

Guidelines for using the Additive Work Bidding Special Provision 00516S

Purpose

The purpose for this special provision is to provide a tool to maximize the use of available funds for a given project. Additive work items allow contractors to competitively bid on original project scope items that are not included in the base bid due to potential funding shortfalls.

This method is not desirable for all projects. It is not ideal for tied projects since additives must be prioritized. This prioritization becomes complicated when more than one project has additives. Only one of the tied projects may have additives to simplify prioritization and low bidder determination.

Additive Bidding may be useful in cases where there is some uncertainty about the realistic costs of a project, and features of the project can be incrementally scoped. Examples would be adjusting the project length of the base bid with additional length(s) as additive(s), or a base of roadway work with lighting as an additive. The project must be viable and fulfill its basic purpose if only the base package can be awarded. As with any procurement method, the goals of the project must be clearly understood in order to determine the procurement method that is most likely to lead to success.

Design Considerations

The decision to use this type of awarding method should be made as soon as it is apparent that the engineer's estimate is higher than the available funding. This allows for the development of a base package with an engineer's estimate within the available funding. Any items not included in the base package would then need associated quantities, plans, specifications and details. Each additive package must be contained within its own detail on the engineer's estimate. Deciding to resort to this method too late will result in additional design costs and undesirable delays.

In order to avoid the appearance of subjectivity, the Department makes a commitment to award the maximum amount of work within the budget. The Department also will not seek additional funding beyond the identified amount if the additional funding changes the low bidder.

The dollar value of each additive segment should be small enough so as to increase the likelihood of being able to include one or more of them in the award. Typically additives should be within 10 – 30% of the base.

*Each Additive must have its own set of plan, detail, and summary sheets that clearly define the work and distinguish between the base package work items and quantities and the items and quantities associated with each additive package. The measurement and payment document should also be divided into sections to distinguish which items of work are included in the base and each additive.

There should be unique items for each segment. In other words, if each segment has UTBC as a work item, each segment should have a unique bid item for UTBC with an associated quantity. Each additive segment should include an item for general work requirements such as traffic control, mobilization, public information services, and survey. It is important to prioritize additives such that the most important additive is number 1 with each subsequent additive decreasing in importance. Additives must be awarded in order. This ensures that awarded items of work are not manipulated to select a contractor on any other criteria than low bid.

See the end of this document for example sheet indexes, additive title sheet, additive summary sheet, additive typical section, additive plan sheet, and Measurement and Payment.

Several items such as traffic control, mobilization, public information services, and survey are paid at certain times of the contract. It might not be desirable to use the standard payment method for these items on additives. This is especially true when the contractor will not begin work on the additives until significantly later during construction. Modifying the measurement and payment for these items used for additives might be desirable to reflect the anticipated construction schedule. Contact the Construction Division for further guidance if necessary.

Special Provisions

When using additive item bidding, use the **00516S** as a boilerplate guideline. Modify the special provision so that the additive and bid item numbers match the applicable project. The 00516S special provision is located at the following website:

<http://www.udot.utah.gov/main/f?p=100:pg::::1:T,V:3707>

Available Award Fund Amount

The available award fund amount is the funds available for construction, or the total amount available to award to a contractor. This amount could be less than the total engineer's estimate including the additives. However, this amount needs to be greater than the engineer's estimate base amount but less than the engineer's estimate base amount plus the 1st additive combined. Remember that this is **not** the total project value or commission approved amount which includes non bid items such as preliminary engineering, construction engineering, etc. Providing the budget enables the Construction Division to make the necessary arrangements for posting the budget amount to the website for the contractors at the completion of bid opening. The budget is published coinciding with the posting of unofficial bid results by 3pm date of bid opening. Posting this budget provides the necessary transparency to the contracting community so they know that the budget amount is not manipulated after bid opening to select a contractor. This amount must be entered into PDBS for it to be posted to the web on bid opening day. See the PDBS Entry section below for information on how this should be done.

Remember to include early completion incentives for the Time portion of the bid. The actual estimated Time cost is not included since incentive is the only time related payment.

