

HiCAMS User Guide

Chapter 5: Contract Estimates

Section 4: Verify Final Quantities

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Revision History

Comments or concerns with this document should be directed to the NCDOT Construction Unit at 919-707-2400.

Date	Version	Description	Author
October 2014	1.0	Initial version	Marie Novello

About Verify Final Quantities

When a payment is made by Pay Record or by Ticket, a Final Estimate quantity is generated based on the WBS element, Line Item, and Pay Record Book and Page number, or Ticket Book number.

Multiple payments on the same WBS element and Line Item number that are made on the same Pay Record Book and Page number are added together for the Verify quantity, as are Ticket Books with the same number.

It is possible to Verify Final Quantities throughout the life of the project. HiCAMS will automatically request re-verification if changes are made to the Source records.

This Final Estimate quantity must be confirmed before the Final Estimate can be forwarded to the Division Engineer level for further handling.

For additional information on Verify Final Quantities, please contact the Construction Unit at 919-707-2400.

Verifying Final Quantities

To work with the Verify Final Quantities window, go to **Functions > Contract Estimates > Verify Final Quantities**.

Step 1: Enter the Contract Number whose Quantities you wish to verify in the Contract field. The Verify Final Quantities window opens.

Note: For information on ways to enter your contract number, see the User Guide "Getting Started" in the User Guides section of the HiCAMS home page.

An example of the Verify Final Quantities window for Contract C203350 is displayed below.

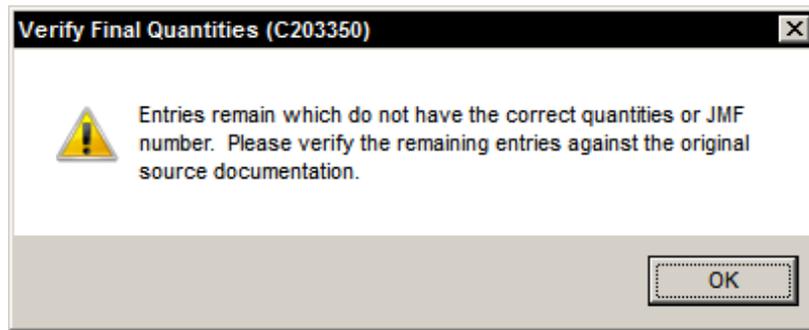
The screenshot shows the HiCAMS application window titled "HiCAMS - [hicansval]". The main window is titled "Verify Final Quantities (C203350)". The interface includes the following fields and controls:

- Contract:** C203350
- Contractor:** THE HURLEY GROUP LLC
- Status:** Active
- Description (nickname):** Bridge #53
- WBS:** 38597.3.FD1 (dropdown menu)
- Item Selection:** Radio buttons for "All Items" (selected) and "Unverified Items".
- Line Item:** Two empty dropdown menus.

Below the input fields is a table with the following columns: "Verified Date", "Verified By", "Source Document", "Book", "Page", "Final Quantity", and a "Verify" button. The table body is currently empty.

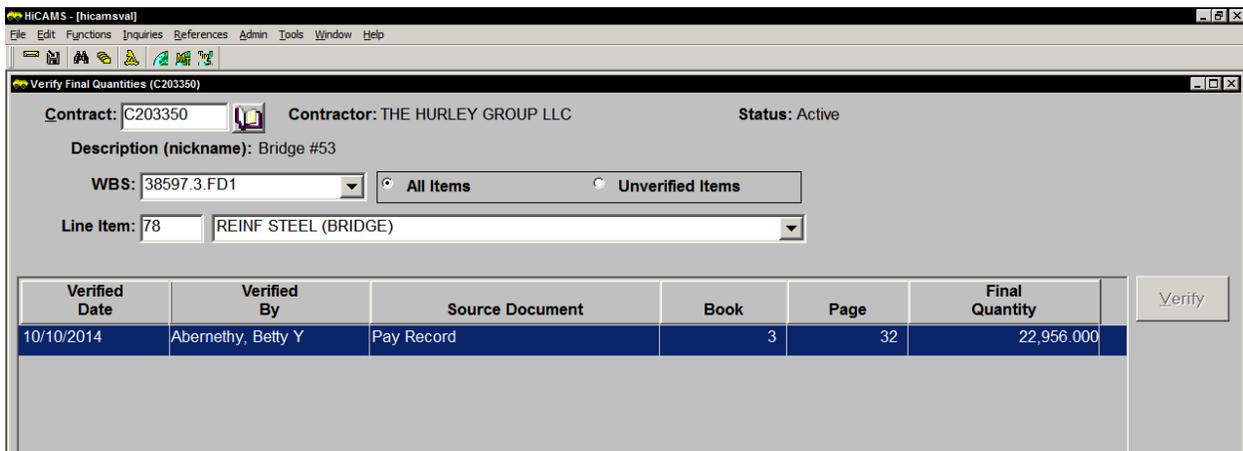
Because the Contract has only one WBS element, the WBS element is defaulted. If the Contract has more than one WBS element, the WBS element would need to be selected before proceeding with quantity verification.

