AASHTOWare Project Preconstruction User Guide

Version 4.0

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AASHTOWare Project Support Unit

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Table of Contents

Accessories Transfer

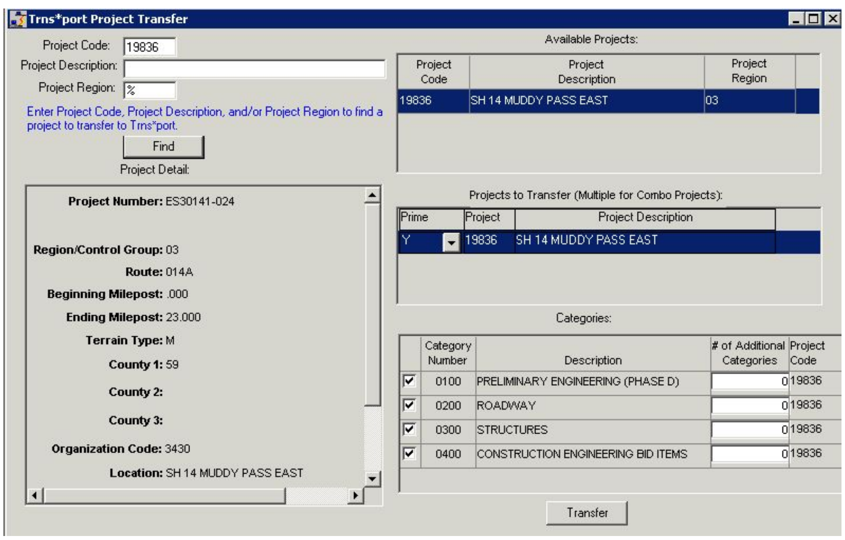
Using Internet Explorer

Go to Trns•port Accessories

https://cdotrds03.dot.state.co.us/RDWeb/Pages/en-US/login.aspx?ReturnUrl=/RDWeb/Pages/en-US/Default.aspx to transfer your Project from Trns•port Accessories into Preconstruction, creating the Bid, Non-Bid, Prime, Proposal & Bid Letting components. This method ensures data consistency and integrity and establishes all the required relationships between the components.

- Go to File
- Open – Project Transfer
- Put in your 5 digit Project Code or 2 digit Project Region Code
- Click on the Find button
- Highlight Project in Available Projects list
- Double click to select for Transfer

- Check each box for each Category Number & add any # of Additional Categories needed
- Remember to select all Bid and Non-Bid Categories associated with your Project
- Set Prime Project Indicator to Y on desired Project number
- Select Transfer button & select OK to confirm



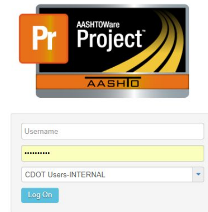
Close Trns•port Accessories

If you do not see your project in Accessories, you either have not completed all the fields & releases in SAP or the project may already exist in Preconstruction.

Either: You will need to review SAP CJ20N & complete any missing fields or finish the release process, then the project will be available in Accessories after the next nightly batch job.

Or: You can check in Preconstruction and if the components are all present and correctly attached to each other, you can proceed from there. If there are only parts of the components, it is best to delete those and then re-transfer the entire Project package from Accessories.

Next go to



https://cdot2k12awppr.dot.state.co.us/Account/LogOn?ReturnUrl=%2f#/Dashboard

to open AASHTOWare Project Preconstruction

Enter your Windows Username and Password

Objectives: Now you can access the components to enter in all project location and item details, assign items to funding packages, generate the Proposal section and add contract time, and run a Preliminary Detail Estimate, Proposal Schedule & Notice to Contractors in order to get your project ready for AD & Bid.

The Dashboard

When you log on to the AASHTOWare Project Preconstruction system, the software opens on the dashboard. You can also go to the dashboard at any time by clicking the **Home** button on the Menu Bar. The dashboard contains one or more components. Each component is identified by a title set within a blue header bar. Each Preconstruction component provides access to the information and processes required for a specific purpose. The components you see on your dashboard are those that match the specific areas of responsibility assigned to your active role.

Using Online Help

The Help system is context sensitive, which means that when you click the Help button on a component in the software, the system provides information about the functionality of that component only. Each Help page provides links to other Help pages containing related information.

Contents

The Help system also contains topics that are more general in nature and not linked to a specific component in the software. You can navigate the entire Help system by clicking the **Contents** link in the top left corner of any Help page, or by clicking the **Help** button on the Menu Bar.

The Contents pane is organized by business category and uses expandable and collapsible books and pages to display the list of topics available in the Help system. This pane helps you navigate through the hierarchy of topics to find a desired category and subject.

Click a book to expand it, and then click the page you want to see. The system displays the page in the right pane of the browser window.

Search - The Search pane provides a rapid full-text search of all the topics in the Help system. To display the Search pane from any Help page, click the **Search** button in the top left corner next to the **Contents** button. To perform a search, type your search criteria in the **Search** input field on the toolbar, and click the **Go** button. To search for a phrase, enclose the phrase in quotes in the **Search** field.

The system performs the search and automatically opens the Search pane, which displays a list of the topics in which the search text appears. Topics are ranked in order of best match. Click a topic to display the page in the right pane of the browser window. You can also perform a search in the Search pane itself by clicking on the **Search** tab.

Recent –This button is a link to the Recent Activity Overview component, where you can manage a list of the most recent pages you have visited in your active role. Clicking the down arrow also displays the list, sorted by most to least recently visited. Click on a page in the list, and the system takes you to that location.

My Pages –This button is a link to the My Page Overview component, where you can manage frequently used (or *favorite*) pages for your active role. You can add pages as a favorites from any location in the system by clicking the down arrow and selecting **Remember this Page**.

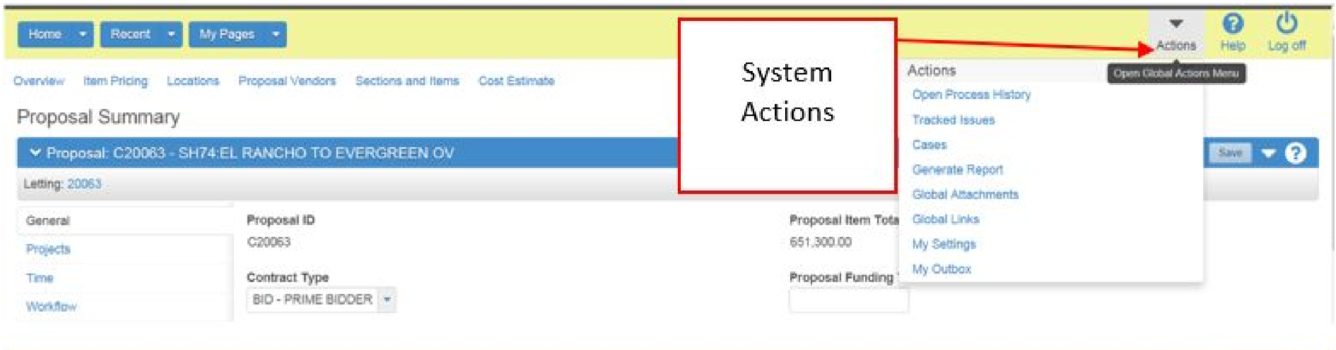
Field Help – Hovering over a field will prompt specific field help with details or description

Components – A Component is a container for the information and business functions on an application webpage. Components are made up of elements such as tabs, fields, lists, and links.

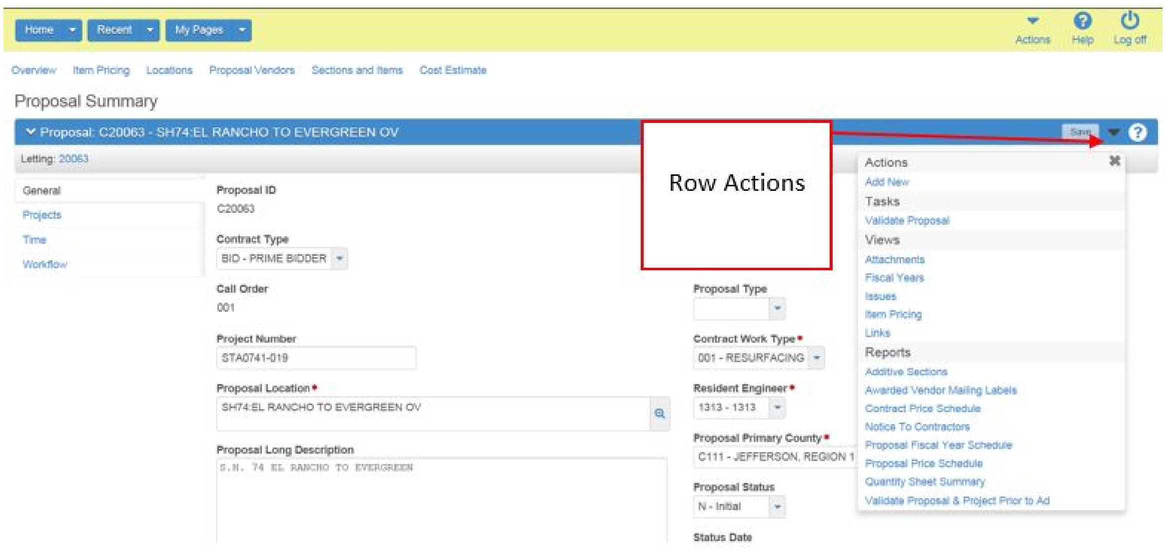
Actions –Actions menus allow you to choose a function or process to perform on data. The actions that are listed are limited to those that are relevant for your active role. There are three types of Actions menus, each of which performs actions on a different level of data.

All Actions buttons provide menus for performing actions, running processes or generating reports.

