## EEBACS USER GUIDE 1.0

Chapter 2 - Design Module

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2.1 Introduction

The Design module creates the Independent Government Estimate (IGE) and supporting documents.

A project may have one or multiple estimates. An estimate can be as simple as a Cost-Per-Length (CPL) or be comprised of multiple schedules that can contain numerous pay items.

While a CPL estimate can be under the same milestone umbrella as a schedule estimate, it is recommended that CPL estimates be developed under their own milestone name (CPL).

Reports created by schedule in this module:

- EE (Engineer’s Estimate);
- Design EE Column;
- Design Summary;
- PE Summary of Quantities;
- Summary of Quantities; and
- UPA (Unit Price Analysis).

Guidance for the Design module is organized by tabs as viewed in the program.
2.1.1 Project Creation

Submit the EEBACS-005 form to the Division’s EEBACS Design Component Lead (or EEBACS Division Administrator) to add a project to the system.

Provide the following information:

- Date of request;
- Requester’s name;
- FP version;
- Project number;
- Project name;
- Project description (begin and end point);
- Unit (Metric or USC);
- State(s); and
- If an estimate from a previous project is to be copied, include the project number, name, and which estimate and schedule is to be copied. **Note that projects may not be copied from a different FP version.**

Follow the Division’s numbering and naming convention.

2.1.2 Navigation

The list of projects in EEBACS is extensive. Navigation to a specific project is made easier by using the “recent items” on the home page (if a project has been accessed before) or at the “Estimate list” tab by using the “search filter” or “next page” function.

2.1.2.1 Home page navigation

The Home page (or tab) is reached upon logging into the program. The home page allows navigation by either:

A. Selecting any category on the sidebar; or

B. Selecting from any of the most recent user entries.
2.1.2.2 Side bar navigation

The most commonly used categories on the sidebar are “Project All” and “Design”. This shows a listing of all projects within the system or the Design module.

A. Select “Project All” to view a listing of all projects within the system; or

B. Select “Design” to view a listing of all estimates for all projects.

Format and navigation in the estimate list is identical in both “Design” and “Projects All” screens (see example in the following section).

2.1.2.3 Estimate list navigation

A. Filters data by the constraints selected;

B. Next page shows the next 20 projects; and

C. Indicates sequence of project being viewed and total number of projects in the system.
2.1.2.4 Project tab navigation
Once a project is selected, use the tabs to access module sub-activities.

A. Tabs and sub-tabs allow access to various functions.

2.1.2.5 Return to last screen or list navigation
A. Returns either to the last screen or (depending on location) the Design/Project list.

Note: Do not use the browser "back" button to return to the last screen.
2.1.2.6 Within project navigation

A. Returns to selected function;

B. Navigation can also be accomplished by using the tabs. White colored tabs indicate path to active tab and the active tab of the current window.

**WARNING:** Save data inputs in the current tab before accessing another tab or data may be lost.

Not seeing the expected screen when in a tab? Try selecting the “Close” icon. EEBACS saves the last sub-screen viewed when last in the tab.
2.1.2.7 Master Pay Item navigation

A. Search Filter. Single or multiple pay items may be found by:
   - Keyword (a word within the pay item description);
   - pay item number, in whole or part (301 or 30101 or 30101-1000); or
   - show pay items previously “selected” or “all” pay items by selecting the radio buttons;

B. Advances to the first pay item number in the selected range; and

C. Advances screen by page.
2.2 Projects

General information about the project is stored on the Project Info, Account, and Team tabs. Estimates are created and edited under the Design tab, described in Section 2.3.

2.2.1 Project Information

Project information is descriptive data specific to the project. Required data (Federal Lands Division, FP version, project number, project name, project description, unit, and state) will initially be added by the Division’s EEBACS Design Component Lead.

Before the project is transferred to Acquisitions, all remaining data fields must be populated by the Lead Designer.

A. County pull-down will activate once state(s) has been selected. Multiple counties may be selected;

B. Density and terrain description are determined through AASHTO, A Policy on Geometric Design of Highways and Streets;

C. Federal Land is the name of the National Park, National Forest, or Wildlife Refuge, etc.;

D. Funding source(s) included in the project;

E. FLMA (Federal Land Management Agency) Number is a number assigned to the project by the landowner agency. Examples are:
   - NPS: PMIS No.: 129153 Drawing No.: 102-100064;
   - BIA: BIA No.: J51-624-163(455)213; and
   - State: AHTD Job 040283; and

F. To exit the screen, select either Save & Close or Cancel & Close. Save stores the recent edits while Cancel returns to View mode.

Note: Changing units (US Customary ⇔ Metric) will automatically convert any data previously entered (pay item descriptions, pay units, quantities, and unit prices) as defined by conversion factors.
2.2.2 Account

The account tab allows input of one or multiple account numbers. Sometimes projects have multiple funding sources and require schedules, pay items or quantities within pay items to be assigned a specific account number. Even if the project has only one Account, that Account number must be added here.

A. Select “Add New Account” to allow input of account numbers;

B. Select the account type. Generally CON (Construction) is selected;

C. Account code is a “nickname” for an accounting number. Always include account type in “nickname.” (i.e. CON01);

D. Input a description of the account (examples: PRA, Fee Demo, County funds, etc.);

E. If known, enter the Delphi account number;
   (example: 1517560401020 540.00.F179.56.1756001404);

F. Chain order will be determined in Construction or according to Division procedures; and

G. Select the appropriate command to exit the screen.
2.2.3 Team

The team tab allows assignment and archive of project team members.

2.2.3.1 Add Team Member (Assign Project Role)

A. Select the “Add New Team Member” icon to access assignment screen;

B. Begin typing a name. A pick list will appear. Select a name from the pick list. Only add approved team members, since, in some cases, this will provide additional user rights. (Only enabled users appear in the list);

C. Choose the role in which the team member will be assigned for this project. If a role cannot be found in the pick list, contact the local EEBACS Division Administrator;

D. Select the “Save and Close” icon.
2.2.3.2 Archive Team Member (Archive Project Role)

Archive former team members. This is particularly important for A/E Staff and Construction Contractors, since this removes their access to this project. Archiving Government users and Contract staff on the project team member may reduce their rights within this project. The following is an example of a populated team roster:

A. “Edit” project team member to be deleted

B. “Delete” project team member

C. Confirm to delete (archive) project team member. This cannot be undone. If needed, the team member can be added again (made a current team member) with a project role.
Once the project team member has been deleted (archived), the Archived Members tab automatically appears.

