GENERAL NOTES

A. GENERAL INFORMATION

1. READ STRUCTURAL DOCUMENTS IN CONJUNCTION WITH CONTRACT DOCUMENTS, WHICH INCLUDE, BUT ARE NOT LIMITED TO, ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DOCUMENTS.

2. CONTRACTOR TO BE RESPONSIBLE FOR CHECKING SITE CONDITIONS AGAINST DOCUMENTS BEFORE PROCEEDING WITH THE WORK, AND REPORT DISCREPANCIES TO THE CONSULTANT.

3. CONTRACTOR TO PROVIDE LABOUR, MATERIALS, AND EQUIPMENT TO COMPLETE ALL STRUCTURAL WORK INDICATED.

4. CARRY OUT CONSTRUCTION OPERATIONS, INCLUDING THE INSTALLATION OF TEMPORARY GUYING AND SHORING REQUIRED, ENSURING THAT THE EXISTING STRUCTURE OR MEMBERS ALREADY ERECTED ARE NOT LOADED IN EXCESS OF THEIR SAFE LOAD CARRYING CAPACITY.

5. STRUCTURAL DOCUMENTS DO NOT NECESSARILY SHOW ALL OPENINGS AND SLAB VARIATIONS REQUIRED. THE CONTRACTOR SHALL REFER TO ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR THE EXACT LOCATION, NUMBER, AND SIZE OF OPENINGS, TRENCHES, PITS, SUMPS, SLEEVES, AND DEPRESSIONS. PROVIDE STRUCTURAL FRAMING AT THESE LOCATIONS IN ACCORDANCE WITH THE APPLICABLE TYPICAL DETAIL.

B. REFERENCE STANDARDS / CODES AND ACTS

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH AND SHALL BE CONSTRUCTED TO CONFORM WITH THE 2024 ONTARIO BUILDING CODE, ONTARIO REGULATION 203/24 (REFERRED TO AS "THE BUILDING CODE"), ANY APPLICABLE ACTS OF ANY AUTHORITY HAVING JURISDICTION, AND THE FOLLOWING:

TABLE B.1: REFERENCE STANDARDS

REF	CODE	TITLE
a)	CAN/CSA A23.1	CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION
b)	CAN/CSA A23.2	METHODS OF TEST FOR CONCRETE
c)	CAN/CSA A23.3	DESIGN OF CONCRETE STRUCTURES
d)	CAN/CSA-S16	LIMIT STATES DESIGN OF STEEL STRUCTURES
e)	CAN/CSA G40.20/G40.21	STRUCTURAL QUALITY STEEL
f)	RSIC	REINFORCING STEEL INSTITUTE OF CANADA, MANUAL OF STANDARD PRACTICE
g)	CAN/CSA-A370	CONNECTORS FOR MASONRY
h)	CSA-A371	MASONRY CONSTRUCTION FOR BUILDINGS
i)	S304.1	DESIGN OF MASONRY STRUCTURES
j)	CSA G30.18	CARBON STEEL BARS FOR CONCRETE REINFORCING

2. ALL STANDARDS AND PUBLICATIONS REFERENCED BY THE STANDARDS NOTED ABOVE ARE TO APPLY.

3. WHERE THERE ARE DIFFERENCES BETWEEN THE DOCUMENTS AND THE STANDARDS, CODES AND ACTS, THE MOST STRINGENT SHALL GOVERN.

C. SUBMITTALS

1. SUBMIT FOR REVIEW BY THE VARIOUS CONSULTANTS, DETAILED INFORMATION FOR ALL TEMPORARY AND PERMANENT STRUCTURAL WORK. THIS INCLUDES, BUT IS NOT LIMITED TO:

TABLE C.1: REQUIRED SUBMITTALS

ITEM	SUBMISSION TO BE SEALED BY PROFESSIONAL ENGINEER	COMMENTS
CONCRETE MIX DESIGN	NO	
STRUCTURAL STEEL SHOP DRAWINGS	YES	

2. CONTRACTOR SHALL ALLOW FOR A TURN AROUND TIME OF FIVE WORKING DAYS FOR THE REVIEW OF THESE SUBMISSIONS.

3. OUR REVIEW OF THE 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' RESPONSIBILITY RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS (SUCH AS STRUCTURAL STEEL CONNECTIONS, STEEL JOISTS, PRECAST ELEMENTS, ETC.). 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 — NO DEVIATIONS FROM THE CONTRACT DOCUMENTS NOTED.

NOTED — WE HAVE MADE COMMENTS TO BE REVIEWED / INCORPORATED. SUBMIT RECORD PRINT.

RESUBMIT — REVISE AND RE-SUBMIT FOR REVIEW.

D. MATERIALS

1. PROVIDE ONLY NEW STRUCTURAL MATERIALS IN ACCORDANCE WITH THE REFERENCE STANDARDS AND THE FOLLOWING, UNLESS OTHERWISE NOTED.

1.1. CONCRETE:

1.1.1. CONCRETE STRENGTHS FOR STRUCTURAL ELEMENTS SHALL BE AS PER TABLE BELOW, UNLESS NOTED OTHERWISE ON PLANS, SCHEDULES, AND/OR SECTIONS.