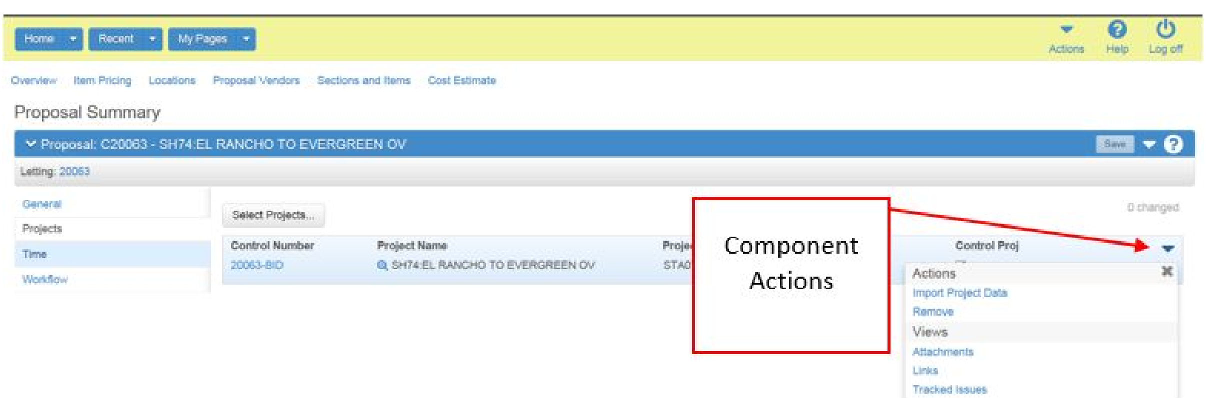
System Actions



Row Actions

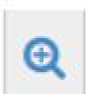


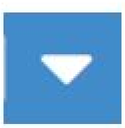
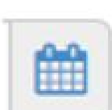
Component Actions



Icons

Icons are small images throughout the system that either convey information or can be clicked to perform an action.

Icon	Usage
	The Erase icon appears in Quick Find search boxes after criteria is entered. You can click the icon to reset the search criteria
	This Magnifying glass icon at the left of a field indicates an auto-complete field. Auto-complete fields display a filtered list of field values based on the first few characters you type. You can press Enter to show all values.
	This Magnifying Glass is sometimes displayed on the right side of a text box. Clicking this button opens a text dialog panel that allows you to view and edit the text in a larger area.
	A red Asterisk indicates a field where data entry is required.

Icon	Usage
	The actions icon appears in Actions buttons that you can click to display an Actions Menu. Actions menus provide access to commands and functions you can perform on data
	The Undo icon appears on Undo buttons that you can click to reverse a delete action
	The Help icon appears on Help buttons that you can click to display the Help System
	The Calendar icon is displayed on the right side of a date field. You can click the Calendar icon to display a calendar where you can pick a date as the field value.

Alternate Paths

Keep in mind that all of the various navigational elements, such as hypertext links, quick links, recent pages, and Actions menus, can all provide different ways of accomplishing the same task. The same command might be accessible from an Actions menu or a link. It is suggested to **not** use your Browser's back button. Preconstruction may not take you to the previous page. Therefore, it is recommended to use Bookmarks or Recent Pages only.

Frequently Asked Questions:

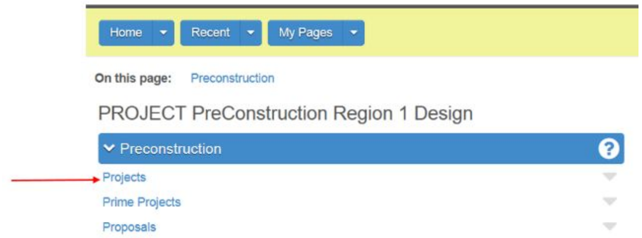
- Browser Settings: Use Chrome for Preconstruction access
- For Password reset, contact the Service Desk to reset your *Windows* Password.
- For Region/account changes your new RE must submit a request via the CA Desk Catalog and indicate your new Region for AASHTOWare Project Preconstruction Design access.
- For Revision Under Ad, contact Tracie Benton in Engineering Contracts unit for access.
- In order to ensure data integrity, consistency and accuracy, be sure to transfer all projects from Accessories.
- Before transferring, the project must be completely released, including all WBS elements, from SAP. If your project will be a Combo, Alternate, or Multiple you will need to transfer it in, then contact the AASHTOWare Project Support Unit to copy & rename the components with the correct naming conventions for you.
- Continue to use Spec Year 05 for items. The Item list is continually updated, remaining up to date with the current Spec Book, but in AAHTOWare the reference item list is still named 05.
- Navigation typically follows from top to bottom on a page or tab, *then* left to right via the Links.

Key Reminders

- Naming conventions & consistency are key essentials. Most importantly:
  1. Proposal Contract Work Type must be populated & must match Project Work Type in Bid Project. **This must be done prior to adding any other details or items.**
  2. Be sure that the Prime Location, Midpoint Location & Proposal Location all match exactly.
  3. Use consistent descriptions for each Category No., Fund Package and Fund Package Description.
     For example: Category 0200 Roadway
     Fund Package 0200
     Fund Package Description 0200 Roadway

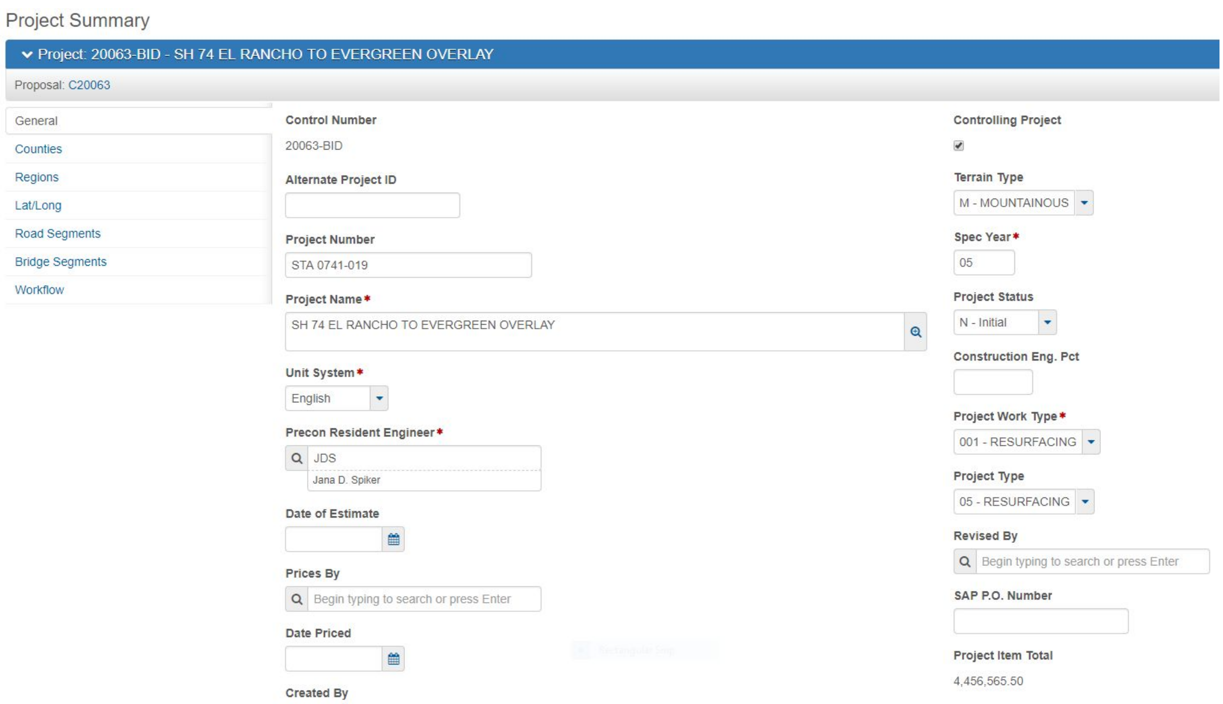
- Always be sure to Save after any changes and before you move to another tab, link, item or page.

Projects



- Complete all Bid & Non-Bid Project mandatory fields to be able to generate a Preliminary Detail Estimate to review all Project Costs
- Be sure to Save changes before navigating to next Tab or Link
- Always Assign new Items to Fund Packages and Validate Project after adding, changing or deleting items

Bid Project Summary



General – will auto populate from SAP Project Builder data

- Verify Bid Project is checked as Controlling Project
- Leave Construction Eng. blank - must be entered in each individual Category
- Verify Precon Resident Engineer (for Design questions - name appears on Notice to Contractors)
- **Verify Project Work Type & Project Type: Project Work Type must match Contract Work Type in Proposal & both must be populated before entering items**
- Add Description of work in Project Name field

Counties –will auto populate from SAP/Accessories

- Confirm Primary county matches Proposal Primary county and assure that total of all counties equals 100%.

Regions –will auto populate (can only be assigned one Region)

Workflow-will auto populate as Project & Proposal Creation & Estimation when first created

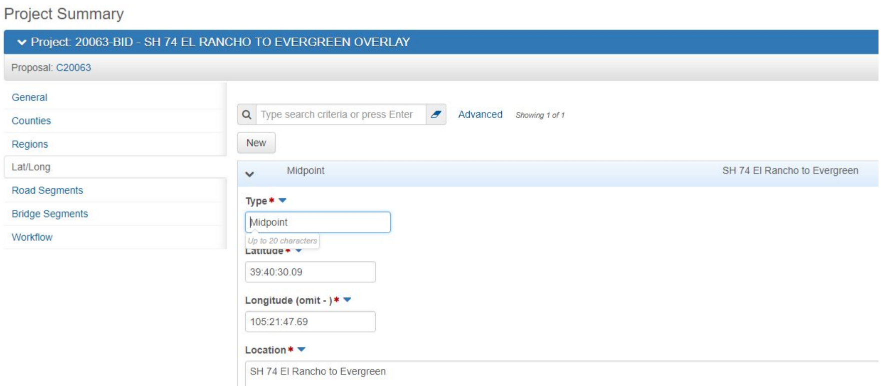
Workflow determines region access & this is the only status Designers have editing ability. Once a Project is placed in Advertised Workflow the region Designer is locked out.

Lat/Long

Latitude and Longitude currently are populated from SAP/GIS data.

At least 1 Lat/Long Record is needed for **each Bid & Non-Bid Project.**

A Midpoint Lat & Long Record is necessary for compatibility with BAMS/DSS & Project Validation.



