project with Superpave Base Asphalt, Type B (12.5), Group 15
PQ Area = 46,800 SY
Contractor placed 24,340 Tons
Three Design Mixes with recorded tonnages; they are:
Mix 1 with 18,451 Tons at G_{mm} of 2.561
Mix 2 with 4,780 Tons at G_{mm} of 2.599, and
Mix 3 with 1,109 Tons at G_{mm} of 2.488
What is the Final Pay?

Solution:

1. Tonnage-Weighted Average =
[(18,451 X 2.561) + (4,780 X 2.599) + (1,109 X 2.488)] ÷ (18,451 + 4,780 + 1.109)

= (47,253 + 12,423.2 + 2,759.2) ÷ 24,340

= 62,435.4 ÷ 24,340

Tonnage Weighted G_{mm} = 2.565

2. The Adjusted PQ Tons = $\frac{\text{(PQ Area + Any Revisions) X t X 43.3 X 2.565}}{2000}$

= $\frac{\text{46,800 (no revisions) X 9 X 43.3 X 2.565}}{2000}$

Adjusted PQ Tonnage = 23,390.1 Tons

3. The Pay Adjustment = PQ Area X Ratio of ($\frac{\text{Tonnage Placed on Project}}{\text{Adjusted PQ Tons}}$) – 1

= 46,800 SY X [(24,340 ÷ 23,390.1) – 1]
= 46,800 [0.0406]*****
Pay Adjustment = 1,901 SY to be added as a positive line item adjustment

***Note**:

1. Since there were no Plan Errors or Field Revisions in this example, the Contractor will receive payment for the full PQ Area of 46,800 SY in Site Manager. However,
2. The 0.0406 is 104% < the 105% adjustment. This adjustment is per Specifications: the Contractor can receive up to 105% adjustment of the Design Area multiplied by the ratio of the adjusted PQ Tonnage. The Contractor will receive a positive Line Item Adjustment for the 1,901 SY in Site Manager.
3. The Contractor will receive a + 1,901 SY Fuel Adjustment in Site Manager shown as a Line Item Adjustment, if applicable (see note under example 1).
4. For Bituminous Adjustments, the Contractor will get paid for all the asphalt produced and accepted.
5. CPF will be paid accordingly; CPF < 1 or > 1 will be adjusted in Site Manager as negative or positive Line Item Adjustments. See calculations for SY pay items under ***Section 11.4.3.4.2 (E)***.

APPENDIX A
105% Adjustments on Square Yard Pay Items (Plan Quantity)

EXAMPLE 3: **Adjustments exceeding the 105% limit**

Given:
A project with Superpave Base Asphalt, Type B (12.5), Group 15
Tons placed = 24,950 Tons
PQ Area = 46,800 SY
The three Design Mixes used and their recorded tonnages are:
Mix 1 with 18,451 Tons at G_{mm} of 2.561
Mix 2 with 4,780 Tons at G_{mm} of 2.599, and
Mix 3 with 1,719 Tons at G_{mm} of 2.488

1. Tonnage-Weighted Average = [(18,451 X 2.561) + (4,780 X 2.599) + (1,719 X 2.488)] ÷ (18,451 + 4,780 + 1.719)

   = (47,253 + 12,423.2 + 4,276.9) ÷ 24,950

   = 64,253.1 ÷ 24,950

   Tonnage Weighted G_{mm} = 2.563

2. The Adjusted PQ Tons = $\frac{\text{(PQ Area + Any Revisions) X t X 43.3 X 2.563}}{2000}$

   = $\frac{\text{46,800 X 9 X 43.3 X 2.563}}{2000}$

   Adjusted PQ Tonnage = 23,371.9 Tons

3. The Pay Adjustment = PQ Area X Ratio of $\left(\frac{\text{Tonnage Placed on Project}}{\text{(Adjusted PQ Tons)}}\right) - 1$

   = 46,800 SY X [(24,950 ÷ 23,371.9) – 1]
   = 46,800 [0.0675]*****
   = 3,159 SY

* 0.0625 or 106% is > 105%, and per ***Specifications***, the Contractor can only receive up to 105% adjustment of the Design PQ Area multiplied by the ratio of the adjusted PQ tonnage.

Therefore, the corrected adjustment will be:
46,800 X 0.05 = 2,340 SY (the Contractor has already placed this amount + more. We pay up to 105% only)

Pay Adjusted Area = 2,340 SY (this will be added as a + line item adjustment)
Note:

1. Since there were no Plan Errors or Field Revisions in this example, the Contractor will receive payment for the full PQ Area of 46,800 SY in Site Manager.
2. The Contractor will receive a positive Line Item Adjustment for the 2,340 SY in Site Manager.
3. The extra tonnage placed will be deducted from the CPF Sheet, the Fuel (if this item receives a fuel adjustment), and from the Bituminous Sheets. The equivalent Tonnage will need to be calculated from the extra Square Yards = 2,925 SY– 2,340 SY = 585 SY

Calculating the Tonnage from the 585 SY:

The Adjusted PQ Tons $= \frac{(\text{PQ Area} \pm \text{Any Revisions}) \times t \times 43.3 \times 2.565}{2000}$

= (585 X 9X 43.3 X 2.565) ÷2000

= 292.4Tons to be deducted from Fuel (if applicable), Bituminous and CPF (this will be done on the last Bituminous, Fuel and CPF Work Sheets/Certifications). See CPF calculations for SY pay items under ***Section 11.4.3.4.2 (E)***.

APPENDIX A
105% Adjustments on Tonnage Pay Items

EXAMPLE (4): No Adjustment

This example is rare, but could happen: Contractor placed less Tonnage than Planned. This example is for a Contract with two FPID's

To calculate for an adjustment of up to 105% for Project A & Project B, given the following:
From the Contract and per ***Specifications 334-1.4***: for Dense Graded Structural or Friction Courses a G_{mm} = 2.540 will be used to determine design quantities
Project "A" Plan Quantity Tons show 13,754.3 Tons
Project "B" Plan Quantity Tons show 91.1 Tons
Total PQ Tons from Contract and Plans = 13,845.3 Tons Total PQ Area (SY) =173,622 SY

Project "A":
Total asphalt placed = 13,345.0 Tons placed
Three Design Mixes were used corresponding G_{mm}'s per the QC Report:
Mix1; G_{mm} = 2.599 at Tons 9,000.0;
Mix 2; G_{mm}= 2.615 at 2,500.0 Tons and
Mix 3 G_{mm} = 2.578 at 1,845.0 Tons

Project "B" total Asphalt placed = 89.2 Tons
With one Design Mix and one corresponding G_{mm}:
Mix 1; G_{mm} = 2,599.0 at 89.2 Tons

Total Tonnage placed on this Contract = 13,434.2 Tons placed on the two projects

Per ***Specifications*** Friction Course pay item quantity (or Structural Asphalt) is paid up to a maximum of 105% of the adjusted plan quantity for the pay item, and where the

$$\text{Adjusted PQ Tons} = \frac{(\text{PQ Tons} \pm \text{Any Revisions}) \times \text{Tonnage-Weighted } G_{mm}}{\text{Design } G_{mm}}$$

And the Tonnage-weighted G_{mm} =

$$\frac{(\text{Tons}_{\text{Mix 1}})(G_{mm_\text{Mix 1}}) + (\text{Tons}_{\text{Mix 2}})(G_{mm_\text{Mix2}}) + (\text{Tons}_{\text{Mix n}})(G_{mm_\text{Mix n}})}{\text{Tons}_{\text{Mix 1}} + \text{Tons}_{\text{Mix 2}} + \text{Tons}_{\text{Mix n}}}$$

1. On this Contract; Design Mix 1 for Projects A & B = 9,000.0 + 89.2 = 9,089.2 Tons

$$\text{Tons Weighted-}G_{mm} = \frac{(9{,}089.2 \text{ X } 2.599) + (2{,}500.0 \text{ X } 2.615) + (1{,}845 \text{ X } 2.578)}{9{,}089.2 + 2{,}500.0 + 1{,}845.0}$$

$$= (23{,}622.8 + 6{,}537.5 + 4{,}756.4) \div 13{,}434.2$$

Tonnage Weighted-G_{mm} = 2.599 for total Contract

2. The Adjusted PQ Tons $= \frac{13{,}845.3 \text{ Tons X } 2.599}{2.540}$

= 14,166.9 Tons

3. And Maximum Pay Tons = 1.05 X Adjusted Plan Quantity Tons
= 1.05 X 14,166.9
= 14,875.2 Tons Maximum that we pay up to.

However, the Contractor only placed 13,434.2 Tons total for Contract.
So we can only pay up to what the Contractor placed.

Contractor will get paid for
Project A = 13,345.0 Tons
Project B = 89.2 Tons

If the CPF is < or > than 1; Contractor will receive a negative or positive adjustment. See CPF calculations for tonnage pay items under ***Section 11.4.3.4.2 (E)***.

If applicable per Specifications, Contractor will also receive Fuel & Bituminous adjustments on the asphalt placed and accepted.

APPENDIX A
105% Adjustments on Tonnage Pay Items

EXAMPLE (5): Exceeding the 105% Adjustment

What if Contractor placed More Tonnage than what was planned for?
Total Tons placed = 14,950 Tons on both projects under this Contract?

Given the following:
From the Contract and per ***Specifications 334-1.4***: For Dense graded Structural or Friction Courses a G_{mm} = 2.540 will be used for design quantities.

Project "A" Plan Quantity Tons show 13,754.3 Tons
Project "B" Plan Quantity Tons show 91.1 Tons
Total PQ Tons from Contract and Plans = 13,845.3
Tons Total PQ Area (SY) =173,622 SY

Total Tons placed and accepted on both projects = 14,950 Tons
Project "A" Total Asphalt Placed = 14,419.8 Tons
Three Design Mixes were used with the corresponding tonnages:
Mix 1; G_{mm} = 2.599 at 9,000.0 Tons;
Mix 2; G_{mm} = 2.615 at 2,500.0 Tons and
Mix 3; G_{mm} = 2.578 at 2919.8 Tons

Project "B" Total Asphalt Placed = 530.2 Tons
Mix 3: G_{mm} = 2.578 and tonnage = at 530.2 Tons

For Mix 3 total Tons = 530.2 + 2,919.8 = 3,450.0 Tons at G_{mm} = 2.578

1. Tons-Weighted $G_{mm} = \frac{(9{,}000.0 \text{ X } 2.599) + (2{,}500.0 \text{ X } 2.615) + (3{,}450.0 \text{ X } 2.578)}{9{,}000.0 + 2{,}500.0 + 3{,}450.0}$

   Tons-Weighted G_{mm} = (23,391 + 6,537.5 + 8,894.1) ÷ 14,950 = 2.597

2. The Adjusted Plan Quantity Tons = $\frac{13{,}845.3 \text{ Tons X } 2.597}{2.540}$

   Adjusted PQ Tons = 14,156.0 Tons

3. Max Pay Tons = 1.05 X Adjusted Plan Quantity Tons

   Max Pay Tons = 1.05 X 14,156.0 = 14,863.8 Tons

Note:

1. Contractor placed more than the maximum tonnage allowed per Specifications (pay up to 105% of the adjusted PQ Tonnage) so we will pay what the Contractor placed on both projects = 14,863.8 Tons and deduct the difference from the tonnage placed on the last report.
2. Tonnage Placed = 14,950.0 Tons
   Maximum pay up to 105% = 14,863.8 Tons
   14,950.0 −14,863.8 = 86.2 Tons to be deducted total, and
   % Project A = (13,754.3 ÷13,845.3) 100 = 99% or 0.99
   % Project B = (91.1 ÷13,845.3) 100 = 1% or 0.01

   For Project "A" -86.2 X 0.99 = − 85.3 Tons is deducted from Project A and
   For project "B" -86.2 X 0.01 = − 0.9 Tons is deducted from Project B
   These adjustments will be entered in Site Manager as negative Line Item Adjustments.

   The deduction under each project is from the original Contract amount and unit price at 100%.

3. Also**,** if there is a CPF Adjustment, there is either a deduction or addition (depending on the factor) from the last CPF adjustment. Example: if the CPF =102% (or 0.02) and the last lot was 4000 Tons; unit price = $ 50.05;

   0.02 X $ 50.05 = + $ 1.0010 = +$ 1.00 (New Unit Price)

   Note: Round to two decimal points for calculations involving Dollar amounts. Use all decimal places for mathematical functions, other than Dollar amounts, then round to the appropriate decimal place at the end for the final amount/quantity.

   For project A: + $ 1.00 X – 85.3 Tons = - $ 85.30 deduct, and
   For project B: + $ 1.00 X − 0.9 Tons = - $ 0.90 deduct

4. The **Asphalt Roadway – Daily Report of Quality Control** will display tons, area, mixes used, and spread rates.

5. Fuel and Bituminous Adjustments will also be deducted if the Contractor places more tonnage than the maximum allowed of up to 105%. The tonnage will be deducted using the last Fuel adjustment index in Site Manager and on the final Bituminous Certification accordingly.

See ***Section 11.5*** for other asphalt pavement deficiencies and examples such as straight edge deficiencies. Also see ***Appendix F,*** Examples (1) and (2) for thickness and spread rate calculations on multi and single layers.

APPENDIX A
105% Adjustments on Tonnage Pay Items

EXAMPLE (6): Within the 105% Adjustment - Open Graded FC-5

Given the following:
Open graded Friction Course as specified in ***Section 337-8.2*** of the ***Specifications*** using Gsb = 2.635 (on all the equations shown previously for Tonnage pay items, the G_{mm} will be substituted for Gsb). For open graded FC, only one layer of asphalt is placed.

Total PQ Tons from Plans and Contract =13,936.5 Tons
Total PQ Area (SY) =173,622 SY

Total Tons placed and accepted on project = 14,650 Tons
Three Design Mixes were used with Tonnages:
Mix 1; Gsb = 2.638 at 9,000.0 Tons;
Mix 2; Gsb = 2.640 at 2,500.0 Tons and
Mix 3; Gsb = 2.636 at 3,150.0 Tons

1. Tonnage-Weigh Gsb =

$$\frac{(\text{Tons}_{\text{Mix 1}})(G_{sb\ \text{Mix 1}}) + (\text{Tons}_{\text{Mix 2}})(G_{sb\ \text{Mix2}}) + (\text{Tons}_{\text{Mix n}})(G_{sb\ \text{Mix n}})}{\text{Tons}_{\text{Mix 1}} + \text{Tons}_{\text{Mix 2}} + \text{Tons}_{\text{Mix n}}}$$

$$\text{Tons-Weighted Gsb} = \frac{(9{,}000.0 \text{ X } 2.638) + (2{,}500.0 \text{ X } 2.640) + (3{,}150.0 \text{ X } 2.636)}{9{,}000.0 + 2{,}500.0 + 3{,}150}$$

$$= (23{,}742.0 + 6{,}600 + 8{,}303.4) \div 14{,}650$$

Tonnage-Weighted Gsb = 2.638

2. Adjusted Plan Quantity Tonnage =

$$\frac{(\text{Plan Quantity Tons (per Contract)} \pm \text{any change(s) X Tonnage-Weighted Gsb}}{\text{Design Gsb}}$$

Adjusted PQ Tons = (13,936.5 X 2.638) ÷ 2.635
= 13,952.4 Tons

3. Max Pay Tons = 1.05 X Adjusted Plan Quantity Tons

   = 1.05 X 13,952.4
   = 14,650.0 Tons Maximum that we pay up to.

