

CHAPTER 11 ALTERNATIVE CONTRACTS

11.1 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.

11.2 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.

11.3 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

Sections 337.11(7), 337.11(4) and 337.18(4) Florida Statutes (F.S.)

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

11.4 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

11.8.8 Shop Drawings

An approved set of shop drawings if applicable will be required. Scanning the shop drawing will be in accordance with CDMS requirements.

11.8.9 Final Signed and Sealed “As-Built” Plans

As the project progresses, the Design Build CEI Firm shall update the final signed and sealed “**As-Built**” Plans. The procedures set forth in **Chapter 4, 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.
(depend 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.

11.9 LUMP SUM CONTRACTS

11.9.1 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 changes from the Plans and Extra and Unforeseen Work are involved, the Contractor along with the Department must negotiate and resolved those issues using Supplemental Agreements (SA) or Work Orders.

11.9.2 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://cosharepoint.dot.state.fl.us/sites/BSSO/information/projects/EDMS/default.aspx>

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>

11.9.3 Invoices and Payment

The Contractor will prepare and certify a monthly progress invoice 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 monthly progress invoice 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 make approximate monthly/progress invoice payments, and the Department will correct all partial estimates and payments in the subsequent estimates and in the final estimate and payment.

The PA will not process any estimate for pay until the Contractor monthly progress invoice is received and approved with the required certification of payment to subcontractors included.

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 Certification Initial Retro Reflectivity reading requirements see **Section 6.4.2** in **Chapter 6** of the **Preparation and Documentation Manual**.

11.9.4 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 invoice. The PA will review the gallons generated on the spreadsheet and the Contractor invoice(s) for comparison.

Documentations for these adjustments shall be submitted with each monthly progress invoice and included in the Final Estimate Submittal Package.

Once the PA has approved the progress invoice, 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/Progress 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 11-1 thru 11-3 for deficiency area evaluation for an example of a multi layer deficiency and Figure 11-4 for a single layer deficiency).

Deficiency Adjustment

Table 9-1

Item Description	Unit	Unit Prices
Optional Base/Superpave	SY	\$8.78
Superpave (Traffic level B)	Ton	\$48.62
Superpave I(Traffic 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.

<p>Item (Superpave SP 12.5) Traffic Level B</p> <p>Original Quantity = 323.3 Tons</p> <p>Final = 300.0 Tons</p> <p>Plan Area = 19,690 SY</p> <p>Final Area = 20,000 SY</p> <p>Plan Spread Rate = 33 Lbs/SY</p> <p>Actual Spread Rate = 30.00 Lbs/SY</p> <p>Final Pay Limited to 105%</p> <p>36 Lbs/SY X 1.05 = 37.80 Lbs/SY</p> <p>323.3 – 300 = – 23.3 Tons (This will be a negative, since the material is less than the Target Spread Rate.</p>	<p>Plan Thickness = 0.33"</p> <p>Design Mix No.: XXXXXX</p> <p>$G_{mm} = 2.521$</p> <p>$2.521 \times 43.3 \times 0.33 = 36.02 \text{ Lbs/SY}$</p> <p>Target = 36 Lbs/SY</p> <p>Based on this Design Mix, the Target Spread Rate is 36 Lbs/SY</p>
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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.

$30 \div 36 = 0.8333 = 0.83$ (0.83 will be multiplied by the unit price listed in table 9-2)
 $\$ 48.62 \times 0.83 = \$ 40.35$ (the adjusted unit price)

$23.3 \times \$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	Plan Thickness = 1.77"
Original Quantity = 749.3 Tons	Design Mix No.: XXXXXX
Final = 805.5 Tons	$G_{mm} = 2.521$
Plan Area = 8,482 SY	$2.521 \times 43.3 \times 1.77 = 193.21 \text{ Lbs/SY}$
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%

$193 \text{ Lbs/SY} \times 1.05 = 202.65 \text{ Lbs/SY}$

$805.5 \text{ Tons} - 749.3 \text{ Tons} = + 56.2 \text{ Tons}$ (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.

$194.09 \div 193 = 1.0056 = 1.01$ (1.01 will be multiplied by the unit price listed in table 9-2)

$\$48.62 \times 1.01 = \49.11 (the adjusted unit price)

$56.2 \times \$49.11 = \$2,759.98$ (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	Plan Thickness = 0.44"
Original Quantity = 160.60 Tons	Design Mix No.: XXXXXX
Final = 193.50	$G_{mm} = 2.521$
Plan Area = 7,300 SY	$2.521 \times 43.3 \times 0.44 = 48.03$
Final Area = 7,400 SY	Lbs/SY
Plan Spread Rate = 44 Lbs/SY	Target = 48 Lbs/SY
Actual Spread rate = 52.30 Lbs/SY	Based on this Design Mix, the
	Target Spread Rate is 48 Lbs/SY

Final pay limited to 105%

$48 \text{ Lbs/SY} \times 1.05 = 50.40 \text{ Lbs/SY}$

$(7,400 \text{ SY} \times 50.40 \text{ Lbs/SY}) = 186.48 = 186.5 \text{ Tons Maximum pay}$

2000 Lbs/Ton

$$186.5.0 - 160.60 = + 25.9 \text{ Tons}$$

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.

$52.30 \div 48 = 1.0896 = 1.09$ (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)

$\$ 48.62 \times 1.05 = \$ 51.05$ (the adjusted unit price)

$25.9 \times \$ 51.05 = \$ 1,322.20$ (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
Superpave (Traffic Level B)	Ton	\$48.62
Superpave (Traffic level C)	Ton	\$52.99
Friction Course (FC 6)	Ton	\$56.79

Example: #4