

Generating Bid Item and Quantity Tabulations for Bridge Plans from Masterworks and through the Iowa DOT Excel Tool

Table of Contents

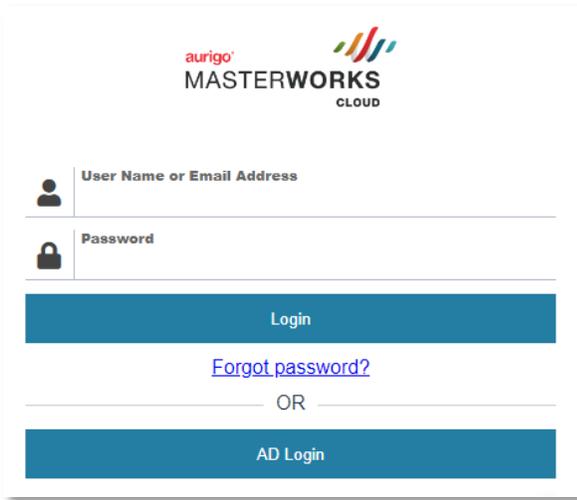
Generating Bid Item Quantities for All Projects Except Culverts and Overlay Projects.....	2
Appendix A:.....	10
Creating Bid Item Quantities for Overlays or Bridge Plans with Bid Item Alternates.....	10
Appendix B:.....	15
Creating Bid Item Quantities for Culverts with Precast Alternate Plans.....	15
Appendix C:.....	20
Inserting the Bid Item Table and Estimate Reference notes into the CADD File	20

Generating Bid Item Quantities for All Projects Except Culverts and Overlay Projects

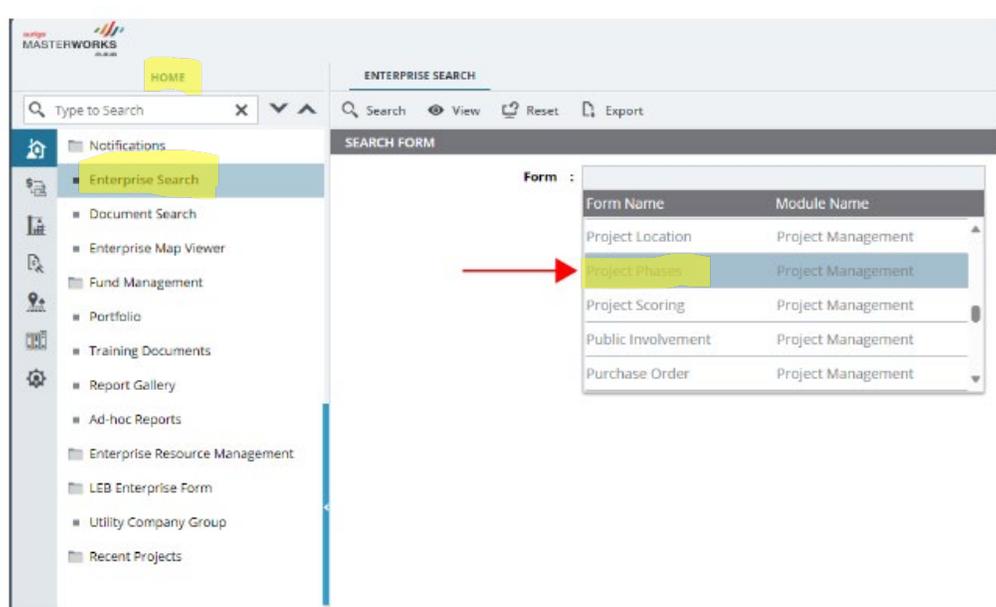
1. Access Masterworks through the desktop icon



2. Log on to Masterworks using "AD Login".



3. In the "Home" and "Menu" tabs, select "Enterprise Search" and select "Project Phases" under the Select Form search form box.



4. Fill in the project number under “Phase Number” field and then click search in the top left corner.

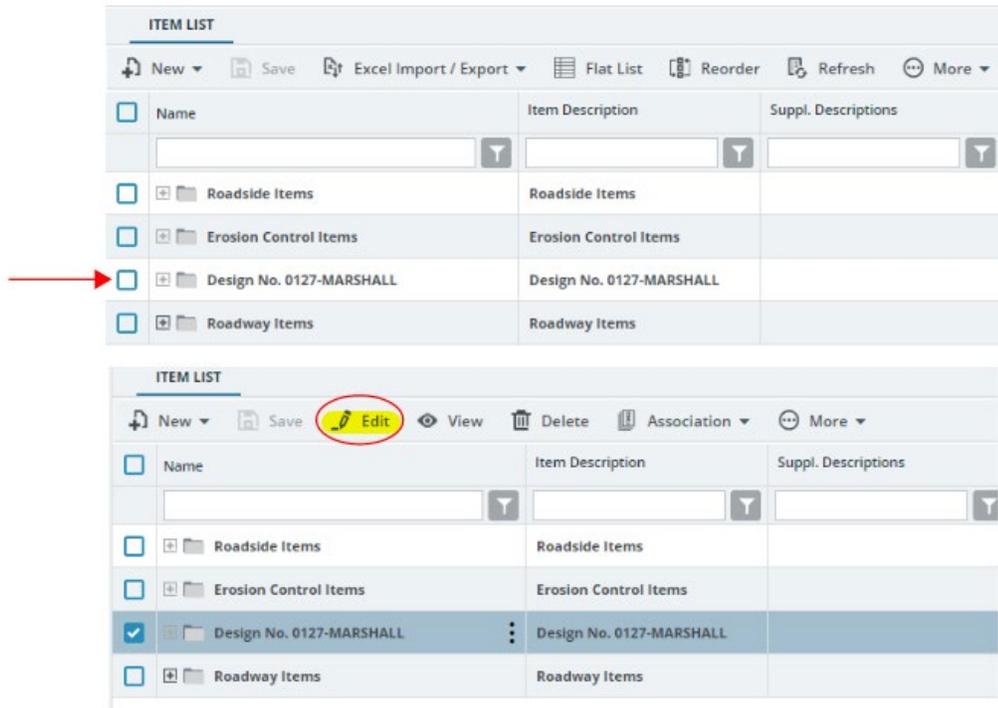
The screenshot shows the 'ENTERPRISE SEARCH' interface. At the top, there are buttons for Search, View, Reset, and Export. Below is the 'SEARCH FORM' with various filters: Form (Project Phases), Phase Number (BRF-330-2(098)--38-64), Unique Phase ID, PCN, TPMS ID (EqualTo), Active, Inactive Status Reason, Pollution Prevention (Yes/No), Range, Advance Candidate, Phase Program Category, Right of Way (Yes/No), Associated RoW Phase, Phase Status Description, and Federal Class. Below the form is the 'SEARCH RESULTS' table with columns for Project Code, Project Name, Phase Number, Funding Type, Phase Location, Phase Program Category, Primary County, and Base Cost. A single result is shown for project 22-64-330-010.

Project Code	Project Name	Phase Number	Funding Type	Phase Location	Phase Program Category	Primary County	Base Cost
22-64-330-010	US 63 -- Bridge Rehab // Clear Cre...	BRF-330-2(098)--38-64	Federal	Clear Creek 1.8 mi S of Co Rd 552	BR	Marshall	

5. To add bid items, double click on the project in the search results, and go to “Bid Estimate Information” on the left-hand side list. If there is more than one project, choose the one with the correct project (paren) number. Then choose “Plan Items”.

The screenshot shows the 'MASTERWORKS PLANNING' interface. At the top, there is a search bar with the text 'Type to Search'. Below is a sidebar menu with various options: Recent Projects, 330-64-US 63 -- Bridge Rehab // Clear Creek, Project Phases, BRF-330-2(098)--38-64, My Tasks (0), Resource Management, Schedule, Schedule Task Request, Documents, Document Search, Budget Management, Bid Estimate Information (highlighted in yellow), (098) - Bridge Deck Overlay, Bid Estimate Report Gallery, Estimate Items, Plan Items (highlighted in yellow and pointed to by a red arrow), Commitments & Expenses, and Fund Management.

- In the “Item List” window of Plan Items, click on the check box to the left of the container labeled as “Design No. ####-County” and choose “Edit”. To complete this step, the designer will need to be assigned the “Lead Designer” role for the project by a Supervisor or other BSB administration. The “New” and “Edit” icons will be displayed when you have proper permissions.



Container * : Design No. 0127-MARSHALL

Container ID : 9

Design Number : 0127

Design Number County : MARSHALL

Existing Asset ID : 035591

Container Estimator : Select One

Is Alternate :

Description : Design No. 0127-MARSHALL

- Click Edit to modify any information as needed. Set the container estimator to your name as appropriate. Containers should now properly display the project information. In case the container has not been started, the designer may have to select “New” and “Add Container” and use the format “Design No. ####-County” for the container name in a similar process.

ITEM LIST					
<input type="checkbox"/> New <input type="checkbox"/> Save <input type="checkbox"/> Excel Import / Export <input type="checkbox"/> Flat List <input type="checkbox"/> Reorder <input type="checkbox"/> Refresh <input type="checkbox"/> Lock <input type="checkbox"/> More					
<input type="checkbox"/>	Name	Item Description	Suppl. Descriptions	Unit	Quantity
<input type="checkbox"/>					
<input type="checkbox"/>	+	Roadside Items	Roadside Items		
<input type="checkbox"/>	+	Erosion Control Items	Erosion Control Items		
<input checked="" type="checkbox"/>	+	Design No. 0127-MARSHALL	Design No. 0127-MARSHALL		
<input type="checkbox"/>	+	Roadway Items	Roadway Items		

The Bridges and Structures container should follow the format:

- Design No. ####-County Name

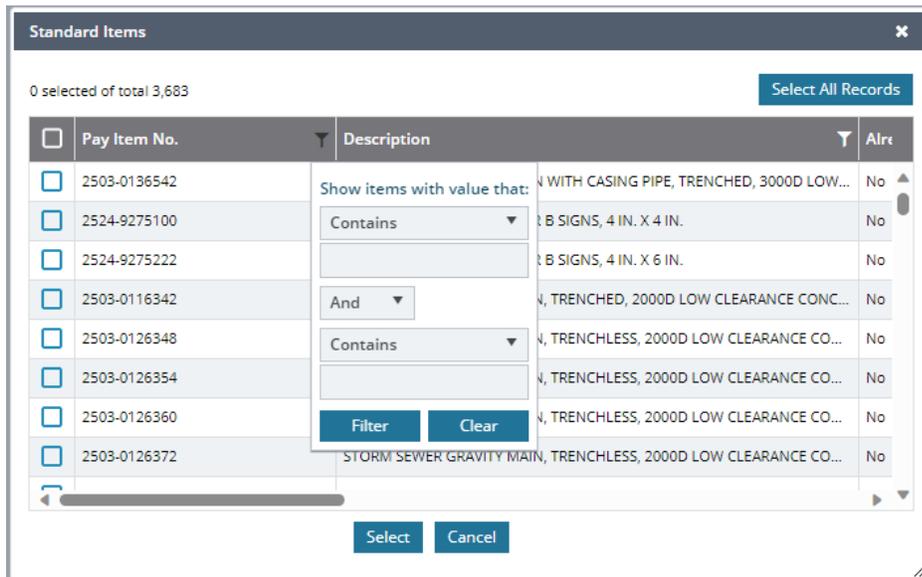
8. Select the container you want to add bid items to, then click on “New” then “Add Multiple”.

