

# Autodesk Construction Cloud (ACC) Guide-Change Order Process

## Civil Infrastructure

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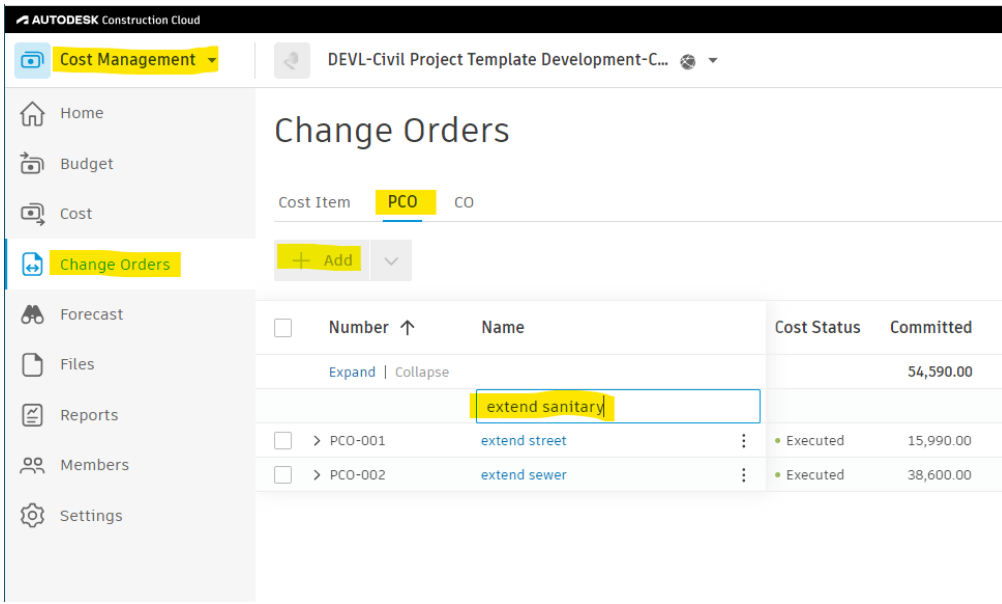
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This guide only covers the basic process for Negotiated or Bid Change Orders that may or may not have a schedule extension. For less common workflows, see the advanced guide for more detail on the following topics:

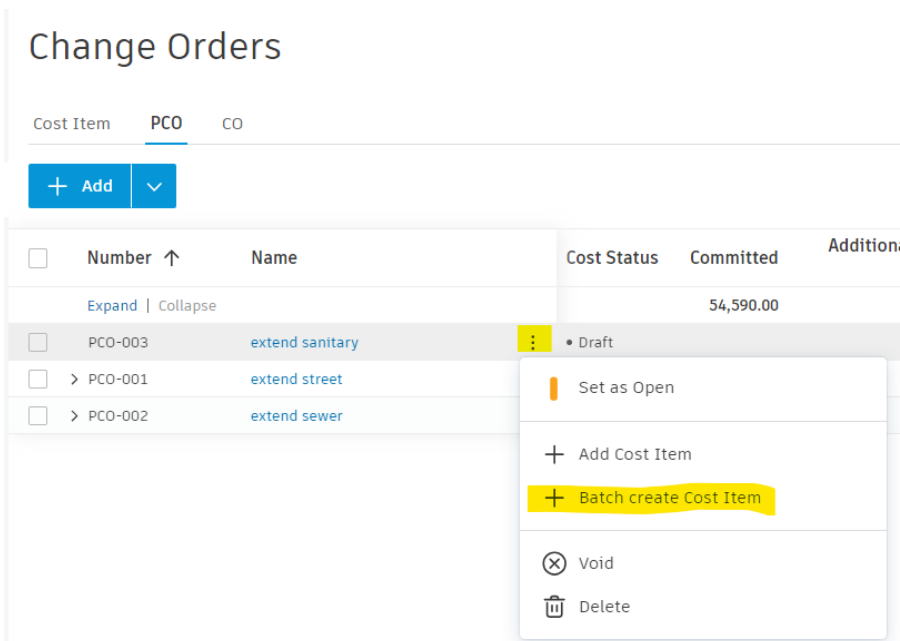
- You need to prepare a CO with input from the project manager or other city agencies
- During PCO review with Contractor, the contractor will not sign and you need to redo PCO
- After PCO signoff by Contractor, you need to change account numbers but not item Qty's or bid prices
- During CO internal review, reviewer selects Revise because more justification is needed
- During CO internal review, reviewer selects Revise due to issue with Cost or Schedule. This includes situations such as the Board of Public Works rejecting a CO.

