EBASE
User's Guide

August 2018
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Introduction

What is EBASE
Estimate and Bid Analysis System.

EBASE is a flexible, user friendly system for communication of estimate data and creating estimate reporting for projects. This system is intended to take the estimate through the entire development of a project. Estimates may be entered during the scoping phase and carried through As-Builts. Versioning allows for “snapshots” of estimates at given points in time.

There are three areas or “modules” that comprise EBASE.

- ESTIMATES
- Standard Items / Unit Bid Analysis
- BIDS

Estimates is the module that most users will interface with. In this module project estimates are built and financial information is entered. Estimate reporting documents and Summary of quantities plan sheets are generated and bid documents are created.

Standard Items / Unit Bid Analysis module is a database that stores all bid items and bid history information. Standard items provide consistency in the engineers’ estimate and project specifications, capture item costing data and provide information about “reasonable” cost of bid items based on project conditions.

Bids Module is used in the determination of qualified contractors who will be allowed bid on the work to be performed with the project. This module is also used in the determination of project award.
Who uses the information entered into EBASE?

EBASE Creates and stores a permanent record and history that may be shared by many users Statewide. These include project offices, subject matter experts in the resource offices, project development, construction, contract payments, contract ad & award and program management.

EBASE Supports and is a crucial link as the conduit for estimate and financial data between these offices statewide. EBASE provides reports used in many facets for keeping the highway programs on track, determining lowest responsible bidder for awards, contract payments, as well as interfacing and providing data to systems such as – CCIS, CAPS, BIDS, TRIPS and the DATAMART.

In its Primary function, EBASE provides department estimators access to Historical Cost Data for analysis enabling the development of accurate estimate documents for construction projects.
EBASE Data Entry structure

The Estimate information entered into EBASE will create reports that not only produce the engineer’s estimate that allow the agency to understand and quantify a reasonable cost for the project. It also provides reporting on contractor qualifications necessary to bid the work, what program monies will be applied to various portions of the work, tax burden and financial partner obligations.

The entry structure for EBASE allows for bid item quantiles and cost to be distributed so projects costs may be managed appropriately.

For additional information on when to create Groups and Columns See the “Group Break Rules” and “Column Break Rules” in those sections of this guide.
Additional Resources for creating your EBASE estimate

- CPMS / Program Management
- Plans Prep Manual – Division 8
- Agreements
- TRIPS GEOMETRIC Report
- PROJECT SUMMARY
- Project Plans
- L.S Calc. Sheets
- Bid Tabs Pro / Unit Bid Analysis
- Cost Estimating web site
EBASE – COST ESTIMATES

WHY ARE THEY IMPORTANT?
The Project Estimate

If we were to gauge importance by how frequently we are asked about any aspect of a project, Cost Estimating would be the TOP PRIORITY – Because no question is asked about so often and repeatedly as is “How Much does it cost?” & “Why”, throughout its’ lifetime.

Why is the Estimate SO important?

Cost estimates determine how much money is needed over time to support key programs such as the Highway System Plan, Capital Improvement and Preservation Program, and the Biennial Program.

WSDOT does not have sufficient funds to design and construction every project that is needed. So we prioritize projects. Cost estimates can be used in benefit cost analyses to prioritize a list of projects within a program.

At some point in the project development time line this project cost estimate will become the baseline budget used to control the funds allocated to the project.

Cost estimates are used to:

- Obligate funds such as for the biennial budget or for construction at bid.
- By Program Management to determine when the funds are needed so when an estimate is combined with a schedule a project cash flow or “aging curve” is prepared.
- Determine fair price for contract work.
- Compare/analyze contractor’s bids and whether to award or not.
Estimate Accuracy.
Regardless of method used to prepare the estimate (bottom up, parametric, bid history etc.) or its confidentiality, the estimate must be credible to be effective.

FHWA measures the departments’ ability to deliver “Effective & Credible” estimates. They state that to achieve consistently accurate estimates, or (credible) estimates, our estimates must be within +/- 10% of the Low Bid price at least 50% of the time on each of our projects.

The preparation and accuracy of the engineer’s estimate should be reviewed if estimates are consistently higher or lower than the bids received, or if other anomalies consistently recur.

What do you notice about the bullets in the figures? Even when they are consistent and accurate, they are not located one on top of the other.

In relation to cost estimates, this means that there is always some variation in cost estimate no matter how well defined the scope is for a project.

The challenge becomes, “How close can we get to the target or baseline cost estimate?”
Creating and Maintaining Credible Estimates

Do not relegate estimating to a last minute after-thought. Make estimation a priority by allocating time and staff resources.

Integrate cost estimating into our project work-plans; it should be as well organized and planned as our other project development efforts. i.e. base-maps and topographic surveys, geometric design, or any other design element.

Stay in shape (good estimating shape) – bid history is not enough. Consult with subject matter experts, industry and contractors, and other cost estimating resources.

Check Lessons-Learned and construction cost-trends; talk to others:

- Revisit bid tabs pro to analyze changing bid item cost trends for the major work elements, at least every 6 months to keep the estimate current.
- Make sure if design changes that the quantities in the estimate reflect the changes.
- As specs are developed, make sure they are taken into account as the estimate is updated.

A project baseline cost estimate is set during programming or early in preliminary design, endeavor to manage to this estimate throughout project development. However, scope; requirements; market conditions and other variables continually evolve so, use tools such as Cost containment Tables for timely decision making that indicate when projects deviate from the baseline.

Practice estimate transparency with disciplined communication of the project cost risks & uncertainties.

Estimators may at times may be exposed to pressure from internal and external sources to provide low cost estimates, document your estimate cost decisions, record assumptions, costing sources, constraints, risks and any additional factors that affect the cost of your project. A well-documented estimate, is a defendable estimate.
Cost estimation practice

1. **Complete every step in the estimation process** during all phases of project development. (use estimate quality checklists)

2. **Document estimate basis**, assumptions, and back-up calculations thoroughly. (create and maintain a “Basis of Estimate” document)

3. **Identify project risks and uncertainties** early, and use these explicitly identified risks to establish appropriate contingencies.

4. **Anticipate external cost influences** and incorporate them into the estimate.

5. **Perform estimate reviews** to confirm that the estimate is accurate and fully reflects project scope.
WORKING WITH ESTIMATES
Getting Started Using EBASE

Log into EBASE

EBASE system log-in. **Production** is the default selection. Always use this setting.

Click **OK** to continue to the Estimates Selection or **EXIT** to cancel EBASE.

Broadcast Message

It is important to check this screen each time you log into EBASE. This screen will inform you of new policy or procedural changes that effect estimate data entry as well as upcoming system maintenance.

After reading the message, you may close this screen by clicking the **Close** button.
FIRST TIME EBASE USERS

EBASE will need to be set to default to your Region Estimate listing.

Click **FILE**
Select **CHANGE REGION**
from the drop-down menu select your Region
Click **CLOSE**

EBASE will now be defaulted to display only those estimates in your current Region
Most users’ of EBASE are “Estimates” users, accessing features of the program to view or create the Engineer’s preliminary estimate for projects. The guidance provided here will focus on the information necessary to create and revise estimate data.

Initial Navigation
Initially opening EBASE, User’s will be presented with a navigation screen that will allow them to access various modules of EBASE depending on their access permissions. Selection is available from the icons listed below.

Exit: This will exit you from EBASE

Estimates: Opens the Estimates Selection Window.

New: Click on this button to create a new estimate.
   The New Estimate screen is displayed.

Std Item: Opens the Standard Item Table in inquiry mode. From this screen, the Standard item table may be sorted and filtered to display specific information or the entire table can be printed using the “Print” button.

Unit Bid Costs are also available from this screen by right-clicking on the standard item number. Quantities of the item used in listed projects and the three low bids may be viewed for the item. Additional project specific information is available for any of the listed projects by right-clicking again on the project number.

Non-Std: These are “standard” items typically used in railroad projects, but are non-standard for use in highway or marine projects. As such they are not covered in WSDOT specifications and when used will require a Project Special Provision.

Help: Opens the internet EBASE help web site.
Finding and Creating Estimates

The Estimates - Job Selection Window has options for five views into which various sets of estimate are listed.

Estimates to View

- **Current Versions** – (default view) These are the most current versions of working estimates in progress that have yet to be awarded. Current versions are only accessible to designated estimate owner/creator, Region Plan Reviewers and System Administrators.

- **All Estimates** – all versions of the engineer’s estimate, current and superseded.

- **Deleted** – Estimates placed in this folder will be removed from the EBASE database upon request from the estimate owner. Please contact your Region Plans Review to request permanent deletion. This folder also serves as the Estimate archive for the Final Engineer’s Estimate, and contains historical estimates from 1998 to present.

- **Awarded** – (also known as version 99 estimates) these are copies of the estimate with the “Awarded Bidder’s” bid prices entered.

- **As Built** – These are copies of the estimate that enable revision of the estimated quantities to final “As-Built” quantities. These versions are created from the “Awarded” or Awarded Bid estimate by advancing the version, to version 100. [see figure 1]

From the Awarded File, Select and Open your estimate.

On the General Info Tab: CLICK, Duplicate/New Version button
Verify the New version is “100”

CLICK, OK
The new version 100 will be created in the “As Built list.”
### Finding the estimate you are looking for

Estimates are shown alpha-numerically by the **Job Number** column in the Estimate Selection window. Use the scroll bar or the up and down arrows to scroll through the estimate listing.

<table>
<thead>
<tr>
<th>#</th>
<th>Region</th>
<th>Job No</th>
<th>Version</th>
<th>Work Order</th>
<th>W.I.N.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NCR</td>
<td>16B008</td>
<td>1</td>
<td>000000</td>
<td>B00008D</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B009</td>
<td>4</td>
<td>XL4573</td>
<td>B153001</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B010</td>
<td>3</td>
<td>XL4878</td>
<td>B00008E</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B011</td>
<td>2</td>
<td>XL4892</td>
<td>B002891</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B012</td>
<td>3</td>
<td>XL5209</td>
<td>B000207</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B013</td>
<td>2</td>
<td>XL4878</td>
<td>B00008J</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B011</td>
<td>2</td>
<td>XL4892</td>
<td>B002891</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B012</td>
<td>3</td>
<td>XL5209</td>
<td>B000207</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B013</td>
<td>2</td>
<td>XL4878</td>
<td>B00008J</td>
</tr>
<tr>
<td>2</td>
<td>NCR</td>
<td>16B011</td>
<td>2</td>
<td>XL4892</td>
<td>B002891</td>
</tr>
</tbody>
</table>

Estimates may be Sorted by any of the columns in the Estimate selection window by Clicking on the column heading, or multiple Sort criteria may be applied by using the **SORT** button to move the sort criteria into the **Columns** column of the sort specification window.
Using the Filter

To quickly find an estimate in any Region use the filter button:

**To Find By Project Title:**

Example - all projects that contained “Seismic” in the title.

ENTER:  `title like '%'+SEISMIC+'%'`

(This is case sensitive; words in the title must be exact).

**To Find by Job Number:**

ENTER:  `Job number = '16B001'`

For Additional filtering information, please see “Using the Filter Function” on the EBASE web site.
Creating a New Estimate in EBASE

Use the New button to create a new estimate template. In the New Estimate dialog box, enter a Job Number for the new estimate.

**Job Number**

Enter the name you wish to call your estimate or the PS&E job number of the project for which you are developing an estimate. For example you may use an estimate name such as XL1234 or a PS&E job number such as 17Y003.

**Region**

This will default to your Region. If this field is blank, or displays a Region that you are not currently assigned to, please see the procedure for changing your region under “First Time EBASE Users”

CLICK OK
CLICK Yes to generate a new blank estimate in the “Current Versions” list.
DOUBLE-CLICK on the estimate to open.
EBASE – GETTING STARTED

GENERAL PROJECT INFORMATION
The General Info tab is the first tab in the Estimates Window and contains basic project identifiers, estimate contacts and information on costs that are applied on an estimate wide basis. From this screen additional actions are performed that communicate estimate data to other WSDOT systems, create plan sheets for contract bid documents and manage the estimate within the database.
General Info Tab Fields

Title
The title field consists of four lines,

Line 1 – is the state route or county road, etc.
Enter the start route indicator and number
[i.e US 101, I 90, SR 8]
Facilities projects will enter BLG to indicate for non-highway projects, WSF terminal project will enter the State Route that terminates at the given dock.
Line 2 - Enter the first line of project title (as it will be shown on the contract plan sheets)
Line 3 - Enter the second line of title (leave blank if not needed)
Line 4 - Enter the PS&E job number (a valid PS&E job number must be entered to allow the project title to be printed on the contract documents for bidding)

Last Update
This date is an automatic field and shows the last date an existing estimate was modified.

Locked
A “Y” will appear in this field if an existing estimate has been locked. Once an estimate version has been locked no further revisions may be made to that version. To make additional changes to the estimate the version must be advanced to the next version. If an estimate is inadvertently locked, call your Region EBASE Administrator.

Project Numbers

Contract Number
The number assigned to a project by HQ Accounting office when a project goes to advertisement. This number is entered by HQ Contract Ad & Award office. It may not be revised or modified.

Work Order Number
Enter the work order number that preliminary engineering work is billed against (i.e. 0L1234).

W.I.N.
Enter the Work Identification Number which this project is assigned to.

Region
Defaults to the users region. This field may be used to transfer ownership of an estimate to another region. (If your Region is not shown as default, See page 2 of “Getting Started” section of this guide)
**Measurement System**

![Measurement System: ENGLISH](image)

English is the default selection. The measurement system selection is tied to the Standard Item table available for the estimate. If Metric items are needed, Please contact the EBASE system Administrator.

**Estimate Percentages**

Two percentage figures are entered on the General Info tab, these are (change order) Contingency and (construction) Engineering. These percentages are applied to the total of the contract bid item work + sales tax + some below the line work

**Contingency Percentage**

This is the Change Order contingency approved for this project. “Contingency percentages” are set up to pay for changes in a project during construction. These may include unforeseen conditions that require additional work or materials quantity over-runs, etc. The default approved amount for projects is 4%. Should special conditions exist that require additional contingency dollars, contact Region Program Management for approval.

NOTE: This entry is in decimal format, (i.e. If 4.00% then enter .04)

**Engineering Percentage**

Percentages entered on this field are to pay for operating costs associated with project administration that will be required during project construction and will vary depending construction size and complexity.

See Construction Engineering Percentages & Contingencies tables for average percentages dependent on project type and size.

These tables are provided for guidance only and reflect the “average” project, appropriate percentages may be higher or lower. Use these figures as a starting point and consider how your projects unique characteristics affect the contract administration needs in determining the final percentage required to administer project construction.
Contacts

This area is provided to enter contact information for the estimate. Fill these in completely with the names of the responsible parties for the design, estimation, and construction of the project.

<table>
<thead>
<tr>
<th>Contacts:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Design Project Engineer:</strong> JONH DESIGN PE</td>
</tr>
<tr>
<td><strong>Construction Engineer:</strong> JANE CONSTRUCTION PE</td>
</tr>
</tbody>
</table>
General Info Tab Command buttons

| Save | Summary of Quantities Revisions | Move to Bids | Access | Duplicate / New Version |

There are four Command buttons available:
- Save
- Summary of Quantities Revisions
- Access
- Duplicate/New Version

**Save** – Saves current revisions to the estimate

**Summary of Quantities Revisions**

This screen is where Page Numbers are added to the SQ plan sheet. It is also where Addendum revision notes are made to the SQ plan sheet. ([see “Setting up Addenda items”](#)]

**Access**

When you create an estimate, you are automatically entered as the owner. As the owner of the estimate you may grant access to users who may make modifications to the estimate, transfer ownership or remove users who have access to the estimate.

Use the **ADD** and **DELETE** buttons to modify users who may access and modify the estimate. To modify estimate Ownership, place a checkmark in the Ownership box by the user’s ID.
Duplicate/New Version

A Duplicate may be made of any estimate you have access for in EBASE. A duplicate is created by entering a new **Job Number** in the job number field and clicking **OK**.

Duplicates can be created to run optional estimate scenarios or using as a starting template for similar jobs.

New Versions are created by simply clicking the OK button in the Duplicate/New Version window. A new version must be created for estimates once they have been turned in for advertisement, but may be created at any time if a “snapshot” of an estimate is needed.
Text Data tab
The Text Data tab provides areas to enter text that will be added to several of the estimate reports. Some of this text is required descriptive information about the project, while other text is informational about the nature or status of items like agreements and things that effect cost of the project.

The Text Data tab contains three sub tabs:
- Project Remarks
- Proposal Description
- Type of Work

Project Remarks
Use the Project Remarks text area to communicate informational facts. Here information is entered that effects the entire project, specific portions of the work and funding partners.

All text entered in this area will be shown on the bottom of the Preliminary Estimate Summary Report (see EBASE Reports Explained – PE Summary)

AGREEMENTS:
HR6-0302 WIDE LOAD AGREEMENT WITH TOWN OF ...
HR6-0303 WIDE LOAD DETOUR WITH COUNTY
 ---------------------------------------------------------------
NICKLE FUNDS ONLY
 ---------------------------------------------------------------
CONSTRUCTION PERMIT WITH CITY ON FILE
Proposal Description

The text entered in the Proposal Description area is used to capture the specific project location information. This text must be specific and accurately entered. Mile Post limits need to match any shown in specifications, project description and the contract cover page.

The proposal description will contain:
(each required entry will be followed by a comma)

- State Route type and number
- County name
- Mile Post Limits for each listed route
- Project Title
  And
- State Project (if no Federal funding sources are included
  Or
- Federal Project (if Federal funding is present)
Type of Work

Use the Type of Work text area to communicate a concise statement of the project scope and general construction activities. These should be comprised of the major items of work as described in the contract Description of Work.

The information enter on this tab is shown at the top of the Preliminary Estimate Summary report. (see figure - PE Summary 1)

THIS CONTRACT PROVIDES FOR THE IMPROVEMENT OF SULLIVAN ROAD FROM MISSION AVENUE TO INDIANA AVENUE AND PINES ROAD AT I-90, IN SPOKANE COUNTY. THIS WORK SHALL CONSIST OF REMOVING ASPHALT CONCRETE PAVEMENT, PLACING PORTLAND CEMENT CONCRETE PAVEMENT, PAVEMENT MARKING, UPGRADING SIGNAL SYSTEM COMPONENTS, ADJUSTING INLETS, AND OTHER WORK.

PE Summary 1
EBASE – ESTIMATE FUNDING

ENTERING FUNDING & CONTRIBUTING PARTNERS
Funding tab

The Funding tab in EBASE is used to setup and assign the approved Construction funds to pay for the appropriate work. With these screens, fund sources are created by combining contributing participants, assigning their rate of participation and the sequence of participation (who’s money gets spent first)

The Funding tab contains three sub tabs:
- Funds
- Participants
- Fund/Participant Matching

The Funds and the Participants tabs contain lists that the estimator creates. These lists provide the data necessary for “Fund” setup in the Fund/Participant Matching tab, or the funding sources that will later be assigned to the bid item work.

Funds

Use the Funds tab to create a Fund number to which funding participants will be assigned. This permits a Fund to be comprised of a single participant or a set of multiple participants as contributors to individual funds.
Creating a Fund

Click **ADD** to insert a blank field.
Any number sequence may be used to signify fund numbers, e.g. 1, 2, 3… 10, 20, 30.

**Agreement Message/Fund Remarks** notation box provides an area to communicate significant information about the fund that does not appear anywhere else in the estimate reports. It is an especially good idea to add descriptive fund specific text if the fund is an agreement, but should also be used to describe types of Federal and State Dollars being used. (see figure e2 Fund Remarks)

To enter a Fund Remark, Double-Click on the fund number to display the remark entry box.

![Fund Remarks](image)

*Figure 2 - Fund Remarks*

**Participants**
Participants are entities who are contributing funding dollars toward the construction of the project. These entities can be State, Federal, Local agencies and sometimes Agreements.