ITEM LIST					
<input type="checkbox"/> New <input type="checkbox"/> Save <input type="checkbox"/> Excel Import / Export <input type="checkbox"/> Flat List <input type="checkbox"/> Reorder <input type="checkbox"/> Refresh <input type="checkbox"/> Lock <input type="checkbox"/> More					
<input type="checkbox"/>	Name	Item Description	Suppl. Descriptions	Unit	Quantity
<input type="checkbox"/>					
<input type="checkbox"/>	+	Roadside Items	Roadside Items		
<input type="checkbox"/>	+	Erosion Control Items	Erosion Control Items		
<input checked="" type="checkbox"/>	+	Design No. 0127-MARSHALL	Design No. 0127-MARSHALL		
<input type="checkbox"/>	+	Roadway Items	Roadway Items		

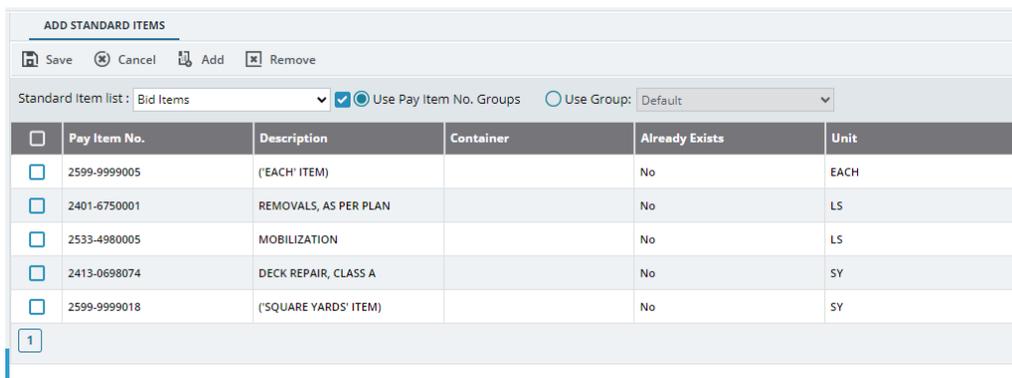
9. In the “Add Standard Items” tab, select “Add” in the top bar to start adding the bid items.

ADD STANDARD ITEMS				
<input type="checkbox"/> Save <input type="checkbox"/> Cancel <input type="checkbox"/> Add <input type="checkbox"/> Remove				
Standard Item list:		Bid Items	<input checked="" type="checkbox"/> Use Pay Item No. Groups	<input type="checkbox"/> Use Group: Default
<input type="checkbox"/>	Pay Item No.	Description	Container	Already Exists
No Data available.				
<input type="checkbox"/>	1			

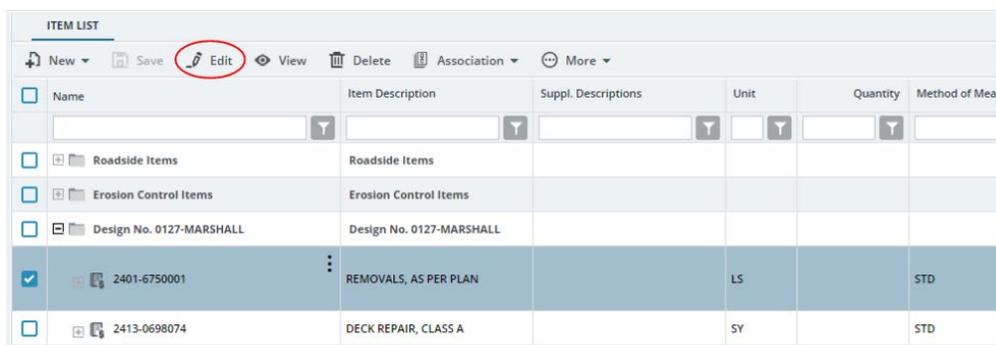
10. Start searching for the required bid items in the “Standard Items” window and add them, you can find a specific bid item by using the “filter icon”. You can filter items by their “Pay Item No.” or “Description”.



11. When you are done with adding all the required bid items, click “Save” in the top left corner in the “Add Standard Items” window. The bid items listed are a part of the container now.



12. To add/edit the quantity or notes to any bid item, select the bid item and then select edit on the top left corner. Insert or edit the quantity or notes as needed. When you are done with your editing, click “Save and Exit” on the “Edit Plan Item” window.



Alternate * : Base Bid

Quantity * : 0

Amount in \$: 0.00

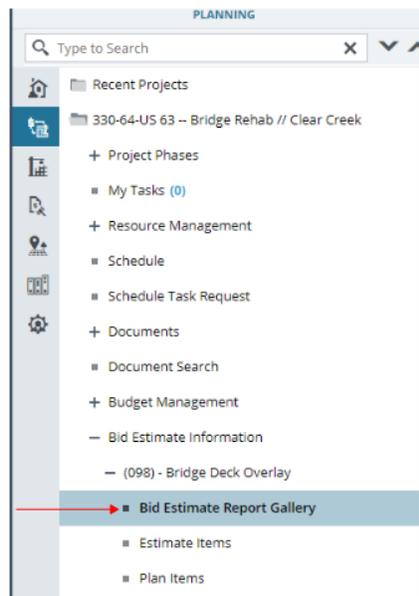
Notes :

Paragraph

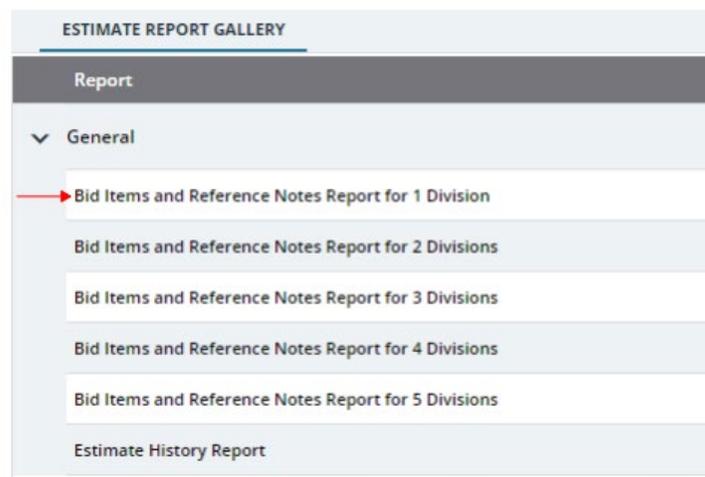
B *I* U abc

Includes all work for removal and off-site disposal of concrete. Removal of scheduled items shall be in accordance with Section 2401, of the Standard Specifications. Any damage to material not to be removed shall be the responsibility of the Contractor and repaired at no extra cost to the state.

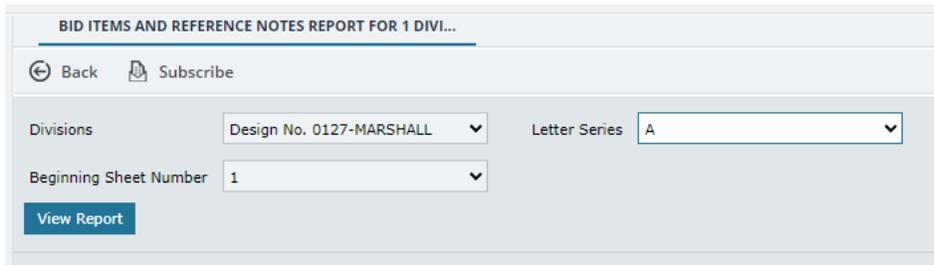
- When you are done with all the bid items inside the container, then click on the “Bid Estimate Report Gallery” option under the “Bid Estimate Information” list in the main screen on the left.



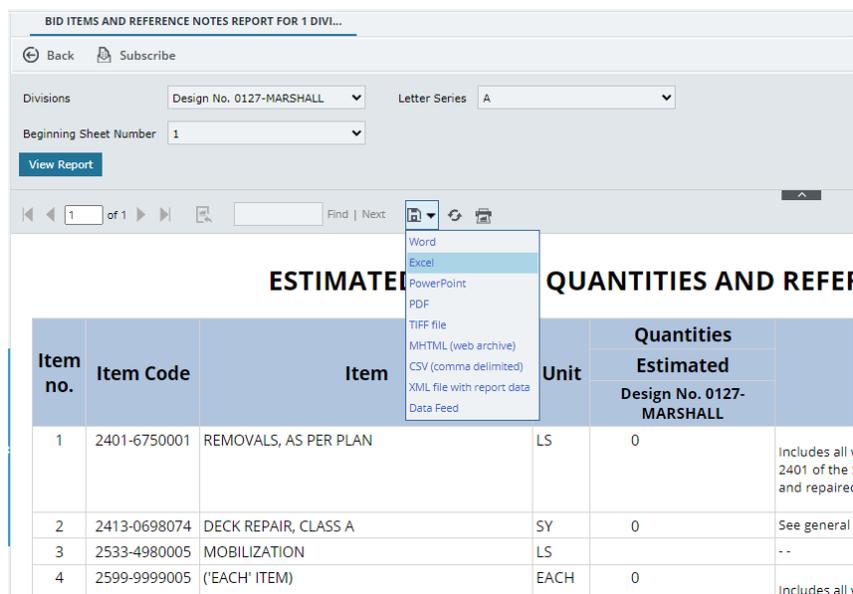
- In the “Estimate Report Gallery” window double click on the first option “Bid Items and Reference Notes Report for 1 Division”. The other options mix the bid items from all the selected containers into one report, which is not in this workflow.



15. In the new window for the “Divisions”, select the container with Design No. #### – County. You can select the other two fields for “Letter Series” and “Beginning Sheet Number”. These fields are irrelevant to this workflow, so they can be chosen at random. Then click “View Report”.



16. In the next window, click on the black down arrow next to the floppy disk icon. Then select “Excel”. An excel sheet will be downloaded to your file explorer, double click on it to open.

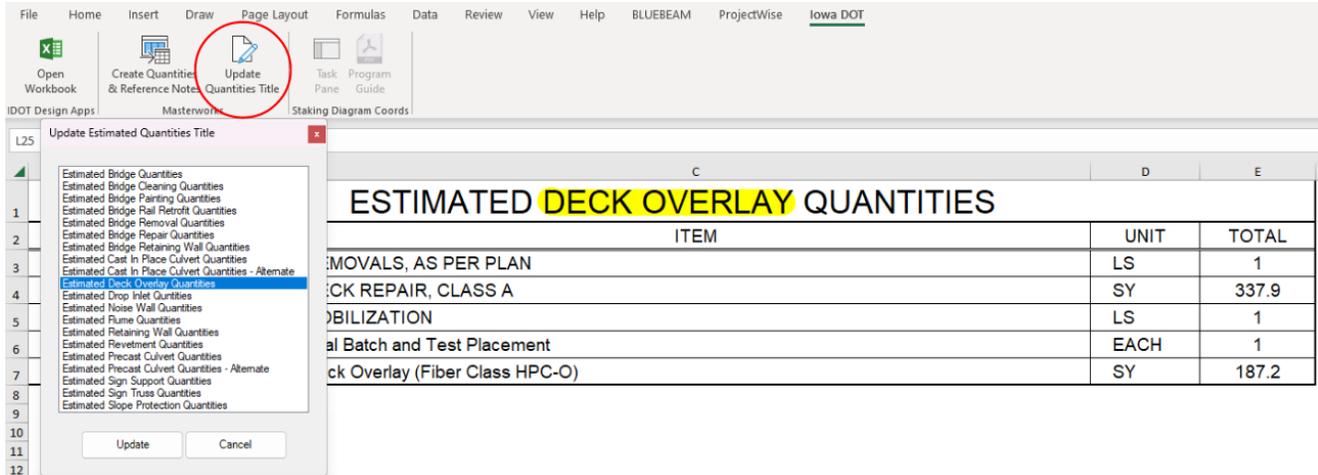


17. In the excel sheet exported by Masterworks, choose “Iowa DOT” tab in the top menu bar, then click on “Create Quantities & Reference Notes”. **If the “Iowa DOT” tab is not visible, contact the Methods Unit of the Bridges and Structures Bureau to upload the application (contact Ph. # 515-233-7935 or use the following document ([Installation Instructions - IDOT Bridge Tools Add-in .pdf](#)) to uninstall/reinstall the application if issues occur)**



18. Now you will have two additional excel sheet tabs added to the workbook. One for the Estimated Bid Item quantities and the other for the Estimate Reference Item notes. These are formatted in accordance with Bridge & Structures Bureau plan development guidelines.

