

PROCEDURES HANDBOOK

SECTION VII	SUBSECTION H-1	DATE
CONSTRUCTION COMPLETION	AS-BUILT ITEM RECORDS	5/8/2019

This subsection of the Construction Procedures Handbook provides a standardized procedure and format for the preparation of **As-built Item Records**. The purpose of As-built Item Records is to provide concise documentation of how the final quantity for payment was determined, which can be easily audited.

Sample As-built Item Records are available at the following link:

[As-Built Examples](#)

AS-BUILT ITEM RECORDS

The As-built quantity for an Item is the final pay quantity for that Item. How the As-built quantity for an Item must be documented depends upon the Item type as specified in Subsection 109.01 of the Standard Specifications. Subsection 109.01 designates two basic categories of Items. These are **Proposal Items** and **Measured Items**. An Item is designated as a Proposal Item if it has the suffix "P" at the end of the 7 digit Item Number. An Item is designated as a Measured Item if it has the suffix "M" at the end of the 7 digit Item Number.

Proposal Items:

There are three Proposal Item formats for preparing As-built records:

1. A Proposal Item with **no** quantity shown as If and Where Directed (IAWD), and for which measurement has not been requested, or if requested, the difference between the measured quantity and the proposal quantity is less than or equal to 10 percent of the Proposal quantity and the location / configuration has not changed, requires only a [DC-30\(a\)](#) As-built Summary sheet with the Pay Proposal reference and reference documentation noted (e.g. "refer to DC-144's").
2. A Proposal Item for which all or part of the Proposal quantity is shown as IAWD requires a [DC-30\(a\)](#) As-built Summary sheet for that part of the quantity which is not measured and the location / configuration has not changed and detailed As-built records for the IAWD portion of the quantity which is measured e.g. [DC-30\(b\)](#) and [DC-30\(c\)](#).
3. A Proposal Item that requires the entire quantity to be measured as a result of a request by either the Contractor or the RE, and the difference between the measured quantity and the proposal quantity was found to be greater than 10 percent and portions of work whose location / configuration has changed. As-built this type of item in the same manner as a Measured Item as indicated below.

The percentage difference for As-built adjustment of a Proposal item (P) as indicated in section 109.01 is based on the quantity of the proposal item, less any IAWD quantity, but not on percentage differences or discrepancies of quantities at individual locations or individual plan sheets.

If the Contractor requests that a Proposal Item be measured, the Contractor must first submit documentation calculating the quantity the Contractor believes the As-built quantity should be. If the documentation proves the Contractor's assertion, correct the payment quantity and the As-built quantity. For each Item that the Contractor requests a Proposal item be measured, and it is determined that the difference between the quantity measured and the Contract quantity is less than or equal to 10 percent of the Proposal quantity, the Department will deduct \$500 (See Standard Specifications Subsection 109.01). The deduction will be made with a New Work Item (109003M ASBUILT MEASUREMENT CHARGE) created by Change Order.

When a Change Order or Change of Plan (COP) adjusts a Proposal Item without an IAWD quantity, the adjusted quantity becomes the new Proposal Item Quantity and the item is to be As-built in accordance with No. 1 as described above. When a Change Order or COP designates the adjusted quantity, all or part as IAWD, the item is to be As-built in accordance with No. 2 as described above.

Measured Items:

A Measured Item requires a [DC-30\(a\)](#) As-built Summary sheet and detailed As-built records.

Detailed As-built Records:

The types of detailed As-built records for Measured and applicable Proposal items include: marked up plan sheet drawings, Forms [DC-30\(b\)](#) and/or [DC-30\(c\)](#) with plan sheet numbers, stations, locations, quantities, sketches, calculations or drawings.

When applicable, Forms are acceptable detailed records for Measured Items (e.g. Foundation Pile Record for Pile As-builts).

The "Contract Item Work Reports" will be acceptable as detailed As-built records **ONLY** for the following item types listed below:

1. Items for HMA Paving
2. Items for Application of Bituminous Materials (Tack Coat, Prime Coat, Polymerized Joint Adhesive, Crack Sealing)
3. Items that are all "IF and Where Directed" throughout the project that cannot be easily designated on plan sheets (e.g. Traffic Stripes, Traffic Markings Lines, RPMs, Removal of Traffic Stripes, Removal of RPMs, Rumble Stripes)

For items that are all "IF and Where Directed" that can be designated with areas and

quantities on plan sheets the detailed As-built records shall be as specified in the first paragraph of this section above.

Reference Documents:

Typical reference documents include:

1. Daily Work Report forms DC-144 (a), (b), (c), (d) which document the plan sheet, specific station/location and As-built quantity.
2. Plan sheets, COP, calculations, drawings, field books, etc. which document the location and As-built quantity.

When entering As-built quantities in Site Manager, enter the final total As-built quantity on the DC-144 only once for each pay item at the completion of the item.

