

Item Average Price Report Spreadsheet: Instructions

1. After opening the spreadsheet and selecting the Item Average Price Report Data tab of the workbook, single left click on the upper left corner (as shown below) to select all cells in the spreadsheet.

2018-11-13-ItemAveragePriceReportDataDump.xlsx

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From Access From Web From Text From Other Sources Existing Connections Refresh All Edit Links Connections Sort Filter Clear Reapply Advanced Text to Columns Remove Duplicates Data Validation Consolidate What-If Analysis Group Ungroup Subt

1. Click this corner rectangle to highlight entire spreadsheet.

	A	B	C	D	E	F	G	H	I	J	K
1	District	Publicati	Letting_Date	Contract_Num	Lead_Key	Project_Numbe	Vendor_Ran	Item_Code	Item_Description	Item_Unit	Item_Quant
2	1	2018	2/6/2018	8307	19431	A019(431)	1	203-130B	REMOVAL OF PAV MARKINGS	SF	
3	1	2018	2/6/2018	8307	19431	A019(431)	1	405-260A	WEDGE MILLING	SY	
4	1	2018	2/6/2018	8307	19431	A019(431)	1	405-435A	SUPERPAVE HMA PAV INCL ASPH	TON	
5	1	2018	2/6/2018	8307	19431	A019(431)	1	502-065A	CONC CL 40 AF	CY	1
6	1	2018	2/6/2018	8307	19431	A019(431)	1	511-005A	CONC WATERPROOF SYS	SY	
7	1	2018	2/6/2018	8307	19431	A019(431)	1	511-005B	CONC WATERPROOF SYS	SY	1
8	1	2018	2/6/2018	8307	19431	A019(431)	1	613-015A	CRASH CUSHION, SACRIFICIAL-SA	EACH	
9	1	2018	2/6/2018	8307	19431	A019(431)	1	626-010A	TEMPORARY TRAFFIC CONTROL S	SF	
10	1	2018	2/6/2018	8307	19431	A019(431)	1	626-040A	BARRICADE TY 3	EACH	
11	1	2018	2/6/2018	8307	19431	A019(431)	1	626-050A	DRUMS	EACH	
12	1	2018	2/6/2018	8307	19431	A019(431)	1	626-076A	ARROW BOARD TY C	HR	
13	1	2018	2/6/2018	8307	19431	A019(431)	1	626-092A	TEMPORARY PAVEMENT MARKIN	FT	
14	1	2018	2/6/2018	8307	19431	A019(431)	1	626-100A	MISCELLANEOUS TEMPORARY TR	LS	

2. After all cells are highlighted, select the “Data” tab on the ribbon and click the “Filter” option. This will activate filtering of all the provided columns.

The screenshot shows the Microsoft Excel interface with the 'Data' tab selected on the ribbon. The 'Filter' button, represented by a funnel icon, is highlighted with a red circle. Below the ribbon, the spreadsheet data is visible, with all cells highlighted in blue. The data table is as follows:

	A	B	C	D	E	F	G	H	I	J	K
1	District	Public	Letting_Date	Contract_N	Lead_Key	Project_Nun	Vendor_R	Item_Code	Item_Description	Item_Unit	Item_Quar
2	1	2018	2/6/2018	8307	19431	A019(431)	1	203-130B	REMOVAL OF PAV MARKINGS	SF	
3	1	2018	2/6/2018	8307	19431	A019(431)	1	405-260A	WEDGE MILLING	SY	
4	1	2018	2/6/2018	8307	19431	A019(431)	1	405-435A	SUPERPAVE HMA PAV INCL ASPH	TON	
5	1	2018	2/6/2018	8307	19431	A019(431)	1	502-065A	CONC CL 40 AF	CY	
6	1	2018	2/6/2018	8307	19431	A019(431)	1	511-005A	CONC WATERPROOF SYS	SY	
7	1	2018	2/6/2018	8307	19431	A019(431)	1	511-005B	CONC WATERPROOF SYS	SY	
8	1	2018	2/6/2018	8307	19431	A019(431)	1	613-015A	CRASH CUSHION, SACRIFICIAL-SA	EACH	
9	1	2018	2/6/2018	8307	19431	A019(431)	1	626-010A	TEMPORARY TRAFFIC CONTROL S	SF	
10	1	2018	2/6/2018	8307	19431	A019(431)	1	626-040A	BARRICADE TY 3	EACH	
11	1	2018	2/6/2018	8307	19431	A019(431)	1	626-050A	DRUMS	EACH	
12	1	2018	2/6/2018	8307	19431	A019(431)	1	626-076A	ARROW BOARD TY C	HR	
13	1	2018	2/6/2018	8307	19431	A019(431)	1	626-092A	TEMPORARY PAVEMENT MARKIN	FT	
14	1	2018	2/6/2018	8307	19431	A019(431)	1	626-100A	MISCELLANEOUS TEMPORARY TR	LS	