- To update the title of the table with the proper heading, choose “Update Quantities Title”. Then choose the correct one from the list on the new window and click “Update”.



- The designer should then check the format of the estimated quantities and estimate reference notes tables and verify that either do not contain spelling or grammatical errors. All default Estimate Reference Notes need verified, modified, or deleted based on applicability.

ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL
1	2401-6750001	REMOVALS, AS PER PLAN	LS	1
2	2413-0698074	DECK REPAIR, CLASS A	SY	337.9
3	2533-4980005	MOBILIZATION	LS	1
4	2599-9999005	Trial Batch and Test Placement	EACH	1
5	2599-9999018	Deck Overlay (Fiber Class HPC-O)	SY	187.2

- The “Estimated Bridge Quantities” and the “Estimate Reference Information” notes are now ready for project plan presentation. These will be inserted into the Project Bentley Connect CAD file using the “Place Table” tool in MicroStation. See Appendix C for this workflow.

Appendix A:

Creating Bid Item Quantities for Overlays or Bridge Plans with Bid Item Alternates

ESTIMATED DECK OVERLAY QUANTITIES				
ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL
1	2413-0698074	DECK REPAIR, CLASS A	SY	25
2	2426-6772016	CONCRETE REPAIR	SF	51
3	2499-0800000	PAVING NOTCH REPLACEMENT	LF	70.7
4	2533-4980005	MOBILIZATION	LS	1
Design No. 0126-Harrison Alternate AA Option 1				
5	2413-0698066	DECK OVERLAY (CLASS O PCC)	SY	240
Design No. 0126 - Harrison Alternate AA Option 2				
6	2403-1000010	TRIAL BATCH AND TEST PLACEMENT (FIBER REINFORCED CONCRETE)	LS	1
7	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC)	SY	240
8	2413-1000005	FIBER REINFORCEMENT FOR CONCRETE REPAIR/OVERLAY	SY	240

If you are creating estimates for deck overlay projects or any project with alternate bid item options (such as ABC projects), follow steps 1 through 7 in the main document to start the bid item container for the bridge project with all bid items. The following steps will be to add bid alternates to an estimate.

1. Under the Item List tab, select “New” and choose “New Container”. You need to create 3 containers: one for all the bid items except the overlay, and one for each overlay option.

The screenshot shows the 'ITEM LIST' interface. At the top, there is a toolbar with buttons for 'New', 'Save', 'Excel Import / Export', 'Flat List', 'Reorder', 'Refresh', 'Lock', and 'More'. Below the toolbar, a dropdown menu is open, showing 'Add Multiple' and 'New Container' (highlighted in yellow). The main table below has columns for 'Item Description' and 'Suppl. Descriptions'. Three containers are listed:

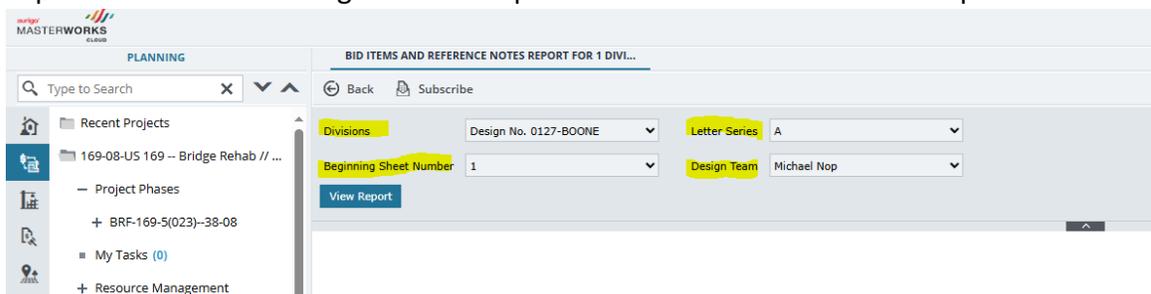
	Item Description	Suppl. Descriptions
<input type="checkbox"/> +	Design No. 0127-BOONE	Design No. 0127-BOONE
<input type="checkbox"/> +	Design No. 127- Boone Alternate AA Option 1	Class O PCC for Overlay
<input type="checkbox"/> +	Design No. 127- Boone Alternate AA Option 2	Class HPC-O PCC for Overlay

2. Label the three containers as follows:

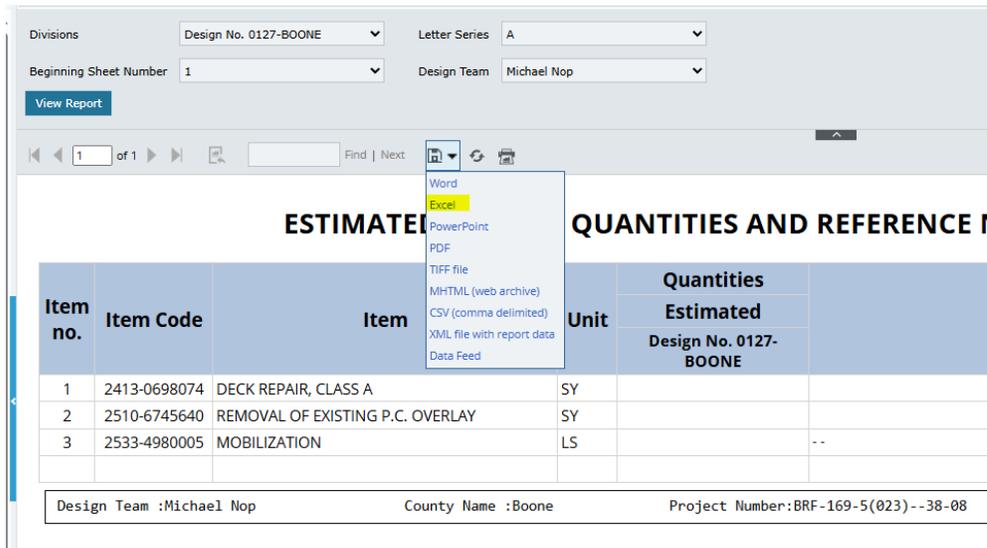
- **Container 1:**
 - i. Name and Description: Design No. ##### - County name
- **Container 2:**
 - i. Name: Design No. ##### - County name Alternate AA Option 1
 - ii. Description: Class O PCC for Overlay
- **Container 3:**
 - i. Name: Design No. ##### - County name Alternate AA Option 2
 - ii. Description: Class HPC-O PCC for Overlay

3. Click “Save & Exit” to create each container

4. Select the container you want to add bid items to, then click on “New” then “Add Multiple”.
5. In the “Add Standard Items” window select “Add” in the top left corner to start adding the bid items.
6. Start searching for the required bid items in the “Add Standard Items” window and add them. You can find a specific bid item by using the “filter icon”. You can filter items by their “Item No.” or “Description”.
7. The containers should include the following bid items at a minimum:
 - **Container 1:**
 - i. All items not associated with the overlay options
 - **Container 2:**
 - i. “Deck Overlay (Class O PCC)”
 - **Container 3:**
 - i. “Trial Batch and Test Placement (Fiber Reinforced Concrete)”
 - ii. “Deck Overlay (Class HPC-O PCC)”
 - iii. “Fiber Reinforcement for Concrete Overlay”
8. When finished adding all the bid items click “Save” in the top left corner in the “Add Standard Items” window.
9. To add/edit the quantity or notes to any bid item, select the bid item then select edit on the top left corner. When finished, click “Save” on the “Edit Plan Item” window.
10. Go to the “Reports” option under the “Bid Estimate Report Gallery” list in the main screen on the left once all bid items are entered.
11. In the “Estimate Report Gallery” window double click on the first option “Bid Items and Reference Notes Report for 1 Division”.
12. In the new window for the “Division” select the container you want to view the report for. Select a “Letter Series” and “Beginning Sheet Number” in their corresponding drop-down menus. Both of these selections are arbitrary- their selection does not affect the final result. Select your unit’s supervisor from the “Design Team” drop down menu. Then click “View Report”.

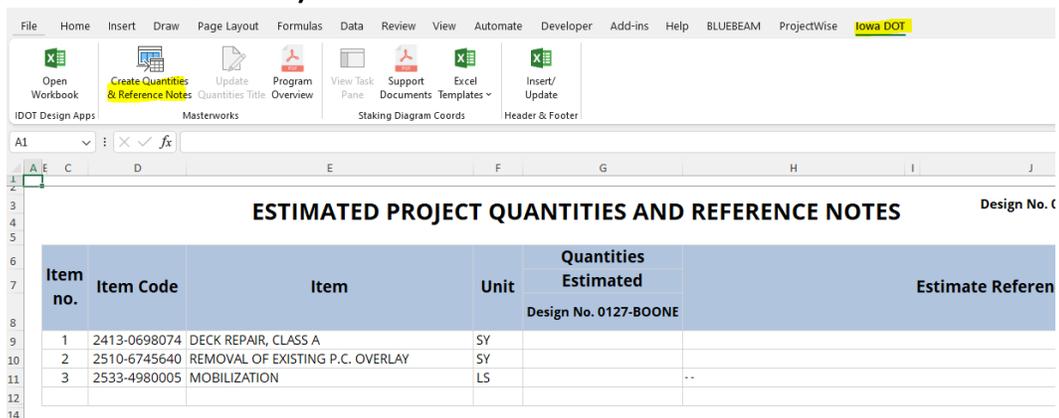


13. In the new window click on the black arrowhead next to the floppy disk. Then select “Excel”. An excel sheet will be downloaded to your file explorer. Go back to step 12 and repeat the process until all three containers have been created and downloaded.



14. Open Container 1’s excel sheet (the container with all the bid items except the overlay options).

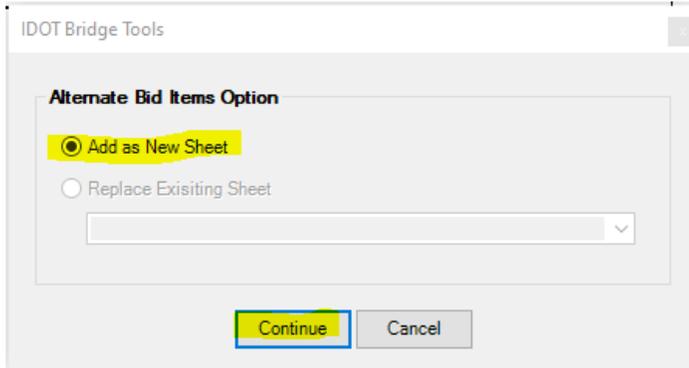
15. In the excel sheet, choose “Iowa DOT” tab in the top, then click on “Create Quantities & Reference Notes”. **If the “Iowa DOT” tab is not visible, contact the Methods Unit of the Bridges and Structures Bureau to upload the application (contact Ph. # 515-233-7935 or use the following document [Installation Instructions - IDOT Bridge Tools Add-in .pdf](#) to uninstall/reinstall the application if issues occur)**



- Two sheets should have been added to the workbook, one for the estimated quantities and the other for the reference notes.