TABLE D.1: CONCRETE STRENGTHS

STRUCTURAL ELEMENT	CONCRETE STRENGTH (f'c) @ 28 DAYS, MPa	EXPOSURE CLASS	AIR CONTENT	COMMENTS
HOUSEKEEPING PADS	20	N		

NOTES

1. CONCRETE STRENGTHS FOR STRUCTURAL ELEMENTS SHALL BE AS PER THIS TABLE UNLESS OTHERWISE NOTED ON PLANS, SCHEDULES, OR SECTIONS.
2. CONTRACTOR SHALL REVIEW PROPOSED CONCRETE SLUMP BY THE CONCRETE MIX DESIGNER, REINFORCEMENT CONGESTION, AND WORKABILITY PRIOR TO AND DURING POUR TO AVOID HONEYCOMBING OR VOIDS.
3. NOTIFY ENGLINK IN WRITING IF CONDITIONS MAY PREVENT PROPER CONSOLIDATION. CORRECTIVE WORK DUE TO INADEQUATE PLACEMENT SHALL BE AT CONTRACTOR'S COST.

1.2. REINFORCING STEEL: CONFORM TO CSA G30 SERIES, GRADE 400.

1.3. WELDED WIRE FABRIC: CONFORM TO CSA G30 SERIES, GRADE 386, IN FLAT SHEETS.

1.4. STRUCTURAL STEEL:

1.4.1. STRUCTURAL WIDE FLANGE (W) AND WELDED WIDE FLANGE SHAPES (WWF) TO CONFORM TO CAN/CSA G40.20/G40.21 GRADE 350W.

1.4.2. ANGLES (L), CHANNELS (C), AND PLATES TO CONFORM TO CAN/CSA-G40.20/G40.21 GRADE 300W.

1.5. PRIME PAINT: CONFORM TO CISC/CPMA STANDARD 2-75.

1.6. HOT DIP GALVANIZING: CONFORM TO CSA-G164, MINIMUM ZINC COATING OF 600 g/m^2.

1.7. STRUCTURAL BOLTS, NUTS, AND WASHERS: CONFORM TO ASTM A325M.

1.8. ANCHOR RODS: CONFORM TO THE REQUIREMENTS OF ASTM F1554 GRADE 36.

1.9. NON-SHRINK GROUT = COMPRESSIVE STRENGTH OF 35 MPa AT 24 HOURS.

1.10. BLOCK: CONFORM TO CAN3-A165 SERIES, MINIMUM COMPRESSIVE STRENGTH, fm = 15 MPa BASED ON NET AREA.

1.11. MORTAR: CONFORM TO CSA A179 TYPE S FOR LOAD-BEARING WALLS UNLESS NOTED.

1.12. MASONRY GROUT: CONFORM TO CSA A179, 12.5 MPa MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, 250 mm (10") SLUMP, MAXIMUM AGGREGATE SIZE 10 mm (3/8").

1.13. POST-INSTALLED ANCHORS: PROVIDED BY HILTI (CANADA) CORPORATION. CONTACT HILTI AT (800) 363-4458 FOR PRODUCT RELATED QUESTIONS.

E. EXECUTION

1. STRUCTURAL STEEL

1.1. PAINT ALL STRUCTURAL STEEL TO REQUIREMENTS OF CISC/CPMA 2-75. TOUCH UP ALL FIELD WELDS.

1.2. ALL STRUCTURAL STEEL EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH CSA G164.

1.3. ALL WELDS SHALL CONFORM TO CSA STANDARD W59.

1.4. ALL WELDS EXPOSED TO VIEW SHALL BE GROUND SMOOTH.

1.5. ANY ORGANIZATION UNDERTAKING TO WELD UNDER THIS CONTRACT SHALL BE CERTIFIED BY THE CANADIAN WELDING BUREAU UNDER REQUIREMENTS OF DIVISION 1 OR DIVISION 2.1 OF W47.1.

1.6. UNLESS A REINFORCED MASONRY OR CONCRETE LINTEL IS SHOWN IN MASONRY WALLS OR MASONRY PARTITIONS, PROVIDE LOOSE STEEL LINTELS IN ACCORDANCE WITH REQUIREMENTS OF DOCUMENTS OVER ALL DOORWAYS, OTHER OPENINGS, AND RECESSES, INCLUDING THOSE FOR MECHANICAL OR ELECTRICAL SERVICES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE LOCATION, SIZE, AND NUMBER OF OPENINGS REQUIRED BY THE MECHANICAL AND ELECTRICAL CONSULTANT.

1.7. DO NOT SPLICE STRUCTURAL STEEL SECTIONS WITHOUT PRIOR APPROVAL OF THE CONSULTANT. ALL SPLICES SHALL DEVELOP THE FULL CAPACITY OF THE SECTION AND ARE TO BE TESTED BY NON DESTRUCTIVE METHODS, BY AN INDEPENDENT INSPECTION AND TESTING COMPANY, AT THE CONTRACTOR'S EXPENSE.

2. MASONRY

2.1. PROVIDE A MINIMUM LENGTH OF 200 mm (8") OF 100% SOLID MASONRY UNITS FOR BEARING OF STEEL, CONCRETE OR REINFORCED MASONRY LINTELS.

2.2. SUPPLY AND PLACE REINFORCEMENT AND CONCRETE FOR REINFORCED MASONRY LINTELS IN ACCORDANCE WITH TYPICAL DETAILS SHOWN.

3. POST-INSTALLED ANCHORS

3.1. MATERIALS

3.1.1. EXCEPT WHERE INDICATED ON THE DRAWINGS, POST-INSTALLED ANCHORS SHALL CONSIST OF THE FOLLOWING ANCHOR TYPES AS PROVIDED BY HILTI (CANADA) CORPORATION. CONTACT HILTI AT (800) 363-4458 FOR PRODUCT RELATED QUESTIONS.

