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Introduction to Specialty Forms

Bidtab IV has two specialized forms that are usually prepared before a project is advertised for bids:

- The *DBE Goals Worksheet Form* is used to designate items in the Estimate that may be accomplished by a DBE Contractor and to print the *DBE Goals Worksheet*.
- The *Federal Aid Coding Form* is used to assign various project costs to Federal Aid Improvement Codes using either the Engineer's Estimate or Low Bid and to print the *Final Project Agreement Estimate and Coding Backup* report.

What you should learn in this module

By the completion of this module you should be able to answer the following questions:

1. Which keystroke will give you additional help on any form?
2. How do you designate a DBE Item?
3. How do you indicate there are at least 3 providers in the state for a sub-contractible item?
4. Can you designate only a portion of an item's cost as DBE eligible?
5. How does Bidtab IV calculate the DBE Goal?
6. What is the purpose of the DBE Worksheet Report?
7. What is the *Project Estimate And Coding Backup*?
8. Where can you find Federal Appropriation Codes?
9. What is an Improvement Type Code?
10. What two major steps are involved in creating a Project Estimate And Coding Backup?
11. Do you need special permission to create an ad hoc Improvement Type code for your Project?
12. Who can modify the Standard Improvement Codes?
13. What important details are added to a Standard Improvement Code before it is included in the Code Summary list for the project?
14. What costs are shown in the Code Summary List?
15. How do you switch between Estimate and low bid costs?
16. How can you tell which Costs you are using?
17. How you code multiple items at the same time?
18. How can you create a list of the items assigned to a particular code?
19. How do you designate a cost as nonparticipating?
20. What categories of project costs may be split between the Improvement Codes?
21. What are Formulated Costs?
22. Does using a Primary Code save paper? Does it add clarity to the report???
23. After you have created a Project Estimate And Coding Backup using the Engineer's Estimate, can you modify the Formulated Costs using the low bid amounts? What happens to your original calculations?
Disadvantaged Business Enterprise Program (DBE)

The Department has a program that is intended to provide contracting opportunities on federally funded projects to DBE-owned firms. In essence, a DBE utilization goal is established as a percentage of the total contract award amount. This goal becomes a contract requirement so that all contractors who submit bids are required to comply with the goal. This goal is based in part upon the value of the subcontractable pay items that can be performed by DBE companies the Department has certified.

Using Bidtab IV you can easily create a DBE Goals Worksheet that identifies the subcontractable pay items, indicates the availability of certified DBEs and establishes the DBE goal.

DBE Goals Worksheet Form

To Designate DBE pay items: Left-Click on a cell in the column labeled:

- **DBE Item**, to select or deselect the Item as a DBE Item.
- **3 DBE’s** column to indicate the pay item has at least 3 providers.
- **DBE Amount** column to enter the amount you want included in the DBE calculation.
• **Percent of Total** column for any Item to enter what percentage of the DBE Item to include in the DBE calculation. There are two percentages displayed in this cell. The first indicates the item’s contributing DBE fraction of the estimate. The second indicates the percentage of the pay-item that has been designated as DBE eligible.

• **Pay Item Description** to enter a note about the Item.

To indicate who prepared the Work Sheet and the Project’s DBE Goal:

- Click on the Blue text Boxes below the Grid to
  1. **Select Who Prepared the Form.** This will initiate a Dialog Form where you can select or add the official.
  2. **Enter the DBE Goal as a Percentage** for the project.

Print the DBE Worksheet Report by selecting **Print the DBE report** from the **Main Menu** under **File**.
Project Estimate & Coding Backup

Before a federally funded project is advertised for bids, the Department enters into a contract with the sponsoring agency. On projects funded by the Federal Highway Administration this contract is called the FHWA Project Agreement, which includes a section that is referred to as the Project Estimate And Coding Backup.