16. To add the bid items from the alternate to the same excel sheet click on “Create Quantities & Reference Notes” again.

- A message window will appear, click “Add as New Sheet” and then click “Continue”



- Navigate to the file location in which you saved the first alternate’s excel spreadsheet. Once you have selected the file, click “Open”.
- Repeat step 16 again, but select open the second alternate’s excel file into the spreadsheet.

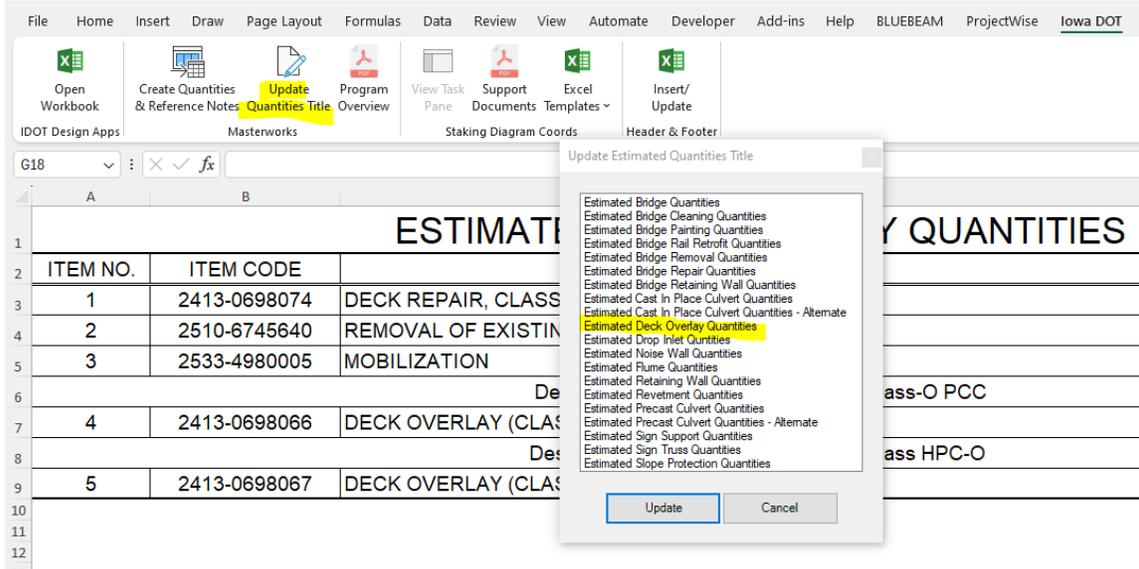
17. “Estimated Quantities” and “Estimate Reference Information” tab should now include both alternates and look similar to the pictures shown below.

- Ensure that each bid item is numbered in chronological order

ESTIMATED BRIDGE QUANTITIES				
ITEM NO.	ITEM CODE	ITEM	UNIT	
1	2413-0698074	DECK REPAIR, CLASS A	SY	
2	2510-6745640	REMOVAL OF EXISTING P.C. OVERLAY	SY	
3	2533-4980005	MOBILIZATION	LS	
Design No. 127- Boone Alt. Option 1 Class-O PCC				
4	2413-0698066	DECK OVERLAY (CLASS O PCC)	SY	
Design No. 127- Boone Alt. Option 2 Class HPC-O				
5	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC)	SY	

ESTIMATE REFERENCE INFORMATION		
ITEM NO.	ITEM CODE	ITEM DESCRIPTION
1	2413-0698074	DECK REPAIR, CLASS A --
2	2510-6745640	REMOVAL OF EXISTING P.C. OVERLAY --
3	2533-4980005	MOBILIZATION --
4	2413-0698066	DECK OVERLAY (CLASS O PCC) --
5	2413-0698067	DECK OVERLAY (CLASS HPC-O PCC) --

18. Change the name of the Estimated Quantities table from “Estimated Bridge Quantities” to “Estimated Deck Overlay Quantities” using the Update Quantities Title feature.



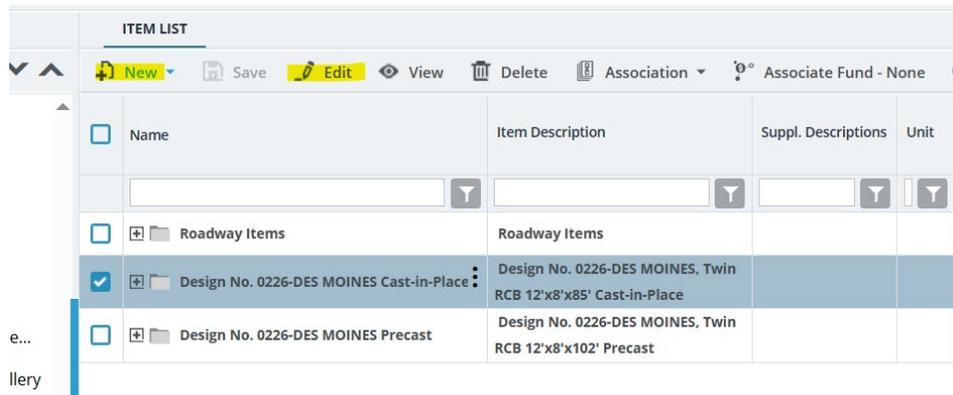
19. The “Estimated Quantities” and the “Estimate Reference Information” notes are now ready for project plan presentation. These will be inserted into the Project Bentley Connect CADD file using the “Place Table” tool in MicroStation. See Appendix C for this workflow.

Appendix B:

Generating Bid Item Quantities for Culverts with Precast Alternate Plans

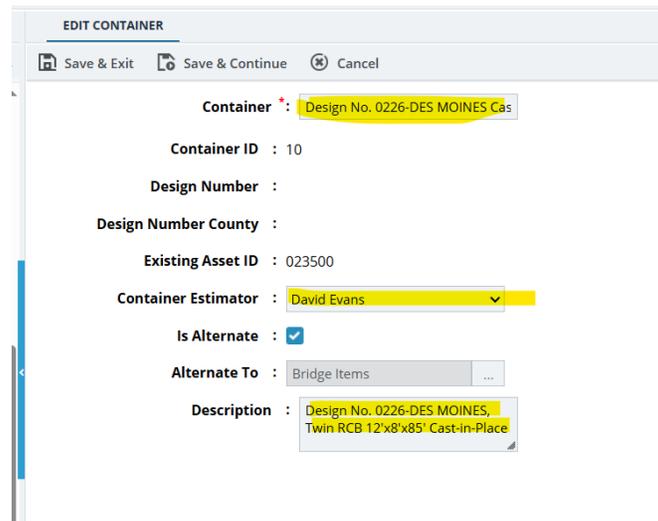
If you are creating estimates for Culvert Precast Alternate project plans, then follow the steps 1 through 7 in the main document to start the bid item container for the Cast-in-Place option.

1. In the new window “Item List”, chose “New” and choose “New Container”. If the container has been already created correctly, skip to step 3. The designer may need to change the container names, in that case, click the container you want to change, and chose “Edit” in the upper left.



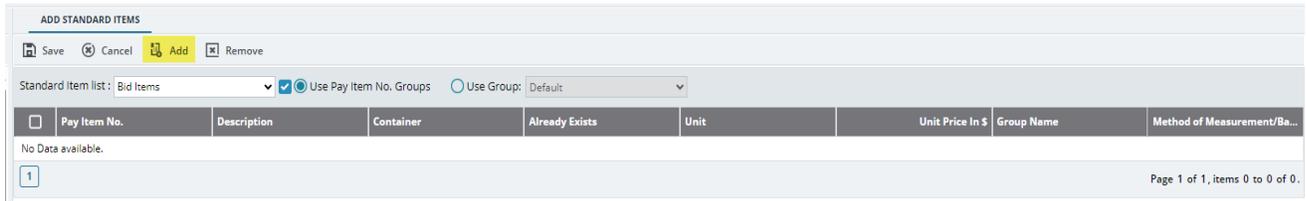
In the “Container” window, edit or fill in the information to make sure to have the following:

- In the “Container” field type in format of **Design No. ####-County name, Alternate name**
 - (i.e.: Design No. 0226 – Des Moines Cast-in-Place).
- In the “Description” field type in the format of **Design No. #### – County name, culvert size and project type** (i.e.: Design No. 0226 – Des Moines, Twin RCB 12’ x 8’ x 85’ RCB Cast-in-Place)

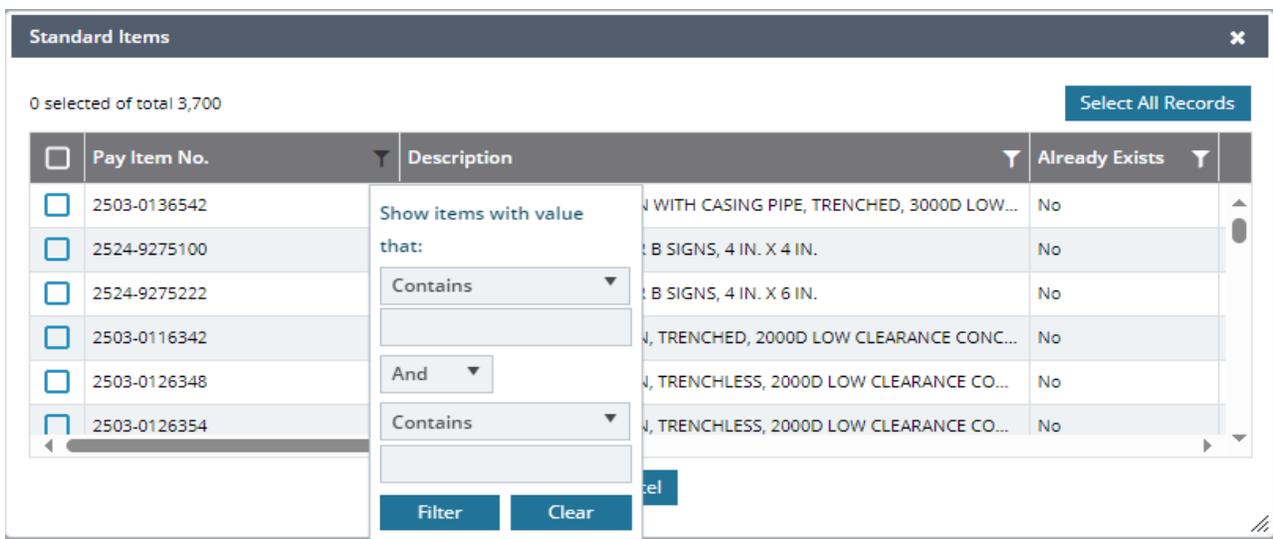


Then repeats the steps for additional containers.

