



BUILDINGS BULLETIN 2009-011

Technical

Supersedes: None

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Purpose: This document clarifies the requirements for using existing structures to support the weight of concrete during placement and the inspection procedures and requirements for such concrete placement.

Related Code	BC 1704.4	BC 1906.2
Section(s):	BC 1906.1.1	BC 3301.7
	BC 1906.1.2	BC 3305.3

Subject(s): Concrete; evaluation of structures, formwork; formwork design reinforced concrete;

Section BC 1906.1.1 requires concrete formwork to be proportioned so that it will safely support all vertical and lateral construction loads that might be applied until such loads can be fully supported by the permanent construction. In accordance with sections BC 3305.3 and 1906.1.2, these vertical and lateral loads shall be carried to the ground by the formwork system, by the new construction after it has attained adequate strength to support the loads, by existing structures, or a combination thereof.

Concrete placed against an existing structure imparts additional loads on the existing structure that may or may not be able support such loads. Such existing structures shall therefore be evaluated by a registered design professional experienced in formwork design and in the evaluation of existing structures. In accordance with section BC 1906.1.2, this design evaluation of the existing structure shall serve to determine what the loads that may be safely supported by the existing structure without causing damage.

Such design shall be documented by the registered design professional on signed and sealed drawings that indicate the results of the assessment as well as any specific limitations on the concrete placement methods and procedures such as maximum rate of concrete placement, minimum concrete temperature of placed concrete, and allowable lift height. Such drawings shall be maintained at the project site in accordance with section BC 3301.7.

The inspector responsible for the special inspection of concrete, in accordance with section BC 1704.4, shall be provided with access to the formwork drawings, and shall monitor compliance with the specific placement limitations established in such drawings.

Inspection of the formwork including shores, reshores, braces and other supports for the wet weight of the concrete, shall be performed by a qualified person designated by the contractor before, during, and after each concrete placement in accordance with section BC 1906.2. The records of each of these inspections shall be maintained at the project site and be made available to the Department in accordance with section BC 1906.2. Any incidents occurring during concrete placement shall be reported immediately to the Department by the responsible parties including the Site Safety Manager, Concrete Safety Manager, and Permit Holder.