

8/31/2004 CHAPTER 6 **FIELD RECORDS**

6.1 PURPOSE

This procedure reiterates the prescribed methods of maintaining the various field records, which the Department is required to procure in order 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.

6.2 FIELD BOOKS

Field Book notes are site source documents. Many times these records will be referred to by persons with little field experience or engineering background. It is important when preparing records of this type to assume that all persons who will use your notes have no familiarity at all with the work you are recording.

Field Books are extremely important as site source records for establishing pay quantities. They may be required as evidence in any arbitration or lawsuit. They should be tracked carefully to avoid loss and provide a measure of accountability for those project personnel to whom they are issued. One method for accomplishing this objective is the use of the **Field Book Log, Form No. 700-060-60**. ([See Figure No. 6-1](#)) The Project Engineer-Project Administrator(Administrator (PEPA)) keeps this form in the project office, preferably in the cabinet with the field books. Whenever a field book is issued the PE Project Administrator PA/Project Manager (PM) will record the book number, date, and name of the individual the book is issued to. The individual will then initial the log. In this way, the project personnel who are issued field books will be made aware of its importance.

6.2.1 General Instruction

- (A) Only standard bound field books will be used.
- (B) The front cover of each field book shall be identified with bold letters to show the Federal Aid Project Number, Financial Project ID Number, Contract Number, Field Book Number, State Road Number, and the general contents of that book. The field book numbers, and the Financial Project ID Number, shall be shown on the back binding (spine) of each field book ([See Figure No. 6-2](#))
- (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 right hand page.

- 1 (D) The date, weather conditions, and the name(s) of the field party shall be shown
2 on the field book page at the beginning of each day's notes. Well-documented
3 field records are indispensable when the Department is involved in litigation.
4 Field Books should also identify pay item number, original/final x-sections etc.
- 5 (E) Never erase in any field book. Corrections shall be made by striking through the
6 incorrect data and inserting the correct data close to it. All such corrections
7 shall be initialed and dated by the person making the correction.
- 8 | (F) Do not cut or otherwise ~~remove pages~~remove pages from any field book. If an
9 entire page is found in error, mark the original page **VOID** and show a note
10 referring to the page where that item of work was corrected.
- 11 (G) Keeping notes on loose-leaf or scratch pads and transferring them to the field
12 books is prohibited. Field notes shall be entered directly into the field books at
13 the time and the place the work is originally done. The exception to this rule is
14 measurements entered directly on Latitude and Departure sheets or directly on
15 the Final Computation Book Forms. In all cases, erasures as detailed in (E)
16 above, is prohibited.
- 17 (H) Field records shall always be legible with sufficient sketches and explanatory
18 notes to convey the intent to a person who is not familiar with the job. Good
19 sketches are most important when recording final measurements. The details of
20 the sketches do not need to be elaborate, but shall be sufficient to clearly show
21 the extent of the work as well as any exceptions.
- 22 (I) Use standard symbols and abbreviations. Keep the notes simple and avoid
23 making ambiguous statements.
- 24 (J) Show all of the pertinent measurements and observations. Use a degree of
25 accuracy that will be consistent with operations. If there is any doubt about the
26 need for data, record it. Review the data for accuracy and completeness before
27 leaving the field.
- 28 (K) When practical, record all the notes for one item in the same book and at the
29 same place in the book. This may necessitate the use of a few more field books,
30 but it will avoid confusion and transposition errors.
- 31 (L) A complete summary shall be made for each item at the end of its field notes.
32 This item summary total will then be checked by those persons doing the final
33 estimate and entered on the summary sheet of the computation book. At this
34 time, the summary and the field books shall be properly cross-referenced.

- 1 (M) Keep the calculations and measurements for Federal Aid participating and non-
2 participating items separated in the field books. This also applies to Joint
3 Participation Agreement items.
- 4 (N) When more than one job (state or federal) is constructed under the same
5 contract, separate field books shall be set up for each job and the measurements
6 and other data shall be kept separate for each Job.
- 7 (O) Field records for projects let under separate contracts shall never be recorded in
8 the same field book. Field books shall contain only records related to a single
9 contract.
- 10 (P) All field Books, ~~which are the~~will become the property of the Department, and
11 shall have a unique six-digit number assigned.
- 12 (Q) Preprinted Pile Field Books for recording individual pile records by bent or pier
13 numbers can be obtained through your District Construction Engineer's Office.
14 (See figure 6-3 and 6- 4)
- 15 (R) Do not cramp notes. Neatness and legibility give credence to the accuracy of
16 field notes and the calculations which they support.
- 17 (S) The alignment field book shall be submitted with the final estimate package. It
18 shall contain all the necessary information for horizontal control for new
19 construction projects and major widening projects.
- 20 (T) Field books used for recording alignment and pile driving data are to be retained
21 until the structure that they were incorporated in is removed. Special care shall
22 be exercised in labeling alignment and piling field books as a permanent record.
23 Separate field books shall be kept for these purposes, with front outside covers
24 labeled with a large red letter "P" and circled in red to indicate a permanent
25 record.