D. Use the search filters to find archived users

E. Select appropriate status for archived user. Normally select “Active” status.
2.3 Estimates

The "Design" tab allows access to a majority of the estimating functions. Development of the Independent Government Estimates (IGEs) occurs under this tab. IGEs can be broad in scope when developed under the cost-per-length option or extremely detailed when using the standard estimating option with schedules.

Estimates can be developed using stored bid history from projects with similar items of work or developed through labor-equipment-material calculations.

2.3.1 Estimate List

Each project will have one or multiple estimates (milestones). Milestone estimates are snapshots in time of how much a project is expected to cost given all the known factors. Each estimate will contain one or multiple schedules.

A. Choose icon to view, edit, copy, or delete an estimate; or use the button to add a new estimate;

B. Designates whether an estimate is complete.

- shows that the Estimate is not complete and is still open to changes.

- 2009-03-04 shows that the Estimate was marked complete on a certain date. Completed estimates can be viewed and copied, but not edited or deleted.

To change the status, go to the "Estimate" tab;

C. Indicates whether the estimate is current ("cur" appears in the column) or not. It is extremely important to have a "current" estimate. The current estimate milestone shows up on the Projects (All) tab listing. Current does not necessarily mean a completed estimate; it only means that is the most recent estimate being worked on. To change the status, go to the "Estimate" tab; and

D. The Quick Link Pull-down menu provides direct access to the Cost per Length (CPL), Schedules, Column Headers, Pay Items, or Construction Estimate tabs.
2.3.1.1 Adding New Estimate

A. When opening the Estimate List for the first time, select the edit icon in the placeholder estimate; and
B. For subsequent added estimates select the “Add New Estimate” button.

This selection advances the program to the “Estimate” tab (See Section 2.3.2).

2.3.1.2 Copy Estimate

The copy icon creates a new estimate from a previously created estimate. As the project progresses, it is important to save estimates at major milestones by copying the completed estimate to the next milestone. This provides a record of the project development and could also save rework if project requirements change.

A. To copy a previously created estimate, select the copy icon; and
B. A copied estimate must be edited to change the Milestone Name, Description, etc.
2.3.1.3 Edit Previously Created Estimate
   
   A. To edit to a previously created estimate, select the "edit" icon.
   
   This selection advances the program to the "Estimate" tab (See Section 2.3.2).

2.3.1.4 View Previously Created Estimate

   A. To view to a previously created estimate, select the view icon.
   
   This selection advances the program to the "Estimate" tab (See Section 2.3.2).
2.3.1.5 Delete Previously Created Estimate

A. To delete a previously created estimate, select the delete icon.

B. A warning pop-up will appear. Once the deletion has been confirmed, it cannot be undone. **There is no backup copy.** Note that other milestone estimates will remain.
2.3.2 Estimate

Under the “Estimate” tab modify the estimate name (use milestone name), a brief description of the estimate, and the status of the estimate (complete/current).

A. Insert the estimate’s milestone name (examples: 15%, 30%, 50%, P-I-H, Final PS&E, PS&E Approval Reviews);

B. Insert description of estimate (examples: 15%, 30%, 50%, P-I-H, Final PS&E, PS&E Approval Reviews, plus additional description/details, if needed.). Do not leave blank;

C. The radio buttons for “complete” and “current” designate the status of the estimate. When work on an estimate is complete, toggle “yes” in the “complete” row. An estimate marked complete can no longer be edited. Editing can only be accomplished in an incomplete estimate; and

D. Select a command to continue with the program.

Prior to generating the engineer’s estimate report and the summary of quantities for formal PS&E distribution, the milestone estimate should be marked as complete, with the completion date added.
2.3.3 CPL (Cost per Length)

The “CPL” tab allows development of estimates using “comparable” past projects costs. Data is taken from bid history. This estimating method requires a length (miles/kilometers) of project and knowledge of past projects with similar work. If knowledge of past projects is lacking; consult your supervisor before using this estimating method. Costs developed using this method are approximate and intended to be used for preliminary or scoping estimates only.

A. Select a command to continue with the program.

B. Current date is automatically populated, but can be changed;

C. Input project length; and

D. To determine the project cost per length, select the “Generate” button.
E. Use the search filters to limit the projects to be considered. Typically select state, density, terrain, and award date range. Upon selecting “apply search” the results table will be populated;

F. Select appropriate project costs;

G. Select an appropriate inflation index for the project. The inflated costs will populate the table in bold text below the original cost. Prices will be inflated to the most recent published data for the selected construction cost index (most indices are updated quarterly). Future price escalation are not included;

H. Select the update icon to populate the minimum, average, and maximum past project costs;

I. Add relevant remarks to inform reviewers how the “unit price used” was established;

J. Input the “unit price used” by either selecting the minimum, average, or maximum price generated or inputting a price determined by the user. Round the unit price per Division policy; and

K. Select a command to continue with the program.

If prices are to be selected from multiple screens (pages), select the "update" button of the current screen before going to the next screen and selecting more prices (otherwise current screen price selections are not saved).

There are a number of inflation indexes available in EEBACS for use when doing a unit price check. The inflation indices adjust prices from award date to the latest available inflation index in EEBACS. Typically use an index for the project State or a State in close proximity to the project. If there is no State index select indexes created by data from the Bureau of Labor and Statistics (BLS Non-Residential Construction PPI) where inflation of work and materials are tracked on all non-residential construction, or the Federal Highway index (National Highway CCI) where inflation on highway...
construction costs are tracked. The BLS index is adjusted monthly and the National Highway index is adjusted quarterly. Of these two, for typical roadway projects, use the National Highway CCI.

