DESIGN CRITERIA NOTES

1. GENERAL
   - 1.1. THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 ONTARIO BUILDING CODE (OBC). ALL CODES, MANUALS, STANDARDS, AND SPECIFICATIONS REFERRED TO SHALL BE THE LATEST EDITIONS INCLUDING ALL REVISIONS AND ADDENDA AS REFERENCED IN THE OBC.
   - 1.2 BUILDING IMPORTANCE CATEGORY (TABLE 4.1. 2.1 B OF OBC) IS:NORMAL.
   - 1.3. MISCELLANEOUS METAL.
     - 1.3.1. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER.
     - 1.3.2. DESIGN ALL GUARDS TO MEET LATERAL LOADS DESCRIBED IN OBC CLAUSE 4.1.5.14.
     - 1.3.3. DESIGN ALL HANDRAILS TO MEET LOADS DESCRIBED IN OBC CLAUSE 3.4.6.5(12).
     - 1.3.4. DESIGN ALL STAIRS TO SUPPORT A MINIMUM LIVE LOAD OF 4 ,8kPa.
   - 1.4. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER.
   - 1.5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR WHO IS SUPPLYING AND INSTALLING NON-STRUCTURAL COMPONENTS AND EQUIPMENT, THAT ALL NON-STRUCTURAL ELEMENTS AND EQUIPMENT (AND THEIR CONNECTIONS TO THE STRUCTURE) LISTED IN TABLE 4.1. 8.18 OF THE OBC ARE DESIGNED IN ACCORDANCE WITH CLAUSE 4.1.8.18.
   - 1.6. CONTRACTOR IS TO DESIGN AND DETAIL ALL MASONRY PARTITION WALLS, TAKING INTO ACCOUNT SLEEVES, DUCT PENETRATIONS AND DOOR OPENINGS. CONTRACTOR SHALL DESIGN, PROVIDE AND INSTALL ANY ANCILLARY STEEL (POSTS, TOP OF WALL RESTRAINTS, ETC.) AND MASONRY REINFORCEMENT (REBAR), AS REQUIRED TO SATISFY THE DESIGN OF MASONRY PARTITIONS. THE MASONRY REINFORCEMENT PROVIDED SHALL NOT BE LESS THAN THAT INDICATED ON THE TYPICAL DETAILS. CONTRACTOR SHALL SUBMIT TO THE ARCHITECT MASONRY PARTITION DESIGN CALCULATIONS AND DRAWINGS, STAMPED AND SIGNED BY LICENSED PROFESSIONAL ENGINEER.