# 1. Cost Management - Construction Inspector creates PCO

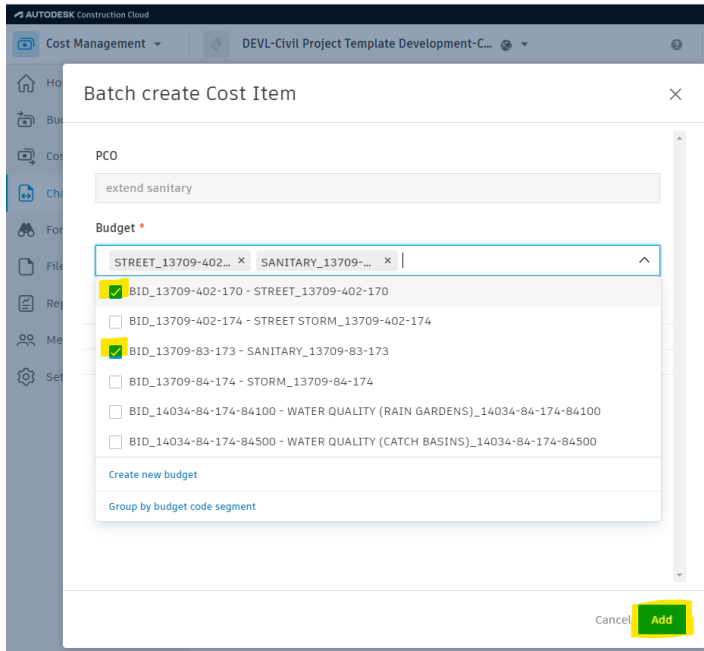
Navigate to Cost Management > Change Orders > PCO. Click Add. Type a concise, logical name



Click the 3 vertical dots next to the name. Select **Batch Create Cost Item**



Click check boxes next to Budgets, which are the account numbers, for the corresponding bid items. Click **Add** when done.

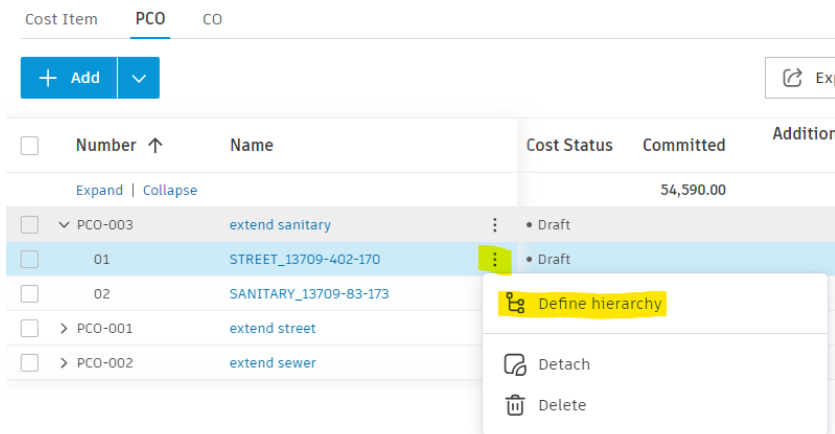


This will create Cost Item(s) that are automatically named after accounts.

**Important:** Do not rename Cost Items.

You will now see the Cost Item(s) below the PCO. Click the 3 vertical dots and select **Define Hierarchy**. This will bring up the flyout.

## Change Orders



## 2A. Cost Management-Construction Inspector inputs negotiated items

If bid, skip to skip 2B

If negotiated, Click **Committed** tab. Estimated is not used at all in Cost Management.

The screenshot shows the 'Change Orders' interface. On the left, a table lists items with columns for 'Number', 'Name', and 'Cost Status'. Item '01' is selected, with 'STREET\_13709-402-170' as the name and 'Draft' as the status. On the right, a detailed view for 'STREET\_13709-402-170' is shown, including a 'Cost Summary' section with tabs for 'Estimated' and 'Committed'. The 'Committed' tab is active, showing a table with columns for 'Number', 'Name', 'Qty', 'Unit', and 'Unit Cost'. A row for 'CI-013' is visible with a vertical three-dot menu icon to its right.

Click vertical 3 dots icon. Select **+ Add subitem**.

This close-up screenshot focuses on the 'Cost Summary' table. The 'Committed' tab is selected. A row for 'CI-013' is highlighted, and a vertical three-dot menu is open to its right. The menu contains two options: '+ Add subitem' and 'Import subitems'. The '+ Add subitem' option is highlighted in yellow.

Input information for Number (format 001), Name, Qty, Unit and Unit Cost. ACC will calculate the amount automatically.

**Tip:** You can expand the flyout by hovering on the left side to bring up resize arrow. You can also expand the Name column.

Add document ▾

> Related Change Orders

Cost Summary

Estimated				Committed 2,750.00		
Number	Name	Qty	Unit	Unit Cost	Amount	
CI-009	STREET_13709-402-170	1	LUMP SUM	2,750.00	2,750.00	⋮
001	extra type 'x' curb	50	ft	55.00	2,750.00	⋮

Ex... | Coll...

Define hierarchy ▾

> Markups

> Scope of Work

Scroll down to custom attributes. Select **N** for **N/B** field:

Cost Summary

Estimated				Committed 2,750.00		
Number	Name	Qty	Unit	Unit Cost	Amount	
CI-009	STREET_13709-402-170	1	LUMP SUM	2,750.00	2,750.00	⋮
001	extra type 'x' curb	50	ft	55.00	2,750.00	⋮

Define hierarchy ▾

> Markups

> Scope of Work

> Approval

> Dates

Custom Attributes

N/B Search...

Notes

- 
- N** ✓
- B

Clear

Complete the same steps for the other account number-add bid items, input committed quantities and select N or B.

Note that each Cost Item is marked as either Negotiated or Bid. If you need a bid and negotiated item from the same budget, you must create two cost items.

