CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

ARCHITECT
THOMAS BROWN ARCHITECTS INC.
197 SPADINA STREET, SUITE 500
TORONTO, ON
M5T 2C8
TEL: (416) 364-5710 ext 101

STRUCTURAL CONSULTANT
SALAS O'BRIEN
2235 SHEPPARD AVE. E. SUITE 1100
TORONTO, ON
M2J 5B5
TEL: (416) 635-9970

MECHANICAL CONSULTANT
JAIN CONSULTANTS INC.
7405 EAST DANBRO CRESCENT
MISSISSAUGA, ON
ON L5N 6P8
TEL: (905)-285-9900

ELECTRICAL CONSULTANT
JAIN CONSULTANTS INC.
7405 EAST DANBRO CRESCENT
MISSISSAUGA, ON
ON L5N 6P8
TEL: (905)-285-9900

SITE SERVICING CONSULTANT
MGM CONSULTING INC.
400 BRONTE ST. SOUTH
MILTON, ON
L9T 0H7
TEL: (905) 875-1228

ARCHITECTURAL DRAWING LIST

SHEET	DRAWING TITLE
A0.0	DRAWING INDEX & OBC MATRIX
A0.1	GUIDE TO USE OF DRAWINGS, TYPICAL DETAIL LIST, ABBREVIATIONS
A0.2	EXTERIOR & INTERIOR ASSEMBLIES
A0.3	FIXTURE MOUNTING HEIGHTS
A1.1	FIRE, LIFE SAFETY, & AODA REQUIREMENTS
A2.1	SITE SURVEY
A2.2	SITE DEMOLITION, SITE DETAILS
A2.3	TREE INVENTORY/ REMOVAL/ PRESERVATION PLAN
A2.4	TREE INVENTORY/ REMOVAL/ PRESERVATION PLAN SCHEDULES
A2.7	SITE PLAN & SITE PLAN GENERAL NOTES
A2.8	LAYOUT - SITE PLAN
A2.9	GENERAL SITE DETAILS
A2.10	GENERAL SITE DETAILS
A3.1	FOUNDATION PLAN
A3.2	LAYOUT - FOUNDATION & GROUND FLOOR
A3.3	GROUND FLOOR PLAN - GENERAL ARRANGEMENT
A3.4	GROUND FLOOR - WALL AND WINDOW LAYOUT
A3.5	MEZZANINE PLAN - GENERAL ARRANGEMENT, WALL AND WINDOW LAYOUT
A3.6	AUXILIARY STAIR DETAILS
A3.7	APPARATUS BAY DETAILS
A4.1	ROOF PLAN
A5.1	BUILDING ELEVATIONS
A5.2	BUILDING ELEVATIONS
A6.1	CLADDING, GLAZING AND LOUVER ELEVATIONS
A6.2	CLADDING, GLAZING AND LOUVER ELEVATIONS

ARCHITECTURAL DRAWING LIST

SHEET	DRAWING TITLE
A7.1	BUILDING SECTIONS
A7.2	BUILDING SECTIONS
A7.3	BUILDING SECTIONS
A8.1	SECTION DETAILS
A8.2	SECTION DETAILS
A8.3	SECTION DETAILS
A8.4	SECTION DETAILS
A8.5	APPARATUS BAY AXO VIEW
A9.1	HOSE TOWER PLAN AND SECTION
A9.2	HOSE TOWER DETAILS
A10.1	FLOOR FINISH AND FURNITURE PLAN
A10.2	FLOOR PLAN FINISH PLAN AND DETAILS
A11.1	REFLECTED CEILING PLAN
A12.1	WASHROOM PLAN & ELEVATIONS
A12.2	WASHROOM DETAILS
A13.1	MILLWORK PLANS AND ELEVATIONS & DETAILS
A13.2	MILLWORK PLANS AND ELEVATIONS & DETAILS
A13.3	MILLWORK DETAILS
A13.4	MILLWORK SCHEDULE DOOR SCHEDULE
A13.5	MISCELLANEOUS DETAILS
A13.6	DOOR FINISH SCHEDULE

STRUCTURAL DRAWING LIST

SHEET	DRAWING TITLE
S1-01	PLAN NOTES SCHEDULES AND DETAILS
S1-02	FOUNDATION PLAN
S1-03	ROOF FRAMING PLAN
S1-04	HIGH ROOF FRAMING PLAN
S1-05	LOADING PLANS AND GLULAM MOMENT FRAME ELEVATION
S1-06	CONCRETE WALL ELEVATIONS
S2-02	FOUNDATION SECTIONS
S4-01	GENERAL NOTES
S4-02	TYPICAL DETAILS
S4-03	TYPICAL NOTES

MECHANICAL DRAWING LIST

SHEET	DRAWING TITLE
M1.1	FLOOR PLAN - PLUMBING
M1.2	MEZZANINE PLAN - PLUMBING
M2.0	SITE PLAN - HVAC
M2.1	FLOOR PLAN - HVAC
M2.2	ROOF PLAN - HVAC
M2.3	FLOOR PLAN - HVAC PIPING
M2.4	MEZZ. MECH RM. FLOOR PLAN & SECTIONS - HVAC
M2.5	SCHEDULES
M2.6	DETAILS
M2.7	SCHEDULES
M2.8	SCHEDULES
M3.1	FLOOR PLAN - SPRINKLERS
M3.2	MEZZANINE PLAN - SPRINKLERS

ELECTRICAL DRAWING LIST

SHEET	DRAWING TITLE
E1.0	LEGEND, SCHEDULE AND DETAILS
E1.1	SITE PLAN - ELECTRICAL LAYOUT
E2.1	LIGHTING LAYOUT - GROUND FLOOR
E2.2	LIGHTING LAYOUT - MEZZANINE PLAN
E3.1	POWER & SYSTEMS LAYOUT - GROUND FLOOR
E3.2	POWER & SYSTEMS LAYOUT - MEZZANINE LEVEL
E3.3	POWER & SYSTEMS LAYOUT - ROOF PLAN
E4.0	SINGLE LINE DIAGRAM
E5.0	SCHEMATICS & DETAILS
E6.0	FIRE ALARM SYSTEM

CIVIL DRAWING LIST

SHEET	DRAWING TITLE
CV.1	SEDIMENT & EROSION CONTROL & REMOVALS PLAN
CV.2	SERVICING PLAN
CV.3	GRADING PLAN
CV.4	DETAILS

LANDSCAPE CONSULTANT
STRYBOS BARRON KING LTD.
5770 HURONTARIO ST,
MISSISSAUGA, ON
L5R 3G5

LANDSCAPE DRAWING LIST

SHEET	DRAWING TITLE
L100	LANDSCAPE PLAN
L200	LANDSCAPE DETAILS

ONTARIO BUILDING CODE DATA MATRIX

PART 3 - FIRE PROTECTION, OCCUPANT SAFETY AND ACCESSIBILITY

OBC REFERENCE [1]

Name of Practice	THOMAS BROWN ARCHITECTS INC.	Name of Project	CITY OF VAUGHAN 7-12 P2104	
Address 1	197 Spadina Avenue, Suite 500	Location/Address	9541 WESTON ROAD, WOODBRIDGE, ON, L4H 3A5	
Address 2	Toronto, ON M5T 2C8	Contact	Chris Kubbinga	

3.00 BUILDING CODE VERSION	O.Reg. 332/12		LAST AMENDMENT	O.Reg. 762/20		
3.01 PROJECT TYPE	New Construction					[A] 1.1.2.
3.02 MAJOR OCCUPANCY CLASSIFICATION	OCCUPANCY		USE			3.1.2.1.(1)
	D	Business & Personal Services	Administrative Offices & Fire Station			
	F3	Low Hazard Industrial	Storage Garage			
3.03 SUPERIMPOSED MAJOR OCCUPANCIES	N/A					3.2.2.7.
	N/A					
3.04 BUILDING AREA (m²)	DESCRIPTION		EXISTING	NEW	TOTAL	[A] 1.4.1.2.
	Ground Floor		0.00	845.40		845.4
	TOTAL		-	845.40		845.4
3.05 GROSS AREA (m²)	DESCRIPTION		EXISTING	NEW	TOTAL	[A] 1.4.1.2.
	Ground Floor		0.00	916.10		916.1
	TOTAL		-	916.10		916.1
3.06 MEZZANINE AREA (m²)	DESCRIPTION		EXISTING	NEW	TOTAL	3.2.1.1.
	N/A		0.00	70.70		70.7
	TOTAL		-	...		70.7
3.07 BUILDING HEIGHT	1	STOREYS ABOVE GRADE		14.50	(m) ABOVE GRADE	[A] 1.4.1.2. &
	0	STOREYS BELOW GRADE				3.2.1.1.
3.08 HIGH BUILDING	No					3.2.6
3.09 NUMBER OF STREETS/ FIREFIGHTER ACCESS	1	STREET(S)				3.2.2.10. & 3.2.5.
3.10 BUILDING CLASSIFICATION (SIZE AND CONSTRUCTION RELATIVE TO OCCUPANCY)	3.2.2.56.	Group D, up to 2 Storeys, Sprinklered				3.2.2.20-83.
	3.2.2.78.	Group F, Division 3, up to 2 Storeys				
3.11 SPRINKLER SYSTEM	Required	PROVIDED:	Entire Building			3.2.1.5. &
	DESCRIBE	Sprinkler System is part of Contract scope				3.2.2.17.
3.12 STANDPIPE SYSTEM	Not Required					3.2.9.
3.13 FIRE ALARM SYSTEM	Required		TYPE PROVIDED	Single Stage		3.2.4.
	Fire Alarm System provided as part of Contract					
3.14 WATER SERVICE/ SUPPLY IS ADEQUATE	Yes					
3.15 CONSTRUCTION TYPE	RESTRICTIONS	Combination Permitted				3.2.2.20.-83.
	ACTUAL	Combination	HEAVY TIMBER CONSTRUCTION		YES	3.2.1.4.
3.16 IMPORTANCE CATEGORY	Post-Disaster					4.1.2.1.(3), T4.1.2.1.B.
3.17 SEISMIC HAZARD INDEX (IE Fa Sa (0.2)) =	0.12	Seismic Design Required for Table 4.1.8.18. Items 6 to 21				4.1.8.18.(1)
3.18 REASONING FOR REQUIREMENT	Importance Category and Seismic Hazard Index					4.1.8.18.(2)

3.19 OCCUPANT LOAD	FLOOR LEVEL/AREA	OCCUPANCY TYPE	BASED ON	OCCUPANT LOAD (PERSONS)	T3.1.17.1
	First Floor	Group D & F3	Design of space	10	
	TOTAL			10	

3.20 HAZARDOUS SUBSTANCES	No					3.3.1.2. & 3.3.1.19.
3.21 REQUIRED FIRE SEPARATIONS	1.5hr	Storage Garage Separation Between Group D & F3				3.3.4.3
	N/R	Janitor's Closet				3.6.1.20
	1hr	Storage Room				3.3.4.3
	1hr	Mechanical Room (Service Room)				3.6.2.1
	1hr	Electrical Room (Service Room)				3.6.2.1
	1hr	I.T Room (Service Room)				3.6.2.1
	1hr	Sprinkler Room (Service Room)				3.6.2.1

3.22 REQUIRED FIRE RESISTANCE RATINGS	HORIZONTAL ASSEMBLY	RATING (H)	LISTED DESIGN NO. ULC OR ASSEMBLY SB-2	NONCOMBUSTIBLE IN LIEU OF RATING?	3.2.2.20.-83, 3.2.1.4.
	FLOORS OVER BSMT	N/A	N/A	N/A	
	FLOORS	60 min	N/A	YES	
	MEZZANINE	N/A	N/A	N/A	
	ROOF	N/A	N/A	N/A	
	SUPPORT ASSEMBLY	RATING (H)	LISTED DESIGN NO. ULC OR ASSEMBLY SB-2	NONCOMBUSTIBLE IN LIEU OF RATING?	
	FLOORS	60 min	N/A	YES	
	MEZZANINE	N/A	N/A	N/A	
	ROOF	N/A	N/A	N/A	

3.23 SPATIAL SEPARATION	WALL	EBF AREA (m2)	L.D. (m) OBC	L/H OR H/L	REQUIRED FRR	CONSTRUCTION TYPE	CLADDING TYPE	3.2.3.
	North	367	23.00	N/A	N/R	Combination	Combination	
	West	130	31.00	N/A	N/R	Combination	Combination	
	East	144	16.00	N/A	N/R	Combination	Combination	
	South	367	6.00	N/A	45min	Combination	Combination	

WALL	L.D. (m) OBC	L.D. (m) ACTUAL	Permitted Max. % of Openings	Proposed % of Openings	Listed Design or Description
North	23.00	23.30	100.00%	12.93%	N/A
West	31.00	31.07	100.00%	49.11%	N/A
East	16.00	16.76	100.00%	16.90%	N/A
South	6.00	6.54	59.56%	13.33%	N/A

3.24 BARRIER-FREE DESIGN	Yes			3.8.
3.25 BARRIER-FREE ENTRANCES	No. OF ENTRANCES PEDESTRIAN ENTRANCES		2	3.8.1.2
	No. OF ENTRANCES REQ'D TO BE BARRIER FREE		1	3.8.1.2

3.26 BUILDING EXITS	DESCRIPTION	REQUIRED	PROVIDED	3.4.2.1
	Ground Floor	2	2	

3.27 LOCATION OF EXITS	OCCUPANCY	REQUIRED	PROVIDED	3.4.2.5
	Bussiness & Personal Services	40m		
	Low Hazard Industrial	45m		

3.28 PLUMBING FIXTURE REQUIREMENTS	RATIO:	MALE:FEMALE = 50:50 EXCEPT AS NOTED OTHERWISE				3.7.4.
	FLOOR LEVEL/AREA	OCCUPANT LOAD	OBC SENTENCE	FIXTURES REQUIRED	FIXTURES PROVIDED	
	First Floor Male	9	3.7.4.7	1	1	
	First Floor Female	9	3.7.4.7	1	1	

3.29 ENERGY EFFICIENCY	COMPLIANCE PATH:	ASHRAE 90.1-2013 +SB10 Division 3 Chapter 2		
	CLIMATIC ZONE:	ZONE 6		

3.30 BUILDING ENVELOPE REQUIREMENTS	DESCRIPTION	REQUIRED	PROVIDED	SB 10
	ROOF, ENITERLY ABOVE DECK:	R-40 ci	R-66.9, R-65.3	5.5-7
	WALLS ABOVE GRADE, MASS:	R-20 ci	R-41.8, R-45, R-41.4	5.5-7
	WALLS ABOVE GRADE, STEEL FRAMED:	N/A		5.5-7
	SLAB-ON-GRADE (UNHEATED)	R-15 for 48in	R-15.8, R-16.4	5.5-7

3.31 NOTES

1 *ALL REFERENCES ARE TO DIVISION B OF THE OBC UNLESS PRECEDED BY [A] FOR DIVISION A AND [C] FOR DIVISION C*

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE
DRAWING INDEX & OBC MATRIX

ORIENTATION

DATE 2021-11-24

SCALE

DRAWN BY VL/BG

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A0.0**

REVISION 30

2024-09-09 4:03:39 PM

ABBREVIATION LIST

ABBREV.	WORD
A	
&	AND
@	AT
A.F.F	ABOVE FINISH FLOOR
AL	ALUMINIUM
ARCH	ARCHITECTURAL
ATC	ACOUSTIC TILE CEILING
AUTO	AUTOMATIC
B	
B.O	BOTTOM OF
B/W	BETWEEN
BAB	ROOF ANCHOR - BOLT AROUND BEAM
BD	BOARD
BF	BARRIER FREE
BIT	BITUMINOUS
BLDG	BUILDING
BLKG	BLOCKING
BS	BLACK-OUT WINDOW SHADE
C	
C.B.U	CONCRETE BLOCK UNIT
C.L.	CENTERLINE
C.M.U	CONCRETE MASONRY UNIT
C/W	COMPLETE WITH
CA ITEM	CASH ALLOWANCE ITEM
CAB	CABINET
CHAN	CHANNEL
CL	CLOSET
CLG	CEILING
CNTR	COUNTER
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRIDOR
CPT	CARPET
CR	CARD READER
CT	CERAMIC FLOOR TILE
CTB	CERAMIC TILE BASE
CWT	CERAMIC WALL TILE
D	
D.F	DRINKING FOUNTAIN
D.O	DOOR OPERATOR
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
DWR	DRAWER
E	
E	EAST
E.W	EACH WAY
EFG	ENTRANCE FLOOR GRILLE
EL	ELEVATION
ELECT	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
ENCL	ENCLOSURE
ENTR	ENTRANCE,ENTRY
EQ	EQUAL
EQUIP	EQUIPMENT
ES	ELECTRIC STRIKE
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR

ABBREV.	WORD
F	
F.A	FIRE ALARM
FAPS	FIRE ALARM PULL STATION
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
FIN	FINISH
FLR	FLOOR
FRR	FIRE RESISTANCE RATING
FRS	FIRE ROUTE SIGN
FT	FEET,FOOT
FTG	FOOTING
G	
G.W.B	GYPSUM WALL BOARD
GA	GAUGE
GALV	GALVANIZED
GL	GLAZING
GND	GROUND
GR	GRADE
GYP	GYPSUM BOARD
H	
H.S.P	HOSE STAND PIPE
H.V.A.C	HEATING, VENTILATION, AIR CONDITIONING
HB	HOSE BIB
HD	HAND DRYER
HDA	HEAVY DUTY ASPHALT
HDW	HARDWARE
HLR	HORIZONTAL LIFELINE FALL PROTECTION SYSTEM - ROOF MOUNTED
HLW	HORIZONTAL LIFELINE FALL PROTECTION SYSTEM -WALL MOUNTED
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
I	
I.D	INSIDE DIAMETER
IN	INCH,INCHES
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
J	
J.C	JANITOR CLOSET
JT	JOINT
K	
K.P	KICK PLATE
L	
L.F	LINEAR FOOT
L.H	LEFT HAND
L.P	LOW POINT
LAM	LAMINATE
LAV	LAVATORY
LDA	LIGHT DUTY ASPHALT
LINO	LINOLEUM
LKR	LOCKER
LNT	LINTEL
LRG	LARGE
LVL	LEVEL
LVR	LOUVER
LVR.O	LOUVER OPENING
M	
M	METER
M.O	MASONRY OPENING

ABBREV.	WORD
M.P	METAL PLATE
MAINT	MAINTENANCE
MAS	MASONRY
MAX	MAXIMUM
MECH	MECHANICAL
MED	MEDIUM
MFG	MANUFACTURING
MFR	MANUFACTURER
MI	MIRROR
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILLIMETER
MTC COORD	MULTIPLE TRADE COORDINATION REQUIRED
MTD	MOUNTED
MTL	METAL
MWLLBD(L)	MURPHY WALL BED - LATERAL
MWLLBD(V)	MURPHY WALLBED - VERTICAL
N	
N	NORTH
N.S	NON-SLIP
N.T.S	NOT TO SCALE
NFWH	NON-FREEZE WALL HYDRANT
NIC	NOT IN CONTARCT
NO	NUMBER
O	
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
OH.	OVERHEAD
OPNG.	OPENING
OPP.	OPPOSITE
ORN.	ORNAMENTAL
OZ.	OUNCE
P	
P.B.	PUSH BUTTON
P.C.	PRECAST
P.P.	PUSH PLATE
P.T.D.	PAPER TOWEL DISPENSER
PAR.	PARALLEL
PART	PARTITION
PER.	PERIMETER
PERP.	PERPENDICULAR
PL.	PLATE
PLAM.	PLASTIC LAMINATE
PLF.	PLATFORM
PNL.	PANEL
PNT	PAINT
PR.	PAIR
PREFAB	PREFABRICATED
PRFN	PRE-FINISHED
PT	PORCELAIN TILE
PTL	PUSH TO LOCK
PVC.	POLYVINYLCHLORIDE
Q	
QTR.	QUARTER
QTY.	QUANTITY
R	
R.	RADIUS
R.D.	ROOF DRAIN
R.H.	RIGHT HAND
R.O.	ROUGH OPENING
R.W.	RAIN WATER
RCA	REINFORCED CONCRETE APRON
REF.	REFRIGERATOR
REQ'D	REQUIRED
RES.	RESIDENTIAL
REX	REQUEST TO EXIT
RM.	ROOM
RSL	RESILIENT

ABBREV.	WORD
S	
S.	SOUTH
S.C.S.	SOLID CORE STEEL
S.C.W.	SOLID CORE WOOD
S.M.	SHEET METAL
S.N.D.	SANITARY NAPKIN DISPENSER
S.P.	STEEL PLATE
S.S.	STAINLESS STEEL
S.SK.	SERVICE SINK
S.T.C.	SOUND TRANSMISSION CLASS
SC(OT)	SCUPPER - OVERFLOW TYPE
SCHED.	SCHEDULE
SECT.	SECTION
SER.	SERVICE
SH.	SHOWER
SHLV.	SHELVING
SIM.	SIMILAR
SPEC.	SPECIFICATION
SQ.	SQUARE
SQ.FT.	SQUARE FEET, SQUARE FOOT
SSUR	SOLID SURFACING (MATERIAL)
SSUR(IS)	SOLID SURFACE (MATERIAL) FOR ISLAND COUNTERTOPS
SSUR(WS)	SOLID SURFACE (MATERIAL) FOR WINDOW SILLS
STA.	STANDARD
STD.	STATION
STL.	STEEL
STOR.	STORAGE
STRUCT.	STRUCTURAL
SUSP.	SUSPENDED
SYS.	SYSTEM
T	
T.&G.	TONGUE AND GROVE
T.T.D.	TOILET TISSUE DISPENSER
T.T.H.	TOILET TISSUE HOLDER
T/O	TOP OF
TEL.	TELEPHONE
TEMP.	TEMPERARTURE
THR.	THRESHOLD
THRU.	THROUGH
TOFM	TOILET - FLOOR MOUNTED
TOWM	TOILET - WALL MOUNTED
TV.	TELEVISION
TYP.	TYPICAL
U	
U.L.C.	UNDERWRITERS' LABORATORIES CANADA
U.N.O.	UNLESS NOTED OTHERWISE
U.O.S.	UNLESS OTHERWISE SPECIFIED
U.S.S.	UNDER SIDE OF STRUCTURE
UNFIN.	UNFINISHED
UR.	URINAL
V	
V.C.T.	VINYL COMPOSITE TILE
V.P.	VENT PIPE
VEST.	VESTIBULE
VIF.	VERIFY
W	
W.	WEST
W.C.	WATER CLOSET
W.M.	WIRE MESH
W.O.	WINDOW OPENING
W.W.F.	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
WD.	WOOD
WRGBB	WATER RESISTENT GYPSUM BACKING BOARD
WS	WINDOW SHADE
WT	WALL TILE

SPECIFIED ITEMS (BY LOCATION)

TAG	DESCRIPTION	QUANTITY
LSX250	Solar Panel	221
LSX250	Solar Panel	46
ACCESS CORRIDOR		
WB-2	WHITEBOARD	2
CG-T1	CORNER GUARD 2400mm	8
APPARATUS BAY		
CR	CORD REEL	2
LSX250	Solar Panel	50
LSX250	Solar Panel	2
EW	EYE WASH (FOOT OPERATED)	1
HR	HOSE REEL - WALL MOUNTED	1
BUNKER GEAR		
BG24	TURNOUT GEAR LOCKERS - 24" WIDTH	24
CAPTAINS OFFICE		
CG-T1	CORNER GUARD 2400mm	2
L	LOCKERS AS SPECIFIED (REFER TO DRAWINGS FOR LAYOUT)	5
WSBO	WINDOW SHADE c/w BLACKOUT SHADE	1
CREW LOUNGE		
CG-T2	CORNER GUARD (WRAP AROUND)	1
CG-T1	CORNER GUARD 2400mm	1
WS	WINDOW SHADE	3
DINING AREA		
CG-T1	CORNER GUARD 2400mm	2
WS	WINDOW SHADE	2
DORMITORY		
CG-T1	CORNER GUARD 2400mm	5
CH	COAT HOOK	20
EXERCISE ROOM		
MI	FLAT MIRROR	5
WS	WINDOW SHADE	6
KITCHEN		
CG-T1	CORNER GUARD 2400mm	2
WS	WINDOW SHADE	1
ST-E(I)	30" ELECTRIC STOVE - REFER TO SPECS	1

SPECIFIED ITEMS (BY LOCATION)

TAG	DESCRIPTION	QUANTITY
LOCKER ROOM		
CG-T1	CORNER GUARD 2400mm	5
L	LOCKERS AS SPECIFIED (REFER TO DRAWINGS FOR LAYOUT)	23
MECHANICAL		
LSX250	Solar Panel	14
RECEPTION		
CG-T1	CORNER GUARD 2400mm	1
WS	WINDOW SHADE	1
SECURITY & I.T		
LSX250	Solar Panel	1
TRAINING ROOM		
WB-2	WHITEBOARD	2
CG-T1	CORNER GUARD 2400mm	4
WS	WINDOW SHADE	2
UNIVERSAL WASHROOM		
TTDJ	B-2892 SURFACE MOUNTED TWIN JUMBO-ROLL TOILET TISSUE DISPENSER	1
MI	FLAT MIRROR	1
RSS	B-5191 FOLDABLE SHOWER SEAT	1
SN	B-270 SANITARY NAPKIN DISPOSAL	1
CH	COAT HOOK	2
GBR(L)	B-5806.99x40	2
GBR(M)	B-5806.99x30	2
GBR+GBR-L SET	GRAB BAR SET (1 STRAIGHT + 1 L-SHAPED)	1
RSPH	12X16 ZITTA BRUSHED STAINLESS STEEL NICHE	1
SC+R	SHOWER CURTAIN	1
SD	B-4112 SOAP DISPENSER	1
SS SHELF	B-295x18 SURFACE MOUNTED STAINLESS STEEL SHELF	1
WASHROOM & SHOWER		
PTWR	SEMI-RECESSED CONVERTIBLE PAPER TOWEL DISPENSER AND WASTE RECEPTACLE B-3942	3
TTDJ	B-2892 SURFACE MOUNTED TWIN JUMBO-ROLL TOILET TISSUE DISPENSER	3
MI	FLAT MIRROR	3
RSS	B-5191 FOLDABLE SHOWER SEAT	3
SN	B-270 SANITARY NAPKIN DISPOSAL	3
CH	COAT HOOK	6

29
R

TYPICAL DETAILS LIST

SHEET NUMBER	DIVISION	DETAIL VIEW NAME
Division 0 - Schedules		
A0.3	Division 0 - Schedules	00-0004 - FMH-1 - FIXTURE MOUNTING HEIGHTS
A0.3	Division 0 - Schedules	00-0005 - FMH-2 - FIXTURE MOUNTING HEIGHTS
A0.3	Division 0 - Schedules	00-0006 - FMH-3 - FIXTURE MOUNTING HEIGHTS
A13.6	Division 0 - Schedules	00-0001 - DR-1 - DOOR LEGEND AND FRAME TYPES
Division 1 - Generic Details		
A6.2	Division 1 - Generic Details	BASE OF WINDOW TYP.
A6.2	Division 1 - Generic Details	TOP OF WINDOW TYP.
A13.5	Division 1 - Generic Details	UNISTRUT SUSPENSION MEZZANINE
Division 2 - Site Construction		
A2.2	Division 2 - Site Construction	2-0002 - CF-1 - CONSTRUCTION FENCING
A2.2	Division 2 - Site Construction	2-0003 - CBST-1 - CBST DETAILS
A2.2	Division 2 - Site Construction	2-0004 - CS-1 - CONSTRUCTION SIGN
A2.7	Division 2 - Site Construction	2-0016 - SUR-1 - ASPHALT AND CONCRETE SURFACES
A2.9	Division 2 - Site Construction	2-0008 - AODA PARK-1 - AODA PARKING SPACE DETAILS - FLARED CURB RAMP
A2.9	Division 2 - Site Construction	2-0008 - AODA RAMP-1 AODA PARKING SPACE DETAILS
A2.9	Division 2 - Site Construction	2-0011 - CD-1 - CURB DETAILS
A2.9	Division 2 - Site Construction	2-0012 - CD-2 - CURB AND RAMP DETAILS - SIDEWALKS AND DRIVEWAY ENTRANCES
A2.9	Division 2 - Site Construction	2-0013 - CD-3 - AODA RAMP DETAILS
A2.10	Division 2 - Site Construction	2-0010 - BF-2 - HCP SIGN FIXED POST
A2.10	Division 2 - Site Construction	2-0015 - FP-1 - FLAG POLE BASE
A2.10	Division 2 - Site Construction	2-0018 - LSB-HIGH - LIGHT STANDARD HIGH BASE DETAIL
A2.10	Division 2 - Site Construction	2-0020 - PG - P-GATES
A2.10	Division 2 - Site Construction	2-0021 - TSP - TRAIL SIGN POST & INSTALLATION
A2.10	Division 2 - Site Construction	2-0022 - LS - LIMESTONE SCREENING
A2.10	Division 2 - Site Construction	2-0023 - TSG - TRAIL SIGNAGE GRAPHICS
A2.10	Division 2 - Site Construction	2-0030 - TF-1 - TYPICAL FENCE DETAILS
A2.10	Division 2 - Site Construction	2-0050 - VCS-1 - VEHICLE CHARGING STATION FLO
A2.10	Division 2 - Site Construction	2-0061 - MS - MUNICIPAL SIGNAGE
A2.10	Division 2 - Site Construction	2-0095 - MOWING/SPLASH STRIP - PEA GRAVEL
A10.2	Division 2 - Site Construction	2-0001 - CBFP-1 -CARDBOARD TEMPORARY FLOOR PROTECTION
Division 3 - Concrete		
A2.9	Division 3 - Concrete	3-0002 - CAC-1 - CONCRETE TRANSITION APRON TYPICAL (CONCRETE)
A3.1	Division 3 - Concrete	3-0004 - FS-1 - FROST SLAB DETAILS
A3.1	Division 3 - Concrete	3-0005 - SE-1 - SLAB EDGE DETAIL
A3.1	Division 3 - Concrete	3-0006 - SE-2 - SLAB EDGE DETAIL BAY DOORS
A3.2	Division 3 - Concrete	3-0003 - CJ - TYPICAL CONCRETE JOINTS
Division 4 - Masonry		
A6.2	Division 4 - Masonry	4-0011 - MASONRY DETAIL AT WINDOW / DOOR OPENINGS
Division 5 - Metals		
A2.10	Division 5 - Metals	5-0006 - BO-1 - TYPICAL BOLLARD DETAILS
A3.3	Division 5 - Metals	5-0024 - FFD-2 - FOUR FOLD DOOR JAMB DETAIL
A3.3	Division 5 - Metals	5-0025 - FFD-2 - FOUR FOLD DOOR JAMB DETAIL @ CURTAIN WALL
A3.3	Division 5 - Metals	5-0027 - FFD-2 - FOUR FOLD HEAD DETAIL
A3.6	Division 5 - Metals	5-0080 - AL-3 - HANDRAIL WALL-MOUNTED
A3.6	Division 5 - Metals	5-0081 - HANDRAIL STRINGER - MOUNTED
A3.6	Division 5 - Metals	5-0093 - ST-3 - ST-GR
A3.7	Division 5 - Metals	5-0007 - EMSDS-1 - TYPICAL STAINLESS STEEL DECON SINK DETAILS - Radius Edge
A3.7	Division 5 - Metals	5-0021 - FFD SURROUND DETAILS - FOUR FOLD DOORS
Division 6 - Wood and Plastics		
A12.2	Division 6 - Wood and Plastics	6-0010 - MW-WSRMVAN - MILLWORK WASHROOM AODA MONOLITHIC SINK
A12.2	Division 6 - Wood and Plastics	6-0010 - MW-WSRMVAN - MILLWORK WASHROOM VANITY MONOLITHIC SINK
A12.2	Division 6 - Wood and Plastics	6-0016 - CR-2 - CHRMBNCH - BENCH DETAIL
A13.2	Division 6 - Wood and Plastics	6-0003 - WORKSURFACE - SHELF DETAIL
A13.3	Division 6 - Wood and Plastics	6-0001 - MW - K - 2DR2DWR
A13.3	Division 6 - Wood and Plastics	6-0001 - MW - K - 2DRPANTRY
A13.3	Division 6 - Wood and Plastics	6-0001 - MW - K - 2DRPANTRY KITCHEN
A13.3	Division 6 - Wood and Plastics	6-0001 - MW - K - 2DRSNK
A13.3	Division 6 - Wood and Plastics	6-0001 - MW - K - 3DWR
A13.3	Division 6 - Wood and Plastics	6-0001 - MW - K - DSPNCH
A13.3	Division 6 - Wood and Plastics	6-0001 - MW - O - RNWY
A13.3	Division 6 - Wood and Plastics	6-0002 - COUNTERTOP - SELECT DETAIL
A13.3	Division 6 - Wood and Plastics	6-0002 - HOCKEY BOARD DETAIL
A13.3	Division 6 - Wood and Plastics	6-0007 - MURPHY WALLBED AND CABINET - LATERAL
Division 7 - Thermal and Moisture Protection		
A4.1	Division 7 - Thermal and Moisture Protection	7-0001 - VRA-1 - VRA ROOF DETAILS
A4.1	Division 7 - Thermal and Moisture Protection	7-0002 - VRA-2 - ROOF PAVER DETAIL
A4.1	Division 7 - Thermal and Moisture Protection	7-0007 - SCPR-1 - OVERFLOW TYPE
A4.1	Division 7 - Thermal and Moisture Protection	7-0012 - REJ-2 ROOF EXPANSION JOINT DETAILS - TORCH DOWN
A4.1	Division 7 - Thermal and Moisture Protection	7-0015 - ROOF DRAIN SUMP
A4.1	Division 7 - Thermal and Moisture Protection	7-0052 - AB-3 - ROOF TO WALL DETAIL (FRAMED UPSTAND)
A8.1	Division 7 - Thermal and Moisture Protection	7-0050 - AB-1 - AIR BARRIER DETAILS
A9.2	Division 7 - Thermal and Moisture Protection	7-0012 - HOSE TOWER - ROOF DETAIL
A9.2	Division 7 - Thermal and Moisture Protection	7-0012 - HOSE TOWER - OUTSIDE CORNER
A9.2	Division 7 - Thermal and Moisture Protection	7-0012 - ROOF - HOSE TOWER BASE DETAIL
A9.2	Division 7 - Thermal and Moisture Protection	7-0012 - ROOF - HOSE TOWER BASE DETAIL 2
Division 8 - Openings		
A3.7	Division 8 - Openings	8-0001 - FFD-1 - FOUR FOLD DOOR DETAILS
A13.5	Division 8 - Openings	8-0043 - SLIDING DOOR SCHEMATIC
A13.5	Division 8 - Openings	8-0043 - SLIDING DOOR DETAIL
Division 9 - Finishes		
A3.2	Division 9 - Finishes	9-0008 - TD-FD-1 - TYPICAL FLOOR DRAIN - SLAB ON GRADE
A3.2	Division 9 - Finishes	9-0008.1 - TD-SD-1 - TYPICAL SHOWER DRAIN - SLAB ON GRADE
A10.1	Division 9 - Finishes	9-0014 - PAINT FINISHES
A10.2	Division 9 - Finishes	9-0006 - TD-1 - TYPICAL TILE DETAILS - THINSET (WALL + FLOOR)
A10.2	Division 9 - Finishes	9-0250 - DRYWALL DETAIL
A12.2	Division 9 - Finishes	9-0008 - TD-FD-1 - TYPICAL FLOOR DRAIN - SLAB ON GRADE NO SLOPE
A12.2	Division 9 - Finishes	9-0008 - TD-FD-1 - TYPICAL FLOOR DRAIN - SLAB ON GRADE SHOWER
Division 10 - Specialties		
A0.3	Division 10 - Specialties	10-0052 - ECS-1 - UNIVERSAL WASHROOMS
A3.2	Division 10 - Specialties	10-0001 - TD-1 - TRENCH DRAIN DETAIL
A5.1	Division 10 - Specialties	10-0040 - BUILDING SIGN DETAILS (EXTERIOR)
A10.1	Division 10 - Specialties	10-0050 - IS-INTERIOR SIGNS
A11.1	Division 10 - Specialties	10-0012.1 - LKRTR-1 LOCKER TRIM (METAL FASCIA)
A12.2	Division 10 - Specialties	10-0006 - SCR-1 - SHOWER CURTAIN ROD AND HOOK
Division 11 - Equipment		
A2.9	Division 11 - Equipment	11-0003 - IWS-1 - INCOMING WATER SERVICE
A2.9	Division 11 - Equipment	11-0007 - GD-2 - GENERATOR DETAIL (EXTERIOR)
A3.7	Division 11 - Equipment	11-0005 - CR-1 - CORD REEL DETAILS
A13.3	Division 11 - Equipment	11-0004 - CHST - CHARGING STATION
Division 12 - Furnishings		
A10.2	Division 12 - Furnishings	12-0002 - FG-1 FLOOR MAT
A10.2	Division 12 - Furnishings	12-0004 - SSUR(SILL) - SOLID SURFACE SILL DETAIL
A11.1	Division 12 - Furnishings	12-0001 - WS-1 WINDOW SHADES

1 **00-0001 - GUIDE TO USE OF THESE DRAWINGS** | **00-0001 - GUIDE TO USE OF DRAWINGS**

ROOM TAG

ROOM NAME*
IDENTIFIES ROOM NAME
IDENTIFIES ROOM NUMBER
WHERE SHOWN - INDICATES OCCUPANT LOAD OR ROOM AREA

WALL TAG

IDENTIFIES WALL TYPE
WHERE SHOWN - INDICATES HEIGHT OF WALL BOTTOM OF WALL FROM FINISH FLOOR BELOW AND HEIGHT OF WALL. TYPICALLY APPEARS ON REFLECTED CEILING PLANS AT BULKHEADS ETC.

DOOR TAG

DOOR # DOOR TYPE
IDENTIFIES DOOR TYPE
IDENTIFIES DOOR NUMBER

WINDOW TAG

IDENTIFIES WINDOW / CURTAIN WALL TYPE

FLOOR TAG

IDENTIFIES FLOOR TYPE

FLOOR FINISH TAG

IDENTIFIES FLOOR FINISH

ROOF TAG

IDENTIFIES ROOF TYPE

CEILING TAG

IDENTIFIES CEILING TYPE
IDENTIFIES HEIGHT OF CEILING ABOVE FINISHED FLOOR BELOW

ITEM TAG

IDENTIFIES ITEM BY A CODE OR DESIGNATION FOR REFERENCE TO SPECIFICATIONS OR SCHEDULES

SECTION SYMBOLS

SIM
IDENTIFIES WHEN DETAIL IS SIMILAR TO ANOTHER DETAIL
THREE FILLED TRIANGLES INDICATES SECTION TYPE - BUILDING SECTION
IDENTIFIES DETAIL NUMBER ON SHEET
IDENTIFIES SHEET NUMBER

SIM
IDENTIFIES WHEN DETAIL IS SIMILAR TO ANOTHER DETAIL
THREE OPEN TRIANGLES INDICATES SECTION TYPE - WALL SECTION
IDENTIFIES DETAIL NUMBER ON SHEET
IDENTIFIES SHEET NUMBER

SIM
IDENTIFIES WHEN DETAIL IS SIMILAR TO ANOTHER DETAIL
SINGLE FILLED TRIANGLE INDICATES SECTION TYPE - DETAIL SECTION
IDENTIFIES DETAIL NUMBER ON SHEET
IDENTIFIES SHEET NUMBER

ELEVATION SYMBOLS

IDENTIFIES DETAIL NUMBER ON SHEET
FILLED TRIANGLE INDICATES ELEVATION TYPE - BUILDING
IDENTIFIES SHEET NUMBER
TRIANGLE LOCATION INDICATES DIRECTION OF VIEW

IDENTIFIES DETAIL NUMBER ON SHEET
OPEN TRIANGLE INDICATES ELEVATION TYPE - DETAIL
IDENTIFIES SHEET NUMBER
TRIANGLE LOCATION INDICATES DIRECTION OF VIEW

CLADDING ELEVATION
IDENTIFIES DETAIL NUMBER ON SHEET
IDENTIFIES SHEET NUMBER

GLAZING (WINDOW) ELEVATION
IDENTIFIES DETAIL NUMBER ON SHEET
IDENTIFIES SHEET NUMBER

MILLWORK ELEVATION
IDENTIFIES DETAIL NUMBER ON SHEET
IDENTIFIES SHEET NUMBER

CALLOUT SYMBOLS

SIM
IDENTIFIES WHEN DETAIL IS SIMILAR TO ANOTHER DETAIL
IDENTIFIES DETAIL NUMBER ON SHEET
IDENTIFIES SHEET NUMBER

AODA SYMBOL

INDICATES THAT AN ITEM IS REQUIRED TO MEET REQUIREMENTS OF THE AODA (ACCESSIBILITY FOR ONTARIANS WITH DISABILITIES ACT) OR SIMILAR TYPE REQUIREMENT

AODA WASHROOM - ACCESSIBLE SYMBOL

WC-A
INDICATES WHERE A WASHROOM IS TO BE CONSTRUCTED IN ACCORDANCE WITH AODA REQUIREMENTS FOR ACCESSIBLE WASHROOMS

AODA WASHROOM - UNIVERSAL SYMBOL

WC-U
INDICATES WHERE A WASHROOM IS TO BE CONSTRUCTED IN ACCORDANCE WITH AODA REQUIREMENTS FOR UNIVERSAL WASHROOMS

FIRE RATING SYMBOL

INDICATES THAT ITEM IS OR MAY BE REQUIRED TO BE CONSTRUCTED WITH A FIRE RATING

BUILDING ENVELOPE SYMBOL

BLDG
INDICATES THAT COMPONENT OR ASSEMBLY IS PART OF THE BUILDING ENVELOPE AS REFERENCED BY THE ONTARIO BUILDING CODE. CONTINUITY OF THE BUILDING ENVELOPE IS TO BE MAINTAINED THROUGH THE ENTIRE BUILDING

CASH ALLOWANCE SYMBOL

CA ITEM
INDICATES THAT AN ITEM WILL BE PURCHASED OR SUPPLIED UNDER THE CONTRACT CASH ALLOWANCE. REFER TO CASH ALLOWANCE SECTION OF SPECIFICATION FOR DETAILS AND/OR EXCLUSIONS

NIC (NOT IN CONTRACT) SYMBOL

NIC
INDICATES THAT AN ITEM IS 'NOT IN CONTRACT'

MULTIPLE TRADE COORDINATION SYMBOL

GC COORD
SUBTRADES
INDICATES CIRCUMSTANCES THAT MAY REQUIRE SPECIFIC COORDINATION EFFORT. THIS SYMBOL IS PROVIDED AS AN AID TO THE CONTRACTOR TO ENSURE PROPER EXECUTION OF THE WORK BY SUBTRADES.
IN NO WAY IS IT INTENDED TO DICTATE MEANS OR METHODS OF EXECUTION

INTERFERENCE COORDINATION SYMBOL

COORD INTERFERENCE
INDICATES CIRCUMSTANCES THAT MAY REQUIRE COORDINATION FOR INTERFERENCES. THIS SYMBOL IS PROVIDED AS AN AID TO THE CONTRACTOR TO ENSURE PROPER EXECUTION OF THE WORK BY SUBTRADES.
IN NO WAY IS IT INTENDED TO DICTATE MEANS OR METHODS OF EXECUTION

BUILDING ENTRANCE SYMBOL

E
INDICATES THE LOCATION OF BUILDING ENTRANCES. OFTEN CODE-RELATED

CLARITY SYMBOL

INDICATES A DRAWING VIEW THAT HAS BEEN FILTERED OR SIMPLIFIED TO DEMONSTRATE A PARTICULAR DETAIL OR RELATIONSHIP. **IN NO WAY WILL THESE VIEWS BE USED AS THE BASIS FOR A REDUCTION IN PROJECT SCOPE**

SITE ACCESS SYMBOL

SITE ACCESS
INDICATES THE LOCATION OF SITE ENTRANCES DURING CONSTRUCTION.

READ THE GENERAL NOTES.
THEY CONTAIN INFORMATION THAT IS ESSENTIAL TO UNDERSTANDING THE SCOPE OF WORK

IT IS STRONGLY ADVISED THAT THE CONTRACTOR ENSURE ALL SUBTRADES REFER AND COORDINATE WITH A-SERIES DRAWINGS IN THE EXECUTION OF THEIR RESPECTIVE SCOPE OF WORK.

DIMENSIONS

1. THE SOFTWARE USED TO PRODUCE THESE DRAWINGS IS VERY PRECISE IN TERMS OF DIMENSIONING. FOR LAYOUT PURPOSES, DIMENSIONS CAN BE ROUNDED TO THE NEAREST 5MM INCREMENT.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK.
3. ALL DRAWINGS AND SPECIFICATIONS (HARD AND SOFT COPIES) ARE THE PROPERTY OF THE ARCHITECT AND MUST BE RETURNED UPON COMPLETION OF THE WORK

SEQUENTIAL NUMBERING

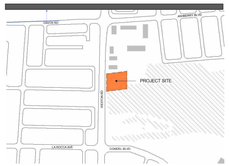
1. SOME ELEMENTS IN THE PROJECT MAY BE SEQUENTIALLY NUMBERED.
2. WHERE PROJECT ELEMENTS ARE SEQUENTIALLY NUMBERED, THOSE NUMBERS SHALL BE USED IN THE PREPARATION OF ANY REQUIRED SUBMITTALS.

ENGINEERED SUBMITTAL REQ'D
ENGINEERED SUBMITTAL REQUIRED
INDICATES WHERE A STAMPED ENGINEERED DRAWING IS REQUIRED TO BE SUBMITTED PRIOR TO FABRICATION/INSTALLATION

ENGINEERED SIGNOFF REQ'D
ENGINEERED SIGN-OFF REQUIRED
INDICATES WHERE AN REVIEW SIGN-OFF LETTER IS REQUIRED TO BE SUBMITTED TO CONFIRM INSTALLATION COMPLIANCE

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
29	ADDENDUM #4	2024-05-30
30	IFC	2024-09-09



FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE
GUIDE TO USE OF DRAWINGS, TYPICAL DETAIL LIST, ABBREVIATIONS

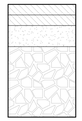
ORIENTATION

DATE 2021-11-24
SCALE 1 : 1
DRAWN BY SRL
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A0.1**
REVISION 30

2024-09-09 4:03:45 PM

8 FLOOR ASSEMBLIES - EXTERIOR

HDA



- ASPHALT WEAR COURSE
- TACK COAT
- ASPHALT BASE COURSE
- COMPACTED SUBGRADE
- - REFER TO DETAIL 2000 - PAV-1 AND GEOTECHNICAL REPORT FOR SUBGRADE COMPOSITION AND DEPTHS

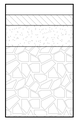
SUBMITTAL REQ'D | BLDG

GEN

- 305 REINFORCED CONCRETE SLAB ON GRADE
- REINFORCING
- - 19M EPOXY COATED BARS @300MM T&B.E.W.
- COMPACTED SUBGRADE

SUBMITTAL REQ'D | BLDG

PAV



- PERMEABLE PAVERS (MCHANICALLY INSTALLED)
- JOINTING MATERIAL CLEAR STONE CHIP ASTA 9
- 200 MM OF 19 CLEAR OPEN GRITTED STONE COMPACTED C/W STABILIZATION GRID AS PER MANUFACTURER
- COMPACTED SUBGRADE
- - REFER TO DETAIL 2000 - PAV-1 AND GEOTECHNICAL REPORT FOR SUBGRADE COMPOSITION AND DEPTHS

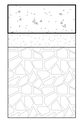
SUBMITTAL REQ'D | BLDG

MST

- 100 CLEAR STONE
- FILTER CLOTH
- 150 GRANULAR 'A'

SUBMITTAL REQ'D | BLDG

TA-1



- 200 CONCRETE
- - REINFORCING - REFER TO STRUCTURAL
- GRANULAR BASE COURSES (A & B) SEE NOTE BELOW
- *SLOPE APRON 1 : 10 MAX (150MM OVER 1500MM)
- NOTE: GRANULAR BASE COURSES TO MATCH
- ADJACENT ASPHALT BASE COURSES (A & B)

SUBMITTAL REQ'D | BLDG

SW-1

- 125 CONCRETE - BROOM FINISH
- 150 GRANULAR 'A' COMPACTED

SUBMITTAL REQ'D | BLDG

SOD

- SOD
- 150 TOPSOIL

SUBMITTAL REQ'D | BLDG

LSS

- PLANTING BED
- - REFER TO LANDSCAPE DRAWINGS FOR DETAILS

SUBMITTAL REQ'D | BLDG

7 ROOF ASSEMBLIES

ROOF TYPE: VRA | FLAT

* DRAIN TO ROOF DRAINS

- GREEN ROOF SEDUM TRAYS.
- REFER TO ROOF PLAN DETAILS A4.1

SUBMITTAL REQ'D | BLDG

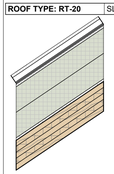
ROOF TYPE: RT-7 | FLAT | R-66.9 | RSI - 6.156

* DRAIN TO ROOF DRAINS

- 2-ply MODIFIED BITUMEN ROOFING SYSTEM
- PROTECTION BOARD
- TAPERED INSULATION (AS INDICATED)
- POLYISO INSULATION BOARD (MECHANICALLY FASTENED)
- VAPOUR BARRIER
- GYPSUM BOARD UNDERLAY
- 5 PLY CLT
- CLEAR EPOXY FINISH, LATEX BASED, SATIN, ON ALL EXPOSED CLT SURFACES

SUBMITTAL REQ'D | BLDG

ROOF TYPE: RT-20 | SLOPED | R-65.3 | RSI - 8.79

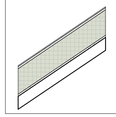


* DRAIN TO GUTTER AND RWL SYSTEM

- STANDING SEAM METAL ROOF
- ICE AND WATER SHIELD (ENTIRE ROOF)
- DENSDECK SHEATHING
- MINERAL WOOL INSTALLATION
- 5 PLY CLT
- CLEAR EPOXY FINISH, LATEX BASED, SATIN ON ALL EXPOSED CLT SURFACES

SUBMITTAL REQ'D | BLDG

ROOF TYPE: RT-8 | SLOPED | R-30.3 | RSI - 6.156



* DRAIN TO GUTTER AND RWL SYSTEM

- 2-ply MODIFIED BITUMEN ROOFING SYSTEM
- PROTECTION BOARD
- POLYISO INSULATION BD (MECHANICALLY FASTENED)
- VAPOUR BARRIER
- CEMENT BOARD UNDERLAY
- METAL DECK
- PTD STEEL FRAMING - REFER TO STRUC. DWG'S

SUBMITTAL REQ'D | BLDG

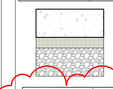
6 FLOOR ASSEMBLIES - INTERIOR

FL-1

- CONCRETE SLAB ON GRADE - THICKNESS - REFER TO STRUCTURAL
- - REINFORCING - REFER TO STRUCTURAL
- VAPOUR BARRIER
- RIGID INSULATION
- 200 COMPACTED GRAVEL

SUBMITTAL REQ'D | BLDG

FL-10



- 200 CONCRETE - THICKNESS - REFER TO STRUCTURAL
- - REINFORCING - REFER TO STRUCTURAL
- VAPOUR BARRIER
- RIGID INSULATION
- 200 COMPACTED GRAVEL

SUBMITTAL REQ'D | BLDG

CLT1 | FRR - 60 min.

CONSTRUCT AS FIRE SEPARATION WHERE NOTED
- CLT FLOOR SYSTEM

SUBMITTAL REQ'D

CLT2

- CLT FLOOR SYSTEM

SUBMITTAL REQ'D | BLDG

CLT3 | FRR - 60 min.

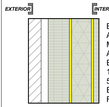
CONSTRUCT AS FIRE SEPARATION WHERE NOTED
- CLT FLOOR SYSTEM

SUBMITTAL REQ'D

27 R

4 WALL ASSEMBLIES - PARAPET

X20-P1 484MM | R-66.8

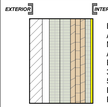


CONFIRM EXTERIOR FACE OF WALL BELOW TO DETERMINE PARAPET THICKNESS

BRICK MASONRY UNITS
AIR SPACE
MINERAL WOOL INSULATION - R20
AIR / VAPOUR BARRIER
EXTERIOR SHEATHING
140 WOOD STUDS @ 400MM o/c c/w MINERAL WOOL INSULATION
50mm RIGID INSULATION
EXTERIOR SHEATHING
ROOFING MEMBRANE

BLDG

X20-P2 450MM | R-48.2

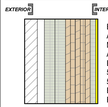


CONFIRM EXTERIOR FACE OF WALL BELOW TO DETERMINE PARAPET THICKNESS

BRICK MASONRY UNITS
AIR SPACE
MINERAL WOOL INSULATION - R20
AIR / VAPOUR BARRIER
EXTERIOR SHEATHING
3 PLY CLT c/w MINERAL WOOL INSULATION
50mm RIGID INSULATION
EXTERIOR SHEATHING
ROOFING MEMBRANE

BLDG

X20-P3 460MM | R-51.5



CONFIRM EXTERIOR FACE OF WALL BELOW TO DETERMINE PARAPET THICKNESS

BRICK MASONRY UNITS
AIR SPACE
MINERAL WOOL INSULATION - R20
AIR / VAPOUR BARRIER
EXTERIOR SHEATHING
5 PLY CLT c/w MINERAL WOOL INSULATION
50mm RIGID INSULATION
EXTERIOR SHEATHING
ROOFING MEMBRANE

BLDG

5 WALL ASSEMBLIES - INTERIOR

P1 117MM

12.7MM GYPSUM BOARD
38MM x89MM WOOD STUDS @ 400mm o/c MAX.
MINERAL WOOL INSULATION (WIDTH OF STUD)
12.7MM GYPSUM BOARD

SUBMITTAL REQ'D

P1a 117MM

12.7MM GYPSUM BOARD
89MM X 39MM WOOD STUDS @ 400mm o/c MAX.

SUBMITTAL REQ'D

P2 163MM | STC - --

12.7MM GYPSUM BOARD
140MM x 39MM WOOD STUDS @ 400mm o/c MAX.
MINERAL WOOL INSULATION (WIDTH OF STUD)
12.7MM GYPSUM BOARD

SUBMITTAL REQ'D

P3 143MM | FRR: 1.5 HR | OBC SB-2

CONSTRUCT TO U/S OF DECK
(UNLESS OTHERWISE INDICATED)\ (WHERE INDICATED)

12.7MM TYPE 'X' GYPSUM BOARD
12.7MM TYPE 'X' GYPSUM BOARD
92MM METAL STUDS @ 400mm o/c MAX.
MINERAL WOOL INSULATION (WIDTH OF STUD)
12.7MM TYPE 'X' GYPSUM BOARD
12.7MM TYPE 'X' GYPSUM BOARD

SUBMITTAL REQ'D

P5 123MM

CERAMIC TILE
12MM KERDI BOARD BY SCHLUTER
89MM X 39MM WOOD STUDS @ 400mm o/c MAX.
MINERAL WOOL INSULATION (WIDTH OF STUD)
12.7MM GYPSUM BOARD

SUBMITTAL REQ'D

P5c 123MM

CERAMIC TILE
12MM KERDI BOARD BY SCHLUTER
25MM WOOD STRAPPING @ 400mm o/c MAX.

SUBMITTAL REQ'D

P5d 123MM

CERAMIC TILE
TILE BACKER BOARD
92MM METAL STUDS @ 400mm o/c MAX.
MINERAL WOOL INSULATION (WIDTH OF STUD)

SUBMITTAL REQ'D

P6 77MM

12 MM KERDI BOARD BY SCHLUTER
39MM x 39MM WOOD STUDS @ 400mm o/c MAX.

SUBMITTAL REQ'D

P8 129MM

CERAMIC TILE
12MM KERDI BOARD BY SCHLUTER
89MM X 39MM WOOD STUDS @ 400mm o/c MAX.
MINERAL WOOL INSULATION (WIDTH OF STUD)
12MM KERDI BOARD BY SCHLUTER
CERAMIC TILE

SUBMITTAL REQ'D

NOTE: WET AREA - TILE AFF TO U/S OF DRYWALL CEILING

IS3 145MM | FRR: 1.5 HR

CONSTRUCT TO U/S OF DECK
(UNLESS OTHERWISE INDICATED)\ (WHERE INDICATED)

INTERIOR SCREEN - FIRE RATED
HM FRAME
FIRE PROTECTION RATED GLASS

SUBMITTAL REQ'D

27 R

CLT1 | FRR: 1 HR

CONSTRUCT TO U/S OF DECK
(UNLESS OTHERWISE INDICATED)\ (WHERE INDICATED)

3 PLY CLT
CLEAR EPOXY FINISH, LATEX BASED, SATIN FINISH

SUBMITTAL REQ'D

27 R

CLT2 | FRR: 1.5 HR

CONSTRUCT TO U/S OF DECK
(UNLESS OTHERWISE INDICATED)\ (WHERE INDICATED)

5 PLY CLT
CLEAR EPOXY FINISH, LATEX BASED, SATIN FINISH

SUBMITTAL REQ'D

CC1 290MM | FRR: 4 HR | STC - 50

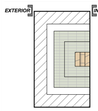
CONSTRUCT TO U/S OF DECK
(UNLESS OTHERWISE INDICATED)\ (WHERE INDICATED)

CAST IN PLACE CONCRETE
EXPOSED FINISH ON BOTH SIDES

SUBMITTAL REQ'D

3 WALL ASSEMBLIES - EXTERIOR

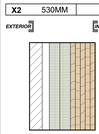
X1 530MM | R-41.8 | CI - R20



BRICK MASONRY UNITS
50 AIR SPACE
MINERAL WOOL INSULATION - R20
AIR / VAPOUR BARRIER
3 PLY CLT

ENGINEERED SUBMITTAL REQ'D | BLDG

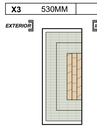
X2 530MM | R-45.1 | CI - R20



BRICK MASONRY UNITS
50 AIR SPACE
MINERAL WOOL INSULATION - R20
AIR / VAPOUR BARRIER
5 PLY CLT
CLEAR EPOXY FINISH, LATEX-BASED, SATIN FINISH

ENGINEERED SUBMITTAL REQ'D | BLDG

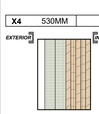
X3 530MM | R-35.7 | CI - R20



ALUMINIUM PANEL CLADDING - REFER TO AC-1
MOUNTING SYSTEM
MINERAL WOOL INSULATION - R20
AIR / VAPOUR BARRIER
3 PLY CLT
CLEAR EPOXY FINISH, LATEX-BASED, SATIN FINISH

ENGINEERED SUBMITTAL REQ'D | BLDG

X4 530MM | R-44.7 | CI - R20



50 AIR SPACE
MINERAL WOOL INSULATION - R20
AIR / VAPOUR BARRIER
5 PLY CLT

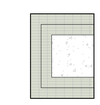
ENGINEERED SUBMITTAL REQ'D | BLDG

X1A 530MM

BRICK MASONRY UNITS
50 AIR SPACE
EXTERIOR SHEATHING
AIR / VAPOUR BARRIER
140 WOOD STUDS @ 400MM
3 PLY CLT
AIR / VAPOUR BARRIER
BRICK LATH AND MORTAR C/W BRICK VENEER TO MATCH MASONRY UNITS

SUBMITTAL REQ'D

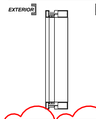
X05 530MM



ALUMINIUM PANEL CLADDING - REFER TO AC-1
MOUNTING SYSTEM C/W VENTILATION 25MM MIN.
MINERAL WOOL INSULATION - R20
CAST IN PLACE CONCRETE

SUBMITTAL REQ'D

CW1



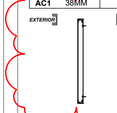
ALUMINUM SCREEN
ALUMICOR TW2200

28 R

28 R

ENGINEERED SUBMITTAL REQ'D | BLDG

AC1 38MM



ALUMINUM PANEL CLADDING SYSTEM
ENGINEERED SUPPORT SYSTEM (DEPTH VARIES)
FIBERGLASS THERMAL SPACER
(BASIS OF DESIGN CASCADIA CLIP)

ENGINEERED SUBMITTAL REQ'D | BLDG

LACBO 160MM

PREFABRICATED LOUVER (ACOUSTIC)
INSULATED BLANK OFF PANEL
UNLESS INDICATED OTHERWISE
ALIGN LOUVER TO EXTERIOR WALL FACE
PROVIDE SUPPLEMENTAL FRAMING TO CONNECT LOUVER TO SUPPORTING WALL ASSEMBLY (TYP.)
* WHERE REQ'D COORDINATE LOCATION(S) OF MECHANICAL OPENINGS THROUGH SUPPORTING WALL ASSEMBLY (TYP.)

ENGINEERED SUBMITTAL REQ'D | BLDG

27 R

1 GENERAL NOTES - WALL ASSEMBLIES

A700 GENERAL NOTES - WALL ASSEMBLIES

EXTERIOR WALL ASSEMBLIES

1. THE SPECIFICATIONS, INSTALLATION, AND PERFORMANCE OF AIR BARRIER SYSTEMS AND VAPOUR BARRIERS MUST MEET OR EXCEED DIV. B PART 5 OF THE ONTARIO BUILDING CODE.
2. THE REQUIREMENTS FOR AN AIR BARRIER AND A VAPOUR BARRIER ARE INTENDED TO BE PROVIDED AS CONTINUOUS PLANES WITHIN THE BUILDING ENVELOPE. ENSURE CONTINUITY OF AIR AND VAPOUR MEMBRANES BETWEEN COMPONENTS, TO ADJACENT CONSTRUCTION AND AT ALL PENETRATIONS TO PREVENT OR RETARD PASSAGE OF MOISTURE LADEN AIR AND/OR THE DIFFUSION OF WATER VAPOUR.
3. EXTERIOR ASSEMBLIES NOTING STUD FRAMING SHALL BE CONSTRUCTED USING WIND-LOAD BEARING FRAMING DESIGNED TO CARRY REQUIRED LATERAL LOADS. PROVIDE ENGINEERED SHOP DRAWING PRIOR TO COMMENCEMENT OF WORK.

INTERIOR WALL ASSEMBLIES

LOAD BEARING PARTITIONS (INTERIOR)

WHERE A PARTITION IS A LOAD BEARING WALL, REFER TO THE STRUCTURAL DRAWINGS FOR DESIGN REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY THE CONSULTANT OF ANY DISCREPANCIES BETWEEN THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND SPECIFICATIONS PRIOR TO THE COMMENCEMENT OF WORK.

STEEL STUD FRAMED PARTITIONS (INTERIOR)

1. ALL PARTITIONS ARE TO UNDERSIDE OF DECK UNLESS OTHERWISE NOTED.
2. PROVIDE DEFLECTION DETAIL AT TOP OF ALL WALLS THAT ABUT UNDERSIDE OF DECK OR STRUCTURE. SEE ALSO TOP OF WALL DETAILS AS INDICATED.
3. WHERE SOUND ATTENUATION BATTS ARE CALLED FOR ON THE WALL TYPE, SEAL PERIMETER OF WALLS AND AROUND PENETRATIONS THROUGH WALLS WITH ACOUSTIC SEALANT. APPLY CONTINUOUS ACOUSTIC SEALANT TO BOTH SIDES OF TRACK AT THE JUNCTIONS WITH FLOORS AND ROOF DECKS, AND AROUND PENETRATIONS TO PARTITIONS. RECESSED OUTLETS ARE TO BE STAGGERED SO THAT ONLY ONE OUTLET IS INSTALLED BETWEEN TWO STUDS.
4. DO NOT FASTEN METAL STUDS TO CURTAIN WALL MULLIONS OR TEE BAR GRIDS.
5. WHERE INTERIOR DOORS ARE CLOSE TO AN INSIDE CORNER, PROVIDE MIN. CLEARANCE FROM DOOR JAMB TO ADJACENT WALL AS INDICATED ON DETAIL TITLED 'FRAME TYPES'

MASONRY PARTITIONS (INTERIOR)

1. HEIGHT OF CONCRETE MASONRY UNIT WALLS TO BE TO UNDERSIDE OF FLOOR/ROOF DECK ABOVE UNLESS OTHERWISE NOTED.
2. WHERE CONCRETE UNIT MASONRY WALLS ABUT REINFORCED CONCRETE WALLS AND PIERS, RAKE BACK MORTAR JOINT WHERE THE TWO MATERIALS MEET AND PROVIDE CONTINUOUS SEALANT

FIRE RATED PARTITIONS (INTERIOR)

1. FOR WALL ASSEMBLIES THAT BEAR THE NOTE "CONSTRUCT AS FIRE SEPARATION WHERE NOTED', THE ASSEMBLY SHALL BE CONSTRUCTED AS A FIRE SEPARATION AT THE LOCATIONS INDICATED IN THE CONTRACT DRAWINGS.
2. AT RECESSED PANEL INSTALLATIONS (E.G. ELECTRICAL PANELS) WITHIN RATED WALLS PROVIDE FOR CONTINUITY OF THE REQUIRED RATING BEHIND THE PANEL. REFER TO THE ONTARIO BUILDING CODE DIVISION B, SECTION 3.1.9.2 FOR REQUIREMENTS FOR COMBUSTIBILITY OF SERVICE PENETRATIONS AND SECTION 3.1.10.2 FOR RATING OF FIREWALLS.
3. WHERE FIRE RATED PARTITIONS ABUT NON-RATED PARTITIONS THE FIRE RATED ASSEMBLY SHALL BE CONTINUOUS AND UNINTERRUPTED BY THE ABUTTING WALLS TO MAINTAIN A CONTINUOUS FIRE SEPARATION.
4. SEAL PERIMETER OF FIRE RATED WALLS AND AROUND PENETRATIONS THROUGH FIRE RATED WALLS WITH APPROVED FIRESTOP MATERIALS. **DO NOT** SEAL CLEARANCE SPACES WITHIN FIRE DAMPERS. SEAL ONLY IN STRICT ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

BLOCKING FOR MILLWORK & SPECIALITIES

1. PROVIDE BLOCKING IN PARTITIONS AND WALLS (INTERIOR AND EXTERIOR) FOR THE FOLLOWING:
   a. WINDOW FRAMES, MILLWORK, FIXTURES AND FITTINGS, HANDRAILS, GRAB BARS, TACKBOARDS, WHITEBOARDS, MIRRORS, WASHROOM ACCESSORIES AND OTHER ITEMS **AS REQUIRED.**

2 WALL ASSEMBLIES - FOUNDATION

W F7i | R-33.5

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

DAMPROOFING
200 CONCRETE

SUBMITTAL REQ'D | BLDG

W F4i | R-33.8

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

RIGID INSULATION
250 CONCRETE
RIGID INSULATION

SUBMITTAL REQ'D | BLDG

W F2i | R-34.5

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

385 CONCRETE

SUBMITTAL REQ'D | BLDG

W F6i | R-34.9

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

RIGID INSULATION
455 CONCRETE
RIGID INSULATION

SUBMITTAL REQ'D | BLDG

W F8i | R-35.2

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

SUBMITTAL REQ'D | BLDG

W F3i | R-34.1

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

SUBMITTAL REQ'D | BLDG

W F4 | R-1.4

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

250 CONCRETE

SUBMITTAL REQ'D | BLDG

W F7 | R-1.1

INTERIOR: INSULATION (WHERE SHOWN) CONTINUOUS TO TOP OF FOOTING

DAMPROOFING
200 CONCRETE

SUBMITTAL REQ'D | BLDG

27 R

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
28	ADDENDUM #3	2024-05-22
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN
FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

EXTERIOR & INTERIOR ASSEMBLIES

ORIENTATION

DATE 2021-11-24

SCALE 1 : 20 | DRAWN BY SRL

DWG STATUS : TENDER

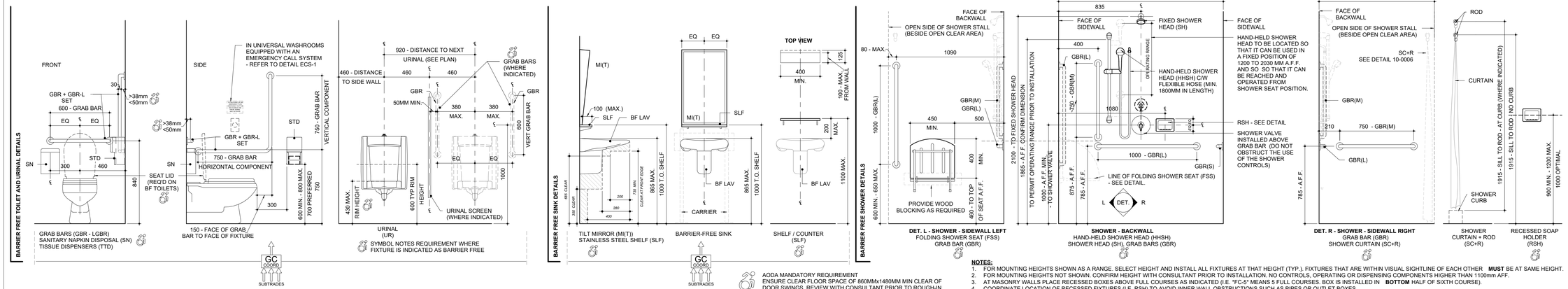
PROJECT No. 2104

DRAWING No. **A0.2** | REVISION 30

2024-09-09 4:03:52 PM

1 / A0.3

00-0004 - FMH-1 - FIXTURE MOUNTING HEIGHTS

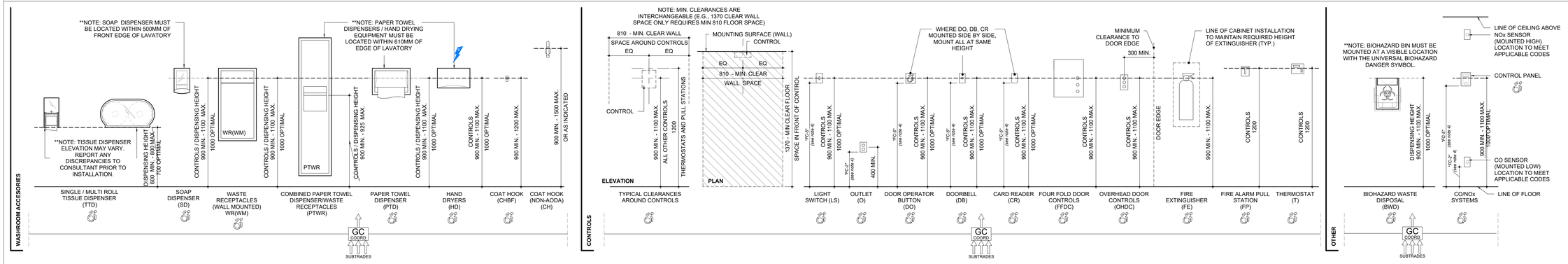


NOTES:

1. FOR MOUNTING HEIGHTS SHOWN AS A RANGE. SELECT HEIGHT AND INSTALL ALL FIXTURES AT THAT HEIGHT (TYP.). FIXTURES THAT ARE WITHIN VISUAL SIGHTLINE OF EACH OTHER **MUST** BE AT SAME HEIGHT.
2. FOR MOUNTING HEIGHTS NOT SHOWN. CONFIRM HEIGHT WITH CONSULTANT PRIOR TO INSTALLATION. NO CONTROLS, OPERATING OR DISPENSING COMPONENTS HIGHER THAN 1100mm AFF.
3. AT MASONRY WALLS PLACE RECESSED BOXES ABOVE FULL COURSES AS INDICATED (I.E. *FC-5* MEANS 5 FULL COURSES. BOX IS INSTALLED IN **BOTTOM** HALF OF SIXTH COURSE).
4. COORDINATE LOCATION OF RECESSED FIXTURES (I.E. RSH) TO AVOID INNER WALL OBSTRUCTIONS SUCH AS PIPES OR OUTLET BOXES.
5. ALL DIMENSIONS SUBJECT TO SPECIFIC MUNICIPAL REQUIREMENTS. CONFIRM WITH CONSULTANT PRIOR TO INSTALLATION.