3. Filtering can now be customized to the user's desired parameters. Below are examples of some good filtering options to use.
- Filter by location:** In column "A", click on the drop-down option to reveal the available District location. From the menu, select the desired location. More than one district location can be selected. In the example below, District 3 was the desired location.

The screenshot shows the Microsoft Excel interface with the 'Data' tab selected. The 'Filter' button in the 'Sort & Filter' group is active. A data table is displayed with columns A through K. The 'District' column (A) has a filter applied, and the filter menu is open, showing a list of districts (1-7) with '3' selected. The table data is as follows:

District	Public	Letting Date	Contract N	Lead Key	Project Nun	Vendor R	Item Code	Item Description	Item Unit	Item Quantity	Item Price
8307	19431	A019(431)	1	203-130B	REMOVAL OF PAV MARKINGS	SF	13677				
8307	19431	A019(431)	1	405-260A	WEDGE MILLING	SY	874				
8307	19431	A019(431)	1	405-435A	SUPERPAVE HMA PAV INCL ASPH	TON	152.4				
8307	19431	A019(431)	1	502-065A	CONC CL 40 AF	CY	1195.2				
8307	19431	A019(431)	1	511-005A	CONC WATERPROOF SYS	SY	97.8				
8307	19431	A019(431)	1	511-005B	CONC WATERPROOF SYS	SY	1869.1				
8307	19431	A019(431)	1	613-015A	CRASH CUSHION, SACRIFICIAL-SA	EACH	6				
8307	19431	A019(431)	1	626-010A	TEMPORARY TRAFFIC CONTROL S	SF	741				
8307	19431	A019(431)	1	626-040A	BARRICADE TY 3	EACH	6				
8307	19431	A019(431)	1	626-050A	DRUMS	EACH	119				
8307	19431	A019(431)	1	626-076A	ARROW BOARD TY C	HR	12000				
8307	19431	A019(431)	1	626-092A	TEMPORARY PAVEMENT MARKIN	FT	20955				
8307	19431	A019(431)	1	626-100A	MISCELLANEOUS TEMPORARY TR	LS	1				
8307	19431	A019(431)	1	626-105A	TRAFFIC CONTROL MAINTENANC	HR	200				
8307	19431	A019(431)	1	626-111A	TEMPORARY RIGID RAISED PAVEN	EACH	660				
8307	19431	A019(431)	1	626-140A	SURFACE-MOUNTED TUBULAR M	EACH	33				
8307	19431	A019(431)	1	630-025A	LONGITUDINAL PAVEMENT MARK	FT	26149				
8307	19431	A019(431)	1	631-010A	RUMBLE STRIPS	MILE	1.111				
8307	19431	A019(431)	1	632-005A	CONC BRIDGE DECK REM CL A	SY	11473.7				
8307	19431	A019(431)	1	632-010A	CONC BRIDGE DECK REM CL B	SY	573.7				
8307	19431	A019(431)	1	S501-05A	EXPANSION JOINT (OBSOLETE 20	CF	247.3				
8307	19431	A019(431)	1	S501-20A	SP BRIDGE	EACH	15				
8307	19431	A019(431)	1	S501-25A	SP BRIDGE	LS	1				
8307	19431	A019(431)	1	S501-25B	SP BRIDGE	LS	1				

b. **Filter by Bid Item:** In column “H”, click on the drop-down option to reveal the available Bid Items or Item_Codes. From the menu, select the desired bid item. More than one item can be selected. In the example below, 405-435A was the desired location.