L. The “unit price used” generated from the previous screen multiplied by the inputted “cost-per-mile (kilometer)” length is used to compute the total cost;

M. A CPL report may be generated; and

N. Select a command to continue with the program.

2.3.4 Schedules

Create single or multiple schedules for an estimate within the “Schedules” tab.

A. Select “Add New Schedule” to continue with the program.
B. An existing schedule may be copied within the project’s estimate. Select either a “copy” or a “shared” version. Shared estimates link pay items together (i.e. any change in a pay item for one schedule will be reflected in the other schedule). Copied estimates do not link pay items and is generally the preferred method of coping schedules;

C. Required fields:

- **Schedule Type** – Base, Option, or Alternate. A “base” schedule is selected when soliciting prices for one schedule or if there are multiple schedules with one or multiple “option” schedules. An “option” schedule is selected when soliciting prices for multiple schedules using Base schedule(s) and Option schedule(s). Options can be awarded at a later date. An “alternate” schedule is selected when soliciting prices for multiples schedules (and NO Options are included in the advertisement). Schedule Letter – Attaches an alpha designator (A-Z) to the schedule. Consult supervisor for local Division practices;

- **Construction Type** – Describes the major type of work to be accomplished in this schedule. If the pull-down menu does not adequately reflect project work, consult with the Division’s EEBACS Design Component Lead;

- **Schedule Description** – Input major work items to be performed

- **Schedule Termini** – Describe the beginning and ending points of the project that this schedule represents (example: station to station, milepost to milepost, or route junction to route junction);

- **Line Item Starting Number** – Each pay item is automatically assigned a line item number. Line item numbers are four digits. Start the first line item number with 0020 or 0100 depending on the amount of pay items;

- **Line Item Increment Number** – Defines the spacing between line item numbers. A value of 20 is recommended. It is important to set the line item number increment as large as possible, in order to leave room for new pay items resulting from Amendments, Contract Modifications, or Quality incentive payments. Line Item Numbers will vary from estimate to estimate. Once a project is advertised
the Line Item Number can no longer be changed. Line item numbers should not exceed 9999; and

D. CPM Days. This is the estimated number of days required to complete the work, typically calculated using the Critical Path Method (CPM). See your supervisor for details regarding CPM.

2.3.4.1 GIS Routes and Bridges

Geographic Information System (GIS) is a collection of data on routes that assists FLMA and FLH in managing transportation systems.

A. Select the “Add GIS Route” icon and a detailed data field screen appears. See next page for details;

B. Schedule Length and Lane Miles. Input the schedule length from beginning to end. Schedule length is the same length shown on the title sheet of the plans for that schedule. Lengths are to three decimal places. By default, the schedule length is the total of the GIS route lengths in a particular schedule. If that is not true for the project, select the edit icon to manually enter the schedule Length. Lane-miles must always be manually entered;

Lane miles is the length of lanes in a schedule. Lane miles is not always a doubling of the schedule length. Lane miles include acceleration lanes, deceleration lanes, etc.;

C. Select the “Add Bridges” icon and a detailed data field screen appears. See next page for details; and

D. Select a command to continue with the program.
When the “Add GIS Route” icon has been selected the following data fields appear:

E. Data for required fields may be determined according to the GIS Appendix;
F. Opens additional data fields to input data for an additional GIS route; and
G. Deletes the GIS data.

When the “Add Bridge” icon has been selected the following data fields appear:

H. Data for required fields may be determined according to the GIS Appendix;
I. Opens additional data fields to input data for an additional bridge;
J. Input bridge length; and
K. Deletes the bridge data inputted.
2.3.5 Column Headers

Establish column headers for the Summary of Quantity plan sheet (or report) in the "Column Headers" tab. A maximum of 26 columns are available. Consult your supervisor for the Division format.

A. Select the “add a pick” box to open “Pick Label” and “Page No.” data fields for input; then

B. Input column header name (Typical Section, Plan & Profile, Surfacing Summary, Roadway name, etc.);

C. Input plan sheet page number or plan section alpha designator depending on local Division policy. If no sheet number reference is required, enter a space;

D. Select icon to add another data field below;

E. Select icon to delete the adjacent pick label and page number;

F. Select icon to move pick label and page number up or down in the listing;

G. Select a command to continue with the program; and

H. Select icon to delete all column headings. **Warning:** Quantities will remain but will need to be reassigned to another column.
2.3.6 Pay Items

Add, edit, and delete project pay items and create temporary pay items in the “Pay Items” tab for an estimate or schedules.

2.3.6.1 Project Pay Items

The “Project Pay Items” tabs allow access to the master pay items (see Section 2.3.6.2 for more details), adding temporary pay items, and updating line number. Once pay items are added to a schedule, it also lists all pay items.

Project pay items must be assigned a schedule in order for the pay item to be included in the total estimate cost. The construction estimate will compute even if all items are not complete. Those incomplete items will just not be included in the total estimate dollar amount. Pay items can be assigned to one schedule or be shared between multiple schedules (determine local Division policy before using “shared pay items”).

A pay item assigned to a schedule will be shown in the project pay item listing as follows:

Example of a pay item assigned to one schedule:

Example of a pay item shared by two schedules:
A. To unlink a shared pay item, the schedule must be unchecked when editing the pay item.

**Caution:** Un-checking a schedule for a pay item is the same as deleting the pay item from the unchecked schedule. Deleting a shared pay item will delete the pay item from all schedules.

B. Before pay items are included, this screen will indicate “No Records Found”;

C. Select “Add Temporary Pay Item” icon when a pay item is not available in the master pay item list and is needed immediately. (See Section 2.3.6.3);

D. Select “Add Master Pay Item” icon when adding pay items to an estimate (See Section 2.3.6.2); and

E. Select “Update All Line Numbers” icon when pay items are added, deleted, or reordered in an estimate (See Section 2.3.6.6).
2.3.6.2 Add Master Pay Item

Add pay items to an estimate with the “Add Master Pay Item” tab. Only pay items from the project’s assigned FP will be shown.

A. Select the “add” icon to include the pay item in an estimate. The same pay item can be selected numerous times (duplicate pay items are acceptable) by selecting the “add” icon again.

