

4-2 Structure Type Selection

The Structure Type Selection process is a fundamental step in the design of structures on State Right-of-Way. This step must be completed before extensive structure design work is performed. The Type Selection process involves the following primary elements: 1) Preparation and Submittal of Type Selection Documents, 2) Type Selection Meeting and Approval, and 3) Updated General Plan Submittal and Distribution. These elements are further described below.

Preparation and Submittal of Type Selection Documents

The initial stage of the Type Selection Process involves discerning all parameters that govern the design of a bridge. These parameters are contained in the following which must be submitted before a Type Selection Meeting is scheduled:

- Bridge Site Data Submittal Package (BSDS)
- Hydrology/Hydraulics Report
- Preliminary Foundation Report (with optional Boring Plan)
- Draft Foundation Plan
- Type Selection Report

The BSDS and Hydraulics Report must be prepared and submitted sufficiently in advance of the other documents so that the BSDS is approved by the District and the Hydrology/Hydraulics report is reviewed and significant issues resolved prior to the Type Selection Meeting. The remaining documents may be submitted with the Type Selection Report.

Information relative to the Hydrology/Hydraulics Report; BSDS; Preliminary Foundation Report and Boring Plan, which may be submitted for comments at the consultants option, can be found in the appropriate sections elsewhere in this Guide.

The Draft Foundation Plan only need be a working draft of the most current foundation plan the consultant has available. As a minimum, the draft plan should show the site's topography, existing utilities, centerlines of the proposed supports, and other features that may create potential issues or may need to be discussed at the Type Selection Meeting.

The Type Selection report should follow the format described in the *Memo to Designers*. The report must include a discussion of the structure types considered and reasons for selection of the proposed structure and the following:



- Type Selection Memo
- Vicinity Map
- General Plan
- General Plan Estimate
- Project Seismic Design Criteria
- Preliminary Foundation Recommendations
- A statement that indicates which Agency will advertise, award, and administer the construction contract.

In the case of modifying or widening existing structures, the Type Selection Report shall also include a summary of the seismic evaluation of the existing bridge, the potential retrofit strategies with supporting documentation, and associated costs.

Type Selection Meeting and Approval

The Type Selection Meeting will be scheduled after the District has approved the project geometrics and a minimum of 2 weeks following receipt of an acceptable Type Selection Report and related documents. The meeting will be held in Sacramento. At the meeting, the consultant shall present the proposed structure and shall briefly discuss issues pertinent to the selection of the structure type, particularly requirements for foundations, hydraulics, construction (including falsework), seismic design, retrofit strategy, aesthetics, traffic handling, and other information needed to support the structure type.

After the meeting, the Consultant shall prepare a meeting summary and provide a copy to the Liaison Engineer within one week. The meeting summary may be used to update or supplement the information in the Type Selection Report to address comments raised at the meeting. Provided all issues raised at the Type Selection Meeting are satisfactorily addressed, the Liaison Engineer will provide written approval of the proposed structure type within one week of receiving the meeting summary. No further design work should be performed until written approval of the structure type is issued by OSFP.

Updated General Plan Submittal and Distribution

Within 2 weeks after receiving written approval of the structure type, the consultant shall submit the required copies of updated the General Plans and General Plan Estimates for distribution to other Caltrans functional units. Comments resulting from this distribution will be returned to the consultant to incorporate in final design.



Deliverables

Pre-Type Selection Submittals

- 2 copies of the Bridge Site Data Submittal
- 2 copies of the Boring Plan
- 2 copies of the draft Final Hydraulics Report

Type Selection Submittals

- 14 copies of the Type Selection Report
- 1 copy of the approved Bridge Site Data Submittal package
- 1 electronic copy of the General Plan .DGN file
- 2 copies of the Draft Foundation Plan
- 2 copies of the Final Hydraulics Report
- 4 copies of the Preliminary Foundation Report

Post-Type Selection Submittals

- 2 copies of the Type Selection Review Meeting Summary
- 40 copies of the updated General Plan
- 2 copies of the updated General Plan Estimate