

revision	description	date
01	ISSUED FOR TENDER	15/03/26

project	CSC MULTI-PURPOSE BUILDING CBI MINIMUM INSTITUTION (FRONTENAC) KINGSTON, ONTARIO
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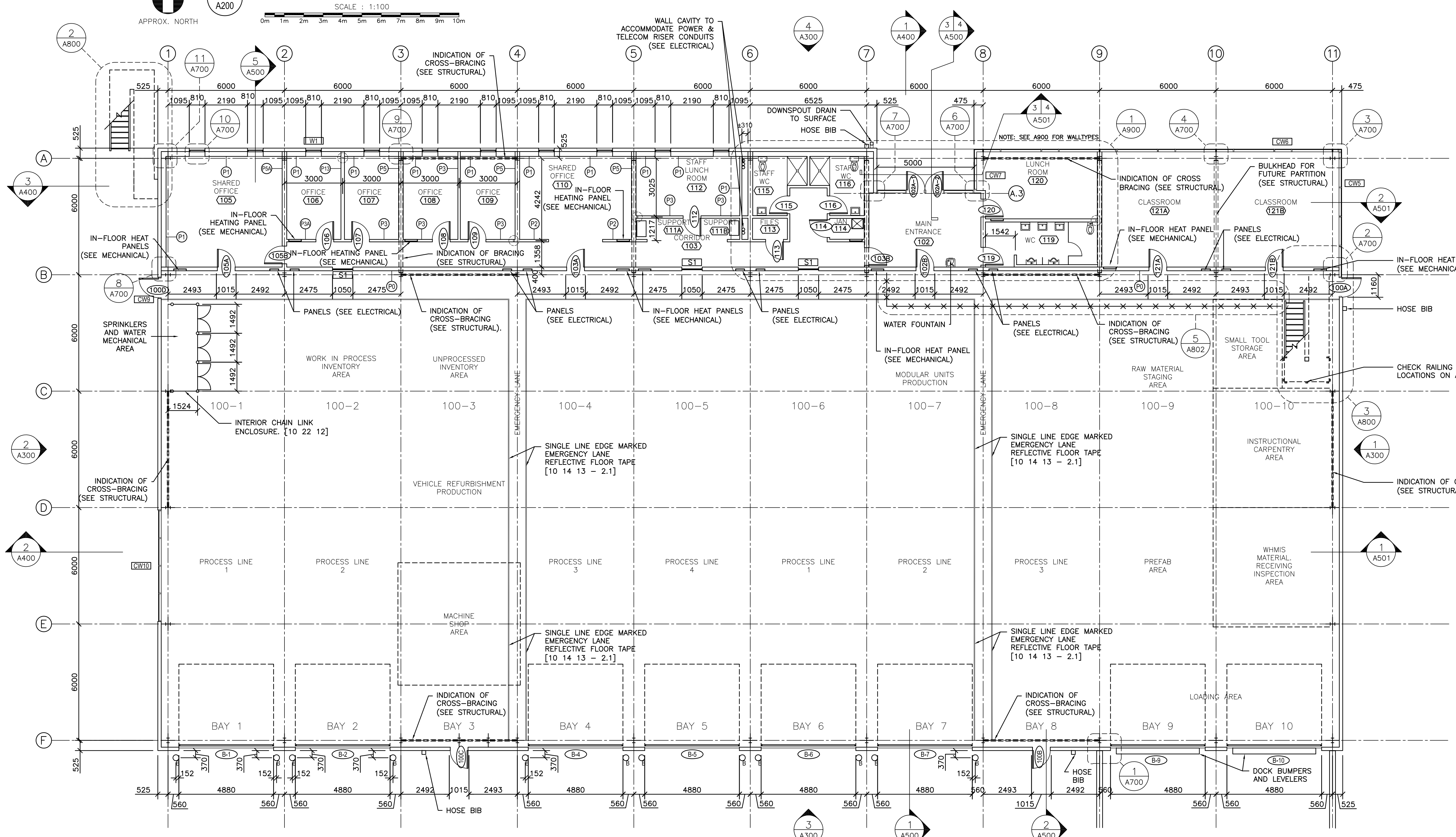
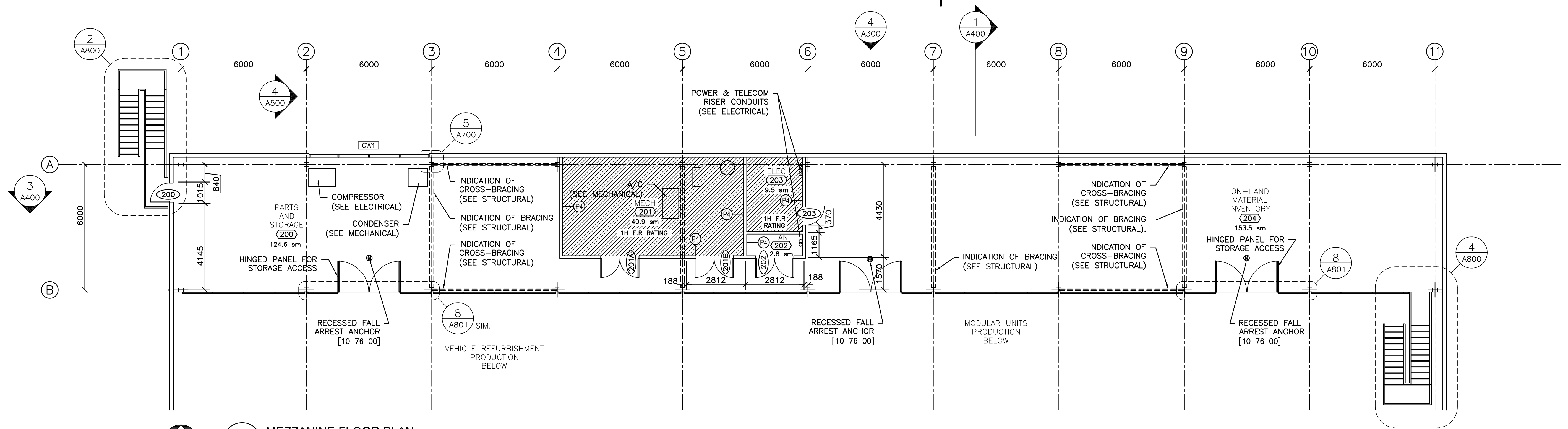
drawing	FLOOR PLANS
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designed	Mackay-Lyons Sweetapple	compu
date	2012/01/01	(yyyy/mm/dd)
drawn	BML	dessiné
date	2012/11/16	(yyyy/mm/dd)
reviewed	DC / GF	examiné
date	2015/02/23	(yyyy/mm/dd)
approved	RM	approuvé
date	2015/03/12	(yyyy/mm/dd)
Tender	DUNCAN PARKER	Soumission

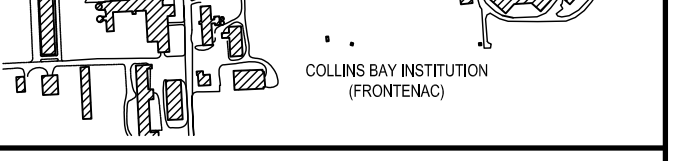
Project Manager	Administrateur de projets
project no.	no. du projet
<b>R.055776.001</b>	
drawing no.	no. du dessin
<b>A200</b>	

**LEGEND**

- FIRE RESISTANT RATED ZONE
- EMERGENCY LANE
- FOR INTERIOR PARTITION TYPES REFER TO PARTITION SCHEDULE ON LEGEND / GLOSSARY PAGE
- PLUMBING RISERS TO BE LOCATED WITHIN WALL CAVITY
- BOLLARD
- LOCATION OF IN-FLOOR POST SLEEVES (FENCE N.I.C.)



08.07.2014  
1403-A200 FloorPlan-004.dwg  
PWGSC B1 (1000x707)



revision	description	date
01	ISSUED FOR TENDER	15/03/26

A	A detail no. n° du détail	A
B	B location drawing no. sur dessin n°	B
C	C drawing no. dessin n°	C

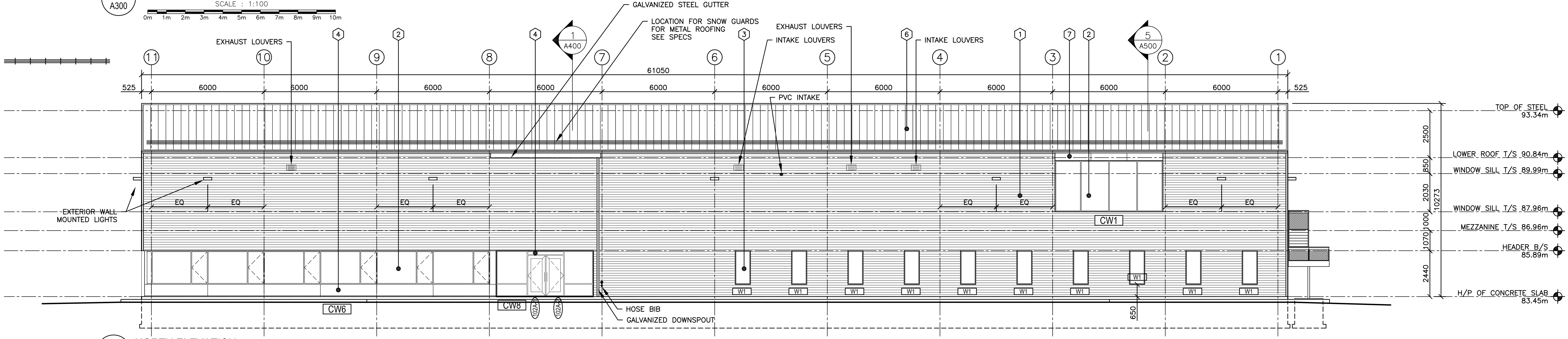
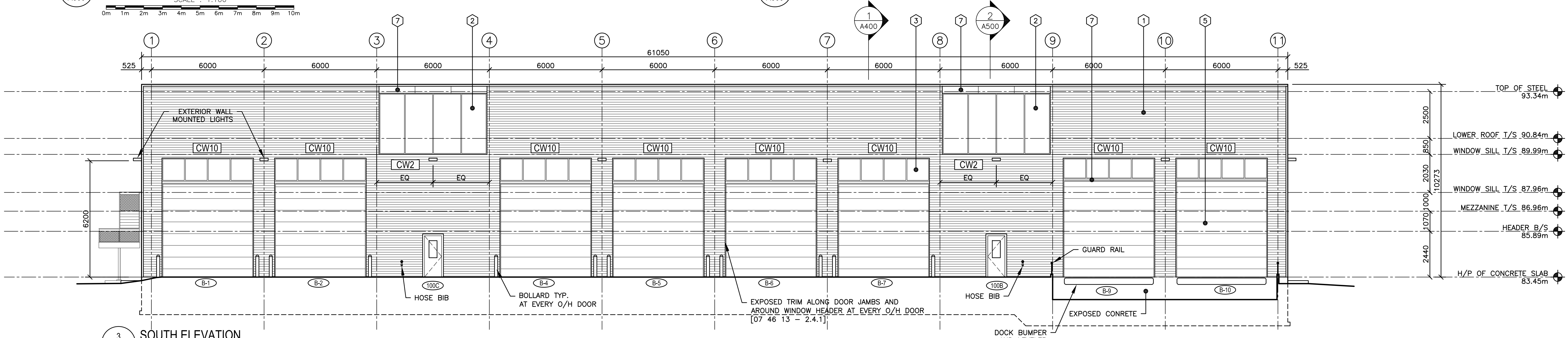
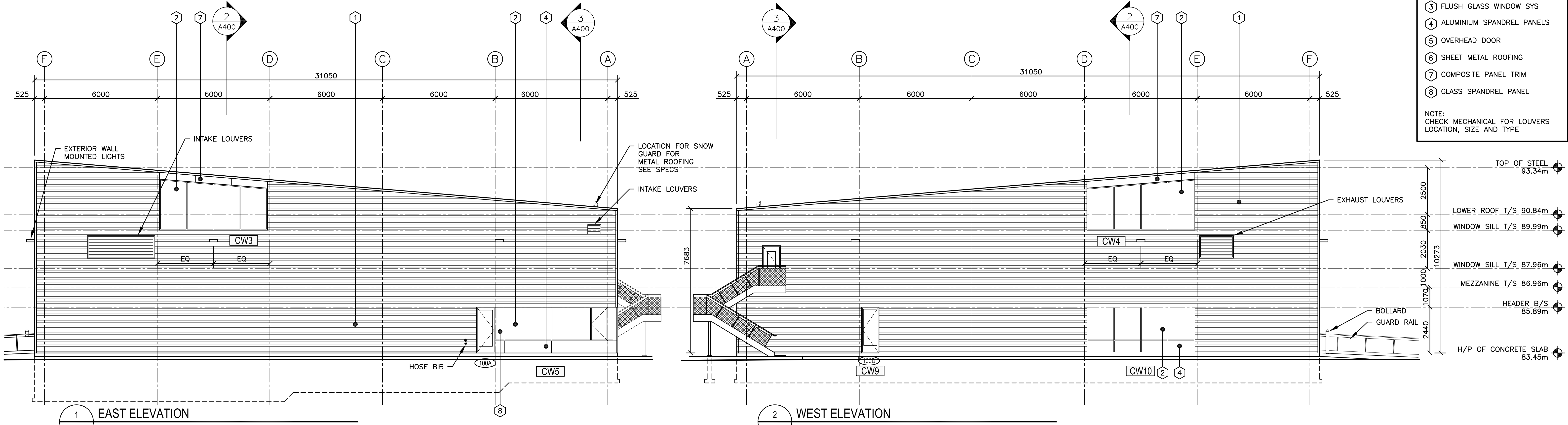
project: **CSC MULTI-PURPOSE BUILDING  
CBI MINIMUM INSTITUTION (FRONTENAC)**  
KINGSTON, ONTARIO

drawing: **BUILDING ELEVATIONS**

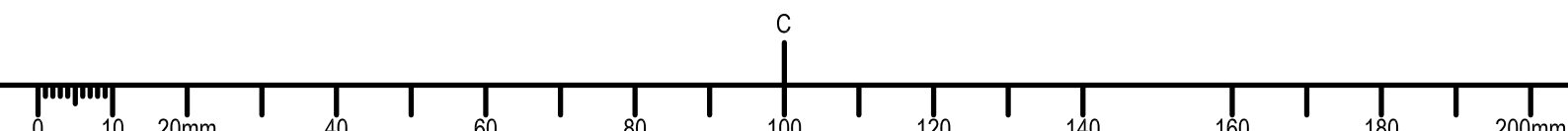
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reviewed	DC / GF	examiné
date	2015/02/23	(yyyy/mm/dd)
approved	RM	approuvé
date	2015/03/12	(yyyy/mm/dd)
Tender	DUNCAN PARKER	Soumission

Project Manager: **R.055776.001**  
no. du projet  
drawing no.: **A300**  
no. du dessin

- KEYNOTES**
- 1 CORRUGATED METAL SIDING
  - 2 STORE FRONT CURTAIN WALL
  - 3 FLUSH GLASS WINDOW SYS
  - 4 ALUMINIUM SPANDREL PANELS
  - 5 OVERHEAD DOOR
  - 6 SHEET METAL ROOFING
  - 7 COMPOSITE PANEL TRIM
  - 8 GLASS SPANDREL PANEL
- NOTE:  
CHECK MECHANICAL FOR LOUVERS  
LOCATION, SIZE AND TYPE



08.07.2014  
1403-A300 Elevation-005.dwg  
PWGSC B1 (1000x707)







01	ISSUED FOR TENDER	15/03/26
revision	description	date

A	A detail no. n° du détail	A
B	B location drawing no. sur dessin n°	B
C	C drawing no. dessin n°	C

project project  
**CSC MULTI-PURPOSE BUILDING**  
**CBI MINIMUM INSTITUTION (FRONTENAC)**  
KINGSTON, ONTARIO

drawing dessin  
**BUILDING SECTIONS**

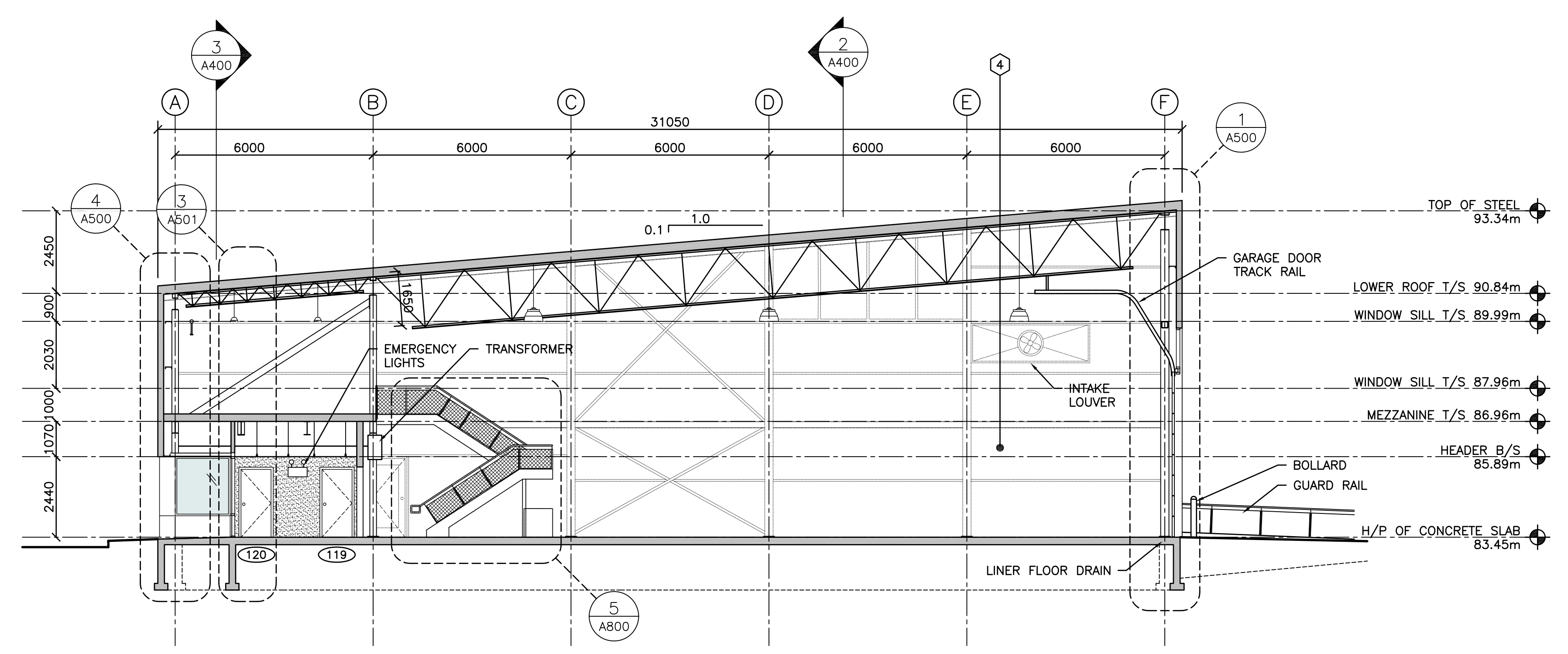
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reviewed	DC / GC	examiné
date	2015/02/23	(yyyy/mm/dd)
approved	RM	approuvé
date	2015/03/12	(yyyy/mm/dd)
Tender	DUNCAN PARKER	Soumission