Enter all the individual participants on this tab. Each participant must be on its own line and have a unique name. Should there be multiple sources from a single entity, such as various Federal sources; include the funding type to the name, i.e “FEDERAL STP”, “FEDERAL NH” etc.
Entering the participants

Click the ADD button to insert blank participant lines.
- Enter the Participant Name
- Enter the complete Federal Aid project number (for Federal funds only)
- Enter the Funding indicator: State, Federal, City or Other

Click SAVE and begin entry of the next participant.

Fund/Participant Matching

A Single fund may have as many as four participants. Each of these participants contributing a portion of the money for the entire fund, that portion will be dependent on three criteria:
- Participation percentage
- Funding sequence
- Maximum Amount (an agreement for a contribution limit)

Participation Percentage is the participants “share” of the project cost. Some examples of this for Federal participation are:

- Interstate Maintenance 90.66%
- STP Non-Interstate 86.50%
- NHS Safety 100%

See CPMS Finance Codes and Federal/Non-Federal Share

http://www1.wsdot.wa.gov/Planning/CPDMO/FederalAid.htm
Final fund creation is accomplished on the Fund/Participant Matching tab using the information previously entered on the “Funds” and “Participants” tabs.

Matching the Data to Create Funds

Click the ADD button to insert blank fund/participant matching lines.

- Use the pull-down menu to select a Fund Number.
- Use the pull-down menu to select a Participant.
- Enter the Funding Sequence (1, 2, 3, 4. Ideally funds should contain no more than four participants).
- Enter the Participation Percentage (enter as a decimal, i.e. 100% will be entered as "1")
- Enter a Maximum Amount IF APPLICABLE. (Maximum amount participants are always entered at 100% Participation Percentage)

Deleting a Fund

To DELETE a Fund, Start on the “Fund/Participant Matching” tab and delete each line of the fund. Now you may go to the “Funds” tab and delete the fund number itself.

Attempting to delete a Fund prior to removing it’s participant matches will create an error.
Notes about Funds

- Participants MAY participate in more than one fund.
- All participants in a fund, must be entered under the same fund number.
- Participants within the same fund cannot have the same funding sequence.
- No fund may consist of only a single participant that has a Maximum amount assigned. Maximum Amount participants must have a backup participant to pay for any costs that may occur over the maximum amount limit.

How Funding Sequence Effects Participant Contribution

Funding Sequence identifies what order they pay into the fund. This can have a significant effect on the amount of money they contribute.

**EXAMPLE:** In a $1,000,000 project, a participant who is the primary contributor (sequence 1) with a participation percentage of 50% will contribute $500,000. However, if they are the secondary contributor (sequence 2) placed after a participant who is participating at 80%, they will then only need to contribute $100,000.

(see an example of a Fund setup on the next page)

When assigning Funding Sequence within a fund, the order of precedence is:

- **Maximum Amount** (these entities have an agreed upon monetary limit to their contribution)
- **Federal** dollars
- **State** dollars

STATE dollars should always be placed as the final participant in any fund. Additionally, no fund should be created where there is only a single participant - other than STATE. Exceptions to this may be arranged with Program Management.
How Sequence and Percentage effect contribution

The Example Fund 5 shown below includes of four participants.

<table>
<thead>
<tr>
<th>Participants</th>
<th>Fund Sequence</th>
<th>Participation %</th>
<th>Actual $$$ Participant is obligated to contribute based on their Participation %</th>
</tr>
</thead>
<tbody>
<tr>
<td>King County</td>
<td>1</td>
<td>100 %</td>
<td>$20,000</td>
</tr>
<tr>
<td>Agreement for $10,000</td>
<td>2</td>
<td>100 %</td>
<td>$10,000</td>
</tr>
<tr>
<td>Federal</td>
<td>3</td>
<td>86.50%</td>
<td>$60,550</td>
</tr>
<tr>
<td>State</td>
<td>4</td>
<td>100%</td>
<td>$9,450</td>
</tr>
</tbody>
</table>

FUND # 5 Total = $100,000
EBASE – GROUPS

SETTING UP GROUPS
The Groups Tab is used to enter a description of a Group of associated work and all specific information about the financial resources attached to that work.

There are two separate areas displayed on this tab.
• Group Number List – A listing of Groups created
• Group Details

![Groups Tab Image](image-url)
When is it required to create a group?

A separate group is required for the following:

1. Whenever there is a change in the program item number (PIN).

2. Whenever there is a change in program or sub program (I2, P1, P2, etc.).

3. Whenever there is a change in funding (any change in funding participants, their individual participation rates, or their source of funding).

4. Whenever there is a change in control section.

5. A separate group (one per project) is required for the bid item “Reimbursement for Third Party Damages”.
   - This is the only item to appear in this Group.
   - This group must be a State Funds only group.

Separate Groups will also be required for work added by addendum (see Addendums).

Group Details

The Group details area is for briefly describing a Group of work to be performed. It may contain type and location information if needed. The Group details area also serves to identify all the financial information that is tied to the work that will be performed under this Group.

County

For each Group, select the county in which the contract work is being performed from the pull-down list.

Fund number

Funding units must be created on the funds tab before a fund source can be selected for a Group of work.

Select the Fund number from the pull-down list for this group. The fund selected will determine the funding participants who will be contributing monies for the contract work performed under this Group of work.

If no funds are available for selection, see the Funding Tab section of the guide to learn how to create Funds.
**Group Description**

Enter a brief group description, location of group work, roadway width and type (if applicable), or other pertinent comments specific to the group.

**Program**

This is the Highway System Capital Program that a Group of work is programmed under. A contract may have multiple programs under which work has been programmed, but each EBASE Group may only have one. If your estimate contains work from multiple programs, a new group will have to be created for each one.

To enter a program, select the appropriate program from the pull-down list.

**Capital Improvement Programs available for selection in EBASE**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D1</td>
<td>PROGRAM DEVELOPMENT</td>
</tr>
<tr>
<td>D2</td>
<td>SAFETY IMPROVEMENT</td>
</tr>
<tr>
<td>D3</td>
<td>PLANT CONSTRUCTION</td>
</tr>
<tr>
<td>D4</td>
<td>PLANT MAINT. &amp; OPERATION</td>
</tr>
<tr>
<td>D5</td>
<td>OPERATIONS MGMT/SU</td>
</tr>
<tr>
<td>E1</td>
<td>TRANSPORTATION EQUIPMENT FUND - STATE</td>
</tr>
<tr>
<td>I1</td>
<td>MOBILITY IMPROVEMENT</td>
</tr>
<tr>
<td>I2</td>
<td>ECONOMIC INITIATIVES IMPROVEMENT</td>
</tr>
<tr>
<td>I3</td>
<td>ENVIRONMENTAL RETROFIT IMPROVEMENT</td>
</tr>
<tr>
<td>I4</td>
<td>REGIONAL TRANSIT AUTHORITY</td>
</tr>
<tr>
<td>I5</td>
<td>TACOMA NARROWS BRIDGE</td>
</tr>
<tr>
<td>I6</td>
<td>REIMBURSABLE INVESTMENTS ON STATE HIGHWAY SYSTEM</td>
</tr>
<tr>
<td>M2</td>
<td>MAINTENANCE FUNDS, ASPHALT</td>
</tr>
<tr>
<td>M3</td>
<td>MAINTENANCE FUNDS, SERVICES TO OTHERS</td>
</tr>
<tr>
<td>M4</td>
<td>MAINTENANCE FUNDS, SAND/STOCKPILE</td>
</tr>
<tr>
<td>P1</td>
<td>ROADWAY PRESERVATION</td>
</tr>
<tr>
<td>P2</td>
<td>STRUCTURES PRESERVATION</td>
</tr>
<tr>
<td>P3</td>
<td>OTHER FACILITIES PRESERVATION</td>
</tr>
<tr>
<td>P4</td>
<td>PROGRAM SUPPORT PRESERVATION</td>
</tr>
<tr>
<td>P5</td>
<td>LOCAL INVESTMENT OFF STATE SYSTEM</td>
</tr>
<tr>
<td>Q2</td>
<td>TRAFFIC OPERATIONS</td>
</tr>
<tr>
<td>Q3</td>
<td>SPECIAL ADVANCE TECHNOLOGY PROJECTS</td>
</tr>
<tr>
<td>R2</td>
<td>MAINTENANCE - OFF STATE SYSTEM</td>
</tr>
<tr>
<td>R3</td>
<td>SALES AND SERVICE TO OTHERS</td>
</tr>
<tr>
<td>T3</td>
<td>RESEARCH AND LIBRARY SERVICES</td>
</tr>
<tr>
<td>X1</td>
<td>OPERATIONS - VESSELS</td>
</tr>
<tr>
<td>X2</td>
<td>OPERATIONS - TERMINALS</td>
</tr>
<tr>
<td>X3</td>
<td>OPERATIONS - MANAGEMENT &amp; SUPPORT</td>
</tr>
<tr>
<td>X4</td>
<td>MAINTENANCE - VESSELS</td>
</tr>
<tr>
<td>X5</td>
<td>MARINE MAINTENANCE</td>
</tr>
<tr>
<td>X6</td>
<td>MARINE MAINTENANCE - TERMINALS</td>
</tr>
<tr>
<td>X7</td>
<td>MAINTENANCE - MANAGEMENT &amp; SUPPORT</td>
</tr>
<tr>
<td>Y5</td>
<td>RAIL CAPITAL - STATE</td>
</tr>
<tr>
<td>Y6</td>
<td>RAIL CAPITAL - STATE</td>
</tr>
<tr>
<td>Z2</td>
<td>TRANS AID</td>
</tr>
<tr>
<td>Z9</td>
<td>LOCAL PROGRAMS</td>
</tr>
</tbody>
</table>

**State Route Number**

The state route field is filled in automatically when the control section has been entered. This field may be overwritten if desired.

**Federal Work Type Code** (for Federally funded projects)

Choose a code from the pull-down list. *(For additional codes see EBASE CODES Federal Work Type Codes)*. For certain Work Type Codes such as SFTY also Choose a Safety Class Code.

**Tax Rate**

The Tax Rate field is filled in automatically when the control section has been entered. This field may be overwritten if necessary.
**Program Item Number (PIN)**
This is the assigned Program Item Number that identifies the project in the WSDOT Construction Program. Leave this blank for Trans-Aid projects.

(Click the **Save** button after you enter the information for each new group).

**Control Section Number**
This list contains all the control sections that lie within the County you previously selected.
This list is sorted by State Route and beginning milepost. Use the pull-down list to scroll through and select a Control Section from the list. If the Control Section number is known, it may be typed in.
Creating Groups

- By default, EBASE creates an “INITIAL DEFAULT GROUP”. Overtype this text with your first group description wording in the group description field.
- Enter the group specific information in the blank fields. You may utilize the pull-down lists.
- Click the SAVE button.

Adding Additional Groups

Additional groups may be added by Clicking on the ADD button.
- Enter the *number of the new group in the Add New Group box and click OK.
- Enter the group specific information in the blank fields.
- Click the SAVE button.

Please note that although EBASE will accommodate the creation of more than 99 groups, other systems such as *CAPS are limited to 99. Do Not enter numbers higher than 99.

Additionally: the CAPS system reserves Group #60 and #90, these may not be used for EBASE work groups.

* Contract Administration and Payment System

Deleting a group

To delete a group, highlight the group number that you wish to delete and click on the DELETE button. When you delete a group, all columns associated with that group will remain in the system. Any columns associated solely with a deleted group must also be deleted or reassigned to other groups.

Moving a group

To move a group, Click on the Move Group Button. Once the Move Group dialog box is displayed, fill-in the fields provided, specifying which group you wish to move and what group number you would like it to become.

Once you have the fields filled-in, click the OK button. The group will be moved to the new location and the remaining groups will be re-numbered sequentially. Group/Column ties remain intact and the re-numbered group(s) are Automatically updated on the columns tab as well.
Columns Tab

The Columns Tab is used to separately identify and tabulate work within a Group. Use this tab to create sub-groupings of the contract work. In example mainline work should be distinguished from work on ramps, frontage roads etc.

<table>
<thead>
<tr>
<th>GROUPS TAB</th>
<th>Columns Tab → sub groups (of work)</th>
<th>Both of these Columns Will be assigned to the same Group for the work in this location. This will apply the financial data, tax rate, Program assignment etc. to the contract bid item work.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1 I-5</td>
<td>Column 1 Mainline Paving Column 2 Ramp Paving</td>
<td></td>
</tr>
<tr>
<td>MP 99.00 to MP 104.56</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Separate Columns may be used to setup for work that may be cut from the project due to possible funding issues. These might include occurrences such as, a Local Agency contributing to additional work as part of the contract, but this contribution is conditional upon their ability to secure the funding.

By creating separate columns and associating the additional contract work bid items to these columns, it will make for quick revisions to the estimate by simply deleting those Columns of work, rather than time consuming re-calculation and distribution of Bid Items.

Required Columns for work

Each group is required to have at least one column associated with it. Additional columns within a group are required for the following:

1. Each bridge and wall shall have their own column in order to identify the quantities of materials required at each of the structures.

2. Each state furnished pit site (mandatory and non-mandatory) shall have their own column.

Exceptions to rule 1 above:
- For projects with a single wall or a single bridge or both, the wall and bridge quantities may be entered into a single column, or combined with another column.
- Paving across multiple bridges, these paving quantities need not be separated out for each bridge, they may be included in the mainline paving quantities.
- State Furnished Pit sites

Separate Columns will also be required for work added by addenda (see EBASE Addenda)

EBASE User’s Guide Section 7 – Columns Tab
Creating Columns
By default, EBASE creates an “INITIAL DEFAULT COLUMN”.
• Overttype this text with your first column description wording in the Column
description field.
• Select a Group from the “Group Number” pull-down list
• Click the SAVE button.

Adding Additional Columns
Additional columns may be added by Clicking on the ADD button.
• Enter the *number of the new column in the “Add New column” box and click OK.
• Click the SAVE button.

Sorting and Moving Columns
Columns may be re-positioned by either re-numbering to the desired sequence and
using the “SORT” button to re-arrange them, or using the “MOVE” button to move a
single column at a time to a new position in the list.

Re-arranging the Columns using the “Sort” feature:
1. Renumber each column to the new position.
2. Click SORT

The columns will be re-arranged accordingly.

Re-arranging the Columns using the “Move” button:
1. Click on the Move Column Button.
2. Once the Move Column dialog box is
displayed, fill-in the fields provided,
specifying which column you wish to
move and what column number you
would like it to become
3. Click the OK button. The column will be
moved to the new location and the
remaining columns will be re-numbered
sequentially.
In both of these procedures, if the Columns have been assigned to a group, Group/Column ties remain intact and the re-numbered columns(s) are automatically updated on the Groups tab as well.

**Deleting a Column**

To delete a column, highlight the column number that you wish to delete and click on the DELETE button. When you delete a column, all groups that it is associated with will remain in the system. Any Groups associated solely with a deleted column must also be deleted or associated to other columns.
EBASE – Bid Items

Working With Bid Items
Bid Items

A bid item is a unit of work that is specified in the plans and detailed in the specifications. This work is to be performed as part of the project by the contractor.

Bid items are based on standard specifications, or in special provisions that are included in contracts as required to define work or procedures not covered in the standard specifications, and as necessary to supplement or modify items in the standard specifications.

Standard Bid items are defined by a numeric code and have and specific unit of measure, section and prequalification code associated with them.

Standard bid items represent work that is thoroughly described in the Standard Specifications and well known to the contractor. Use these in your estimate when possible.

There will be work that is lesser used, unique or even sometimes standard work that must be modified to fit the distinctive conditions of a project, this work will be represented by the use of non-standard bid items. These items of work must be fully defined by the user.

It is important that if using a modified “standard” item, where the work is being described or modified with a project specific special provision, that the standard item number is NOT used. The description must also be altered sufficiently so that the work is not confused with the standard item work that is otherwise described in the standard specifications.
Parts of the Bid Items Tab

The Bid Items Tab is comprised of two sub tabs:
1. Items
2. Section Headers

The Items tab is where the bid items of work are defined. There are four parts to this tab.

Item List
The Item List displays:

- **Std Item Num** (standard Item Number)
  
  This is the standard item for each of the items entered into the estimate. If this field is blank, the item is non-standard.

- **Item Number**
  
  This number is the sequence the item occupies in the estimate. All standard items are assigned a “construction sequence” and will be imported into the estimate in that order when the “Standard Item” button is used to initially select and load multiple standard items.
**Item Quantities & Distribution**

The quantities for the bid item of work may be placed in a single location or several locations throughout the project. Where they are placed will affect the tax rates applied, the capital program it is associated with and who is paying for it.

A bid item’s quantity may be distributed appropriately by adding columns that represent the location of work. The “Planned Quantity” of the bid item that will be placed, is then associated to the column or columns of work.

(See Creating Work Columns)

**Item Details**

The Item Details area is where the specifics about the bid item is entered. When a standard item is selected, item details associated with that item will be automatically populated by EBASE. This includes:

- Section Header
- Unit of Measure
- PreQual Code

The user manually populates:

- Add-On Description (for standard items that require a type or sized be specified)
- Description (for a non-standard item name)
- Unit Price

Additionally, when entering non-Standard items, the user will need to determine the appropriate sequence in the “Item Number” list to insert the item, and assign the Section Header, Unit of Measure and PreQual code for the item.

**NOTE:**
If a standard item is manually typed in, or typed over to change to a different number, the estimate must be closed and re-opened to display the revised number in the “Item List” area.
Button Panel

The button panel allows the user to add & delete bid items and associated columns, they may also manage the bid item sequencing in the list. Additionally it grants access to information about the bid item if it is Standard, and allows the user to enter item specific information, and to create backup documentation for lump sum items.

Button Panel commands:

- **Add Item Button** - 
  Used to add one Standard or Non-Standard item at a time.
- **Standard Items Button** – 
  Used to select and import multiple Standard Items from the Standard Item Table.
- **Non-Standard Item** – 
  *Used for Railroad Items only. Items Require a Special provision for use.*
- **Re-Set Item Nums** – 
  Resets the “Item Number” to its current position in the list.
- **UBA History Data** – 
  Returns 3 Low Bids history for the item currently selected.
- **Specifications** – 
  Displays Item requirements and GSP information for the selected item.
- **Item Comments** – 
  Provides a note box to enter special condition comments for the selected bid item.
- **Lump Sum Breakout items** – 
  Provides a worksheet to enter and tabulate items of work that make up the “Lump Sum” bid item *(these worksheets are printable as a report)*
- **Sort** – 
  Sorts the listed items by their assigned “Item Number”.
- **Move Item** – 
  Allows for an item to be moved to a new position in the list.
- **Spreadsheet** – 
  Opens a spreadsheet view of the bid items.
- **Item Report** – 
  Generates the Preliminary Estimate Item Report.
Entering Items into the Estimate

When beginning your estimate, have a list prepared of standard bid items that you will include in the estimate. This will save you time by not needing to return later to insert additional bid items in the list.

Begin by clicking on the "Standard Items" button. A box will be displayed that asks, “Where do you want to place this item(s)?”

If you have not previously entered any items or if you are entering items to the end of an existing estimate, leave this box blank and click on the Go button. The Standard Item table will be displayed.

Select all of the Standard Items estimate. Standard items are them. (multiple items may be item by clicking on it again.

Click on the Apply Selections button, this will import all selected items into the estimate.

The selected items will be placed in the estimate in order by construction sequence in the item list, this is the “Item Number” on the far left of the Items subtab. All associated section headers, description, unit of measure, and prequalification codes for the items are also added to your estimate.
Insert a single standard item number into a list
To insert a standard item into an existing list of bid items, Click on the “Standard Items” button.

Standard Items

Again a box will be displayed that asks, “Where do you want to place this item(s)?” Leave this box blank to place the new item at the end of the list, or type in an “Item (sequence) Number” to insert the item between existing items.

Click, “Go”. Select, the Standard Bid Item(s) to insert. Click “Apply Selections”

Re-Set Item Num

Click, “Re-set Item Nums”

Insert Non-Standard bid items
(must be inserted individually.)