If any data is missing the following format is required:

Type- Midpoint (case sensitive)

Location-actual description/should match Proposal Location

Latitude- (xx:xx:xx.xx)

Longitude-(xx:xx:xx.xx)

Road Segments

- Road Name
- Description: Same as Category Description
- Length populates on Preliminary Detail Estimate as Total Project Length in Miles
- Length should match CJ20N Custom Enhancements Custom Fields Proj Mgr Tab: Planned Length
- Not intended for types of work - use only for Project Boundaries, Stationing or Lat/Long Points, Mileposts or possibly Phasing

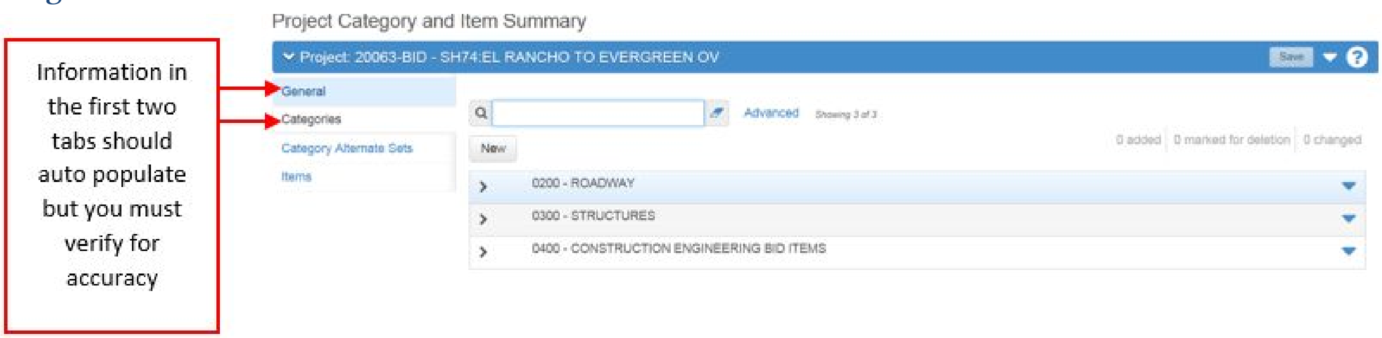
Bridge Segment

- Bridge ID
- Category ID- be sure to assign individually ie: 0300,0301,0302
- Description: Same as Category Description
- Length populates on Preliminary Detail Estimate as Total Bridge Length in Feet

Each Structure Category must each have its own Bridge Segments record, including the Bridge ID, Length, Width, Number of Spans & Bridge Type. If a separate Category is created for a Wall, do not list them as Bridge Type 30 (Misc.), but rather as Bridge Type None.

For consistent historical data – only Bridges and Walls require separate Structure Categories and corresponding Bridge Segment records in Preconstruction. Culverts are not considered structures.

Categories & Items Link



General

- Will auto populate with data from SAP & Accessories transfer

Categories

- Category Description (Roadway, CE, etc…) – will auto populate
- Category Work Class (0200-Roadway , 0300-Structures, etc...) – will auto populate
- Add Construction Engineering Percent for each Category. Current rates are 10 for NP & 18.66 for P
- Be sure to check the Combine with Like Categories checkbox.
- Federal Construction Class should be B-Biddable Items in Bid Project & N – Non-Biddable in Non-Bid
- To add new Category select New, to Delete, go to Actions. Complete all fields as above.

REMINDER: Categories are intended to identify individual Roadways, Structures (Bridges & Walls only) or Funding Sources – not specific types of items or work.

Consistency in names of Category, Fund Package, and Fund Package Description ensures accuracy of calculations on the Preliminary Detail Estimate, Form 1180 and Form 65. These reports rely on the standard 0200,0300,0400 etc. in the Category, Fund Package & Fund Package Description fields.

Categories to be utilized in wTrns•port

Number	Description	Bid or Non-Bid
0100	Preliminary Engineering (phase D)	Non-Bid (use 10.30 funding)
0200	Roadway	Bid (use 20.10 funding)
0300	Structures	Bid (use 20.10 funding)
0400	CE Bid Items	Bid (use CEPOOL funding)
0500	Utilities by Contractor	Bid (use 20.10 funding)
0600	Miscellaneous (Contractor Reimb)	Bid (use 20.10 funding)
0800	Construction Engineer (Consultant)	Non-Bid (use 20.10 funding)
0900	Utilities (Phase U) 700-90005	Non-Bid (use 10.20 funding)
1000	Furnished Materials item 800-00060	Non-Bid (use 20.10 funding) use CE%
1050	ROW (Phase R) Cat 1050-1099	Non-Bid (use 10.10 funding)
1100	Indirects Item 000-00050	Non-Bid (use 20.10 NP funding)
1200	Environmental (Phase E)	Non-Bid (use 10.40 funding)
1300	Environmental Mitigation (Constr)	Bid (use 20.10 funding)
1400	Miscellaneous (Phase M)	Non-Bid (use 10.50 funding)

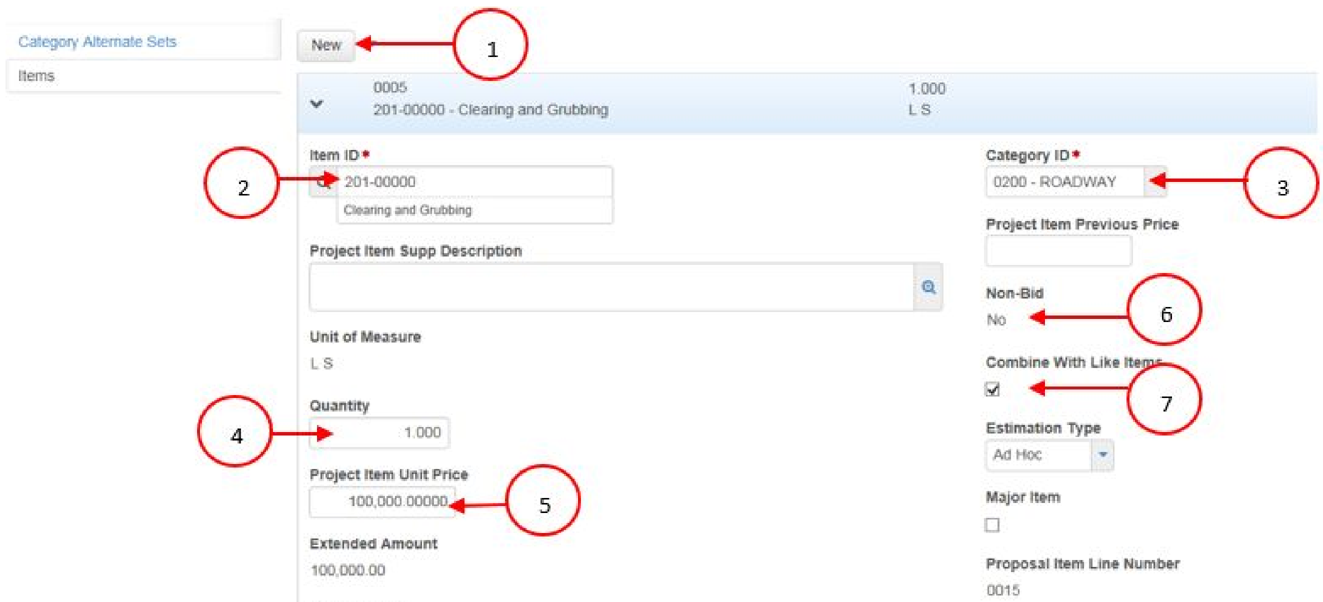
Items

Before adding any Items you must be sure to populate the Proposal Contract Work Type field and the Project Project Work Type field & these fields must match! This is a prerequisite for entering any Items.

Add New Item 1

- Item ID (xxx-xxxxx) 2
  Add Supplemental Description for all 3rd Party F/A Items
- Category ID (0200, 0400, etc…) 3
- Quantity 4
- Project Item Unit Price 5
- Non-Bid : Checked for all Non-Bid and for all F/A items 6
- Combine with Like Items - confirm check box is checked *

  Exception: F/A Items 700-70034 or 700-70035 should not be Combined 7
- SAVE



Adding items individually, in this format allows for a more individualized item review, where you can ensure that all data pertaining to that item is complete and correct.

Be sure to review:

Supplemental description for any F/A Items

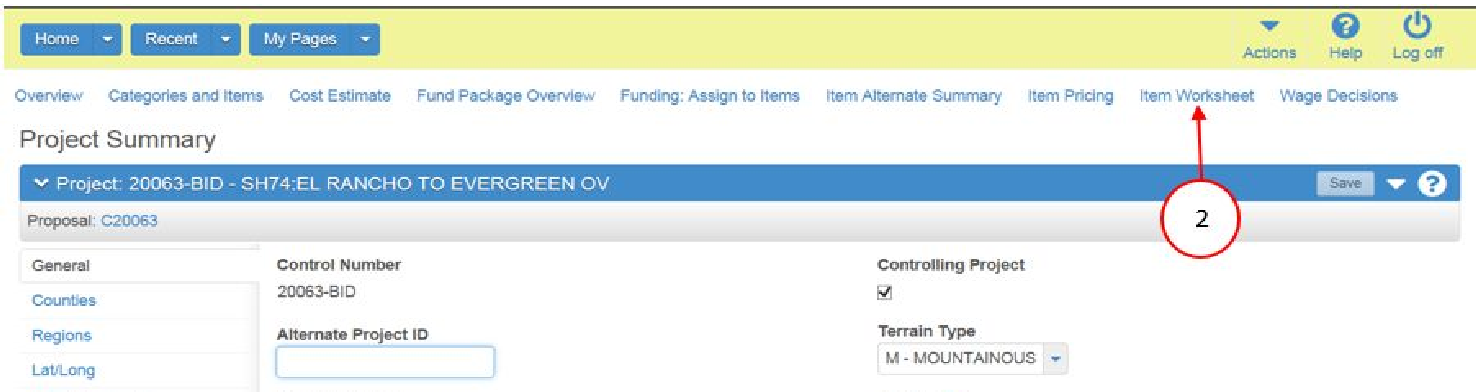
Non-Bid check box (for all F/A Items & all Items in Non-Bid Project)

Check Major Item box if extended amount = $15,000 or more, or, if you want the item to appear on the Notice to Contractors.

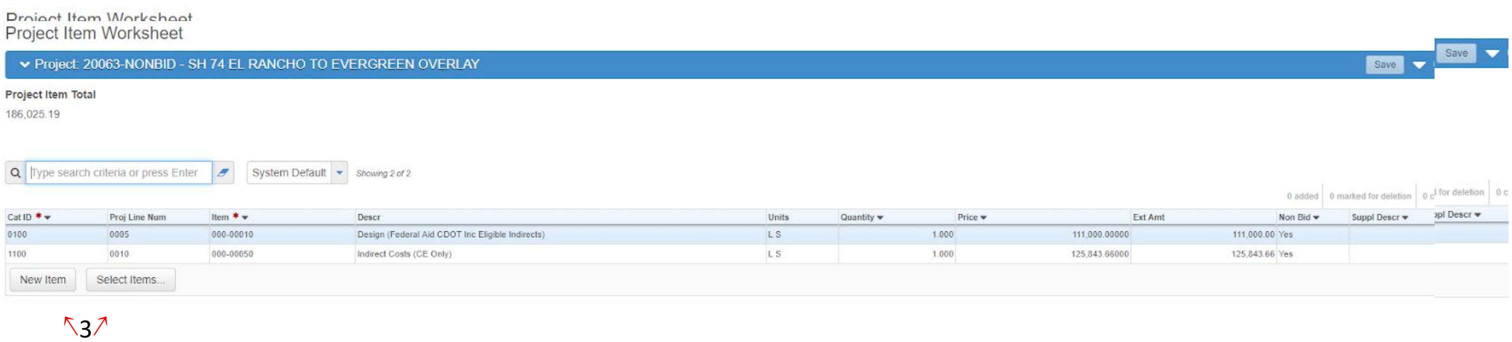
You may also add/edit items using the CDOT Item worksheet.