Project Manager Administrateur de projets  
project no. no. du projet  
**R.055776.001**

drawing no. no. du dessin  
**A400**

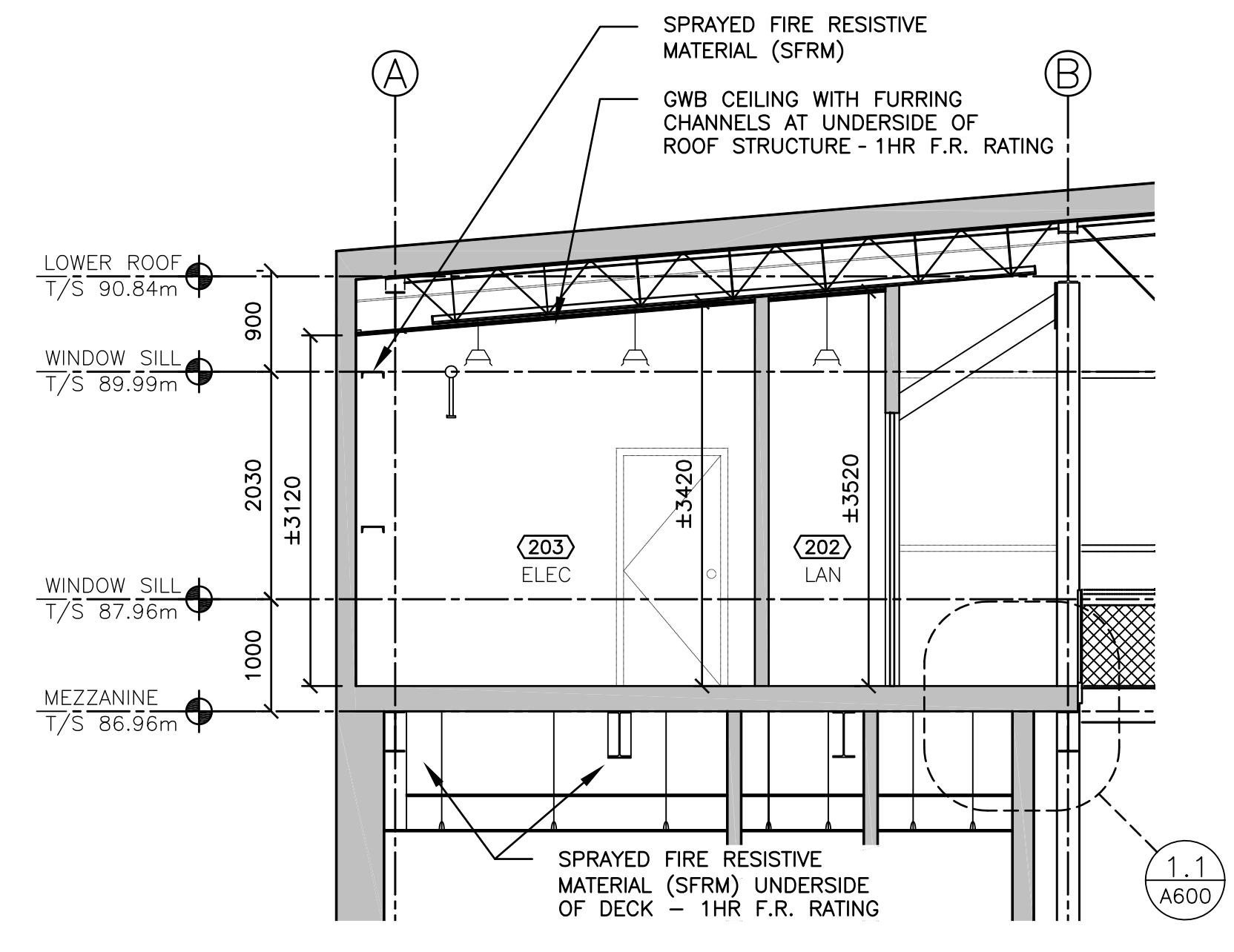
**KEYNOTES**

- STEEL MESH GUARD RAIL
- ANODIZED ALUMINUM STOREFRONT WINDOW SYS.
- CONCRETE BLOCK WALL
- EXPOSED INNER LINER AND WALL STRUCTURE
- PAINTED GYPSUM WALL BOARDS



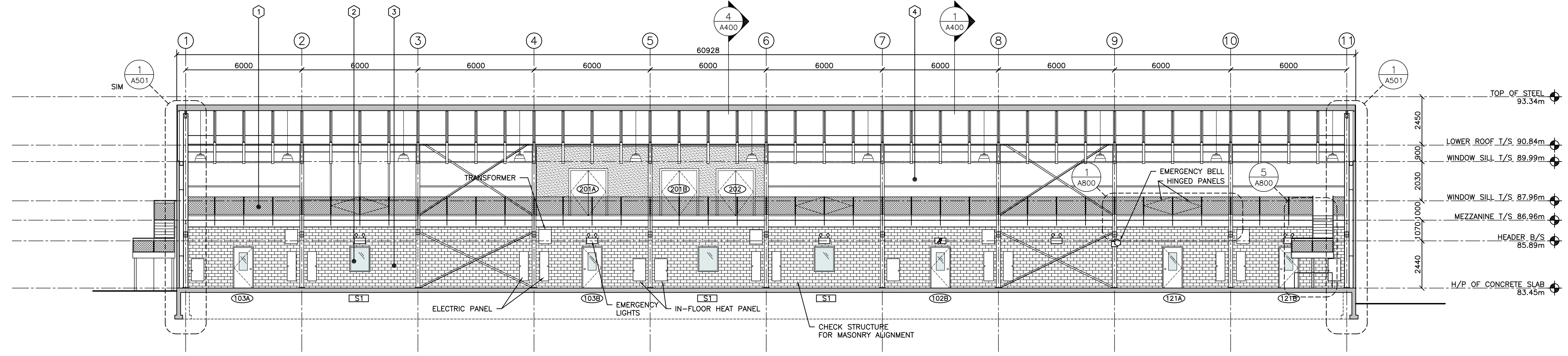
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A400

SCALE : 1:100  
0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m



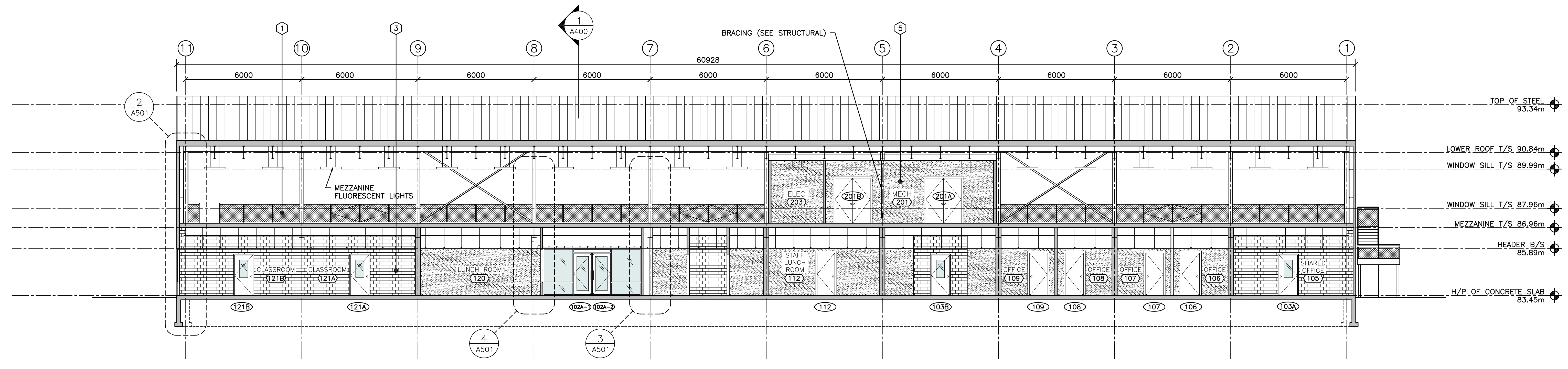
**4 SERVICES ENCLOSURE SECTION**  
A400

SCALE: 1:50  
0m 1m 2m 3m 4m 5m



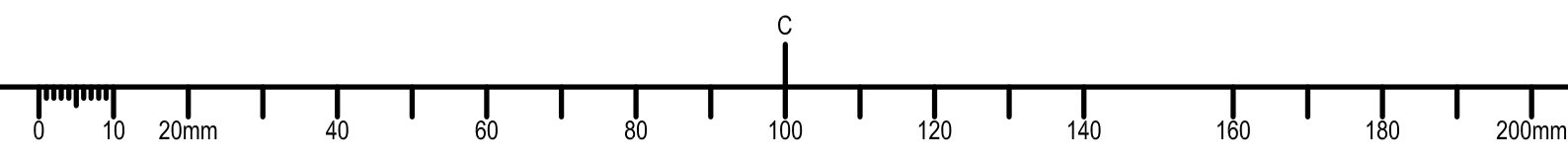
**2 BUILDING SECTION**  
A400

SCALE : 1:100  
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**3 BUILDING SECTION**  
A400

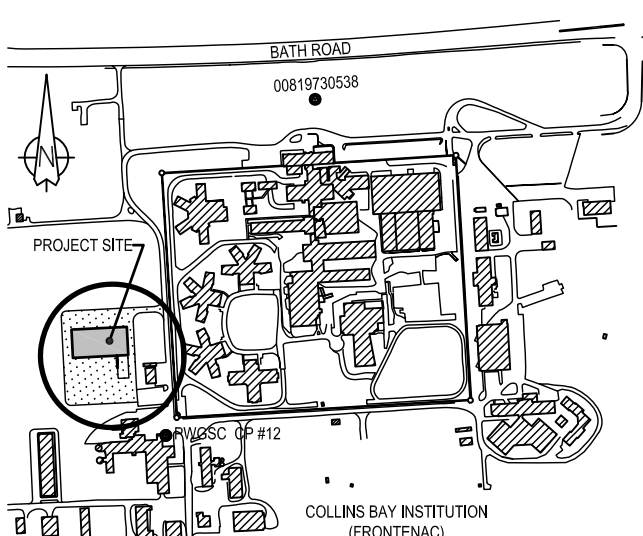
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08.07.2014

1403-A400 BuildingSection-003.dwg





01	ISSUED FOR TENDER	15/03/26
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A	detail no. n° du détail	A
B	location drawing no. sur dessin n°	B
C	drawing no. dessin n°	C

project project  
**CSC MULTI-PURPOSE BUILDING**  
**CBI MINIMUM INSTITUTION (FRONTENAC)**  
KINGSTON, ONTARIO

drawing dessin

**WALL SECTIONS**

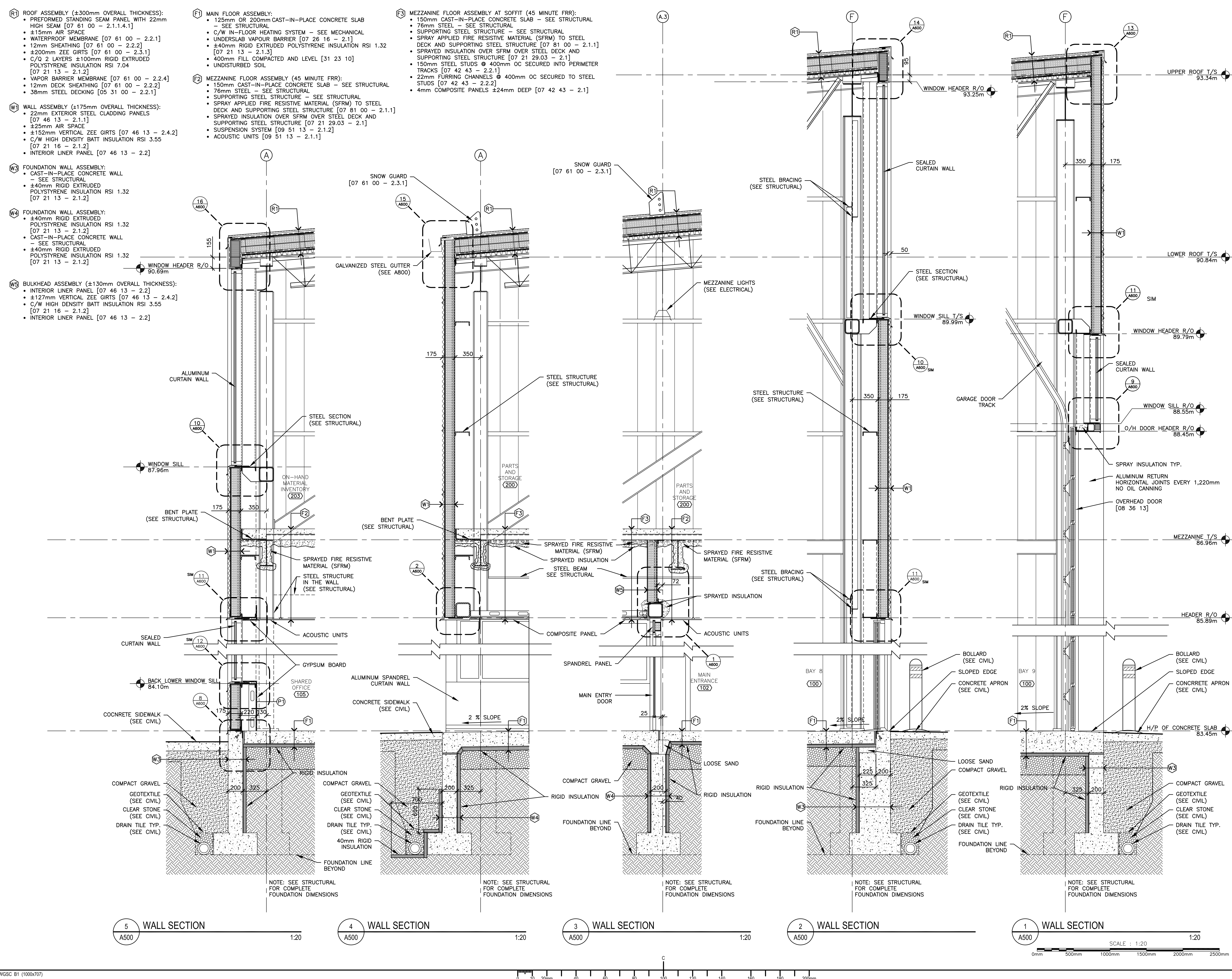
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date	2012/01/01	(yyyy/mm/dd)
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reviewed	DC / CF	examiné
date	2015/02/23	(yyyy/mm/dd)
approved	RM	approuvé
date	2015/03/12	(yyyy/mm/dd)
Tender	DUNCAN PARKER	Sourmission

Project Manager / Administrateur de projets  
project no. / no. du projet

R.055776.001

drawing no. / no. du dessin

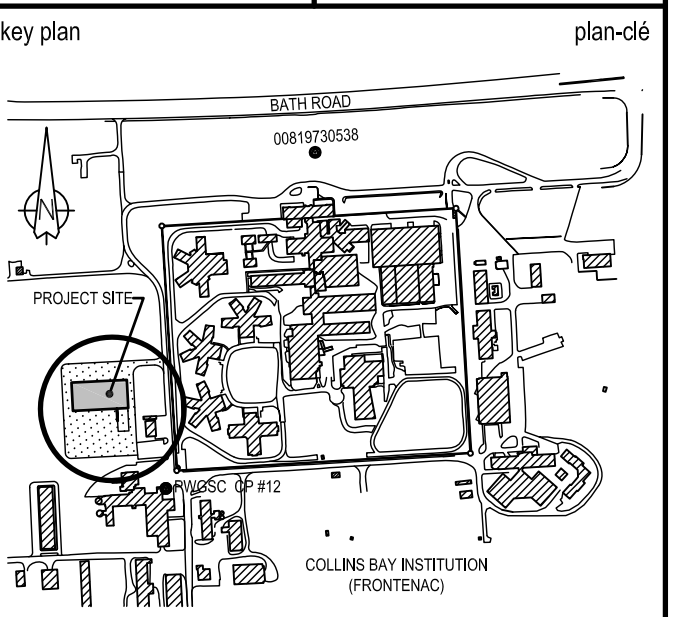
A500



08.07.2014

1403-A500\_A501 WallSection-003.dwg





revision	description	date
01	ISSUED FOR TENDER	15/03/26

A	A detail no. n° du détail	A
B	B location drawing no. sur dessin n°	B
C	C drawing no. dessin n°	C

project  
**CSC MULTI-PURPOSE BUILDING  
CBI MINIMUM INSTITUTION (FRONTENAC)**  
KINGSTON, ONTARIO

drawing  
dessin

**WALL SECTIONS**

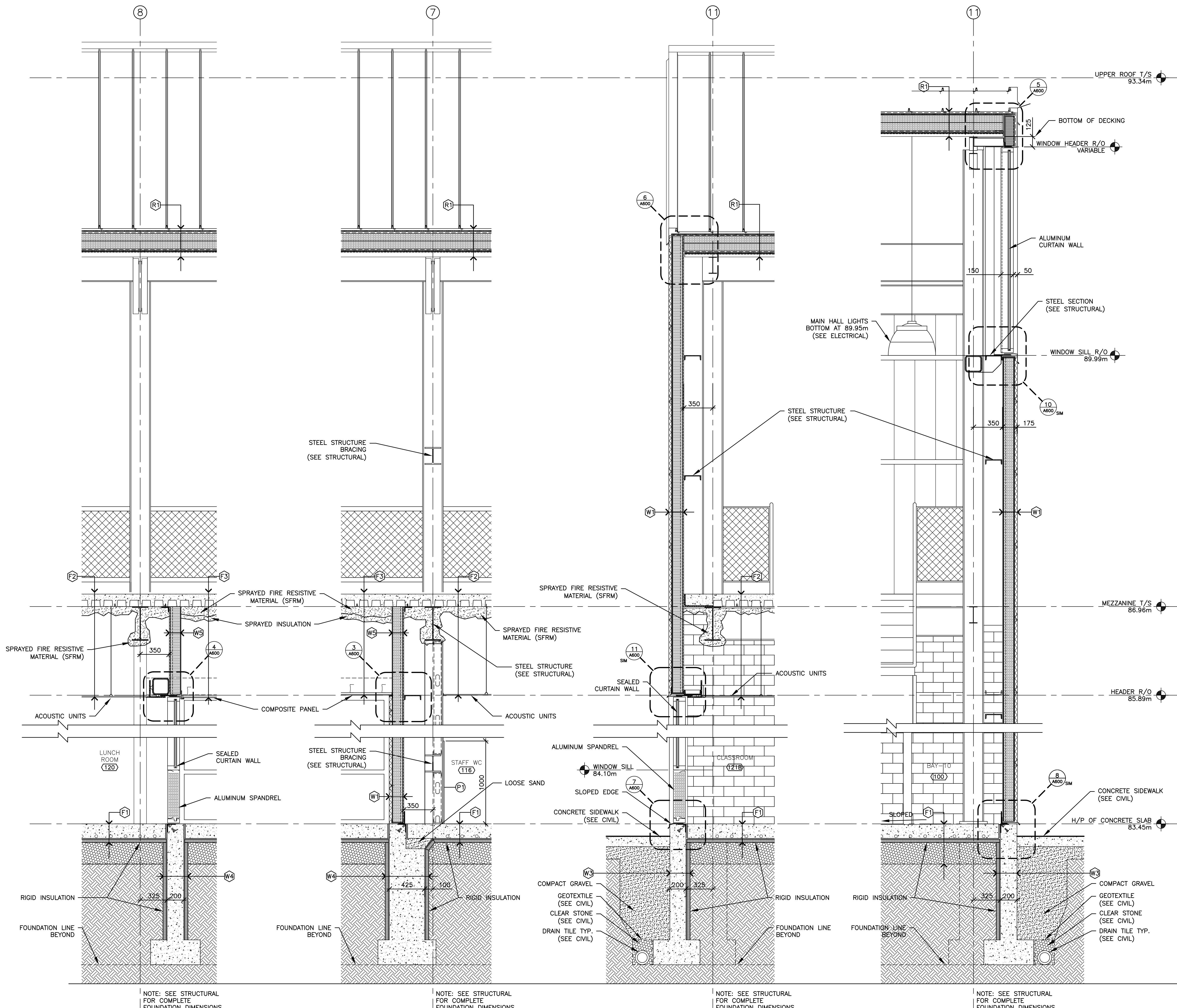
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date	2012/01/01	(yyyy/mm/dd)
drawn	BML	dessiné
date	2012/11/16	(yyyy/mm/dd)
reviewed	DC / GF	examiné
date	2015/02/23	(yyyy/mm/dd)
approved	RM	approuvé
date	2015/03/12	(yyyy/mm/dd)
Tender	DUNCAN PARKER	Soumission

