

CHAPTER 3 INTRODUCTION TO AN ESTIMATE

Organization of and Steps to Create an Estimate

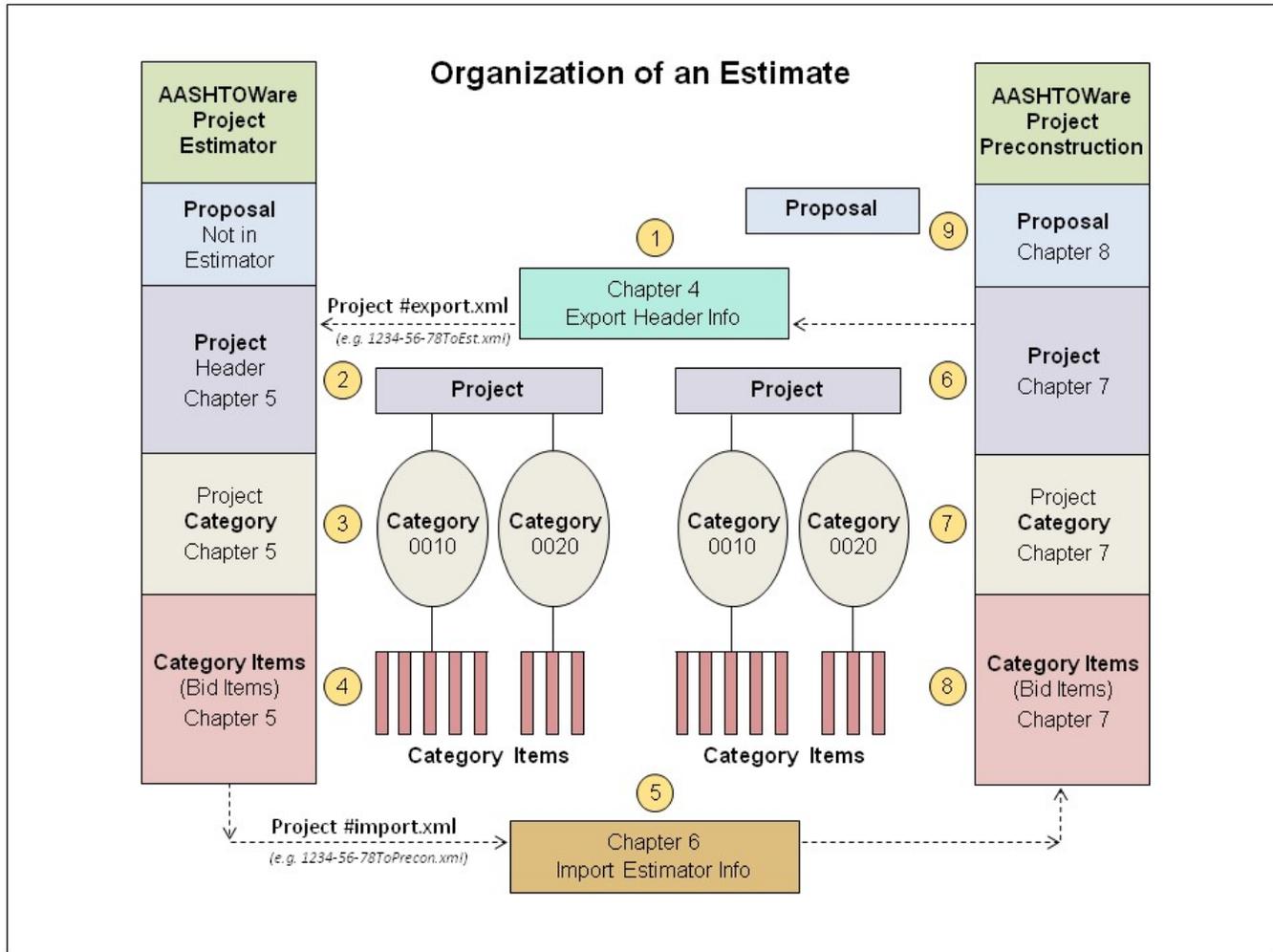


Figure 1

Steps To Create an Estimate:

1. Export Project to Estimator – Chapter 4
2. Creating an Estimate in Estimator – Entering Project Estimate Header Information – Chapter 5
3. Creating an Estimate in Estimator – Creating Project Categories – Chapter 5
4. Creating an Estimate in Estimator – Adding Bid Items – Chapter 5
5. Import Project from Estimator – Chapter 6
6. Revising the Estimate – Changing the Project Summary – Chapter 7
7. Revising the Estimate – Categories – Chapter 7
8. Revising the Estimate – Items – Chapter 7
9. Creating a Proposal Estimate for PSE – Chapter 8



Definitions

Bid Item

A bid item is a product or service to be provided by a contractor as part of a construction project. Bid items fall into several types.