The screenshot shows an Excel spreadsheet with the following data table. The 'Item Code' column (H) has a filter dropdown menu open, showing a list of item codes. The item code '405-435A' is selected in the list.

1	District	Public	Letting Date	Contract N	Lead Key	Project Num	Vendor R	Item Code	Item Description	Item Unit	Item Quantity	Item Bid Price	Item T
6903	3	2018	1/23/2018	8303	13947				DISPUTE REVIEW BOARD- THREE	CA	8361	\$1.00	
6904	3	2018	1/23/2018	8303	13947				CLEARING & GRUBBING	LS	1	\$10,000.00	
6905	3	2018	1/23/2018	8303	13947				REM OF BRIDGE	EACH	1	\$300,000.00	
6906	3	2018	1/23/2018	8303	13947				REM OF CURB	FT	2806	\$2.00	
6907	3	2018	1/23/2018	8303	13947				REM OF CURB & GUTTER	FT	163	\$3.00	
6908	3	2018	1/23/2018	8303	13947				REM OF GUARDRAIL/BARRIER	FT	6070	\$1.50	
6909	3	2018	1/23/2018	8303	13947				OBLITERATION OF OLD ROAD	LS	1	\$2,000.00	
6910	3	2018	1/23/2018	8303	13947				EXCAVATION	CY	32534	\$12.00	
6911	3	2018	1/23/2018	8303	13947				GRANULAR BORROW	CY	14000	\$0.01	
6912	3	2018	1/23/2018	8303	13947				WATER FOR DUST ABATEMENT	MG	1000	\$20.00	
6913	3	2018	1/23/2018	8303	13947				EXCAVATION AND REPAIR OF SOI	CY	150	\$35.00	
6914	3	2018	1/23/2018	8303	13947				STR EXCAVATION SCH NO. 1	CY	3360	\$17.00	
6915	3	2018	1/23/2018	8303	13947				COMPACTING BACKFILL	CY	348	\$30.00	
6916	3	2018	1/23/2018	8303	13947				FIBER WATTLE	FT	9652	\$2.00	
6917	3	2018	1/23/2018	8303	13947				STONE FILTER DAM TY	CY	5	\$115.00	
6918	3	2018	1/23/2018	8303	13947				INLET PROTECTION	EACH	15	\$100.00	
6919	3	2018	1/23/2018	8303	13947				3/4" AGGR TY B FOR BASE	TON	17561	\$17.00	
6920	3	2018	1/23/2018	8303	13947				CSS-1 DIL EMUL ASPH FOR TACK C	GAL	1877	\$5.00	
6921	3	2018	1/23/2018	8303	13947				MISC PAV	SY	122	\$30.00	
6922	3	2018	1/23/2018	8303	13947				APPROACH	EACH	19	\$1,300.00	
6923	3	2018	1/23/2018	8303	13947				WEDGE MILLING	SY	5857	\$5.00	
6924	3	2018	1/23/2018	8303	13947				SUPERPAVE HMA PAV CL SP-T	TON	187	\$100.00	
6925	3	2018	1/23/2018	8303	13947				SUPERPAVE HMA PAV CL SP-NS	TON	37	\$85.00	
6926	3	2018	1/23/2018	8303	13947				SUPERPAVE HMA PAV INCL ASPH	TON	8,929.00	\$88.00	

- c. **Filter by Publication Year:** In column “B”, click on the drop-down option to reveal the available Publication Years. These represent the construction year of each of the projects available in the data. From the menu, select the desired year. More than one year can be selected. In the example below, 2018 was the desired publication year.

The screenshot shows an Excel spreadsheet with a data table. The 'Publication_Year' column (B) has a filter dropdown menu open. The menu options include 'Sort Smallest to Largest', 'Sort Largest to Smallest', 'Sort by Color', 'Clear Filter From "Publication_Year"', 'Filter by Color', and 'Number Filters'. A search box is present, and the filter is set to include the year 2018. The data table contains columns for Item Code, District, Publication Year, Letting Date, Contract Number, Lead Key, Project Number, Vendor Reference, Item Code, Item Description, and Item Unit.