To insert a non-standard bid item, select the item directly below where you want to insert the new item and Click, “Add Item”. A zero will be displayed. Click, “Save” Click, “Re-Set Item”

Now add to the Item Details area:
- Description – This is the name of the item as shown in the Plans and special provisions.
- Select the appropriate Section Header. This should be in sequence with the section the item was placed. e.g., if the item was inserted between items in the preparation section,

The Section Header to select for the inserted item is: 1 – PREPARATION. (see Section Headers)

- Select the appropriate Unit of Measure from the list.
- Select the appropriate Prequal code from the list. (a list of Prequal codes may be found in appendix 15 of this guide)
Special Items

Lump Sum Items
A lump-sum is normally used to reduce contract administration costs. It is called a lump-sum because the contractor is required to submit a total price instead of bidding on individual items. A lump-sum bid item functions well when the work is well-defined and where the risk of different conditions is minimal.

Lump sum items should only be used when the following conditions apply:
The lump sum item is a standard item with no appropriate alternative non-lump sum standard item available for use.
• The work is not easily defined. The final product is known but the construction techniques or other components are difficult to determine.
• The work is complex with many components (the designer is encouraged to break down lump sum items to their constituent items if possible).
• The lump sum payment may be justified as an incentive to complete work in a more timely or efficient manner than if other units of measure were used.

Disadvantages to using Lump Sum items
• It presents the highest risk to the contractor, which means higher bid prices to cover unforeseen conditions.
• Changes are difficult to quantify.
• Potential that the WSDOT will pay the lump sum price when total quantities under run estimated amounts.
• Contracts with multiple lump sum items, have the potential for front-end loading.

Review the following information before using Lump Sum bidding for Traffic Control in your estimate:
http://www.wsdot.wa.gov/Projects/delivery/alternative/LumpSum.htm

Force Account Items
Force Account bid items should only be used because due to the inherent nature of the work, it is difficult to provide adequate measurement or to estimate the cost for these items of work. (Contact the HQ Construction office for guidance for using Force Account in your estimate)
Cost Price Adjustment Items

**Steel**
Include in your estimate when the project will place 50,000 pounds or more of steel. Use the Steel Cost Adjustment Estimate worksheet to determine the amount to enter in your estimate located on the web site at:


**Asphalt**
Use with the following items:
- HMA CL. ___ IN. PG [5766, 5767, 5768, 5769]
- HMA FOR APPROACH CL. ___ IN. PG [5872, 5873, 5874]
- HMA FOR PRELEVELING CL. ___ IN. PG [5716, 5717, 5718]
- HMA FOR PAVEMENT REPAIR CL. ___ IN. PG [5738, 5739, 5740]
- COMMERCIAL HMA [5875]

Use the following worksheet to determine the cost adjustment:
- CRS (emulsion) - http://www.wsdot.wa.gov/publications/fulltext/CEVP/CRSCostAdj-5294.xlsx

Guidance for filling out the worksheets:
Fuel

Fuel Cost Price Adjustment item will be used in projects with more than 200 working days that include any of the bid items that are eligible for adjustment.

<table>
<thead>
<tr>
<th>Eligible Bid Items</th>
<th>Fuel Usage Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>0261, 0310, 0350, 0360, 0405, 0409, 0421. 0408, 0431</td>
<td>0.29 gal/cy</td>
</tr>
<tr>
<td>0330</td>
<td>0.29 gal/cy</td>
</tr>
<tr>
<td>0360, 0405, 0409, 0421.</td>
<td>0.25 gal/cy</td>
</tr>
<tr>
<td>0408, 0431</td>
<td>0.17 gal/ton</td>
</tr>
<tr>
<td>4006, 7006</td>
<td>0.25 gal/cy</td>
</tr>
<tr>
<td>4013</td>
<td>0.04 gal/dollar</td>
</tr>
<tr>
<td>0650, 0670, 5090, 5100, 5110, 5120</td>
<td>0.70 gal/ton</td>
</tr>
<tr>
<td>0640, 0660, 5085, 5095, 5105, 5115</td>
<td>0.70 gal/ton</td>
</tr>
<tr>
<td>5400</td>
<td>270 gal/mile</td>
</tr>
<tr>
<td>5410</td>
<td>0.61 gal/cy</td>
</tr>
<tr>
<td>5420, 5423, 5424, 5429, 5433, 5434</td>
<td>1.02 gal/cy</td>
</tr>
<tr>
<td>5766, 5767, 5768, 5769, 5716, 5717, 5718, 5738, 5740, 5872, 5873, 5874</td>
<td>0.90 gal/ton</td>
</tr>
<tr>
<td>5875</td>
<td>0.90 gal/ton</td>
</tr>
<tr>
<td>5625</td>
<td>1.0 gal/cy</td>
</tr>
<tr>
<td>5679</td>
<td>1.0 gal/cy</td>
</tr>
<tr>
<td>4300</td>
<td>0.02 gal/dollar</td>
</tr>
<tr>
<td>4151</td>
<td>0.02 gal/Lb</td>
</tr>
<tr>
<td>4147</td>
<td>0.02 gal/Lb</td>
</tr>
</tbody>
</table>

For instructions and calculation worksheet: [http://www.wsdot.wa.gov/Business/Construction/EscalationClauses.htm](http://www.wsdot.wa.gov/Business/Construction/EscalationClauses.htm)
Reimbursement for Third Party Damages

Reimbursement for Third Party Damages is a required bid item for WSDOT projects. Minimum requirements for this bid item are:

Planned Quantity = 5.00 Unit Price = $1.00

However each project should be evaluated to accurately determine its needs. Some things to take into consideration when calculating a Planned Quantity for Third Party Damages on your project are:

- Does the project contain items that are highly susceptible to Third Party Damage?
- What are the project conditions?
- Urban or Rural location?
- High Traffic Exposure?
- Length of contract? Longer contracts have more exposure to the traveling public.

Once the determination of what items are likely to be damaged, enter in the Planned Quantity, a dollar value that represents a reasonable cost of repair/replacement for the item.

When assigning the bid item, Reimbursement for Third Party Damages, assign it to the largest PIN or the PIN that is most likely to sustain damages.

This Bid Item will be paid for with State Funds only. Do not assign this Bid Item to a Column that is attached to a Group with Federal Funding.
**Entering Lump Sum (L.S.), Estimated (EST) and Calculated (CALC)**

When entering bid items into EBASE that have a unit of measure that is L.S., EST, or CALC it is important to remember that these must be entered with the dollar value and the quantity reversed to enable proper information load into the financial systems that EBASE transfers the estimate and bids data into.

**Example:**
- Dollar value is entered into the “Planned Quantity” box
- Bid item quantity is entered into the “Unit Price” box and the unit price will always be “1”.

When Using Lump Sum items, it is good estimating practice to fill in the “Lump Sum Breakout Items” worksheet. This is available by clicking the “Lump Sum Breakout Items” button.

**Use this feature as back-up documentation for your Lump Sum Items. You also use this to print reports for all your L.S breakouts.**

**EBASE User’s Guide**

Section 8 –Bid Items Tab
Entering Credit or Debit Items
i.e. Bid Item, 7728 - Minor Change, CALC

Enter a "-1" into the "planned Quantity" box
And "1" in the "Unit Price" box

Entering Mobilization
Unlike all other L.S. items, Mobilization may be prorated across multiple columns of work.

Calculate Mobilization as a percentage of the Contract Total (work done Contractor) this is the dollar amount before the addition of tax or additives.
(See Mobilization % guidance)

The calculation is then entered into the estimate as a Lump Sum Bid Item that is "prorated" across the selected columns of work.

To "prorate" the estimate Mobilization item.

Click, “Prorate Item”
Click, Save. This will remove the “Planned Quantity” boxes
Enter, the calculated prorate dollars and place this number into the “Prorate Amount” box.
Use the “Add Column” button to add all the columns that the amount will be spread across.

For additional information on how EBASE calculates prorated Mobilization, use the following link:
Mobilization Percentage Guidance

Mobilization is a contract pay item that is used to cover a Contractor’s preconstruction expenses and also the costs of preparatory work and operations. Since there is no defined list as to what this work effort is and each Contractor has the ability to adjust their bid as needed to cover these expenses, there are no hard and fast rules as what percentage should be used per Contract.

The following table is a suggested guide:

<table>
<thead>
<tr>
<th>Contract Total</th>
<th>Percent of Mobilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $100,000</td>
<td>Use 8% to 12%</td>
</tr>
<tr>
<td>$100,000 to $250,000</td>
<td>Use 6% to 10%</td>
</tr>
<tr>
<td>$250,000 to $500,000</td>
<td>Use 6% to 9%</td>
</tr>
<tr>
<td>$500,000 to $1,000,000</td>
<td>Use 5% to 9%</td>
</tr>
<tr>
<td>$1,000,000 to $2,000,000</td>
<td>Use 6% to 9%</td>
</tr>
<tr>
<td>$2,000,000 to $5,000,000</td>
<td>Use 7% to 9%</td>
</tr>
<tr>
<td>$5,000,000 to $10,000,000</td>
<td>Use 8% to 10%</td>
</tr>
<tr>
<td>$10,000,000 to $20,000,000</td>
<td>Use 7% to 11%</td>
</tr>
<tr>
<td>Over $20,000,000</td>
<td>Use 7% to 10%</td>
</tr>
</tbody>
</table>

To more accurately calculate the Mobilization percentage that should be used for each individual project, consideration should also be given to:

- The location and complexity of the project
- The need for specialized equipment
- The type of work being performed
- Rural vs. Urban Projects with multiple work sites
- Excessive preparatory removal items
- Large quantities of excavation
- Spanning of constructions seasons when it would become necessary for the contractor to shut down and clear the work site between these seasons.
Alternate Bid Items

Alternate bid items must be listed as the last entries in the sequence of bid item on that tab. A separate group and column is required for alternate bid item quantities.

The items within an alternate must carry the same alternate Section Heading and Alternate code. ([see how to set this up under the Section Headers Tab portion of this manual].)

The alternate code is made up of an alphabetic character from A to E in the first position and a numeric character from 1 to 9 in the second position.

Either/Or Alternates
In the following example, the bidder must bid the Base and must bid Alternate A1 or A2, or may bid both, Base +A1 and Base +A2.

Example:
Base Items (no alt. code)
Concrete Br. Items A1
Steel Br. Items A2

Result:
Base and Base + A1 and Base + A2

“Accumulate Alternates” NOT CHECKED →

Alternates with different alpha characters will combine. In the following example, the bidder must bid the Base and must bid at least one alternate from each “alpha” series of alternates.

Example:
Base Items (no alt. code)
Concrete Br. Items A1
Steel Br. Items A2
Reinf. Concrete Wall items B1
Reinf. Earth Wall items B2

Result:
Base and
Base + A1 + B1 and Base + A1 + B2 and
Base + A2 + B1 and Base + A2 + B2

“Accumulate Alternates” NOT CHECKED →
Accumulative Alternates

Occasionally, you may want to award a contract based on funds available. In other words, you may want to construct as much as possible, depending on the bids within the funds available.

When adding Accumulative Alternates to your Base contract, be sure that the work included in the alternate is truly “optional” in the event that it must be eliminated.

Use the same alpha character in your alternates, i.e. “A” and check the Accumulate Alternates box.

In the following example, the bidder must bid the Base and must bid all of the combinations shown.

**Example:**
- Base Items (no alt. code)
- Building X A1
- Paving Site A2
- Landscaping Site A3

**Result:**
- Base and Base + A1 and Base + A1 + A2 and
- Base + A1 + A2 + A3

“The Accumulate Alternates” CHECKED

The following is another example of wanting to award a contract based on funds available. This example, however, uses different alpha characters to describe the Bridge (A) alternate and the Wall (B) alternate that will combine, BASE + A+B.

The bidder must bid the Base and at least one alternate from each “alpha” series of alternates. Check the Accumulate Alternates box.

As you can see by the result below, we may only want to award based on the Base bid or the Base and B2 for example, depending on funds available.

**Example:**
- Base Items (no alt. code)
- Concrete Br. Items A1
- Steel Br. Items A2
- Reinf. Concrete Wall Items B1
- Reinf Earth Wall Items B2

**Result:**
- Base and Base + A1+ B1 and Base + A1 + B2 and
- Base + A2 + B1 and Base + A2 + B2 and
- Base + A1 and Base + A2 and Base + B1 and
- Base + B2
Road User Cost

Road User Cost (RUC) is a tool used to measure the impact of a transportation facility on the traveling public, and the benefits of those proposed improvements provided by a highway project.

The RUC, commonly known as A+B bidding, creates a method by which the Contractor may be rewarded for early completion. This is accomplished by specifying a cost for each working day combined with the cost to perform the work and the cost to the traveling public.

Costs to the public may include:
- Costs associated with travel time.
- Vehicle operation
- Accidents
- Air quality

When determining RUC, there are many elements to consider in ascertaining whether delays to the traveling public will be extreme or minimal. Some examples being:
- Time of day
- Traffic volumes
- Type of work
- Project location
- Urban or Rural
- Critical bridge or intersection effected
- Length & location of detours

Entering Road User Cost into an Estimate

The procedure for entering RUC into an EBASE estimate is similar to that of entering Alternate Bid Items. Road User Cost items are placed as the last items in the estimate, after all regular bid items as well as any Alternates should they be present.

Begin by creating a Road User Cost Section Header on the Section Header tab. The Sect. No. must begin at 50 and increase numerically from that point, dependent on how many RUC’s will be listed in the estimate. The Section Header, Section Description will be “ROAD USER COST” and the Alt. Code will be R1, R2 etc.

For EBASE to incorporate RUC into the estimate the Include Road User Cost box must be checked. (see example)
Road User Cost is calculated in dollars per day, and when entering the RUC item on the bid items tab, it is necessary to enter the dollar amount as the “Planned Quantity”, and the estimated number of days in the “Unit Price”.

The Unit of measure to be used for the RUC item is “PDA” (per day), and the prequal code to be used is “Z0”. (see example below)

Road User Cost Item descriptions will vary depending on the type of road user cost. E.g. “Night Time Lane Closures”, “Lane Rental” etc.

Road User Cost Items are not part of the true Engineer’s Estimate. These items are only used in determining award to Bidder’s. Although the RUC items are not part of the Engineer’s estimate, they must be entered into EBASE so that the data may be transferred to the BIDS database with the regular estimate data, in order to create complete Bid Item information for project advertisement.

If you would like to learn more about Road User Cost / A + B bidding, please visit this web site:  
http://www.wsdot.wa.gov/biz/InnvContract/aplusb.htm
Section Headers for Bid Items

All Standard and most Non-Standard Bid Items will be assigned to the list of Standard Section Headers.

For Standard Bid Items, the Section Header has been pre-determined and is imported when the Standard Item is entered.

For Non-Standard items the Section Header must be selected from the menu in the item details area of the Bid Items tab.

If a Section Header was not previously imported with a Standard item, it may not be in the active list.

To add a Section Header, click the "Add" button enter a "Sect. No." and select a Section Description from the menu.

For some specialty contracts you may need to add a Non-Standard Section Header, follow the same procedure as above, but use a Sect. No. in the 30's range and manually type the Section Description.

Section Header Setup for Alternate Bids and Road User Cost (A+B Bidding)

Alternates
follow the procedural above, plus enter the appropriate "Alt Code". If the Alternates are accumulative i.e. A1 + A2, also check the "Accumulate Alternates" box. (See Alternate Bidding for a detailed explanation of Alternates.)

Road User Cost (A+B bidding)
is set up just like alternates except the Sect. No. to use is 50 or above, and the Alt Code is entered as R1, R2 etc. The Road User Cost box must be checked before EBASE will include items assigned to this type of Section Header. (See A+B Bidding for a detailed explanations of Road User Cost.)
<table>
<thead>
<tr>
<th>Sect. #</th>
<th>Section Header Title</th>
<th>Sect. #</th>
<th>Section Header Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Preparation</td>
<td>13</td>
<td>Cement Concrete Pavement</td>
</tr>
<tr>
<td>2</td>
<td>Grading</td>
<td>14</td>
<td>Asphalt Concrete Pavement</td>
</tr>
<tr>
<td>3</td>
<td>Stockpiling</td>
<td>15</td>
<td>NOT USED</td>
</tr>
<tr>
<td>4</td>
<td>Draining</td>
<td>16</td>
<td>Irrigation and Water Distribution</td>
</tr>
<tr>
<td>5</td>
<td>Storm Sewer</td>
<td>17</td>
<td>Erosion Control and Planting</td>
</tr>
<tr>
<td>6</td>
<td>Sanitary Sewer</td>
<td>18</td>
<td>Traffic</td>
</tr>
<tr>
<td>7</td>
<td>Water Lines</td>
<td>19</td>
<td>Other Items</td>
</tr>
<tr>
<td>8</td>
<td>Structure</td>
<td>20</td>
<td>Building</td>
</tr>
<tr>
<td>9</td>
<td>Surfacing</td>
<td>21-28</td>
<td>RESERVED</td>
</tr>
<tr>
<td>10</td>
<td>Liquid Asphalt</td>
<td>29</td>
<td>Superstructure</td>
</tr>
<tr>
<td>11</td>
<td>Bituminous Surface Treatment</td>
<td>30-49</td>
<td>Use these for Alternates or Special</td>
</tr>
<tr>
<td>12</td>
<td>Asphalt Treated Base</td>
<td>50</td>
<td>Use for Road User Cost (A+B bidding)</td>
</tr>
</tbody>
</table>

When alternative Sections are required for your estimate, use only those section numbers available, and a unique Section Header title. EBASE will not recognize duplicated titles or dedicated section numbers whose titles have been revised.
EBASE – NON BID ITEMS

Below the Line Items
Non Bid or Below the Line Items

Non-Bid items are items of work or materials that are paid for as part of the total construction project, but are not performed by, nor furnished by the Contractor.

Some of this work may be partially funded with federal dollars or may be designated as entirely State funds depending on the work being performed. As such it must be assigned to the appropriate EBASE Group and Coded as either a 700, 800 or 860 level item.

700 to 799
number range have construction engineering and contingencies applied to them, but no sales tax. Federal Aid money may be used to fund all, part or none of this work.
Examples of this type of work may include:

- Utility Agreements
- County/City Agreements
- State Force Work other than WSDOT i.e. WSP
- Engineering/Consultant Services

800 to 899
number range have no sales tax, construction, engineering, or contingencies applied to them.
Examples of this type of work may include:

- State Force Work (WSDOT not to exceed $60k or $100k for Emergency work)
- State Supplied Materials (Parcel numbers, labor and payable agreements cannot be charged here)
- Rail Road Flagging (800 – 859 Range)
- Some Permits and Agreements

800 to 859 number range are to be used for Federal-Aid participating items.
860 to 899 number range are to be used for Federal-Aid non-participating items.
Participating and Non-Participating Items

Per the Code of Federal Regulations 23 CFR 140 e
Participating Items are included in the following:

Title 23: Highways

PART 140—REIMBURSEMENT
Subpart E—Administrative Settlement Costs—Contract Claims

§140.505 Reimbursable costs.

(a) Federal funds may participate in administrative settlement costs which are:

(1) Incurred after notice of claim,

(2) Properly supported,

(3) Directly allocable to a specific Federal-aid or Federal project,

(4) For employment of special counsel for review and defense of contract claims, when

(i) Recommended by the State Attorney General or State Highway Agency (SHA) legal counsel and

(ii) Approved in advance by the FHWA Division Administrator, with advice of FHWA Regional Counsel, and

(5) For travel and transportation expenses, if in accord with established policy and practices.

(6) (b) No reimbursement shall be made if it is determined by FHWA that there was negligence or wrong doing of any kind by SHA officials with respect to the claim.
**Participating (Eligible for Federal Aid).**

The following criteria must be met for charges to be considered participating when charged directly to a federal aid project:

- The work must be programmed with FHWA.
- The costs must have been incurred after the date of FHWA authorization to proceed with the work.
- The costs must be wholly for the benefit of the project being charged, e.g., labor performed directly for that project, supplies used up in the course of a project, etc.

**Examples of federal aid participations** - This list is not limiting or all-inclusive.

- Labor — Efforts to design, survey, prepare plans, appraise right-of-way, inspect construction activities, audit agreements, etc.
- Travel and Per Diem — of only those employees involved in any participating activity related to the project.
- Materials — incorporated into a federally approved project.
- Supplies — purchased and consumed entirely on a federally approved project.