1. From the **Project** Summary verify that the Project Work Type is populated & matches the Proposal Contract Work Type. This is required before entering any Items.

2. Select the Item Worksheet link at the top of the screen.



3. Either select New Item to manually enter an item code or Select Items to search and select from the Item Code list



For each Item Select the Category from the drop-down, or enter it manually, then the Item Code, the Quantity, and Unit Price

Repeat these steps to enter all project items.

For specific item code selection information, please talk with your Engineering Estimates PE.
You may also reference the Item Code book, found on the EEMA website.

See Accounting Tips section of this guide for further details on specific Plan Force Account item coding.

To add items via Export/Import Worksheet:

Note: The following steps for uploading items through an MS Excel spreadsheet will only work when working in Google Chrome.

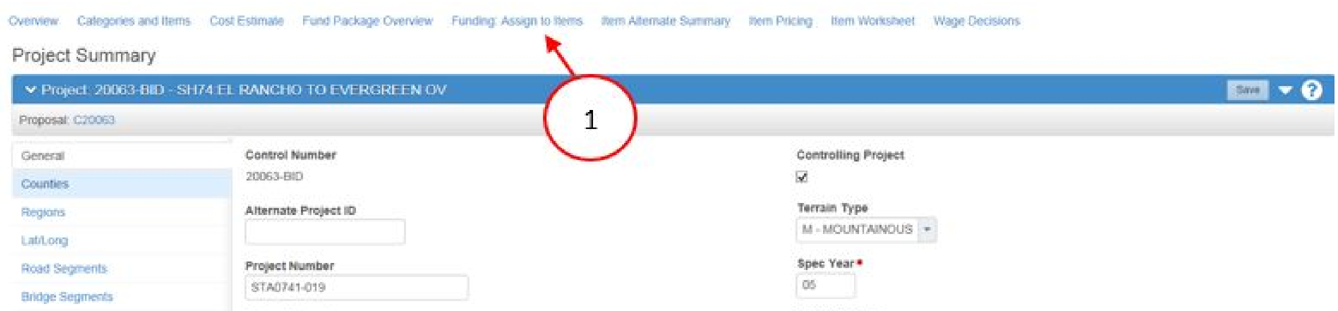
• Select Project Summary Actions Menu (Component Actions Menu)
• Choose Export Project To Estimator
• Click on Execute
• DO NOT CLICK ON THE .xml FILE at the bottom of the screen
• Go to http://internal/TRNSAPPS/ & download the Item Spreadsheet - or - copy & paste \\cdot2k12awppr\PUBLIC\ItemsViaExcel into Windows Explorer - then select Project Item Spreadsheet

• Click Save, Then Open the Spreadsheet
• Click on Project Item Spreadsheet
• Click on Import All New Data
• Select yes on the pop-up warning
• Navigate to downloads folder (C:\Users\xxx\Downloads\Chrome)
• Select the Project > Click on Open
• If there are more items to add, select the last cell in the A column within the grey area, then Insert Row
• Enter Category Number (groupnumber), Item ID (ItemCode), Quantity, and Unit Price (Must click enter after entering Item ID for Item Description to populate)
• Select File > Save As > Computer > Desktop > Excel Macro-Enabled Workbook (Save as type) > Save
• Click on Export Table Data
• Navigate to Preconstruction > Choose Global Actions Menu > Import File
• Click on Select File
• Navigate to downloads folder (C:\Users\xxx\Downloads\Chrome)
• Choose the project file with "-new" added to the end
• Select Delete All Existing Items Before Loading under the Options Task
• Select Import

Fund Packet Overview

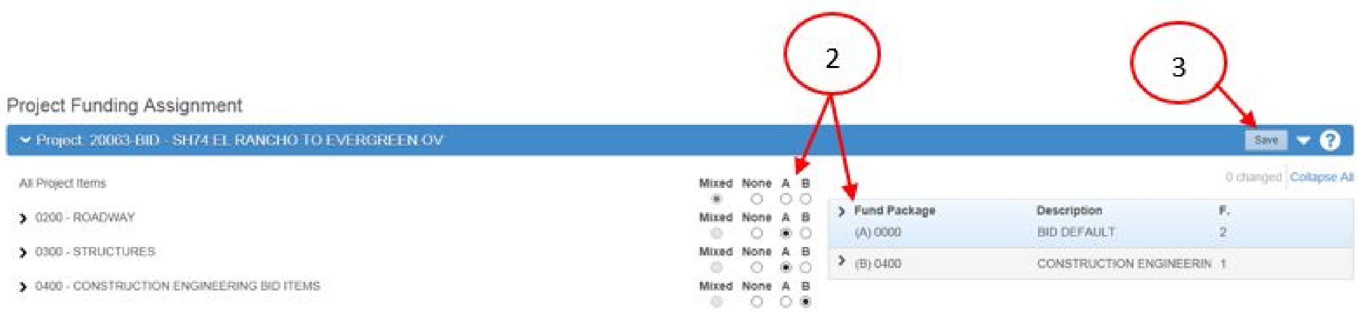
Default (or "Dummy") Fund Packages are auto-created with the Project Transfer from Accessories and designers are no longer required to create Fund Packages - only assign items or categories to those already in each project. These Fund Packages correspond directly to Categories and act as place holders until the time a Project goes to AD when the Accounting Department will modify the Fund Packages or Providers as needed. Although every Category and every item is required to be fully funded, the data in AASHTOWare Project is necessary for project validation only, and the official funding designation lives in SAP - in ZF70. The AWP Preliminary Prime Project Detail Estimate requires that all items be assigned to a Fund Package so it can show the break down of all providers and the associated costs by Category.

Project Item Funding Assignment



1. Select the Funding Assign to Items Link

2. For each Category Select the corresponding Fund Package (A →A, B→B)



3. Save

Reminder: After adding any new items be sure to assign those items to the correct Fund Package by either assigning individually by expanding the Category and assigning, or by removing and reestablishing funding for the entire Category.

Non-Bid Projects

Perform all the same steps as for Bid Project

Mtce type Projects do not require a Non-Bid Project so they should be Removed from the Prime's associated Projects and then Deleted from the Projects Overview

Longitude and Latitude is needed for at least one Non-Bid Category

Be sure CE % is "0" for all Non-Bid Categories

For all Design Items enter original price (budgeted amount) in Project Item Unit Price ***and*** Project Item Previous Price. These fields can be modified by tech support throughout the life of a project to reflect updated expenditures on Form 65.
Also be sure to include all items & costs that appear on Form 65 under NON CONSTRUCTION in the Non-Bid Project (ROW, MISC., etc).

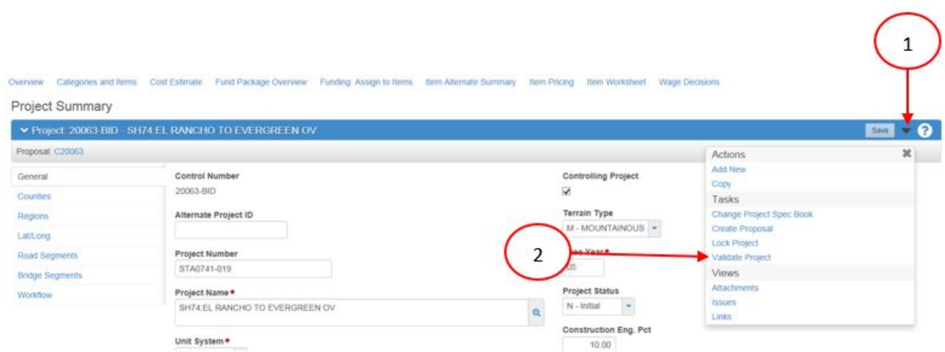
Form 65 Design Item requirements: A Project must have a separate Fund Package with NP/Non-Federal Funding Only for item #000-00005 and another Fund Package with the P/Federal Funding (plus state match if applicable) for item #000-00010, for these item costs to appear on the correct Lines on Form 65. Again, Accounting will create the new Fund Package and edits if required.

Validating Projects

The validation process generates a list of warnings, targeting any missing or conflicting information.

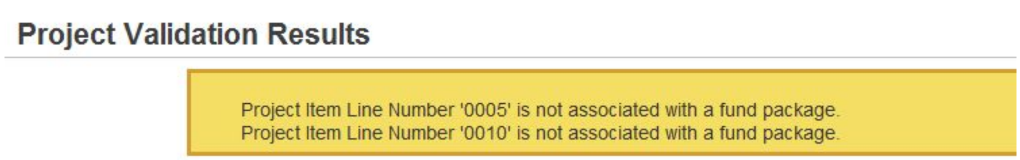
Return to the Project Overview and re-select your project

1. From the Project Summary, go to Actions 1
2. Validate Project 2



If any error messages appear, go back to appropriate field, link or Action & complete necessary steps to correct.

The example below requires attention in the Funding: Assign to Items Link.



Prime Projects

The Prime Project bundles all work to be performed under a single federal project number, including all Bid and Non-Bid work.

Verify that the information in the following tabs is correct and add any information necessary.

- General tab – will auto populate
- Projects tab – will auto populate and will include both the Bid and Non-Bid Projects

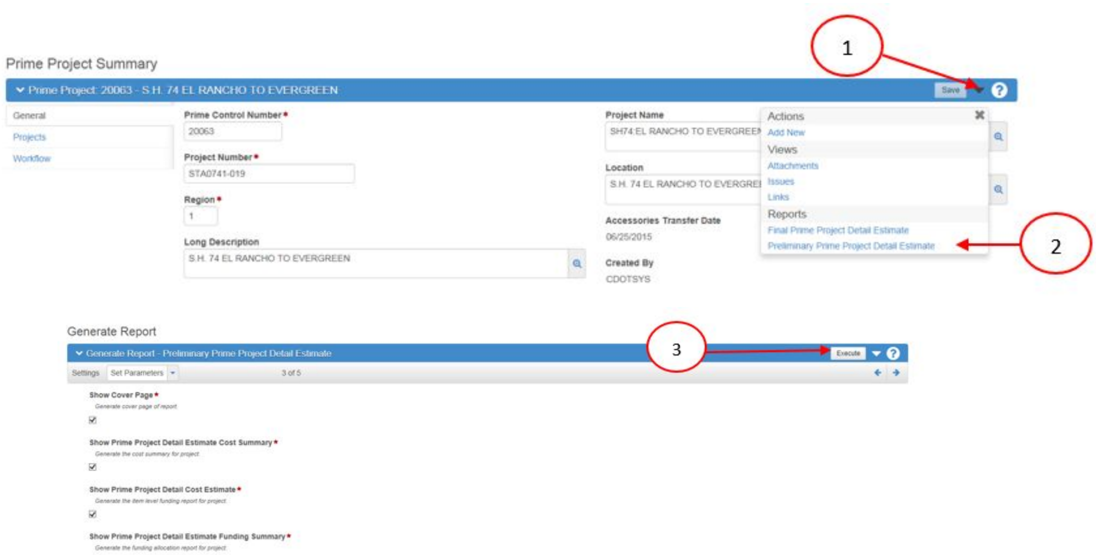
If you have a Maintenance Project, you must Go to the Actions and Remove the Non-Bid Project, then Delete it from the Projects Overview area

Printing Preliminary Prime Project Detail Estimates

The Preliminary Prime Project Detail Estimate is a group of 6 reports that uses the Engineer's estimated prices to provide a Prime Project view of costs, including CE & Indirects and Funding breakdowns. It allows the designer to verify all costs have been included and that their project will be within budget. Compare Estimate total (less 0400 items) to Form 65 Line 25. They should match.