The following is a link to the "Additive Bid Table" with instructions in order to calculate the "Available Award Fund" amount for an additive project:

<http://www.udot.utah.gov/main/f?p=100:pg:0:::1:T,V:1624T>

The "Additive Bid Table" demonstrates that the method to calculate the budget amount is the total project value minus all non bid items. Each individual project will have different non bid items. Use all non bid items that are applicable to the specific project. There are two things to remember in regard to the "Available Award Fund" amount. First, the "Available Award Fund" amount must always be greater than the base bid estimate amount so that the base bid is awardable according to the estimate. Second, the "Available Award Fund" amount must be less than the base bid estimate and the first additive. The total of the base and any of the additives must always be higher than the "Available Award Fund" amount. Additive bidding is not necessary if the total of the base and any of the additives is lower than the budget amount.

Advertising Checklist

The "Additive Bid Table" must be completed and included with the submission of the advertising checklist. Indicate that Additive Bidding applies to the project under the item for assemble special provision and supplemental specifications book. Reference the "Additive Bid Table" in calculating the "Available Award Fund" amount. Enter this amount into PDBS as described below.

Contingency

The goal of additive bidding is to award as much work as possible within the "Available Award Fund" amount. The maximum amount of work that can be awarded is the budget amount available for award. Calculate contingency as a percentage of this amount. There is no need to have a separate contingency for the base and each additive.

Price + Time Bidding

The estimate contains a separate time bid item for the base bid and each additive. The 00221S Bidding Contract Time special provision should be modified to describe how contract time is calculated. Typically, the sum of time bid for the base and awarded additives determines the contract time. Modify the table in 00221S – Bidding Contract Time to show a separate bid item for the base and each additive. If separate additive time segments are to be completed by the contractor within the base time frame, this needs to be noted as part of the 00221S specification. This will help to ensure the Central Construction sets the correct number of days on the project prior to award. See the PDBS Entry section for an example of how to enter this into the estimate.

Remember when establishing the “Available Award Fund” amount available for construction that the time estimate is a bid item, but incentive is the only time related payment. This means that projects only need available funding to cover early completion incentives.

See the Price +Time Bidding guidance document located on the UDOT webpage for further information.

Civil Rights Issue

Contact the civil rights office as soon as possible during the project and notify them that the project is using additives when requesting goals. Make sure to notify the civil rights office if the decision to use additives is made after the initial request for DBE goals so that necessary goal revisions can be made. Make DBE requests at least one week in advance. Construction requires project submittals by 12:00 noon on Wednesday for advertisement the following Saturday. Plan to contact civil rights no later than 12:00 noon the Wednesday prior to submitting to construction. Also contact civil rights if more than 3 months time passes between the original goal and actual advertising. Provide civil rights with any additional information they request.

Addenda

Make sure to provide all necessary information with each addendum submitted. For example, change the special provision so that the bid item numbers for the base and each additive match the estimate and measurement and payment. Update the “Available Award Fund” amount for award if necessary.

PDBS Entry

Additives should each have a separate detail in PDBS. Use detail 112 – Additive Bidding for all additives. PDBS will automatically number the additive. A brief description may be added after the additive number if necessary. See Figure 1 for an example of how this is to be done.

Figure 1 – PDBS Entry of Additives The additive budget amount must be entered into PDBS for the amount to be posted to the web on bid opening day. This is done in the estimate setup project maintenance window. Begin by clicking the Estimate Setup button on the right side of the screen, and then click the project maintenance button on the Engineer's Estimate Setup pop up window. See the Budget Amount section above for details regarding calculating this amount. This amount will be automatically pulled from PDBS to post to the web on bid opening day after bids are submitted, and before bid opening.