26 | 6.3 TABULATION FORMS ~~S~~ RECORDS

| Tabulation Forms are site source records for establishing pay quantities.

- 27 | 6.3.1 Daily Report of Truck Measured Material Site Source Record, Form These
28 tabulation forms for Daily Report of Truck Measured Material are This Form (No.
29 700-050-54 is used to record truck quantities. This tabulation form shall be summarized
30 in the computation books. When the final quantities are determined by
31 certification/measurements of loose volume in truck bodies, the following procedures

1 used in conjunction with tabulation forms for Report of Truck Measured Material will
2 generally satisfy the requirements for final pay records. ([See Figure No. 6-5](#))

3 | (A) All trucks shall have an assigned unique number, along with the manufacturer's
4 certification or permanent decal showing the truck capacity rounded to the
5 nearest tenth of a cubic yard (cubic meter) and placed on both sides of the truck.
6 This capacity will include the truck body only and any sideboards added will not
7 be included in the certified truck body capacity provided by the contractor.
8 Trucks used on Department projects shall be checked for permanent decals or
9 manufacturer's certification showing the capacity on both side of the truck. The
10 | P.E. PA will randomly check the certified capacity on a selective number of
11 trucks for accuracy and provide this information with the Final Estimate Package.
12 This process could be done by using either case I or II. ([See figure Nos. 6-6 and](#)
13 [6-6a](#)) This will not require the field personnel to climb into the body of the truck.
14 Provided in each example when sideboards are added these measurements will
15 be transposed on these sheets, and then added to the certified capacity.

16 | (B) If sideboards are added it will be the Project Engineer's PA's responsibility to
17 measure this addition and add this volume to the certified capacity. Sketches,
18 calculations, and dimensions of the sideboards will provide the documentation
19 needed to support this change and must accompany the Final Estimate
20 Package. ([See Figure Nos. 6-6 and 6-6a](#))

21 (C) After the trucks have been assigned a number and their capacities
22 | shown, the Tabulation Forms ~~for Report of Truck Measured Material are is~~ used
23 to record the quantity established for each truck as it delivers a load of the
24 material to the project.

25 | (D) The volume entered on a tabulation form for Borrow material shall reflect the
26 struck volume. The use of the struck capacity shall apply to trucks, pans, or any
27 | other means of transport that are used. Documentations on ~~a~~-loose volume
28 bases, as measured in other hauling equipment, shall be made at the point of
29 | dumping on the construction site.

30 | ~~(D)(E)~~ The Project Engineer PA shall request at the preconstruction meeting will that
31 the contractor provide a list of trucks that will be used on D.O.T. projects, along
32 with their assigned numbers and their certified capacity. This list shall be
33 submitted with the Final Estimate Package.

34 | (F) A separate line on the Tabulation form for ~~b~~Borrow will be used for each truck
35 showing:

36 (1) Hauling Company

- 1 (2) Truck Number
- 2 (3) Capacity Certified
- 3 (4) Load ~~Count & Count &~~ Time Recorded
- 4 (5) Total volume for that truck that day
- 5 (6) Inspector's signature and title at the bottom of the page
- 6 (G) Typical materials paid for by volume and recorded on the tabulation form include:
 - 7 (1) Commercial materials for driveway maintenance
 - 8 (2) Borrow material
 - 9 (3) Stabilizing material
 - 10 (4) Cover material

6.3.2 Daily Log Sheet For Grassing Items

11 - ~~Daily Log Sheet Grassing Items Site Source Record~~, ~~The tabulation form for Daily~~
12 ~~Log Sheet Grassing Items are~~ This Form No. 700-050-55 is ~~used~~ issued to record the
13 quantities to be paid for grassing. This tabulation form ~~shall~~ will be used to record
14 grass seed (permanent and quick grow), fertilizer, mulch (hay or straw), and water. This
15 form shall be summarized in the computation books. The following procedures for this form
16 ~~Daily Log Sheet Grassing Items~~ will generally satisfy the requirements for final pay records.
17 (See Figure No. 6-7)