## 2B. Cost Management-Construction Inspector inputs bid items

If bid, Click **Committed** tab. Estimated is not used at all in Cost Management.

Select **Define hierarchy**. Select **Use hierarchy from Contract With GC**.

The screenshot shows the 'Change Orders' application. On the left, a list of items is visible under 'PCO' (Proposed Change Order). The right pane shows the details for 'STREET\_13709-402-170'. The 'Cost Summary' section has two tabs: 'Estimated' and 'Committed'. A dropdown menu for 'Define hierarchy' is open, with the following options: 'Start a new hierarchy', 'Use hierarchy from Budget', and 'Use hierarchy from Contract With GC'.

Click check box next to applicable bid items. Click **Save**.

The dialog box 'Use hierarchy from Contract With GC SOV' is shown. The 'Contract With GC Name' is set to 'Lake Mendota Drive'. The table below lists bid items with checkboxes:

Code	Name	Unit	Unit Cost
<input type="checkbox"/>	21301 REMOVE AND REPLACE MAILBOX	EACH	300.00
<input type="checkbox"/>	21302 CONSTRUCTION FENCE (PLASTIC) (UND...	L.F.	10.00
<input checked="" type="checkbox"/>	30201 TYPE 'A' CONCRETE CURB & GUTTER (M...	L.F.	22.00
<input type="checkbox"/>	30203 TYPE 'X' CONCRETE CURB & GUTTER	L.F.	30.00
<input type="checkbox"/>	30208 HAND FORMED CONCRETE CURB & GUT...	L.F.	50.00
<input checked="" type="checkbox"/>	30301 5" CONCRETE SIDEWALK	S.F.	7.50
<input type="checkbox"/>	30302 7" CONCRETE SIDEWALK AND DRIVE	S.F.	9.00
<input type="checkbox"/>	30340 CURB RAMP DETECTABLE WARNING FIE...	S.F.	30.00
<input type="checkbox"/>	30451 ROLLING RETAINING WALL	S.F.	30.00

Buttons: Cancel, Save

Enter Qty for each bid item. The amount of each bid item and total for the account are calculated as you input data:

**Tip:** You can expand the flyout by hovering on the left side to bring up resize arrow. You can also expand the Name column.

**Change Orders** STREET\_13709-402-170 Cost Item

Cost Item PCO CO

+ Add

Number ↑

Expand | Collapse

Estimated		Committed 1,790.00			
Number	Name	Qty	Unit	Unit Cost	Amount
CI-011	STREET_13709-402-170	1	LUMP S...	1,790.00	1,790.00
20322	REMOVE CONCRETE CURB & GUT...	20	L.F.	10.00	200.00
20323	REMOVE CONCRETE SIDEWALK ...	100	S.F.	4.00	400.00
30201	TYPE 'A' CONCRETE CURB & GUTT...	20	L.F.	22.00	440.00
30301	5" CONCRETE SIDEWALK	100	S.F.	7.50	750.00

Markups

Name	Estimated	Committed
------	-----------	-----------

Scroll down to **Custom Attributes** section or click section titles to collapse. Select **N** (for Negotiated) or **B** (for Bid).

STREET\_13709-402-170 Cost Item

Cost Summary

Estimated		Committed 1,790.00			
Number	Name	Qty	Unit	Unit Cost	Amount
CI-011	STREET_13709-402-170	1	LUMP S...	1,790.00	1,790.00
20322	REMOVE CONCRETE CURB & GUT...	20	L.F.	10.00	200.00
20323	REMOVE CONCRETE SIDEWALK ...	100	S.F.	4.00	400.00
30201	TYPE 'A' CONCRETE CURB & GUTT...	20	L.F.	22.00	440.00
30301	5" CONCRETE SIDEWALK	100	S.F.	7.50	750.00

Markups

Scope of Work

Approval

Dates

Custom Attributes

N/B

Search...

-

N

B

Clear

Notes

Complete the same steps for the other account number-add bid items, input committed quantities and select N or B.

Note that each Cost Item is marked as either Negotiated or Bid. If you need a bid and negotiated item from the same budget, you must create two cost items.

### 3. Cost Management - Construction Inspector prepares Change Order for Contractor Signoff

If you need to extend the contract completion time, you will need to input this information for the PCO. Input **New End Date by PCO** or **Additional days by PCO** depending on contract. This is the new contract end date or additional days as a result of this change order. Note that you are unable to assign a value to the cost items underneath the PCO

## Change Orders

Cost Item **PCO** CO

+ Add ▼

<input type="checkbox"/>	Number ↑	Name		Cost Status	Committed	Additional days by PCO	Budget Name	CO
<a href="#">Expand</a>   <a href="#">Collapse</a>					57,340.00			
<input type="checkbox"/>	> PCO-001	extend street	⋮	● Executed	15,990.00			
<input type="checkbox"/>	> PCO-002	extend sewer	⋮	● Executed	38,600.00			
<input type="checkbox"/>	▼ PCO-003	extend sanitary	⋮	● Open	2,750.00	5		
<input type="checkbox"/>	01	STREET_13709-402-170	⋮	● Open	2,750.00		STREET_13709-402-170	
<input type="checkbox"/>	02	SANITARY_13709-83-173	⋮	● Open			SANITARY_13709-83-173	



Click the name of the PCO to bring up the flyout. Under Documents, click *Add document* and then select *Generate from document template*. Select the only option.

