Chapter 22

Lump Sum Project Guidelines

22.1 General 22-1

22.2 Project Selection 22-2

22.3 Plans Preparation 22-4

22.4 Preliminary Estimate 22-5

22.5 Specifications 22-6

22.6 Contracts Administration 22-7

22.7 Construction Contract Administration 22-7

22.8 Materials Sampling and Testing 22-8

Exhibits

Exhibit 22-A Items of Work 22-9

THIS PAGE LEFT BLANK INTENTIONALLY

Chapter 22

Lump Sum Project Guidelines

22.1 General

The purpose of Lump Sum projects is to reduce the costs of design and contract administration associated with quantity calculation, verification and measurement. This contracting technique requires the Contractor to submit a lump sum price to complete a project as opposed to bidding on individual pay items with quantities provided. The Contractor will be provided a set of bid documents (plans, specifications, etc.) and will develop a Lump Sum bid for all work specified in the contract drawings.

The decision to use the Lump Sum Contracting Technique on a project should be made by the District Design Engineer in consultation with the District Construction Engineer. Lump Sum Projects should be identified during the scope development process, rather than during or after the design process. Conversion of partially complete plans and completed "plans on the shelf" that were originally developed as conventional bid item type projects to the Lump Sum Technique may require significant rework and is generally not recommended.

The contingency pay item is recommended on a Lump Sum project. This tool is used to compensate the Contractor for any additional work requested, which is not covered in the contract documents. District Construction should be consulted for the contingency amount.

A 60-day advertisement is required to allow Contractors enough time to develop quantities. The decision to have a pre-bid conference will be determined through consultation with District Construction.

22.2 Project Selection

Lump Sum contracting should be used on simple projects. "Simple" is defined by the work activity, not by the project cost. "Simple" projects are:

1. Projects with a well-defined scope for all parties (Design and Construction)
2. Projects with low risk of unforeseen conditions (i.e., projects that do not involve such things as significant underground utilities, earthwork variations, underground drainage pipes, bricks under pavement in urban areas, etc.)
3. Projects with low possibility for change during all phases of work – Design and Construction (i.e., limited possibilities for added driveways, median modifications due to developments, changes due to political involvement, etc.)

Examples of projects that may be good Lump Sum contracting candidates:

1. Bridge painting
2. Bridge projects
3. Fencing
4. Guardrail
5. Intersection improvements (with known utilities)
6. Landscaping
7. Lighting
8. Mill/Resurface (without complex overbuild requirements)
9. Minor road widening
10. Sidewalks
11. Signing
12. Signalization

Examples of projects that may not be good Lump Sum contracting candidates are listed below. Use of Lump Sum contracting on these type projects requires written approval by the State Roadway Design Engineer:

1. Urban construction/reconstruction
2. Rehabilitation of movable bridges
3. Projects with subsoil earthwork
4. Concrete pavement rehabilitation projects
5. Major bridge rehabilitation/repair projects where there are many unknown quantities.

22.3 Plans Preparation

Plan content should conform to the requirements of ***Volume II,*** subject to the guidance provided herein. Designers should detail plans, either by detailed drawings or plan notes, to clearly describe the work to be performed by the contractor. Special care should be used to insure pay item notes and other notes and requirements such as "as directed by the Engineer" are deleted or replaced with specific direction and details that can be properly bid on by the Contractor. Following are some of the desired elements in a set of Lump Sum plans:

1. Typical Sections.
2. Milling details and Resurfacing details to show any cross slope corrections.
3. Summary Boxes to define work when work is not shown on the plan sheets (i.e., Summary of Side Drain and Mitered Ends, Summary of Guardrail/Removal, Summary of Mailbox replacement, etc.) The standard summary boxes contained in the FDOT CADD Cell Library should be used. Note -- Summary boxes should not have totals shown at the bottom of each box. Summary boxes are not required when plan details sufficiently describe the work, however for bridge projects, concrete and reinforcing steel quantities for individual bridge components are required to be shown in quantity blocks in the plans.
4. Plan sheets to accurately depict existing conditions and detail all work to be performed by contractor. (i.e., show all limits of milling and resurfacing, pipe installations, limits of sod when different from typical section, all concrete work, guardrail removal/installation, etc.).
5. Details of work not covered by typical section or the ***Design Standards*** (i.e., curb and gutter installation, traffic separator limits, special curb ramps, modifications to storm inlets, etc.).
6. Cross sections when shoulder point is moved. When cross sections are provided, earthwork columns and earthwork summaries and totals should be left blank since earthwork quantities are not to be shown in the plans.
7. Anticipated pile tip/drilled shaft elevations on bridge projects. Note: This is the predicted elevation to achieve axial capacity and satisfy all other design requirements and is usually deeper than the minimum tip elevation shown for piles.

No computation book is prepared.

Signing and Pavement Marking, Lighting, and Signalization plan sheets shall continue to contain pay item numbers to be used for reference purposes only. Conduit lengths on conduit pay items should not be shown. A note should be placed on each sheet that states, "Pay item numbers are provided only for the purpose of describing the work to be performed. Pay item descriptions are found in the Department's ***Basis of Estimates Handbook***." Signing and Pavement Marking, Lighting, and Signalization plans should NOT have any Tabulation of Quantities sheets included in the contract plans. For projects that include new asphalt surfaces, a note should be placed in the Signing and Pavement Marking Plans that states, "All pavement markings shall be paint unless otherwise noted in the plans."