- 20 (A) Show the item number for the material that is being used.
- 21 (B) For grass seed (permanent & quick grow), ~~the Daily Log Sheet for Grassing Items~~
22 ~~shall~~ show the number of bags or the bulk weight. Weight Tickets used should be
23 kept in the project file.
- 24 (C) Records for water measurements need to show beginning and ending meter
25 reading or that the water tank has been certified by the Florida Department of
26 Agriculture. A copy of the certification shall be attached to the tabulation form or
27 placed in the **Computation Book**.

1 (D) Mulch shall be shown as gross tare, and net weights, or it can be shown as an
2 average of ten bales. (Show these weights in the inspector's remarks column.) If the
3 bulk weight is used, place the tickets in the project file.

4 (E) The Department representatives shall sign their name on each day the grassing
5 items are used (no initials).

6 (F) ~~Daily Log Sheet for Grassing Items (See Figure No. 6-8)~~ or fertilizer shall show
7 the type of fertilizer used (See Figure No. 6-8). The amount used for each day's
8 operations shall be shown in a separate column and be recorded as number of
9 bags x weight per bag = total lbs.

10 For example: 27 bags x 100lbs/bag = 2,700 lbs

11 (G) ~~Daily Log Sheet for Grassing Items~~ or grass seed shall show a breakdown for
12 each different kind of grass seed used for each day's operation.

13 6.3.3 Daily Log Sheet Miscellaneous Tabulation Form

14
15 [Daily Log Sheet Miscellaneous Tabulation Form Site Source Record, This Form](#)
16 [No. 700-050-56](#) is used when material is paid for by weight, the field records are also
17 kept by form for each truck load of material hauled. (See Figure No. 6-9) Each line of
18 the Miscellaneous Tabulations Form shall be complete with:

19 (A) Date & item number

20 (B) Gross, tare, & net weight

21 (C) The inspector's signature

22 **Note:** The gross, tare, and net weights are recorded in each column on the
23 tabulation form. However, when box beam scales are used and the net weight is
24 given automatically, the net weight would be the only one required.

25 Other materials paid for by weight and documented by use of the ~~Miscellaneous~~
26 ~~Tabulation Form~~ this form includes shall include:

27 (A) Mulch material

28 (B) Hydrated lime

29 (C) Sand for armor coat

6.3.4 Rip Rap

Miscellaneous Tabulation Forms for riprap shall reflect quantities used and approved in each day's operations, as well as the station, offset, and structure number of the placement location which will be shown in the remarks column. Document the number of cubic yds. (Cubic Meters) of sand and cement per batch and the number of batches per day or for each location. (See Figure No. 6-10) Delivery tickets shall be submitted showing the batch weights of sand and cement used. (See Figure No. 6-11)

Payment for riprap shall not be made solely on the quantity delivered by truck and placed by the contractor. Refer to **Roadway and Traffic Design Standards Index Number 258** for an example. The quantity of riprap for a triple concrete pipe 84" in diameter is 31.1 cu. yds. 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 the Standard Index and placed in a field book. (See Figure Nos. 6-12 and 6-13)

In order to achieve this objective the PE-PA must maintain and exercise control of the riprap placement operation as follows:

If, during the course of riprap placement, the PE-PA feels the contractor is placing the material too thick or beyond required limits, the PA must notify the contractor of this in writing. A hand written speed letter will be acceptable for this purpose. In addition, the inspector shall write the station, offset structure, and the words **Partial Pay** or **NO PAY** on the tabulation form collected for materials which are either partially or completely placed outside the limits authorized by the PEPA.

6.4 Contractor's Certification of Quantity and Maintenance of Traffic (MOT) Forms

6.4.1 ~~Contractors Certified Invoice Sheet and Contractor Certification of Quantities (MOT) (Signs,)~~

Contractor Certification of Quantities (MOT) (Signs, etc) (Form No. 700-050-62) ~~Contractors Certified Invoice MOT Sheet~~, This form is providing for the Contractor to document and certify all 102 pay items. The first two (2) columns will accommodate most of the each day items. The other 2 sets of columns are provided for specific pay items such as Traffic Control Officers, Panels and Advanced Warning Arrows. These items may require the Contractor to monitor on a closer interval due to the minimum requirements. The last column on this form is for Cubic Yards and Linear Feet Items