STANDARD ABBREVIATIONS — A01

@	-At	H (HOR)	-Horizontal	S	-Standard Beam
ADJ	-Adjustable	HEF	-Horizontal Each Face	SDF	-Step Down Footing
AIFB	-Asphalt Impregnated Fibre Board	HIF	-Horizontal Inside Face	SDL	-Superimposed Dead Load
ALT	-Alternate	HOF	-Horizontal Outside Face	SECT	-Section
ARCH	-Architectural	HSC	-Horizontally Slotted Connection	SL	-Slab
A. RCD(A.R.)	-Anchor Rod	HSS	-Hollow Structural Section	SQ	-Square
ASL	-Accumulated Snow Loading			SOG	-Slab on Grade
		IF	-Inside Face	S.P.F.	-Spruce/Pine/Fir
B (BOT)	-Bottom	INT	-Interior	SPEC	-Specifications
BEW	-Bottom Each Way	INV	-Invert	ST	-Steel
BLDG	-Building			STD	-Standard
BLL	-Bottom Lower Layer	JT	-Joint	STR	-Straight
BM	-Beam			STRUCT	-Structural
BML	-Bottom Middle Layer	kg	-Kilogram		
BNT	-Base Nominal Thickness	kN.m	-Kilo Newton Metres	T	-Top
B.O.F.	-Bottom of Footing	kN/m²	-Kilo Newton per Square Metre	TEMP	-Temperature
BP	-Baseplate	kN/m	-Kilo Newton per Metre	T1	-Factored Tension Force
BSMT	-Basement	kPa	-Kilo Pascals	TJ	-Tie Joint
BUL	-Bottom Upper Layer			TLL	-Top Lower Layer
		L	-Angle	TMF	-Factored Torsional Moment
C	-Standard Channel	LB	-Pounds	TML	-Top Middle Layer
CA	-Column Above	LG	-Long	TOD, T/D	-Top of Deck
CANT	-Cantilever	LL	-Live Load / Lower Layer	T.O.F.	-Top of Footing
C/C (c/c)	-Centre to Centre	LLH	-Long Leg Horizontal	TOS, T/S	-Top of Slab
CJ	-Control Joint	LLV	-Long Leg Vertical	TOST	-Top of Steel
CL	-Centreline	LSSJ	-Long Span Steel Joists	TSF	-Tons per Square Foot
COL	-Column	LVL	-Laminated Veneer Lumber	TUL	-Top Upper Layer
COMP	-Compressible			TYP	-Typical
CONC	-Concrete	m	-Metre		
CONST	-Construction	MAX	-Maximum	UL	-Upper Layer
CONST JT (CJT)	-Construction Joint	MECH	-Mechanical	UN	-Unless Noted
CONT (CONTN)	-Continuous	MEZZ	-Mezzanine	U.N.O.	-Unless Noted Otherwise
C/W	-Complete With	MIN	-Minimum	U/S	-Underside
		MISC	-Miscellaneous	USD	-Underside of Deck
D.FIR	-Douglas Fir	ML	-Middle Layer		
DET	-Detail	MLL	-Middle Lower Layer	V (VERT)	-Vertical
DIAG	-Diagonal	mm	-Millimetre	VBF	-Vertically Braced Framing
Ø (DIA)	-Diameter	MOM, M	-Moment	VEF	-Vertical Each Face
DIM	-Dimension	MPa	-Mega Pascals	VIF	-Vertical Inside Face
DJ	-Double Joist	MUL	-Middle Upper Layer	VOF	-Vertical Outside Face
DL	-Dead Load			VSC	-Vertically Slotted Connection
DO	-Ditto	N	-Newton		
DWG	-Drawing	N/S	-North-South	W	-Wide Flange Beam
DWL	-Dowel	NF	-Near Face	WP	-Wall Plate
DT	-Double Tee	NIC	-Not in Contract	WWF	-Welded WideFlange Beam
		No.(#)	-Number	WWF (WWM)	-Welded Wire Fabric/ Mesh
E-W	-East-West	NTS	-Not to Scale		
EA	-Each				
EE	-Each End	OWSJ	-Open Web Steel Joist		
EF	-Each Face				
ELECT	-Electrical	Pa	-Pascal		
ELEV (EL)	-Elevation / Elevator	PC	-Precast		
EQ	-Equal	PL	-Plate		
ES	-Each Side	PLF	-Pounds per Lineal Foot		
EW	-Each Way	PREL	-Preliminary		
EXIST	-Existing	PROJ	-Projection		
EXP. JT.	-Expansion Joint	PSF	-Pounds per Square Foot		
EXT	-Exterior	PSI	-Pounds per Square Inch		
		PSL	-Parallel Strand Lumber		
FDN	-Foundation	PT	-Pressure Treated		
FF	-Far Face				
FIN	-Finished	R	-Reaction		
FL	-Floor	RAD	-Radius		
FMC	-Full Moment Connection	REF	-Reference		
FT	-Foot / Feet	REINF	-Reinforcing		
FTG	-Footing	REQ'D	-Required		
		REV	-Revision/Revised		
GA	-Gauge	RF	-Factored Vertical Reaction		
GALV	-Galvanized	R/W	-Reinforced With		
GEN	-General				

STANDARD LAP ABBREVIATIONS

CLS	-Compression Lap Splice
CDL	-Compression Development Length
HEL	-Hook Embedment Length
TLS	-Tension Lap Splice
TDL	-Tension Development Length