22.4 Preliminary Estimate

If there is only one project in the contract, the designer will code in the pay item for Lump Sum (Alternative Bidding) (999-2) and the Initial Contingency Amount (Do Not Bid) Pay item (999-25). If there is more than one project in a single contract (strung projects), the designer will code both pay items on each project.

The designer shall provide data to the District Estimates Office to be used in the estimate process. The data necessary for preparing the preliminary estimate may differ with project type and complexity. Preliminary estimates for Lump Sum projects may be determined in a number of ways: data from the designer, historic data, long-range estimate (LRE), and by reviewing data from similar, current projects. The intent of Lump Sum Contracting is not to shift the responsibilities or work involved in estimating quantities from the designer to the District Estimates Office. The cooperative effort of the designer in providing data in an electronic spreadsheet or other means acceptable to the District Estimates Office will be helpful in improving the Lump Sum Preliminary Estimate Process. Contact the appropriate District for specific requirements.

22.5 Specifications

The Design Project Manager will provide an “Items of Work” checklist to the District Specifications Office. The Specifications Office will include the work items identified on the checklist in the “Intent and Scope” in the Specifications Package. The checklist shall include, as a minimum, the major work items shown in the sample included with these guidelines.

Lump Sum Projects require Special Provisions that modify the first nine articles of the Standard Specifications. These Special Provisions are in the Specifications Workbook and must be included as part of the Specifications package.

Article 9-2 of the Special Provisions for Lump Sum Projects shall be completed with predetermined unit prices for asphalt materials, concrete, and base when applicable. These unit prices will serve as a basis for calculating pay reductions for deficiencies accepted by the Engineer. In the case of asphalt overbuild, the predetermined unit price for the material used for overbuild will serve as a basis for pay adjustments for thicknesses that differ from the thickness shown in the plans. All predetermined unit prices should be based on an analysis of similar type projects let in the District and/or the District wide average of projects let within the six months prior to the letting date of the project.

For projects including bridges, Article 9-2 of the Special Provisions for Lump Sum Projects shall be completed with predetermined unit prices for piling and/or drilled shafts as applicable. These unit prices will serve as a basis for pay adjustments for the actual quantities installed as additions or deletions from the individual element lengths shown in the plans. All predetermined unit prices should be based on an analysis of similar type projects let in the District and/or the District wide average of projects let within the six months prior to the letting date of the project.

22.6 Contracts Administration

Contracts Administration shall include the information provided in the Specifications Package “Intent and Scope” in the job advertisement. This information can be used by the contractors/subcontractors to determine what type of work is contained in the project, in lieu of a list of pay items.

22.7 Construction Contract Administration

Monthly payments will be made based on a payout schedule mutually agreed upon by the Department and the Contractor. The payout schedule will include only major tasks similar to what has been used on design-build projects.

Lump Sum contracts are not fixed price. Changed conditions, extra work and unforeseen work must be negotiated and resolved with the Contractor utilizing Supplemental Agreements and/or Work Orders on Contingency Supplemental Agreements.

Construction inspection personnel should not be required to document quantities except for asphalt and other items subject to pay adjustments (items with predetermined unit prices). Measurement and completion of “Final” quantity for summary boxes on plan sheets is not required. Focus should be on inspection and achieving a quality final product. For example, the project engineer will not be concerned with how many square yards of sod it takes or the number of miles of final striping. The project engineer will be charged with ensuring that the sod, striping, embankment, pipe, etc., meets the lines and grades of the plans and specifications.

22.8 Materials Sampling and Testing

The Laboratory Information Management System (LIMS), relies on the pay items identified in TRNS*PORT to generate a Job Guide Schedule based on the ***Sampling, Testing and Reporting Guide (STRG)***. On Lump Sum projects, since there is no detailed pay item list to identify the various types of work, LIMS will output a generic Job Guide Schedule. Some materials will not actually be used depending on the project scope. Personnel should use the Job Guide Schedule entries applicable to their project and input sample data and field test results into LIMS system in accordance with standard procedures. Materials not included on the Job Guide Schedule will be accepted in accordance with ***Section 6 of the FDOT Specifications*** and/or other pertinent contract documents.

Exhibit 22-A Items of Work

DATE: _____

TO: _____, District Specifications

FROM: _____, Project Manager

COPIES TO:

SUBJECT: ITEMS OF WORK

Financial Project ID: _____ (GOES WITH _____)

County Section: _____

Description: _____

The plans package for the above referenced project has the following items of work to be performed:

_____	Milling & Resurfacing	_____	Highway Signing
_____	Base Work	_____	Guardrail
_____	Shoulder Treatment	_____	Landscaping
_____	Drainage Improvements	_____	Box or Three-sided Culverts
_____	Curb & Gutters	_____	Bridges
_____	Traffic Signals	_____	MSE Walls
_____	Lighting	_____	Sidewalks/Bicycle Path
_____	Other (Please Specify) _____		

_____

_____

_____

_____

Please include these items of work in the *Intent and Scope* so they may be added to the advertisement description.

THIS PAGE LEFT BLANK INTENTIONALLY