

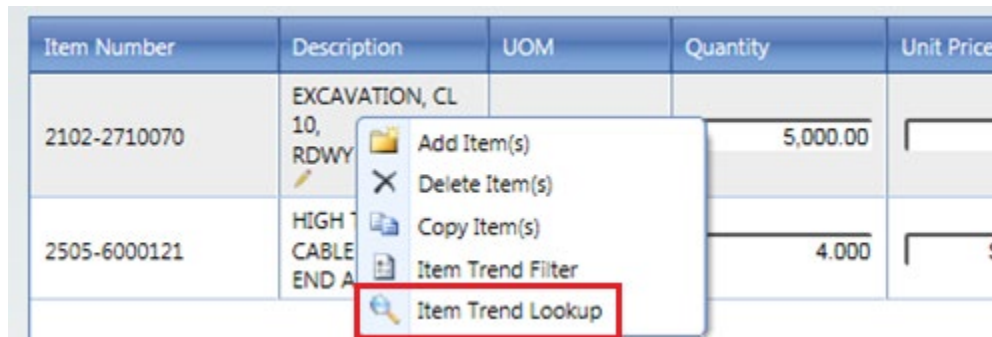
# Item Trend Filters in iPDWeb

Project and Program Delivery Manual  
 Chapter 5  
 Cost Estimating  
 Originally Issued: 11-07-24  
 Revised: xx-xx-xx

After the plan item list has been created the plan items are ready to have pricing assigned. IPDWeb has been created with a tool that performs an analysis based on filtered data and provides a suggested price for the user to evaluate. These filters are initially assigned by the software and in most cases will provide sufficient data samples to allow for reasonable prices to be generated. The user can also manually adjust these filters to generate pricing when the software returns insufficient data samples or when the pricing needs to be fine-tuned.

When working with individual item filters it is important to understand how the Estimate Trend Filter functions see chapter (5.2.2.4 Estimate Trend Filters) in order to avoid the possibility of losing the work previously done on plan item filters when adjusting the Estimate Trend Filter. Notes and documents can also be added to each plan item providing documentation of the plan item process. This documentation is helpful when adjustment made to items have a significant impact on the estimate total. It allows for others reviewing the estimate to easily understand the thought process and decisions that were used when building the estimate. The following chapter explains how to use the Item Trend Lookup, and the process for generating pricing for plan items.

To access the Item Trend Lookup, select the desired item and right click then select the Item Trend Lookup.



## Item Trend Lookup Screen: Layout Detail Description

The “**Item Trend Chart**” displays the bid item information for each filtered project that was used in the regression analysis. The orange and grey dots represent a “sample” project data point. The **orange dots** are data points included in the regression analysis. The **gray dots** are outliers which are more than two standard deviations from the average price and have been automatically excluded from the regression analysis.

Selecting an orange or grey dot with a single click will highlight the applicable project in the table. Double clicking on an orange dot will exclude that item turning it grey and vice versa for a grey item. Items can also be excluded by marking the excluded box in the table above.

**Item Trend Lookup**

Item #: 2403-0100010 (STRUCT CONC (BRIDGE)) 
 Exclude All   
  Show all items in Chart   
  Exclude Outliers

Project Number	Work Type	Route	Bid Date	Quantity	Unit	Let Unit Price	Unit Price (Today's \$)	Excl.
NHSX-075-2(106)--3H-75	2022-BRIDGE REPLACEMENT - CCS	US 75	10/16/2018	28.80	CY	\$710.00	\$684.21	<input type="checkbox"/>
NHSN-071-3(59)--2R-15	2599-STRUCTURES (MISCELLANEOUS)	US 71	03/20/2018	262.70	CY	\$675.00	\$701.93	<input type="checkbox"/>
BRF-001-4(50)--38-92	2023-BRIDGE REPLACEMENT - PPCB	IA 1	12/18/2018	198.00	CY	\$735.00	\$708.30	<input type="checkbox"/>
NHSX-032-1(40)--3H-31	2014-BRIDGE NEW - STEEL GIRDER	IA 32	02/20/2018	1,456.80	CY	\$685.00	\$712.33	<input type="checkbox"/>
IM-NHS-029-7(33)148--03-97	2013-BRIDGE NEW - PPCB	I- 29	11/21/2017	114.30	CY	\$695.00	\$729.37	<input type="checkbox"/>

Average Value: \$535.32	Median Value: \$577.20	Predicted Value: \$513.05
# of Samples: 65	High Value: \$809.49	Low Value: \$300.00
R <sup>2</sup> : 0.19	Standard Deviation: 232.41	Suggestion Range: \$476.68 - \$552.18

**Item Trend Chart**

■ Excluded data  
 ■ Included data  
 ■ Predicted data

Export
Modify Filter
Accept
Cancel

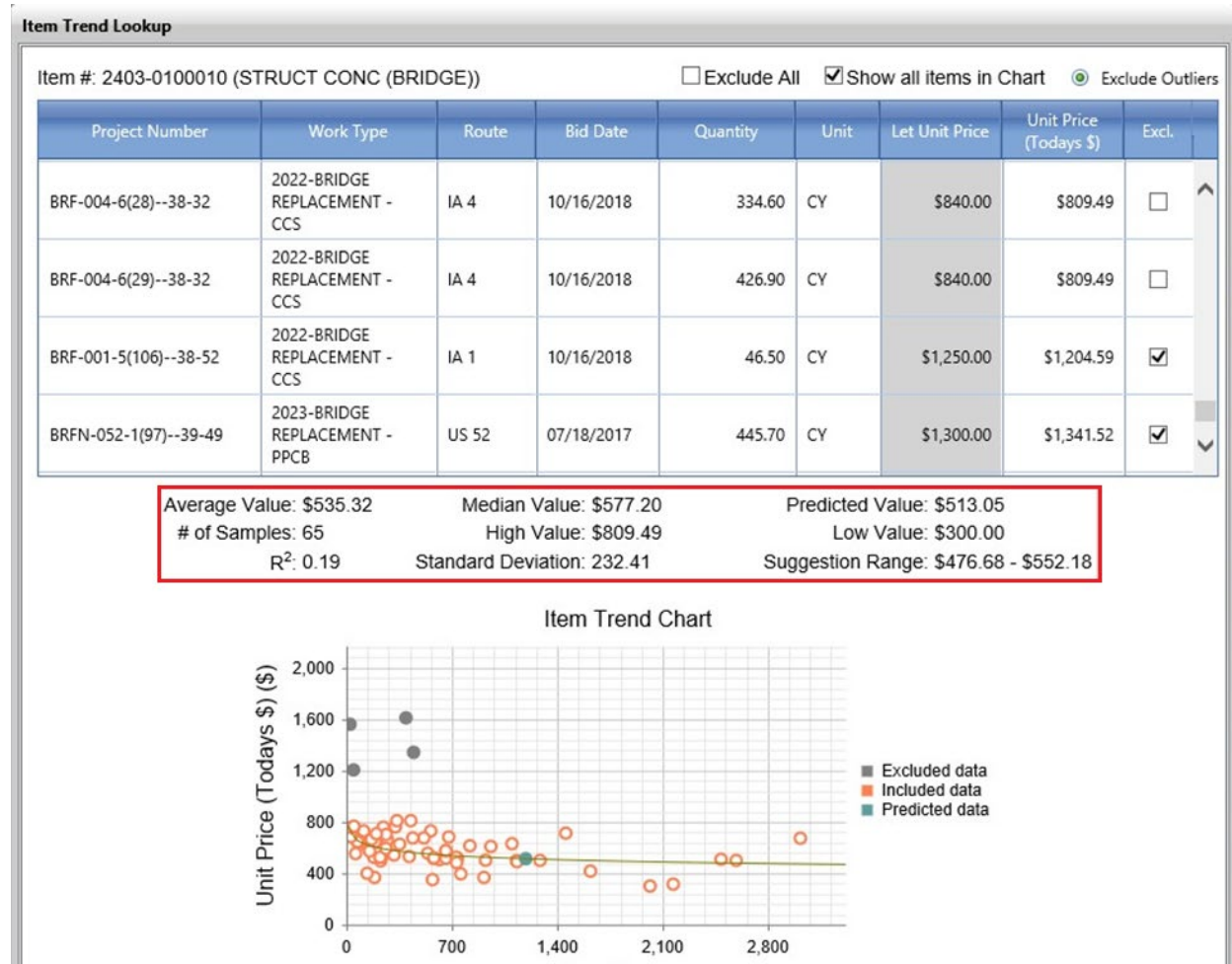
The top portion of the screen provides a table with project information and the data points that were included on the analysis chart. Projects can be individually excluded from the data analysis by clicking on the box in the exclude column or globally excluded by checking the exclude all box at the top. The information in the chart can be sorted in ascending or descending order by clicking on the header. This table also shows the let data and the let unit price. The column labeled **Unit Price (Todays \$)** shows the adjusted unit price in current dollars.