COR-032  
Processing Change Order

Draft: Prepare potential change Set as Open

Details

Number PCO-006

Name COR-032

Description

Main Contract Olin Park Facility Improvements

Cost Status Draft Scope Assigned

Schedule Change Days

Type

Scope of Work

Documents

Stored in Autodesk Docs

Document Package  
0 documents

Add document

Add from Change Order Request

Generate from document template

Upload from your computer

Attach from Autodesks Docs

COM-ENG-FM PCO Summary\_Contracto...  
Default template

Open the document package to open the file that the contractor will review. Verify that everything is correct.

Document Package  
3 documents | Merged to PCO-006-COR-32.pdf

MSN-FM-PCO Summary\_Contractor.xlsx

Open

Download

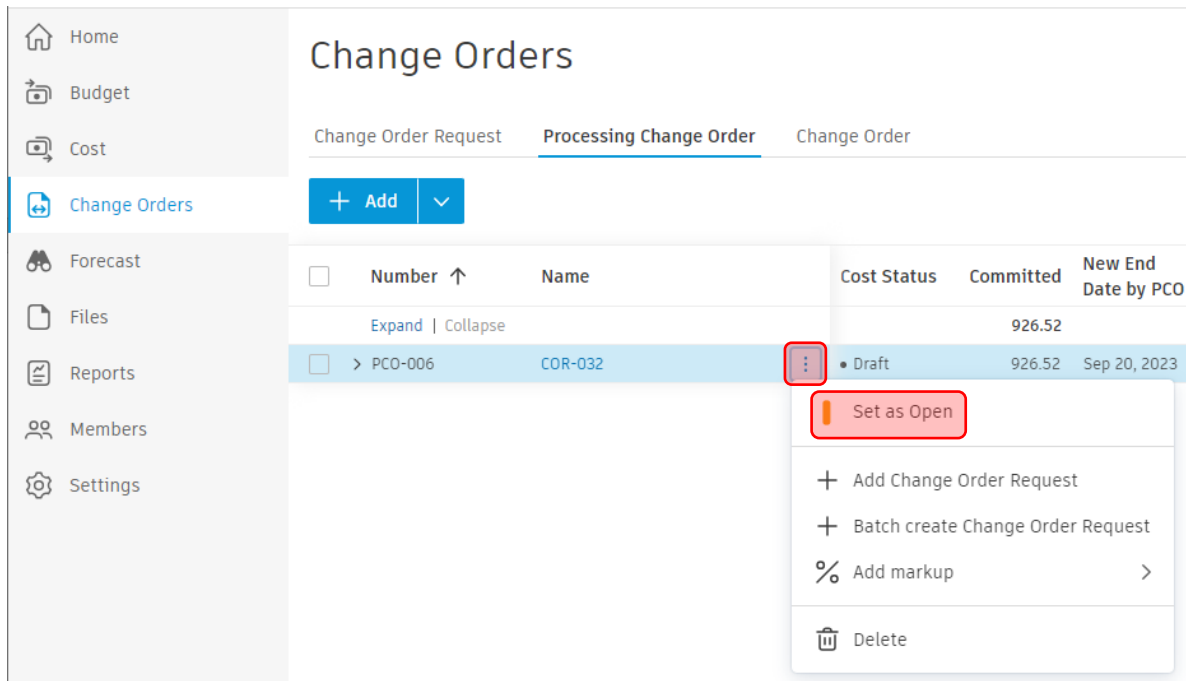
Send by email

**Important:** This form is a legally binding change to the contract. Ensuring the file is correct is critical so that the contractor can agree to the contract changes.

Changes to data in the system aren't immediately populated—you must regenerate document template if anything is changed.

**IMPORTANT:** Setting a PCO to open with an up-to-date merged document package PDF will trigger an automation that performs several steps. An up-to-date merged document package means that the document package has been opened since the latest change to one of the documents composing it was changed. **Be sure document package PDF is correct before setting PCO to open because setting PCO to Open sends the agreement to the contractor for signature.**

Click the 3 vertical dots next to the PCO Name. Click **Set As Open** ONLY IF YOU ARE READY FOR SYSTEM TO EMAIL CONTRACTOR FOR SIGNOFF.



The automation will create a *CO Signoff by GC* form and send you an email to notify you.

**If the document package PDF was not opened after its XLSX file composing it was changed, the form will not be created upon setting to Open.** In that case, you will have to Set the PCO as Void, remerge the files and then Reopen the PCO to create a new form for the GC to sign. Archive the old form in this case

#### 4. Build-Contractor signs off *CO Signoff by GC Form*

Contractor will receive an *Action Required...* email with a link to a form *CO Signoff by GC*. Follow the link. View the file reference. Click *Show More* to read entirety of statements.

If you approve, add select *Sign and Submit*. If you have any questions or are not ready to sign, use the comments. The methodology to add comments by clicking the dialog bubble icon as shown is the same as it was for the *COR by GC form*.

If through comments it is determined that the document needs changes, select *Send back to editors*.

**Important:** Only Sign and Submit the form if you approve the Change Order and your signature looks good. The form cannot be edited after you submit.