- Prime Projects
- Select Project

1. Actions 1
2. Reports – Preliminary Prime Project Detail Estimate 2
   - Be sure first 5 boxes are selected
3. Execute 3



Proposals

A Proposal is one or more Bid Projects grouped together for bidding purposes. When a Proposal contains more than one project, the project items are rolled up to a Proposal view so that bidders only have to view and price items once. This is considered a Combo Project.

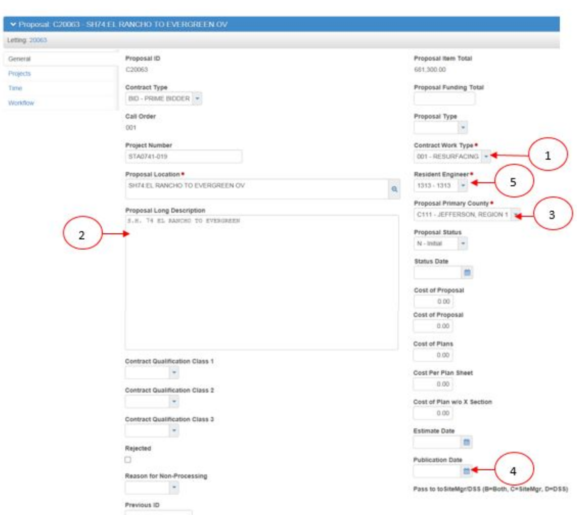
The Proposal contains all biddable item quantities which are organized as a Proposal Schedule, Bid Schedule or Schedule of Items for contractor bidding purposes, then exported into the contract, as the Contract Price Schedule.

The Proposal Component houses all details pertinent to the contractor, including the contract type, type of time charges and number of contract days.

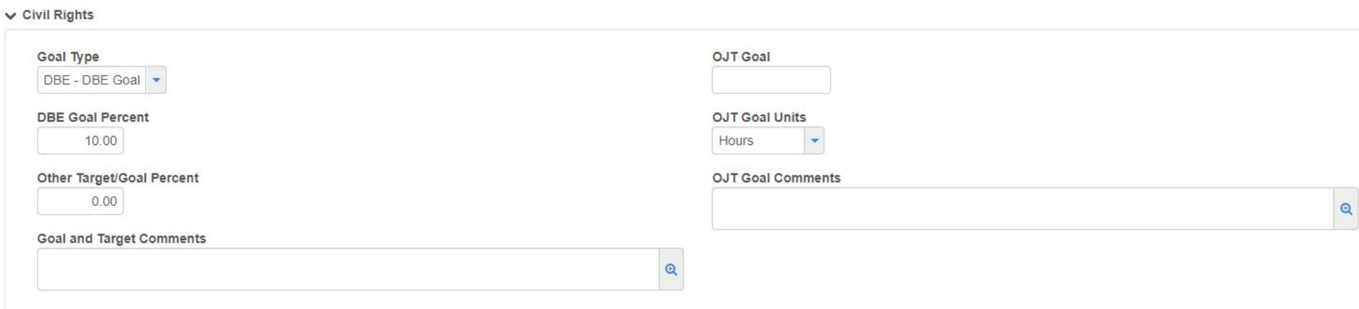
The Proposal is also used for the Notice to Contractors, which is a report that serves as a legal notice to the public that proposals are available for bid and is submitted to the media/online for publication.

Verify the information in the following tabs is correct and add any information necessary.

- General
    1. Contract Work Type must be selected & must match Project Work Type in Project
    2. Proposal Long Description: Should include both location and types of work/items and any mandatory Pre-Bid information (for Notice to Contractors)
    3. Proposal Primary County must be set
    4. Add Publication Date/Ad Date
    5. Verify Resident Engineer Cost Center (Design RE Cost Center)
    6. Projects – Bid project(s) only – be sure Control Proj is checked
    7. Workflow- Proposal Workflow drives Project(s) Workflow. Originates in Project & Proposal Creation & Estimation

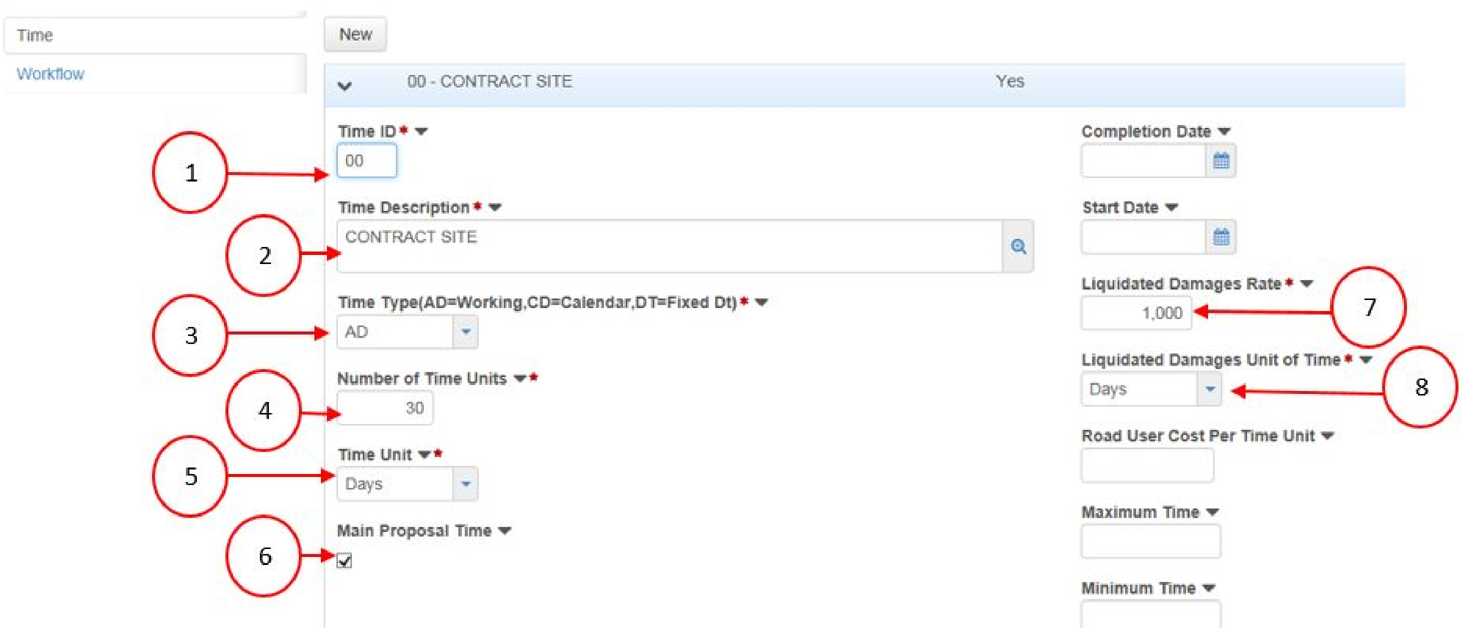


- Civil Rights Data



1. Goal Type should be DBE - DBE Goal
2. Enter DBE Goal Percent - Prints on the Notice to Contractors
3. OJT Goal Units should be Hours - based on the OJT Standard Special Provision
4. Enter OJT Goal

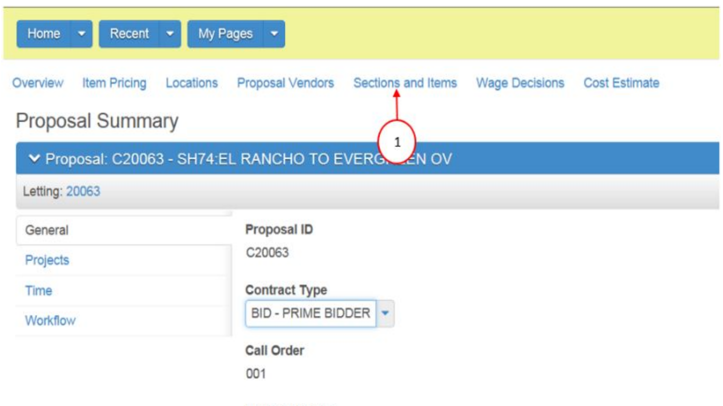
- Time - this sets up the contract completion time requirements
- Select New
  1. Time ID should be 00
  2. Time Description should be Project Site
  3. Time Type – Select (Must match Project Special Provisions)
  4. Number of Time Units- enter number of days
  5. Time Unit – Select Days
  6. Main Proposal Time (Check Box)
  7. Liquidated Damages Rate – enter daily rate
  8. Liquidated Damages Unit of Time – Select Days
  9. Road User Cost Per Time Unit (only completed for cost plus time (A+B) project and will result in an additional "Time" Proposal Section)- will be a dollar value