LINTEL NOTES — A07

UNLESS OTHERWISE SHOWN OR NOTED ON THE STRUCTURAL DRAWINGS, PROVIDE LINTELS OVER ALL OPENINGS IN MASONRY WALLS, AS FOLLOWS:

1. FOR OPENINGS UP TO 1200 mm (4'-0") CLEAR;
   - 1.1. ONE ANGLE 90 x 90 x 6 (3 1/2" x 3 1/2" x 1/4") FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
     - OR
   - 1.2. 200mm (8") DEEP MASONRY LINTEL BLOCK REINFORCED WITH 1-10M BOTTOM FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
2. FOR OPENINGS FROM 1200mm (4'-0") CLEAR TO 1800mm (6'-0") CLEAR;
   - 2.1. ONE ANGLE 125 x 90 x 8 LONG LEG VERTICAL (5"x 3 1/2" x 3/16") FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
     - OR
   - 2.2. 200mm (8") DEEP MASONRY LINTEL BLOCK REINFORCED WITH 1-15M BOTTOM FOR EACH 100mm (4") OF WALL THICKNESS OR PORTION THEREOF.
3. ALL LINTELS TO BEAR 150mm (6") MINIMUM AT EACH END ON SOLID MASONRY, UNLESS SHOWN OTHERWISE.
4. PAIRS OF LINTEL ANGLES ARE TO BE BOLTED OR WELDED TOGETHER, PRIOR TO SHIPMENT, AT MAXIMUM 450mm (18") CENTRES.
5. MASONRY LINTEL BLOCKS MAY ONLY BE USED IN LOAD-BEARING WALLS WITH PERMISSION AND MUST BE FILLED WITH 20 MPa CONCRETE. MORTAR IS NOT ACCEPTABLE AND WILL BE REJECTED.
6. STEEL LINTELS ARE TO BE SUPPLIED BY STEEL CONTRACTOR BUT PLACED BY GENERAL CONTRACTOR OR MASONRY SUB- CONTRACTOR.
7. STEEL CONTRACTOR TO SUPPLY ALL NECESSARY DIRECTIONS REQUIRED FOR PLACING STEEL LINTELS.
8. WHILE EVERY EFFORT HAS BEEN MADE TO SHOW ON THE STRUCTURAL DRAWINGS EACH AND EVERY LINTEL OVER DOORS, MECHANICAL AND ELECTRICAL SERVICES, RECESSES AND POCKETS ETC., THROUGH LOAD-BEARING MASONRY WALLS, IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO CO-ORDINATE AND SUPPLY ALL LINTELS REQUIRED THROUGH ALL WALLS (INCLUDING NON-LOAD BEARING WALLS) THROUGHOUT THE PROJECT. UNLESS OTHERWISE DIRECTED, LINTELS SHALL CONFORM TO THE ABOVE REQUIREMENTS.
9. REFER ALSO TO TYPICAL DETAILS.

