4-7 PS&E Estimates

Once a structure design is complete and checked, PS&E estimates must be prepared and submitted as part of the PS&E package. PS&E estimates are comprised of quantity calculations, quantity check calculations, cost estimates, and estimates of working days. Preparation of these documents shall conform to the requirements in the *Bridge Design Aids* and the *Plans, Specifications and Estimate Guide*.

Quantity calculations, and check quantities calculations calculated by an independent checker, shall be based on the design shown on the checked structure plans. The quantities and check quantities shall be compared and the differences in excess of those allowed in the *Bridge Design Aids* resolved.

Quantities and check quantities shall be bound separately from each other. A set of bound quantities and check quantities shall be prepared for each structure when a project involves multiple structures.

For each structure in a project, the following State forms shall be prepared for quantity summaries and cost estimates:

- DS-D0015 Pile Summary
- DS-D0019 Structural Quantity Survey and Marginal Estimate
- DS-D0022 Summary –Structure Excavation and Structure Backfill
- DS-D0050 Concrete Summary
- DS-D0067 Bar Reinforcing Summary
- DS-D0100 Pile Quantity Calculations
- DS-D0110 Reinforcing Steel Quantities
- DS-D0153 Soundwall Summary
- DS-D0154 Summary-Miscellaneous Metal-Bridge and Restrainer

These forms are available through the OSFP web site and samples can be found in *Bridge Design Aids*.

In addition to completing the forms above, the following documents must also be prepared:

- Working Days Schedule (Form DPD-OSD-0037)—prepared to show the estimated working days to construct the structure work. Only one form per project is required. For projects involving multiple structures, the schedule will show all the structures. Separate schedules for each structure will be required only in exceptional cases. This form is available through the OSFP website.
An additional Structural Quantity and Marginal Estimate (Form DS-D0019)—prepared to show combined structure quantities and the total structure cost on projects with multiple structures.

For projects advertised by those other than Caltrans, the quantity calculations, summary forms and working day schedules will not be reviewed and are not a required submittal. The exception is that the “Structural Quantity Survey and Marginal Estimate” showing the quantities and cost estimate for each structure must be submitted for informational purposes.

Deliverables

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of Copies for Each PS&amp;E Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial</td>
</tr>
<tr>
<td>Structural Quantity Survey and Marginal Estimate</td>
<td>2</td>
</tr>
<tr>
<td>Quantity Calculations, Check Quantity Calculations, and Quantity</td>
<td>2</td>
</tr>
<tr>
<td>Summary Sheets</td>
<td></td>
</tr>
<tr>
<td>Working Day Schedule</td>
<td>2</td>
</tr>
</tbody>
</table>

1 At the discretion of the OSFP Liaison Engineer.
2 Do not submit for non-Caltrans advertised projects.
3 All deliverables are on a per structure basis except for the Working Day Schedule where only one is required per project.
4 Number of copies shown assumes that all documents were reviewed and determined to be final in previous PS&E reviews.