1 such as (Temporary Guardrail). The daily total is automatically generated. This form
2 shall be signed by the Contractor and Work Site Supervisor, and turned in monthly to
3 the Project Administrator/Manager for payment. The PA will include this certification in
4 with the Final Estimates Package. (See Figure No. 6-14 and 6-15)

5
6 **Contractor Certification of Quantities (MOT) (Signs, etc),**

7
8 **6.4.2 MOT Painted Pavement Markings (Form No. 700-050-67 & 700-050-**
9 **68) Painted Pavement Markings (MOT) Daily Worksheet and Painted**
10 **Pavement Markings (MOT) Contractors Certifications of Quantities**

11
12 These forms are designed to be used by the Contractor for MOT Pavement Markings
13 (all 710 pay items). The Contractor is now responsible to maintain
14 measurements/counts for these items.

15
16 **Painted Pavement Markings (MOT) Daily Worksheet, Form No. 700-050-67 is the**
17 **MOT, Painted Pavement Markings Daily Worksheet Form. The top box on this form is**
18 **used for all 710 pay items, their quantities, their location, and to provide remarks when**
19 **necessary. Under "Other" these items are provided since the Contractor placing the**
20 **striping in most cases placed these 102 items also, this will eliminate filling out two**
21 **different MOT Certification Forms.**

22
23 The middle section on this form is used for the Initial Retro-Reflectivity Reading Pay
24 Items, their location, Initial reading, their passing or failing. Space is also provided for
25 skip or solid readings (As required by Section 710 Specifications).

26
27 Note: This section on **Form No. 700-050-67** needs to be utilized on Lump Sum and
28 Design Build Projects.

29
30 The third and last section on this form is provided for recording **Equal Employment**
31 **Opportunity (EEO) Personnel** working on the project. The spaces are used to record the
32 employee's name, classification, the hours worked and the equipment operated by the
33 employee.

34
35 Note: This section needs to be utilized on Lump Sum and Design Build Projects.

36
37 This daily work sheet is to be completed daily by the Contractor performing the work.
38 The Contractor is responsible for providing a summary of quantities for that month
39 using the monthly certification form. All daily work sheets (pertaining to the time table
40 for that month) shall be attached to the monthly certification sheet **Painted Pavement**
41 **Markings (MOT) Contractors Certifications of Quantities, Form No. 700-050-68.**
42 (See Figure No. 6-16)

Form No. 700-050-68 is the MOT Painted Pavement Markings, monthly, **Certification of Quantities Form**. This form provides all the 710 pay items plus the 102 Temporary Pavement Marker Pay Items mentioned above. The Contractor will only fill out the total quantities used for each pay item, and as shown on the Daily Work Sheet which will also be attached to the Contractor Monthly Certification of Quantities sheet. This form shall be signed by the Contractor and Work Site Supervisor, and turned in to the Project Administrator/Manager for the month showing the period that the certification represents for payment. (See Figure No. 6-17)

Note: The Department's representative will not have the task of checking or recording MOT quantities on a daily basis. During the 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

6.6. 3.55 Payment

The Contractor will prepare and certify the Certification of Quantities no later than twelve o' clock noon Monday after the estimate cutoff as directed by the PA/PM. This will be in accordance with **Section 102 and 710** of the **Specifications** for each project in the Contract. The Contractor's submitted quantities must be approved by the PA/PM. Any disputed quantities needs to be reconciled as soon as possible.

6. 6 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 and the ticket indicates 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 (**NIST Handbook-44**).

~~(B) Shipments from Georgia are considered as being weighed on state certified scales because Florida has a reciprocity agreement with Georgia Shipments for from Ideal Cement Company in Mobile, Alabama are also acceptable because their scales meet Florida standards.~~

~~(C)~~ Shipments from other areas or states must be cleared for reciprocity with the State of Florida Department of Agriculture and Consumer Services, Division of Standards, Tallahassee, Florida, before being used.

~~(C)~~~~(D)~~ Project personnel will record each truck number and time of loading, on a ~~miscellaneous~~ Miscellaneous Tabulation Daily Log Sheet Miscellaneous Tabulation Form Site Source Record, Form (No. 700-050-56), at the rail head site.

~~(E)~~~~(D)~~ All cars are visually inspected to insure that all material has been unloaded.

~~(F)~~~~(E)~~ Material remaining in cars after job completion is to be hauled by truck to state certified scales and gross, tare, and net weights determined 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-Tabulation Form system as outlined ~~above,above~~; all requirements for pay records will be fulfilled.