Project Manager / Administrateur de projets  
project no. / no. du projet

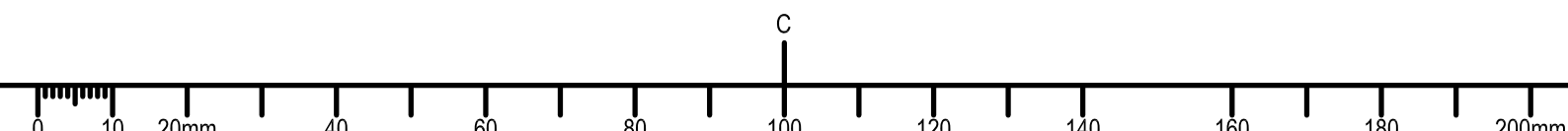
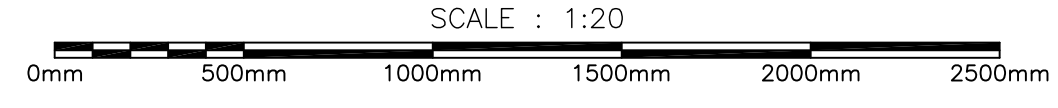
**R.055776.001**

drawing no. / no. du dessin  
**A501**

- KEYNOTES**
- (R1) ROOF ASSEMBLY (±300mm OVERALL THICKNESS):**
    - PREFORMED STANDING SEAM PANEL WITH 22mm HIGH SEAM [07 61 00 - 2.1.4.1]
    - ±15mm AIR SPACE
    - WATERPROOF MEMBRANE [07 61 00 - 2.2.1]
    - 12mm SHEATHING [07 61 00 - 2.2.2]
    - ±200mm ZEE GIRTS [07 61 00 - 2.3.1]
    - C/Q 2 LAYERS ±100mm RIGID EXTRUDED POLYSTYRENE INSULATION RSI 7.04 [07 21 13 - 2.1.2]
    - VAPOR BARRIER MEMBRANE [07 61 00 - 2.2.4]
    - 12mm DECK SHEATHING [07 61 00 - 2.2.2]
    - 38mm STEEL DECKING [05 31 00 - 2.2.1]
  - (W1) WALL ASSEMBLY (±175mm OVERALL THICKNESS):**
    - 22mm EXTERIOR STEEL CLADDING PANELS [07 46 13 - 2.1.1]
    - ±25mm AIR SPACE
    - ±152mm VERTICAL ZEE GIRTS [07 46 13 - 2.4.2]
    - C/W HIGH DENSITY BATT INSULATION RSI 3.55 [07 21 16 - 2.1.2]
    - INTERIOR LINER PANEL [07 46 13 - 2.2]
  - (W3) FOUNDATION WALL ASSEMBLY:**
    - CAST-IN-PLACE CONCRETE WALL - SEE STRUCTURAL
    - 40mm RIGID EXTRUDED POLYSTYRENE INSULATION RSI 1.32 [07 21 13 - 2.1.2]
  - (W4) FOUNDATION WALL ASSEMBLY:**
    - 40mm RIGID EXTRUDED POLYSTYRENE INSULATION RSI 1.32 [07 21 13 - 2.1.2]
    - CAST-IN-PLACE CONCRETE WALL - SEE STRUCTURAL
    - 40mm RIGID EXTRUDED POLYSTYRENE INSULATION RSI 1.32 [07 21 13 - 2.1.2]
  - (W5) BULKHEAD ASSEMBLY (±130mm OVERALL THICKNESS):**
    - INTERIOR LINER PANEL [07 46 13 - 2.2]
    - ±127mm VERTICAL ZEE GIRTS [07 46 13 - 2.4.2]
    - C/W HIGH DENSITY BATT INSULATION RSI 3.55 [07 21 16 - 2.1.2]
    - INTERIOR LINER PANEL [07 46 13 - 2.2]
  - (F1) MAIN FLOOR ASSEMBLY:**
    - 125mm OR 200mm CAST-IN-PLACE CONCRETE SLAB - SEE STRUCTURAL
    - C/W IN-FLOOR HEATING SYSTEM - SEE MECHANICAL
    - UNDERSLAB VAPOR BARRIER [07 26 16 - 2.1]
    - 40mm RIGID EXTRUDED POLYSTYRENE INSULATION RSI 1.32 [07 21 13 - 2.1.3]
    - 400mm FILL COMPACTED AND LEVEL [31 23 10]
    - UNDISTURBED SOIL
  - (F2) MEZZANINE FLOOR ASSEMBLY (45 MINUTE FRR):**
    - 150mm CAST-IN-PLACE CONCRETE SLAB - SEE STRUCTURAL
    - 76mm STEEL - SEE STRUCTURAL
    - SUPPORTING STEEL STRUCTURE - SEE STRUCTURAL
    - SPRAY APPLIED FIRE RESISTIVE MATERIAL (SFRM) TO STEEL DECK AND SUPPORTING STEEL STRUCTURE [07 81 00 - 2.1.1]
    - SPRAYED INSULATION OVER SFRM OVER STEEL DECK AND SUPPORTING STEEL STRUCTURE [07 21 29.03 - 2.1]
    - SUSPENSION SYSTEM [09 51 13 - 2.1.2]
    - ACOUSTIC UNITS [09 51 13 - 2.1.1]
  - (F3) MEZZANINE FLOOR ASSEMBLY AT SOFFIT (45 MIN. FRR):**
    - 150mm CAST-IN-PLACE CONCRETE SLAB - SEE STRUCTURAL
    - 76mm STEEL - SEE STRUCTURAL
    - SUPPORTING STEEL STRUCTURE - SEE STRUCTURAL
    - SPRAY APPLIED FIRE RESISTIVE MATERIAL (SFRM) TO STEEL DECK AND SUPPORTING STEEL STRUCTURE [07 81 00 - 2.1.1]
    - SPRAYED INSULATION OVER SFRM OVER STEEL DECK AND SUPPORTING STEEL STRUCTURE [07 21 29.03 - 2.1]
    - 150mm STEEL STUDS @ 400mm OC SECURED INTO PERIMETER TRACKS [07 42 43 - 2.2.1]
    - 22mm FURRING CHANNELS @ 400mm OC SECURED TO STEEL STUDS [07 42 43 - 2.2.2]
    - 4mm COMPOSITE PANELS ±24mm DEEP [07 42 43 - 2.1]



**4 WALL SECTION** A501 1:20  
**3 WALL SECTION** A501 1:20  
**2 WALL SECTION** A501 1:20  
**1 WALL SECTION** A501 1:20



08.07.2014

1403-A500\_A501 WallSection-003.dwg











01	ISSUED FOR TENDER	15/03/26
revision	description	date

A	A detail no. du détail	A
C	B location drawing no. sur dessin no.	B
	C drawing no. dessin no.	C

project projet  
**CSC MULTI-PURPOSE BUILDING  
CBI MINIMUM INSTITUTION (FRONTENAC)**  
KINGSTON, ONTARIO

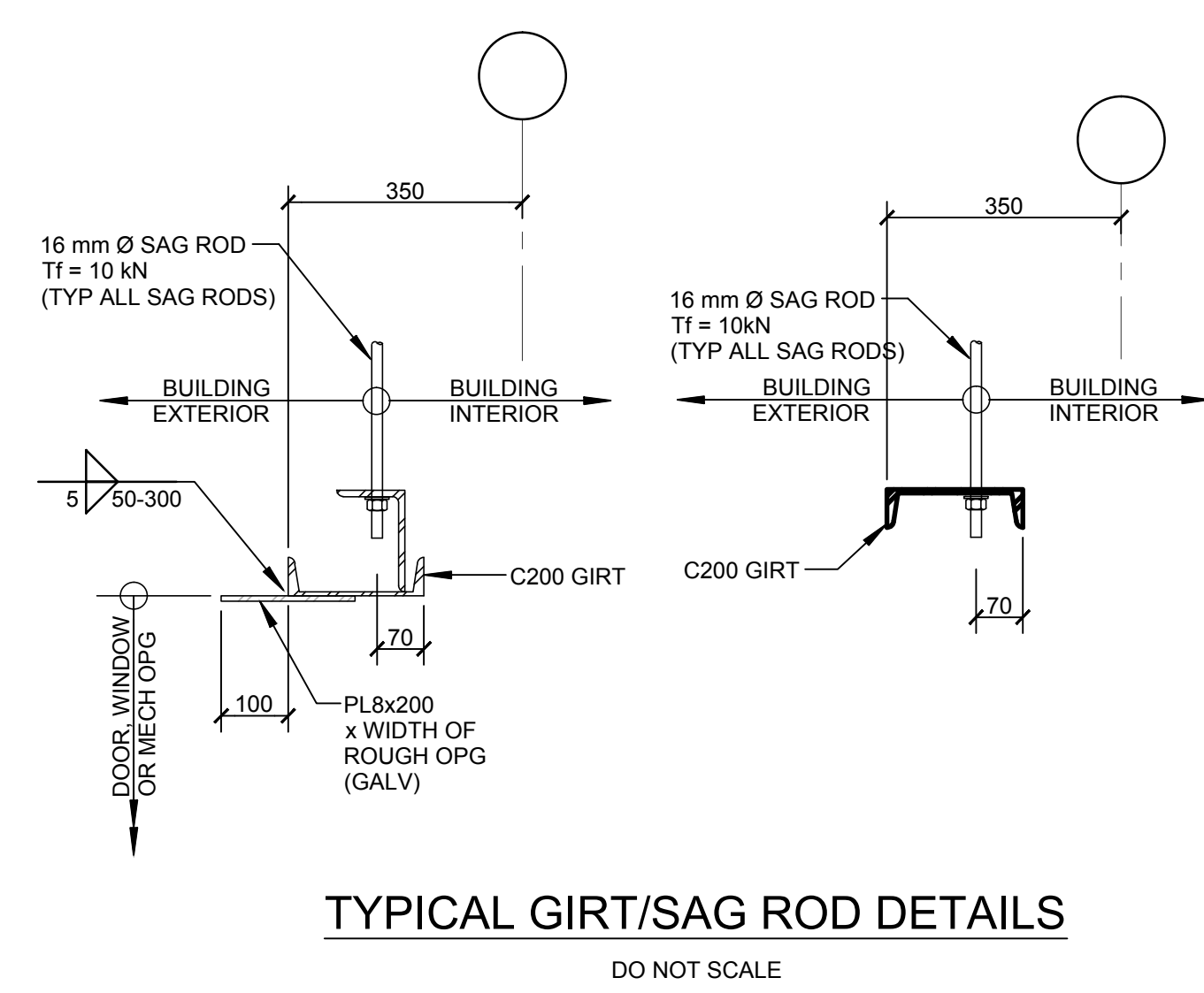
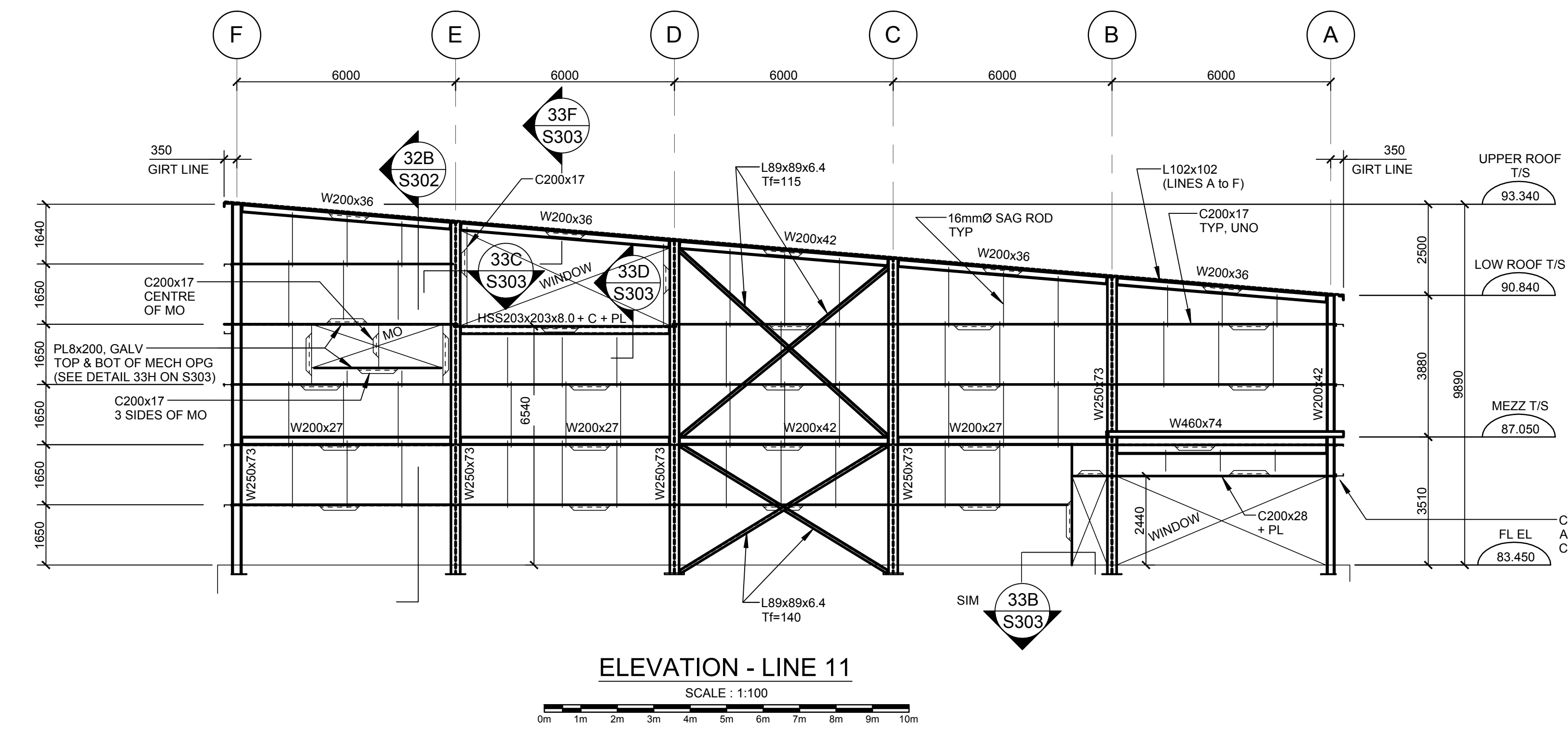
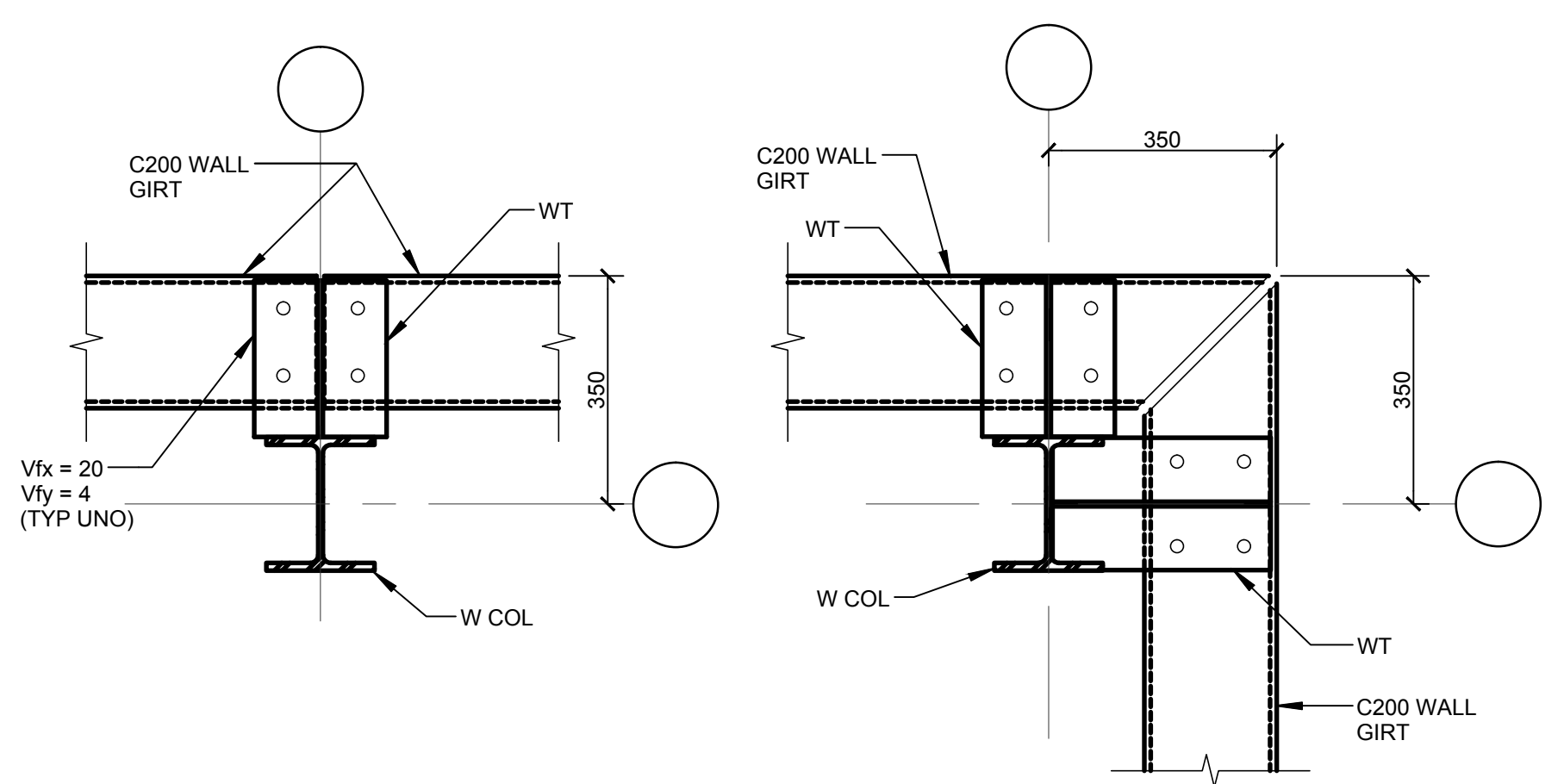
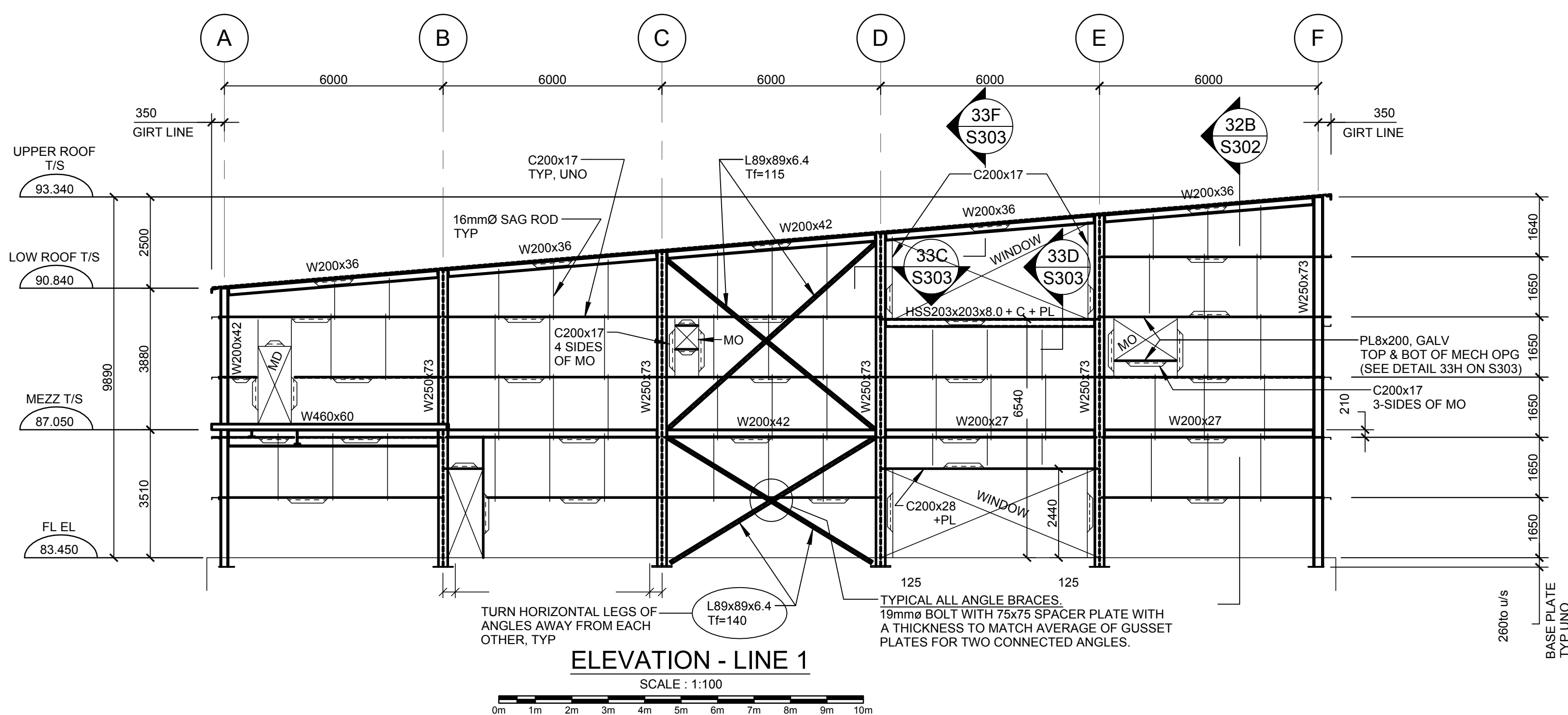
drawing dessin  
**ELEVATIONS**

designed	LJF	conçu	
date	2014/04/22		(yyyy/mm/dd)
drawn	PDM	dessiné	
date	2014/04/22		(yyyy/mm/dd)
reviewed	LJF	examiné	
date	2015/03/11		(yyyy/mm/dd)
approved	LJF	approuvé	
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Tender DUNCAN PARKER Soumission  
Project Manager Administrateur de projets  
project no. no. du projet