2 / A0.3

00-0005 - FMH-2 - FIXTURE MOUNTING HEIGHTS



AODA MANDATORY REQUIREMENT
ENSURE CLEAR FLOOR SPACE OF 860MMx1480MM MIN CLEAR OF DOOR SWINGS. REVIEW WITH CONSULTANT PRIOR TO ROUGH-IN

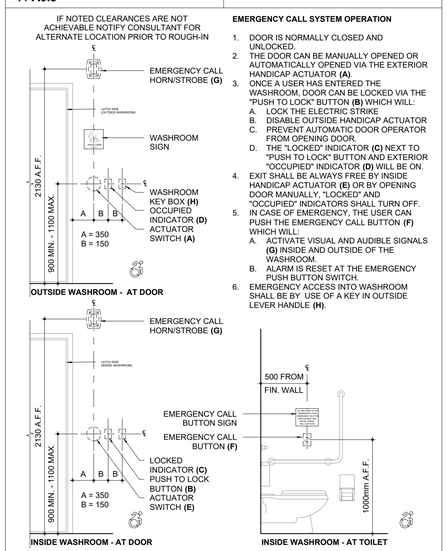
NOTES:

1. FOR MOUNTING HEIGHTS SHOWN AS A RANGE. SELECT HEIGHT AND INSTALL ALL FIXTURES AT THAT HEIGHT (TYP.). FIXTURES THAT ARE WITHIN VISUAL SIGHTLINE OF EACH OTHER **MUST** BE AT SAME HEIGHT.
2. FOR MOUNTING HEIGHTS NOT SHOWN. CONFIRM HEIGHT WITH CONSULTANT PRIOR TO INSTALLATION. NO CONTROLS, OPERATING OR DISPENSING COMPONENTS HIGHER THAN 1100mm AFF.
3. AT MASONRY WALLS PLACE RECESSED BOXES ABOVE FULL COURSES AS INDICATED (I.E. *FC-5* MEANS 5 FULL COURSES. BOX IS INSTALLED IN **BOTTOM** HALF OF SIXTH COURSE).
4. COORDINATE LOCATION OF RECESSED FIXTURES (I.E. RSH) TO AVOID INNER WALL OBSTRUCTIONS SUCH AS PIPES OR OUTLET BOXES.
5. ALL DIMENSIONS SUBJECT TO SPECIFIC MUNICIPAL REQUIREMENTS. CONFIRM WITH CONSULTANT PRIOR TO INSTALLATION.

4 / A0.3

10-0052 - ECS-1 - UNIVERSAL WASHROOMS

IF NOTED CLEARANCES ARE NOT ACHIEVABLE NOTIFY CONSULTANT FOR ALTERNATE LOCATION PRIOR TO ROUGH-IN

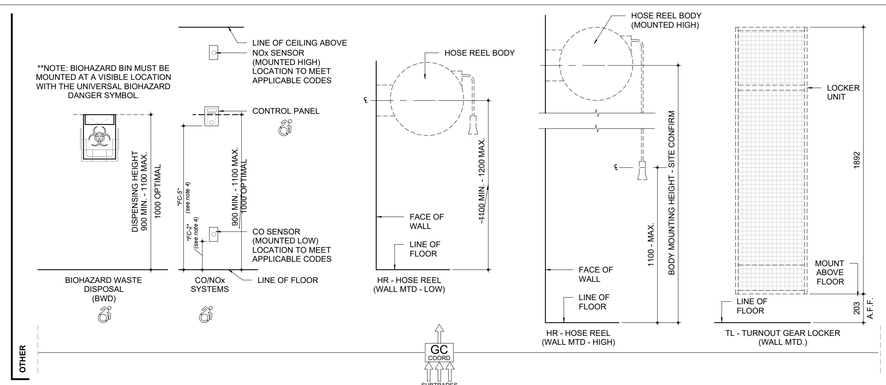


EMERGENCY CALL SYSTEM OPERATION

1. DOOR IS NORMALLY CLOSED AND UNLOCKED.
2. THE DOOR CAN BE MANUALLY OPENED OR AUTOMATICALLY OPENED VIA THE EXTERIOR HANDICAP ACTUATOR **(A)**.
3. ONCE A USER HAS ENTERED THE WASHROOM, DOOR CAN BE LOCKED VIA THE "PUSH TO LOCK" BUTTON **(B)** WHICH WILL:
   A. LOCK THE ELECTRIC STRIKE
   B. DISABLE OUTSIDE HANDICAP ACTUATOR
   C. PREVENT AUTOMATIC DOOR OPERATOR FROM OPENING DOOR.
   D. THE "LOCKED" INDICATOR **(C)** NEXT TO "PUSH TO LOCK" BUTTON AND EXTERIOR "OCCUPIED" INDICATOR **(D)** WILL BE ON.
4. EXIT SHALL BE ALWAYS FREE BY INSIDE HANDICAP ACTUATOR **(E)** OR BY OPENING DOOR MANUALLY, "LOCKED" AND "OCCUPIED" INDICATORS SHALL TURN OFF.
5. IN CASE OF EMERGENCY, THE USER CAN PUSH THE EMERGENCY CALL BUTTON **(F)** WHICH WILL:
   A. ACTIVATE VISUAL AND AUDIBLE SIGNALS **(G)** INSIDE AND OUTSIDE OF THE WASHROOM.
   B. ALARM IS RESET AT THE EMERGENCY PUSH BUTTON SWITCH.
6. EMERGENCY ACCESS INTO WASHROOM SHALL BE BY USE OF A KEY IN OUTSIDE LEVER HANDLE **(H)**.

3 / A0.3

00-0006 - FMH-3 - FIXTURE MOUNTING HEIGHTS



AODA MANDATORY REQUIREMENT
ENSURE CLEAR FLOOR SPACE OF 860MMx1480MM MIN CLEAR OF DOOR SWINGS. REVIEW WITH CONSULTANT PRIOR TO ROUGH-IN

NOTES:

1. FOR MOUNTING HEIGHTS SHOWN AS A RANGE. SELECT HEIGHT AND INSTALL ALL FIXTURES AT THAT HEIGHT (TYP.). FIXTURES THAT ARE WITHIN VISUAL SIGHTLINE OF EACH OTHER **MUST** BE AT SAME HEIGHT.
2. FOR MOUNTING HEIGHTS NOT SHOWN. CONFIRM HEIGHT WITH CONSULTANT PRIOR TO INSTALLATION. NO CONTROLS, OPERATING OR DISPENSING COMPONENTS HIGHER THAN 1100mm AFF.
3. AT MASONRY WALLS PLACE RECESSED BOXES ABOVE FULL COURSES AS INDICATED (I.E. *FC-5* MEANS 5 FULL COURSES. BOX IS INSTALLED IN **BOTTOM** HALF OF SIXTH COURSE).
4. COORDINATE LOCATION OF RECESSED FIXTURES (I.E. RSH) TO AVOID INNER WALL OBSTRUCTIONS SUCH AS PIPES OR OUTLET BOXES.
5. ALL DIMENSIONS SUBJECT TO SPECIFIC MUNICIPAL REQUIREMENTS. CONFIRM WITH CONSULTANT PRIOR TO INSTALLATION.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

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9511 WESTON ROAD, VAUGHAN

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PROFESSIONAL SEAL

DWG TITLE

FIXTURE MOUNTING HEIGHTS

ORIENTATION

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A0.3** | REVISION 30

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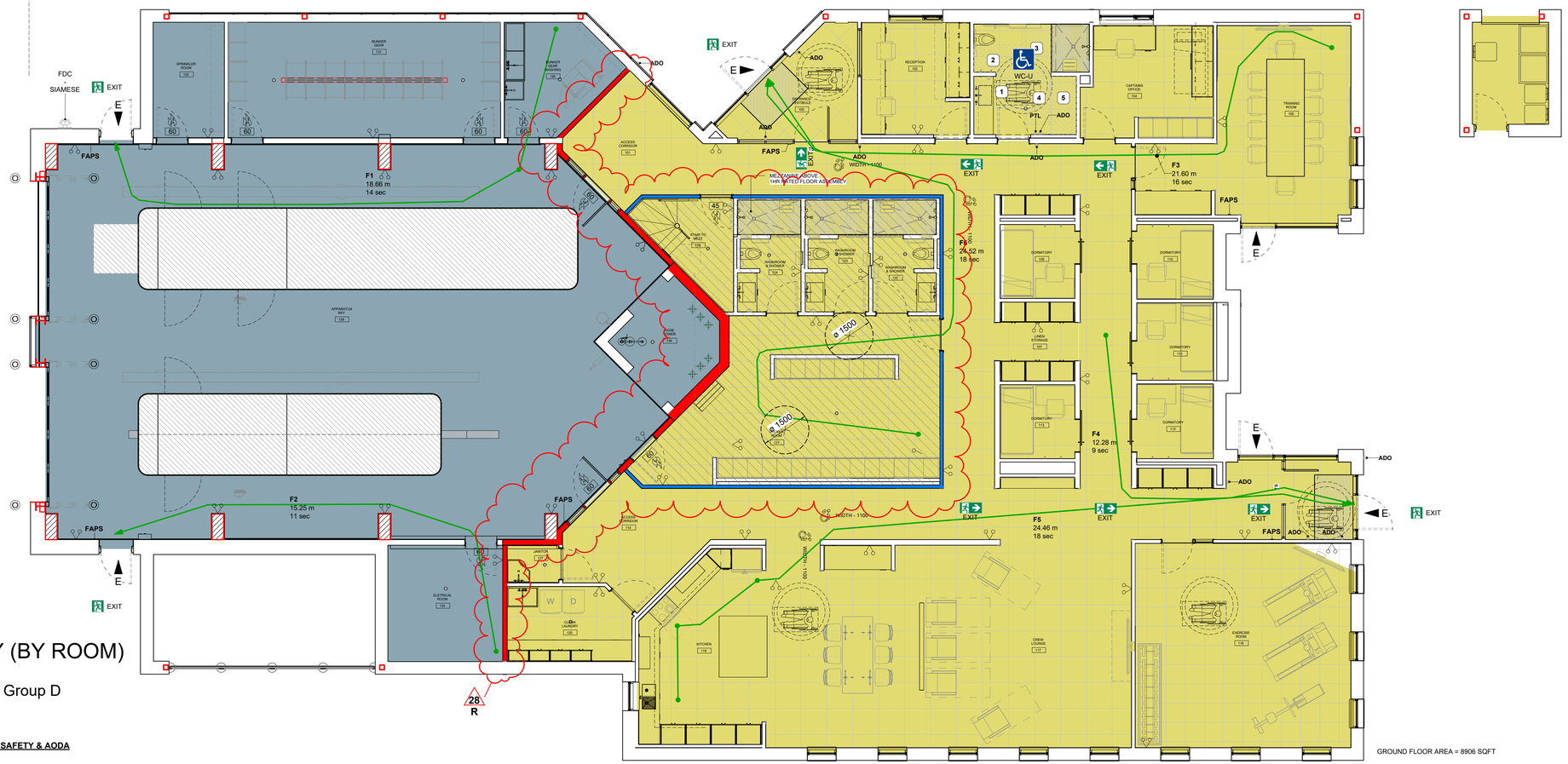
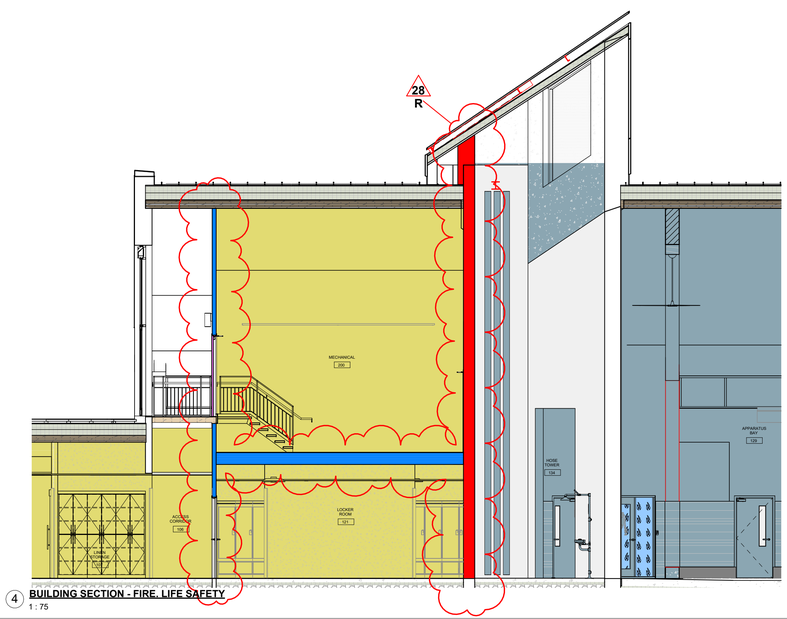


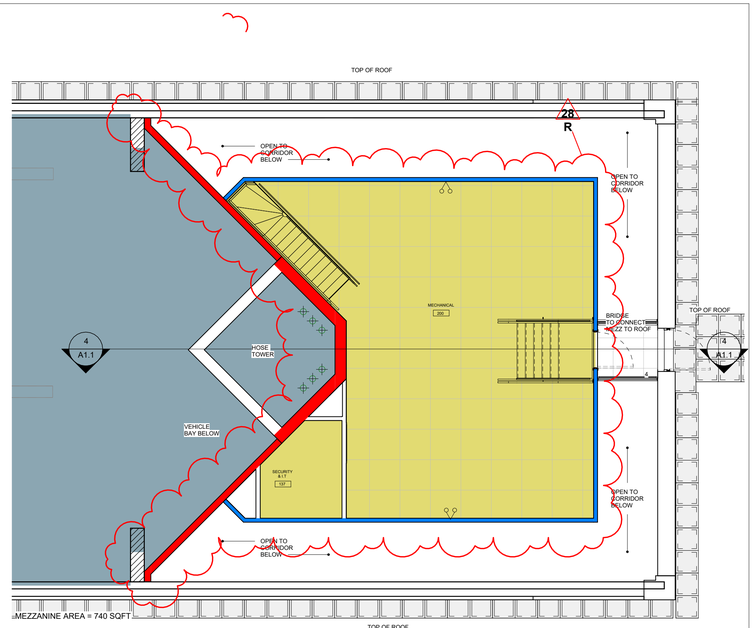
OCCUPANCY (BY ROOM)

Group F3 | Group D

1 **GROUND FLOOR - FIRE, LIFE SAFETY & AODA**
1 : 75



4 **BUILDING SECTION - FIRE, LIFE SAFETY**
1 : 75



3 **MEZZANINE - FIRE, LIFE SAFETY**
1 : 75

2	FIRE PLAN LEGEND	LEGEND - FIRE PLAN
E	ENTRANCE/EXIT	
	SIAMESE FIRE DEPARTMENT CONNECTION	
AS	AUTOMATIC SPRINKLER - ENTIRE BUILDING	
FCP	FIRE ALARM CONTROL PANEL	
GAP	GENERATOR ANNUNCIATOR PANEL	
FAPS	FIRE ALARM PULL STATION	
	SINGLE / DOUBLE EMERGENCY LIGHT, BATTERY-POWERED	
X	ILLUMINATED EXIT SIGN, SINGLE FACE	
S	STROBE	
SD/CO	COMBINED SMOKE/CO DETECTOR	
FEC	FIRE EXTINGUISHER CABINET c/w FIRE EXTINGUISHER	
	1.5hr FIRE SEPARATION	
	1hr FIRE SEPARATION	
	45min FIRE SEPARATION	

FIRE EXIT TRAVEL DISTANCE

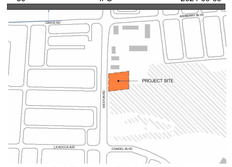
FROM ROOM	TO ROOM	LEVEL	TAG	TRAVEL	SPEED	TIME
GROUND FLOOR						
BUNKER GEAR WASHING 130		GROUND FLOOR	F1	18.66 m	4.8 km/h	13.9 s
ELETRICAL ROOM 133	APPARATUS BAY 129	GROUND FLOOR	F2	15.25 m	4.8 km/h	11.4 s
TRAINING ROOM 105	ENTRANCE VESTIBULE 100	GROUND FLOOR	F3	21.6 m	4.8 km/h	16.1 s
DORMITORY 109		GROUND FLOOR	F4	12.28 m	4.8 km/h	9.2 s
KITCHEN 119	VESTIBULE 115	GROUND FLOOR	F5	24.46 m	4.8 km/h	18.2 s
LOCKER ROOM 121	ENTRANCE VESTIBULE 100	GROUND FLOOR	F6	24.52 m	4.8 km/h	18.3 s

FIRE & AODA KEY NOTES

NUMBER	NOTE
1	920mm x 1370 BARRIER FREE CLEARANCE AT SINK
2	900mm x 1500mm BARRIER FREE TRANSFER CLEARANCE
3	900mm x 1500mm BARRIER FREE CLEAR SPACE AT FRONT OF SHOWER
4	1800mm TURNING RADIUS
5	810mm x 1830mm ALLOCATED SPACE FOR BF ADULT CHANGE TABLE (NIC)

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
14	GEOTHERMAL ROUTE TO MEZZ	2023-03-22
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
21	BUILDING PERMIT REVISION	2023-11-14
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
28	ADDENDUM #3	2024-05-22
30	IFC	2024-09-09



FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

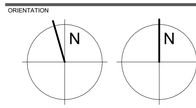
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

FIRE, LIFE SAFETY, & AODA REQUIREMENTS

ORIENTATION



DATE 2021-11-24

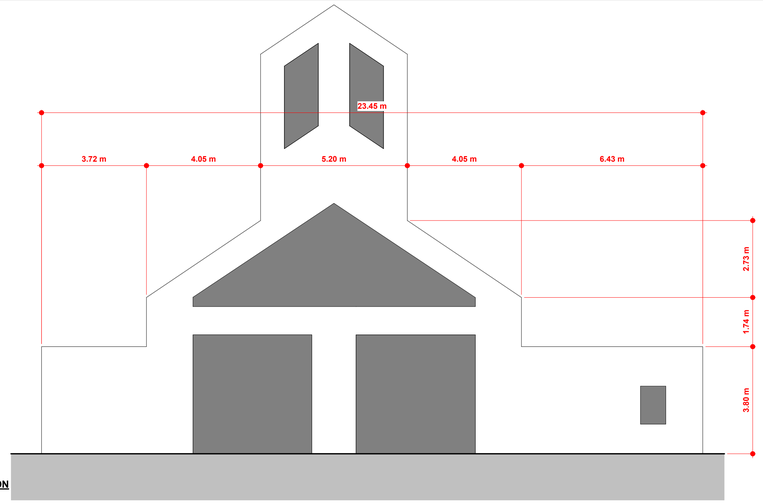
SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A1.1** | REVISION 30

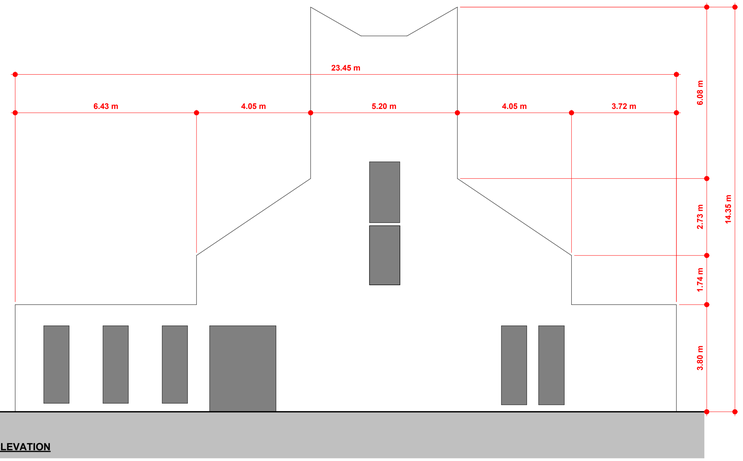
2024-09-09 4:04:11 PM



130.1 m²
EXPOSED BUILDING FACE

63.91 m²
UNPROTECTED OPENINGS

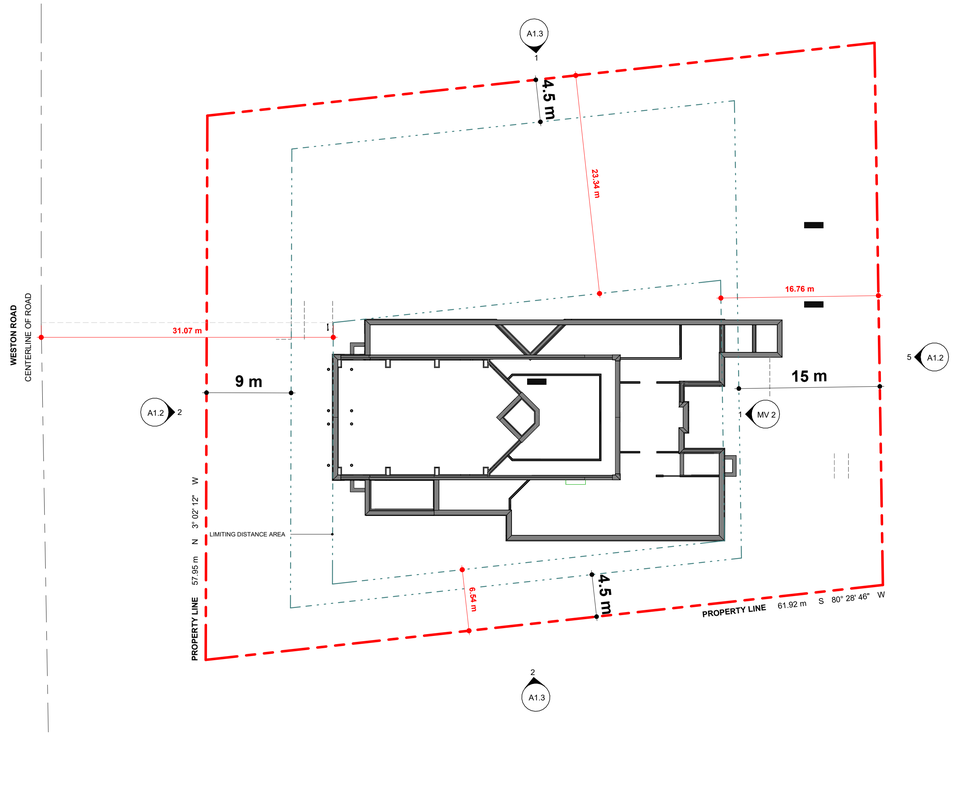
2 **LD - WEST ELEVATION**
1 : 100



EXPOSED BUILDING FACE
143.74 m²

UNPROTECTED OPENINGS
24.27 m²

5 **LD - EAST ELEVATION**
1 : 100



1 **SITE PLAN - LIMITING DISTANCE**
1 : 300

ONTARIO BUILDING CODE DATA MATRIX
SPATIAL SEPARATION INTERPOLATION SUPPLEMENT — OBC 3.2.3.1.

EAST BUILDING ELEVATION

Actual Exposing Building Face (m²):	**143.8**	(1)
Actual Limiting Distance (m):	**16.8**	(2)
Unprotected Wall Opening Area (m):	**24.3**	(3)
Exposing Building Face Length	**23.5**	(4)
Exposing Building Face Height	**14.5**	(5)
Actual Ratio (L/H OR H/L)	**23.45:14.5**	(6)
Permitted Ratio (L/H OR H/L)	**N/A**	(7)
Fire Resistance Rating	**N/R**	

EBF: Exposing building face
LD: Limiting distance
UPO: Unprotected opening percentage (max.)

Limiting Distances from the Tables
Less Than and More Than
the Actual Limiting Distance from the Drawings.

LD_1 (< 16.76 m actual)	LD_2 (> 16.76 m actual)	
16.0	**17.0**	Limiting Distance from OBC Tables

	Area of Exposing Building Face...	Max. Area of Unprotected Openings...	Max. Area of Unprotected Openings...
EBF_1 (< 143.75 m2 actual):	**100.0**	**100.0**	**100.0**
EBF_2 (> 143.75 m2 actual):	**150.0**	**100.0**	**100.0**
Intermediate Interpolated Unprotected Opening % Values:		**100.0**	**100.0**
Final Interpolated Unprotected Opening % Value:		**100.0%**	
Unprotected Opening % Value Proposed:		**16.9%**	

ONTARIO BUILDING CODE DATA MATRIX
SPATIAL SEPARATION INTERPOLATION SUPPLEMENT — OBC 3.2.3.1.

WEST BUILDING ELEVATION

Actual Exposing Building Face (m²):	**130.1**	(1)
Actual Limiting Distance (m):	**31.1**	(2)
Unprotected Wall Opening Area (m):	**63.9**	(3)
Exposing Building Face Length	**23.5**	(4)
Exposing Building Face Height	**14.5**	(5)
Actual Ratio (L/H OR H/L)	**23.45:14.5**	(6)
Permitted Ratio (L/H OR H/L)	**N/A**	(7)
Fire Resistance Rating	**N/R**	

EBF: Exposing building face
LD: Limiting distance
UPO: Unprotected opening percentage (max.)

Limiting Distances from the Tables
Less Than and More Than
the Actual Limiting Distance from the Drawings.

LD_1 (< 31.07 m actual)	LD_2 (> 31.07 m actual)	
31.0	**32.0**	Limiting Distance from OBC Tables

	Area of Exposing Building Face...	Max. Area of Unprotected Openings...	Max. Area of Unprotected Openings...
EBF_1 (< 130.11 m2 actual):	**100.0**	**100.0**	**100.0**
EBF_2 (> 130.11 m2 actual):	**150.0**	**100.0**	**100.0**
Intermediate Interpolated Unprotected Opening % Values:		**100.0**	**100.0**
Final Interpolated Unprotected Opening % Value:		**100.0%**	
Unprotected Opening % Value Proposed:		**49.1%**	

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

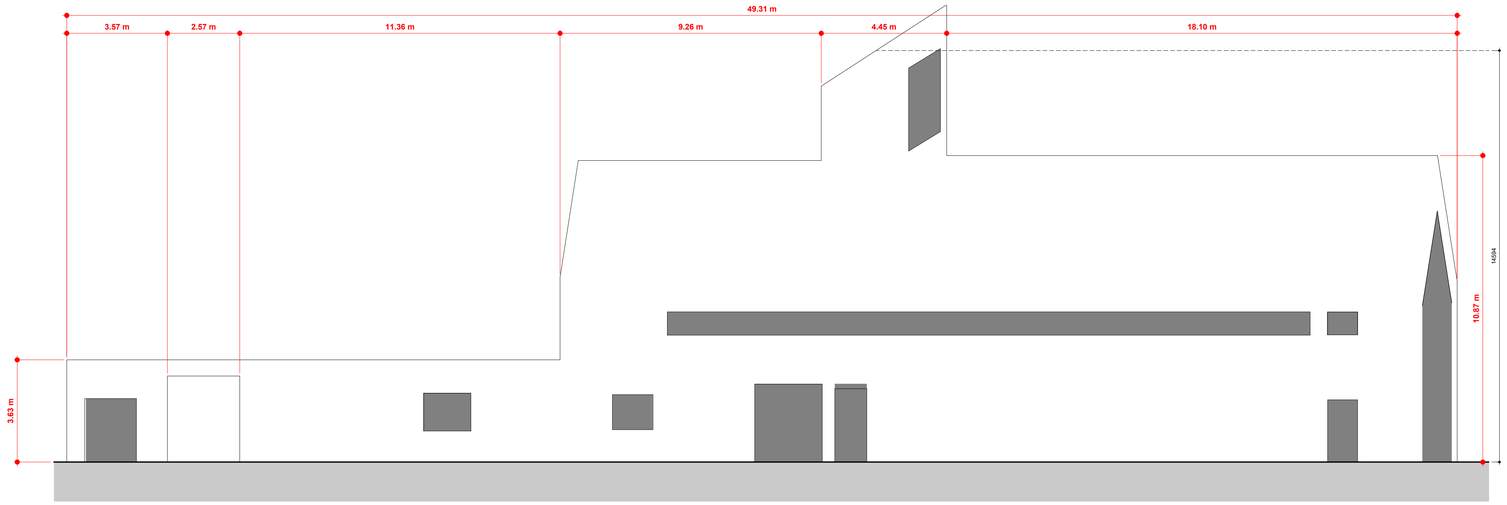
DWG TITLE
OBC LIMITING DISTANCE REVIEW

ORIENTATION
TRUE NORTH — CONSTRUCTION NORTH

DATE 2021-11-24
SCALE As indicated
DRAWN BY SRL
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A1.2**
REVISION 30

2024-09-09 4:04:15 PM

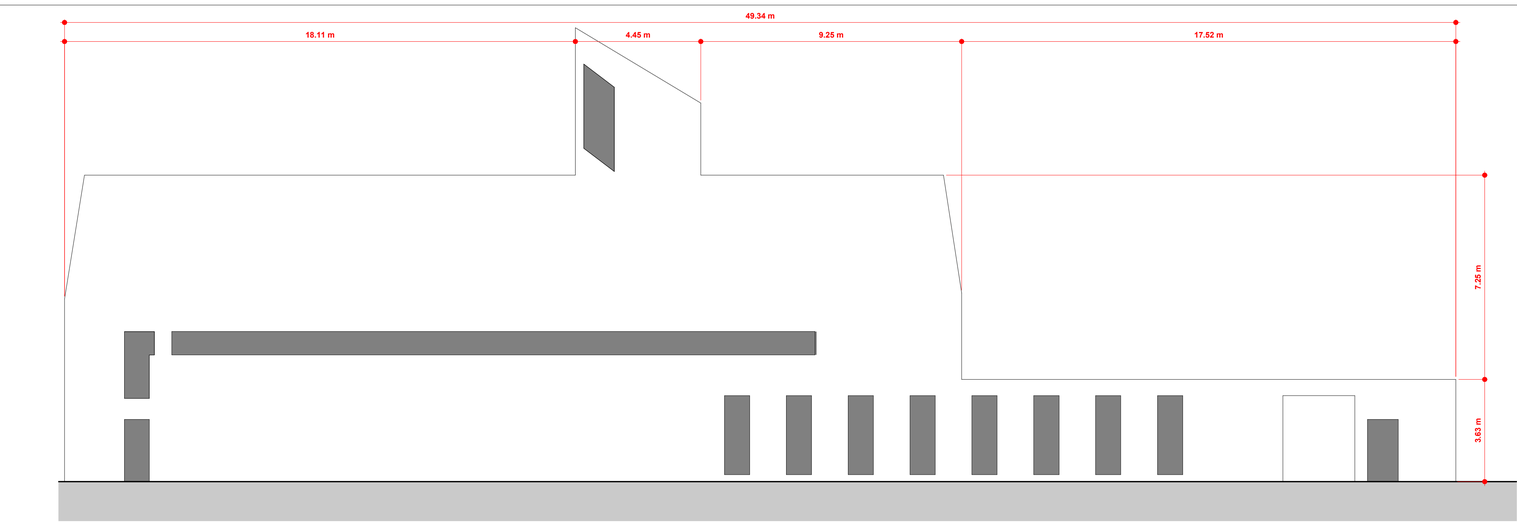
V7-12 - IFC000006



367.16 m²
EXPOSED BUILDING FACE

47.45 m²
UNPROTECTED OPENINGS

1 **LD - NORTH ELEVATION**
1 : 100



48.93 m²
UNPROTECTED OPENINGS

367.11 m²
EXPOSED BUILDING FACE

2 **LD - SOUTH ELEVATION**
1 : 100

ONTARIO BUILDING CODE DATA MATRIX
SPATIAL SEPARATION INTERPOLATION SUPPLEMENT — OBC 3.2.3.1.

NORTH BUILDING ELEVATION

Actual Exposing Building Face (m²):	367.0	(1)
Actual Limiting Distance (m):	23.3	(2)
Unprotected Wall Opening Area (m):	47.5	(3)
Exposing Building Face Length (m):	49.3	(4)
Exposing Building Face Height (m):	14.0	(5)
Actual Ratio (L/H OR H/L)	7.04428571428571:2	(6)
Permitted Ratio (L/H OR H/L)	N/A	(7)
Fire Resistance Rating	N/R	

EBF: Exposing building face
LD: Limiting distance
UPO: Unprotected opening percentage (max.)

Limiting Distances from the Tables
Less Than and More Than
the Actual Limiting Distance from the Drawings.

LD_1 (< 23.3 m actual)	LD_2 (> 23.3 m actual)	
23.0	24.0	Limiting Distance from OBC Tables

	Area of Exposing Building Face...	Max. Area of Unprotected Openings...	Max. Area of Unprotected Openings...
EBF_1 (< 367 m2 actual):	350.0	100.0	100.0
EBF_2 (> 367 m2 actual):	500.0	100.0	100.0
Intermediate Interpolated Unprotected Opening % Values:		100.0	100.0
Final Interpolated Unprotected Opening % Value:		**100.0%**	
Unprotected Opening % Value Proposed:		**12.9%**	

ONTARIO BUILDING CODE DATA MATRIX
SPATIAL SEPARATION INTERPOLATION SUPPLEMENT — OBC 3.2.3.1.

SOUTH BUILDING ELEVATION

Actual Exposing Building Face (m²):	367.1	(1)
Actual Limiting Distance (m):	6.5	(2)
Unprotected Wall Opening Area (m):	48.9	(3)
Exposing Building Face Length	49.0	(4)
Exposing Building Face Height	14.5	(5)
Actual Ratio (L/H OR H/L)	7:2.07142857142857	(6)
Permitted Ratio (L/H OR H/L)	N/A	(7)
Fire Resistance Rating	45min	

EBF: Exposing building face
LD: Limiting distance
UPO: Unprotected opening percentage (max.)

Limiting Distances from the Tables
Less Than and More Than
the Actual Limiting Distance from the Drawings.

LD_1 (< 6.54 m actual)	LD_2 (> 6.54 m actual)	
6.0	7.0	Limiting Distance from OBC Tables

	Area of Exposing Building Face...	Max. Area of Unprotected Openings...	Max. Area of Unprotected Openings...
EBF_1 (< 367.11 m2 actual):	350.0	52.0	66.0
EBF_2 (> 367.11 m2 actual):	500.0	52.0	66.0
Intermediate Interpolated Unprotected Opening % Values:		52.0	66.0
Final Interpolated Unprotected Opening % Value:		**59.6%**	
Unprotected Opening % Value Proposed:		**13.3%**	

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

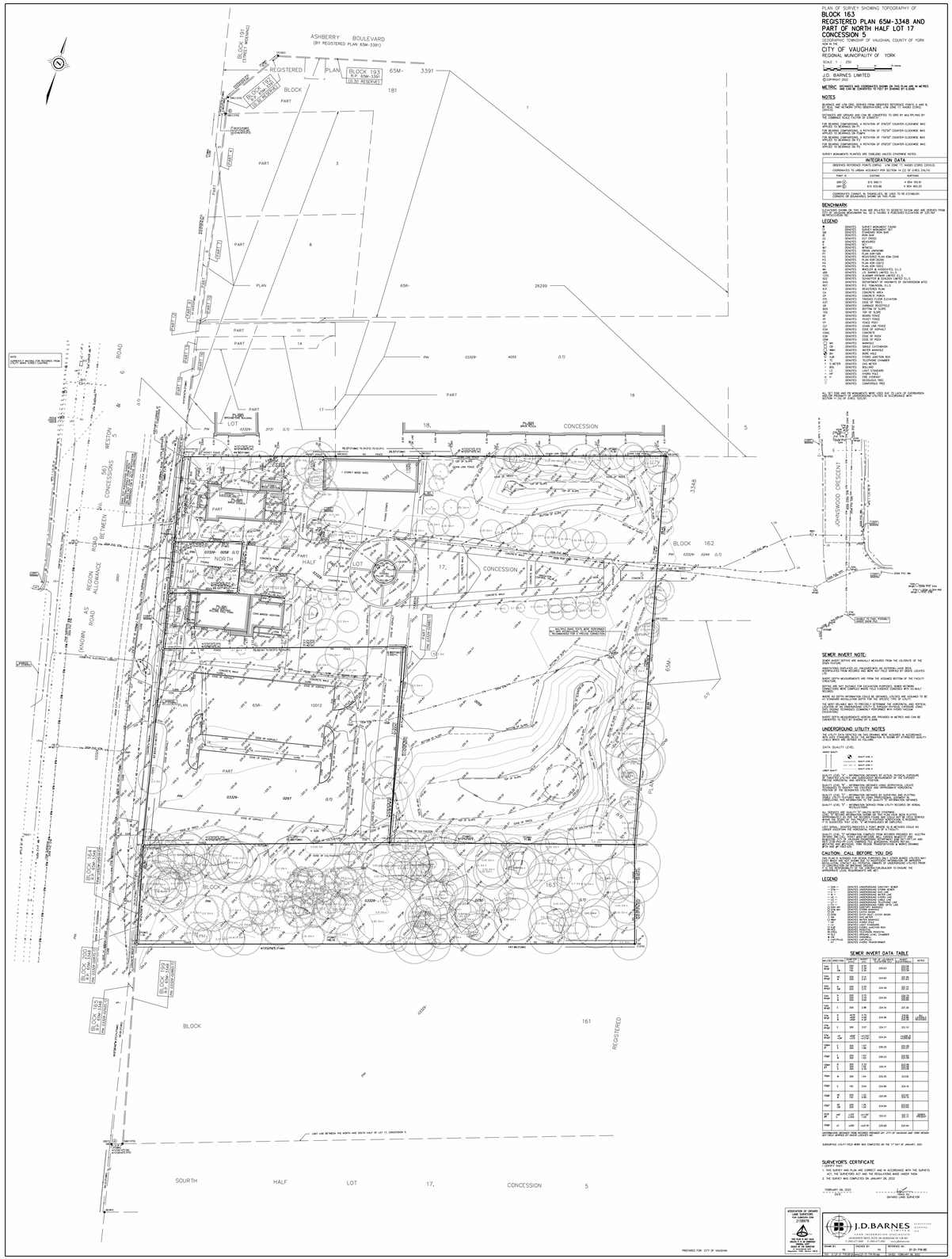
PROFESSIONAL SEAL

DWG TITLE
OBC LIMITING DISTANCE REVIEW

ORIENTATION

DATE 2021-11-24
SCALE 1 : 100
DRAWN BY SRL
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A1.3**
REVISION 30

2024-09-09 4:04:18 PM



ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 // TORONTO ONTARIO // M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

SITE SURVEY

ORIENTATION

TRUE NORTH — CONSTRUCTION NORTH

DATE
2021-11-24

SCALE

DRAWN BY
SRL

DWG STATUS :
TENDER

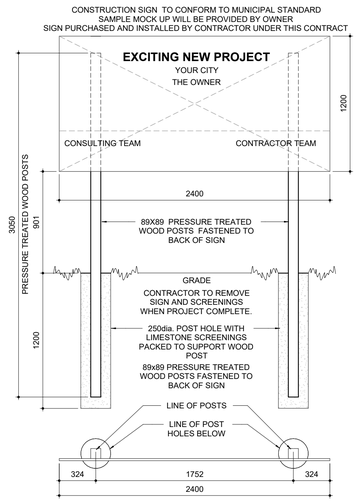
PROJECT No.
2104

DRAWING No.
A2.1

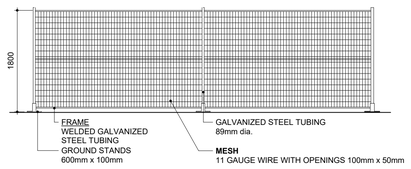
REVISION
30

2024-09-09 4:04:26 PM

6 / A2.2 — 2-0004 - CS-1 - CONSTRUCTION SIGN

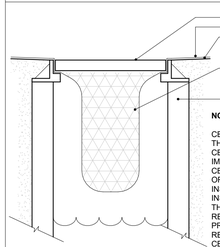


3 / A2.2 — 2-0002 - CF-1 - CONSTRUCTION FENCING



NOTE:
PROVIDE ACCESS GATES AS INDICATED OR WHERE REQUIRED.

4 / A2.2 — 2-0003 - CBST-1 - CBST DETAILS

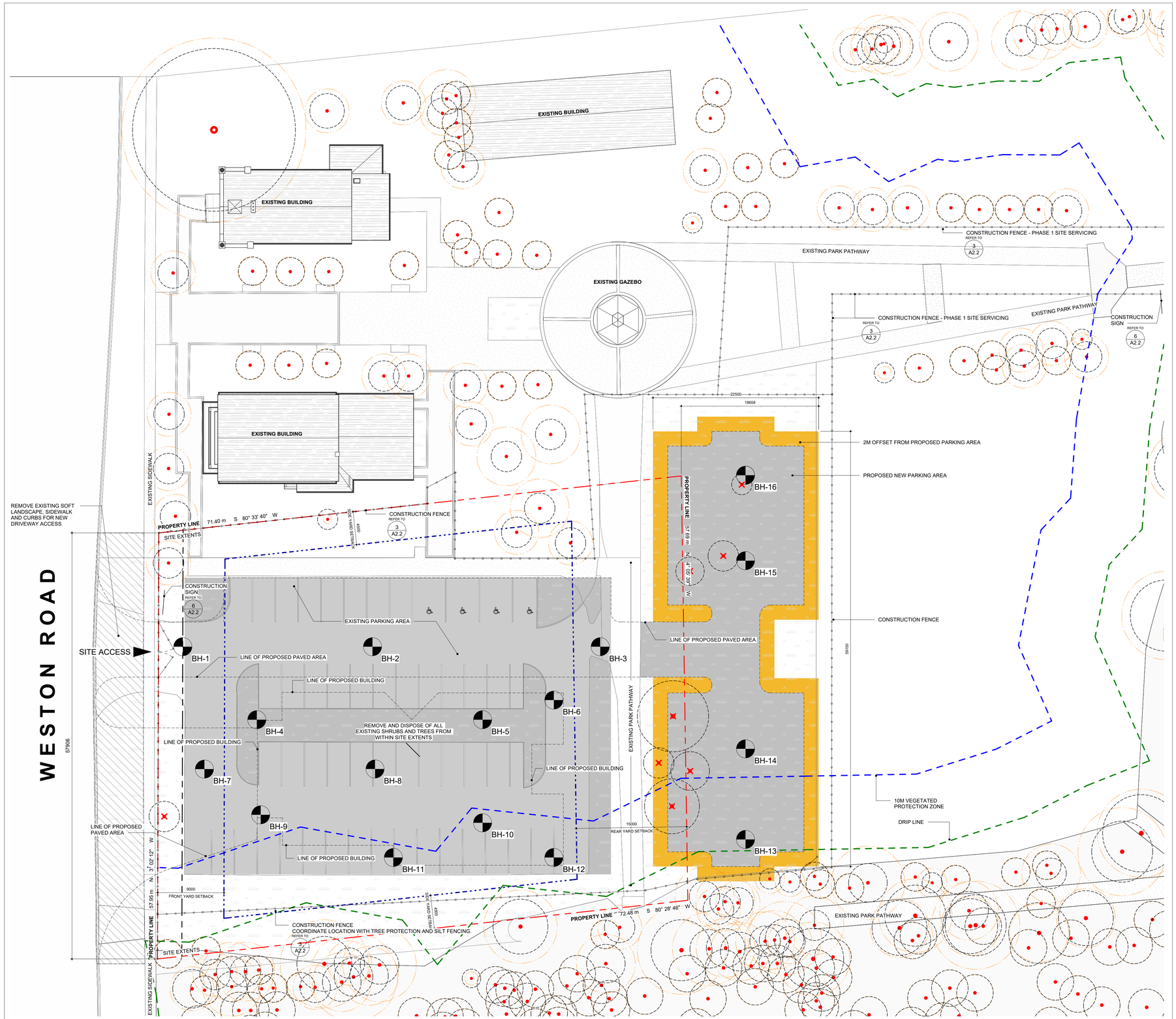


NOTES:

CBST TO BE INSTALLED IN EXISTING CATCH BASINS THAT MAY BE IMPACTED BY THE WORK.
CBST TO BE INSTALLED IN NEW CATCH BASINS IMMEDIATELY AFTER INSTALLATION.
CBST SIZE SELECTION TO BE BASED ON DIMENSIONS OF CATCH BASIN IN WHICH IT IS TO BE INSTALLED.
INSTALL PER MANUFACTURERS INSTRUCTIONS.
INSTALL CBST AT START OF WORK AND MAINTAIN THROUGH TO PROJECT COMPLETION. INSPECT REGULARLY AND AFTER EVERY SIGNIFICANT PRECIPITATION EVENT.
REMOVE ACCUMULATED MATERIAL WHEN CBST IS 1/3 FULL.
REPLACE DAMAGED CBST WITH NEW AS REQUIRED.

2 / A2.2 — A700 GENERAL NOTES - DEMOLITION

1. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF ALL EXISTING BY-LAWS, CODES, MUNICIPAL GOVERNMENTS AND AUTHORITIES HAVING JURISDICTION. OBTAIN ALL PERMITS REQUIRED IN ACCORDANCE WITH THE CONTRACT.
2. DEMOLITION SCOPE SHOWN IS SCHEMATIC. CAREFUL EXAMINATION OF EXISTING SITE CONDITIONS IS REQUIRED TO DETERMINE FULL SCOPE OF DEMOLITION.
3. REFER TO SUPPLEMENTAL REPORTS LISTED UNDER SPECIFICATION SECTION - INFORMATION AVAILABLE FOR REVIEW TO DETERMINE FULL SCOPE OF DEMOLITION.
4. WHERE 'COMPLETE' OR 'COMPLETELY' IS ASSOCIATED WITH REMOVALS, THE INTENT IS THAT THE ITEM IS REMOVED IN ITS ENTIRETY INCLUDING ASSOCIATED FITTINGS AND APPURTANCES.
5. WHERE AN ITEM IS NOTED FOR REMOVAL THAT HAS ASSOCIATED MECHANICAL OR ELECTRICAL SERVICES, THESE SERVICES SHALL BE TERMINATED AT AN APPROPRIATE LOCATION AND IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.



1 **SITE PLAN - DEMOLITION**
1 : 250

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
9	BH-GT TEST HOLE	2022-07-18
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
25	CLIENT REVIEW - 100%	2024-03-12
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 // TORONTO ONTARIO // M5T 2C8

PROFESSIONAL SEAL

DWG TITLE
SITE DEMOLITION, SITE DETAILS

ORIENTATION
TRUE NORTH — CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A2.2** | REVISION 30

2024-09-09 4:04:30 PM

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
10	SPA RE-SUBMISSION	2022-08-30
11	MINOR VARIANCE	2022-12-09
12	2022 UPDATE	2022-12-20
15	ROAD WIDENING - CLIENT REVIEW	2023-07-19
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
25	CLIENT REVIEW - 100%	2024-03-12
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT

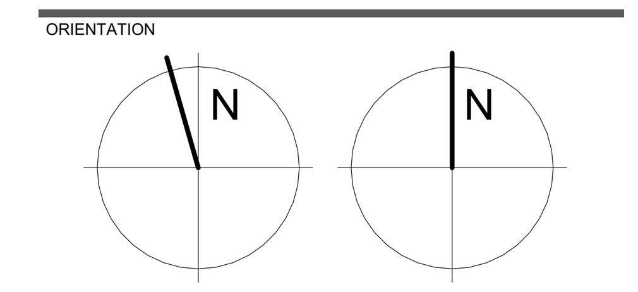
THOMASBROWNARCHITECTS

PROFESSIONAL SEAL

DWG TITLE

TREE INVENTORY/ REMOVAL/ PRESERVATION PLAN

ORIENTATION



DATE: 2021-11-24

SCALE: 1 : 250

DRAWN BY: SRL

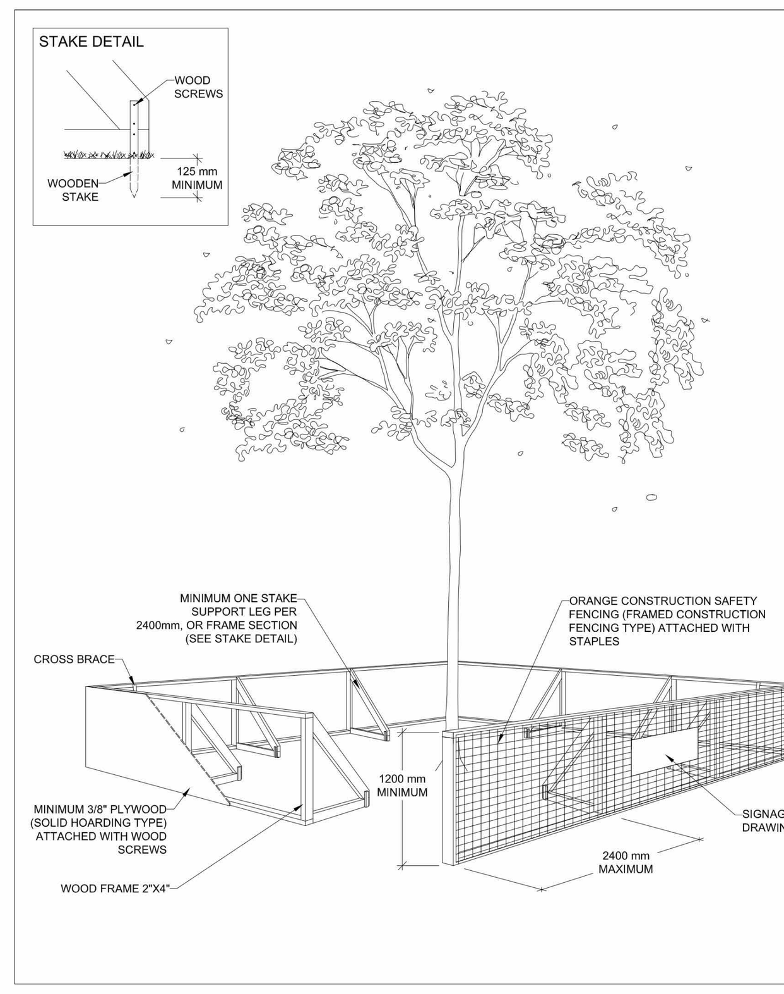
DWG STATUS: TENDER

PROJECT No. 2104

DRAWING No. A2.3

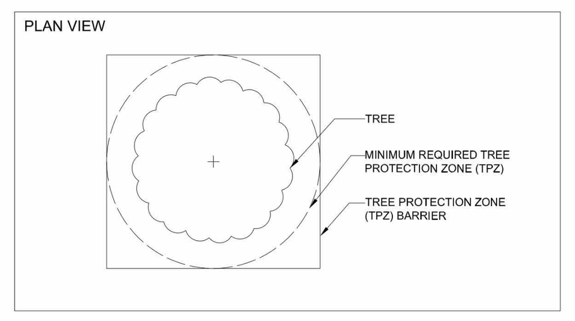
REVISION 30

2024-09-09 4:04:35 PM



NOTES

1. REFER TO YORK REGION STREET TREE AND FOREST PRESERVATION GUIDELINES FOR COMPLETE TREE PRESERVATION REQUIREMENTS.
2. TREE PROTECTION ZONE (TPZ) BARRIERS SHALL BE INSTALLED AT THE OUTER LIMIT OF THE MINIMUM REQUIRED TPZ FOR EACH TREE TO BE PRESERVED AND OR AS DIRECTED IN THE APPROVED TREE PROTECTION PLAN BY YORK REGION NATURAL HERITAGE AND FORESTRY.
3. TPZ IS DELINEATED AS A RADIUS, IN METRES, MEASURED OUTWARD FROM THE BASE OF THE TREE TO BE PROTECTED. THE TPZ RADIUS IS DETERMINED BASED UPON THE DIAMETER AT BREAST HEIGHT (DBH) OF THE TREE'S MAIN STEM. FOR MULTI-STEMMED TREES, THE DIAMETER OF THE MAIN STEM OF STEMS OF A TREE ARE MEASURED IN CENTIMETRES AT 30cm ABOVE GRADE LEVEL. THE TPZ FOR ALL TREES 24cm DBH OR LESS IS A MINIMUM OF 2.4m. THE TPZ FOR TREES 25cm OR GREATER IS 10cm FOR EVERY CENTIMETRE OF DBH.
4. TPZ BARRIERS SHALL PROTECT CONTIGUOUS GROUPS OF TREES WHEREVER POSSIBLE.
5. TPZ BARRIERS SHALL BE ESTABLISHED, INSPECTED, AND APPROVED BY YORK REGION OR ITS DESIGNATE PRIOR TO COMMENCEMENT OF ANY SITE DISTURBANCE.
6. TPZ BARRIERS SHALL BE INSPECTED BY A QUALIFIED TREE PROFESSIONAL ONCE WEEKLY OR ON A SCHEDULE APPROVED BY THE YORK REGION OR ITS DESIGNATE.
7. TPZ BARRIERS SHALL NOT BE MOVED, MODIFIED, OR RELOCATED AT ANY TIME WITHOUT PRIOR APPROVAL OF YORK REGION OR ITS DESIGNATE.



York Region Environmental Services

TREE PROTECTION ZONE (TPZ) BARRIER

DATE:	JANUARY 2022	SCALE:	N.T.S.
REV:	X	X	NHF - 400

TREE PROTECTION ZONE (TPZ)

PLEASE NOTE THAT **ANY:**
GRADE CHANGE
DUMPING
STORAGE
UNAUTHORIZED ENTRY
TREE INJURY OR REMOVAL
DISTURBANCE OF ANY KIND

York Region

IS **STRICTLY PROHIBITED** WITHIN THIS TPZ

THIS BARRIER SHALL NOT BE DAMAGED OR MOVED

PLEASE REPORT ANY ENTRY INTO THIS ZONE TO NATURAL HERITAGE AND FORESTRY:
Access York -
1-877-464-9675 ext. 73000
accessyork@york.ca

MIN. 400 MM

MIN. 600 MM

York Region Environmental Services

TREE PROTECTION ZONE (TPZ) SIGNAGE

DATE:	JANUARY 2022	SCALE:	N.T.S.
REV:	X	X	NHF - 401

NOTES

1. REFER TO YORK REGION STREET TREE AND FOREST PRESERVATION GUIDELINES FOR COMPLETE TREE PRESERVATION REQUIREMENTS.
2. TPZ SIGNAGE SHALL BE INSTALLED ON AT LEAST TWO SIDES OF THE TPZ BARRIER WITH DISTANCE BETWEEN SIGNS NOT TO EXCEED 10 METRES ON ANY ONE SIDE.

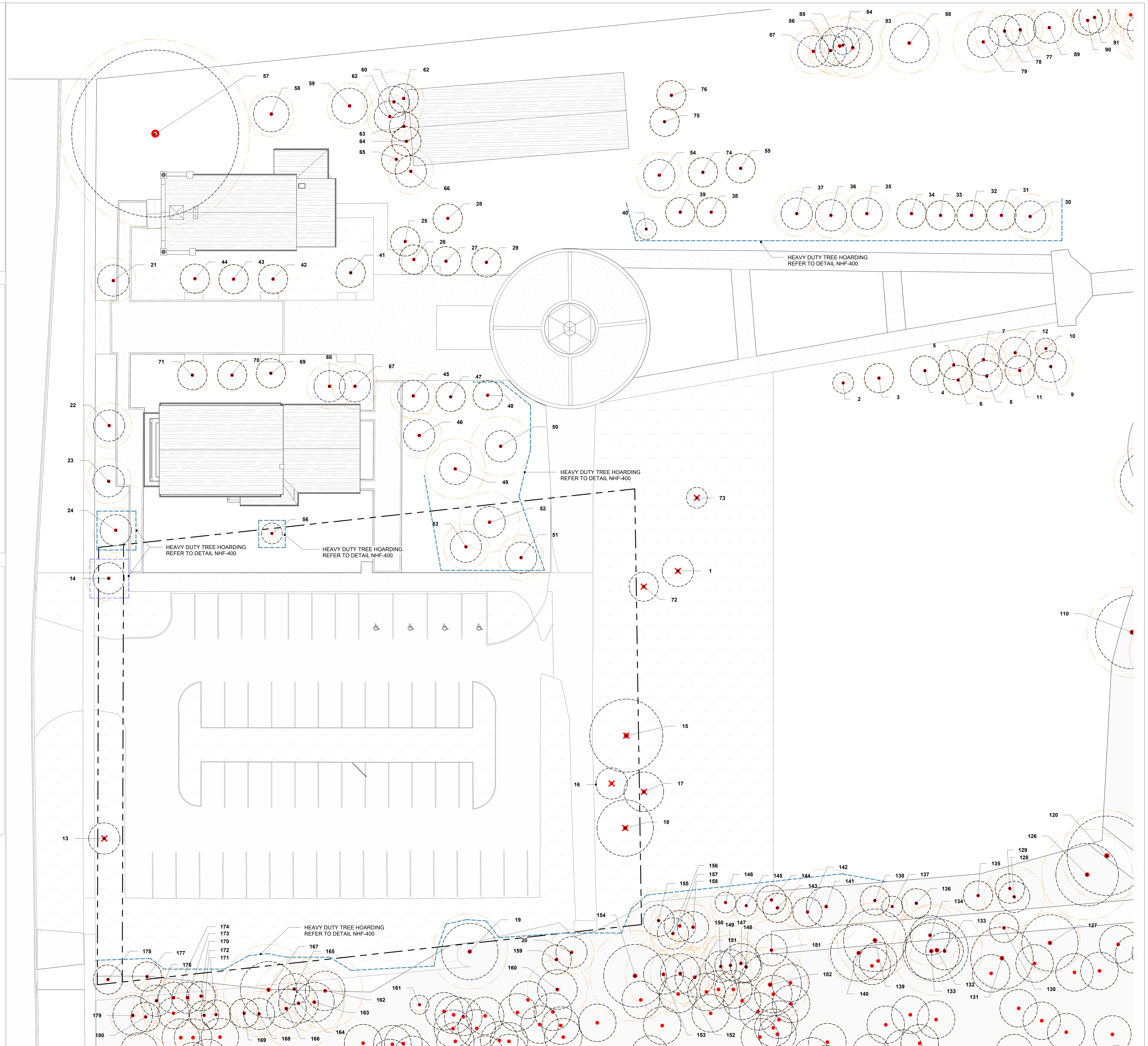
York Region Environmental Services

STANDARD TREE PROTECTION NOTES

DATE:	JANUARY 2022	SCALE:	N.T.S.
REV:	X	X	NHF - 402

GENERAL NOTES:

1. THE TREE PROTECTION BARRIERS SHALL BE INSTALLED AT THE APPROVED LOCATION AND SHALL BE MAINTAINED IN THEIR ORIGINAL LOCATION AND CONDITION UNTIL ALL CONSTRUCTION ACTIVITIES WITHIN THE SITE HAVE CEASED AND ALL EQUIPMENT IS REMOVED FROM THE SITE. NO EQUIPMENT OR MATERIAL STORAGE, FLUSHING OF FUEL OR WASHING OF EQUIPMENT IS ALLOWED WITHIN THE TPZ. ANY WORKS WITHIN THE TPZ AREA TO BE PERFORMED OR SUPERVISED BY A CERTIFIED ARBORIST.
2. ANY WORK REQUIRED TO BE PREFORMED OR SUPERVISED BY A CERTIFIED ARBORIST SHALL BE PAID FOR BY THE GENERAL CONTRACTOR UNDER THE SCOPE OF THE CONTRACT.
3. TREE PROTECTION FENCING IS TO BE INSTALLED TO MINIMIZE THE IMPACT ON THE TREES (OVER 20CM DBH) TO BE PRESERVED PRIOR DEMOLITION/CONSTRUCTION AND IS TO REMAIN UNTIL THE CONSTRUCTION IS COMPLETED. (APPLICABLE TO PRIVATE AND PUBLIC TREES) AS PER BY-LAW 052-2018
4. NO CONSTRUCTION ACTIVITY, GRADE CHANGES, SURFACE TREATMENT, EXCAVATIONS OF ANY KIND OR MATERIAL STORAGE IS PERMITTED WITHIN THE TREE PROTECTION ZONE.
5. TREE PROTECTION & PRESERVATION METHODS MUST BE FOLLOWED ACCORDING TO CITY OF VAUGHAN'S TREE PROTECTION BY-LAW 052-2018.
6. CONTRACTOR SHALL NOTIFY VAUGHAN FORESTRY OR DEVELOPMENT PLANNING DEPARTMENT ONCE TREE PROTECTION (HOARDING) HAS BEEN INSTALLED, TO ALLOW VAUGHAN FORESTRY TO INSPECT AND APPROVE ACCORDING TO BY-LAW 052-2018 AND/OR IN ACCORDANCE WITH THE CITY OF VAUGHAN 'S TREE PROTECTION PROTOCOL (2018). CONTRACTOR SHALL SUBMIT APPROVAL LETTER TO THOMAS BROWN ARCHITECT INC. ONCE RECIEVED FROM FORESTRY.



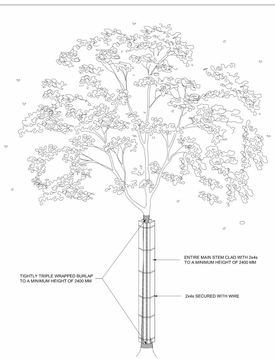
1 **SITE PLAN - DEMOLITION - EXISTING TREES**
1 : 250

TREE INVENTORY & ACTION REQUIRED BY CONTRACTOR

TREE #	SPECIES	DBH (cm)	DIAMETER (m)	CONDITION	ACTION REQUIRED BY CONTRACTOR
56	BLUE SPRUCE	7.0	1	GOOD	EXISTING TREE TO REMAIN
57	SILVER MAPLE	180	12	GOOD	EXISTING TREE TO REMAIN
58	LITTLE LEAF LINDEN	23	3	GOOD	EXISTING TREE TO REMAIN
59	LITTLE LEAF LINDEN	26	3	GOOD	EXISTING TREE TO REMAIN
60	MANITOBA MAPLE	20	4	GOOD	EXISTING TREE TO REMAIN
61	MANITOBA MAPLE	11	2	GOOD	EXISTING TREE TO REMAIN
62	WHITE PINE	25	3	GOOD	EXISTING TREE TO REMAIN
63	UNKNOWN	15	2	GOOD	EXISTING TREE TO REMAIN
64	WHITE SPRUCE	22	2	GOOD	EXISTING TREE TO REMAIN
65	WHITE SPRUCE	20	2	GOOD	EXISTING TREE TO REMAIN
66	WHITE SPRUCE	29	3	GOOD	EXISTING TREE TO REMAIN
67	CRABAPPLE	23	3	GOOD	EXISTING TREE TO REMAIN
68	CRABAPPLE	18	3	GOOD	EXISTING TREE TO REMAIN
69	ELM	14	2	GOOD	EXISTING TREE TO REMAIN
70	ELM	13	2	GOOD	EXISTING TREE TO REMAIN
71	ELM	15	2	GOOD	EXISTING TREE TO REMAIN
74	BLUE SPRUCE	13	2	GOOD	EXISTING TREE TO REMAIN
75	BLUE SPRUCE	19	2	GOOD	EXISTING TREE TO REMAIN
76	BLUE SPRUCE	17	2	GOOD	EXISTING TREE TO REMAIN
77	IRONWOOD	15	3	GOOD	EXISTING TREE TO REMAIN
78	SUGAR MAPLE	20	4	GOOD	EXISTING TREE TO REMAIN
79	SUGAR MAPLE	29	4	GOOD	EXISTING TREE TO REMAIN
80	MANITOBA MAPLE	23	5	GOOD	EXISTING TREE TO REMAIN
81	WHITE ELM	25	3	GOOD	EXISTING TREE TO REMAIN
82	MANITOBA MAPLE	35	5	GOOD	EXISTING TREE TO REMAIN
83	SUGAR MAPLE	30	4	GOOD	EXISTING TREE TO REMAIN
84	IRONWOOD	18	0	GOOD	EXISTING TREE TO REMAIN
85	IRONWOOD	33	4	GOOD	EXISTING TREE TO REMAIN
86	SUGAR MAPLE	12	3	GOOD	EXISTING TREE TO REMAIN
87	IRONWOOD	15	3	GOOD	EXISTING TREE TO REMAIN
88	BASSWOOD	30	4	GOOD	EXISTING TREE TO REMAIN
89	BASSWOOD	21	3	GOOD	EXISTING TREE TO REMAIN
90	BASSWOOD	26	2	GOOD	EXISTING TREE TO REMAIN
91	BASSWOOD	21	3	GOOD	EXISTING TREE TO REMAIN
92	IRONWOOD	21	3	GOOD	EXISTING TREE TO REMAIN
93	SUGAR MAPLE	11	3	GOOD	EXISTING TREE TO REMAIN
94	MANITOBA MAPLE	20	4	GOOD	EXISTING TREE TO REMAIN
95	SWAMP WHITE OAK	17	3	GOOD	EXISTING TREE TO REMAIN
96	SUGAR MAPLE	19	3	GOOD	EXISTING TREE TO REMAIN
97	WHITE ELM	43	6	GOOD	EXISTING TREE TO REMAIN
98	SUGAR MAPLE	18	2	POTENTIAL TROUBLE	EXISTING TREE TO REMAIN
99	SUGAR MAPLE	18	4	GOOD	EXISTING TREE TO REMAIN
100	SUGAR MAPLE	10	2	POTENTIAL TROUBLE	EXISTING TREE TO REMAIN
101	SUGAR MAPLE	10	1	POTENTIAL TROUBLE	EXISTING TREE TO REMAIN
102	SUGAR MAPLE	21	3	SATISFACTORY	EXISTING TREE TO REMAIN
103	SUGAR MAPLE	15	3	POTENTIAL TROUBLE	EXISTING TREE TO REMAIN
104	SUGAR MAPLE	52	5	GOOD	EXISTING TREE TO REMAIN
105	SUGAR MAPLE	24	2	GOOD	EXISTING TREE TO REMAIN
106	WHITE ELM	13	2	GOOD	EXISTING TREE TO REMAIN
107	SUGAR MAPLE	39	4	GOOD	EXISTING TREE TO REMAIN
108	SUGAR MAPLE	25	4	GOOD	EXISTING TREE TO REMAIN
109	SUGAR MAPLE	55	5	GOOD	EXISTING TREE TO REMAIN
110	SUGAR MAPLE	68	6	GOOD	EXISTING TREE TO REMAIN
111	SUGAR MAPLE	45	5	GOOD	EXISTING TREE TO REMAIN
112	SUGAR MAPLE	42	5	GOOD	EXISTING TREE TO REMAIN

TREE INVENTORY & ACTION REQUIRED BY CONTRACTOR

TREE #	SPECIES	DBH (cm)	DIAMETER (m)	CONDITION	ACTION REQUIRED BY CONTRACTOR
40	EUROPEAN BEECH	17	1	GOOD	CONTRACTOR TO REMOVE AND DISPOSE OF TREE, STUMP AND ROOT SYSTEM, DBH <20CM: CONTRACTOR TO REMOVE AND DISPOSE OF TREE, STUMP AND ROOT SYSTEM, DBH <20CM: 1
178	NORWAY MAPLE	25	2	POTENTIAL TROUBLE	CONTRACTOR TO REMOVE AND DISPOSE OF TREE, STUMP AND ROOT SYSTEM, DBH >20CM: CONTRACTOR TO REMOVE AND DISPOSE OF TREE, STUMP AND ROOT SYSTEM, DBH >20CM: 1
2	EUROPEAN BEECH	15	1	GOOD	EXISTING TREE TO REMAIN
3	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
4	EUROPEAN BEECH	18	2	GOOD	EXISTING TREE TO REMAIN
5	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
6	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
7	EUROPEAN BEECH	16	3	GOOD	EXISTING TREE TO REMAIN
8	EUROPEAN BEECH	16	3	GOOD	EXISTING TREE TO REMAIN
9	EUROPEAN BEECH	18	3	GOOD	EXISTING TREE TO REMAIN
10	EUROPEAN BEECH	10	1	GOOD	EXISTING TREE TO REMAIN
11	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
12	EUROPEAN BEECH	18	3	GOOD	EXISTING TREE TO REMAIN
14	SILVER MAPLE	22	3	GOOD	EXISTING TREE TO REMAIN
19	BLACK WALNUT	44	5	GOOD	EXISTING TREE TO REMAIN
20	BASSWOOD	22	3	GOOD	EXISTING TREE TO REMAIN
21	SILVER MAPLE	19	3	GOOD	EXISTING TREE TO REMAIN
22	SILVER MAPLE	23	3	GOOD	EXISTING TREE TO REMAIN
23	SILVER MAPLE	20	3	GOOD	EXISTING TREE TO REMAIN
24	SILVER MAPLE	22	3	GOOD	EXISTING TREE TO REMAIN
25	CRABAPPLE	19	2	GOOD	EXISTING TREE TO REMAIN
26	HONEY LOCUST	17	2	GOOD	EXISTING TREE TO REMAIN
27	HONEY LOCUST	17	2	GOOD	EXISTING TREE TO REMAIN
28	KENTUCKY COFFEE TREE	13	2	GOOD	EXISTING TREE TO REMAIN
29	HONEY LOCUST	14	2	GOOD	EXISTING TREE TO REMAIN
30	EUROPEAN BEECH	20	3	GOOD	EXISTING TREE TO REMAIN
31	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
32	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
33	EUROPEAN BEECH	16	2	GOOD	EXISTING TREE TO REMAIN
34	EUROPEAN BEECH	19	2	GOOD	EXISTING TREE TO REMAIN
35	EUROPEAN BEECH	19	3	GOOD	EXISTING TREE TO REMAIN
36	EUROPEAN BEECH	16	3	GOOD	EXISTING TREE TO REMAIN
37	EUROPEAN BEECH	22	3	GOOD	EXISTING TREE TO REMAIN
38	EUROPEAN BEECH	18	2	GOOD	EXISTING TREE TO REMAIN
39	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
41	SILVER MAPLE	11	2	GOOD	EXISTING TREE TO REMAIN
42	ELM	12	2	GOOD	EXISTING TREE TO REMAIN
43	ELM	14	2	GOOD	EXISTING TREE TO REMAIN
44	ELM	13	2	GOOD	EXISTING TREE TO REMAIN
45	HONEY LOCUST	18	3	GOOD	EXISTING TREE TO REMAIN
46	LONDON PLANE TREE	20	3	GOOD	EXISTING TREE TO REMAIN
47	EUROPEAN BEECH	17	2	GOOD	EXISTING TREE TO REMAIN
48	HONEY LOCUST	14	2	GOOD	EXISTING TREE TO REMAIN
49	LONDON PLANE TREE	29	4	GOOD	EXISTING TREE TO REMAIN
50	LONDON PLANE TREE	26	4	GOOD	EXISTING TREE TO REMAIN
51	SILVER MAPLE	24	3	GOOD	EXISTING TREE TO REMAIN
52	SILVER MAPLE	29	4	GOOD	EXISTING TREE TO REMAIN
53	LONDON PLANE TREE	20	3	GOOD	EXISTING TREE TO REMAIN
54	KENTUCKY COFFEE TREE	14	3	GOOD	EXISTING TREE TO REMAIN
55	KENTUCKY COFFEE TREE	11	2	GOOD	EXISTING TREE TO REMAIN



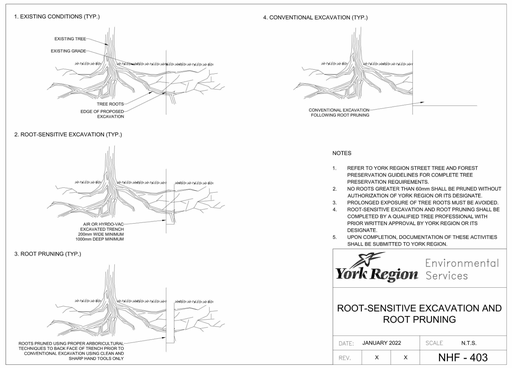
NOTES

1. REFER TO YORK REGION STREET TREE AND FOREST PRESERVATION GUIDELINES FOR COMPLETE TREE PRESERVATION REQUIREMENTS.
2. TREE STEM PROTECTION SHALL ONLY BE INSTALLED WHERE TPZ ENCROACHMENT IS APPROVED IN WRITING BY YORK REGION OR ITS DESIGNATE AND WHERE THERE IS A REASONABLE POSSIBILITY OF ACCIDENTAL IMPACT UPON THE MAIN STEM OR SCAFFOLD BRANCHES OF A TREE TO BE PRESERVED

York Region Environmental Services

TREE STEM PROTECTION

DATE:	JANUARY 2022	SCALE:	N.T.S.
REV.	X	X	NHF - 405



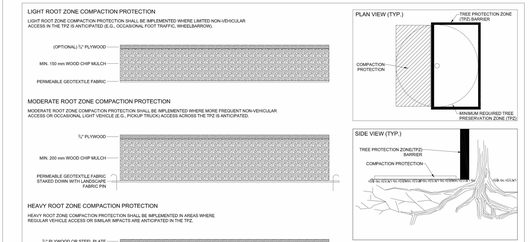
NOTES

1. REFER TO YORK REGION STREET TREE AND FOREST PRESERVATION GUIDELINES FOR COMPLETE TREE PRESERVATION REQUIREMENTS.
2. NO ROOTS GREATER THAN 60mm SHALL BE PRUNED WITHOUT AUTHORIZATION OF YORK REGION OR ITS DESIGNATE.
3. PROLONGED EXPOSURE OF TREE ROOTS MUST BE AVOIDED.
4. ROOT-SENSITIVE EXCAVATION AND ROOT PRUNING SHALL BE COMPLETED BY A QUALIFIED TREE PROFESSIONAL WITH PRIOR WRITTEN APPROVAL BY YORK REGION OR ITS DESIGNATE.
5. UPON COMPLETION, DOCUMENTATION OF THESE ACTIVITIES SHALL BE SUBMITTED TO YORK REGION.

York Region Environmental Services

ROOT-SENSITIVE EXCAVATION AND ROOT PRUNING

DATE:	JANUARY 2022	SCALE:	N.T.S.
REV.	X	X	NHF - 403



NOTES

1. REFER TO YORK REGION STREET TREE AND FOREST PRESERVATION GUIDELINES FOR COMPLETE TREE PRESERVATION REQUIREMENTS.
2. ANY TPZ BARRIER ENCROACHMENT MUST BE PERMITTED IN WRITING BY YORK REGION OR ITS DESIGNATE.