3.1.2. ALL POST-INSTALLED ANCHORS SHALL ONLY BE INSTALLED IN A DRY CONDITION FOR INTERIOR EXPOSURE, AND A DRY OR WATER-SATURATED CONDITION FOR EXTERIOR EXPOSURE. WATER-FILLED INSTALLATION IS NOT PERMITTED UNLESS APPROVED BY THE CONSULTANT.

3.1.3. ALL ANCHORS EXPOSED TO WEATHER SHALL BE GALVANIZED IN ACCORDANCE WITH CSA G164.

3.2. QUALITY ASSURANCE

3.2.1. POST-INSTALLED ANCHORS SHALL ONLY BE EXECUTED BY TRAINED PERSONNEL. INSTALLATION OF ALL POST-INSTALLED ANCHORS SHALL BE PER THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) AND THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL OF THEIR ANCHORING PRODUCTS SPECIFIED. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND MADE AVAILABLE TO THE STRUCTURAL CONSULTANT OR THE INDEPENDENT TESTING AND INSPECTION COMPANY UPON REQUEST.

3.3. DESIGN

3.3.1. ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE. CONTRACTOR SHALL PROVIDE CALCULATIONS THAT HAVE BEEN SEALED BY ANOTHER LICENSED ENGINEER DEMONSTRATING THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF MEETING THE PERFORMANCE OF THE SPECIFIED PRODUCT. SUBSTITUTIONS WILL BE EVALUATED BY THEM HAVING AN ICC-ES ESR SHOWING COMPLIANCE WITH THE RELEVANT BUILDING CODE FOR SEISMIC USES, LOAD RESISTANCE, INSTALLATION CATEGORY, AND AVAILABILITY OF COMPREHENSIVE INSTALLATION INSTRUCTIONS. ADHESIVE ANCHOR EVALUATION WILL ALSO CONSIDER CREEP, IN-SERVICE TEMPERATURE, INSTALLATION TEMPERATURE, MOISTURE CONDITION OF CONCRETE, AND DRILLING METHODS.

3.3.2. ANCHOR CAPACITY IS DEPENDANT UPON SPACING BETWEEN ADJACENT ANCHORS AND PROXIMITY OF ANCHORS TO EDGE OF CONCRETE. INSTALL ANCHORS IN ACCORDANCE WITH SPACING AND EDGE CLEARANCES INDICATED ON THE DRAWINGS.

4. ALTERATIONS AND/OR CONNECTIONS TO EXISTING STRUCTURE

4.1. INSPECT THE EXISTING BUILDING AND BECOME THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS.

4.2. PRIOR TO FABRICATION OF STRUCTURAL STEEL, OPEN UP ALL AREAS WHERE CONNECTIONS ARE TO BE MADE TO EXISTING WORK AND TAKE FIELD MEASUREMENTS. MODIFY METHODS FOR CONNECTING TO SUIT SITE CONDITIONS FOUND AND TO THE APPROVAL OF THE CONSULTANT. CARRY OUT LOCAL REPAIRS TO THE EXISTING WORK AS NECESSARY AND AS DIRECTED BY THE CONSULTANT.

4.3. SHORE EXISTING WORK AS REQUIRED UNTIL ALL NEW WORK HAS BEEN COMPLETED AND REVIEWED BY THE CONSULTANT.

4.4. SHORE FLOORS AS REQUIRED TO SUPPORT CRANES, HOISTS AND OTHER CONSTRUCTION EQUIPMENT.

4.5. DO NOT CUT CONCRETE REINFORCEMENT UNLESS REVIEWED AND APPROVED BY THE CONSULTANT.

4.6. WHERE REQUIRED TO AVOID CUTTING EXISTING REINFORCEMENT, MODIFY THE LAYOUT OF NEW THROUGH BOLTS, EXPANSION ANCHORS AND OTHER ANCHORING DEVICES.

4.7. MAKE GOOD THE EXISTING WORK.

5. CUTTING AND CORING OF EXISTING STRUCTURE

5.1. PRIOR TO CUTTING AND CORING ANY OPENINGS IN THE EXISTING BUILDING, PROVIDE THE CONSULTANT WITH A SLEEVING DRAWING INDICATING THE SIZE AND LOCATION OF OPENINGS RELATIVE TO BUILDING GRID LINES. EXISTING OPENINGS IN THE VICINITY OF THE NEW OPENING MUST ALSO BE SHOWN.

5.2. ALL DIMENSIONS PROVIDED TO THE CONSULTANT ARE TO BE CONFIRMED WITH THE APPROPRIATE CONTRACTOR (MECHANICAL OR ELECTRICAL) PRIOR TO CUTTING / CORING.

5.3. ANY REVISIONS TO THE DIMENSIONS BY THE CONSULTANT MUST BE REVIEWED BY THE APPROPRIATE CONTRACTOR PRIOR TO CUTTING / CORING.

5.4. FOR ANY OPENINGS WHICH ARE TO BE SAW-CUT INTO THE EXISTING STRUCTURE, PRE-DRILL THE CORNERS USING A 100 mm (4") Ø CORE DRILL. DO NOT OVER-CUT CORNERS OF OPENING.