B. Duplicate pay item numbers are indicated by the number a pay item is selected in parenthesis (i.e. “(2)” in this example). The options column is also populated with “edit pay item” and “delete most recent” icon; and

C. Selected pay items are indicated by bold font style.

Continue to add items to the schedule until all desired items are selected.
If an item cannot be found in the table, place a request to add a new pay item with the EEBACS Division Administrator. See [http://flh.fhwa.dot.gov/resources/pse/estimate/#pay-items](http://flh.fhwa.dot.gov/resources/pse/estimate/#pay-items) for more information and time requirements for requests.

An example of a Project Pay Item list after adding items from the "Master Pay Items" icon:

- In EEBACS, partnering, performance incentives, asphalt/fuel escalation should be added as 999 Pay Items:
2.3.6.3 Add Temporary Pay Item

The "Add Temporary Pay Item" icon allows temporary pay items to be added to an estimate or schedules until a permanent pay item (from the Master Pay Item table) can be established.

Note: Submit requests for new pay items as early in the process as possible. Do not wait until the project is almost ready to be promoted to Acquisitions. Estimates with temporary pay items cannot be forwarded to Acquisitions.

A. Select “Add Temporary Pay Item” icon to access additional data fields.

Creating a temporary pay item is much like editing a pay item from the master pay item list except for the following:

B. Enter a five digit number. The first three digits should reflect the FP Section in which the work will be performed (example: 647__ for work in Section 647). The next two digits can be any numbers that best fits;

C. Enter a pay item description that reflects the work. Where possible try to use the same format as similar pay item descriptions (example: Temporary traffic control, new temporary pay item description); and

D. See Section 2.3.6.4 for further instructions on how to populate pay item data fields.
E. Temporary pay items are designated “-TEMP” in the pay item number.

2.3.6.4 Editing a Pay Item

Use the edit function to populate the pay item data fields including those dealing with cost of the work item.

A. Select the “edit” icon of the pay item to be edited.
**Special Consideration:** Pay Item 15101-0000 Mobilization. This pay item does not require a “Unit Price”. Unit price is computed using the “Construction Estimate” tab as described in Section 2.3.9. The field will be automatically populated once the requirements of the “Construction Estimate” tab have been fulfilled.

All other data fields need user input:

![Diagram showing mobilization pay item input fields]

The Mobilization pay item will not be marked complete until the account splits are shown in the pay item.

B. Pay Item Identifier. Shows pertinent pay item information such as pay item number, description, pay item type, and pay unit (stating whether the unit is Metric or USC unit);

C. Supplemental Description. Input a supplemental description in parenthesis when further description of a pay item is required. This is commonly used when there is more than one pay item with the same number and description (example: 63401-0100 Pavement markings, type A, solid (yellow) or 63401-0100 Pavement markings, type A, solid (white));

D. Schedule. When multiple schedules are required, select the schedules of the pay item to be edited; and
E. Pay item type. The pay item type is established when pay items are added to the master pay item list by an administrator. The default type indicated is usually correct for the pay item. A user may change the type if desired by selecting from the pull-down list. Pay item types are:

- N = Normal pay item (no incentive);
- NM = Normal pay item, may need material incentive;
- NR = Normal pay item, may need pavement roughness (International Roughness Index, IRI) and material incentive;
- NS = Normal pay item, may need pavement smoothness (Profile Ride Index, PRI) and material incentive;
- DI = Design Incentive are established 999 incentive pay items (i.e. 999001-0000 Partnering). These pay items are not included in the Estimate Total of Bid Items. The DI pay item type cannot be changed; and

F. Contract Quantity. Contract quantity is described in Section 109 of the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects (FP). Indicating a pay item is to be a contract quantity means the quantity will not be measured in the field, but will be paid at the quantity shown in the Bid Schedule. Selecting the contract quantity will automatically place “Contract Quantity” in the Summary of Quantity report for those pay items selected.
G. Column Headings. Select from the pick list a column heading that will contain the quantity found in that section of the plans. Lump sum (LPSM) quantity (ALL) generally does not have a column heading as it is not included in the plan section (check with your HDM for Division policy). Column headings are found in the Summary of Quantities report and act as a quantity index for the plan sheets;

H. Quantity. Input the quantity found in that plan section (column) and account number. Depending on pay item unit, quantities will either be a number or percentage (lump sum items, LPSM, and contingent sum items, CTSM, are always a percentage);

I. Account Number. Select the appropriate account number “nickname” from the pick list;

**Warning:** Even if the project only has one Account, Do NOT leave the Account number blank as this will cause problems in the Acquisitions and Construction modules.

J. Add Account. If needed multiple accounts may be added. Divide the quantity accordingly;

K. Column Heading Total. Indicates the total quantity of one or more accounts for that column heading; and

L. Add Column Heading. If a pay item quantity is shown in more than one section in the plans, the user needs to add another column header opening a similar data box to the one shown and continue inputting data as described above (steps G-J).
M. Unit price. Can be automatically populated using Bid History Unit Price (BHUP) or Cost-base Unit Price (CBUP) analysis methods. A price may also be manually inserted into the data field. It is recommended to use the BHUP or CBUP to document how the price was determined;

N. Remarks. Remarks can be input either in the data field from this screen or carried-over from remarks in the BHUP/CBUP analysis. Use remarks to explain how the unit price was determined (example: Unit price was determined from taking the average of 3 projects of similar scope and quantity);

O. Total price. This number is calculated by EEBACS (unit price x total quantity = total price);

P. Summary of Quantity Remarks. Input text to describe calculations or directions for pay items on the Summary of Quantity report. (Example: Item 40101-0100 might show a remark explaining "The quantity was based on 2.3 tons per cubic meter."); and

Q. Select a command to continue with the program.
2.3.6.5 Reordering Pay Items

When duplicate pay item numbers are found in an estimate, it may be necessary to reorder the pay items.

A. Select the icon to reorder the pay item. Upon reordering pay items, update all line numbers.

Warning: Update all line numbers immediately after the pay item order has been changed, otherwise the order change will be lost.