Item Code	District	Publication Year	Letting Date	Contract Number	Lead Key	Project Number	Vendor Reference	Item Code	Item Description	Item Unit
8303		13947	A013(930)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8303		13947	A013(930)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8303		13947	A013(930)					3 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8304		19814	A019(814)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8304		19814	A019(814)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8304		19814	A019(814)					3 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8317		19965	A019(965)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8317		19965	A019(965)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8317		19965	A019(965)					3 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8317		19965	A019(965)					4 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8321		20225	A020(225)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8321		20225	A020(225)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8322		18872	A018(872)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8322		18872	A018(872)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8322		18872	A018(872)					3 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8328		19947	A019(947)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8328		19947	A019(947)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8328		19947	A019(947)					3 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8333		19415	A019(415)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8333		19415	A019(415)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8441		13962	A013(962)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8441		13962	A013(962)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8445		18950	A018(950)					1 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	
8445		18950	A018(950)					2 405-435A	SUPERPAVE HMA PAV INCL ASPH TON	

- d. **Filter by Quantity:** In column “K”, click on the drop-down option to reveal the available item quantities. From the menu, select the desired quantities. More than one quantity can be selected. In the example below, six project quantities were selected to span a desired quantity range.

The screenshot shows an Excel spreadsheet with a data table. The 'Item Quantity' column (K) has a filter menu open. The menu options are:

- Sort Smallest to Largest
- Sort Largest to Smallest
- Sort by Color
- Clear Filter From "Item_Quantity"
- Filter by Color
- Number Filters

The 'Number Filters' section is expanded, showing a search bar and a list of quantities with checkboxes:

- (Select All)
- 75
- 237
- 435
- 1956
- 3330
- 3,365.00
- 3,595.00
- 5,435.00
- 8,810.00
- 8,929.00
- 17,500.00
- 21703
- 40900

The data table below shows the following columns: District, Publication Year, Letting Date, Contract N, Lead Key, Project Nun, Vendor R, Item Code, Item Description, Item Unit, Item Quantity, Item Bid Price, and Item T.