Forms  
CO Signoff by GC In review Export

Last synced today at 03:23 PM

**Form Details**

Form date  
Jun 29, 2023

ID  
#12

Location  
-

Description  
PCO-006

Created by  
zzz COM-ENG-ADSK Automation

Last updated  
Jun 29, 2023

Visible to 7 members

**References**

Files

PCO-006.pdf

**Form is in review**  
1 reviewer needs to sign

[Send back to editors](#) [Sign and submit](#)

**1. CO Acceptance by GC**

This contract change order agreement has been submitted under Sec. 104.3 of the Standard Specifications for Public Works Construction...

[Show more](#)

1.1 BY SIGNING AND SUBMITTING FORM, GENERAL CONTRACTOR AGREES THAT:  
I have reviewed all pages of the file in References and Accept the Change Order to the contract as described in the file. My signature affirms I am using my own Autodesk ...

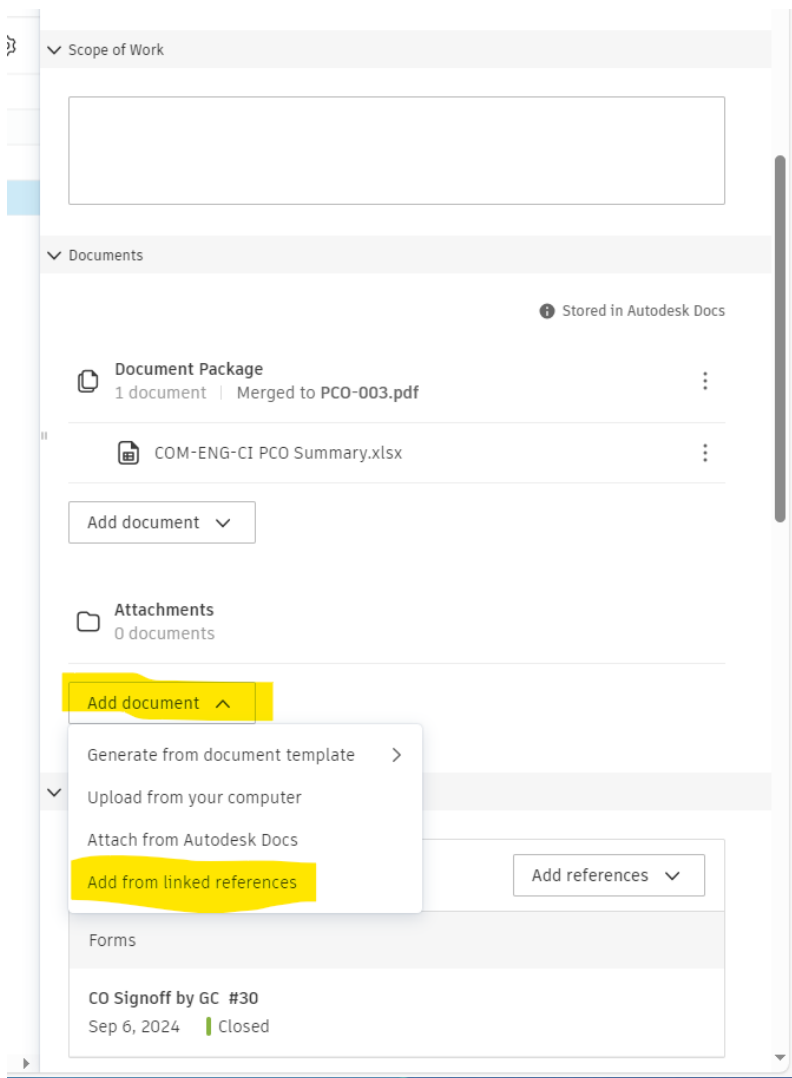
[Show more](#)

## 5. Cost Management-Construction Inspector prepares Change Order for staff review

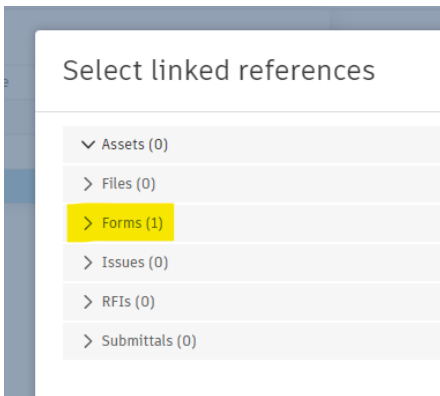
After the contractor has signed the *CO Signoff by GC form*, the Construction Inspector will receive an Autodesk email immediately. It contains a link to the Form, which alone isn't of much use.

You will also receive a Workato email within 5 minutes that contains a link to the corresponding PCO and Form. **Next, we need to attach documentation to the PCO to show that contractor has signed off.**

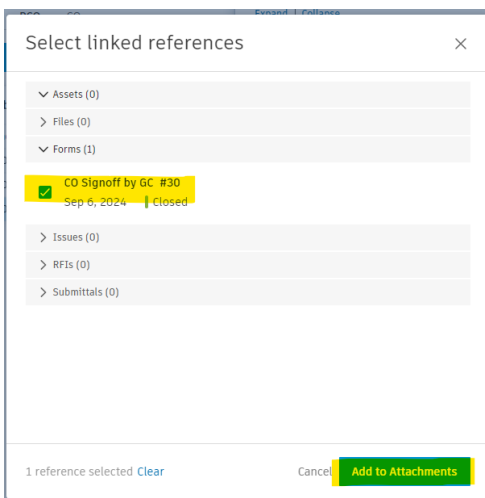
In Workato Email, open link to PCO. In flyout, scroll to *Documents* section. Under *Attachments* click *Add Document*. Select *Add from linked references*.