6-6. 57 DOCUMENTATION

Documentation is considered complete only when the material represented by ~~tabulation~~each tabulation form ~~are reconciled~~is reconciled at the point of actual incorporation into the project. 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 tabulation form used.

Department tabulation 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 then be reconciled immediately. This systematic comparison of source records will help create ~~less-fewer~~ misinterpretations concerning final pay quantities.

(A) Unless the number of tabulation forms justifies the use of the computer to summarize the material, a manual summary shall be made by tabulation form totals in the final estimates computation book.

(B) When the computer is used, the output shall be included as part of the estimate computations and shall be cross-referenced in the computation book.

(C) A complete tabulation, as a packing list, of all types of tabulation forms shall be shown in the transmittal data when the final estimate package is submitted.

~~6.6 ADJUSTMENTS RELATED TO FUEL & BITUMINOUS MATERIALS~~

~~6.6.1 PURPOSE~~

~~The purpose of this section is to outline the Resident Office (RO) personnel's responsibility related to documenting fuel and bituminous adjustments as follows:~~

~~Section 6.8 includes price index adjustments due to changing fuel costs for **Conventional Projects** as shown in *Article 9-2 of the Specifications*.~~

~~Section 6.9 includes bituminous adjustments due to changing asphalt costs for **Conventional Projects** as shown in *Article 9-2 of the Specifications*.~~

~~Section 6.10 includes bituminous adjustments due to changing asphalt costs for **Lump Sum Projects** as shown in *Article 9-2 of the Specifications*.~~

~~Section 6.11 includes bituminous adjustments due to changing asphalt costs for **Design-Build Projects** as shown in *Article 9-2 of the Design-Build Specification Package*.~~

~~Section 6.12 includes instructions in utilizing the excel spreadsheet developed by the State Construction Office to aid the RO personnel in making and applying fuel and bituminous adjustments. There were two (2) programs developed, one for the Cost Reporting System (CRS) and the other for Sitemanager.~~

~~6.8 FUEL AND BITUMINOUS ADJUSTMENTS~~

~~6.8.1 PROCEDURES Fuel Adjustments~~

~~(A) Conventional projects will receive a Fuel Adjustment on Contracts with an **original** Contract time in excess of 400120 calendar days. The Department will make price adjustments on each applicable monthly/progress estimate to reflect either increases or decreases in the price of gasoline or diesel from those in effect for the month in which bids were received. 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. Items that require fuel adjustments can be found on the Department's Construction Web site at www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm.~~

~~Note: The Original contract amount entered on the fuel spread sheet should not change throughout the life of the contract. When the original amount is changed, it has been determined that this is causing previous amount on the spread sheet to change. When changes are not made to the original amount then it will match the previous estimates submitted for payment. If monies underrun, adjustment need to be made so that 100% of the~~

1 estimated gallons are paid. This needs to be adjusted in the field by the last progress
2 estimates. Fuel Adjustments on Contracts let prior to June 2004; will need to follow the
3 previous process.

4 **6.8.2 BITUMINOUS ADJUSTMENT**

5
6 Conventional projects will receive a bituminous adjustment if the contract has an original
7 contract time of more than 365 calendar days or more than 5000 tons [5000 metric tons] of
8 asphalt concrete. The Department will adjust the ~~bid-unit~~ price for bituminous material,
9 excluding cutback and emulsified asphalt to reflect either increases or decreases in the
10 Asphalt Price Index (API) of bituminous material from that in effect during the month in which
11 bids were received. The Department will determine the API for each month and place it on the
12 Construction website. When an estimate is generated, Bituminous Adjustments will be
13 automatically calculated per specifications using the Asphalt Price Index Table. Asphalt Price
14 Indexes can be found on the Department's Construction Website at
15 www.dot.state.fl.us/Construction/fuel&bit/fuel&bit.htm Fuel Adjustments on Contracts let prior
16 to June 2004; will need to follow the previous process.

17
18 Note: Refer to Chapter 11, Alternative Contracts of the *Preparation and*
19 *Documentation Manual* for Fuel and Bituminous Material Adjustments on Lump
20 Sum and Design Build Projects. C) ~~All API indexes, fuel factors and items that~~
21 ~~require adjustments are located on the~~ can be found on the State Construction Office
22 website. These The Average Price API indexes for fuel and bituminous will be
23 posted on the State Construction Office Web site before the 15th of each month.