**NOTE:** The unit price has already been modified for inflation and the Construction Cost Index (CCI) so no additional adjustments to the unit price are needed. This can cause the current unit price to be higher or lower than the let unit price. It is a good practice to review the Let Unit Price and Unit Price (Todays \$) when analyzing the price of a bid item. In rare occurrences the CCI calculation can cause the Today \$ unit price to be significantly higher or lower than the let unit price. This can occur to the pricing for recently let projects after the CCI has been updated in the system. When this occurs, it is best to analyze the item’s unit price for the recently let project to make sure the applied inflation makes sense.



The center section of the screen has information on the calculations of the data. This includes basic analysis data such as the number of samples, weighted average, median, and high and low prices from the compiled data. The  $R^2$  value shows how well the calculated curve fits the data points shown in the graph and ranges from 0 to 1. The closer to 1, the more data falls on or near the calculated curve and the better the regression. The “Suggestion Range” is a 95 percent prediction interval for a new value of a quantity. The range of values shown in the Suggestion Range also affects the  $R^2$  value.



## Item Trend Lookup: Analysis of Data

For this scenario, we are looking at item 2501-0201473 (PILE, STEEL, HP 14X73) which is one of the identified plan items containing 83% of the cost for this estimate. This plan item only has 10 samples. Increasing the number of samples will help to provide a better predicted value. This can be done by adjusting the plan item filters. To do this, left click on the “Modify Filter” button.

**Item Trend Lookup**

Item #: 2501-0201473 (PILE, STEEL, HP 14X73)  Exclude All  Show all items in Chart  Exclude Outliers

Project Number	Work Type	Route	Bid Date	Quantity	Unit	Let Unit Price	Unit Price (Today's \$)	Excl.
BRFN-069-8(28)--39-41	2022-BRIDGE REPLACEMENT - CCS	US 69	01/17/2018	1,000.00	LF	\$42.00	\$42.00	<input type="checkbox"/>
BRF-175-9(18)--38-38	2022-BRIDGE REPLACEMENT - CCS	IA 175	10/16/2018	1,600.00	LF	\$43.50	\$43.50	<input type="checkbox"/>
BRFN-025-3(30)--39-01	2022-BRIDGE REPLACEMENT - CCS	IA 25	12/19/2017	1,100.00	LF	\$45.00	\$45.00	<input type="checkbox"/>
IM-NHS-029-3(69)53--03-78	2024-BRIDGE REPLACEMENT - STEEL GIRDER	I- 29	06/20/2017	2,200.00	LF	\$45.00	\$45.00	<input type="checkbox"/>

Average Value: \$53.29      Median Value: \$55.00      Predicted Value: \$55.00  
 # of Samples: 10      High Value: \$60.00      Low Value: \$42.00  
 R<sup>2</sup>: 0.20      Standard Deviation: 7.98      Suggestion Range: \$45.00 - \$57.00

**Item Trend Chart**

Updated By: euser2 Update Date: 04/29/2019

Export
Modify Filter
Accept
Cancel

This will open the Item Trend Lookup screen. This screen is the same as the Estimate Trend Filter except any changes made will only affect the current bid item that has been selected. The quickest way to include more samples into the pricing calculation is to expand the “Begin Date” found in the Main tab. This can easily be done by adjusting the date back by 1 year in the Begin Date box.



**NOTE:** The software assigns the End Date based on the date the estimate was created in the software and the Begin Date is set to 2 years ahead of the End Date. Once this change has been made, click on the “Lookup” button to go back to the Item Trend Lookup screen.

**Item Trend Lookup**

Main Locations Work Type Estimate Parameters

### Item Trend Lookup Filter

Item Number: 2501-0201473

\* Begin Date: 4/26/2017 \* End Date: 4/26/2019

Min bidders per contract: Max bidders per contract:

Min Item Price: Max Item Price:

Min Item Quantity: Max Item Quantity:

Project Delivered By: DOT

All bidders  Awarded bidders  Top three bidders

Season of Letting:

Unassigned: Assigned:

FALL (SEP21-DEC20)

SPRING (MAR21-JUN20)

SUMMER (JUN21-SEP20)

WINTER (DEC21-MAR20)

Apply Filter to Division Reset to Estimate Filter **Lookup** Close

The Item Trend Lookup screen will re-appear showing the new samples and price analysis. The samples were increased from 10 to 23 and the new Predicted Value of \$46.87 is shown. The previous Suggested Price and Suggestion Range can still be referenced on the main screen for comparison. If sufficient data samples were not generated it would be necessary to enter into the Modify Filter screen again and further adjust the Begin Date. As shown in this example 23 samples have been generated and will now allow for the data and price to be analyzed further.