Project Development Business System (PRD3)

File Edit Sub Systems Estimate Window Help

Engineer's Estimate

Select Project: ADDITIVE Version 1: Estimate Edit Only Rights Estimate Setup

Detail	Description	DBE Goal	Alt Bid Grp #	Alt Bid #	Funding	Total
10 - ROADWAY		0	0			\$1,684,750.00
77 - MISC NON-BID: LIDOT CONTINGENC		0	0			\$170,000.00
78 - NON BID: COST ADJUSTMENTS	Cost Adjustments	0	0			\$0.00
79 - NON BID: INCENTIVES	Incentives	0	0			\$15,000.00
112 - ADDITIVE BIDDING	Additive #01: Side Street Paving	0	0			\$26,000.00
112 - ADDITIVE BIDDING	Additive #02: Additional Mainline Paving	0	0			\$85,000.00

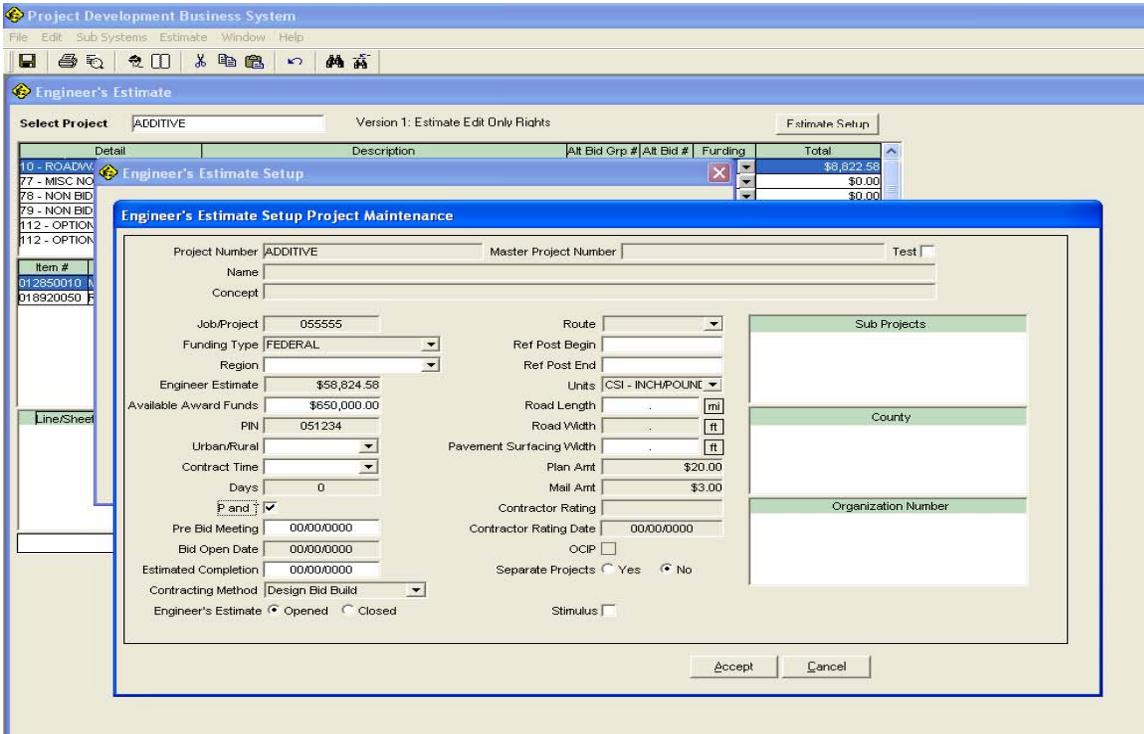
Item #	Description	DBE Work Type	Qty	UOM	Lump Qty	Lump Uom	Unit Price	Extended Price
012350010	Mobilization		1	Lump	0		\$10,000.00	\$10,000.00
015540005	Traffic Control		1	Lump	0		\$2,000.00	\$2,000.00
027410060	HMA - 3/4 inch		200	Ton	0		\$70.00	\$14,000.00

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	Info Only

Use Quantity: 1 Stationing Notes

Figure 2 – PDBS Entry of Budget Amount

Click the P and T Box



Enter in the Available Award Funds.

Figure 3 – PDBS Entry of Time for Base Bid Time Items

Enter the base time bid item under detail 180. Descriptions should match the table in 00221S.