**Non-participating**

**For specific projects, the following items are not eligible for federal aid participation:**

- Equipment Purchase and Repair — unless specifically approved by FHWA, e.g., engineering, safety, or office equipment and supplies.
- Supplies — purchased and consumed on a number of projects or for the general management or operation of the organizational unit (example would be in maintenance or in administration — signs, small tools, and used temporary traffic control devices.
- Office Rental — including utilities and telephone service.
- Labor — for activities not directly related to the project nor programmed with FHWA.
- Labor activities pertaining to the general operation of an agency are not eligible for federal participating.
- Travel and Per Diem — of employees performing activities classified as nonparticipating or unrelated to a specific federal aid project.

**NOTE:**

When Non-Participating Items are used, Accounting must be notified which funding source in the job will be paying for the work.
Use the **TEXT DATA** tab in EBASE and Place a note in the **PROJECT REMARKS** area indicating:

- Number
- Item Description
- EBASE Group the item is associated with.

This text will appear at the bottom of the last page of the Preliminary Estimate Summary Report and provide the necessary information to the Accounting Office.
EBASE – ADDENDA

SETTING UP ADDENDUM ITEMS IN YOUR ESTIMATE
Adding and Deleting items by Addendum

Prior to beginning revisions for addenda, be sure to create a new version.

**PLEASE NOTE:** Once a project is turned in for Ad to the Region Plans Office, no additional changes may be made to EBASE for the version that was submitted.

Please coordinate with your Region Plans Office when creating new a version for Addendum revisions and Loading the new version with revisions once they are complete.

**Rules for Entering Items By Addenda**

All bid items added by addendum shall be added as the last bid items in the estimate.

Items deleted by Addendum, must retain the bid item number in place, but change the item to Standard Item number 7800 "Deleted Item".

The quantity shall be revised to .01 in column one, the unit price shall be .0001
The rules for adding and deleting bid items by addendum are to avoid changing bid item numbers (sequence in the estimate listing) for remaining items which would alter the contract documents as published for advertisement.

Exceptions to the rules

**Exception 1**
Items being revised for correction. The revised item can be added where an existing item is being replaced. In this case you can replace the old item with the new item.

i.e. item corrected by Addendum, was incorrectly entered as “5768 – HMA CL. ¾” and revised to “5767 – HMA CL. ½”

**Exception 2**
Alternate bid Items in your project.

When adding bid items to the base bid by addendum, add the items at the end of the base bid item listing.

When adding bid items to alternates by addendum, add the items at the end of the appropriate alternate bid item listing.
Adding Revision Notes and Shading Revisions on the Summary of Quantities Sheet

Revisions made to the EBASE estimate after a project has been turned in for Ad that affect the bid items will require an addendum to be issued. These changes will need to be noted and identified on the Summary of Quantities plan sheets that will be included with the addendum.

Access the Summary of Quantities revision area by clicking on the “Summary of Quantities Revisions” button.

This will bring up the Summary of Revision area.

Add a new line for each revision.
It is important that the revisions be numbered sequentially, e.g. 1..2..3 or they will not be shown on the Summary of Quantities plan sheet.
Identify each item that was revised and what the revision affected, the date of the addendum to be issued and who made the revision.

Once the revision notes have been entered, open the “Summary of Quantities Report” to Display the Summary of Quantities report.

### Reports

#### Shading the Revisions

To shade the revisions for the addendum on the report,

**Click** each item that has been revised, this will place shading the field.

If a field is shaded unintentionally, **Click** the field again to remove shading.

**NOTE:** all shading that has been placed will be removed by EBASE when the Summary of Quantities is closed.

Print the Summary of Quantities plan sheet once all revised fields have been shaded.

If you are having problems displaying the reports in the “Print Preview, change your default printer to print to .pdf.

### EBASE User’s Guide

Section 10 – Setting Up Addendum Items
Viewing and Printing Reports

There are several reporting options available for EBASE. You may view or print reports for any estimate that you have access rights for in EBASE.

Reporting Options Available

- Proposal
- Preliminary Estimate - Summary Report
- Preliminary Estimate - Fund Report
- Preliminary Estimate - Group Report
- Preliminary Estimate - Item Report
- Work Classifications Report
- Summary of Quantities
- Lump Sum Breakout Report
- Work Order Worksheet

Choose the report that you wish to view.

Click “Preview Report” to preview.

While you are in the preview mode you may print your report,

Click on the Print button – this will print the report to the current default printer or .pdf

If you need to change the printer, use the right mouse button click on the report itself.

When you are finished viewing the report, click on the Close button to return to your estimate.

Multiple Estimates reports may be batch printed to obtain a complete estimate Document. All reports in the “Preliminary Reports” are include in the batch Print except the Summary of Quantities

To initiate the batch printing the estimate reports, select the “Print All Reports” button.

NOTE: Due to differences in actual print areas between various brands and models of printers, it is highly recommended that one specific printer be selected per work unit, for printing EBASE reports. This will ensure uniform documents
The Reports

Proposal
The Proposal report is the Bid document used by the bidders to record and submit their bids. The Proposal report will not be displayed if certain errors are detected. Your Region system Administrator can assist you if errors occur.

Preliminary Estimate - Summary
This shows the estimate summarized at project level and includes sales tax, engineering, contingencies, and non-bid items, as well as Contract Total. Additional pages of this report will be produced for each alternate combination.

Preliminary Estimate - Fund Report
This report shows the breakdown of fund participation summarized by federal-aid participating or non-participating and by fund name. Additional pages of this report will be produced for each alternate combination.

Preliminary Estimate - By Group
The Group report summarizes the estimate at the group level.

Preliminary Estimate - By Item
This report makes available each item along with its respective planned quantity, unit price and total estimated amount.

Tip!
The data contained in this report may be exported to Excel by using the “Export EBASE Item Report*” tool located on the EBASE web page:

https://www.wsdot.wa.gov/Design/ProjectDev/EngineeringApplications/AdReady.html#Tools

* Instructions on how to use the export tool are located in the link directly below the toll link.

Work Classifications
This report groups the bid items into the prequalification work classes for the purpose of determining the predominate class of work in the project. Bid proposals are provided only to bidders qualified to perform the predominate class of work in a project. The Work Classifications report will not be displayed if missing Pre-Qual Codes are detected.
Summary of Quantities

The Summary of Quantities report is a working document with which the reviewer can refine their column data, funding, group breakouts, items and quantities. This report is included in the plan sheets for each project.

To enter Sheet Numbers on the Summary of Quantities Sheet Report, go to the General Info tab and select the “Summary of Quantities Revisions” button.

Enter the Beginning no for the Summary of Quantities sheets, and the total project plan sheet count in the “contract Plans End Page. EBASE will automatically place sheet numbers on each SQ sheet and fill in the sheet reference numbers.

Addendum Shading For the Summary of Quantities

The Summary of Quantities report may be shaded for addendum.

To shade the Summary of Quantities report for an addenda:

1. Click Save.
2. Click the reports Icon
3. Select the Summary of Quantities report
4. When the report is displayed in the print preview mode, click on the areas that you need shaded. To remove shading, simply click in the shaded area again.
5. Print the report.
6.
Once the report print preview mode has been closed, all addendum shading will automatically be removed. For detailed instructions on Addendum Shading see, “Setting up Addenda Items in Your Project”.

**Lump Sum Breakout Report**
This report lists the breakout items that have been entered for each L.S. bid item where entries have been made for the items comprising the L.S. item.

**Work Order Worksheet**
This report is used by the Federal-Aid Program Engineer for reporting data to the FHWA.

**Report Examples**
See EBASE Reports for examples that show each of the reports, as well as, How and Where the information entered into EBASE is displayed in the reports.
Design-Build Special Set-up Requirements
Federally Funded Design Build Projects – Pre NEPA

If the Design Build project you are entering into EBASE is a Federally funded project and NEPA approval has not been received the following applies:

The Design Work portion of the contract and the Construction Work portion of the contract must be separated. These are also referred to as, Notice To Proceed 1 (NTP1) work and Notice to Proceed 2 (NTP2) work.

The following instructions demonstrate how to setup NTP1/NTP2 separation in EBASE.

First Determine if NTP1/NTP2 Separation is needed

1. Design-Build Project
   2. Will Federal Funds be used?
      - NO: Do Not need to use NTP1/NTP2 Process for EBASE
      - YES: Has NEPA been Approved?
         - NO: Follow NTP1/NTP2 Process for EBASE
         - YES: Do Not need to use NTP1/NTP2 Process for EBASE

Use the instructions for NTP1/NTP2 Separation for EBASE entry of Estimate
How to setup Pre NEPA Design Build projects in EBASE

Design Build projects have 2 phases that are entered into EBASE to setup the project estimate.

- Notice to Proceed 1 (NTP1) – This phase contains all the Design work.
- Notice to Proceed 2 (NTP2) – This phase contains all the Construction work.

It is important that some things such as Agreements, Stipends and Construction Engineering are only associated with the “Construction” portion of the estimate.

Offsetting Construction Engineering

Unlike stipends and agreements, Construction Engineering is applied at the project level, so additional measures must be taken to offset the construction engineering that gets calculated and applied to the Design work groups in the estimate.

To allow for entry of offset amounts, setup separate EBASE Groups for the “Design” work and the “Construction” work.

For the Design work Group, add “NTP1” to the Group name so that it is clearly identifiable on the reports. Also, for the Federal Work Type Code, select “PDES” for Preliminary Design.
For the Construction work Group, add “NTP2” to the Group name so that it is clearly identifiable on the reports. The Federal Work Type Code can be left as the one that fits the work being done.

Next,
Create EBASE Columns to match with each of the Design and Construction Groups.

You may have more that one Column matched with any Group, however it is important that Columns having Design work bid items associated with them, be matched to “Design” work Groups.

AND, Columns having Construction work bid items associated with them, be matched to “Construction” work groups.
Make note of which Columns are “Design” and which are “Construction” work so that you will be easily able to assign the bid items to the correct NTP1 or NTP2 Groupings.
Adding Bid Items

In the simple example shown below, the “Design” work bid item is associated to the design Column that is associated to the design work Group.

→ BID ITEM 1 “DESIGN SERVICES”
associated to,
COLUMN 1 “DESIGN WORK”
which is assigned to,
GROUP 1 “NTP1 – GROUP, DESIGN WORK”

And similarly

→ BID ITEM 2 “CONSTRUCTION SERVICES”
assigned to,
COLUMN “CONSTR WORK”
which is assigned to,
GROUP 2 “NTP2 – GROUP, CONSTRUCTION WORK”

In this example, 10% has been used for Construction Engineering for the estimate.
Since we only want this construction engineering to be applied to the Construction work, we need to back out or “offset” the calculated Construction Engineering for the “Design Work” Groups.

To find the amount that needs to be offset, open the “BY GROUP” report in EBASE and see how much Construction Engineering has been calculated for the “Design Work” Group.

In the example shown below, based on the 10% entered for construction engineering on the General Info tab, EBASE has calculated $328,579.35 for the “Design Work” group. This is the amount that needs to be offset.
Entering the Offset Amount

To enter the offset amount, go to the “Non-Bid Items” tab in EBASE and add a line for the offset item and amount.

- **Number** = 800, 801 …. The offset item needs to be an 800 level item. One line needs to be created for each design work group that is in the estimate.
- **Column** = the number that is assigned to the design work Column(s).
- **Item Description** = “NTP1 ENGINEERING OFFSET”
- **Unit Price** = The dollar amount for the construction engineering from the design work group report. This must be entered as a negative number. i.e. “–328,579.35”

This offset will now be displayed in the EBASE reports as a negative amount, effectively backing out the construction engineering amount from the design work totals.
EBASE – PERCENTAGES

CONSTRUCTION ENGINEERING & CHANGE ORDER CONTINGENCIES
Project Percentages

*(change Order)* **Contingency**

Contingency may be defined as "An amount added to an estimate to allow for items, conditions, or events for which the circumstances, occurrence, or effect is uncertain and that experience shows will likely result, in aggregate, in additional costs. Contingency is not used for:

- Major scope changes
- Extraordinary events such as natural disasters
- Risk reserves
- Escalation

Some of the items, conditions, or events for the effect is uncertain include estimating errors and omissions, minor price fluctuations (other than general escalation), developments and changes within the scope, and variations in conditions. Contingency is generally included in most estimates, and is expected to be expended.

All WSDOT projects are setup with a change order contingency percentage of 4%. Please contact the Program Management office for guidance on using a Contingency percentage greater than 4%.

For local agency projects administered by WSDOT off the State Highway system, no contingencies percentage will be set up.
**Construction Engineering Allowance**

Construction engineering allowance is determined as a percentage of the total contract item cost. This allowance is used to cover the cost to manage the overall planning, coordination, and control of a project from beginning to completion.

These percentages will vary by type of work and total dollar amount of the contract. On an average, the department runs at around 15% engineering on all projects in the improvement and preservation programs.

Use the figures shown here to determine the historic-based Construction Engineering percentage for the type and size of project. Construction Engineering, should be adjusted to reflect how a project's unique characteristics will affect the contract administration needs when determining the final percentage required to administer project construction.

The Region Program Development/Management staff can, based on appropriate justification, approve any changes in the construction engineering percentages for a project that differ from the rates listed.

Copies of the approved justification letter shall be submitted with the final PS&E turn in for Advertisement.
Types of Preservation Projects

P1 Roadway:
- (PA) Paving projects.

P2 Structures:
- (PB) New construction, updating existing structures projects.
- (PC) Seismic retrofits.

P3 Other Facilities:
- (PD) Refurbish existing rest areas to extend service life and improve safety
- (PF) Construct weigh facilities
- (PH) Major refurbishments of electrical systems, electronics, mechanical systems and major drainage rehabilitation or replacement projects
- (PE) Slope stabilization Projects

<table>
<thead>
<tr>
<th>Highway P – Preservation Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P1 – Roadway</strong></td>
</tr>
<tr>
<td>PA - Paving / Safety Restoration</td>
</tr>
<tr>
<td>PC - Catastrophic Reduction</td>
</tr>
<tr>
<td>PF - Weigh Station</td>
</tr>
<tr>
<td>PG - Program Support</td>
</tr>
<tr>
<td>PH - Major Drainage / Electrical</td>
</tr>
</tbody>
</table>

P- Program Project Percentage table

<table>
<thead>
<tr>
<th>Preservation Project Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Project Cost Range</strong></td>
</tr>
<tr>
<td>$0 - $250,000</td>
</tr>
<tr>
<td>$250,000 - $500,000</td>
</tr>
<tr>
<td>$500,000 - $1,000,000</td>
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<tr>
<td>$1,000,000 - $2,000,000</td>
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<tr>
<td>$2,000,000 - $5,000,000</td>
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<tr>
<td>$5,000,000 - $10,000,000</td>
</tr>
<tr>
<td>$10,000,000 +</td>
</tr>
</tbody>
</table>
Types of Improvement Projects

I1 Mobility — Improve mobility within congested highway corridors:
- (IA) Congestion Relief Projects Urban
- (IB) Congestion Relief Projects Rural
- (IC) Bicycle projects
- (IQ) High Occupancy Vehicle projects

I2 Safety — Provide the safest possible highways within available resources:
- (ID) Accident reduction projects
- (IE) Projects that improve roadway geometrics, eliminate at-grade intersections, install signals / channelization at intersections

I3 Economic Initiatives — Support efficient and reliable freight movement on state highways. Support tourism development and other Washington industries:
- (IF) Freight and Goods improvement to all weather surfaces
- (IG) Projects providing four-lane limited access facilities on a trunk system
- (IH) Constructing Rest areas
- (II) Replacing or modifying structures on the Interstate System with, restricted vertical clearances and limited overload capacities
- (IJ) Scenic Byway Projects
- (IR) Bicycle rural road shoulder widening projects

I4 Environmental Retrofit — Retrofit state highway facilities as appropriate to reduce existing environmental impacts
- (IK) Reconstruct storm water discharge facilities
- (IL) Projects removing fish passage barriers
- (IM) Projects including Noise walls, berms, and noise mitigation measures
- (IN) Projects for air quality

I - Program Project Cost table

<table>
<thead>
<tr>
<th>Improvement Project Percentages</th>
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<tbody>
<tr>
<td>Project Cost Range</td>
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<td></td>
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<td>$0 - $250,000</td>
</tr>
<tr>
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<tr>
<td>$5,000,000 - $10,000,000</td>
</tr>
<tr>
<td>$10,000,000 +</td>
</tr>
</tbody>
</table>
How to calculate Engineering Percentages for projects with multiple programs

Example: $3,750,000 Total Construction project costs with:
$2,225,000 under Preservation P1 paving (PA) and
$1,525,000 under Improvement I2 collision reduction (ID)

Percentages From Tables: [ P1 ~ PA = 12 %] [ I2 ~ ID = 18 % ]

\[
\frac{(2,225,000 \times 0.12) + (1,525,000 \times 0.18)}{3,750,000} = 14\%
\]
MANAGING ACCESS FOR YOUR ESTIMATE
EBASE Estimate Access

WSDOT Policy states:

The Engineer’s Estimate will remain confidential information though Bid Opening.

Considering the fact that Project Development Teams and support offices have the responsibility to maintain the confidentiality of the project estimate, access control for the Current Version working estimates has been given to the Design Team estimators.

All other estimate folders are available for viewing by EBASE users with any level of access.

Folders viewable by all users include:

- **All Estimates** – all previous versions of the engineer’s estimate.

- **Deleted** – Estimates placed in this folder will be removed from the EBASE database upon request from the estimate owner. (Please contact your Region Plans Review to request permanent deletion)

  This folder also serves as the Estimate archive for the Final Engineer’s Estimate, and contains historical estimates from 1998 to present.

- **Awarded** – (also known as version 99 estimates) these are copies of the estimate with the “Awarded Bidder’s” bid prices entered.

- **As Built** – These are copies of the estimate that enable revision of the estimated quantities to final “As-Built” quantities. These versions are created from the “Awarded” or Low Bid estimate by advancing the version, to version 100
Managing Access to Your Estimate

At the time you create a new EBASE estimate either from scratch, or generate a duplicate from another EBASE estimate, you become the Owner of that estimate.

As the Owner, you are responsible for the confidentiality of the estimate and you control access for users who may make modifications to the estimate. The Owner will:

- Add users who may View/Modify
- Add Co-Owners of the Estimate
- Transfer ownership
- Remove users from access
- Delete the estimate
- Lock an estimate so that no additional modifications may be made

Adding Estimate Users

When you create an Estimate use the ACCESS button on the General Info screen to ADD all the members of your team that will need to view or modify it.

Users to consider are:

1. Design Team members
2. Specialty Groups
3. Plan Review
4. Program Management, Region & HQ
5. DBE Office

Timing

Users who need access to the project, need to be added when they are expected to work on or review the estimate.
Setup a schedule to:

+ Add the Design Team members at the end of Project Scoping
+ Add specialty Group members → when they need to work on the estimate and to remove them from access when their work is complete.
+ Add Program Management when the CCFA authorization is requested.

User’s may be added or deleted for the time period they need access to the estimate, but at least one additional Design Team member needs to be listed until the project is turned in for Advertisement.

Adding View/Modify users

Click the ADD button to insert a blank in the Access Authorization area.

Enter the users WSDOT system ID, (This is usually the first part of someone’s email, e.g. humepot@wsdot.wa.gov)

After you have entered the “User ID”

Click SAVE, → Click CLOSE

This gives the user Basic access, allowing them to perform necessary revisions to the estimate and print reports.

Adding Estimate Owners

Begin by using the same procedure as outlined above. To Allow the user to have full control to the estimate, place a Checkmark in the Owner box before saving and closing the access authorization screen.

The New User will need to re-start EBASE for authorization to be activated.

Access Rights and New Estimate Versions or Estimate Copies

Users that have been granted access for an estimate will retain those access privileges through all future Versions of that estimate. However, if a copy of the estimate is created with a new Job Number, all users will be removed from access except the estimate creator/owner.
EBASE CODES

PreQual, Work Class and Federal Work Type
# PreQual Code List

This is a listing of the standard Pre-classification codes used by WSDOT. For specialty work that may not be covered by one of these codes, contact the Contract Ad & Award Prequalification manager for a determination.