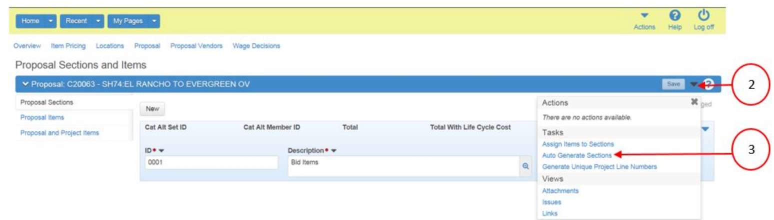


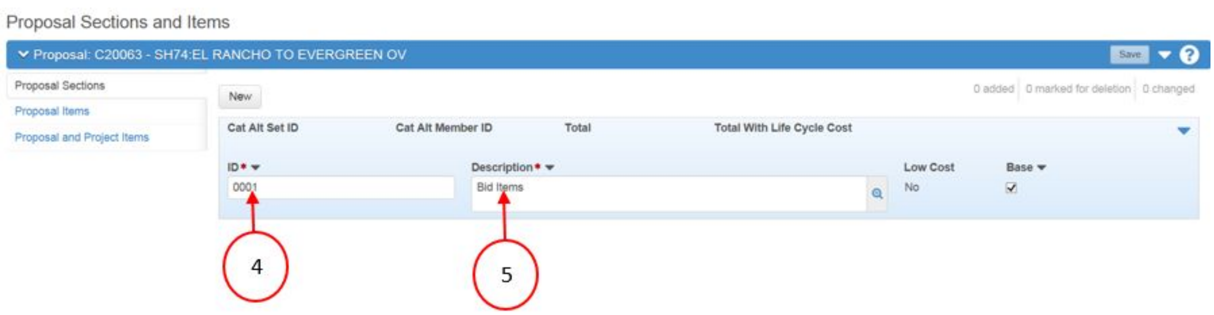
Sections and Items Link

Typical design-bid-build projects will only have one Section- 0001
Exceptions will be Cost Plus Time and Alternate Projects (Section 0001 & 0002)

1. The recommended process is to Auto Generate Sections, which combines like Items, assigns sequential Line Numbers & puts all the Items into a Bidding Section. This process automatically creates Section 0001 & assigns all Bid Items to that Section. First you must click on the Sections and Items hyperlink at the top of the screen
2. Actions at Proposal Component Level
3. Auto Generate Sections



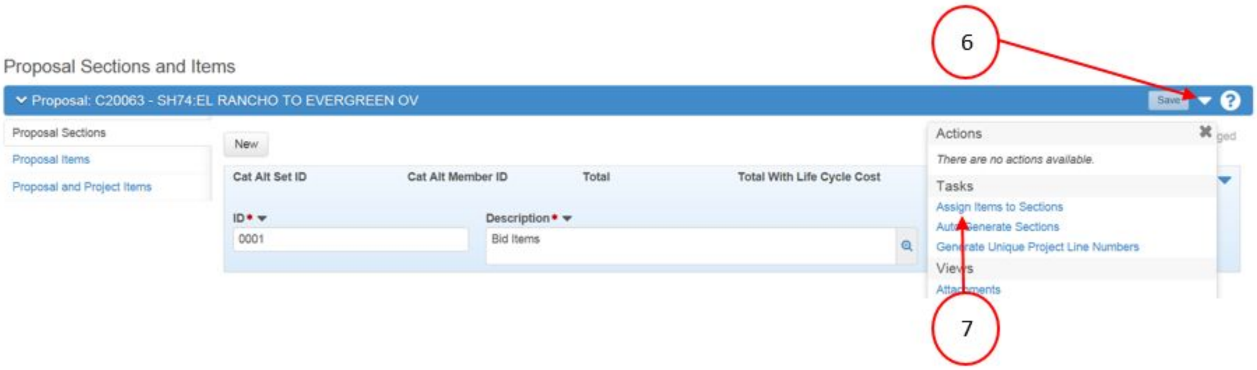




4. Confirm ID –(0001)
5. Description- Change from Roadway to Bid Items

When you add new Items to your Project after you have Auto Generated Sections you must either re-Auto Generate Sections, or manually assign the new Items in your Proposal.

6. Select the Row Actions Icon

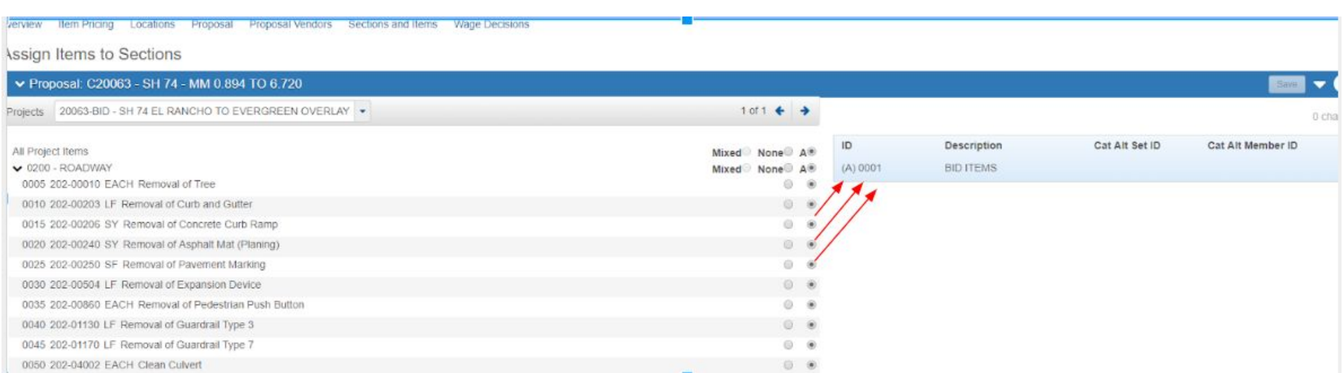


7. Select Assign Items to Sections to manually Assign Items to a Section
8. All Items in all Categories must be assigned to a section. To do this you can either assign at the Category level, or, at the Item Level.

   To assign at the Category level, just select the A radio button to the right of the Category.

   To assign at the Item level, first Expand the Category, then select the A radio button to the right of the Item.

OR



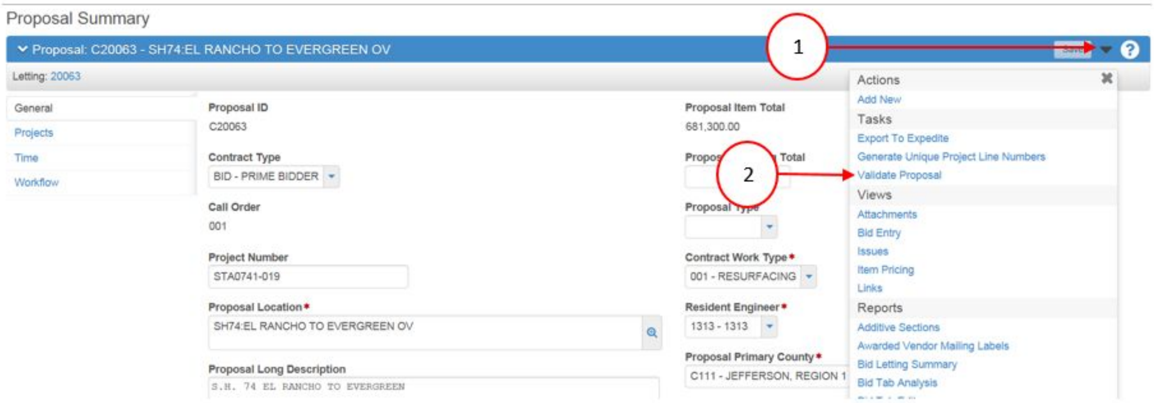
- Save

Validating Proposal

Select Proposal Link

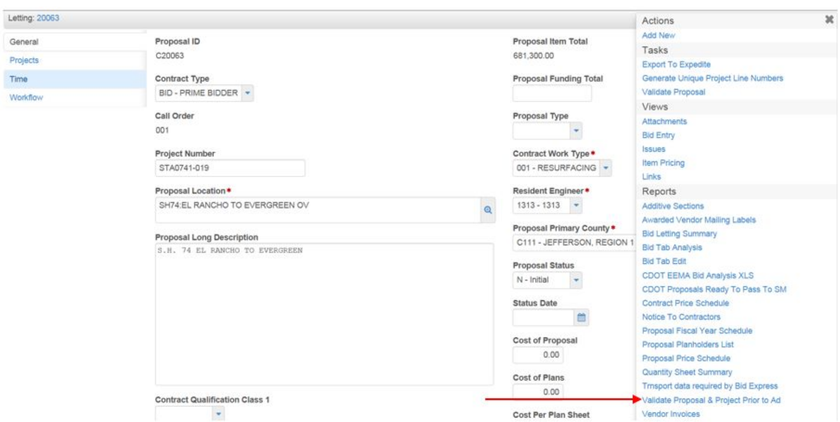
In the Proposal Summary screen

1. Select the Row Actions Icon
2. Select Validate Proposal



Then go to Actions again and select Validate Proposal & Project Prior to Ad.

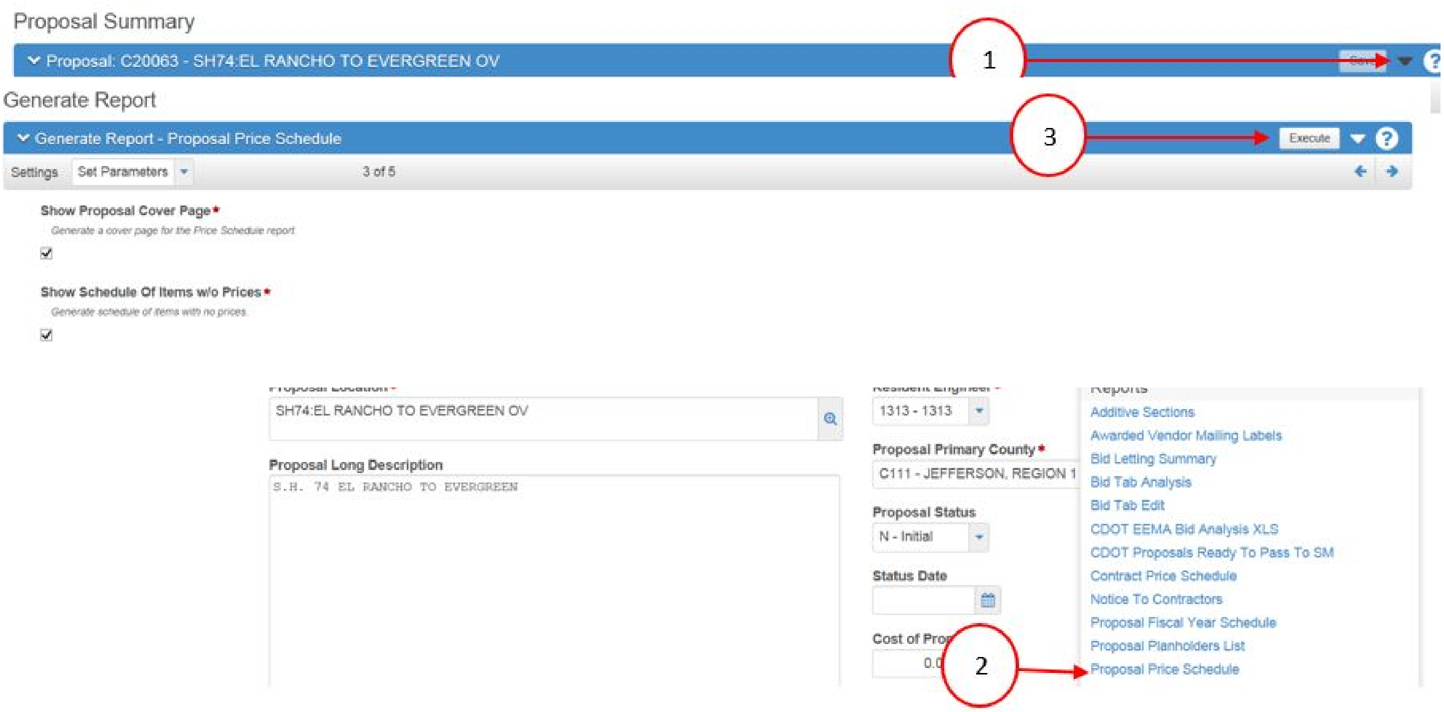
Validate Proposal & Project Prior to Ad



Each of these reports will return any errors or missing information that needs to be revised or completed

Printing Proposal Price Schedule

- Proposals
    1. Go to Actions
    2. Reports-Proposal Price Schedule



3. Execute

Always review the Proposal Price Schedule to verify that all the Biddable Items are sorted in numerical sequence by Item Code with 4 digit Proposal Line numbers assigned in increments of 5 -ie: 0005, 0010, 0015 etc.

