

PART 1 - GENERAL

- 1.1 Description .1 This section specifies requirements for supply and installation of concrete formwork and accessories.
- 1.2 Reference Standards .1 Do concrete formwork to CSA A23.1, except where indicated otherwise.
- 1.3 Shop Drawings .1 Submit shop drawings.
- .2 Clearly indicate method and schedule of construction, materials, arrangement of joints, ties, shores, liners and location of temporary embedded parts. Comply with Clause 3 of CSA S269.1 for falsework drawings.
- 1.4 Measurement for Payment .1 No separate measurement for payment shall be made for items under this section. Include all costs incidental to the unit prices where concrete formwork and accessories are required under Section 03 30 00 Cast-In-Place Concrete.

PART 2 - PRODUCTS

- 2.1 Materials .1 Formwork lumber: plywood and wood formwork materials to CSA A23.1.
- .2 Falsework materials: to CSA S269.1
- .1 Materials shall bear grade marks, or be accompanied with certificates, test reports or other proof of conformity.
- .3 Form release agent: chemically active release agents containing compounds that react with free lime present in concrete to provide water insoluble soaps, preventing set of film of concrete in contact with form.
- .4 Form ties: removable or snap-off metal ties, fixed or adjustable length, free of devices leaving holes larger than 25 mm dia in concrete surface.
- .5 Premoulded joint fillers:
- .1 Bituminous impregnated fibreboard: to ASTM D1751.
- .6 Bond breaker:
- .1 Impermeable tube formed of polyvinylchloride, rubber, or similar material to the approval of the Departmental Representative. Internal diameter equal to dowels.

PART 3 - EXECUTION

- 3.1 Formwork
- .1 Verify lines and levels before proceeding with formwork and ensure dimensions agree with drawings.
 - .2 Construct forms to produce finished concrete conforming to the shape, dimensions, locations and elevations shown on drawings within tolerances required by CSA A23.1.
 - .3 Construct falsework to CSA S269.1.
 - .4 Align form joints and make watertight. Keep form joints to minimum.
 - .5 Expansion and control joints as specified in Sections 03 30 00.
 - .6 Leave formwork in place for minimum of seven (7) days when work is completed in-water and three (3) days when work is complete in the dry, with moisture curing.
 - .7 All exposed formwork to be stripped after concrete cured.
 - .8 Reuse of formwork subject to requirements of CSA A23.1 Clause 11.9.
 - .9 Construct formwork such that the newly placed concrete matches the existing terrain and looks as natural as possible. Coordinate in the field with the Departmental Representative prior to pouring.
- 3.2 Joint Fillers
- .1 Locate and form expansion joints as indicated. Install joint filler.
 - .2 Use 13 mm thick joint filler to separate slabs-on-grade and extend joint filler from bottom of slab to within 25 mm of finished slab surface unless indicated otherwise.
- 3.3 Workmanship
- .1 Place concrete in accordance with CAN3-A23.1-M90, Section 03 30 00.
 - .2 Ensure reinforcement and inserts are not disturbed during concrete placement.
 - .3 Obtain Departmental Representative's approval of proposed method for protection of concrete during placing and curing in adverse weather, prior to placing of concrete.
- 3.4 Inserts
- .1 Set sleeves, ties and other inserts in concrete as required.

3.5	<u>Defective Concrete</u>	.1	Remove defective concrete, blemishes and embedded debris and repair as directed by Departmental Representative, and at no cost to the Owner.
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