**Item Trend Lookup**

Item #: 2501-0201473 (PILE, STEEL, HP 14X73)  Exclude All  Show all Items in Chart  Exclude Outliers

Project Number	Work Type	Route	Bid Date	Quantity	Unit	Let Unit Price	Unit Price (Today's \$)	Excl.
NHSX-100-1(95)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	05/17/2016	2,025.00	LF	\$36.90	\$36.90	<input type="checkbox"/>
NHSX-100-1(96)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	05/17/2016	2,175.00	LF	\$37.45	\$37.45	<input type="checkbox"/>
NHSX-100-1(92)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	08/16/2016	1,800.00	LF	\$40.00	\$40.00	<input type="checkbox"/>
NHSX-100-1(91)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	08/16/2016	2,160.00	LF	\$40.00	\$40.00	<input type="checkbox"/>
BRFN-069-8(28)--39-41	2022-BRIDGE REPLACEMENT - CCS	US 69	01/17/2018	1,000.00	LF	\$42.00	\$42.00	<input type="checkbox"/>

**Average Value: \$49.32**      Median Value: \$48.00      **Predicted Value: \$46.87**

# of Samples: 23      High Value: \$66.00      Low Value: \$36.90

R<sup>2</sup>: 0.00      Standard Deviation: 8.37      Suggestion Range: \$36.85 - \$59.61

Item Trend Chart

Updated By: euser2 Update Date: 05/12/2019

Use Suggestion	Suggestion	Suggestion Range	Est. Price	...	Discs
<input checked="" type="checkbox"/>	\$18.64	\$13.03 - \$26.67	\$69,378.08	N	A D
<input checked="" type="checkbox"/>	\$513.05	\$476.68 - \$552.18	\$610,991.25	N	A D
<input checked="" type="checkbox"/>	\$648.82	\$604.38 - \$696.52	\$2,902,561.15	N	A D
<input checked="" type="checkbox"/>	\$0.85	\$0.77 - \$0.94	\$222,106.70	N	A D
<input checked="" type="checkbox"/>	\$0.84	\$0.78 - \$0.91	\$1,062,988.92	N	A D
<input checked="" type="checkbox"/>	\$2.62	\$2.24 - \$3.07	\$637,029.42	N	A D
<input checked="" type="checkbox"/>	\$1.37	\$1.23 - \$1.52	\$4,853,764.78	N	A D
<input checked="" type="checkbox"/>	\$104.84	\$73.29 - \$149.97	\$435,641.65	N	A D
<input checked="" type="checkbox"/>	\$4,775.00	\$4,650.00 - \$5,000.00	\$334,250.00	N	A D
<input checked="" type="checkbox"/>	\$13,992.71	\$0.00 - \$0.00	\$13,992.71	N	A D
<input type="checkbox"/>	\$0.00		\$0.00	N	A D
<input checked="" type="checkbox"/>	\$54.75	\$44.15 - \$67.89	\$1,418,572.50	N	A D
<input type="checkbox"/>	\$0.00		\$0.00	N	A D
<input checked="" type="checkbox"/>	0.19%	0.00% - 8.40%	\$25,594.02	N	A D
<input checked="" type="checkbox"/>	6.56%	0.80% - 52.70%	\$883,667.33	N	A D
<input type="checkbox"/>	\$0.00		\$0.00	N	A D

\$13,470,538.51

### Roadway Example

In certain scenarios, the quantity may be greater than any previous project totals and special care will need to be taken during the price analysis. In this scenario, we have an Excavation Class 10 bid item with a quantity of 50,000,000 CY. This quantity is higher than any past projects. The regression curve will continue to slope down towards zero and the software will then place the data point on the regression curve at the quantity of 50,000,000. This causes the predicted value to be \$0.98/CY which is unrealistic for earthwork and will need to be further analyzed. When reviewing the price, it is best to filter by the quantity and look at pricing for the projects with higher quantities. In this scenario, we can see highest quantity projects range from \$2.00 to \$2.98. Using this information, and estimator experience, the price will need to be manually changed in the division bid item screen (see [Manual Adjustment of Unit Price](#)).

**Item Trend Filter**

Item #: 2102-2710070 (EXCAVATION, CL 10, RDWY+BORROW)  Exclude All  Show all items in Chart  Exclude Outliers

Project Number	Work Type	Route	Bid Date	Quantity	Unit	Let Unit Price	Unit Price (Today's \$)	Excl.
NHSX-030-6(189)--3H-86	3511-GRADING	US 30	12/19/2017	4,515,579.00	CY	\$2.00	\$2.37	<input type="checkbox"/>
NHSN-020-2(108)--2R-47	1013-PCC PAVEMENT - GRADE AND NEW	US 20	09/20/2016	1,650,898.00	CY	\$2.30	\$2.38	<input type="checkbox"/>
NHSX-030-7(188)--3H-57	3511-GRADING	US 30	02/21/2017	1,348,455.00	CY	\$2.50	\$2.75	<input type="checkbox"/>
NHSX-030-7(189)--3H-57	3511-GRADING	US 30	02/21/2017	1,143,814.00	CY	\$2.98	\$3.28	<input type="checkbox"/>
NHSX-032-1(25)--3H-31	3511-GRADING	IA 32	07/19/2016	908,909.20	CY	\$2.70	\$2.79	<input type="checkbox"/>
NHSX-020-1(118)--3H-97	1014-PCC PAVEMENT - GRADE & REPLACE	US 20	10/18/2016	778,720.00	CY	\$3.30	\$3.60	<input type="checkbox"/>

Average Value: \$3.24      Median Value: \$7.64      Predicted Value: \$0.98  
 # of Samples: 127      High Value: \$59.26      Low Value: \$1.09  
 R<sup>2</sup>: 0.64      Standard Deviation: 24.89      Suggestion Range: \$0.73 - \$1.32

**Item Trend Chart**

Unit Price (Today's \$)