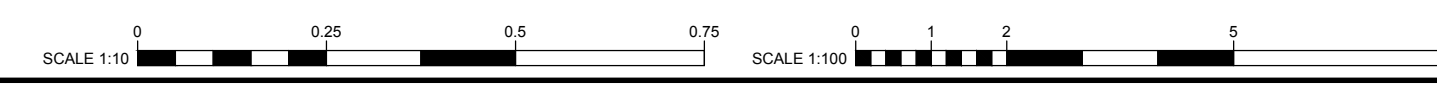
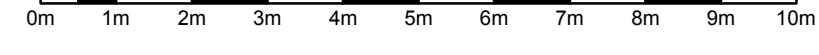
**R.055776.001**

drawing no. no. du dessin  
**S200**



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**ELEVATION - LINE A**  
SCALE: 1:100







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project projet  
**CSC MULTI-PURPOSE BUILDING  
CBI MINIMUM INSTITUTION (FRONTENAC)**  
KINGSTON, ONTARIO

drawing dessin

WALL SECTIONS

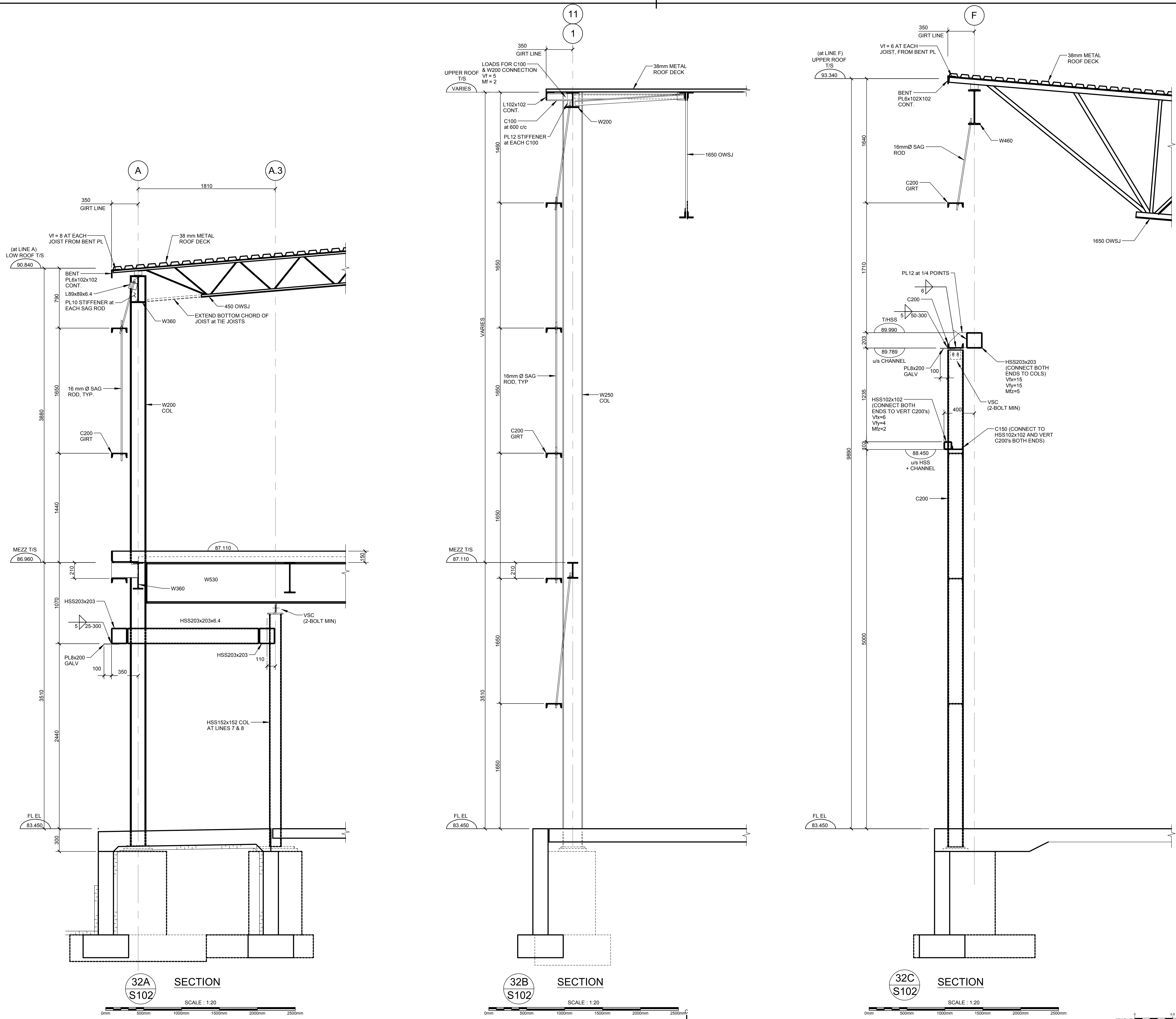
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reviewed	IJF	examiné
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approved	IJF	approuvé
date	2015/03/11	(yyyy/mm/dd)
Tender	DUNCAN PARKER	Soumission

Project Manager Administrateur de projets  
project no. no. du projet

R.055776.001

drawing no. no. du dessin

S302



PL0710181-000 - PLOTTED FOR TENDER - PLOT DATE: 2015-03-11 10:45:49 AM - PLOT SCALE: 1:1000000 - PLOT SHEET: 11 OF 1000000 - PLOT SHEET SIZE: READ DRAWING ACCORDINGLY.



GENERAL NOTES

- 1. STRUCTURAL DESIGN IS IN ACCORDANCE WITH 2010 NATIONAL BUILDING CODE OF CANADA DATED (NBCC2010) INCLUDING AMENDMENTS.
2. CHECK ALL DIMENSIONS ON STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL DRAWINGS. REPORT ANY INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE THESE DRAWINGS. ALL DIMENSIONS ARE IN MILLIMETERS.
3. STRUCTURAL PLANS SHOW BEARING WALLS AND COLUMNS BELOW THE FLOOR OR ROOF STRUCTURE WITH DASHED LINES. WALLS AND COLUMNS ABOVE THE FLOOR ARE SHOWN WITH CONTINUOUS LINES.
4. TYPICAL DETAILS I.E. T3001 ON DRAWINGS S400, S401, & S402 SHOW STRUCTURAL INTENT RATHER THAN ACTUAL CONDITIONS FOR THIS PROJECT.
5. CARRY ALL FOOTINGS DOWN TO STRATA CAPABLE OF SUPPORTING THE DESIGN BEARING PRESSURES NOTED AND FOR EXTERIOR FOOTINGS NOT LESS THAN REQUIRED TO PROVIDE A MINIMUM OF 1500 FROST PROTECTION.
6. PROTECT FOOTINGS, WALLS, SLABS-ON-GRADE AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION.
7. THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR TRENCHES SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10.
8. FOOTING STEPS SHALL BE A MINIMUM OF 1200 APART. MAXIMUM STEP APPROXIMATELY 600.
9. CENTRE FOOTINGS AND PIERS UNDER CENTROID OF COLUMNS, UNLESS OTHERWISE NOTED.
10. DO NOT BACKFILL AGAINST WALLS RETAINING EARTH UNTIL ELEMENTS PROVIDING LATERAL SUPPORT, INCLUDING SLAB ON GRADE, ARE COMPLETED. PLACE BACKFILL SIMULTANEOUSLY ON BOTH SIDES OF WALLS BELOW GRADE.
11. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE WALLS ARE NOT PERMITTED, EXCEPT WHERE SHOWN ON THESE DRAWINGS. LEAVE CHASES AND POCKETS IN WALLS FOR SEATING OF SLABS AND BEAMS.
12. REINFORCEMENT FOR CONCRETE WALLS NOT COVERED BY SECTION, PLAN OR SCHEDULE SHALL BE AS FOLLOWS:
150 MAXIMUM WALL: 10 @ 300 H + 10 @ 400 V IN CENTRE
300 MAXIMUM WALL: 10 @ 300 HEF + 10 @ 500 VEF
250 MAXIMUM WALL: 10 @ 400 HEF + 10 @ 500 VEF
300 MAXIMUM WALL: 10 @ 300 HEF + 10 @ 400 VEF
THICKER WALL: 15 @ 300 HEF + 15 @ 400 VEF
13. REINFORCEMENT FOR CONCRETE CURBS NOT COVERED BY SECTION OR PLAN SHALL BE 10@400 DOWELS + 2-10#
14. REINFORCEMENT FOR CONCRETE BASES UNDER EQUIPMENT NOT COVERED BY SECTION OR PLAN SHALL BE 10@300 EA. WAY PLACED 50mm BELOW TOP OF CONCRETE.
15. BARS MARKED CONTINUOUS SHALL BE TERMINATED IN STANDARD HOOKS AT ENDS AND SPLICED USING CLASS B LAPS.
16. ALL REBAR HOOKS TO BE STANDARD LENGTH 90° OR 180° HOOKS.
17. PROVIDE CONTINUOUS GALVANIZED VERTICAL DOVETAIL ANCHOR SLOTS AT 600 CENTRES IN ALL CONCRETE SURFACES WITH MASONRY VENEER.
18. STANDARD LINTELS:
PROVIDE STANDARD LINTELS OVER ALL OPENINGS IN MASONRY WALLS AND PARTITIONS AS SHOWN ON TYPICAL DETAILS. CHECK ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS REQUIRING STANDARD LINTELS WHICH ARE NOT NECESSARILY SHOWN ON THE STRUCTURAL DRAWINGS.
SPECIAL LINTELS:
PROVIDE SPECIAL LINTELS AS PER LINTEL SCHEDULE AT LOCATIONS GIVEN ON PLAN.
19. UNLESS OTHERWISE NOTED, PROVIDE A CONTINUOUS BOND BEAM AT TOPS OF ALL WALLS. FILL ALL CHANNEL BLOCK BOND BEAMS WITH 20 MPa CONCRETE REINFORCED WITH 1-10 TOP AND BOTTOM CONTINUOUS.
20. UNLESS OTHERWISE NOTED, ALL BEARING BEAMS SHALL HAVE A MINIMUM BEARING OF 200. AND ALL CONCRETE SLABS SHALL HAVE A MINIMUM BEARING OF 100. VOIDS IN MASONRY UNITS UNDER BEAMS AND JOISTS SHALL BE PREFILLED WITH GROUT FOR A MINIMUM VERTICAL DEPTH OF 600 AND A LENGTH OF 400. UNLESS OTHERWISE NOTED, USE 75% SOLID BLOCKS FOR FILLING. DO NOT USE MORTAR TO FILL MASONRY UNITS.
21. MINIMUM CONCRETE COVER TO REINFORCING BARS, CLOSEST TO THE CONCRETE SURFACE, IN mm, UNLESS OTHERWISE NOTED:
FOR CONCRETE EXPOSURE CLASSES N, F1 AND F2:
FOOTINGS --- 75 TO BOTTOM BARS, 50 TO TOP BARS
PIERS --- 50
COLUMNS --- 40
40 TO SURFACES EXPOSED TO GROUND OR OUTSIDE.
20 TO PROTECTED SURFACES (ENTIRELY WITHIN THE VAPOUR BARRIER OF THE BUILDING ENVELOPE)
SLABS --- 25 TO PROTECTED SURFACES (ENTIRELY WITHIN THE VAPOUR BARRIER OF THE BUILDING ENVELOPE)
BEAMS --- 40
FOR CONCRETE EXPOSURE CLASSES C1 AND C3:
ALL STRUCTURAL ELEMENTS (INCLUDING SLABS AND WALLS) - 60.
INCREASE COVER WHERE REQUIRED TO MAINTAIN MINIMUM RATIO OF COVER TO NOMINAL BAR DIAMETER OF 1 FOR CLASS N, 1.5 FOR CLASSES F1 AND F2 AND 2 FOR CLASSES C1 AND C3.

SHOP DRAWING REVIEW

- 1. REVIEW OF SHOP DRAWINGS IS ONLY FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS. COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS. NOR DO THEY AUTHORIZE ANY CHANGES TO THE CONTRACT. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR'S RESPONSIBILITIES INCLUDE ALL QUANTITIES, DETAIL DIMENSIONS, FIELD MEASUREMENTS, FABRICATION PROCESS, MEANS, METHODS, SEQUENCES AND PROCEDURES OF CONSTRUCTION. COORDINATION OF WORK WITH ALL TRADES AND PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER. THE REVIEW OF SHOP DRAWINGS DOES NOT IMPLY ANY CHANGE IN ANY OTHER CONSULTANTS' OR PROFESSIONALS' RESPONSIBILITIES RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS (SUCH AS STRUCTURAL STEEL CONNECTIONS, STEEL JOISTS, PRECAST ELEMENTS, ETC.).
2. AFTER REVIEW, THE DRAWINGS WILL BE STAMPED AND RETURNED TO SHOW ONE OF THE FOLLOWING:
NOT REVIEWED - SHOWS WORK WHICH IS NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES.
REVIEWED - RELEASED FOR FABRICATION.
NOTED - RELEASED FOR FABRICATION AFTER REVISIONS NOTED ARE MADE. SUBMIT FINAL RECORD PRINT.
RESUBMIT - CORRECT AND RESUBMIT FOR REVIEW PRIOR TO FABRICATION.

MATERIAL AND DESIGN DATA

- 1. FOOTING BEARING RESISTANCE:
- 150 kPa AT ULTIMATE LIMIT STATES DESIGN
- 150 kPa AT SLS (SERVICEABILITY LIMIT STATES DESIGN)
MODULUS OF SUBGRADE REACTIONS (ASSUMED FOR DESIGN OF SLABS ON GRADE) 24,000 kN/m³
SEE SOILS REPORT PREPARED BY: DBA ENGINEERING LTD.
REPORT NUMBER: 12-2334-01. DATED: NOVEMBER 8, 2012
2. CONCRETE SPECIFIED COMPRESSIVE STRENGTH, f'c, IS 25 MPa EXCEPT FOR:
DOCKING AREA - 35 MPa
SLAB ON GRADE - 30 MPa
AND WHERE SHOWN ON PLANS AND SCHEDULES
INCREASE STRENGTH AS REQUIRED FOR REQUIRED CLASS OF EXPOSURE. REFER TO SPECIFICATIONS.
3. REINFORCING STEEL: CAN/CSA G30.18M - GRADE 400R
400W
4. STRUCTURAL STEEL (EXCEPT HSS): CAN/CSA G40.21M
- WIDE FLANGES: 350 W
- ANCHOR RODS: 300 W
- ALL OTHER STEEL: 300 W
5. STRUCTURAL STEEL (HSS ONLY):
- ASTM A500 GRADE C (345 MPa FOR SQUARE/RECTANGULAR AND 317 MPa FOR ROUND) OR
G40.21 GRADE 300W CLASS C OR H
- HSS MEMBERS REQUIRED TO BE GALVANIZED SHALL BE CLASS H, OR STRESS RELIEVED PRIOR TO GALVANIZING
6. STRUCTURAL MASONRY:
- HOLLOW BLOCK: CSA A185.1 - H1/S1/M
- SOLID BLOCK: CSA A185.1 - S1/S1/M
- MORTAR: CSA A179M - TYPE S
- GROUT FOR BLOCK CORES: CSA A179M - COARSE GROUT
1:3 CEMENT-SAND-PEA-STONE
BY VOLUME WITH 200 SLUMP
- SPECIFIED COMPRESSIVE STRENGTH, f'm, IS:
HOLLOW BLOCK - 9.8 MPa
SOLID AND GROUTED HOLLOW BLOCK - 7.5 MPa
- SPECIFIED FLEXURAL TENSILE STRENGTH IN NORMAL TO BED JOINTS IS:
SOLID AND HOLLOW BLOCK - 0.4 MPa
GROUTED HOLLOW BLOCK - 0.65 MPa
7. DESIGN LOADS FOR BUILDING STRUCTURE:
DESIGN LOADS PRESENTED BELOW HAVE BEEN DEVELOPED FOR THE REFERENCED BUILDING TO BE LOCATED IN THE FOLLOWING MUNICIPALITY: KINGSTON, ON
THE VALUES FOR CLIMATIC DATA USED IN THE DETERMINATION OF DESIGN LOADS HAVE BEEN OBTAINED FROM THE SUPPLEMENTARY STANDARD SB-1 TABLE 1.2
1. GRAVITY LOADS AS SHOWN ON PLANS
2. GROUND SNOW LOAD AND ASSOCIATED RAIN LOAD:
Sg = 2.1 kN/m²
Sr = 0.4 kN/m²
3. SPECIFIED SNOW LOAD
S = 1# [Sg x Cd x Cw x Cs x Ca + Sr] = 1# x [2.1(0.8)(1.0)(1.0)(0.4)] + 0.4 = 1.8 x 2.08 kN/m²
4. WIND:
IMPORTANCE CATEGORY = NORMAL
IMPORTANCE FACTOR:
Iw = 1.0 (ULS)
Iw = 0.75 (SLS)
150 Yr HOURLY WIND PRESSURE:
q = 0.47 kPa
TERRAIN TYPE: OPEN
ROUGH
H = MAX HEIGHT ABOVE GRADE = 8.64 m
Ds = SMALLER PLAN DIMENSION = 30.0 m
%g = 8.64/30.0 = 0.288
CONCLUSION: BUILDING IS: LOW RISE
HIGH RISE
EXTERNAL PRESSURE CO-EFFICIENT, GUST EFFECT FACTOR & EXPOSURE FACTOR
LOW RISE NOT APPLICABLE
NS WIND
Cp WINDWARD = 0.97 (AT H)
Cp LEeward = 0.55
EW WIND
Cp WINDWARD = 0.75
Cp LEeward = -0.55
HIGH RISE
Cp WINDWARD = 0.85 (VARIES WITH HEIGHT)
Cp LEeward = 0.55 (AT H/2)
CG = 2.0
NS WIND
D = m
HD = m
Cp WINDWARD = m
Cp LEeward = m
EW WIND
D = m
HD = m
Cp WINDWARD = m
Cp LEeward = m
FACTORED DESIGN LOADS (1.4W)
NS WIND
BASE SHEAR (ULS) = 280 kN
BASE OVERTURNING MOMENT (ULS) = 2520 kN.m
EW WIND
BASE SHEAR (ULS) = 140 kN
BASE OVERTURNING MOMENT (ULS) = 1165 kN.m
5. SEISMIC:
SEISMIC FORCE RESISTING SYSTEM (SFRS):
SFRS: SYSTEM & CONNECTIONS: (CLAUSE 4.1.8.9/4.1.8.10)
LATERAL LOAD RESISTING SYSTEM: CONVENTIONAL CONSTRUCTION OF BRACED FRAME
Rd = 1.5
Ro = 1.3
CSA STANDARD: CAN CSA-S16-09
APPLICABLE CLAUSES: 27.10
SFRS: DIAPHRAGMS & CONNECTIONS: (CLAUSE 4.1.8.15)
CSA STANDARD: CAN CSA-S16-09
APPLICABLE CLAUSES: 27.10
SFRS: SYSTEM FOUNDATIONS: (CLAUSE 4.1.8.16)
CSA STANDARD: CSA A23.3-04
APPLICABLE CLAUSES: 21.11
FOR ANCHORED FOOTINGS
FOR UNANCHORED FOOTINGS
IMPORTANCE FACTOR: (CLAUSE 4.1.8.5)
IE = 1.0
PROJECT LOCATION: KINGSTON ON
5% DAMPED SPECTRAL RESPONSE ACCELERATION VALUES
PGA = 0.12
Sd(0.2) = 0.29
Sd(0.5) = 0.18
Sd(1.0) = 0.099
Sd(0) = 0.031
SITE CLASS: THE NOTED SITE CLASSIFICATION FOR SEISMIC SITE RESISTANCE AND SHEAR WAVE VELOCITY PARAMETERS INDICATED ARE AS REPORTED IN THE GEOTECHNICAL REPORT DBA ENGINEERING LTD. BY 12-2334-01
HORIZONTAL SHEAR WAVE VELOCITY:
Fa = 1.0
Fv = 1.0
DESIGN SPECTRAL RESPONSE ACCELERATION VALUES
Sd(0.2) = 0.29
Sd(0.5) = 0.18
Sd(1.0) = 0.099
Sd(0) = 0.031
Sd(4.0) = 0.0155
IeFaSa (0.2) = 0.29
FUNDAMENTAL PERIOD DATA
EMPIRICAL FORMULA (CLAUSE 4.1.8.11(3))
Tn = 0.185 sec