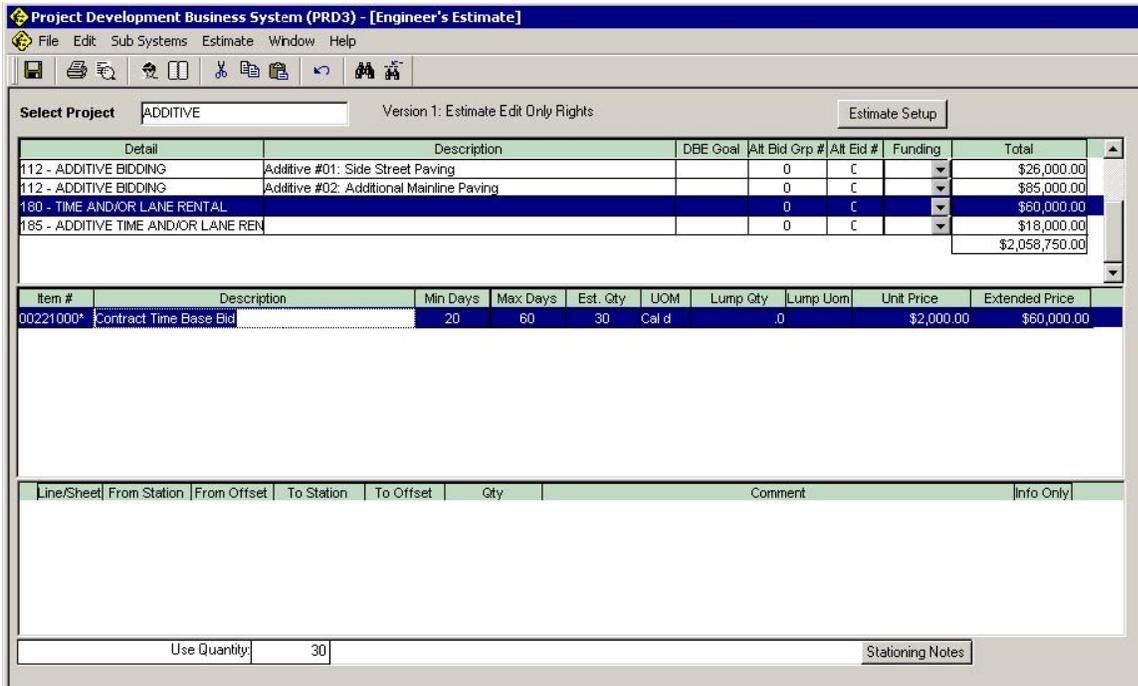


Figure 4 – PDBS Entry of Time for Additive Bid Time Items

Enter the additive time bid items under detail 185. Descriptions should match the table in 00221S.

Link the additive to the time item here. This facilitates bid evaluation.

Project Development Business System (PRD3)
 File Edit Sub Systems Estimate Window Help

Engineer's Estimate
 Select Project: ADDITIVE Version 1: Estimate Edit Only Rights Estimate Setup

Detail	Description	DBE Goal	Alt Bid Grp #	Alt Bid #	Funding	Total
112 - ADDITIVE BIDDING	Additive #01: Side Street Paving		0	0		\$26,000.00
112 - ADDITIVE BIDDING	Additive #02: Additional Mainline Paving		0	0		\$85,000.00
180 - TIME AND/OR LANE RENTAL			0	0		\$97,500.00
185 - ADDITIVE TIME AND/OR LANE RENTAL			0	0		\$18,000.00
						\$2,096,250.00

Item #	Description	Additive #	Min Days	Max Days	Est. Qty	UOM	Lump Qty	Lump Uom	Unit Price	Extended Price
00221000*	Contract Time Additive #01	Additive #01	1	13	5	Cal d	.0		\$2,000.00	\$10,000.00
00221001*	Contract Time Additive #02	Additive #02	1	10	4	Cal d	.0		\$2,000.00	\$8,000.00

Line/Sheet	From Station	From Offset	To Station	To Offset	Qty	Comment	Info Only

Use Quantity: 5 Stationing Notes