The Contractor placed the exact tonnage that we could pay up to. Therefore, Contractor will get paid the total tonnage placed which equals up to the 105% per Specifications.

The Contractor will receive Fuel and Bituminous adjustments for the total asphalt that was placed and accepted. Also the CPF if > or < than 1 will be adjusted in Site Manger.

APPENDIX A
105% Adjustments on Tonnage Pay Items

EXAMPLE (7): Payment of up to 105% on Miscellaneous Asphalt:

Original Area = 800 SY; there were no Engineer Field Changes
Original PQ Tons = 80.00 Tons
Final Area = 800 SY
Final Tons = 90.5 Tons
G_{mm} as specified in ***Section 334-1.4*** of the ***Specifications*** = 2.540
Only one Mix was used for this pay item G_{mm} = 2.544

1. Tonnage Weighted G_{mm} = (90.5 Tons X 2.544) ÷ 90.5 = 2.544
2. Adjusted Plan Quantity Tons = (80.0 Tons X 2.544) ÷ 2.540
   = 80.1 Tons
3. 1.05 X 80.1 = 84.1 Tons maximum that we can pay

And 90.5 – 84.1 = 6.4 Tons will be deducted from the Bituminous and Fuel reports.

Note: There will be no CPF adjustment on Miscellaneous Asphalt. This pay item does receive Fuel & Bituminous adjustments per ***Specifications***.

APPENDIX B
THICKNESS ADJUSTMENTS FOR OPTIONAL BASE (CORE OUT) (WHITE BASE)

EXAMPLE (1): Positive Core-Out Adjustment Calculations

Type: Limerock, Plan Thickness = 7.00″
Plan Quantity Area = 8,000 SY
Final Area = 8,000 SY
Specifications allow 1/2″ per ***Section 285-7***
Actual Average Core-out Report Thickness = 7.50″

$$\text{Calculated Average Thickness} = \frac{7.50'' - 7.00''}{7.00''} = 0.071428571^{*} \times 100 = 7.1428571\ \% > 5\%^{**}$$

*****Make sure to use the floating decimal to calculate over or under the 105%.
0.071428571 is over 7%. It exceeds the 5% stated in the ***Specifications, Section 285-8..***

Maximum Thickness Adjusted Area = 8,000 SY X 0.05 = 400 SY Thickness Adjustment
The Department will pay the Contractor the 8,000 SY area per plan, and can only pay up to 400 SY for the maximum thickness adjustment per ***Specifications***. 400 SY will need to be shown as a positive line item adjustment in Site Manager.

APPENDIX B
THICKNESS ADJUSTMENTS FOR OPTIONAL BASE (CORE OUT) (WHITE BASE)

EXAMPLE (2): Negative Core-Out Adjustment Calculations

Type: Limerock Plan Thickness = 8.00″
Plan Quantity Area = 10,500 SY
Final Area = 10,000 SY
Specifications allow 1/2″ per ***Section 285-7*** of the ***Specifications***

Actual Average Core-out Report Thickness = 7.79″ (See Note 1)

Calculated Average Thickness = $\frac{7.79'' - 8.00''}{8.00''}$ = - 0.0262500* < 5%

− 0.0262500 is a negative 2% and within the 5%.

The Maximum Thickness Adjustment Area = - 0.026250 X 10,500 SY = - 275.6 = - 276 SY (Negative Thickness Adjustment)
The Department will pay the Contractor the 10,500 SY area per plan, and has to deduct 276 SY for the negative thickness adjustment.

- 276 SY will need to be shown as a negative line item adjustment

*Make sure to use the floating decimal on your calculator to come up with either the negative or positive adjustment.

Note 1: Any Core-out average less than the plan specified thickness (in this example, anything less than 8") will be considered a negative adjustment.

Note 2: Any shy area on the Core-out report is excluded from the Core-out average calculation. Shy areas will need to be corrected by scarifying and adding additional base material. Or if authorized by the Engineer, it may be left in place without correction and at no pay (per ***Specifications 285-6.2***). See Example (3) for a deficient area left in place with no pay calculation.

APPENDIX B
DEFICIENCY ADJUSTMENTS FOR OPTIONAL BASE (CORE OUT) (WHITE BASE)

EXAMPLE (3): Deficient Area Calculation (area left in place with No Pay)

From the last page of the core out report seen below:

FDOT V4.2.2 6/2008 Updated Report and type selection
CORE-OUT AVERAGES PAGE NO 6

DATE PROC: 2/8/2016
PROJECT NO. 123456-1-52-01 DISTRICT 5
ROAD 40 Date 06/08/2015
COUNTY MARION MIN 12.00 MAX 13.00
DATA IS IN ENGLISH VALUES ARE IN INCHES

STATION	WIDTH	ACTUAL THICKNESS				SPECIFICATION ALLOWANCE			
		LEFT	CENTER	RIGHT	AVERAGE	LEFT	CENTER	RIGHT	AVERAGE
615+02	24		12.20		12.20		12.20		12.20
543+50	24	12.80			12.80	12.80			12.80
542+42	24			12.80	12.80			12.80	12.80
541+20	24		12.50		12.50		12.50		12.50
537+12	24			12.40	12.40			12.40	12.40
537+83	24		12.10		12.10		12.10		12.10
538+38	24	11.90			11.90	*SHY*			
532+40	24	12.40			12.40	12.40			12.40
534+21	24			12.00	12.00			12.00	12.00
535+10	24		12.10		12.10		12.10		12.10
525+95	24			12.30	12.30			12.30	12.30
527+30	24	12.30			12.30	12.30			12.30
529+05	24		12.20		12.20		12.20		12.20
522+45	24			12.00	12.00			12.00	12.00
523+71	24	11.90			11.90	*SHY*			
524+80	24		12.30		12.30		12.30		12.30
519+85	24		12.10		12.10		12.10		12.10
518+70	24			12.00	12.00			12.00	12.00
517+80	24	12.70			12.70	12.70			12.70
JOB AVERAGE		3269.80/ 259			12.6247	3242.50/ 257			12.6167

On This project, the Plan thickness is 12.5 Inches. This report shows two (2) shy areas that will need to be addressed if the Contractor does not choose to correct by scarifying and adding additional base material. In this case, the Engineer authorized that the area be left in-place at no pay per ***Specifications 285-6***.

1st shy core is at Station 538+38
2nd shy core is at Station 523+71

The Length of the deficiency is calculated from the closest non-deficient cores on each side of the deficient core.

In this example;
1st length is from Sta. 537+83 to Sta. 532+40 = 543 Ft.
2nd length is from Sta. 522+45 to Sta. 524+80 = 235 Ft.

Any shy area left in place at No Pay will be excluded from the core out average calculation and a deduction for the shy area will be made to the plan quantity.

Note: Preferably the Contractor, to his advantage, should revisit the shy cores to take additional cores to isolate the area. If this does not occur, the length will be taken from the core out report from the nearest acceptable core of each side of the deficient core which will increase the deducted area

Plan Thickness = 12.5 Inches
Plan Quantity Area = 30,000 SY
Total Length of Shy Area = 778 Ft.
Total Width of Shy Area = 24 Ft.

Calculate the Shy Area Left in Place at NO PAY:

$$\text{Shy Area} = \frac{\text{L (Ft.) X W(Ft.)}}{9\left(\frac{\text{SF}}{\text{SY}}\right)}$$

$$\text{Shy Area} = \frac{(778\text{ Ft})(24\text{ Ft}')}{9\text{ SF/SY}} = 2{,}075\text{ SY Deduction}$$

APPENDIX C
EXAMPLE OF COMPOSITE BASE THICKNESS ADJUSTMENT

EXAMPLE (1): Thickness Adjustment; Pay item 285-709 –Base Group 9

Given
Composite base = 4" Limerock and 4" Type B-12.5 Asphalt (dense graded using G_{mm} = 2.540 from ***Specifications, Section 334-1.4)***.

Total SY area = 10,000 SY (5,000 SY for Limerock and 5,000 SY for Composite Base)
Core-out report for Limerock = 4.25”. We will need to calculate the Asphalt Average Thickness

From **Asphalt Roadway-Daily Report of Quality Control** Report we have the following information: G_{mm} used 2.499 and Average Spread Rate = 459 Lbs/SY

Convert 4" of asphalt to Lbs/SY by the following formula as specified in ***Section 234-8.1*** of the ***Specifications***.

43.3* X inches X G_{mm}**

*43.3 is a constant derived by the State Materials Office.
** G_{mm} used on the project for this pay item

Core-out report for Limerock = 4.25"
Average spread rate for Asphalt Base = 459 Lbs/SY*** this is calculated from the QC Report

Plan Quantity = 10,000 SY

Convert Lbs to inches based on reverse formula in ***Section 234-8.1
459 ÷ 43.3 ÷ 2.499 = 4.24" thickness of asphalt base

4.25" (Limerock) + 4.24" (Asphalt) = 8.49" average thickness for composite base.

Thickness adjustment = $\frac{(8.49'' - 8.00'')}{8.00''}$ = .0613 (>5%) **** X Surface Area
**** Pay will be limited to a maximum of 105% X Surface Area (the area exceeded the 105%, in this case)
Thickness Adjustment = 0.05 X Surface Area
0.05 X 10,000 SY = 500 SY Thickness Adjustment, and 500 will need to be shown as a positive line item adjustment

APPENDIX D
RESOLUTION TEST RESULTS

EXAMPLE (1):
E-Mail from District Material's Office to the PA with No. of tests and Costs

Daniel Day

From: Daniel Day
Sent: Thursday, May 21, 2015 @ 2:49 PM
To: Howard Jump (howard.jump@dot.state.fl.us)
Cc: J. Corley; Bill Blass; etc., etc.
Subject: FIN # 41109815201 LOT 6 Resolution Results

Howard,

Attached are the Resolution results for LOT 6 on the above mentioned project. The Resolution results **DO NOT** compare with QC results. Therefore, acceptance and payment for the LOT with respect to density will be based on Resolution results.
Cost for the Resolution testing should be deducted from the monthly estimate (see below).

For each sublot, the Resolution results for average Roadway Gmb should replace the QC results for average Roadway Gmb, and most likely changing the density value, Individual Pay Factor, and the Composite Pay Factor. Any new values should be compared to the Master Production Range as well as the criteria of 334-5.9.5 to determine acceptance.

- Please do not approve the QC or RT samples for this LOT. The resolution lab will approve these samples.
- Resolution cost (- 31.60 per core X 9 cores = - $ 284.40)

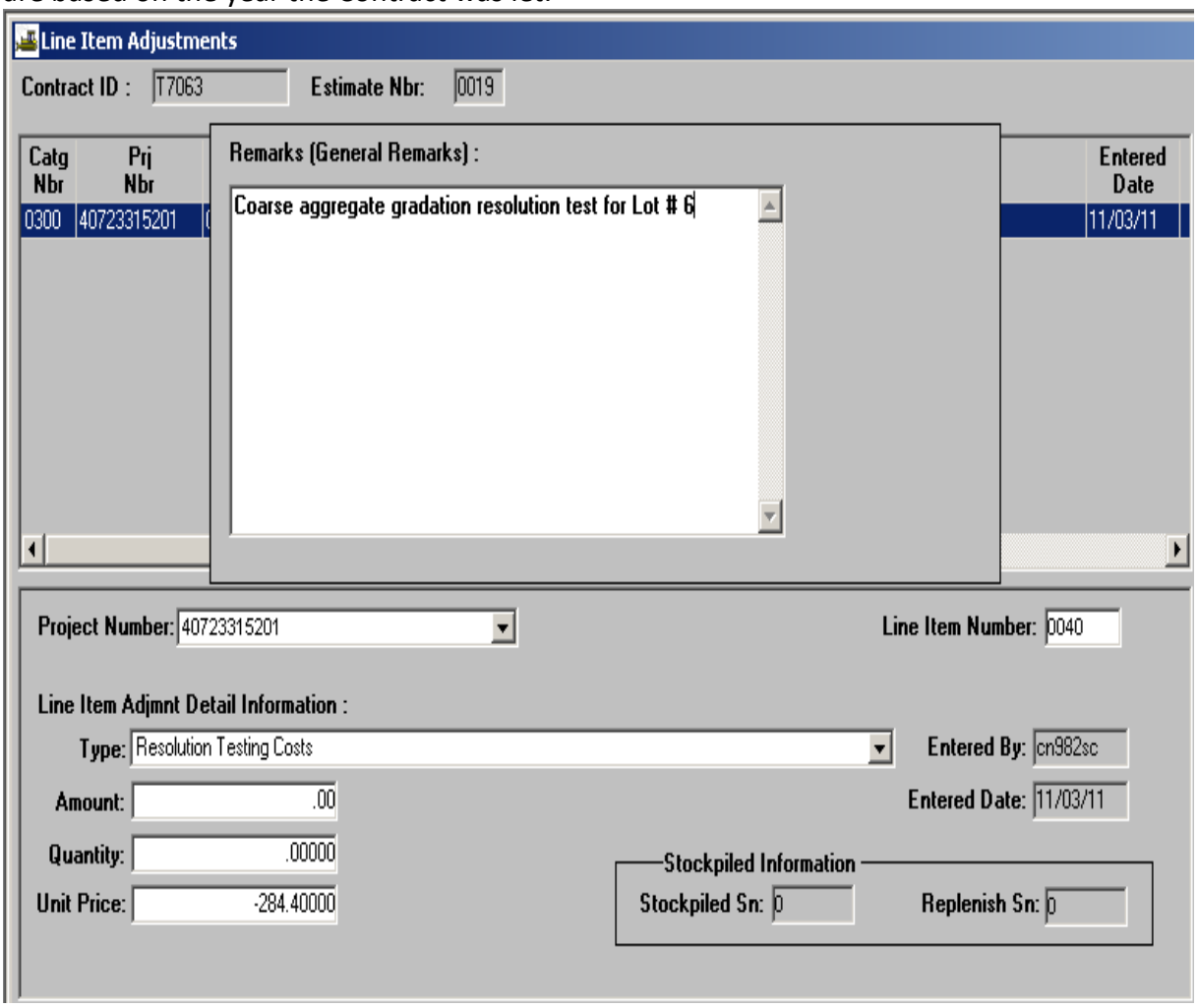
Thanks
Daniel Day
Assistant District Bituminous Manager
Florida Department of Transportation
100 N. Day Road (Ms 20)
Deland, Florida 33333
380-555-5550(office)

APPENDIX D
REPORTING COST OF RESOLUTION TESTING IN SITE MANAGER

EXAMPLE (2) (A):