Quantity

■ Excluded data  
■ Included data  
■ Predicted data

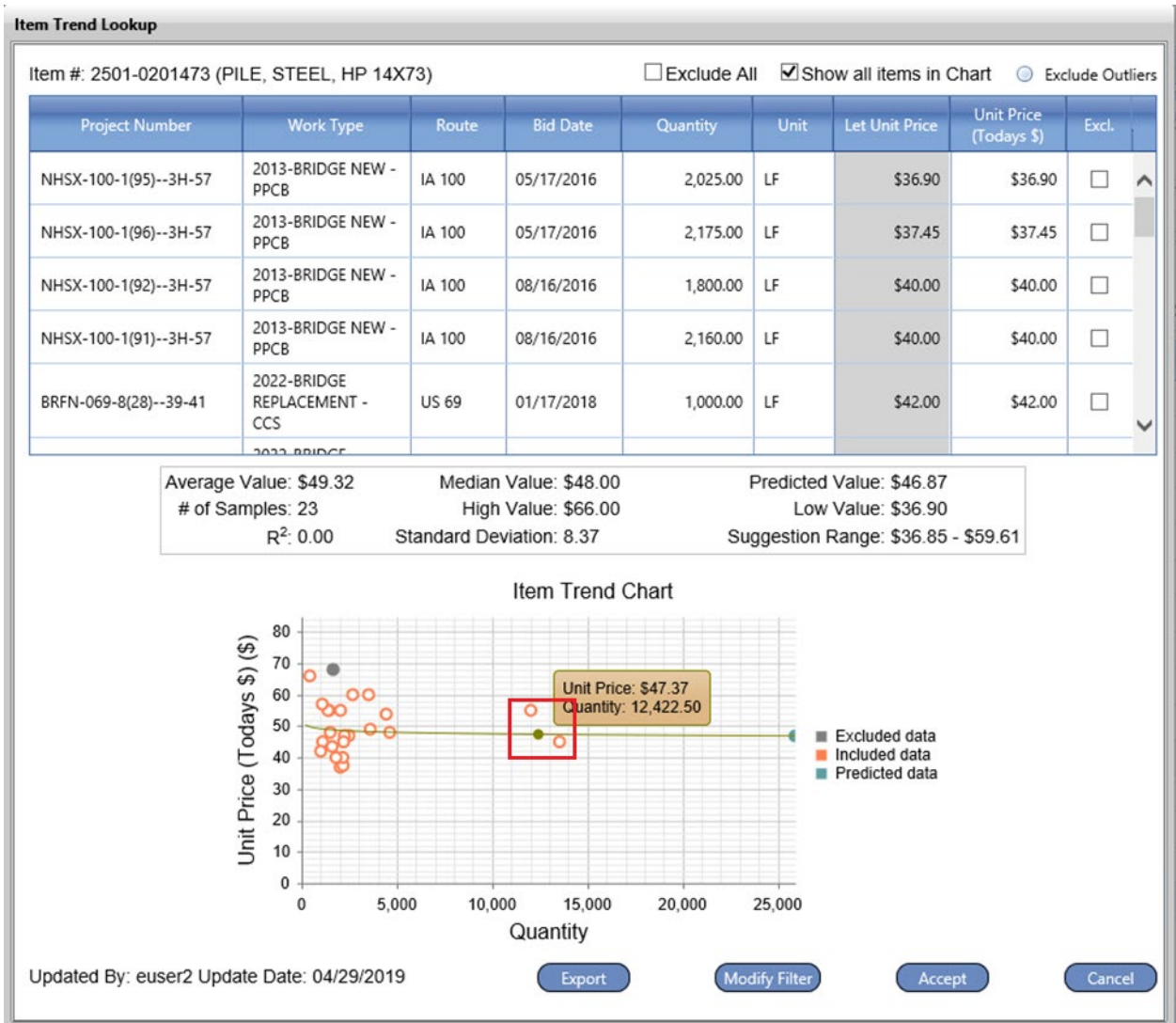
Updated By: user2 Update Date: 06/04/2019

Export
Modify Filter
Accept
Cancel



### Bridge Example

As shown in the graph below, the software has assigned a predicted value based on the regression curve. However, there are not any previous samples that are close to the quantity for this plan item. In this situation the regression line is continuing to project outwards at a steady decrease until arriving at the plan item quantity. When this happens, it is best to move the predicted value back to the nearest data points and then analyze the project data as well as the Average and Median Values. Pricing can vary for many reasons which can include project phasing, limited workspace, or accelerated schedules. This information can be found through researching the plans of the data points shown or through estimator experience.



Once analysis of the pricing is complete, the data from the analysis can be exported to Excel by clicking on the “Export” button. Clicking on “Accept” will update the estimate with updated pricing analysis shown in the Item Trend Chart. Clicking on “Cancel” will close the Item Trend Lookup and return the estimate using the original suggested price.



**NOTE:** Clicking on Cancel will not reset any changes to the filters, or the updated pricing analysis shown on the Item Trend Chart. This can be done by clicking on “Modify Filter” and returning to the filters screen.

**Item Trend Lookup**

Item #: 2501-0201473 (PILE, STEEL, HP 14X73) 
 Exclude All    Show all items in Chart    Exclude Outliers

Project Number	Work Type	Route	Bid Date	Quantity	Unit	Let Unit Price	Unit Price (Todays \$)	Excl.
NHSX-100-1(95)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	05/17/2016	2,025.00	LF	\$36.90	\$36.90	<input type="checkbox"/>
NHSX-100-1(96)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	05/17/2016	2,175.00	LF	\$37.45	\$37.45	<input type="checkbox"/>
NHSX-100-1(92)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	08/16/2016	1,800.00	LF	\$40.00	\$40.00	<input type="checkbox"/>
NHSX-100-1(91)--3H-57	2013-BRIDGE NEW - PPCB	IA 100	08/16/2016	2,160.00	LF	\$40.00	\$40.00	<input type="checkbox"/>
BRFN-069-8(28)--39-41	2022-BRIDGE REPLACEMENT - CCS	US 69	01/17/2018	1,000.00	LF	\$42.00	\$42.00	<input type="checkbox"/>

Average Value: \$49.32      Median Value: \$48.00      Predicted Value: \$46.87  
 # of Samples: 23      High Value: \$66.00      Low Value: \$36.90  
 R<sup>2</sup>: 0.00      Standard Deviation: 8.37      Suggestion Range: \$36.85 - \$59.61

**Item Trend Chart**

Updated By: euser2 Update Date: 04/29/2019

Export
Modify Filter
Accept
Cancel

The updated pricing will be shown in the “Suggestion” and “Suggestion Range” column. The unit price in the “Suggestion” column will now show as red. This is to show that the bid item filter was modified from the original estimate trend filter. Orange colored unit pricing is displayed when data samples in the lookup were manually excluded or included into the unit price calculation. This pricing will always override to red when a bid item has modified filters and manual data point changes.

Division Header									
Name: 1520 78-Pottawattamie		Report							
Description: Design No. 1520									
Alternate: <input type="checkbox"/>		Alternate Name:							
Design County: <input type="checkbox"/>		Use Suggestion: <input checked="" type="checkbox"/>		Update Suggested Price		04/26/2019			
Use Division Total: <input checked="" type="checkbox"/>		Use Project Total: <input type="checkbox"/>		Use Office Total: <input type="checkbox"/>					
Group by Level One: <input type="checkbox"/>		Group by Level Two: <input type="checkbox"/>		Current Total: \$13,366,342.80		Previous Total: \$13,261,688.59			
Item Number	Description	UOM	Quantity	Unit Price	Use Suggestion	Suggestion	Suggestion Range	Est. Price	Doc
2402-2720000	EXCAVATION, CL 20	CY	3,722,000	\$18.64	<input checked="" type="checkbox"/>	\$18.64	\$13.03 - \$26.07	\$69,378.08	N A D
2403-0100010	STRUCT CONC (BRIDGE)	CY	1,190,900	\$513.05	<input checked="" type="checkbox"/>	\$513.05	\$476.68 - \$552.18	\$610,991.25	N A D
2403-7000210	HIGH PERFORMANCE STRUC CONC	CY	4,473,600	\$648.82	<input checked="" type="checkbox"/>	\$648.82	\$604.38 - \$696.52	\$2,902,561.15	N A D
2404-7775000	REINFORC STEEL	LB	261,302,000	\$0.85	<input checked="" type="checkbox"/>	\$0.85	\$0.77 - \$0.94	\$222,106.70	N A D
2404-7775005	REINFORC STEEL EPOXY COATED	LB	1,265,463,000	\$0.84	<input checked="" type="checkbox"/>	\$0.84	\$0.78 - \$0.91	\$1,062,988.92	N A D
2404-7775009	REINF STEEL STAINLESS STEEL	LB	243,141,000	\$2.62	<input checked="" type="checkbox"/>	\$2.62	\$2.24 - \$3.07	\$637,029.42	N A D
2408-7800000	STRUCTURAL STEEL	LB	3,542,894,000	\$1.37	<input checked="" type="checkbox"/>	\$1.37	\$1.22 - \$1.54	\$4,853,764.78	N A D
2414-6424119	CONC BARRIER RAIL, AESTHETIC	LF	4,155,300	\$104.84	<input checked="" type="checkbox"/>	\$104.84	\$73.29 - \$149.97	\$435,641.65	N A D
2434-0000100	DISC BEARING ASSEMBLIES	EA	70,000	\$4,775.00	<input checked="" type="checkbox"/>	\$4,775.00	\$4,650.00 - \$5,000.00	\$334,250.00	N A D
2499-2300001	DECK DRAIN	LS	1,000	\$13,992.71	<input checked="" type="checkbox"/>	\$13,992.71	\$0.00 - \$0.00	\$13,992.71	N A D
2501-0201473	PILE, STEEL, HP 14X73	LF	25,910,000	\$51.00	<input type="checkbox"/>	\$46.87	\$36.85 - \$59.61	\$1,321,410.00	N A D
2501-8400172	TEMP SHORING	LS	1,000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N A D
2526-8285000	CONSTRUCTION SURVEY	LS	1,000	\$25,396.05	<input checked="" type="checkbox"/>	0.19%	0.00% - 8.40%	\$25,396.05	N A D
2533-4980005	MOBILIZATION	LS	1,000	\$876,832.09	<input checked="" type="checkbox"/>	6.56%	0.80% - \$2.60%	\$876,832.09	N A D
2599-9999010	CONCRETE DEADMAN ANCHOR	LS	1,000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N A D