1. **Standard Bid Items:** These are bid items that have been formally established and are applicable to a wide variety of projects. Standard bid items are listed and fully explained in one of the following sources.
 - a. The “Standard Specifications for Highway and Structure Construction”
 - b. Supplemental Specifications
 - c. Interim Supplemental Specifications
2. **Standardized Special Bid Items (STSPs):** These are bid items that have been proven useful in recent projects but have not yet been incorporated into Standard Bid Items. They do, however, have Standardized Special Provisions written for them which are incorporated in the project special provisions. STSP pay items will be given a standard seven digit number if appropriate once it is developed and will end with an ".S" to designate the spec language is still a special provision. They are explained in [FDM 19-15-85](#).
3. **Project Special Provision Bid Items:** These are bid items that have been set up for a specific project. They have no pre-established documentation so they must be fully explained in the project special provisions. Special Provisions will be numbered with an "SPV" prefix and be designated with a unique unit of measure. Similar to the current policy if more than one of that item number is needed in a project it will contain a unique description that is sequentially numbered between items. See the AASHTOWare Project Non-Standard Item Numbers table in *Chapter 5 – Creating an Estimate in Estimator* for a list of numbers and their associated unit of measure. Bid items are the building blocks for the next level, categories.

Categories

A category is a group of bid items in a project that are grouped together for one of the following reasons:

1. All the bid items have the same funding arrangements; or
2. All the bid items are associated with the same federal work type;
3. All the bid items are incorporated within a specific portion of work such as a category for each structure, the roadway items, etc.

Funding Arrangements

Bid items are grouped by funding arrangements to ensure that all the agencies that are paying for the work will pay only their fair share. This means the same bid item may appear in more than one category if different quantities of it are paid for in different ways. For example, a contract may involve work in both rural and urban areas. The rural section may be funded by a combination of federal and state funds while the urban section may have a combination of federal/state/local funding. In this case, those bid items common to both areas will be apportioned by quantity to two different categories. Field staff will then report the accomplishment of work by category so local agencies will pay for only that work they agreed to pay for and only when it is done. Funding arrangements are established in the Financial Integrated Improvement Programming System (FIIPS). Designers will need to get the funding information from FIIPS to complete the funding for the estimate in AASHTOWare Project Preconstruction.



Federal Work Type

FHWA requires the department to keep records on how federal-aid highway funds are spent. To do this FHWA has created a set of work types and the department reports work accomplished in each of these types. See the Federal Work Category table in *Chapter 7 – Revising an Estimate* for a complete list of federal work type codes. Just like categories, federal work types can encompass numerous bid items. For example, federal work type 01 is New Construction Roadway work.

Category Numbering

Each category has its own numerical code that determines the order of printout on the estimate. Category numbering is consecutive through a project. Begin with the first federal type as 0010 and continue with other categories (0020, 0030, etc.). End with those categories that do not have any federal or state funds. Remember, categories are set up for different funding situations as well as different federal work types. Another point to remember, category numbering is associated with a project. If a proposal has more than one project in it then the category numbering starts over with 0010 for the second project.

Project Estimate

A project estimate is the accumulation of categories and their associated bid items. A simple project may have only one category of bid items while a complex project may have numerous categories to fully describe the project's situation. See the division's policy on confidentiality for project estimates below.

The following statements are the division's policy on the confidential nature of estimates.

1. Final estimates of project costs based on estimated prices are confidential and for internal use by department and FHWA personnel.
2. Final estimates of project costs based on estimated unit prices remain confidential after bids are received.
3. A report showing total estimated cost of projects by ranges will be available from the Bureau of Program Management to the public upon request. The ranges may be modified to fit changing conditions upon approval of the administrator.
4. For projects with participation by local governmental agencies the final estimated cost of the project, based on estimated unit prices, should be rounded off to even amounts before being communicated to the sponsoring local government.
5. For situations not covered above, employees may use their discretion in releasing accurate final estimated costs, keeping in mind the concepts here-in-before set forth and that the final estimates are held confidential from the general public.