MATERIAL AND DESIGN DATA (CONT'D)

- ALTERNATE METHOD OF MECHANICS (CLAUSE 4.1.8.11(3)(d))
Tn(NS) = sec
Tn(EW) = sec
DESIGN PERIOD:
Tn(NS) = 0.185 sec
Tn(EW) = 0.185 sec
DESIGN SPECTRAL RESPONSE ACCELERATION AT FUNDAMENTAL PERIOD:
Sd(NS) = 0.29
Mn(NS) = 1.0
J(NS) = 1.0
Sd(EW) = 0.29
Mn(EW) = 1.0
J(EW) = 1.0
IRREGULARITY REVIEW (CLAUSE 4.1.8.6)
1. VERTICAL STIFFNESS: YES NO
2. WEIGHT: YES NO
3. VERTICAL GEOMETRIC: YES NO
4. IN-PLANE DISCONTINUITY: YES NO
5. CUT-OF-PLANE: YES NO
6. WEAK STOREY: YES NO
7. TORSIONAL: YES NO
8. NON-ORTHOGONAL CONCLUSION: BUILDING IS: REGULAR IRREGULAR
DYNAMIC ANALYSIS: REQUIRED NOT REQUIRED
DYNAMIC PROCEDURE METHOD: MODAL RESPONSE SPECTRUM NUMERIC INTEGRATION TIME HISTORY
TORSIONAL ECCENTRICITY PROCEDURE:
B ± 0.10 Dnx (CLAUSE 4.1.8.11 (10)(a)), B < 1.7 (EQUIV. STATIC FORCE)
A ± 0.10 Dnx (CLAUSE 4.1.8.12 (4)(a)), B > 1.7 (3-D DYNAMIC ANALYSIS)
A ± 0.05 Dnx (CLAUSE 4.1.8.12 (4)(b)), B < 1.7, (3-D DYNAMIC ANALYSIS)
BASE SHEARS / OVERTURNING MOMENTS
EQUIVALENT STATIC FORCE PROCEDURE:
BASE SHEARS
NS DIRECTIONS:
VMN = Sd(0.2) Mv le W(Rd Ro) = 0.0238 W
VMAX = (2/3) Sd(0.2) le W(Rd Ro) = 0.0991 W
EW DIRECTIONS:
VMN = Sd(0.2) Mv le W(Rd Ro) = 0.0238 W
VMAX = (2/3) Sd(0.2) le W(Rd Ro) = 0.0991 W
DESIGN BASE SHEARS / OVERTURNING MOMENTS:
V(NS) = 0.0991 W = 0.0991 x 5275 = 523 kN
M(NS) = -M x J = -3690 x 1.0 = -3690 kN.m
V(EW) = 0.0991 W = 0.0991 x 5275 = 523 kN
M(EW) = -M x J = -3690 x 1.0 = -3690 kN.m
DCA DETAIL
D.F.-L DIAMETER
DL DIMENSION
DL DEAD LOAD IN kN/m²
DMA DOWN
DO. DITTO
DP DEEP
DWG. DRAWING
DWL. DOWEL
EA EACH
EOR EPOXY COATED REINFORCEMENT
EE EACH END
EF EACH FACE
EJ EXP.JT. EXPANSION JOINT
EL. ELEV. ELEVATION
EMBED. EMBEDMENT
EQ. EQUAL
EX. EXIST. EXISTING
FD FLOOR DRAIN
FF FAR FACE
FNL FINISHED
FL FLOOR
FMC FULL MOMENT CONNECTION
FTG. FOOTING
fc COMPRESSIVE STRENGTH OF CONC IN MPa
fy YIELD STRENGTH IN MPa
GALV. GALVANIZED STEEL
GB GRADE BEAM
GL GRIDLINE
h TOTAL THICKNESS
H. HOR. HORIZONTAL
HGO HOT DIPPED GALVANIZED
HEF HORIZONTAL EACH FACE
HH HOOK-HOOK (HOOK EACH END)
HLE HOLE THROUGH CONCRETE BEAM
HLS HOLE THROUGH STEEL BEAM
HIC HORIZONTAL IN CENTRE
HK HOOK
HP HIGH POINT
IBA INTEGRITY BARS ADDED
IBE INTEGRITY BARS EXTERIOR
IBI INTEGRITY BARS INTERIOR
JG JOIST GIRDER
ld TENSION DEVELOPMENT LENGTH OF REBAR
lcc COMPRESSION DEVELOPMENT LENGTH OF REBAR
L SINGLE ANGLE
JL DOUBLE ANGLES
A. ROD ANCHOR ROD
AEC ARCHITECTURALLY EXPOSED CONCRETE
AESS ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AF FACTORED AXIAL LOAD IN kN (+ INDICATES TENSION, - INDICATES COMPRESSION)
ALT. ARCHITECTURAL
B. BOT. BOTTOM
BCP BORED CONCRETE PILE
BEW BOTTOM EACH WAY
BLL BOTTOM LOWER LAYER
BM BEAM
BOF ELEV BOTTOM OF FOOTING
BOP BEARING BASE PLATE
BSMT. BASEMENT
BUP BOTTOM UPPER LAYER
BUP BOTTOM OF UNDERPINNING
CA COLUMN ABOVE ONLY (NO COLUMN BELOW)
CAM CAMBER
CAN. CANTILEVER
CB COLUMN BELOW
CC CUT OFF ELEVATION FOR PILES
CEL CONCRETE FIREPROOFED CONTROL JOINT
CJ CLEAR
CL CENTRELINE
CM STEEL DECK CORE NOMINAL THICKNESS
COMP. COMPOSITE
CONSTR. JT. CONSTRUCTION JOINT
COL. COLUMN
CONC. CONCRETE
CONT. CONTINUOUS
CP CONNECTION PLATE
CWS SEE GENERAL NOTES
CLS
CSB
DCA DETAIL
DET. DOUGLAS FIR-LARCH
D.F.-L DIAMETER
DL DIMENSION
DL DEAD LOAD IN kN/m²
DMA DOWN
DO. DITTO
DP DEEP
DWG. DRAWING
DWL. DOWEL
EA EACH
EOR EPOXY COATED REINFORCEMENT
EE EACH END
EF EACH FACE
EJ EXP.JT. EXPANSION JOINT
EL. ELEV. ELEVATION
EMBED. EMBEDMENT
EQ. EQUAL
EX. EXIST. EXISTING
FD FLOOR DRAIN
FF FAR FACE
FNL FINISHED
FL FLOOR
FMC FULL MOMENT CONNECTION
FTG. FOOTING
fc COMPRESSIVE STRENGTH OF CONC IN MPa
fy YIELD STRENGTH IN MPa
GALV. GALVANIZED STEEL
GB GRADE BEAM
GL GRIDLINE
h TOTAL THICKNESS
H. HOR. HORIZONTAL
HGO HOT DIPPED GALVANIZED
HEF HORIZONTAL EACH FACE
HH HOOK-HOOK (HOOK EACH END)
HLE HOLE THROUGH CONCRETE BEAM
HLS HOLE THROUGH STEEL BEAM
HIC HORIZONTAL IN CENTRE
HK HOOK
HP HIGH POINT
IBA INTEGRITY BARS ADDED
IBE INTEGRITY BARS EXTERIOR
IBI INTEGRITY BARS INTERIOR
JG JOIST GIRDER
ld TENSION DEVELOPMENT LENGTH OF REBAR
lcc COMPRESSION DEVELOPMENT LENGTH OF REBAR
L SINGLE ANGLE
JL DOUBLE ANGLES
LEG. LEFT END
LONGLENGTH LONGLENGTH
LOWER LEVEL BM/JOIST LOWER LEVEL BM/JOIST
LVL LEVEL LOAD IN kN/m
LLH LONG LEG HORIZONTAL
LLV LONG LEG VERTICAL
LSV LONG SIDE VERTICAL
LSP LONG SIDE HORIZONTAL
LP LOW POINT
MAX. MAXIMUM
MOV. MOVEMENT JOINT
MIN. MINIMUM
MOM. MOMENT CONNECTION
MOM. FACTORED TORSION IN kN.m
NF NEAR FACE
NTS NOT TO SCALE
O/C ON CENTRE
O/O OUT TO OUT
OPEN. OPENING
P POINT LOAD IN kN
PL FACTORED POINT LOAD IN kN
PI PLATE
RF REINFORCEMENT
RA ROCK ANCHOR
RD ROOF DRAIN
REIN. REINFORCEMENT
REF RIGHT END
RF RIGID FRAME
RF FACTORED VERTICAL REACTION IN kN
RHF FACTORED HORIZONTAL REACTION IN kN
SCA STEEL COLUMN ABOVE (NO STEEL COLUMN BELOW)
SD STEP DOWN FOOTING IN DIRECTION OF ARROW
SDL SUPERIMPOSED DL (EXCLUDING SELF-WEIGHT) IN kN/m²
SECT. SECTION
SIM. SIMILAR
SJ STEEL JOIST
SLS SERVICEABILITY LIMIT STATE
SL SLAB
SL1, SL2 SHEAR ANGLE 1, ETC
SOG SLAB ON GRADE
SPF SPRUCE PINE FIR
STRIP STRIP
STIFF. STIFFENER
T THICKNESS
TOP TOP
TEW TOP EACH WAY
THK THICK
TJ THE JOIST
TLE TOP LEFT END
TLL TOP LOWER LAYER
TOP TOP OF FOOTING
TOP TOP OF PILE
TPC TOP OF PILE CAP
TRE TOP RIGHT END
TUL TOP UPPER LAYER
TYP. TYPICAL
ULS ULTIMATE LIMIT STATE
UNLESS NOTED UNLESS NOTED
UPT. UPTURNED
VB VERTICAL BRACING
V, VEF VERTICAL, VERTICAL EACH FACE
VF FACTORED SHEAR IN kN
VIC VERTICAL IN CENTRE
V, VERT. VERTS. VERTICAL, VERTICALS
VSC VERTICALLY SLOTTED CONNECTION TO ALLOW FOR DEFLECTION
VXB VERTICAL 'X' BRACING
WC WIND COLUMN
WWA WINDOW WASHING ANCHORS
WWF WELDED WIRE FABRIC
ZRP ZINC RICH PAINT
SECTION NUMBER SECTION NUMBER
SECTION DRAWING SECTION DRAWING
REFERENCE REFERENCE
MASONRY WALL MASONRY WALL
FULLY GROUTED MASONRY WALL FULLY GROUTED MASONRY WALL
STRUCTURAL PRECAST CONCRETE STRUCTURAL PRECAST CONCRETE
SEE GENERAL NOTES
DRILLED CONCRETE ANCHOR
DOUGLAS FIR-LARCH
DIAMETER
DIMENSION
DEAD LOAD IN kN/m²
DRILLED MASONRY ANCHOR
DOWN
DITTO
DEEP
DRAWING
DOWEL
EACH
EPOXY COATED REINFORCEMENT
EACH END
EACH FACE
EXPANSION JOINT
ELEVATION
EMBEDMENT
EQUAL
EXISTING
FLOOR DRAIN
FAR FACE
FINISHED
FLOOR
FULL MOMENT CONNECTION
FOOTING
COMPRESSIVE STRENGTH OF CONC IN MPa
YIELD STRENGTH IN MPa
GALVANIZED STEEL
GRADE BEAM
GRIDLINE
TOTAL THICKNESS
HORIZONTAL
HOT DIPPED GALVANIZED
HORIZONTAL EACH FACE
HOOK-HOOK (HOOK EACH END)
HOLE THROUGH CONCRETE BEAM
HOLE THROUGH STEEL BEAM
HORIZONTAL IN CENTRE
HOOK
HIGH POINT
INTEGRITY BARS ADDED
INTEGRITY BARS EXTERIOR
INTEGRITY BARS INTERIOR
JOIST GIRDER
TENSION DEVELOPMENT LENGTH OF REBAR
COMPRESSION DEVELOPMENT LENGTH OF REBAR
SINGLE ANGLE
DOUBLE ANGLES
LEFT END
LONGLENGTH
LOWER LEVEL BM/JOIST
LOWER LEVEL BM/JOIST
LEVEL LOAD IN kN/m
LONG LEG HORIZONTAL
LONG LEG VERTICAL
LONG SIDE VERTICAL
LONG SIDE HORIZONTAL
LOW POINT
MAXIMUM
MOVEMENT JOINT
MINIMUM
MOMENT CONNECTION
MOMENT CONNECTION
NEAR FACE
NOT TO SCALE
ON CENTRE
OUT TO OUT
OPENING
POINT LOAD IN kN
FACTORED POINT LOAD IN kN
PLATE
REINFORCEMENT
ROCK ANCHOR
ROOF DRAIN
REINFORCEMENT
RIGHT END
RIGID FRAME
FACTORED VERTICAL REACTION IN kN
FACTORED HORIZONTAL REACTION IN kN
STEEL COLUMN ABOVE (NO STEEL COLUMN BELOW)
STEP DOWN FOOTING IN DIRECTION OF ARROW
SUPERIMPOSED DL (EXCLUDING SELF-WEIGHT) IN kN/m²
SECTION
SIMILAR
STEEL JOIST
SERVICEABILITY LIMIT STATE
SLAB
SHEAR ANGLE 1, ETC
SLAB ON GRADE
SPRUCE PINE FIR
STRIP
STIFFENER
THICKNESS
TOP
TOP EACH WAY
THICK
THE JOIST
TOP LEFT END
TOP LOWER LAYER
TOP OF FOOTING
TOP OF PILE
TOP OF PILE CAP
TOP RIGHT END
TOP UPPER LAYER
TYPICAL
ULTIMATE LIMIT STATE
UNLESS NOTED
UPTURNED
VERTICAL BRACING
VERTICAL, VERTICAL EACH FACE
FACTORED SHEAR IN kN
VERTICAL IN CENTRE
VERTICAL, VERTICALS
VERTICALLY SLOTTED CONNECTION TO ALLOW FOR DEFLECTION
VERTICAL 'X' BRACING
WIND COLUMN
WINDOW WASHING ANCHORS
WELDED WIRE FABRIC
ZINC RICH PAINT
SECTION NUMBER
SECTION DRAWING
REFERENCE
MASONRY WALL
FULLY GROUTED MASONRY WALL
STRUCTURAL PRECAST CONCRETE