The Project Estimate And Coding Backup report differentiates between participating and non-participating costs so that the sponsoring agency can accurately determine its financial obligation to the State. It also classifies each project cost into categories defined by a system of Appropriation Codes and Improvement Type Codes specified by the FHWA.

The FHWA sponsors hundreds of programs and projects\(^1\). Each is assigned an Appropriation Code (APPN). Sometimes a project has many Appropriation codes. The point being: seek the advise of a professional before specifying an Appropriation Code! Because the number of APPNs is in a constant state of flux, Bidtab IV does not provide a means to easily select an APPN from a list.

Improvement Type Codes: Currently, FHWA is using a relatively short list of Improvement codes, which describe the kind of improvement that is being made. Bidtab IV allows you to select these codes from a list.

The FHWA Project Agreement is generally prepared prior to advertising the project for bids. Because of this, the Project Estimate And Coding Backup is initially based upon the costs from the Engineer’s Estimate. Following award of the contract, the Department prepares an amended Project Estimate And Coding Backup using the construction contract bid prices. This amended version is sent to the FHWA and the Project Agreement is modified accordingly.

Using the Bidtab IV Federal Aid Coding Form you can prepare the Project Estimate And Coding Backup using the costs identified in the Engineer’s Estimate to establish the FHWA Project Agreement. With a simple menu selection, you can automatically create a Project Estimate And Coding Backup modified with the bid prices.

---

\(^1\) “program” - One of the many components or categories that make up the overall Federal-Aid Highway Program. Congress separately funds programs. They may be system related (e.g., National Highway System, Surface Transportation Program), or they may exist for special purposes (e.g., Congestion Mitigation and Air Quality Improvement Program, Highway Bridge Replacement and Rehabilitation Program). See A Guide To Federal-Aid Programs And Projects, FHWA Publication No. FHWA-IF-99-006

"project" – Not to be confused with State “projects”. An FHWA project is generally a broad undertaking to construct, reconstruct, or improve a particular portion of a highway. Congress specifically designates FHWA Projects. (e.g., Alaska Highway, Shakwak)
Preparing the Federal Aid Project Estimate and Coding Backup is a two-step process. The form has been designed accordingly:

1. **Select Improvement Type Codes.** This Frame is used to designate which FHWA Appropriation Code and Improvement Code combinations you want to use on the project. Only the code combinations you create on this frame are available to you on the second frame. One of the Codes can be designated as being the **Primary Code**. Primary Codes usually have most of the Costs coded to them and, if used, can reduce the length of the Coding Backup Report.

2. **Assign Costs to Improvement Codes.** You will use this Frame to assign the various project costs to the Appropriation code/Improvement Code combinations you specified in frame 1.

**1. Select Improvement Type Codes Frame**

The **Select Improvement Type Codes** Frame has four elements:

**The Improvement Codes Pane**

The **Improvement Codes Pane** displays a standard list of Improvement Type Codes to use on the project. Select which set of codes to use from the Pull-down text box at the top of the Pane. A code is moved to the **Details Pane by simply clicking on it**. Be cognizant of the order you add codes to the **Code Summary List**.
It can save you a lot of work reordering improvement codes later. Adding the *Primary Code* first (if you plan on using one) is a good place to start.

If you have permission to *Modify Master Lists* you can add or delete Improvement Codes. Right-Click on the Improvement Codes List to display the popup menu.

**Code Details Pane**

The *Code Details Pane* is used to add the Appropriation Code (APPN) and *Federal Participation Ratio* to an Improvement Code. Once you have done this, you click on the *Add this code to Summary* command button to move the code to the *Code Summary List* where it is finally associated with your project.

You are not restricted to using just the Codes from the *Improvement Codes Pane*. You can create any Improvement Code Number or Description you need to use on your Project by simply typing this information into the text boxes.

**The Code Summary List**

The *Code Summary List* displays the list of code combinations you have created to use on the project. Federal, State match and Non-Par amounts are displayed for the Costs you have assigned to each code on the *Assign Costs to Improvement Codes Frame*.