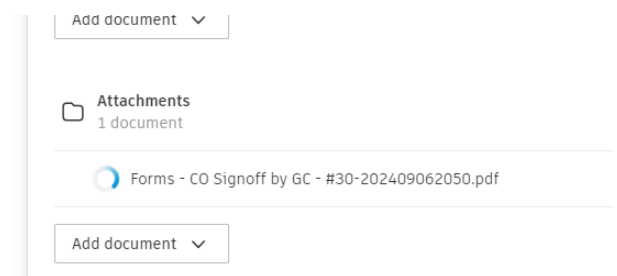
6 possible types of references show up in the list but only 1 actually is present under Forms. Expand Forms



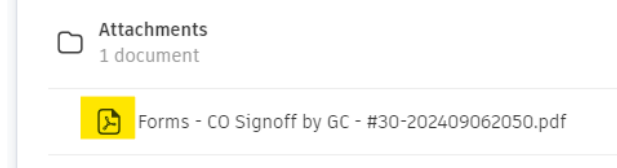
Select the only option:



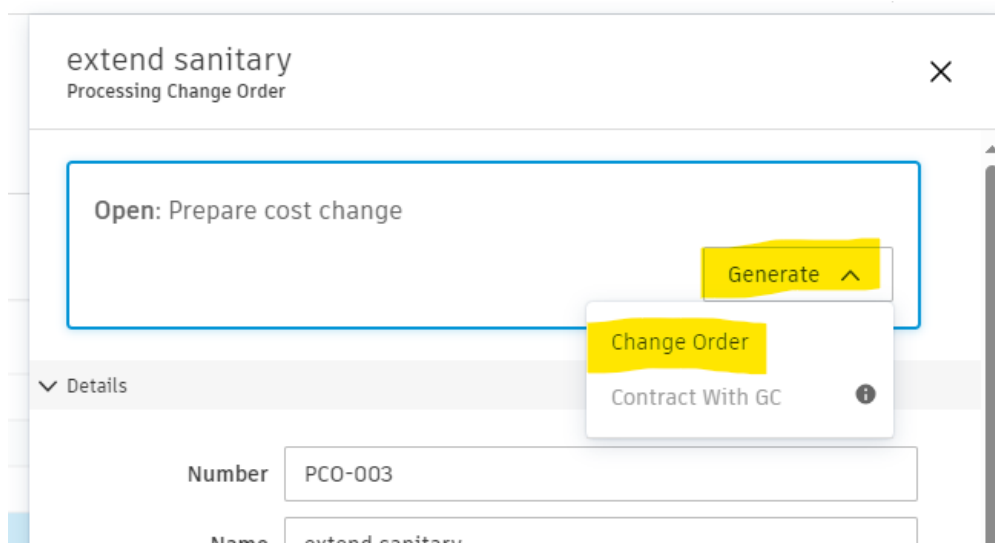
**Important: wait for blue wheel next to filename to finish spinning before proceeding.**



**The appearance of the PDF icon indicates successful upload of the attachment.**



Scroll up to the top of the flyout. Select **Generate > Change Order**



**Failure to correctly attach the 1 exported file and only the 1 exported file will result in an error message. The error message is communicated by the name of the generated Change Order. Any erroneous Change Orders must be deleted and recreated, the next time following the instructions.**

Upon Creation of the Change Order, ACC will switch to the Change Order Tab. Click *Set as Open*. A Workato Recipe will automatically analyze and then set all Open COs as BPW or non-BPW.

Before setting to Open	After setting to open and refreshing																																																		
<p><b>Change Orders</b></p> <p>Change Order Request   Processing Change Order   <u>Change Order</u></p> <table border="1"> <thead> <tr> <th>Number ^</th> <th>Name</th> <th>Status</th> <th>Committed</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td colspan="3">Expand   Collapse</td> <td>89,778.17</td> <td></td> </tr> <tr> <td>&gt; CO-004</td> <td>COR-022 thru 025</td> <td>Executed</td> <td>25,001.29</td> <td>BPW</td> </tr> <tr> <td>&gt; CO-005</td> <td>COR-26 through COR-30</td> <td>Executed</td> <td>4,223.09</td> <td>Non-BPW</td> </tr> <tr> <td>&gt; CO-006</td> <td>COR-32</td> <td>Draft</td> <td>926.52</td> <td></td> </tr> </tbody> </table>	Number ^	Name	Status	Committed	Type	Expand   Collapse			89,778.17		> CO-004	COR-022 thru 025	Executed	25,001.29	BPW	> CO-005	COR-26 through COR-30	Executed	4,223.09	Non-BPW	> CO-006	COR-32	Draft	926.52		<p><b>Change Orders</b></p> <p>Change Order Request   Processing Change Order   <u>Change Order</u></p> <table border="1"> <thead> <tr> <th>Number ^</th> <th>Name</th> <th>Status</th> <th>Committed</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td colspan="3">Expand   Collapse</td> <td>89,778.17</td> <td></td> </tr> <tr> <td>&gt; CO-004</td> <td>COR-022 thru 025</td> <td>Executed</td> <td>25,001.29</td> <td>BPW</td> </tr> <tr> <td>&gt; CO-005</td> <td>COR-26 through COR-30</td> <td>Executed</td> <td>4,223.09</td> <td>Non-BPW</td> </tr> <tr> <td>&gt; CO-006</td> <td>COR-32</td> <td>Open</td> <td>926.52</td> <td>Non-BPW</td> </tr> </tbody> </table>	Number ^	Name	Status	Committed	Type	Expand   Collapse			89,778.17		> CO-004	COR-022 thru 025	Executed	25,001.29	BPW	> CO-005	COR-26 through COR-30	Executed	4,223.09	Non-BPW	> CO-006	COR-32	Open	926.52	Non-BPW
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> CO-006	COR-32	Open	926.52	Non-BPW																																															