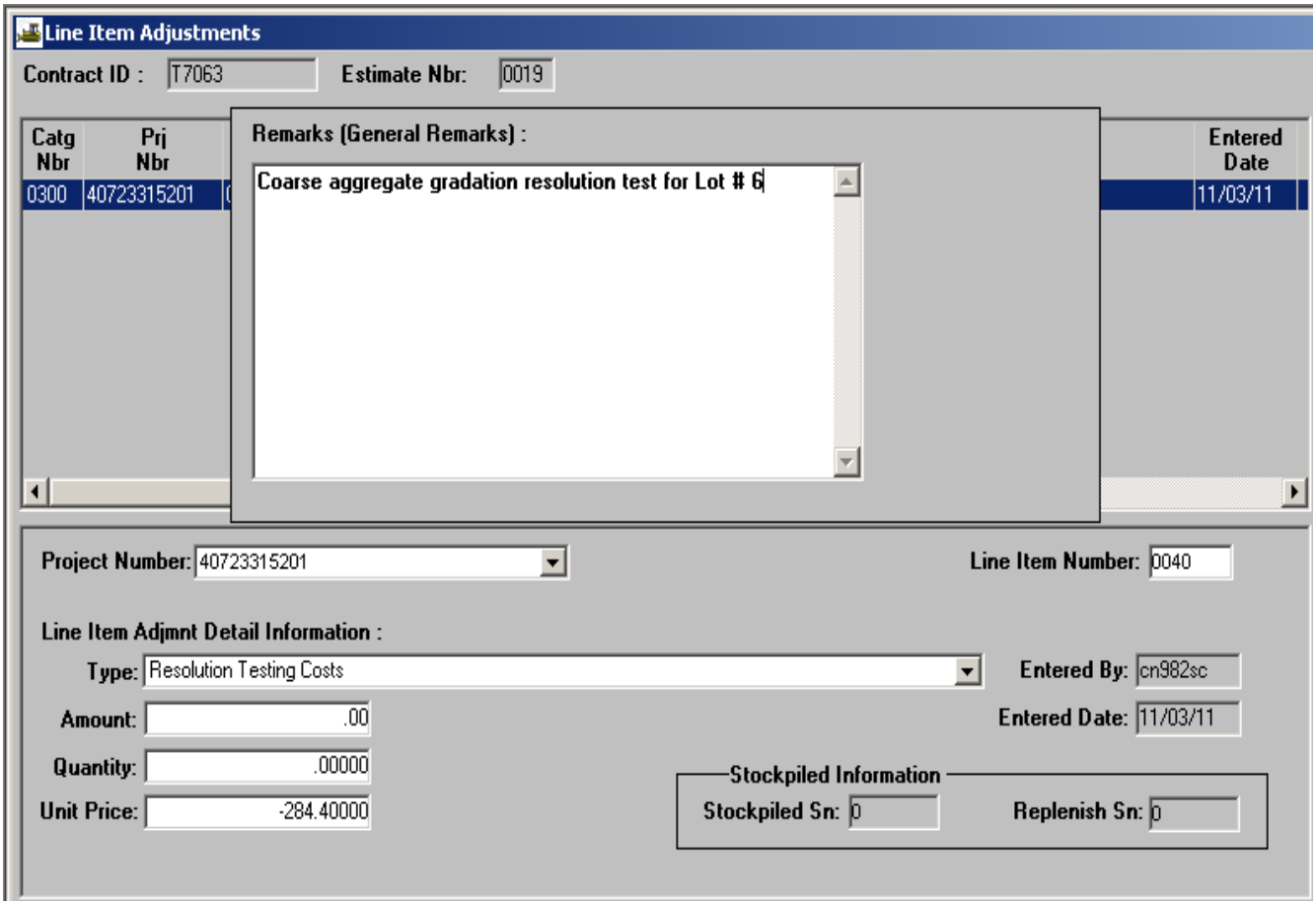
The cost of the resolution testing, if performed by the Department and favors the Verification Technicians results, will be deducted from the Contractor's next progress estimate. The cost of the testing can be found at the following URL.
http://www.dot.state.fl.us/statematerialsoffice/administration/resources/library/publications/index.shtm

Resolution Testing Fees: If a Contract was let in January 2010 and a resolution test was done in January 2011, you would use the January 2010 year pricing index. In other words. The resolution testing fees are based on the year the Contract was let.



APPENDIX D
REPORTING COST OF RESOLUTION TESTING IN SITE MANAGER

EXAMPLE (2) (B):



Under remarks: put what this test was for: In this case: (Coarse Aggregate Gradation Resolution for Lot 6). See attached letter from the Materials Office with resolution cost. Also see Chapter 11 of CPAM, Section 11-4 and Attachments 11-4-3 and 11-4-4-a & b.

APPENDIX D
EXAMPLE (3): Plan Summary Box for Superpave Asphaltic Concrete (Traffic B) Documenting CPF Calculations

SUMMARY OF PAVEMENT

PAY ITEM NO.	PAY ITEM DESCRIPTION	LOCATION		SIDE	AREA ID	LENGTH	WIDTH	UNIT	QUANTITY		TOTAL		DESIGN NOTES	CONSTRUCTION REMARKS
		STA. TO STA.	DESCRIPTION						P	F	P	F		
285-707	OPTIONAL BASE GROUP 07	Sta. 0+00 to 110+25				11250.0	24.0	SY	30000.00	√	30000.0	√		No Plan Errors
										√				No Field Revisions
														5200 @ .96 CPF*
														12100 @ 0.98 CPF
														12300 @ 1.02 CPF
														400 @ 1.02 CPF
														* See asphalt
														folder for CPF
														adjustments
														Typical Section
														indicates black bas
														only

Box1 | DESIGN BACKUP | FINAL BACKUP

APPENDIX D
CPF ADJUSTMENT CALCULATIONS

EXAMPLE (4): CPF Calculation for Tonnage Pay items;
All documentation will be handled for < 80 and ≥ 75 or < 75 as shown in Example 3.

EXAMPLE (4) (A): If CPF is <80 or ≥75

In this example, the CPF is @ 76%
LOT 2; 4000 Tons; Unit Price = $ 50.05
0.76 ─ 1.0 = ─ 0.24
─ 0.24 X $ 50.05 = ─ $ 12.0120 = −$ 12.01 (round to 2 decimals for the dollar amount)
─ $ 12.01 X 4000 = ─ $ 48,040.00 (negative Line Item Adjustment in Site Manager). This is if the Engineer decides to leave in place at reduced price.

APPENDIX D
CPF ADJUSTMENT CALCULATIONS

EXAMPLE (4) (B): If CPF is > 80 and < 100

In this example, the CPF is @ 98%
LOT 3; 4000 Tons; Unit Price = $ 50.05
0.98 – 1.0 = − 0.02
− 0.02 X $ 50.05 = − $ 1.0010 = − $ 1.00 New Unit Price (round to 2 decimals for $ amount)
4,000 Tons X − $ 1.00 = − $ 4,000.00 (This will be a negative Line Item Adjustment in Site Manager)

APPENDIX D
CPF ADJUSTMENT CALCULATIONS

EXAMPLE (4) (C): If CPF = 100%

There is no CPF adjustment at 100%.

APPENDIX D
CPF ADJUSTMENT CALCULATIONS

EXAMPLE (4) (D): If CPF is > 100%

In this example, the CPF is @ 103% (> 100% and up to 105%)
LOT 5; 4000 Tons; Unit price $ 50.05
1.03 – 1.00 = 0.03
0.03 X $ 50.05 = $ 1.5015 = $1.50 New unit price (round to 2 decimal points for $ amount)
4,000 Tons X 1.50 = $ 6,000.00 (Positive Line Item Adjustment in Site Manager)

APPENDIX D
CPF ADJUSTMENT CALCULATIONS

EXAMPLE (5) CPF for Square Yard Pay Items

CPF @ 105%; Square Yard Pay Item (Example Superpave Base):
Tons from Asphalt report; LOT 1 = 4000 Tons; Area = 25,397 SY;
Unit price = $ 55.05
1.05 – 1.00 = 0.05
0.05 X $ 55.05 = $ 2.7525 = 2.75 (New Unit Price) (round to 2 decimal points for $ amount)
25,397 SY X $ 2.75 = $ 69,841.75 (Positive Line Item Adjustment in Site Manager)

Note: Calculations for CPF <80 or ≥75; or < 75; > 80 and up to 105%; will also be calculated the same way. You will get the square yards represented by the LOT tonnage from the Asphalt Reports and calculate accordingly.

APPENDIX D
CPF ADJUSTMENT CALCULATIONS

EXAMPLE (6): CPF Calculations for a Cubic Yard Pay Item

As described above, asphalt treated permeable base is measured and paid for in cubic yards. Therefore, we will get the cubic yards from the Asphalt Roadway – Daily Report of Quality Control, and calculate the adjustment as described in this example:

Example: from Asphalt Reports: LOT 3 @ CPF of 105%
Total Tonnage LOT 3 = 1623.55 Tons;
Total Square Yards LOT 3 = 9,494.13 SY
The Unit Price is $ 240.05
The volume from the Asphalt Roadway – Daily Report of Quality Control = **1,055 CY**
Now we can calculate the dollar adjustment for this LOT:

1.05 – 1.00 = 0.05
0.05 X $ 240.05 = $ 12.0025 = $ 12.00 (round to 2 decimal points)
1,055 X $ 12.00 = $ 12,660.00 (Positive Line Item Adjustment in Site Manager)

APPENDIX D
CPF ADJUSTMENT CALCULATIONS

EXAMPLE (7): CPF Documentation for Multiple FIN Projects, Under One Contract

All CPF's for asphalt produced and accepted for a particular item shall be reported under the lead FIN (see exception below). The quantities for each FIN will be determined by the PA, as the prorated amount determined from the pay item breakout as provided in the plan set. This will be done by taking the total tons shown for each FIN and dividing it by the total tons for the Contract, then multiplying this amount by the total tons placed for each CPF. This shall be done during the month the LOT is closed out and paid accordingly on the monthly progress estimate.

Given:
Project "A" shows 10,000 tons
Project "B" shows 20,000 tons
Total for Contract = 30,000 tons

Tons placed = 31,500 tons*
CPF @ 105% = 8,000 tons
CPF @ 102% = 20,000 tons
CPF @ 98% = 3,500 tons
Project "A" is determined by dividing 10,000 by 30,000 and multiplied by the total tons for each CPF.

10,000 ÷ 30,000 = 0.33
CPF @ 105% = 8,000 X 0.33 = 2,640.00 tons
CPF @ 102% = 20,000 X 0.33 = 6,600.00 tons
CPF @ 98% = 3,500 X 0.33 = 1,155.00 tons

Project "B" is determined by dividing 20,000 by 30,000 and multiplied by the total tons for each CPF.

20,000 ÷ 30,000 = 0.67
CPF @ 105% = 8,000 X 0.67 = 5,360.00 tons
CPF @ 102% = 20,000 X 0.67 = 13,400.00 tons
CPF @ 98% = 3,500 X 0.67 = 2,345.00 tons

Total CPF @ 105% = 2,640 + 5,360 = 8,000 tons
Total CPF @ 102% = 6,600 + 13,400 = 20,000 tons
Total CPF @ 98% = 1,155 + 2,345 = 3,500 tons

Note 1: This may be done on Federal Aid participating and Non Federal Aid participating projects. These pro-rated amounts shall be shown in a file attached electronically to the ***Plan Summary Box*** along with the calculations, or the calculation could be shown at the bottom of the ***Plan Summary Box*** for Construction Remarks and calculations.

Note 2: For this example: 31,500 Tons placed by Contractor is 105% maximum of the original Contract quantity, which is allowed per ***Specifications***.

Exception: When an item is shown only on one FIN number, those tons will be reported on that FIN number.

APPENDIX E
Bituminous Adjustments on Conventional Projects

Example (1) (A): Form 700-050-66 – Set-Up Sheet by Contractor

Contractor's Certification of Quantities
Asphalt Mixes with Modified and Unmodified Binders
(Conventional Projects)
Certification No. 18

Financial Project ID:	12345615201		
Contractor:	MR. ED'S ASPHALT CO., INC.		
Contract Number:	T1234		
From (Mo/Day/Yr):	06/13/16	To (Mo/Day/Yr):	07/17/16

Asphalt Mixes with Unmodified Binders (PG 67 & Lower)

Pay Item Number:	337-7	Tonnage Placed:	1000.0
Pay Item Number:	334-1	Tonnage Placed:	1000.0
Pay Item Number:		Tonnage Placed:	
Additional Gallons (ARMI*):	500.0		
Base Index Month:	Jan-15	Base Asphalt Price Index:	2.3515
Current Index Month:	Jul-16	Current Asphalt Price Index:	1.3739
		Asphalt Index Difference:	-0.8600

Asphalt Mixes with Modified Binders (PG 76 & Higher)

Pay Item Number:	337-7	Tonnage Placed:	1000.0
Pay Item Number:	334-1	Tonnage Placed:	1000.0
Pay Item Number:		Tonnage Placed:	
Base Index Month:	Jan-15	Base Polymer Price Index:	2.9622
Current Index Month:	Jul-16	Current Polymer Price Index:	1.8822
		Polymer Index Difference:	-0.9319

Asphalt Material
(ASPHALT TREATED PERMEABLE BASE)

Pay Item Number:	334-1	Tonnage Placed:	500.0
Base Index Month:	Jan-15	Base Asphalt Price Index:	2.3515
Current Index Month:	Jul-16	Current Asphalt Price Index:	1.3739
		Asphalt Index Difference:	-0.8600

Navigation and Printing Functions

Go To Main Sheet | Go To Last Month Sheet
Save As Month Sheet | Remove Last Month Sheet

Effective January 2007 Lettin
FORM: 700-050-66 (7/21/20

APPENDIX E
Bituminous Adjustment on Conventional Projects

EXAMPLE (1) (B): Form 700-050-66 - CONTRACTOR'S CERTIFICATION OF QUANTITIES

CONSTRUCTION
07/15

CONTRACTOR'S CERTIFICATION OF QUANTITIES
ASPHALT MIXES WITH MODIFIED AND UNMODIFIED BINDERS
(CONVENTIONAL PROJECTS)

CERTIFICATION NO. 18

FINANCIAL PROJECT ID. 12345615201
CONTRACTOR MR. ED'S ASPHALT CO., INC.
CONTRACT NO. T1234

PERIOD REPRESENTED BY CERTIFICATION:
FROM (MO/DAY/YR) 06/13/16 TO (MO/DAY/YR) 07/17/16

ASPHALT MIXES WITH UNMODIFIED BINDERS (PG 67 & LOWER)

BASE PRICE INDEX 2.3515 CURRENT PRICE INDEX: 1.3739 INDEX DIFFERENCE: -0.8600

	TONNAGE	GALLONS	MONTHLY PAYMENT
PAY ITEM NUMBER 337-7	1,000.0	14,569	-$12,529.34
PAY ITEM NUMBER 334-1	1,000.0	14,569	-$12,529.34
PAY ITEM NUMBER			
GALLONS OF ASPHALT CEMENT USED IN MIX: *		29,138	-$25,058.68
ADDITIONAL GALLONS (ARMI):		500	-$430.00
TOTAL GALLONS:		29,638	
TOTAL MONTHLY PAYMENT:			-$25,488.68

ASPHALT MIXES WITH MODIFIED BINDERS (PG 76 & HIGHER)

BASE PRICE INDEX 2.9622 CURRENT PRICE INDEX: 1.8822 INDEX DIFFERENCE: -0.9319

	TONNAGE	GALLONS	MONTHLY PAYMENT
PAY ITEM NUMBER 337-7	1,000.0	14,569	-$13,576.85
PAY ITEM NUMBER 334-1	1,000.0	14,569	-$13,576.85
PAY ITEM NUMBER			
TOTAL GALLONS OF POLYMER USED IN MIX: *		29,138	
TOTAL MONTHLY PAYMENT:			-$27,153.70

ASPHALT MATERIAL (ASPHALT TREATED PERMEABLE BASE)

BASE PRICE INDEX 2.3515 CURRENT PRICE INDEX: 1.3739 INDEX DIFFERENCE: -0.8600

	TONNAGE	GALLONS	MONTHLY PAYMENT
PAY ITEM NUMBER 334-1	500.0	3,497	-$3,007.42
TOTAL MONTHLY PAYMENT:			-$3,007.42

I certify that, based on my personal knowledge and well-founded belief following my own reasonable investigation, the tons and gallons (metric tons and liters) represented by this Certification are true and correct.