24 These ~~The API indexes can be viewed at the following URL-~~

25 ~~http://www11.myflorida.com/Construction/fuel&bit/fuel&bit.htm~~

26 The Department will provide an application that will calculate and print the
27 gallons of gasoline and/or diesel for the items that these factors represent. The
28 Contractor will attach this worksheet and record the gallons on the Certified
29 Invoice as required in 9-11.4

30
31 The Contractor will certify the number of gallons of fuel (gasoline and/or diesel)
32 used during the period represented by each invoice.

33 **6.8 FUEL ADJUSTMENTS (CONVENTIONAL PROJECTS ONLY)**

34 The Department will, in the Contract, provide an Estimated Fuel Requirement
35 Sheet (See Figure 6-14) for gasoline and diesel. The gallons [liters] will cover the
36 work specified by the pay items in the Contract that receive a fuel requirement.
37 The Contractor will receive 100 percent of the gallons [liters] shown on the
38 Estimated Fuel Requirement Sheet.

1 ~~(A) — Index Adjustment basis: Payment adjustments will be made on gasoline and diesel~~
2 ~~fuel in accordance with **Article 9-2 of the Specifications**, when the price index, for~~
3 ~~these materials, in the contract increase or decrease in excess of 5 percent. The~~
4 ~~adjustment will be based only on the amount over or under the 5 percent.~~

5 ~~6.9 BITUMINOUS ADJUSTMENT (CONVENTIONAL PROJECTS)~~

6 ~~The Department will adjust the bid unit price for bituminous material placed and~~
7 ~~accepted by the Department to reflect either increases or decreases in the~~
8 ~~Asphalt Price Index from that in effect during the month in which bids were~~
9 ~~received.~~

10 ~~(A) Index Adjustment basis: Payment adjustments will be made on bituminous material~~
11 ~~in accordance with **Article 9-2 of the Specifications**, when the price index, for~~
12 ~~these materials, in the contract increase or decrease in excess of 5 percent. The~~
13 ~~adjustment will be based only on the amount over or under the 5 percent.~~

14 ~~6.10 BITUMINOUS ADJUSTMENT (LUMP SUM PROJECTS).~~

15 ~~The Department will adjust the bid unit price for bituminous material to reflect~~
16 ~~either increases or decreases in the Asphalt Price Index from that in effect during~~
17 ~~the month in which bids were received. The Contractor will provide the~~
18 ~~Department a Certified Invoice on a form provided by the Department **Form No.**~~
19 ~~**700-050-63 Certified Invoice Lump Sum Projects** (See Figure 6-21) no later~~
20 ~~than 12:00 noon, Monday, after the monthly/progress estimate cutoff date. The~~
21 ~~monthly/progress estimate may be held if the Contractor fails to submit the~~
22 ~~required certified invoice. The invoice shall consist of the following:~~

- 23 ~~———— Invoice Number and period represented by invoice~~
- 24 ~~———— Contract Number, FPID Number, and State Project Number~~
- 25 ~~Tons/Metric Tons~~
- 26 ~~———— Gallons/Liters calculated based on **Article 9-2 of the Specifications** for Lump~~
- 27 ~~Sum Projects.~~

28 ~~Verification of the gallons represented by the invoice can be made by the~~
29 ~~following formula:~~

30 ~~———— Tons X 6.25 X 2.331 = Gallons~~

31 ~~Verification of the liters represented by the invoice can be made by the following~~
32 ~~formula:~~

33 ~~———— Metric tons X 6.25 X 9.728 = liters~~

34 ~~(A) Index Adjustment basis: Payment adjustments will be made on bituminous material~~
35 ~~in accordance with **Article 9-2 of the Specifications**, when the price index, for~~

1 ~~these materials, in the contract increase or decrease in excess of 5 percent. The~~
2 ~~adjustment will be based only on the amount over or under the 5 percent.~~

3 ~~6.11 BITUMINOUS ADJUSTMENT (DESIGN-BUILD PROJECTS).~~

4 ~~The Department will adjust the bid unit price for bituminous material to reflect~~
5 ~~either increases or decreases in the Asphalt Price Index from that in effect during~~
6 ~~the month in which bids were received. The Contractor will provide the~~
7 ~~Department a Certified Invoice on a form provided by the Department **Form No.**~~
8 ~~**700-050-65 Certified Invoice Design-Build Projects** (See Figure No. 6-22) no~~
9 ~~later than 12:00 noon, Monday, after the monthly/progress estimate cutoff date.~~
10 ~~The monthly/progress estimate may be held if the Contractor fails to submit the~~
11 ~~required certified invoice. The invoice shall consist of the following:~~