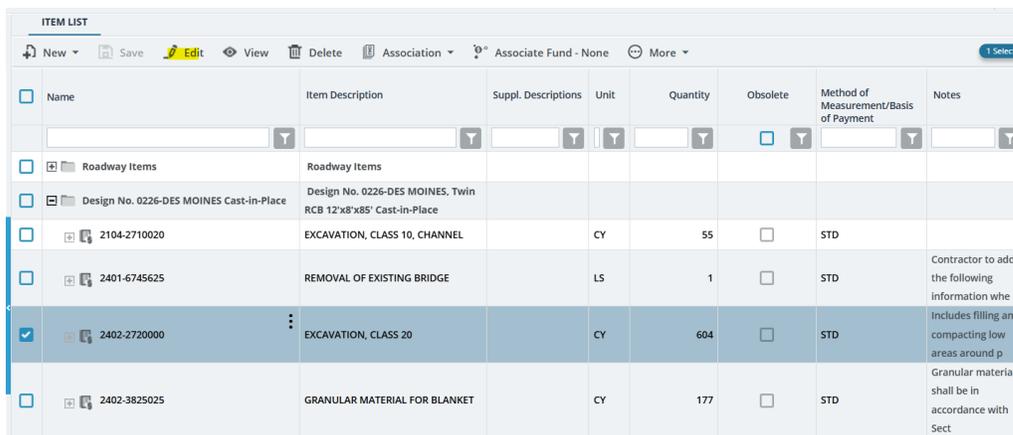
- Click “Save” and “Exit” to create the container or save the container edits.
- Select the container you want to add bid items to, then click on “New” then “Add Multiple”.
- In the “Add Standard Items” window select “Add” in the top left corner to start adding the bid items.



- Start searching for the required bid items in the “Standard Items” window and add them, you can find a specific bid item by using the “filter icon”. You can filter items by their “Item No.” or “Description”.

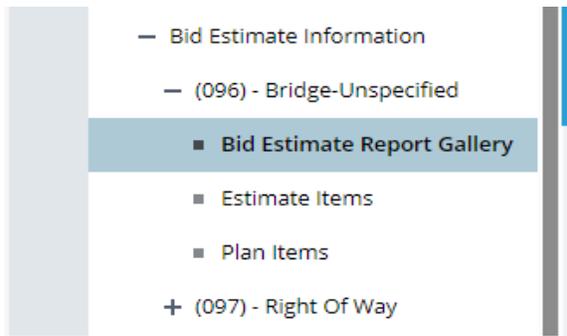


- When you are done with finding all the bid items click “Save” in the top left corner in the Add Standard Items” window. Now you have all the bid items listed in the container.
- To add/edit the quantity or notes to any bid item, select the bid item then select edit on the top left corner.

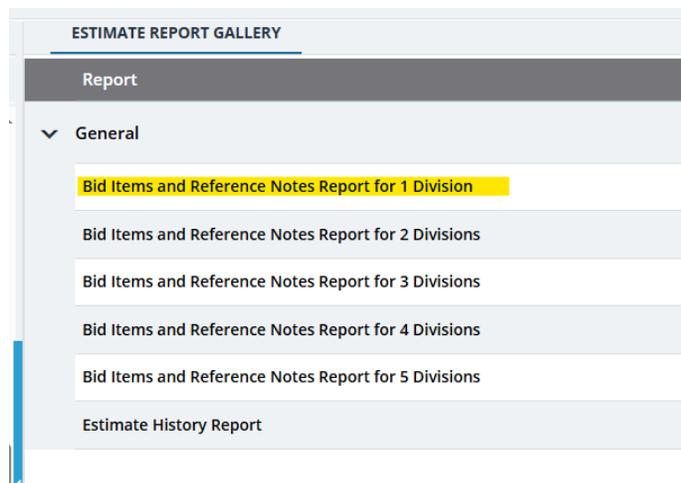


- When you are done with your editing click “Save and Exit” on the “Edit Plan Item” window.

9. When you are done with all the bid items inside the container, then go to the “Bid Estimate Report Gallery” option under the “Bid Estimate Information” list in the main screen on the left.



10. In the “Report Gallery” window double click on the first option “Bid Items and Reference Notes Report for 1 Division”.



11. In the new window for the “Division” select the container for the Cast-in-Place option. In the “Letter Series”, select the letter that you want to use with the page number in the report, and for the “Beginning Sheet Number” select the page number. Then click “View Report”.



12. In the new window, click on the black arrowhead next to the floppy disk. Then select “Excel”. An excel sheet will be downloaded to your desktop. Double click on it to open.

BID ITEMS AND REFERENCE NOTES REPORT FOR 1 DIVI...

Back Subscribe

Divisions: Design No. 0226-DES MOINES C; Letter Series: V

Beginning Sheet Number: 1 Design Team: David Evans

View Report

1 of 1 Find | Next

ESTIMATE QUANTITIES AND REFERENCE NOTES

Item no.	Item Code	Item	Unit	Quantities		Esti
				Estimated		
1	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	55		
2	2401-6745625	REMOVAL OF EXISTING BRIDGE	LS	1		

Contractor to add the following information when
Name of Acheone Inspector: Brad Azeltine

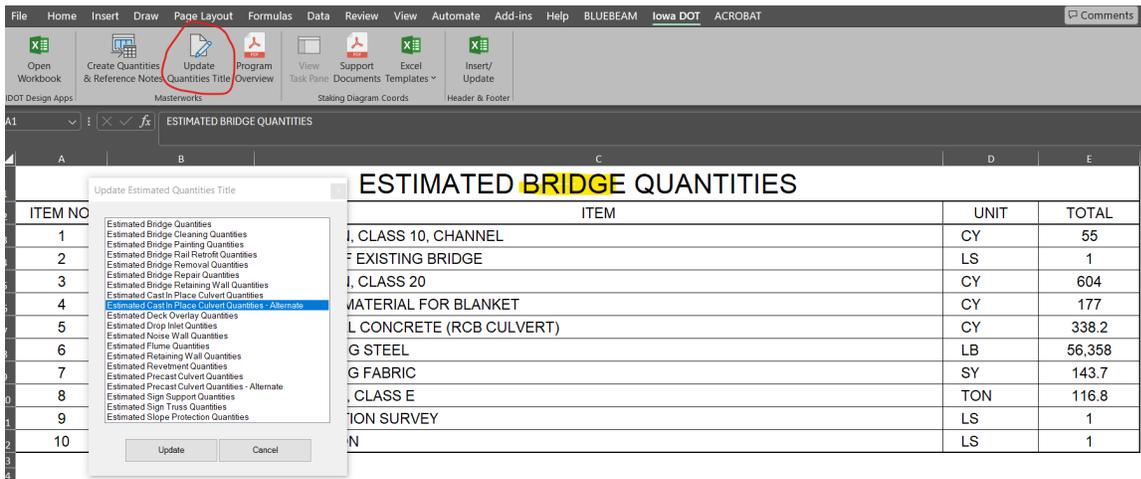
- Go back to step 10 and repeat the process for the precast option and download the precast bid items.
- In the excel sheet exported by Masterworks, choose "Iowa DOT" tab in the top menu bar, then click on "Create Quantities & Reference Notes". **If the "Iowa DOT" tab is not visible, contact the Methods Unit of the Bridges and Structures Bureau to upload the application (contact Ph. # 515-233-7935 or use the following document ([Installation Instructions - IDOT Bridge Tools Add-in .pdf](#)) to uninstall/reinstall the application if issues occur)**

The screenshot shows the Microsoft Excel ribbon with the 'Iowa DOT' tab selected. The 'Create Quantities & Reference Notes' button is circled in red. Other buttons visible include 'Open Workbook', 'Update Quantities Title', 'Task Pane', and 'Program Guide'.

- Now you will have two sheets added to the workbook, one for the estimated quantities and the other for the reference notes.

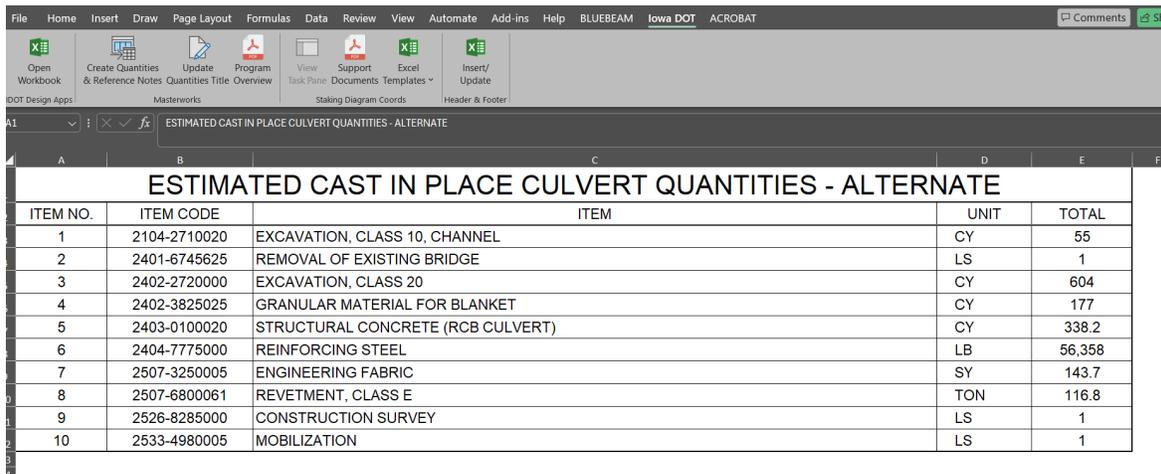
The screenshot shows the Excel worksheet tab bar with three tabs: 'OneDivBidItemsandReferenceNotes', 'Estimated Quantities', and 'Reference Notes'. The 'Reference Notes' tab is highlighted with a green border.

- To update the title of the table with the proper heading choose "Update Quantities Title" then choose the correct one from the list on the new window and click "Update". For cast-in-place, choose "Estimated Cast in Place Culvert Quantities – Alternate". For precast, choose "Estimated Precast Culvert Quantities – Alternate".



Two separate Excel files should be generated for Cast-in-Place and Precast culvert options

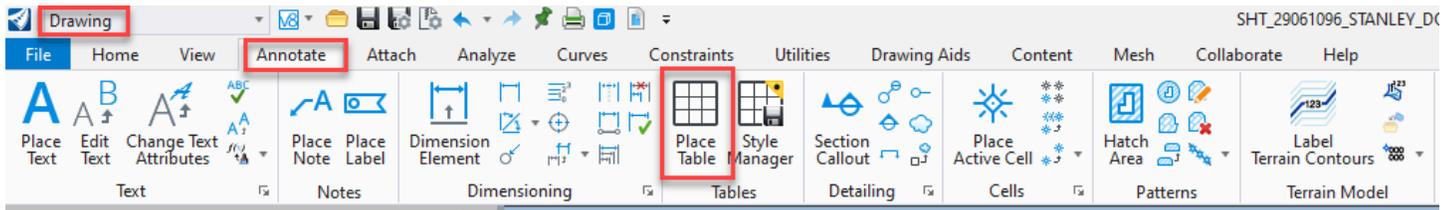
17. The “Estimated Quantities” and the “Estimate Reference Information” notes are now ready for project plan presentation for both options. These will be inserted into the Project Bentley Connect CADD file using the “Place Table” tool in MicroStation. See Appendix C for this workflow.



