QRG: Change Orders – Value Engineering

Contractors may submit Value Engineering Change Proposals or Practical Design Value Engineering Change Proposals. If accepted, a change order must be generated to incorporate the changes. This article is intended to guide the user in the creation of a value engineering change order.

Navigate to Change Orders – Change Order Maintenance – Change Orders.






# Creating the Change Order Header



**Contract ID:** Select Services – Choose Keys to select contract.

**CO Number:** The system will automatically number the change order.

**Tentative Verbal Approval Dates:** May be used if it applies.

**CO Created By:** Automatically entered by system.

**On:** Date automatically entered by system.

**Status:** Leave Status as “Draft” until all items and explanations have been entered.

**Approval Level:** Automatically entered by the system.

**Description:** Enter a brief description of the change order.

**Reason Code:**  Select “Value Engineering” from the drop down list.

**CO Type:** **All value engineering change orders must be approved at Division level**. Select Division Approval from the drop down.

**Override Approval:**  SiteManager approval rules may select a lower Approval Level than what is required by policy. When this occurs, the user must override the approval rules to make sure the value engineering change order is forced to Change Order Level 3.

**Emergency Work:** Check if this applies.

**Functions:** Select both “Overrun/Underrun” and “Extra Work.”

**Reference To:** **Dispute** and **Force Account:** These fields are not used.

# Adding Value Engineering Line Items

Click the Items tab.



## Editing/Deleting Existing Contract Items

For existing contract items, click the Select Item icon  in the tool bar and select the appropriate item by using the Find function or by scrolling to it. Select OK.





**CO Item Description:** Automatically entered by the system.

**This Change Order Quantity**: The quantity of the change. You cannot enter a quantity of zero for a change order item. Underruns must be entered as negative amounts. Save the changes.

**This Change Order Amount:** Automatically calculated by the system.

Click the Select Item icon  to add additional existing contract items to the change order.

**Note**: There should no line numbers on this change order that are not related to Value Engineering.

## Adding New Contract Items

Click the New icon  on the tool bar to add a new line item to the contract.



**Project Nbr:**  Select the appropriate project number from the drop down list.

**Category Nbr:** For funding purposes, select the appropriate category number from the drop down list.

**Line Item Nbr:** The first instance of a new line item number for the New Contract Item will begin with 5001 for the first project in the contract. If multiple projects are associated to the contract, the line numbering will begin with 5101 for the second project, 5201 for the third project, 5301 for the fourth project and so on. New contract Line Item Numbers shall be sequential per project, regardless of the category.

**Note:** Be aware, it is possible for line items to be numbered beyond 5000 on large contracts. In this instance, begin numbering contingent items with the next available option, *e.g*., 6001, 7001, etc.

**Item Code:** Perform a search and select the appropriate item code. There are some “catch all” item codes, but the units must match or the calculations will be incorrect. If you cannot find an item code that is relatively close, send an email to ReDEV.

**Major Item:** Check if it applies.

**Specialty:** Check if it applies.

**Unit Price:** Enter the unit price for the item. Enter a unit price of 1.0 for the Value Engineering line item.



**Proposal Line Nbr:** Enter same value as Line Item Nbr.

**Related Item:** This list is not populated.

**Critical:** Do not check this box.

**Pay Plan Qty:** Do not check this box.

**Supplemental Descriptions:** For the Value Engineering item, enter a remark/additional description in the Supplemental Description field, *e.g*., 50% Share Value Engineering**.**

**This Change Order Quantity**: The quantity of the change. For the Value Engineering item, enter the value engineering quantity. This quantity \* $1.00 unit price will be the total dollar value.

**This Change Order Amount:** Automatically calculated by the system.

**Force Account Item:** Do not select this box.

Once all data is entered, save the information.

# Adding Change Order Explanations

Click the Explanations tab to add change order explanations.



With the exception of Zero Dollar or Time Adjustment change orders, Change Order Explanations must be assigned to specific line items. Select "Explanations Applied to Specific Items" from the drop down list. This will open the Change Order Line Items panel on the right side of the window.

