Usage Caveat

Structures shall be in accordance with the requirements of CSA S6-14, Alberta Transportation Bridge Structures Design Criteria, Alberta Transportation Standard Specifications for Bridge Construction, and the following additional requirements:

- Minimum design life of 75 years ;
- Footings shall incorporate piled foundations. Sheet piling may be an acceptable alternative depending on site specific evaluation. Use of sheet piling for scour protection requires approval from Alberta Transportation Technical Services Branch;
- The Department's requirements for 3rd party designed structures shall be met:

  Design notes, independent check notes, and shop drawings shall be signed and sealed by the design engineer of record and by an independent checker. The design engineer of record and the independent checker shall be Professional Engineers registered in the Province of Alberta. Design notes, independent check notes and shop drawings shall be submitted to the Consultant for review and acceptance a minimum of 3 weeks in advance of the commencement of fabrication. Review comments provided by the Consultant and/or the Department shall be incorporated into the design notes, independent check notes and shop drawings and resubmitted to the Consultant for review and acceptance prior to the commencement of fabrication.

  The design engineer of record and independent checker shall submit separate signed and sealed design notes and independent check notes. The design and independent check notes shall be presented in a legible and logical format, clearly identify material properties, and sufficiently detailed to allow a technical review of design concepts and assumptions used. All material properties shall be confirmed and documented by the design engineer of record and independent checker prior to the commencement to fabrication. As a minimum, design notes and independent check notes shall include analysis and design calculations of the following:
  • Moment, shear and axial force envelopes for ultimate, serviceability and fatigue criteria;
  • All bolted Connections;
  • Any welded connections;
  • Anchor rods; and
  • Foundations.

  The independent checker may be employed by the same company as the design engineer of record. The independent check must be completed fully independent of the design engineer of record, including a complete re-analysis of all aspects of the design including calculations and engineering, preferably by a methodology or computer program other than that used by the design engineer of record. The design engineer of record and independent checker shall ensure that the shop drawings are complete and accurately convey the design criteria and assumptions used in their designs.

  Impermeable waterproofing membrane required in corrosive environment.