- Step 2:** Select the Line Item whose quantities need to be verified by typing in its number or selecting it from the drop down list. All the Pay Record or Ticket entries are displayed.
- Step 3:** To verify the Page Total, click in the Final Quantity field, and enter the page total from the Pay Record Book or Ticket Book. When Verifying an Asphalt Ticket, the JMF will also need to be entered.
- Step 4:** Click the Verify button. If the number entered matches the page total HiCAMS has calculated, HiCAMS will enter the date the entry was Verified and the name of the person doing the Verification as shown below.
- Step 5:** If the total does not match, the following message will appear when the Verify button is clicked:



- Step 6:** Click ok, and enter the correct quantity information, then Verify again.

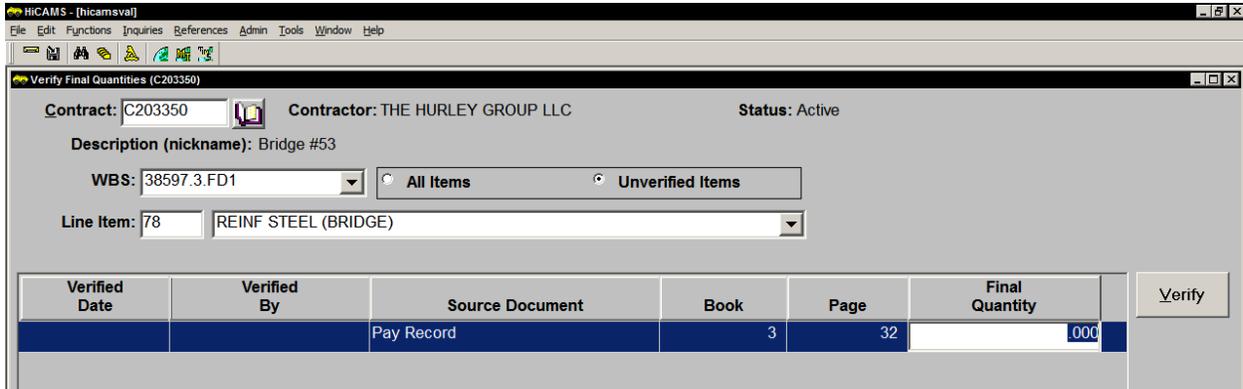
Here is how the window will look when a quantity is successfully Verified.