**Important:** Never manually input data into the Type column, New End Date by CO or Additional days by CO columns.

Click blue text for name of CO to bring up flyout. Scroll down in flyout to add data to Custom Attributes. Always select types. Provide a Schedule Change Explanation as needed.

**2024 09-16 Update: Do not input anything for BPW Meeting**

Open extend sanitary CO

> Dates

Custom Attributes

BPW Meeting  Select date

TY\_Street

TY\_Sewer-Sanitary

TY\_Sewer-Storm

TY\_Water

TY\_TE-Electrical

TY\_Parks

TY\_Facilities

Schedule Change Explanation:

Justification Comment-Inspector

Actual vs Estimated Quantities differ

Missing Bid Item or Additional Bid Item needed

Field Decision (Expanded Scope)

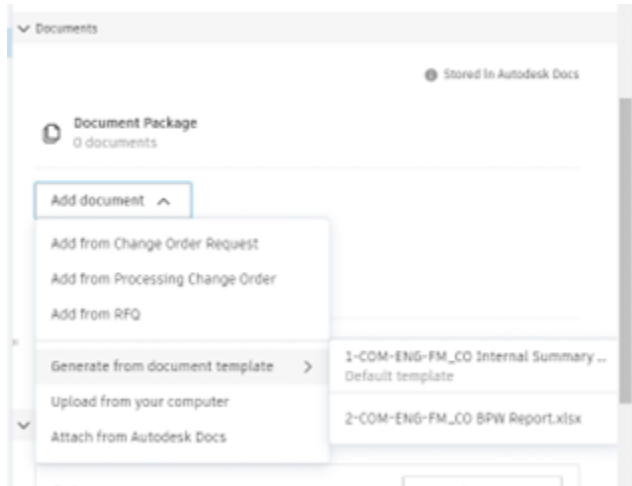
Differing site conditions

Design did not adequately anticipate field conditions

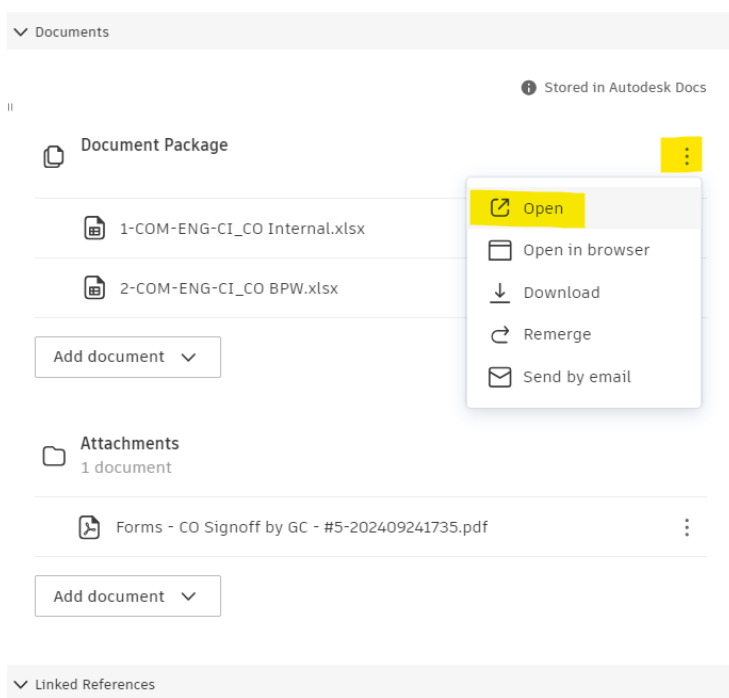
Underground conflicts (utility revision)

Design Changes

After entering in Custom Attributes Data, scroll back up to Documents Package. Create Document package as shown below. Very similar to the process for the PCO. Note that the document package will not reflect any data modifications after its creation. Always create 1-COM-ENG-FM\_CO Internal.xlsx template. For BPW type COs, also create 2-COM-ENG-FM\_CO BPW.xlsx. **Do not edit these files-instead, change custom attributes and then regenerate to update XLSX files.**