York Region Environmental Services

ROOT ZONE COMPACTION PROTECTION

DATE:	JANUARY 2022	SCALE:	N.T.S.
REV.	X	X	NHF - 404

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT

THOMASBROWNARCHITECTS

197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

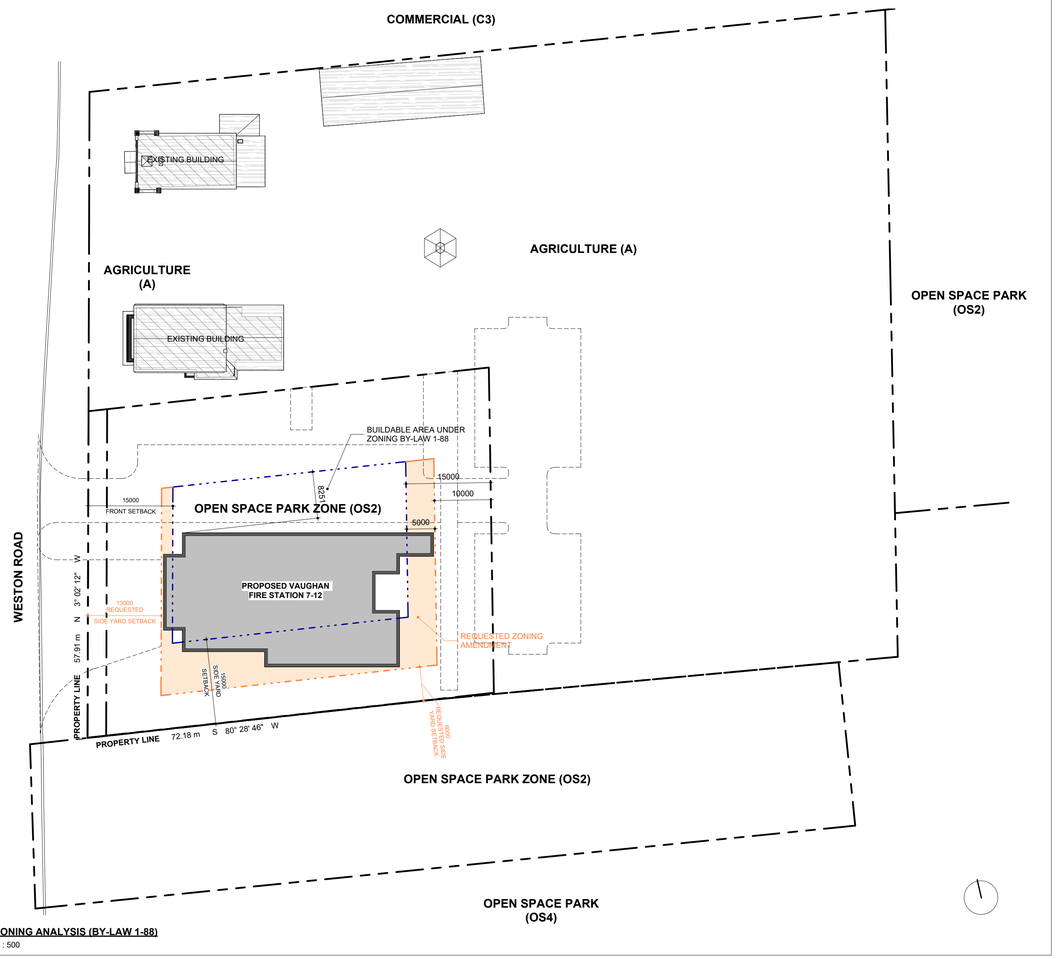
DWG TITLE

TREE INVENTORY/ REMOVAL/ PRESERVATION PLAN SCHEDULES

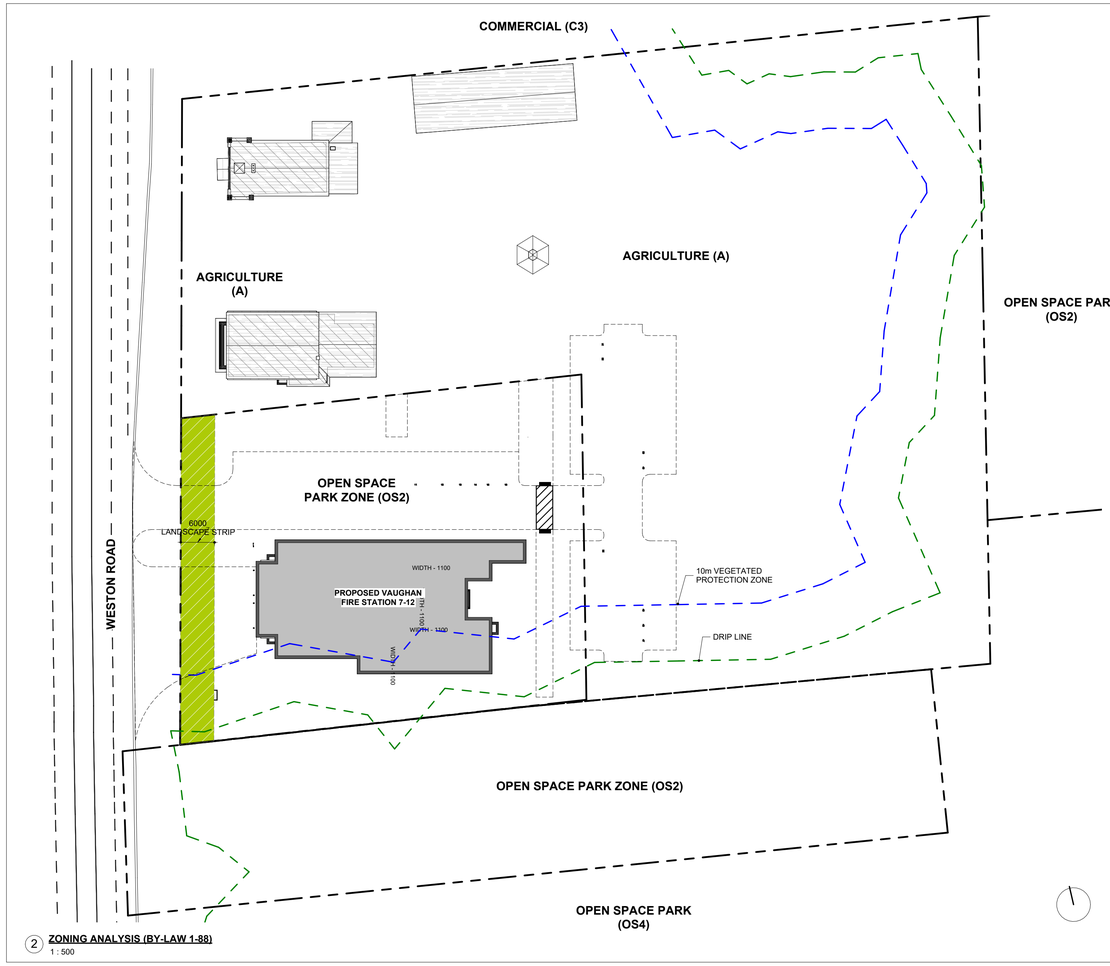
ORIENTATION

DATE	2021-11-24
SCALE	DRAWN BY: SRL
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	**A2.4**
REVISION	30

2024-09-09 4:04:38 PM



1 **ZONING ANALYSIS (BY-LAW 1-88)**
1 : 500



2 **ZONING ANALYSIS (BY-LAW 1-88)**
1 : 500

PROJECT SITE STATISTICES DATA

ZONING INFORMATION

ITEM	DESCRIPTION	DESCRIPTION
1	ZONING BY-LAW	BY-LAW 1-88
2	ZONING CATEGORY	PUBLIC OPEN SPACE ZONE (OS2)
3	PERMITTED USES	EMERGENCY SERVICES (INSTITUTIONAL PERMITTED IN OS2)
4	LOT AND PLAN NUMBER	PART OF LOT 17 CONCESSION 5

LOT REQUIREMENTS		REQUIRED		PROPOSED		COMPLIANCE	ACTION
5	LOT AREA	N/R	m²	4,138.70	m²	NOT APPLICABLE	NO ACTION
6	LOT FRONTAGE MINIMUM	N/R	m	N/R	m	NOT APPLICABLE	NO ACTION
7	LOT COVERAGE MAXIMUM %	N/R	%	22.23	%	NOT APPLICABLE	NO ACTION
8	LANDSCAPED AREA MINIMUM	N/R	m²	709.19	m²	NOT APPLICABLE	NO ACTION
9	GREEN ROOF AREA	N/R	m²	N/R	m²	NOT APPLICABLE	NO ACTION
10	FRONT YARD LANDSCAPE MINIMUM	N/R	%	N/R	%	NOT APPLICABLE	NO ACTION
11	HARDSCAPED AREA (HIGH ALBEDO)	N/R	m²	509.88	m²	NOT APPLICABLE	NO ACTION
12	PAVED AREA	N/R	m²	1,999.68	m²	NOT APPLICABLE	NO ACTION
PRINCIPAL BUILDING REQUIREMENTS		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
13	BUILDING HEIGHT MAXIMUM	11.00	m	14.60	m	**NOT COMPLIANT**	AMENDMENT RE'QD
14	FLOOR SPACE INDEX	N/A	FSI	0.22	FSI	NOT APPLICABLE	NO ACTION
15	BUILDING FOOTPRINT	N/A	m²	919.96	m²	NOT APPLICABLE	NO ACTION
16	GROSS BUILDING AREA	N/R	m²	919.96	m²	NOT APPLICABLE	NO ACTION
17	ESTABLISHED GRADE	N/R	m	N/R	m	NOT APPLICABLE	NO ACTION
PARKING / LOADING / BICYCLE SPACES		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
18	PARKING SPACES	18.00		45.00		**COMPLIANT**	NO ACTION
19	PARKING SPACES FOR PERSONS WITH DISABILITIES	1.00		4.00		**COMPLIANT**	NO ACTION
20	BICYCLE PARKING	N/R		N/R		NOT REQUIRED	NO ACTION
21	LOADING SPACES	N/R		N/R		NOT REQUIRED	NO ACTION
BUILDING TO PROPERTY SETBACKS		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
22	FRONT YARD SETBACK	15.00	m	13.00	m	NOT COMPLIANT	AMENDMENT RE'QD
23	SIDE YARD SETBACK	15.00	m	23.24	m	**COMPLIANT**	NO ACTION
24	REAR YARD SETBACK	15.00	m	10.00	m	NOT COMPLIANT	AMENDMENT RE'QD
25	SIDE YARD SETBACK	15.00	m	6.00	m	NOT COMPLIANT	AMENDMENT RE'QD
LANDSCAPE BUFFER PROPERTY SETBACKS		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
26	LANDSCAPE SETBACK FRONT YARD	6.00	m	6.00	m	**COMPLIANT**	NO ACTION
27	LANDSCAPE SETBACK SIDE YARD	N/R	m	N/R	m	NOT REQUIRED	NO ACTION
28	LANDSCAPE SETBACK REAR YARD	N/R	m	N/R	m	NOT REQUIRED	NO ACTION
29	LANDSCAPE SETBACK SIDE YARD	N/R	m	N/R	m	NOT REQUIRED	NO ACTION

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
8	MINOR VARIANCE	2022-06-27
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

SITE PLAN - ZONING BY-LAW 1-88 ANALYSIS

ORIENTATION

N TRUE NORTH

N CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A2.5** | REVISION 30

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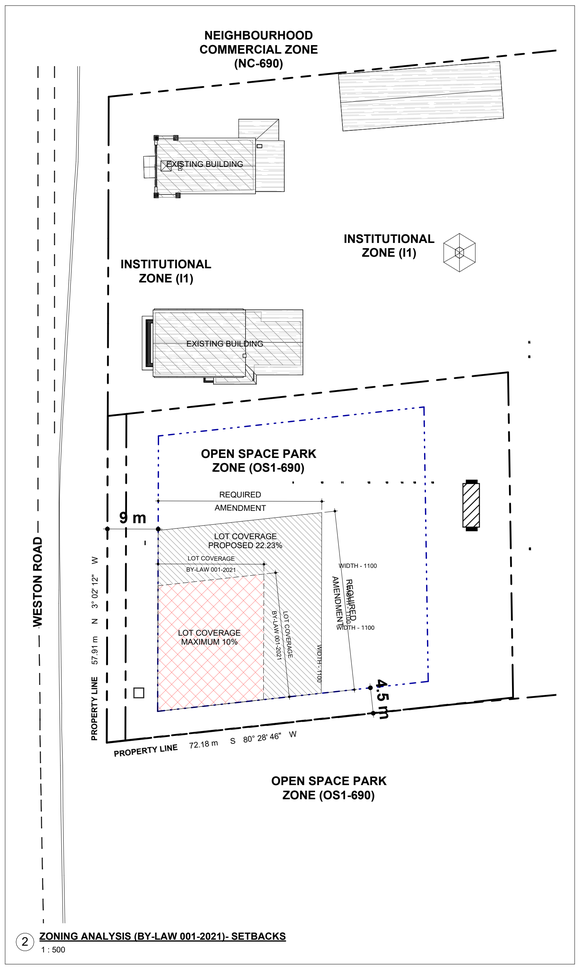
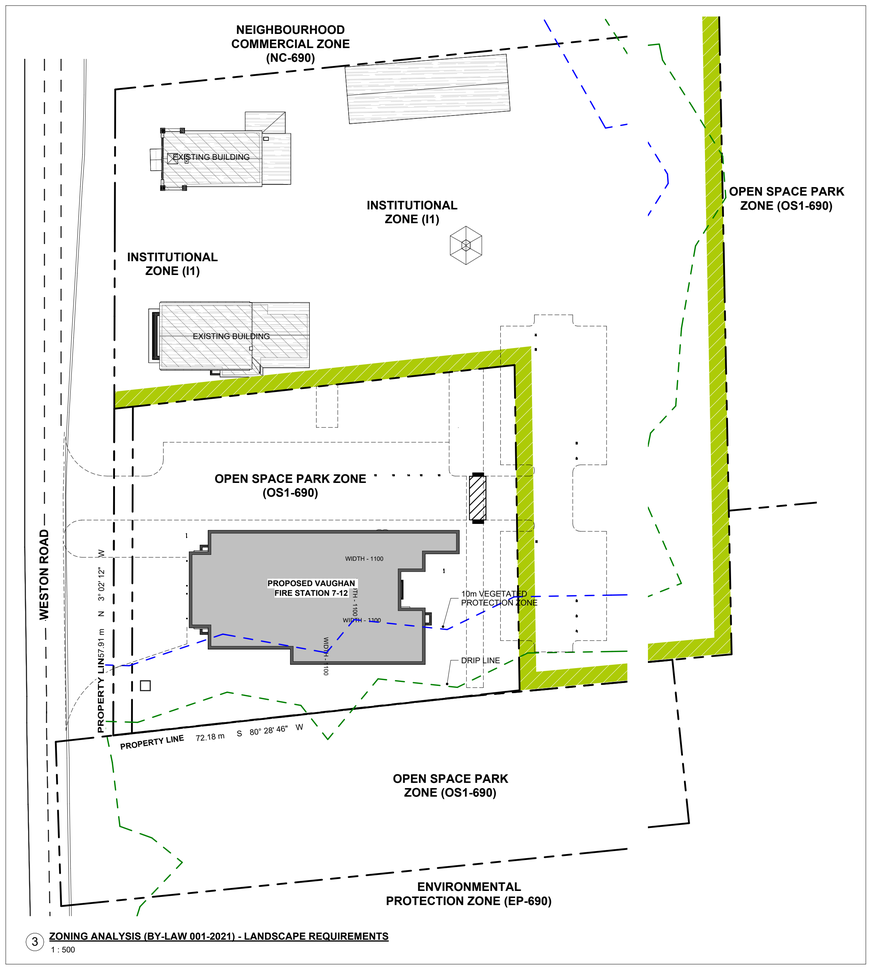
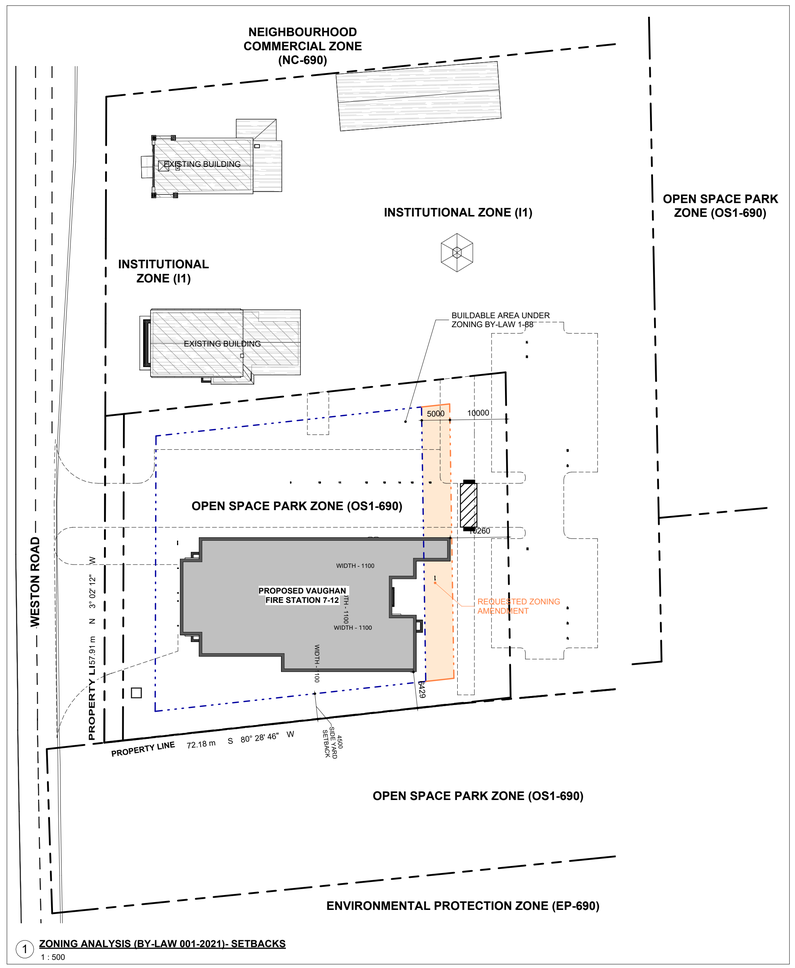


2 ZONING ANALYSIS (BY-LAW 001-2021)- SETBACKS
1 : 500



3 ZONING ANALYSIS (BY-LAW 001-2021) - LANDSCAPE REQUIREMENTS
1 : 500



1 ZONING ANALYSIS (BY-LAW 001-2021)- SETBACKS
1 : 500

PROJECT SITE STATISTICES DATA

ZONING INFORMATION

ITEM	DESCRIPTION	DESCRIPTION
1	ZONING BY-LAW	BY-LAW 001-2021
2	ZONING CATEGORY	PUBLIC OPEN SPACE ZONE (OS1)
3	PERMITTED USES	EMERGENCY SERVICES (NOT PERMITTED IN OS1) - AMENDMENT RE'RD
4	LOT AND PLAN NUMBER	PART OF LOT 17 CONCESSION 5

LOT REQUIREMENTS		REQUIRED		PROPOSED		COMPLIANCE	ACTION
5	LOT AREA	N/R	m²	4,138.70	m²	NOT APPLICABLE	NO ACTION
6	LOT FRONTAGE MINIMUM	12.00	m	N/R	m	NOT REQUIRED	NO ACTION
7	LOT COVERAGE MAXIMUM %	10.00	%	22.23	%	NOT COMPLIANT	AMENDMENT RE'QD
8	LANDSCAPED AREA MINIMUM	N/R	m²	709.19	m²	NOT REQUIRED	NO ACTION
9	GREEN ROOF AREA	N/R	m²	N/R	m²	NOT REQUIRED	NO ACTION
10	FRONT YARD LANDSCAPE MINIMUM	N/R	%	N/R	%	NOT REQUIRED	NO ACTION
11	HARDSCAPED AREA (HIGH ALBEDO)	N/R	m²	509.88	m²	NOT REQUIRED	NO ACTION
12	PAVED AREA	N/R	m²	1,999.68	m²	NOT REQUIRED	NO ACTION
PRINCIPAL BUILDING REQUIREMENTS		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
13	BUILDING HEIGHT MAXIMUM	11.00	m	14.60	m	NOT COMPLIANT	AMENDMENT RE'QD
14	FLOOR SPACE INDEX	N/A	FSI	0.22	FSI	NOT REQUIRED	NO ACTION
15	BUILDING FOOTPRINT	N/A	m²	919.96	m²	NOT REQUIRED	NO ACTION
16	GROSS BUILDING AREA	N/R	m²	919.96	m²	NOT REQUIRED	NO ACTION
17	ESTABLISHED GRADE	N/R	m	N/R	m	NOT REQUIRED	NO ACTION
PARKING / LOADING / BICYCLE SPACES		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
18	PARKING SPACES	18.00		45.00		COMPLIANT	NO ACTION
19	PARKING SPACES FOR PERSONS WITH DISABILITIES	1.00		4.00		COMPLIANT	NO ACTION
20	BICYCLE PARKING	9.00		0.00		NOT REQUIRED	NO ACTION
21	LOADING SPACES	N/R		N/R		NOT REQUIRED	NO ACTION
BUILDING TO PROPERTY SETBACKS		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
22	FRONT YARD SETBACK	9.00	m	9.00	m	COMPLIANT	NO ACTION
23	SIDE YARD SETBACK	4.50	m	23.24	m	COMPLIANT	NO ACTION
24	REAR YARD SETBACK	15.00	m	10.00	m	NOT COMPLIANT	AMENDMENT RE'QD
25	SIDE YARD SETBACK	4.50	m	4.50	m	COMPLIANT	NO ACTION
LANDSCAPE BUFFER PROPERTY SETBACKS		**REQUIRED**		**PROPOSED**		**COMPLIANCE**	**ACTION**
26	LANDSCAPE SETBACK FRONT YARD	N/R	m	N/R	m	COMPLIANT	NO ACTION
27	LANDSCAPE SETBACK SIDE YARD	N/R	m	N/R	m	NOT REQUIRED	NO ACTION
28	LANDSCAPE SETBACK REAR YARD	N/R	m	N/R	m	NOT REQUIRED	NO ACTION
29	LANDSCAPE SETBACK SIDE YARD	N/R	m	N/R	m	NOT REQUIRED	NO ACTION

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

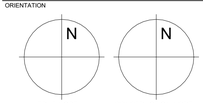
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǁ TORONTO ONTARIO ǁ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

SITE PLAN - ZONING BY-LAW 001-2021 ANALYSIS

ORIENTATION



TRUE NORTH CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated

DRAWN BY SRL

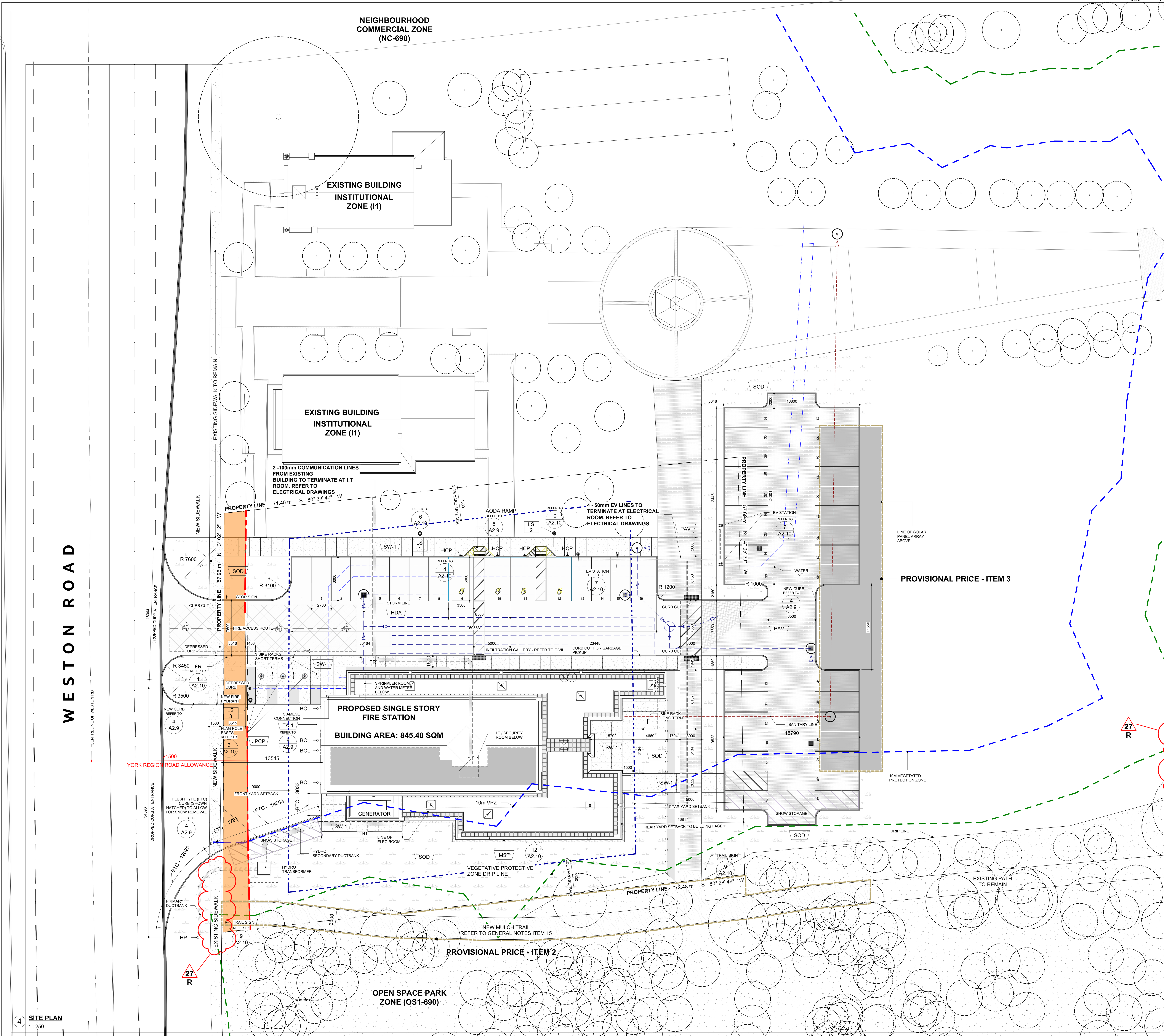
DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. A2.6

REVISION 30

2024-09-09 4:05:04 PM


NEIGHBOURHOOD COMMERCIAL ZONE (NC-690)
EXISTING BUILDING INSTITUTIONAL ZONE (I1)
EXISTING BUILDING INSTITUTIONAL ZONE (I1)
WESTON ROAD
PROPOSED SINGLE STORY FIRE STATION
BUILDING AREA: 845.40 SQM
PROVISIONAL PRICE - ITEM 3
PROVISIONAL PRICE - ITEM 2
OPEN SPACE PARK ZONE (OS1-690)
2 -100mm COMMUNICATION LINES FROM EXISTING BUILDING TO TERMINATE AT I.T ROOM. REFER TO ELECTRICAL DRAWINGS
4 - 50mm EV LINES TO TERMINATE AT ELECTRICAL ROOM. REFER TO ELECTRICAL DRAWINGS
YORK REGION ROAD ALLOWANCE
NEW MULCH TRAIL REFER TO GENERAL NOTES ITEM 15
VEGETATIVE PROTECTIVE ZONE DRIP LINE
EXISTING PATH TO REMAIN
PROPERTY LINE
LINE OF SOLAR PANEL ARRAY ABOVE
10M VEGETATED PROTECTION ZONE

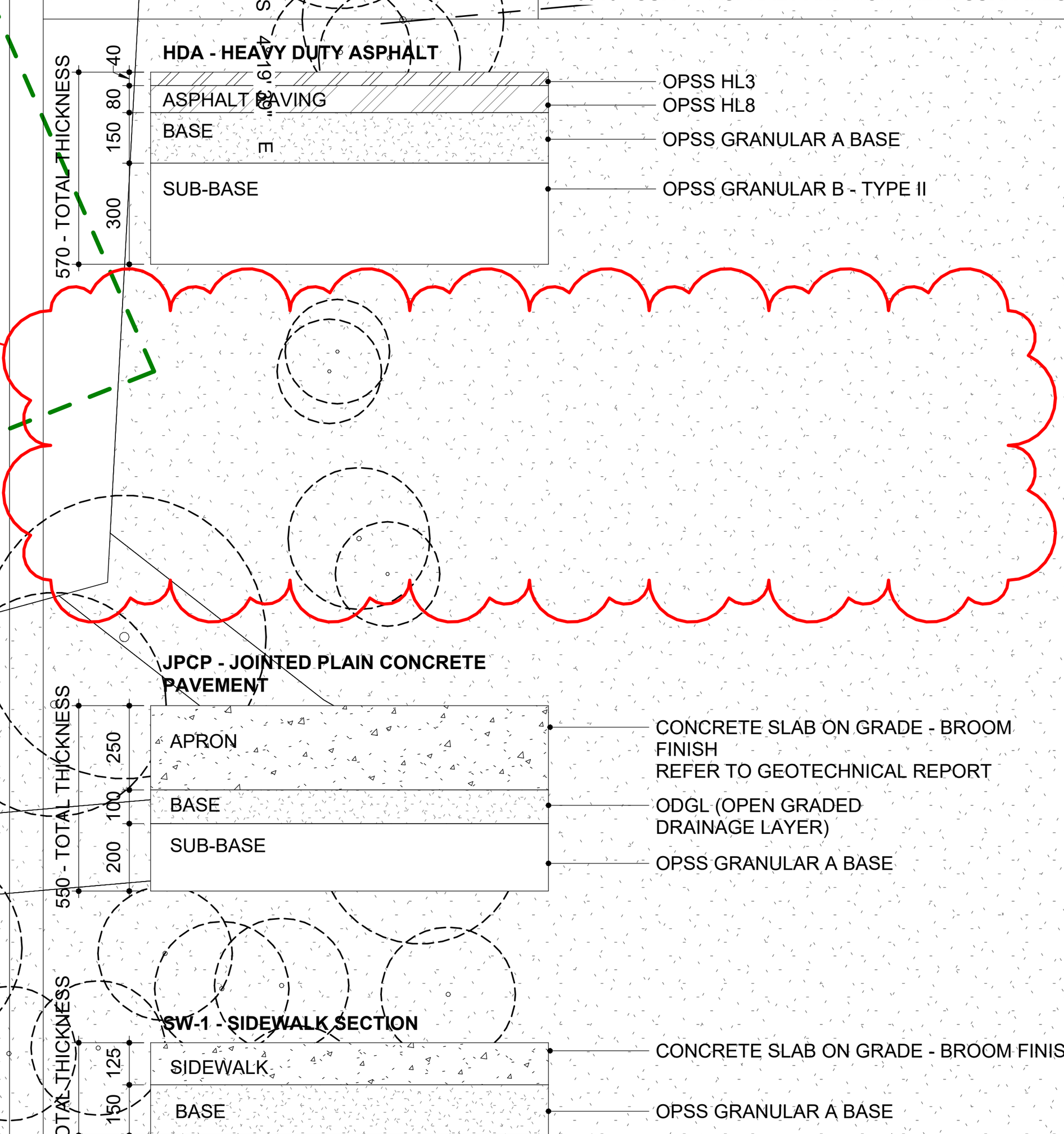
4 SITE PLAN
1 : 250

1 KEY PLAN
1 : 15000

2 / A2.7 — A700 GENERAL NOTES - SITE PLAN

1. THE CONTRACT CONSISTS OF ALL WORK WITH-IN THE 'PROPERTY LINE' AND/OR 'SITE EXTENTS' LINE AS INDICATED PLUS ANY WORK SPECIFICALLY NOTED OUTSIDE OF THAT LINE OR AS REQUIRED TO DELIVER A OPERATIONAL, FUNCTIONING PROJECT.
2. THE TERM 'SITE EXTENTS' REFERS TO THE AREA THAT THE CONTRACTOR IS REQUIRED TO ENCLOSE WITH CONSTRUCTION FENCING FOR THE DURATION OF THE WORK.
3. ALL WORK DONE OUTSIDE OF THESE LIMITS MUST BE EXECUTED IN STRICT ACCORDANCE WITH THE STANDARDS OF THE MUNICIPALITY AND ALL OTHER AUTHORITIES HAVING JURISDICTION. MAKE GOOD AT NO ADDITIONAL COST TO THE OWNER OR MUNICIPALITY ANY DAMAGE CAUSED BY THIS CONSTRUCTION TO MATERIALS OR FINISHES BEYOND THE "PROPERTY LINE" INDICATED.
4. CONTRACTOR IS TO RESTRICT ALL WORK, EQUIPMENT AND MATERIALS STORAGE TO AREA(S) WITHIN THE "PROPERTY LINE" EXCEPT WHERE NOTED OTHERWISE. PRIMARY SITE ACCESS POINT & CONSTRUCTION PARKING IS TO BE CONFIRMED WITH OWNER. NO PARKING IS PERMITTED IN THE MUNICIPAL RIGHT-OF-WAY.
5. THE REGION'S 1800MM YORK-PEEL WATERMAIN IS LOCATED IN THE WESTON ROAD RIGHT-OF-WAY IN CLOSE PROXIMITY TO THE PROPOSED DEVELOPMENT. INTEGRITY OF THE ABOVE REGIONAL INFRASTRUCTURE SHALL BE PROTECTED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION AND GRADING OF THE PROPOSED DEVELOPMENT. ANY CONSTRUCTION WORKS IN CLOSE PROXIMITY TO THE WATERMAIN INCLUDING SHORING SYSTEMS REQUIRE THE REGION'S APPROVAL PRIOR TO CONSTRUCTION. REFER TO DRAWING A2.1 FOR LOCATION OF 'C.P.P FEEDERMAIN'.
6. LOCATE EXCAVATED MATERIALS & TOPSOIL PILES SO AS NOT TO IMPEDE PROGRESS OF THE WORK OR AS DIRECTED. 'DOUBLE HANDLING' OF MATERIALS AS A RESULT OF CONTRACTOR PLANNING OR EXECUTION OF THE WORK WILL NOT BE CONSIDERED AS A BASIS FOR CLAIM. AT COMPLETION OF THE PROJECT, ANY EXCESS MATERIAL IS TO BE REMOVED AND AREA MADE GOOD TO CONSULTANTS SATISFACTION.
7. FOR TRENCHING & BACKFILLING OF ALL SERVICE LINES AND DIVISION OF RESPONSIBILITY REFER TO APPROPRIATE SPECIFICATION SECTIONS AND DRAWINGS. TRENCHING & BACKFILLING NOT IDENTIFIED BY A PARTICULAR SUB-TRADE WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO PROVIDE TRENCHING AND BACKFILLING. GRADE FINISHED WORK TO MATCH SURROUNDING SURFACES.
8. NOTE THAT THE EXACT LOCATIONS OF ALL NEW MECHANICAL & ELECTRICAL ITEMS ARE APPROXIMATE UNLESS DIMENSIONS ARE GIVEN. ADJUST LOCATIONS AS REQUIRED AND AS APPROVED BY CONSULTANT TO SUIT SITE CONDITIONS.
9. NOTE THAT ALL MECHANICAL AND ELECTRICAL UNDERGROUND AND ABOVEGROUND SERVICE LINES INDICATED ON DRAWINGS ARE APPROXIMATE ONLY AND ARE INDICATED AS ACCURATELY AS POSSIBLE FROM INFORMATION SUPPLIED. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT TYPES, LOCATIONS, DEPTHS AND MARKING ALL UNDERGROUND AND ABOVEGROUND SERVICES WITHIN ALL AREAS OF CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO GAS LINES, WATER LINES, ELECTRICAL LINES, TELEPHONE, CABLE TV ETC. VERIFY EXACT LOCATIONS WITH THE APPROPRIATE AUTHORITIES BEFORE EXCAVATING.
10. PRIOR TO COMMENCING WORK TO PLACE VERTICAL ELEMENTS SUCH AS FLAGPOLES AND LIGHT STANDARDS ENSURE ADEQUATE CLEARANCE FROM EXISTING ABOVE GROUND ELEMENTS SUCH AS OVERHEAD WIRES CABLES ETC. NOTIFY THE CONSULTANT OF ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
11. ALL FINISHED PAVING AND GRADING TO BE TO NEW LEVELS SHOWN. ALL DRAINAGE TO BE POSITIVE, LEAVING NO POCKETS IN FINISHED GRADE. FINISHED GRADING TO SLOPE MINIMUM 1:12 AND ASPHALT TO SLOPE MAX 1:10 AWAY FROM BUILDING UNLESS SHOWN OTHERWISE. NEW GRADES TO MEET EXISTING GRADES FALLING AWAY FROM BUILDING AND FEATHERED OUT EVENLY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE RECORDS OF CONSTRUCTION TO FACILITATE AS-BUILT DRAWINGS.
13. CO-ORDINATE ALL WORK NOTED HERE WITH THE SPECIFICATION DOCUMENTS - FOR GENERAL REQUIREMENTS, EXISTING CONDITIONS, EXCAVATION & BACKFILLING, LANDSCAPING, ETC AS REQUIRED FOR COMPLETE SITE RELATED WORK.
14. PARK OPEN SPACE SHALL BE RESTORED TO EQUAL OR GREATER CONDITION.
15. THE TRAIL SHALL BE STAKED OUT ON SITE DURING CONSTRUCTION WITH STAFF FROM THE CITY'S FORESTRY DEPARTMENT AND PARKS INFRASTRUCTURE PLANNING AND DEVELOPMENT IN ATTENDANCE
16. MULCH TRAIL SHALL BE BUILT ON TOP OF EXISTING GRADING, NO EXCAVATION

3 ASPHALT AND CONCRETE PAVEMENT — 2-0016 - SUR-1 - ASPHALT AND CONCRETE SURFACES


HDA - HEAVY DUTY ASPHALT
570 - TOTAL THICKNESS
40
80
150
300
ASPHALT PAVING
BASE
SUB-BASE
OPSS HL3
OPSS HL8
OPSS GRANULAR A BASE
OPSS GRANULAR B - TYPE II
JPCP - JOINTED PLAIN CONCRETE PAVEMENT
550 - TOTAL THICKNESS
250
100
200
APRON
BASE
SUB-BASE
CONCRETE SLAB ON GRADE - BROOM FINISH
REFER TO GEOTECHNICAL REPORT
ODGL (OPEN GRADED DRAINAGE LAYER)
OPSS GRANULAR A BASE
SW-1 - SIDEWALK SECTION
275 - TOTAL THICKNESS
125
150
SIDEWALK
BASE
CONCRETE SLAB ON GRADE - BROOM FINISH
OPSS GRANULAR A BASE

NOTE: SIDEWALK THICKNESS TO MEET MUNICIPAL REQUIREMENT AT DRIVEWAY ENTRANCES. CONFIRM MUNICIPAL REQUIREMENTS PRIOR TO PROCEEDING

NOTES:
1. REFER ALSO TO GEOTECHNICAL REPORT(S) TO CONFIRM LAYER THICKNESSES. REPORT ANY DISCREPANCIES TO THE CONSULTANT PRIOR TO PROCEEDING.
CONCRETE SHALL BE CLASS C2, 32MPa, 5-8% AIR CONTENT WITH A MAX. SLUMP OF 80MM

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
10	SPA RE-SUBMISSION	2022-08-30
15	ROAD WIDENING - CLIENT REVIEW	2023-07-19
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
20	SPA - REVISION #2	2023-10-24
24	ISSUED FOR CLASS A	2024-02-16
25	CLIENT REVIEW - 100%	2024-03-12
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT

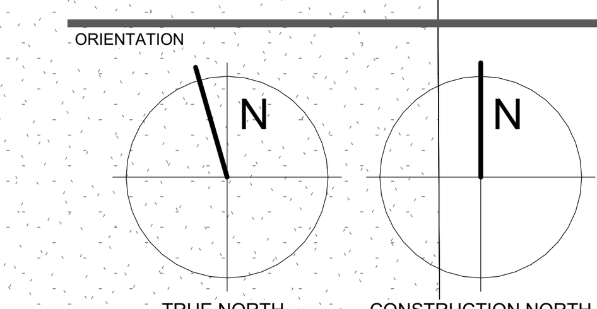
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

SITE PLAN & SITE PLAN GENERAL NOTES

ORIENTATION



DATE: 2021-11-24

SCALE: As indicated | DRAWN BY: SRL

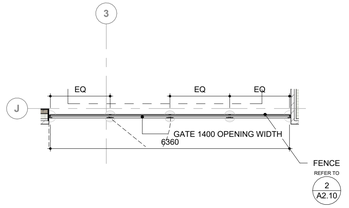
DWG STATUS: TENDER

PROJECT No.: 2104

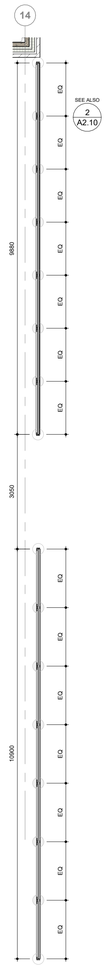
DRAWING No.: A2.7 | REVISION: 30

2024-09-09 4:05:21 PM

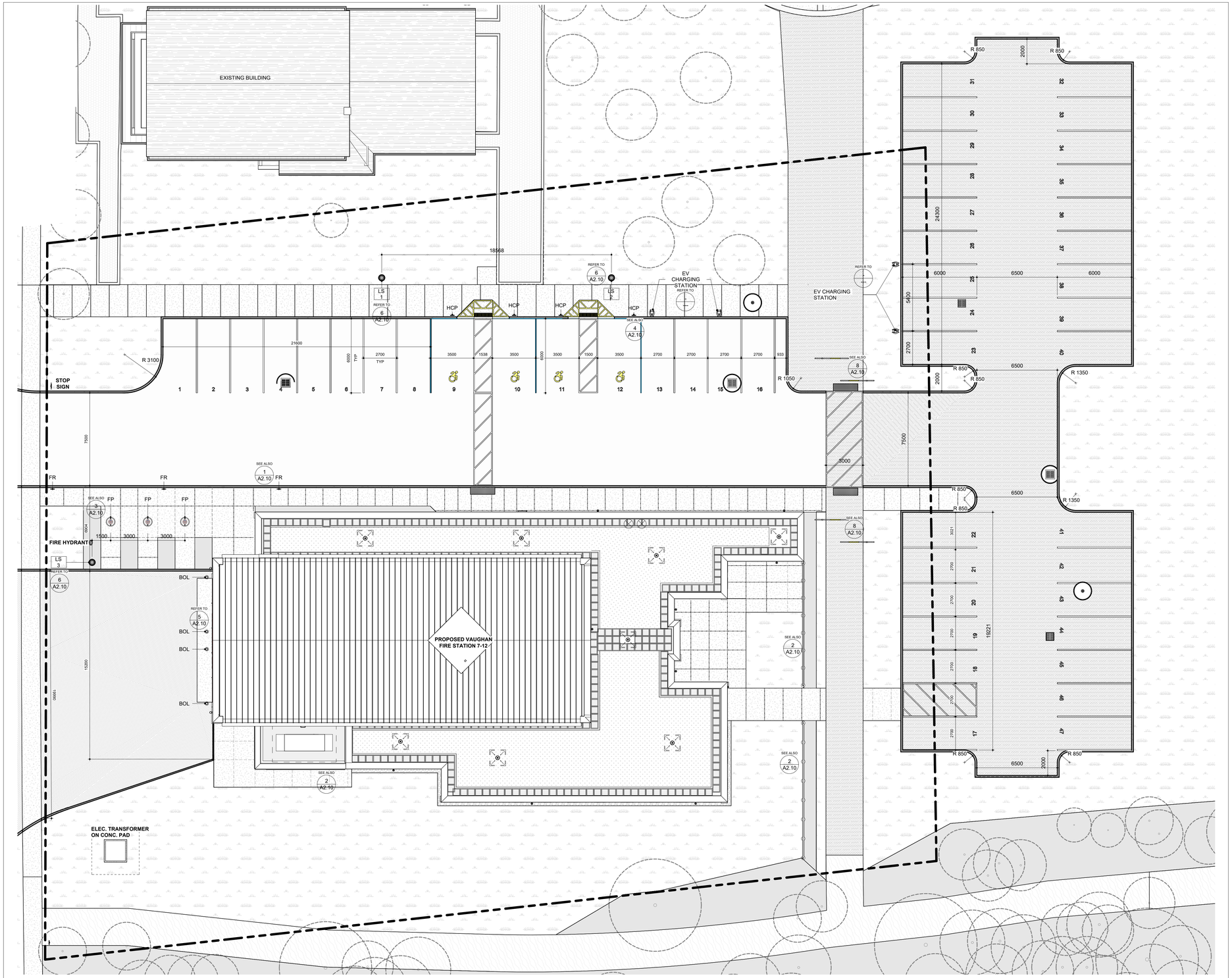
V7-12 - IFC000014



2 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 75



3 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 75



1 **SITE PLAN - LAYOUT PLAN**
1 : 150

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN
FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

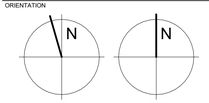
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

LAYOUT - SITE PLAN

ORIENTATION



TRUE NORTH CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

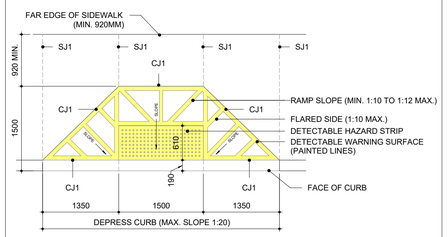
PROJECT No. 2104

DRAWING No. **A2.8** | REVISION 30

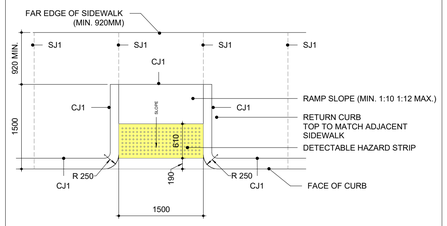
2024-09-09 4:05:32 PM

7 / A2.9

2-0008 - AODA RAMP-1 AODA PARKING SPACE DETAILS



FLARED CURB RAMP DETAILS (WHERE INDICATED)

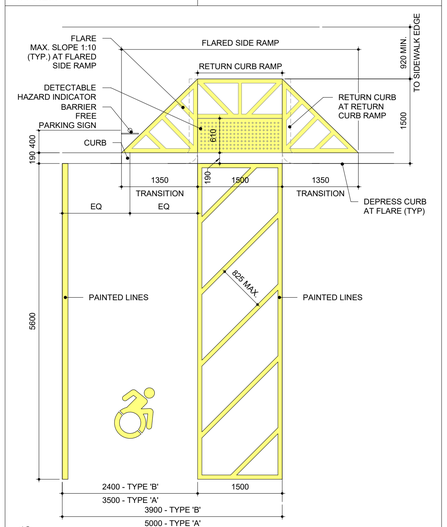


RETURN CURB RAMP DETAILS (WHERE INDICATED)

AODA MANDATORY REQUIREMENT

6 / A2.9

2-0008 - AODA PARK-1 - AODA PARKING SPACE DETAILS

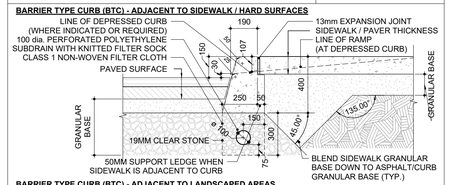


AODA MANDATORY REQUIREMENT

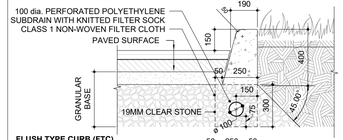
4 / A2.9

2-0011 - CD-1 - CURB DETAILS

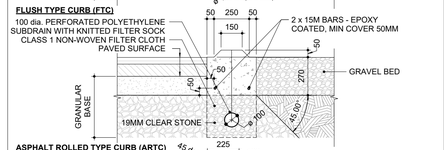
BARRIER TYPE CURB (BTC) - ADJACENT TO SIDEWALK / HARD SURFACES



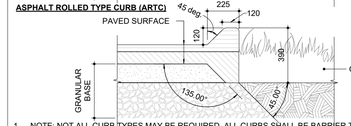
BARRIER TYPE CURB (BTC) - ADJACENT TO LANDSCAPED AREAS



FLUSH TYPE CURB (FTC)



ASPHALT ROLLED TYPE CURB (ARTC)

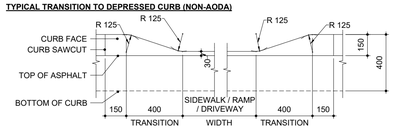


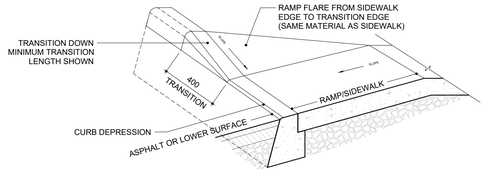
1. NOTE: NOT ALL CURB TYPES MAY BE REQUIRED. ALL CURBS SHALL BE BARRIER TYPE (ADJACENT TO SIDEWALK / HARD SURFACES OR LANDSCAPED AREAS) UNLESS SPECIFICALLY NOTED OTHERWISE
2. CONCRETE SHALL BE CLASS C2, 32MPa, 5-8% AIR CONTENT WITH A MAX. SLUMP OF 80MM

1 / A2.9

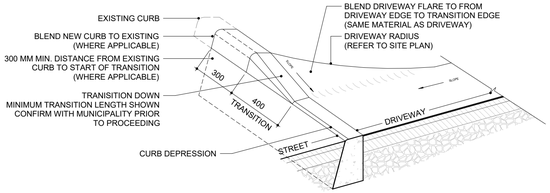
2-0012 - CD-2 - CURB AND RAMP DETAILS - SIDEWALKS AND DRIVEWAY ENTRANCES

TYPICAL TRANSITION TO DEPRESSED CURB (NON-AODA)



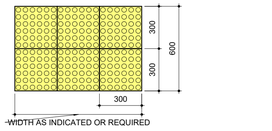


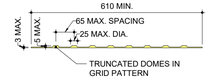
TYPICAL TRANSITION TO DEPRESSED CURB AT SIDEWALKS / RAMPS (NON-AODA)



TYPICAL TRANSITION TO DEPRESSED CURB AT DRIVEWAY ENTRANCES (NON-AODA)

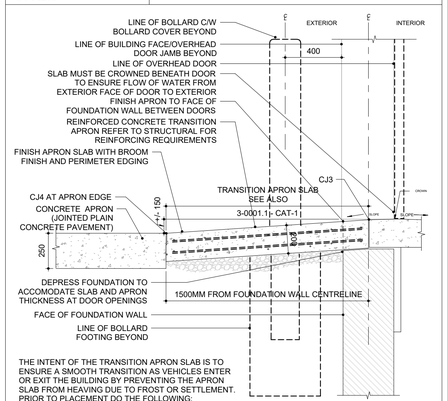
DETECTABLE HAZARD INDICATOR REQUIREMENTS





8 / A2.9

3-0002 - CAC-1 - CONCRETE TRANSITION APRON TYPICAL (CONCRETE)



THE INTENT OF THE TRANSITION APRON SLAB IS TO ENSURE A SMOOTH TRANSITION AS VEHICLES ENTER OR EXIT THE BUILDING BY PREVENTING THE APRON SLAB FROM HEAVING DUE TO FROST OR SETTLEMENT.
PRIOR TO PLACEMENT DO THE FOLLOWING:

1. DETERMINE THE LOCATION OF DOOR EXTERIOR FACE AND ENSURE THAT THE INTERIOR SLAB SLOPES DOWN FROM THIS POINT TO THE EXTERIOR
2. ENSURE THAT APRON WILL CONTINUE THIS SLOPE CONSISTENTLY TO DIRECT WATER AWAY FROM THE FACE OF THE DOOR

UNDER NO CIRCUMSTANCES SHALL WATER BE DIRECTED TOWARD BUILDING

ALL REINFORCING STEEL EPOXY COATED
CONCRETE SHALL BE CLASS C2, 32MPa, 5-8% AIR CONTENT WITH A MAX. SLUMP OF 80MM

5 / A2.9

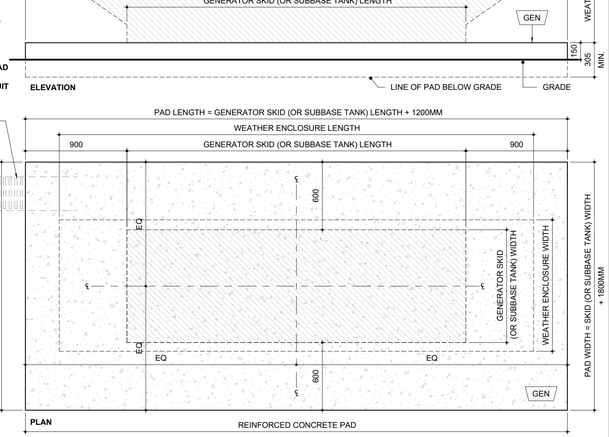
11-0007 - GD-2 - GENERATOR DETAIL (EXTERIOR)

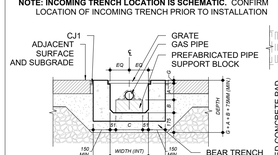
CONCRETE GENERATOR PAD NOTES:

1. DETERMINE SIZE OF GENERATOR SKID FRAME (OR SUBBASE TANK)
2. DETERMINE LOCATION OF STUB UPS FOR GENERATOR SKID FRAME (OR SUBBASE TANK)
3. DETERMINE DIMENSIONS OF WEATHER ENCLOSURE (LENGTH AND WIDTH) TO DETERMINE LONGEST DIMENSIONS.
   NOTE: CONCRETE PAD SHALL PROJECT MINIMUM 300MM BEYOND EXTERIOR FACES OF ENCLOSURE. IF CALCULATION BELOW RESULTS IN SLAB PROJECTION OF <300MM ADJUST LENGTH AND WIDTH OF PAD ACCORDINGLY TO MAINTAIN MIN 300MM.
4. SET LENGTH AND WIDTH OF CONCRETE GENERATOR PAD AS FOLLOWS:
   A. PAD LENGTH = SKID (OR TANK) LENGTH + 1800MM
   B. PAD WIDTH = SKID (OR TANK) WIDTH + 1200MM
   C. DEPTH OF CONCRETE PAD SHALL BE MIN. 305MM
5. PAD SHALL BE CONCRETE SLAB ON GRADE, 25MPA, CLASS C2 C/W 19M @300MM T&BEW.
6. SYNTHETIC FIBER REINFORCING IS NOT ACCEPTABLE.
7. PLACE SLAB ON MIN 300MM GRANULAR SUBASE COMPACTED TO 100% STANDARD PROCTOR DENSITY
8. TOP OF SLAB SHALL BE FINISHED FLAT AND LEVEL TO WITHIN 12.7MM.

AS PART OF SHOP DRAWING SUBMISSION. CONFIRM GENERATOR PAD WEIGHT MEETS GENERATOR REQUIREMENTS. IF PAD DOES NOTE MEET GENERATOR REQUIREMENTS ADJUST PAD DIMENSIONS TO SUIT CONDITION. CONTRACTOR TO COORDINATE WITH SUPPLIERS / MANUFACTURERS ACCORDINGLY.

** WHERE GAS LINE TO GENERATOR IS BELOW GRADE REFER TO GAS TRENCH SUPPLY DETAIL (BELOW)
INSTALLATION SHALL CONFORM TO ALL APPLICABLE CODES
NOTE: INCOMING TRENCH LOCATION IS SCHEMATIC. CONFIRM LOCATION OF INCOMING TRENCH PRIOR TO INSTALLATION



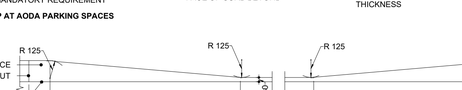


GAS SUPPLY TRENCH DETAIL (BELOW GRADE INSTALLATIONS)

GC COORD
SUBTRADES
ENGINEERED SUBMITTAL REQ'D
ENGINEERED SIGNOFF REQ'D

2 / A2.9

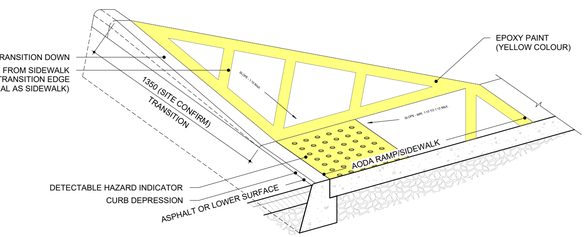
2-0013 - CD-3 - AODA RAMP DETAILS



AODA MANDATORY REQUIREMENT

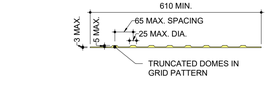
CURB RAMP AT AODA PARKING SPACES

TYPICAL TRANSITION TO DEPRESSED CURB - AODA FLARED CURB RAMPS

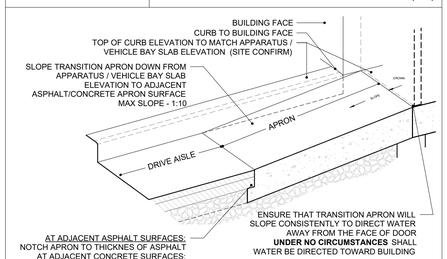


TYPICAL TRANSITION TO DEPRESSED CURB - AODA FLARED CURB RAMPS

DETECTABLE HAZARD INDICATOR REQUIREMENTS



3-0001.1 - CAT-1 - CONCRETE TRANSITION APRON TYPICAL (AXO)



TYPICAL APRON TRANSITION FROM APPARATUS/VEHICLE BAY TO DRIVEWAY

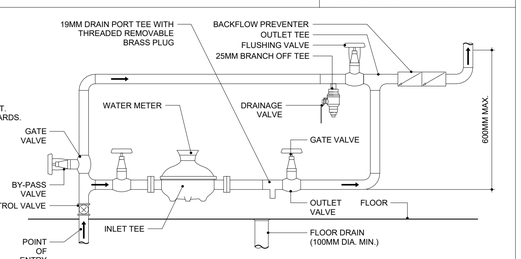
3 / A2.9

11-0003 - IWS-1 - INCOMING WATER SERVICE

THE INTENT OF THE DETAIL IS TO ENSURE A COMPLETE AND COMPLIANT INSTALLATION. **WITHOUT EXCEPTION** CONTRACTOR SHALL ENSURE THAT INSTALLATION CONFORMS TO MUNICIPAL STANDARD DETAILS AND AUTHORITIES HAVING JURISDICTION. INSTALLATION AS SHOWN IS SCHEMATIC. COMPONENTS SHOWN (OR NOT SHOWN) IS SUBJECT TO MUNICIPAL REQUIREMENTS. THIS DRAWING IS SUPPLEMENTAL TO MECHANICAL AND CIVIL DRAWINGS
NOTES:

1. CLEARANCES TO WALL(S) IN ACCORDANCE WITH MUNICIPAL STANDARDS
2. UNLESS OTHERWISE NOTED, INSTALLATION OF WATER METER(S) IS PART OF CONTRACT.
3. BACKFLOW PREVENTER(S) TO BE INSTALLED IN ACCORDANCE WITH MUNICIPAL STANDARDS.

GC COORD
SUBTRADES
* MULTIPLE SUBTRADE COORDINATION REQ'D



ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

GENERAL SITE DETAILS

ORIENTATION

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

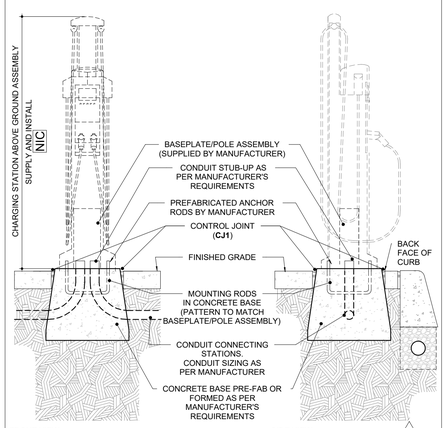
DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A2.9** | REVISION 30

2024-09-09 4:05:36 PM

7 / A2.10 — 2-0050 - VCS-1 - VEHICLE CHARGING STATION FLO



FRONT VIEW **SIDE VIEW**

VEHICLE CHARGING STATION

BASIS OF DESIGN: CoRe+ Series Level 2 EV Chargers MANUFACTURED BY FLO

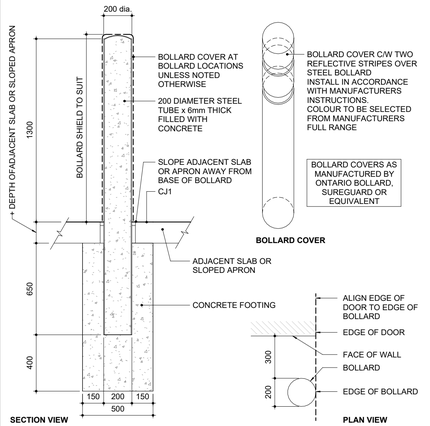
GC COORD SUBTRADES

ENGINEERED SUBMITTAL REQ'D

NOTES:

1. CONCRETE SHALL BE CLASS C2, 32MPa, 5-8% AIR CONTENT WITH A MAX. SLUMP OF 80MM
2. MOUNTING RODS, NUTS AND WASHERS SUPPLIED BY CHARGING STATION MANUFACTURER. 'CONSUMABLES' AS NOTED IN INSTALLATION GUIDE ARE BY INSTALLER.
3. IF STATION IS INSTALLED UNDER SCOPE OF CONTRACT, CUT MOUNTING RODS TO PROVIDE MORE THAN THREE(3), LESS THAN FIVE (5) THREADS EXPOSED BEYOND FACE OF NUT

5 / A2.10 — 5-0006 - BO-1 - TYPICAL BOLLARD DETAILS

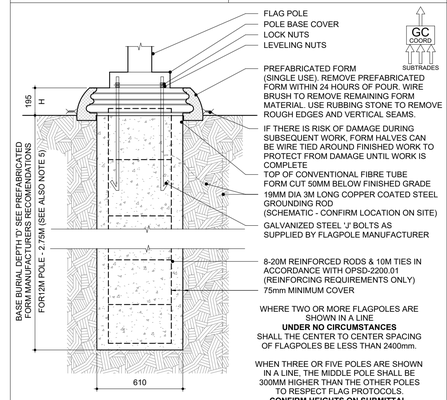


SUBMITTAL REQ'D

NOTES:

1. ALL STEEL GALVANIZED
2. CONCRETE SHALL BE CLASS C2, 32 MPa CONCRETE COMPLETE WITH 5-8% AIR ENTRAINMENT

3 / A2.10 — 2-0015 - FPB-1 - FLAG POLE BASE



NOTES:

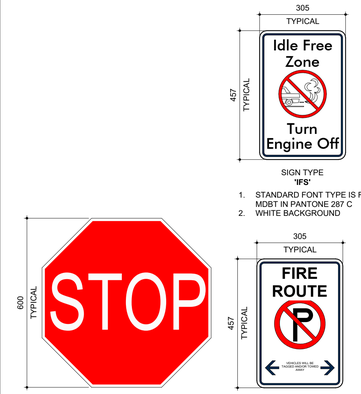
1. **PRIOR TO PLACEMENT** CONFIRM THAT BASE LOCATION IS BEYOND MINIMUM SETBACKS FROM OVERHEAD WIRES AS FOLLOWS:
   A. 4600MM FROM LOW VOLTAGE WIRES (I.E. BELL AND CABLE LINES)
   B. 6100MM FROM HIGH VOLTAGE WIRES (I.E. POWER LINES)
2. TOP OF FOUNDATION SHALL BE TROWELLED SMOOTH AND LEVEL.
3. CONCRETE SHALL BE 32 MPa CONCRETE 5-8% AIR ENTRAINED CLASS-C2 EXPOSURE.
4. CAST-IN-PLACE CONCRETE MECHANICALLY VIBRATED AND HAND TAPPED TO ENSURE BEST FINISHED RESULT.
   - NOTE: POOR FINISHED RESULTS WILL BE REJECTED AND REPLACED AT NO ADDITIONAL COST TO THE CONTRACT.
5. PROVIDE 19MM DIA. 3000MM STEEL COPPER COATED GROUND ROD ADJACENT TO POLES AND CONNECT TO METAL POLE WITH BARE COPPER CONDUCTOR.
6. FOUNDATION DEPTH IS BASED ON POLE LENGTH AND SHALL BE IN ACCORDANCE WITH PREFABICATED CONCRETE FORM MANUFACTURER'S TABLE(S) INCLUDED WITH SUBMITTAL.
   A. ***FOR A POLE LENGTH OF 12M - BASE BURIAL DEPTH SHALL BE 2.75M WITH A REINFORCING ROD LENGTH OF H+2.60M.*** ALL OTHER POLE LENGTHS - REFER TO MANUFACTURERS TABLE.
7. POLE INSTALLATION IS SUBJECT TO SOIL CONDITIONS. INDEPENDENT INSPECTION AND TESTING COMPANY TO CONFIRM SUBGRADE CAPACITY PRIOR TO PLACEMENT.

COORD INTERFERENCE

SUBMITTAL REQ'D

FIELD INSPECTION REQ'D

1 / A2.10 — 2-0061 - MS - MUNICIPAL SIGNAGE



POST MOUNTED SIGN - FIXED POST

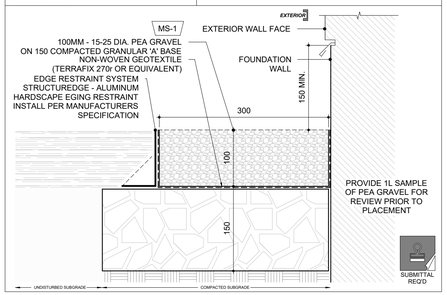
SIGN FACE
- 1.6mm THICK ALUMINUM SIGN BLANK
- HOLES - METRO PUNCH

MOUNTING
MOUNT SIGN FACE TO POST WITH TWO GALVANIZED 12mm HEX HEAD BOLTS AND NUTS WITH FLAT WASHERS ON BOTH SIDES

POST
75mm dia. GALVANIZED STEEL POST c/w POST CAP IN 300mm dia.CONCRETE FOOTING

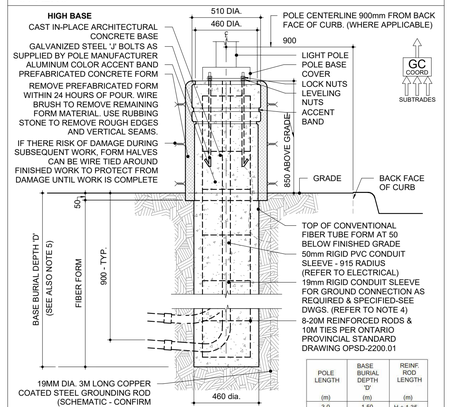
* ALL SIGNS SHALL BE IN ACCORDANCE WITH MUNICIPAL STANDARDS. CONFIRM PRIOR TO INSTALLATION

12 /A2.10 — 2-0095 - MS-1 MOWING/SPLASH STRIP - PEA GRAVEL



SUBMITTAL REQ'D

6 / A2.10 — 2-0018 - LSB-HIGH - LIGHT STANDARD HIGH BASE DETAIL



POLE LENGTH	BASE BURIAL DEPTH 'D'	REINF ROD LENGTH
(m)	(m)	(m)
3.0	1.50	H + 1.35
5.6	2.15	H + 2.00
7.0	2.15	H + 2.00
7.5	2.15	H + 2.00
8.7	2.45	H + 2.30
9.0	2.45	H + 2.30
10.5	2.60	H + 2.45

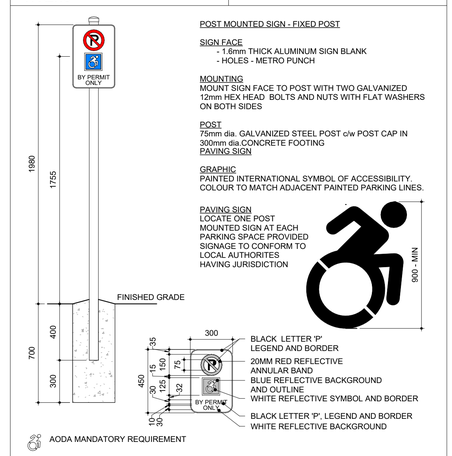
NOTES:

1. CAST-IN-PLACE CONCRETE MECHANICALLY VIBRATED AND HAND TAPPED TO ENSURE BEST FINISHED RESULT. TOP OF BASE SHALL BE TROWELLED SMOOTH AND LEVEL.
   - NOTE: POOR FINISHED RESULTS WILL BE REJECTED AND REPLACED AT NO ADDITIONAL COST TO THE CONTRACT.
2. CONCRETE SHALL BE 25mPa., 5-8% AIR ENTRAINED, CLASS-C2 EXPOSURE.
3. MINIMUM OF TWO SLEEVES REQUIRED FOR EACH CONCRETE FOUNDATION. CONTRACTOR TO VERIFY OPENING SIZE IN POLE BASE PLATE PRIOR TO SETTING CONDUIT SLEEVES.
4. PROVIDE A 19mm DIAMETER 3000mm STEEL COPPER COATED GROUND ROD ADJACENT TO POLES IN ACCORDANCE WITH ESA AND ANY OTHER AUTHORITIES HAVING JURISDICTION. CONNECT TO METAL POLE WITH BARE COPPER CONDUCTOR.
4. IF THERE IS A COMBINATION OF HIGH AND LOW LIGHT STANDARD BASES INDICATED, REDUCE HEIGHT OF LIGHTING POLE AT HIGH BASE INSTALLATIONS BY 350MM TO ENSURE FIXTURE HEIGHT MATCHES FIXTURE HEIGHT OF LOW LIGHT STANDARD. LIGHT POLE HEIGHT **MUST** BE NOTED ON SUBMITTALS.
5. POLE BASE BURIAL DEPTH 'D' SHALL IN BE IN ACCORDANCE WITH TABLE (INSET). POLE INSTALLATION IS SUBJECT TO SOIL CONDITIONS. INDEPENDENT INSPECTION AND TESTING COMPANY TO CONFIRM SUBGRADE CAPACITY PRIOR TO PLACEMENT.

SUBMITTAL REQ'D

FIELD INSPECTION REQ'D

4 / A2.10 — 2-0010 - BF-2 - HCP SIGN FIXED POST



AODA MANDATORY REQUIREMENT

POST MOUNTED SIGN - FIXED POST

SIGN FACE
- 1.6mm THICK ALUMINUM SIGN BLANK
- HOLES - METRO PUNCH

MOUNTING
MOUNT SIGN FACE TO POST WITH TWO GALVANIZED 12mm HEX HEAD BOLTS AND NUTS WITH FLAT WASHERS ON BOTH SIDES

POST
75mm dia. GALVANIZED STEEL POST c/w POST CAP IN 300mm dia.CONCRETE FOOTING
PAVING SIGN

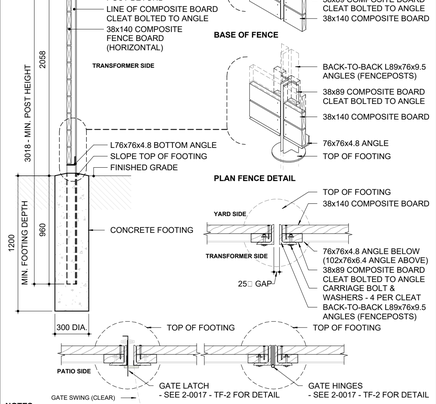
GRAPHIC
PAINTED INTERNATIONAL SYMBOL OF ACCESSIBILITY. COLOUR TO MATCH ADJACENT PAINTED PARKING LINES.