GENERAL NOTES — A02

1. **GENERAL**
   - 1.1. DESIGN AND CONSTRUCTION IS TO CONFORM TO THE REQUIREMENTS OF THE 2012 ONTARIO BUILDING CODE. AND ANY APPLICABLE REQUIREMENTS OR BY-LAW OF THE AUTHORITY HAVING JURISDICTION. REFER ALSO TO TYPICAL DETAILS, NOTES UNDER PLANS AND SCHEDULES ON THE STRUCTURAL DRAWINGS, AND TO THE SPECIFICATION. ALL CODES, MANUALS, STANDARDS AND SPECIFICATIONS REFERRED TO SHALL BE THE SPECIFIC EDITION REFERENCED IN APPLICABLE BUILDING CODE INCLUDING ALL REVISIONS AND ADDENDA.
   - ALL DIMENSIONS, OTHER THAN PURELY STRUCTURAL DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE CHECKED AGAINST THE ARCHITECTURAL DRAWINGS AND ANY INCONSISTENCIES REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. STRUCTURAL DRAWINGS MUST NOT BE SCALED.
   - 1.2. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS AND SIZES OF OPENINGS, TRENCHES, PITS, SUMPS, EQUIPMENT, SLEEVES, DEPRESSIONS, GROOVES AND CHAMFERS NOT INDICATED ON THE STRUCTURAL DRAWINGS. UNLESS SPECIFICALLY NOTED OTHERWISE, THE ABOVE ITEMS WHERE SHOWN ON THE STRUCTURAL DRAWINGS ARE INDICATED ONLY APPROXIMATELY AS TO SIZE AND LOCATION.
   - 1.3. UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS, NO PROVISION HAS BEEN MADE IN THE DESIGN FOR CONDITIONS OCCURRING DURING CONSTRUCTION. THE CONTRACTOR IS TO PROVIDE ALL NECESSARY BRACING AND SHORING REQUIRED FOR STRESSES AND INSTABILITY OCCURRING FROM ANY CAUSE DURING CONSTRUCTION. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR ALL SUCH MEASURES. IT SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ALL NECESSARY BRACING, SHORING, SHEET PILING OR OTHER TEMPORARY SUPPORTS OF SAFEGUARD ALL EXISTING OR ADJACENT STRUCTURES AFFECTED BY THIS WORK. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR CONSULTANTS REVIEW.

NON-LOAD BEARING BLOCK WALL LINTELS — M01A

STRUCTURAL STEEL LINTELS

WALL OPENING CLEAR SPAN	MASONRY BLOCK THICKNESS				
	90 (4")	140 (6")	190 (8")	240 (10")	290 (12")
300mm TO 500mm (12" TO 22")	75mm X 8mm PL (3"x5/16" PL)	125mm X 8mm PL (5"x5/16" PL)	175mm X 8mm PL (7"x5/16" PL)	225mm X 8mm PL (9"x5/16" PL)	275mm X 8mm PL (11"x5/16" PL)
500mm TO 1200mm (22" TO 4'-0")	1-L89x89x6.4 OR 2-L44x44x4.8	1-L127x89x6.4 (LLH) OR 2-L64x44x6.4	2-L89x89x6.4	L102x89x6.4 (LLH) + L127x89x6.4 (LLH)	3-L89x89x6.4
1200mm TO 1830mm (4'-0" TO 6'-0")	1-L127x89x7.9 (LLV) OR 2-L51x38x5.4(LLV)	1-L127x127x7.9 OR 2-L89x89x6.4 (LLV)	2-L89x89x6.4	L102x89x6.4 (LLH) + L127x89x6.4 (LLH)	3-L89x89x6.4
1830mm TO 2440mm (6'-0" TO 8'-0")	1-L127x89x7.9 (LLV)	1-L127x127x7.9 OR 2-L89x64x7.9 (LLV)	2-L127x89x6.4 (LLV)	L102x102x7.9 + L127x102x7.9 (LLH)	3-L127x89x6.4 (LLV)
2440mm TO 3080mm (8'-0" TO 10'-0")	1-L127x89x9.5 (LLV)	1-L127x127x7.9	2-L127x89x7.9 (LLV)	L152x102x7.9 (LLV)+ L127x127x7.9	3-L127x89x7.9 (LLV)
3080mm TO 3660mm (10'-0" TO 12'-0")	N/A	N/A	W200x27 + 175x6.4 PL. BOTTOM	W200x27 + 225x6.4 PL. BOTTOM	N/A

STRUCTURAL STEEL LINTEL NOTES:

1. WHEN PROVIDING MULTIPLE ANGLES SEE DIAGRAMS FOR ORIENTATION. BOLT DOUBLE ANGLES BACK TO BACK USING 16mmØ BOLTS OR PROVIDE 6mmX50mm (1/4"x2") LONG WELDS @450mm (18") O/C STARTING AT 100mm (4") MAX FROM THE EACH END OF THE LINTEL.
2. SAWCUT WEBS OF BLOCK IN COURSE OF BLOCK OVER OPENING AS NECESSARY TO INSTALL ANGLES.
3. ALTERNATIVES PROVIDED FOR CASES WHERE EXPOSED FACE OF SINGLE ANGLE IS NOT ACCEPTABLE.