Click the New icon for the first Seq. Nbr. and type the change order explanation in the text field.

Explanations must begin with the following: Reason Code - Line Number - Description – Overrun/Underrun/Extra Work: Reason. For example: VE - Line No. 0040 – Class A Excavation - Underrun: Begin typing the reason....

The standard reason codes to be entered for value engineering change orders will be either PD (Practical Design Value split 25/75) or VE (Value Engineering split 50/50). Definitions and examples for the codes may be found in the Change Order Codes QRG.

**Note**: The change order reason must specifically state the change order is being executed in accordance with Section 104.6 of the Missouri Standard Specifications for Highway Construction.

The system will assign a sequence number as shown in the left hand window. Once the explanation has been typed in the lower window, it should be associated to the appropriate change order line item in the right hand window by double clicking the line number. A green check mark will appear once the explanation has been associated to a line number.



When a change order reason affects multiple line items, a detailed description of the change must be entered for the first line item. All subsequent line items must then be entered. However, the same level of detail is not required and can reference back to the first **line item** reason. For example:

VE - Line No. 0020 - Class A Excavation - Overrun: Per Missouri Standard Specification 104.6, the contractor submitted a Value Engineering Proposal henceforth known as VE No. 2. The proposal is to eliminate the Aggregate Base, Stabilized Permeable Base and Edge Drains and substitute 12 inches of Rock Fill Base. This proposal was reviewed by MoDOT's Pavement Engineering experts and met their approval. The Value Engineering proposal was approved August 3, 2010. In order to install 12 inches of rock fill, additional Class A Excavation will be generated.

VE - Line No. 0040 - Compacting in Cut - Underrun: Same as Line No. 0020.

VE - Line No. 0060 - Stabilized Permeable Base (4 In. Thick) - Underrun: Same as Line No. 0020.

VE - Line No. 0070 - Type 5 Aggregate for Base (4 In. Thick) - Underrun: Same as Line No. 0020.

# Changing the Status of the Change Order

Once all items and explanations have been added to the change order, the user must return to the Header tab. User may choose to “Calculate Change Order” from the Services drop down menu to make sure the system calculated approval level is Change Order Approval Level 3. If not, select Override Approval Rules.

Change the status from “Draft” to “Pending” and save. Make the appropriate selections for each approval level, and then click OK.



If the approval levels have been overridden, the user will be required to make the appropriate selections for both “Groups for Approval” and users as noted below. Click the New icon to add each approval level and select the appropriate user. Remember, all Value Engineering change orders must be approved at Level 3, with FHWA approval if required. Once all selections have been made, click OK.



# Generating the Change Order Report

Generate the Change Order report as directed in the [Change Order Reports](http://epg.modot.org/files/2/28/Change_order_reports_July_2011.doc) Quick Reference Guide.

# Saving the Change Order

SM updates the header information each time a change order is generated. Therefore, you **must** save the report so the header will correctly reflect the contract information at the time of the report was created.

**Policy:** Change orders shall be saved in .PDF format to the V: drive in the following path for your district and org code: **V:\Contract Information Archive\District # \ ORG # \ Contract ID \Change Orders\Pending**. (See Note below.) File name should include the change order number placed within the file name so the change orders will sort properly when listed in the folder. See example below:



Once the change order is saved, it should be sent as an attachment in an email to the contractor for signature.

Once the change order has been approved at all levels, it shall be saved with all attachments in a single file to **V:\Contract Information Archive\District # \ ORG # \ Contract ID \Change Orders\Completed**.

**Note:** When distributing a change order electronically for signature, it should be stored with appropriate attachments in a single file in the “Completed” change order folder and linked from there.  (Attachments not normally sent to the contractor should be saved in the “Supporting Documents” folder.”) Once the last digital signature is applied, the process is ***complete.***  No further action is necessary on the part of the project office, that is, there is no movement of the document from one folder to another.