2.3.6.6 Update All Line Numbers

Select the "Update All Line Numbers" button to refresh line numbers after pay items have been added, deleted, or reordered in an estimate. Line items may be update in either the "Project Pay Item" or "Schedules" tabs.
Example: Pay item 15301-0000 was deleted from Schedule A which eliminated Line Item Number A0030 as shown in the Engineer’s Estimate report below.

<table>
<thead>
<tr>
<th>Line Item Number</th>
<th>Pay Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0010</td>
<td>15101-0000</td>
<td>MOBILIZATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ace CON01</td>
<td>$255,450.00</td>
<td>ALL</td>
<td>$255,450.00</td>
<td>$255,450.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example: By selecting the "Update All Line Numbers" icon, the line item numbers are sequenced in the proper increment.

<table>
<thead>
<tr>
<th>Line Item Number</th>
<th>Pay Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0010</td>
<td>15101-0000</td>
<td>MOBILIZATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ace CON01</td>
<td>$255,450.00</td>
<td>ALL</td>
<td>$255,450.00</td>
<td>$255,450.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Quality incentives associated with some pay items may cause a gap in line numbers which is appropriate.

### 2.3.6.7 Batch Options

The batch option button performs the following:
- Print Bid History Unit Price (BHUP) for selected pay items developed by this analysis system;
- Print Cost Based Unit Price (CBUP) for selected pay items developed by this analysis system;
• Print Quality Unit Price Analysis (QUP) for selected pay items in which QUPs were required;
• Print Unit Price Analysis for selected pay items; or
• Delete selected pay items.

Select pay items for batch options by either:

A. Toggling individual pay items; or
B. all pay items by selecting the “+” button (pay items may be de-selected by selecting the “-” button); and
C. For batch printing requests, select the PDF icon when it appears to view the report.
2.3.7 Determining Unit Prices

For each pay item determine a unit price in order to develop a total price for the estimate. Two methods of developing a unit price for a pay item are available: bid history and cost-based.

2.3.7.1 Bid History Unit Price (BHUP)

The BHUP analysis gathers bid history from past projects in the database to assist in determining a unit price for the pay item. Use bid history with caution. Prices shown in the bid history reflect prices at that point in time and can be influenced by geographical location, quantity, haul, terrain, and price of raw materials. Use search filters to display projects with similar traits. Good engineering judgment is critical when using BHUP.

Set the default BHUP settings before completing the bid history unit price analyses. Fill out the desired fields. The “Keywords:” field searches within the Project Number and Project name fields. The state, construction type, density (urban or rural), award date range, and terrain may also be set. A specific inflation index may also be set. Be sure to select the “Save” button when exiting.

If a BHUP analysis was already completed for a pay item before the default BHUP settings were set, these settings will be ignored.
A. Select the BHUP icon to access the list of past projects with recorded bid history for that pay item.
B. Use search filters to display projects with similar traits.

C. Select “Use Crosswalk” to include projects with previous FP pay items. Pay items from a previous FP appear with bold text. The accompanying description is the description from the previous FP.

D. The “Clear” button clears all search information except the pay item number. Selected projects will remain.

E. The “Reset” button changes the search settings to match the default BHUP settings. Selected projects will remain.

F. Select the “apply search” icon to populate the listing with projects using the selected parameters;
G. Select bid prices from projects with similar work. Prices may also be deselected. The top unit prices reflect the actual bid price for the contract awarded. The “bolded” unit price below, reflects an adjusted price once an inflation factor has been applied (see step E);

H. For more bid history on the pay item, select either screen “jump” or “next”. To select bid prices from multiple screens, select “update” (see Step F) to save selections on the current screen before going to the next screen; otherwise they will not be saved;

I. Select from the pick list inflation factors developed by various state and federal agencies. Choose an entry close to the project area (See Section 2.3.3);

J. Select the “update” icon to populate the “Avg., Max., and Min. calculated prices. If additional unit prices are selected or deselected, update the values;

K. Select the average (recommended), minimum, or maximum historical unit bid price to populate the “unit price used” for the item;

L. Optionally, edit (round the average unit price from step E above) or input a unit price;

M. Describe factors taken into consideration in developing the unit price. These remarks will carry forward to the pay item screen; and

N. Select a command to continue with the program.
O. Upon saving and closing the previous screen, the BHUP icon text is colored red to indicate that analysis type was used and the remaining fields are populated.

2.3.7.2 Cost-base Unit Price (CBUP)

Cost-base unit price analysis develops a unit price by using the cost of labor, material, equipment, time it will take to perform the work, and associated costs (such as overhead and profit). This type of analysis often requires contacting local suppliers, referring to construction equipment ownership and operating expense schedules (such as developed by the USACE), and determining wage rates using the Davis-Bacon Wage Rates for a particular area.

A. Select the CBUP icon to access the worksheet to develop labor, equipment, and material costs for the pay item.
B. Select an appropriate analysis sub-function to begin developing a unit price.

C. Type. Input type of equipment (Bulldozer, 80HP minimum flywheel power, or Dump truck 10 cu yd minimum capacity, etc.), labor (General, or High scaler, or Bulldozer operator over 120,000 lbs, etc.) or material (crushed aggregate, or plantings, or riprap, etc.);

D. Quantity. Input the number of a specific equipment or labor type (Loader – 1, Dump trucks – 4, General Labor – 2, Dump truck drivers – 4, Loader operator -1, etc.). For material type input the quantity to be used;

E. Number of Units. Input the quantity for one unit of equipment or labor. Example: 5 General laborers, each work 9 days would be inputted, “Type”: General laborer; “Quantity”: 5; “Number of Units”: 9; “Unit”: days;

F. Unit. Select the appropriate unit from the pick-list (hour, day, ton, etc.);

G. Cost/Unit. Input the cost per unit. Cost per unit is established by using the USACE construction equipment ownership and operating expense schedules for equipment, Davis-Bacon Wage Rates for labor/equipment operators, and calling suppliers for material costs. See local Division procedures;

H. Total Overhead & Profit. Is a percentage of the actual cost. Overhead are those expenses not directly related to the items of work. They may include lighting and heating for the project and home office, upper management and office personnel salaries, cost of office equipment, and company vehicles. The percentage may vary depending on region and work;

