

CONCRETE

- 1. Concrete work shall be in accordance with the latest edition of CAN 3-A23.1 for "Concrete Materials and Methods of Concrete Construction" including cold weather requirements when the temperature falls below 5°C.
- 2. Provide one set of concrete test cylinders in accordance with the latest edition of CAN 3-A23.1 for every 50 m³ of concrete placed and a minimum of one set for each structural component.
- 3. Normal Portland Cement Type 10 for all concrete except use sulphate resisting cement Type 50 for all pile caps and piles
- 4. CONCRETE DESIGN STRENGTH @ 28 days
 - 35 MPa: precast concrete 32 MPa: piles and pile caps
 - 25 MPa: all other concrete U/N
- 5. AGGREGATE SIZE:
 - max $1\frac{1}{2}$ " for pile caps & piles max $\frac{3}{4}$ " for all other concrete
 - max $\frac{1}{2}$ " for masonry lintels and core fill
- $3\frac{1}{2}$ " +/- $3\frac{1}{4}$ " for all concrete except 6" +/- $3\frac{1}{4}$ " for masonry fill.
- 7. AIR ENTRAINMENT:
- 8. Walls, piers and columns shall be poured a minimum of 24 hours before slabs and beams.
- 9. Provide dovetail anchor slots in concrete walls and columns where masonry abuts.
- 10. All structural slabs framing into concrete walls or beams shall have a minimum $1\frac{1}{2}$ " chase into supporting member x the height of the slab.
- 11. Where concrete beams frame into concrete walls or other concrete beams and are poured later, provide $1\frac{1}{2}$ " chase (height and width to match beam).
- 12. The use of calcium chloride is not permitted.
- 13. Construction joint keys in grade beams shall be formed at pile locations only.
- 14. Construction joint keys in structural slabs to be formed at 1/3 span. Provide key width equal to half the thickness of the slab. Provide 15M dowels @ 24" o/c top & bottom.
- 15. Saw cuts for slab on grade shall be 1" deep & $\frac{1}{8}$ " wide. Cutting to be done not sooner than 12 hours, and not later than 24 hours after the slab is poured. Cuts to be filled with approved bituminous compound or caulking.
- 16. Slip joint all paving against structural members with $\frac{1}{2}$ " impregnated fibreboard.
- 17. Coordinate the location of all items embedded in concrete work with Architectural, Mechanical & Electrical drawings.
- 18. Contract Administrator to be notified at least 48 hours in advance of all major pours.
- 19. Refer to architectural drawings for concrete surfaces requiring architectural finishes.
- 20. Where voidform is indicated on drawings use cardboard shearmat below structural slabs and low density polystyrene below walls and gradebeams.
- 21. Exterior sidewalks to be 4" thk. concrete on compacted granular fill reinforced with 10m @ 12" o/c E.W. mid-depth. Provide tooled control joints @ max. 5'-0" o/c and construction joints @ max. 20'-0" o/c.
- 22. Concrete slab at exterior refuse container to be 6" thk. concrete on compacted granular fill reinforced with 15M @ 12" o/c E.W. mid. depth.

REINFORCING

- 1. All bars to conform to CSA G30.18. 15M bars and larger to be grade 400 10M bars and supporting rods to be grade 300 or better
- 2. All steel to be detailed in accordance with the current ACI Detailing Manual.
- 3. Minimum clear cover to reinforcing:
 - ¾" structural slabs
 - 1" interior face of walls - $1\frac{1}{2}$ " face of grade beams
 - 2" exterior face of walls, bottom of grade beams & walls
 - 3" pile caps - 3" bottom of footings
- 4. All reinforcing shall be held in place with proper accessories.
- 5. In concrete beams, bend horizontal reinforcing 24" around corners, or use extra corner bars 36" x 36".
- 6. Top steel in beams shall be lapped at centre span, bottom steel shall be lapped at support.
- 7. All reinforcing steel shall be cleaned of all dirt, grease and other deleterious materials prior to placing.
- 8. All reinforcing shall be new billet deformed bars.
- 9. Minimum reinforcing for equipment bases 10M @ 12" o/c E.W.
- 10. Reinforcing steel supplier to confer with contractor as to desired construction joint locations and supply dowels and bar lengths to accommodate these joints.
- 11. Reinforcing steel supplier shall submit shop drawings for review of fabrication, sizes, dimensions, placement and splice locations.

MASONRY

- 1. Concrete blocks to conform to the latest edition of CSA
- 2. Masonry walls to be built with type "S" mortar having a minimum strength of 13 MPa @ 28 days. Mortar to be in accordance with the latest edition of CSA A179.
- 3. Use Dur-O-Wall (or equal) spaced vertically at 16" o/c.
- 4. Cold weather construction of masonry shall conform to the National Building Code, with adequate preheating of materials, hoarding and heating during construction and thereafter as specified. THE "TORCHING TECHNIQUE" WILL NOT BE PERMITTED UNDER ANY CIRCUMSTANCES.
- 5. Masonry contractor shall be responsible for temporary bracing of all masonry components until all related structural framing has been erected and completely installed.
- 6. Provide expansion joints @ maximum of 20'-0" o/c U/N. Submit drawing with locations of expansion joints for review prior to construction.
- 7. Provide continuous bond beams with 2-15M bars bottom in concrete fill at top of all exterior walls, bearing walls or as indicated on drawings.
- 8. Inspection holes shall be left at the base of concrete filled walls.
- 9. Masonry cores shall be filled in lifts not exceeding 10'-0".
- 10. Concrete blocks to be min. H/15/A/M unless noted.
- 11. Ensure masonry cores filled with concrete at expansion anchor locations.
- 12. All cores of elevator shaft to be filled solid with concrete.

13. Typical masonry lintels unless noted on drawings: spans up to 4'-0" - 8" U-block

2-15M cont. bottom spans up to 6'-6" - 16" U-block 2-15M cont. bottom Provide minmum 8" bearing u/n at each end.

14. Brick ties to be 'FERO' block shear connectors spaced as follows: Horizontal: 18" o/c Vertical: 1st row @ 8" from top & bottom 2nd row @ 16" from top & bottom Balance @ 24" o/c

15. Provide minimum 4" x 4" x $\frac{5}{16}$ " angles for brick or stone support over recessed units in masonry walls for spans up to 4'-0''. For larger spans refer to drawings.

2	NOTES REVISION	05-06-08	FDW
1	RAMP REVISION	05-02-18	FDW
no.	revision	date	by
evisions			

This drawing must not be scaled.

- The Contractor must verify all dimensions, datums and levels prior to commencement of work. All errors and omissions must be reported immediately to the Contract Administrator.
- Variations and modifications to work shown on this drawing shall not be carried out without written permission from the Architect.
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ORIGINAL DRAWING STAMPED BY, F.D. WOLFROM, P.Eng DATED 05.03.18

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project LUXTON COMMUNITY CENTRE

Winnipeg, Manitoba

sheet title

ROOF FRAMING PLAN **GENERAL NOTES**

project no. W04-367 scale AS NOTED drawn by CHS approved by FDW

date 05.02.18

sheet no.

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