Contractor's Authorized Agent (Print Name & Co.) Mr. Ed's Asphalt Co., Inc.
Edward A. McDonalds

Contractor's Authorized Agent (Signature) _____ Date _____

APPENDIX F
GUIDANCE FOR REMOVAL AND REPLACEMENT ON THE QCRR

EXAMPLE MAR REMOVAL (PAGE 1)
EXAMPLE STRAIGHT EDGE CORRECTION (PAGE 2)

SEE ATTACHED LINK:

http://www.fdot.gov/construction/Asphalt/PDFFiles/MAR%20Straightedge%20and%20MAR%20Removal%20Instructions.pdf

Section 11.5

TESTING AND CORRECTING ASPHALT PAVEMENT SURFACE DEFICIENCIES

11.5.1 Purpose

To provide a uniform procedure for determining that the last structural layer meets the applicable straightedge requirements, prior to permitting the Contractor to place the friction course, and the quality of smoothness of friction course meets Specification requirements. Examples of how to calculate pay deductions for surface deficiencies are also shown.

11.5.2 Authority

Sections 334.048(3) and 20.23(4)(a), Florida Statutes (F.S.)

Section 330, Standard Specifications for Road and Bridge Construction

FHWA Approved: TBD

11.5.3 General

The Florida Department of Transportation's (FDOT's) intent is the friction course be of uniform thickness and will not rut, distort, or ravel. Therefore, it is absolutely necessary to determine the surface upon which the friction course will be placed and the friction course itself meet the surface acceptance tolerances as established in the ***Specifications***. It is the Contractor's responsibility to perform the straightedge testing and to take any action required to correct surface irregularities. For limited access or other high-speed roadways where the design speed is equal to or greater than 55 miles per hour, the Department will be responsible for the smoothness acceptance testing on the friction course by a laser profiler and will provide a test report to the Project Administrator (PA). Based on the laser profiler test report, and other related ***Specification*** requirements, the Contractor is responsible for the correction of surface irregularities.

11.5.4 Verification

11.5.4.1 15 Foot Rolling Straightedge Testing

(A) Resident Level Responsibilities

Straightedge testing will take place on the last structural layer and on the friction course. The straightedge testing may be performed either behind the final roller of the paving train or as a separate operation after the completion of the last structural layer and after completion of the friction course. The straightedging will be performed by a Contractor's Paving Level 1 or Level 2 Technician, qualified under the Construction Training and Qualification Program (CTQP). The Contractor will notify the Department of the location and time of testing a minimum of 48 hours before beginning testing. A standard 15-foot rolling straightedge will be used. The procedures are as follows:

(1) A CTQP Qualified Asphalt Paving Technician Level 2 representing the Department will be present and accompany the Contractor's employee operating the rolling straightedge. Calibration of the 15-foot rolling straightedge shall be performed in accordance with ***FM 5-509*** and visually reviewed and verified before each testing day.

(2) The FDOT's Qualified Asphalt Paving Technician Level 2 will continuously observe the indicator for highs and lows in excess of 3/16 inch and monitor the Contractor's employee recording the locations and magnitude of each out-of-tolerance deficiency. The contractor's employee will mark the location on the pavement with spray paint or other marking method. The ***Daily Report of Construction, Form No. 700-010-13***, will reflect this inspection.

(3) After the straightedging operation, the Contractor shall furnish to the PA a copy of the straightedging results on ***Form No. 675-060-10, Asphalt Pavement Straightedge Test Report***, verified by the Department Technician together with the method of correction the Contractor plans to use. The PA will discuss Contractor's proposed correction method with the District Bituminous Engineer (DBE) and approve or disapprove the proposed method. If the proposed method is not approved, the PA shall require the Contractor to resubmit their correction plan. The PA may waive the corrections and penalties if the deficiencies are caused by manholes, valve boxes, intersections, etc. that are beyond control of the Contractor. Upon request of the DBE, the PA will provide a copy of the verified straightedging report for their use.

(4) The FDOT's Qualified Asphalt Paving Technician Level 2 shall be present during the corrective work and will ascertain that each surface irregularity was eliminated or brought within the allowable tolerance as established in the ***Specifications***. The corrective work will be reported on the ***Daily Report***.

(5) Resolution of the deficient area(s) will be handled in compliance with the procedures specified in ***CPAM 11.5.5***.

(6) PA shall document the corrected LOT's in Project File and list the exceptions in a ***Certification Statement*** (a recommended format is attached in ***Guidance Document 11-5-A***) and provide a copy to the District Construction Engineer.

11.5.4.2 Laser Profiler Testing

(A) Resident Level Responsibilities

In accordance with the procedures specified in ***CPAM 11.5.4.1***, the Contractor's CTQP Qualified Paving Level 1 or Level 2 Technician shall perform the 15-foot rolling straightedge testing for the QC operations on the last layer of the structural course and the friction course either behind the final roller of the paving train or as a separate operation. After the correction of all deficiencies on the last structure course and the friction course in accordance with ***Specification Section 330-9.4.5***, the procedures for the Laser Profiler testing on friction course specified in ***330-9.4.6.2*** are as follows:

(1) The PA will fill out the online ***Pavement Evaluation Request Form*** (The Form can be accessed through the link: http://smsharepoint.sm.dot.state.fl.us/sites/SMO/pavement/pcs/Lists/lptr/NewFormModified.aspx to notify the Pavement Evaluation Section (PES) of State Materials Office in Gainesville or the District Materials Office (DMO) responsible for the Laser Profiler testing a minimum of 14 calendar days before the estimated date for friction course smoothness acceptance testing. In the event the estimated date is revised, the PA will inform the PES or the DMO about the updated information as soon as possible.

(2) The Laser Profiler test team will inform the PA about the date of their arrival to the project site and the PA will inform the Contractor to clean the pavement if it is needed and will provide necessary assistance to the test team in order to facilitate the Laser Profiler testing on the project site. Guidelines for limitations on Laser Profiler are as follows: (a) Design speed is less than 55 miles per hour, (b) Bridges

approaches and departures, project beginning and endings and segment less than 0.01 mile (52.8 feet), (c) Railroad crossings, (d) Ramps turn lanes, acceleration and deceleration lanes, (e) Areas where the design speed is greater than or equal to 55 miles per hour, that have signalized intersections which affect the consistent speed of the testing vehicle. Those intersections including areas before and after the signalized intersections are not considered suitable for Laser Profiler testing. The exact areas will be determined on the project by the Profiler operator depending on the situations created by these intersections. There are some projects with design speed greater than or equal to 55 miles per hour that have signalized intersections, but the project site conditions allow Laser Profiler testing vehicle to operate at consistent speed. Under this situation, the project shall be tested by Laser Profiler.

(3) The test team will provide a copy of the ***Laser Profiler Test Report*** to the PA and DMO within one week after the completion of Laser Profiler testing. Upon completion of the Laser Profiler testing, the test team will furnish a Test Report to the PA with a copy to the DMO within 7 calendar days.

(4) Should the ***Test Report*** indicate any deficiencies, the PA will notify the Contractor and the Contractor shall perform the correction actions in accordance with the requirements of ***Specifications Section 330-9***. The PA may waive the corrections and penalties if the deficiencies are caused by manholes, valve boxes, intersections, etc. and the deficiencies are beyond control of the Contractor.

(5) In consideration of the safety and traffic control operations, the PA may approve a Contractor's request to use the QC results of 15 foot rolling straightedge testing as a reference for correction actions after the completion of laser profiler testing. However, under this situation, the 15 foot rolling straightedge shall be performed in accordance with ***CPAM 11.5.4.1(3)*** along both wheel paths behind the final roller of the paving train and shall be verified by the Verification Technician (VT).

(6) The Department will monitor/ verify Contractor's corrective work in accordance with ***CPAM 11.5.4.1(4)*** and document the results in accordance with ***CPAM 11.5.4.1(4) and (6)***. The resolution of the deficient area(s) will be handled in compliance with the procedures specified in ***CPAM 11.5.5***.

A flow chart (titled, "Acceptance Testing Process for Pavement Smoothness by Laser Profiler") is attached to indicate the process of acceptance testing for pavement smoothness by Laser Profiler.

11.5.5 Resolution

Note: Straightedge deficiencies waived in accordance with ***Specification 330-9.4.5*** do not require State Construction Engineer (SCE) approval.

(A) Resident Level Responsibilities

(1) If the Contractor proposes to leave the deficient area(s) in place at no pay, the PA shall obtain the recommendation of the Resident Engineer (RE) and the DBE and approval of the District Construction Engineer (DCE) prior to notifying the Contractor of any such approval. If the Contractor requests to leave the deficient area(s) in place at full or reduced pay, the PA must obtain the concurrence of the RE, DCE, DBE, and SCE, before notifying the Contractor of the decision.

(2) If the Contractor plans to use corrective methods other than method (a) Removing and Replacement or method (b) Milling, as specified in ***Section 330*** of the ***Specifications***, a written request for approval of the proposed methods must be submitted to the PA. The PA will send (by memo or transmittal) the Contractor's request along with the list of surface irregularities to the DBE and DCE, requesting comments/recommendations.

(3) The PA will approve or disapprove the Contractor's request for corrective action based on the DBE's and the DCE's comments and recommendations. The PA may rescind any approval if satisfactory acceptance test results are not being attained.

(4) Regardless of the corrective method approved and used by the Contractor, the FDOT's Qualified Asphalt Paving Technician Level 2 shall be present during the corrective work and will ascertain that each surface irregularity was eliminated or brought within the allowable tolerance as established in the specifications. The corrective work will be reported on ***Form No. 700-010-13, Daily Report of Construction***.

(5) Upon verifying all corrections have been made, the PA will notify the Contractor in writing about the Engineer's determination of pavement surface acceptance with copies to the DCE and the DBE.

(B) District Level Responsibilities

If the Contractor proposes to leave the deficient area(s) in place at full pay or reduced pay and states the reason for doing so, the DBE and the DCE shall provide their recommendations, and when in agreement to leave the pavement in place at full or reduced pay, forward such recommendation to the SCE for approval. **Note:** Straightedge deficiencies waived in accordance with ***Specification 330-9.4.5*** do not require SCE approval.

(C) Central Office Level Responsibilities

The State Construction Office will review all recommendations to leave deficient areas in place at full or reduced pay. When the SCO has determined to approve or disapprove the request, a written notification of the SCE's decision will be provided to the DCE. Based on the SCO's written notification, the PA shall list the approval to leave the deficient areas as exceptions in the Certification Statement (a recommended format is attached in ***Guidance Document 11-5-A)*** and provide a copy to the District Construction Engineer.

11.5.6 Straightedge Deficiencies Documentation and Adjustments

Straightedge deficiencies can occur in both structural and friction courses.

Straightedge Deficiencies are either:
(1) Corrected (removed and replaced) at no cost to the Department
(2) Left in place at No Pay or Full Pay.

1. Straightedge Deficiencies that are corrected (Removed and Replaced)

The defective surface will be removed and replaced with an acceptable surface at no additional cost to the Department in accordance with ***Section 330-9*** of the ***Specifications***. The asphalt used for correcting straightedge deficiency will be shown as a "Straightedge Correction" on the ***Asphalt Roadway - Daily Report of Quality Control***.

(A) Deficiencies when LOT's are still open:

Tests will be performed on the asphalt used for straightedge when a random number occurs. The area(s) to be corrected will need to be shown on the ASPHALT ROADWAY - DAILY REPORT OF QUALITY CONTROL in the LOT the asphalt is produced in. The

amount of material used to correct these deficiencies will be shown on the ***Asphalt Roadway - Daily Report of Quality Control*** as a "Straightedge Correction".

(B) Deficiencies when LOT's are closed:

If the Straightedge deficiencies are corrected after all LOT's are closed, a new LOT will not be opened, and no material tests are required. The asphalt used for correcting the straightedge deficiency shall be reported on the last ***Asphalt Roadway - Daily Report of Quality Control*** for that mix type (structural or friction).

Note: Report the asphalt as a "Straightedge Correction" to ensure the asphalt is not paid for within the LOT. Straightedge corrections are shown on the ***Asphalt Roadway - Daily Report Of Quality Control*** in order to document that the straightedge corrections were made. The original ***Asphalt Roadway - Daily Report of Quality Control*** showing where the deficient areas were first paved do not need to be revised.

2. Straightedge Deficiencies that are Left in Place at No Pay or Full Pay

(A) Deficiencies Left in Place at No Pay

If the PA determines to leave the asphalt in place at No Pay, approval from the RE, the DBE, and the DCE is needed prior to notifying the Contractor. The tonnage to be deducted is calculated per ***Specification 330-9.5*** (examples shown below). The PA will complete the ***Asphalt Concrete Pay Item Reduction Sheet***, as well as, the "Guidance Document" shown in ***Attachment 11-5A***, and submit them with the ***Final Estimates Package***.

(B) Deficiencies Left in Place at Full Pay

If the Contractor request to leave the deficient area(s) in place at full pay, the PA must obtain approval from the State Construction Engineer (after obtaining approval from the RE, the DCE, and the DBE) before notifying the Contractor of the decision. The PA will complete the ***Asphalt Concrete Pay Item Reduction Sheet***, as well as, the "Guidance Document" shown in ***Attachment 11-5A*** and submit them with the ***Final Estimates Package***.

Note 1: For straightedge deficiencies left in place at full pay, no changes are required to the original asphalt's Bituminous Adjustments or Fuel Adjustments.

Note 2: For straightedge deficiencies left in place at no pay or reduced pay, no changes are required to the asphalt's Bituminous Adjustments or Fuel Adjustments.

Note 3: The CPF will not be affected in any case.