DRAWING LEGEND AND ABBREVIATIONS

- UNLESS OTHERWISE NOTED, DESIGN LOADS SHOWN ARE SPECIFIED (UNFACTORED) LOADS, TO BE USED FOR ULS DESIGN. FOR POINT LOADS, IF ONLY ONE LOAD IS GIVEN, CONSIDER IT LIVE LOAD. FOR WIND AND SNOW LOADS TO BE USED FOR SLS DESIGN, REFER TO MATERIAL AND DESIGN DATA NOTES.
LEG. LEFT END
LONGLENGTH LONGLENGTH
LOWER LEVEL BM/JOIST LOWER LEVEL BM/JOIST
LVL LEVEL LOAD IN kN/m
LLH LONG LEG HORIZONTAL
LLV LONG LEG VERTICAL
LSV LONG SIDE VERTICAL
LSP LONG SIDE HORIZONTAL
LP LOW POINT
MAX. MAXIMUM
MOV. MOVEMENT JOINT
MIN. MINIMUM
MOM. MOMENT CONNECTION
MOM. FACTORED TORSION IN kN.m
NF NEAR FACE
NTS NOT TO SCALE
O/C ON CENTRE
O/O OUT TO OUT
OPEN. OPENING
P POINT LOAD IN kN
PL FACTORED POINT LOAD IN kN
PI PLATE
RF REINFORCEMENT
RA ROCK ANCHOR
RD ROOF DRAIN
REIN. REINFORCEMENT
REF RIGHT END
RF RIGID FRAME
RF FACTORED VERTICAL REACTION IN kN
RHF FACTORED HORIZONTAL REACTION IN kN
SCA STEEL COLUMN ABOVE (NO STEEL COLUMN BELOW)
SD STEP DOWN FOOTING IN DIRECTION OF ARROW
SDL SUPERIMPOSED DL (EXCLUDING SELF-WEIGHT) IN kN/m²
SECT. SECTION
SIM. SIMILAR
SJ STEEL JOIST
SLS SERVICEABILITY LIMIT STATE
SL SLAB
SL1, SL2 SHEAR ANGLE 1, ETC
SOG SLAB ON GRADE
SPF SPRUCE PINE FIR
STRIP STRIP
STIFF. STIFFENER
T THICKNESS
TOP TOP
TEW TOP EACH WAY
THK THICK
TJ THE JOIST
TLE TOP LEFT END
TLL TOP LOWER LAYER
TOP TOP OF FOOTING
TOP TOP OF PILE
TPC TOP OF PILE CAP
TRE TOP RIGHT END
TUL TOP UPPER LAYER
TYP. TYPICAL
ULS ULTIMATE LIMIT STATE
UNLESS NOTED UNLESS NOTED
UPT. UPTURNED
VB VERTICAL BRACING
V, VEF VERTICAL, VERTICAL EACH FACE
VF FACTORED SHEAR IN kN
VIC VERTICAL IN CENTRE
V, VERT. VERTS. VERTICAL, VERTICALS
VSC VERTICALLY SLOTTED CONNECTION TO ALLOW FOR DEFLECTION
VXB VERTICAL 'X' BRACING
WC WIND COLUMN
WWA WINDOW WASHING ANCHORS
WWF WELDED WIRE FABRIC
ZRP ZINC RICH PAINT
SECTION NUMBER SECTION NUMBER
SECTION DRAWING SECTION DRAWING
REFERENCE REFERENCE
MASONRY WALL MASONRY WALL
FULLY GROUTED MASONRY WALL FULLY GROUTED MASONRY WALL
STRUCTURAL PRECAST CONCRETE STRUCTURAL PRECAST CONCRETE
SEE GENERAL NOTES
DRILLED CONCRETE ANCHOR
DOUGLAS FIR-LARCH
DIAMETER
DIMENSION
DEAD LOAD IN kN/m²
DRILLED MASONRY ANCHOR
DOWN
DITTO
DEEP
DRAWING
DOWEL
EACH
EPOXY COATED REINFORCEMENT
EACH END
EACH FACE
EXPANSION JOINT
ELEVATION
EMBEDMENT
EQUAL
EXISTING
FLOOR DRAIN
FAR FACE
FINISHED
FLOOR
FULL MOMENT CONNECTION
FOOTING
COMPRESSIVE STRENGTH OF CONC IN MPa
YIELD STRENGTH IN MPa
GALVANIZED STEEL
GRADE BEAM
GRIDLINE
TOTAL THICKNESS
HORIZONTAL
HOT DIPPED GALVANIZED
HORIZONTAL EACH FACE
HOOK-HOOK (HOOK EACH END)
HOLE THROUGH CONCRETE BEAM
HOLE THROUGH STEEL BEAM
HORIZONTAL IN CENTRE
HOOK
HIGH POINT
INTEGRITY BARS ADDED
INTEGRITY BARS EXTERIOR
INTEGRITY BARS INTERIOR
JOIST GIRDER
TENSION DEVELOPMENT LENGTH OF REBAR
COMPRESSION DEVELOPMENT LENGTH OF REBAR
SINGLE ANGLE
DOUBLE ANGLES
LEFT END
LONGLENGTH
LOWER LEVEL BM/JOIST
LOWER LEVEL BM/JOIST
LEVEL LOAD IN kN/m
LONG LEG HORIZONTAL
LONG LEG VERTICAL
LONG SIDE VERTICAL
LONG SIDE HORIZONTAL
LOW POINT
MAXIMUM
MOVEMENT JOINT
MINIMUM
MOMENT CONNECTION
MOMENT CONNECTION
NEAR FACE
NOT TO SCALE
ON CENTRE
OUT TO OUT
OPENING
POINT LOAD IN kN
FACTORED POINT LOAD IN kN
PLATE
REINFORCEMENT
ROCK ANCHOR
ROOF DRAIN
REINFORCEMENT
RIGHT END
RIGID FRAME
FACTORED VERTICAL REACTION IN kN
FACTORED HORIZONTAL REACTION IN kN
STEEL COLUMN ABOVE (NO STEEL COLUMN BELOW)
STEP DOWN FOOTING IN DIRECTION OF ARROW
SUPERIMPOSED DL (EXCLUDING SELF-WEIGHT) IN kN/m²
SECTION
SIMILAR
STEEL JOIST
SERVICEABILITY LIMIT STATE
SLAB
SHEAR ANGLE 1, ETC
SLAB ON GRADE
SPRUCE PINE FIR
STRIP
STIFFENER
THICKNESS
TOP
TOP EACH WAY
THICK
THE JOIST
TOP LEFT END
TOP LOWER LAYER
TOP OF FOOTING
TOP OF PILE
TOP OF PILE CAP
TOP RIGHT END
TOP UPPER LAYER
TYPICAL
ULTIMATE LIMIT STATE
UNLESS NOTED
UPTURNED
VERTICAL BRACING
VERTICAL, VERTICAL EACH FACE
FACTORED SHEAR IN kN
VERTICAL IN CENTRE
VERTICAL, VERTICALS
VERTICALLY SLOTTED CONNECTION TO ALLOW FOR DEFLECTION
VERTICAL 'X' BRACING
WIND COLUMN
WINDOW WASHING ANCHORS
WELDED WIRE FABRIC
ZINC RICH PAINT
SECTION NUMBER
SECTION DRAWING
REFERENCE
MASONRY WALL
FULLY GROUTED MASONRY WALL
STRUCTURAL PRECAST CONCRETE



Real Property Operations Branch
Real Property Operations Solutions
Direction générale des opérations immobilières
Solutions - Opérations immobilières

Project Delivery & Professional and Technical Services
Exécution de projets et Services experts/conséils techniques

Watson MacEwen Teramura Architects
400-116 Lisgar Street
Ottawa ON K2P 0C2
1 613.232.0330
1 613.232.6253

Structural Engineers
Halsall Associates
4001-210 Gladstone Avenue
Ottawa, ON K2P 0Y6
613.237.2462
14Y160-049A

Mechanical / Electrical Eng.
Bouhellel Parizeau & Associates
100 - 1960 Robertson Road
Ottawa, ON K2H 5B9
613.596.9454

Civil Engineers
WSP Group
201-1224 Gardiners Road
Kingston, Ontario K7P 0G2
613.634.7373

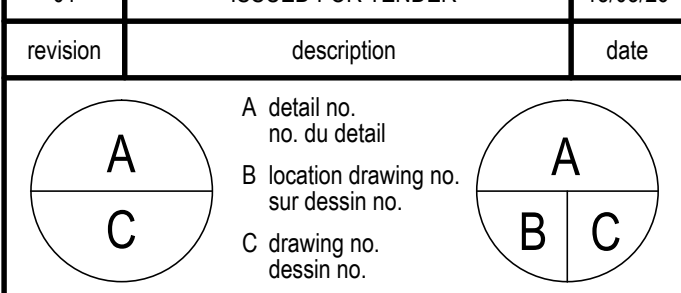
IT-Telecommunications
The Attain Group
208-1680 Woodward Drive
Ottawa, ON K2C 3R7
613.739.9424

key plan plan-cl6

stamp sceau



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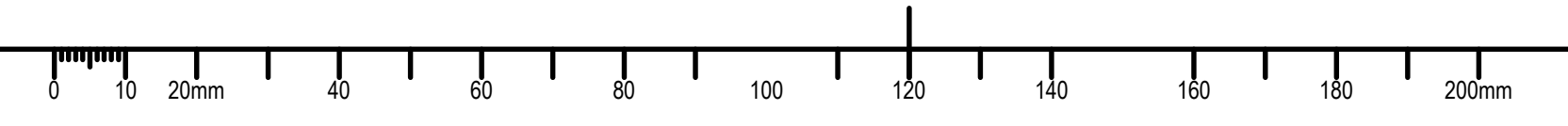
project projet
CSC MULTI-PURPOSE BUILDING
CBI MINIMUM INSTITUTION (FRONTENAC)
KINGSTON, ONTARIO

drawing dessin

GENERAL NOTES

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drawing no. no. du dessin
S400







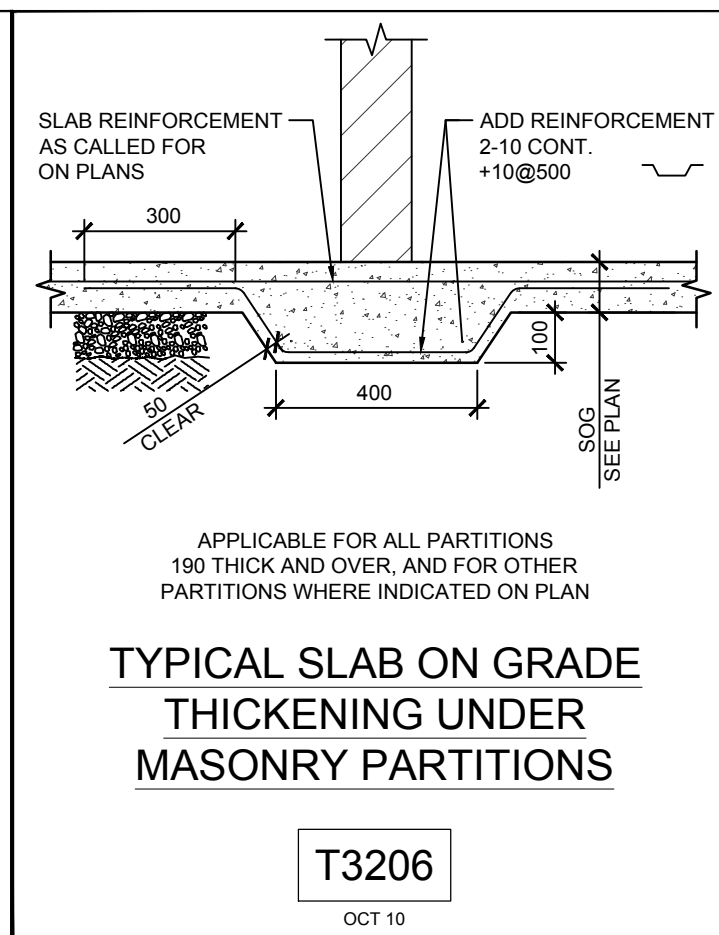
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revision	description	date

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C	B location drawing no. sur dessin no.	B
	C drawing no. dessin no.	C

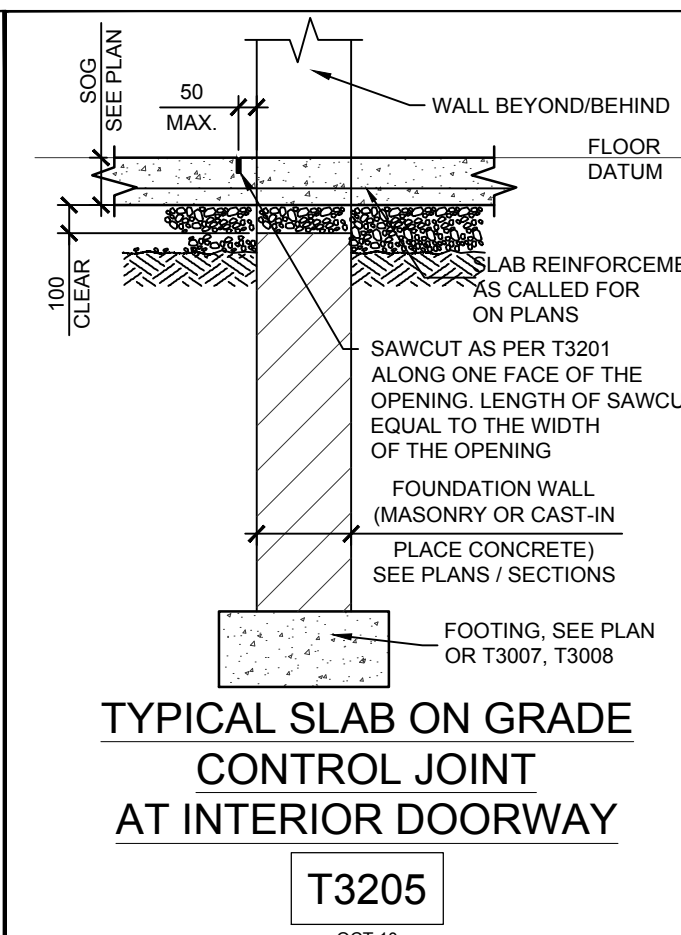
project projet  
**CSC MULTI-PURPOSE BUILDING  
CBI MINIMUM INSTITUTION (FRONTENAC)**  
KINGSTON, ONTARIO

drawing dessin  
**TYPICAL DETAILS**

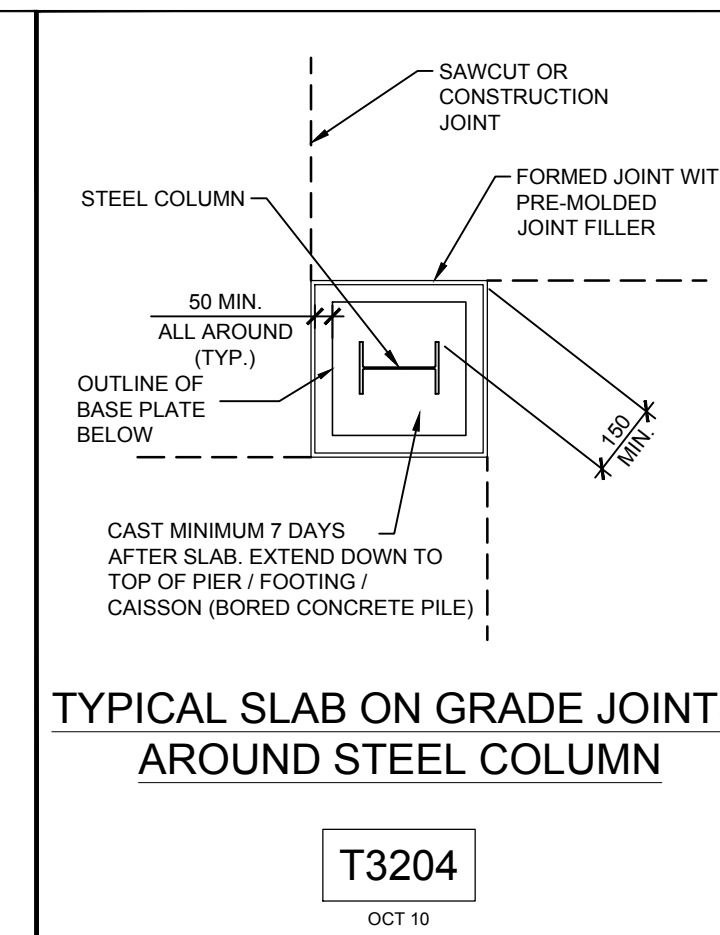
designed	LJF	conçu
date	2014/04/22	(yyyy/mm/dd)
drawn	PDM	dessiné
date	2014/04/22	(yyyy/mm/dd)
reviewed	LJF	examiné
date	2015/01/30	(yyyy/mm/dd)
approved	LJF	approuvé
date	2015/01/30	(yyyy/mm/dd)
Tender	DUNCAN PARKER	Submission
Project Manager	Administrateur de projets	
project no.	no. du projet	
	<b>R.055776.001</b>	
drawing no.	no. du dessin	



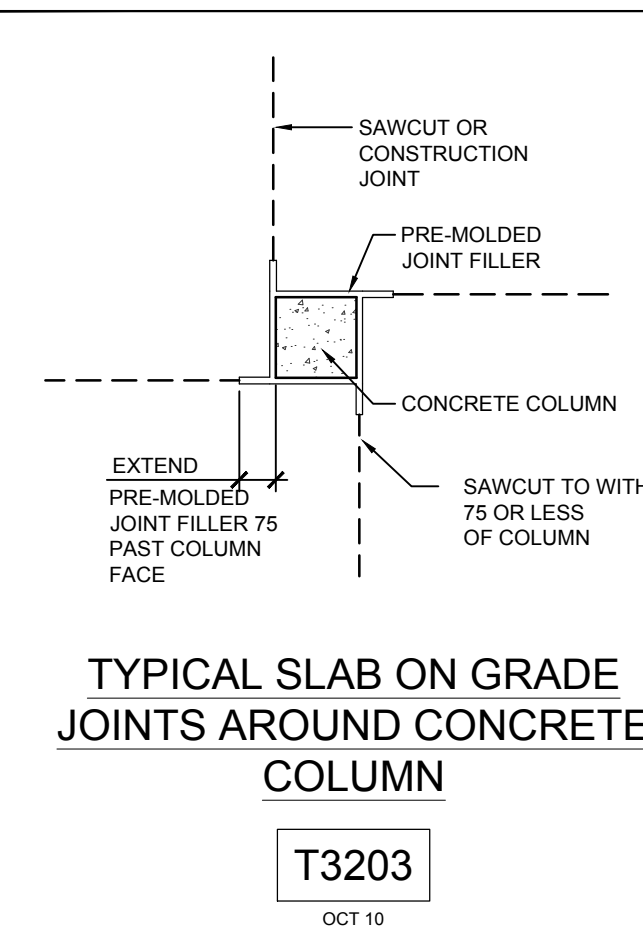
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OCT 10