Click 3 dots at top level next to document package to open to PDF

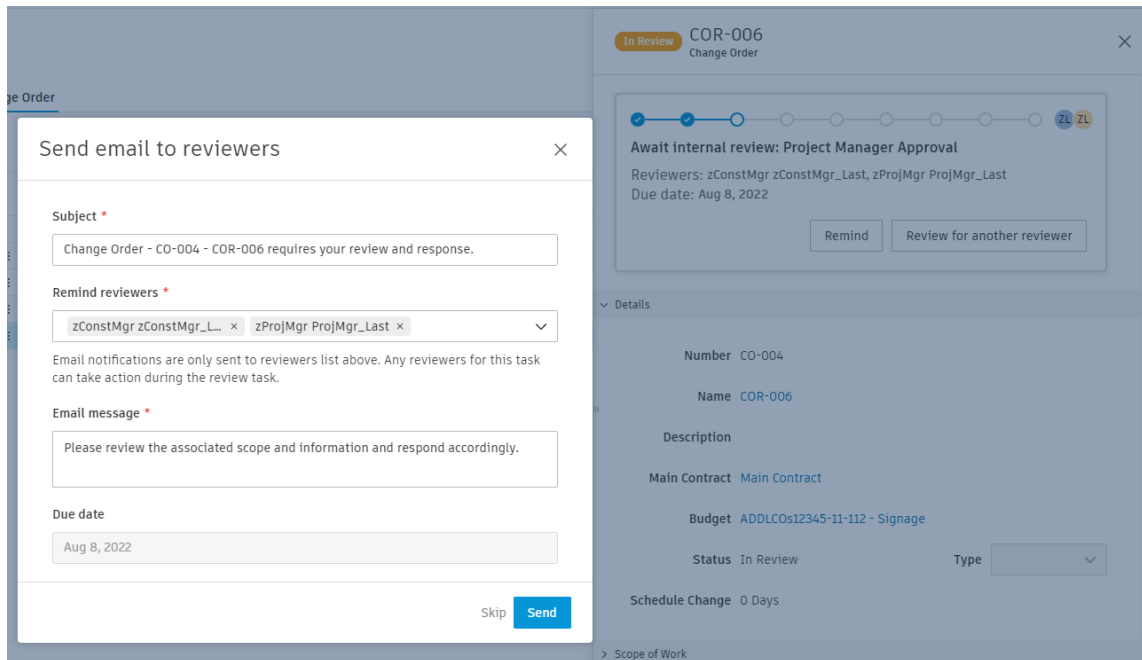


**TIP:** If you need to change custom attributes, you must also update the Document Package. Click the triple vertical dot icon next to the Justification file and select Regenerate. You will also need to reopen the Document Package for the changes to be reflected on the document reviewed by staff. A new version will also be created.



## 6. Cost Management-Project Manager provides comments and City Staff review

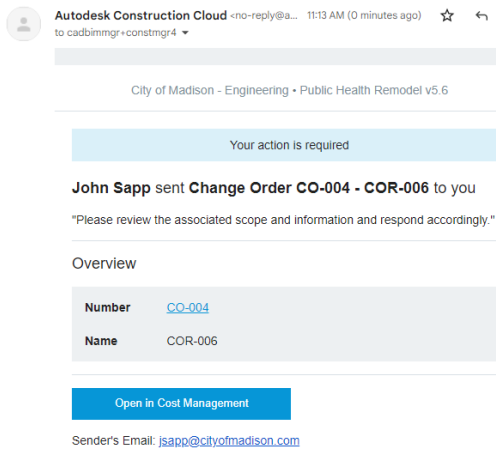
Click blue *Send* button in the upper right of the flyout. A pop up to *Send email to reviewers* will appear. Hit Send to start the review process.



Now the Change order will work through the Change Order Approval Workflow. It is a series of 5 (Non-BPW COs) or 7 (BPW COs) steps, some of which have multiple reviewers able to complete the review on a first come first serve basis. The Change Order will be listed as *Await Internal review: **Step name*** where **Step name** is the custom name given on the Change order approval workflow. The next reviewer in line is also listed.

The process is nearly identical for each step, so just one Approval step is shown in this guide. **The first step is always the Project Manager. The Project Manager must always provide a comment for Change Order Justification.**

Action Required: Public Health Remodel v5.6 - Change Order - CO-004 - COR-006 requires your review and response. [Inbox x](#)



<Sample of Email. Review staff would follow link via blue *Open in Cost Management* button

**Clicking review in ACC will bring up this window**

The screenshot shows the "Review Change Order" window. At the top right are "Cancel" and "Submit" buttons. The window is divided into sections: "Documents" (containing a "Document Package" with 1 document and "Attachments" with 1 document), "Response \*" (with a dropdown menu currently set to "Proceed"), and "Comments" (with an "Add a comment" input field).

4- Submit after selecting *Response*

1- Select *Open* to view Document Package PDF in the system

2- Select *Open* to view Attachments PDF in the system

3-Select *Proceed or Revise*

3R-If *Revise* is selected as the Response, then a comment must be provided prior to *Submit*. **Note that this will reset entire review process.** It is best to first use @functionality to resolve any issues. **The Project Manager must always provide a comment here.**

After completion of staff review, an email is generated and sent to contractor with a link to the document package and the change order in ACC.

**Do not execute the change order after you receive the notice that it is sent. Only City Engineering's accountant should set the Change Order as executed only after it has been executed in MUNIS**