

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 03 20 00 – Concrete Reinforcement.
- .2 Section 03 30 00 – Cast In Place Concrete.
- .3 Section 31 53 13.01 - Timber Cribwork
- .4 Section 31 53 16 - Structural Timber.

1.2 MEASUREMENT PROCEDURES

- .1 No measurement will be made under this Section.
 - .1 Include in concrete work in Section 03 30 00 - Cast-In-Place Concrete.

1.3 REFERENCES

- .1 Canadian Standards Association, latest edition (CSA International)
 - .1 CSA-A23.1-09/A23.2, Concrete Materials and Methods of Concrete Construction/Methods of Test and Standard Practices for Concrete.
 - .2 CSA-O86, Engineering Design in Wood.
 - .3 CSA O121, Douglas Fir Plywood.
 - .4 CSA O151, Canadian Softwood Plywood.
 - .5 CSA O153-M1980, Poplar Plywood.
 - .6 CSA-O325, Construction Sheathing.
 - .7 CSA O437 Series-93, Standards for OSB and Waferboard.
 - .8 CSA S269.1, Falsework for Construction Purposes.
 - .9 CAN/CSA-S269.3, Concrete Formwork.

1.4 SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate method and schedule of construction, shoring, stripping and re-shoring procedures, materials, arrangement of joints, special architectural exposed finishes, ties, liners, and locations of temporary embedded parts. Comply with latest edition of CSA S269.1, for falsework drawings. Comply with CAN/CSA-S269.3 for formwork drawings.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Waste Management and Disposal:
 - .1 Separate waste materials for reuse and recycling.
 - .2 Place materials defined as hazardous or toxic in designated containers.
 - .3 Divert wood materials from landfill to a recycling reuse composting facility as approved by Departmental Representative.
 - .4 Divert plastic materials from landfill to a recycling reuse composting facility as approved by Departmental Representative.
 - .5 Divert unused form release material from landfill to an official hazardous material collections site as approved by the Departmental Representative.

Part 2 Products

2.1 MATERIALS

- .1 Formwork materials:
 - .1 For concrete without special architectural features, use wood and wood product formwork materials to CSA-O121 CAN/CSA-O86 CSA O437 Series CSA-O153.
 - .2 For concrete with special architectural features, use formwork materials to CSA-A23.1/A23.2.
 - .3 Rigid insulation board: to CAN/ULC-S701.
- .2 Form ties:
 - .1 For concrete not designated 'Architectural', use removable or snap-off metal ties, fixed or adjustable length, free of devices leaving holes larger than 25 mm diameter in concrete surface.
 - .2 For Architectural concrete, use snap ties complete with plastic cones and light grey concrete plugs.
- .3 Form liner:
 - .1 Plywood: Douglas Fir to CSA O121 Canadian Softwood Plywood to CSA O151 Poplar to CSA O153.
 - .2 Waferboard: to CAN/CSA-O325.0.
- .4 Form release agent: non-toxic, low VOC.
- .5 Form stripping agent: colourless mineral oil, non-toxic, low VOC, free of kerosene, with viscosity between 15 to 24 mm²/s at 40 degrees C, flashpoint minimum 150 degrees C, open cup.

Part 3 Execution

3.1 FABRICATION AND ERECTION

- .1 Verify lines, levels and centres before proceeding with formwork/falsework and ensure dimensions agree with drawings.
- .2 Provide site drainage.
- .3 Fabricate and erect formwork in accordance with CAN/CSA-S269.3 to produce finished concrete conforming to shape, dimensions, locations and levels indicated within tolerances required by CSA-A23.1/A23.2.
- .4 Align form joints and make watertight.
 - .1 Keep form joints to minimum.
- .5 Use 25 mm chamfer strips on external corners and/or 25 mm fillets at interior corners, joints, unless specified otherwise.
- .6 Form chases, slots, openings, drips, recesses, expansion and control joints as indicated.
- .7 Build in anchors, sleeves, and other inserts required to accommodate Work specified in other sections.
 - .1 Ensure that anchors and inserts will not protrude beyond surfaces designated to receive applied finishes, including painting.
- .8 Clean formwork in accordance with CSA-A23.1/A23.2, before placing concrete.

END OF SECTION