## Manual Adjustment of Unit Prices

The “Unit Price” can now be left as is or modified by typing in a new price based on the judgment of the estimator. In this example we have increased the price of the Steel Pile to \$51.00/LF. Typing in a unit price will automatically uncheck the “Use Suggestion” box.

Division Header
Report

Name: [1520 78-Pottawattamie]

Description: Design No. 1520

Alternate:  Alternate Name: \_\_\_\_\_

Design County: \_\_\_\_\_ Use Suggestion:  Update Suggested Price: 04/26/2019

Use Division Total:  Use Project Total:  Use Office Total:

Group by Level One:  Group by Level Two:  Current Total: **\$13,388,342.80** Previous Total: **\$13,281,688.59**

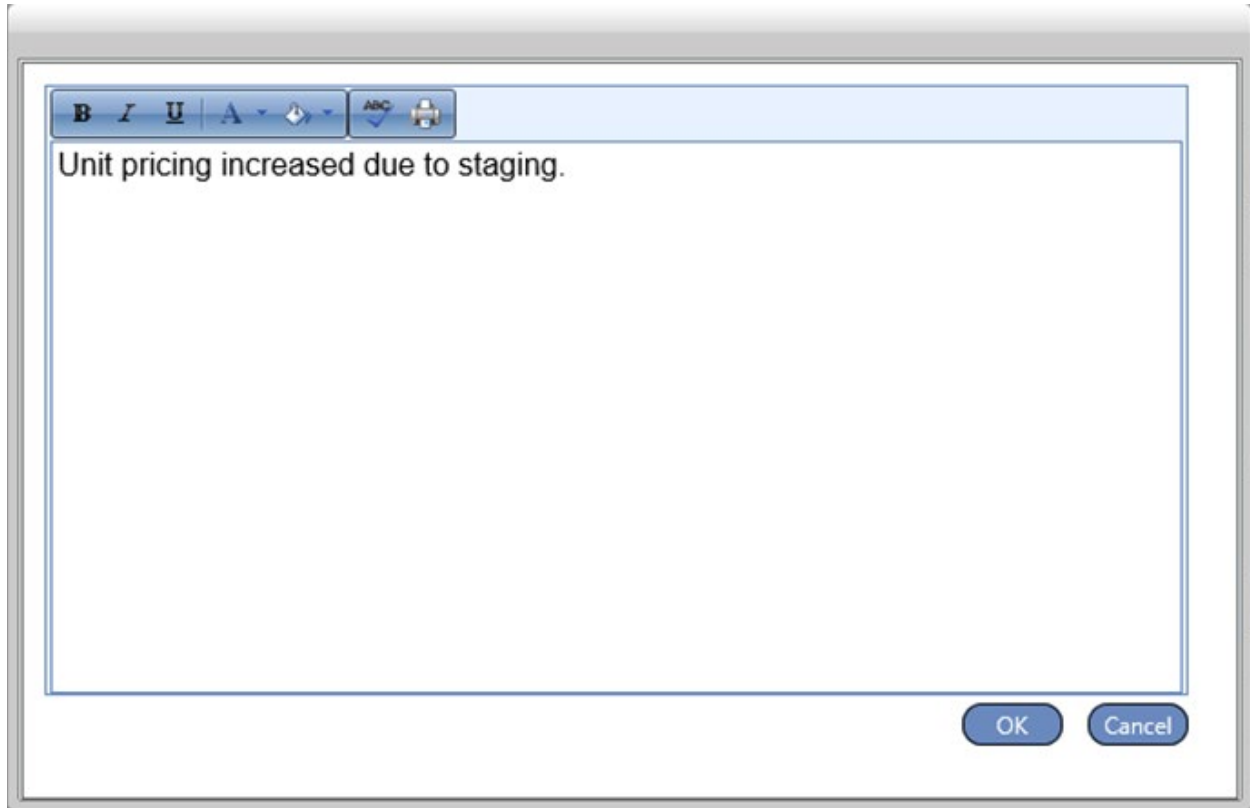
Item Number	Description	UOM	Quantity	Unit Price	Use Suggestion	Suggestion	Suggestion Range	Est. Price		Docs
2402-2720000	EXCAVATION, CL 20	CY	3,722.000	\$18.64	<input checked="" type="checkbox"/>	\$18.64	\$13.03 - \$26.67	\$69,378.08	N	A [D]
2403-0100010	STRUCT CONC (BRIDGE)	CY	1,190.900	\$513.05	<input checked="" type="checkbox"/>	\$513.05	\$476.68 - \$552.18	\$610,991.25	N	A [D]
2403-7000210	HIGH PERFORMANCE STRUC CONC	CY	4,473.800	\$648.82	<input checked="" type="checkbox"/>	\$648.82	\$604.38 - \$696.52	\$2,902,561.15	N	A [D]
2404-7775000	REINFORC STEEL	LB	261,302.000	\$0.85	<input checked="" type="checkbox"/>	\$0.85	\$0.77 - \$0.94	\$222,106.70	N	A [D]
2404-7775005	REINFORC STEEL EPOXY COATED	LB	1,265,463.000	\$0.84	<input checked="" type="checkbox"/>	\$0.84	\$0.78 - \$0.91	\$1,062,988.92	N	A [D]
2404-7775009	REINF STEEL STAINLESS STEEL	LB	243,141.000	\$2.62	<input checked="" type="checkbox"/>	\$2.62	\$2.24 - \$3.07	\$637,029.42	N	A [D]
2408-7800000	STRUCTURAL STEEL	LB	3,542,894.00	\$1.37	<input checked="" type="checkbox"/>	\$1.37	\$1.22 - \$1.54	\$4,853,764.78	N	A [D]
2414-6434119	CONC BARRIER RAIL, AESTHETIC	LF	4,155.300	\$104.84	<input checked="" type="checkbox"/>	\$104.84	\$73.29 - \$148.97	\$435,641.65	N	A [D]
2434-0000100	DISC BEARING ASSEMBLIES	EA	70.000	\$4,775.00	<input checked="" type="checkbox"/>	\$4,775.00	\$4,650.00 - \$5,000.00	\$334,250.00	N	A [D]
2499-2300001	DECK DRAIN	LS	1.000	\$13,992.71	<input checked="" type="checkbox"/>	\$13,992.71	\$0.00 - \$0.00	\$13,992.71	N	A [D]
2501-0201473	PILE, STEEL, HP 14X73	LF	25,910.00	\$51.00	<input type="checkbox"/>	\$48.87	\$36.85 - \$59.61	\$1,321,410.00	N	A [D]
2501-8400172	TEMP SHORING	LS	1.000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A [D]
2526-8285000	CONSTRUCTION SURVEY	LS	1.000	\$25,396.05	<input checked="" type="checkbox"/>	0.19%	0.00% - 8.40%	\$25,396.05	N	A [D]
2533-4980005	MOBILIZATION	LS	1.000	\$876,832.09	<input checked="" type="checkbox"/>	6.56%	0.80% - \$2.60%	\$876,832.09	N	A [D]
2599-9999010	CONCRETE DEADMAN ANCHOR	LS	1.000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A [D]