I. Remarks. Describe how costs were determined for that specific item; and

J. Select the Delete button if that line item is no longer relevant.
K. Total Cost (Equipment, Labor, or Material). Automatic summation of all types for that component of work;

L. Total Cost of Equipment, Labor, and Material. Automatic summation of all components of work;

M. Total Cost per Unit for Pay Item. This is calculated by EEBACS by dividing the Total Labor/Equipment/Material Costs by the pay item quantity. Note: If the pay item quantity is not saved before entering the CBUP worksheet, this total will not calculate;

N. Unit Price Used. Input a unit price to carry forward to the pay item tab to calculate the final pay item cost;

O. Remarks. Describe how costs were determined for the pay item; and

P. Select a command to continue with the program.

Q. The BHUP or CBUP button text in the pay item screen will be red depending on the type of analysis selected.
R. Completed pay items will be highlighted in green in the pay item listing for the project. The BHUP or CBUP icon text will be red depending on the type of analysis selected.

2.3.8 Adding Incentives

At this time there are two methods for adding incentives to the estimate. The first process is the Quality Unit Price (QUP) process which will be used to add material quality incentives only.

The second process is to add all other incentive pay items. This process will be used to add asphalt/fuel escalation, partnering, performance incentives, etc. This process will also be used as an interim procedure for adding roughness quality incentives.

A Materials Incentive Spreadsheet has been developed to assist in developing the material QUP.

2.3.8.1 Adding Material Quality Incentives

At this time QUP process should only be used for material quality incentives. Do NOT use this process for roughness or smoothness quality incentives.

Upon determining a unit price, quantity, and calculating a total price for a particular pay item; the QUP icon will appear when the pay item type (incentive) is NM, NR, or NS. (See Section 2.3.6.4 for a description of the pay item types).
If material quality incentive needs to be included:

A. Select the QUP icon to add the material incentive item.
A Quality Unit Price Analysis worksheet will appear:

B. Pay Item Type. **Always** select from the pick list QM (Material incentive);

   **Warning:** Do NOT select QS or QR pay item types (roughness or smoothness incentives). Roughness quality incentives will be added as other incentives according to Section 2.3.8.2.

C. Incentive (%). Input the maximum pay factor. Values are inputted as percentages (1.05 pay factor would be inputted as 5%).

D. Unit Price Used. Unit price is calculated from the incentive %. Do not change;

E. Remarks. Input applicable remarks to document data selection; and

F. Select a command to continue with the program.

If the parent item unit price is updated, either edit the QUP item unit price or delete the QUP and redo.
A QM pay item will be created with the exact same pay item number as the original item. These quality items will not be shown in the Summary of Quantity or Bid Schedule reports, but will be shown in the summary sheets of the Engineer’s Estimate.

Summary page of Engineer’s Estimate:
2.3.8.2 Adding All Other Incentives

Use this method for adding all incentives, except material quality. This process is identical as adding normal pay items.

On project pay item list, select Add Master Pay Items:

**2.3.8.2.1 Roughness and Smoothness Quality Incentives**

A Pay Item Type of “NR” or “NS” suggests that a roughness or smoothness incentive may be needed.
Roughness and smoothness pay items can easily be found by entering key words on the Add Master Pay Item tab. Add appropriate roughness or smoothness item(s)
Edit the roughness or smoothness pay item:

A. Supplemental Description. Enter supplemental description, including the pay item number associated with the incentive

B. Schedule. Select Schedule

C. Pay item type. Do NOT change – it must remain DI

D. Contract Quantity. Always select NO

E. Column Heading. Should remain [none]

F. Accounts. When needed, add accounts and divide the percent quantity between the accounts to match the original item breakdown

G. Unit Price. Enter the Unit Price. The unit price should be the maximum incentive based on the roughness or smoothness formula. Do NOT use BHUP or CBUP for roughness or smoothness pay items

H. Summary of Quantity Remarks. Leave blank. Roughness and smoothness incentive pay item will NOT appear on the Summary of Quantity

I. Save & Close
The DI pay item is now added to the Project Pay Item list. These roughness and smoothness items will not be shown in the Summary of Quantity or Bid Schedule reports, but will be shown in the summary sheets of the Engineer’s Estimate as “Other Incentives.”
Summary page of Engineer’s Estimate - Due to this necessary interim process for roughness and smoothness quality incentives:

J. Roughness and Smoothness items will appear as “Other Incentives.”

K. In the interim, Roughness and Smoothness will NOT appear in the actual labeled sections
2.3.8.2.2 Partnering, performance incentives, asphalt/fuel escalation, etc.

These incentive pay items can easily be found by entering 999 in the Pay Item Number. Add appropriate pay item(s). Add appropriate incentive item(s):

<table>
<thead>
<tr>
<th>Options</th>
<th>Pay Item #</th>
<th>Pay Item Description (US Customary)</th>
<th>Pay Item Type</th>
<th>U.S. Pay Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>99901-0000</td>
<td>PARTNERING</td>
<td>D1</td>
<td>LPSM</td>
<td></td>
</tr>
<tr>
<td>99902-0000</td>
<td>PERFORMANCE INCENTIVES</td>
<td>D1</td>
<td>LPSM</td>
<td></td>
</tr>
<tr>
<td>99903-0000</td>
<td>PERFORMANCE INCENTIVES</td>
<td>D1</td>
<td>DAY</td>
<td></td>
</tr>
<tr>
<td>99904-0000</td>
<td>ASPHALT ESCALATION</td>
<td>D1</td>
<td>LPSM</td>
<td></td>
</tr>
<tr>
<td>99905-0000</td>
<td>FUEL ESCALATION</td>
<td>D1</td>
<td>LPSM</td>
<td></td>
</tr>
<tr>
<td>99920-0000</td>
<td>DESIGN CONTINGENCY</td>
<td>D1</td>
<td>LPSM</td>
<td></td>
</tr>
</tbody>
</table>

**Warning**: The Design Contingency pay item should **NOT** be included to the final engineer’s estimate to be advertised. This pay item is intended to allow added contingencies for undefined work items and anticipated additional design elements at the early phases of design (see local Division procedures). All contingencies should be removed by the Final Design Phase (95%-100%).
Edit the added pay items:

A. Enter supplemental description, including the pay item number that the incentive is for
B. Select Schedule
C. Pay item type. Do NOT change – it must remain DI
D. Column Heading should remain [none]
E. When needed, add accounts and divide the percent or quantity between the accounts.
F. Enter the Unit Price.
G. Leave blank. Incentive pay item will NOT appear on the Summary of Quantity
H. Save & Close
The DI pay item is now added to the Project Pay Item list. These 999 pay item incentives will not be shown in the Summary of Quantity or Bid Schedule reports, but will be shown in the summary sheets of the Engineer’s Estimate as “Other Incentives.”