<table>
<thead>
<tr>
<th>PreQual Code</th>
<th>PreQual Description</th>
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<tbody>
<tr>
<td>A1</td>
<td>Any Class</td>
</tr>
<tr>
<td>A2</td>
<td>Asphalt Concrete Curb, Gutter &amp;/or Sidewalk &amp; Driveway</td>
</tr>
<tr>
<td>A4</td>
<td>Asphalt Concrete Paving</td>
</tr>
<tr>
<td>A6</td>
<td>Asphalt Concrete Pavement (Laydown Only)</td>
</tr>
<tr>
<td>A8</td>
<td>Asphalt Emulsified Paving</td>
</tr>
<tr>
<td>A0</td>
<td>Asphalt Heater Paving</td>
</tr>
<tr>
<td>B2</td>
<td>Asphalt Treated Base</td>
</tr>
<tr>
<td>B4</td>
<td>Bituminous Surface Treatment</td>
</tr>
<tr>
<td>B5</td>
<td>High Friction Surface Treatment</td>
</tr>
<tr>
<td>B6</td>
<td>Bridge Deck Repair</td>
</tr>
<tr>
<td>B8</td>
<td>Bridge Rail</td>
</tr>
<tr>
<td>B0</td>
<td>Bridges &amp; Structures</td>
</tr>
<tr>
<td>C2</td>
<td>Buildings</td>
</tr>
<tr>
<td>C4</td>
<td>Cabinet Work</td>
</tr>
<tr>
<td>C6</td>
<td>Carpentry</td>
</tr>
<tr>
<td>C8</td>
<td>Cement Concrete Curb, Gutter &amp;/or Sidewalk &amp; Driveway</td>
</tr>
<tr>
<td>C0</td>
<td>Cement Concrete Paving</td>
</tr>
<tr>
<td>D2</td>
<td>Cement Concrete Street Paving</td>
</tr>
<tr>
<td>D4</td>
<td>Cement Treated Base</td>
</tr>
<tr>
<td>D5</td>
<td>Cleaning Streets</td>
</tr>
<tr>
<td>D6</td>
<td>Clearing &amp; grubbing</td>
</tr>
</tbody>
</table>
D0  Concrete Barrier Construction
E2  Concrete Planing and Grooving
E4  Concrete Restoration
E6  Concrete Sawing &/or Coring
E7  Concrete Surface Treatment
E8  Concrete Slope Protection
E0  Concrete Structures Except Bridges
F2  Concrete Structures (Foundations etc.)
F4  Crushed Surfacing (Placing only)
F6  Crushing
F8  Demolition
F0  Doors
G2  Drainage
G4  Distribution of Water (Incl. Crop Irrigation)
G6  Dredging
G8  Drilling & Blasting
G0  Drywall Construction
H2  Electrical
H3  Electronics - Fiber Optics Based Communication Systems
H4  Intelligent Transportation System
H5  Engineering (Other than Surveying)
H6  Epoxy Repair
H8  Erecting
H0  Erosion Control
I2  Excavating & Backfilling
I4  Expansion Dam Work
I6  Fencing

EBASE User’s Guide
I8  Fence Removal
I9  Floating Vessel - Const., Conversion, Repair
I0  Floor Covering
J2  Gabions
J4  Glass
J6  Grading
J8  Grouting (Pressure)
J0  Guardrail
K2  Guardrail Removal
K4  Guide Posts
K6  Guide Posts Removal
K8  Hauling
K9  Hazardous Waste Removal
K0  Heating
L2  Herbicide Application
L4  Horizontal Drains
L6  Impact Attenuators
L8  Insecticide Application
L0  Insulation
M2  Iron Work
M4  Irrigation Systems (Landscape)
M6  Joint Sealing
M8  Landscaping
M0  Erosion Control
N2  Lane Markers
N4  Marine Work (not ferry)
N6  Masonry Mechanical

EBASE User’s Guide

Section 15 – EBASE Codes
N8 Mechanical
N0 Median or Traffic Barrier (Precast)
O2 Metal Retaining Wall
O4 Monument Cases & Covers
O6 Mowing
O8 Painting &/or Sealing Concrete
O0 Painting Buildings
P1 Painting (Ferry Terminals)
P2 Painting
P4 Painting Steel Structures
P6 Paint Striping
P8 Pavement Jacking
P0 Pavement Marking (Paint)
Q2 Pavement Marking Removal
Q4 Pile Driving
Q6 Pipe Jacking
Q8 Pit Reclamation
Q0 Planting
R2 Plumbing
R4 Pore Pressure Device
R6 Post Tensioning
R8 Prestressed Concrete (Fabrication)
R9 Railroad Construction
R0 Riprap
S2 Rock Bolts
S4 Rock Walls
S6 Roofing
EBASE User’s Guide
S7  Roofing (Ferry Terminals)
S8  R/W Markers
S0  Sandblasting
T2  Seeding, Fertilizing & Mulching
T4  Septic Tanks
T6  Settlement Indicators
T7  Sewage Disposal
T8  Sewer Lines
T0  Shaft Excavation
U2  Sheet Metal
U4  Signing
U6  Signing Removal
U8  Sign Structures
U9  Slurry, Diaphragm, and cut-off Walls
U0  Steel Rebar
V2  Steel Rebar for Cement Concrete Pavement
V3  Surveying
V4  Structural Plate Pipe
V5  Terminal Buildings (Ferry)
V6  Thermoplastic Pavement Markings
V7  Tieback Anchors Rock, Soil
V8  Tile
V0  Timber Bridges
W2  Traffic Buttons
W3  Traffic Control
W4  Traffic Curb
W6  Traffic Signal System
W7  Transporting (hauling materials)
W8  Tunnels
W9  Tunnel Cleaning
W0  Ventilation Systems
X2  Water Lines
X4  Water Proof Membrane (Deck Seal)
X6  Welding
X8  Well Drilling
X0  Wire Mesh Slope Protection
Work Class Codes

Class 1  Clearing, grubbing, grading and draining
Removal of tree stumps, shrubs, modification of the ground surface by cuts and fills, excavating of earth materials, placement of drainage structures, and construction of structural earth walls.

Class 2  Production and placing of crushed materials
Production and placing crushed surfacing materials and gravel.

Class 3  Bituminous surface treatment
Placing of crushed materials with asphaltic application.

Class 4  Asphalt concrete paving
Production and placing Asphalt Concrete Plant Mix Pavement.

Class 5  Cement concrete paving
Production and placing cement concrete pavement.

Class 6  Bridges and structures
Construction of bridges and other major structures of timber, steel, and concrete.

Class 7  Buildings
Construction of buildings and related structures and major reconstruction and remodeling of such buildings.

Class 8  Painting
Painting bridges, buildings, and related structures.

Class 9  Traffic signals
Installation of traffic signal and control systems.

Class 10  Structural tile cleaning
Cleaning tunnels, large buildings and structures and storage tanks.

Class 11  Guardrail
Construction of a rail secured to uprights and erected as a barrier between, or beside lanes of a highway.

Class 12  Pavement marking (excluding painting)
Thermoplastic markings, stripes, bars, symbols, etc. Traffic buttons, lane markers, guide posts.

Class 13  Demolition
Removal of timber, steel, and concrete structures and obstructions.

Class 14  Drilling and blasting
Controlled blasting of rock and obstructions by means of explosives.
Class 15  Sewers and water mains
Draining, pipe jacking, water systems, pumping stations, storm drainage systems, sewer rehabilitation, sewage pumping stations, pressurized lines.

Class 16  Illumination and general electrical
Highway illumination, navigational lighting, wiring, junction boxes, conduit installation.

Class 17  Cement concrete curb and gutter
Sidewalks, spillways, driveways, monument cases and covers, right of way markers, traffic curbs, and gutters.

Class 18  Asphalt concrete curb and gutter
Sidewalks, spillways, driveways, monument cases and covers, right of way markers, traffic curbs, and gutters.

Class 19  Riprap and rock walls
Mortar, rubble, and masonry walls; rock retaining walls, and placing of large broken stone on earth surfaces for protection against the action of water.

Class 20  Concrete structures except bridges
Cast-in-place median barrier, prestressing, post-tensioned structures, footings, prefabricated panels and walls, retaining walls, and ramps, foundations, rock bolts, and concrete slope protection.

Class 21  Tunnels and shaft excavation
Tunnel excavation, rock tunneling, and soft bore tunneling.

Class 22  Piledriving
Driving concrete, steel, and timber piles.

Class 23  Concrete surface finishes
Architectural concrete surface finishes (fractured fin, random board, exposed aggregate, etc.). Waterproofing concrete surfaces (clear or pigmented sealer).

Class 24  Fencing
Wire and metal fencing, glare screens.

Class 25  Bridge deck repair
Bridge expansion joint repair and modification, bridge deck resurfacing and repair, deck seal.

Class 26  Not used

Class 27  Signing
Sign structures and sign foundations.
Class 28  Drilled large diameter slurry shafts
Drilled shafts 4' diameter or larger and greater than 15' deep when excavation is performed utilizing the wet method and concrete is placed by tremie methods under slurry.

Class 29  Slurry diaphragm and cut-off walls
Slurry excavation and the construction of structural concrete walls and slurry cut-off walls.

Class 30  Surveying
Highway construction surveying.

Class 31  Water distribution and irrigation
Irrigation systems and heavy duty water distribution.

Class 32  Landscaping
Landscape irrigation, planting, sodding, seeding, fertilizing, mulching, herbicide application, insecticide application, weed control, mowing, liming, soil binder, topsoil.

Class 33  Engineering
Work other than surveying, including engineering calculations, drawing and other related work for highway construction.

Class 34  Erosion control
Seeding, fertilizing, mulching, slope protection, topsoil application, hydro-seeding, soil stabilization, soil sampling.

Class 35  Precast median barrier
A concrete barrier that is cast and cured in other than its final position used to divide the median of two adjacent highways or temporarily placed to divert traffic in construction zones.

Class 36  Earth retention and anchoring
Installation of permanent soil nails, soldier piles, timber lagging and micropiles. Soldier pile tie-back anchor wall construction.

Class 37  Impact attenuators
Installation of approved protective systems filled with sand, water, foam, or other substances which prevent errant vehicles from impacting roadside hazards.

Class 38  Paint striping
Painted bars, letters, symbols, and striping.

Class 39  Slope protection
The installation of a zinc coated steel wire mesh anchored by wire rope and reinforced concrete posts or anchor rods. Used for dampening the effects of rolling rocks onto the highway. Slope scaling, horizontal drains, rock dowels, and rock bolts for slope stabilization.

Class 40  Gabion and gabion construction
Construction of walls made with containers of galvanized steel hexagonal wire mesh and filled with stone.
Class 41  **Intelligent transportation systems (ITS)**  
Traffic sensors systems, highway advisory radios, environmental sensing stations, variable message signs, nonfiber optic based closed circuit television, and video systems.

Class 42  **Electronics - Fiber optic based communications systems**  
Design and installation of fiber optic based communication systems.

Class 43  **Mechanical**  
Plumbing work and the installation of heating or air conditioning units.

Class 44  **Asbestos abatement**  
Asbestos abatement (L & I certified workers).

Class 45  **Hazardous waste removal**  
The containment, cleanup, and disposal of toxic materials. Companies seeking this classification shall have full-time personnel with current hazardous waste training (certifications).

Class 46  **Concrete restoration**  
Pavement subseal, cement concrete repair, epoxy coatings, epoxy repair, masonry repair, masonry cleaning, special coatings, epoxy injection, gunite, shotcrete grouting, pavement jacking, gunite repair, and pressure grouting.

Class 47  **Concrete sawing, coring, and grooving**  
Concrete sawing, concrete planing, grinding, grooving, bump grinding, joint repair, concrete coring and rumble strips.

Class 48  **Dredging**  
Excavating underwater materials.

Class 49  **Marine work**  
Underwater surveillance, testing, repair, subaquatic construction, anchors, and cable replacement, floating concrete pontoon repairs and modifications, disassembly and assembly of floating concrete pontoons.

Class 50  **Ground modification**  
Pressure grouting, blast densification, stone column, jet grouting, compaction, dynamic compaction, soil mixing, gravel drain.

Class 51  **Well drilling**  
Drilling wells, installing pipe casing and pumping stations.

Class 52  **Sewage disposal**  
Hauling and disposing liquid and solid wastes.

Class 53  **Traffic control**  
Providing piloted traffic control, traffic control labor, and maintenance and protection of traffic.
Class 54  Railroad construction
Construction of railroad subgrade, placing of ballast, ties, and track and other items related to railroad work.

Class 55  Steel fabrication
Welding of steel members, heat straightening steel.

Class 56  Street cleaning
Street sweeping with self-propelled sweeping equipment.

Class 57  Materials transporting
Truck hauling.

Class 58  Sand blasting and steam cleaning
Steam cleaning, sand blasting, shot blasting, and water blasting.
### Federal Work Type Codes

<table>
<thead>
<tr>
<th>Federal Work Type Code</th>
<th>Description</th>
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</thead>
<tbody>
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<td>Primitive</td>
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<tr>
<td>B000</td>
<td>Unimproved</td>
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<tr>
<td>C000</td>
<td>Grade &amp; Drained Earth</td>
</tr>
<tr>
<td>D000</td>
<td>Soil Surface</td>
</tr>
<tr>
<td>E000</td>
<td>Gravel or Stone</td>
</tr>
<tr>
<td>F000</td>
<td>Bituminous Surface Treatment</td>
</tr>
<tr>
<td>I000</td>
<td>Bituminous Concrete</td>
</tr>
<tr>
<td>INSP</td>
<td>BRIDGE INVENTORY</td>
</tr>
<tr>
<td>J000</td>
<td>Portland Cement Concrete</td>
</tr>
<tr>
<td>K000</td>
<td>All Others</td>
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<tr>
<td>MAIN</td>
<td>MAINTENANCE</td>
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<tr>
<td>PDES</td>
<td>PRELIMINARY DESIGN</td>
</tr>
<tr>
<td>PE-1</td>
<td>ROUTE PLANNING, LOCATION STUDIES</td>
</tr>
<tr>
<td>PE-2</td>
<td>ENGINEERING DESIGN &amp; CONSTRUCTION PLANS</td>
</tr>
<tr>
<td>PENG</td>
<td>PRELIMINARY ENGINEERING</td>
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<tr>
<td>PLAN</td>
<td>PLANNING</td>
</tr>
<tr>
<td>R/WS</td>
<td>ACQUISITION OF SCENIC STRIPS OUTSIDE OF ROW</td>
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<tr>
<td>RESH</td>
<td>RESEARCH</td>
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<td>R-MP</td>
<td>RESIDENTIAL MOVING PAYMENTS</td>
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<td>R-SC</td>
<td>RELOCATION SERVICES COSTS</td>
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<td>BUSINESS AND FARM PAYMENTS</td>
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<td>RW/O</td>
<td>REPLACEMENT HOUSING PAYMENTS - OWNERS</td>
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<tr>
<td>RW/T</td>
<td>REPLACEMENT HOUSING PAYMENTS - TENENTS</td>
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<td>SFTY</td>
<td>Safety</td>
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EBASE User's Guide  
Section 15 – EBASE Codes
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<td>Y000</td>
<td>MISCELLANEOUS</td>
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<tr>
<td>Y002</td>
<td>TRAFFIC SIGNS</td>
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<tr>
<td>Y003</td>
<td>LANDSCAPING</td>
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<tr>
<td>Y004</td>
<td>ALL CLEARING</td>
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<tr>
<td>Y005</td>
<td>WILDFLOWER PLANTING</td>
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<tr>
<td>Y007</td>
<td>MINOR STRUCTURE</td>
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<tr>
<td>Y008</td>
<td>CHANNELIZATION FOR TRAFFIC</td>
</tr>
<tr>
<td>Y009</td>
<td>SLOPE STABILIZATION / SLIDE PROTECTION</td>
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<tr>
<td>Y010</td>
<td>COAL ASH</td>
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<tr>
<td>Y021</td>
<td>SAFETY REST AREAS AND SCENIC OVERLOOKS</td>
</tr>
<tr>
<td>Y022</td>
<td>COMFORT AND CONVENIENCE FACILITIES</td>
</tr>
<tr>
<td>Y023</td>
<td>SCREENING UNSIGHTLY AREAS</td>
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<tr>
<td>Y024</td>
<td>RECREATIONAL FACILITIES</td>
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<td>Y025</td>
<td>FRINGE PARKING</td>
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<tr>
<td>Y031</td>
<td>TRAFFIC SIGNALS</td>
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<tr>
<td>Y032</td>
<td>FREEWAY TRAFFIC SURVEILLANCE AND CONTROL SYSTEMS</td>
</tr>
<tr>
<td>Y033</td>
<td>COMPUTERIZED TRAFFIC SIGNAL SYSTEM</td>
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<td>Y034</td>
<td>MOTORIST AID SYSTEM</td>
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<td>NOISE ABATEMENT</td>
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<tr>
<td>Y222</td>
<td>TRUCK SCALES, FIXED</td>
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# Federal Safety Class Codes

<table>
<thead>
<tr>
<th>Safety Class Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>1A</td>
<td>CHANNELIZATION, TURNING LANES</td>
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<tr>
<td>1B</td>
<td>SIGHT DISTANCE IMPROVEMENTS</td>
</tr>
<tr>
<td>1C</td>
<td>TRAFFIC SIGNS</td>
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<tr>
<td>1D</td>
<td>MARKING AND/OR DELINEATORS, MAJOR ITEM</td>
</tr>
<tr>
<td>1E</td>
<td>ILLUMINATION, MAJOR ITEM OF PROJECT</td>
</tr>
<tr>
<td>1F</td>
<td>TRAFFIC SIGNALS, UPGRADE</td>
</tr>
<tr>
<td>1G</td>
<td>TRAFFIC SIGNALS, NEW</td>
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<tr>
<td>2A</td>
<td>WIDEN OR MODIFY BRIDGE FOR SAFETY</td>
</tr>
<tr>
<td>2B</td>
<td>BRIDGE REPLACEMENT FOR SAFETY</td>
</tr>
<tr>
<td>2C</td>
<td>BRIDGE CONSTRUCTION, NEW FOR SAFETY</td>
</tr>
<tr>
<td>2D</td>
<td>REPLACE/IMPROVE MINOR STRUCTURE SAFETY</td>
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<td>2E</td>
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<tr>
<td>3A</td>
<td>WIDEN TRAVELED WAY, NO LANES ADDED</td>
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<tr>
<td>3B</td>
<td>ADD LANE(S) TO TRAVELED WAY</td>
</tr>
<tr>
<td>3C</td>
<td>INSTALL MEDIAN/ROADWAY SEPARATION</td>
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<tr>
<td>3D</td>
<td>SHOULDER WIDENING/IMPROVEMENT</td>
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<tr>
<td>3E</td>
<td>ROADWAY REALIGNMENT, EXCEPT RR</td>
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<tr>
<td>3F</td>
<td>SKID TREATMENT - OVERLAY</td>
</tr>
<tr>
<td>3G</td>
<td>PAVEMENT GROOVING</td>
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<td>3H</td>
<td>BREAKAWAY SIGN SUPPORT</td>
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<tr>
<td>3I</td>
<td>RELOCATE/BREAKAWAY UTILITY POLES</td>
</tr>
<tr>
<td>3J</td>
<td>GUARDRAIL END TREATMENT</td>
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<tr>
<td>3K</td>
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<tr>
<td>Section</td>
<td>Description</td>
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<td>3M</td>
<td>INSTALL MEDIAN BARRIER</td>
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<tr>
<td>3N</td>
<td>IMPACT ATTENUATOR</td>
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<td>FLATTEN SIDE SLOPES: REGRADING</td>
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<tr>
<td>3P</td>
<td>WORKSITE SAFETY/MAINT. TRAFFIC</td>
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<td>3Q</td>
<td>BRIDGE APPROACH/GUARDRAIL TRANSITION</td>
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<td>4B</td>
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<td>4C</td>
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<td>4D</td>
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<td>RR SIGNS &amp; CROSSINGS</td>
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<td>RR CROSSBUCKS</td>
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<td>5C</td>
<td>RR XING ILLUMINATION</td>
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<tr>
<td>5F</td>
<td>RR XING GATES &amp; FLASH. LIGHTS, NEW</td>
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<td>5H</td>
<td>RR TRACK CIRCUITRY ONLY</td>
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<td>5I</td>
<td>RR XING SURFACE IMPROVEMENT</td>
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<td>5J</td>
<td>RR CROSSING ALIGHNENT IMPROVEMENT</td>
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<td>5K</td>
<td>RR XING SIGHT DISTANCE IMPROVEMENT</td>
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<td>5L</td>
<td>RR XING ELIMINATION BY COURSE</td>
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<td>5M</td>
<td>RR GRADE SEP. TO ELIM. EXIST. XING</td>
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<td>RR GD. SEP. TO ELIM. POTENTIAL XING</td>
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<td>RECONSTRUCT RR GRADE SEPARATION</td>
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<tr>
<td>Code</td>
<td>Description</td>
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<td>--------------------------------------------</td>
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<td>5P</td>
<td>RELOC/CONSOLIDATE RR SAFETY</td>
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<td>6A</td>
<td>MISC. SAFETY IMPROVEMENT</td>
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</table>
EBASE Report Examples
The following examples contain color coding or explanations of how the data entered in the EBASE screens, relates to how and where the data is located in the reports available for printing.
**PRELIMINARY ESTIMATE - SUMMARY**

**HIGHWAY**

SR 000, 090

**PROJECT TITLE**

I 90
Ebase training
PCCP I/S Rehab
000

**TYPE OF WORK**

This work shall consist of removing asphalt concrete pavement, placing Portland cement concrete pavement, pavement markings, upgrade signal system components, adjusting inlets and other work.