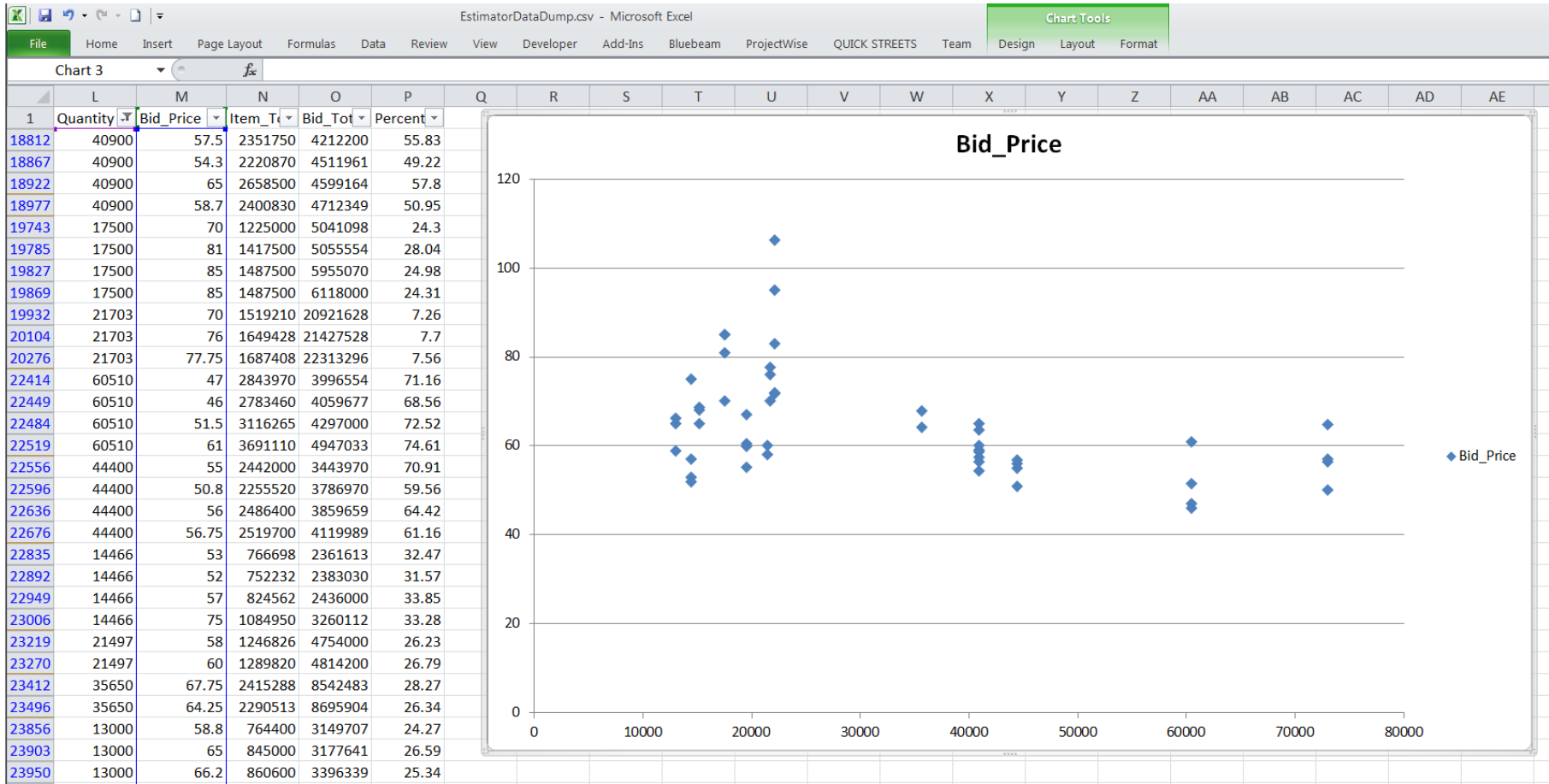
	A	B	C	D	E	F	G	H	I	J	K	L
1	District	Public	Letting Date	Contract N	Lead Key	Project Nun	Vendor R	Item Code	Item Description	Item Unit	Item Quantity	Item Bid Price
6926	3	2018	1/23/2018	8303	13947	A013(930)	1	405-435A	SUPERPAVE HMA PA			\$88.00
7037	3	2018	1/23/2018	8303	13947	A013(930)	2	405-435A	SUPERPAVE HMA PA			\$91.75
7148	3	2018	1/23/2018	8303	13947	A013(930)	3	405-435A	SUPERPAVE HMA PA			\$90.13
8251	3	2018	4/3/2018	8328	19947	A019(947)	1	405-435A	SUPERPAVE HMA PA			\$68.00
8276	3	2018	4/3/2018	8328	19947	A019(947)	2	405-435A	SUPERPAVE HMA PA			\$68.00
8301	3	2018	4/3/2018	8328	19947	A019(947)	3	405-435A	SUPERPAVE HMA PA			\$65.69
8409	3	2018	7/10/2018	8441	13962	A013(962)	1	405-435A	SUPERPAVE HMA PA			\$100.00
8486	3	2018	7/10/2018	8441	13962	A013(962)	2	405-435A	SUPERPAVE HMA PA			\$111.85
8798	3	2018	7/31/2018	8446	20796	A020(796)	1	405-435A	SUPERPAVE HMA PA			\$70.00
8847	3	2018	7/31/2018	8446	20796	A020(796)	2	405-435A	SUPERPAVE HMA PA			\$81.00
8896	3	2018	7/31/2018	8446	20796	A020(796)	3	405-435A	SUPERPAVE HMA PA			\$85.00
8945	3	2018	7/31/2018	8446	20796	A020(796)	4	405-435A	SUPERPAVE HMA PA			\$85.00
9015	3	2018	7/24/2018	8447	13387	A013(387)/A013	1	405-435A	SUPERPAVE HMA PA			\$70.00
9216	3	2018	7/24/2018	8447	13387	A013(387)/A013	2	405-435A	SUPERPAVE HMA PA			\$76.00
9417	3	2018	7/24/2018	8447	13387	A013(387)/A013	3	405-435A	SUPERPAVE HMA PA			\$77.75
10104	3	2018	10/30/2018	8465	20842	A020(842)	1	405-435A	SUPERPAVE HMA PA			\$84.00
10273	3	2018	10/30/2018	8465	20842	A020(842)	2	405-435A	SUPERPAVE HMA PA			\$70.00
10442	3	2018	10/30/2018	8465	20842	A020(842)	3	405-435A	SUPERPAVE HMA PA			\$90.00
10611	3	2018	10/30/2018	8465	20842	A020(842)	4	405-435A	SUPERPAVE HMA PA			\$82.00
27963												
27964												
27965												
27966												
27967												
27968												