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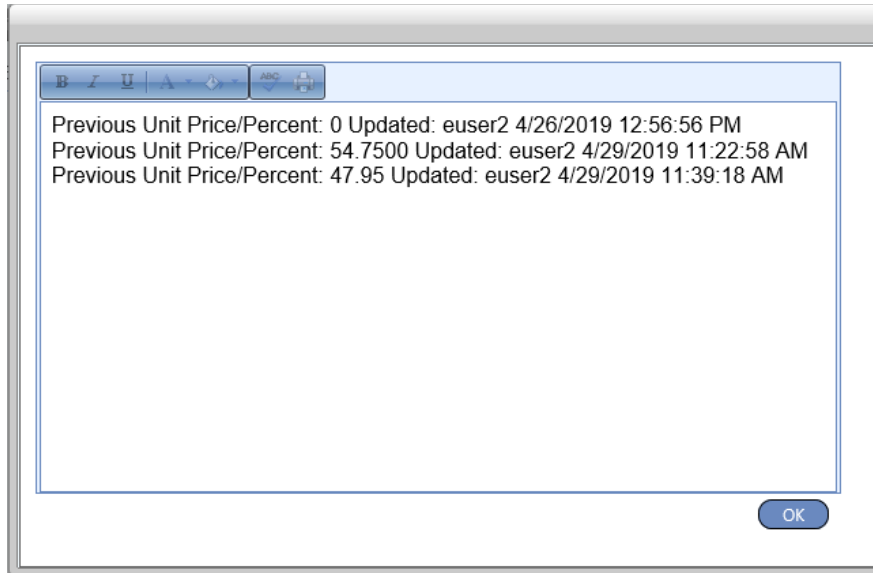


**NOTE:** Additional documentation explaining the changes to the unit price should be added in the form of Notes and/or attaching documents.

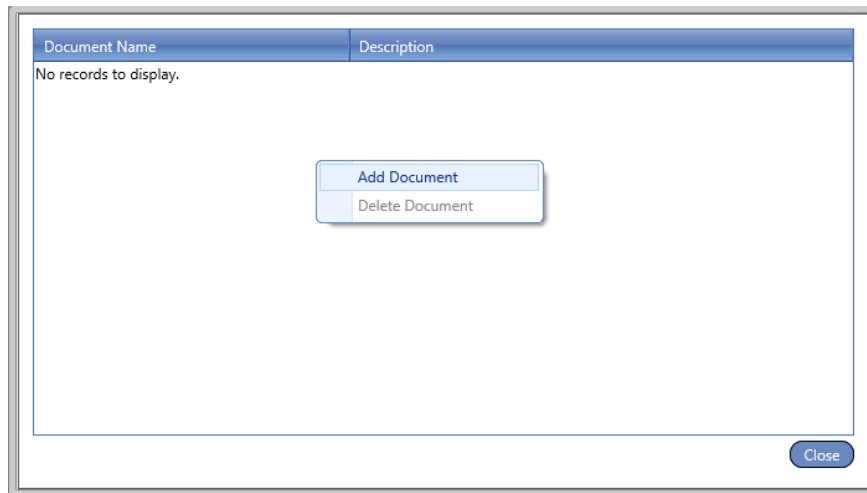
Clicking on the “N” icon will open a Notes screen allowing for the estimator to document any changes or reasoning for the adjustments to bid item pricing. Once finished click on “OK”. The “N” icon will change color from white to blue to show that notes have been added for this bid item.



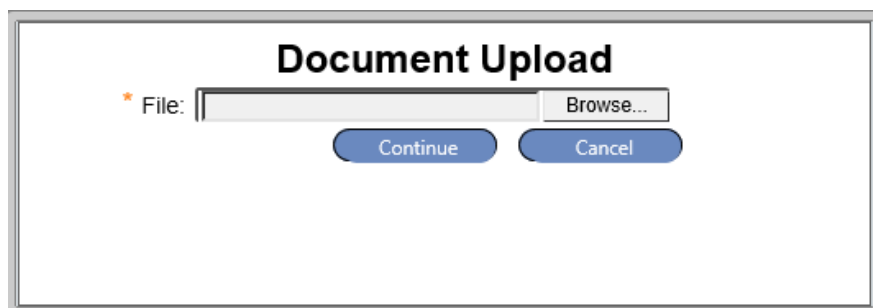
Clicking on the “A” icon will open an automated screen showing a log of all pricing changes made to the bid item. This information includes the previous bid price, the user who made the changes, and the date the changes were made.