5.5. ALL PRICES FOR CUTTING / CORING ARE TO INCLUDE ANY COSTS ASSOCIATED WITH X-RAYING, SCANNING, ETC.

F. QUALITY CONTROL

1. GENERAL

1.1. IMPLEMENT A SYSTEM OF QUALITY CONTROL TO ENSURE THAT THE MINIMUM STANDARDS SPECIFIED HEREIN ARE ATTAINED.

1.2. BRING TO THE ATTENTION OF THE CONSULTANT ANY DEFECTS IN THE WORK OR DEPARTURES FROM THE CONTRACT DOCUMENTS, WHICH MAY OCCUR DURING CONSTRUCTION. THE CONSULTANT WILL DECIDE UPON CORRECTIVE ACTION AND GIVE RECOMMENDATIONS IN WRITING.

1.3. THE CONSULTANT'S GENERAL REVIEW DURING CONSTRUCTION AND INSPECTION AND TESTING BY INDEPENDENT INSPECTION AND TESTING AGENCIES REPORTING TO THE CONSULTANT ARE BOTH UNDERTAKEN TO INFORM THE OWNER / CLIENT OF THE CONTRACTOR'S PERFORMANCE AND SHALL IN NO WAY AUGMENT THE CONTRACTOR'S QUALITY CONTROL OR RELIEVE THE CONTRACTOR OF CONTRACTUAL RESPONSIBILITY.

2. NOTIFICATION

2.1. PRIOR TO COMMENCING SIGNIFICANT SEGMENTS OF THE WORK, GIVE THE CONSULTANT AND INDEPENDENT INSPECTION AND TESTING COMPANIES APPROPRIATE NOTIFICATION (MINIMUM 24 HOURS) SO AS TO AFFORD THEM REASONABLE OPPORTUNITY TO REVIEW THE WORK. FAILURE TO MEET THIS REQUIREMENT MAY BE CAUSE FOR THE CONSULTANT TO CLASSIFY THE WORK AS DEFECTIVE.

3. DEFECTIVE MATERIALS AND WORK

3.1. WHERE EVIDENCE EXISTS THAT DEFECTIVE WORK HAS OCCURRED OR THAT WORK HAS BEEN CARRIED OUT INCORPORATING DEFECTIVE MATERIALS, THE CONSULTANT MAY HAVE TESTS, INSPECTIONS OR SURVEYS PERFORMED, ANALYTICAL CALCULATIONS OF STRUCTURAL STRENGTH MADE, AND THE LIKE, IN ORDER TO HELP DETERMINE WHETHER THE WORK MUST BE CORRECTED OR REPLACED. TESTS, INSPECTIONS OR SURVEYS, OR CALCULATIONS CARRIED OUT UNDER THESE CIRCUMSTANCES WILL BE MADE AT THE CONTRACTOR'S EXPENSE, REGARDLESS OF THEIR RESULTS, WHICH MAY BE SUCH THAT, IN THE CONSULTANT'S OPINION, THE WORK MAY BE ACCEPTABLE.

3.2. ALL TESTING SHALL BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING CODE, EXCEPT WHERE THIS WOULD, IN THE CONSULTANT'S OPINION, CAUSE UNDUE DELAY OR GIVE RESULTS NOT REPRESENTATIVE OF THE REJECTED MATERIAL IN PLACE. IN THIS CASE, THE TESTS SHALL BE CONDUCTED IN ACCORDANCE WITH THE STANDARDS GIVEN BY THE CONSULTANT.

3.3. MATERIALS OR WORK, WHICH FAIL TO MEET SPECIFIED REQUIREMENTS, MAY BE REJECTED BY THE CONSULTANT WHENEVER FOUND AT ANY TIME PRIOR TO FINAL ACCEPTANCE OF THE WORK REGARDLESS OF PREVIOUS INSPECTION. IF REJECTED, DEFECTIVE MATERIALS OR WORK SHALL BE PROMPTLY REMOVED AND REPLACED OR REPAIRED TO THE SATISFACTION OF THE CONSULTANT, AT NO EXPENSE TO THE OWNER.

LIST OF STRUCTURAL DRAWINGS

RoMar ENGINEERING
MECHANICAL BUILDING SERVICES

engineeringlink
building envelope & structure

375 University Ave., Suite 901
Toronto, ON M5G 2J5
416-599-(LINK) 5465
Project No. 26-2502 www.engineeringlink.ca

Professional Seal

LICENSED PROFESSIONAL ENGINEER
M.G.C. HAYMAN
100200502
DEC 22, 2025
PROVINCE OF ONTARIO

No.	DESCRIPTION	BY	DATE
01	ISSUED FOR TENDER	MH	12/22/2025

REVISIONS / STATUS

PROJECT:

VAUGHAN WILLARD P.S.
- AHU REPLACEMENT

Project No: 25-14

Scale:	N/A
Drawn by:	AQV
Checked by:	MH / STB
Address:	1911 Dixie Rd N, Pickering, ON L1V 1V4

TITLE:

GENERAL NOTES

DDSB Ignite Learning

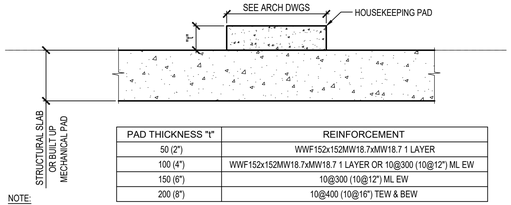
DRAWING No:

S-101

STRUCTURAL ABBREVIATIONS — TD-G01

A BOLT(s)	ANCHOR BOLT(S)	Fy	YIELD STRENGTH	PL	PLATE
AFF	ABOVE FINISHED FLOOR	GA	GAUGE	PLF	POUNDS PER LINEAR FOOT
ALT	ALTERNATIVE	GALV	GALVANIZED	psf	POUNDS PER SQUARE FOOT
ARCH	ARCHITECTURAL	GEN	GENERAL	PT	PRESSURE TREATED
ASL	ADDITIONAL ACCUMULATED SNOW LOAD	H, HORZ	HORIZONTAL	RD	ROOF DRAIN
		H1E	HOOK ONE END	REINF	REINFORCEMENT, REINFORCED
B, BOTT	BOTTOM	HEF	HORIZONTAL EACH FACE	REF	REFER
B/B	BACK TO BACK	Hf	FACTORED HORIZONTAL FORCE	RE	RIGHT END
BEW	BOTTOM EACH WAY	HH	HOOK EACH END	REQ'D	REQUIRED
BLL	BOTTOM LOWER LAYER	HIF	HORIZONTAL INSIDE FACE	REV	REVISION, REVISED
BLDG	BUILDING	HOF	HORIZONTAL OUTSIDE FACE	R/W	REINFORCED WITH
BM	BEAM	HP	HIGH POINT	SAD	SEE ARCHITECTURAL DRAWINGS
BPL	BASE PLATE, BEARING PLATE	HSC	HORIZONTALLY SLOTTED CONNECTION	SCHED	SHEDULE
BRDG	BRIDGING			SDF	STEP DOWN FOOTING
BUL	BOTTOM UPPER LAYER	HSS	HOLLOW STEEL SECTION	SIM	SIMILAR
c	CAMBER	H&V	HORIZONTAL AND VERTICAL	SL	SNOW LOAD
C	EPOXY COATED	IF	INSIDE FACE	SOG	SLAB ON GRADE
c/c	CENTRE TO CENTRE	IN	INCH(ES)	SPDD	STANDARD PROCTOR DRY DENSITY
CA	COLUMN ABOVE	INT	INTERIOR		
CANT	CANTILEVER(ED)	JT	JOINT	ST	STRAIGHT
CB	COL BELOW	K, kip	KILO-POUND, 1000 lbf	STRUCT	STRUCTURAL
CDL	COMPRESSION DEVELOPMENT LENGTH	kg	KILOGRAM(S)	STD	STANDARD
		kip-ft	KIP FOOT, KIP FEET	SW	SHORT WAY
Cf	FACTORED COMPRESSIVE FORCE	kips/ft	KIPS PER LINEAR FOOT	T	TOP
CJ	CONTROL JOINT	kN	KILONEWTON	TDL	TENSION DEVELOPMENT LENGTH
CLS	COMPRESSION LAP SPLICE	kN m	KILONEWTON METRE	TEMP	TEMPORARY, TEMPERATURE
COL(s)	COLUMN(S)	kN/m	KILONEWTON PER METRE	TEW	TOP EACH WAY
COMP	COMPOSITE	kPa	KILOPASCAL	Tf	FACTORED TENSILE FORCE
CONC	CONCRETE	ksf	KIPS PER SQUARE FOOT	THK	THICK
CONT	CONTINUOUS	ksi	KIPS PER SQUARE INCH	TJ	TIE JOIST
c/w	COMPLETE WITH	L	SINGLE ANGLE	TLL	TOP LOWER LAYER
DEMO	DEMOLITION, DEMOLISH(ED)	lbf	POUND-FORCE	TLS	TENSION LAP SPLICE
DIAG	DIAGONAL	lbs	POUNDS	TMf	FACTORED TORSIONAL MOMENT
DIM	DIMENSION	LE	LEFT END	T/O	TOP OF
DL	DEAD LOAD	LG	LONG	TRANS	TRANSVERSE
DP	DEEP	LL	LIVE LOAD, LOWER LAYER	TUL	TOP UPPER LAYER
DWG(s)	DRAWING(S)	LLH	LONG LEG HORIZONTAL	TYP	TYPICAL
DWL(s)	DOWEL(S)	LLV	LONG LEG VERTICAL	T&B	TOP AND BOTTOM
DN	DOWN	LP	LOW POINT	UL	UPPER LAYER
EA	EACH	LSH	LONG SIDE HORIZONTAL	U/N	UNLESS NOTED OTHERWISE
EE	EACH END	LSV	LONG SIDE VERTICAL	U/S	UNDERSIDE OF
EF	EACH FACE	LW	LONG WAY	V, VERT	VERTICAL
ELEC	ELECTRICAL	m	METRE	Vf	FACTORED VERTICAL SHEAR FORCE
EL	ELEVATION	MECH	MECHANICAL		
ELEV	ELEVATOR	Mf	FACTORED MOMENT	VBF	VERTICAL BRACED FRAME
EMBED	EMBEDMENT	ML	MIDDLE LAYER	VEF	VERTICAL EACH FACE
EQ	EQUAL	mm	MILLIMETRE	VIF	VERTICAL INSIDE FACE
ES	EACH SIDE	MPa	MEGAPASCAL	VOF	VERTICAL OUTSIDE FACE
EX. EXIST	EXISTING	Mxf	FACTORED BENDING MOMENT ALONG x-x AXIS	VSC	VERTICALLY SLOTTED CONNECTION
EJ, EXP JT	EXPANSION JOINT				
E-W	EAST-WEST	Myf	FACTORED BENDING MOMENT ALONG y-y AXIS	W	WIDE FLANGE BEAM
EW	EACH WAY			WP	WORKING POINT
EXT	EXTERIOR	NIC	NOT IN CONTRACT	WT	WEIGHT, STRUCTURAL TEE
f'c	28 DAYS CONCRETE COMPRESSIVE STRENGTH	N-S	NORTH-SOUTH	WWF	WELDED WIRE FABRIC, WELDED WIDE FLANGE
		NTS	NOT TO SCALE		
FDN	FOUNDATION	OF	OUTSIDE FACE	@	AT
FIN	FINISHED	OPEN	OPENING	℄	CENTRE LINE
FL	FLOOR	OWSJ	OPEN WEB STEEL JOIST	Ø	DIAMETER
ft	LINEAR FOOT, LINEAR FEET	Pf	FACTORED AXIAL FORCE	▶	MOMENT CONNECTION
FTG	FOOTING	PC	PRE-CAST		