4. For a graphical scatter plot view of the filtered data:
 - a. Highlight the columns for "Quantity" and "Bid_Price."
 - b. Select the "Insert" tab.
 - c. Select the "Scatter" plot icon.

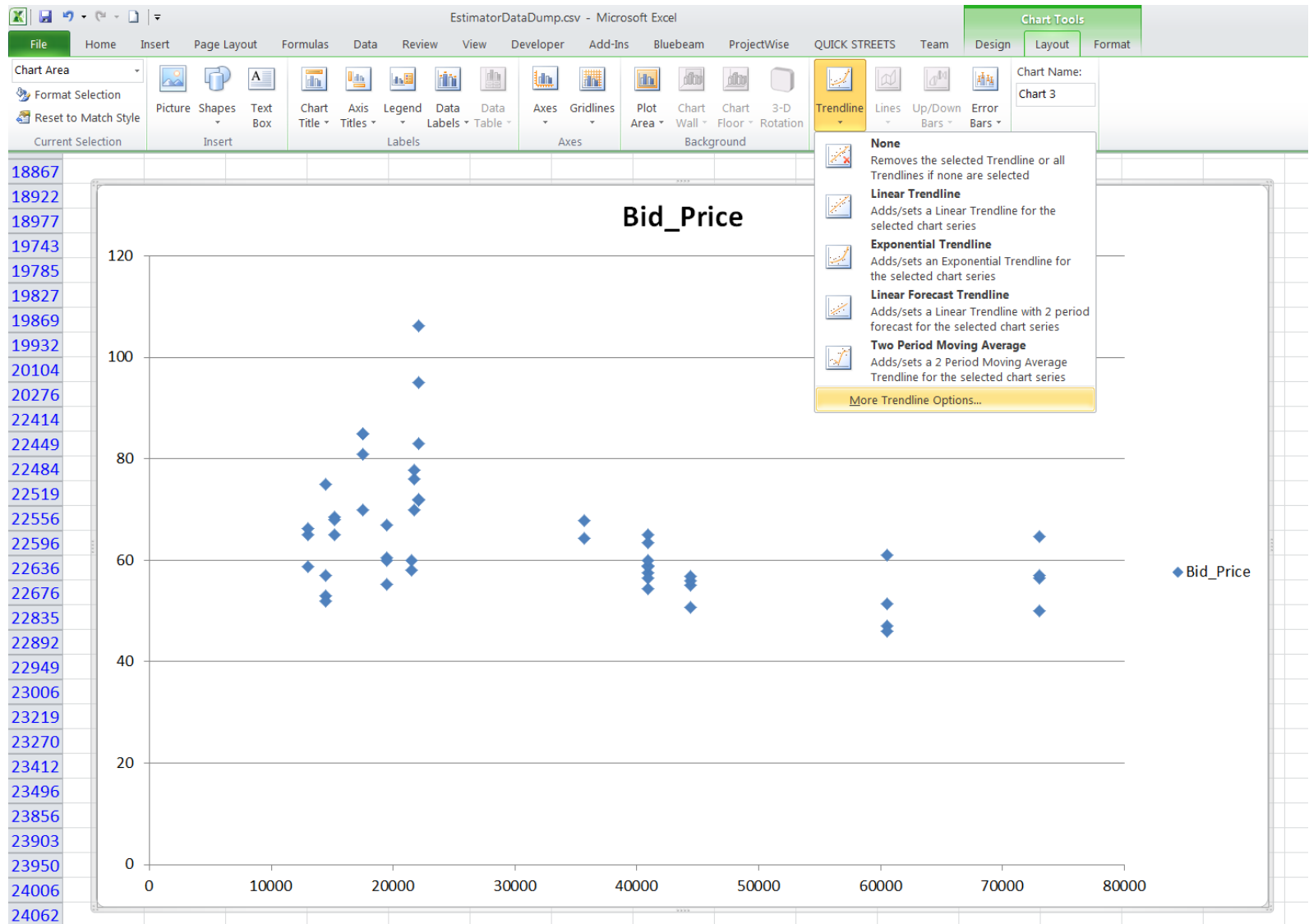
The screenshot shows the Microsoft Excel interface with the 'Insert' tab selected. The 'Charts' group is expanded, and the 'Scatter' icon is highlighted. A tooltip for 'Scatter with only Markers' is displayed, providing instructions on when to use this chart type. The background data table is partially visible, showing columns for various project attributes and financial metrics.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	District	Year	Letting	Month	Contract	Lead_Ki	Project	Rank				Quantity	Bid_Price	Item_Tc	Bid_Tot	Percent
18812	3	2018	2/27/2018	2	8317	19965	A019(965)					40900	57.5	2351750	4212200	55.83
18867	3	2018	2/27/2018	2	8317	19965	A019(965)					40900	54.3	2220870	4511961	49.22
18922	3	2018	2/27/2018	2	8317	19965	A019(965)					40900	65	2658500	4599164	57.8
18977	3	2018	2/27/2018	2	8317	19965	A019(965)					40900	58.7	2400830	4712349	50.95
19743	3	2018	7/31/2018	7	8446	20796	A020(796)					17500	70	1225000	5041098	24.3
19785	3	2018	7/31/2018	7	8446	20796	A020(796)					17500	81	1417500	5055554	28.04
19827	3	2018	7/31/2018	7	8446	20796	A020(796)					17500	85	1487500	5955070	24.98
19869	3	2018	7/31/2018	7	8446	20796	A020(796)					17500	85	1487500	6118000	24.31
19932	3	2018	7/24/2018	7	8447	13387	A013(387)					21703	70	1519210	20921628	7.26
20104	3	2018	7/24/2018	7	8447	13387	A013(387)					21703	76	1649428	21427528	7.7
20276	3	2018	7/24/2018	7	8447	13387	A013(387)					21703	77.75	1687408	22313296	7.56
22414	3	2017	3/7/2017	3	8194	13924	A013(924)					60510	47	2843970	3996554	71.16
22449	3	2017	3/7/2017	3	8194	13924	A013(924)					60510	46	2783460	4059677	68.56
22484	3	2017	3/7/2017	3	8194	13924	A013(924)					60510	51.5	3116265	4097000	72.52