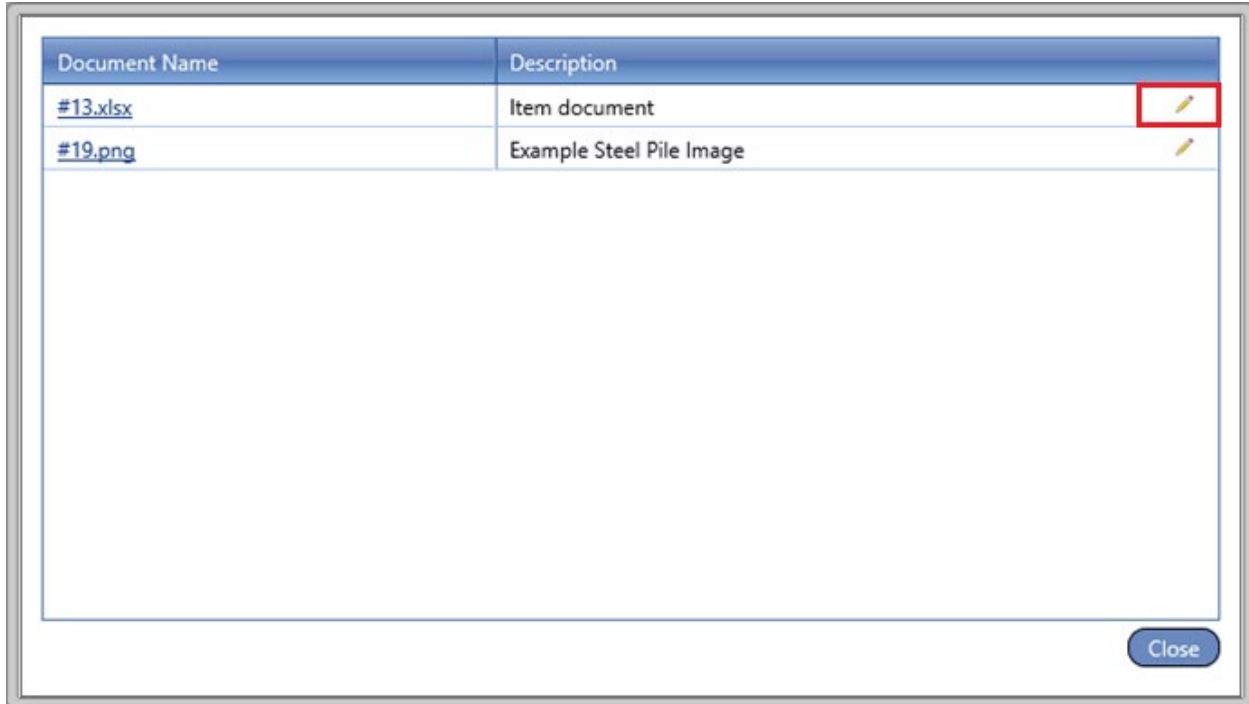
Documents can also be attached to each bid item by clicking on the “D” icon in the Docs column. Once on the document screen right click to add or remove a document.



A document upload dialog box will appear allowing documents to be attached.



The description of uploaded documents can be changed by clicking on the pencil icon. Once Finished click on “Close”. The “D” icon will now change color to blue to show that a document has been attached to this plan item.



### Non-Standard Plan Items

Many standard lump sum (LS) and all non-standard (2599-category) plan items will not be able to have a price calculated by the software. These are unique non-standard bid items on a project, and it is up to the user to determine these costs. This can be gathered from previous projects, manufacturer literature, etc. Documentation explaining the basis of pricing for these items should be added to the notes and/or the documents tabs in the software.

Item Number	Description	UCM	Quantity	Unit Price	Use Suggestion	Suggestion	Suggestion Range	Est. Price		Docs
2402-2720000	EXCAVATION, CL 20	CY	3,722.000	\$18.64	<input checked="" type="checkbox"/>	\$18.64	\$13.03 - \$26.67	\$69,378.08	N	A [D]
2403-0100010	STRUCT CONC (BRIDGE)	CY	1,190.900	\$513.05	<input checked="" type="checkbox"/>	\$513.05	\$476.68 - \$552.18	\$610,991.25	N	A [D]
2403-7000210	HIGH PERFORMANCE STRUC CONC	CY	4,473.600	\$648.82	<input checked="" type="checkbox"/>	\$648.82	\$604.38 - \$696.52	\$2,902,561.15	N	A [D]
2404-7775000	REINFORC STEEL	LB	261,302.000	\$0.85	<input checked="" type="checkbox"/>	\$0.85	\$0.77 - \$0.94	\$222,106.70	N	A [D]
2404-7775005	REINFORC STEEL EPOXY COATED	LB	1,265,463.000	\$0.84	<input checked="" type="checkbox"/>	\$0.84	\$0.78 - \$0.91	\$1,062,988.92	N	A [D]
2404-7775009	REINF STEEL, STAINLESS STEEL	LB	243,141.000	\$2.62	<input checked="" type="checkbox"/>	\$2.62	\$2.24 - \$3.07	\$637,029.42	N	A [D]
2408-7800000	STRUCTURAL STEEL	LB	3,542,894.00	\$1.37	<input checked="" type="checkbox"/>	\$1.37	\$1.22 - \$1.54	\$4,853,764.78	N	A [D]
2414-6424119	CONC BARRIER RAIL, AESTHETIC	LF	4,155.300	\$104.84	<input checked="" type="checkbox"/>	\$104.84	\$73.29 - \$149.97	\$435,641.65	N	A [D]
2434-0000100	DISC BEARING ASSEMBLIES	EA	70.000	\$4,775.00	<input checked="" type="checkbox"/>	\$4,775.00	\$4,650.00 - \$5,000.00	\$334,250.00	N	A [D]
2499-2300001	DECK DRAIN	LS	1.000	\$13,992.71	<input checked="" type="checkbox"/>	\$13,992.71	\$0.00 - \$0.00	\$13,992.71	N	A [D]
2501-0201473	PILE, STEEL, HP 14X73	LF	25,910.00	\$51.00	<input type="checkbox"/>	\$46.87	\$36.85 - \$59.61	\$1,321,410.00	N	A [D]
2501-8400172	TEMP SHORING	LS	1.000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A [D]
2526-8285000	CONSTRUCTION SURVEY	LS	1.000	\$25,396.05	<input checked="" type="checkbox"/>	0.19%	0.00% - 8.40%	\$25,396.05	N	A [D]
2533-4900005	MOBILIZATION	LS	1.000	\$876,832.09	<input checked="" type="checkbox"/>	6.56%	0.00% - 52.60%	\$876,832.09	N	A [D]
2599-9999010	CONCRETE DEADMAN ANCHOR	LS	1.000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A [D]

Some lump sum items such as “2533-4980005 MOBILIZATION AND 2562-8285000 CONSTRUCTION SURVEY” are percentage based. These lump sum items are identified by having a LS as the unit of measure and a suggested price in percent in the software. The percentage used to calculate the mobilization cost is based on a percent cost of the total division cost, which includes the cost of the mobilization plan item. Analysis of this item is similar to standard plan items using the “Item Trend Lookup” feature with the one difference being the calculation is based on % of project rather than unit price. Further information on Percentage Based plan items can be found in Chapter [5.2.2.5 Specialty Plan Items In iPDWeb](#).