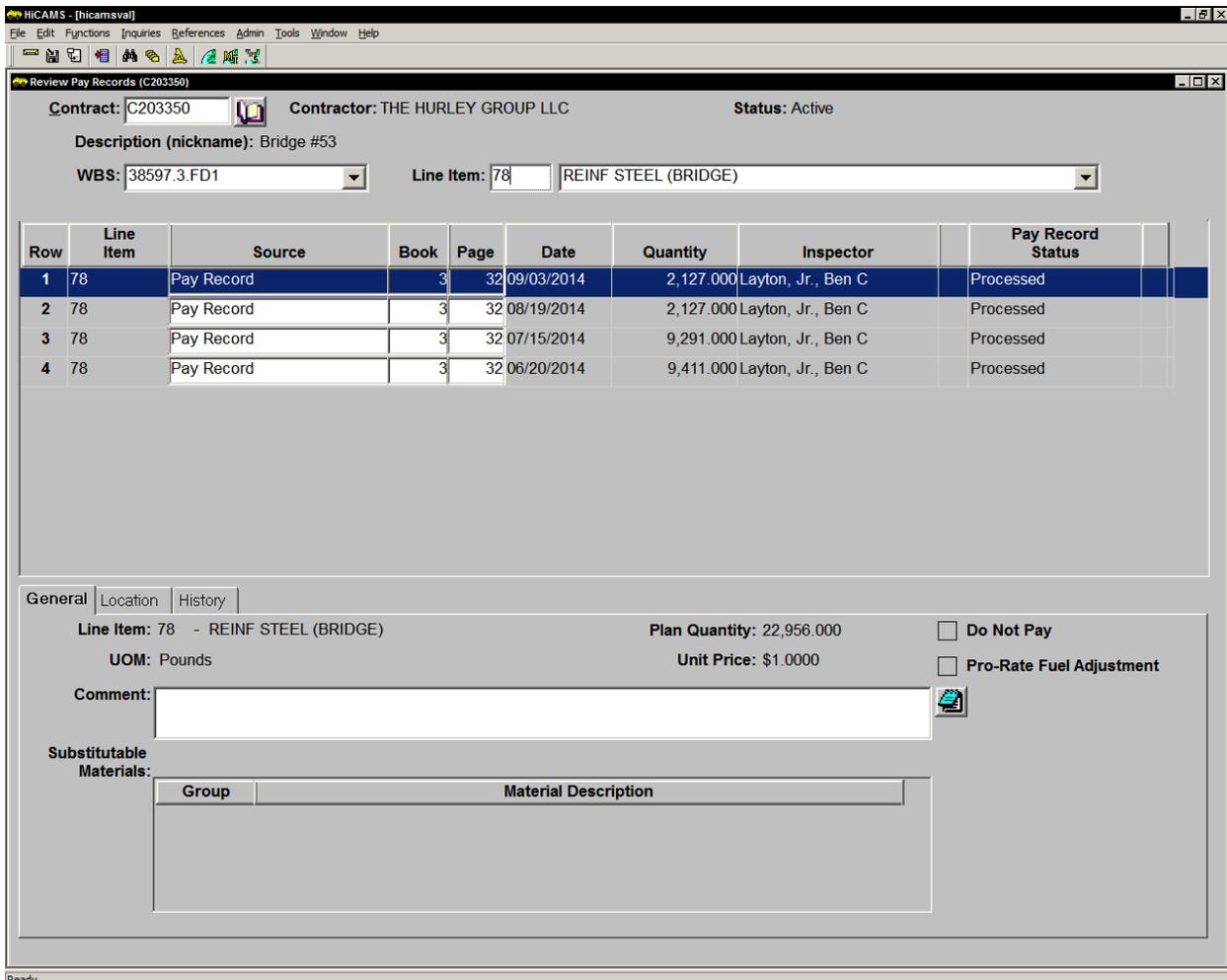
Notice that all the fields in the row are locked. If the Source Record is changed, the Final Quantity field will be active again.

How the Verify Final Quantities Window Works

Here is a portion of the Verify Final Quantities window for Contract C203350 Line Item 78.



And here is a portion of the Review Pay Record window for the same Line Item.



Notice that although there are four Pay Record rows, there is only one Verify Final Quantities row. This is because the Verify Final Quantities presents "Page Totals" information.

Contrast this to how the Verify Final Quantities window looks for items paid by Ticket. Here is the Review Tickets window for C203542 Line Item 7.

Contract: C203542 **Contractor:** S. T. WOOTEN CORPORATION **Status:** Active
Description (nickname): 2014 Resurfacing Warren-Franklin Counti
WBS: 5CR.10351.14 **Line Item:** 7 ASP CONC SURF CRS S9.5B

Row	Line Item	Material	Book	Date	Quantity	Loads	Plant ID	JMF	AC Line Item	Ticket Status	Station From
1	7	Asphalt Concrete Surface Course, T	6	10/01/2014	218.620	11	AS313	14-0448-152	10 - ASP FOR PLA	Not Estimated	0
2	7	Asphalt Concrete Surface Course, T	5	09/23/2014	1,388.510	72	AS313	14-0448-152	10 - ASP FOR PLA	Not Estimated	239
3	7	Asphalt Concrete Surface Course, T	4	09/22/2014	2,161.450	111	AS313	14-0448-152	10 - ASP FOR PLA	Not Estimated	59
4	7	Asphalt Concrete Surface Course, T	3	09/20/2014	1,676.650	86	AS313	14-0448-152	10 - ASP FOR PLA	Not Estimated	94
5	7	Asphalt Concrete Surface Course, T	2	09/19/2014	2,118.050	108	AS313	14-0448-152	10 - ASP FOR PLA	Not Estimated	271
6	7	Asphalt Concrete Surface Course, T	1	09/18/2014	884.820	44	AS313	14-0448-152	10 - ASP FOR PLA	Not Estimated	353

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Line Item: 7 - ASP CONC SURF CRS S9.5B **Plan Quantity:** 8,364.000
LI UOM: TON **Unit Price:** \$33.0000
Applied LI Quantity: 218.620 **Conversion Factor:** 1.000