Summary page of Engineer’s Estimate:

2.3.9 Construction Estimate

Develop a construction estimate for every schedule created. The Construction Estimate tab:

- Totals all pay items (except mobilization);
- Calculates mobilization by either a percentage of the total for other items of work, or from user input;
- Shows all incentives and associated dollar amounts. Generates a total dollar amount for all incentives;
- Generates the total estimated construction cost (pay items, mobilization, and incentives) for the schedule;
- Shows all items designated as contract quantity; and
- Allows the generating of reports (EE, EE by Columns, Design Summary, Summary of Quantities, Project Engineer Summary of Quantities, and UPAs).

A. Select the Create Construction Estimate icon to access the subroutine.
B. Select a schedule from the pick list. The program will calculate the total cost of items in the selected schedule excluding mobilization, list all incentives and contract quantity items;

C. Input mobilization as a calculated percentage of all items (excluding incentives). The percentage value may be overridden by inputting a dollar value in the “used” data field. The “used value” maybe used to round the mobilization price;

D. Upon entering a mobilization price, the total for all bid items will be calculated by the program. If desired, the calculated value may be rounded by inputting a dollar value in the “used” data field. Rounding the value will affect the dollar value used in mobilization;

**Warning for C & D:** Once the “Used” fields have been have saved, if this Estimate page is updated, either the “Used” value in C or D must be hand-entered for the values to be recalculated.

E. Input relevant remarks that describes unique aspects of the calculations; and

F. Select a command to continue with the program.
G. This window indicates the status of the schedule. Ensure the Construction Estimate is up-to-date before printing a schedule. A construction estimate could be out-of-date because: a new pay item was added, a quantity or unit price was edited, or a pay item incentive was adjusted;

H. Reports may be generated from this screen. See Section 2.3.9.1 for more details;

I. Incentive values are automatically populated;

   **Note:** Due to the interim process for adding roughness and smoothness quality incentives, these incentives will be shown as "Other Estimated Incentives."

J. Items designated as contract quantity are listed; and

K. Select a command to continue with the program.
2.3.9.1 Reports

Reports for the Design module can only be generated from the Construction Estimate tab. It is important for reports that the Construction Estimate be up-to-date.

For formal PS&E distribution, the milestone estimate should be marked as complete, with the completion date added, prior to generating the reports (see Section 2.3.2).

A. Select the desired report. The program will generate an Adobe Acrobat (PDF). The Summary of Quantities and the PE Summary of Quantities reports will also automatically generate Microsoft Excel (Excel), or Comma-Separated Values (CVS);

B. Select the file for viewing, printing, or saving outside the program. Files of reports at the top of the screen are only available while in the screen or until another report is requested; and

C. Select the file for viewing, printing, or saving outside the program. The most recent version of the report may be accessed through the right margin.

The last report generated is retained in the program. Adjustments to pay items, incentives, or other data will require the report to be generated again.
2.3.9.1.1 Generate EE Reports

Engineer’s Estimate (EE) is a two-part report. The first part is a summary of schedule costs developed in the estimate. A combined (ALL) summary and a summary for each account number is generated when multiple account numbers are required.

If an estimate is marked complete, the completion date will appear here.
The second part is a listing of all pay items found in the bid schedule (excludes all incentive items).

<table>
<thead>
<tr>
<th>Line Item Number</th>
<th>Pay Item No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0010</td>
<td>15101-0000</td>
<td>MOBILIZATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acct CON01</td>
<td>$432,792.00</td>
<td></td>
<td></td>
<td></td>
<td>$432,792.00</td>
</tr>
<tr>
<td></td>
<td>Acct CON02</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>Total</td>
<td>ALL</td>
<td></td>
<td>LPSM</td>
<td>$721,320.00</td>
<td>$721,320.00</td>
</tr>
<tr>
<td>A0110</td>
<td>15214-0000</td>
<td>SURVEY AND STAKING, MISCELLANEOUS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acct CON01</td>
<td>$2,700.00</td>
<td></td>
<td></td>
<td></td>
<td>$2,700.00</td>
</tr>
<tr>
<td></td>
<td>Acct CON02</td>
<td>$24,399.00</td>
<td></td>
<td></td>
<td></td>
<td>$24,399.00</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>ALL</td>
<td></td>
<td>LPSM</td>
<td>$27,100.00</td>
<td>$27,100.00</td>
</tr>
<tr>
<td>A0210</td>
<td>30101-0000</td>
<td>AGGREGATE BASE</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Acct CON01</td>
<td>2,000</td>
<td></td>
<td>TON</td>
<td>$10.00</td>
<td>$20,000</td>
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<tr>
<td></td>
<td>Acct CON02</td>
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<td></td>
<td>TON</td>
<td>$12.00</td>
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</tr>
<tr>
<td>A0410</td>
<td>40101-0100</td>
<td>SUPERPAVE PAVEMENT, 3 8-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 70.3 MILLION ESAL (Time DOT min allowed)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Acct CON01</td>
<td>6,100</td>
<td></td>
<td>TON</td>
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<td>A0710</td>
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<tr>
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<td>Acct CON01</td>
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<td></td>
<td>SQYD</td>
<td>$94.00</td>
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<td></td>
<td>SQYD</td>
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<td>Total</td>
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<td>SQYD</td>
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<td>$6,204,000</td>
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<td>55201-0200</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Acct CON01</td>
<td>63</td>
<td></td>
<td>CUYD</td>
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<td>$4,001.00</td>
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<td></td>
<td>Acct CON02</td>
<td>63</td>
<td></td>
<td>CUYD</td>
<td>$63.00</td>
<td>$4,001.00</td>
</tr>
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<td></td>
<td>CUYD</td>
<td>$126.00</td>
<td>$8,002.00</td>
</tr>
</tbody>
</table>
2.3.9.1.2 Generate EE Column Reports

Engineer’s Estimate Column report provides a summary by column (as found in the Summary of Quantity report) for all quantities listed in the column for that schedule. This type of report can be helpful when wanting to keep track of road costs (placed in one column), bridge costs (placed in another column), etc.