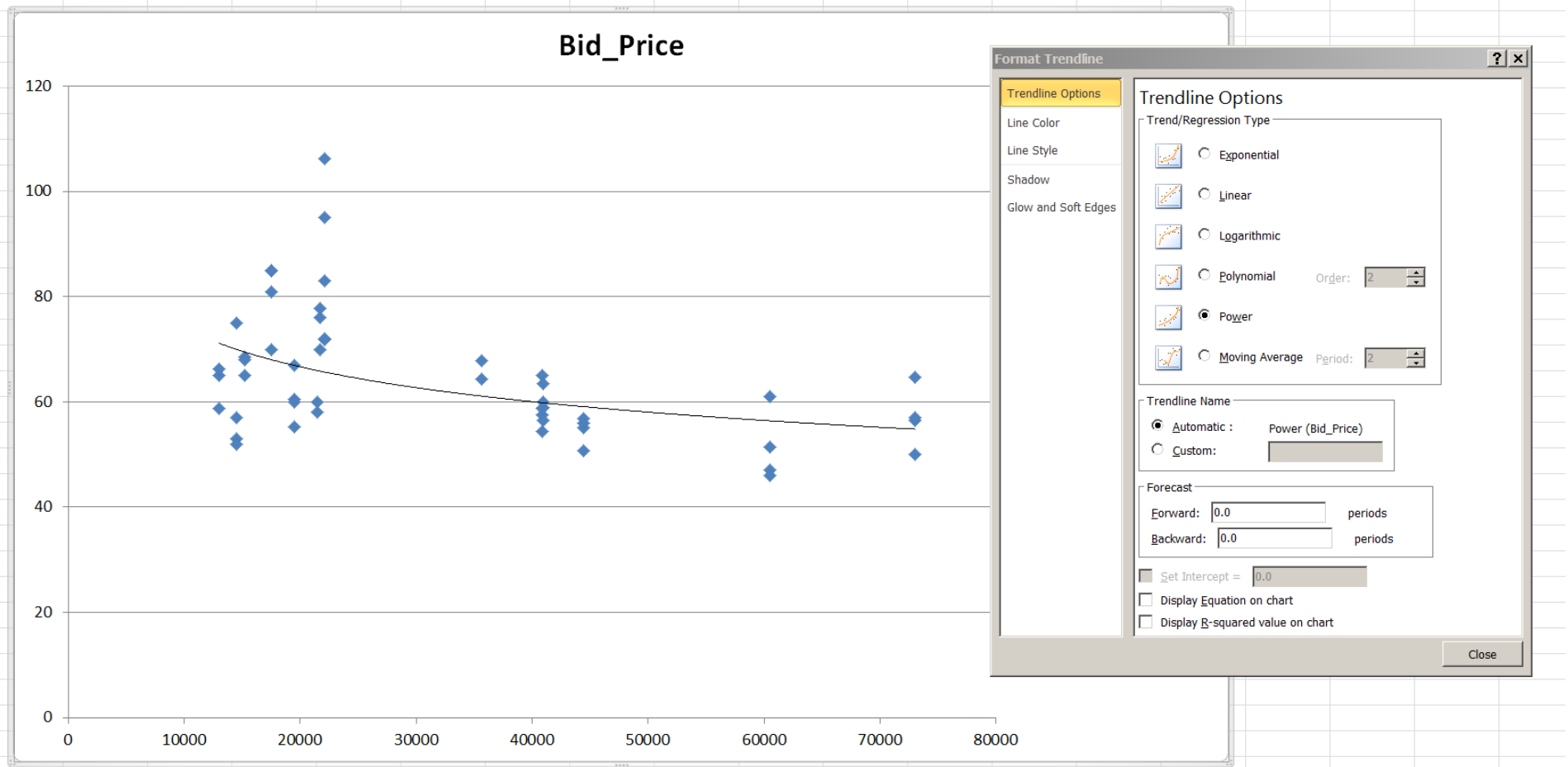
d. Pick an area to the right of the data columns to draw a box for the scatter plot.