Pay Item Reduction Calculations

The Department will calculate the pay item reduction in accordance with ***Section 330-9.5.2*** of the ***Specifications***. The pay item reduction is based on the quantity of material the Contractor would have removed and replaced had the correction been made. The quantity is determined by the following equation:

Quantity (tons) = L X W X t X Gmm X 0.0024

Where:
L = Total Length (ft.)
The total length (L) is the deficient length that is extended 50 ft. on each side of the deficiency
W= Width (ft.)
t = Thickness
G_{mm} – Maximum Specific Gravity of the Asphalt Mix
0.0024 = 43.3 Lbs/SY divided by 9 SF/SY, divided by 2000 Lbs/Ton

For FC-5 only (Open Graded Friction Course), a different equation is used. The length and width are multiplied by a constant equal to 0.0044. The constant of 0.0044 is based on an FC-5 spread rate of 80 Lbs/SY, divided by 9 SF/SY, divided by 2000 Lbs/Ton.

Quantity (Tons) = L X W X 0.0044 (equation for FC-5 only)

Where:
L= Total Length (ft.)
The total length (L) is the deficient length that is extended 50 ft. on each side of the deficiency, per Specifications.
W= Width in (ft.)
t = Thickness
0.0044= 80 Lbs/SY divided by 9 SF/SY, divided by 2000 Lbs/Ton

EXAMPLE 1:

Deficiency Length = 10 ft.
Width = 12 ft.
Thickness is 1.5 inch
G_{mm} = 2.417

Total Length = Deficiency Length plus 50 ft. on each side, therefore;
Total Length = 10 ft. + 50 ft. + 50 ft. = 110 ft.

Quantity (Tons) = L X W X t X G_{mm} X 0.0024
Quantity (Tons) = 110 X 12 X 1.5 X 2.417 X 0.0024 = 11.48 Tons = 11.5 Tons deduct

Note: Situations can occur where the extension of the deficiency is less than 50 ft. This can occur at the beginning or ending of the project limits, beginning of a bridge approach slab, etc. For example: if the deficient length is 5 ft., and one side of the extension if 50 ft. and the other is 30 ft., the total deficient length is 85 ft. The equation to determine the quantity would be as follows:

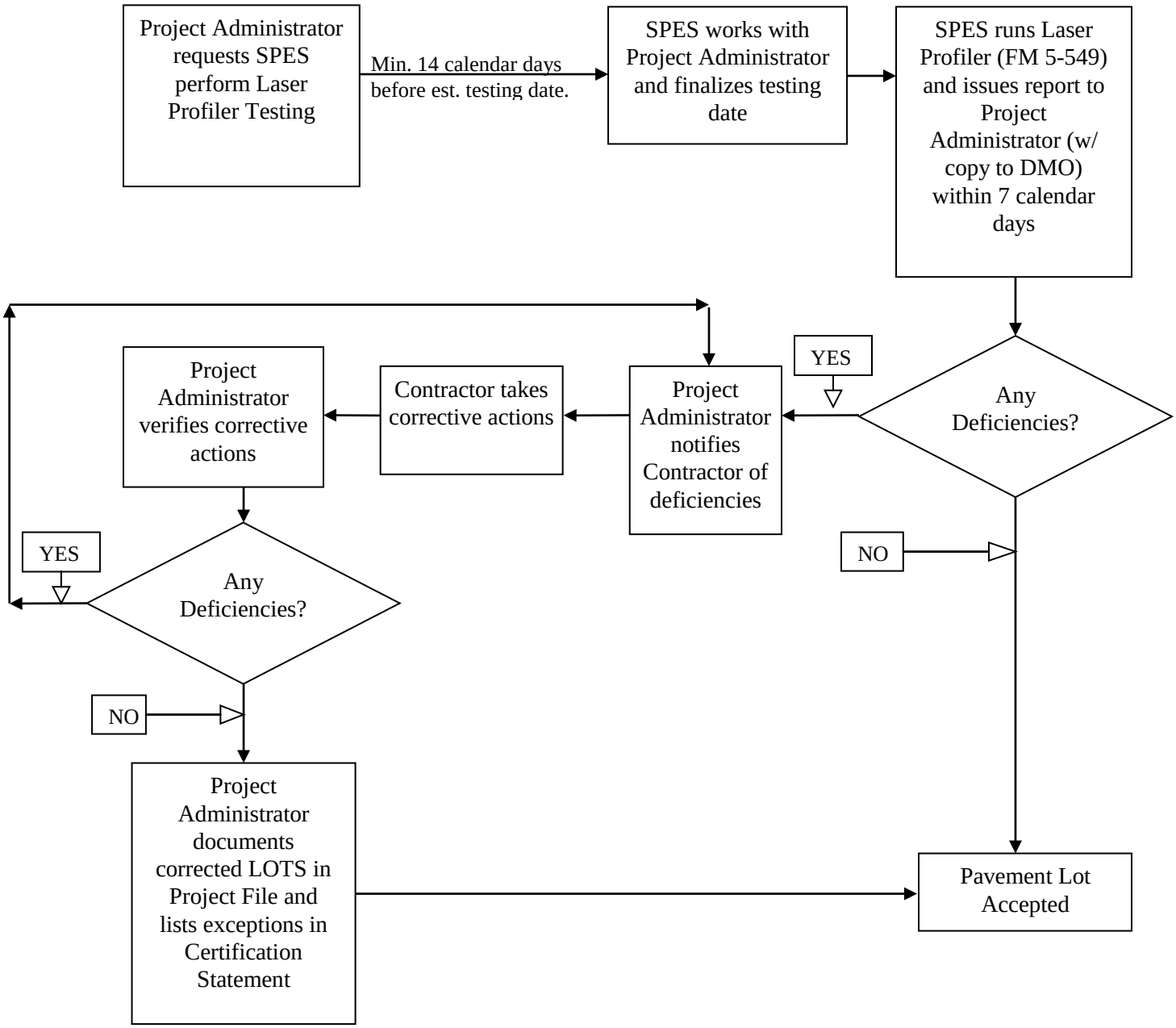
Quantity (Tons) = L X W X t X G_{mm} X 0.0024
Quantity (Tons) = 85 X 12 X 1.5 X 2.417 X 0.0024 = 8.88 Tons = 8.9 Tons deduct

EXAMPLE 2:

Deficient Length = 10 ft.
Width = 12 ft.
Total length = Deficiency length plus 50 ft. on each side, therefore;
Total deficient length = 10 ft. + 50 ft. + 50 ft. = 110 ft.
Quantity (Tons) = L X W X 0.0044 (equation for FC-5 only)
Quantity (Tons) = 110 X 12 X 0.0044 = 5.81 Tons = 5.8 Tons deduct

FLOW CHART

Acceptance Testing Process for Pavement Smoothness by Laser Profiler



ATTACHMENT 11-5-A
Guidance Document 11-5-A

Recommended Format for Exceptions				
LOT #	**Sta. From (MP)**	**Sta. To (MP)**	**Deficiencies by Laser Profiler (RN) or Straightedge (inch)**	**Action Taken**

Remarks:

1. SPES: State Pavement Evaluation Section (State Materials Office in Gainesville).

2. Action Taken Without Correction:

   a. Leave in place at no pay
   b. Leave in place at full pay

3. Project Administrator is the same as Project Manager.

SECTION 11.6

DOCUMENTATION FOR MULTI-FINANCIAL IDENTIFICATION NUMBERS (FIN) PROJECTS UNDER ONE CONTRACT

11.6.1 PURPOSE

This procedure provides examples for calculating and documenting quantities, of the same pay item, appearing on multiple financial projects under one Contract using federal funds.

11.6.2 AUTHORITY

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

11.6.3 FOR MULTI-FIN PROJECTS UNDER ONE CONTRACT (SAME PAY ITEM)

All asphalt produced and accepted for a particular item (from the Quality Control (QC) Reports and the Asphalt monthly Certifications/Worksheets) shall be reported under the lead FIN only when the same pay item appears on multi-FINs. The quantities for each FIN are shown in Site Manager. The Project Administrator (PA) will prorate the pay item breakout. This will be done by taking the total tons shown in Site Manager for each FIN and dividing it by the total tons for the contract, then multiplying this amount by the total tons placed (See example below). If asphalt has been placed during the month and paid accordingly on the monthly progress estimate, the PA will report the percent breakouts in Site Manager **monthly** after the estimate cutoff day based on the Contractor's Certification of Quantities.

Note: This breakout is done monthly to ensure the bituminous adjustments are correctly made for each project, and the period the asphalt was produced and accepted. The composite pay factor (CPF) breakout adjustments shall be done during the month when the lot is closed out.

Example 1:

What is the quantity of asphalt reported for Project "A" and Project "B"?

- Project "A" Contract Amount = 10,000 tons
- Project "B" Contract Amount = 20,000 tons
- Total Contract Amount = 30,000 tons
- Tons placed this month = 4,359 tons

Project “A” is determined by dividing the total tonnage for Project “A” (10,000 tons) by the total tonnage for the entire project (30,000 tons) and multiplying by the tonnage for the month (4,359 tons).

$$\left(\frac{10{,}000 \text{ tons}}{30{,}000 \text{ tons}}\right)(4{,}359 \text{ tons}) = 1{,}453.0 \text{ tons}$$

Project “B” is determined by dividing 20,000 by 30,000 and multiplying by 4,359.

$$\left(\frac{20{,}000 \text{ tons}}{30{,}000 \text{ tons}}\right)(4{,}359 \text{ tons}) = 2{,}906.0 \text{ tons}$$

Double check that the total the entire contract tonnage totals the original amount.
Total Tonnage = 1,453.0 + 2,906.0 = 4,359 tons

11.6.4 FOR MULTI-FIN PROJECTS, UNDER ONE CONTRACT, INCLUDING NON-FEDERAL AID (NFA) PARTICIPATING

All asphalt produced and accepted for a particular item shall be reported under the lead FIN including NFA participating (see exception below). The quantities for each FIN are shown in Site Manager. The PA will prorate the pay item breakout by taking the total tons shown in Site Manager for each FIN and dividing it by the total tons for the Contract, then multiplying this amount by the total tons placed (see example below). The PA will report the percent breakouts in Site Manager **monthly** after the estimate cutoff day based on the Contractor’s Certification of Quantities, provided that the asphalt has been placed during the month and paid accordingly on the monthly progress estimate.

Example 2:

What is the quantity of asphalt reported for Project “A”, for both federal aid and non-federal aid portions, and Project “B”?

- Project “A” Contract Amount = 6,000 tons Federal Aid participating and 4,000 tons NFA participating
- Project “B” Contract Amount = 20,000 tons Federal Aid participating
- Total Contract Amount = 30,000 tons
- Tons placed this month = 4,359 tons

The Federal Aid portion of Project “A” is determined by dividing the total tonnage for the Federal Aid portion of Project “A” (6,000 tons) by the total tonnage for the entire project (30,000 tons) and multiplying by the tonnage for the month (4,359 tons).

$$\left(\frac{6{,}000 \text{ tons}}{30{,}000 \text{ tons}}\right)(4{,}359 \text{ tons}) = 871.8 \text{ tons}$$

The NFA portion of Project “A” is determined by dividing 4,000 by 30,000 and multiplying by 4,359.

$$\left(\frac{4{,}000 \text{ tons}}{30{,}000 \text{ tons}}\right)(4{,}359 \text{ tons}) = 581.2 \text{ tons}$$

Project “B” is determined by dividing 20,000 by 30,000 and multiplying by 4,359.

$$\left(\frac{20{,}000 \text{ tons}}{30{,}000 \text{ tons}}\right)(4{,}359 \text{ tons}) = 2{,}906.0 \text{ tons}$$

Double check that the total the entire contract tonnage totals the original amount.
Total Tonnage = 871.8 + 581.2 + 2,906.0 = 4,359 Tons

Exception: When an item is shown only on one FIN, those tons will be reported on that FIN.

SECTION 11.7

ASPHALT CONSTRUCTION INFORMATION FOR CONTRACTOR QUALITY CONTROL

11.7.1 PURPOSE

The purpose of this procedure is to describe the Department's role when reviewing and verifying Contractor Quality Control (CQC) documentation, establishing waste asphalt quantities, and processing Resolution Reports for Asphalt Concrete (AC) Gradation, Density Cores, and Composite Pay Factors (CPF).

11.7.2 AUTHORITY

Sections 20.23(3) (a) and **334.048(3),** **Florida Statutes (F.S.)**

11.7.3 DEPARTMENT'S VERIFICATION OF QUALITY CONTROL DOCUMENTATION

The Department's Engineer is responsible for reviewing and randomly checking the quantities submitted by the CQC Technician. The Engineer shall collect a copy of the **Asphalt Roadway Daily Report of Quality Control (Form 675-030-020A)** and **Asphalt Plant Worksheet (Form 675-030-25)**. In addition, the Engineer shall collect all asphalt ticket packets associated with these reports. The Engineer is to ensure that the ticket packets for each day's production match these reports.

When an error is detected, the correction will be made on the report for that specific item. For projects let after July 2015 and forward, using the latest **Asphalt Roadway – Daily Report of Quality Control (Form 675-030-20A)**, corrections will be done automatically within the spreadsheet once an error is detected and corrected. Under the "Remarks" section, a notation of the correction should be made. Projects let prior to July 2015 using **Asphalt Plant Worksheet (Form 675-030-20)** shall refer to CPAM Section 11.7dated 9-3-2013 for error correction procedure.

11.7.4 CONTRACTOR AND DEPARTMENT – WASTE ASPHALT QUANTITY DETERMINATION

It is not necessary to have the Contractor's truck driver return to the plant to determine the amount of asphalt left in the truck as the "Waste" quantity. The Contractor's Quality Control Technician and the Department's Verification Technician (VT) should concur on the estimated amount left in the truck based on one of the following methods:

(1) The spread rate on the project:

Example:

Determine the waste tonnage with the following information:

- Last load of Asphalt = 21.35 Tons (from Ticket)
- Spread rate on the project = 75 Lbs/SY
- The paved area = 230 SY

$$\text{Tonnage Used} = \frac{\left(\text{Spread Rate } \left({}^{\text{Lbs}}/_{\text{SY}}\right)\right)(\text{Area Paved (SY)})}{2{,}000 \text{ Lbs/Ton}}$$

$$= \frac{(75 \text{ Lbs/SY})(230 \text{ SY})}{2{,}000 \text{ Lbs/Ton}}$$

$$= 8.63 \text{ Tons}$$

Waste Tonnage = Original Quantity – Quantity Used
= 21.35 – 8.63 = **12.72 Tons**

(2) A visual inspection of the remaining asphalt in the truck estimated to the nearest ¼ of a truck load.

11.7.5 RESOLUTION REPORTS FOR AC CONTENT, GRADATION, DENSITY CORES, AND CPFs

When the CQC Technician's results and the Department's VT's results do not compare for a specified test, then a Resolution Test (RT) must be performed, because the Quality Control (QC) results are not verified. The RTs for all sublots in the LOT are run for the property that was (or properties that were) not verified. These RT results are then compared to the QC test results.

If all the RT results compare to the QC test results, then accept and pay on QC Test results.

If the QC Test Results do not compare (even if only one sublot QC and RT do not compare), then accept and pay on RT report results. The cost of the Resolution Testing performed by the Department, that do not favor the QC test results, will be deducted from the Contractor's next

progress estimate. The District Materials Office will provide the resolution results to the Project Administrator (PA) via email. This email will need to be submitted with the ***Plan Summary Box*** backup documentation to support this deduction.