PAVING SIGN
LOCATE ONE POST MOUNTED SIGN AT EACH PARKING SPACE PROVIDED SIGNAGE TO CONFORM TO LOCAL AUTHORITES HAVING JURISDICTION

2 / A2.10 — 2-0030 - TF-1 - TYPICAL FENCE DETAILS

TYPICAL FENCE PANEL

1. 38x140mm HORIZONTAL COMPOSITE FENCE BOARDS BOLTED TO FENCE POSTS @ 150MM o/c
2. BOLTS SHALL BE 9.5mm DIA. CARRIAGE BOLTS C/W WASHERS & NYLON INSERT LOCK NUTS (4 BOLTS PER BOARD).
3. PRE-DRILL FENCE POSTS PRIOR TO BOARD INSTALLATION



NOTES:

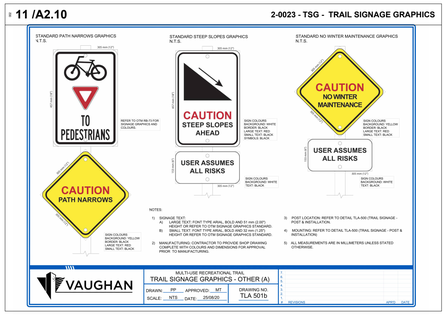
1. ALL STEEL GALVANIZED (INCLUDING HINGES AND LATCH). PAINT ALL GALVANIZED STEEL AFTER INSTALLATION TO ENSURE UNIFORM APPEARANCE. PAINT COLOUR TO MATCH GALVANIZED STEEL.
2. ENGINEERING STAMPED DRAWING REQUIRED PRIOR TO FABRICATION
3. CONCRETE SHALL BE CLASS C2, 32 MPa CONCRETE COMPLETE WITH 5-8% AIR ENTRAINMENT

ALL STEEL GALVANIZED

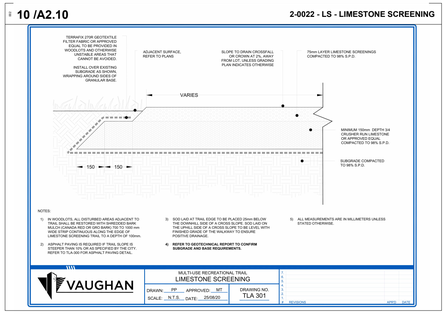
ENGINEERED SUBMITTAL REQ'D

ENGINEERED SIGN/OFF REQ'D

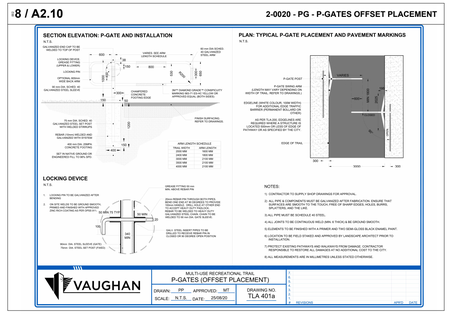
11 /A2.10 — 2-0023 - TSG - TRAIL SIGNAGE GRAPHICS



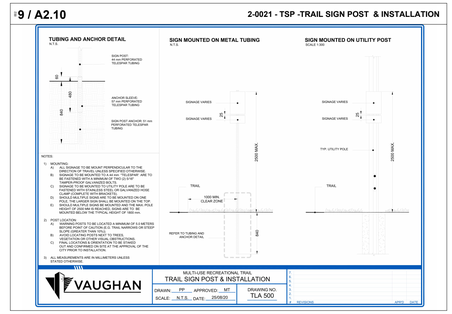
10 /A2.10 — 2-0022 - LS - LIMESTONE SCREENING



8 / A2.10 — 2-0020 - PG - P-GATES OFFSET PLACEMENT

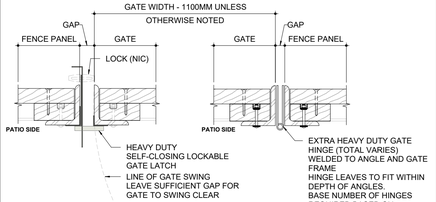


9 / A2.10 — 2-0021 - TSP -TRAIL SIGN POST & INSTALLATION



2-0017 - TF-2 - FENCE GATE HINGE AND LATCH DETAILS

PLAN HINGE AND LATCH DETAILS (WHERE GATE IS INDICATED)

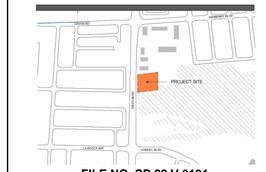


NOTES:

1. GATE LATCH IS A PREFABRICATED ITEM - STAINLESS STEEL HEAVY DUTY GATE LATCH - OPERABLE FROM BOTH SIDES. AS SUPPLIED BY JAKE SALES (OR EQUIVALENT).

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09



FILE NO. SP.22.V.0191

PROJECT : **CITY OF VAUGHAN FIRE STATION 7-12** 9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 505 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

GENERAL SITE DETAILS

ORIENTATION

DATE 2021-11-24

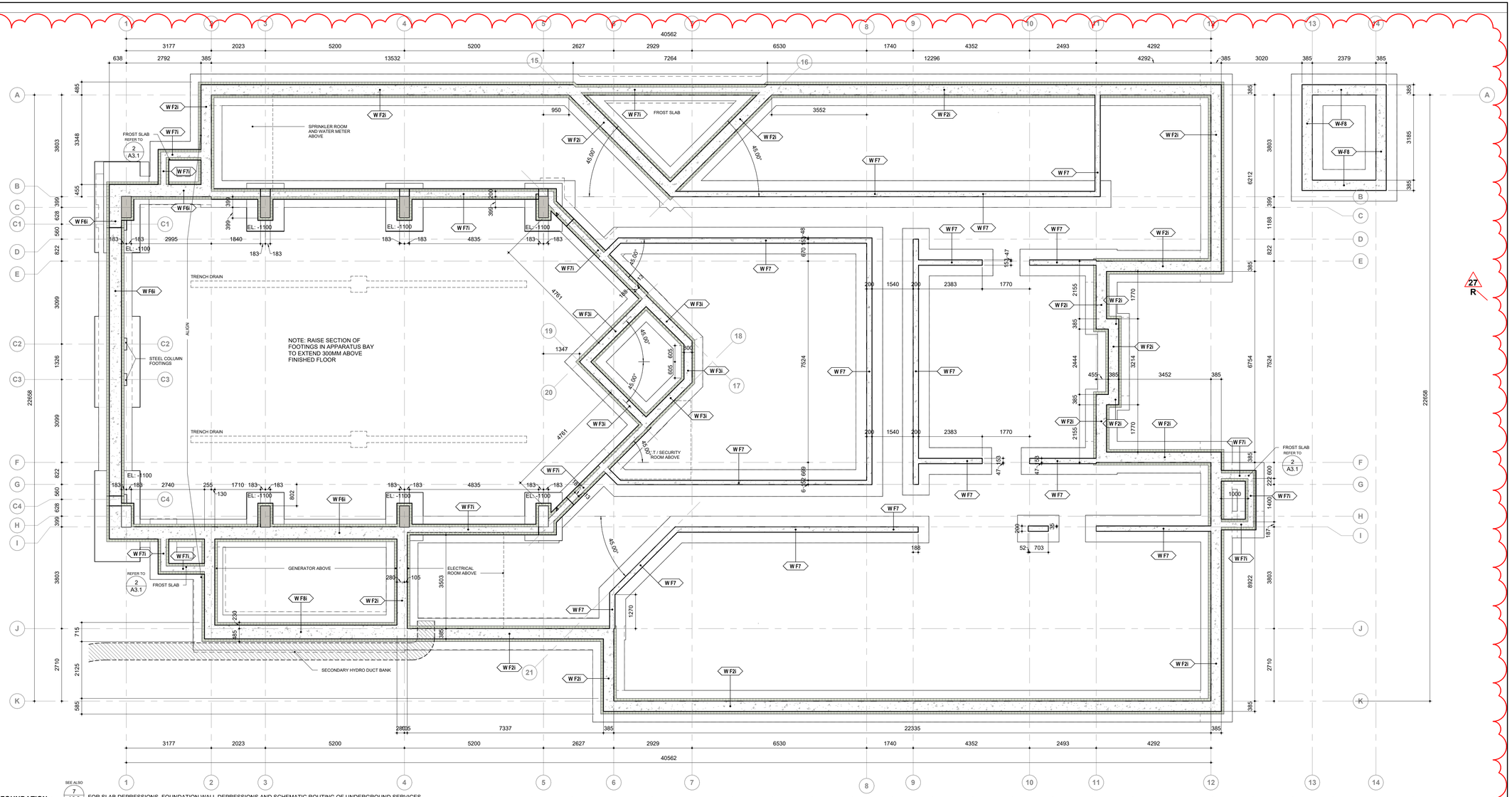
SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A2.10** | REVISION 30

2024-09-04 4:05:48 PM



3 **GROUND FLOOR - FOUNDATION** 1 : 75

SEE ALSO 7 A3.2 FOR SLAB DEPRESSIONS, FOUNDATION WALL DEPRESSIONS AND SCHEMATIC ROUTING OF UNDERGROUND SERVICES

27 R

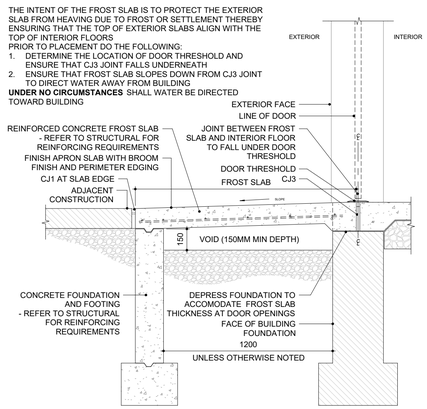
2 FROST SLAB DETAILS — 3-0004 - FS-1 - FROST SLAB DETAILS

THE INTENT OF THE FROST SLAB IS TO PROTECT THE EXTERIOR SLAB FROM HEAVING DUE TO FROST OR SETTLEMENT THEREBY ENSURING THAT THE TOP OF EXTERIOR SLABS ALIGN WITH THE TOP OF INTERIOR FLOORS

PRIOR TO PLACEMENT DO THE FOLLOWING:

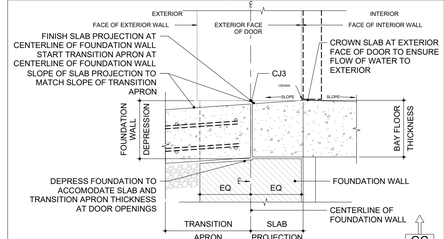
1. DETERMINE THE LOCATION OF DOOR THRESHOLD AND ENSURE THAT CJ3 JOINT FALLS UNDERNEATH
2. ENSURE THAT FROST SLAB SLOPES DOWN FROM CJ3 JOINT TO DIRECT WATER AWAY FROM BUILDING

UNDER NO CIRCUMSTANCES SHALL WATER BE DIRECTED TOWARD BUILDING



ALL REINFORCING STEEL EPOXY COATED

5 3-0006 - SE-2 - SLAB EDGE DETAIL BAY DOORS — 3-0006 - SE-2 - SLAB EDGE DETAIL BAY DOORS

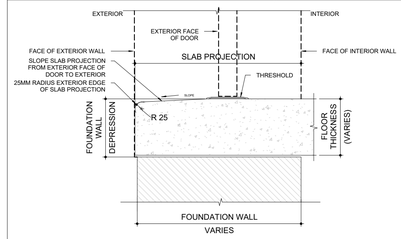


1. DETERMINE THE LOCATION OF DOOR EXTERIOR FACE AND ENSURE THAT THE SLAB PROJECTION SLOPES DOWN FROM THIS POINT TO THE EXTERIOR.

UNDER NO CIRCUMSTANCES SHALL WATER BE DIRECTED TOWARD BUILDING

GC COORD SUBTRADES

4 3-0005 - SE-1 - SLAB EDGE DETAIL — 3-0005 - SE-1 - SLAB EDGE DETAIL



1. DETERMINE THE LOCATION OF DOOR EXTERIOR FACE AND ENSURE THAT THE SLAB PROJECTION SLOPES DOWN FROM THIS POINT TO THE EXTERIOR.

UNDER NO CIRCUMSTANCES SHALL WATER BE DIRECTED TOWARD BUILDING

GC COORD SUBTRADES

1 GENERAL NOTES - FOUNDATION — A700 GENERAL NOTES - FOUNDATION PLAN

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH FOUNDATION PLANS PREPARED BY THE STRUCTURAL ENGINEER, MECHANICAL AND ELECTRICAL DRAWINGS.
2. ROUTING OF UNDERGROUND SERVICES IS SCHEMATIC. ALL UNDERGROUND SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH MECHANICAL AND ELECTRICAL DRAWINGS.
3. PROVIDE SLEEVES FOR ALL PENETRATIONS THROUGH FOUNDATION WALLS WHERE INDICATED AND WHERE REQUIRED (TYP.)
4. PROVIDE DROPS IN FOUNDATION WALLS WHERE INDICATED AND WHERE REQUIRED AT EXTERIOR OPENINGS. AT DOORS AND OVERHEAD DOORS, EXTEND FLOOR SLABS AT FOUNDATION DROPS TO EXTERIOR FACE OF FOUNDATION WALL. ENSURE SLAB HAS POSITIVE SLOPE TO EXTERIOR FROM EXTERIOR FACE OF DOOR OR OVERHEAD DOOR (TYP.)
5. TAKE CARE DURING PLACEMENT OF CONCRETE TO MITIGATE FACTORS THAT CONTRIBUTE TO SURFACE DEFECTS. ENSURE FACE OF FOUNDATION WALLS THAT WILL REMAIN EXPOSED (TYPICALLY 300MM MINIMUM) IS FREE OF HONEYCOMBING OR OTHER SURFACE DEFECTS.
6. ENSURE FACE OF FOUNDATION WALLS THAT ABUT AN ADJACENT CONCRETE SLAB OR SIDEWALK ARE SMOOTH TO ENSURE TIGHT PLACEMENT OF EXPANSION JOINT OR EXPANSION JOINT CAP AND CAULKED JOINT. SCRAPE OR GRIND AS REQUIRED.

GC COORD SUBTRADES

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT

THOMASBROWNARCHITECTS

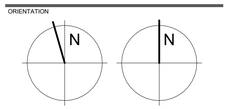
197 SPADINA AVENUE, SUITE 500 // TORONTO ONTARIO // M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

FOUNDATION PLAN

ORIENTATION



DATE 2021-11-24

SCALE As indicated

DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A3.1**

REVISION 30

2024-09-09 4:05:52 PM

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

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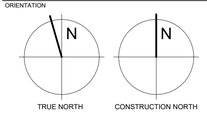
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

LAYOUT - FOUNDATION & GROUND FLOOR

ORIENTATION



DATE 2021-11-24

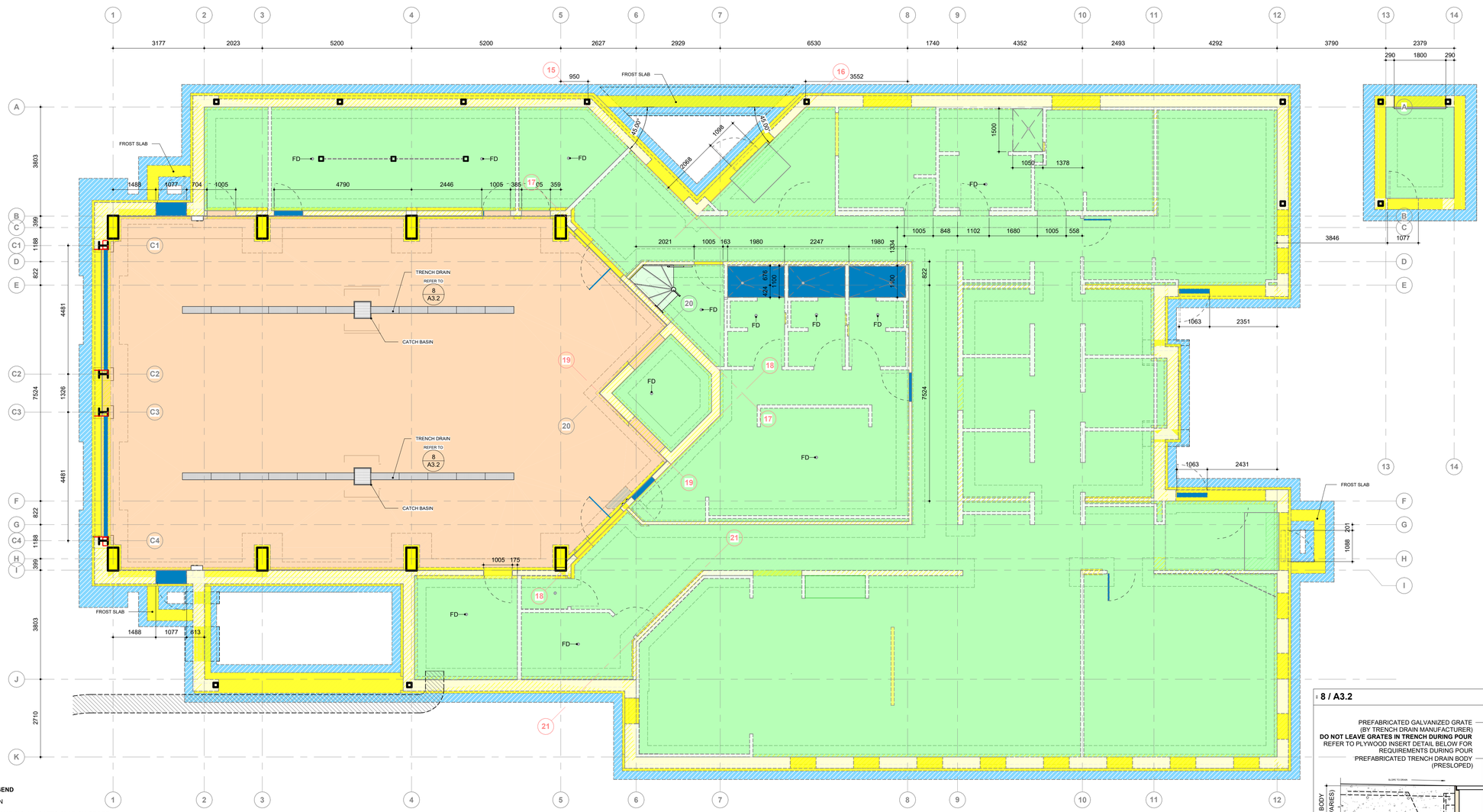
SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A3.2** | REVISION 30

2024-09-09 4:05:58 PM



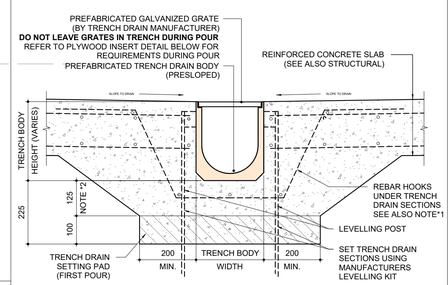
LA SERIES LEGEND

IDENTIFICATION

- SHADING INDICATES SLAB ON GRADE
- SHADING INDICATES FLOOR SLAB ON GRADE - APPARATUS BAY
- SHADING INDICATES FOUNDATION WALLS
- SHADING INDICATES FOOTINGS
- SHADING INDICATES SLAB AND FOUNDATION WALL DEPRESSIONS
- SHADING INDICATES PROPOSED U/G SERVICE ROUTES (SCHEMATIC)

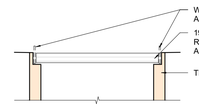
7 LAYOUT PLAN - FOUNDATION & GROUND FLOOR
1 : 75

8 / A3.2 — 10-0001 - TD-1 - TRENCH DRAIN DETAIL



NOTES:
A. PRIOR TO SETTING TRENCH DRAIN SECTIONS, DETERMINE REQUIRED NUMBER OF HOOKS BETWEEN LEVELLING POSTS. LAY BARS BETWEEN POSTS ON SETTING PAD BEFORE SETTING DRAIN SECTION
B. SET TOP OF TRENCH DRAIN SETTING PAD MIN 125MM BELOW THE U/S OF THE **DEEPEST** TRENCH DRAIN SECTION IN THE RUN. **COORDINATION WITH TRENCH DRAIN SUBMITTAL IS REQUIRED TO DETERMINE REINFORCING DIMENSIONS**
C. THE INTENT OF THIS DETAIL IS TO FACILITATE PLACEMENT OF THE SLAB INCLUDING THE SPACE BENEATH THE TRENCH DRAIN IN A CONTINUOUS SINGLE POUR

GC COORD SUBTRADES

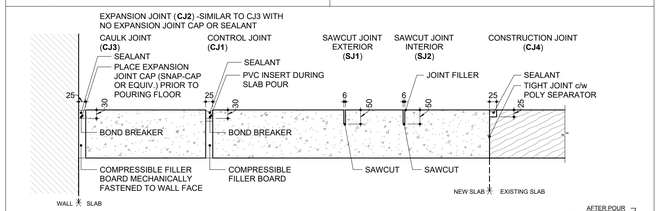


DETAIL: PLYWOOD INSERT DURING SLAB PLACEMENT (REMOVE GRATES)

NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. SEAL JOINTS IN TRENCH DRAIN PER MANUFACTURERS RECOMMENDATION
3. ENSURE CONTINUITY OF REINFORCING FROM ADJACENT SLABS THROUGH TRENCH DRAIN SETTING PAD
4. REMOVE GRATES AND INSERT 19MM PLYWOOD c/w WASHER SPACERS DURING POUR. DRAIN BODY FROM DAMAGE AND OR DEFLECTION DURING SLAB PLACEMENT

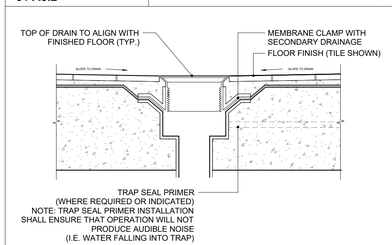
ENGINEERED SUBMITTAL REQ'D

4 / A3.2 — 3-0003 - CJ - TYPICAL CONCRETE JOINTS

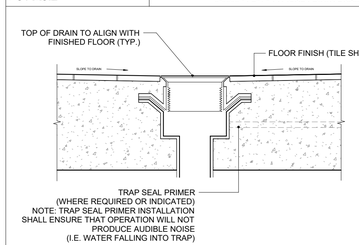


NOTES:
1. CONCRETE JOINT DETAILS AS SHOWN SUPPLEMENT DETAILS PROVIDED ON STRUCTURAL AND LANDSCAPE DRAWINGS
2. ALL INTERIOR CONCRETE SLABS ON GRADE THAT WILL REMAIN EXPOSED AT COMPLETION SHALL HAVE **CJ3** AT SLAB PERIMETER. ALL OTHER INTERIOR CONCRETE SLABS ON GRADE TO HAVE **CJ2** AT SLAB PERIMETER
3. AT APPARATUS BAY / VEHICLE BAYS SLABS, PROVIDE EXPANSION JOINT CAP (SNAP-CAP AS MANUFACTURED BY WR MEADOWS OR EQUIVALENT). AFTER PLACEMENT OF SLAB, REMOVE TOP OF EXPANSION JOINT CAP AND CAULK JOINT

6 / A3.2 — 9-0008.1 - SD-1 - TYPICAL SHOWER DRAIN - SLAB ON GRADE



5 / A3.2 — 9-0008 - FD-1 - TYPICAL FLOOR DRAIN - SLAB ON GRADE



ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
25	CLIENT REVIEW - 100%	2024-03-12
26	T24-253 - IFT	2024-04-15
29	ADDENDUM #4	2024-05-30
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

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ARCHITECT

THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

GROUND FLOOR PLAN - GENERAL ARRANGEMENT

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

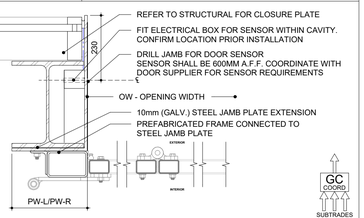
PROJECT No. 2104

DRAWING No. **A3.3** | REVISION 30

2024-09-09 4:06:08 PM

5 **GROUND FLOOR FINISH PLAN**
1 : 75

4 / A3.3 — 5-0025 - FFD-2 - FOUR FOLD DOOR JAMB DETAIL @ CURTAIN WALL

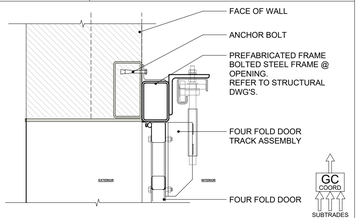


GC COORD SUBTRADES

NOTES:
1. SURFACE PREP IN ACCORDANCE WITH AESS FINISH NOTED.
2. PROVIDE WEEP HOLES AS REQUIRED AND WHERE PW-L AND PW-R CLOSE WEB OF COLUMNS
3. CONFIRM FOUR FOLD DOOR MOUNTING REQUIREMENTS WITH DOOR MANUFACTURER PRIOR TO INSTALLATION.

ALL STEEL GALVANIZED (AESS 3) | ENGINEERED SUBMITTAL REQ'D | ENGINEERED SIGNOFF REQ'D

6 / A3.3 — 5-0027 - FFD(R)-2 - FOUR FOLD DOOR HEAD DETAIL

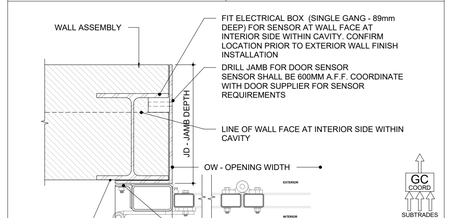


GC COORD SUBTRADES

NOTES:
1. GRIND SMOOTH ALL WELDS
2. CONFIRM FOUR FOLD DOOR MOUNTING REQUIREMENTS WITH DOOR MANUFACTURER PRIOR TO INSTALLATION.

ALL STEEL GALVANIZED | ENGINEERED SUBMITTAL REQ'D | ENGINEERED SIGNOFF REQ'D

3 / A3.3 — 5-0024 - FFD-2 - FOUR FOLD DOOR JAMB DETAIL



GC COORD SUBTRADES

ALL STEEL GALVANIZED (AESS 3) | ENGINEERED SUBMITTAL REQ'D | ENGINEERED SIGNOFF REQ'D

2 / A3.3 — A700 GENERAL NOTES - APPARATUS / VEHICLE BAYS

APPARATUS / VEHICLE BAY SLABS ARE REINFORCED CONCRETE SLABS THAT MUST BE PREPARED PROPERLY PRIOR TO EXECUTION. LISTED BELOW ARE ITEMS THAT MUST BE COORDINATED TO ENSURE A SUCCESSFUL RESULT.

1. WHERE SLABS ABUT A WALL, THE WALL MUST BE SMOOTH AND FREE OF PROJECTIONS SO THAT THE EXPANSION JOINT SITS DIRECTLY AGAINST THE WALL. THIS ALLOWS FOR A CLEAN AND CONSISTENT CAULKED JOINT WHEN FINISHED.
2. EXPANSION JOINT MUST BE SET WITH AN EXPANSION JOINT CAP (SNAP-CAP AS MANUFACTURED BY WR MEADOWS OR EQUIVALENT). AFTER PLACEMENT OF SLAB, REMOVE TOP OF EXPANSION JOINT CAP AND CAULK JOINT.
3. WHERE SLABS ABUT OVERHEAD DOORS OR DOOR OPENINGS. SLAB MUST BE CROWNED BENEATH DOOR TO ENSURE FLOW OF WATER FROM EXTERIOR FACE OF DOOR TO EXTERIOR.
4. AT DOOR OPENINGS EXTEND SLAB TO EXTERIOR FACE OF FOUNDATION WALL. AT OVERHEAD DOOR OPENINGS, EXTEND SLAB TO MIDDLE OF SUPPORTING FOUNDATION WALL TO ABUT TO REINFORCED EXTERIOR CONCRETE APRON.
5. TRENCH DRAINS MUST BE PROPERLY SET IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND MANUFACTURERS RECOMMENDATIONS PRIOR TO PLACEMENT OF SLABS. PROVIDE PROPER SPACERS IN TOP OF TRENCH DRAIN TO ENSURE THAT EDGE RAILS DON'T DEFLECT DURING PLACEMENT / FINISHING OF SLAB. FAILURE TO DO THIS MAY RESULT IN IMPROPER FIT OF TRENCH DRAIN GRATES.
6. COORDINATE SAWCUTTING OF SLAB TO PREVENT EXCESSIVE RAVELING (TOO EARLY) OR CRACKING (TOO LATE).

GC COORD SUBTRADES

1 / A3.3 — A700 GENERAL NOTES - FLOOR PLAN

1. DIMENSIONS SHOWN ARE TAKEN TO FACE OF CMU, POURED CONCRETE, OR WALL STUD UNLESS NOTED OTHERWISE. ALL GWB OR CMU PARTITIONS TO EXTEND TIGHT TO U/S OF ROOF DECKS UNLESS NOTED OTHERWISE.
2. REFER TO STRUCTURAL DRAWINGS FOR LATERAL SUPPORT AT THE TOP OF CMU WALLS.
3. ALL INTERIOR ALUM SCREENS SHALL HAVE GWB AND METAL STUD ASSEMBLIES FROM TOP OF SCREEN/DOOR FRAME TO UNDERSIDE OF DECK UNLESS A LINTEL HAS BEEN PROVIDED BY STRUCTURAL WITH BLOCK WALL ABOVE TO U/S DECKS. WHERE SCREENS OR DOORS OCCUR WITHIN WALLS CONSTRUCTED AS FIRE SEPARATIONS, THE WALL ABOVE SUCH SCREENS OR DOORS SHALL BE CONSTRUCTED TO PROVIDE THE REQUIRED FIRE RESISTANCE RATING INDICATED.
4. ON ALL EXPOSED CORNERS OF EXPOSED MASONRY WALLS PROVIDE BULLNOSE BLOCK AT ALL COURSES ABOVE THE FIRST COURSE UNLESS NOTED OTHERWISE.
5. WHERE DUCTS, PIPES, AND CONDUITS PENETRATE EXPOSED MASONRY PARTITIONS, CUT BLOCKS TO SUIT REQUIRED OPENINGS TO MINIMIZE PATCHING.
6. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS OF PANELS, DOOR CONTROLS, SECURITY DEVICES ETC. NOT SHOWN ON ARCHITECTURAL DRAWINGS.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
25	CLIENT REVIEW - 100%	2024-03-12
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT

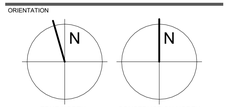
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

GROUND FLOOR - WALL AND WINDOW LAYOUT

ORIENTATION



TRUE NORTH CONSTRUCTION NORTH

DATE	2021-11-24
SCALE	As indicated
DRAWN BY	SRL
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	**A3.4**
REVISION	30

2024-09-09 4:06:12 PM

2 **GROUND FLOOR - INTERIOR PARTITION LAYOUT**
1 : 75

FLOOR PLAN - INTERIOR PARTITION LAYOUT NOTES

NUMBER	NOTE
1	AFF TO 1100 MM C/W SOLID SURFACE SILL

LA SERIES LEGEND

IDENTIFICATION

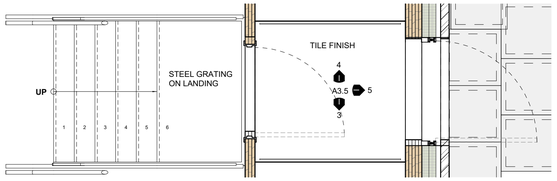
- SHADING INDICATES FLOORS
- SHADING INDICATES FLOOR - COM SLAB
- SHADING INDICATES ROOF DECK

DIMENSIONING AND DETAILING

- SHADED WALLS ARE DIMENSIONED TO FACE OF STUD
- INDICATES SLAB OR FOUNDATION WALL DEPRESSIONS
- INDICATES ROOF DIVIDERS AND/OR FRAMED UPSTANDS WHERE ROOF DECK ABUTS VERTICAL WALL

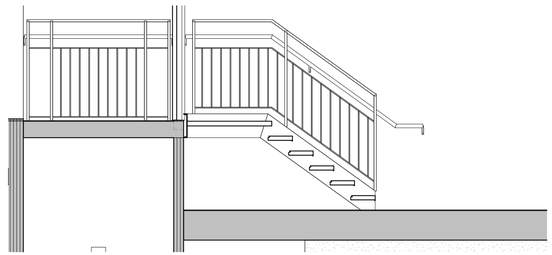
1 GENERAL NOTES - LA SERIES — **A700 GENERAL NOTES - LA SERIES**

1. LA SERIES DRAWINGS HAVE BEEN FILTERED OR SIMPLIFIED TO DEMONSTRATE A PARTICULAR DETAIL OR RELATIONSHIP. THEY ARE NOT INTENDED TO SHOW THE COMPLETE SCOPE OF WORK.
2. **IN NO WAY WILL THESE DRAWINGS BE USED AS THE BASIS TO CLAIM A REDUCTION IN PROJECT SCOPE.**
3. LA SERIES DRAWINGS MUST BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS TO DETERMINE THE FULL SCOPE OF WORK.
4. IN PREPARATION OF SUBMITTALS, DIMENSIONS SHALL BE TIED TO GRIDLINE REFERENCES TO FACILITATE REVIEW.

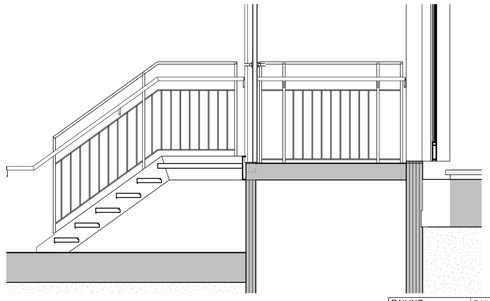


STAIR	Hose Tower Stair
	RUN TYPE - Steel Grate Tread
	NUMBER OF RISERS - 6
	RISER HEIGHT - 158
	TREAD DEPTH - 220 - c/w 25mm nosing
	LEFT STRINGER - ST CHANNEL - MC250
	RIGHT STRINGER - ST CHANNEL - MC250
	MIDDLE SUPPORT - <None>
	STAIR WIDTH - REFER TO PLAN
	STAIR TREAD FINISH - REFER TO FLOOR FINISH PLAN

2 **2 - Floor Plans - FROM - 1/ A3.5**
1 : 30

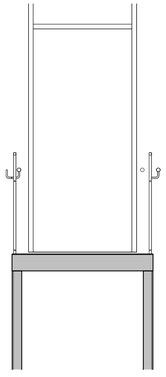


3 **6 - Interior Elevation - FROM - 2/ A3.5**
1 : 30

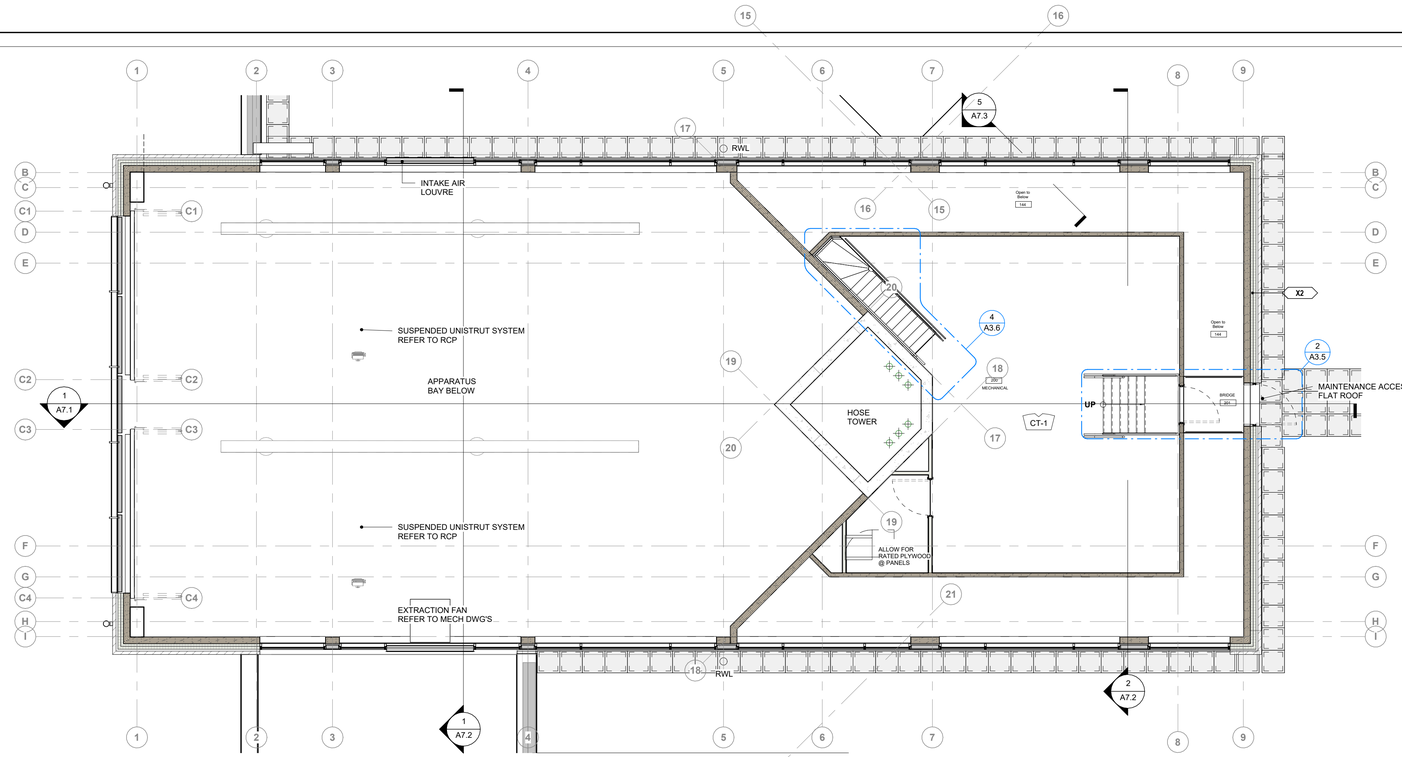


RAILING	RAIL - GRD + HR - VP-L 2
	HEIGHT - 1070
	*ENGINEERED SHOP DRAWING REQ'D PRIOR TO FABRICATION

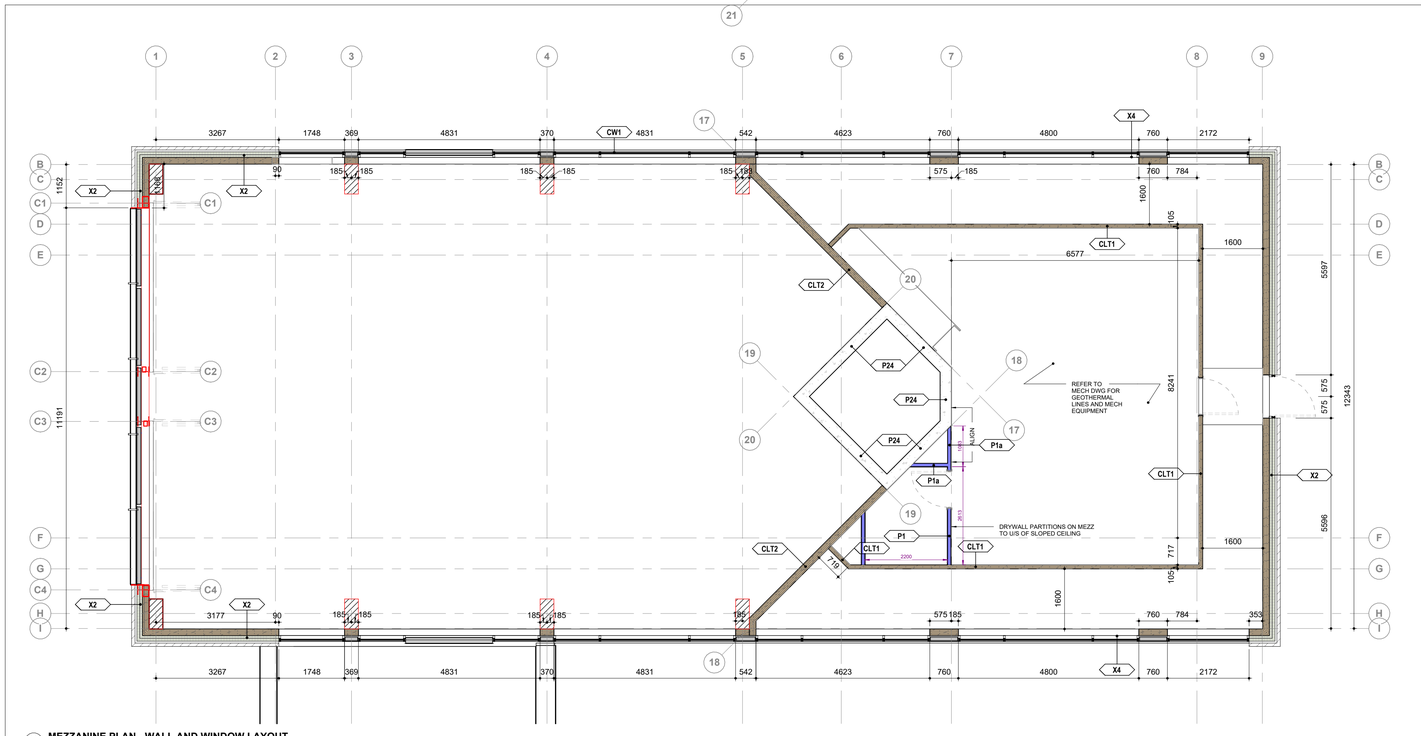
4 **6 - Interior Elevation - FROM - 2/ A3.5**
1 : 30



5 **6 - Interior Elevation - FROM - 2/ A3.5**
1 : 30



1 **MEZZANINE PLAN - GENERAL ARRANGEMENT**
1 : 75



9 **MEZZANINE PLAN - WALL AND WINDOW LAYOUT**
1 : 75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
14	GEOTHERMAL ROUTE TO MEZZ	2023-03-22
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
25	CLIENT REVIEW - 100%	2024-03-12
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

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ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ⁞ TORONTO ONTARIO ⁞ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE
MEZZANINE PLAN - GENERAL ARRANGEMENT, WALL AND WINDOW LAYOUT

ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

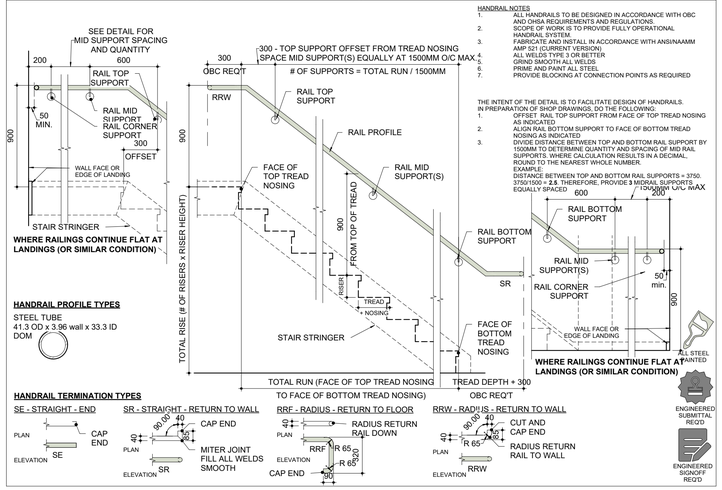
DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A3.5** | REVISION 30

2024-09-09 4:06:17 PM

2 / A3.6 — 5-0080 - HANDRAIL WALL-MOUNTED



HANDRAIL NOTES

1. ALL HANDRAILS TO BE DESIGNED IN ACCORDANCE WITH OBC AND OHSA REQUIREMENTS AND REGULATIONS.
2. SCOPE OF WORK IS TO PROVIDE FULLY OPERATIONAL HANDRAIL SYSTEM.
3. FABRICATE AND INSTALL IN ACCORDANCE WITH ANSI/NAAMM AMP 521 (CURRENT VERSION)
4. ALL WELDS TYPE 3 OR BETTER
5. GRIND SMOOTH ALL WELDS
6. PRIME AND PAINT ALL STEEL
7. PROVIDE BLOCKING AT CONNECTION POINTS AS REQUIRED

THE INTENT OF THE DETAIL IS TO FACILITATE DESIGN OF HANDRAILS.
IN PREPARATION OF SHOP DRAWINGS, DO THE FOLLOWING:

1. OFFSET RAIL TOP SUPPORT FROM FACE OF TOP TREAD NOSING AS INDICATED
2. ALIGN RAIL BOTTOM SUPPORT TO FACE OF BOTTOM TREAD NOSING AS INDICATED
3. DIVIDE DISTANCE BETWEEN TOP AND BOTTOM RAIL SUPPORT BY 1500MM TO DETERMINE QUANTITY AND SPACING OF MID RAIL SUPPORTS. WHERE CALCULATION RESULTS IN A DECIMAL, ROUND TO THE NEAREST WHOLE NUMBER.
   EXAMPLE:
   DISTANCE BETWEEN TOP AND BOTTOM RAIL SUPPORTS = 3750.
   3750/1500 = **2.5**. THEREFORE, PROVIDE 3 MIDRAIL SUPPORTS EQUALLY SPACED

HANDRAIL PROFILE TYPES

STEEL TUBE
41.3 OD x 3.96 wall x 33.3 ID
DOM

HANDRAIL TERMINATION TYPES

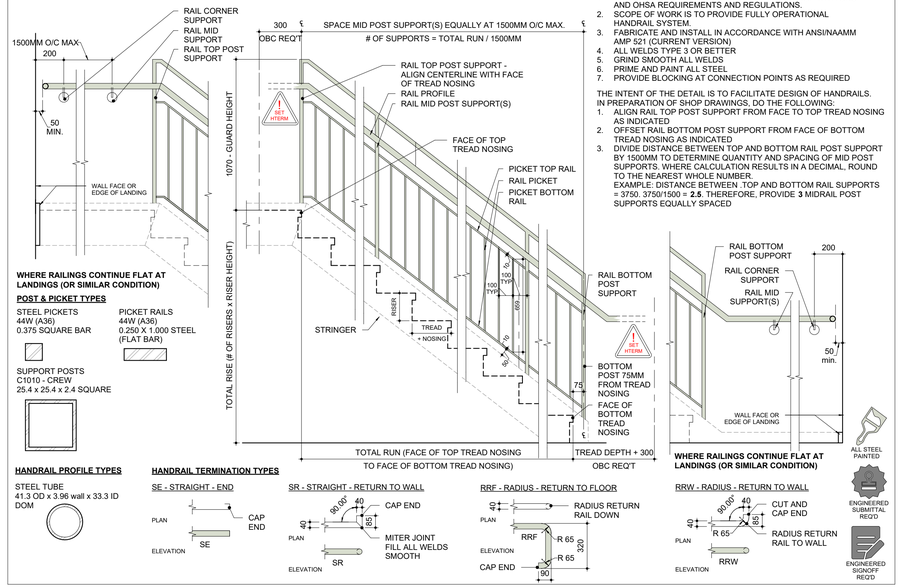
SE - STRAIGHT - END

SR - STRAIGHT - RETURN TO WALL

RRF - RADIUS - RETURN TO FLOOR

RRW - RADIUS - RETURN TO WALL

7 / A3.6 — 5-0081 - HANDRAIL STRINGER-MOUNTED



HANDRAIL NOTES

1. ALL HANDRAILS TO BE DESIGNED IN ACCORDANCE WITH OBC AND OHSA REQUIREMENTS AND REGULATIONS.
2. SCOPE OF WORK IS TO PROVIDE FULLY OPERATIONAL HANDRAIL SYSTEM.
3. FABRICATE AND INSTALL IN ACCORDANCE WITH ANSI/NAAMM AMP 521 (CURRENT VERSION)
4. ALL WELDS TYPE 3 OR BETTER
5. GRIND SMOOTH ALL WELDS
6. PRIME AND PAINT ALL STEEL
7. PROVIDE BLOCKING AT CONNECTION POINTS AS REQUIRED

THE INTENT OF THE DETAIL IS TO FACILITATE DESIGN OF HANDRAILS.
IN PREPARATION OF SHOP DRAWINGS, DO THE FOLLOWING:

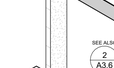
1. ALIGN RAIL TOP POST SUPPORT FROM FACE TO TOP TREAD NOSING AS INDICATED
2. OFFSET RAIL BOTTOM POST SUPPORT FROM FACE OF BOTTOM TREAD NOSING AS INDICATED
3. DIVIDE DISTANCE BETWEEN TOP AND BOTTOM RAIL POST SUPPORT BY 1500MM TO DETERMINE QUANTITY AND SPACING OF MID POST SUPPORTS. WHERE CALCULATION RESULTS IN A DECIMAL, ROUND TO THE NEAREST WHOLE NUMBER.
   EXAMPLE: DISTANCE BETWEEN TOP AND BOTTOM RAIL SUPPORTS = 3750. 3750/1500 = **2.5**. THEREFORE, PROVIDE **3** MIDRAIL POST SUPPORTS EQUALLY SPACED

HANDRAIL PROFILE TYPES

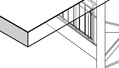
STEEL TUBE
41.3 OD x 3.96 wall x 33.3 ID
DOM

HANDRAIL TERMINATION TYPES

SE - STRAIGHT - END



SR - STRAIGHT - RETURN TO WALL

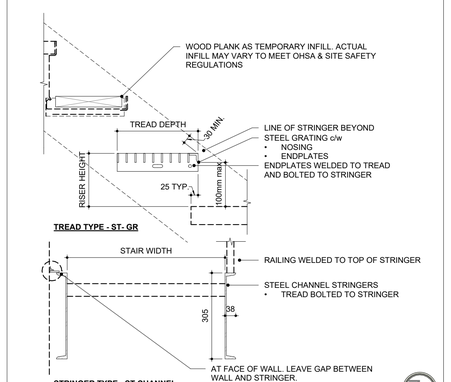


RRF - RADIUS - RETURN TO FLOOR

RRW - RADIUS - RETURN TO WALL

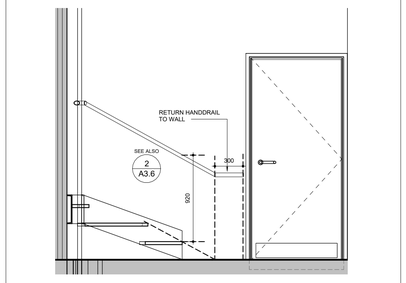
ALL STEEL PAINTED
ENGINEERED SUBMITTAL REQ'D
ENGINEERED SIGNOFF REQ'D

A700-5500-ST- GR

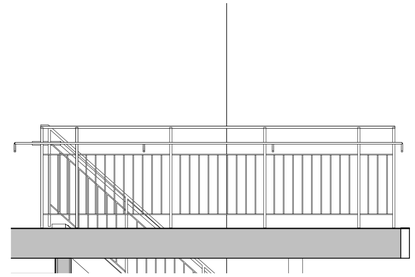


ALL STEEL GALVANIZED (AESS 3)
ENGINEERED SUBMITTAL REQ'D
ENGINEERED SIGNOFF REQ'D

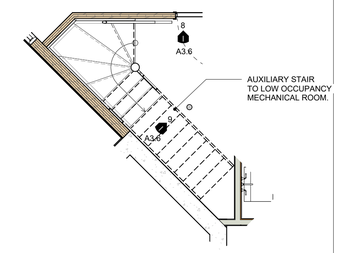
NOTES:
1. FABRICATE STAIRS IN ACCORDANCE WITH NAAMM METAL STAIR MANUAL (CURRENT EDITION)
2. ENGINEERED STAMPED DRAWING REQUIRED PRIOR TO FABRICATION
3. SURFACE PREP IN ACCORDANCE WITH AESS FINISH NOTED.
4. REFER TO PLANS AND SECTIONS FOR 'AS NOTED' DIMENSIONS



8 **6 - Interior Elevation - FROM - 3/ A3.6**
1 : 30



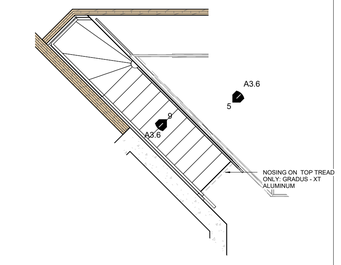
5 **6 - Interior Elevation - FROM - 4/ A3.6**
1 : 30



3 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 50

6 **AUXILLARY STAIR AXO**

9 **6 - Interior Elevation - FROM - 3/ A3.6**
1 : 30



4 **2 - Floor Plans - FROM - 1/ A3.5**
1 : 50

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

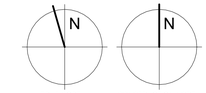
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

AUXILIARY STAIR DETAILS

ORIENTATION



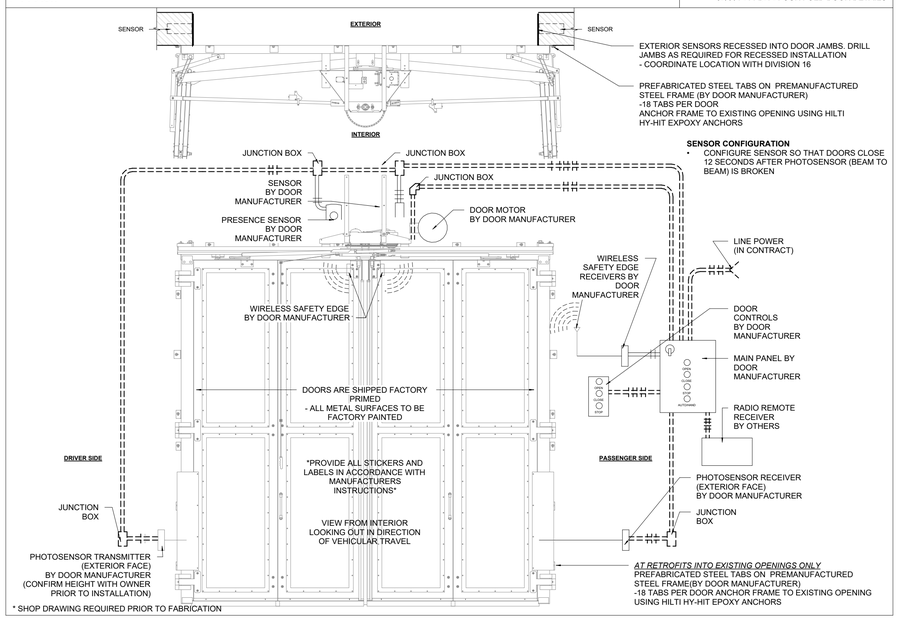
TRUE NORTH — CONSTRUCTION NORTH

DATE	2021-11-24
SCALE: As indicated	DRAWN BY: SRL
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	**A3.6**
REVISION	30

2024-09-09 4:06:23 PM

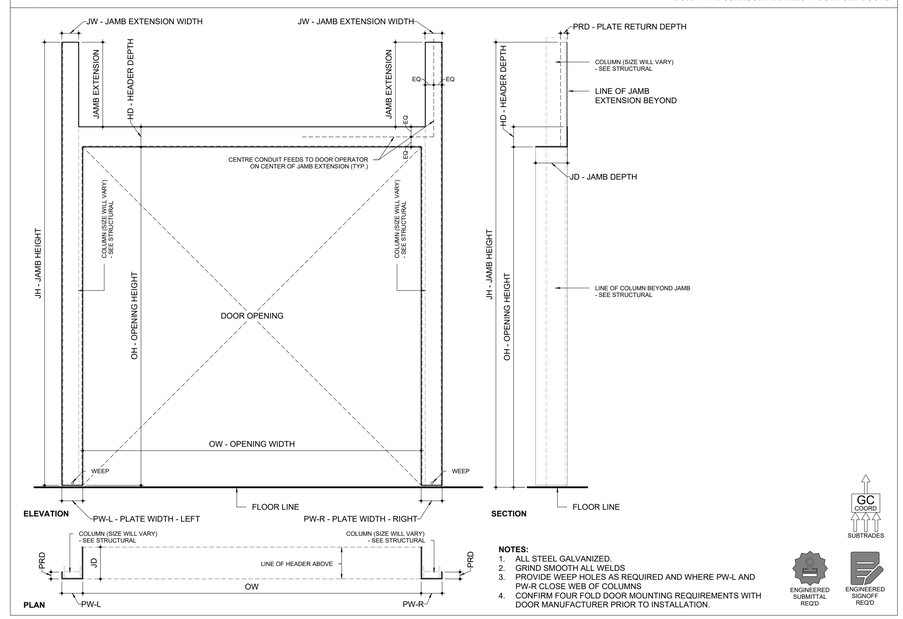
V7-12 - IFC000023

1 / A3.7 — 8-0001 - FFD-1 - FOUR FOLD DOOR DETAILS



* SHOP DRAWING REQUIRED PRIOR TO FABRICATION

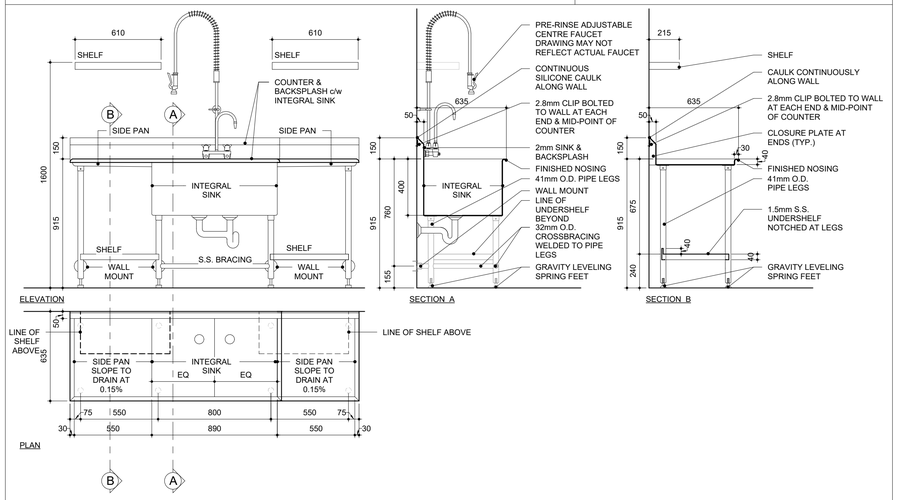
2 / A3.7 — 5-0021 - FFD SURROUND DETAILS - FOUR FOLD DOORS



NOTES:
1. ALL STEEL GALVANIZED.
2. GRIND SMOOTH ALL WELDS
3. PROVIDE WEEP HOLES AS REQUIRED AND WHERE PW-L AND PW-R CLOSE WEB OF COLUMNS
4. CONFIRM FOUR FOLD DOOR MOUNTING REQUIREMENTS WITH DOOR MANUFACTURER PRIOR TO INSTALLATION.

GC COORD SUBTRADES
ENGINEERED SUBMITTAL REQ'D
ENGINEERED SIGNOFF REQ'D

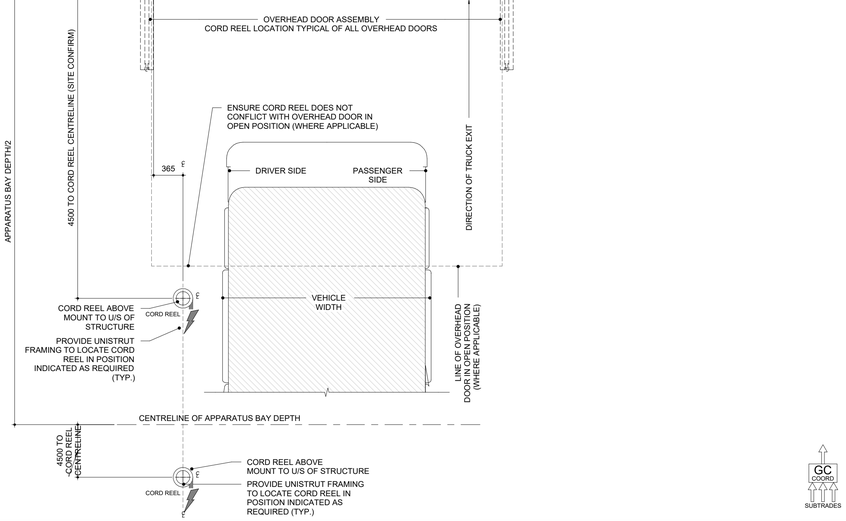
4 / A3.7 — 5-0007 - DCNSNK-1 - TYPICAL STAINLESS STEEL DECON SINK DETAILS



NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. SHELF SHALL BE BOBRICK B-676 OR EQUIVALENT

316 STAINLESS STEEL GRADE 316
ENGINEERED SUBMITTAL REQ'D

3 / A3.7 — 11-0005 - CR-1 - CORD REEL DETAILS



GC COORD SUBTRADES

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǁ TORONTO ONTARIO ǁ M5T 2C8

PROFESSIONAL SEAL

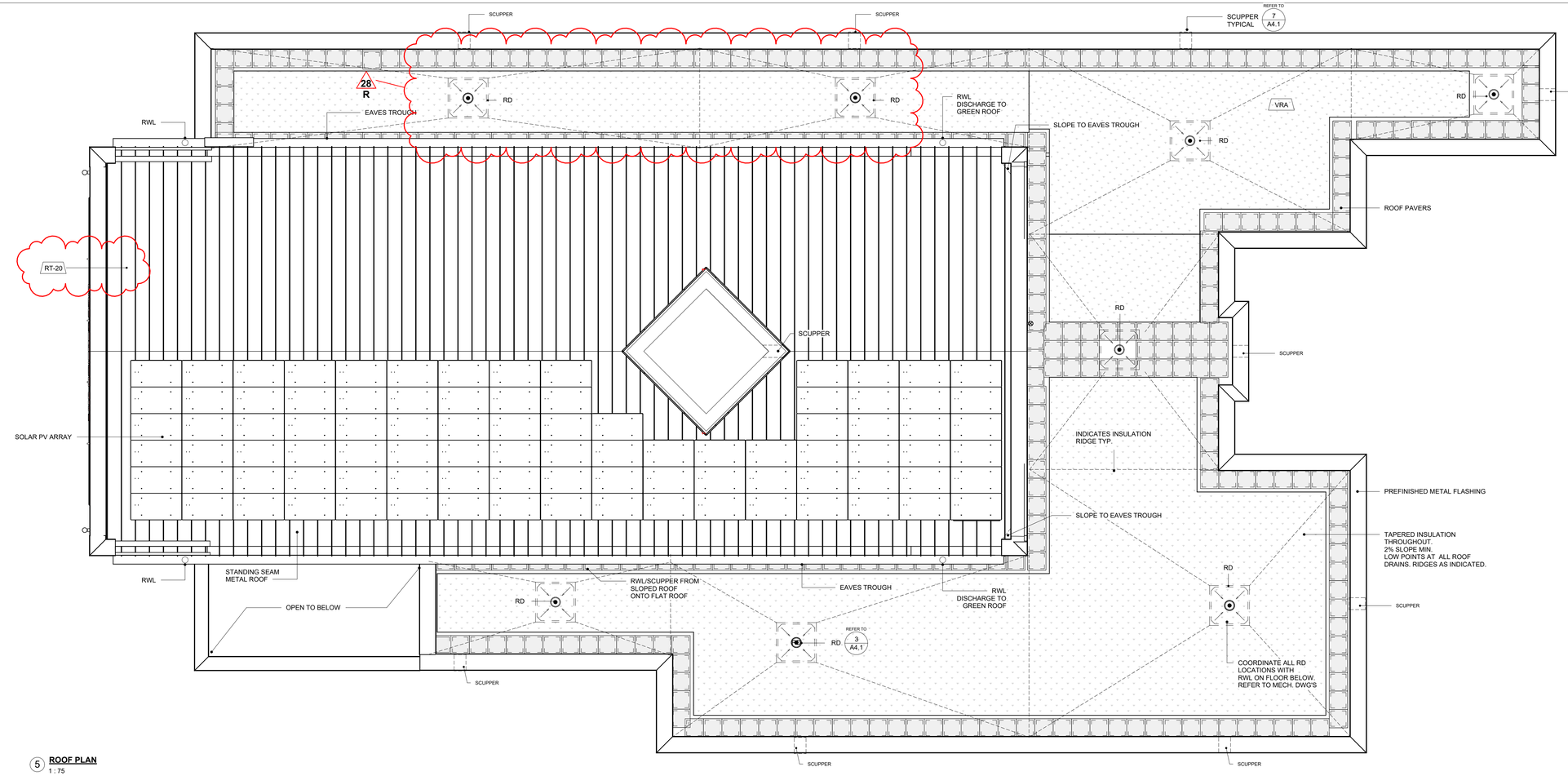
DWG TITLE
APPARATUS BAY DETAILS

ORIENTATION

DATE 2021-11-24
SCALE As indicated
DRAWN BY SRL
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A3.7**
REVISION 30

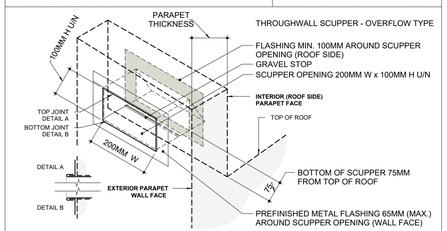
2024-09-09 4:06:25 PM

V7-12 - IFC000024



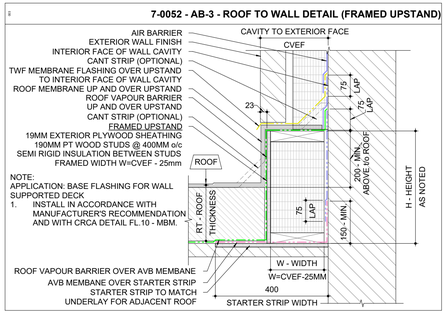
5 **ROOF PLAN**
1 : 75

7 SCUPPER DETAIL — 7-0007 - SCPR-1 - OVERFLOW TYPE



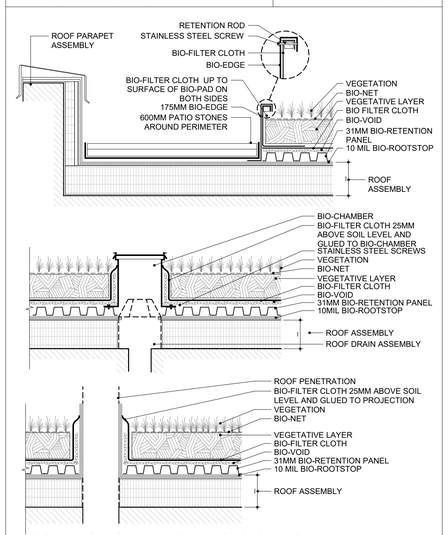
NOTES:
1. FABRICATE AND INSTALL IN ACCORDANCE WITH SMACNA ARCHITECTURAL SHEET METAL MANUAL - CURRENT EDITION
2. ALL JOINTS - METAL SHALL BE SOLDERED - ALUMINUM SHALL BE WELDED

7-0052 - AB-3 - ROOF TO WALL DETAIL (FRAMED UPSTAND)



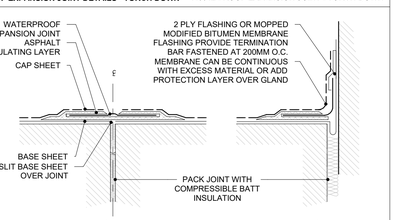
NOTE:
APPLICATION: BASE FLASHING FOR WALL SUPPORTED DECK
1. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND WITH CRCA DETAIL FL.10 - MBM.

4 VEGETATED ROOF DETAILS — A700-7000-VRA-1



* SHOP DRAWING AND SUBMITTAL REQUIRED PRIOR TO INSTALLATION

2 2 ROOF EXPANSION JOINT DETAILS - TORCH DOWN — 7-0012 - ROOF EXPANSION JOINT - TORCH DOWN



NOTES:
1. DETAILS ARE BASED ON SBS MODBIT ROOFING SYSTEM APPLICATION
2. DETAILS REPRESENT TYPICAL APPLICATION. ADAPT INSTALLATION TO SUIT CONDITIONS
3. USE LIQUID MEMBRANE RECOMMENDED BY ROOFING SYSTEM MAUNFACTURER

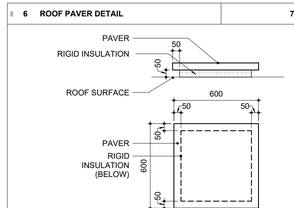
GC COORD
SUBTRADES

1 GENERAL NOTES - ROOF PLAN — A700 GENERAL NOTES - ROOF PLAN

1. ROOF PLAN DOES NOT SHOW ALL PENETRATIONS THROUGH ROOF. CONTRACTOR TO REVIEW ALL CONTRACT DRAWINGS AND SPECIFICATIONS TO DETERMINE FULL SCOPE OF WORK. MAKE PROVISIONS FOR ROOF PENETRATIONS WHERE INDICATED AND REQUIRED UNDER THE SCOPE OF THIS CONTRACT.
2. ALL ROOF PENETRATIONS SHALL BE SEALED USING TALL CONE FLASHING OR PITCH POCKETS AS REQUIRED. CONES SHALL BE SEAMLESS AND INCLUDE A STORM COLLAR.
3. PROVIDE TAPERED INSULATION AT PERIMETER OF ALL ROOFS, SKYLIGHTS AND AS INDICATED. SLOPE SHALL BE 2%.
4. UNLESS NOTED OTHERWISE, SUMP ALL ROOF DRAINS IN ACCORDANCE WITH APPLICABLE CRCA DETAIL, AS INDICATED OR AS REQUIRED. PROVIDE TAPERED CRICKETS OR SIMILAR TYPE MEASURES TO ENSURE THAT ROOF WATER FLOWS TO DRAINS.
5. SLOPE OF ROOF STRUCTURE TO BE SUPPLEMENTED BY TAPERED INSULATION. SLOPE ROOF INSULATION MIN. 1.5% TO DRAINS, TYPICAL. CRICKETS, CONSTRUCTED OUT OF TAPERED INSULATION, ARE TO PROVIDE TWO TIMES THE SLOPE OF THE ROOF STRUCTURE.
6. UPSTANDS ON ROOF FOR MECHANICAL UNITS, PARAPETS, SKYLIGHTS TO COME COMPLETE WITH CANT STRIPS.
7. **WITHOUT EXCEPTION**, ROOF MOUNTED EQUIPMENT AND FITTINGS THAT REQUIRE A ROOF CURB SHALL BE SUPPORTED BY A CURB OF SUFFICIENT HEIGHT SO THAT THE TOP OF CURB IS AT LEAST 250mm ABOVE THE ADJACENT ROOF SURFACE. CONTRACTOR TO COORDINATE WITH SUPPLIERS/MANUFACTURERS ACCORDINGLY.
8. CONTINUOUS VAPOUR RETARDER MEMBRANE COMPONENT OF ROOF ASSEMBLIES TO BE WRAPPED UP AT ALL PARAPETS, CURBS, EXTERIOR WALL ASSEMBLIES BY A MIN. 200mm OR AS DETAILED ON DRAWINGS. TIE INTO VAPOUR BARRIER & AVB MEMBRANES ON ALL VERTICAL SURFACES. PROVIDE 'PEEL & STICK' TYPE TRANSITION MEMBRANES IN ORDER TO ENSURE CONTINUITY OF AIR BARRIERS/BUILDING ENVELOPE.

GC COORD
SUBTRADES
COORD INTERFERENCE

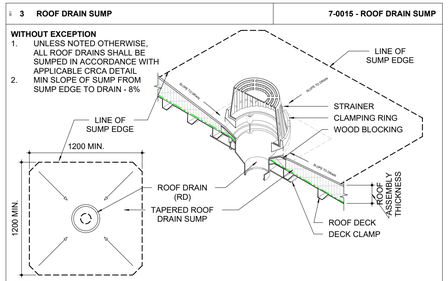
6 ROOF PAVER DETAIL — 7-0002 - VRA-2 - ROOF PAVER DETAIL



NOTES:
1. PROVIDE ROOF PAVERS AROUND PERIMETER OF VEGETATED ROOF ASSEMBLIES AND IN OTHER LOCATIONS AS INDICATED.
2. CUT RIGID INSULATION 50MM BACK FROM EDGE OF PAVER (TYPICAL).
3. ON MEMBRANE ROOF SURFACES, INSULATION SHALL BE RAIN CHANNELED ON BOTTOM EDGES.