You should also run a Notice to Contractors from the same Actions menu and have your RE perform a final review.

The Notice to Contractors requires an Ad date added in the Proposal General tab, Publication Date field - it will not run without it.

The NTC report serves as a legal notice to the public that Proposals are available for Bid, and, it is submitted to the media/online for publication.

Appendix A

Accounting Tips

This is a brief review of the more frequent problems or questioned areas setting up specific Categories, Item codes, Funding, and CE & Indirect %

Reminder - When creating a Preconstruction Project, always use *Trns*port Accessories*

In addition - The AASHTOWare Project Preconstruction Users' Handout and Job Aid can be accessed from the Engineering Applications web page
http://intranet.dot.state.co.us/engineering/engineering-applications-folder/preconstruction/preconstruction-documents
or for assistance you can contact cdot_aashtoware_support@state.co.us

Form 65 and Preliminary Prime Project Detail Estimate Review
Total Project Length on PDE is calculated from the total of all Category 0200 Road Segments Length fields
Total Bridge Length is calculated from the total of all Category 0300 Bridge Segments Length fields.

Review the Preliminary Prime Project Detail Estimate and the SAP Financial Statement Form 65 prior to sending in your official AD Letter.
To access the Project Financial Statement in SAP use the transaction T-code ZJ20. In the Selection Criteria field, enter the project number to run the Form 65 and click on the Execute button. This will take you to the Form 65 Selection screen. Review the Project Financial Statement tab as well as the Apportioned Budget tab and compare the Form 65 Line 25 with the Total for Prime Project amount (last amount on the Preliminary Detail Estimate). The difference between the 2 will be the amount of all Category 0400 - CE Bid Items.

Include All Costs
The Engineer's Detailed Estimate dictates what and how much funding is to be budgeted for the completion of the project for all phases and all types of work. All anticipated project costs should be included in the estimate, whether spent or remaining to be spent.

Funding a Project
Funding a project is now handled by the Accounting team, at the time the project goes to AD. Default Fund Packages are set up for each Project at the time the Project is transferred into Preconstruction from Accessories, and the designer's only task is to make sure that every Category/Item is assigned to the corresponding Fund Package so that the project will Validate & give correct calculation s in the Preliminary Detail Estimate. It is highly recommended to view contracts, STIP related items and any other project funding documents so you can be aware of any financial impacts or limitations.

What are CE Bid Items?
The most common bid items that are considered construction engineering work for Category 0400 are field lab, field office and sanitary facility. Construction testing would be another one.

CE% for CE Bid Items
Important: For Category 0400 always fill the CE % field with 0.00 (on the category tab). This overrides the default % that would otherwise be picked up from the general tab CE % that has been entered for the other categories to draw from if those categories have not been assigned a CE% on an individual basis. In other words, we do not want to add CE to a CE bid item.

CE Bid Items Funding
Category 0400 CE Bid Items (described above) are always funded with "CEPOOL" (unless project is CEPOOL exempt, which is rare. Regular project construction funding would then be used.)

Plan Force Account Item Numbers
For all Plan Force Account items use 700-70*** item codes. These items are not bid on, but become part of the project contract via the SiteManager Change Order #1 automated process.
It is sometimes necessary to use the "generic" numbers such as 700-70034 and 700-70035 more than once in a project if there are many unusual force accounts not covered by the regular item codes. If the generic item numbers are used, the Supplemental Description must be completed for that item, to differentiate it as well as identify the type of work to be performed.

Third Party Item Numbers
All third party plan force account items, when set up as 700-733 or 700-9 items will be paid via Task Order outside of the Project contract or SiteManager.
Utility item numbers and work by state and local forces use 700-9xxxx.
Third Party non-utility construction force account item numbers are 700-7*33*xx.
Do not use 700-733xx for regular force account work by the contractor.

Third Party item number - Uniformed Traffic Control
If contracted between CDOT and CSP, use 700-73351 or 700-73352. However, if traffic control with another non-state law enforcement agency were to be contracted by the contractor, then a regular contractor force account item would be used. Example 700-70xxx.

Force Account – Category Selection for Utilities or Railroad Work:
Providing power and/or phone service: Permanent service to the site (i.e. for signals) is considered a construction cost and is placed under the Roadway Category 0200. If the service is temporary (i.e. to service a field office), the work is considered construction engineering and must be placed under the 0400 CE Bid Items Category. Railroad flagging is normally a Roadway Category 0200 F/A while other Railroad related F/As such as communications, moves, etc. are Utility Category related - Category 0900, using 700-90005 Item code in the Non-Bid Project.

Furnished Materials
Furnished Materials, Category 1000 is not bid by the Contractor (similar to a CSP Force Account) but the category is eligible for CE and Indirect. The entries are handled the same as above depending on whether the items are participating or non-participating. The Furnished Materials item 800-00060 in Non-Bid project use 20.10 funding, and be sure to use the CE% and amount.

Construction Engineering %:
The Construction Engineering % should be entered in AASHTOWare Project Preconstruction for each Category in the Bid Project - including 0200s, 0300s, 0500, 0600 and 1000. The CE% for Category 0400 should always be 0.

CE AND INDIRECT RATE ON PROJECT FINANCIAL STATEMENTS:

The calculations used for CE and Indirect for Project Financial Statements beginning 10/01/2018 are:

Indirect Rate:
Project Indirect Rate 9.50%
(Participating 7.87%: Non-Participating 1.63% against All Costs)

Construction Engineering (CE) Pool Rate:
CE Pool Rate 10%

CE and Indirect Rate on Project Financial Statements:

The calculation used for CE and Bid Item Indirect Costs for Project Financial Statements beginning 10/1/18 is:

CE :	10.00%
Part Indirects on CE	.79%
Part Indirects on Bid Items	7.87%
Total Participating CE & Indirects	18.66%
NonPart. Indirects on CE	.16%
NonPart. Indirects on Bid Items	1.63%
Total NonParticipating CE & Indirect	1.79%
Total All CE and Indirects	20.45%

Interpretation for AASHTOWare:

Participating Projects
In the Bid Project, use the combined rate of 18.66% (CE 10% + participating indirect on CE .79% + Participating indirects on Bid Item 7.87%). 18.66% is rounded from the exact calculation of (10% + .79%+7.87%) The Project Financial Statement uses the system calculated combined rounded rate of 18.665% for Participating CE and Indirect.
Note: The Project Financial Statement systematic calculation of the combined CE/Participating Indirect rate use 18.66% which variance slightly from AASHTOWare rounded inputted rate of 18.665%

In the Non-Bid Project for Non Participating Indirect (it is always non-participating funds) the figure is 1.79% (Non-part indirect on CE .16% + Non-part indirect on Bid item 1.63%). To use an accurate figure and minimize hand calculations, use the Project Financial Statement Line 14 subline (last entry) and use that figure to the penny.
Note: The Indirect Category 1100 CE% is always 0.00%.

Non-Participating Projects
In the Bid Project, use 10% for non-participating CE. (Do not use the combined rate as it will calculate the amount for participating indirect on the Project Financial Statement).

For the Non-Bid project all Indirect will be calculated at 9.50% (7.87% Participating Indirect on Bid item + 1.63% Non-Participating on Bid Item)
Note: The Indirect Category 1100 CE% is always 0.00%.
There is never a CE% used anywhere in the non-bid project. Always fill with 0.00 for all non-bid project categories.

ALL PROJECTS

Category Number	Description
0100	Preliminary Engineering (Phase D)
0200	Roadway
0300	Structures
0400	Construction Engineering Bid Items
0500	Utilities by Contractor
0600	Miscellaneous (Contractor – Reimb.)
0800	Construction Engineer (Consultant)
0900	Utilities F/A by Third Part (Phase U)
1000	Furnished Materials
1050	ROW (Phase R)
1100	Indirect Costs
1150	Other Costs (Construction)
1200	Environmental (Phase E)
1300	Environmental Mitigation (Construction)
1400	Miscellaneous (Phase M)

Item No. Description

Category 0100
000-00005 Design (NFA CDOT)
000-00010 Design (Federal Aid CDOT)
000-00020 Design (Consultant)
000-00030 Const Engineering (Consultant)
000-00035 Const Engineering (Consultant NFA)

Category 1200 000-00100 Environmental (NFA CDOT)
000-00105 Environmental (Federal Aid CDOT)
000-00110 Environmental (NFA Consultant)
000-00115 Environmental (Federal Aid Consultant)

Category 1050 800-00040 ROW (Federal Aid and eligible Indirect Cost)
1051 800-00045 ROW (NFA and NFA Indirects)
1052 800-00046 ROW (NFA)
1053 800-00047 ROW (Federal AId)

Category 1100 000-00050 Indirects Costs (for CE Only)(NFA)

Category 1000 800-00060 Furnished Material (use XXXXX.20.10 funding) be sure use CE% and put exact $ amount as needed

Environmental, Design, ROW, Utility & Miscellaneous Costs
If environmental, design, ROW, utilities and/or Miscellaneous phases are planned and budgeted for the project, estimated costs must be included in the engineer's detailed estimate.