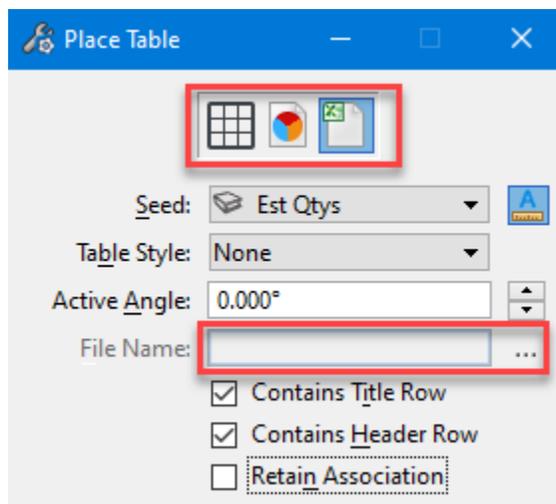
Appendix C:

Inserting the Bid Item Table and Estimate Reference notes into the CADD File

1. For bid item quantities, use the Drawing Workflow. First, select the Annotate tab, and then select “Place Table”.

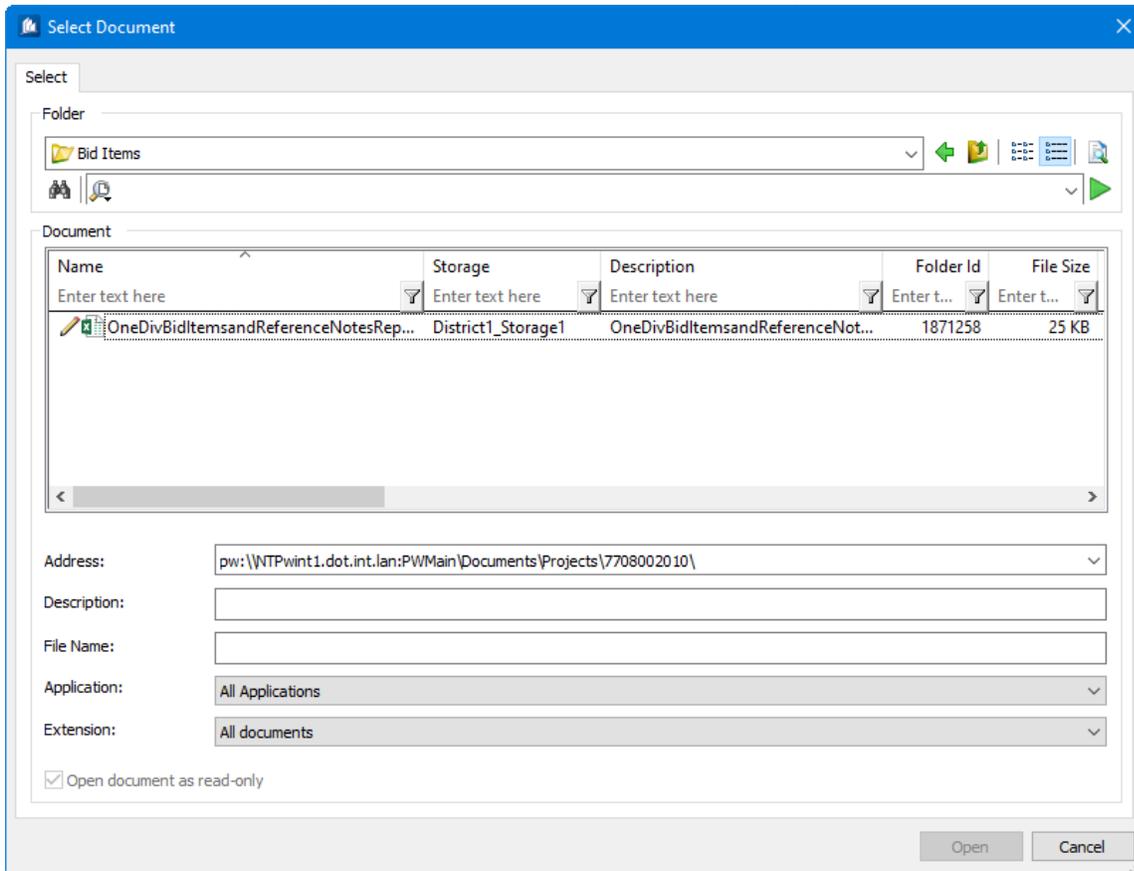


2. The “Place Table” dialog box will open. You need to select the Excel icon “From File”. Then, you need to uncheck “Retain Association”. The File Name will be grayed out, so select the three dots on the right-hand side.



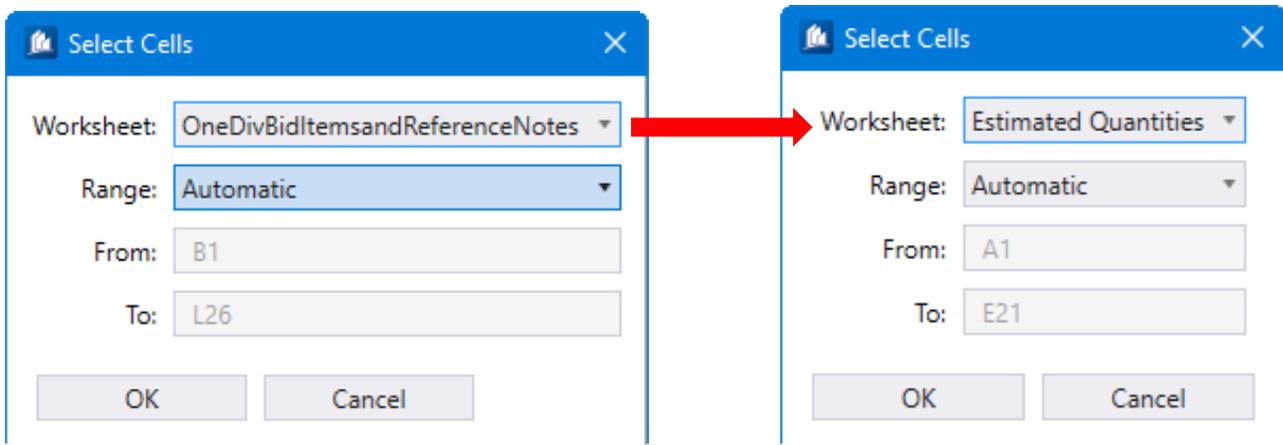
3. Next, navigate to your file in the Projectwise Directory:
(e.g. *PWMain\Documents\Projects\CCRRROXXXX\Bridge\PPP)_WorkType\DOT\Support\BidItems*)

Under the Extension field, select “All Documents” and select your Excel File.

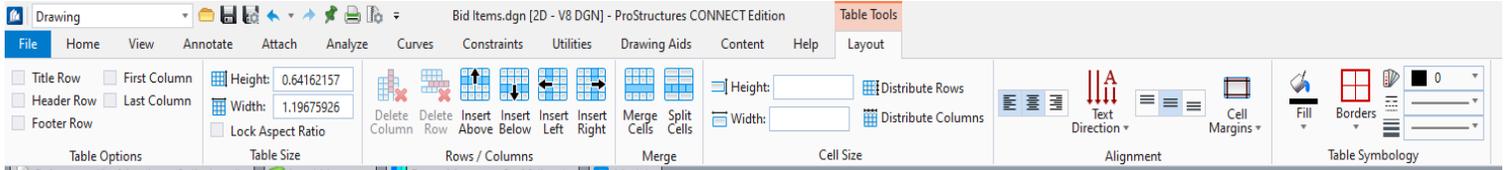


Select your file and click open. Wait a few seconds and a dialog box will appear entitled.

- Once the Dialog Box appears, select the down arrow under Worksheet and select “Estimated Quantities”, then select ok. Wait a few moments and a Generating Table scroll bar will appear. When that scroll bar disappears, your table should appear on the screen.



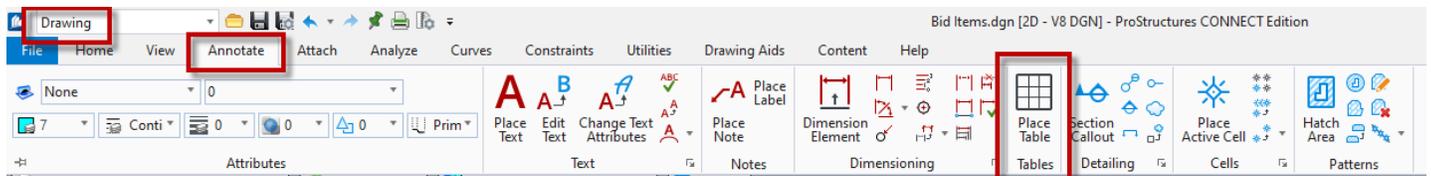
- Place the Estimated Quantities table in the upper left hand corner on the Sheet Model. Once the table is placed move it to the right and down .03 in each direction.
- If the table does not come in with extra spaces, then select the table. Upon doing this, the ribbon on the top of the screen will show the Table Tools.



Select the last row of bid item, then select “insert below” and add Three lines.

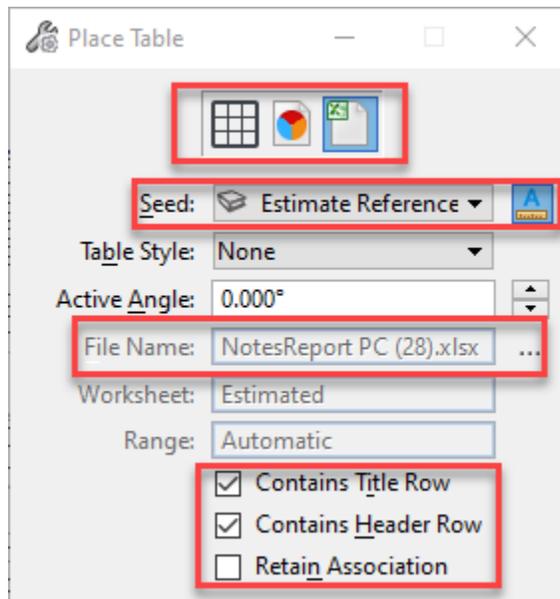
ESTIMATED BRIDGE QUANTITIES				
ITEM NO	ITEM CODE	ITEM	UNIT	TOTAL
1	2104-2710020	EXCAVATION, CLASS 10, CHANNEL	CY	881.7
2	2401-6745625	REMOVAL OF EXISTING BRIDGE	LS	1
3	2402-2720000	EXCAVATION, CLASS 20	CY	216
4	2403-0100010	STRUCTURAL CONCRETE (BRIDGE)	CY	250
5	2404-7775000	REINFORCING STEEL	LB	206
6	2404-7775005	REINFORCING STEEL, EPOXY COATED	LB	52,769
7	2404-7775009	REINFORCING STEEL, STAINLESS STEEL	LB	2,455
8	2407-0564130	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, BTD130	EACH	5
9	2408-7800000	STRUCTURAL STEEL	LB	1,855
10	2414-6424110	CONCRETE BARRIER RAILING	LF	294
11	2501-0201057	PILES, STEEL, HP 10 X 57	LF	1,950
12	2507-2638650	BRIDGE WING ARMORING - EROSION STONE	SY	27
13	2507-3250005	ENGINEERING FABRIC	SY	1,452
14	2507-6800061	REVTMENT, CLASS E	TON	1,488.20
15	2507-8C29000	EROSION STONE	TON	22.2
16	2526-8285000	CONSTRUCTION SURVEY	LS	1
17	2533-4980005	MOBILIZATION	LS	1

- For Estimate Reference Notes, use the Drawing Workflow. Select the Annotate tab, and then select “Place Table”.