3 ROOF DRAIN SUMP — 7-0015 - ROOF DRAIN SUMP

WITHOUT EXCEPTION
1. UNLESS NOTED OTHERWISE, ALL ROOF DRAINS SHALL BE SUMPED IN ACCORDANCE WITH APPLICABLE CRCA DETAIL
2. MIN SLOPE OF SUMP FROM SUMP EDGE TO DRAIN - 8%



NOTE:
1. NOT INTENDED TO DESCRIBE ACTUAL ROOF DRAIN INSTALLATION. ROOF DRAIN TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
28	ADDENDUM #3	2024-05-22
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 505 I TORONTO ONTARIO I M5T 2C8

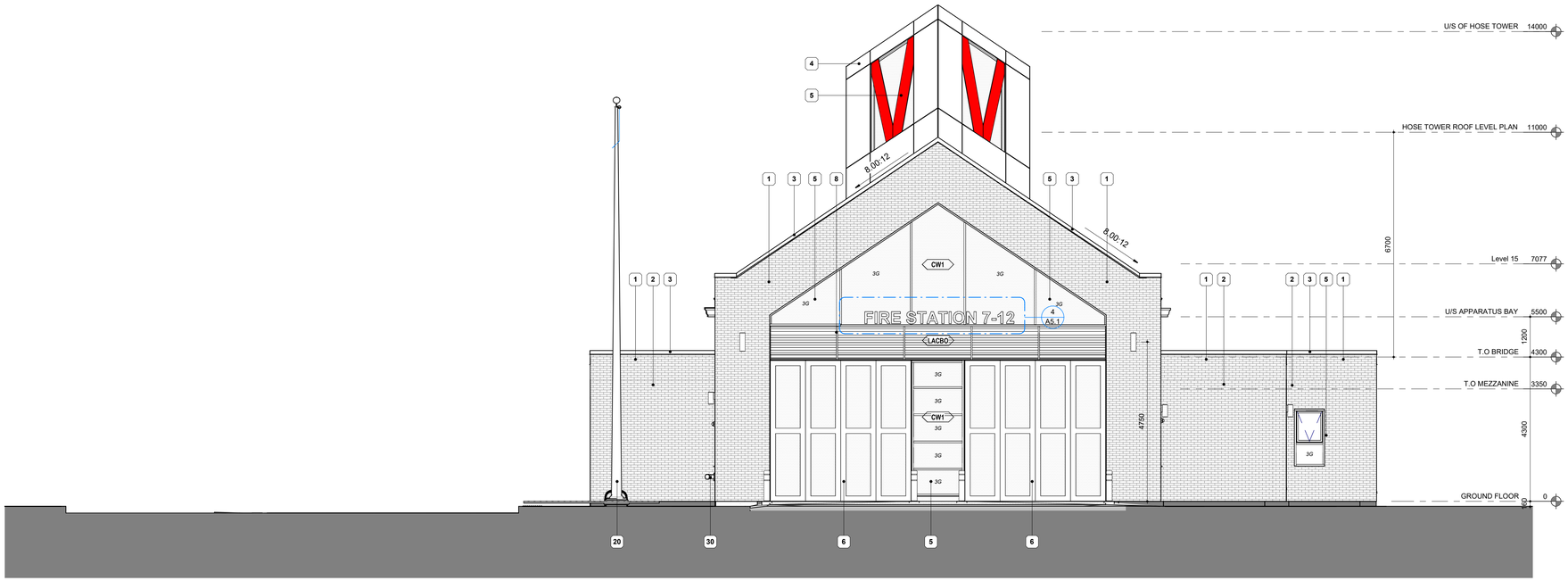
PROFESSIONAL SEAL

DWG TITLE
ROOF PLAN

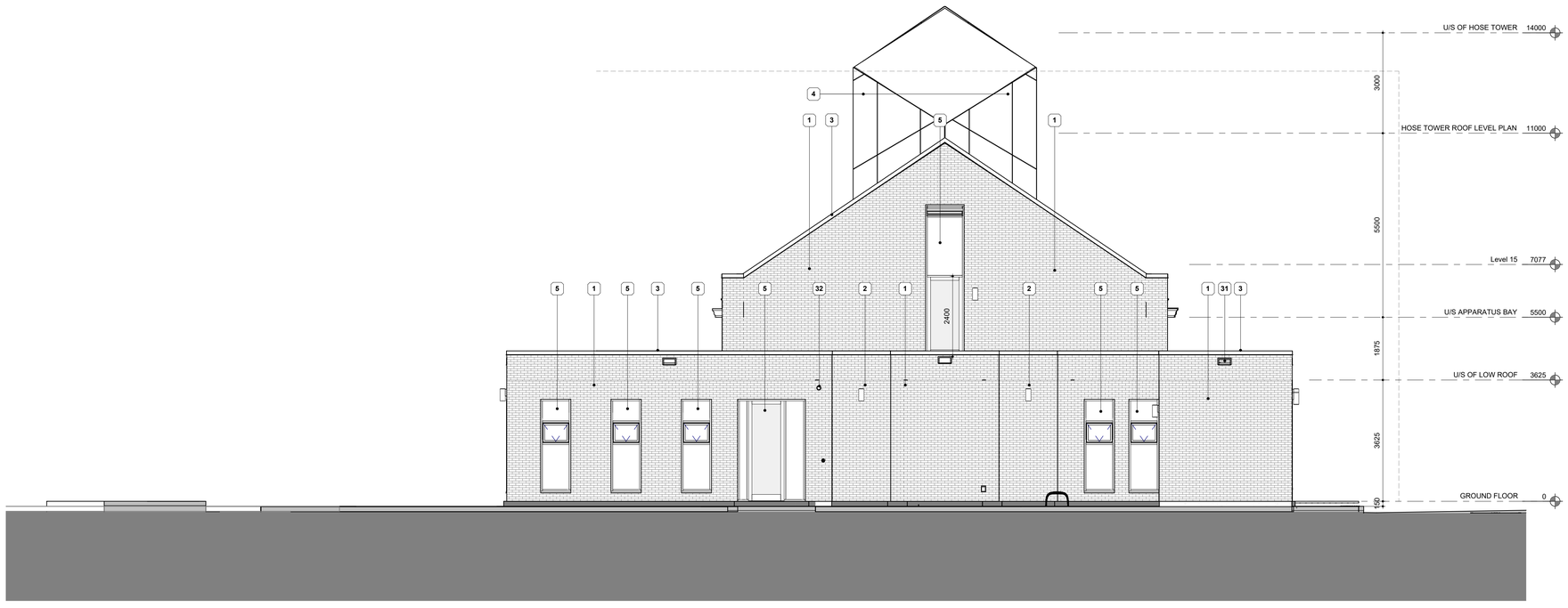
ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

DATE 2021-11-24
SCALE As indicated
DRAWN BY SRL
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. A4.1
REVISION 30

2024-09-09 4:06:46 PM



3 **1 - Building Elevations - FROM - 5/ A3.3**
1 : 75



2 **1 - Building Elevations - FROM - 5/ A3.3**
1 : 75

1	GENERAL NOTES - BUILDING ELEVATIONS	A700 GENERAL NOTES - BUILDING ELEVATIONS

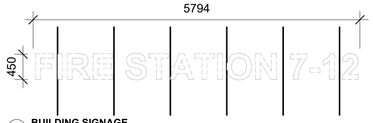
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH MECHANICAL AND ELECTRICAL DRAWINGS PREPARED BY THE MECHANICAL AND ELECTRICAL ENGINEERS TO DETERMINE LOCATIONS OF ALL MECHANICAL AND ELECTRICAL PENETRATIONS, FIXTURES, DEVICES ETC.
2. ELEVATION DRAWINGS MAY NOT SHOW ALL PENETRATIONS. CONTRACTOR TO REVIEW ALL CONTRACT DRAWINGS AND SPECIFICATIONS TO DETERMINE FULL SCOPE OF WORK. MAKE PROVISIONS FOR PENETRATIONS WHERE INDICATED AND REQUIRED UNDER THE SCOPE OF THIS CONTRACT.
3. ELEVATION DRAWINGS MAY NOT SHOW ALL FIXTURES, DEVICES ETC. CONTRACTOR TO REVIEW ALL CONTRACT DRAWINGS AND SPECIFICATIONS TO DETERMINE FULL SCOPE OF WORK. REPORT ANY DISCREPANCIES WITH MECHANICAL AND ELECTRICAL DRAWINGS TO CONSULTANT IMMEDIATELY. OBTAIN INSTRUCTION FROM CONSULTANT BEFORE COMMENCING INSTALLATION.
4. LOCATION OF FIXTURES, DEVICES ETC. AS SHOWN ON ELEVATION DRAWINGS SHALL BE INSTALLED IN THE LOCATIONS INDICATED. UNLESS SPECIFICALLY DIMENSIONED, FIXTURES SUCH AS WALL MOUNTED LIGHTS SHALL BE CENTERED OVER OPENINGS.

GC COORD. SUBTRADES

BUILDING ELEVATION NOTES

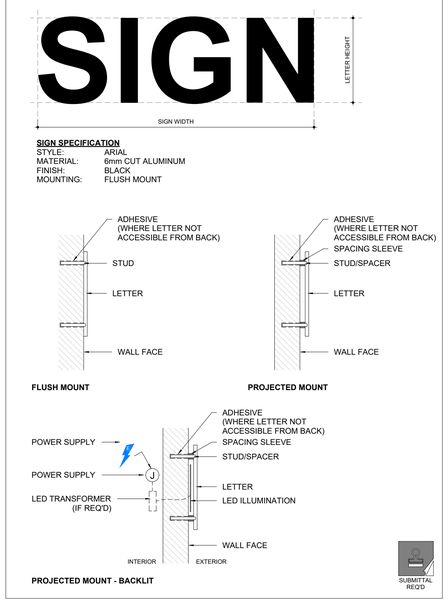
NUMBER	NOTE
1	BRICK MASONRY VENEER
2	LIGHT FIXTURE
3	PREFINISHED METAL COPING
4	PREFINISHED ALUMINUM PANEL SYSTEM
5	GLAZING
6	PREFINISHED BAY DOOR (4-FOLD)
7	CUSTOM SIGNAGE
8	LOUVER SYSTEM
9	WALL MOUNTED LIGHT FIXTURE
10	STANDING SEAM METAL ROOFING
11	ANODIZED ALUMINUM GLASS DOOR
12	PREFINISHED OVERHEAD DOOR
13	PTD HOLLOW METAL DOOR
14	FENCING SCREEN
15	LIGHT FIXTURE POLE
16	P-GATES
20	FLAGPOLE C/W DECORATIVE CONCRETE BASE
30	BUILDING SIAMESE
31	ROOF SCUPPER
32	CCTV CAMERA

4 **BUILDING SIGNAGE**
1 : 50



5 **BUILDING SIGNAGE**
1 : 50

6 / A5.1	10-0040 - BUILDING SIGN DETAILS (EXTERIOR)



SUBMITTAL REQ'D

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
23	BUILDING PERMIT - BUILDING HEIGHT	2023-12-04
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

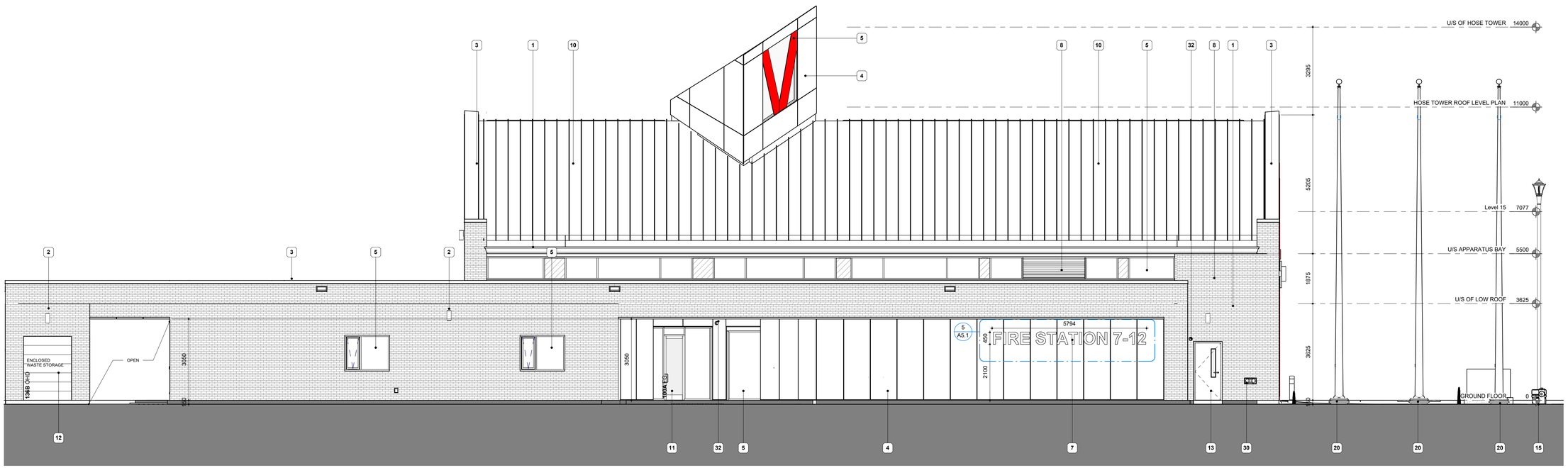
DWG TITLE
BUILDING ELEVATIONS

ORIENTATION

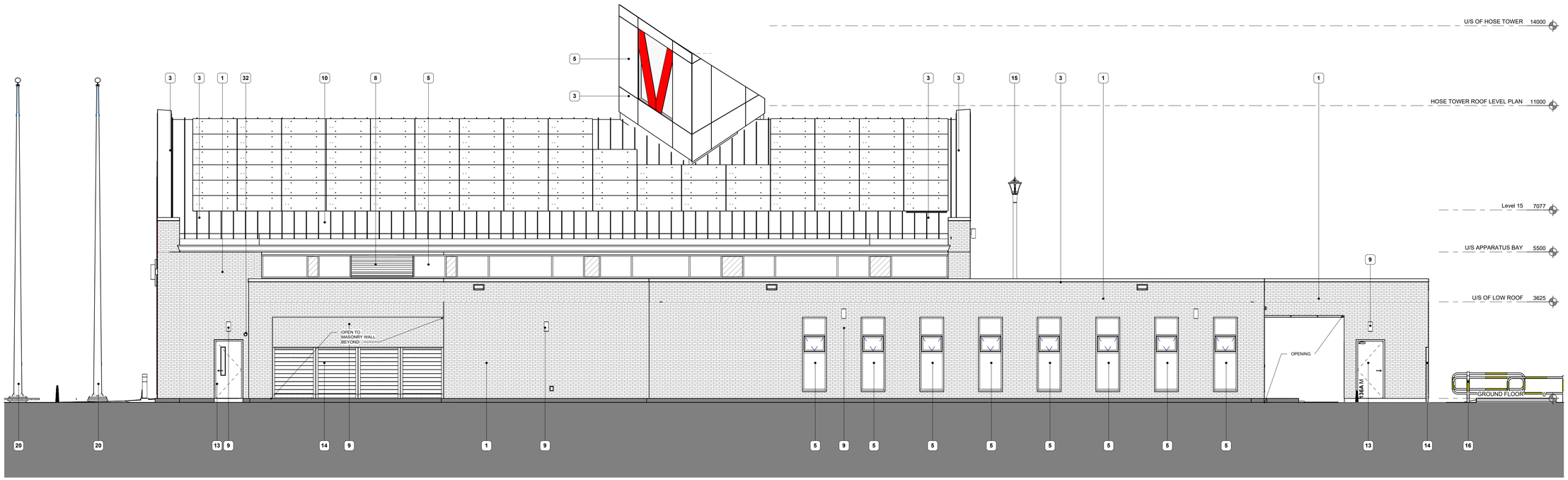
DATE 2021-11-24
SCALE As indicated
DRAWN BY SRL
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A5.1**
REVISION 30

2024-09-09 4:07:47 PM

V7-12 - IFC000026



1 **1 - Building Elevations -**
1 : 75



2 **1 - Building Elevations -**
1 : 75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
7	SITE PLAN SUBMISSION 1	2022-05-31
10	SPA RE-SUBMISSION	2022-08-30
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE
BUILDING ELEVATIONS

ORIENTATION

DATE 2021-11-24

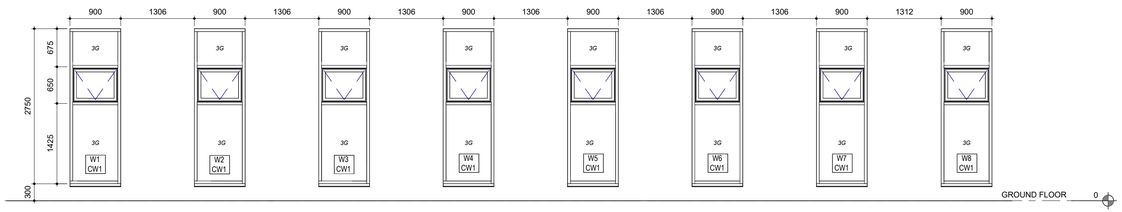
SCALE 1 : 75 | DRAWN BY SRL

DWG STATUS : TENDER

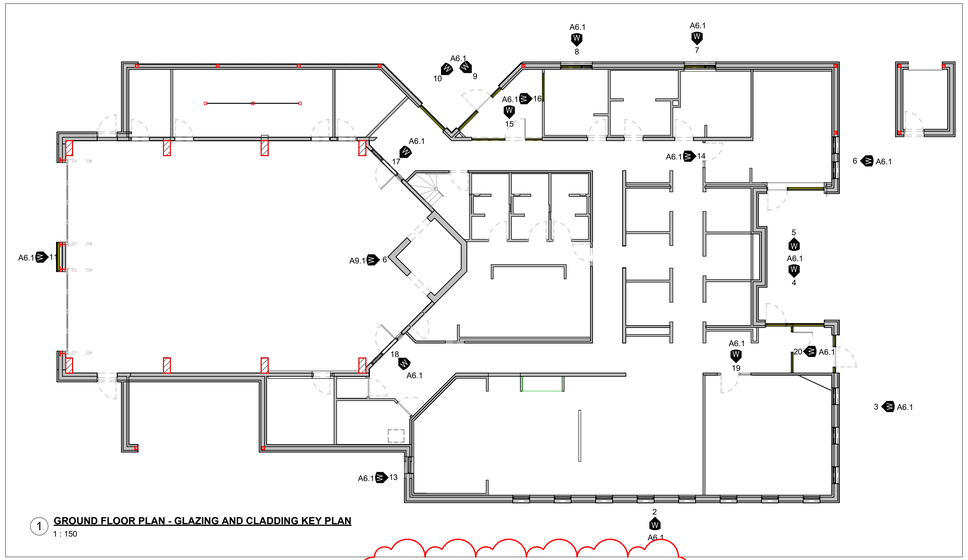
PROJECT No. 2104

DRAWING No. **A5.2** | REVISION 30

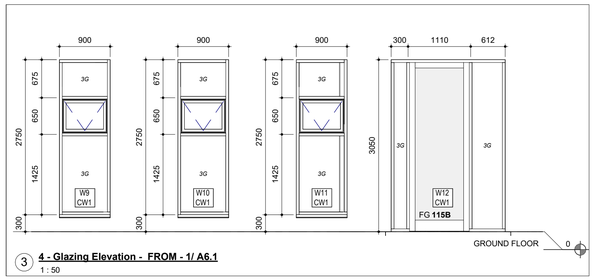
2024-09-09 4:08:03 PM



2 **4 - Glazing Elevation - FROM - 1/ A6.1**
1 : 50



1 **GROUND FLOOR PLAN - GLAZING AND CLADDING KEY PLAN**
1 : 150



3 **4 - Glazing Elevation - FROM - 1/ A6.1**
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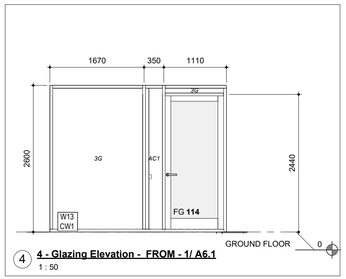

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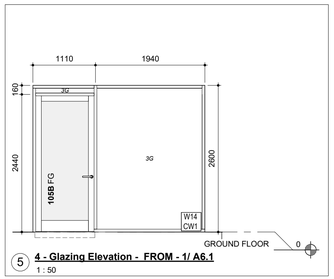
1 : 50



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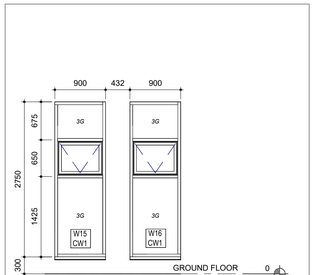
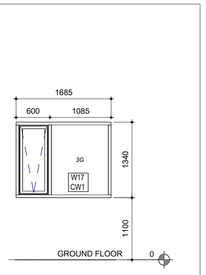


6 **4 - Glazing Elevation - FROM - 1/ A6.1**
1 : 50



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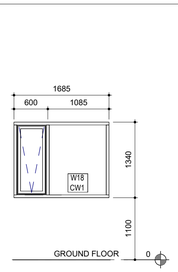

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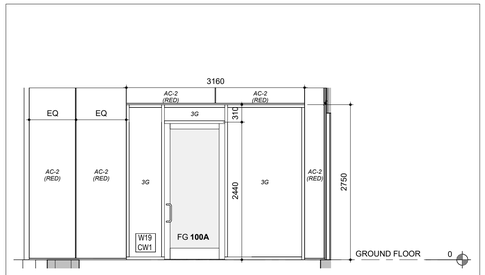

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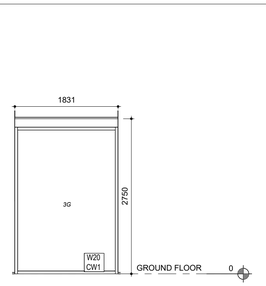

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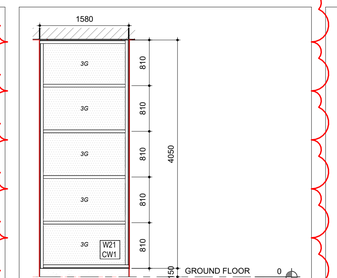

11 **Elevation 14 - a**
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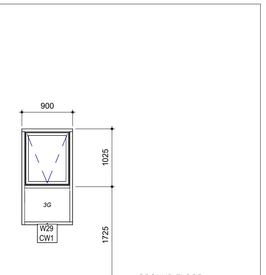

13 **4 - Glazing Elevation - FROM - 1/A6.1**
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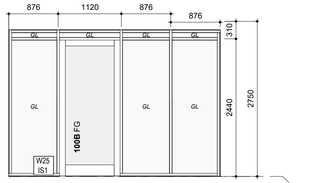
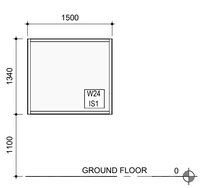


15 **4 - Glazing Elevation - FROM - 1/ A6.1**
1 : 50



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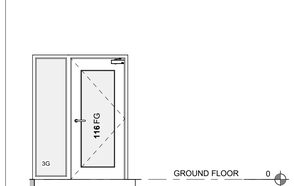

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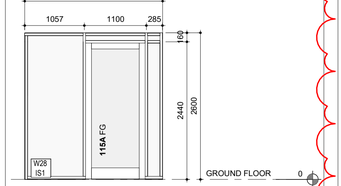

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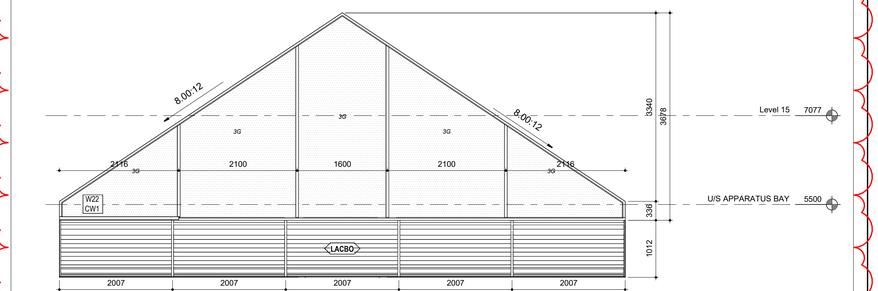

12 **4 - Glazing Elevation - FROM - 7/ A6.2**
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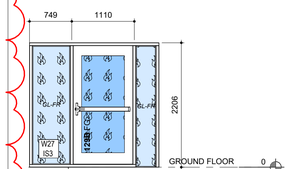
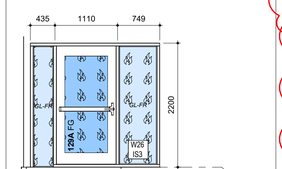


18 **4 - Glazing Elevation - FROM - 1/ A6.1**
1 : 50



17 **4 - Glazing Elevation - FROM - 1/ A6.1**
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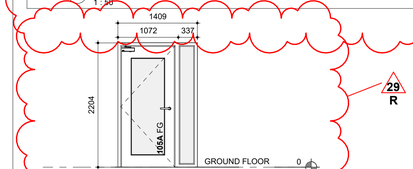


14 **4 - Glazing Elevation - FROM - 1/ A6.1**
1 : 50

S-04 - Schedule - Window - Basis of Design

TYPE	SPECIFIED BASIS OF DESIGN
W1	ALUMICOR TW2200 OR EQUIVALENT
W2	ALUMICOR TW2200 OR EQUIVALENT
W3	ALUMICOR TW2200 OR EQUIVALENT
W4	ALUMICOR TW2200 OR EQUIVALENT
W5	ALUMICOR TW2200 OR EQUIVALENT
W6	ALUMICOR TW2200 OR EQUIVALENT
W7	ALUMICOR TW2200 OR EQUIVALENT
W8	ALUMICOR TW2200 OR EQUIVALENT
W9	ALUMICOR TW2200 OR EQUIVALENT
W10	ALUMICOR TW2200 OR EQUIVALENT
W11	ALUMICOR TW2200 OR EQUIVALENT
W12	ALUMICOR TW2200 OR EQUIVALENT
W13	ALUMICOR TW2200 OR EQUIVALENT
W14	ALUMICOR TW2200 OR EQUIVALENT
W15	ALUMICOR TW2200 OR EQUIVALENT
W16	ALUMICOR TW2200 OR EQUIVALENT
W17	ALUMICOR TW2200 OR EQUIVALENT
W18	ALUMICOR TW2200 OR EQUIVALENT
W19	ALUMICOR TW2200 OR EQUIVALENT
W20	ALUMICOR TW2200 OR EQUIVALENT
W21	ALUMICOR TW2200 OR EQUIVALENT
W22	ALUMICOR TW2200 OR EQUIVALENT
W24	BASIS OF DESIGN KAWNEER 451 OR EQUIVALENT
W25	BASIS OF DESIGN KAWNEER 451 OR EQUIVALENT
W26	BASIS OF DESIGN FLEMING TYPE 'D' FRAME OR EQUIVALENT
W27	BASIS OF DESIGN FLEMING TYPE 'D' FRAME OR EQUIVALENT
W28	BASIS OF DESIGN KAWNEER 451 OR EQUIVALENT
W29	ALUMICOR TW2200 OR EQUIVALENT
W30	ALUMICOR TW2200 OR EQUIVALENT

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
16	DD CLIENT REVIEW	2023-07-24
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
28	ADDENDUM #3	2024-05-22
29	ADDENDUM #4	2024-05-30
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT

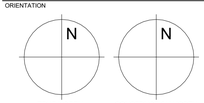
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

CLADDING, GLAZING AND LOUVER ELEVATIONS

ORIENTATION



DATE 2021-11-24

SCALE As indicated

DRAWN BY SRL

DWG STATUS : TENDER

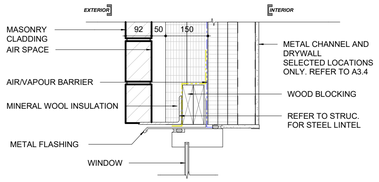
PROJECT No. 2104

DRAWING No. **A6.1**

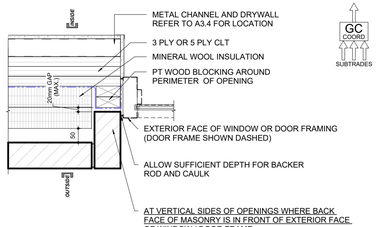
REVISION 30

2024-09-09 4:08:12 PM

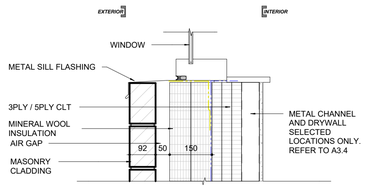
2 TOP OF WINDOW DETAIL — A 700 0000

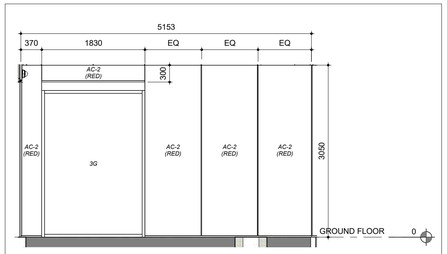


4 HORIZONTAL WINDOW DETAIL — 4-0011 - MASONRY DETAIL AT WINDOW / DOOR OPENINGS

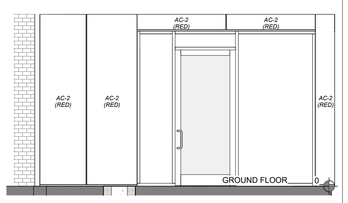


3 WINDOW SILL AND BASE DETAIL — A700 0000

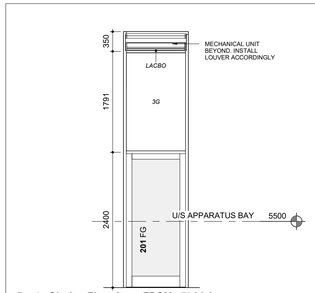




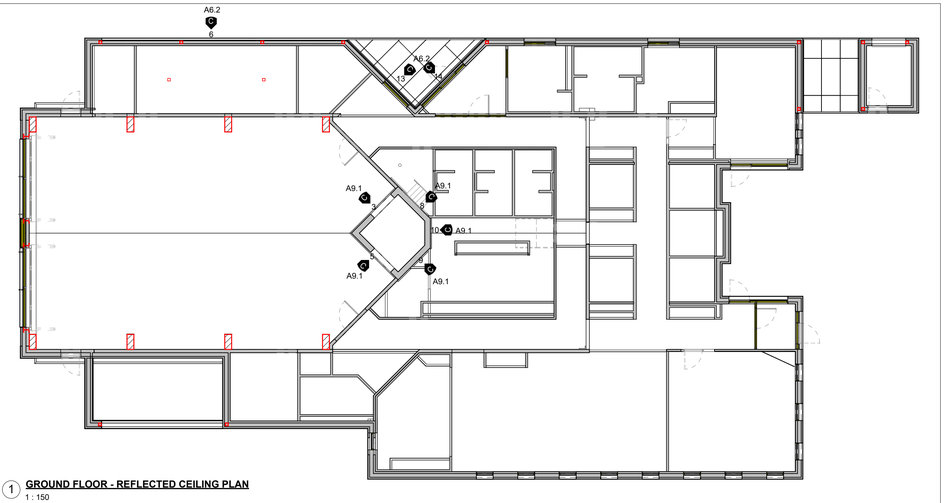
13 **3 - Cladding Elevation - FROM - 1/ A6.2**
1 : 50



14 **3 - Cladding Elevation - FROM - 1/ A6.2**
1 : 50



15 **4 - Glazing Elevation - FROM - 7/ A6.2**
1 : 50



1 **GROUND FLOOR - REFLECTED CEILING PLAN**
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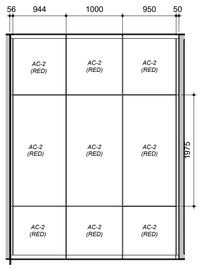

12 **RCP Soffit Cladding-1**
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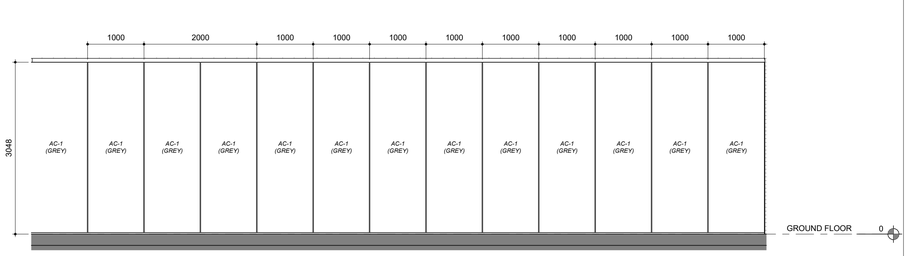

6 **3 - Cladding Elevation - FROM - 1/ A6.2**
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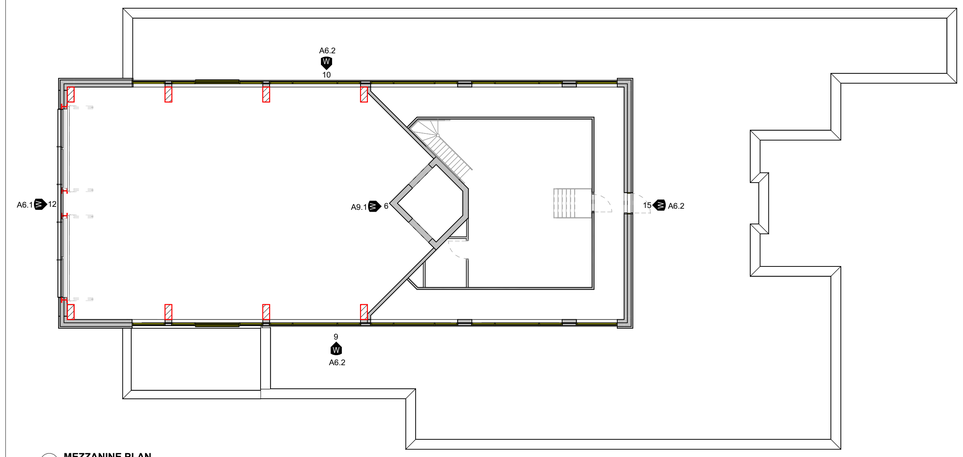

7 **MEZZANINE PLAN**
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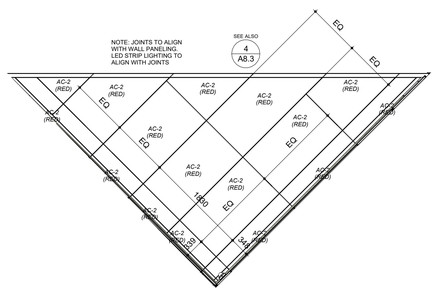
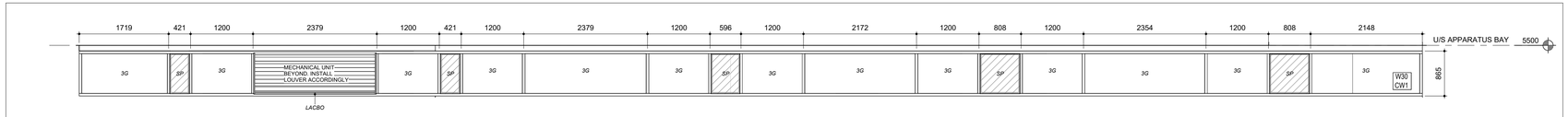


11 **1 - Ceiling Plans - FROM - 4/ A11.1**
1 : 50



9 **4 - Glazing Elevation - FROM - 7/ A6.2**
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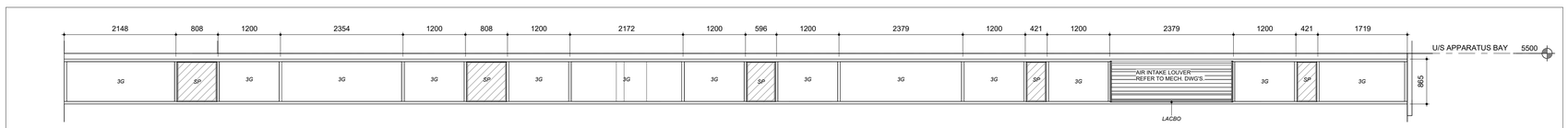


10 **4 - Glazing Elevation - FROM - 7/ A6.2**
1 : 50

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

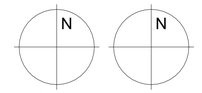
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

CLADDING, GLAZING AND LOUVER ELEVATIONS

ORIENTATION



DATE 2021-11-24

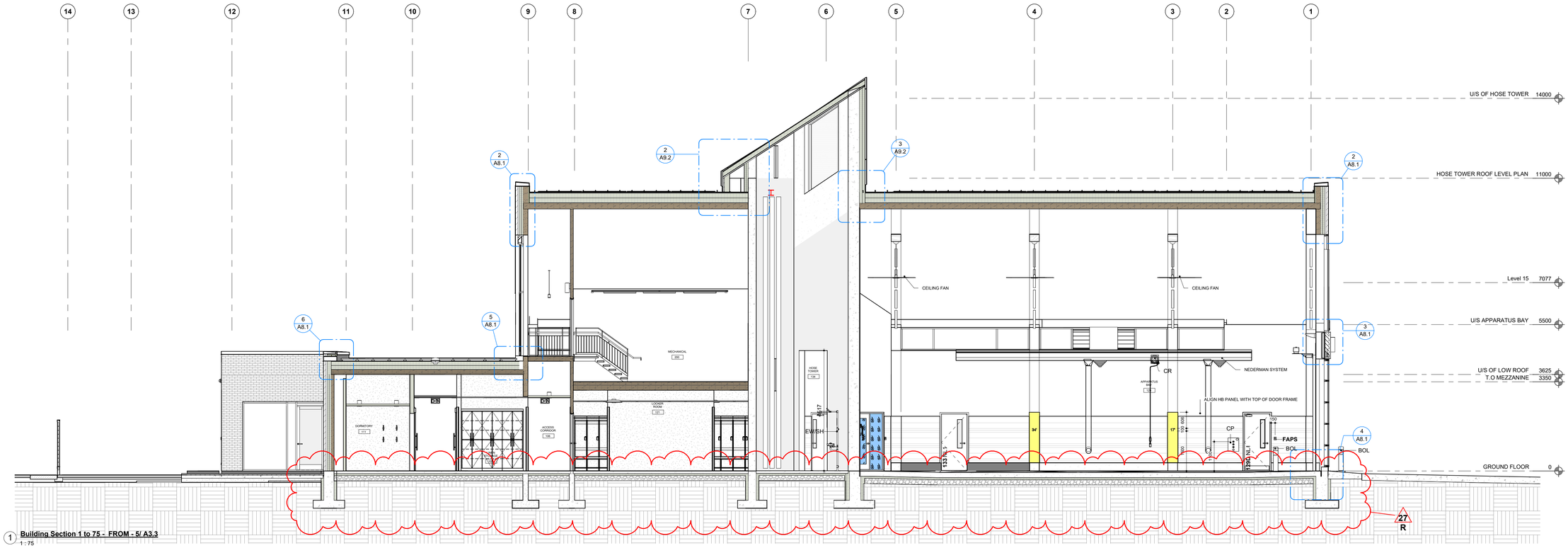
SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

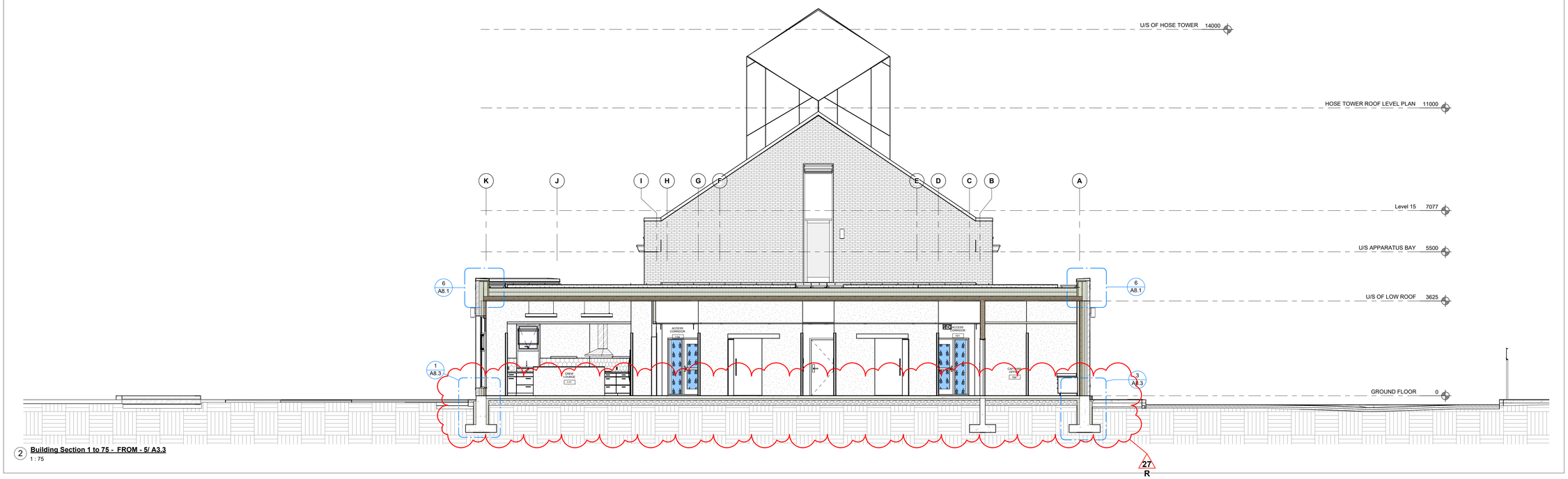
PROJECT No. 2104

DRAWING No. **A6.2** | REVISION 30

2024-09-09 4:08:21 PM



1 **Building Section 1 to 75 - FROM - 5/ A3.3**
1 : 75



2 **Building Section 1 to 75 - FROM - 5/ A3.3**
1 : 75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

BUILDING SECTIONS

ORIENTATION

TRUE NORTH — CONSTRUCTION NORTH

DATE 2021-11-24

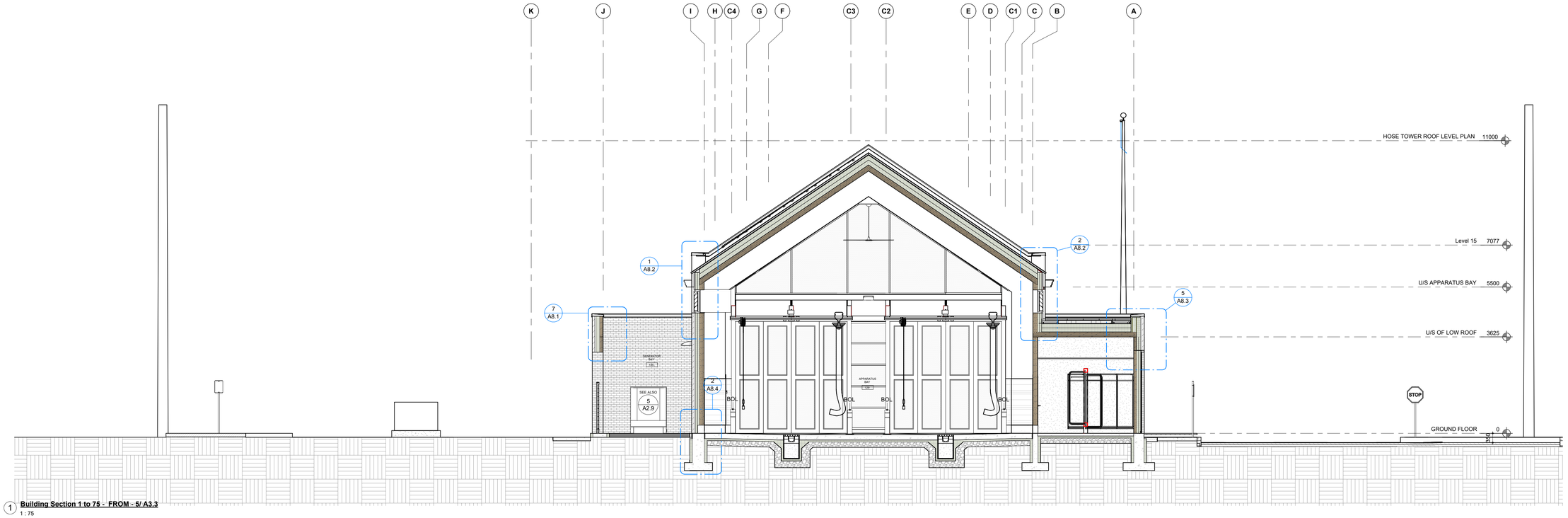
SCALE 1 : 75 | DRAWN BY SRL

DWG STATUS : TENDER

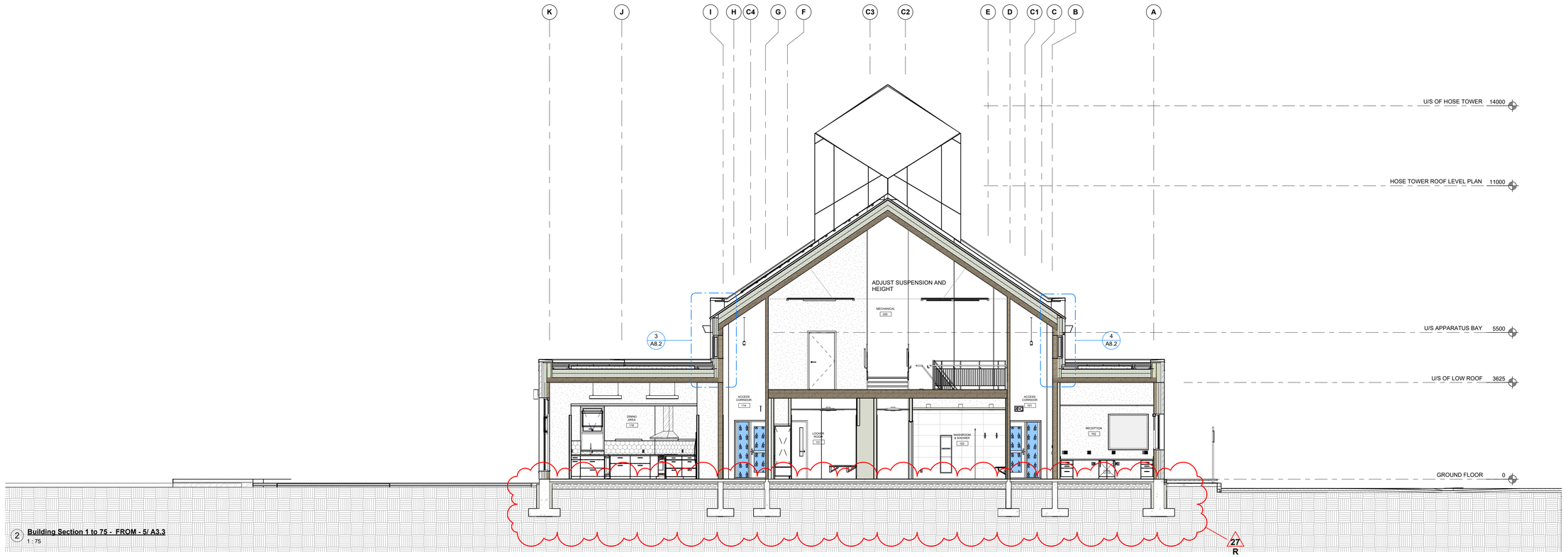
PROJECT No. 2104

DRAWING No. **A7.1** | REVISION 30

2024-09-09 4:08:47 PM



1 **Building Section 1 to 75 - FROM - 5/ A3.3**
1 : 75



2 **Building Section 1 to 75 - FROM - 5/ A3.3**
1 : 75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT

THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

BUILDING SECTIONS

ORIENTATION

N TRUE NORTH

N CONSTRUCTION NORTH

DATE 2021-11-24

SCALE 1 : 75

DRAWN BY SRL

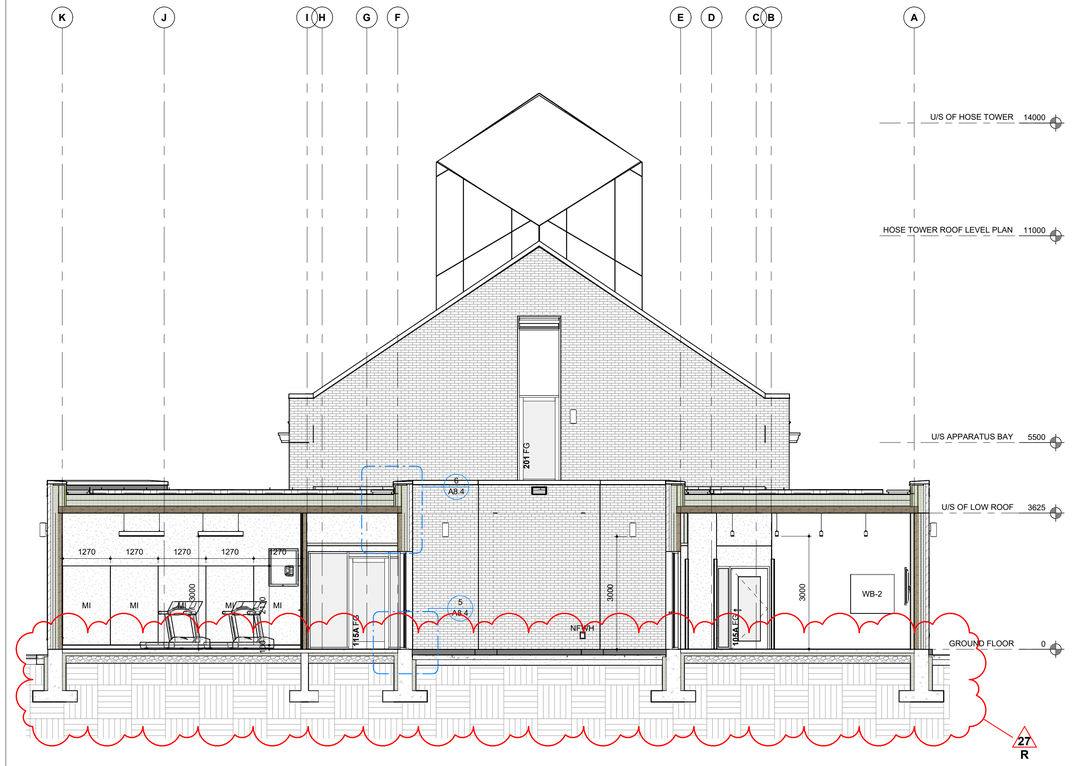
DWG STATUS : TENDER

PROJECT No. 2104

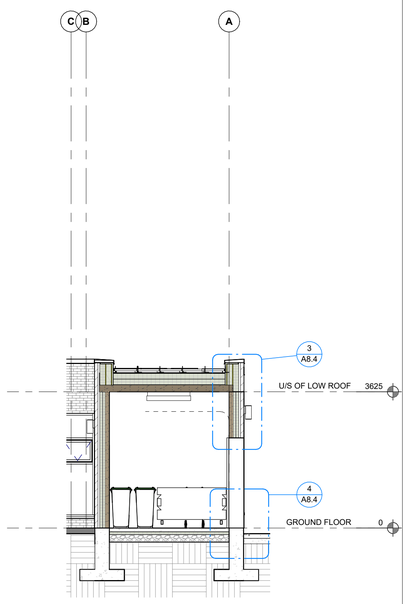
DRAWING No. **A7.2**

REVISION 30

2024-09-09 4:09:51 PM



2 **Building Section 1 to 75 - FROM - 5/ A3.3**
1 : 75



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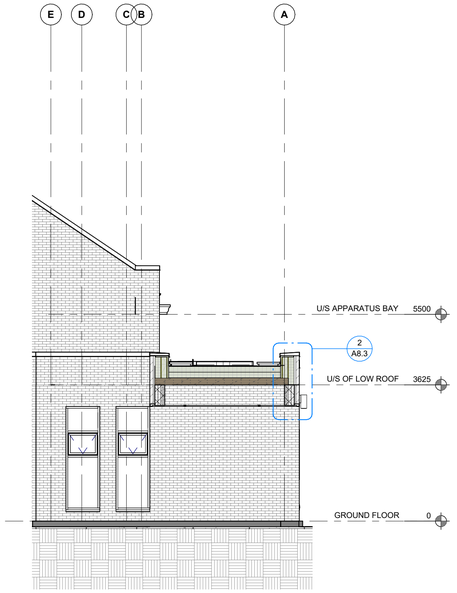

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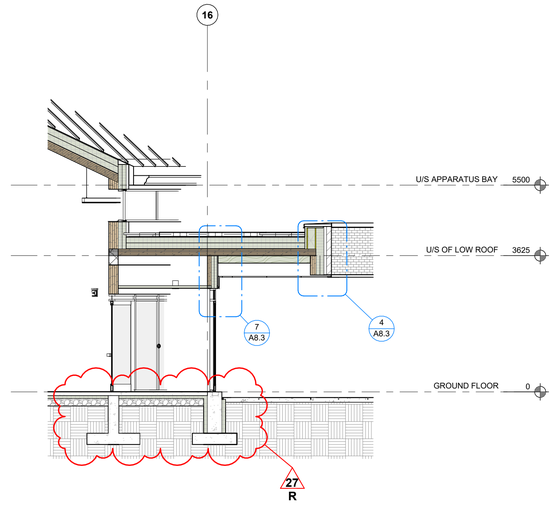


5 **Building Section 1 to 75 - FROM - 5/ A3.3**
1 : 75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

BUILDING SECTIONS

ORIENTATION

N — TRUE NORTH

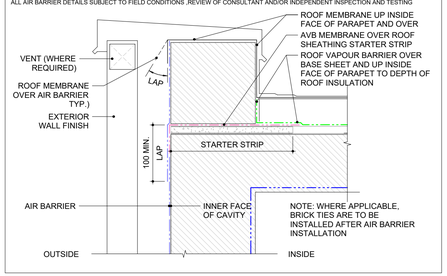
N — CONSTRUCTION NORTH

DATE	2021-11-24
SCALE	1 : 75
DRAWN BY	Author
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	A7.3
REVISION	30

2024-09-09 4:10:20 PM

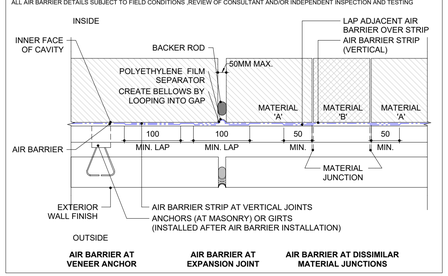
TYPICAL AIR BARRIER DETAIL AT PARAPET - SECTION | 7-0051 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS ,REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING



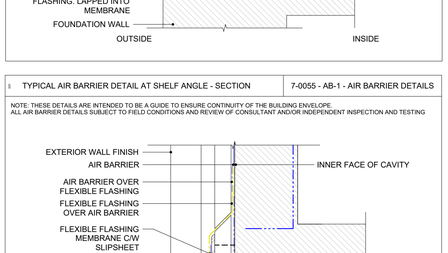
TYPICAL AIR BARRIER DETAILS - PLAN (VARIOUS CONDITIONS) | 7-0054 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS ,REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING



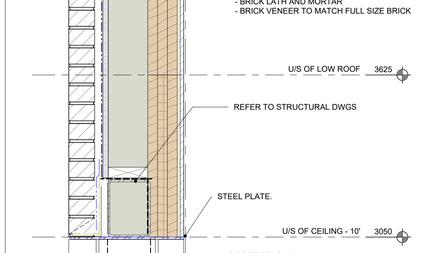
TYPICAL AIR BARRIER DETAIL AT WINDOW HEAD - SECTION | 7-0051 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS ,REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING



TYPICAL AIR BARRIER DETAIL AT DOOR FRAME - PLAN | 7-0056 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS ,REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING



TYPICAL AIR BARRIER DETAIL AT WINDOW SILL - SECTION | 7-0052 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS ,REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING

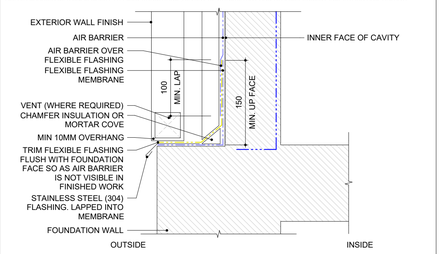
TYPICAL AIR BARRIER DETAIL AT WINDOW JAMB - PLAN | 7-0053 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS ,REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING

1 / A8.1

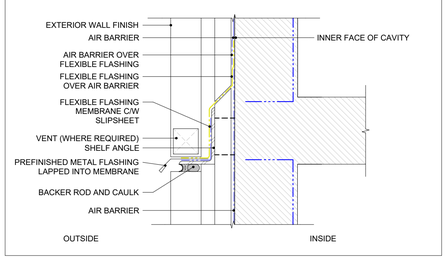
TYPICAL AIR BARRIER DETAIL AT FOUNDATION - SECTION | 7-0057 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS ,REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING

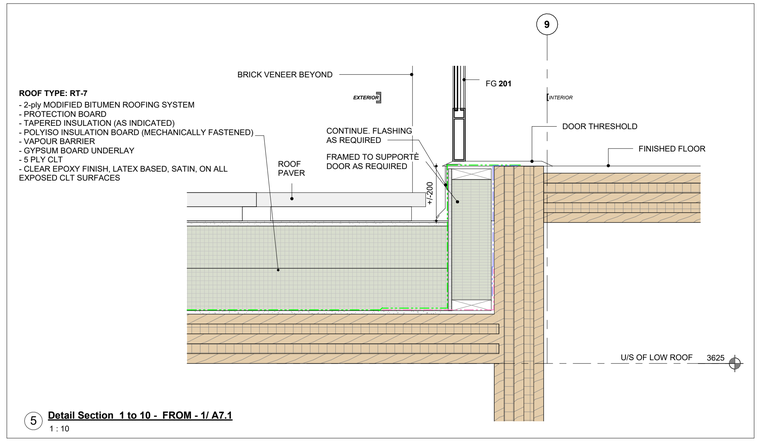


TYPICAL AIR BARRIER DETAIL AT SHELF ANGLE - SECTION | 7-0055 - AB-1 - AIR BARRIER DETAILS

NOTE: THESE DETAILS ARE INTENDED TO BE A GUIDE TO ENSURE CONTINUITY OF THE BUILDING ENVELOPE.
ALL AIR BARRIER DETAILS SUBJECT TO FIELD CONDITIONS AND REVIEW OF CONSULTANT AND/OR INDEPENDENT INSPECTION AND TESTING

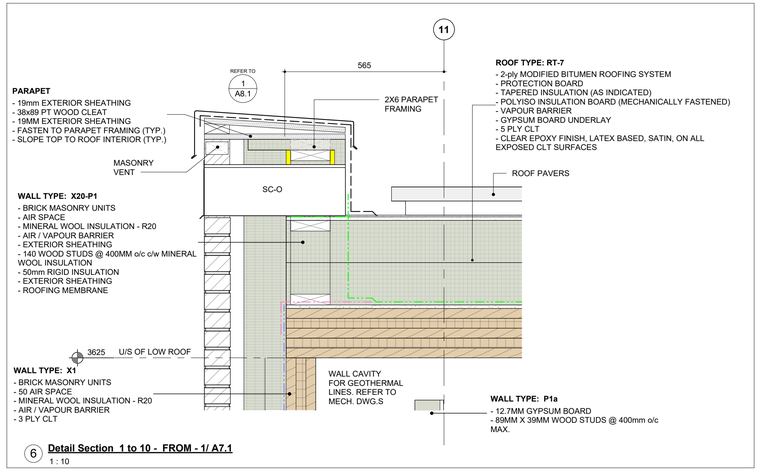


7 **Detail Section 1 to 10 - FROM - 1/ A7.2**
1 : 10



ROOF TYPE: RT-7
- 2-ply MODIFIED BITUMEN ROOFING SYSTEM
- PROTECTION BOARD
- TAPERED INSULATION (AS INDICATED)
- POLYISO INSULATION BOARD (MECHANICALLY FASTENED)
- VAPOUR BARRIER
- GYPSUM BOARD UNDERLAY
- 5 PLY CLT
- CLEAR EPOXY FINISH, LATEX BASED, SATIN, ON ALL EXPOSED CLT SURFACES

5 **Detail Section 1 to 10 - FROM - 1/ A7.1**
1 : 10



PARAPET
- 19mm EXTERIOR SHEATHING
- 38x89 PT WOOD CLEAT
- 19MM EXTERIOR SHEATHING
- FASTEN TO PARAPET FRAMING (TYP.)
- SLOPE TOP TO ROOF INTERIOR (TYP.)

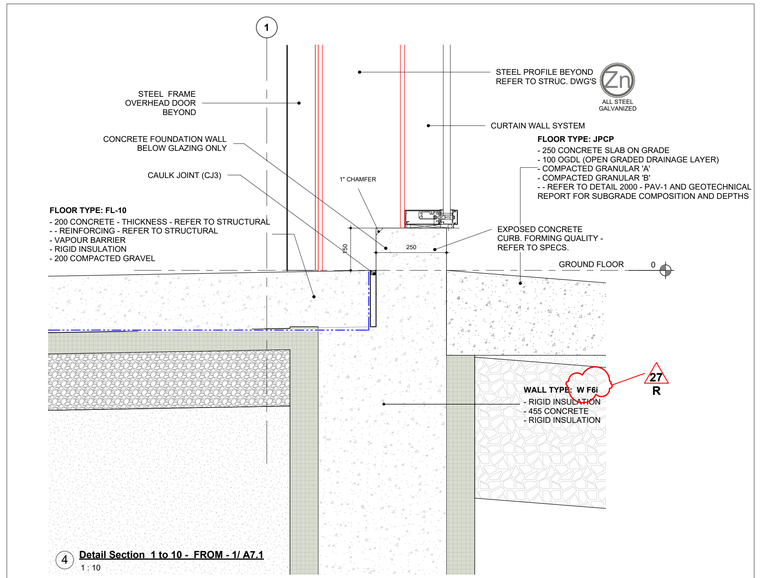
WALL TYPE: X20-P1
- BRICK MASONRY UNITS
- AIR SPACE
- MINERAL WOOL INSULATION - R20
- AIR / VAPOUR BARRIER
- EXTERIOR SHEATHING
- 140 WOOD STUDS @ 400MM o/c c/w MINERAL WOOL INSULATION
- 50mm RIGID INSULATION
- EXTERIOR SHEATHING
- ROOFING MEMBRANE

WALL TYPE: X1
- BRICK MASONRY UNITS
- 50 AIR SPACE
- MINERAL WOOL INSULATION - R20
- AIR / VAPOUR BARRIER
- 3 PLY CLT

ROOF TYPE: RT-7
- 2-ply MODIFIED BITUMEN ROOFING SYSTEM
- PROTECTION BOARD
- TAPERED INSULATION (AS INDICATED)
- POLYISO INSULATION BOARD (MECHANICALLY FASTENED)
- VAPOUR BARRIER
- GYPSUM BOARD UNDERLAY
- 5 PLY CLT
- CLEAR EPOXY FINISH, LATEX BASED, SATIN, ON ALL EXPOSED CLT SURFACES

WALL TYPE: P1a
- 12.7MM GYPSUM BOARD
- 89MM X 39MM WOOD STUDS @ 400mm o/c MAX.

6 **Detail Section 1 to 10 - FROM - 1/ A7.1**
1 : 10

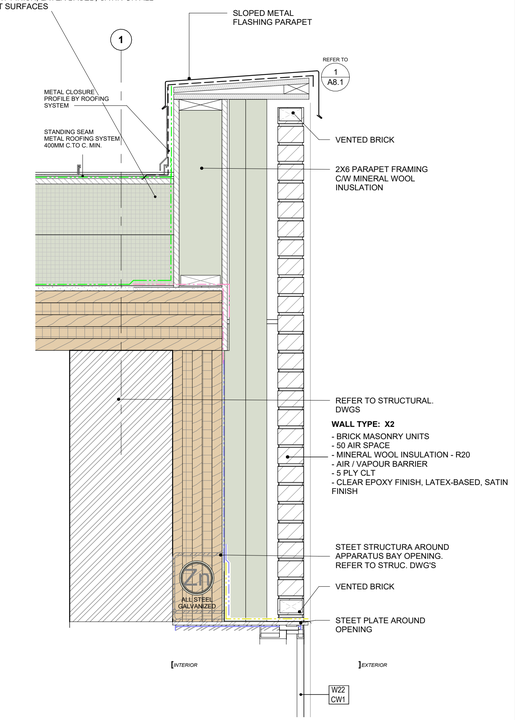


FLOOR TYPE: FL-10
- 200 CONCRETE - THICKNESS - REFER TO STRUCTURAL
- - REINFORCING - REFER TO STRUCTURAL
- VAPOUR BARRIER
- RIGID INSULATION
- 200 COMPACTED GRAVEL

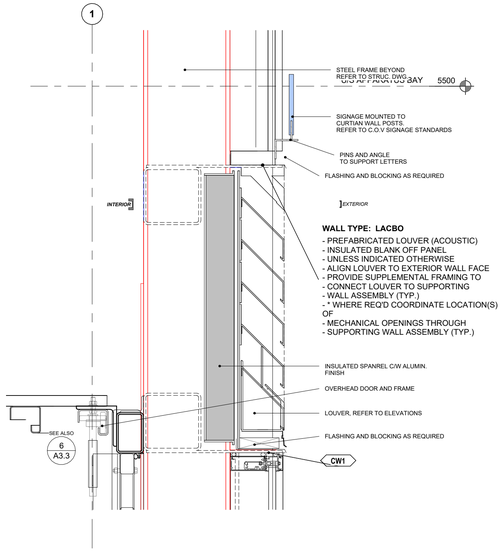
FLOOR TYPE: JPCP
- 250 CONCRETE SLAB ON GRADE
- 100 OGDL (OPEN GRADED DRAINAGE LAYER)
- COMPACTED GRANULAR 'A'
- COMPACTED GRANULAR 'B'
- - REFER TO DETAIL 2000 - PAV-1 AND GEOTECHNICAL REPORT FOR SUBGRADE COMPOSITION AND DEPTHS

4 **Detail Section 1 to 10 - FROM - 1/ A7.1**
1 : 10

ROOF TYPE: RT-20
- STANDING SEAM METAL ROOF
- ICE AND WATER SHIELD (ENTIRE ROOF)
- DENSDECK SHEATHING
- MINERAL WOOL INSULATION
- 5 PLY CLT
- CLEAR EPOXY FINISH, LATEX BASED, SATIN ON ALL EXPOSED CLT SURFACES



2 **Detail Section 1 to 10 - FROM - 1/ A7.1**
1 : 10



3 **Detail Section 1 to 10 - FROM - 1/ A7.1**
1 : 10

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN
FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

SECTION DETAILS

ORIENTATION

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A8.1** | REVISION 30

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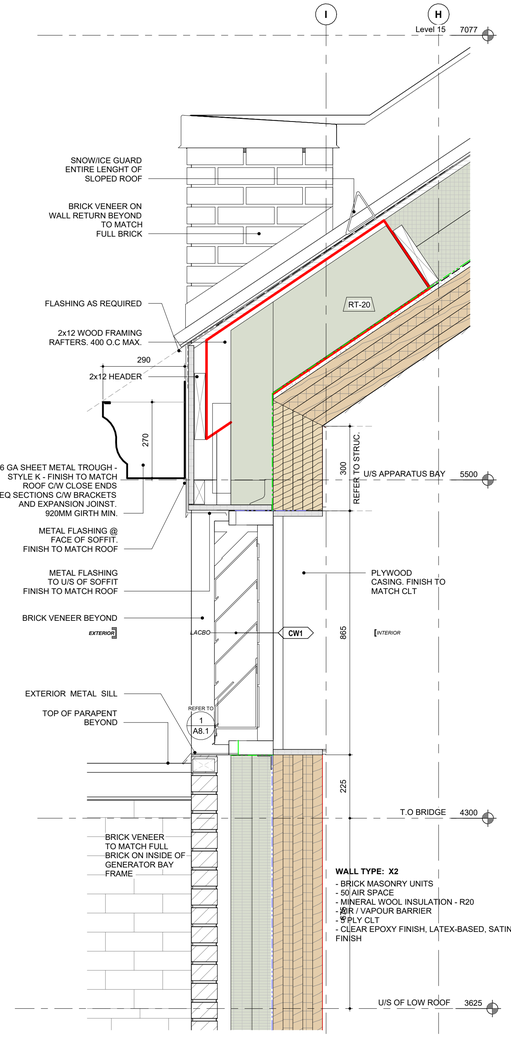

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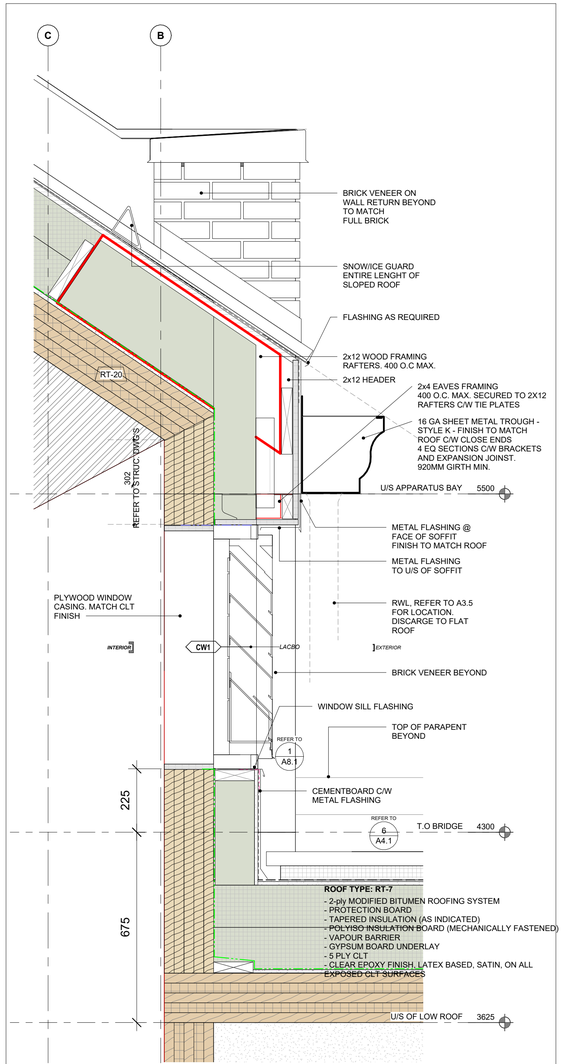
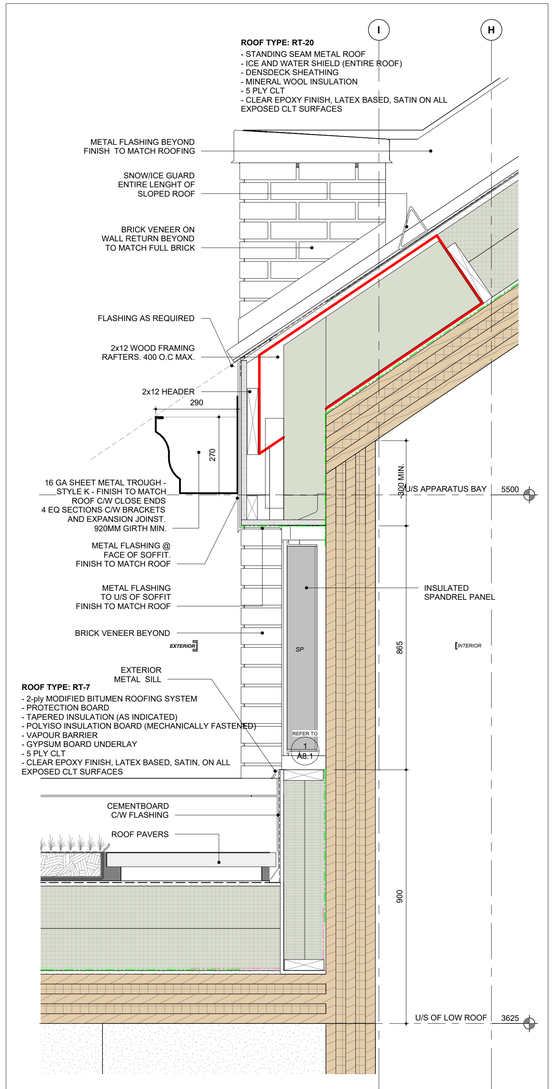


2 **Building Section 1 to 75 - FROM - 1/ A7.2**
1 : 10



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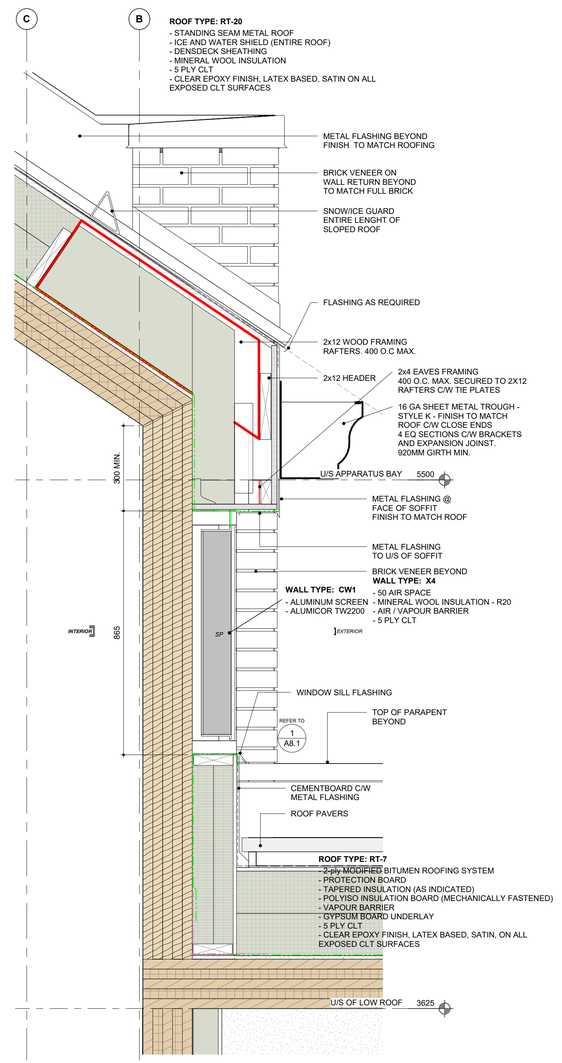

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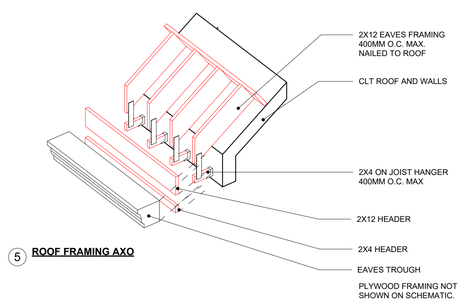