See Appendix D, Example (1) in ***Section 11.4*** of this ***Manual*** for an example of an e-mail from the District Materials Office to the PA with the number of resolution tests and costs. See ***Appendix D, Example 2 (A)*** and ***2 (B)*** in ***Section 11.4*** of this ***Manual*** for examples of reporting cost of resolution testing in SiteManager.
See the State Materials Office Website at the following URL for the latest resolution testing costs. These testing costs can be found under "Resolution Testing Costs for Contracts Let…"
http://www.dot.state.fl.us/statematerialsoffice/navigation/documents.shtm

ASPHALT CONSTRUCTION INFORMATION

FOR

CQC

SPECIFICATIONS

This presentation will give you an overview of what's required for Asphalt documentation. It includes links to forms, contacts, guidelines, and procedures. A special thanks to the Asphalt Task Team for their input.

ASPHALT CONSTRUCTION INFORMATION

- Please contact Richard R. Massey for any corrections, changes or comments at the following e-mail address:

  richard.massey@dot.state.fl.us

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6. FM 1 – T209 Maximum Specific Gravity of Bituminous Paving Materials
7. FM 5 – 563 Asphalt Content by Ignition Oven

D. Specification 334 Flowchart

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Section 1 – Contact Lists

- **A. Technical Advisory Committee Members**

This list can be obtained at the link below:

(Use Tabs on bottom of spreadsheet for different disciplines.)

Names and Phone numbers

Section 1 – Contact Lists (cont.)

- **B. List of Asphalt Producers with Approved QC Programs**

This list can be obtained at the link below:

Asphalt Producers

Section 1 – Contact Lists (cont.)

- **C. Plant Listings by Contractor**

This list can be obtained at the link below:

Contractors Plants

Section 1 – Contact Lists (cont.)

- **D. Plant Listings by District**

This list can be obtained at the link below:

Contractors Plants by District

Section 1 – Contact Lists (cont.)

- **E. Local District and Resident Contact List**

This list can be obtained at the link below:

Names, Phone Numbers, and E-mail

Section 2 – General Project Management Information

- **A. Standard Specifications for Road and Bridge Construction**

The link below has the latest revisions to the standard specifications. It can also be used for review of upcoming changes, and past specifications, etc.

Specifications

Section 2 – General Project Management Information (cont.)

- **B. Asphalt Pre-Paving Conference Agenda**

This can be obtained at the link below:

Asphalt Pre-Paving Agenda

Section 2 – General Project Management Information (cont.)

- **C. State Construction Office Memorandums**

This can be obtained at the link below:

(This will take you to the Table of Contents. Choose the ones pertinent to Asphalt)

SCO memos

Section 2 – General Project Management Information (cont.)

- **D. The Matrix**

This can be obtained at the link below:

The Matrix

Section 2 – General Project Management Information (cont.)

- **E. LIMS Instructions**

This can be obtained at the link below:

LIMS Instructions

Section 2 – General Project Management Information (cont.)

- **F. CPAM Construction Project Administration Manual**

This can be obtained at the link below:

(Particularly Chapters 3, 5, and 11)

CPAM

Section 2 – General Project Management Information (cont.)

- **G. Materials Manual**

This can be obtained at the link below:

(Particularly Section 3)

Materials Manual

Section 2 – General Project Management Information (cont.)

- **H. Flexible Pavement Design Manual**

This can be obtained at the link below:

(Particularly Chapters 4 and 5)

Flexible Pavement Design Manual

Section 2 – General Project Management Information (cont.)

- **I. Preparation and Documentation Manual**

  Chapter 9

This can be obtained at the link below:

Preparation and Documentation Manual

Section 2 – General Project Management Information (cont.)

- **J. Review and Administration Manual**

  Chapter 9

This can be obtained at the link below:

Review and Administration Manual

Section 3 – Forms and Instructions

- **A. Asphalt Plant – Worksheet (675-030-25)**

This can be obtained at the links below:

Asphalt Plant Worksheet (Excel)

Asphalt Plant Worksheet (Excel 2007)

Form Assistance

Section 3 – Forms and Instructions (cont.)

- **B. Asphalt Plant – Daily Report of Quality Control (675-030-18)**

This can be obtained at the links below:

Plant - Daily Report of Quality Control (Excel format)

Section 3 – Forms and Instructions (cont.)

- **C. Asphalt Plant – Verification Report (675-030-19)**

This can be obtained at the links below:

Plant – VT Report (Excel format)

Section 3 – Forms and Instructions (cont.)

- **D. Asphalt Roadway – Daily Report of Quality Control (675-030-20)**

This can be obtained at the links below:

Roadway - Daily Report of Quality Control

(Excel Format)

(PDF Format)

Section 3 – Forms and Instructions (cont.)

- **E. Asphalt Roadway – Verification Report (675-030-21)**

This can be obtained at the links below:

Roadway – VT Report (Excel format)

(PDF format)

Section 3 – Forms and Instructions (cont.)

- **F. Asphalt Plant – Pay Factor Worksheets (675-030-22)**

This can be obtained at the link below:

(Use Tabs at bottom of the spreadsheet for different sieves and reports.)

Composite Pay Factor Worksheet

(Excel Format)

Section 3 – Forms and Instructions (cont.)

- **G. Asphalt Independent Verification Report (675-030-17)**

This can be obtained at the links below:

Independent Verification Report

(Excel format)

Section 3 – Forms and Instructions (cont.)

- **H. Asphalt Resolution Report (675-030-23)**

This can be obtained at the links below:

Asphalt Resolution Report

(Excel format)

Section 3 – Forms and Instructions (cont.)

- **I. Cross Slope Measurement Data Form (700-010-98)**

This can be obtained at the link below:

Cross Slope Form

(Word Format)

(PDF Format)

Section 3 – Forms and Instructions (cont.)

- **J. Roadway – As-Built Pavement Data (700-050-12)**

This can be obtained at the links below:

Roadway – As-Built Pavement Data (Excel 2007 format)

Section 3 – Forms and Instructions (cont.)

- **K. Pavement Evaluation Request Form (Laser Profiler)**

This can be obtained at the link below:

Laser Profiler Request Form

Section 3 – Forms and Instructions (cont.)

- **L. Asphalt Pavement Straightedge Test Report (675-060-10)**

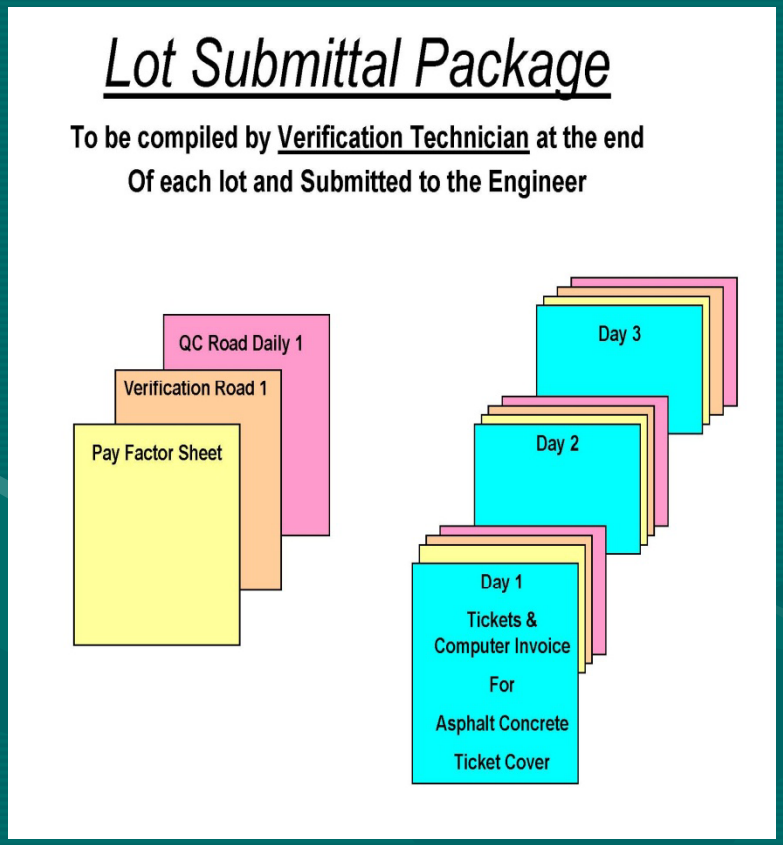
This can be obtained at the links below:

Straightedge Report (Excel format)

Straightedge Report (PDF format)

Form Assistance

Section 4 – Lot Submittal Package and Instructions



A. Lot Submittal Package – Documentation Order

This can be obtained at the link below:

Preparation and Documentation Manual

(Then go to page 30 of 42)

Section 4 – Lot Submittal Package and Instructions (cont.)

- **The Asphalt Plant – Pay Factor Worksheet (675-030-22)**

This can be obtained at the link below:

(Use tabs on bottom for different sieves and reports.)

Composite Pay Factor Worksheet (Excel Format)

Section 4 – Lot Submittal Package and Instructions (cont.)

- **The Asphalt Plant – Pay Factor Worksheet (675-030-22),** on the previous slide, will be used to create the forms for numbers 1,2,3,4, and the Ticket Packet cover sheets (6,etc.)

1. Lot Information & Packet Cover Sheet
2. Composite Pay Factor Sheet
3. Verification Roadway Report
4. QC Plant Daily Report

Section 4 – Lot Submittal Package and Instructions (cont.)

5. Any Additional Information
6. Ticket Packet – Day 1
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8. Ticket Packet – Day 3

Section 5 – Asphalt Construction Guidelines

- **A. Asphalt Guidelines – Roadway VT / Roadway QC / Plant VT / Plant QC / Project Administrator / QC Manager / Paper work Timeline**

This can be obtained at the link below:

Asphalt Guidelines

Section 6 – Miscellaneous Information

- **A. QA / QC Statewide Inspection Guide List**

  1. Asphalt Plant / Lab (Number 7A)

This can be obtained at the link below:

Plant Inspector Guide List

Section 6 – Miscellaneous Information (cont.)

- **A. QA/QC Statewide Inspection Guide List**

  2. Asphalt Milling / Paving (Number 7B)

This can be obtained at the link below:

Roadway Inspector Guide List

Section 6 – Miscellaneous Information (cont.)

- **B. Statewide Critical Requirements List**

  1. Quality Assessment Number 7A

  (Asphalt Plant / Lab)

This can be obtained at the link below:

QAR Guide List - Plant

Section 6 – Miscellaneous Information (cont.)

- **B. Statewide Critical Requirements List**

  2. Quality Assessment Number 7B (Asphalt Milling & Paving)

This can be obtained at the link below:

QAR Guide List - Roadway

Section 6 – Miscellaneous Information (cont.)

- **C. IA Checklist**

  1. FM 5-509 Rolling Straightedge

This can be obtained at the link below:

IA Checklist - Straightedge

Section 6 – Miscellaneous Information (cont.)

- **C. IA Checklist**

  2. AASHTO T - 312

  SuperPave Gyratory Compaction

This can be obtained at the link below:

IA Checklist – Gyratory Compactor

Section 6 – Miscellaneous Information (cont.)

- **C. IA Checklist**

  3. FM 1 – T030 Mechanical Analysis of Extracted Aggregate

This can be obtained at the link below:

IA Checklist – Sieve Analysis

Section 6 – Miscellaneous Information (cont.)

- **C. IA Checklist**

  4. FM 1 – T166 Bulk Specific Gravity

This can be obtained at the link below:

IA Checklist – Bulk Specific Gravity

Section 6 – Miscellaneous Information (cont.)

- **C. IA Checklist**

  5. FM 1 – T168 Sampling Bituminous Paving Materials

This can be obtained at the link below:

IA Checklist – Sampling HMA

Section 6 – Miscellaneous Information (cont.)

- **C. IA Checklist**

  6. FM 1 – T209 Maximum Specific Gravity of Bituminous Paving Materials

This can be obtained at the link below:

IA Checklist - GMM

Section 6 – Miscellaneous Information (cont.)

- **C. IA Checklist**

  7. FM 5 – 563 Asphalt Content by Ignition Oven

This can be obtained at the link below:

IA Checklist – AC Content

Section 6 – Miscellaneous Information (cont.)

- **D. Specification 334 Flowchart**

This can be obtained at the link below:

Spec. 334 Flowchart – (Current)

Spec. 334 Flowchart – (R^2)

Section 6 – Miscellaneous Information (cont.)

- **E. Engineering Analysis Report (EAR) Guidelines**

This can be obtained at the links below:

EAR Guidelines

SECTION 11.8

SUBMITTALS

11.8.1 PURPOSE

This procedure provides the Department's Final Estimates personnel with information on a Contractor's submittal for all asphalt used on the project.

11.8.2 AUTHORITY

Sections 20.23(3)(a) and 334.048(3), Florida Statutes (F.S.)

11.8.2.1 REFERENCES

Section 330, Standard Specifications for Road and Bridge Construction

11.8.3 MONTHLY SUBMITTALS

Each Contractor is required to complete, sign and submit a ***Certification of Quantities, Asphalt and Bituminous Materials, Conventional Projects***, ***Form No. 700-050-66*** in order to receive payment. This form is furnished by the Department and is required to be submitted to the Project Administrator (PA) on a monthly basis. This form shows all asphalt produced and accepted on a project and will be reported on the lead Financial Identification Number (FIN). A Contractor will only report the tons of materials that were accepted for the Contract (see note under ***Section 11.8.4*** of this Manual).

Note: For Lump Sum projects, Asphalt & Bituminous Adjustments worksheets will be completed by the Contractor and submitted monthly. The above mentioned form and the Worksheets are located on the State Construction website.

11.8.4 RESIDENCY'S RESPONSIBILITY

The PA shall keep a running total of each item's tonnage for the period represented and compare these to the ***Certifications***. Any discrepancies shall be resolved before authorizing payment on the progress estimate. These ***Certifications*** must be scanned into EDMS for reference as Final Estimates Package Backup. The Quality Control (QC) Manager shall resolve discrepancies appropriately. If a ***Certification of Quantities*** has been determined to show tonnage that wasn't accepted on the project, the QC Manager must be notified for justification.

Note: In some instances, the certifications will not match the asphalt quantity payable at the end of the project. This is due to removal and replacement for low Composite Pay Factors. When this occurs, there should be a note on the summary and running totals on the ***Lot Submittal Packages***. The Contractor shall not be required to adjust previous ***Certifications*** due to removal and replacement.

SECTION 11.9

SALVAGE OF MATERIALS

11.9.1 PURPOSE

This procedure provides information on the delivery of excess or salvageable material to Department maintenance offices and the final estimate documentation requirements.

11.9.2 AUTHORITY

Sections 20.23(3) (a) and 334.048(3), Florida Statutes (F.S.)

11.9.3 EXCESS MATERIAL

Excess material is when the Department has paid for material as part of a pay item, but it is not needed on the project in which it was paid (example: cutoff piling).