Received By: Kile, Charles **Truck:** _____
Approved Producer: S.T. Wooten Corp., Henderson - AS313 **Station Information**
Other Producer: _____ **From:** 0 + 18
How Accepted: Receipt Small Quantity **To:** 0 + 00
Comment: _____

Do Not Pay Ticket
 Replacement
 Other Payment Method

Job Mix Formula
Virgin AC %: 3.90
RAP AC %: 1.00
Other AC %: .90
Total AC%: 5.80
Asphalt Type: Warm Mix Evotherm 3G
Bdr Grd Pay: Asphalt Binder, PG 64, -22

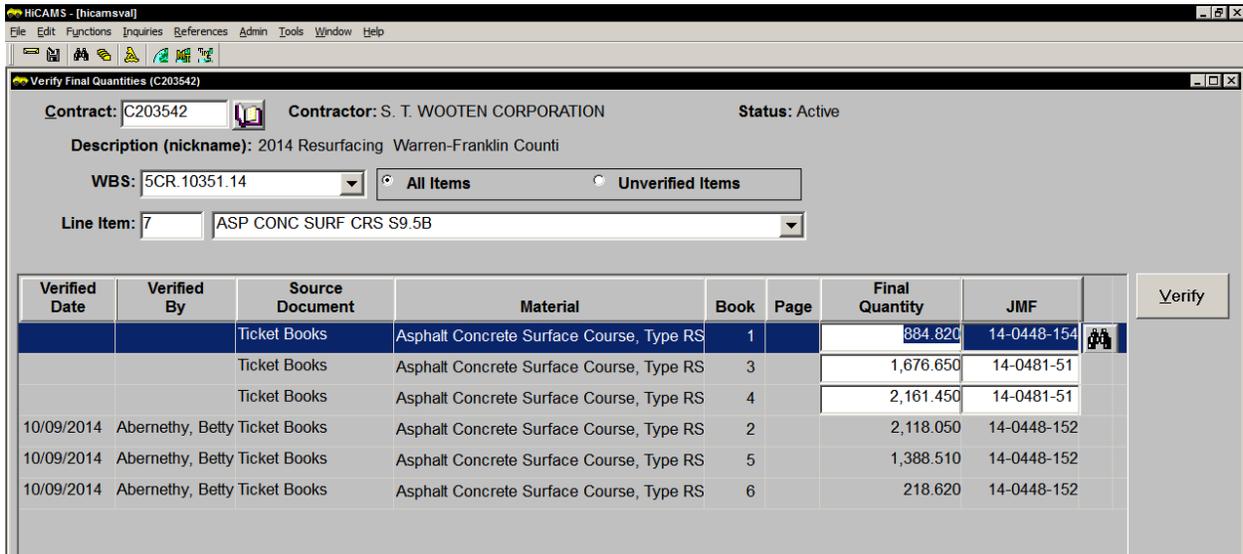
And here is the Verify Final Quantities window for the same Contract and Line Item.

Contract: C203542 **Contractor:** S. T. WOOTEN CORPORATION **Status:** Active
Description (nickname): 2014 Resurfacing Warren-Franklin Counti
WBS: 5CR.10351.14 **All Items** **Unverified Items**
Line Item: 7 ASP CONC SURF CRS S9.5B

Verified Date	Verified By	Source Document	Material	Book	Page	Final Quantity	JMF	Verify
		Ticket Books	Asphalt Concrete Surface Course, Type RS	1		.000	- -	
		Ticket Books	Asphalt Concrete Surface Course, Type RS	2		.000	- -	
		Ticket Books	Asphalt Concrete Surface Course, Type RS	3		.000	- -	
		Ticket Books	Asphalt Concrete Surface Course, Type RS	4		.000	- -	
		Ticket Books	Asphalt Concrete Surface Course, Type RS	5		.000	- -	
		Ticket Books	Asphalt Concrete Surface Course, Type RS	6		.000	- -	

Each ticket is represented on its own row in both windows.

When multiple rows appear in the Verify window, and are Verified, any entries that are correct will appear in the bottom of the list, while those entries that are incorrect will appear at the top of the list.



Recheck the data entry, re-enter the correct number, and Verify again.

Hint: The Verify window is set up so that the user can enter quantity and JMF if applicable, then tab through to the next row without having to use the mouse. When the Final entry is made, the next Tab is on the Verify button. The Verify button can be "clicked" with the space bar, and HiCAMS automatically returns the window focus to the Line Item field to allow the selection of the next line item without the mouse.