12 ~~Invoice Number and period represented by invoice~~

13 ~~Contract Number, FPID Number, and State Project Number~~

14 ~~— Tons/Metric Tons~~

15 ~~Gallons/Liters calculated based on **Article 9-2 of the Specifications Package**~~
16 ~~for Design-Build Projects.~~

17 ~~Verification of the gallons represented by the invoice can be made by the~~
18 ~~following formula:~~

19 ~~— Tons X 6.25 X 2.331 = Gallons~~

20 ~~— Verification of the liters represented by the invoice can be made by the following~~
21 ~~formula:~~

22 ~~— Metric tons X 6.25 X 9.728 = liters~~

23 ~~(A) — Index Adjustment basis: Payment adjustments will be made on bituminous~~
24 ~~material in accordance with **Article 9-2 of the Specifications**, when the~~
25 ~~price index, for these materials, in the contract increase or decrease in~~
26 ~~excess of 5 percent. The adjustment will be based only on the amount~~
27 ~~over or under the 5 percent.~~

28 ~~6.12 EXCEL SPREADSHEET~~

29 ~~An Excel spreadsheet is provided to process all adjustments of gasoline, diesel~~
30 ~~and bituminous materials for both CRS and Sitemanager. All monthly information~~
31 ~~processed is to be maintained and submitted with the final estimate package as~~
32 ~~documentation to support these adjustments. The programs consist of six (6)~~
33 ~~sheets each.~~

1 ~~(A)The first sheet is the Contract information sheet (See Figure No. 6-15). This~~
2 ~~information is obtained directly from the Contract. It is used to record the~~
3 ~~following information.~~

- 4 ~~_____ (1) Contract Number~~
- 5 ~~_____ (2) Original Contract Amount~~
- 6 ~~_____ (3) Total Contract Amount~~
- 7 ~~_____ (4) Project Total Number of Gallons/Liters of Gasoline*~~

8 ~~_____ * These gallons/liters can be found in the Contract on the Estimated Fuel~~
9 ~~Requirement Sheet (See Figure No. 6-14).~~

- 10 ~~_____ (5) Project Total Number of Gallons/Liters of Diesel*~~

11 ~~_____ * These gallons/liters can be found in the Contract on the Estimated Fuel~~
12 ~~Requirement Sheet (See Figure No. 6-14).~~

- 13 ~~_____ (6) Month and Year the Project was Bid~~
- 14 ~~_____ (7) Base Indexes for Month and Year Project was Bid*~~
- 15 ~~_____ (8) Month and Year of First Estimate~~
- 16 ~~_____ (9) Base Indexes for Month and Year of First Estimate*~~

17 ~~_____ * Base indexes can be found on the State Construction Office Website~~
18 ~~under the heading monthly fuel and bituminous report.~~

19 ~~_____ All of the above information will carry over to all the remaining sheets.~~

20 ~~(B)The second sheet is for gasoline adjustments (See Figure No. 6-16). It is used to~~
21 ~~record the following information.~~

- 22 ~~(1)Monthly Index for gasoline~~
- 23 ~~(2)Amount earned this estimate*~~

24 ~~_____ * This is the total money earned for the month based on the progress of work.~~

25 ~~Once this information is coded on the gasoline sheet, hit enter and the program~~
26 ~~will calculate the adjustment amount to be paid on the monthly/progress~~
27 ~~estimate.~~

28 ~~(C)The third sheet is for diesel adjustments (See Figure No. 6-17). It is used to record~~
29 ~~the same information as for gasoline, but for diesel. Once this information is~~
30 ~~coded on the diesel sheet, hit enter and the program will calculate the~~
31 ~~adjustment amount to be paid on the monthly/progress estimate.~~

***Note:** The above information (B and C) for gasoline and diesel will be processed monthly on the excel spreadsheet even though the price index is less than 5 percent or the monthly/progress estimate is zero (0). This system will automatically deduct the portion of gallons/liters for gasoline and diesel based on the monetary value of work performed monthly. Once 100 percent of gallons/liters for gasoline or diesel is reached, this program will automatically flag this achievement and will only process payment for the gallons/liters entered on the Contract Information Sheet.

(D)The fourth sheet is for asphalt cement adjustments on projects that have asphalt concrete (See Figure No. 6-18). It is used to record the following information:

- (1)Monthly index for asphalt cement
- (2)Total tons [metric tons] of all asphalt concrete items produced and accepted by the Department for the period represented by the monthly/progress estimate.