11.9.4 SALVAGEBLE MATERIALS

The contract plans will provide the following for salvageable material identified on a project:

a) Delivery Location
b) Contact Information for Delivery
c) Description of material
d) Quantity of material

11.9.5 RECEIPT OF GOODS FROM VENDOR

When excess material is identified or material is salvaged from the project and delivered to the specified Maintenance yard, a signed ***"Receipt of Goods from Vendor"*** must be submitted with the final estimate. This receipt is generated by the Maintenance yard after receipt of goods. The "vendor" is the Construction Office from which the materials were received and the vendor number is the Financial Project ID Number. (See ***Attachment 11-9-1***)

Note: For delivery to other yards (non-FDOT), check your contract or plans for requirements.

ATTACHMENT 11-9-1
RECEIPT/INVOICE FOR EXCESS MATERIALS DELIVERED TO WAREHOUSE

FLORIDA DEPARTMENT OF TRANSPORTATION
RECEIPT OF GOODS FROM VENDOR
5/1/2012 TYPE: REGULAR RECEIPT

MSIB034 : 5/1/12 10.55.24
TCKT : 5/1/12
WHSE :
VENDOR # :
NAME :

.....TOTAL COST.....
0.0000

COMM	DESCRIPTION	QTY RECVD	UM RE	UNIT PRICE

RESERVED: .000 AVAILABLE .000 TOT ONHAND: .000
BACKORDER: .000 WHSE ORDER: .000

RECEIVED BY: VERIFIED BY:

PF1-Menu, PF2-Verify, PF5-Receive, Pf6-Another, PF8- Another (same vend # & PO#)

Note: The Material Supply & Inventory (MSI) Section within the State Office of Maintenance is responsible for this form. Once the information is entered into the system (mainframe) a form like page is created (as seen above) so that the person or office receiving the goods could sign for goods that will be delivered to the warehouse.

Chapter 12

PROJECT CLOSE OUT

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Section 12.1

PROJECT ACCEPTANCE

12.1.1 Purpose

To provide a uniform basis for granting Partial and Final Acceptance of a project.

12.1.2 Authority

Sections 20.23(4)(a) and 334.048(3), Florida Statutes (F.S)

Sections 5-10, 5-11, 8-6 and 8-7, Standard Specifications for Road and Bridge Construction

12.1.3 Preliminary Field Inspection

Resident Level Responsibilities

When the Project Administrator determines that the project or specified portion of the project is 90% complete, he may notify the Contractor and a representative of the maintaining unit that the project is near completion. If the Contractor agrees, then the Project Administrator will meet with the Contractor's representative and a representative of the maintaining unit to review the project and determine if the project is sufficiently complete to warrant a semifinal inspection. If a Preliminary Field Inspection is conducted on projects which include bridge structures, coordination initiated by the Project Administrator with the District Structures Maintenance Engineer as outlined in ***CPAM 10.11*** shall occur. If a Preliminary Field Inspection is conducted on projects which include miscellaneous structures (i.e. cable signs, cantilever signs, truss signs, high mast light poles, Intelligent Transportation System signs, Dynamic Message signs, traffic signal mast arms, etc.) which have been completed and are scheduled for acceptance, the Project Administrator shall notify the District Structures Maintenance Office to schedule an inspection of said miscellaneous structures. This field inspection is a recommendation; it is not a requirement of this procedure or the specifications. It should be undertaken in the spirit of cooperation to insure a more timely and problem-free, semifinal inspection.

12.1.4 Semifinal Inspection

Resident Level Responsibilities

After the Contractor has notified the Project Administrator that the project or portion of the project is presumptively complete, the Project Administrator, Resident Engineer and the Contractor will perform the semifinal inspection within seven days of notice. A representative of the maintaining unit will be invited to attend. On projects which include bridge structures, coordination initiated by the Project Administrator with the District Structures Maintenance Engineer as outlined in ***CPAM 10.11*** shall occur. On projects which include miscellaneous structures (i.e. cable signs, cantilever signs, truss signs, high mast light poles, Intelligent Transportation System signs, Dynamic Message signs, traffic signal mast arms, etc.) which have been completed and are scheduled for acceptance, the Project Administrator shall notify the District Structures Maintenance Office to schedule an inspection of said miscellaneous structures. If, at the semifinal inspection, all construction provided for and contemplated by the contract is found complete to the Engineer's satisfaction, such inspection shall constitute the final inspection, as prescribed in ***Section 12.1.6***.

If, however, at any semifinal inspection any work is found unsatisfactory, in whole or in part, the Engineer shall compile a list of remedial work to be done. A copy of the list of remedial work will be furnished to the Contractor, with the indication that the work so noted must be completed prior to final inspection. Time shall continue to be charged on the project.

Any list(s) of remedial work furnished to the Contractor shall state that it is not to be construed as the "final" list. It shall also state that items damaged beyond the control of the Contractor and prior to the final inspection must be corrected prior to Final Acceptance.

If damage occurs to a pay item between the time the Contractor gives notice of presumptive completion and the time the Project Administrator conducts the semifinal inspection, a time extension may be granted according to ***Section 8-7.3*** of the ***Standard Specifications*** and ***Section 7.2*** of this ***Manual***. The contract time extension for replacement or repair of the pay item, which has been damaged, may be granted provided the damaged pay item is the only pay item requiring additional work. If damaged pay items as well as incomplete pay items are listed on the list of remedial work, a time extension for the damaged or defective pay items shall not be granted until the other incomplete pay items are completed.

Should unique circumstances arise, the State Construction Office should be consulted for direction, as well as the FHWA on FHWA Full Oversight projects.

Some projects may require representatives from the District Construction Office, the State Construction Office or another specific field of expertise to participate in the semifinal inspection. Other interested governmental agencies will be invited to

participate. The FHWA shall be notified and invited to attend the inspection of FHWA Full Oversight projects.

12.1.5 Partial Acceptance

Resident Level Responsibilities

The Florida Department of Transportation may accept a portion of a project as defined in ***Specification 5-10***. Once the Department has accepted the project or a portion of the project, the Department shall provide written notice of Partial Acceptance to the Contractor and the Contractor's obligations for indemnification, defense and to hold the Department harmless under ***Section 7-12.1***, shall cease for the accepted portion of the project. However, the Contractor shall be responsible under ***Section 7-12.1*** only as it applies to direct performance of work items of final striping, landscape establishment period, signalization "burn-in" or any other contract item which requires performance or maintenance more than 20 days after the completion of all other contract items for the accepted portion of the project.

12.1.6 Final Inspection

Resident Level Responsibilities

Whenever all materials have been furnished, all work has been performed, and all the Construction contemplated by the contract has been satisfactorily completed the final inspection is to be done per ***Section 5-10*** of the ***Standard Specifications***.

Projects found satisfactorily complete during the semifinal inspection:

> Projects found "complete to the Engineer's satisfaction" during the semifinal inspection do not need to be re-inspected. Proceed to ***Final Acceptance, Section 12.1.7*** of this ***Manual***.

Projects found incomplete during the semifinal inspection:

> When the Contractor has completed the list of remedial work items, the Engineer shall make another inspection of the project.
>
> (1) If items on the list of remedial work are incomplete since the last inspection, the Engineer shall continue to charge contract time.
>
> (2) If all items on the list of remedial work are found satisfactorily complete, proceed to ***Final Acceptance, Section 12.1.7***.

Upon completion of FHWA oversight projects, the FHWA Transportation Engineer shall be contacted to schedule a final inspection if the project was not final accepted during the semifinal inspection.

12.1.7 Final Acceptance

Resident Level Responsibilities

When the District Construction Engineer or Resident Engineer is satisfied that all items of work are completed satisfactorily as called for in the contract, the project will be accepted. The District Construction Engineer or Resident Engineer will notify the Contractor in writing that the Project has been final accepted. On Consultant CEI managed projects, the Consultant shall seek the Department's Construction Project Manager input prior to issuing Final Acceptance to the Contractor

A ***Final Inspection and Acceptance of Federal-Aid Project, Form No. 700-010-32***, is to be completed by the District Construction Engineer and submitted to FHWA on all Federal Aid Delegated projects. Delegation of the District Construction Engineer signature authority for this form is not permitted. For FHWA Full Oversight projects, a copy of the FHWA Transportation Engineer's final inspection report should be obtained.

For both In-house and Consultant designed projects, a written, post construction evaluation ***(Constructability Grade Computation)*** of the design effort is required in accordance with ***CPAM Chapter 13.2, Constructability Grade***. For Design-Build projects, both a Constructability and Quality evaluation is required.

The Department's ***Materials Manual, Topic No. 675-000-000*** should be reviewed to ensure timely issuance of Materials Statements and all required materials documents.

12.1.8 Information Transmittal

Transmittal of the latest, accurate, contract condition data is essential to the management of the Department's resources. SiteManager allows data entry for the following changes in contract conditions. These conditions are:

(1) Letting;

(2) Awarded;

(3) Execution;

(4) Notice to Proceed;

(5) Work Begin;

(6) Time Begin

(7) Final Acceptance;

(8) Warranty Begin;

(9) Material Certification;

(10) Offer of Final Payment;

(11) Receipt of Offer of Final Payment;

(12) Passed to Comptroller; and

(13) Paid Off

To ensure that data about the Final Acceptance is properly transmitted, a paper copy of the Final Acceptance letter should be sent to the FHWA Transportation Engineer (full oversight federal aid projects only) and the proper maintaining authority. The exact date of Final Acceptance should be noted.

District Level Responsibilities

The District Construction Engineer, or delegate, shall ensure the dates associated with each condition are entered in SiteManager as the condition occurs but no later than fourteen (14) days after the condition occurs.

Chapter 13

PERFORMANCE RATINGS

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Section 13.1

CONTRACTOR'S PAST PERFORMANCE RATING

13.1.1 Purpose

To set forth an internal procedure for preparing and processing a ***Contractor's Past Performance Report (CPPR)*** and for establishing a ***Final Rating Score*** for the performance demonstrated by the Prime Contractor on construction contracts including Design-Build contracts.

13.1.2 Authority

Section 337.14(1) and 337.16(2)(c), Florida Statutes (F. S.)

Rule 14-22.003, 14-22.012 and 14.0141, Florida Administrative Code (F.A.C.)

13.1.3 General

The Fla. Department of Transportation (Department) considers Contractor performance on construction contracts when qualifying or re-qualifying a firm. Specifically, the final scores established by the ***Contractor's Past Performance Report*** for performance demonstrated in completing Department contracts are used in the standard rule formula (***Rule 14-22, F.A.C.***) to determine a firm's ***Maximum Capacity Rating*** (The aggregate dollar volume of uncompleted work a firm is allowed by the Department to have under contract at one time regardless of with whom contracted) and in establishing a firms Surety Capacity, the ***Maximum Capacity Rating*** attainable through the use of a ***Surety Commitment Letter***.

The ***Contractor's Past Performance Report*** is used to evaluate the construction performance demonstrated by the Prime Contractor on construction contracts.

The ***Contractor's Past Performance Report*** must be originated no later than forty-five (45) calendar days after the date of final acceptance of the work by the engineer.

The ***Contractor's Past Performance Report*** shall be completed even if there are pending Claims or Time Extension Requests. The ***Contractor's Past Performance Report*** can be revised pending the outcome of the Claim/Time Extension Requests.

13.1.4 Definitions

For the purpose of this procedure all references to the Project Administrator, the Resident Engineer or the Project/Program Manager who oversees Consultant C.E.I.'s shall be either Department or Consultant personnel, whichever is applicable.

13.1.5 Preconstruction Conference

(A) Resident Level Responsibilities

The Project Administrator shall provide the Contractor a copy of the ***Contractor's Past Performance Report*** criteria at the Pre-construction Conference and explain that the Contractor's demonstrated performance in completing the contract work will be rated using these criteria.

13.1.6 Interim Performance Ratings

Interim Performance Ratings that reflect construction performance demonstrated by the Contractor to date at the fiscal midpoint for contracts exceeding ten (10) million dollars or annually for contracts two (2) years or greater in duration.

(A) Resident Level Responsibilities

Interim Performance Ratings shall be originated and signed by the Project Administrator. ***Interim Performance Ratings*** may be completed at the discretion of the Project Administrator at any time (milestones, phase change, etc.) on any project regardless of size or duration. The original copy of these reports shall be furnished to the Contractor and a copy shall be retained in the contract file.

13.1.7 Rating the Contractor on construction projects

Contractor's Past Performance Report, ***Form No. 700-010-25****,* contains the following sections:

1. Pursuit of the Work
2. Proper MOT and Minimize Impacts to Traveling Public
3. Timely and Complete Submittal of Documents
4. Timely Completion of Project

5. Coordination/Cooperation with CEI Personnel, Property Owners and Utilities Company
6. Mitigate Cost and Time Overruns
7. Environmental Compliance
8. Conformance With Contract Documents
9. DBE Utilization.

Rating the Contractor's demonstrated performance shall begin at the time the contract has been awarded to the Contractor and continue throughout the duration of the contract. The Project Administrator should use those personnel who actively participated in the inspection of the work and/or the administration of the contract to assist in rating the Contractor's performance.

13.1.7.1 Preparing the Report

(A) Resident Level Responsibilities

(1) The Project Administrator shall provide a copy of the ***Contractor's Past Performance Report*** at the Pre-construction Conference and explain the criteria for which the performance of the Contractor will be evaluated on. The following are some of the criteria that need to be discussed at the Pre-construction Conference.

(A) Where percentages are used, the standard rules of rounding are to apply to calculate the nearest whole number.

(B) Documentation (or document) unless otherwise noted is defined as ***Daily Report of Construction***, ***Form No. 700-010-13***, Stop Work Orders, Speed memos, or other such notes or communication in the project files or to the Contractor from the Project Administrator/Project Manager or other Department staff or representatives. Proper documentation on a daily basis is essential in providing an accurate, well-established grade. For contracts let before September 29, 2010, ~~U~~use the State Construction Office CPPR Excel spreadsheet for tracking Contractor's Past Performance, available for download at http://www.dot.state.fl.us/construction/download/downloadPage.shtm. For contracts let after September 29, 2010, use of the Department's Contract Information & Monitoring (CIM) application is mandatory on all construction projects and is found at web application http://webapp01.dot.state.fl.us/ContractInformationMonitoring/SearchCriteria.aspx

(C) Communication will be the key for both the Contractor and the Project Administrator/Project Manager. This will require both sides to deal with the issues of the contract. The performance of the work can be discussed with the Contractor on a periodic basis or at a minimum, on a monthly basis; this can be done by reviewing the Department's ***Daily Report of Construction*** (daily diaries) as well as discussing Contractor performance at the weekly progress meetings.

(D) The Prime Contractor is responsible for the performance of all subcontractor's and suppliers, which includes the quality of the workmanship, material and timeliness completion of the work.

(E) For Performance categories # 4, 7 and 9 bonus points are available for the Contractor. For category #4, there are four (4) bonus points available for the Contractor if he/she finished the project within the original contract time (no adjustments for weather). Category #7 has two (2) bonus points available, these points are only available on projects with 300 or more days of allowable contract time, the 2 points will be given if the Contractor did not receive any deficiency letters in this category. Category #9 ~~has~~ for contracts let before May 15, 2006, has two (2) bonus points available and for contracts let beginning May 15, 2006, four (4) bonus points are available if the Contractor has achieved or exceeded the DBE availability percentage shown in the bid proposal. If no DBE availability percentage is shown in the bid proposal, the Contractor will receive the bonus points for achieving 8% or more DBE utilization. In order for the Contractor to get the credit for DBE utilization, the Contractor must put this information in the Department's Equal Opportunity Reporting tracking system.