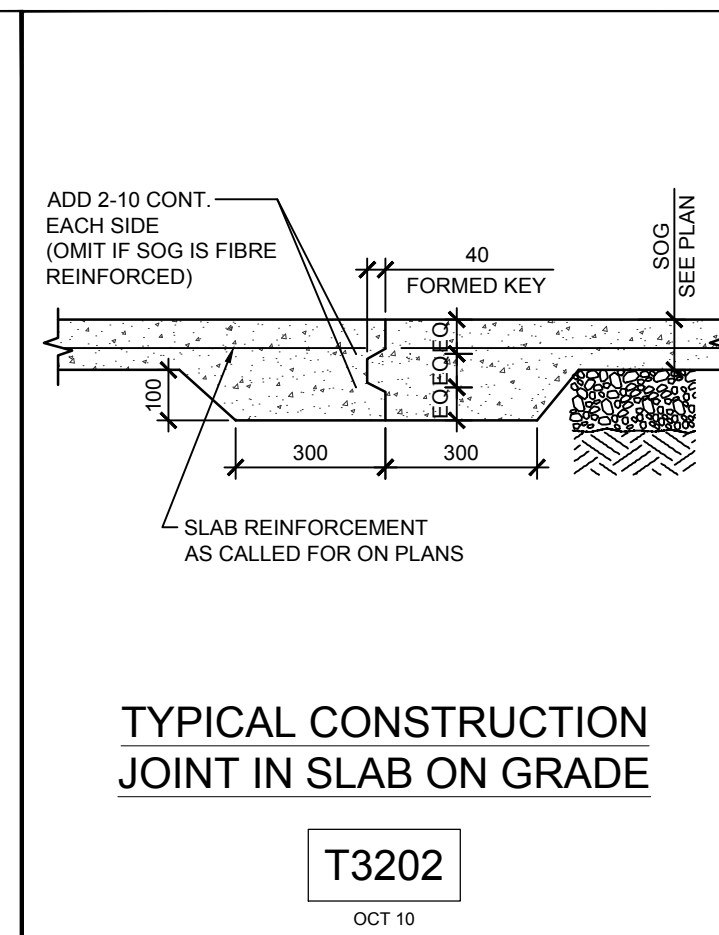
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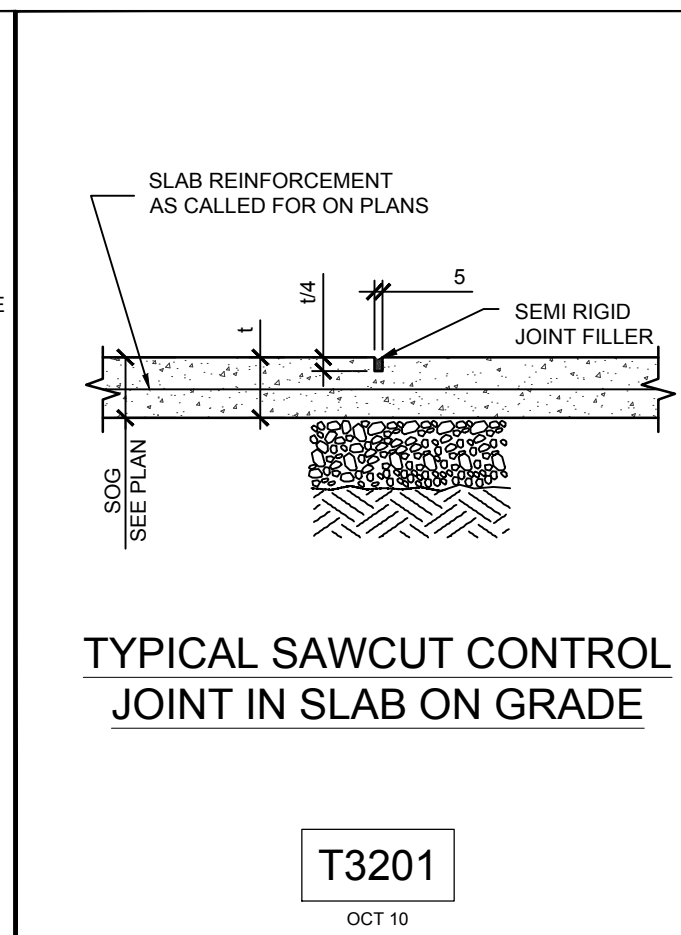
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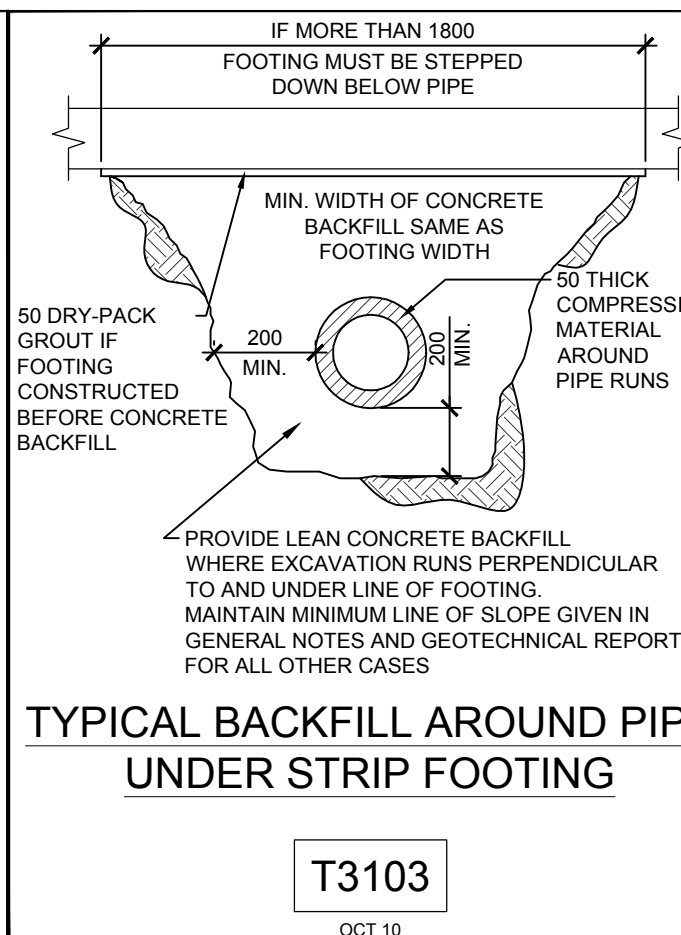
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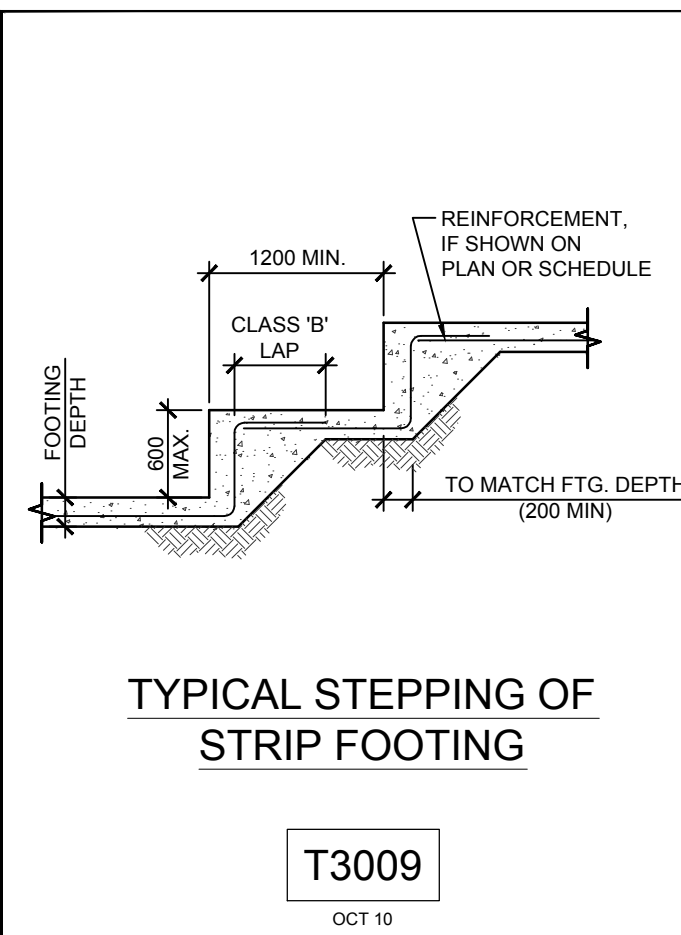
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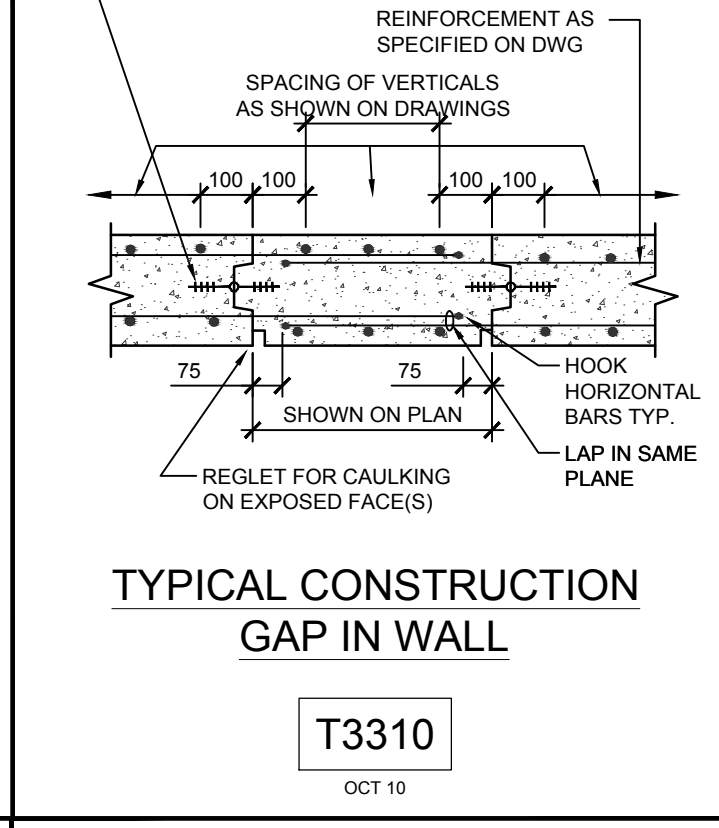
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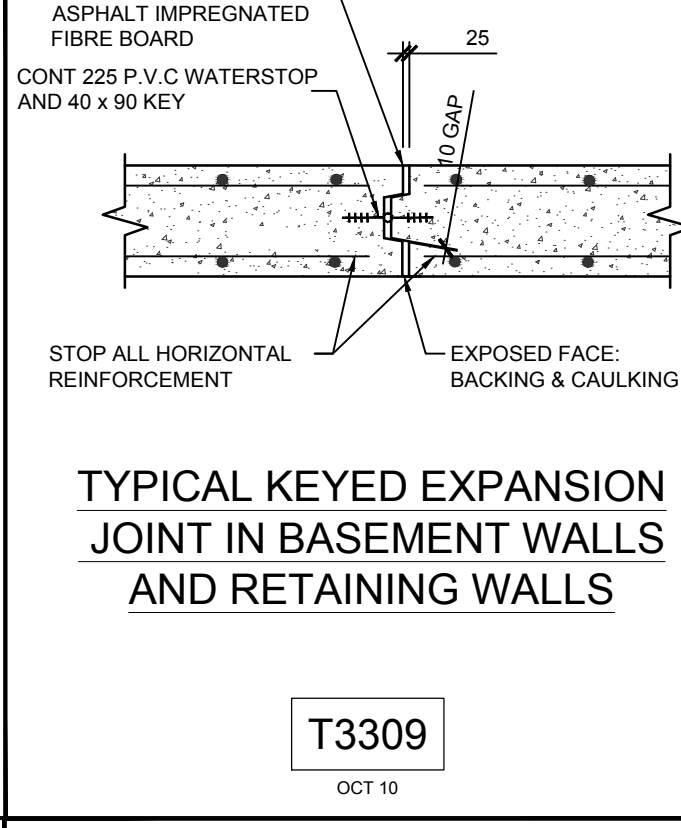
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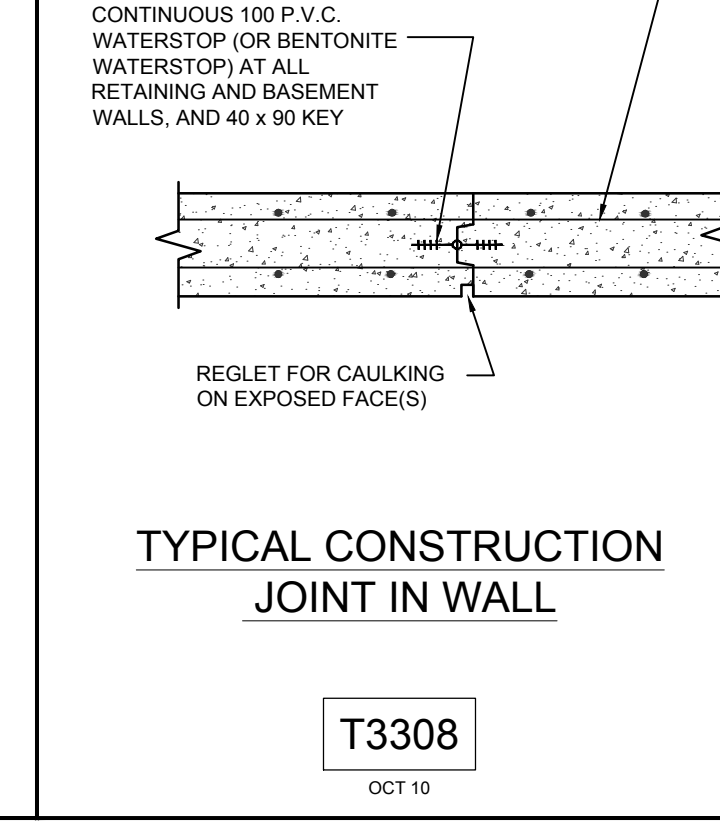
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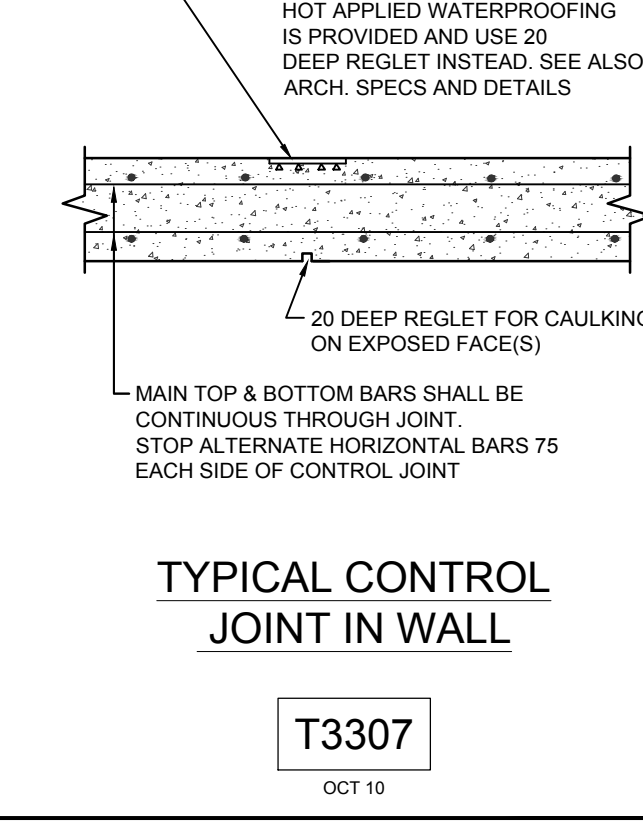
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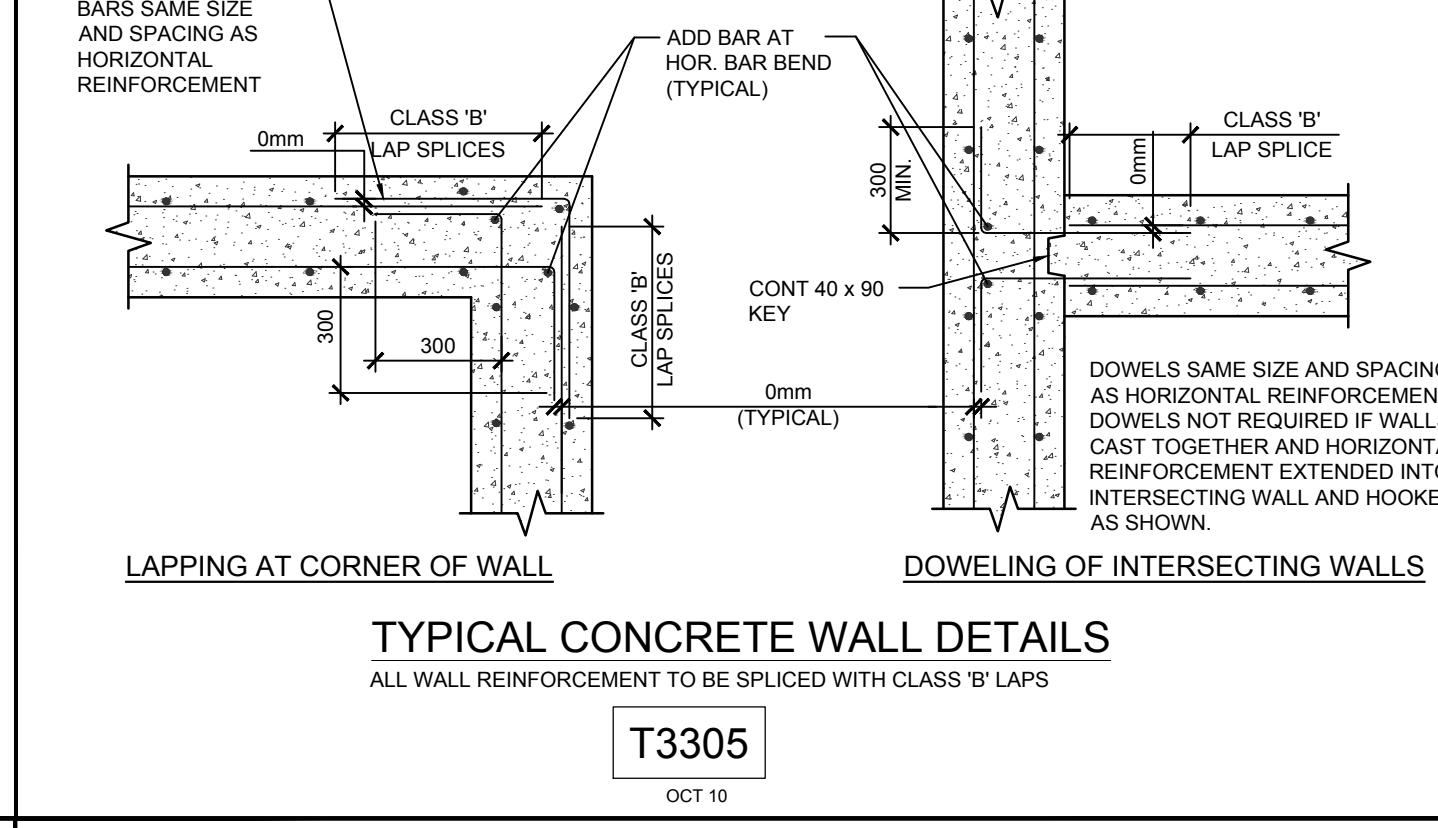
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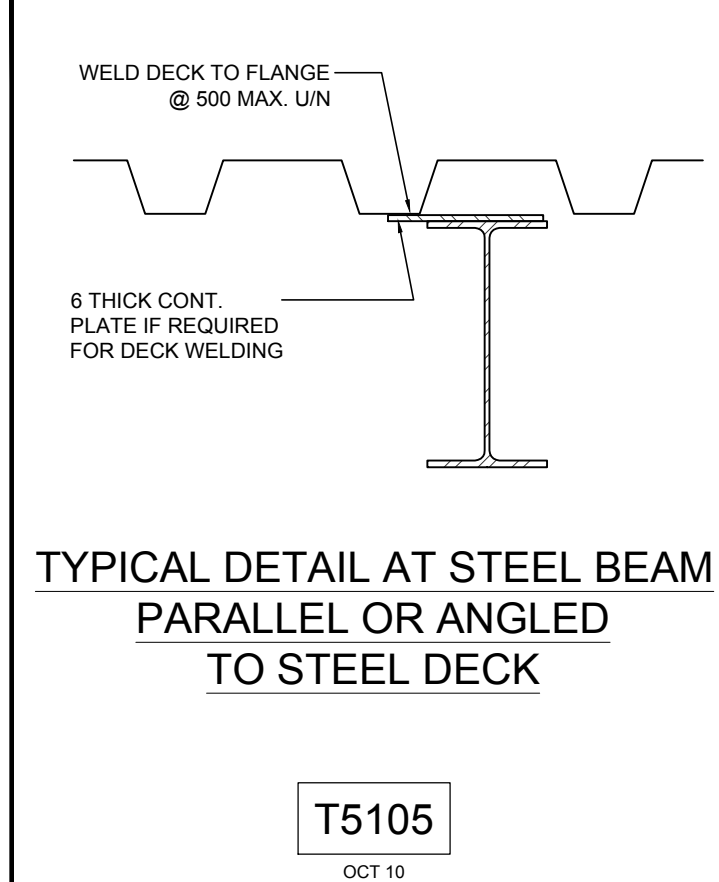