The program is set up to calculate gallons/liters assuming a mix design with 6.25% liquid asphalt weighing 8.58 lb/gal [1.03 kg/L].

*Asphalt Concrete items payable by the square yard [square meter] will be converted to equivalent tons [metric tons] assuming a weight of 100 lb/sy²-in. [54 kg/m²-25mm].

- (3) — Any additional gallons/liters used during the period represented by the monthly/progress estimate such as Bituminous Material (Asphalt Rubber Binder-Interlayer) will be directly recorded on the spreadsheet in the column labeled Additional Gallons/Liters.

Once this information is coded on the asphalt cement adjustment sheet, hit enter and the program will calculate the adjustment to be paid on the monthly/progress estimate.

Note: All asphalt concrete produced and accepted on the project will receive this adjustment except for temporary asphalt used for maintenance of traffic purposes.

(E)The fifth sheet is for prime coat (Cutback Asphalt Cement) (See Figure No. 6-19). It is used to record the following information:

- (1)Monthly index for cutback asphalt cement
- (2)Total gallons/liters used during the period represented by the monthly/progress estimate.

~~Once this information is coded on the cutback asphalt cement adjustment sheet, hit enter and the program will calculate the adjustment to be paid on the monthly/progress estimate.~~

~~(F)The last sheet is for tack coat (Emulsified Asphalt Cement) (See Figure No. 6-20). It is used to record the following information:~~

~~(1)Monthly index for emulsified asphalt cement.~~

~~(2)Total gallons/liters used during the period represented by the monthly/progress estimate.~~

~~Once this information is coded on the emulsified asphalt cement adjustment sheet, hit enter and the program will calculate the adjustment to be paid on the monthly/progress estimate.~~

~~*Note: The above information (D, E, and F) for bituminous material should be processed monthly on the excel spreadsheet even though the price index is less than 5 percent, the monthly/progress estimate is zero (0) or there is no asphalt produced, no additional gallons such as bituminous material for army layer, or no prime or no tack was used. This will allow tracking of these items and responses to any questions that may arise due to these adjustments.~~

~~All the above information for the excel spreadsheet shall be submitted with the final estimates package to the District Final Estimates Office as backup documentation for fuel and bituminous adjustments.~~

6.136.9 Resident Office PERSONNEL RESPONSIBILITY

It is the responsibility of the Resident Office (RO) personnel to adjust the fuel and bituminous material monthly on projects assigned them that meet the criteria specified in **Article Section 9 of the Specifications**.

~~This adjustment should be checked prior to coding this information on the estimate worksheet by someone other than the person doing the keypunching in the excel spreadsheet program. On Lump Sum and Design Build projects, it is the responsibility of the RO personnel to verify the tonnage [metric tonnage] and gallons (liters) that the contractor submits on the certified invoice. These invoices shall be placed in a file. This file along with the excel spreadsheet shall accompany the Final Estimate Package submitted to the District Final Estimates Office.~~

6. 10 LIST OF FIGURES FOLLOWING THIS CHAPTER

Figure 6-1	Field Book Log
Figure 6-2	Note Book Spine

1	Figure 6-3	Preprinted Pile Field Book – Data
2	Figure 6-4	Preprinted Pile Field Book – Record of Drives
3	Figure 6-5	Daily Report of Truck Measured Material
4	Figure 6-6	Truck Measured Sketch
5	Figure 6-6a	Truck Measured Sketch
6	Figure 6-7	Daily Log Sheet for Grassing Items
7	Figure 6-8	Daily Log sheet for Grassing Items
8	Figure 6-9	Daily Log Sheet for Miscellaneous Tabulation Form
9	Figure 6-10	Daily Log Sheet for Miscellaneous Tabulation Items
10	Figure 6-11	Delivery Ticket
11	Figure 6-12	Sample Sketch of Riprap Structure
12	Figure 6-13	Sand Cement Riprap Pay Analysis
13	<u>Figure 6-14.....</u>	<u>Contractors Certified Invoice MOT Sheet</u>
14	<u>Figure 6-15.....</u>	<u>Contractor Certification of Quantities (MOT) (Signs, etc)</u>
15	<u>Figure 6-16.....</u>	<u>Daily Work Sheet Form (MOT)</u>
16	<u>Figure 6-17.....</u>	<u>Contractors Monthly Certification of Quantities Form</u>