The *Code Summary List* has a popup menu that allows you to edit, reposition or delete a code combination.

**Project Description Pane**

The *Project Description Pane* is where you can provide a description for the project. This Description is included in the *Federal Aid Project Estimate and Coding Backup report*.

**Selecting Estimate or Low Bid Costs**

If a low bidder has been determined, you can switch between estimated and low bid costs from the Main Menu selection *Show Costs From*. 
2. Assign Costs to Improvement Codes Frame

After you have a created the Appropriation/Improvement Code combinations you want use on the Project, select Frame 2. Assign Costs to Improvement Codes.

Assigning Costs to Codes

To assign costs to your codes is a simple process:

- Select one or more cells from the Grid using your mouse. In the example shown, I have selected 2 Contractor Furnished CE Pay-Items.
- Right-Click in the area you have highlighted to display the Popup Menu.
- Select the Improvement Code you want to assign these costs to from the popup menu. If you select only one column, as in the example, the Code identified with that column will always be displayed at the top of the popup menu, which is kind of handy.
The grid is automatically updated to show the results of the cost assignment.

Each cell shows the federal, state match, nonparticipating and total amount assigned to the Code. The code cost summary, at the top of the column, is also updated with the new assignments. In turn, the project totals are also updated.

Deleting Coded Costs
To Delete costs assigned to your codes:

- Select one or more Costs from the Grid using your mouse.
- Right-Click in the area you have highlighted to display the Popup Menu.
- Select the Delete Selected Coding from the popup menu.
- Once again, the Grid is automatically updated to reflect the current totals.

Showing Costs Assigned To A Specific Code
You can filter the Grid to show only the costs assigned to a specific code by Left-Clicking on the column heading for the Code. The column heading will be highlighted in red, indicating the grid is being filtered. Only Items assigned to the Code will be displayed in the grid. To clear the filter and display all Items, click on the cell highlighted in green in the first column.
Printing the Coding Grid

Simply select *Print Coding Grid* from the popup menu. Whatever is displayed will be printed. If a filter is active then only items assigned to that Code would be printed.

Splitting Costs Between Codes

Sometimes it is necessary to Split costs between Codes. In the example below I have already assigned all of the Unclassified Excavation cost to the *Reconstruction, No Added Capacity* Code. Now I want to split out a portion of the cost for Unclassified Excavation and assign it to the *Bridge Replacement* Code.

To split the cost:

- Left-Click on the *Bridge Replacement* Cell and then Right-click to display the Popup Menu.
- Select *Split Cost* from the menu.
- You will be asked to provide the *Quantity* for the selected Item that you want to allocate to this Improvement Code. Even Lump Sum and Contingent Sum Items can be Split. There Total *Quantity* must simply equal one (1).

- If the total cost allocation is over or under the total item cost then all of the allocated Costs on that Row will be shown in Red.

To fix this situation, you must now split the *Reconstruction, No Added Capacity* Code. Following the same routine, Bidtab IV will automatically display the split quantity required to remedy the problem.

You may wonder why Bidtab IV does not automatically fix errors in splits. The reason is because you can split between more than just two Codes.
Designating Non-Participating Costs

Each pay item in an estimate can have a portion of the total quantity designated as nonparticipating. Such a designation is usually done on the Engineer's Estimate Form. If this wasn't done, and needs to be, you can designate a portion of the quantity for any Item as nonparticipating. This is important because it will modify the way Construction Engineering and the Indirect Cost Allocation Plan amounts are calculated.

Designating Costs as nonparticipating follows exactly the same routine as splitting a cost. The only difference is that you select Change Non-Participating Quantity from the popup menu. Again you will be asked to provide the Quantity you want to designate as nonparticipating. All nonparticipating cost assignments are highlighted in light blue on the grid.

Be aware that splitting items between codes that have also have nonparticipating Costs can be very tricky and is not recommended.

