

CHAPTER 2 FINAL ESTIMATES PRE-PLANNING

2.1 PURPOSE

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

2.2 GENERAL INFORMATION

Information contained in this chapter presents pre-planning procedures to be used statewide by construction, CEI offices 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).

2.3 CONSTRUCTION FIELD OPERATIONS

The Project Engineer Administrator (PEPA) and/or designee 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 rules shall be observed:

2.3.1 Always check to ensure there is a computation book for each project before construction begins. Computation Books are not required on Design Build and Lump Sum Projects.

2.3.2 Final Measured Concept Items (~~Subarticle-Section 9-1.3.1 in the Standard Specifications~~) - After a contract item appears for payment on the Department's monthly or progress estimate, that quantity along with supporting measurements and computations are required to be complete and in the PE's-PA's office ready for review. The following requirements are:

- (A) **Site Source Records, Daily Log Sheets, Tabulation Forms, etc.**, will be in the PE's-PA's office to support monthly payments made.

1 (B) **Field Books** will be available in the PE'sPA's office to support monthly
2 payments made. (A copy can be left in the PE'sPA's office to show
3 documentation of monthly payment.) Original measurements are to be
4 turned in when they are completed. Use appropriate field books for
5 recording data such as Standard Bound Field Book for survey and Non-
6 Standard Field Books to record other field measured items.

7 (C) Final "As-Built" Plans will be updated as work progresses and in the
8 PE'sPA's office to support monthly payments made.

9 (D) Computer output forms, automatic printer tickets, etc., shall be made
10 available in the PE'sPA's office to support monthly payments made.

11 **NOTE:** If monthly payments are based on estimated quantities/contractor's
12 invoice, it will be so noted on the weekly workbook or other methods of
13 tracking and made available to support monthly payments.

2.3.3 Plan Quantity Concept Items (~~Subarticle~~ Section 9-3.2 in the **Standard Specifications**).

14 (A.) The computation sheet in the computation book or matrix in the plans shall
15 show the location, quantity and traverse/chain name.

16 (B.) A location sketch that identifies the area, the quantity, and the reference
17 baseline/centerline name. **(Note: labeling of the chain points and curves**
18 **and computer outputs, are not required to be placed in the computation**
19 **book. The Designer must keep all supporting information in his/her**
20 **files until the project is paid off.)**

21 The location sketch that identifies the area, the quantity, and the reference
22 baseline/centerline name must be contained in the CADD files submitted to the
23 Department. The naming convention for these files should be in accordance with
24 the Department's "**CADD production Criteria Handbook**" **Chapter 4.**

25 **2.3.4** If substantial errors in the plan quantity items are detected by construction
26 personnel the contractor shall be advised of these errors in writing (copying the
27 DFEO) at the preconstruction conference or when the errors are detected. If a
28 question arises during the construction of a project involving quantities for one or
29 more of the plan quantity items, then address and correct the quantities in the
30 following manner:

31 (A.) **Quantity Errors of Minor nature:** An example of this would be if the
32 Designer left out 1000 LF of curb and gutter and showed 100 LF. A simple

1 correction here would suffice.

2 (B.) **Quantity Errors of Major Nature:** An example of this would be if the
3 Designer left out the southwest quadrant of an intersection. Errors of a major
4 nature are to be resolved by the Designer of record. Construction will
5 request in writing, that the Designer provide detailed documentation or verify
6 the concern for the plan quantity item(s) in question.

7 Design must produce the backup documentation within 5 working days of the
8 request from construction.

9 **2.3.5** Any question on pay item interpretation, adjustment, extra work, etc., for any item
10 shall be resolved with the ~~DFEE~~ District Final Estimates Manager (DFEM) as it
11 occurs. Do not wait until the end of project.

12 **2.3.6** Final "As-Built" Plans, payment records (i.e. tabulation forms, field books, etc.) and
13 required documents (i.e. SA's, monthly payment certifications, etc.) shall be kept
14 current as the contract progresses.

15 **2.3.7** Final measured items shall be reviewed to make a determination of which type of
16 measurements, sketches, and/or calculations are necessary to document final
17 payment.

18 **2.3.8** Removal items (ie., existing pavement (if a separate pay item), guardrail, pavement
19 markings, etc.) shall be pre-measured and recorded before that item is removed.

20 **2.3.9** Decisions regarding earthwork items cross sections shall be made before clearing
21 and grubbing work has started. If cross sections are waived then the waiver forms
22 shall be submitted.

23 **2.3.10** A computation book sheet is required and/or plan matrix for each contract item is
24 required on projects other than Design Build and Lump Sum.

25 **Note:** Only final measured pay items should be final measured. Plan quantity items are not
26 final measured. Only field changes and Plan errors are measured/documentd in
27 the field book.