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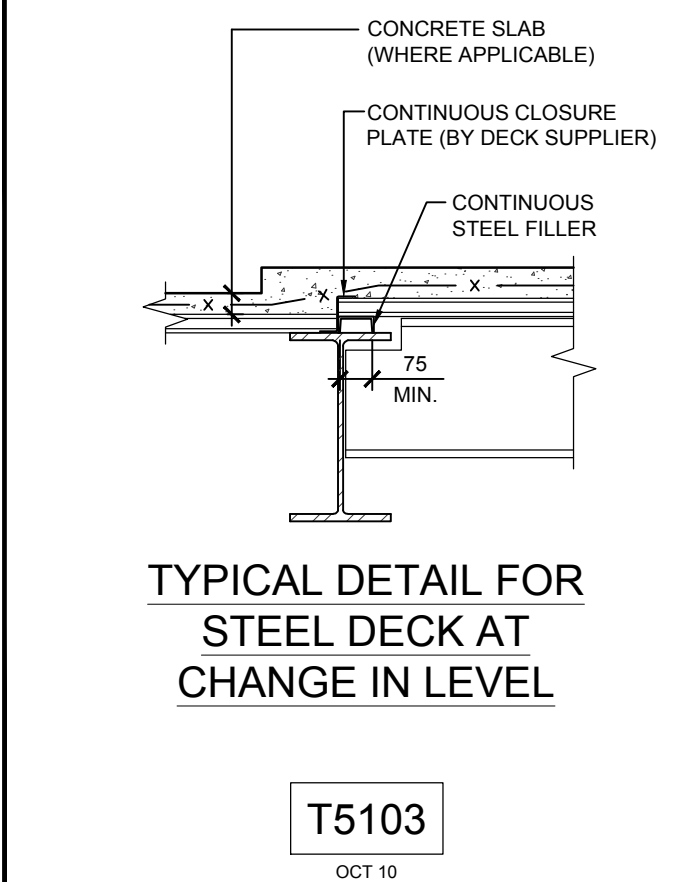
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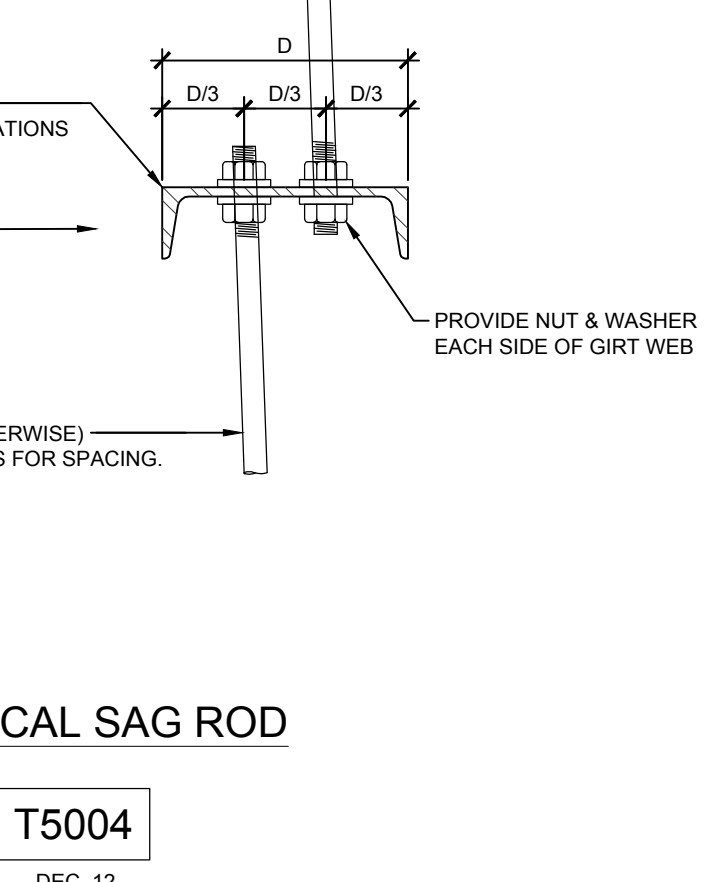
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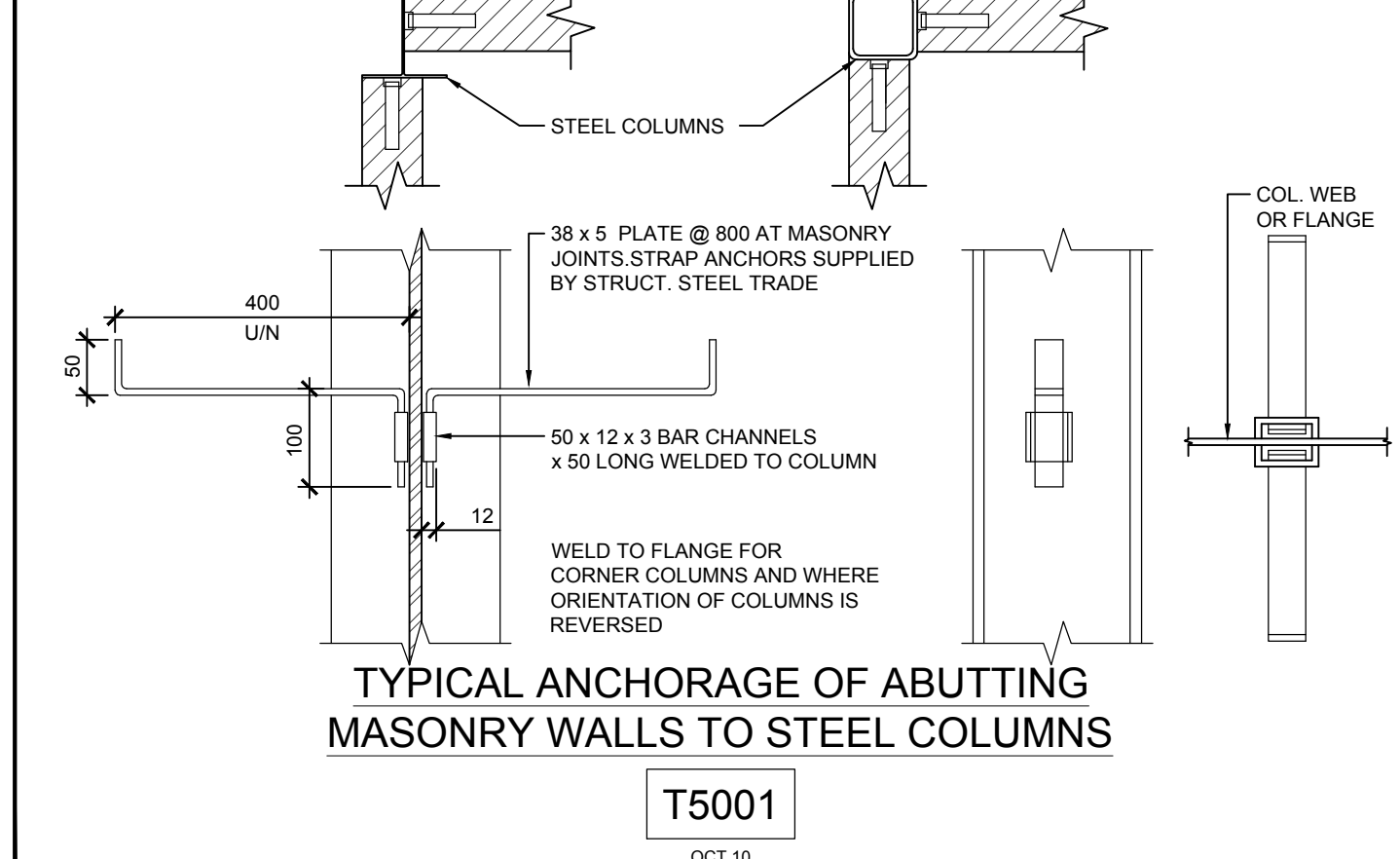
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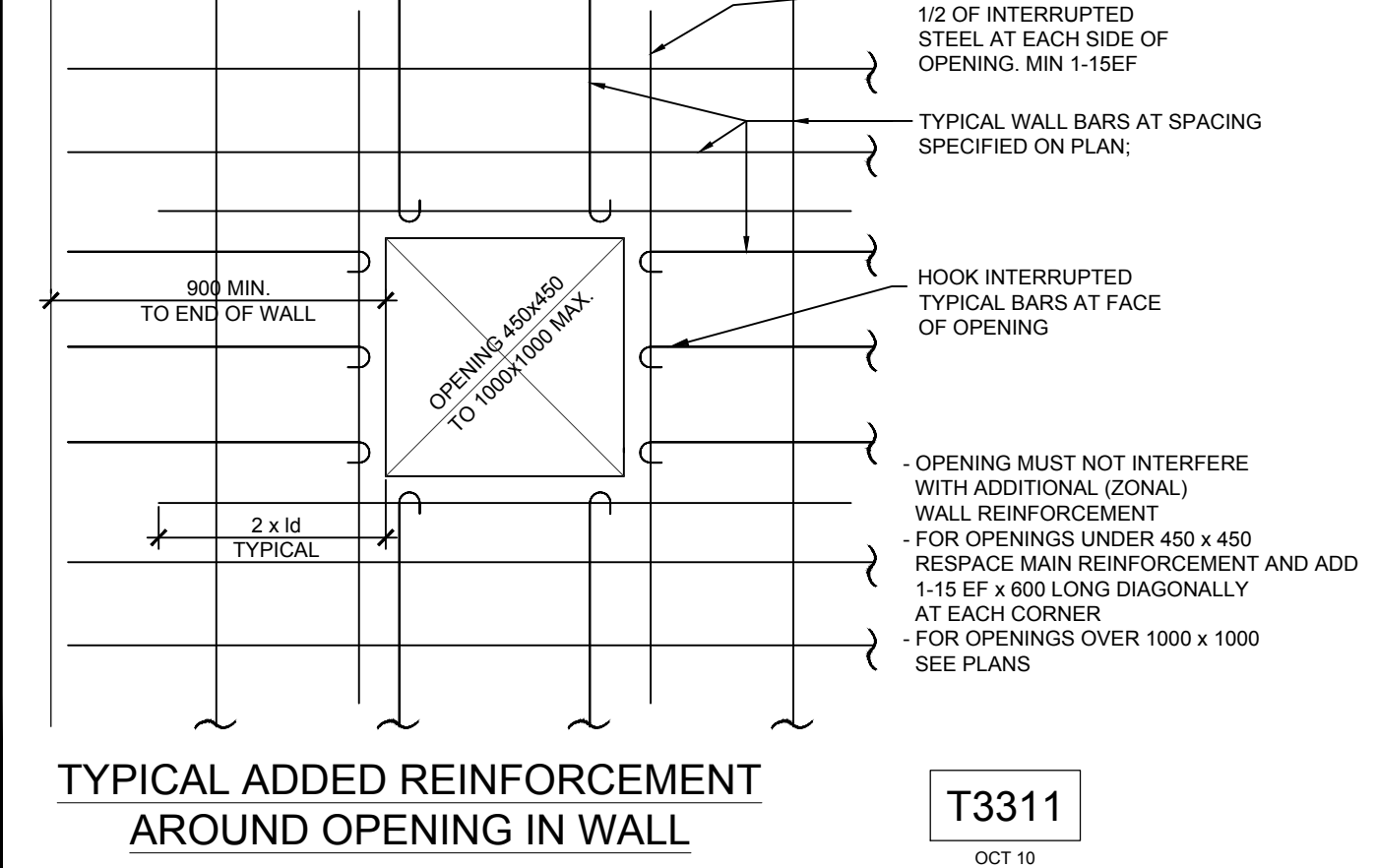
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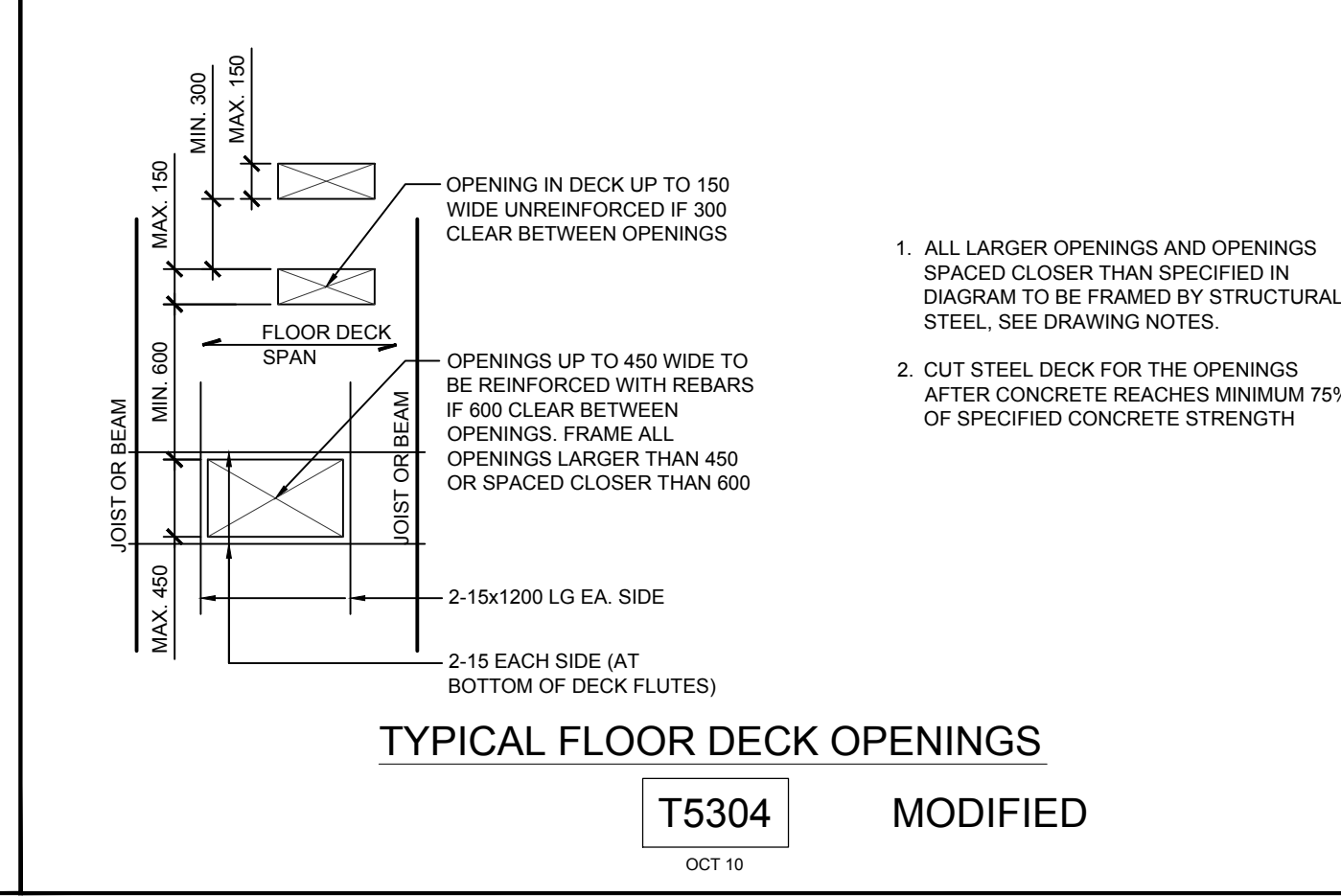
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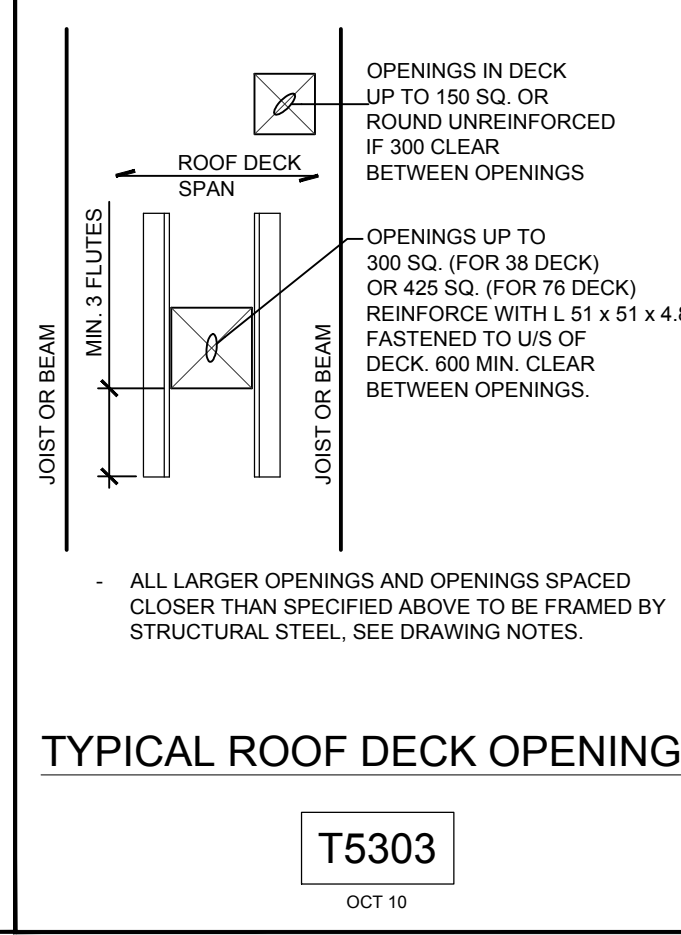
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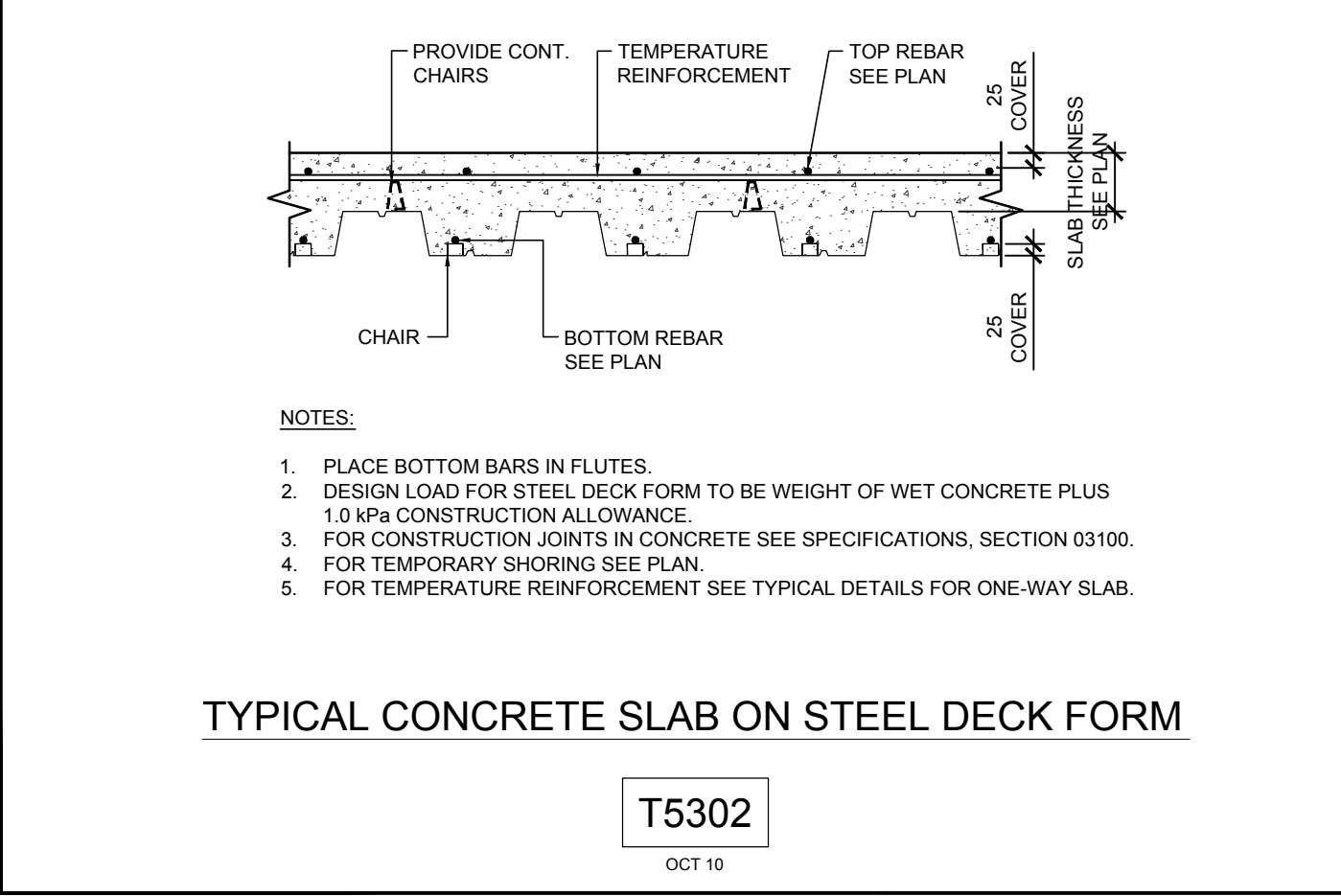
**T3311**  
OCT 10



**T5304** MODIFIED  
OCT 10



**T5303**  
OCT 10



**T5302**  
OCT 10

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