Significant Figures:

For all measured quantities, record As-built quantities to the same significant figure as for Measurement and Payment as specified in Table 109.01-1 (Standard Specification Subsection 109.01).

<u>Unit Price</u>	<u>Significant figure</u>	<u>Example</u>
<\$50.00	1	105 LF
\$50.00 to <\$500.00	0.1	104.9 LF
>\$500.00	0.01	104.87 LF

Rounding:

If the calculation or measurement for the As-built for an Item results in a significant figure greater than indicated above, round up if the digit after the significant figure is 5 or greater and round down if it is 4 or less.

Example:

<u>Unit Price</u>	<u>Measurement</u>	<u>Rounded to</u>
\$0.98	105.4 LF	105 LF
\$45.00	349.5 CY	350 CY
\$75.80	709.48 SY	709.5 SY
\$750.00	508.957 TON	508.96 TON
\$1,500.00	1.753 ACRE	1.75 ACRE

Contract Pay Adjustment Items:

Pay adjustments for HMA Air Voids, HMA thickness, Concrete Pay Adjustment and other adjustments are not to be added/deducted from the Pay Item quantity or As-built quantity. These adjustments are to be done with creation of a New Work Item(s) on a Change Order. The Standard Pay Item list for these Items is available at the following link:

<http://www.state.nj.us/transportation/business/trnsport/pdf/payitemlist.pdf>

As-built Sheets (Form DC-30 (a, b, c) :

1. Completed DC-30 sheets must be assembled with the items in consecutive order and maintained in the project records in a soft cover binder.
2. New Work items must follow the original contract items, and must be in order of their respective item Numbers (9001, 9002, etc.). Include the respective Construction Order(s) on the [DC-30\(a\)](#).
3. When all DC-30 sheets and attached plan sheets for an item are completed, the sheets for that item must be numbered consecutively using the following format:
Sheet 1 of 6 (for total sheets = 6)
4. All information at the top of all the DC-30 sheets must be completed. (E.g. Preparer and Checker printed names, signatures and dates, etc.). Use the latest DC-30 forms.
5. All Change Orders with number and quantity adjustment (increase/decrease) and COP number shall be shown on the [DC-30\(a\)](#) for the item.
6. Reference documents shall be shown on the [DC-30\(a\)](#) for the item.

As-built Submission:

A completed DC-104 As-built Summary report and final Contract Summary report shall be included with the As-builts.

As-builts should be done when the work for a particular Item is completed. When a group of Items are As-built, they can be sent to the Contractor. Do not wait to send the Contractor all the As-builts at the end of the project. Send the As-built quantities to the Contractor for his review as specified in Subsection 109.08 of the Standard Specifications (See C97A within [Form DC-155](#)). The Contractor has 20 days to review the As-built quantities and either approve or reject them. If the Contractor fails to respond in 20 days send the follow up letter to the Contractor for agreement (See C97B within [Form DC-155](#)). If they are rejected the Contractor must submit calculations or evidence, proving the As-built quantities submitted are incorrect. Failure by the Contractor to either approve or

reject the As-built quantities within 20 days, is considered approval of the As-built quantities. Send the As-built agreement Memo to the RCE (See C97C within [Form DC - 155](#)). Attach this Memo to the As-built change order.

As-built Review:

Contact the Executive Manager, Bureau of Construction Management by memorandum to schedule an As-built review (See Attachment "A"). The request should be made at least four (4) weeks in advance of completion of As-builts to allow for timely scheduling. This review is not necessary to complete Change Orders for the closeout of the Contract.

In addition to the As-built records, a list of other documents to be made available for the Review team will be provided to the RE prior to the As-built review. A Contract Item Work Report for each measured pay item and proposal pay item with an IAWD quantity in a separate binder is required for the As-built Review by the Bureau of Construction Management. This documentation will be used for the As-built Review.

ATTACHMENT "A"

MEMORANDUM
State of New Jersey
DEPARTMENT OF TRANSPORTATION

CLOSEOUT DOCUMENT C99

To: Albert Balluch
Executive Manager, Bureau of Construction Management
E&O Building, Trenton, NJ

From: Robert Smith, RE
Region Central Construction
732-529-5676

Project: Route 22 Traffic Signal Improvements, Signal Coordination, ITS Closed Loop System
Federal Project No. CM-0040(175)
DP No. 12139
CE Job No. 2202243

Date: January 6, 2015

RE: As-Built Review

The As-builts for the above captioned project are ready to be reviewed by your office. Please contact me to schedule your review.

I have on file the final DBE certification from the Contractor. Also available for your review at this time is the current insurance certificate. The bituminous cores summary and other applicable materials test results have been reviewed, and pay adjustments (if any) have been incorporated into the final As-builts.

cc: Anne Kelly, Field Manager
Project File