**FEDERAL AID PROJECT NO**

IM-0906(211)

**COUNTY(S)**

Spokane

**PROGRAM ITEM NUMBER(s)**

009001G, 609001F, 609049Z

**CONTROL SECTIONS**

3200CY, 320103

---

**ESTIMATED COST DATA**

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONTRACT TOTAL</strong></td>
<td>$308,695.00</td>
</tr>
<tr>
<td>Washington state sales tax: 8.70% of $277,515.00 (Groups: 1, 2, 3, 5, 6, 7)</td>
<td>$24,143.81</td>
</tr>
<tr>
<td>701 Electrical service agreement SCD-2252</td>
<td>$350.00</td>
</tr>
<tr>
<td>702 Service agreement SCX2643</td>
<td>$10,000.00</td>
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<tr>
<td>700 Motorist assistance patrol (WSP) T-9031</td>
<td>$1,500.00</td>
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<td><strong>PROJECT SUBTOTAL</strong></td>
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<td>Engineering 15.00%</td>
<td>$51,703.32</td>
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<td>Contingencies 4.00%</td>
<td>$13,787.55</td>
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<td>Bridge railing procurement</td>
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<td><strong>TOTAL COST OF PROJECT</strong></td>
<td>$448,179.68</td>
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**Estimate Summary Report**

Provides a summary of all the estimate costs. (Only report other than the work order worksheet where $600 level non-bid items are shown.)
HIGHWAY: SR 000, 090

PROJECT TITLE: I 90 EBASE TRAINING PCCP I/S REHAB 000

TYPE OF WORK: THIS WORK SHALL CONSIST OF REMOVING ASPHALT CONCRETE PAVEMENT, PLACING PORTLAND CEMENT CONCRETE PAVEMENT, PAVEMENT MARKINGS, UPGRADE SIGNAL SYSTEM COMPONENTS, ADJUSTING INLETS AND OTHER WORK.

FEDERAL AID PROJECT NO: IM-0906(211)

COUNTY(S): SPOKANE

PROGRAM ITEM NUMBER(s): 009001G, 609001H, 609049Z

CONTROL SECTIONS: 3200CY, 320103

ESTIMATED COST DATA:

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<tr>
<th>Item Description</th>
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<tr>
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<tr>
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<tr>
<td>702 SERVICE AGREEMENT SCX2643</td>
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<tr>
<td>700 MOTORIST ASSISTANCE PATROL (WSP) T-9031</td>
<td>1,500.00</td>
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<td><strong>PROJECT SUBTOTAL</strong></td>
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<td>CONTINGENCIES 4.00%</td>
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<tr>
<td>STATE SUPPLIED SIGNAL SYSTEM COMPONENTS</td>
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<td>STATE SUPPLIED SIGNAL SYSTEM COMPONENTS</td>
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<td><strong>TOTAL COST OF PROJECT</strong></td>
<td>463,702.04</td>
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I 90 EBASE TRAINING PCCP I/S REHAB 000

ALTERNATE 1
HIGHWAY: SR 000, 090
PROJECT TITLE: I 90
   EBASE TRAINING
   PCCP I/S REHAB
   000

TYPE OF WORK: THIS WORK SHALL CONSIST OF REMOVING ASPHALT CONCRETE PAVEMENT, PLACING PORTLAND CEMENT CONCRETE PAVEMENT, PAVEMENT MARKINGS, UPGRADE SIGNAL SYSTEM COMPONENTS, ADJUSTING INLETS AND OTHER WORK.

FEDERAL AID PROJECT NO: IM-0906(211)
COUNTY(S): SPOKANE
PROGRAM ITEM NUMBER(s): 009001G, 609001F, 609049Z
CONTROL SECTIONS: 3200CY, 320103

ESTIMATED COST DATA:

CONTRACT TOTAL: BASE PLUS ALTERNATE A2
   318,195.00
WASHINGTON STATE SALES TAX: 8.70% OF $ 287,015.00 (GROUPS: 1, 2, 3, 5, 6, 7)
   24,970.31
   350.00
   10,000.00
   1,500.00
PROJECT SUBTOTAL
   355,015.31 **

ENGINEERING 15.00%
   53,252.30

CONTINGENCIES 4.00%
   14,200.61

BRIDGE RAILING PROCUREMENT
   30,000.00

STATE SUPPLIED SIGNAL SYSTEM COMPONENTS
   4,000.00

I 90
EBASE TRAINING
PCCP I/S REHAB
000

ALTERNATE 2
HIGHWAY: SR 000, 090

PROJECT TITLE: I 90
EBASE TRAINING
PCCP I/S REHAB
000

TYPE OF WORK: THIS WORK SHALL CONSIST OF REMOVING ASPHALT CONCRETE PAVEMENT, PLACING PORTLAND CEMENT CONCRETE PAVEMENT, PAVEMENT MARKINGS, UPGRADE SIGNAL SYSTEM COMPONENTS, ADJUSTING INLETS AND OTHER WORK.

FEDERAL AID PROJECT NO: IM-0906 (211)
COUNTY(S): SPOKANE
PROGRAM ITEM NUMBER(s): 009001G, 609001F, 609049Z
CONTROL SECTIONS: 3200CY, 320103

ESTIMATED COST DATA:

STATE SUPPLIED SIGNAL SYSTEM COMPONENTS
4,000.00

TOTAL COST OF PROJECT
460,468.22

PROJECT REMARKS: AGREEMENTS:
AGREEMENT GCA-4912 FOR $9,000 WITH CITY
<table>
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<th>ITEM</th>
<th>STD. NO.</th>
<th>NO.</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT</th>
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<th>UNIT PRICE</th>
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<td>CULVERT</td>
<td>L.S.</td>
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<td>STRUCTURE</td>
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<td>4013</td>
<td>SHORING OR EXTRA EXCAVATION CL. A</td>
<td>L.S.</td>
<td>5,000.00</td>
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<td>REIMBURSEMENT FOR THIRD PARTY DAMAGE</td>
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<td>BASE PLUS ALT A1 TOTAL</td>
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<td>320,695.00</td>
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<td>BASE PLUS ALT A2 TOTAL</td>
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<td>318,195.00</td>
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WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
ESTIMATES AND BIDS ANALYSIS SYSTEM
**PRELIMINARY ESTIMATE - FUND REPORT**

<table>
<thead>
<tr>
<th>Fund 5</th>
<th>Fund 5</th>
<th>TOTAL</th>
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<tr>
<td>FEDERAL</td>
<td>STATE</td>
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<tr>
<td>IM-0906(211)</td>
<td>(1) 90.00%</td>
<td>(2) 100.00%</td>
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<tr>
<td>249,759.00</td>
<td>27,751.00</td>
<td>277,510.00</td>
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Base Contract Total

- Washington State Sales Tax 8.70% of $277,510.00
- 700 - 700 Motorist Assistance Patrol (WS &
- 701 - 701 Electrical Service Agreement $
- 702 - 702 Service Agreement SCX2643

Base Project Subtotal

- Engineering 15.00%
- Contingencies 4.00%
- 801 - State Supplied Signal System Compo
- 802 - State Supplied Signal System Compo

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Fund</th>
<th>State</th>
<th>Total</th>
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<tr>
<td>1</td>
<td>Washington State Sales Tax 8.70%</td>
<td>21,729.03</td>
<td>2,414.34</td>
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<td>700 - 700 Motorist Assistance Patrol (WS &amp;</td>
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<td>150.00</td>
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<td>3</td>
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<td>315.00</td>
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<tr>
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<td>7</td>
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Example includes
- General Info Tab
- Non-Bid Item Tab (below the line items)
## Preliminary Estimate - Fund Report

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<th>Fund 5</th>
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<tbody>
<tr>
<td>FEDERAL</td>
<td>STATE</td>
</tr>
<tr>
<td>IM-0906(211)</td>
<td></td>
</tr>
<tr>
<td>(1) 90.00%</td>
<td>(2) 100.00%</td>
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<tr>
<td><strong>342,962.10</strong></td>
<td><strong>38,106.90</strong></td>
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**Total**: 381,069.00

### Federal Toll Credits

1. See Groups 1, 2, 3, 6, 7
2. See Groups 1, 2, 3, 5, 6, 7

**FunDS Tab: Fund Remarks**

<table>
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<tr>
<th>I 90</th>
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<tbody>
<tr>
<td>EBASE TRAINING</td>
</tr>
<tr>
<td>PCCP I/S REHAB</td>
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### Preliminary Estimate - Fund Report

**WASHINGTON STATE DEPARTMENT OF TRANSPORTATION**

**ESTIMATES AND BIDS ANALYSIS SYSTEM**

<table>
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<th>Fund 20</th>
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<td>(1) 100.00%</td>
<td>(2) 100.00%</td>
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<td>31,180.00</td>
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<td>37,104.20</td>
<td>6.48</td>
<td>37,110.68</td>
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**GCA 4912 AGREEMENT**

- (1) SEE GROUPS 4
- (2) SEE GROUPS 1, 2, 3, 5, 6, 7

**WASHINGTON STATE SALES TAX 8.70% OF $5.00**

**BASE CONTRACT TOTAL**

**ENGINEERING 15.00%**

**CONTINGENCIES 4.00%**

**BASE PROJECT SUBTOTAL**

**STATE TRAINING**

**PCCP I/S REHAB**

000

---

**Funds 108&20**
THIS CERTIFIES THAT THE UNDERSIGNED HAS EXAMINED THE LOCATION OF

AND THAT THE PLANS, SPECIFICATIONS AND CONTRACT GOVERNING THE WORK EMBRACED IN THIS IMPROVEMENT, AND THE METHOD BY WHICH PAYMENT WILL BE MADE FOR SAID WORK IS UNDERSTOOD. THE UNDERSIGNED HEREBY PROPOSES TO UNDERTAKE AND COMPLETE THE WORK EMBRACED IN THIS IMPROVEMENT, OR AS MUCH THEREOF AS CAN BE COMPLETED WITH THE MONEY AVAILABLE IN ACCORDANCE WITH THE SAID PLANS, SPECIFICATIONS AND CONTRACT, AND THE FOLLOWING SCHEDULE OF RATES AND PRICES:

(Note: Unit prices for all items, all extensions, and total amount of bid shall be shown. All entries must be typed or entered in ink.)

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>QUANTITY</th>
<th>PRICE PER UNIT (STANDARD ITEM NUMBER)</th>
<th>TOTAL AMOUNT DOLLARS</th>
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<td>()</td>
<td>3 EACH</td>
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<tr>
<td>4</td>
<td>ROADWAY EXCAVATION INCL. HAUL</td>
<td>AT</td>
<td>0310</td>
<td>5,342. CU. YD.</td>
</tr>
<tr>
<td>5</td>
<td>PAVEMENT REPAIR EXCAVATION INCL. HAUL</td>
<td>AT</td>
<td>0332</td>
<td>505. SQ. YD.</td>
</tr>
<tr>
<td>6</td>
<td>CRUSHED SURFACING BASE COURSE</td>
<td>AT</td>
<td>5100</td>
<td>2,269. TON</td>
</tr>
<tr>
<td>7</td>
<td>PORTLAND CEMENT CONC. COMPLIANCE ADJUSTMENT</td>
<td>CALCULATED</td>
<td>5638</td>
<td>39,505.00</td>
</tr>
<tr>
<td>8</td>
<td>CEMENT CONC. PAVEMENT</td>
<td>AT</td>
<td>5625</td>
<td>4,170. CU. YD.</td>
</tr>
</tbody>
</table>

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PLAN QUANTITY</th>
<th>ITEM DESCRIPTION (STANDARD ITEM NUMBER)</th>
<th>PRICE PER UNIT DOLLARS *</th>
<th>TOTAL AMOUNT DOLLARS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CEMENT CONCRETE PAVEMENT</td>
<td></td>
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<tr>
<td>9</td>
<td>10,200. EACH</td>
<td>EPOXY-COATED DOWEL BARS ()</td>
<td>AT PER EACH</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>405. LIN. FT.</td>
<td>MHA/PCCP TRANSVERSE JOINT ()</td>
<td>AT PER LIN. FT.</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>HOT MIX ASPHALT</td>
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<td></td>
</tr>
<tr>
<td>11</td>
<td>175. TON</td>
<td>MHA FOR PAVEMENT REPAIR CL. 1/2 IN. PG 70-28 (5739)</td>
<td>AT PER TON</td>
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<tr>
<td>12</td>
<td>536. LIN. FT.</td>
<td>LONGITUDINAL JOINT SEAL ()</td>
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<tr>
<td></td>
<td></td>
<td>EROSION CONTROL AND PLANTING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>10. DAY</td>
<td>ESC LEAD (6403)</td>
<td>AT PER DAY</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>ESTIMATED</td>
<td>EROSION/WATER POLLUTION CONTROL (6490)</td>
<td>ESTIMATED 2,500.00</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>TRAFFIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>7,940. LIN. FT.</td>
<td>PAINT LINE (6806)</td>
<td>AT PER LIN. FT.</td>
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</tr>
<tr>
<td>16</td>
<td>LUMP SUM</td>
<td>PERMANENT SIGNING (6890)</td>
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<tr>
<td>17</td>
<td>LUMP SUM</td>
<td>TRAFFIC SIGNAL SYSTEM - PINES SOUTH SIGNAL SYSTEM 1 (6912)</td>
<td>LUMP SUM</td>
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</tr>
<tr>
<td>18</td>
<td>LUMP SUM</td>
<td>SIGNAL INTERCONNECT SYSTEM 2 ()</td>
<td>LUMP SUM</td>
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<tr>
<td>19</td>
<td>LUMP SUM</td>
<td>PROJECT TEMPORARY TRAFFIC CONTROL (6971)</td>
<td>LUMP SUM</td>
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<tr>
<td>20</td>
<td>2,261. SQ. FT.</td>
<td>CONSTRUCTION SIGNS CLASS A (6982)</td>
<td>AT PER SQ. FT.</td>
<td></td>
</tr>
</tbody>
</table>

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PLAN</th>
<th>QUANTITY</th>
<th>ITEM DESCRIPTION (STANDARD ITEM NUMBER)</th>
<th>PRICE PER UNIT DOLLARS *</th>
<th>TOTAL AMOUNT DOLLARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td></td>
<td>743. SQ. YD.</td>
<td>CEMENT CONC. TRAFFIC ISLAND ()</td>
<td>AT PER SQ. YD.</td>
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<tr>
<td>22</td>
<td>LUMP SUM</td>
<td>CURE BOX (7028)</td>
<td>LUMP SUM</td>
<td></td>
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<tr>
<td>23</td>
<td>LUMP SUM</td>
<td>ROADWAY SURVEYING (7038)</td>
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<td>24</td>
<td>2. EACH</td>
<td>CEMENT CONC. SIDEWALK RAMP TYPE 2B (7058)</td>
<td>AT PER EACH</td>
<td></td>
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<tr>
<td>25</td>
<td>2. EACH</td>
<td>ADJUST MANHOLE (3080)</td>
<td>AT PER EACH</td>
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<td></td>
</tr>
<tr>
<td>26</td>
<td>1. EACH</td>
<td>ADJUST CATCH BASIN (3100)</td>
<td>AT PER EACH</td>
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<td></td>
</tr>
<tr>
<td>27</td>
<td>1. EACH</td>
<td>ADJUST VALVE BOX (6243)</td>
<td>AT PER EACH</td>
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<td></td>
</tr>
<tr>
<td>28</td>
<td>ESTIMATED</td>
<td>ROADSIDE CLEANUP (7480)</td>
<td>ESTIMATED</td>
<td>3,000.00</td>
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<td>29</td>
<td>ESTIMATED</td>
<td>REIMBURSEMENT FOR THIRD PARTY DAMAGE (7725)</td>
<td>ESTIMATED</td>
<td>5.00</td>
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<tr>
<td>30</td>
<td>CALCULATED</td>
<td>MINOR CHANGE (7728)</td>
<td>CALCULATED</td>
<td>-1.00</td>
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<tr>
<td>31</td>
<td>LUMP SUM</td>
<td>SPCC PLAN (7736)</td>
<td>LUMP SUM</td>
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</table>

**CONTRACT TOTAL:** $ 

**BASE PLUS ALTERNATE A1:** $ 

* - SHOW PRICE PER UNIT IN FIGURES ONLY. FIGURES WRITTEN TO THE RIGHT OF THE DOT (DECIMAL) IN THE PRICE PER UNIT COLUMN SHALL BE INTERPRETED AS CENTS.
CONTRACT NO: 000000

WASHINGTON STATE DEPARTMENT OF TRANSPORTATION
ESTIMATES AND BIDS ANALYSIS SYSTEM
*** PRELIMINARY ESTIMATE - BY GROUP ***

GROUP NO: 1

SULLIVAN I/S PCCP REHABILITATION

<table>
<thead>
<tr>
<th>NO.</th>
<th>ITEM STD. NO.</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT MEAS</th>
<th>UNIT PRICE</th>
<th>QUANTITY</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0001</td>
<td>MOBILIZATION L.S.</td>
<td>113,000.00</td>
<td>4,800.00</td>
<td>600.00</td>
<td>113,000.00</td>
</tr>
<tr>
<td>2</td>
<td>0150</td>
<td>REMOVING TRAFFIC ISLAND S.Y.</td>
<td>600.00</td>
<td>77,710.00</td>
<td>8.0000</td>
<td>4,800.00</td>
</tr>
<tr>
<td>3</td>
<td>0310</td>
<td>ROADWAY EXCAVATION INCL. HAUL C.Y.</td>
<td>19.0000</td>
<td>4,090.00</td>
<td>4,090.00</td>
<td>77,710.00</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>CULVERT L.S.</td>
<td>67,000.00</td>
<td>77,710.00</td>
<td>77,710.00</td>
<td>77,710.00</td>
</tr>
</tbody>
</table>

GROUP 1 BASE SUBTOTAL: 262,510.00

WASHINGTON STATE SALES TAX 8.70% OF $ 262,510.00

701 ELECTRICAL SERVICE AGREEMENT SCD-2252

700 MOTORIST ASSISTANCE PATROL (WSP) T-9031

GROUP 1 TOTAL: 330,278.13

**EBASE TRAINING**
**PCCP I/S REHAB**
**000**
**Program Item Number**: 609001F  
**Constr. Type Code**: Y031  
**Program Code**: F3  
**State Route(s)**: 090  
**County**: Spokane  
**Control Section/Sales Tax**: 320103 / 8.70%  
**Safety Class Code**:  