DETAILS FOR HOUSEKEEPING PADS — TD-CS11A

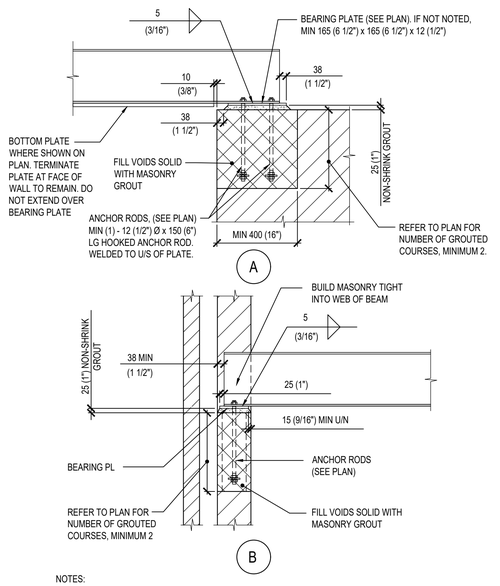


PAD THICKNESS "t"	REINFORCEMENT
50 (2")	WWF152x152MW18.7xMW18.7 1 LAYER
100 (4")	WWF152x152MW18.7xMW18.7 1 LAYER OR 10@300 (10@12") ML EW
150 (6")	10@300 (10@12") ML EW
200 (8")	10@400 (10@16") TEW & BEW

NOTE:

1. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, DRAWINGS FOR LOCATION, THICKNESS AND SIZE OF HOUSEKEEPING PADS.
1. PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT, GROUT ALL CRACKS IN THE HOUSEKEEPING PADS AND FILL WITH MORTAR CONTAINING CEMENT, SAND AND LATEX BONDING AGENT OR AS NOTED IN SPECIFICATIONS.

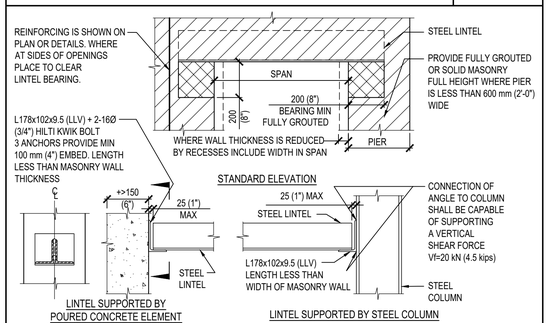
BEARING OF BEAM ON END OF MASONRY WALL — TD-M08



NOTES:

1. REFER TO GENERAL NOTES FOR EXTENT OF MASONRY GROUT.
2. REFER TO PLANS FOR SIZE OF BEARING PLATE AND SIZE/NUMBER OF ANCHOR RODS.

STEEL LINTELS FOR NON-LOAD BEARING MASONRY WALLS — TD-S01



CLEAR SPAN	WALL THICKNESS				
	90 (3 1/2") VENEER	140 (5 1/2")	190 (7 1/2")	240 (9 1/2")	290 (11 1/2")
UP TO 1200 (4'-0")	L89x89x6.4	2-L64x64x6.4	2-L76x89x6.4 (LLH)	L76x102x6.4 + L76x127x6.4 (LLH)	3-L76x89x6.4 (LLH)
1200 (4'-0") TO 1800 (6'-0")	L127x89x6.4 (LLV)	2-L89x64x6.4 (LLV)	2-L89x89x6.4	L102x102x6.4 + L76x127x6.4 (LLH)	3-L89x89x6.4
1800 (6'-0") TO 2400 (8'-0")	L127x89x6.4 (LLV)	2-L89x64x7.9 (LLV)	2-L102x89x7.9 (LLV)	L102x102x9.5 + L89x127x7.9 (LLH)	3-L102x89x6.4 (LLV)
2400 (8'-0") TO 3000 (10'-0")	L127x89x9.5 (LLV)	2-L89x64x9.5 (LLV)	2-L152x89x7.9 (LLV)	L152x102x7.9 (LLV) + L127x127x7.9	3-L127x89x6.4 (LLV)
DETAIL					

NOTES:

1. CONNECT BACK TO BACK DOUBLE ANGLE LINTELS USING 16 mm (5/8") Ø BOLTS AT 450 mm (18") c/c MAX OR BY WELDING AT TOP AND BOTTOM USING 6 mm (1/4") WELDS x 50 mm (2") LONG AT 450 mm (18") c/c MAX. FIRST BOLT OR WELD TO BE A MAX OF 75 mm (3") FROM END OF LINTEL
2. FULLY PACK LINTEL ENDS WITH STEEL SHIMS TO ENSURE EVEN BEARING.
3. LINTELS AS COVERED UNDER THIS DETAIL ARE NOT NECESSARILY SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENING LOCATIONS AND SIZES.