5. To add a Trendline through the scatter plot (Note: This step through is for selection of a power Trendline, other options may be more appropriate):
 - a. Select the "Layout" tab.
 - b. Pick the "Trendline" icon.
 - c. Select the "More Trendline Options. . ."



d. Select the "Power" Trendline option.



Appendix A (Column Headings)

Column Title	Description
District	Regional administrative area associated with a contract. Main District offices are in the following locations: 1 – Coeur d’ Alene (Northern Idaho) 2 – Lewiston (Northern central part of pan handle part of Idaho) 3 – Boise (central Idaho) 4 – Shoshone (South central Idaho) 5 – Pocatello (South East Idaho) 6 – Rigby (North East Idaho) 7 – LHTAC (Local Highway Technical Assistant Council, can be any section of Idaho)
Year	Year of the letting date
Month	Month of the letting date
Letting_Date	Date associated with the bid opening of the project.
Contract	Contract identifying number that can represent a single or group of projects.
Lead_Key	Lead project key identifier associated with a contract.
Project_Description	Project description/location given to the lead key number associated with a contract.
Bidder_Rank (or Rank)	Ranking number given to a contractor that has submitted a bid on a project. A number 1 signifies the winning bid representing the lowest overall bid total for a contract.
Item	Bid item identifier
Item_Description	Bid item description
Unit	Bid item unit of measure
Quantity	Engineering estimated quantity for a given bid item
Bid_Price	Contractor bid price given for a bid item
Item_Total	Total bid amount for a given bid item by a contractor
Bid_Total	Total bid amount for the contract by a contractor
Perc_Bid (or Percent_Bid)	$\text{Item_Total} / \text{Bid_Total}$ (useful for items that are bid as a percentage of the overall bid such as mobilization)
Fund_Type	Funding type associated with the contract: Federally funded, State funded, or Other funded.