Possible Error:

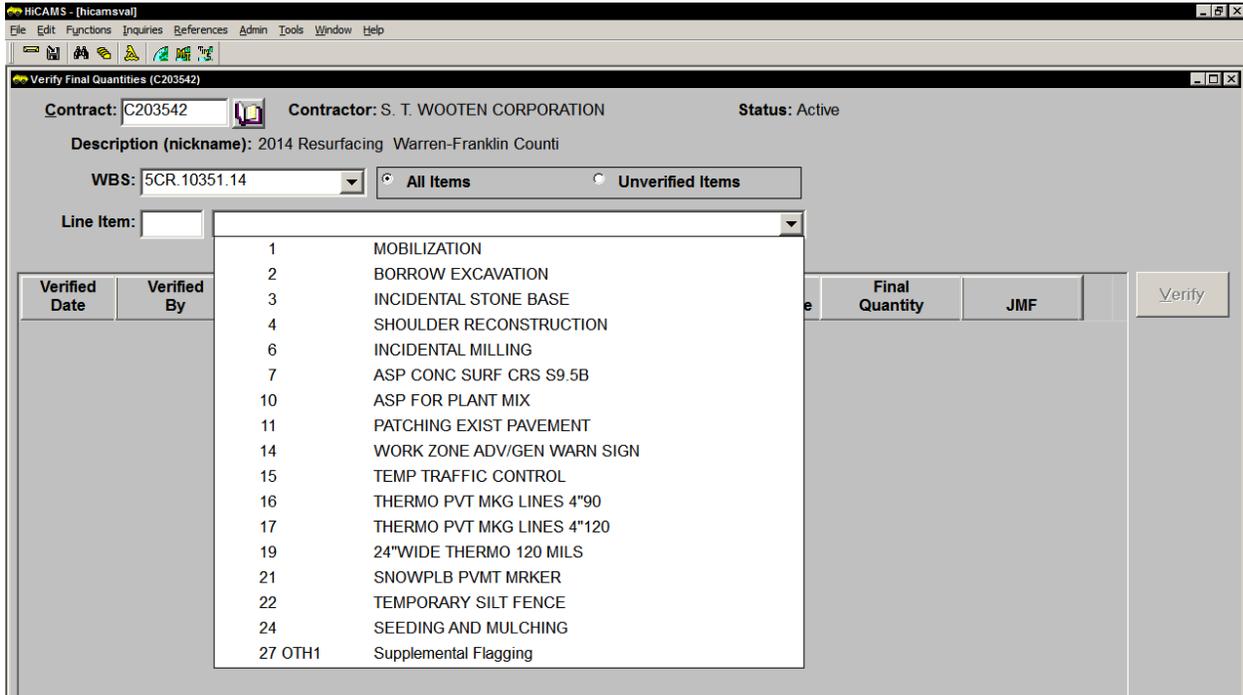
Sometimes, a Ticket Book will appear in the Review Tickets window, but not be visible in the Verify Final Quantities window.

To make the Ticket Book show up in Verify Final Quantities, close the Verify window, and open the Review Tickets window.

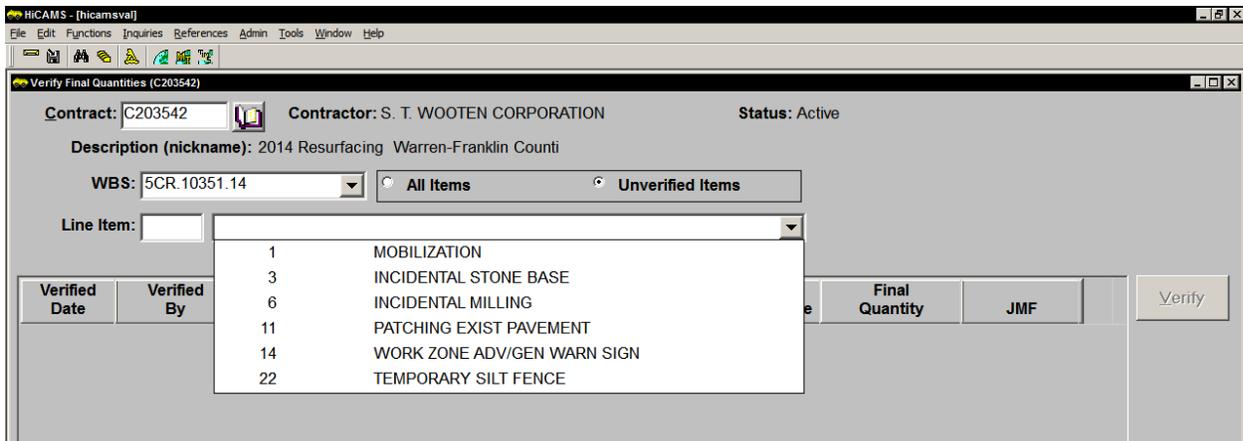
Find the Ticket Book that does not display, and select it. Change the Ticket Book number and Save. Now change the number back to what it should be. Save. The Ticket Book should now display in the Verify Final Quantities window.