RoMar ENGINEERING
MECHANICAL BUILDING SERVICES

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Professional Seal

LICENSED PROFESSIONAL ENGINEER
M.G.C. HAYMAN
100200502
DEC 22, 2025
PROVINCE OF ONTARIO

No.	DESCRIPTION	BY	DATE
01	ISSUED FOR TENDER	MH	12/22/2025

REVISIONS / STATUS

PROJECT:

VAUGHAN WILLARD P.S.
- AHU REPLACEMENT

Project No: 25-14

Scale:	NTS
Drawn by:	AQV
Checked by:	MH / STB
Address:	1911 Dixie Rd N, Pickering, ON L1V 1V4

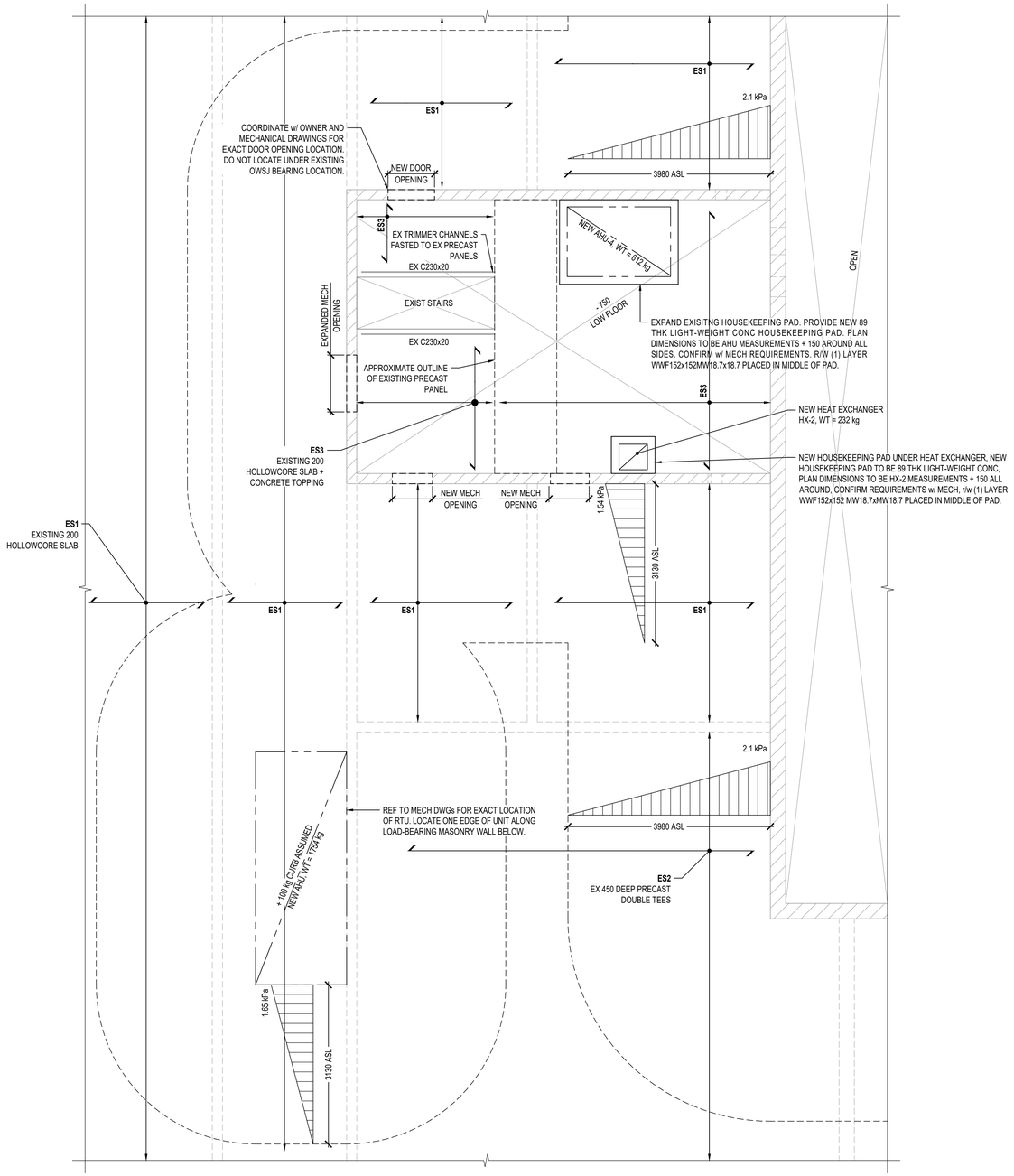
TITLE:

TYPICAL DETAILS

DDSB Ignite Learning

DRAWING No:

S-102



B S-201 — 1 : 50

SECOND FLOOR AND LOW ROOF FRAMING PART PLAN

SECOND FLOOR AND LOW ROOF FRAMING NOTES

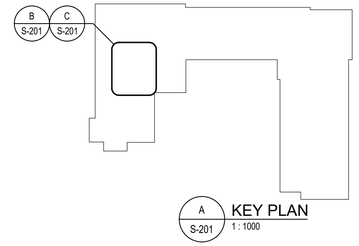
1. TOP OF EXISTING HOLLOW-CORE SLABS IS AT ELEVATION + 3600 ABOVE EXISTING SLAB ON GRADE UNLESS CROSSED AND NOTED, CONTRACTOR TO SITE VERIFY. ELEVATIONS NOTED ARE REFERENCED FROM TOP OF EXISTING HOLLOW-CORE SLAB ELEVATION + 3600.
2. SECOND FLOOR (INTERIOR) DESIGN LOADS ARE:

