



Structures Engineering Instructions (SEI)

Distribution: Structures, Director PDD, Assistant Director PDD, PDD Section Managers, Chief of Contract Admin., Director Ops., Assistant Director Ops., Consultants

Approved: Wm. Michael Hedges **Date:** 5/2/2008
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Structures Program Manager

Subject: **Integral Abutment Bridge Design**

Administrative Information:

Effective Date: This SEI shall be effective for the Structures Section projects from the date of approval.

Superseded SEI: None.

Exceptions: None.

Disposition of SEI Content: The content of this SEI will be incorporated into a future revision to the Structures Manual.

Purpose:

To formalize the distribution of the 2008 Integral Abutment Bridge Design Guidelines and to require the use of integral abutment bridges where feasible for VTrans Structures Section projects.

Technical Information:

Integral abutment construction shall be considered as the first alternative for all concrete slab and concrete deck on steel beam or prestressed concrete beam bridges during the Project Definition Stage for Structure Section projects. Project Managers shall document the reasons for not selecting the integral abutment bridge type in a Scoping Report or in a memo from the Project Manager to the Structures Program Manager.

Integral abutment bridges have a demonstrated history of initial cost savings due to economical use of materials and life cycle cost savings through reduced maintenance needs. Integral abutment bridges eliminate expansion joints and bearings at abutments and in bridge decks. Because of these advantages, the 2008 Integral Abutment Bridge Design Guidelines were written to allow greater flexibility in the use of these types of bridges.

The 2008 Integral Abutment Bridge Design Guidelines group typical integral abutment bridge configurations under the Simplified Design Method. The simplified method uses a set of assumptions to make designing integral abutment bridges easier and more standard. However, consideration for the use of the integral abutment type for bridges that exceed the limits for the Simplified Design Method is required.

Implementation:

The content of this SEI and the use of the 2008 Integral Abutment Bridge Design Guidelines will be implemented immediately on all projects. The Project Manager may authorize deviations from the 2008 Integral Abutment Bridge Design Guidelines for projects that have progressed beyond the Pre-Final plans stage as of the effective date of this SEI.

Transmitted Materials:

2008 Integral Abutment Bridge Design Guidelines.