Estimating CDOT Environmental, Design and ROW Costs
Initially use budget amount(s). As the project gets closer to Ad, do not put in the budget amount(s). Use the estimated cost to complete the work per item, which will also need to include indirects. In the participating item, the current rate is 9.50% of CDOT salary charges. See *Project Financial Statement* expenditures to date for minimum amount to enter. Estimated costs should never be less than what has been spent. i.e. add an additional amount for remaining anticipated costs. See list above for categories and items.

Remember to include non-participating environmental, design and ROW cost items similar to the participating discussed above. Include not only the direct non-participating costs but also the indirect costs, which are 1.63% of direct salary charges. Every federally funded project will have them with few exceptions. Non-participating Item numbers are listed above.

Check with the ROW office. Review what has been spent to date and add remaining acquisition payments along with the administrative and Indirects Costs discussed above.

Project Financial Statement and AASHTOWare Engineer's Detailed Estimate Differences

When your AWP Prime Project Preliminary Detail Estimate is run is, the total should be more than the Project Financial Statement Total Cost to Project by the amount of Category 0400. AASHTOWare will include the Category 0400 costs to Estimate Total of the Detailed Estimate. Project Financial Statement subtracts Category 0400 costs on Line 8. The bottom line difference between the two is the amount of Category 0400. After the 0400 costs are deducted and if the number is off slightly, it will be due to the indirect calculation being more accurate in the Form 65 than in the Estimate.

Project Bids and Closure contacts Abeba (Abby)Yehdego, 303-757-9556 or Tram Ngo, 303-757-9284, will assist with more complex funding or unusual or unique item codes or categories. Do not feel obligated to spend a lot of time trying to figure these things out on your own.
E-mail at abeba.yehdego@state.co.us or tram.ngo@state.co.us

AWP Preconstruction Revision Under Advertisement Instructions

1. Contact the Contracts unit (Tracie Benton) to request the release of the PRIME, PROJECTS and PROPOSAL components back to the region. The Workflow is changed from Advertised to Revision Under AD, giving the region access again to make revisions.

2. Log into **AASHTOWare Project Preconstruction.**

3. Revise Items, or Quantities, or Unit Prices as needed
   - Select **Projects**
   - Enter your **Project Number**
   - Open the **Project Summary**
   - **Go to the Categories and Items Link**
   - **Items tab**
   - Add or delete or modify items. Either expand item list & make changes within individual items, or go to
     Actions on the blue Project component line & select CDOT Project Items Worksheet.
   - Log into Worksheet application, enter Project number-BID or –NONBID
   - Make Changes
   - Exit Application
   - SAVE

4. Go to Funding: Assign to Items if any new Items were added
   - Expand All Project Items List & change any new Items indicated as None to the appropriate Fund Package.
   - SAVE
   - Go back to Home

5. Re-run Preliminary Detail Estimate & Review it
   - Open **Prime Projects**
   - Enter your **Prime Project number**
   - Select **Actions > Preliminary Prime Project Detail Estimate**
   - Accept default settings & check 2nd to last box, too
   - Execute
   - After the Report has completed running Print out or Save for your file and review.
   - Go back to Home

6. Assign Items to Section in Proposal
   - Go to Sections and Items Link
   - Go to Actions on blue Proposal component line
   - Select Assign Items to Sections
   - Expand All Project Items list, and each Category and assign any unassigned items to Section 0001

- Be sure Section Description says BID ITEMS, if not, change it to BID ITEMS & SAVE

- Select Proposal Link

7. Re-run Proposal Price Schedule & Review items & Line Numbers for accuracy

   - Go to Actions on blue Proposal component line
   - Select Proposal Price Schedule under Reports
   - Allow pre-set settings & Select Execute
   - After the Report has completed running save the file as ***REV#1 SCHEDULE for #####.pdf,*** where ##### is the CDOT Project Number (Print to Adobe PDF Printer)
   - Go back to Home
   - Log Off

8. Log into **Sumgraph** & Run SAQ's
   - Enter your **Project BID Number** (e.g.: 18822-BID)
   - Paper Size: 17 x 11
   - Starting Sheet Number: *doesn't matter unless you do not want to overwrite a previous file*
   - Line Spacing: 1
   - Select Report Directory: *Browse to your project folder*
   - Select **Run Report**
   - **DataGui** popup: **OK**
   - Select **Quit**

9. Contact your EEMA Estimator to let them know you are done so they can price new/adjusted items and contact the Contracts Unit (Tracie Benton) so she can lock /put the Project back in Advertised Workflow.

Appendix B

DATE: December 13, 2018 – revision documentation

TO: All Project Managers

FROM: RB Simmons - Construction Contracts

SUBJECT: Procedure for Submitting Plan Revisions

The following procedure and format is to be followed for all Plan Revisions. The purpose of these instructions is to update certain items to standardize the process statewide in order to reduce the incidence of problems and to enhance reporting capabilities. Please replace any previous instructions you may have, in the Checking Manual for example, with these instructions.

All revision packages are to be submitted to reproduction no later than 10 calendar days prior to the scheduled letting date. Revisions occurring later will require that the opening be deferred. The package to repro will include the revision letter and all revised sheets. Additionally, an e-mail distribution of the revision letter must be made concurrently with or prior to the submittal to reproduction. This is essential in order that key processes are initiated.

The actual revision letter will be addressed to 'All Holders of Plans for Project No. ____________". Under 'Subject', state the Revision Number (to be acknowledged in all bid proposals). Include the following recipients at the bottom of the letter for hard copy distribution:

FHWA, Colo F/A Division Operations Engr.(If FHWA Oversight)
Stiller, Bid Plans
RB Simmons, Engineering Contracts
Stephen Brokos, Cost Estimating
Project Manager
Resident Engineer

The 'Subject' for the Email cover letter should say "Revision No. # Project No.". Include the following on the e-mail distribution: For your convenience, all of the standard non-regional recipients have been consolidated in a distribution list called "HQ-CU/Construction". The current names in this list are shown for information only.

Jack Stiller
Bid Plans
RB Simmons = CDOT_HQ_CU-ConstructionContractsUnit@state.co.us
Region Transp. Dir.
Program Engineer

All non-regional distribution instructions must be followed exactly. The intra-regional distributions are based on a consensus taken from all the regions and may be modified as your region directs.

The revision letter shall include the following in the order specified (an example is attached).

1. Reason for Revision: It will now be necessary to list the reason(s) for the need to revise the project plans and specs in order to enhance newly required reporting needs. Check as many reasons as may apply for each revision. There will be eight potential categories from which to choose. (Plan or spec correction, commencement or completion time change, biddable quantity change, add or delete specs, add or delete plan sheets, new Davis Bacon wage rates, funding availability, other-explain)

2. Bid Proposal: Indicate whether or not there are any changes to the bid proposal (or schedule). If there are changes, state that the EBS amendment must be used (see example).

3. Project Special Provisions: List page numbers with brief descriptions for each revised spec.

4. Standard Special Provisions: Again, list page numbers and descriptions.

5. Plan Sheets: List sheet numbers with description of revision.

5. Date: State the date of the bid opening and whether or not it has changed. Please state this explicitly as opposed to saying "At the time previously advertised". If the project has been deferred call their attention to the revised EBS file (see example text). ALL PROJECTS MUST BE DEFERRED UNLESS THE REVISION IS SUBMITTED 10 PRIOR TO THE SCHEDULED LETTING DATE.

7. FHWA Approval: If the project requires FHWA Oversight, indicate which FHWA Engineer approved it.

8. Authorization: Indicate who is authorizing the revision and the region. All revisions must be authorized by someone at or above the PE II level. Signature is not required.

IMPORTANT: In the event that significant plan quantity errors become known, it is mandatory to issue a revision. In the past there have been some incidents where the region went forward with the intent to deal with the errors "in the field". This is not permissible because it creates distortions in the bidding process which cannot be administered fairly.

NOTE: In the event that a revision adds DBE participation to a project, the Bid Plans Room must be advised to include CDOT Form 1414 and 'Note on DBE %' with the package they send out to plan holders and to add these forms to any new sets which are sold.

Please try to minimize the need for additional revisions by checking all plans and specs carefully prior to submitting your revision. If there are any questions on this process, please call Marci Gray at 303-757-9297.

EXAMPLE:

Date: }
From: } (Automatically filled in by Email)
Dept: }
Tel No: }
TO: See Below
Subject: Revision No. 1 HB 9999-999
Distribution:
CDOT_HQ_CU-ConstructionContractsUnit@state.co.us
TO: J. Stiller @ HQ
RB Simmons @ HQ

CC: Your RTD

Your Program Engineer

[Project Name, i.e. HB 9999-999
[SAP #, i.e. 10000]
SH 99, North of the Big Hole
DATE: [Current Date]

TO: All Holders of Plans for Project No. {HB 9999-999}

SUBJECT: Revision No. [1, 2, or 3, etc.] (to be acknowledged in all bid proposals)

Reason(s) for Revision

_____Plan or Spec Correction ______Commencement or completion time change

_____Biddable quantity changes ______ Add or delete specs

_____Add or delete plan sheet ______ New Davis Bacon wage rates

_____Funding availability ______Other (explain)______________________________

Bid Proposal:
Revised Schedule. Prospective bidders must submit their bids on the revised schedule, see the schedule amendment posted on the CDOT web site and Bid Express.
OR
No revisions to Schedule

Project Special Provisions:
Pages 12a and 12xa: Revised Index
Page 16a: Added Cross Sections
Pages 50-56: Deleted Section 253-Asbestos Containing Material Management...etc.
OR
N/A

Standard Special Provisions:
Page 12xa: Revised Date on Standard Special Provision R.O.S.
106-Quality of Hot Bituminous Pavement (Nov. 7, 1996)...etc.
OR
N/A

Plan Sheets:
Sheet 1: Updated Revision Block
Sheet 8: Deleted Item and Revised Quantity
Sheet 10: Added Item
Sheet 12: Deleted Item
Sheet 21: Changed Note...etc.
Please substitute the enclosed revisions in your copy of plan documents and destroy those sheets superseded by this transmittal.
OR
N/A

The Department will open bids for this project on (Bid Opening Date) as previously advertised.

OR

The Department has delayed the bid opening __ weeks for this project. Bids will be opened on (Bid Opening Date). A new EBS file has been posted on the web to correspond to the revised bid opening date. Bidders using EBS must use the new file.

If FHWA Oversight: This revision has been approved by _____________, FHWA Colorado Federal Aid Division Operations Engineer.

This revision is authorized by (PE II authorizing Revision).

cc: FHWA, Colo F/A Division Operations Engr.(If FHWA Oversight)
Stiller, Bid Plans
RB Simmons, Engineering Contracts
Stephen Brokos, Cost Estimating
Project Manager