Proposal

A proposal is a contract that has not yet been signed by the Governor. This is the level of PS&E organization that is LET to bid. In simple situations a proposal may consist of only one project. In more complex situations a proposal may consist of several projects that have been combined for bidding purposes.



Using a Single Bid Item Multiple Times

Sometimes projects contain a single bid item that occurs several times on a project (e.g., Deck Drains [structure]). In these cases it is important for contractors to be able to establish individual bids for each individual occurrence of the item. In other cases a single bid item may occur several times on a project but has one quantity at the proposal level because it is prorated among funding categories (e.g., Field Office Type A).

Prorating is the process of subdividing a single bid item into fractional portions of one within a project and allocating these portions to certain categories of work based on their funding arrangements or to different projects within the same proposal (e.g. Mobilization).

General Rules for Using Items Multiple Times

Rule 1: Never prorate an item with unit of measure Lump Sum. The quantity of a Lump Sum item must ALWAYS be 1.0. For an item that cannot be prorated between categories of a project or proposal, one standard item number plus a supplemental description will be filled in and contain numbering to start the supplemental description along with the appropriate specific detail asked for in the standard item (i.e., station, parcel, project, structure, etc.).

Example:

206.1000 Exc for Structure Bridges (structure) 1.0 LS
02. B-15-0069

206.1000 Exc for Structure Bridges (structure) 1.0 LS
04. B-15-0076

Each item would have a quantity of 1.0 LS and not be added together at the proposal level.

NOTE: Numbers at the beginning of supplemental description do not have to be sequential, but each item that contains () in its title must always begin its supplemental description with a number.

If one or more project is contained in the proposal the numbers in the supplemental description for an item should not be duplicated.

Rule 2: Certain items such as traffic control, field office, field laboratory, finishing roadway, and maintenance and repair of haul roads can be prorated among categories of a project. One standard number plus a supplemental description will be filled in along with the appropriate specific detail asked for in the standard item. (i.e., station, parcel, project, structure, etc.). The supplemental description must be exactly alike so that it is added up at the proposal level. You can only prorate items out to **2** decimal places.

Example:

Project 1
Category 0010
213.0100 Finishing Roadway (project) 0.3 EACH
01. 1000-00-71

Category 0020
213.0100 Finishing Roadway (project) 0.7 EACH
01. 1000-00-71

Each item must add up to 1.0 EACH per project at the proposal level.



Project 2
 Category 0010
 213.0100 Finishing Roadway (project) 1.0 EACH
 02. 1001-01-72

Project 2 would have a quantity of 1.0 EACH and will not add up with Project 1 at the proposal level due to different supplemental descriptions.

Rule 3: 619.1000 Mobilization is the only bid item that must be prorated among multiple projects in a contract and the item of Mobilization can be prorated between categories within a project when appropriate (i.e. categories representing major portions of the project should always have the item of Mobilization included; categories representing minor portions of work can receive a prorated portion of the Mobilization item if there is a reason that makes it appropriate. Smaller categories of a project do not have to include Mobilization if there's no reason that makes it necessary. In addition, prorated items should never be carried out beyond 2 places right of the decimal point). Field Office can follow this same rule if necessary.

Example:

Project 1
 Category 0010
 619.1000 Mobilization 0.25 EACH

Category 0020
 619.1000 Mobilization 0.25 EACH

Project 2
 Category 0010
 619 1000 Mobilization 0.25 EACH

Category 0020
 619.1000 Mobilization 0.25 EACH

Each item may have a quantity of 0.25 and adds up to 1.0 EACH at the proposal level.

Proratable Items

Prorated / Contract	Prorated / Project	Number	Unit	Description
	X	213.0100	EACH	Finishing Roadway (project)
	X	618.0100	EACH	Maintenance and Repair of Haul Roads (project)
X		619.1000	EACH	Mobilization
X	X	642.5001	EACH	Field Office Type B
X	X	642.5201	EACH	Field Office Type C
X	X	642.5401	EACH	Field Office Type D
X	X	642.6001	EACH	Field Laboratory
	X	643.0100	EACH	Traffic Control (project)
	X	643.2000	EACH	Traffic Control Detour (project)