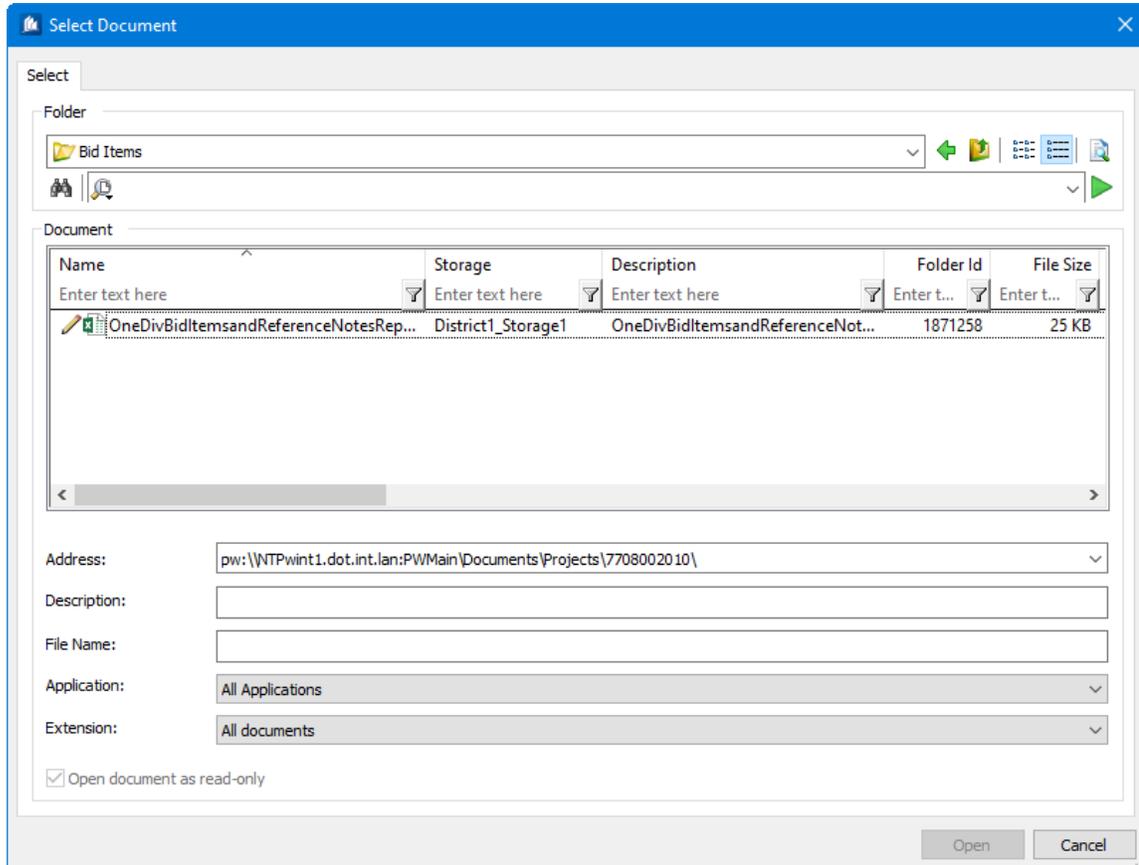
- The “Place Table” dialog box will open. You need to select the Excel icon, “From File”. Then under the Seed drop down, select “Estimate Reference” notes. You need to check on “Contains Title Row” and

“Contains Header Row”. You also need to uncheck “Retain Association”. The file name will be grayed out, so select the three dots on the right-hand side.



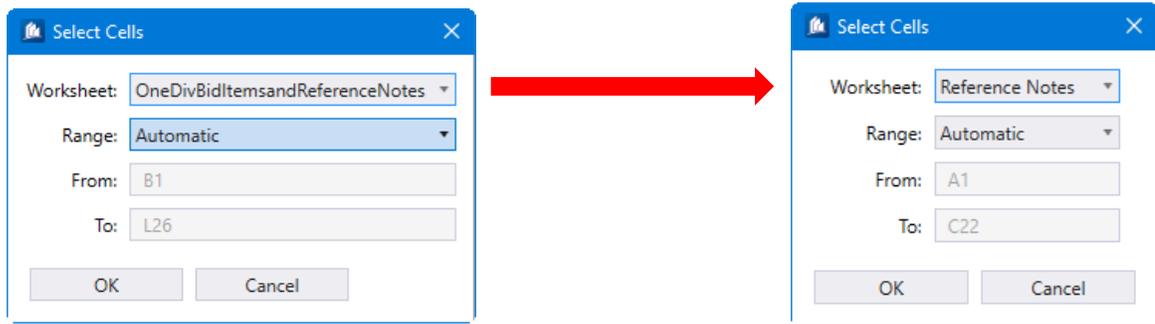
- Next, navigate to your file in the Projectwise Directory:
(e.g. *PWMain\Documents\Projects\CRRROXXXX\Bridge\PPP_WorkType\DOT\Support\BidItems*)

Under the Extension field, select “All Documents” and select your Excel File

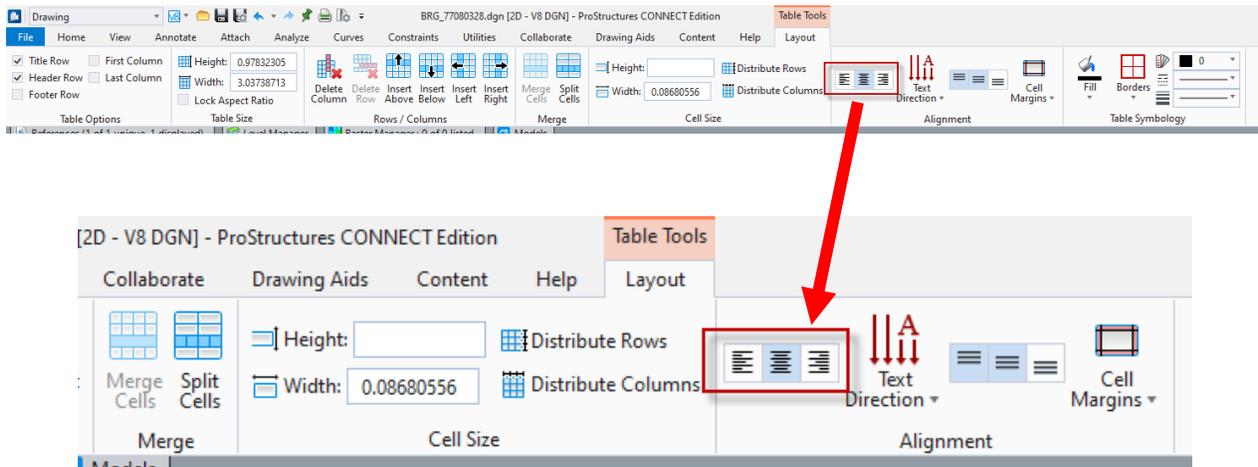


Select your file and click open. Wait a few seconds and a dialog box will appear entitled “Select Cells”.

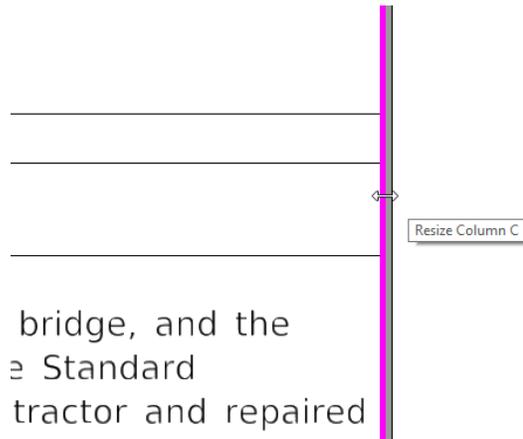
10. Once the Dialog Box appears, select the down arrow under Worksheets. Then select “Reference Notes”, and click ok. Wait a few moments and a Generating Table scroll bar will appear. When that scroll bar disappears, your table should appear on the screen.



11. Place the table under the Estimated Quantities table and move it down .03.
12. If the “ITEM NO.” column is not all centered, then select the table. Once the ribbon is active, select column “A” and column “B”, and select Centered Justified in the ribbon.



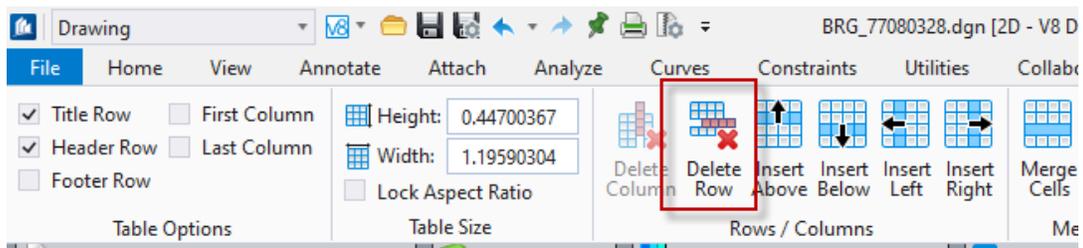
13. If the table is too wide for the sheet, then select the table. Go to the right-hand side of the table and hover over the vertical line of the table. You should see a horizontal line with arrow heads on both sides. Left click and line the vertical edge up with the Estimated Quantities and left click again.



14. If the estimate reference notes table is too long and extends past the bottom border, then copy the table and place this table to the right of the Estimated Quantities table and move it to the right .03.

ESTIMATE REFERENCE INFORMATION		
ITEM NO.	ITEM CODE	DESCRIPTION
1	2104-2710020	EXCAVATION, CLASS 10, CHANNEL
2	2401-6750001	REMOVALS, AS PER PLAN Includes all work for removal and off-site disposal of the remaining portions of the existing eastbound bridge, and the existing westbound bridge. Removal of scheduled items shall be in accordance with Section 2401 of the Standard Specifications. Any damage to material not scheduled for removal shall be the responsibility of the Contractor and repaired at no extra cost to the state.
3	2402-2720000	EXCAVATION, CLASS 20
4	2402-2721000	EXCAVATION, CLASS 21
5	2402-2722000	EXCAVATION, CLASS 22
6	2403-0100010	STRUCTURAL CONCRETE (BRIDGE) Includes cost of furnishing and placing six splash basins (including excavation, erosion stone or Class E revetment, and engineering fabric). Includes all resilient joint filler required. Includes furnishing and placing subrain (including excavation), floodable backfill, porous backfill, geotextile fabric, water flooring, and subrain outlet at abutments and toe of beam. Includes furnishing and placing 3 inch diameter PVC plastic pipe and expanding foam in the abutment wings. Includes transparent stay-in-place deck form material and installation cost, if used by the contractor, with no additional cost to the state.
7	2403-7000210	HIGH PERFORMANCE STRUCTURAL CONCRETE This bio item includes the concrete for the deck, abutment and pier diaphragms. Refer to the Developmental Specification for High Performance Concrete for Structures for additional information.
8	2404-7775000	REINFORCING STEEL
9	2404-7775005	REINFORCING STEEL, EPOXY COATED
10	2404-7775006	REINFORCING STEEL, STAINLESS STEEL
11	2407-0564050	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, BT050 Includes pier and abutment bearing material.
12	2407-0564115	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, BT115 Includes pier and abutment bearing material.

15. Once the tables are placed on the sheet properly, go back to the first estimate reference notes table (below the estimate quantities table) and delete the rows that extend beyond the border of the sheet. If necessary, go to the second estimate reference notes table (located to the right of the estimated quantities table) and delete the duplicated ITEM NO. rows.