5 **ROOF FRAMING AXO**

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT

THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǁ TORONTO ONTARIO ǁ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

SECTION DETAILS

ORIENTATION

TRUE NORTH CONSTRUCTION NORTH

DATE 2021-11-24

SCALE 1 : 10 | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A8.2** | REVISION 30

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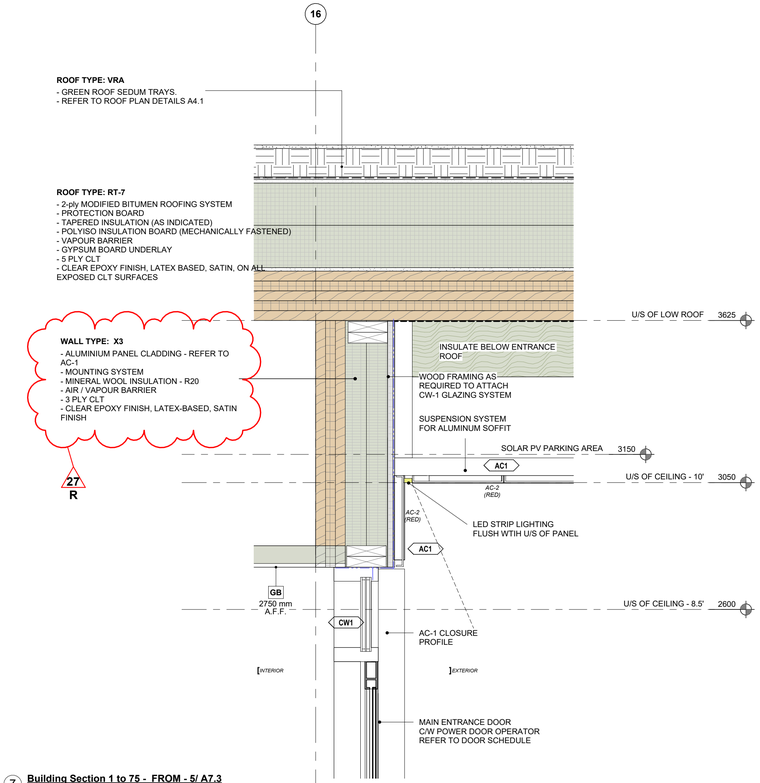

7 **Building Section 1 to 75 - FROM - 5/ A7.3**
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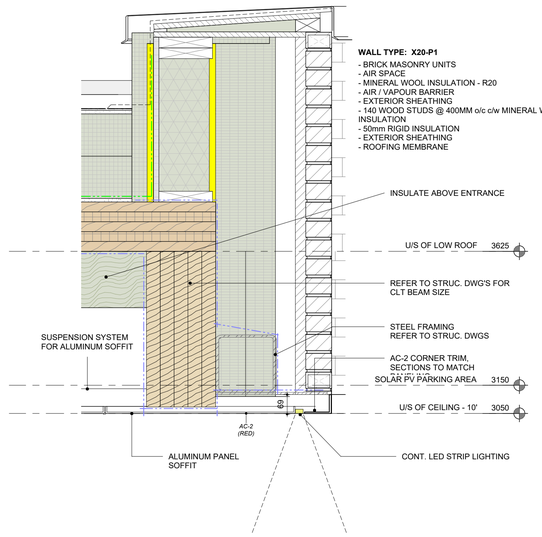

4 **Detail Section 1 to 10 - FROM - 5/ A7.3**
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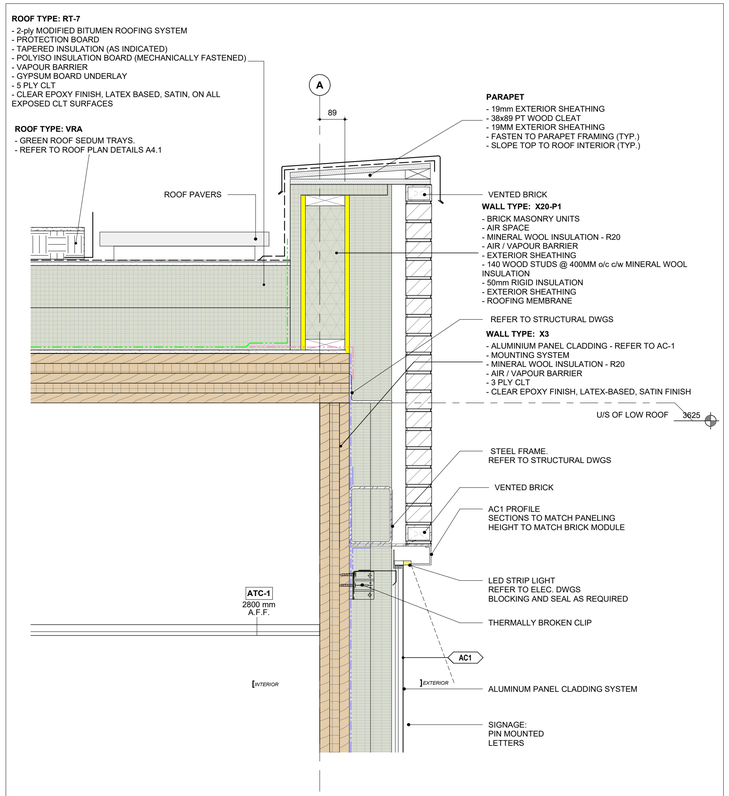

5 **Building Section 1 to 75 - FROM - 1/ A7.2**
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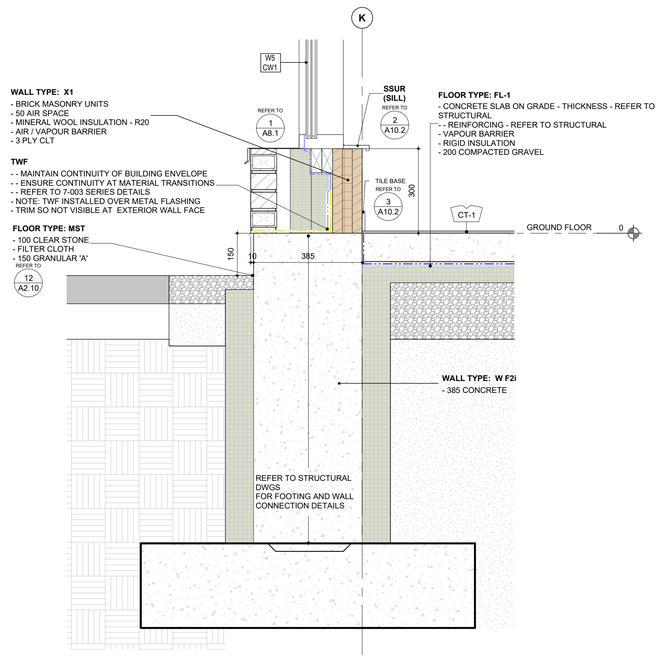

1 **Building Section 1 to 75 - FROM - 2/ A7.1**
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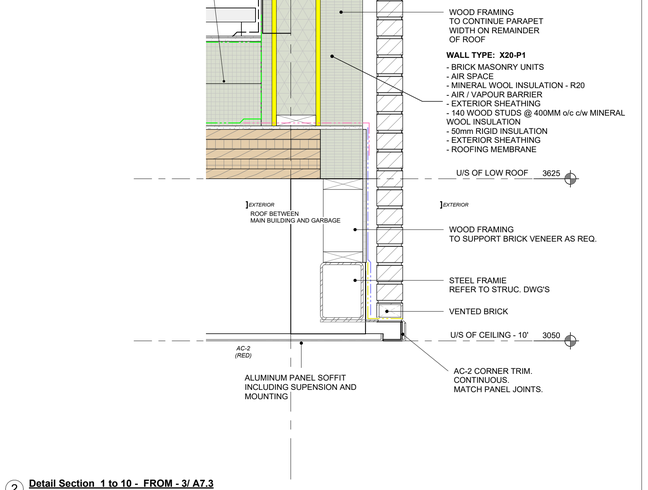

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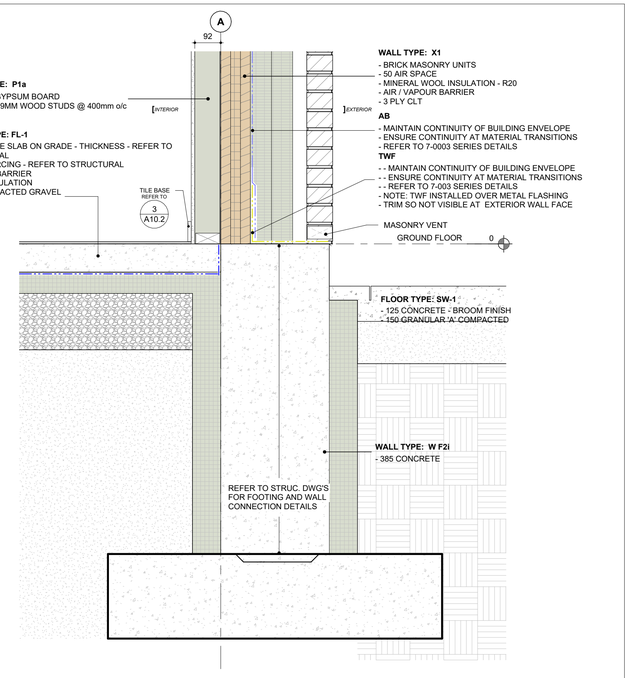

3 **Building Section 1 to 75 - FROM - 2/ A7.1**
1 : 10

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
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27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

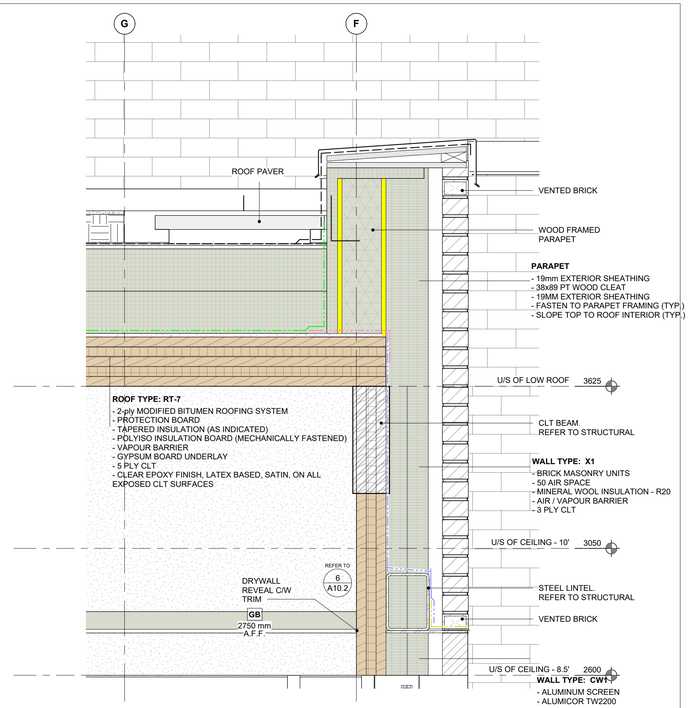
DWG TITLE

SECTION DETAILS

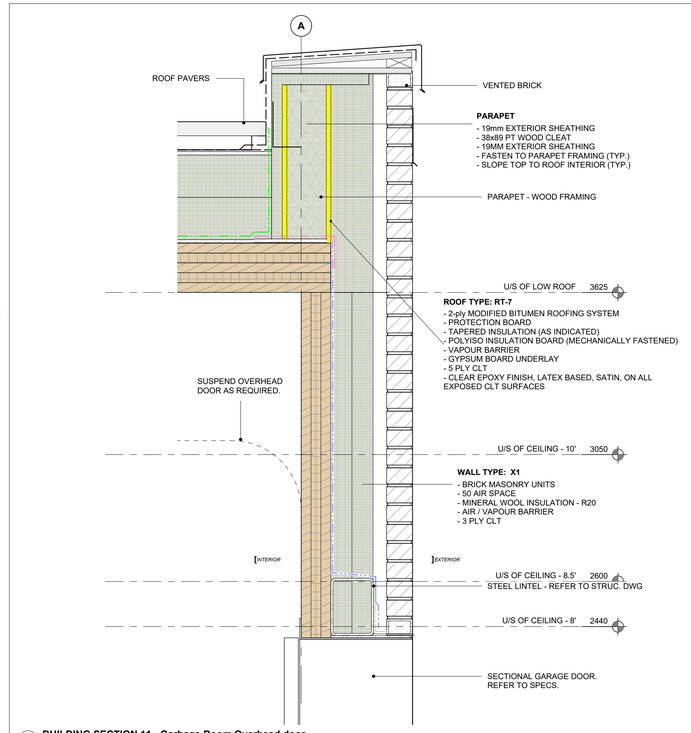
ORIENTATION

DATE	2021-11-24
SCALE	1 : 10
DRAWN BY	SRL
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	A8.3
REVISION	30

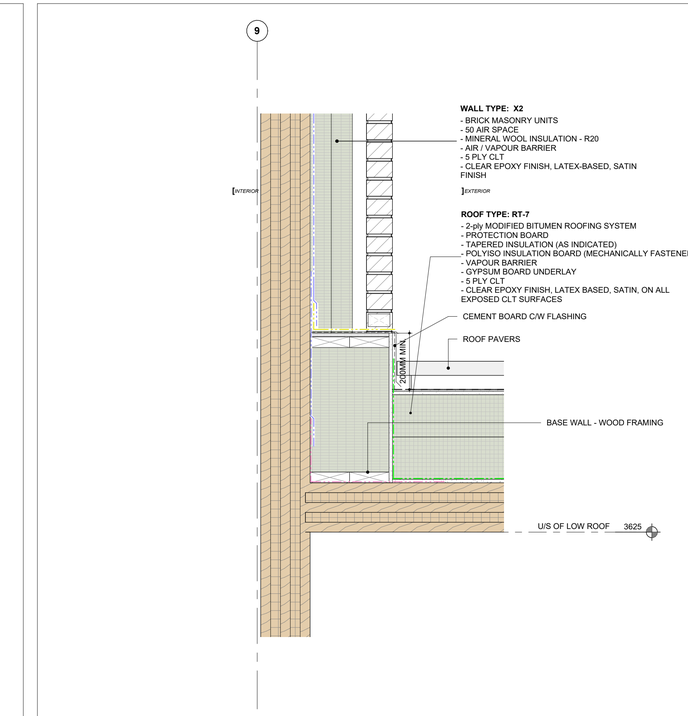
2024-09-09 4:10:37 PM



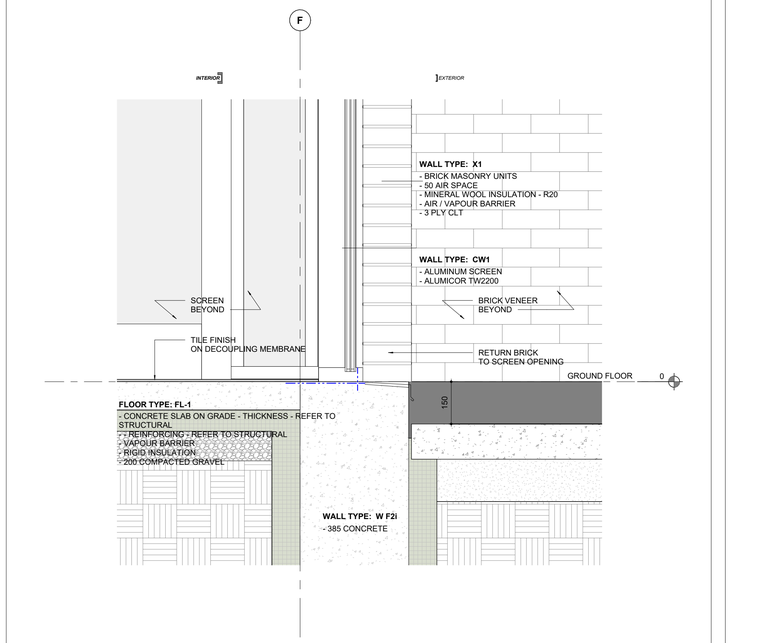
6 **BUILDING SECTION 9 - Callout 2**
1 : 10



3 **BUILDING SECTION 11 - Garbage Room Overhead door**
1 : 10



1 **BUILDING SECTOIN 13 - MEZZANINE AT ROOF**
1 : 10



5 **BUILDING SECTION 9 - Callout 1**
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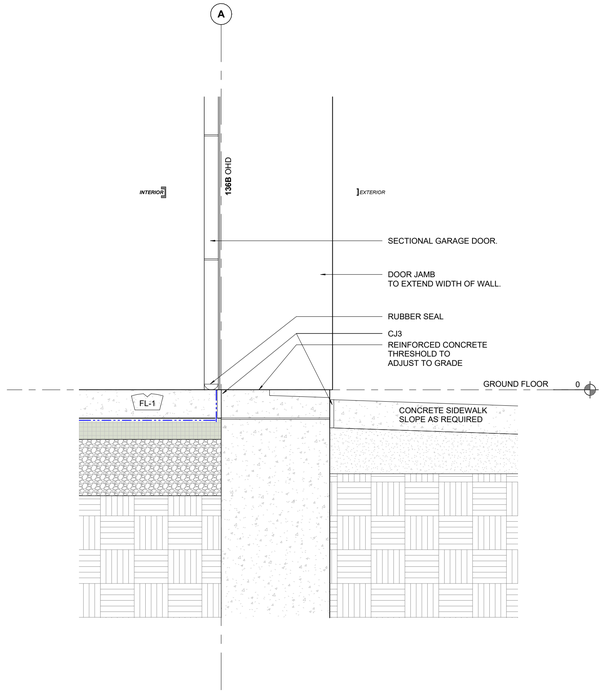
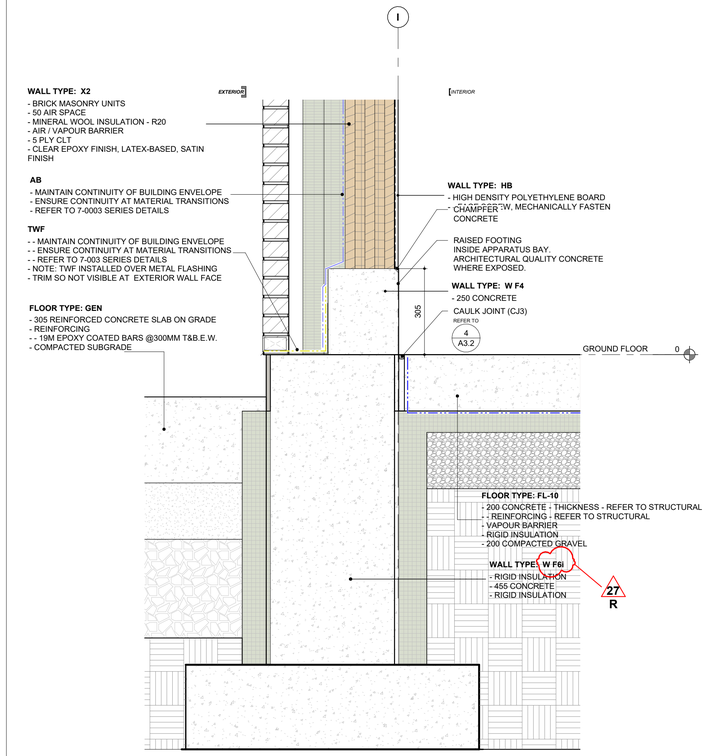


4 **BUILDING SECTION 11 - Callout 2**
1 : 10



2 **BUILDING SECTION 12 - APPARATUS BAY FOOTING**
1 : 10

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
27	ADDENDUM #1	2024-05-09
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

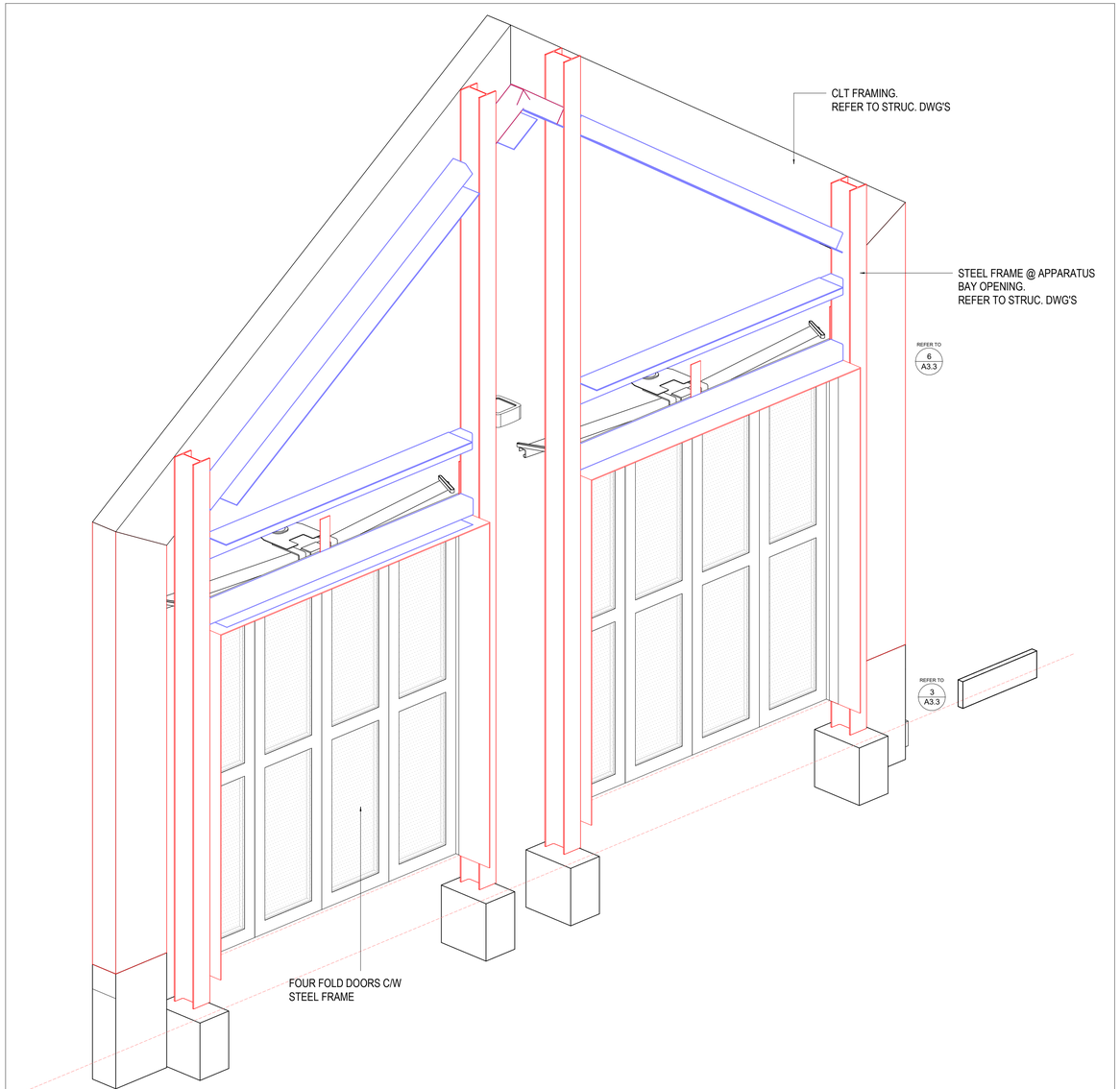
PROFESSIONAL SEAL

DWG TITLE
SECTION DETAILS

ORIENTATION

DATE 2021-11-24
SCALE 1 : 10
DRAWN BY Author
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A8.4**
REVISION 30

2024-09-09 4:10:43 PM



1 **Axo Schematic Steel Frame at Apparatus Bay Opening**

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

APPARATUS BAY
AXO VIEW

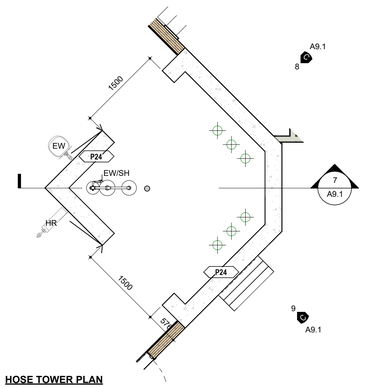
ORIENTATION

N — TRUE NORTH

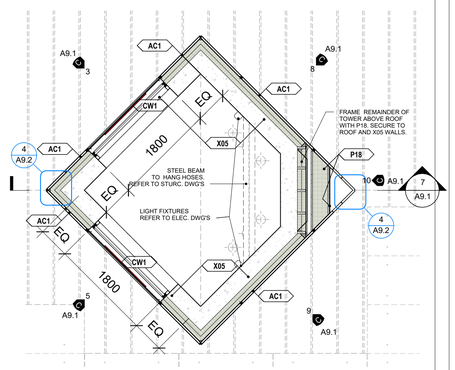
N — CONSTRUCTION NORTH

DATE	2021-11-24
SCALE	DRAWN BY: Author
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	**A8.5**
REVISION	30

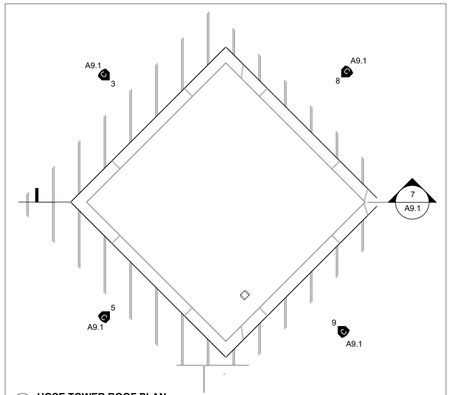
2024-09-09 4:10:44 PM



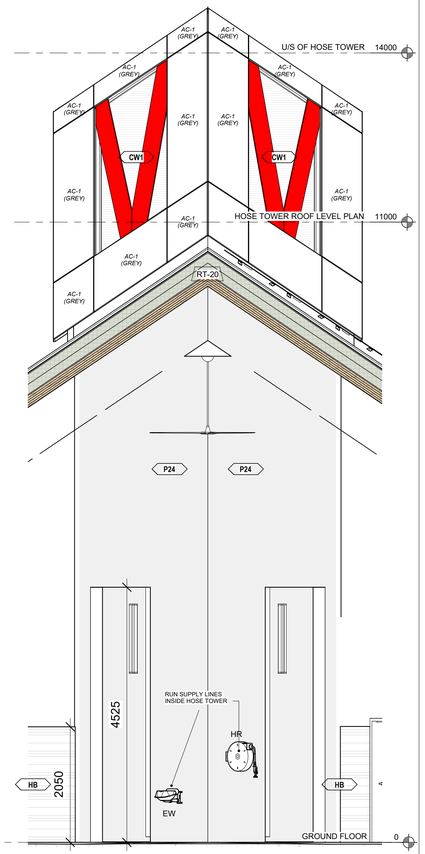
2 **HOSE TOWER PLAN**
1 : 50



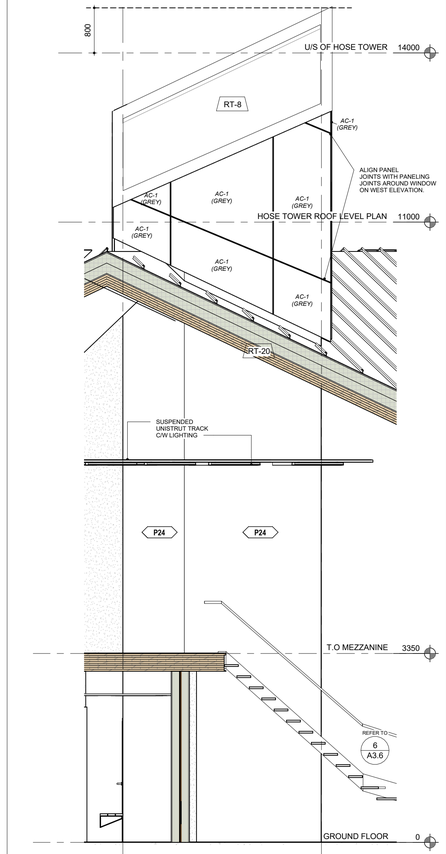
1 **HOSE TOWER ROOF LEVEL PLAN**
1 : 50



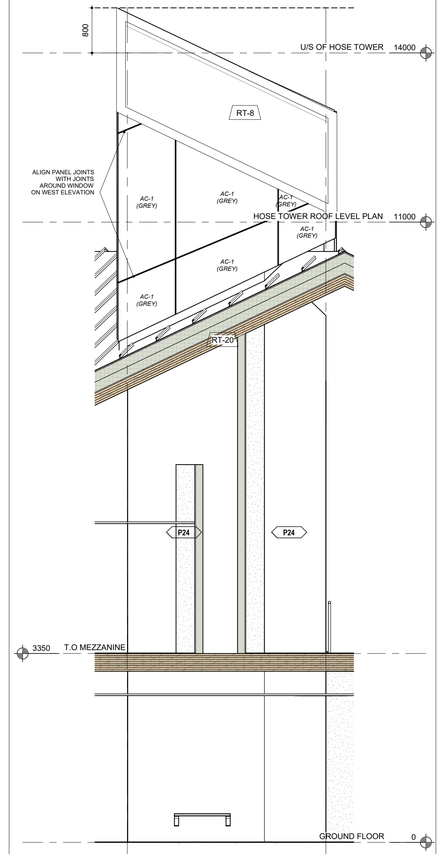
4 **HOSE TOWER ROOF PLAN**
1 : 50



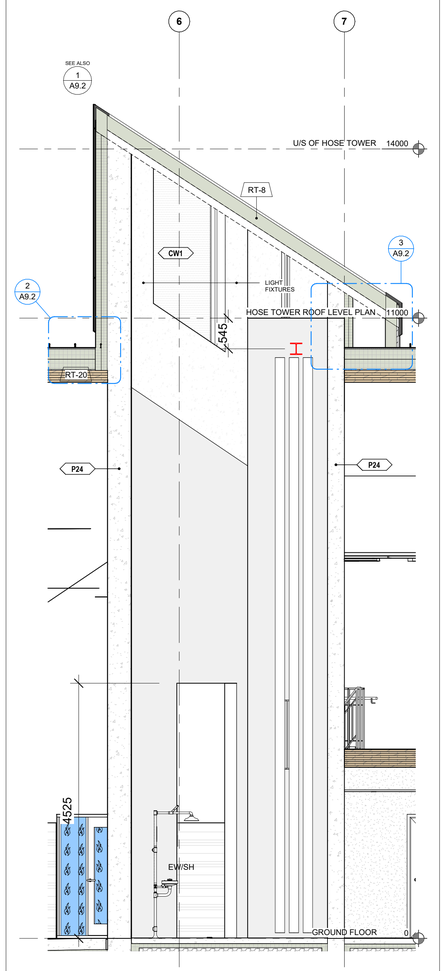
6 **HOSE TOWER ELEVATION**
1 : 50



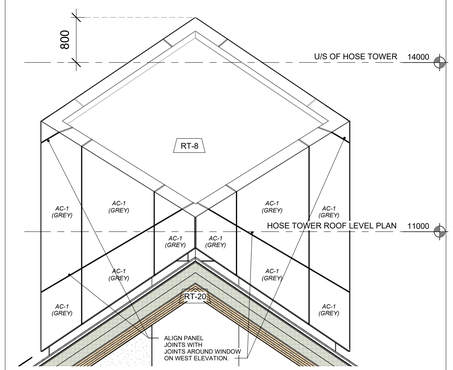
8 **HOSE TOWER ELEVATION NORTH EAST**
1 : 50



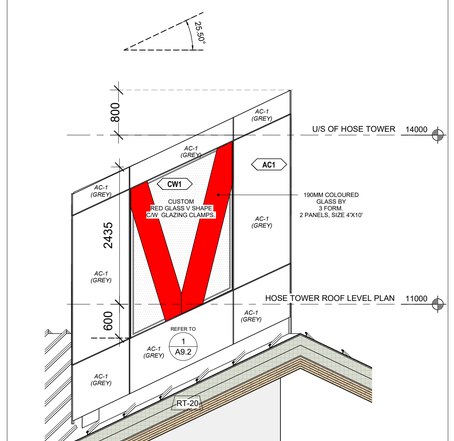
9 **HOSE TOWER ELEVATION SOUTH EAST**
1 : 50



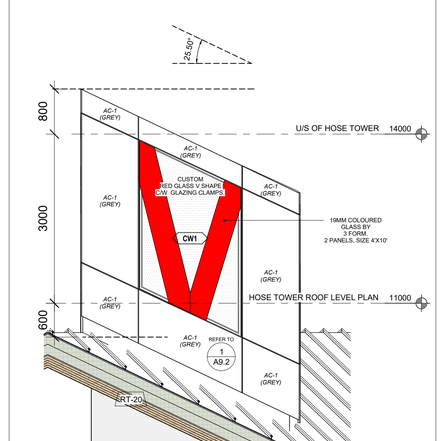
7 **HOSE TOWER SECTION**
1 : 50



10 **3 - Cladding Elevation - FROM - 1/ A6.2**
1 : 50



3 **3 - Cladding Elevation - FROM - 1/ A6.2**
1 : 50



5 **3 - Cladding Elevation - FROM - 1/ A6.2**
1 : 50

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

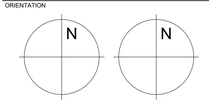
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

HOSE TOWER PLAN AND SECTION

ORIENTATION



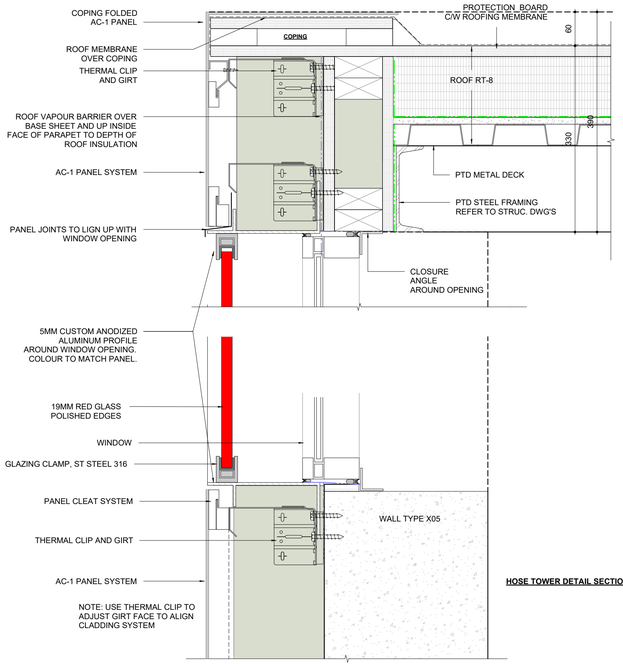
TRUE NORTH CONSTRUCTION NORTH

DATE	2021-11-24
SCALE	1 : 50
DRAWN BY	SRL
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	A9.1
REVISION	30

2024-09-09 4:11:01 PM

1 / A9.2 — 7-0012 - PARAPET AND WINDOW DETAIL - HOSE TOWER

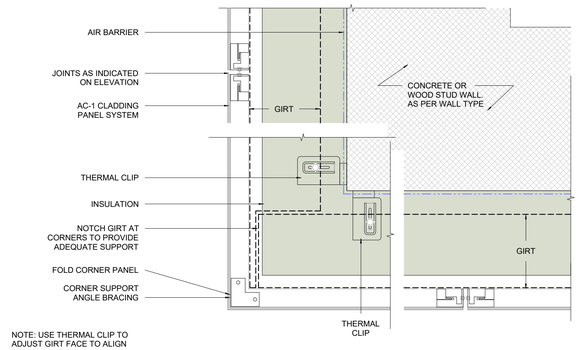
NOTES:
1. DETAILS REPRESENT TYPICAL APPLICATION. ADAPT INSTALLATION TO SUIT CONDITIONS
2. USE LIQUID MEMBRANE RECOMMENDED BY ROOFING SYSTEM MAUNFACTURER



HOSE TOWER DETAIL SECTION - VERTICAL

GC COORD SUBTRADES

4 / A9.2 — 7-0012 - HORIZONTAL WALL SECTION

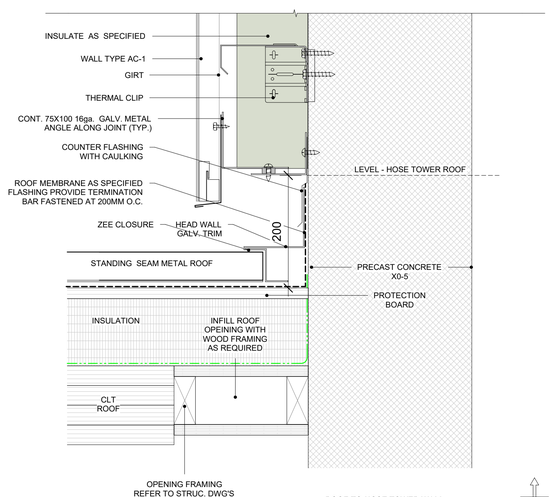


NOTE: USE THERMAL CLIP TO ADJUST GIRT FACE TO ALIGN CLADDING SYSTEM

NOTES:
1. DETAILS REPRESENT TYPICAL APPLICATION. ADAPT INSTALLATION TO SUIT CONDITIONS
2. USE LIQUID MEMBRANE RECOMMENDED BY ROOFING SYSTEM MAUNFACTURER

GC COORD SUBTRADES

2 / A9.2 — 7-0012 - HOSE TOWER DETAIL VERTICAL

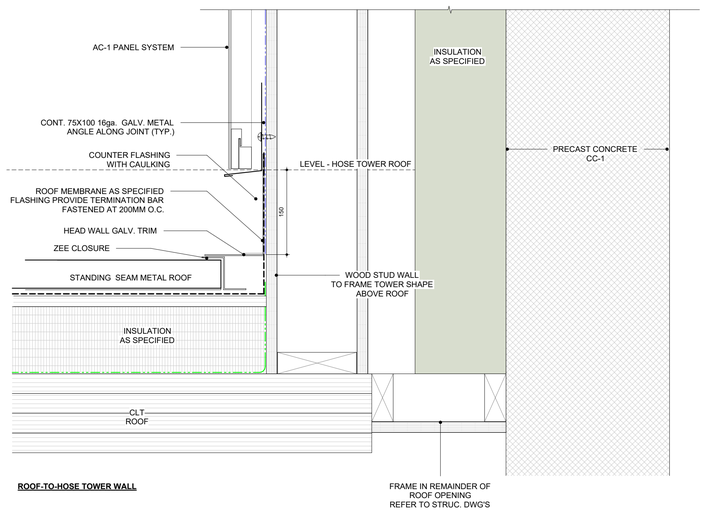


ROOF-TO-HOSE TOWER WALL

NOTES:
1. DETAILS REPRESENT TYPICAL APPLICATION. ADAPT INSTALLATION TO SUIT CONDITIONS
2. USE LIQUID MEMBRANE RECOMMENDED BY ROOFING SYSTEM MAUNFACTURER

GC COORD SUBTRADES

3 / A9.2 — 7-0012 - HOSE TOWER DETAIL VERTICAL



ROOF-TO-HOSE TOWER WALL

GC COORD SUBTRADES

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
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24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 505 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

HOSE TOWER DETAILS

ORIENTATION

DATE	2021-11-24
SCALE	1 : 5
DRAWN BY	SRL
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	A9.2
REVISION	30

2024-09-09 4:11:03 PM

PNT-1 — PAINT FINISH

MANUFACTURER	- BENJAMIN MOORE
NUMBER	- OC-65
COLOR	- CHANTILLY LACE
TYPE	- INTERIOR ACRYLIC PAINT
FINISH	- EGGSHELL FINISH
LOCATION	- WALLS AND EXPOSED STEEL, UNLESS OTHERWISE NOTED EXPOSED STEEL TO RECEIVE SATIN FINISH

PNT-2 — PAINT FINISH

MANUFACTURER	- BENJAMIN MOORE
NUMBER	- OC-117
COLOR	- SIMPLY WHITE
TYPE	- INTERIOR ACRYLIC PAINT
FINISH	- MATTE FINISH
LOCATION	- ALL EXPOSED GYPSUM BOARD CEILINGS, UNLESS OTHERWISE NOTED

PNT-3 — PAINT FINISH

MANUFACTURER	- BENJAMIN MOORE
NUMBER	- 2125-20
COLOR	- DEEP SPACE
TYPE	- INTERIOR ACRYLIC PAINT
FINISH	- SATIN FINISH
LOCATION	- HOLLOW METAL DOORS & FRAMES

PNT-4 — PAINT FINISH

MANUFACTURER	- BENJAMIN MOORE
NUMBER	- 2125-20
COLOR	- DEEP SPACE
TYPE	- EXTERIOR/INTERIOR ACRYLIC PAINT
FINISH	- SATIN FINISH
LOCATION	- ALL EXPOSED STEEL IN VEHICLE BAY CEILING (I.E JOISTS AND DECK, CONDUITS, PIPES, ETC. REFER TO SPECIFICATIONS FOR COLOR FOR GAS AND SPRINKLER PIPES), SECTIONAL & FOUR FOLD DOOR JAMBS.

CT-1

- FLOOR TILE
- DECO TILE - NUX SERIES - TAUPE 810 x 810
- GROUT MAPEI OR EQUIVALENT COLOUR TBD
- BASE AT WALL: 100mm CT-1 BASE AT ALL WALL JUNCTIONS
- GROUT JOINTS: 1.5mm

SUBMITTAL REQ'D

CT-2

- SHOWER FLOOR TILE
- OLYMPIA TILE
- OD.QC.BLK.0202.FS
- GROUT TO MATCH TILE COLOUR

SUBMITTAL REQ'D

RSF-1

- RESILIENT SPORTS FLOOR
- TUFLEX - SPARTUS 934 ROUGE
- RUBBER BASE: JOHNSONITE MANDALAY-XX-H 4.5" 49 BEIGE

SUBMITTAL REQ'D

C-SLD

- SEALANT APPLIED TO CONCRETE BASE AND WALLS
- UP TO 2200MM AFF
- IN APPARATUS BAY AND HOSE TOWER

SUBMITTAL REQ'D

CHC

- SEALANT APPLIED TO CONCRETE

SUBMITTAL REQ'D

5 FLOOR FINISHES
1 : 25

WT-1 10MM

WALL TILE
DECO TILE - NUX SERIES 16X32 - TAUPE
GROUT: MAPEI OR EQUIVALENT - COLOUR TBD

SUBMITTAL REQ'D

WT-5 6MM

CERAMIC TILE BACK SPLASH
IN KITCHEN AND LAUNDRY. REFER TO ELEVATIONS
CERAGRES - HEXA 4" - BRICK RED

SUBMITTAL REQ'D

HB 13MM

HIGH DENSITY POLYETHYLENE BOARD
- FACE SCREW, MECHANICALLY FASTEN

SUBMITTAL REQ'D

6 WALL FINISHES
1 : 25

3 GROUND FLOOR FINISH PLAN
1 : 75

10-0050 - IS-INTERIOR SIGNS

WAYFINDING INTERIOR SIGNAGE

TYPE DANSIGN CURVE

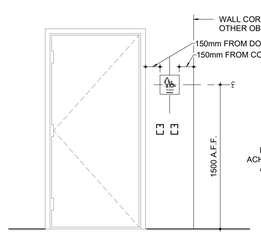
FONT FUTURA MEDIUM & FUTURA HEAVY

COLOR
1. INTERIOR SIGNS SHALL BE BLUE BACKGROUND WITH WHITE TEXT AND GRAPHICS.
2. SURFACE TO HAVE MATTE NON-GLARE FINISH

BRAILLE AND TACTILE LETTERS

1. BRAILLE SHALL BE OF "RASTER" METHOD E.G. HOLES DRILLED AND BALL BEARINGS INSERTED SUITABLY ROUNDED FOR EASY READING
2. BRAILLE DOTS MUST HAVE A DOMED OR ROUNDED SHAPE
3. BRAILING PROCESS USED AND APPLIED ON SIGNAGE SHALL NOT BE SUSCEPTIBLE TO VANDALISM
4. BRAILLE SHALL BE INTEGRAL TO SIGN SURFACE/DESIGN
5. TACTILE SIGNS SHALL HAVE LETTERING AND GRAPHICS THAT ARE RAISED 0.8MM TO 1.5MM ABOVE THE SURFACE OF THE SIGN
6. BRAILLE IS REQUIRED TO BE LOWERCASE, EXCEPT FOR PROPER NOUNS, NAMES AND THE FIRST WORD OF SENTENCES OR INDIVIDUAL LETTERS OF THE ALPHABET
7. THE BRAILLE TEXT/CHARACTERS SHALL ALWAYS BE PLACED IN THE SAME RELATIVE POSITION, MOUNTED NEAR THE BOTTOM EDGE OF SIGNAGE, BELOW OTHER TEXT, SYMBOLS OR TACTILE CHARACTERS. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW ENTIRE TEXT
8. ENSURE BRAILLE TEXT IS SEPARATED A MINIMUM OF 9.5MM FROM ANY OTHER TACTILE CHARACTERS
9. WHERE TACTILE CHARACTERS ARE USED, ENSURE EDGES ARE BEVELED AND SMOOTH

NOTE: IT IS THE RESPONSIBILITY OF THE SIGN SUPPLIER TO VERIFY THAT A BRAILLE PROOFREADER HAS APPROVED FINAL ARTWORK. BRAILLE DOTS SHOWN IN THIS GUIDELINE ARE TO SHOW PLACEMENT ONLY



ELEVATION DETAIL

OFFICE/ROOM SIGNS (CHANGEABLE MESSAGE)

TYPE

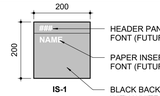
DANSIGN PAPERFLEX CURVE SIGN WITH A MAGNETIC LOCKING SYSTEM AND TAMPER PROOF PAPER INSERT SYSTEM

MATERIAL
LACQUERED ABS WITH EXTRUDED ALUMINUM BRACKETS

MESSAGE
VINYL ROOM NUMBER ON HEADER PANEL AND PAPER INSERT WITH ROOM NAME OR OCCUPANT'S NAME

INSTALLATION
MOUNTED AT 1500MM TO CENTRELINE ABOVE THE FINISHED FLOOR AND 150MM AWAY FROM THE DOOR FRAME - LATCH SIDE (SEE ELEVATION DETAIL)

IS-1



ROOM SIGNS (PERMANENT MESSAGE)

MATERIAL

LACQUERED ABS WITH EXTRUDED ALUMINUM BRACKETS

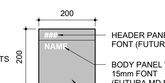
MESSAGE

VINYL ROOM NUMBER ON HEADER PANEL AND VINYL ROOM NAME ON BODY PANEL

INSTALLATION

MOUNTED AT 1500MM TO CENTRELINE ABOVE THE FINISHED FLOOR AND 150MM AWAY FROM THE DOOR FRAME - LATCH SIDE (SEE ELEVATION DETAIL)

IS-2



WASHROOM SIGNS

MATERIAL

LACQUERED ABS WITH EXTRUDED ALUMINUM BRACKETS.

MESSAGE

TACTILE TEXT AND PICTOGRAM AND BRAILLE

INSTALLATION

MOUNTED AT 1500MM TO CENTRELINE ABOVE THE FINISHED FLOOR AND 150MM AWAY FROM THE DOOR FRAME - LATCH SIDE (SEE ELEVATION DETAIL)

IS-3

29 R

1. ALL INTERIOR FINISHES SHALL COMPLY WITH THE REQUIREMENTS OF THE BUILDING CODE (LATEST REVISION) THE TERRAZZO, TILE & MARBLE ASSOCIATION OF CANADA (TTMAC) AND AUTHORITIES HAVING JURISDICTION.
2. REFER TO ROOM FINISH SCHEDULE FOR FLOOR AND BASE FINISHES.
3. ALL FLOOR FINISHES TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND PROJECT SPECIFICATION.
4. FLOOR TILES ARE TO BE INSTALLED IN PATTERNS AS INDICATED.
5. WHERE TILES ARE INDICATED TO BE INSTALLED IN A RUNNING BOND PATTERN, INSTALL IN A 1/5 RUNNING BOND PATTERN (20% OVERLAP) TO REDUCE LIPPAGE AS DEFINED BY TTMAC.
6. MOVEMENT JOINTS SHALL BE IN ACCORDANCE WITH TTMAC DOCUMENT 301MJ- (CURRENT REVISION).
7. UNLESS OTHERWISE NOTED, ALL FLOOR FINISHES TO BE INSTALLED PRIOR TO INSTALLATION OF MILLWORK.
8. NO SUBSTITUTIONS OF FLOOR FINISHES PERMITTED WITHOUT CONSULTANT WRITTEN APPROVAL.
9. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL FLOOR FINISHES FOR THE DURATION OF THE WORK.
10. CONTRACTOR TO PROVIDE PROTECTION OF ALL FINISHED CONCRETE FLOORS USING PREMANUFACTURED CARDBOARD TEMPORARY FLOOR PROTECTION (OR APPROVED EQUIVALENT) FOR THE DURATION OF THE WORK.
11. CONTRACTOR TO PROVIDE PROTECTION OF ALL FINISHED TILED FLOORS USING PREMANUFACTURED CARDBOARD TEMPORARY FLOOR PROTECTION (OR APPROVED EQUIVALENT) FOR THE DURATION OF THE WORK.
12. CHANGES IN FLOOR FINISH AT DOOR OPENINGS SHALL OCCUR UNDERNEATH THE DOOR (IN THE CLOSED POSITION) UNLESS OTHERWISE NOTED. WHERE THERE IS AN OPENING WITH NO DOOR, CHANGES IN FLOOR FINISH SHALL OCCUR AT THE MIDPOINT OF THE OPENING.
13. UNLESS NOTED OTHERWISE, TILE BASES SHALL BE 100MM HIGH MEASURED FROM THE ADJACENT FINISHED FLOOR.
14. WHERE A CHANGE OF FLOORING MATERIAL THICKNESS OCCURS, FEATHER FLOOR AS REQUIRED.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
29	ADDENDUM #4	2024-05-30
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

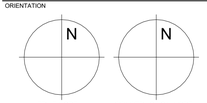
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

FLOOR FINISH AND FURNITURE PLAN

ORIENTATION



DATE 2021-11-24

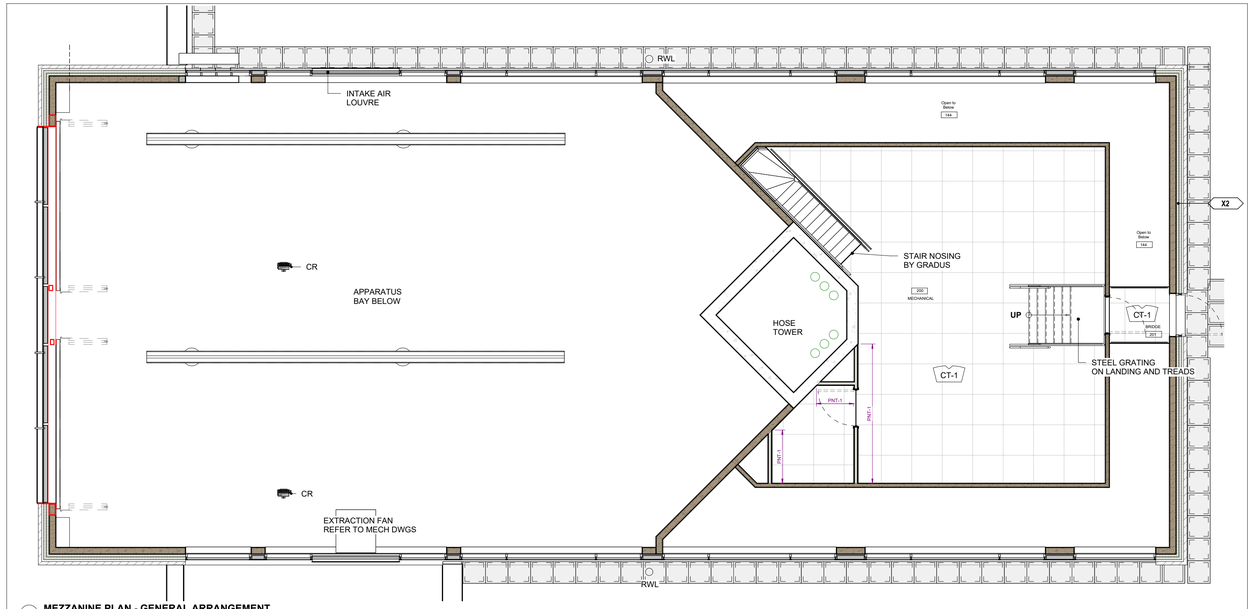
SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

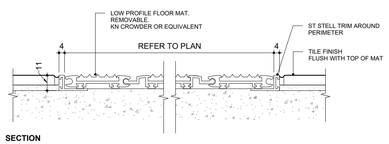
DRAWING No. **A10.1** | REVISION 30

2024-09-09 4:11:20 PM



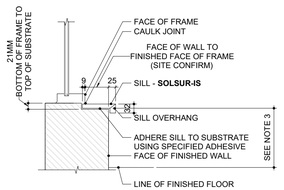
7 **MEZZANINE PLAN - GENERAL ARRANGEMENT**
1 : 75

4 / A10.2 — 12-0010 - FM-1 FLOOR MAT



SECTION

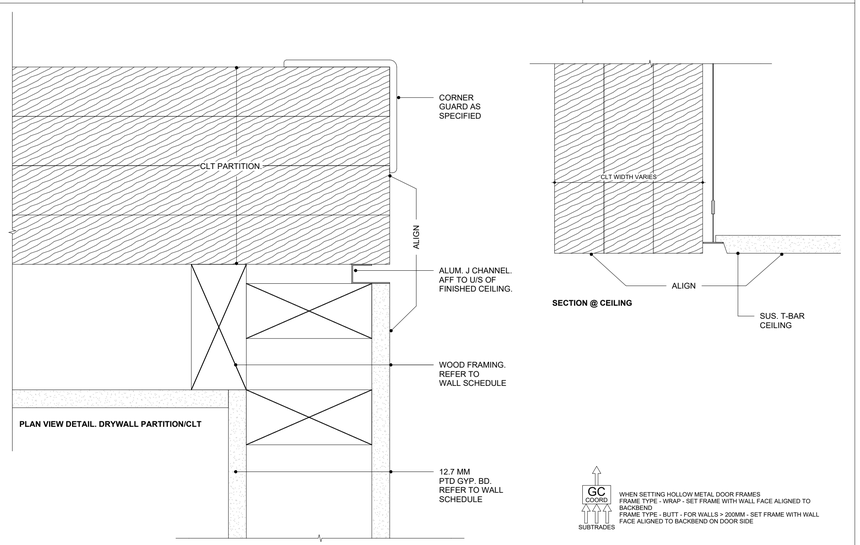
2 / A10.2 — 12-0004 - SSUR(SILL) - SOLID SURFACE SILL DETAIL



NOTE:
1. SAMPLE SUBMITTAL REQUIRED PRIOR TO FABRICATION
2. ENSURE SILL PLACED ON LEVEL, SOUND SUBSTRATE SUITABLE FOR THIS APPLICATION
3. ENSURE THAT SILL OVERHANG DOES NOT CONFLICT WITH MECHANICAL OR ELECTRICAL ELEMENTS (i.e. BASEBOARD HEATERS, ETC.). REPORT ANY CONFLICTS TO CONSULTANT PRIOR TO INSTALLATION
4. ENSURE REQUIRED CLEARANCE FOR SILL OVERHANG. REPORT ANY CONFLICTS TO CONSULTANT PRIOR TO INSTALLATION

GC COORD — SUBTRADES

6 TYPICAL CLT TO DRYWALL DETAILS — 9-0250 - TYPICAL DRYWALL TO CLT DETAIL

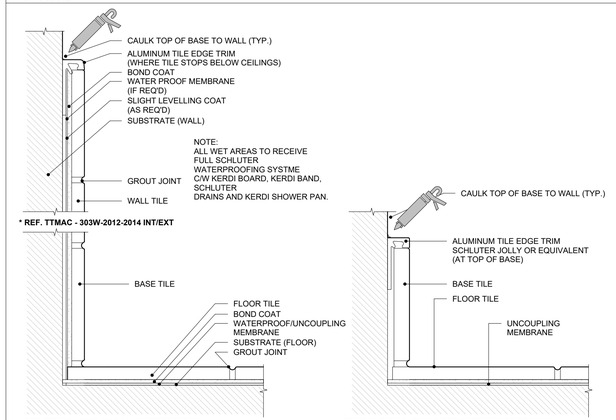


PLAN VIEW DETAIL. DRYWALL PARTITION/CLT

SECTION @ CEILING

GC COORD — SUBTRADES
WHEN SETTING HOLLOW METAL DOOR FRAMES
FRAME TYPE - WRAP - SET FRAME WITH WALL FACE ALIGNED TO BACKBEND
FRAME TYPE - BUTT - FOR WALLS > 200MM - SET FRAME WITH WALL FACE ALIGNED TO BACKBEND ON DOOR SIDE

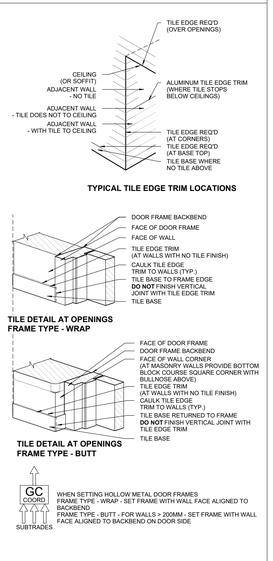
3 / A10.2 — 9-0006 - TD-1 - TYPICAL TILE DETAILS - THINSET (WALL + FLOOR)



*** REF. TTMAC - 303W-2012-2014 INT/EXT**

*** REF. TTMAC - 311F-2012-2014 INT/EXT DETAIL A**

TYPICAL DETAIL CAULK TOP OF TILE BASE TO WALL



TYPICAL TILE EDGE TRIM LOCATIONS

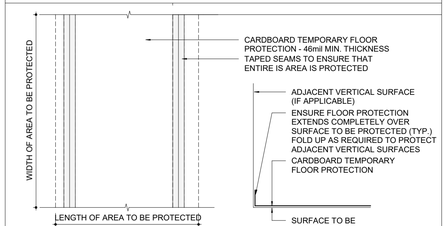
TILE DETAIL AT OPENINGS FRAME TYPE - WRAP

TILE DETAIL AT OPENINGS FRAME TYPE - BUTT

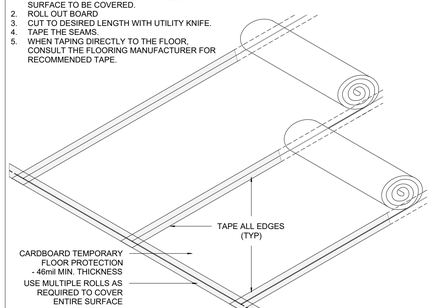
GC COORD — SUBTRADES
WHEN SETTING HOLLOW METAL DOOR FRAMES
FRAME TYPE - WRAP - SET FRAME WITH WALL FACE ALIGNED TO BACKBEND
FRAME TYPE - BUTT - FOR WALLS > 200MM - SET FRAME WITH WALL FACE ALIGNED TO BACKBEND ON DOOR SIDE

** ALL WORK TO BE COMPLETED IN ACCORDANCE WITH TTMAC STANDARDS AS SPECIFIED

1 / A10.2 — 2-0001 - CBFP-1 - CARDBOARD TEMPORARY FLOOR PROTECTION



1. SWEEP OR VACUUM ALL DIRT AND DEBRIS OFF SURFACE TO BE COVERED.
2. ROLL OUT BOARD
3. CUT TO DESIRED LENGTH WITH UTILITY KNIFE.
4. TAPE THE SEAMS.
5. WHEN TAPING DIRECTLY TO THE FLOOR, CONSULT THE FLOORING MANUFACTURER FOR RECOMMENDED TAPE.



- PROVIDE CARDBOARD TEMPORARY FLOOR PROTECTION ON ALL FINISHED CONCRETE FLOOR SURFACES UNTIL PROJECT COMPLETION
- PROVIDE CARDBOARD TEMPORARY FLOOR PROTECTION ON ALL FINISHED FLOOR SURFACES THAT MAY BE IMPACTED BY REMAINING WORK TO BE COMPLETED.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǁ TORONTO ONTARIO ǁ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

FLOOR PLAN FINISH PLAN AND DETAILS

ORIENTATION

DATE 2021-11-24

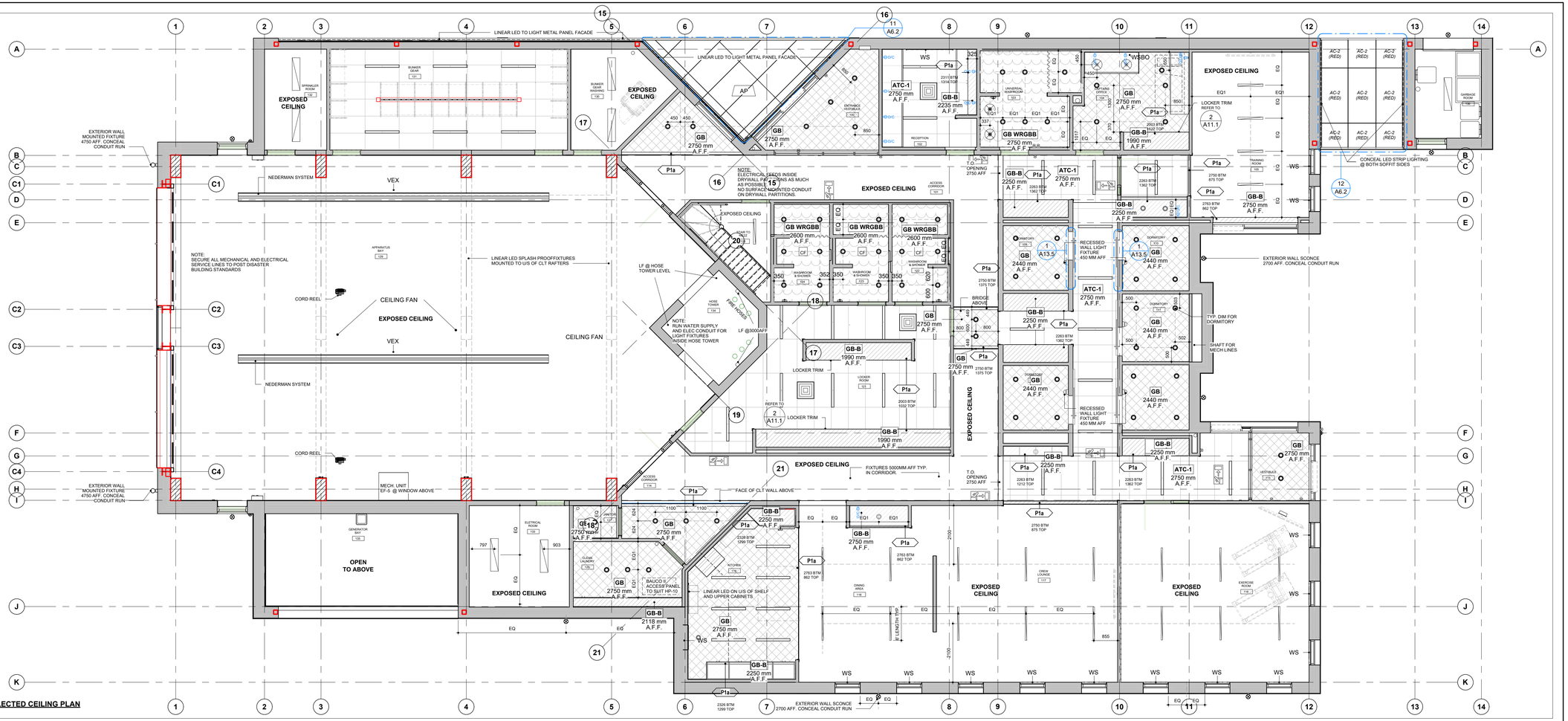
SCALE As indicated | DRAWN BY SRL

DWG STATUS : TENDER

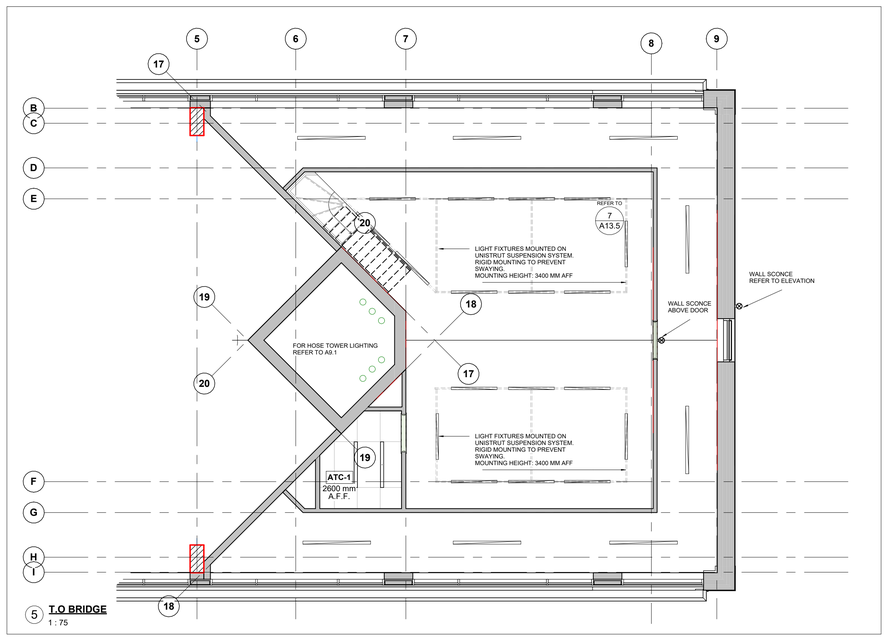
PROJECT No. 2104

DRAWING No. **A10.2** | REVISION 30

2024-09-09 4:11:24 PM

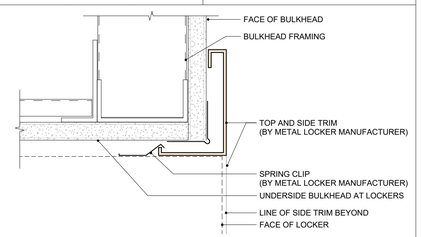


4 **GROUND FLOOR - REFLECTED CEILING PLAN**
1 : 75



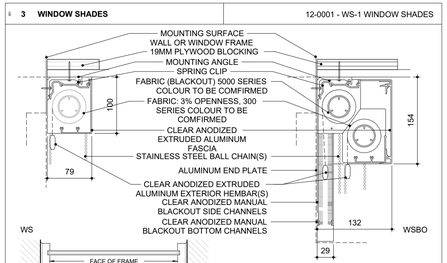
5 **T.O BRIDGE**
1 : 75

2 **LOCKER TRIM (WOOD FASCIA)** | 10-0012.1 - LKRTR-1 LOCKER TRIM (METAL FASCIA)



* ALL TRIMS TO BE INDICATED ON SHOP DRAWING PRIOR TO INSTALLATION

3 **WINDOW SHADES** | 12-0001 - WS-1 WINDOW SHADES



* SHOP DRAWING REQUIRED PRIOR TO FABRICATION

1 **GENERAL NOTES - REFLECTED CEILING** | A700 GENERAL NOTES - REFLECTED CEILING PLAN

1. REFLECTED CEILING PLANS MAY NOT SHOW ALL MECHANICAL AND ELECTRICAL FIXTURES OR EQUIPMENT. ARCHITECTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH MECHANICAL AND ELECTRICAL DRAWINGS.
2. **PRIOR TO COMMENCING WORK**, CONDUCT INTERFERENCE STUDY. THE OBJECTIVE OF THE STUDY IS TO IDENTIFY AND MITIGATE ISSUES WITH THE INSTALLATION OF MECHANICAL AND ELECTRICAL SYSTEMS, FIXTURES AND EQUIPMENT. AS PART OF THE STUDY, INCLUDE THE FOLLOWING:
   A. MARK LOCATIONS AND ROUTES ON SITE OF ALL EQUIPMENT, PIPING, VENTS, DUCTS, CONDENSATES ETC. CONTRACTOR TO ESTABLISH MINIMUM CLEARANCES AND REPORT ANY INTERFERENCES WITH LIGHT FIXTURES, CONDUIT OR WIRE RUNS, STRUCTURE ETC.
   B. MARK LOCATIONS ON SITE OF ALL LIGHTING. CONTRACTOR TO ESTABLISH MINIMUM CLEARANCES AND REPORT ANY INTERFERENCES WITH DUCTS, PIPES, STRUCTURE ETC.
   C. LOCATE ALL FIXTURES IN ACCORDANCE WITH ARCHITECTURAL DRAWINGS.
   D. IDENTIFY ALL SERVICES INSTALLED WITHIN OR ABOVE CEILING SYSTEMS. COORDINATE ALL PENETRATIONS AND ACCESS PANELS WITH THE CEILING SUPPORT SYSTEMS.
   E. REPORT ANY DISCREPANCIES OR INTERFERENCES TO CONSULTANT IMMEDIATELY. OBTAIN INSTRUCTION FROM CONSULTANT BEFORE COMMENCING INSTALLATION.
   F. PROVIDE CONFIRMATION THAT INTERFERENCE STUDY HAS BEEN CONDUCTED AND THAT INTERFERENCES HAVE BEEN IDENTIFIED AND MITIGATED.
3. REFER TO ROOM FINISH SCHEDULE FOR CEILING FINISHES.
4. WHERE INDICATED, DIMENSIONS ARE TAKEN FROM CENTER OF LIGHT FIXTURES.
5. WHERE INDICATED, CEILINGS NOTED AS EXPOSED SHALL BE PAINTED.
6. FIRE SEPARATIONS ARE TO THE UNDERSIDE (U/S) OF THE DECK OR STRUCTURE COMPLETE WITH FIRESTOP SYSTEM MATERIAL AND SMOKE SEAL AS REQUIRED.
7. REFER TO TOP OF WALL DETAILS FOR TERMINATION OF WALLS AT FLOORS AND ROOFS.
8. WHERE MECHANICAL AND ELECTRICAL FIXTURES PENETRATE A PARTITION, PATCH AND PROVIDE AN AIR-TIGHT SEAL AROUND PENETRATION. AT FIRE SEPARATIONS USE FIRESTOP SYSTEM MATERIAL AT PENETRATIONS TO MATCH THE FIRE RATING OF THE PARTITION, WALL, OR FLOOR ASSEMBLY.
9. LOCATE SPRINKLERS, DETECTORS, SPEAKERS, ETC. ON CENTER LINE OR MID-POINT OF LAY-IN CEILING PANELS UNLESS OTHERWISE NOTED.
10. FOR EQUIPMENT THAT REQUIRES ACCESS THROUGH CEILINGS, LOCATE ABOVE ATC CEILINGS WHERE POSSIBLE. WHERE ACCESS IS REQUIRED THROUGH GYPSUM BOARD CEILINGS, CONTRACTOR TO PROVIDE ACCESS PANELS AS REQUIRED. CONSULTANT TO REVIEW LOCATIONS PRIOR TO PROCEEDING WITH INSTALLATION.
11. ACCESS PANELS SHALL BE PREFABRICATED AND SIZED ACCORDING TO ACCESS REQUIREMENTS, FINISH FLUSH WITH ADJACENT CEILING AND TO MATCH ADJACENT CEILING FINISH.
12. UNLESS OTHERWISE NOTED, LOCATE LIGHT FIXTURES ON CENTER OF ACOUSTIC CEILING TILES.
13. REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR FIRE EXIT SIGNS, EMERGENCY LIGHTING AND OTHER LIFE SAFETY DEVICES (i.e. HEAT DETECTORS, SMOKE DETECTORS ETC).
14. WHERE REQUIRED, PATCH, PAINT OR REPLACE ANY DAMAGED T-BAR AND REPLACE ANY DAMAGED OR SOILED CEILING TILES NOTED PRIOR TO OCCUPANCY.