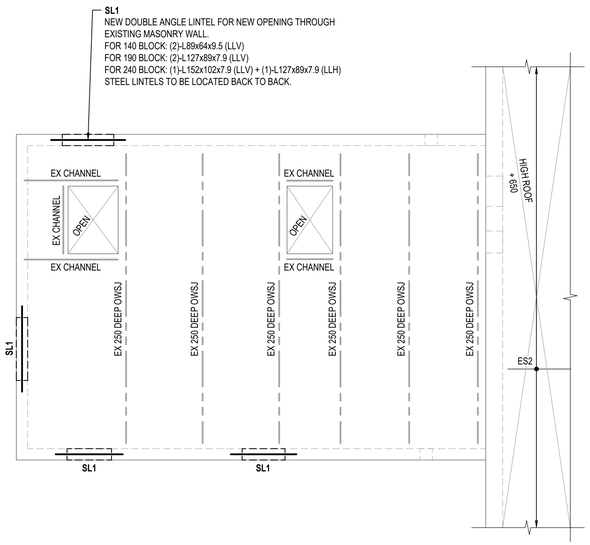
SUPER-IMPOSED DEAD LOAD	1.4 kPa	
LIVE LOAD	3.6 kPa	INTERIOR

3. ROOF (EXTERIOR) DESIGN LOADS ARE:

SUPER-IMPOSED DEAD LOAD	1.0 kPa	
SNOW LOAD	1.2 kPa	+ ASL
MULTIPLIED BY HIGH IMPORTANCE	*IULS = 1.15, ISLS = 0.9*	

4. REFER TO MECHANICAL DRAWINGS FOR ELEVATION OF ALL NEW LINTELS.
5. PROVIDE CLEAN SAW CUT AND CORING LINES AT ALL NEW MECHANICAL OPENINGS. MAKE GOOD ALL DAMAGED BLOCK / BRICK ADJACENT TO OPENINGS. UNLESS NOTED OTHERWISE ON PLAN PROVIDE STEEL LINTELS ABOVE ALL SUCH OPENINGS IN ACCORDANCE WITH TYPICAL DETAIL **TD-S01**. REFER TO MECHANICAL FOR NUMBER OF OPENINGS AND LOCATIONS.
6. REMOVE EXISTING CEILING FINISHES, MECHANICAL SERVICES, AND THE LIKE TO COMPLETE THE STRUCTURAL WORK. PATCH AND MAKE GOOD.
7. CONNECT NEW RTU TO ITS ROOF CURB AND THE ROOF CURB TO THE STRUCTURE PER MANUFACTURER'S REQUIREMENTS.
8. WE HAVE REVIEWED THE LOADS IMPOSED BY THE PROPOSED RTU ON THE EXISTING STRUCTURE AND IN OUR OPINION THE STRUCTURE CAN SAFELY SUPPORT THE LOAD WITHOUT REINFORCING.





C S-201 — 1 : 50

HIGH ROOF FRAMING PART PLAN

HIGH ROOF FRAMING NOTES

1. TOP OF EXISTING HOLLOW-CORE SLABS IS AT ELEVATION + 5400 ABOVE EXISTING SLAB ON GRADE UNLESS CROSSED AND NOTED, CONTRACTOR TO SITE VERIFY. ELEVATIONS NOTED ARE REFERENCED FROM TOP OF EXISTING HOLLOW-CORE SLAB ELEVATION + 5400.
2. ROOF (EXTERIOR) DESIGN LOADS ARE:

SUPER-IMPOSED DEAD LOAD	1.0 kPa	
SNOW LOAD	1.2 kPa	+ ASL
MULTIPLIED BY HIGH IMPORTANCE	*IULS = 1.15, ISLS = 0.9*	

3. REFER TO MECHANICAL DRAWINGS FOR ELEVATION OF ALL NEW LINTELS.
4. CONTRACTOR TO RETAIN A PROFESSIONAL ENGINEER, LICENSED IN THE PROVINCE OF ONTARIO, TO PREPARE ENGINEERED DRAWINGS FOR ALL TEMPORARY SHORING AS INDICATED ON PLAN. THE ENGINEER MUST HAVE A MINIMUM OF 5-YEARS EXPERIENCE IN THE DESIGN OF TEMPORARY SHORING SYSTEMS AND WILL BE RESPONSIBLE FOR REVIEWING THE SHORING INSTALLATION TO ENSURE IT MEETS THEIR DESIGN REQUIREMENTS.
5. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING NEW WORK WITH TEMPORARY SHORING REQUIREMENTS.
6. PROVIDE CLEAN SAW CUT AND CORING LINES AT ALL NEW MECHANICAL OPENINGS. MAKE GOOD ALL DAMAGED BLOCK/ BRICK ADJACENT TO OPENINGS. UNLESS NOTED OTHERWISE ON PLAN PROVIDE STEEL LINTELS ABOVE ALL SUCH OPENINGS IN ACCORDANCE WITH TYPICAL DETAIL **TD-S01**. REFER TO MECHANICAL FOR NUMBER OF OPENINGS AND LOCATIONS.
7. REMOVE EXISTING CEILING FINISHES, MECHANICAL SERVICES, AND THE LIKE TO COMPLETE THE STRUCTURAL WORK. PATCH AND MAKE GOOD.

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TITLE:

FRAMING PLANS

DDSB Ignite Learning

DRAWING No:

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