First estimate reference table (below the quantities table):

26	2507-8029000	EROSION STONE	TON	430.3
27	2533-4980005	MOBILIZATION	LS	1

21	2501-6335010	PREBORG		
22	2501-8400172	TEMPORARY		
23	2507-2638650	BRIDGE WING ARMORING		
24	2507-3250005	ENGINEERING FABRIC		
25	2507-6800061	REVEITEMENT		
26	2507-8029000	EROSION STONE		
27	2533-4980005	MOBILIZATION		

ESTIMATE REFERENCE INFORMATION		
ITEM NO.	ITEM CODE	DESCRIPTION
1	2304-2710020	EXCAVATION, CLASS 10, CHANNEL
2	2401-6750001	REMOVALS, AS PER PLAN Includes all work for removal and off-site disposal of the remaining portions of the existing eastbound bridge, and the existing westbound bridge. Removal of scheduled items shall be in accordance with Section 2401 of the Standard Specifications. Any damage to material not scheduled for removal shall be the responsibility of the Contractor and repaired at no extra cost to the state.
3	2402-2720000	EXCAVATION, CLASS 20
4	2402-2721000	EXCAVATION, CLASS 21
5	2402-2722000	EXCAVATION, CLASS 22
6	2403-0100010	STRUCTURAL CONCRETE (BRIDGE) Includes cost of furnishing and placing six splash basins (including excavation, erosion stone or Class E revetment, and engineering fabric). Includes all resilient joint filler required. Includes furnishing and placing subdrain (including excavation), floodable backfill, porous backfill, geotextile fabric, water flooding, and subdrain outlet at abutments and toe of berm. Includes furnishing and placing 3 inch diameter PVC plastic pipe and expanding foam in the abutment wings. Includes transparent stay-in-place deck form material and installation cost, if used by the contractor, with no additional cost to the state.
7	2403-7000210	HIGH PERFORMANCE STRUCTURAL CONCRETE This bid item includes the concrete for the deck, abutment and pier diaphragms. Refer to the Developmental Specification for High Performance Concrete for Structures for additional information.
8	2404-7775000	REINFORCING STEEL
9	2404-7775005	REINFORCING STEEL, EPOXY COATED
10	2404-7775009	REINFORCING STEEL, STAINLESS STEEL

FILE NO: 20088 ENGUSH DESIGN TEAM: 20088/20088
SYSTEMTIME SYSTEMDATE USERNAME DGN5PEC

Second estimate reference notes table (on right side of the quantities table):

ESTIMATE REFERENCE INFORMATION		
ITEM NO.	ITEM CODE	DESCRIPTION
11	2407-0564050	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, BTD50 Includes pier and abutment bearing material. Includes Contractor filling out beam numbers by location and beam seat elevations in 'PPC Beam Data Spreadsheet' and forwarding electronic spreadsheet to the Engineer.
12	2407-0564115	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, BTD135 Includes pier and abutment bearing material. Includes Contractor filling out beam numbers by location and beam seat elevations in 'PPC Beam Data Spreadsheet' and forwarding electronic spreadsheet to the Engineer.
13	2407-0564130	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, BTD130 Includes pier bearing material. Includes Contractor filling out beam numbers by location and beam seat elevations in 'PPC Beam Data Spreadsheet' and forwarding electronic spreadsheet to the Engineer.
14	2407-0564135	BEAMS, PRETENSIONED PRESTRESSED CONCRETE, BTD135
15	2408-7800000	STRUCTURAL STEEL Includes deck drains and intermediate diaphragms.
16	2414-6424038	CONCRETE BARRIER RAIL, 3'-8" Includes material and labor associated with providing and installing the rigid steel conduit, junction boxes and fittings. Includes 2,400 LF of 2' diameter rigid steel conduit. If placement of concrete is done by the slipforming method, Class BR concrete is required. Cast-in-place barrier rails shall use Class C mix. Price bid for this item shall include the cost of cast-in-place forms required for placement of the concrete.
17	2433-0001048	CONCRETE DRILLED SHAFT, 48 IN. DIAMETER
18	2433-0001054	CONCRETE DRILLED SHAFT, 54 IN. DIAMETER
19	2433-6003000	DEMONSTRATION SHAFT
20	2501-0201057	PILES, STEEL, HP 10 X 57 Includes furnishing and installing steel pile points.
21	2501-6335010	PREBORG HOLES
22	2501-8400172	TEMPORARY SHORING
23	2507-2638650	BRIDGE WING ARMORING - EROSION STONE Includes furnishing and placing engineering fabric, erosion stone, and all required excavating, shaping and compacting for wing armor.
24	2507-3250005	ENGINEERING FABRIC Engineering fabric shall be material as specified for embankment erosion control in accordance with Article 4196.01.B.3 of the Standard Specifications.
25	2507-6800061	REVEITEMENT, CLASS E Estimated at 1.6 tons/yr.
26	2507-8029000	EROSION STONE
27	2533-4980005	MOBILIZATION

the existing eastbound bridge, and the with Section 2401 of the Standard responsibility of the Contractor and repaired

16. Verify Estimated Bridge Quantities Table and Estimate Reference Information notes table meets typical format. The number of bid items and estimate reference notes should be equal. The Item Number and Item Code are required.

Example:

Control Point

ESTIMATED BRIDGE QUANTITIES					ESTIMATE REFERENCE INFORMATION		
ITEM NO.	ITEM CODE	ITEM	UNIT	TOTAL	ITEM NO.	ITEM CODE	DESCRIPTION
1	2104-271012	REINFORCING CLASS 80 CHANNEL	CY	2.769	11	2407-054412	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT050 Includes pre and abutment bearing material.
2	2404-271004	REINFORCING AS PER PLAN	LB	1	12	2407-054415	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT0125 Includes pre and abutment bearing material.
3	2405-272000	REINFORCING PAGES 20	CY	506	13	2407-054412	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT0125 Includes pre and abutment bearing material.
4	2405-272100	REINFORCING PAGES 21	CY	881	14	2407-054415	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT0125 Includes pre and abutment bearing material.
5	2405-272200	REINFORCING PAGES 22	CY	463	15	2407-054412	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT0125 Includes pre and abutment bearing material.
6	2405-030012	STRUCTURAL CONCRETE (BRIDGE)	CY	1,218.80	16	2414-842418	CONCRETE BARRIER WALL, 8" Includes material and labor associated with preparing and installing the edge steel curb, anchor-bearing fittings, brackets, 2,400 # of 2 diameter steel rebar, if placement of concrete is done by the contractor, 4,000 # of Class 80 concrete is required, Class 80 concrete only, 100 psi Class 80. Price bid for this item is at include the cost of cast-in-place to form factors for placement of the concrete.
7	2405-030012	HIGH PERFORMANCE STRUCTURAL CONCRETE	CY	1,154	17	2413-300148	CONCRETE DRILLED SHAFT, 48 IN. DIAMETER
8	2404-777500	REINFORCING STEEL	LB	179,717	18	2413-001054	CONCRETE DRILLED SHAFT, 54 IN. DIAMETER
9	2404-777500	REINFORCING STEEL, SPART COATED	LB	263,500	19	2413-300148	CONCRETE DRILLED SHAFT, 48 IN. DIAMETER
10	2404-777500	REINFORCING STEEL, STAINLESS STEEL	LB	2,075	20	2413-300148	CONCRETE DRILLED SHAFT, 48 IN. DIAMETER
11	2407-054412	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT050	EA	0	21	2501-000007	PIERS, STEEL, 48" X 57"
12	2407-054412	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT0125	EA	0	22	2514-000100	PRECAST PILES
13	2407-054412	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT0125	EA	0	23	2514-000110	TEMPORARY SHORING
14	2407-054415	BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT0125	EA	0	24	2517-318104	BRIDGE WIND BRACING, BRIDGE STUIM Includes bracing, and placing temporary fabric, access stairs, and all required erecting, tying, and connecting and erection.
15	2409-760000	PIPING, STEEL	LB	22,071	25	2517-318105	ENGINEERING FABRIC Engineering fabric shall be detailed as specified for a maximum amount equal to available within 4,000,000 # of engineering fabric.
16	2414-842418	CONCRETE BARRIER WALL, 8" Includes material and labor associated with preparing and installing the edge steel curb, anchor-bearing fittings, brackets, 2,400 # of 2 diameter steel rebar, if placement of concrete is done by the contractor, 4,000 # of Class 80 concrete is required, Class 80 concrete only, 100 psi Class 80. Price bid for this item is at include the cost of cast-in-place to form factors for placement of the concrete.	CY	6,090	26	2517-842418	REINFORCEMENT CLASS 80 REINFORCING AS PER PLAN
17	2413-300148	CONCRETE DRILLED SHAFT, 48 IN. DIAMETER	CY	1,161	27	2513-490007	REINFORCING STEEL
18	2413-001054	CONCRETE DRILLED SHAFT, 54 IN. DIAMETER	CY	27.7			
19	2413-300148	CONCRETE DRILLED SHAFT, 48 IN. DIAMETER	CY	8,738			
20	2501-000007	PIERS, STEEL, 48" X 57"	NOA	400.0			
21	2514-000100	PRECAST PILES	NOA	1			
22	2514-000110	TEMPORARY SHORING	NOA	1			
23	2517-318104	BRIDGE WIND BRACING, BRIDGE STUIM Includes bracing, and placing temporary fabric, access stairs, and all required erecting, tying, and connecting and erection.	NOA	1			
24	2517-318105	ENGINEERING FABRIC Engineering fabric shall be detailed as specified for a maximum amount equal to available within 4,000,000 # of engineering fabric.	NOA	1			
25	2517-842418	REINFORCEMENT CLASS 80 REINFORCING AS PER PLAN	NOA	1			
26	2513-490007	REINFORCING STEEL	NOA	1			
27	2513-490007	REINFORCING STEEL	NOA	1			

ESTIMATE REFERENCE INFORMATION	
ITEM NO.	DESCRIPTION
1	2104-271012 REINFORCING CLASS 80 CHANNEL
7	2404-271004 REINFORCING AS PER PLAN Includes all work to remove and replace or repair of the remaining portion of the existing structure, and the install a new structure. The amount of scheduled work shall be determined with Section 2404 of the Standard Specifications. Any change to material not scheduled for removal shall be the responsibility of the Contractor and reported to the Engineer by the plans.
3	2405-272000 REINFORCING PAGES 20
4	2405-272100 REINFORCING PAGES 21
5	2405-272200 REINFORCING PAGES 22
6	2405-030012 STRUCTURAL CONCRETE (BRIDGE) Includes cost of forming and placing in-situ concrete including excavation, erosion control or Class 80 treatment and engineering fabric. Includes all required and file required. Includes for shoring and shoring substructure including excavation, removal of formwork, bracing, backfill, concrete fabric, water proofing, and substructure of abutments and toe of pier. Includes for shoring and placing 3 inch diameter PVC plastic pipe and supporting form in the abutment wings. Includes for shoring and placing cast-in-place curb form material and installation cost, if used by the contractor, with nonstructural load on the curb.
7	2407-054412 BEAMS, PRESTRESSED PRESTRESSED CONCRETE, BT050 This bid item includes the estimate for the deck, abutment and pier diaphragms. Refer to the Deck and Pier Specifications for High Performance Concrete for Minimums for additional information.
11	2404-777500 REINFORCING STEEL
9	2404-777500 REINFORCING STEEL, SPART COATED
10	2404-777500 REINFORCING STEEL, STAINLESS STEEL

FILE NO. 2024	ENCLOSURE	DESIGN TYPE	PROJECT NUMBER	DATE	DESIGN NUMBER
20240001	20240001	BRIDGE	20240001	20240001	20240001

QUANTITIES FOR 568'-0" x 60'-0" Prestressed Concrete Beam Bridge Quantities STA. 0+00 TO 0+500 Dallas County TEXAS DEPARTMENT OF TRANSPORTATION DESIGN NO. 2024-0001 DRAWING NO. 2024-0001	
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17. Any bid items added by addendum or plan revision (later) should be added manually in the CAD file.