GC COORD SUBTRADES
COORD INTERFERENCE

LEGEND

	GB	GYPSUM BOARD
	GB-B	GYPSUM BOARD - BULKHEAD
	GB-WRGBB	WATER RESISTANT GYPSUM BACKING BOARD
	ATC	ACOUSTICAL TILE CEILING SYSTEM
	EXP	EXPOSED CEILING

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

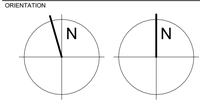
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǁ TORONTO ONTARIO ǁ M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

REFLECTED CEILING PLAN

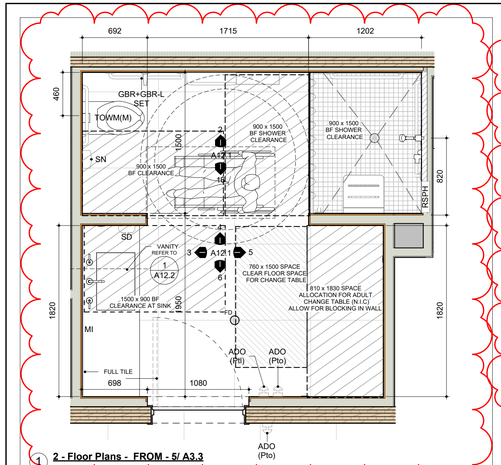
ORIENTATION



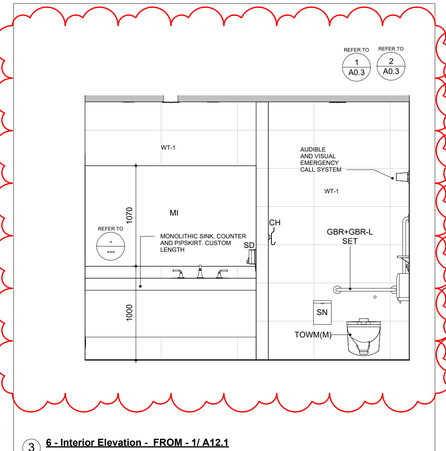
TRUE NORTH CONSTRUCTION NORTH

DATE	2021-11-24
SCALE	As indicated
DRAWN BY	SRL
DWG STATUS :	TENDER
PROJECT No.	2104
DRAWING No.	A11.1
REVISION	30

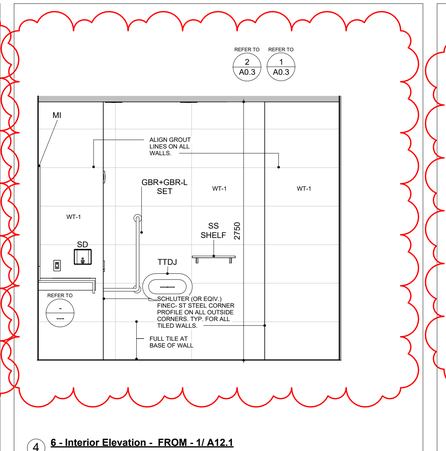
2024-09-09 4:11:42 PM



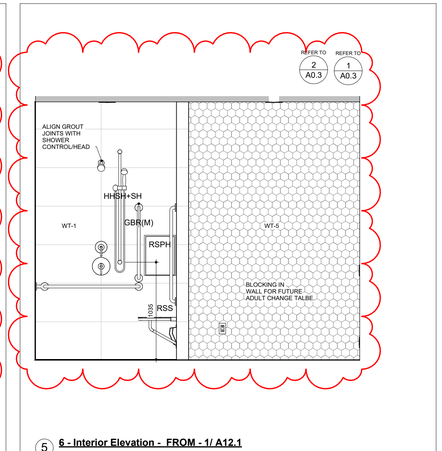
1 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 30



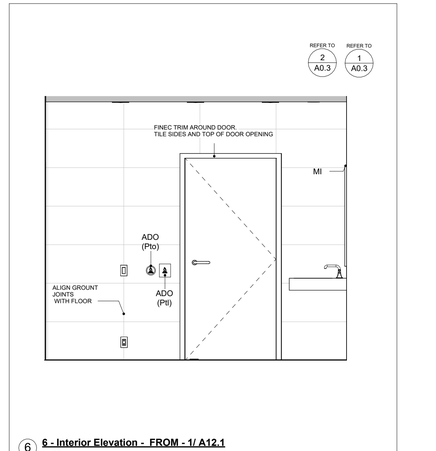
3 **6 - Interior Elevation - FROM - 1/ A12.1**
1 : 30



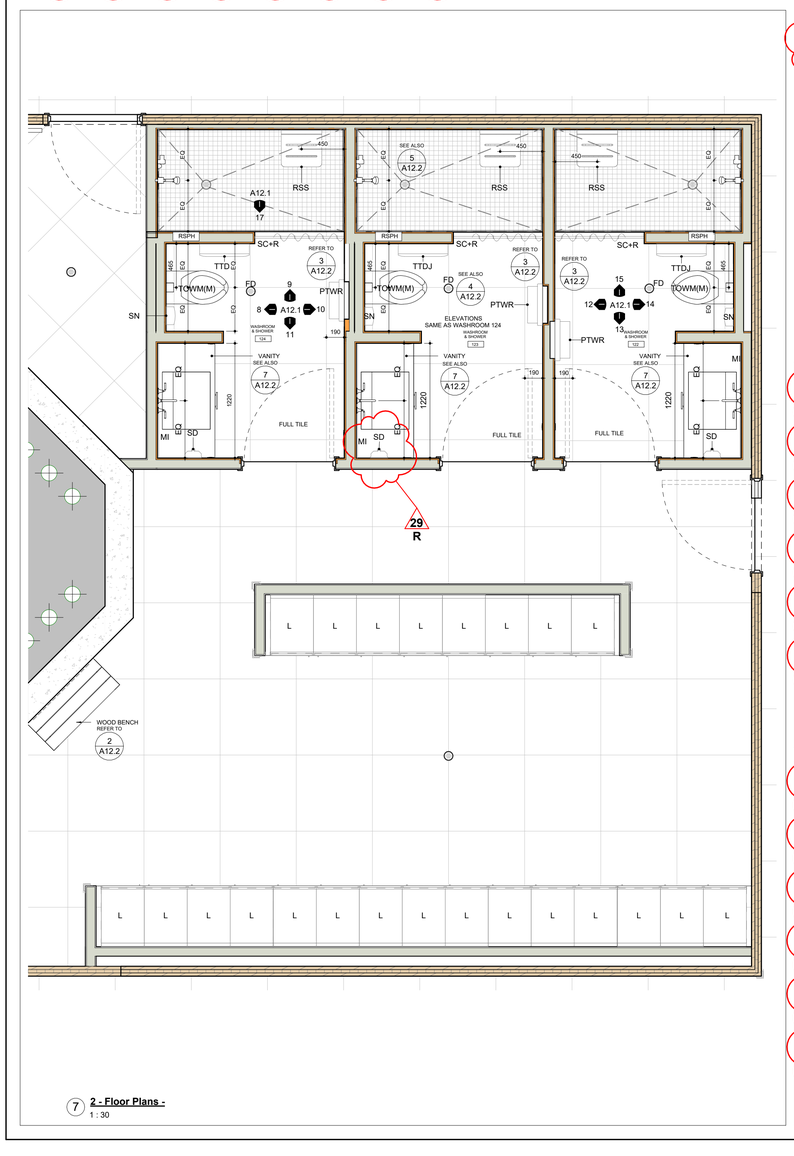
4 **6 - Interior Elevation - FROM - 1/ A12.1**
1 : 30



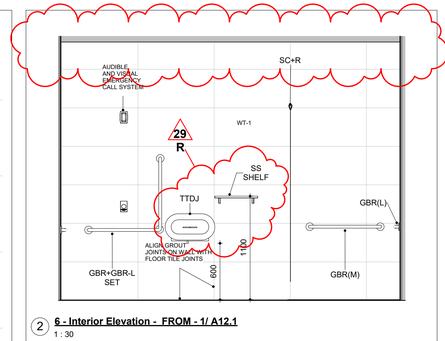
5 **6 - Interior Elevation - FROM - 1/ A12.1**
1 : 30



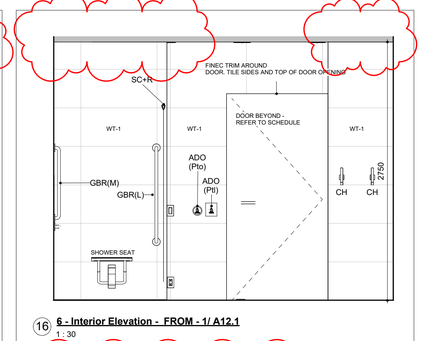
6 **6 - Interior Elevation - FROM - 1/ A12.1**
1 : 30



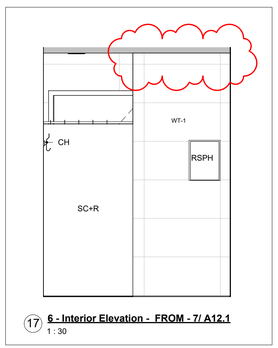
7 **2 - Floor Plans -**
1 : 30



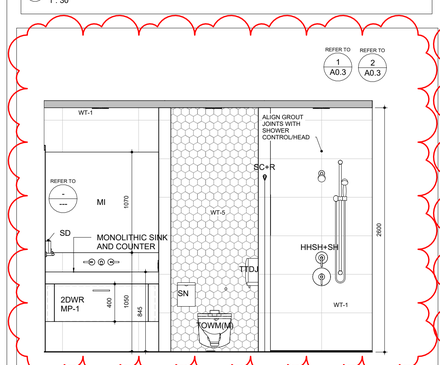
2 **6 - Interior Elevation - FROM - 1/ A12.1**
1 : 30



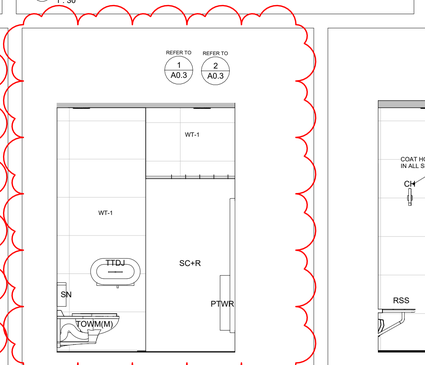
16 **6 - Interior Elevation - FROM - 1/ A12.1**
1 : 30



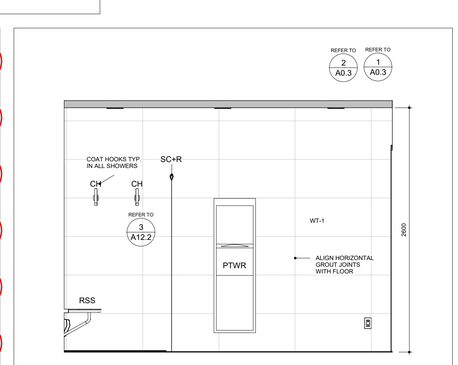
17 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30



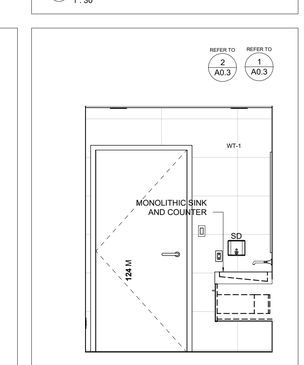
8 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30



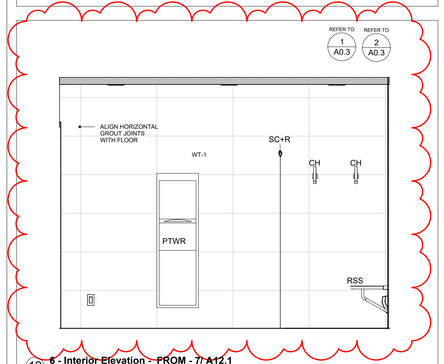
9 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30



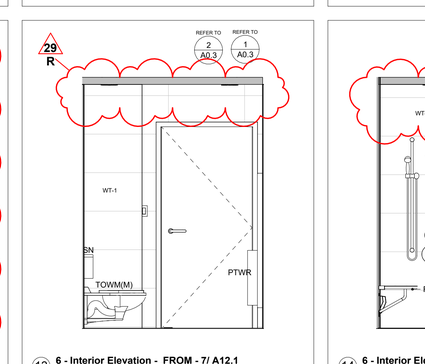
10 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30



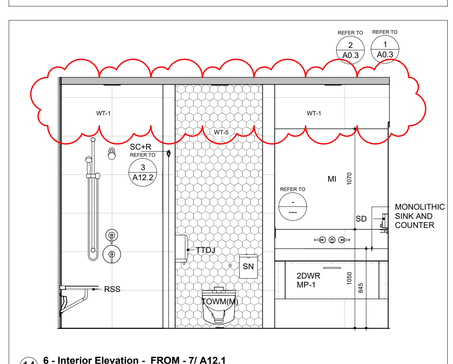
11 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30



12 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30



13 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30



14 **6 - Interior Elevation - FROM - 7/ A12.1**
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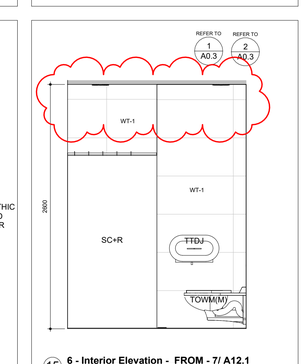


15 **6 - Interior Elevation - FROM - 7/ A12.1**
1 : 30

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
17	SPA - REVISION	2023-08-30
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
29	ADDENDUM #4	2024-05-30
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 505 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

WASHROOM PLAN & ELEVATIONS

ORIENTATION

TRUE NORTH — CONSTRUCTION NORTH

DATE 2021-11-24

SCALE 1 : 30 | DRAWN BY SRL

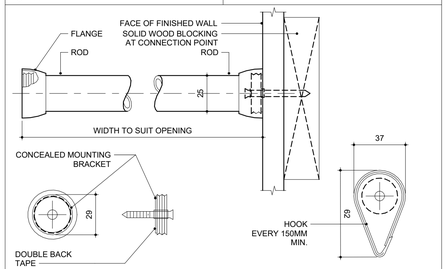
DWG STATUS : TENDER

PROJECT No. 2104

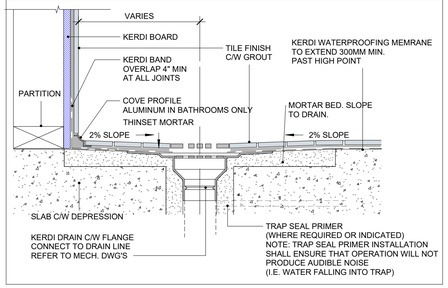
DRAWING No. **A12.1** | REVISION 30

2024-09-09 4:11:54 PM

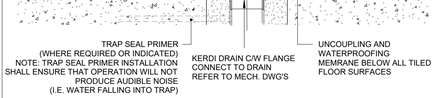
3 / A12.2 — 10-0006 - SCR-1 - SHOWER CURTAIN ROD AND HOOK



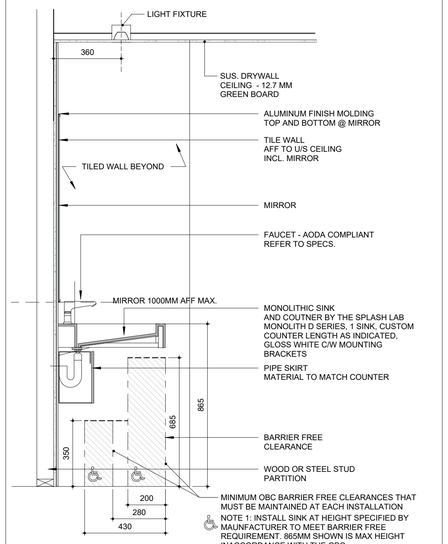
5 / A12.2 — 9-0008 - FD-1 - TYPICAL SHOWER FLOOR DRAIN - SLAB ON GRADE



4 / A12.2 — 9-0008 - FD-1 - TYPICAL FLOOR DRAIN - SLAB ON GRADE

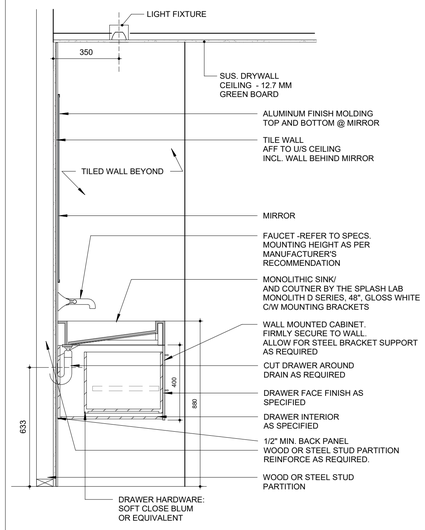


1 / A12.2 — 6-0010 - MW-WSRMVAN - MILLWORK WASHROOM VANITY



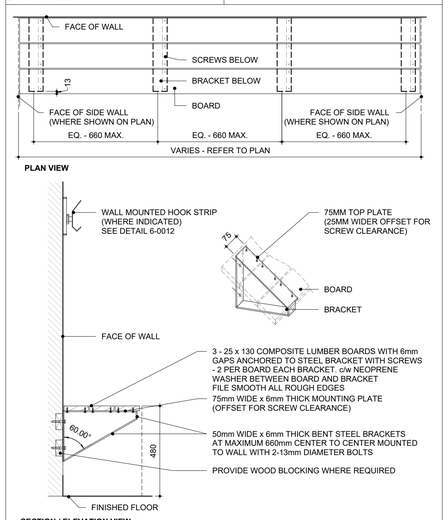
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH AWMAC ARCHITECTURAL WOODWORK STANDARDS AS SPECIFIED

7 / A12.2 — 6-0010 - MW-WSRMVAN - MILLWORK WASHROOM VANITY



1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH AWMAC ARCHITECTURAL WOODWORK STANDARDS AS SPECIFIED

2 / A12.2 — 6-0016 - CR-2 - CHRMBNCH - BENCH DETAIL



NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. ALL STEEL PAINTED
3. ALL EXPOSED PANEL SURFACES SHALL BE CONSIDERED FINISHED

SUBMITTAL REQ'D

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN
FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 505 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

WASHROOM
DETAILS

ORIENTATION

N — TRUE NORTH
N — CONSTRUCTION NORTH

DATE 2021-11-24

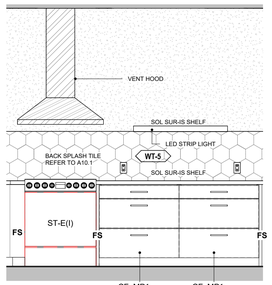
SCALE As indicated | DRAWN BY Author

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A12.2** | REVISION 30

2024-09-09 4:11:56 PM



4 **5 - Millwork Elevation - FROM - 1/ A13.1**
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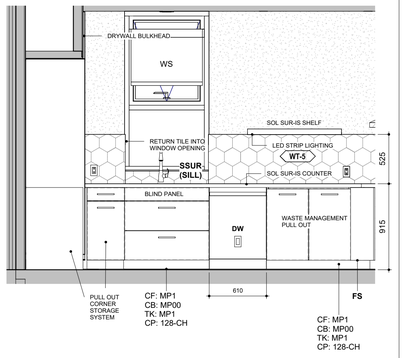

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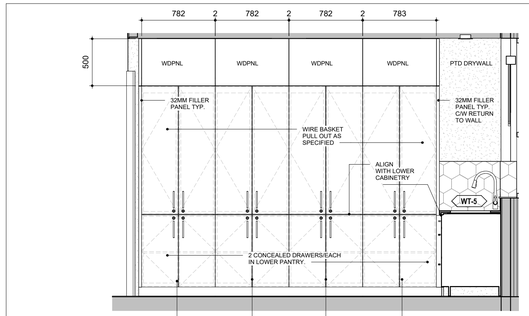

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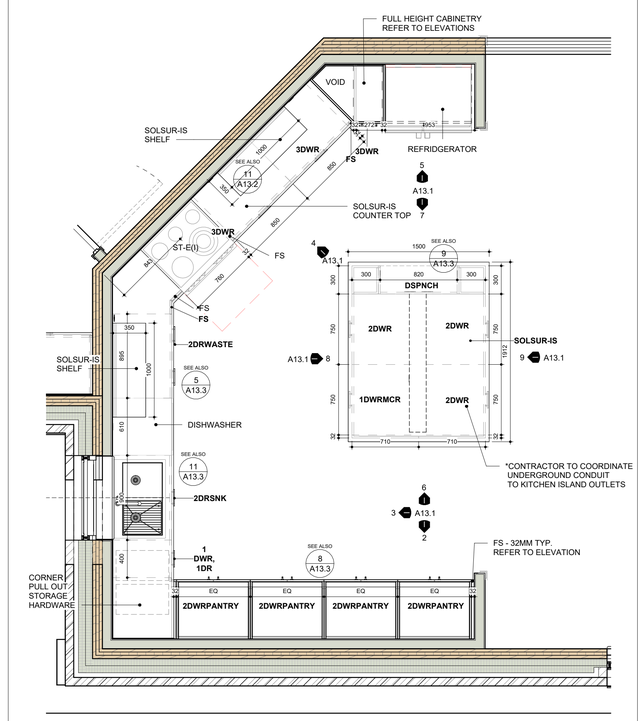

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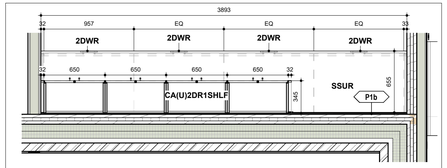

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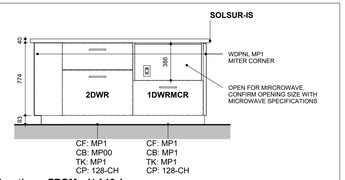

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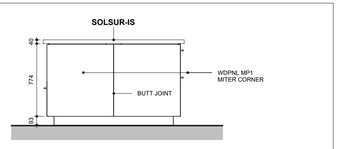

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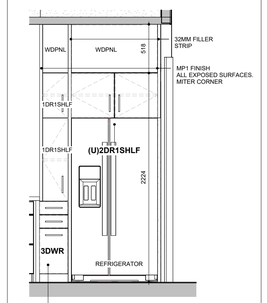

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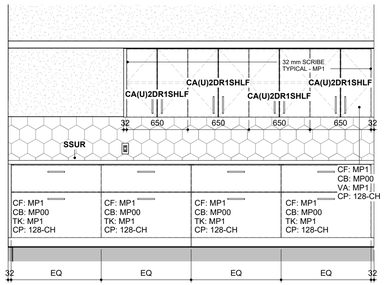

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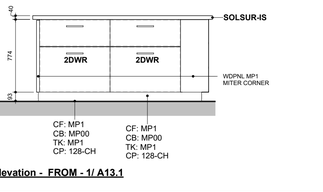

9 **5 - Millwork Elevation - FROM - 1/ A13.1**
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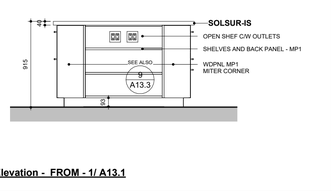

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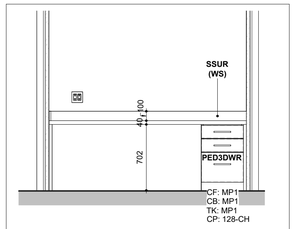

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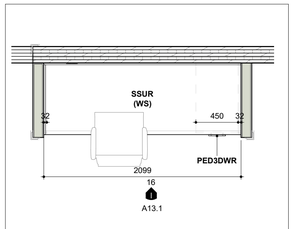

15 **2 - Floor Plans - FROM - 5/ A3.3**
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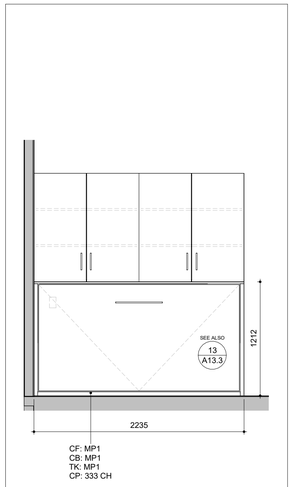

12 **5 - Millwork Elevation - FROM - 10/ A13.1**
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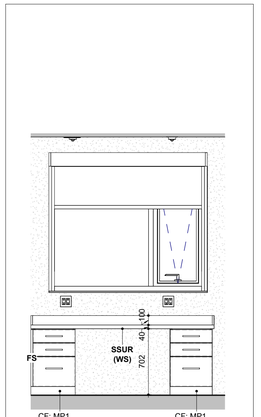

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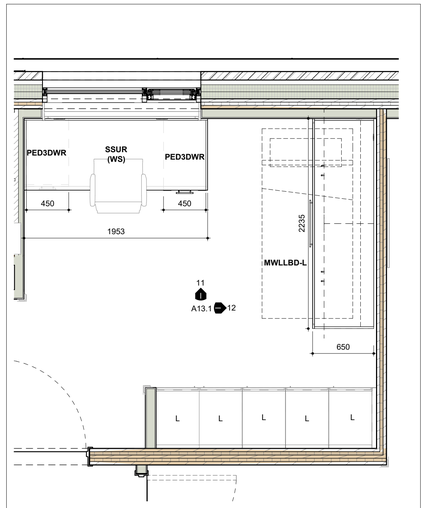


10 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 30

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

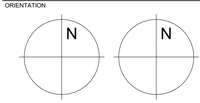
ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 | TORONTO ONTARIO | M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

MILLWORK PLANS AND ELEVATIONS & DETAILS

ORIENTATION



TRUE NORTH CONSTRUCTION NORTH

DATE 2021-11-24

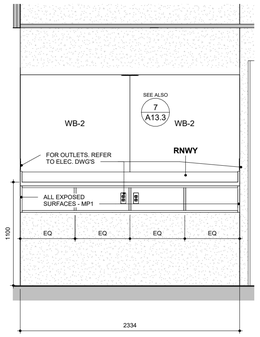
SCALE 1 : 30 | DRAWN BY SRL

DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A13.1** | REVISION 30

2024-09-09 4:12:05 PM



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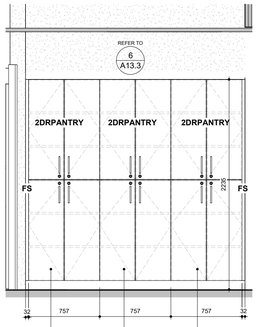

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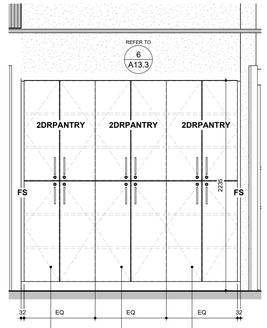
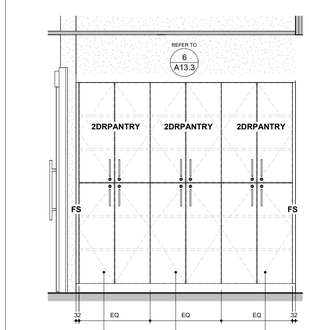
1 : 30



3 **5 - Millwork Elevation - FROM - 1/ A13.2**
1 : 30



2 **5 - Millwork Elevation - FROM - 1/ A13.2**
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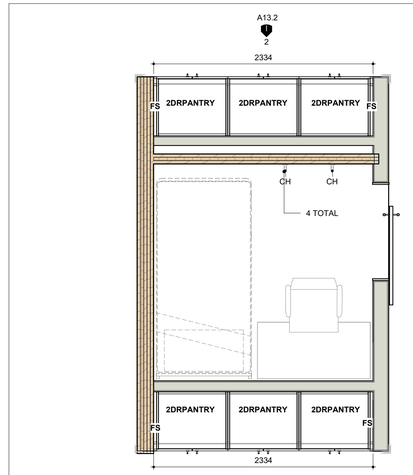
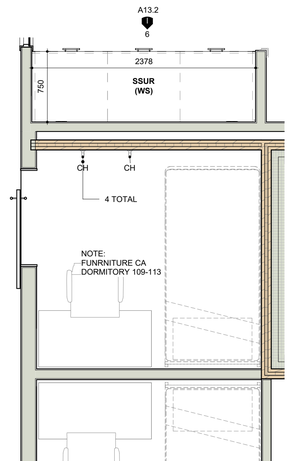
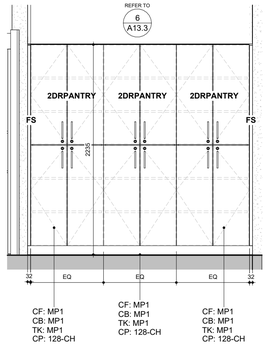


1 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 30





7 **5 - Millwork Elevation - FROM - 1/ A13.2**
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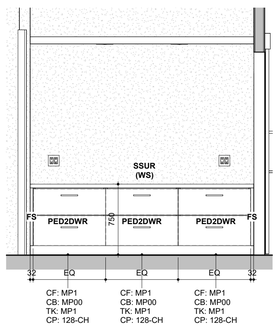
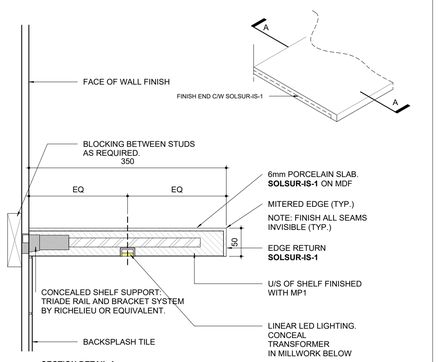


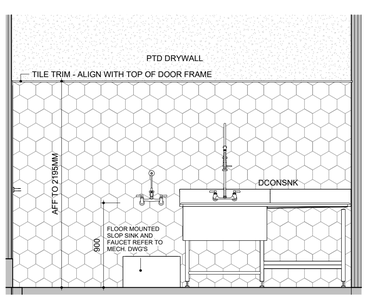
6 **5 - Millwork Elevation - FROM - 1/ A13.2**
1 : 30

11 /A13.2 | **6-0002 - FLOATING SHELF - DETAIL**

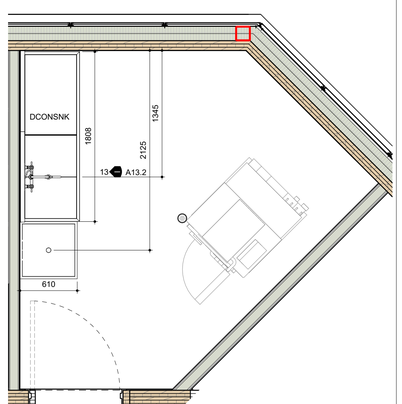


SECTION DETAIL A

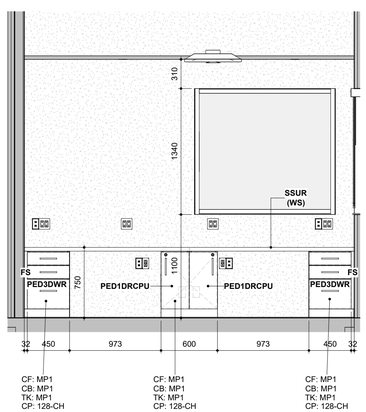
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH AWMAC ARCHITECTURAL WOODWORK STANDARDS AS SPECIFIED



13 **5 - Millwork Elevation - FROM - 12/ A13.2**
1 : 30



12 **GROUND FLOOR - Callout 11**
1 : 30



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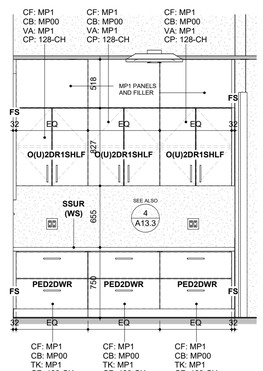
1 : 30



9 **5 - Millwork Elevation - FROM - 8/ A13.2**
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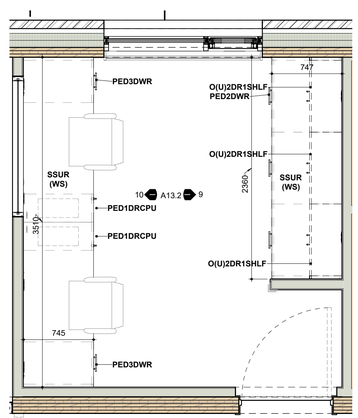


8 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 30

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN
FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 I TORONTO ONTARIO I M5T 2C8

PROFESSIONAL SEAL

DWG TITLE
MILLWORK PLANS AND ELEVATIONS & DETAILS

ORIENTATION
TRUE NORTH | CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated | DRAWN BY Author

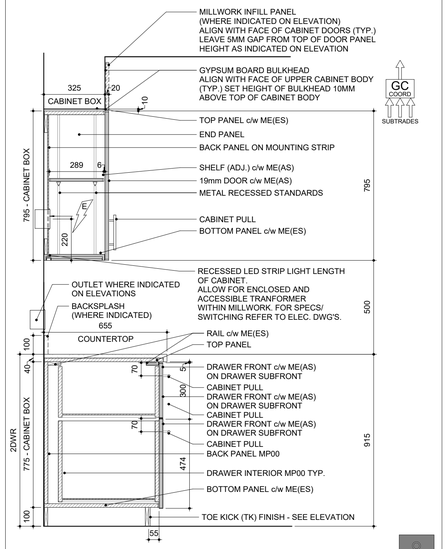
DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. **A13.2** | REVISION 30

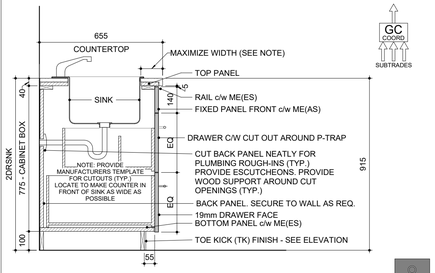
2024-09-09 4:12:13 PM

4 / A13.3 — 6-0001 - MW - K - 2DR2DWR



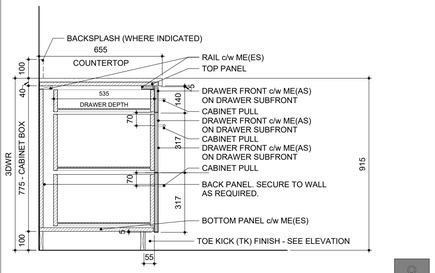
NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. THIS DETAIL TO BE READ IN CONJUNCTION WITH **A700 GENERAL NOTES - MILLWORK**

1 / A13.3 — 6-0001 - MW - K - 2DRSNK



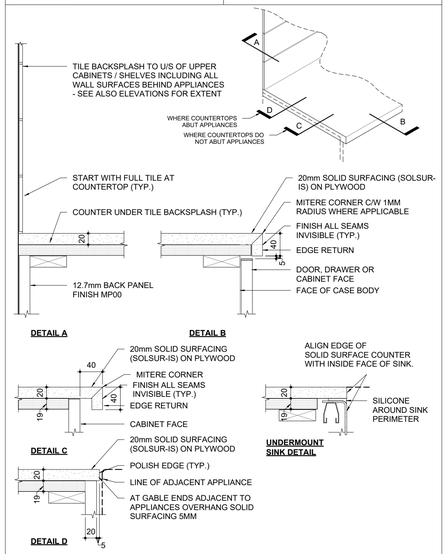
NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. THIS DETAIL TO BE READ IN CONJUNCTION WITH **A700 GENERAL NOTES - MILLWORK**

5 / A13.3 — 6-0001 - MW - K - 3DWR



NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. THIS DETAIL TO BE READ IN CONJUNCTION WITH **A700 GENERAL NOTES - MILLWORK**

11 /A13.3 — A700-9310-TILE-1



1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH AWMAC ARCHITECTURAL WOODWORK STANDARDS AS SPECIFIED

2 / A13.3 — A700 GENERAL NOTES - MILLWORK

1. ALL ARCHITECTURAL WOODWORK SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ARCHITECTURAL WOODWORK MANUFACTURERS ASSOCIATION OF CANADA (AWMAC) MANUAL - CURRENT EDITION
2. ALL ARCHITECTURAL WOODWORK SHALL BE **CUSTOM GRADE** AS DEFINED BY AWMAC.
3. ALL CABINET STYLES SHALL BE **FLUSH OVERLAY** UNLESS SPECIFICALLY NOTED OTHERWISE.
4. UNDERSIDE OF WALL CABINETS SHALL BE FINISHED **TYPE 'A' FLUSH** UNLESS OTHERWISE NOTED.
5. SCRIBES AND FILLERS SHALL HAVE A MAXIMUM DIMENSION OF 75MM IN WIDTH UNLESS NOTED OTHERWISE.

CABINET CONSTRUCTION

TOPS, EXPOSED ENDS, BOTTOMS	- JOINED IN ACCORDANCE WITH CUSTOM GRADE METHODS
EXPOSED END CORNER DETAILS	- JOINED IN ACCORDANCE WITH CUSTOM GRADE METHODS
FACE FRAME ATTACHMENT	- JOINED IN ACCORDANCE WITH CUSTOM GRADE METHODS
CABINET BACKS (WALL HUNG)	- JOINED IN ACCORDANCE WITH CUSTOM GRADE METHODS
CABINET BACKS (FLOOR STANDING)	- JOINED IN ACCORDANCE WITH CUSTOM GRADE METHODS

DRAWER CONSTRUCTION

FRONTS, SIDES BOTTOMS	- JOINED IN ACCORDANCE WITH CUSTOM GRADE METHODS

ABBREVIATIONS:

CF - CABINET FACES
CB - CABINET BODY
TK - TOE KICK (LOWER CABINETS ONLY)
VA - VALENCE (UPPER CABINETS ONLY)
CP - CABINET PULLS

EP - EXPOSED PARTS
SEP - SEMI-EXPOSED PARTS
CS - CONCEALED SURFACES

ME(AS) - MATCHING EDGE BAND (ALL SIDES)
ME(ES) - MATCHING EDGE BAND (EXPOSED SIDES)

MILLWORK LEGEND

ON DETAIL DRAWINGS, THE FOLLOWING PARTS ARE INDICATED BY PATTERNS:

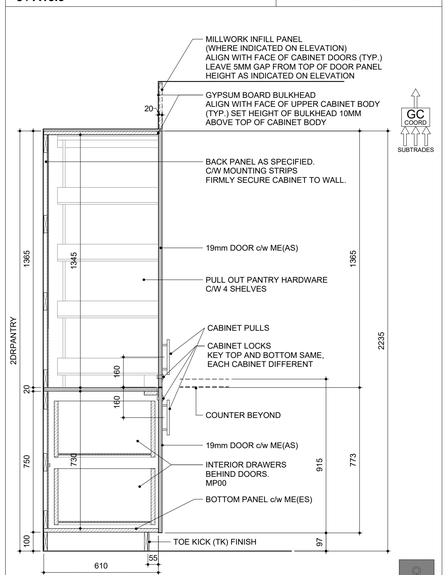
EP - EXPOSED PARTS -
SEP - SEMI-EXPOSED PARTS -
CS - CONCEALED SURFACES -

EXPOSED PARTS SHALL BE FINISHED ON BOTH SIDES OF PANELS WITH LIKE MATERIALS AND MATCHING EDGE BAND AS INDICATED.
SEMI-EXPOSED PARTS SHALL BE FINISHED ON VISIBLE SIDES WITH MATCHING EDGE BAND AS INDICATED.
NOTE: ENDS AND TOEKICKS SHALL BE TREATED AS EXPOSED SURFACES WHEN VISIBLE AFTER INSTALLATION.
NOTE: WHERE PANELS OR EDGES ABUT EXPOSED PARTS, EDGE BAND SHALL MATCH EXPOSED PART MATERIAL.
CONCEALED PARTS CAN BE LEFT IN MILL FINISH.

PANEL NOMINAL THICKNESSES (UNLESS NOTED OTHERWISE)

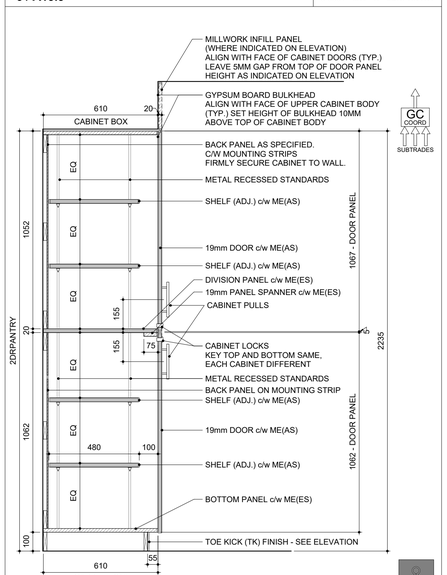
PART	THICKNESS
ENDS (GABLES), DIVISIONS, FIXED SHELVES, BOTTOMS, TOPS	- 19MM
FACE FRAMES, RAILS, TOEKICKS, CABINET BASES, VALENCES	- 19MM
SHELVES ADJUSTABLE (ADJ.)	- 19MM
BACKS	- 12.7MM
MOUNTING OR HANGER STRIPS	- 12.7MM
DRAWER SIDES, BACKS, SUBFRONTS	- 12.7MM
DRAWER BOTTOMS	- 12.7MM
DRAWER FRONTS	- 19MM
DOORS	- AS NOTED

8 / A13.3 — 6-0001 - MW - K - 2DRPANTRY KITCHEN



NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. THIS DETAIL TO BE READ IN CONJUNCTION WITH **A700 GENERAL NOTES - MILLWORK**

6 / A13.3 — 6-0001 - MW - K - 2DRPANTRY



NOTES:
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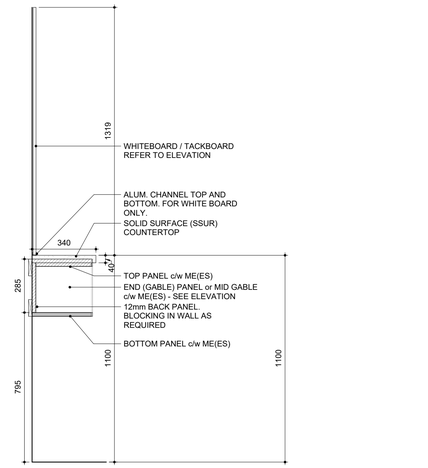
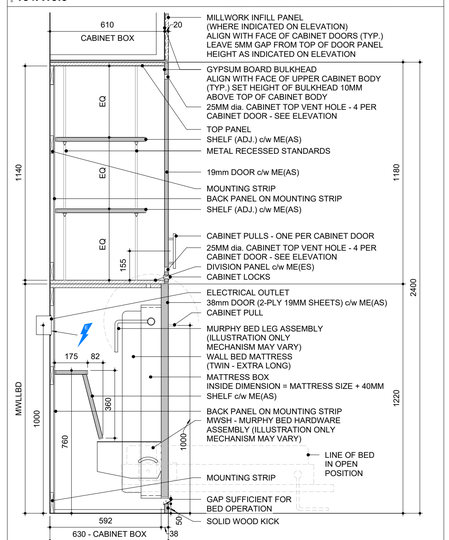
2. THIS DETAIL TO BE READ IN CONJUNCTION WITH **A700 GENERAL NOTES - MILLWORK**

7 / A13.3 — 6-0001 - MW - O - RNWY



NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. THIS DETAIL TO BE READ IN CONJUNCTION WITH **A700 GENERAL NOTES - MILLWORK**

13 /A13.3 — 6-0007 - MURPHY WALLBED AND CABINET - LATERAL



1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. MURPHY WALLBED CABINET SUPPLIER TO INCLUDE ALL HARDWARE. MURPHY WALLBED HARDWARE (MWSH) IS TO BE SUPPLIED AS A SYSTEM WITH ALL PARTS AND FITTINGS FROM SAME MANUFACTURER
3. CABINET DOOR VENT HOLES SHALL BE FINISHED WITH PLASTIC DESK GROMMET. COLOUR TO MATCH CABINET DOOR MATERIAL. INCLUDE SAMPLE WITH SHOP DRAWING SUBMITTAL.
4. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH AWMAC ARCHITECTURAL WOODWORK STANDARDS AS SPECIFIED

3 / A13.3 — A700 GENERAL NOTES - MILLWORK FINISHES AND HARDWARE

MILLWORK PANEL SCHEDULE — **NOTATION ON DRAWINGS**

MP00	- MELAMINE PANEL - GREY COLOUR FOR ALL CONCEALED INTERIORS	CF: (MATERIAL)
	ME - MELAMINE TO MATCH	CB: (MATERIAL)
MP1	- PLASTIC LAMINATE: LAMITECH - TITAN - 2263 OPAK	TK: or VA: (MATERIAL)
	ME - COLOUR EDGE BANDING TO MATCH MP1	CP: (HANDLE)

MILLWORK COUNTER TOP SCHEDULE

SOLSUR-IS - 20MM PORCELAIN SLAB. PORCELANOSA - LIEM GREY SILK.
SOLSUR-IS-1 - 6MM PORCELAIN SLAB 120X120 CM. PORCELANOSA - LIEM GREY SILK.
SSUR (WS) - 19MM MILLWORK PANEL C/W PLAM MP1.

MILLWORK PANEL NOTES

1. ALL **FS** PANELS TO BE FINISHED SAME AS DOOR/DRAWER PANELS.

CABINET PULL SCHEDULE

128 - CONTEMPORARY STEEL PULL - 305 - 128MM CENTER TO CENTER
160 - CONTEMPORARY STEEL PULL - 305 - 160MM CENTER TO CENTER
192 - CONTEMPORARY STEEL PULL - 305 - 192MM CENTER TO CENTER
298 - CONTEMPORARY STEEL PULL - 305 - 298MM CENTER TO CENTER
333 - CONTEMPORARY STEEL PULL - 305 - 333MM CENTER TO CENTER
486 - CONTEMPORARY STEEL PULL - 305 - 486MM CENTER TO CENTER
562 - CONTEMPORARY STEEL PULL - 305 - 562MM CENTER TO CENTER
638 - CONTEMPORARY STEEL PULL - 305 - 638MM CENTER TO CENTER

FINISHES

CH - CHROME
BN - BRUSHED NICKEL

NOTE: ALL HARDWARE SHALL BE RICHELIEU OR EQUIVALENT

SUPPLY AND INSTALL HARDWARE AS FOLLOWS:

1. ALL HARDWARE SHALL BE IN ACCORDANCE WITH **CUSTOM GRADE** AS DEFINED BY AWMAC.
2. CONCEALED SELF-CLOSING HINGES.
3. STAINLESS STEEL ROD TYPE DOOR & DRAWER HANDLES AS SCHEDULED.
4. ALL DRAWERS ON HEAVY DUTY TELESCOPING CUSHIONED ROLLING METAL SLIDES. BLUM OR EQUIVALENT.
5. RECESSED METAL STANDARDS - ADJUSTABLE C/W REQUIRED NUMBER OF SHELF CLIPS.
6. PROVIDE KEY LOCKS WHERE INDICATED, EACH LOCK SHALL BE UNIQUE.
7. BOBRICK B-6827 S.S. HAT & COAT HOOKS FOR ALL HOOKS INDICATED.

*NOTE: ALL MILLWORK HARDWARE SUPPLIED & INSTALLED UNDER MILLWORK CONTRACT.

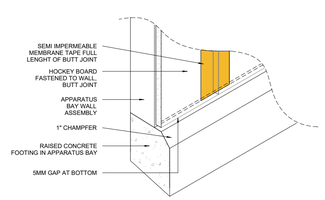
SPECIALTY HARDWARE KITCHEN:
RICHELIEU - Magic Corner II Set for a Minimum Opening of 394 mm OR EQUIVALENT
PANTRY PULL OUT - RICHELIEU Rev-A-Shelf sliding Pantry - Product # 534313GR - OR EQUIVALENT
WASTE MANAGEMENT - Pull-Out Waste Container c/w two bins back to back each. Bins to be full height of lower cabinet. RICHELIEU 4WCSC2432DM212 OR EQUIVALENT.

FOR DRAWERS DESIGNATED AS FILE DRAWERS:

CABINETS 450-600MM IN WIDTH - PROVIDE ONE (1) ADJUSTABLE HANGING FILE FRAME PER DRAWER
CABINETS 750-1000MM IN WIDTH - PROVIDE TWO (2) LATERAL HANGING FILEBARS PER DRAWER

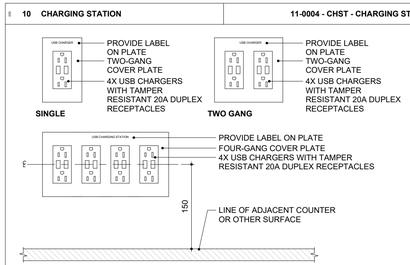
*NOTE: FILE FRAMES AND FILEBARS SHALL BE SUPPLIED BY LONG LIFE LTD., 407 BIRCHMOUNT ROAD, SCARBOROUGH, ON OR EQUIVALENT

12 HOCKEY BOARD DETAIL — A640-MW-1

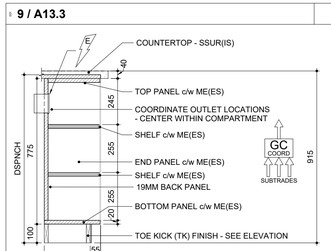


1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. ALL WORK TO BE COMPLETED IN ACCORDANCE WITH AWMAC ARCHITECTURAL WOODWORK STANDARDS AS SPECIFIED

10 CHARGING STATION — 11-0004 - CHST - CHARGING STATION



9 / A13.3 — 6-0001 - MW - K - DSPNCH



NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION
2. THIS DETAIL TO BE READ IN CONJUNCTION WITH **A700 GENERAL NOTES - MILLWORK**

SUBMITTAL REQ'D

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 // TORONTO ONTARIO // M5T 2C8

PROFESSIONAL SEAL

DWG TITLE
MILLWORK DETAILS

ORIENTATION

DATE 2021-11-24
SCALE As indicated
DRAWN BY SRL
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A13.3**
REVISION 30

2024-09-09 4:12:17 PM

SILLS AND COUNTERTOPS

MODEL	COUNT	DIMENSIONS DEPTH	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	MATERIALS FINISH	COMMENTS	SPECIFICATION
SSUR (SILL)	1	169	1745	12	MATT		
SSUR (SILL)	2	169	2173	12	MATT		
SSUR (SILL)	2	169	4622	12	MATT		
SSUR (SILL)	2	169	4804	12	MATT		
SSUR (SILL)	3	169	4829	12	MATT		
	10						
CAPTAINS OFFICE							
SSUR (SILL)	1	167	1685	12	MATT	PORCELAIN	06 40 00
SSUR (WS)	1	762		0	MATT		06 40 00
	2						
CLEAN LAUNDRY							
SSUR	1	655	0	0			
	1						
CREW LOUNGE							
SSUR (SILL)	3	<varies>	900	12	MATT	PORCELAIN	06 40 00
	3						
DINING AREA							
SSUR (SILL)	2	91	900	12	MATT	PORCELAIN	06 40 00
SSUR (SILL)	1	134	2725	12	MATT	PORCELAIN	06 40 00
SSUR (WS)	1	762		0	MATT		06 40 00
	4						
EXERCISE ROOM							
SSUR (SILL)	6	<varies>	900	12	MATT	PORCELAIN	06 40 00
	6						
KITCHEN							
SSUR (SILL)	1	191	885	12	MATT	PORCELAIN	06 40 00
	1						
RECEPTION							
SSUR (SILL)	1	138	1685	12	MATT	PORCELAIN	06 40 00
SSUR (WS)	2	745		0	MATT		06 40 00
	3						
TRAINING ROOM							
SSUR (SILL)	2	116	900	12	MATT	PORCELAIN	06 40 00
SSUR (WS)	1	750		0	MATT		06 40 00
	3						

SCHEDULE - ARCHITECTURAL WOODWORK

NOTES:
ALL CABINET SLIDES AND HINGES SHALL BE SOFT CLOSE
LOCKING CABINETS SHALL BE KEYED DIFFERENT UNLESS NOTED OTHERWISE
THIS SCHEDULE DOES NOT LIST COUNTERTOPS, SILLS AND OTHER ENGINEERED STONE ITEMS

MODEL	DIMENSIONS DEPTH	DIMENSIONS WIDTH	DIMENSIONS HEIGHT	MATERIALS FINISH	MATERIALS CABINET BODY	MATERIALS CABINET FRONTS	MATERIALS MATCHING EDGE BAND	MATERIALS VALENCE MATERIAL	HARDWARE LOCKING	HARDWARE CABINET PULLS	HARDWARE HINGES	HARDWARE DRAWER SLIDE	HARDWARE SHELF SUPPORTS	MOUNT	POWER RECD	VALENCE LIGHT	COMMENTS	COUNT
1 DWR, 1DR	610	400	875	TFL	MP00	MP1	MP1			128-CH	n/a	CORNER PULL OUT HARDWARE - MAGIC CORNER BY RICHELIEU	n/a	WDBLK				1
ACCESS CORRIDOR																		1
2DRPANTRY	610	757	2235	TFL	MP1	MP1	MP1		•	128-CH	4 SETS	n/a	4 SETS	WDBLK				3
2DRPANTRY	610	775	2235	LAM	MP1	MP1	MP1		•	128-CH	4 SETS	n/a	4 SETS	WDBLK				3
RNWY	350	2334	1100	TFL		MP1	MP1				n/a	n/a	n/a	WDBLK		•		1
CAPTAINS OFFICE																		
MWLLBD-L	630	2235	1220	LAM	MP1	MP1	MP1			333 CH	4 SETS + SPECIAL - MWSH,	n/a	4 SETS	WDBLK	•	•		1
PED3DWR	725	450	710	TFL	MP1	MP1	MP1			128-CH	n/a	3 SETS	n/a	WDBLK				2
CLEAN LAUNDRY																		
2DWR	610	957	875	LAM	MP00	MP1	MP1			128-CH	n/a	2 SETS	n/a	WDBLK				4
CA(U)2DR1SHLF	325	650	2235	LAM	MP00	MP1	MP1	MP1		128-CH	2 SETS	n/a	1 SET	WDBLK		•		4
DINING AREA																		
PED3DWR	725	450	710	TFL	MP1	MP1	MP1			128-CH	n/a	3 SETS	n/a	WDBLK				1
DORMITORY																		5
EXTERIOR																		7
KITCHEN																		7
(U)2DR1SHLF	610	920	475	LAM	MP00	MP1	MP1	MP1		128-CH	2 SETS	n/a	1 SET	WDBLK				1
1 DWR, 1DR	610	400	875	TFL	MP00	MP1	MP1			128-CH	n/a	3 SETS	n/a	WDBLK				1
1DWRMCR	610	750	875	LAM	MP1	MP1	TBA - Millwork - MP1 - Birch Plywood - Edging			128-CH	n/a	1 SET	n/a	n/a				1
2DRSNK	610	900	875	LAM	MP00	MP1	MP1			128-CH	2 SETS	n/a	n/a	WDBLK			COORDINATE CUTOUTS FOR DRAINS	1
2DRWASTE	610	895	875	LAM	MP00	MP1	MP1			128-CH	2 SETS	n/a	n/a	WDBLK				1
2DWR	610	750	875	LAM	MP00	MP1	TBA - Millwork - MP1 - Birch Plywood - Edging			128-CH	n/a	2 SETS	n/a	WDBLK				3
2DWRPANTRY	610	784	2235	LAM	MP1	MP1	MP1		•	128-CH	4 SETS	n/a	4 SETS	WDBLK				4
3DWR	610	306	875	LAM	MP00	MP1	MP1			128-CH	n/a	3 SETS	n/a	WDBLK				1
3DWR	610	850	875	TFL	MP00	MP1	MP1			128-CH	n/a	3 SETS	n/a	WDBLK				2
7068-9SS-C																		2
DSPNCH	300	858	875	TFL	MP1	MP1	MP1			n/a	n/a	n/a	n/a	n/a				1
LINEN STORAGE																		
2DRPANTRY	610	757	2235	TFL	MP1	MP1	MP1		•	128-CH	4 SETS	n/a	4 SETS	WDBLK				6
LOCKER ROOM																		
CR-2	470	990	500															1
RECEPTION																		
O(U)2DR1SHLF	325	764	2235	TFL	MP00	MP1	MP1	MP1		128-CH	2 SETS	n/a	1 SET	WDBLK		•		3
PED1DRCPU	725	300	710	FR	MP1	MP1	MP1		•	128-CH	1 SET	n/a	n/a	WDBLK			SIDE PANEL CUTOUT FOR VENTILATION	2
PED2DWR	725	764	710	LAM	MP00	MP1	MP1			128-CH	n/a	2 SETS	n/a	WDBLK				3
PED3DWR	725	450	710	TFL	MP1	MP1	MP1			128-CH	n/a	3 SETS	n/a	WDBLK				2
TRAINING ROOM																		
PED2DWR	725	772	710	LAM	MP00	MP1	MP1			128-CH	n/a	2 SETS	n/a	WDBLK				3
WASHROOM & SHOWER																		
3DWR	600	1149	814	TFL	MP00	MP1	MP1			128-CH	n/a	3 SETS	n/a	WDBLK				3

ALUMINUM DOOR SCHEDULE

No.	FROM	TO	OPENING WIDTH	OPENING HEIGHT	DOOR AND FRAME CONSTRUCTION: DOORS DOOR TYPE	DOORS THICKNESS	DOORS DOOR MATERIAL	DOORS DOOR FINISH	DOORS INSULATED	DOORS GLAZED	DOORS LOUVER	FRAMES FRAME TYPE	FRAMES FRAME MATERIAL	FRAMES FRAME FINISH	FRR FIRE RATING	FRR SMOKE SEAL	ACCESSORIES ASTRAGAL	ACCESSORIES THRESHOLD	ACCESSORIES TRANSITION STRIP	ACCESSORIES WEATHERSTRIP	ACCESSORIES DOOR SWEEP	ACCESSORIES WALL STOP	ACCESSORIES FLOOR STOP	OPERATION: DOOR OPERATOR	OPERATION: PTL FUNCTION	OPERATION: DOOR CLOSER	OPERATION: DOOR LEVER	OPERATION: PUSHBAR	OPERATION: DOOR PULL	OPERATION: PANIC SET	OPERATION: KICKPLATE	OPERATION: PUSHPLATE	ACCESS CONTROL: CARD READER	ACCESS CONTROL: DOORBELL	ACCESS CONTROL: DOOR CONTACT	ACCESS CONTROL: ELECTRIC STRIKE	ACCESS CONTROL: KEYPAD	ACCESS CONTROL: REX	ACCESS CONTROL: SIGNAGE	FUNCTION: STOREROOM	FUNCTION: OFFICE/PRIVACY	FUNCTION: PASSAGE	COMMENTS
FG																																										
100B	ACCESS CORRIDOR	ENTRANCE VESTIBULE	1095	2424	FG	51	AL	AL	•	•		BUTT	AL	AL	0									•					•	•					•	•		•					
115A	VESTIBULE	ACCESS CORRIDOR	1075	2424	FG	51	AL	AL	•	•		BUTT	AL	AL	0									•					•	•					•	•		•					
FG																																											
100A	ENTRANCE VESTIBULE	FOYER	1098	2429	FG	51	AL	AL	•	•		BUTT	AL	AL	0			•	•	•	•			•		•			•					•	•		•					
105B	PATIO	TRAINING ROOM	1063	2429	FG	51	AL	AL	•	•		BUTT	AL	AL	0			•	•	•	•						•	•					•	•		•		•			
114	ACCESS CORRIDOR	PATIO	1063	2393	FG	51	AL	AL	•	•		BUTT	AL	AL	0			•	•	•	•						•	•					•	•		•		•			
115B	VESTIBULE	EXTERIOR	1088	3014	FG	51	AL	AL	•	•		BUTT	AL	AL	0			•	•	•	•				•								•	•		•		•			
201	BRIDGE		1078	2389	FG	51	AL	AL	•	•		BUTT	AL	AL	0			•	•		•	•											•	•		•		•			
FFD																																											
129E	APPARATUS BAY	EXTERIOR	4200	4200	FFD	50	MTL	PREFIN	•	•		N/A	MTL	PNT	0						•	•																					
129F	APPARATUS BAY	EXTERIOR	4200	4200	FFD	50	MTL	PREFIN	•	•		N/A	MTL	PNT	0						•	•																					
TOTAL:: 9																																											

HOLLOW METAL DOOR SCHEDULE

NOTES: GLAZED PANELS IN RATED DOORS SHALL BE FIRE RATED GLAZING AS SPECIFIED.
FOR CLARITY, DOORS ARE SORTED BY TYPE, THEN BY ROOM NUMBER IN THIS SCHEDULE.

No.	FROM	TO	OPENING WIDTH	OPENING HEIGHT	DOOR AND FRAME CONSTRUCTION: DOORS DOOR TYPE	DOORS THICKNESS	DOORS DOOR MATERIAL	DOORS DOOR FINISH	DOORS INSULATED	DOORS GLAZED	DOORS LOUVER	FRAMES FRAME TYPE	FRAMES FRAME MATERIAL	FRAMES FRAME FINISH	FRR FIRE RATING	FRR SMOKE SEAL	ACCESSORIES AUTO DOOR BOTTOM	ACCESSORIES ASTRAGAL	ACCESSORIES THRESHOLD	ACCESSORIES TRANSITION STRIP	ACCESSORIES WEATHERSTRIP	ACCESSORIES DOOR SWEEP	ACCESSORIES WALL STOP	ACCESSORIES FLOOR STOP	OPERATION: DOOR OPERATOR	OPERATION: PTL FUNCTION	OPERATION: DOOR CLOSER	OPERATION: DOOR LEVER	OPERATION: PUSHBAR	OPERATION: DOOR PULL	OPERATION: PANIC SET	OPERATION: KICKPLATE	OPERATION: PUSHPLATE	ACCESS CONTROL: CARD READER	ACCESS CONTROL: DOORBELL	ACCESS CONTROL: DOOR CONTACT	ACCESS CONTROL: ELECTRIC STRIKE	ACCESS CONTROL: KEYPAD	ACCESS CONTROL: REX	ACCESS CONTROL: SIGNAGE	FUNCTION: STOREROOM	FUNCTION: OFFICE/PRIVACY	FUNCTION: PASSAGE	COMMENTS
New Construction																																										
FG																																											
102	ACCESS CORRIDOR	RECEPTION	965	2150	FG	44	HM	PNT				WRAP	HM	PNT	0										•			•	•												•		
116	ACCESS CORRIDOR	EXERCISE ROOM	965	2150	FG	44	HM	PNT		•		WRAP	HM	PNT	0										•			•	•												•		
129A	ACCESS CORRIDOR	APPARATUS BAY	1060	2100	FG	44	HM	PNT		•		BUTT	HM	PNT	60	•												•	•			•	•									FIRE RATED GLASS AS PER SPECIFICATIONS
129B	APPARATUS BAY	ACCESS CORRIDOR	1060	2106	FG	44	HM	PNT		•		BUTT	HM	PNT	60	•												•	•			•	•									FIRE RATED GLASS AS PER SPECIFICATIONS
M																																										
103	ACCESS CORRIDOR	UNIVERSAL WASHROOM	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0										•	•	•	•	•					•			•				•		
104	ACCESS CORRIDOR	CAPTAINS OFFICE	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0										•			•	•												•		
120	CLEAN LAUNDRY	ACCESS CORRIDOR	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0					•									•														DOOR GRILL
121A	ACCESS CORRIDOR	LOCKER ROOM	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0										•			•		•												
122	LOCKER ROOM	WASHROOM & SHOWER	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0									•				•												•		DOOR GRILL 12X12 - PAINTED
123	LOCKER ROOM	WASHROOM & SHOWER	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0									•				•												•		DOOR GRILL 12X12 - PAINTED
124	LOCKER ROOM	WASHROOM & SHOWER	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0									•				•												•		DOOR GRILL 12X12 - PAINTED
127	JANITOR	ACCESS CORRIDOR	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0					•								•												•		DOOR GRILL 12X12 - PAINTED
128	ACCESS CORRIDOR	STAIR TO MEZZ	965	2150	M	44	HM	PNT				WRAP	HM	PNT	45	•									•			•	•												•		FIRE RATED GLASS AS PER SPECIFICATIONS
136A	GARBAGE ROOM	EXTERIOR	965	2150	M	44	HM	PNT	•			BUTT	HM	PNT	0			•		•		•	•					•														
200	MECHANICAL	BRIDGE	965	2150	M	44	HM	PNT				WRAP	HM	PNT	0										•			•		•												
202	MECHANICAL		965	2150	M	44	HM	PNT				WRAP	HM	PNT	0										•			•	•	•												
NL1																																											
121B	APPARATUS BAY	LOCKER ROOM	965	2150	NL1	44	HM	PNT		•		WRAP	HM	PNT	60										•			•												•		
129C	APPARATUS BAY	EXTERIOR	965	2150	NL1	44	HM	PNT	•	•		BUTT	HM	PNT	0				•		•	•						•												•		
129D	EXTERIOR	APPARATUS BAY	965	2150	NL1	44	HM	PNT	•	•		BUTT	HM	PNT	0				•		•	•						•												•		
130	APPARATUS BAY	BUNKER GEAR WASHING	965	2150	NL1	44	HM	PNT		•		WRAP	HM	PNT	60										•			•												•		
131A	APPARATUS BAY	BUNKER GEAR	965	2150	NL1	44	HM	PNT		•		WRAP	HM	PNT	60										•			•												•		
131B	APPARATUS BAY	BUNKER GEAR	965	2150	NL1	44	HM	PNT		•		WRAP	HM	PNT	60										•			•												•		
132	APPARATUS BAY	SPRINKLER ROOM	965	2150	NL1	44	HM	PNT		•		WRAP	HM	PNT	60										•			•												•		
133	APPARATUS BAY	ELETRICAL ROOM	965	2150	NL1	44	HM	PNT		•		WRAP	HM	PNT	60										•			•												•		
FG																																											
105A	ACCESS CORRIDOR	TRAINING ROOM	965	2150	FG	44	HM	PNT		•		WRAP	HM	PNT	0										•			•	•												•		
TOTAL:: 25																																											

WOOD DOOR SCHEDULE

No.	FROM	TO	OPENING WIDTH	OPENING HEIGHT	COMMENTS
MS109	DORMITORY CORRIDOR	DORMITORY 109	914	2134	SLIDING DOOR - FLEX BY HORTON FLEXBARN SERIES DOOR $ FRAMING SYSTEM SINGLE SLIDE WOOD DOOR PANEL UNIT WIDTH (2057) C/W HARWARE
MS110	DORMITORY CORRIDOR	DORMITORY 110	914	2134	PLAM FINISH: WILSONART CARBON MESH - 4880
MS111	DORMITORY CORRIDOR	DORMITORY 111	914	2134	
MS112	DORMITORY CORRIDOR	DORMITORY 112	914	2134	

FOUR FOLD AND SECTIONAL DOOR SCHEDULE

No.	FROM	TO	OPENING WIDTH	OPENING HEIGHT	DOOR AND FRAME CONSTRUCTION: DOORS DOOR TYPE	DOORS THICKNESS	DOORS DOOR MATERIAL	DOORS DOOR FINISH	DOORS INSULATED	DOORS GLAZED	DOORS LOUVER	FRAMES FRAME TYPE	FRAMES FRAME MATERIAL	FRAMES FRAME FINISH	FRR FIRE RATING	FRR SMOKE SEAL	ACCESSORIES ASTRAGAL	ACCESSORIES THRESHOLD	ACCESSORIES TRANSITION STRIP	ACCESSORIES WEATHERSTRIP	ACCESSORIES DOOR SWEEP	ACCESSORIES WALL STOP	ACCESSORIES FLOOR STOP	OPERATION: DOOR OPERATOR	OPERATION: PTL FUNCTION	OPERATION: DOOR CLOSER	OPERATION: DOOR LEVER	OPERATION: PUSHBAR	OPERATION: DOOR PULL	OPERATION: PANIC SET	OPERATION: KICKPLATE	OPERATION: PUSHPLATE	ACCESS CONTROL: CARD READER	ACCESS CONTROL: DOORBELL	ACCESS CONTROL: DOOR CONTACT	ACCESS CONTROL: ELECTRIC STRIKE	ACCESS CONTROL: KEYPAD	ACCESS CONTROL: REX	ACCESS CONTROL: SIGNAGE	FUNCTION: STOREROOM	FUNCTION: OFFICE/PRIVACY	FUNCTION: PASSAGE	COMMENTS
FFD																																										
129E	APPARATUS BAY	EXTERIOR	4200	4200	FFD	50	MTL	PREFIN	•	•		N/A	MTL	PNT	0						•	•																					
129F	APPARATUS BAY	EXTERIOR	4200	4200	FFD	50	MTL	PREFIN	•	•		N/A	MTL	PNT	0						•	•																					
OHD																																											
136B	GARBAGE ROOM	EXTERIOR	1800	2400	OHD	50	AL	AL	•			N/A	MTL	PNT	0	•					•	•																				NO GLAZED PANELS
TOTAL:: 3																																											

29
R

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
29	ADDENDUM #4	2024-05-30
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

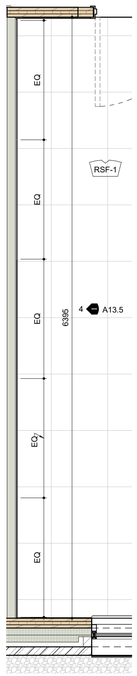
PROFESSIONAL SEAL

DWG TITLE
MILLWORK SCHEDULE
DOOR SCHEDULE

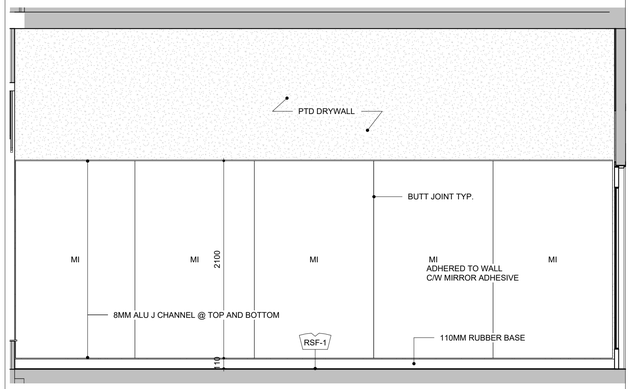
ORIENTATION

DATE 2021-11-24
SCALE
DRAWN BY Author
DWG STATUS : TENDER
PROJECT No. 2104
DRAWING No. **A13.4**
REVISION 30

2024-09-09 4:12:22 PM



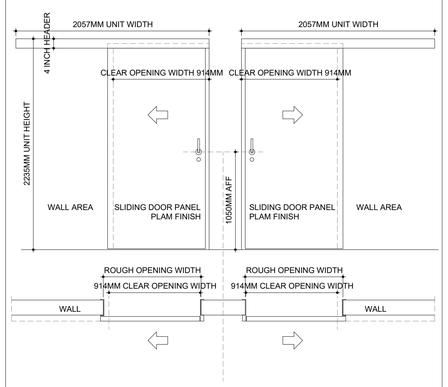
3 **3 - Floor Finish Plans - FROM - 5/ A3.3**
1 : 30



4 **5 - Millwork Elevation - FROM - 3/ A13.5**
1 : 30

2 8-0043 - SLIDING DOOR SCHEMATIC

8-0043 - SLIDING DOOR SCHEMATIC

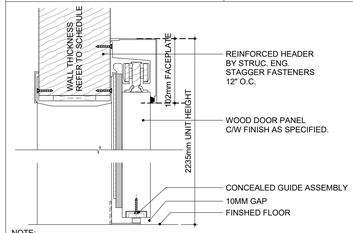


NOTES:
1. REFER TO MANUFACTURERS SPECIFICATIONS AND INSTALLATION GUIDE

GC COORD SUBTRADES
SUBMITTAL REQ'D

1 SLIDING DOOR DETAIL

08 42 43 - SLIDING DOOR DETAIL

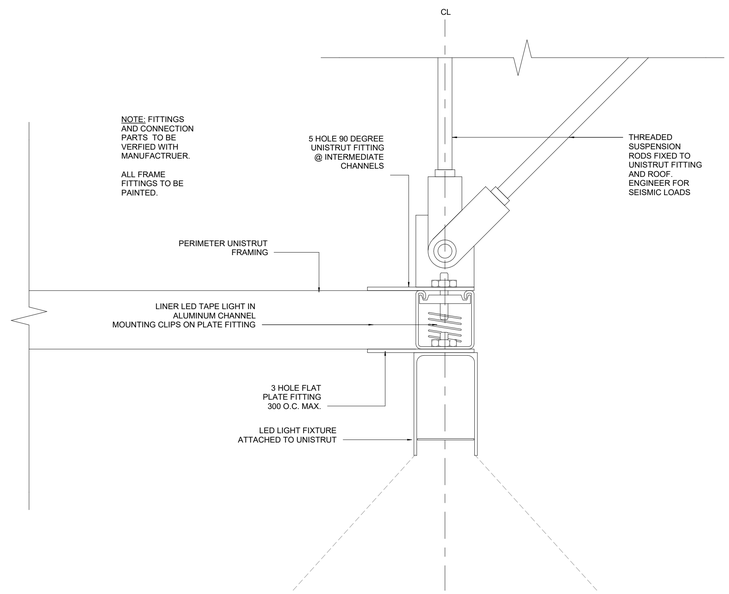


NOTE:
1. FINISH SAMPLE SUBMITTAL REQUIRED PRIOR TO FABRICATION
2. ENSURE CLEAR OPENING WIDTH AS SPECIFIED BY MANUFACTURER.
3. ENSURE HEADER IS ADEQUATE AND VERIFIED BY STRUCTURAL ENGINEER.
4. REPORT ANY CONFLICTS TO CONSULTANT PRIOR TO INSTALLATION

GC COORD SUBTRADES

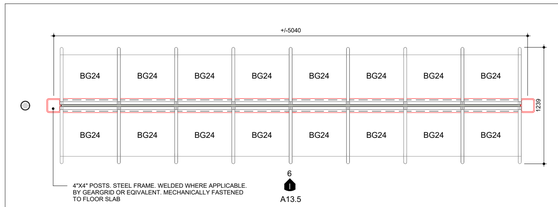
7 UNISTRUT SUSPENSION

A700 0000

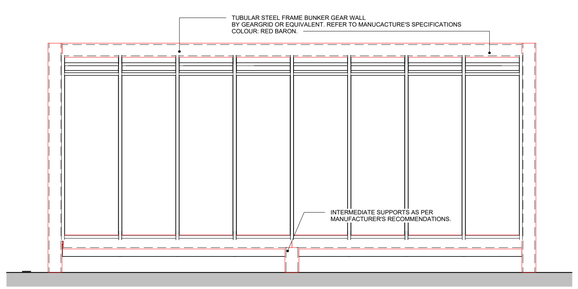


SUSPENDED UNISTRUT FRAME FOR LIGHT FIXTURES.