<table>
<thead>
<tr>
<th>Item Std. No.</th>
<th>Item Description</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Quantity</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4013 Shoring or Extra Excavation Cl. A</td>
<td>L.S.</td>
<td>5,000.00</td>
<td>1.00</td>
<td>5,000.00</td>
</tr>
</tbody>
</table>

**Group 2 Base Subtotal**: 5,000.00

**Washington State Sales Tax 8.70% of $5,000.00**: 435.00

**702 Service Agreement SCX2643**: 15,435.00

**Group 2 Subtotal**: 15,435.00

**Engineering 15.00%**: 2,315.25

**State Supplied Signal System Components**: 4,000.00

**Group 2 Total**: 21,750.25
**WASHINGTON STATE DEPARTMENT OF TRANSPORTATION**

**ESTIMATES AND BIDS ANALYSIS SYSTEM**

***PRELIMINARY ESTIMATE - BY GROUP***

**GROUP NO : 3**

**SULLIVAN SIGNAL UPGRADE**

---

**PROGRAM ITEM NUMBER :** 0090001G  
**CONSTR. TYPE CODE :** Y031  
**PROGRAM CODE :** P3  
**STATE ROUTE(S) :** 090  
**COUNTY :** SPOKANE  
**CONTROL SECTION/SALES TAX :** 320103 / 8.70%  
**SAFETY CLASS CODE :**  
**FUND NO: 5**  
**PARTICIPANT: FEDERAL**  
**PARTICIPATION PERCENT: 90.00%**  
**MAX AMOUNT:**  

**FUND NO: 5**  
**PARTICIPANT: STATE**  
**PARTICIPATION PERCENT: 100.00%**  
**MAX AMOUNT:**  

---

<table>
<thead>
<tr>
<th>ITEM STD. NO.</th>
<th>NO.</th>
<th>NO.</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT MEAS</th>
<th>UNIT PRICE</th>
<th>QUANTITY</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0001</td>
<td></td>
<td>MOBILIZATION</td>
<td>L.S.</td>
<td>10,000.00</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GROUP 3 BASE SUBTOTAL :**  
10,000.00 *

WASHINGTON STATE SALES TAX 8.70% OF $ 10,000.00  
870.00

**GROUP 3 SUBTOTAL**  
10,870.00 **

ENGINEERING 15.00%  
1,630.50

STATE SUPPLIED SIGNAL SYSTEM COMPONENTS  
4,000.00

**GROUP 3 TOTAL**  
16,500.50 ***
**Program Item Number**: 6090492
**Constr. Type Code**: P1
**Program Code**: Pl
**State Route(S)**: 000
**County**: Spokane

**Control Section/Sales Tax**: 3200 CY/0.00%
**Safety Class Code**: 
**Fund No**: 10
**Participant**: GCA-4912

**Item Std. No.**: 0001
**Item Description**: Mobilization
**Unit Meas**: L.S.
**Unit Price**: 5,000.00
**Quantity**: 5,000.00
**Amount**: 25,000.00

**Item Std. No.**: 0150
**Item Description**: Removing Traffic Island
**Unit Meas**: S.Y.
**Unit Price**: 8.00
**Quantity**: 280.00
**Amount**: 2,240.00

**Item Std. No.**: 0310
**Item Description**: Roadway Excavation Incl. Haul
**Unit Meas**: C.Y.
**Unit Price**: 19.00
**Quantity**: 1,260.00
**Amount**: 23,940.00

**Group 4 Base Subtotal**: 31,180.00

**Engineering 15.00%**: 4,677.00

**Group 4 Total**: 35,857.00
# Preliminary Estimate - by Group

**GROUP NO: 5**

**Reimbursement for Third Party Damage**

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item Description</th>
<th>Unit Price</th>
<th>Quantity</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>7725</td>
<td>Reimbursement for Third Party Damage</td>
<td>EST. 5.00</td>
<td>1</td>
<td>5.00</td>
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</table>

**Group 5 Base Subtotal**: 5.00

**Washington State Sales Tax 8.70% of $5.00**

<table>
<thead>
<tr>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Group 5 Subtotal</td>
<td>5.44</td>
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</table>

**Engineering 15.00%**

<table>
<thead>
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<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>Group 5 Total</td>
<td>6.26</td>
</tr>
</tbody>
</table>

---

I 90
EBASE TRAINING
PCCP I/S REHAB
000
**WORK ORDER#:** XL1324  

**CONTRACT NO:** 000000  

**GROUP NO:** 6  

**ITEM STD. NO.** 7  

**ITEM DESCRIPTION:** POOL CHUTE FISHWAY  

**MEAS:** L.S.  

<table>
<thead>
<tr>
<th>MIN. UNIT</th>
<th>UNIT PRICE</th>
<th>QUANTITY</th>
<th>AMOUNT</th>
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<tbody>
<tr>
<td>11,040.00</td>
<td>1,044.00</td>
<td></td>
<td>1,044.00</td>
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<tr>
<td>12,000.00</td>
<td>1,956.60</td>
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<td>1,956.60</td>
</tr>
<tr>
<td>15,000.00</td>
<td>3,000.00</td>
<td></td>
<td>3,000.00</td>
</tr>
<tr>
<td>18,000.00</td>
<td>4,000.00</td>
<td></td>
<td>4,000.00</td>
</tr>
</tbody>
</table>

**GROUP 6 TOTAL**

**WASHINGTON STATE SALES TAX 8.70% OF $12,000.00**

**WASHINGTON STATE DEPARTMENT OF TRANSPORTATION**

**ESTIMATES AND BIDS ANALYSIS SYSTEM**

**PRELIMINARY ESTIMATE - BY GROUP **

**STATE ROUTE(S):** 090  

**COUNTY:** SPOKANE  

**FUND NO:** 5  

**FEDERAL PARTICIPATION PERCENT:** 90.00%

**STATE PARTICIPATION PERCENT:** 100.00%

**MAX AMOUNT:**

---

**GROUP 6 TOTAL**

**WASHINGTON STATE SALES TAX 8.70% OF $12,000.00**
**WASHINGTON STATE DEPARTMENT OF TRANSPORTATION**

**ESTIMATES AND BIDS ANALYSIS SYSTEM**

***PRELIMINARY ESTIMATE - BY GROUP***

**GROUP NO: 7**

**ALTERNATE 2**

**NOTCHED LOG CONTROLS**

---

**PROGRAM ITEM NUMBER**: 609049Z

**STATE ROUTE(S)**: I4

**COUNTY**: SPOKANE

**CONTROL SECTION/SALES TAX**: 320103 / 8.70%

**SAFETY CLASS CODE**

**FUND NO**: 5

**PARTICIPANT**: FEDERAL

**PARTICIPATION PERCENT**: 90.00%

**MAX AMOUNT**: 9,500.00

**FUND NO**: 5

**PARTICIPANT**: STATE

**PARTICIPATION PERCENT**: 100.00%

**MAX AMOUNT**: 9,500.00

<table>
<thead>
<tr>
<th>ITEM STD. NO. NO.</th>
<th>ITEM DESCRIPTION</th>
<th>MEAS</th>
<th>UNIT PRICE</th>
<th>QUANTITY</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
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<td>NOTCHED LOG CONTROLS</td>
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<td><strong>9,500.00</strong></td>
<td><strong>9,500.00</strong></td>
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</table>

**GROUP 7 SUBTOTAL - BASE PLUS ALTERNATE A2**

**WASHINGTON STATE SALES TAX 8.70% OF $9,500.00**

**GROUP 7 SUBTOTAL**

**ENGINEERING 15.00%**

**GROUP 7 TOTAL**

---

**WASHINGTON STATE SALES TAX 8.70% OF $9,500.00**

**826.50**

**10,326.50**

**1,548.98**

**11,875.48***

---

*Alternate 2

**GROUP 7**

---

I 90

EBASE TRAINING

PCCP I/S REHAB

000
**LUMP SUM BREAKDOWN REPORT**

Displays a summary of all the lump sum items in the estimate with a breakdown on the items & costs that they are comprised of to obtain the L.S. cost.

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>ITEM DESCRIPTION</th>
<th>UNIT MEAS</th>
<th>PLANNED QUANTITY</th>
<th>ESTIMATED UNIT PRICE</th>
<th>ESTIMATED AMOUNT</th>
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<tbody>
<tr>
<td>4</td>
<td>CULVERT</td>
<td>L.S.</td>
<td>100.00</td>
<td>500.0000</td>
<td>50,000.00</td>
</tr>
<tr>
<td></td>
<td>FOOTING CONCRETE (CULVERTS &amp; WALLS)</td>
<td>C.Y.</td>
<td>1,000.00</td>
<td>10.0000</td>
<td>10,000.00</td>
</tr>
<tr>
<td></td>
<td>STRUCTURE EXCAVATION</td>
<td>C.Y.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STREAMBED SEDIMENT</td>
<td>TON</td>
<td>200.00</td>
<td>35.0000</td>
<td>7,000.00</td>
</tr>
<tr>
<td></td>
<td>TOTAL =</td>
<td></td>
<td></td>
<td></td>
<td>67,000.00</td>
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</table>
### SUMMARY OF QUANTITIES

**GROUP LEGEND:**

- **GROUP 1:** BURLAP 304D TO G14/21
- **GROUP 2:** SULLIVAN NORTH SIGN SYSTEM
- **GROUP 3:** SULLIVAN SOUTH SIGN SYSTEM
- **GROUP 4:** SULLIVAN MEDIAN SIGN SYSTEM
- **GROUP 5:** THIRD PARTY DAMAGE

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>TOTAL QUANTITY</th>
<th>SUB-TOTAL #</th>
<th>UNIT</th>
<th>GROUP 1</th>
<th>GROUP 2</th>
<th>GROUP 3</th>
<th>GROUP 4</th>
<th>GROUP 5</th>
<th>A1</th>
<th>A2</th>
<th>CONTROLS</th>
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<tr>
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<td>LUMP SUM</td>
<td>LSP</td>
<td>L.S.</td>
<td>L.S.</td>
<td>L.S.</td>
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<td>L.S.</td>
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<tr>
<td>2</td>
<td>520.00</td>
<td>520.00</td>
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<td>L.B.</td>
<td>L.B.</td>
<td>L.B.</td>
<td>L.B.</td>
<td>L.B.</td>
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</tr>
<tr>
<td>3</td>
<td>4000.00</td>
<td>4000.00</td>
<td>G14</td>
<td>L.B.</td>
<td>L.B.</td>
<td>L.B.</td>
<td>L.B.</td>
<td>L.B.</td>
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<td></td>
</tr>
<tr>
<td>4</td>
<td>LUMP SUM</td>
<td>LUMP SUM</td>
<td>LSP</td>
<td>L.S.</td>
<td>L.S.</td>
<td>L.S.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>LUMP SUM</td>
<td>LUMP SUM</td>
<td>LSP</td>
<td>L.S.</td>
<td>L.S.</td>
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</tr>
<tr>
<td>6</td>
<td>5.99</td>
<td>5.99</td>
<td>CLO</td>
<td>L.B.</td>
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<tr>
<td>7</td>
<td>LUMP SUM</td>
<td>LUMP SUM</td>
<td>LSP</td>
<td>L.S.</td>
<td>L.S.</td>
<td>L.S.</td>
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<tr>
<td>8</td>
<td>LUMP SUM</td>
<td>LUMP SUM</td>
<td>LSP</td>
<td>L.S.</td>
<td>L.S.</td>
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<td>L.S.</td>
<td>L.S.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GROUP 1:**

- **GROUP 1:** BURLAP 304D TO G14/21

**GROUP 2:**

- **GROUP 2:** SULLIVAN NORTH SIGN SYSTEM

**GROUP 3:**

- **GROUP 3:** SULLIVAN SOUTH SIGN SYSTEM

**GROUP 4:**

- **GROUP 4:** SULLIVAN MEDIAN SIGN SYSTEM

**GROUP 5:**

- **GROUP 5:** THIRD PARTY DAMAGE

---

**NOTE:**

- The portion of the total item quantity that appears in this column has tax applied to it.
- The portion of the total item quantity that appears in this column has no tax applied to it.

---

**Regions:**

- **WA**
- **OR**
- **CA**
- **NV**
- **AZ**
- **TX**

**Project No.:**

- 1000000

**Department:**

- Washington State Department of Transportation

**Revised From:**

- General Info Tab - Summary of Quantities (Current)

**Revision:**

- 2000000

---

**SUMMARY OF QUANTITIES**
### Work Classifications

<table>
<thead>
<tr>
<th>Class</th>
<th>Amount</th>
<th>Percent</th>
<th>Multiple Class Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobilization</td>
<td>94,735.00</td>
<td>5.92%</td>
<td>8, 24, 25, 26, 27, 69, 70, 71, 72, 74, 75</td>
</tr>
<tr>
<td>Class 1</td>
<td>26,480.00</td>
<td>1.66%</td>
<td>26, 27, 69, 70, 71, 72, 74, 75</td>
</tr>
<tr>
<td>Class 2</td>
<td>25,000.00</td>
<td>1.56%</td>
<td>5, 64</td>
</tr>
<tr>
<td>Class 3</td>
<td>215,173.00</td>
<td>13.46%</td>
<td>73</td>
</tr>
<tr>
<td>Class 4</td>
<td>826,337.60</td>
<td>51.68%</td>
<td>5</td>
</tr>
<tr>
<td>Class 9</td>
<td>65,340.00</td>
<td>4.09%</td>
<td>2, 3</td>
</tr>
<tr>
<td>Class 11</td>
<td>45,770.00</td>
<td>2.86%</td>
<td>2, 3</td>
</tr>
<tr>
<td>Class 12</td>
<td>39,216.40</td>
<td>2.45%</td>
<td>6</td>
</tr>
<tr>
<td>Class 15</td>
<td>500.00</td>
<td>0.03%</td>
<td>73</td>
</tr>
<tr>
<td>Class 16</td>
<td>51,590.00</td>
<td>3.23%</td>
<td>4</td>
</tr>
<tr>
<td>Class 24</td>
<td>36,660.00</td>
<td>2.29%</td>
<td>6</td>
</tr>
<tr>
<td>Class 27</td>
<td>39,430.00</td>
<td>2.47%</td>
<td>73</td>
</tr>
<tr>
<td>Class 37</td>
<td>17,203.00</td>
<td>1.08%</td>
<td>73</td>
</tr>
<tr>
<td>Class 38</td>
<td>22,728.00</td>
<td>1.42%</td>
<td>4</td>
</tr>
<tr>
<td>Class 53</td>
<td>92,793.00</td>
<td>5.80%</td>
<td>73</td>
</tr>
</tbody>
</table>

**Contract Total:** $1,598,956.00

---

**Work Classifications Report:**

This report is used to determine what type of work is being done in order to allow only qualified contractors to bid on the job.

**Example:**

SR 24
RIVERSIDE RD TO FAUCHER RD - PAVING
11Y003

---

**Contracts Fuglified To Perform Class 4 Work Would Be Allowed To Bid On This Project.**

---

**Work Classification Report:**

Based on Fuglified Code Associated with the Bid Items.
## Work Order Worksheet

**PIN(S) Fund Participants**

<table>
<thead>
<tr>
<th>PIN</th>
<th>Fund</th>
<th>PIN Sub Totals</th>
<th>PIN Engineering 15.00%</th>
<th>PIN Contingencies 4.00%</th>
<th>PIN Other</th>
<th>PIN Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>0090001G</td>
<td>FEDERAL</td>
<td>$9,783.00</td>
<td>$1,467.45</td>
<td>$391.32</td>
<td>$3,600.00</td>
<td>$15,241.77</td>
</tr>
<tr>
<td></td>
<td>STATE</td>
<td>$1,087.00</td>
<td>$163.05</td>
<td>$43.48</td>
<td>$400.00</td>
<td>$1,693.53</td>
</tr>
<tr>
<td><strong>P.I.N. Total</strong></td>
<td></td>
<td><strong>$10,870.00</strong></td>
<td><strong>$1,630.50</strong></td>
<td><strong>$434.80</strong></td>
<td><strong>$4,000.00</strong></td>
<td><strong>$16,935.30</strong></td>
</tr>
<tr>
<td>609001F</td>
<td>FEDERAL</td>
<td>$13,891.50</td>
<td>$2,083.73</td>
<td>$555.66</td>
<td>$3,600.00</td>
<td>$20,130.89</td>
</tr>
<tr>
<td></td>
<td>STATE</td>
<td>$1,543.50</td>
<td>$231.53</td>
<td>$61.74</td>
<td>$400.00</td>
<td>$2,236.77</td>
</tr>
<tr>
<td><strong>P.I.N. Total</strong></td>
<td></td>
<td><strong>$15,435.00</strong></td>
<td><strong>$2,315.26</strong></td>
<td><strong>$617.40</strong></td>
<td><strong>$4,000.00</strong></td>
<td><strong>$22,367.66</strong></td>
</tr>
<tr>
<td>609049Z</td>
<td>FEDERAL</td>
<td>$258,478.53</td>
<td>$38,771.78</td>
<td>$10,339.14</td>
<td>$0.00</td>
<td>$307,589.45</td>
</tr>
<tr>
<td></td>
<td>GCA-4912</td>
<td>$31,180.00</td>
<td>$4,677.00</td>
<td>$1,247.20</td>
<td>$30,000.00</td>
<td>$67,104.20</td>
</tr>
<tr>
<td></td>
<td>STATE</td>
<td>$5.44</td>
<td>$0.82</td>
<td>$0.22</td>
<td>$0.00</td>
<td>$6.47</td>
</tr>
<tr>
<td><strong>P.I.N. Total</strong></td>
<td></td>
<td><strong>$318,383.81</strong></td>
<td><strong>$47,757.59</strong></td>
<td><strong>$12,735.35</strong></td>
<td><strong>$30,000.00</strong></td>
<td><strong>$408,876.73</strong></td>
</tr>
<tr>
<td><strong>Total for BASE</strong></td>
<td></td>
<td><strong>$344,688.81</strong></td>
<td><strong>$51,703.34</strong></td>
<td><strong>$13,787.55</strong></td>
<td><strong>$38,000.00</strong></td>
<td><strong>$448,179.69</strong></td>
</tr>
</tbody>
</table>

*This report breaks out the funding by P.I.N.*

---

**Annotation:**
- **Bid Items:** Includes all bid items.
- **Level Non-Bid Items:** Includes all non-bid items.
- **Engineering:** Breaks out engineering costs for each PIN.
- **Contingencies:** Breaks out contingency costs for each PIN.
- **800 & 860 Level Non-Bid Items:** Breaks out specific non-bid items for levels 800 and 860.
<table>
<thead>
<tr>
<th>PIN(S)</th>
<th>Fund Participants</th>
<th>PIN Sub Totals</th>
<th>PIN Engineering 15.00%</th>
<th>PIN Contingencies 4.00%</th>
<th>PIN Other</th>
<th>PIN Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>009001G</td>
<td>FEDERAL</td>
<td>$9,783.00</td>
<td>$1,467.45</td>
<td>$391.32</td>
<td>$3,600.00</td>
<td>$15,241.77</td>
</tr>
<tr>
<td>009001G</td>
<td>STATE</td>
<td>$1,087.00</td>
<td>$163.05</td>
<td>$43.48</td>
<td>$400.00</td>
<td>$1,693.53</td>
</tr>
<tr>
<td><strong>P.I.N. Total</strong></td>
<td></td>
<td>$10,870.00</td>
<td>$1,630.50</td>
<td>$434.80</td>
<td>$4,000.00</td>
<td>$16,935.30</td>
</tr>
<tr>
<td>609001F</td>
<td>FEDERAL</td>
<td>$13,891.50</td>
<td>$2,083.73</td>
<td>$555.66</td>
<td>$3,600.00</td>
<td>$20,130.89</td>
</tr>
<tr>
<td>609001F</td>
<td>STATE</td>
<td>$1,543.50</td>
<td>$231.53</td>
<td>$61.74</td>
<td>$400.00</td>
<td>$2,236.77</td>
</tr>
<tr>
<td><strong>P.I.N. Total</strong></td>
<td></td>
<td>$15,435.00</td>
<td>$2,315.26</td>
<td>$617.40</td>
<td>$4,000.00</td>
<td>$22,367.66</td>
</tr>
<tr>
<td>609049Z</td>
<td>FEDERAL</td>
<td>$270,218.13</td>
<td>$40,532.72</td>
<td>$10,808.73</td>
<td>$0.00</td>
<td>$321,559.58</td>
</tr>
<tr>
<td>609049Z</td>
<td>GCA-4912</td>
<td>$31,180.00</td>
<td>$4,677.00</td>
<td>$1,247.20</td>
<td>$30,000.00</td>
<td>$67,104.20</td>
</tr>
<tr>
<td>609049Z</td>
<td>STATE</td>
<td>$5.44</td>
<td>$0.82</td>
<td>$0.22</td>
<td>$0.00</td>
<td>$6.47</td>
</tr>
<tr>
<td>609049Z</td>
<td>STATE</td>
<td>$30,024.24</td>
<td>$4,503.64</td>
<td>$1,200.97</td>
<td>$0.00</td>
<td>$35,728.84</td>
</tr>
<tr>
<td><strong>P.I.N. Total</strong></td>
<td></td>
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<td>$49,714.18</td>
<td>$13,257.12</td>
<td>$30,000.00</td>
<td>$424,399.09</td>
</tr>
</tbody>
</table>