If Final Quantities Verification takes place during the life of the contract, new entries that have not been Verified can be quickly identified by switching the from All Items to Unverified Items in the header of the window. When Unverified Items is selected, only those Line Items that have Unverified entries are listed.

Here is the Line Item list for All Items:



And here is the difference when the Unverified Items is selected:

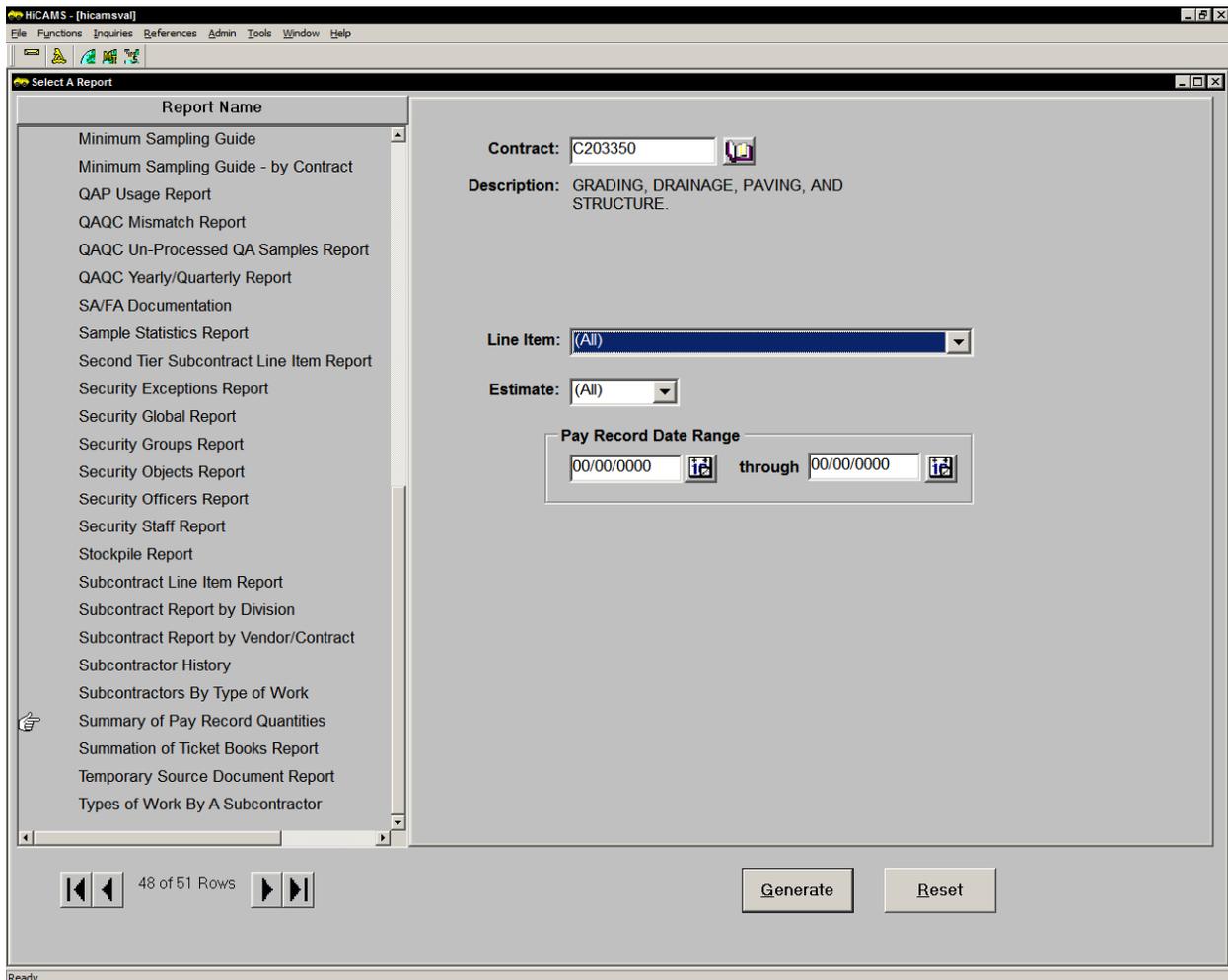


Standard Reports Used with the Verification Process

Two reports were developed to assist the user in the Verification of Final Quantities. They are the *Summary of Pay Record Quantities* and the *Summation of Ticket Books Report*.