Designating Contractor Supplied Engineering Items

Any Pay Item in an estimate can be designated as being a part of Contractor Furnished Engineering. Again, such a designation is usually done on the Engineer's Estimate Form but can be accomplished on this form also. To designate items simply select them from the grid with your mouse, display the popup menu and select Toggle Contractor supplied Engineering.

The selected items will be moved from their existing location on the grid to a special Location near the bottom of the estimate section.
Changing Formulated Costs

Formulated Costs such as Construction Engineering, the Indirect Cost Allocation Plan percentage and costs that are not part of the Contract can be modified from the Main Menu by selecting *Modify Formulated Costs*.

All formulated costs are located at the end of each estimate section on the grid. Formulated Costs are coded much in the same way as you would code pay-item costs. However, there are several differences that we will discover.

Construction Engineering Costs

You can modify the way Construction Engineering is calculated for each Estimate Section. When entering CENG you have two choices:

- **Percent of Items**, enter a percent sign (%) after the number. Bidtab IV will calculate the CENG by adding up all of the items in the section, except Contractor Furnished CENG Items. It will then multiply by the percentage you have specified to determine the CENG amount.
- **Fixed Amount**, just enter the fixed amount.

Indirect Cost Allocation Plan Costs

You can specify the percentage used in each estimate section used to calculate Indirect Cost Allocation Plan Costs from the *Modify Formulated Costs* Menu. A dialog will appear where you simply enter the Percentage to apply.

ICAP is calculated by adding up all the participating costs in the Section and multiplying by the percentage you have specified. ICAP costs cannot be split between codes.

Added Costs (not part of the Contract)

Sometimes it is necessary to include Added Costs, which are not part of the Contract, in the Code Summary. Selecting this option from the *Modify Formulated Costs* Menu will activate a dialog form where you can enter the description and the amount for each added cost.

All costs not part of the Contract are assumed to be participating costs. You may not designate any part of the added cost as nonparticipating. You can, however, split an added cost between Codes.
**Project Estimate And Coding Backup Report**

After you have completed coding your estimate, you can print the *Project Estimate And Coding Backup report* from the Main Menu, *File* selection. When bids come in you can then switch to using bid prices for the Final Project Agreement Estimate.

This is an excerpt from the first page.

---

### FINAL PROJECT AGREEMENT ESTIMATE

**State of Alaska**  
**Department of Transportation & Public Facilities**

**Project Description**: This is a very big project that replaces the bridge over Caribou Creek on the Glenn Highway.

I am using this project to demonstrate the Federal Aid Coding Form.

This description is entered on the Project Description Pane.

#### Non-Par Items are identified following the item listings:

---

**Total Non-Participating in Basic Bid**: 41,940.00

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And, finally, the Coding Back-up is printed. In this case I used the *Reconstruction, No Added Capacity* code (04) as the Primary Code so the report does not list all of the items coded to it. Rather, in the second box down, it subtracts the other code totals from the grand total to derive the amount for (04). This supposedly saves paper.

---

### DBE Improvement Code Summary

<table>
<thead>
<tr>
<th>Code</th>
<th>Total</th>
<th>Ratio (Total)</th>
<th>Federal Funds</th>
<th>State Funds</th>
<th>Share funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>5,175,768.74%</td>
<td>38,439,090.18</td>
<td>38,439,090.18</td>
<td>38,439,090.18</td>
</tr>
<tr>
<td>2</td>
<td>17</td>
<td>750,000.00%</td>
<td>750,000.00</td>
<td>750,000.00</td>
<td>750,000.00</td>
</tr>
<tr>
<td>3</td>
<td>17</td>
<td>9,664,243.66%</td>
<td>9,664,243.66</td>
<td>9,664,243.66</td>
<td>9,664,243.66</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>1,893,677.02%</td>
<td>1,893,677.02</td>
<td>1,893,677.02</td>
<td>1,893,677.02</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>50</strong></td>
<td><strong>44,515,664.04</strong>%</td>
<td><strong>44,515,664.04</strong></td>
<td><strong>44,515,664.04</strong></td>
<td><strong>44,515,664.04</strong></td>
</tr>
</tbody>
</table>