**Total for BASE PLUS A1**

$357,732.81 | $53,659.94 | $14,309.32 | $38,000.00 | $463,702.05
<table>
<thead>
<tr>
<th>PIN(S)</th>
<th>Fund Participants</th>
<th>PIN Sub Totals</th>
<th>PIN Engineering 15.00%</th>
<th>PIN Contingencies 4.00%</th>
<th>PIN Other</th>
<th>PIN Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>009001G</td>
<td>FEDERAL</td>
<td>$9,783.00</td>
<td>$1,467.45</td>
<td>$391.32</td>
<td>$3,600.00</td>
<td>$15,241.77</td>
</tr>
<tr>
<td></td>
<td>STATE</td>
<td>$1,087.00</td>
<td>$153.05</td>
<td>$43.48</td>
<td>$400.00</td>
<td>$1,693.53</td>
</tr>
<tr>
<td>P.I.N. Total</td>
<td></td>
<td>$10,870.00</td>
<td>$1,630.50</td>
<td>$434.80</td>
<td>$4,000.00</td>
<td>$16,935.30</td>
</tr>
<tr>
<td>609001F</td>
<td>FEDERAL</td>
<td>$13,891.50</td>
<td>$2,083.73</td>
<td>$555.66</td>
<td>$3,600.00</td>
<td>$20,130.89</td>
</tr>
<tr>
<td></td>
<td>STATE</td>
<td>$1,543.50</td>
<td>$231.53</td>
<td>$61.74</td>
<td>$400.00</td>
<td>$2,236.77</td>
</tr>
<tr>
<td>P.I.N. Total</td>
<td></td>
<td>$15,435.00</td>
<td>$2,315.26</td>
<td>$617.40</td>
<td>$4,000.00</td>
<td>$22,367.66</td>
</tr>
<tr>
<td>609049Z</td>
<td>FEDERAL</td>
<td>$267,772.38</td>
<td>$40,155.86</td>
<td>$10,710.90</td>
<td>$0.00</td>
<td>$318,649.14</td>
</tr>
<tr>
<td>609049Z</td>
<td>GCA-4912</td>
<td>$31,180.00</td>
<td>$4,677.00</td>
<td>$1,247.20</td>
<td>$30,000.00</td>
<td>$67,104.20</td>
</tr>
<tr>
<td>609049Z</td>
<td>STATE</td>
<td>$5.44</td>
<td>$0.82</td>
<td>$0.22</td>
<td>$0.00</td>
<td>$6.47</td>
</tr>
<tr>
<td>609049Z</td>
<td>STATE</td>
<td>$29,752.49</td>
<td>$4,452.87</td>
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<td>$0.00</td>
<td>$35,405.46</td>
</tr>
<tr>
<td>P.I.N. Total</td>
<td></td>
<td>$328,710.31</td>
<td>$49,306.55</td>
<td>$13,148.42</td>
<td>$30,000.00</td>
<td>$421,165.27</td>
</tr>
</tbody>
</table>

Total for BASE PLUS A2 | | $355,015.31 | $53,252.31 | $14,200.62 | $38,000.00 | $460,468.23 |

**BASE + ALTERNATE 2**
### Terms and Definitions

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ad or Ad date</strong>&lt;br&gt;- Contract Advertisement</td>
<td>The date the Construction phase of a project is to be advertised publicly for bids. This milestone, referred to as Contract Ad as well as Ad Date, marks the date the project will be released for Advertisement.</td>
</tr>
<tr>
<td><strong>Addendum</strong></td>
<td>A written or graphic document, issued to all Bidders and identified as an Addendum prior to Bid opening, which modifies or supplements the Bid Documents and becomes a part of the Contract.</td>
</tr>
<tr>
<td><strong>Adjust to Award</strong></td>
<td>The process of establishing the contract work order by modifying the construction amount approved in the CCFA to the amount awarded to the low bidder. Also called A to A.</td>
</tr>
<tr>
<td><strong>Alternates</strong></td>
<td>Additional items of work that may be awarded as part of the contract if the bids come within the budget specified in the contract. Add alternates may include adding length or additional quantity to a project of similar type work or adding enhancements of different type work to a project.</td>
</tr>
<tr>
<td><strong>Award</strong></td>
<td>The formal decision of the Contracting Agency to accept the lowest responsible and responsive Bidder for the Work.</td>
</tr>
<tr>
<td><strong>Baseline</strong></td>
<td>The approved time phased plan (for a project, a work breakdown structure component, a work package, or a schedule activity), plus or minus approved project scope, cost, schedule, and technical changes. Generally refers to the current baseline, but may refer to the original or some other baseline. Usually used with a modifier.</td>
</tr>
<tr>
<td><strong>Basis of Estimate (BOE)</strong></td>
<td>Documentation to enable the agency to easily track changes to project scope, cost, and schedule. A well-documented estimate basis and documentation of assumptions used can eliminate overlap of future estimate assumptions. This document provides a trail about what is known about the project. This allows project “knowns” as well as “unknowns” to be clearly identified. This documentation is important because multiple estimators may be involved on the project; complex projects in particular take years to develop and estimates must be completed multiple times.</td>
</tr>
<tr>
<td><strong>Bid Documents</strong></td>
<td>The component parts of the proposed Contract which may include, but are not limited to, the Proposal Form, the proposed Contract Provisions, the proposed Contract Plans, Addenda, and for projects with Contracting Agency subsurface investigations; the Summary of Geotechnical Conditions and subsurface boring logs (if any).</td>
</tr>
<tr>
<td><strong>Bid, Proposal</strong></td>
<td>The offer of a Bidder on a properly completed Proposal Form to perform the Contract.</td>
</tr>
<tr>
<td><strong>Bidder</strong></td>
<td>An individual, partnership, firm, corporation, or joint venture, submitting a Proposal or Bid. When required by law or otherwise the individual, partnership, firm, corporation, or joint venture shall be prequalified</td>
</tr>
<tr>
<td><strong>BTP</strong></td>
<td>Bid Tabs Pro, Bid Analysis software that enables the user to critically analyze WSDOT Unit Bid history data and Contractor bidding habits</td>
</tr>
<tr>
<td><strong>CAPS</strong></td>
<td>A mainframe computer system that allows WSDOT to manage the data used to track and report on construction contract progress. The work order manager uses the system to initiate payments to be generated to prime contractors and escrow agents. Program managers might check CAPS to see how individual pay items have been set up on a contract</td>
</tr>
<tr>
<td><strong>CCFA – Construction Contract Funding Authorization</strong></td>
<td>CCFA is used to describe the 1) Construction Contract Funding Authorization process, as well as the 2) Work Order Authorization (WOA) document used to document the process to authorize contract funding.</td>
</tr>
<tr>
<td><strong>CCIS – Construction Contact Information System</strong></td>
<td>This is the Construction Office’s application that tracks construction contract details, e.g. start dates, end dates, percent complete, fair hiring practices, fair wage rates, percent of work sublet, etc.</td>
</tr>
<tr>
<td><strong>Construction Contingency</strong></td>
<td>Standardized markup applied to the construction cost of a project that accounts for uncertainties in quantities, unit costs, and minor risk events that typically take place during construction.</td>
</tr>
<tr>
<td><strong>Construction Engineer</strong></td>
<td>The Contracting Agency's representative who directly supervises the engineering and administration of a construction Contract.</td>
</tr>
<tr>
<td><strong>Construction Engineering (CE)</strong></td>
<td>The project management effort (budget/cost) applied to the contract execution and construction phases of the project</td>
</tr>
<tr>
<td><strong>Contingency or Reserve</strong></td>
<td>A provision in the project management plan to mitigate cost and/or schedule risk. Often used with a modifier (e.g., management reserve, contingency reserve) to provide further detail on what types of risk are meant to be mitigated. The specific meaning of the modified term varies by application area.</td>
</tr>
<tr>
<td><strong>Contract Number</strong></td>
<td>A Unique identifier that is assigned to a project (contract) when it is approved for advertisement.</td>
</tr>
<tr>
<td><strong>Contract Plans</strong></td>
<td>A publication addressing the Work required for an individual project. At the time of the call for Bids, the Contract Plans may include, but are not limited to, the following: a vicinity map, a summary of quantities, structure notes, signing information, traffic control plans, and detailed drawings; all for a specific individual project. At the time of the Contract execution date, the Contract Plans include any Addenda.</td>
</tr>
<tr>
<td><strong>Contract Provisions</strong></td>
<td>A publication addressing the Work required for an individual project. At the time of the call for Bids, the Contract Provisions may include, for a specific individual project, the amendments to the Standard Specifications, the Special Provisions, a listing of the applicable Standard Plans, the prevailing minimum hourly wage rates, and an informational Proposal Form with the listing of Bid items. The proposed Contract Provisions may also include, for a specific individual project, the Required Contract Provisions Federal aid Construction Contracts, and various required certifications or declarations. At the time of the Contract execution date, the Contract Provisions include the proposed Contract Provisions and include any Addenda, a copy of the Contract Form, and a copy of the Proposal Form with the Contract prices and extensions.</td>
</tr>
<tr>
<td><strong>Contractor</strong></td>
<td>The individual, partnership, firm, corporation, or joint venture, Contracting with the Contracting Agency to do prescribed Work.</td>
</tr>
<tr>
<td><strong>Cost Estimate</strong></td>
<td>A prediction of quantities, cost, and/or price of resources required by the scope of an asset investment option, activity, or project. As a prediction, an estimate must address risks and uncertainties. Estimates are used primarily as inputs for budgeting; cost or value analysis; decision making in business; asset and project planning; or for project cost and schedule control processes. Cost estimates are determined using experience and calculating and forecasting the future cost of resources, methods, and management within a scheduled time frame.</td>
</tr>
<tr>
<td><strong>CPMS – Capital Program Management System</strong></td>
<td>A mainframe computer database used to develop and manage the highway and marine construction programs. It allows users to establish and maintain project data and is used to manage and deliver the statewide construction programs.</td>
</tr>
<tr>
<td><strong>DB – Design-Build</strong></td>
<td>An agreement that provides for design and construction of improvements by a consultant/contractor team. The term encompasses design-build-maintain, design-build-operate, design-build-finance, and other contracts that include services in addition to design and construction. Franchise and concession agreements are included in the term if they provide for the franchisee or concessionaire to develop the project that is the subject of the agreement (23 CFR 636.103).</td>
</tr>
<tr>
<td><strong>DBB – Design-Bid-Build</strong></td>
<td>A project delivery method in which the department engages or contracts with separate entities for the design and construction of a project.</td>
</tr>
<tr>
<td><strong>EBASE - Estimates and Bid Analysis System</strong></td>
<td>A WSDOT Design Office SQL server application that manages estimates and contractor bids for construction projects. It produces project estimates, breaks out contract agreement amounts, construction engineering estimates and sales taxes, and provides a summary by fund source (federal, state, etc.). Region program managers use EBASE to prepare work order authorization forms. OSC program managers use the PE Summary produced by the system for reviews prior to work order authorization or submittal of federal-aid agreements</td>
</tr>
<tr>
<td><strong>Estimator</strong></td>
<td>A knowledgeable professional assigned to evaluate the probable cost of projects.</td>
</tr>
<tr>
<td><strong>Federal Highway Administration (FHWA)</strong></td>
<td>The Federal Agency authorized to approve plans and contracts for Federal-Aid Highway projects. They also inspect such projects to ensure Contract compliance</td>
</tr>
<tr>
<td><strong>Fund</strong></td>
<td>A set of approved Construction funds assigned to a project and grouped to pay for the appropriate work</td>
</tr>
<tr>
<td><strong>Fund Sequence</strong></td>
<td>Identifies what order the included participants pay into the fund.</td>
</tr>
</tbody>
</table>
| **Job Number** | A unique 6-character project identifier that is assigned in the Region plans office. The format of this number identifies the year, the originating Region and the sequence of the project for that year. i.e. 20A001  
A = Northwest  
B = North Central  
C = Olympic  
X = Southwest  
Y = South Central  
Z = Eastern |
<p>| <strong>Lump Sum (L.S.)</strong> | An item that comprises many smaller bid items of work in the estimate, and are well defined in the plans and specifications, but are represented in the estimate as a single cost. i.e Traffic Control |
| <strong>Maximum Amount</strong> | A set monetary limit a participant has agreed to for their contribution to a fund |
| <strong>Mobilization</strong> | A contract pay item that is used to cover a Contractor’s preconstruction expenses and also the costs of preparatory work and operations. Since there is no defined list as to what this work effort is and each Contractor has the ability to adjust their bid as needed to cover these expenses |
| <strong>Non-Standard Item</strong> | These are bid items that have been set up for a specific project. They have no pre-established documentation and they must be fully developed and agreed on before use in the estimate. |</p>
<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parametric Estimate</td>
<td>A method of estimating the cost of a project (or part of a project) based on one or more project-based cost factors. Historical bid data is commonly used to define parameters related to the cost of a typical transportation facility construction, such as cost per lane mile, cost per interchange or cost per square foot. Percentages can also be used to estimate the cost of project elements based on historical cost information. Parametric methods are often used in early estimating, such as planning and scoping estimates.</td>
</tr>
<tr>
<td>Participant (fund)</td>
<td>Participants are entities who are contributing funding dollars toward the construction of the project. These entities can be State, Federal, Local agencies and sometimes Agreements.</td>
</tr>
<tr>
<td>PIN – Program Item Number</td>
<td>Unique seven character number which identifies a Program Item. The Program Item carries the project funding and contains the information used to present the project to the Legislature. For bucket projects, the region number is entered in the first position of the field and an appropriate code from the Bucket Project Table is entered in the 2nd-7th positions.</td>
</tr>
<tr>
<td>Plans</td>
<td>The Contract Plans or Standard Plans which show location, character, and dimensions of prescribed Work including layouts, profiles, cross-sections, and other details.</td>
</tr>
<tr>
<td>Plans, Specifications, and Estimates (PS&amp;E)</td>
<td>The project development activity that follows Project Definition and culminates in the completion of contract-ready documents and the engineer’s cost estimate.</td>
</tr>
<tr>
<td>preliminary engineering (PE)</td>
<td>A term used to describe the Project Delivery process from project scoping through PS&amp;E review.</td>
</tr>
<tr>
<td>PreQual Code</td>
<td>A 2 character code assigned to each bid item. This code used to identify the type of work category the bid item belongs to and ultimately the type of “work” a project is based on the bid items it contains.</td>
</tr>
<tr>
<td>project</td>
<td>The Project Management Institute defines a project to be “a temporary endeavor undertaken to create a unique product or service.”</td>
</tr>
<tr>
<td>Project Engineer</td>
<td>This term applies to WSDOT personnel. Wherever “Project Engineer” appears in this manual, the design-builder shall deem it to mean “Engineer of Record.”</td>
</tr>
<tr>
<td>Project Summary</td>
<td>A set of documents consisting of the, Environmental Review Summary (ERS), and Project Definition (PD). The Project Summary is part of the design documentation required to obtain Design Approval and is</td>
</tr>
<tr>
<td><strong>Proposal Form</strong></td>
<td>The form provided to Bidders by the Contracting Agency for submittal of a Proposal or Bid to the Contracting Agency for a specific project. The form includes the item number, estimated plan quantity, and item description of the Bid items along with blank spaces to be completed by the Bidder for the unit prices, extensions, the total Bid amount, signatures, date, acknowledgment of Addenda, and the Bidder’s address. The required certifications and declarations are part of the form.</td>
</tr>
<tr>
<td><strong>Regions</strong></td>
<td>Six identified WSDOT management Regions within Washington State: NWR, NCR, OR, SWR, SCR, ER, and the mega projects (for projects greater than $500 million).</td>
</tr>
<tr>
<td><strong>Risk-Based Estimate</strong></td>
<td>An approach that involves simple or complex risk modeling based on inferred and probabilistic relationships among cost, schedule, and events related to the project. Risk-based estimating uses historical data and/or cost-based estimating techniques and an expert’s best judgment to develop the project “base cost” (project cost if the project proceeds as planned). Risk elements (defined as opportunities or threats) are then defined and applied to the Base Cost through risk modeling to provide a probable range for both project cost and schedule.</td>
</tr>
<tr>
<td><strong>Road User Cost</strong></td>
<td>A tool used to measure the impact of a transportation facility on the traveling public, and the benefits of those proposed improvements provided by a highway project.</td>
</tr>
<tr>
<td><strong>Scoping Phase</strong></td>
<td>An initial phase of project development for a specific project. The scoping phase precedes the design and/or preliminary engineering phase and is intended to support priority programing and budget building scenarios. The Project Summary is the documentation developed during this phase.</td>
</tr>
<tr>
<td><strong>Section Header</strong></td>
<td>A Designation for grouping a set of bid items for the production of a similar type of work</td>
</tr>
<tr>
<td><strong>Special Provisions</strong></td>
<td>Supplemental Specifications and modifications to the Standard Specifications and the amendments to the Standard Specifications that apply to an individual project.</td>
</tr>
<tr>
<td><strong>Specifications</strong></td>
<td>Provisions and requirements for the prescribed Work</td>
</tr>
<tr>
<td><strong>Standard Item</strong></td>
<td>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 the Standard Specifications.</td>
</tr>
<tr>
<td><strong>Standard Plans</strong></td>
<td>A manual of specific plans or drawings adopted by the Contracting Agency which show frequently recurring components of Work that have been standardized for use.</td>
</tr>
<tr>
<td><strong>Summary of Quantities</strong></td>
<td>Summarizes all the bid item work to be performed in the contract, their quantities and general placement. It also identifies which portions of the bid items will have tax included in the contractors bid for the item and those that will be taxed separately.</td>
</tr>
</tbody>
</table>
| **TRIPS** | Transportation Information and Planning Support  
A mainframe computer system designed to provide engineering, maintenance, planning, and accounting personnel with highway inventory, traffic and accident data. |
| **UBA** | Unit Bid Analysis –  
WSDOT developed web based database that reports on the average unit bid item cost based on the 3 low bid prices submitted for each contract a bid item is used in. This database is publically available. |
| **WIN** | Work Item Number  
A unique seven-character identifier for the work within each project phase (PE, RW, and CN). The first character is a letter and indicates the Region. The next three characters are numbers and designate the State Route. The last three characters — two numbers and one letter — are unique identifiers assigned by the Region. For example, WIN F09086A is |
| **Work Order** | Work orders are identified by a six-digit alphanumeric designation (i.e., 0L1240). Groups are established within work orders to provide a further breakdown of projects or type of work. Every work order must have at least one group. Under the WSDOT accounting system, combination of the six-character work order number and two-character group number is termed the job number (i.e., 0L124001). |