Summary of Pay Record Quantities Report

This is how the Summary of Pay Record Quantities report filters look after the Contract Number has been entered.



This information on this report can be used as to verify the Pay Record Book page totals before the data entry is done in the Verify window.

An example of this report is on the next page.



North Carolina Department of Transportation

Summary of Permanent Pay Record Quantities

Contract: C203350

WBS: 38597.3.FD1

Line Item	Cont Adj	Non-Part	Description	UOM	Source	Book Number	Page Number	Page Quantity
1			MOBILIZATION	LS	Pay Record	1	8	1.000
2			BRG APP SUB REG TIER** [(14+83.43-L-)]	LS	Pay Record	1	10	1.000
34			WORK ZONE SIGNS (STAT)	SF	Pay Record	1	71	368.330
					Pay Record	1	72	77.690
36			WORK ZONE SIGNS (BARR)	SF	Pay Record	1	76	219.000
37			PORT CHANGE MSG SIGN (SHORT TERM)	DAY	Pay Record	1	78	28.000
39			BARRICADES (TYPE III)	LF	Pay Record	1	82	144.000
43			TEMPORARY SILT FENCE	LF	Pay Record	2	14	1,083.000
47			TEMPORARY MULCHING	ACR	Pay Record	2	19	0.420
48			SEED FOR TEMP SEEDING	LB	Pay Record	2	25	21.000
49			FERT FOR TEMP SEEDING	TON	Pay Record	2	27	0.080
51			SAFETY FENCE	LF	Pay Record	2	32	362.000
55			1/4" HARDWARE CLOTH	LF	Pay Record	2	46	104.000
66			RESPONSE FOR EROS CONTROL	EA	Pay Record	2	81	3.000
69			REMV EXIST STR ***** [(14+83.00-L-)]	LS	Pay Record	3	10	1.000
70			3'-0" DRILLD PIER IN SOIL	LF	Pay Record	3	12	25.670
71			3'-0" DRILLD PIER NO SOIL	LF	Pay Record	3	15	53.380
72			PERM STL CASING FOR 3' PIER	LF	Pay Record	3	18	29.200
76			CLASS A CONCRETE (BRIDGE)	CY	Pay Record	3	27	66.300
77			BRG APPR SLAB ***** [(14+83.00-L-)]	LS	Pay Record	3	30	0.500
78			REINF STEEL (BRIDGE)	LB	Pay Record	3	32	22,956.000
79			SPIRAL COL REINF STL BRG	LB	Pay Record	3	35	2,825.000
80			HP12X53 PILES	LF	Pay Record	3	38	276.330
83			GEOTEXTILE FOR DRAINAGE	SY	Pay Record	3	44	491.200
84			ELASTOMERIC BEARINGS	LS	Pay Record	3	50	1.000
85			3'-0"X 1'-9"PRESTR SLABS	LF	Pay Record	3	52	1,540.000

Summation of Ticket Books Report

This is how the Summation of Ticket Books report filters look after the Contract Number has been entered.

The screenshot shows the HICAMS software interface with the 'Select A Report' dialog box open. The 'Report Name' list on the left includes 'Summation of Ticket Books Report', which is highlighted. The right side of the dialog contains the following fields and values:

- Contract:** C203350
- Description:** GRADING, DRAINAGE, PAVING, AND STRUCTURE.
- Line Item:** (All)
- Estimate:** (All)
- Ticket Date Range:** 00/00/0000 through 00/00/0000

At the bottom of the dialog, there are navigation arrows, a status indicator '49 of 51 Rows', and two buttons: 'Generate' and 'Reset'.

An example of this report is on the next page.