Item Number	Description	UOM	Quantity	Unit Price	Use Suggestion	Suggestion	Suggestion Range	Est. Price		Docs
2402-2720000	EXCAVATION, CL 20	CY	3,722.000	\$18.64	<input checked="" type="checkbox"/>	\$18.64	\$12.02 - \$26.67	\$69,278.08	N	A D
2403-0100010	STRUCT CONC (BRIDGE)	CY	1,190.900	\$513.05	<input checked="" type="checkbox"/>	\$513.05	\$476.68 - \$552.18	\$610,991.25	N	A D
2403-7000210	HIGH PERFORMANCE STRUC CONC	CY	4,473.600	\$648.82	<input checked="" type="checkbox"/>	\$648.82	\$604.38 - \$696.52	\$2,902,561.15	N	A D
2404-7775000	REINFORC STEEL	LB	281,302.000	\$0.85	<input checked="" type="checkbox"/>	\$0.85	\$0.77 - \$0.94	\$232,106.70	N	A D
2404-7775005	REINFORC STEEL, EPOXY COATED	LB	1,265,463.000	\$0.84	<input checked="" type="checkbox"/>	\$0.84	\$0.78 - \$0.91	\$1,062,988.92	N	A D
2404-7775009	REINF STEEL, STAINLESS STEEL	LB	243,141.000	\$2.62	<input checked="" type="checkbox"/>	\$2.62	\$2.24 - \$3.07	\$637,029.42	N	A D
2406-7600000	STRUCTURAL STEEL	LB	3,542,094.000	\$1.37	<input checked="" type="checkbox"/>	\$1.37	\$1.22 - \$1.54	\$4,853,764.78	N	A D
2414-6424119	CONC BARRIER RAIL, AESTHETIC	LF	4,155.300	\$104.84	<input checked="" type="checkbox"/>	\$104.84	\$73.29 - \$149.97	\$435,641.65	N	A D
2434-0000100	DISC BEARING ASSEMBLIES	EA	70.000	\$4,775.00	<input checked="" type="checkbox"/>	\$4,775.00	\$4,650.00 - \$5,000.00	\$334,250.00	N	A D
2499-2300001	DECK DRAIN	LF	1.000	\$13,992.71	<input checked="" type="checkbox"/>	\$13,992.71	\$0.00 - \$0.00	\$13,992.71	N	A D
2501-0201473	PILE, STEEL, HP 14X73	LS	25,910.000	\$46.87	<input checked="" type="checkbox"/>	\$46.87	\$36.85 - \$59.61	\$1,214,401.70	N	A D
2501-8400172	TEMP SHORING	LS	1.000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A D
2526-8285000	CONSTRUCTION SURVEY	LS	1.000	\$25,178.02	<input checked="" type="checkbox"/>	0.19%	0.00% - 8.40%	\$25,178.02	N	A D
2533-4980005	MOBILIZATION	LS	1.000	\$869,304.21	<input checked="" type="checkbox"/>	6.56%	0.80% - 52.60%	\$869,304.21	N	A D
2599-9999010	CONCRETE DEADMAN ANCHOR	LS	1.000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A D

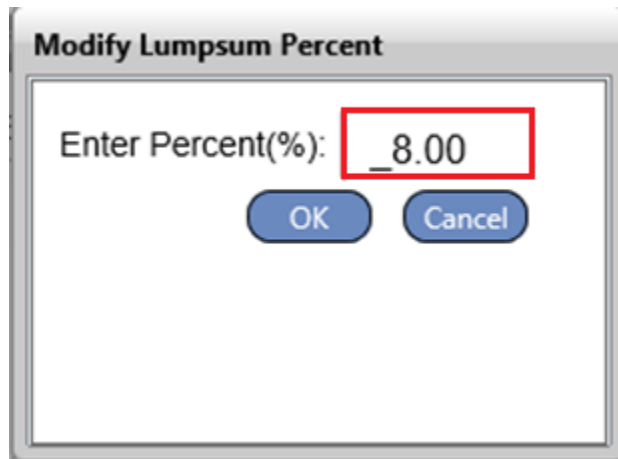


## Lump Sum Items

The percent can be manually modified by the user by right clicking on the plan item and selecting “Modify Lumpsum Percent”.

Item Number	Description	UOM	Quantity	Unit Price	Use Suggestion	Suggestion	Suggestion Range	Est. Price		Doc#
2402-2720000	EXCAVATION, CL 20	CY	3,722,000	\$18.64	<input checked="" type="checkbox"/>	\$18.64	\$13.03 - \$26.67	\$69,378.08	N	A
2403-0100010	STRUCT CONC (BRIDGE)	CY	1,190,900	\$513.05	<input checked="" type="checkbox"/>	\$513.05	\$476.68 - \$552.18	\$610,991.25	N	A
2403-7000210	HIGH PERFORMANCE STRUC CONC	CY	4,473,600	\$648.82	<input checked="" type="checkbox"/>	\$648.82	\$604.38 - \$696.32	\$2,902,561.15	N	A
2404-7775000	REINFORC STEEL	LB	261,302,000	\$0.85	<input checked="" type="checkbox"/>	\$0.85	\$0.77 - \$0.94	\$222,106.70	N	A
2404-7775005	REINFORC STEEL, EPOXY COATED	LB	1,205,463,000	\$0.84	<input checked="" type="checkbox"/>	\$0.84	\$0.78 - \$0.91	\$1,062,888.92	N	A
2404-7775009	REINFORC STEEL, STAINLESS STEEL	LB	243,141,000	\$2.62	<input checked="" type="checkbox"/>	\$2.62	\$2.24 - \$3.07	\$637,029.42	N	A
2408-7800000	STRUCTURAL STEEL	LB	3,542,894,000	\$1.37	<input checked="" type="checkbox"/>	\$1.37	\$1.22 - \$1.54	\$4,853,764.78	N	A
2414-6424119	CONC BARRIER RAIL, AESTHETIC	LF	4,155,300	\$104.84	<input checked="" type="checkbox"/>	\$104.84	\$73.29 - \$149.97	\$435,641.65	N	A
2434-0000100	DISC BEARINGS ASSEMBLIES	EA	70,000	\$4,775.00	<input checked="" type="checkbox"/>	\$4,775.00	\$4,650.00 - \$5,000.00	\$334,250.00	N	A
2499-2300001	DECK DRAIN	LS	1,000	\$13,992.71	<input checked="" type="checkbox"/>	\$13,992.71	\$0.00 - \$0.00	\$13,992.71	N	A
2501-0201473	PILE, STEEL, HP 14X73	LF	25,910,000	\$46.87	<input checked="" type="checkbox"/>	\$46.87	\$36.85 - \$59.61	\$1,214,401.70	N	A
2501-8400172	TEMP SHORING	LS	1,000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A
2526-8285000	CONSTRUCTION SURVEY	LS	1,000	\$25,178.02	<input checked="" type="checkbox"/>	\$25,178.02	0.19% - 8.40%	\$25,178.02	N	A
2533-4980005	MOBILIZATION	LS	1,000	\$869,304.21	<input checked="" type="checkbox"/>	\$869,304.21	6.56% - 52.60%	\$869,304.21	N	A
2599-9999010	CONCRETE DEADMAN ANCHOR	LS	1,000	\$0.00	<input type="checkbox"/>	\$0.00		\$0.00	N	A

A popup screen will appear allowing for the new percentage to be entered. Click on “OK” to accept the change and update the item in the estimate.



## Chronology of Changes to Manual Section:

### 5.1.2 Item Trend Filters in iPDWeb

11/07/2024    NEW