

WARNING: The following drawing is published as guideline only to assist the building designer in the preparation of the building design drawings. The scope of application and adaptation of the drawing is under the responsibility of the building designer.

LOADS

ITEM A.1

DEAD LOAD
 ROOF & DECK = 0.80 kPa
 MECH. & ELECTRICAL STRUCTURE = 0.10 kPa
 JOISTS = 0.10 kPa
 SUSPENDED CEILING = 0.05 kPa
 = 1.20 kPa

LIVE LOAD
 SNOW = 2.50 kPa

ITEM A.2

GROSS UPLIFT = 1.00 kPa
 DEAD LOAD FOR UPLIFT = 0.90 kPa

GROSS UPLIFT DIAGRAM

3	1	3	1 = 1.30 kPa
	2		2 = 1.10 kPa
3		3	3 = 1.40 kPa

Z = 3 m

ITEM A.3

JOIST DESIGNER NOTES
 DESIGN ALL ROOF JOISTS FOR A MINIMUM UNFACTORED ADDITIONAL POINT LOAD (DEAD LOAD) OF 1.0 kN APPLIED AT ANY TOP OR BOTTOM CHORD PANEL POINT.

ITEM A.4

2.60 kPa
 1.20 kPa
 4 m
 SPU1
 JOIST 800 mm TYP.

ITEM A.5

MECHANICAL UNIT
 1 400 kg MAX.
 DIMENSIONS
 3 m x 2 m

POINT LOAD (SPECIFIED)
 P1 2.0 kN
 P2 3.0 kN
 P3 4.5 kN

ITEM A.6

FOR PRICING PURPOSES
 1. 40 SPRINKLER JOISTS ONE 2 kN POINT LOAD AT 1ST PANEL POINT (IN 12 m SPAN).
 2. 20 SPRINKLER JOISTS WITH ADDITIONAL U.D.L. OF 0.5 kN/m (IN 10 m SPAN)

JOIST DESIGNER NOTE
 SPRINKLER LINES TO BE HUNG FROM EVERY JOIST AT TOP CHORD PANEL POINTS ONLY U/N.

W410 x 54
 200 mm Ø MAIN
 W410 x 54
 200 mm Ø MAIN

ITEM A.7

GRID
 BRICK LOAD ON JOIST = 5 kN/m
 Δ MAX. = A/“XXX”

ITEM A.8

180 mm = 1.8 kPa
 30 mm = 0.3 kPa
 JOIST 800 mm TYP.

ITEM A.9

CRANE LOADS
 CAPACITY = 2 700 kg
 CRANE WEIGHT = 3 400 kg
 HOIST WEIGHT = 450 kg
 MAX. WHEEL LOAD (DYNAMIC) = 30 kN
 MIN. WHEELS SPACING = 2 m
 IMPACT FACTOR = 1.25

FORCES

ITEM B.1

Af = 90 kN
 Af = 180 kN
 Af = 90 kN
 JOIST 800 mm TYP.

ITEM B.2

GRID
 BEAM
 Af = “X” kN
 JOIST GIRDER
 Af = “X” kN

ITEM B.3

M_w M_{LL}* M_{LL}* M_w

SEE PLAN FOR JOIST LOCATION
 * IF APPLICABLE

ITEM B.4

Af = “X” kN
 WIND COLUMN
 WIND COLUMN

DESIGN CRITERIA

ITEM C.1

LIVE LOAD DEFLECTION
 1. ROOF JOISTS = L/240
 2. FLOOR JOISTS = L/360

SPECIAL LIMITED DEFLECTION
 SEE INDICATIONS ON DRAWING BESIDE THE CORRESPONDING JOIST (“X” mm or L/“XXX”)

ITEM C.2

JOIST DESIGNER NOTE
 JOISTS IN HATCHED SECTORS INDICATED ON FLOOR PLAN MUST HAVE A MINIMUM INERTIA OF “X” x 10⁶ mm⁴

ITEM C.3

ELEV. 10 000 mm
 JOIST 800 mm TYP.
 -50 mm
 -75 mm
 -50 mm
 -100 mm
 -150 mm
 -100 mm
 W310 x 21
 W310 x 21
 W310 x 21
 JOIST 32” TYP.
 -150 mm
 JOIST GIRDER 900 mm
 VARIABLE SEAT HEIGHTS

ITEM C.4

W410 x 54
 JOIST 800 mm TYP.
 -100 mm
 -100 mm
 SPECIAL CAMBER “X” mm

ITEM C.5

FIRE RESISTANCE
 1. FLOOR CONSTRUCTION TO COMPLY WITH ULC F818. DECK TO BE STAMPED TO COMPLY WITH ULC U18.19.
 2. ROOF CONSTRUCTION TO COMPLY WITH ULC R801.

ITEM C.6

MAXIMUM CLEAR OPENING
 THICKNESS VARIES
 FIRE PROTECTION
 LOCATION MUST BE GREATER THAN
 2.5 x H
 ↓ 100 mm MINIMUM
 ↑ 100 mm MINIMUM

ITEM C.7

GENERAL NOTE
 THE MINIMAL THICKNESS OF TOP/BOTTOM CHORD (“X” mm) AND WEB MEMBERS (“Y” mm) MATERIAL MUST BE RESPECTED FOR WEATHER OR CORROSIVE EXPOSURE AND/OR GALVANIZATION PROCESS (IF APPLICABLE).

DISCLAIMER NOTE

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