North Carolina Department of Transportation

Summation of Ticket Books

Contract: C203542

Line Item: 7 ASP CONC SURF CRS S9.5B

UOM: TON

WBS	Non-Part	Ticket Book	Date	Job Mix Formula	Map Nbr	AC Line Description	Total		Virgin AC		Rap AC		Other AC		Total AC	
							Quantity	%	Quantity	%	Quantity	%	Quantity	%	Quantity	%
5CR.10351.14		1	09/18/2014	14-0448-152-WM3G	2	10 - ASP FOR PLANT MIX	884.820	3.9	34.508	1.0	8.848	0.9	7.963	5.8	51.320	
		2	09/19/2014	14-0448-152-WM3G	2	10 - ASP FOR PLANT MIX	2,118.050	3.9	82.604	1.0	21.181	0.9	19.062	5.8	122.847	
		3	09/20/2014	14-0448-152-WM3G	2	10 - ASP FOR PLANT MIX	1,676.650	3.9	65.389	1.0	16.767	0.9	15.090	5.8	97.246	
		4	09/22/2014	14-0448-152-WM3G	2	10 - ASP FOR PLANT MIX	2,161.450	3.9	84.297	1.0	21.615	0.9	19.453	5.8	125.364	
		5	09/23/2014	14-0448-152-WM3G	2	10 - ASP FOR PLANT MIX	1,388.510	3.9	54.152	1.0	13.885	0.9	12.497	5.8	80.534	
		6	10/01/2014	14-0448-152-WM3G	2	10 - ASP FOR PLANT MIX	218.620	3.9	8.526	1.0	2.186	0.9	1.968	5.8	12.680	
						WBS Totals:	<u>8,448.100</u>		<u>329.476</u>		<u>84.482</u>		<u>76.033</u>		<u>489.991</u>	
5CR.10931.14		1	08/27/2014	14-0448-152-WM3G	4	10 - ASP FOR PLANT MIX	1,486.130	3.9	57.959	1.0	14.861	0.9	13.375	5.8	86.196	
		2	08/28/2014	14-0448-152-WM3G	4	10 - ASP FOR PLANT MIX	1,547.540	3.9	60.354	1.0	15.475	0.9	13.928	5.8	89.757	
		3	08/29/2014	14-0448-152-WM3G	4	10 - ASP FOR PLANT MIX	1,468.510	3.9	57.272	1.0	14.685	0.9	13.217	5.8	85.174	
		4	09/02/2014	14-0448-152-WM3G	4	10 - ASP FOR PLANT MIX	1,457.180	3.9	56.830	1.0	14.572	0.9	13.115	5.8	84.516	
		5	09/03/2014	14-0448-152-WM3G	4	10 - ASP FOR PLANT MIX	1,469.620	3.9	57.315	1.0	14.696	0.9	13.227	5.8	85.238	
		6	09/04/2014	14-0448-152-WM3G	4	10 - ASP FOR PLANT MIX	282.110	3.9	11.002	1.0	2.821	0.9	2.539	5.8	16.362	
		7	09/05/2014	14-0448-152-WM3G	4	10 - ASP FOR PLANT MIX	248.850	3.9	9.705	1.0	2.489	0.9	2.240	5.8	14.433	
		8	09/23/2014	14-0448-152-WM3G	3	10 - ASP FOR PLANT MIX	661.130	3.9	25.784	1.0	6.611	0.9	5.950	5.8	38.346	
		9	09/27/2014	14-0448-152-WM3G	3	10 - ASP FOR PLANT MIX	1,395.320	3.9	54.417	1.0	13.953	0.9	12.558	5.8	80.929	
		10	09/30/2014	14-0448-152-WM3G	3	10 - ASP FOR PLANT MIX	8.960	3.9	0.349	1.0	0.090	0.9	0.081	5.8	0.520	
		11	10/01/2014	14-0448-152-WM3G	3	10 - ASP FOR PLANT MIX	1,543.560	3.9	60.199	1.0	15.436	0.9	13.892	5.8	89.526	
		12	10/02/2014	14-0448-152-WM3G	3	10 - ASP FOR PLANT MIX	2,101.780	3.9	81.969	1.0	21.018	0.9	18.916	5.8	121.903	
		13	10/03/2014	14-0448-152-WM3G		10 - ASP FOR PLANT MIX	1,605.060	3.9	62.597	1.0	16.051	0.9	14.446	5.8	93.093	
		14	10/06/2014	14-0448-152-WM3G	3	10 - ASP FOR PLANT MIX	1,951.180	3.9	76.096	1.0	19.512	0.9	17.561	5.8	113.168	
						WBS Totals:	<u>17,226.930</u>		<u>671.848</u>		<u>172.270</u>		<u>155.045</u>		<u>999.161</u>	
						Line Item Totals:	<u>25,675.030</u>		<u>1,001.324</u>		<u>256.752</u>		<u>231.078</u>		<u>1,489.152</u>	