This report is also a two-part report. The first part is a summary of all costs found in a column for a schedule. A combined (ALL) summary and a summary for each account number is generated when multiple account numbers are required.
The second part is a listing of all pay items (excluding incentives) within a given column.

### 2.3.9.1.3 Generate Design Summary Report

This report provides a schedule estimate summary of costs and summaries for each account. Summary is the total estimated construction cost (pay items and incentives).

#### Engineer's Estimate Design Summary Information

- **Project No:** PRA 1015
- **Project Name:** Grand Loop Road Extension to Hwy 207
- **Schedule:** A
- **Division:** Western Federal Lands
- **State:** WY
- **City:** Jackson
- **Project No.:** 54397
- **Project Name:** Rough Mountain Highway
- **Schedule Type:** Base
- **Schedule Construction Type:** 204 Overlay - 2.5 inches
- **Schedule Length:** 8 miles
- **Mileage:** 0.00
- **CPM:** 950
- **Design:** Wade Johnson
- **Contact Person:** Stephen Chapman
- **COE:** Bridge Mgr. Bruce McGaughey
- **Report Date:** 07/26/09

#### Schedule of Items

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>A0210</td>
<td>AGGREGATE BASE</td>
<td>2.000</td>
<td>CUB</td>
<td>$121,000.00</td>
<td>$242,000.00</td>
</tr>
<tr>
<td>A0040</td>
<td>SUPERPAVE PAVEMENT, 9.0-INCH NOMINAL MAXIMUM SIZE AGGREGATE, 9.3 MILLION ESL (State DOT mix allowed)</td>
<td>6.500</td>
<td>CUB</td>
<td>$715,000.00</td>
<td>$4,550,000.00</td>
</tr>
<tr>
<td>A0710</td>
<td>REINFORCED RIGID PAVEMENT, 16-INCH DEPTH, TYPE A SMOOTHNESS</td>
<td>33,000</td>
<td>SQYD</td>
<td>$3,102,000.00</td>
<td>$3,102,000.00</td>
</tr>
</tbody>
</table>
2.3.9.1.4 Generate Sum of Quantities Report

The Summary of Quantities report reflects the table typically found in a plan set. The program generates a Comma-Separated Values (CSV) file for inclusion into the plan set. Table header “Summary of Quantities” is added along with sheet borders file using the import procedures included in the Summary of Quantities Appendix. **Note:** Do NOT import the PDF or XLS files into the plan set. The PDF format can be used to review the data, prior to importing the CSV format into the plans. See [Appendix Developing Summary of Quantity Plan Sheets](#).

2.3.9.1.5 Generate PE Sum of Quantities Report

The PE (Project Engineer) Sum (Summary) of Quantities report is similar to the Summary of Quantities report, but further describes quantities by accounts. This report can be extremely useful for the Project Engineer to easily see the project account splits. (This report is not included in the plan set).
2.3.9.1.6 Generate UPA Report

The Unit Price Analysis (UPA) Report is a summary of how all pay item costs were developed. UPA report format is dependent on how the cost was developed. Three types of reporting formats can be generated; Bid History Unit price (BHUP), Cost based Unit price (CBUP), or a Non-BHUP when costs are developed using methods outside of EEBACS. The following are examples of each report:

Example of Bid History Unit Price (BHUP):

A. Pay item data including unit price determined through analyzing bid history;
B. Values used in determining the unit price;
C. Filters selected in determining the unit price; and
D. Projects from bid history used in determining the unit price. Projects selected appear on the top of the listing followed by 2 pages (max) of projects that meet the filter criteria, most recent projects on top.
Example of Cost Based Unit Price (CBUP).

E. Pay item data including unit price;
F. Values used in determining the unit price;
G. Filters selected in determining the unit price; and
H. Summary of values used in determining the unit price.

Example of Non-BHUP:

Bid History Unit Price Analysis

<table>
<thead>
<tr>
<th>Pay Item No.</th>
<th>Pay Item Type</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Unit Price Unit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>40101-0100</td>
<td>SK</td>
<td>1/4&quot; DRAINAGE, MAXIMUM SIZE 0.3 MILLION DIAL</td>
<td>1,000</td>
<td>TON</td>
<td>$45.00</td>
<td>$45.00</td>
</tr>
</tbody>
</table>

Remarks: Price agreed to by Managing Engineer.
2.3.9.2 Promote to Acquisitions

A. Once the project estimate is “up-to-date” and marked as “complete”, and the PS&E package is sent to Acquisitions; follow the Division procedures to promote the project to Acquisitions to continue the EEBACS process. A promoted project can only be viewed. It must be released by Acquisitions if modifications to the estimate need to be made. Depending on the user’s roles, access into the Acquisition Amendment tab may be permitted. See appendix for Pay Item Amendment instructions.

Remember that projects cannot be promoted to Acquisitions with temporary pay items or with pay items that are not “complete”.
2.4 Design Module Technical Support

2.4.1 Consultants
Contact your COTR for assistance with this program.

2.4.2 Government personnel
To set up a user account, fill out the appropriate EEBACS User Account form and email according to the instructions in the form.

For assistance in using or trouble-shooting this module contact the Division Design component lead or EEBACS Administrator shown in Section 1.12.

To request new pay items be added to the Master Pay Item Table, fill out the Pay Item request form and forward to local Division’s Pay Item Team representative.