### UTILITY Improvement Code Summary

<table>
<thead>
<tr>
<th>Code</th>
<th>Total</th>
<th>Ratio (Total)</th>
<th>Federal Funds</th>
<th>State Funds</th>
<th>Share funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>62</td>
<td>1,230,000.00%</td>
<td>1,230,000.00</td>
<td>1,230,000.00</td>
<td>1,230,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>58</strong></td>
<td><strong>5,585,945.10</strong>%</td>
<td><strong>5,585,945.10</strong></td>
<td><strong>5,585,945.10</strong></td>
<td><strong>5,585,945.10</strong></td>
</tr>
</tbody>
</table>

1. Includes $41,045.00 for Participating Benefit Areas.
2. Includes $2,095,860.00 for Non-Participating Benefit Areas.
3. Includes $2,595,355.20 for Non-Participating Benefit Areas.
4. Includes $2,595,355.20 for Non-Participating Benefit Areas.
5. Includes $2,595,355.20 for Non-Participating Benefit Areas.

---

### Table 1

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Bridge Replacement, Added Capacity</td>
<td>5,175,768.74</td>
</tr>
<tr>
<td>17 (CF)</td>
<td>Construction Engineering (CE)</td>
<td>750,000.00</td>
</tr>
<tr>
<td>17 (SF)</td>
<td>Construction Engineering (CE)</td>
<td>9,664,243.66</td>
</tr>
<tr>
<td>17 (SCAP)</td>
<td>Indirect Cost Allocation Plan (ICAP)</td>
<td>1,893,677.02</td>
</tr>
<tr>
<td>43</td>
<td>Utilities</td>
<td>1,230,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>44,515,664.04</strong></td>
</tr>
</tbody>
</table>

### Table 2

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Bridge Replacement, Added Capacity</td>
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<tr>
<td>17 (SF)</td>
<td>Construction Engineering (CE)</td>
<td>9,664,243.66</td>
</tr>
<tr>
<td>17 (SCAP)</td>
<td>Indirect Cost Allocation Plan (ICAP)</td>
<td>1,893,677.02</td>
</tr>
<tr>
<td>43</td>
<td>Utilities</td>
<td>1,230,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>44,515,664.04</strong></td>
</tr>
</tbody>
</table>

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### Table 3

<table>
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<th>Code</th>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Bridge Replacement, Added Capacity</td>
<td>5,175,768.74</td>
</tr>
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</tr>
<tr>
<td>17 (SF)</td>
<td>Construction Engineering (CE)</td>
<td>9,664,243.66</td>
</tr>
<tr>
<td>17 (SCAP)</td>
<td>Indirect Cost Allocation Plan (ICAP)</td>
<td>1,893,677.02</td>
</tr>
<tr>
<td>43</td>
<td>Utilities</td>
<td>1,230,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>44,515,664.04</strong></td>
</tr>
</tbody>
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### Table 4

<table>
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<tr>
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<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Bridge Replacement, Added Capacity</td>
<td>5,175,768.74</td>
</tr>
<tr>
<td>17 (CF)</td>
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<td>17 (SCAP)</td>
<td>Indirect Cost Allocation Plan (ICAP)</td>
<td>1,893,677.02</td>
</tr>
<tr>
<td>43</td>
<td>Utilities</td>
<td>1,230,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>44,515,664.04</strong></td>
</tr>
</tbody>
</table>

### Table 5

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>Bridge Replacement, Added Capacity</td>
<td>5,175,768.74</td>
</tr>
<tr>
<td>17 (CF)</td>
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</tr>
<tr>
<td>43</td>
<td>Utilities</td>
<td>1,230,000.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>44,515,664.04</strong></td>
</tr>
</tbody>
</table>