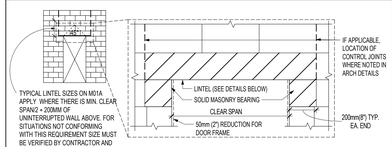
MASONRY BEAM LINTELS

WALL OPENING CLEAR SPAN	MASONRY BLOCK THICKNESS				
		140 (6")	190 (8")	240 (10")	290 (12")
0mm TO 1200mm (0" TO 4'-0")		390 (16") DEEP 1-10M B	390 (16") DEEP 1-10M B	190 (8") DEEP 1-10M B	190 (8") DEEP 1-10M B
1200mm TO 1830mm (4'-0" TO 6'-0")		390 (16") DEEP 1-10M B	390 (16") DEEP 1-10M B	390 (16") DEEP 1-10M B	390 (16") DEEP 1-15M B
1830mm TO 2440mm (6'-0" TO 8'-0")		390 (16") DEEP 1-10M B	390 (16") DEEP 1-15M B	390 (16") DEEP 1-15M B	390 (16") DEEP 1-15M B
2440mm TO 3080mm (8'-0" TO 10'-0")		390 (16") DEEP 1-10M B	390 (16") DEEP 1-15M B	390 (16") DEEP 1-15M B	390 (16") DEEP 3-10M B

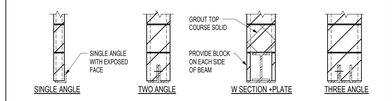
MASONRY BEAM LINTEL NOTES:

1. BEAM MUST BE FILLED WITH MASONRY GROUT (MORTAR IS NOT ACCEPTABLE). REFER TO M03 FOR DETAILS.
2. TEMPORARILY SHORE LINTEL UNTIL GROUT HAS REACHED FULL DESIGN STRENGTH.

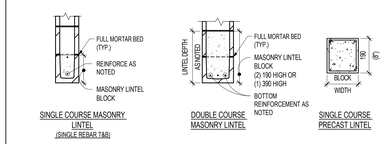
NON-LOAD BEARING BLOCK WALL LINTEL DETAILS — M01B



LINTEL DETAILS



STRUCTURAL STEEL LINTEL DETAILS



MASONRY AND PRECAST BEAM LINTEL DETAILS

RESTORATION DRAWING LIST

SHEET NUMBER	SHEET NAME
S1-01	DESIGN NOTES AND DRAWING LIST
S1-02	LEVEL 3 LOADING PLAN CIRCA 2022
S1-03	EXISTING 3RD FLOOR PLAN
S1-04	EXISTING 6TH FLOOR PLAN

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TOANCHE - LEVEL 03

CANNONDESIGN
50 Fountain Plaza Suite 200
Buffalo, NY 14202
P: 716.773.6800
F: 716.773.5909

www.cannondesign.com

MULVEY & BANANI
90 Sheppard Avenue East, Suite 500, Toronto, ON M2N 3A1
416.751.2520 | MBX.COM

MULVEY & BANANI
Electrical Engineer
90 Sheppard Ave. E Suite 500
North York, ON M2N 3A1, Canada
416.751.2520

HHAngus

HH Angus & Associates Ltd
Mechanical Engineer
1127 Leslie St.
North York, ON M3C 2J6, Canada
416.443.8200

stephenson ENGINEERING
A SALASO'BRIEN COMPANY

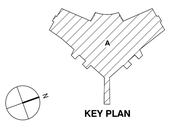
Stephenson Engineering Ltd
Structural Engineer
2550 Victoria Park Ave. #602
North York, ON M2J 5A9, Canada
416.635.9970

LICENSED PROFESSIONAL ENGINEER
R. POPPLEWELL
90501990
PROVINCE OF ONTARIO

ISSUED FOR TENDER
18 DEC 2023

Ministry of Health Project Number# 205004

Rev.	Description	Date



KEY PLAN

Drawing Title:

DESIGN NOTES AND DRAWING LIST

Project No.: 20201983 Checked by: RP

S1-01

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