(2) ***Warning Deficiency Letter (WDL):*** The Project Administrator will issue the ***WDL*** letter (Refer to the ***Guidance Documents*** for this section), under normal circumstances, to notify the Contractor of shortcomings/non-compliances with the contract. Prior to issuing a ***WDL***, the Project Administrator should discuss the performance concerns with the Resident Engineer. A single ***WDL*** can be used to address concerns in more than one performance category. However, blatant violations or non-compliances may result in a ***Deficiency Letter*** being issued without a warning. The ***WDL*** may be sent certified mail or delivered to the Project Superintendent with the Project Superintendent signing to acknowledge receiving the ***WDL***.

(3) ***Deficiency Letter (DL):*** The Resident Engineer will issue a ***DL*** to the Contractor for the sole purpose of addressing continual performance concerns and issues that were previously documented by a ***WDL*** or blatant violations or non-compliances. A single ***DL*** can be used to address concerns in more than one performance category. The ***DL*** shall be sent **via certified mail, return receipt requested** (or using other similar services) or delivered to the Project Superintendent with the Project Superintendent signing to acknowledge receiving the ***DL***, giving the Contractor ten (10) days from the date receipt of this letter to appeal. This appeal shall be in writing to the Resident Engineer requesting a meeting with the DCE, if no meeting has been requested or the Contractor fails to attend a requested scheduled meeting, then the ***DL(s)*** shall become final.

(4) For contracts that are over 365 days, a ***Deficiency Letter*** factor will apply to categories that have the ***Deficiency Letter*** as part of the performance. For an example on how to calculate the ***Deficiency Letter*** Factor, see Page 2 of 9 of the ***Contractor's Past Performance Rating.***

(5) If the Contractor has requested a meeting to appeal the issuance of a **Deficiency Letter** at the DCE level, then the Resident Engineer shall inform the Contractor in writing of the date, time and location of the meeting. If the Contractor appeal is successful, then the DCE will issue a letter to the Resident Engineer, (copy the Contractor) rescinding the particular ***Deficiency Letter***.

(6) For those performance categories (categories 1, 4 & 8) that do not include the use of ***Deficiency Letters***, the Contractor will use the appeals process. The Resident Engineer shall inform the Contractor on a monthly basis, giving the Contractor ten (10) days from the date of receipt of this letter to appeal. This appeal shall be in writing to the Resident Engineer requesting a meeting with the DCE, if no meeting has been requested or the Contractor fail to attend a requested scheduled meeting, then this letter(s) shall become final.

(7) The Report shall be originated and signed by the Project Administrator upon final acceptance of the contract work by the Engineer. The original of this report shall be provided to the Resident Engineer for his or her review. All correspondence, ***Performance Deficiency Letters***, ***Contract Records***, Schedules and supporting data used in preparing the ***Report*** shall be identified and filed (as a separate package) for future reference.

(8) The Resident Engineer shall sign the report after the report has been reviewed and

forward it to the Contractor, via **Certified Mail, Next Day Delivery, Return Receipt Requested** (or using other similar services) or hand delivered to the Contractor with the Contractor signing to acknowledge receiving, no later than ten (10) calendar days of final acceptance of the contract work by the Engineer. The Resident Engineer shall include a cover letter with the ***Report*** that explains the following options available to the Contractor and the Department's subsequent actions:

(A) The Resident Engineer shall inform the Contractor if a meeting is desired to appeal the results of the ***Contractor's Past Performance Report*** with the DCE. The meeting request shall be in writing to the Resident Engineer within ten (10) days from the Contractor's receipt of the ***Contractor's Past Performance Report***.

(B) The Resident Engineer shall inform the Contractor that failure to request a meeting within ten (10) calendar days from the Contractor's receipt of the ***Contractor's Past Performance Report***, or failure to attend a requested scheduled meeting, will result in the rating indicated in the ***Contractor's Past Performance Report*** becoming final.

(9) Once the appeal process has been completed the ***Contractor's Past Performance Report*** shall become final. The ***Final CPPR Report*** and spreadsheet shall be scanned into the Department's ***Electronic Document Management System (EDMS)*** and the results sent electronically to the District Construction Engineer, State Construction Office, and a copy sent to the Contractor. For project(s) that are in Site Manager, the Resident Engineer shall put the final grade into the Department's Site Manager Computer System.

(B) District Level Responsibilities

1) In the event that the Contractor has requested a meeting to appeal the issuance of a ***Deficiency Letter*** and the Contractor's appeal is successful, then the DCE will issue a letter to the Resident Engineer with a copy to the Contractor rescinding the particular ***Deficiency Letter***. The DCE's letter should include the reason for rescinding the particular ***Deficiency Letter***.

2) If the Contractor requested a meeting with the DCE to appeal the results of the ***Contractor's Past Performance Report*** and the Contractor's appeal is successful, then the DCE will issue a letter to the Resident Engineer with a copy to the Contractor directing the Resident Engineer to make the necessary changes to the

Contractor's Past Performance. The DCE's letter should include the reason for making such changes.

GUIDANCE DOCUMENT 13-1-A
(SAMPLE LETTER)

(Date)

Contractor Superintendent
Name and Address

Financial Project ID: 123456-1-52-01
FAP No.: 1234-000-C
Contract No.: 12345
County: Leon

RE: Performance Deficiency Warning Letter

This is to advise you that a performance deficiency warning is hereby issued on the above referenced project on:

Performance Category Number 2, Proper MOT and Minimize Impacts to Traveling Public, of the Contractor's Past Performance Rating**.**

The performance deficiency warning hereby issued is as follows:

The project superintendent (**NAME**) has been advised on several occasions (see Daily Report of Construction dated (**DATE**), (**DATE**), (**DATE**) of MOT warning devices (barricades) that have been repeatedly moved out of the way of the paving operations and are not placed back to the proper location to protect the traveling public and workers.

This performance deficiency warning is to let you know that your company is out of compliance on the above Performance Category(s). If your company continues to work out of compliance, a Performance Deficiency Letter will be issued and your Contractor's Past Performance Rating will be adversely impacted. Your company needs to make all necessary corrections to ensure that all work is being performed in accordance with the contract.

Sincerely,

Project Administrator Name
Engineer Title

Received by: Date:
Refused Date:

cc: Resident Engineer
District Construction Engineer
Corporate Office

GUIDANCE DOCUMENT 13-1-B
(SAMPLE LETTER)

(Date)

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Contractor Superintendent
Name and Address

Financial Project ID: 123456-1-52-01
FAP No.: 1234-000-C
Contract No.: 12345
County: Leon

RE: Performance Deficiency Letter

This is to advise you that a performance deficiency is hereby issued on the above referenced project on:

Performance Category Number 2, Proper MOT and Minimize Impacts to Traveling Public, of the Contractor's Past Performance Rating criteria.

The deficiency that has been issued is as follows:

The project superintendent (**NAME**) has been advised on several occasions (see Daily Report of Construction dated (**DATE**), (**DATE**) and (**DATE**) and you were issued a Deficiency Warning Letter on (**DATE**). Additional MOT performance concerns have been documented on (**DATE**), which have warranted this deficiency letter.

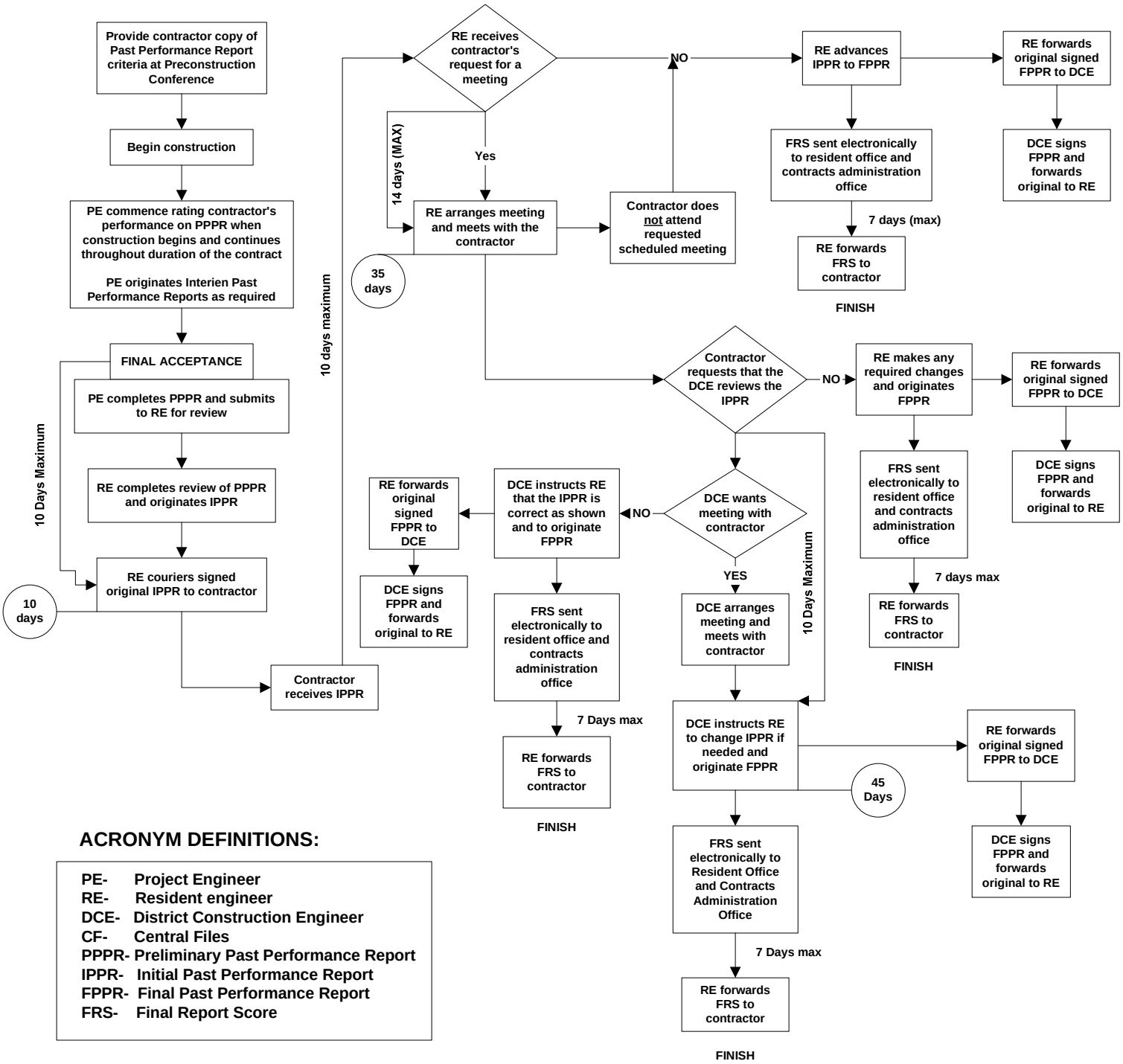
This is to advise you that this Performance Deficiency has impacted your final grade on your Contractor's Past Performance Rating. If you wish to contest the Department's action in issuing this Performance Deficiency, you may request a meeting with me within ten (10) days of receipt of this Performance Deficiency Letter. Additional performance problems may result in additional deficiency letter as well.

Sincerely,

Resident Engineer (Name)
Engineer Title

cc: Project Administrator
District Construction Engineer
Corporate Office

Attachment 13-1
FLOW CHART
CONTRACTOR'S PAST PERFORMANCE REPORT
(For Contracts Let Prior to May 2001)



ACRONYM DEFINITIONS:

PE- Project Engineer
RE- Resident engineer
DCE- District Construction Engineer
CF- Central Files
PPPR- Preliminary Past Performance Report
IPPR- Initial Past Performance Report
FPPR- Final Past Performance Report
FRS- Final Report Score

Section 13.2

CONSTRUCTABILITY GRADES

13.2.1 Purpose

To establish a uniform procedure for Construction Project Managers (CPM) to evaluate the quality of the design for a completed project.

13.2.2 Authority

Sections 20.23(3)(a), Florida Statutes (F.S.)

Section 334.048(3), Florida Statutes (F.S.)

13.2.3 Reference

Procedure No. 375-030-007, Professional Services Consultant Work Performance Evaluation

Procedure No. 625-020-010, Design-Build Procurement and Administration

13.2.4 Constructability Grades

13.2.4.1 Resident Level Responsibilities

The CPM shall assign a Constructability Grade within 20 calendar days after final acceptance of the construction project.

For projects designed by Consultants, the CPM shall follow ***Professional Services Consultant Work Performance Evaluation, Procedure No. 375-030-007***, to complete the ***Constructability Evaluation, Form No. 375-030-08Z,*** and use the ***Professional Services Information System (PSIS)*** using the ***Project Managers Grades System (PMGS)*** to record the constructability grade.

For in-house designs, the CPM shall complete the ***Constructability Evaluation, Form No. 375-030-08Z,*** sign it, and then send it to the Design Project Manager (DPM). The DPM shall coordinate with the Department's Engineer of Record (EOR) to review the results of

the constructability evaluation. After the DPM signs the form, the DPM shall send it to the District Design Engineer for concurrence and filing.

For Design Build Projects, the CPM shall conduct performance evaluations of the Design Professional in accordance with ***Procedure No. 375-030-007, Professional Services Consultant Work Performance Evaluation*** and ***Procedure No. 625-020-010, Design-Build Procurement and Administration***. Only the evaluation areas of Quality and Constructability (Post-Construction) are to be evaluated. This evaluation is to be performed after Final Acceptance of the project. The DPM should be consulted when completing this evaluation. ***Design –Build Performance Evaluation, Form No. 700-011-30*** ***(version A-H, as appropriate)*** should be completed. Final evaluations shall be submitted to the District Design Engineer and the Alternative Contracting Specialist in the State Construction Office.

Section 13.3

CONTRACTOR SURVEY

13.3.1 Purpose

The purpose of this procedure is to ascertain from the Contractor the quality of the plans, specifications, and administration of the Contract.

13.3.2 Process

Resident Level Responsibilities

The Project Engineer will mail a copy of the Contractor Survey, available on the Office of Construction website, to the Contractor along with the Final Acceptance Letter. The letter provides instructions on filling out the survey and where to return it. A sample letter and the survey are available at the hyperlink below.
http://www.dot.state.fl.us/construction/download/ContractorLetterwithSurvey.pdf

13.3.3 Analysis

District Level Responsibilities

The District Construction Engineer (DCE) will use the information provided in the completed survey to evaluate the operations of the District Construction and Resident Construction Office. Based on the analysis of the surveys, the DCE may re-allocate resources to various tasks, identify the need for individual direction, identify needed training, and identify areas where new skills need to be developed.

The DCE should share the survey results with the District Director of Production to identify areas where there could be improvement made in the plans development process.