GC COORD SUBTRADES
SUBMITTAL REQ'D



5 **2 - Floor Plans - FROM - 5/ A3.3**
1 : 30



6 **6 - Interior Elevation - FROM - 5/ A13.5**
1 : 30

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 ǂ TORONTO ONTARIO ǂ M5T 2C8

Approval to Proceed

Project Phase

Authorization (signature)

DWG TITLE
MISCELLANEOUS DETAILS

ORIENTATION
TRUE NORTH CONSTRUCTION NORTH

DATE 2021-11-24

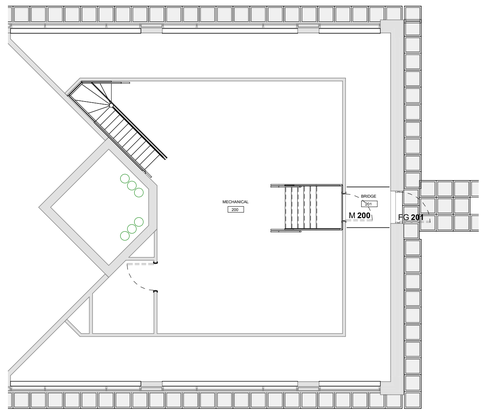
SCALE As indicated | DRAWN BY Author

DWG STATUS : TENDER

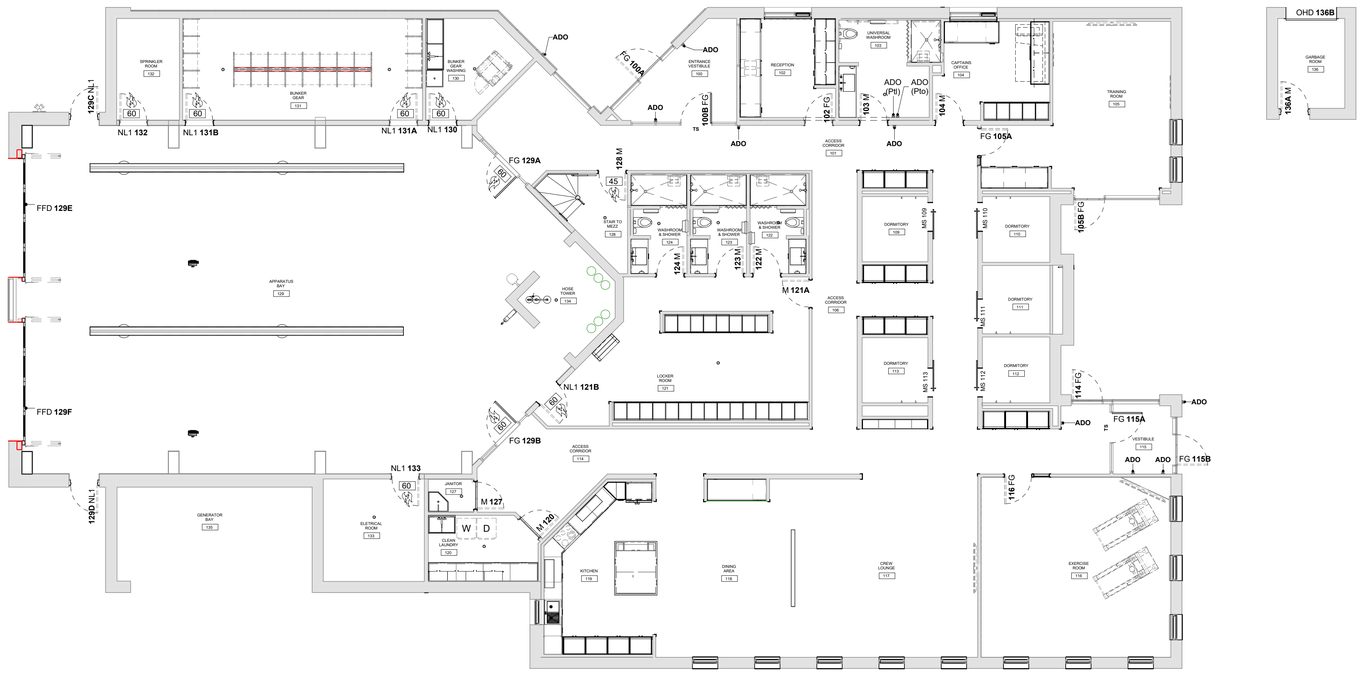
PROJECT No. 2104

DRAWING No. **A13.5** | REVISION 30

2024-09-09 4:12:31 PM



3 **MEZZANINE PLAN - DOOR SCHEDULE KEY PLAN**
1 : 100



2 **GROUND FLOOR - DOOR SCHEDULE KEY PLAN**
1 : 100

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
12	2022 UPDATE	2022-12-20
16	DD CLIENT REVIEW	2023-07-24
18	ISSUED FOR PERMIT	2023-09-15
19	ISSUED FOR RFPQ	2023-10-19
24	ISSUED FOR CLASS A	2024-02-16
26	T24-253 - IFT	2024-04-15
30	IFC	2024-09-09

FILE NO. SP.22.V.0191

PROJECT :

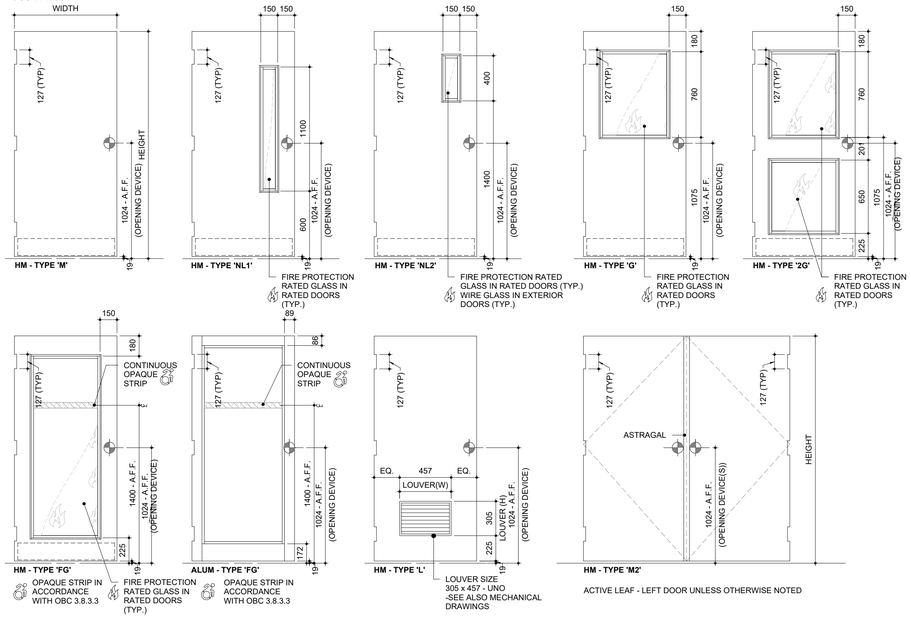
CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

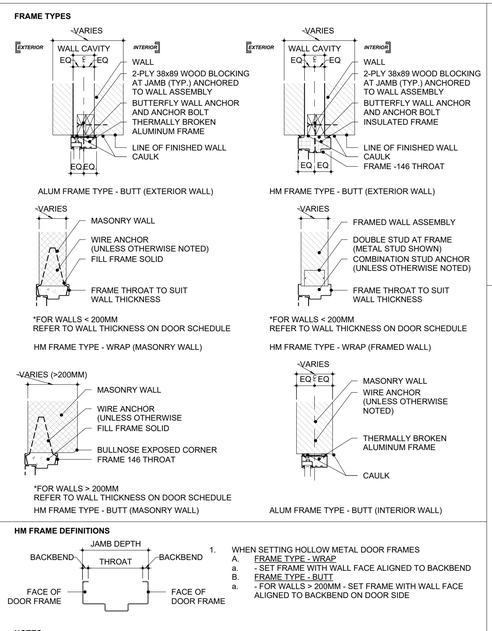
1 DOOR LEGEND AND FRAME TYPES

00-0001 - DR-1 - DOOR LEGEND AND FRAME TYPES

DOOR TYPES



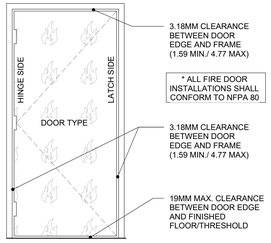
FRAME TYPES



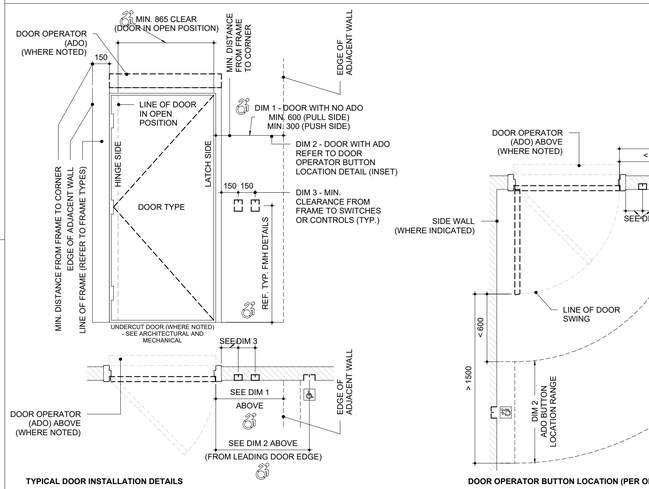
HM FRAME DEFINITIONS

1. WHEN SETTING HOLLOW METAL DOOR FRAMES
   A. FRAME TYPE - WRAP
      a. - SET FRAME WITH WALL FACE ALIGNED TO BACKBEND
   B. FRAME TYPE - BUTT
      a. - FOR WALLS > 200MM - SET FRAME WITH WALL FACE ALIGNED TO BACKBEND ON DOOR SIDE

NOTES:
1. SHOP DRAWING REQUIRED PRIOR TO FABRICATION. SHOP DRAWINGS SHALL REFERENCE DOOR TYPE ELEVATIONS AS SHOWN
2. DOOR AND FRAME MATERIAL - REFER TO SCHEDULE.
3. ALL DOORS AND FRAMES IN RATED ASSEMBLIES SHALL BE APPROPRIATELY LABELLED
4. CAULK AND PAINT ALL EXPOSED EDGES OF DOORS AND FRAMES
5. UNDERCUT DOORS WHERE INDICATED ON DRAWINGS
6. REFER TO MECHANICAL DRAWINGS FOR LOUVER SIZES IN TYPE 'L' DOORS
7. ALL LITES IN EXTERIOR DOORS SHALL BE SEALED AND THERMALLY BROKEN
8. ALL EXTERIOR DOOR FRAMES SHALL BE FILLED WITH CLOSED CELL FOAM INSULATION (JAMBS AND HEAD)
9. ALL EXTERIOR DOORS SHALL BE COMPLETELY WEATHERSTRIPPED AND GASKETED
10. ALL EXTERIOR DOORS SHALL HAVE A PREFABRICATED ALUMINUM THRESHOLD
11. CAULK FRAME TO FLOOR AT EXPOSED CONCRETE FLOOR FINISHES
12. PROVIDE DOOR BUMPERS ON ALL STEEL FRAMES



FIRE DOOR INSTALLATION DETAILS



TYPICAL DOOR INSTALLATION DETAILS

DOOR OPERATOR BUTTON LOCATION (PER OBC REQUIREMENT)

CLIENT

VAUGHAN

ARCHITECT
THOMASBROWNARCHITECTS
197 SPADINA AVENUE, SUITE 500 // TORONTO ONTARIO // M5T 2C8

PROFESSIONAL SEAL

DWG TITLE

DOOR FINISH SCHEDULE

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE 2021-11-24

SCALE As indicated | DRAWN BY SRL

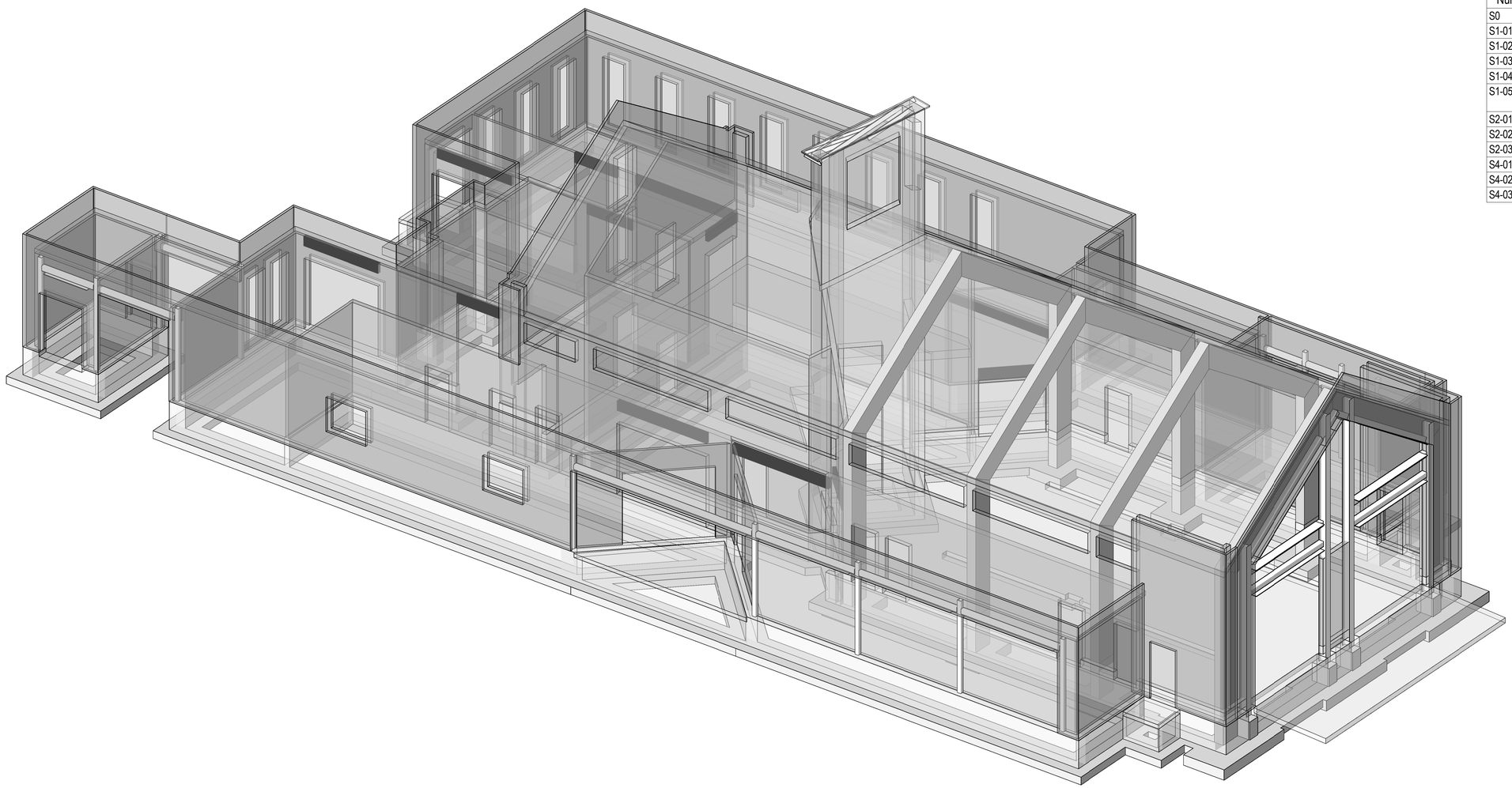
DWG STATUS : TENDER

PROJECT No. 2104

DRAWING No. A13.6 | REVISION 30

2024-09-09 4:12:38 PM

DRAWING LIST	
Sheet Number	Sheet Name
S0	COVER SHEET
S1-01	PLAN NOTES SCEDULES AND DETAILS
S1-02	FOUNDATION PLAN
S1-03	ROOF FRAMING PLAN
S1-04	HIGH ROOF FRAMING PLAN
S1-05	LOADING PLANS AND GLULAM MOMENT FRAME ELEVATION
S2-01	SHEAR WALL NOTES AND DETAILS
S2-02	CONCRETE WALL ELEVATIONS
S2-03	FOUNDATION SECTIONS
S4-01	GENERAL NOTES
S4-02	TYPICAL DETAILS
S4-03	TYPICAL NOTES



VAUGHAN

CITY OF VAUGHAN FIRE STATION 7-12

THIS COVER SHEET IS A DIAGRAMATIC 3D VIEW
AND DOES NOT FORM PART OF THE DOCUMENTS

Salas O'Brien

2235 Sheppard Ave. E. Suite No. 1100
Toronto, ON M2J 5B5
Stephenson Engineering, a company of Salas O'Brien

CONCRETE MIX SCHEDULE

EXPOSURE	ELEMENT	MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS (MP[1])	EXPOSURE CLASSIFICATION	NOTES
GENERAL NON-EXPOSED CONCRETE (i.e., NOT EXPOSED TO CHLORIDES NOR FREEZE AND THAW)	FOOTINGS	25	N	
	COLUMNS	25	N	
	SHEAR WALLS	25	N	
	SLAB ON GRADE [2]	25	N	
	LEAN MIX	5	N	
	FLOATING SLABS	25	N	
	HOUSEKEEPING PADS	25	N	
	UNSHRINKABLE FILL	0.4 MAX.	N	
EXTERIOR EXPOSED CONCRETE EXCLUDING PARKING (i.e., EXPOSED TO FREEZE AND THAW BUT NOT CHLORIDES)	FOUNDATION/RETAINING WALLS	25	F-2	
	COLUMNS, PIERS	25	F-2	
	SHEAR WALLS	25	F-2	
	OTHER WALLS (NOT IDENTIFIED AS SHEAR WALLS)	25	F-2	
	SUSPENDED SLABS AND BEAMS	32	F-2	
	SLAB ON GRADE [2] , SIDEWALKS	32	C-2	
	FROST SLABS	35	C-1	
	SLAB ON GRADE - APPARATUS BAYS	SUPERPLASTICIZED 32	N	NO AIR ENTRAINMENT
	APRON SLAB	35	C-1	
GROUT	MASONRY FILL/BOND BEAMS	15 (FINE GROUT)		CONFORM TO REQUIREMENTS OF CSA A179

1) STRENGTH SPECIFIED AT 28 DAYS U.N.O IN DRAWINGS AND SCHEDULES.
2) REINFORCED WITH SYNTHETIC FIBERS ADDED AT BATCHING PLANT - SEE SPECIFICATIONS

DESIGN CRITERIA NOTES

1. GENERAL

1.1. THE PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2012 OBC (O. REG. 332/12 AS AMENDED) INCLUDING CLAUSES 4.1.6.1(1), 4.1.6.4(3), 4.1.7 AND 4.1.8.

1.2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR WHO IS SUPPLYING AND INSTALLING EQUIPMENT, THAT ALL ELEMENTS OF STRUCTURES LISTED IN TABLE 4.1.8.18 OF THE OBC 2012 ARE DESIGNED IN ACCORDANCE WITH CLAUSE 4.1.8.18.

1.3. BUILDING IMPORTANCE CATEGORY (SNOW, WIND, AND EARTHQUAKE) IS POST DISASTER.

1.4. STIFF ELEMENTS NOT PART OF SFRS SHALL BE SEPARATED FROM THE STRUCTURE AS PER OBC CLAUSE 4.1.8.3 (6a). EXAMPLES INCLUDE, BUT NOT LIMITED TO MASONRY PARTITIONS, BRICK VENEER, PRECAST CLADDING ETC. IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO PROVIDE SHOP DRAWINGS, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER DEMONSTRATING COMPLIANCE. PROVIDE MINIMUM 25mm SEPARATION UNLESS NOTED OTHERWISE.

1.5. MISCELLANEOUS METAL, PRECAST AND STAIR FABRICATORS SHALL:
- 1.5.1. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION; STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER.
- 1.5.2. DESIGN ALL GUARDS TO MEET LATERAL LOADS DESCRIBED IN OBC 4.1.5.14.
- 1.5.3. DESIGN ALL HANDRAILS TO MEET LOADS DESCRIBED IN OBC 3.4.6.5/12).
- 1.5.4. DESIGN ALL STAIRS TO SUPPORT A MINIMUM LIVE LOAD OF 4.8kPa.

1.6. ARCHITECTURAL PRECAST FABRICATOR SHALL:
- 1.6.1. PROVIDE SHOP DRAWINGS TO THE ARCHITECT PRIOR TO FABRICATION, STAMPED, SIGNED AND DATED BY A PROFESSIONAL ENGINEER.
- 1.6.2. WHERE PRECAST IS USED AS A GUARD DESIGN THE PRECAST AND CONNECTIONS TO MEET LATERAL LOADS DESCRIBED IN OBC 4.1.5.14.

2. LATERAL LOADS ON STRUCTURE

2.1. WIND
q(1/50) = 0.44kPa
Ce = (h/10)^1/5 NOT LESS THAN 0.9.
Cg = 2.0
Cp = AS PER FIGURE 4.1.7.6-A OF NBC 2015

2.2. EARTHQUAKE
Sa(0.2) = 0.167 PGA = 0.105 Fa = 1.07
Sa(0.5) = 0.096 SITE CLASS = D Fv = 1.37
Sa(1.0) = 0.053 Rd = 2.0 Ie = 1.5
Sa(2.0) = 0.0260 Ro = 1.3 IeFaSa(0.2) = 0.268
MODERATELY DUCTILE MOMENT RESISTING FRAMES (GLULAM BASED)
CLT BASED SHEAR WALLS
METHOD OF ANALYSIS :- DYNAMIC

3. FOUNDATION WALLS

3.1. WALLS RETAINING EARTH ARE DESIGNED TO SAFELY WITHSTAND HORIZONTAL EARTH PRESSURE
(P=K (Wt.h=q)
K = 0.50
Wt = 22kN/m^3
q = 12kPa
h = DEPTH IN METRES

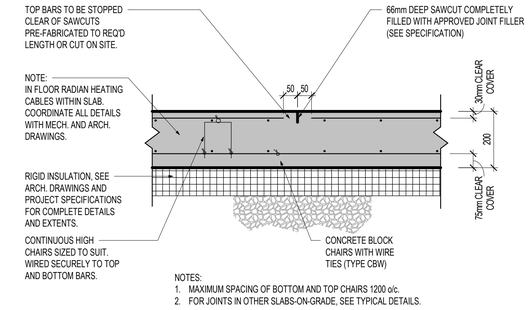
3.2. THE WALLS HAVE BEEN DESIGNED ASSUMING FREE DRAINING BACKFILL OR THE USE OF A DRAINAGE CORE TO PREVENT THE BUILD-UP OF HYDROSTATIC PRESSURE.

FOUNDATION PLAN NOTES

1. TOP OF SLAB - ON - GRADE TO BE 0.0 BELOW FINISHED FLOOR DATUM ELEVATION 225.70m EXCEPT AS NOTED. TOS = TOP OF SLAB.
2. FOOTINGS SHALL BEAR ON NATIVE SILTY SAND/SANDY SILT CAPABLE OF SUSTAINING A MINIMUM OF 375 kPa (ULS), 250 kPa (SLS).
3. REFER TO THE SOIL REPORT No. 20210932 DATED MARCH 30, 2022 PREPARED BY eNGLOBa.
4. SOIL AT THE UNDERSIDE OF THE FOOTINGS IS TO BE INSPECTED AND APPROVED BY A REPRESENTATIVE OF A SOILS CONSULTANT BEFORE PLACING CONCRETE.
5. REFER ALSO TO SITE PREPARATION NOTES ON THIS DRAWING.
6. CO-ORDINATE ALL DIMENSIONS WITH THE ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO PROCEEDING WITH ANY WORK.
7. UNDERSIDE OF WALL FOOTINGS TO BE AT ELEVATIONS AS NOTED ON PLAN.
8. SDF = STEP DOWN FOOTING.
9. UNLESS OTHERWISE SHOWN, ALL WALL FOOTINGS TO BE 300mm DEEP WITH 400mm PROJECTIONS EACH SIDE.
10. FILL REQUIRED ON BOTH SIDES OF FOUNDATION WALLS SHALL BE PLACED AND COMPACTED SIMULTANEOUSLY ON EACH SIDE TO EQUALIZE SOIL PRESSURE.
11. PROVIDE SLAB DEPRESSIONS AND SLOPES, OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS, AS REQUIRED BY THE ARCHITECTURAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS.
12. THE PROJECT SUPERINTENDENT MUST CONTACT THIS OFFICE 24 HOURS PRIOR TO PLACING STRUCTURAL CONCRETE INCLUDING STRIP FOOTINGS.
13. GENERAL SLAB - ON - GRADE IS 100mm THICK REINFORCED WITH SYNTHETIC FIBRES (REFER TO CONCRETE SPECIFICATION); EXCEPT AS NOTED.
14. CONCRETE STRENGTHS - SEE CONCRETE SCHEDULE.
15. SEE TYPICAL NOTES, TYPICAL DETAILS, AND ALL OTHER DRAWINGS.

SITE PREPARATION NOTES FOR SLAB-ON-GRADE (WITHIN BUILDING ENVELOPE)

1. THE AREA WITHIN THE BUILDING SHALL BE STRIPPED OF THE UPPER LAYER SOIL, FILL, ORGANICALLY CONTAMINATED MATERIAL AND RUBBLE AND TO A MINIMUM OF 1000mm (40") BELOW THE UNDERSIDE OF THE SLAB ON GRADE.
2. THE EXPOSED SUB-GRADE SHALL BE EXAMINED AND APPROVED BY THE SOIL CONSULTANT.
3. THE ENTIRE AREA SHALL BE PROOF ROLLED WITH A HEAVY COMPACTOR TO A MINIMUM OF **98%** STANDARD PROCTOR MAX. DRY DENSITY AND TO THE APPROVAL OF THE SOIL CONSULTANT.
4. ANY LOOSE OR SOFT SPOTS ENCOUNTERED SHALL BE SUB-EXCAVATED AND BACKFILLED WITH COMPACTED APPROVED MATERIAL.
5. FILL REQUIRED TO RAISE THE GRADES SHALL BE COMPRISED OF APPROVED **GRANULAR 'B' TYPE 1 CONFORMING TO OPSS 1010**. PLACED IN SUCCESSIVE LOOSE 150mm (6") LAYERS EACH COMPACTED TO AT LEAST **98%** OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY.
6. THE LAYER IMMEDIATELY BELOW THE SLAB-ON-GRADE SHALL BE 200mm (8") OF **19mm CLEAR CRUSHED STONE** COMPACTED TO MIN. **98%** STANDARD PROCTOR MAX. DRY DENSITY.
7. ALL PROCEDURES, EQUIPMENT AND MATERIALS SHALL BE APPROVED BY THE SOIL CONSULTANT WHO SHALL CONDUCT SUFFICIENT TESTS TO ENSURE THAT THE SPECIFIED MATERIALS AND DENSITIES ARE ACHIEVED.
8. THE CONTRACTOR SHALL CO-ORDINATE WITH THE SOIL CONSULTANT AND ARRANGE A SUITABLE PROGRAM FOR SAMPLING AND INSPECTIONS, ETC. AND NOTIFY THE ARCHITECT ACCORDINGLY.
9. EXISTING ON-SITE MATERIAL **SHALL NOT** BE USED WITHIN THE BUILDING AREA FOR BACKFILLING IN TRENCHES AGAINST FOUNDATION WALLS OR UNDER SLABS-ON-GRADE.
10. REFER TO THE SPECIFICATION AND THE SOIL REPORT FOR PREPARATION OF AREAS OUTSIDE THE BUILDING ENVELOPE.



NOTES:
1. MAXIMUM SPACING OF BOTTOM AND TOP CHAIRS 1200 o/c.
2. FOR JOINTS IN OTHER SLABS-ON-GRADE, SEE TYPICAL DETAILS.

SL1 / S1-01 DETAIL 1 : 10

WOOD COLUMN SCHEDULE

MARK	SIZE (WxD)	MATERIAL	GRADE	REMARKS	FACTORED LOAD (kN)
OMITTED C1	SUPPLIER BASED ON PERFORMANCE SPECIFICATION AND LOADING DEFINED HEREIN				
C2		SPF	20f-Ex		200

NOTE: CONCRETE S TO MATCH WOOD COLUMN SIZES

BEAM SCHEDULE

MARK	SIZE (WxD)	MATERIAL	GRADE	FACTORED SHEAR (kN)
B1	SUPPLIER BASED ON PERFORMANCE SPECIFICATION AND LOADING DEFINED HEREIN	SPF	20-f	75
B2		SPF	20-f	75

STEEL COLUMN AND POST LEGEND:

ST1 -W310x79 COLUMN
-550x440x550 BASE PLATE
C/W (4)-AR2 ANCHOR RODS

P1 -HSS 152x152x6.4 POST
@5000 o/c MAX. U/N
-350x25x175 BASE PLATE
C/W (2)-AR1 ANCHOR RODS

WALL AND DECK (FLOOR / ROOF) PANEL SCHEDULE

MARK	SIZE (THICKNESS)	MATERIAL
CLT1	105	CLT STRESS GRADE 'V2' WITH SPF No.2 MIN. FACE LAYERS
CLT2	175	CLT STRESS GRADE 'V2' WITH SPF No.2 MIN. FACE LAYERS
CLT3	315	CLT STRESS GRADE 'V2' WITH SPF No.2 MIN. FACE LAYERS

ROOF LINTEL SCHEDULE

REFER TO LINTEL NOTES A07 ON TYPICAL DETAIL DRAWINGS
SEE ALSO SPECIFICATION

MARK	MATERIAL	TYPE	REMARKS
RL1	HSS 203x152x6.4 + 8mm BOTTOM PLATE		PLATE LENGTH TO SUIT
RL2	HSS 203x203x8.0 + 8mm BOTTOM PLATE		PLATE LENGTH TO SUIT
RL2	HSS 203x203x8.0 + 8mm TOP PLATE		PLATE LENGTH TO SUIT

LENGTHS MAY VARY

Tf = 10kN.M TORSION CONNECTION
ALL EXTERIOR LINTELS SUPPORTING FACE BRICK TO BE GALVANIZED

** WELDED TO HSS EACH END.

ROOF LOADING SCHEDULE

ROOF USE \ LOADING	SUPERIMPOSED DEAD LOAD (kPa)	SNOW LOAD (kPa)
GENERAL ROOF	** 2.31	1.47 +ASL
MECHANICAL ROOF	** 2.81	1.47 +ASL

IN ADDITION TO UNIFORM LOADING SHOWN, REFER TO ROOF PLAN FOR ADDITIONAL LOADING FOR ACCUMULATED SNOW LOADS (ASL) AS SHOWN, AND FOR POINT LOADS OF BRACING AND MECHANICAL EQUIPMENT.

IN ADDITION TO UNIFORM LOADING SHOWN, DESIGN GLULAM / CLT FOR ANY CONCENTRATED LOADS RESULTING FROM MECHANICAL PIPING OR AS A MINIMUM, DESIGN FOR POINT LOAD OF 2kN AT ANY LOCATION.

** PV PANEL LOADS CONSIDERED FOR BALLASTED LOW ANGLE PANELS THAT WILL NOT RESULT IN ANY ADDITIONAL SNOW LOADS.

PV PANEL LOADING CONSIDERED TO BE 1.20 kPa

NOTE: ROOFING SINGLE PLY = 0.72 kPa HAS BEEN INCLUDED IN THE ABOVE TABLE

MECHANICAL ROOM LOADING SCHEDULE

LOADING	SUPERIMPOSED DEAD LOAD (kPa)	LIVE LOAD (kPa)
MECH. FLOOR	3.6	6.0

APPROVAL STAMP

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4	ISSUED FOR CONSTRUCTION	SEPT/09/09

PROJECT :
CITY OF VAUGHAN
FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

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PROFESSIONAL SEAL
LICENSED PROFESSIONAL ENGINEER
24-09-09
M.R. MARTTILA
100164027
PROVINCE OF ONTARIO

DWG TITLE
PLAN NOTES SCEDULES AND DETAILS

ORIENTATION

DATE: SEPT. 2024
SCALE: As indicated
DRAWN BY: __
CHECKED BY: MM
DWG STATUS : IFC
PROJECT No. 20210932
DRAWING No. S1-01
REVISION 4

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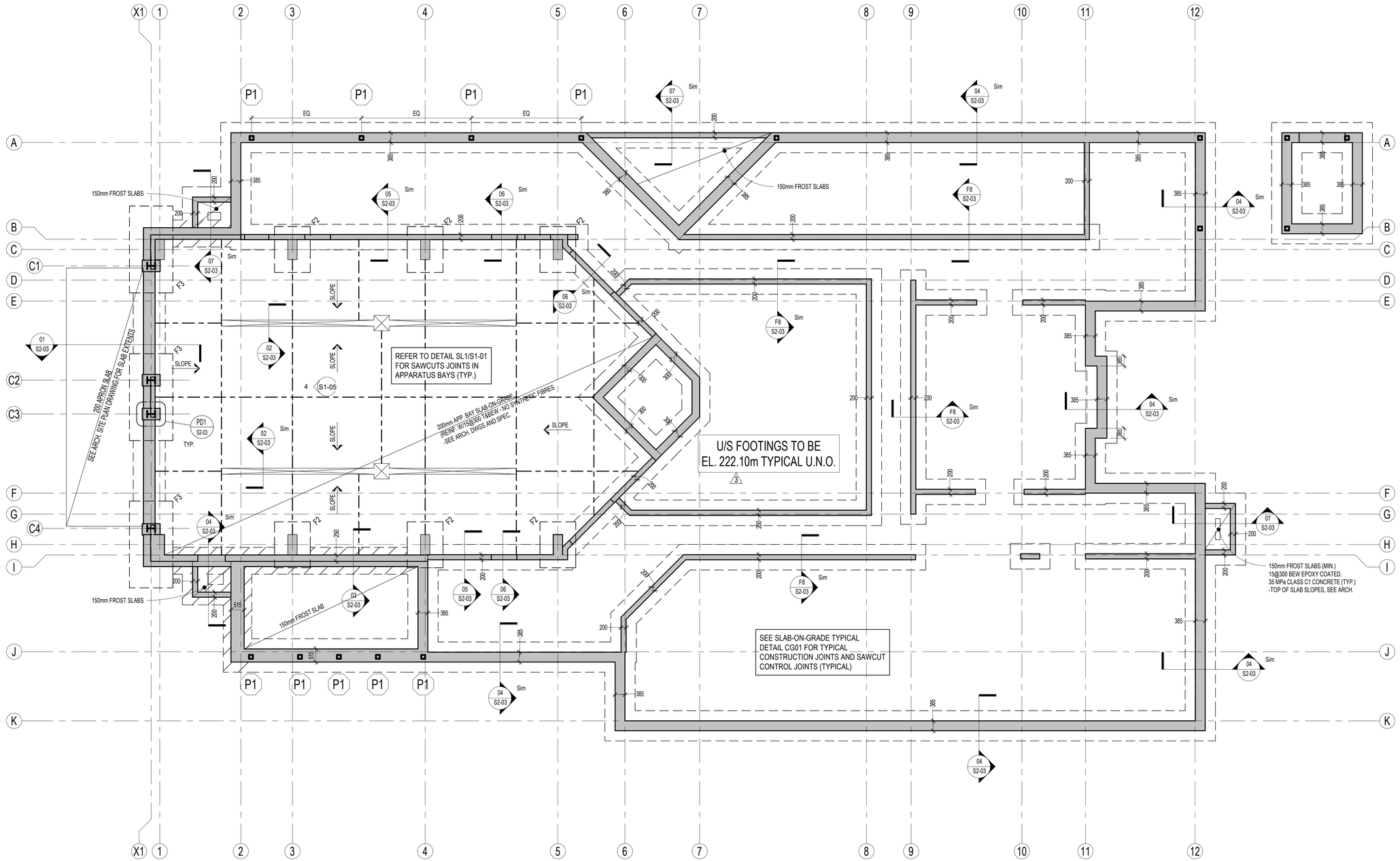

FOUNDATION PLAN
1 : 75

1. SEE DRAWING S1-01 FOR PLAN NOTES AND SCHEDULES.

FOOTING PROJECTION SCHEDULE
WALL FOOTINGS SHOWN THUS ON PLAN INDICATES 300mm FOOTING PROJECTIONS:

FOOTING SCHEDULE				
FOOTING NUMBER	FOOTING LENGTH	FOOTING WIDTH	FOOTING THICKNESS	FOOTING REINF. B.E.W./H.E.E. U.N.O.
F2	1800	1400	400	6-20M
F3	3400	1700	400	20M@250

LOWER ELEVATIONS AT UNDERSIDE OF COLUMN AND WALL FOOTINGS, WHERE REQUIRED, BUT NOT LIMITED TO SUIT STORM / SANITARY, WATER / FIRE LINES AND ELECTRICAL DUCT BANKS.
THE MAXIMUM SLOPE FROM THE PIPE EXCAVATION TO THE UNDERSIDE OF ADJACENT FOOTING ELEVATIONS SHALL NOT EXCEED 7 VERTICAL TO 10 HORIZONTAL.

WHERE MECHANICAL SERVICE PIPES PASS THROUGH LOAD BEARING FOUNDATION WALLS, PROVIDE STEEL SLEEVES (MIN. 50Ø) LARGER THAN PIPE (TYPICAL)

APPROVAL STAMP

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4	ISSUED FOR CONSTRUCTION	SEPT/09/09

PROJECT :
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DWG TITLE
FOUNDATION PLAN

ORIENTATION
TRUE NORTH CONSTRUCTION NORTH

DATE SEPT. 2024
SCALE As indicated
DRAWN BY
CHECKED BY MM
DWG STATUS : IFC
PROJECT No. 20210932
DRAWING No. **S1-02**
REVISION 4

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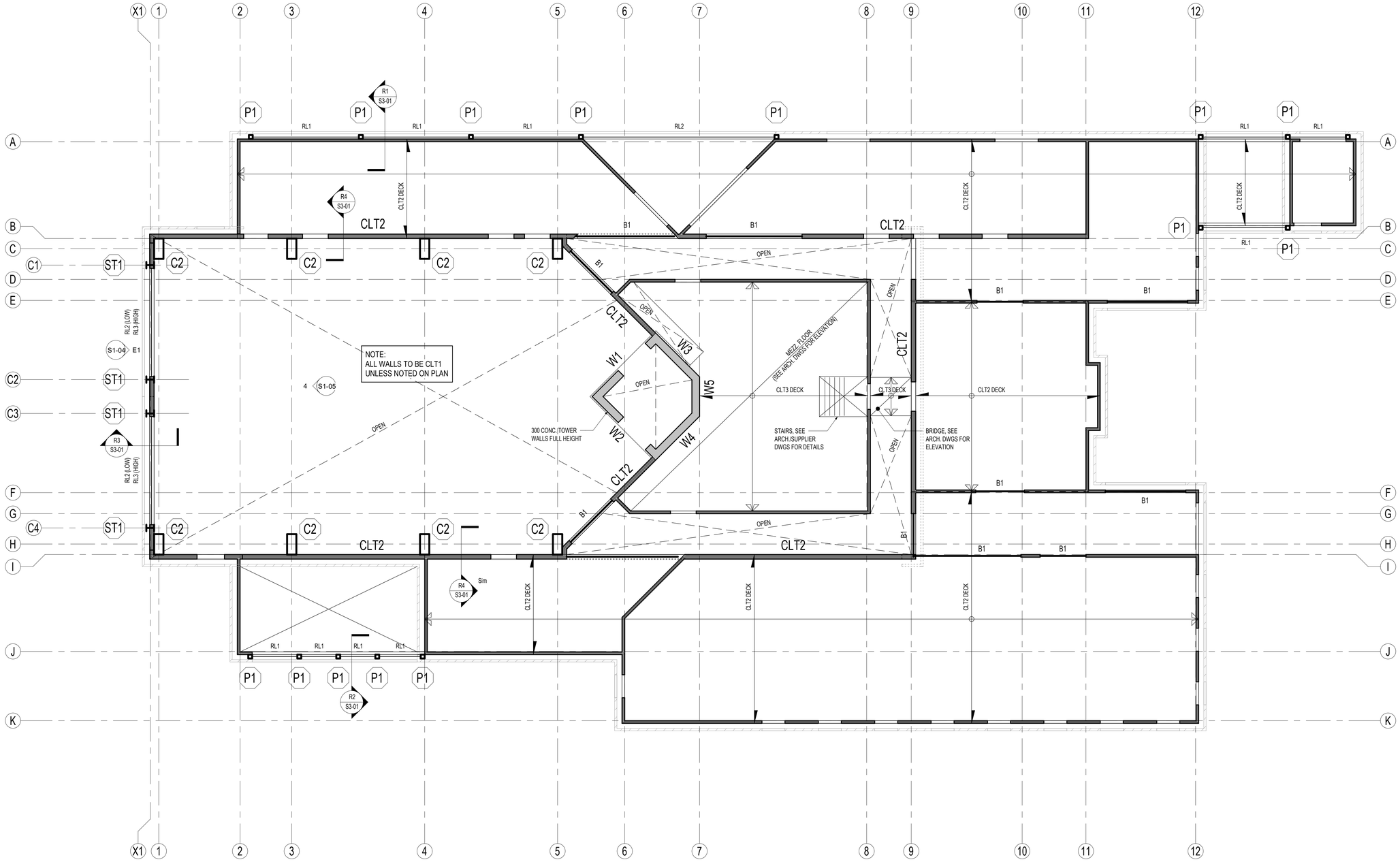

ROOF FRAMING PLAN
1 : 75

1. SEE DRAWING S1-01 FOR PLAN NOTES AND SCHEDULES.

APPROVAL STAMP

ISSUE OR REVISION

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PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

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DWG TITLE
ROOF FRAMING PLAN

ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

DATE: SEPT. 2024

SCALE	DRAWN BY	CHECKED BY
1 : 75		MM

DWG STATUS : IFC

PROJECT No. 20210932

DRAWING No. **S1-03** REVISION 4

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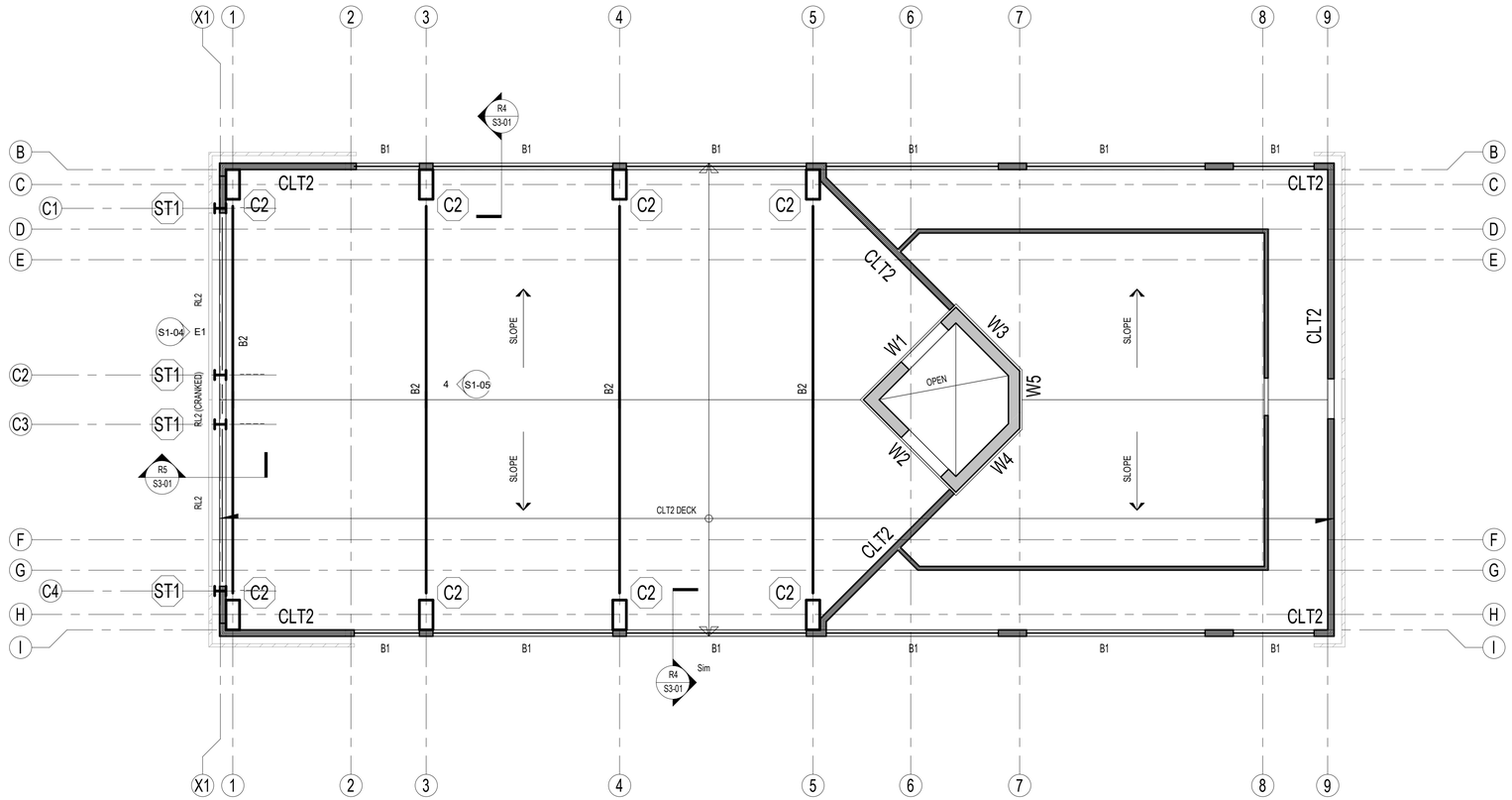
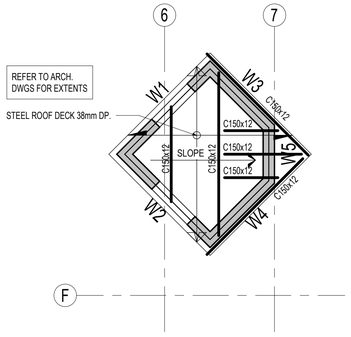
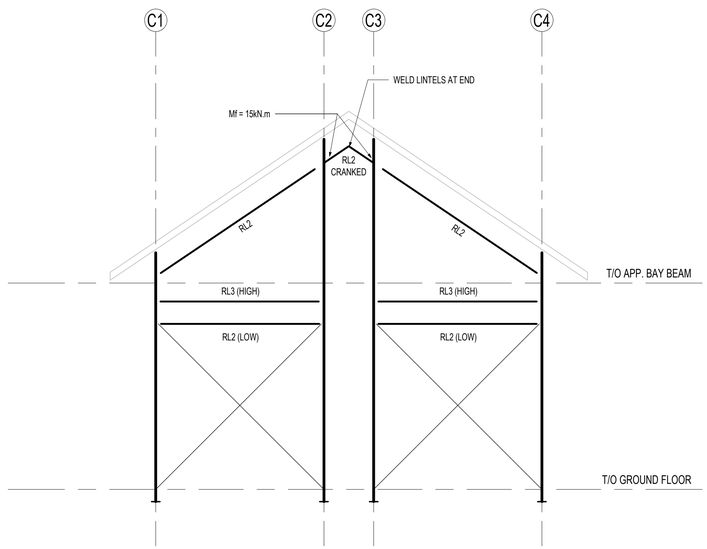


HIGH ROOF FRAMING PLAN
1 : 75



HOSE TOWER ROOF FRAMING PLAN
1 : 75



E1 FRAMING ELEVATION
S1-04 1 : 75

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DWG TITLE
HIGH ROOF FRAMING PLAN

ORIENTATION
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CONSTRUCTION NORTH

DATE
SEPT. 2024

SCALE	DRAWN BY	CHECKED BY
1 : 75	—	MM

DWG STATUS :
IFC

PROJECT No.
20210932

DRAWING No.
S1-04

REVISION
4

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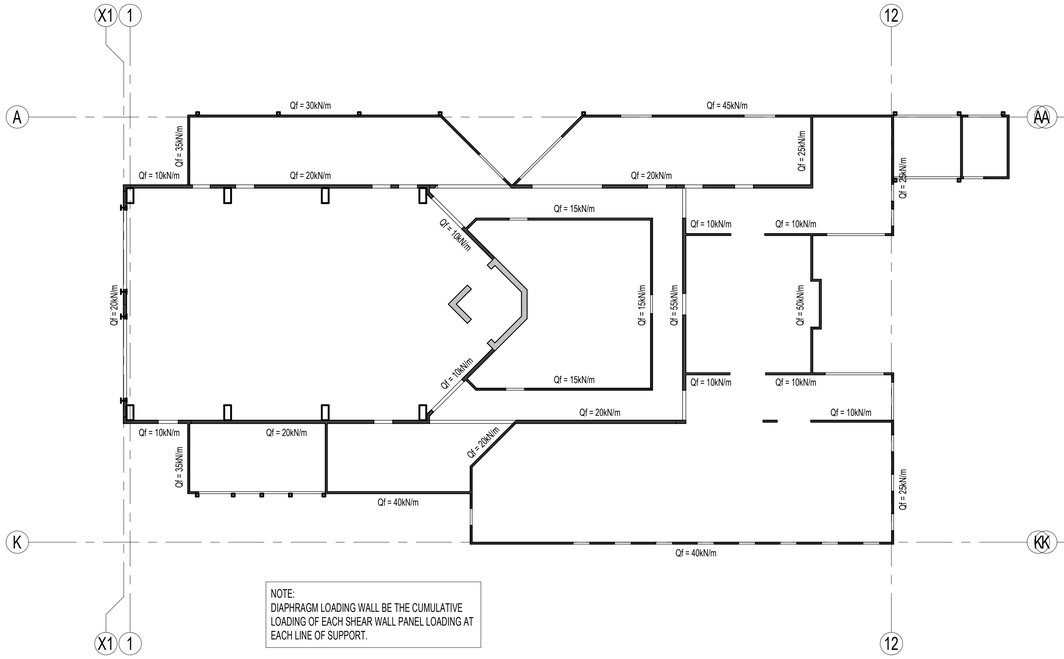
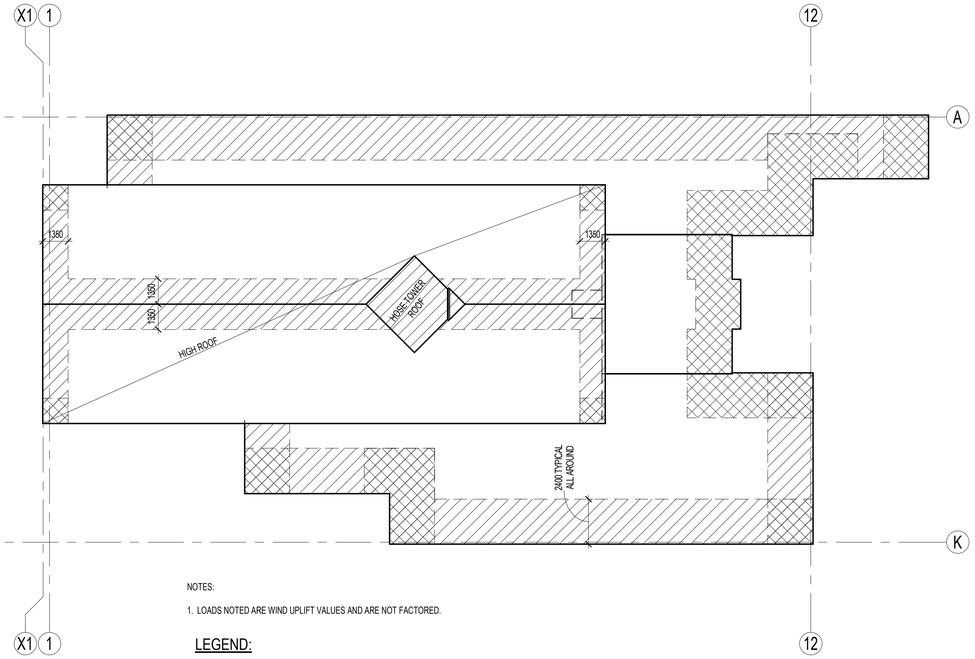


NOTE:
DIAPHRAGM LOADING WALL BE THE CUMULATIVE LOADING OF EACH SHEAR WALL PANEL LOADING AT EACH LINE OF SUPPORT.

ROOF DIAPRAGHM LOADING PLAN
1 : 150



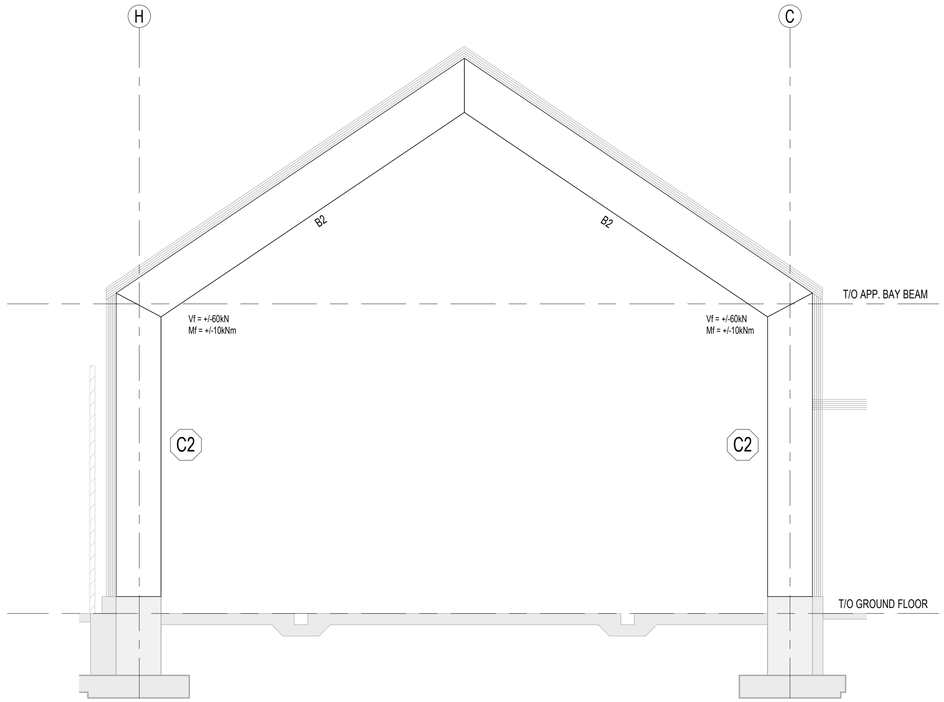
NOTES:

1. LOADS NOTED ARE WIND UPLIFT VALUES AND ARE NOT FACTORED.

LEGEND:

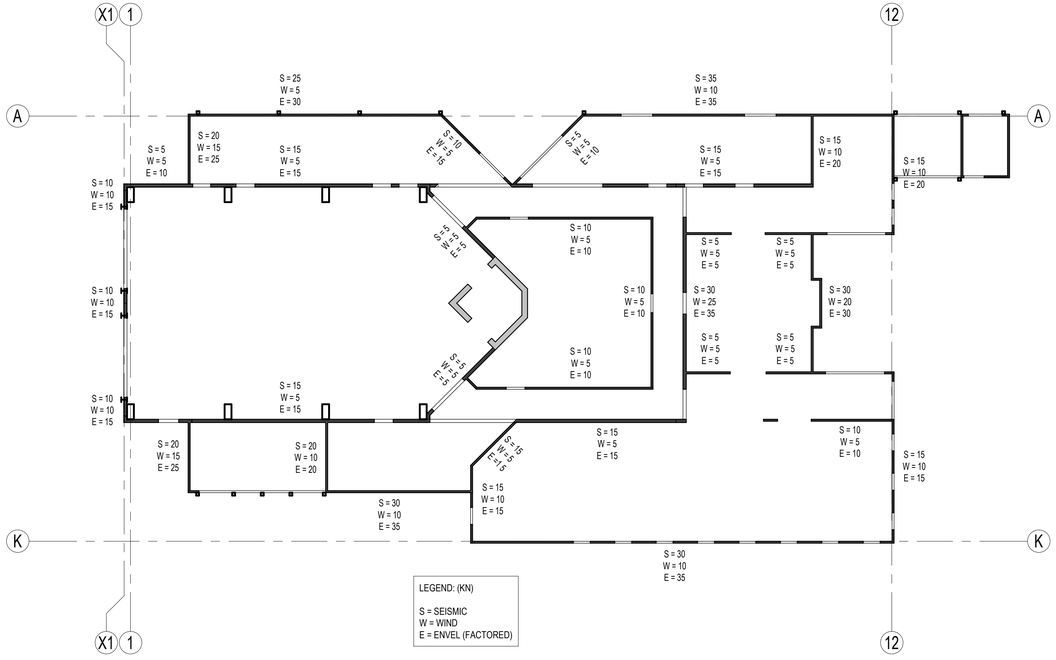
- 1.58 kPa
- 2.18 kPa
- 2.98 kPa

WIND UPLIFT DIAGRAM PLAN
1 : 150



APPARATUS BAY GLULAM MOMENT FRAME

4 FRAMING ELEVATION
S1-05 1 : 50



LEGEND: (KN)

S = SEISMIC
W = WIND
E = ENVEL (FACTORED)

CLT SHEAR WALL LOADING PLAN
1 : 150

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DWG TITLE
LOADING PLANS AND GLULAM MOMENT FRAME ELEVATION

ORIENTATION
TRUE NORTH CONSTRUCTION NORTH

DATE		
SEPT. 2024		
SCALE	DRAWN BY	CHECKED BY
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DWG STATUS :
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PROJECT No.
20210932

DRAWING No.
S1-05

REVISION
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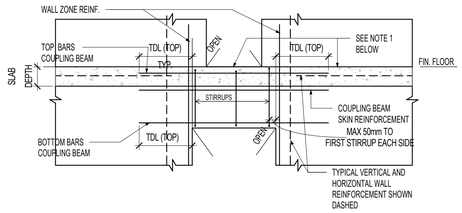
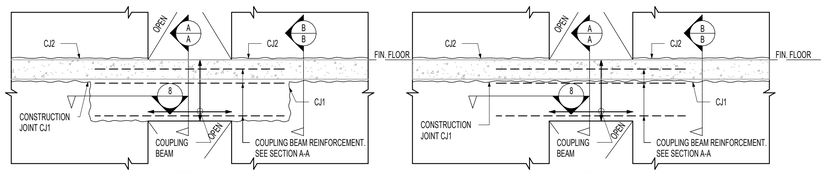
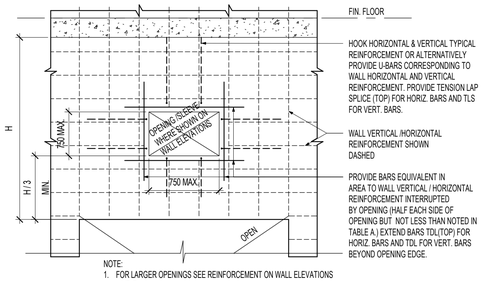


1 TYPICAL COUPLING BEAM REINFORCEMENT DETAIL



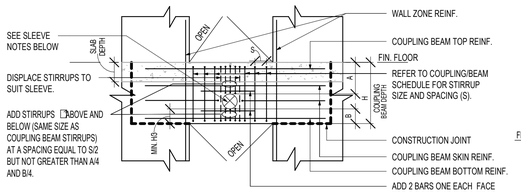
NOTES:
1. OPTION 1
POUR WALLS FIRST, WITH VERTICAL JOINT CJ1 BETWEEN THE WALLS AND THE COUPLING BEAM. POUR COUPLING BEAM WITH THE SLAB (NO HORIZONTAL JOINT BETWEEN THE SLAB AND THE COUPLING BEAM). PUDDLE COUPLING BEAM AND SLAB IF fc SLAB< fc COUPLING BEAM (SEE DETAIL A-A)
2. OPTION 2
IF APPROVED BY CONSULTANT, POUR COUPLING BEAM TO UNDERSIDE OF SLAB WITH THE WALLS, (HORIZONTAL CJ1 BETWEEN THE SLAB AND THE WEB OF COUPLING BEAM). PUDDLE SLAB IF fc SLAB < fc COUPLING BEAM (SEE DETAIL B-B)

1A TYPICAL SHEAR WALL AND COUPLING (LINTEL) BEAM CONSTRUCTION JOINT DETAIL



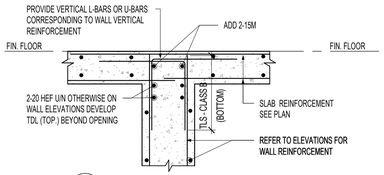
NOTE:
1. FOR LARGER OPENINGS SEE REINFORCEMENT ON WALL ELEVATIONS

2 TYPICAL ADDITIONAL REINFORCEMENT FOR WALL OPENINGS UP TO 750mmX750mm SIZE

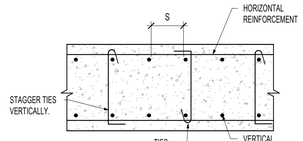


NOTE:
1. APPROVAL MUST BE OBTAINED FROM ENGINEER FOR ALL SLEEVES LARGER THAN H/4
2. MULTIPLE SLEEVES (MAX 3 SLEEVES WITH Ø <H/4) SHALL BE PLACED WITH MIN 250mm CLEAR BETWEEN SLEEVES.

3 TYPICAL ADDITIONAL REINFORCEMENT COUPLING BEAM SLEEVES UP TO H/4

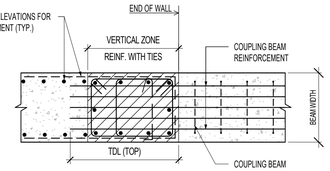


4 TYPICAL DETAIL AT TOP OF WALLS AND BELOW OPENINGS WHERE COUPLING BEAM IS NOT PROVIDED



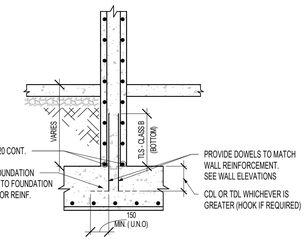
NOTE:
1. PROVIDE TIES TO DISTRIBUTED WALL REINFORCEMENT WITH VERTICAL SPACING AS PER TABLE 2 UNLESS NOTED OTHERWISE ON WALL ELEVATIONS.
2. WHEN CLEAR SPACE (S) BETWEEN VERTICAL DISTRIBUTED REINFORCEMENT IS LARGER THAN 150mm, PROVIDE TIES AT EVERY VERTICAL BAR. WHEN S≤150, TIES MAY BE PROVIDED AT EVERY OTHER VERTICAL BAR AS SHOWN ABOVE.
3. REFER TO ZONE REINFORCEMENT DETAILS FOR TIES IN THOSE AREAS.

7 TYPICAL TIE DETAIL FOR DISTRIBUTED VERTICAL WALL REINFORCEMENT

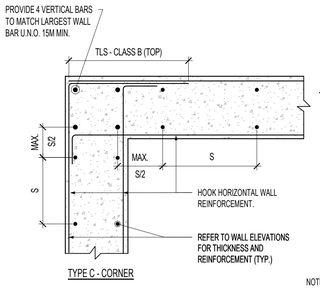


NOTE:
1. COORDINATE WALL ZONE VERTICAL BAR PLACEMENT WITH BEAM HORIZONTAL REINFORCEMENT ARRANGEMENT.

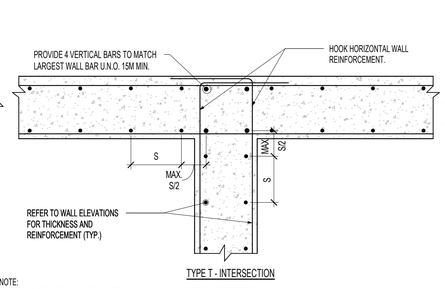
8 TYPICAL COUPLING BEAM DETAIL PLAN DETAIL



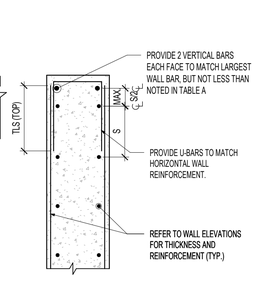
13 TYPICAL SHEAR WALL DOWELS AT FOUNDATION



TYPE C - CORNER



TYPE T - INTERSECTION

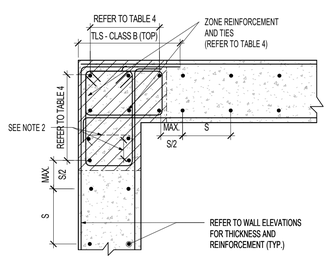


TYPE E - END

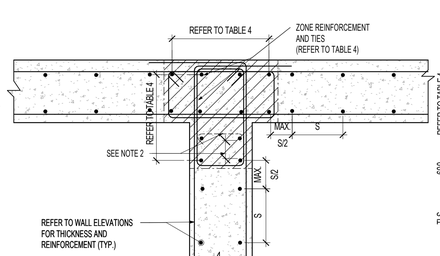
NOTE:
S - SPACING OF VERTICAL DISTRIBUTED REINFORCEMENT. SEE WALL ELEVATIONS.

1. REFER TO TABLE 2 TO DETERMINE IF TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE REQUIRED. SEE DETAIL 7 WHEN TIES ARE REQUIRED

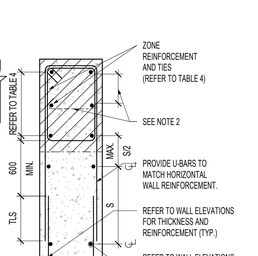
11 TYPICAL WALL DETAILS WITHOUT ZONE REINFORCEMENT



TYPE C - CORNER ZONE



TYPE T - INTERSECTION ZONE

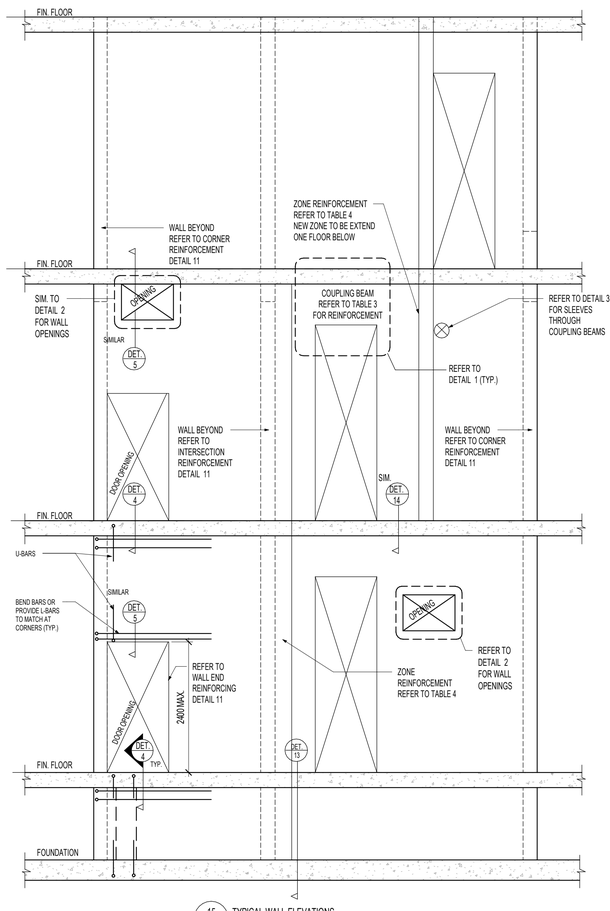


TYPE E - END ZONE

NOTE:
S - SPACING OF VERTICAL DISTRIBUTED REINFORCEMENT. SEE TABLE 1 AND WALL ELEVATIONS.

1. REFER TO TABLE 2 TO DETERMINE IF TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE REQUIRED. SEE DETAIL 7 WHEN TIES ARE REQUIRED.
2. WHEN CLEAR SPACE BETWEEN ADJACENT VERTICAL ZONE BARS IS LARGER THAN 150mm, PROVIDE TIES AT EVERY VERTICAL ZONE BAR. WHEN THE CLEAR SPACE IS ≤ 150mm, TIES MAY BE PROVIDED AT EVERY OTHER VERTICAL ZONE BAR.

12 TYPICAL WALL DETAILS WITH ZONE REINFORCEMENT



15 TYPICAL WALL ELEVATIONS

SHEAR WALL NOTES:
1. SHEAR WALL ELEVATIONS SHOULD BE READ IN CONJUNCTION WITH SCHEDULES AND TYPICAL SHEAR WALL DETAILS.
2. PROVIDE DISTRIBUTED WALL REINFORCEMENT IN ACCORDANCE WITH THE VALUES SHOWN ON THE WALL SECTIONS. IF NO DISTRIBUTED WALL REINFORCEMENT IS INDICATED, PROVIDE NOMINAL WALL REINFORCEMENT (NWR) AS PER TABLE 1.

TABLE 1: NOMINAL SHEAR WALL REINFORCEMENT (NWR)

WALL THICKNESS (mm)	NOMINAL WALL REINFORCEMENT	
	HORIZONTAL	VERTICAL
200 (8")	10@300 HEF	15@300 VEF
300 (12")	15@300 HEF	15@300 VEF

TABLE A: MINIMUM TRIMMING REBAR AROUND SHEAR WALL OPENING

WALL THICKNESS (mm)	TRIMMING BARS - OPENINGS
150	2-15
200-300	2-15EF
350-450	2-20EF
500-600	2-25EF

7. WALL REINFORCEMENT IS VERTICAL AND HORIZONTAL EACH FACE (H&V/EF) UNLESS NOTED OTHERWISE.
8. PROVIDE TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT IF THE BAR SIZE IS LARGER THAN 20M OR IF BAR SPACING IS LESS THAN THAT OUTLINED IN TABLE 2. REFER TO DETAIL 7 FOR ADDITIONAL INFORMATION.
9. UNLESS OTHERWISE SHOWN PROVIDE DOWELS FROM SHEAR WALL, CAPS, OR FOOTINGS INTO SHEAR WALLS TO MATCH VERTICALS IN FIRST LIFT OF WALLS. SEE DETAIL 13.
10. UNLESS NOTED OTHERWISE AT TOPS OF ALL SHEAR WALLS PROVIDE 15 @ 400 DOWELS FROM WALL TO SLAB. WHERE WALL IS CONTINUOUS ABOVE SLAB SEE DETAIL 14.
11. PROVIDE TLS CLASS B (BOTTOM) FOR ALL VERTICAL BARS (REFER TO DETAIL C02d (fy = 400MPa) OR C03B (fy = 500MPa) FOR LENGTHS)
12. PROVIDE TLS CLASS B (TOP) FOR ALL HORIZONTAL BARS (REFER TO DETAIL C02d (fy = 400MPa) OR C03B (fy = 500MPa) FOR LENGTHS).
13. MINIMUM DOWEL LENGTH SHALL BE 2xTLS (BOTTOM).
14. PLACE HORIZONTAL REINFORCING ON OUTSIDE FACE OF WALL UNLESS NOTED OTHERWISE.
15. FOR WALLS THAT ARE UNBRACED FOR TWO STORIES OR MORE PROVIDE EITHER CONTINUOUS VERTICAL REINFORCEMENT FOR THE ENTIRE UNSUPPORTED HEIGHT OR USE MECHANICAL COUPLER AT THE LOCATION OF THE INTERMEDIATE SPLICE. PROVIDE TENSION LAP SPLICE (TOP) FOR ALL HORIZONTAL WALL REINFORCEMENT. IF BARS OF DIFFERENT DIAMETER ARE SPLICED, USE THE SPLICE LENGTH OF THE LARGER BAR.
16. UNLESS NOTED OTHERWISE, REFER TO THE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR EXACT DIMENSIONS AND LOCATIONS OF WALL OPENINGS. THE CONTRACTOR SHALL PROVIDE, FOR THE ENGINEERS REVIEW, SLEEVING DRAWINGS SHOWING THE PROPOSED LOCATION AND INVERT (DIMENSIONED FROM THE SLAB DATUMS AND GRIDS) FOR ALL SLEEVES 75mm DIAMETER AND LARGER. NO OPENINGS OTHER THAN THOSE WHICH ARE INDICATED ON PLAN OR ELEVATION SHALL BE MADE WITHOUT THE APPROVAL OF THE ENGINEER.
17. WHERE MASONRY VENEER FACES A WALL, PROVIDE STANDARD DOVETAIL ANCHOR SLOTS, REFER TO TYPICAL DETAILS.
18. REFER TO TYPICAL DETAIL C01 FOR CLEAR CONCRETE COVER.

TABLE 2: TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT

WALL THICKNESS (mm)	TIE SPACING FOR DISTRIBUTED VERTICAL REINFORCEMENT fc ≤ 50MPa									
	10M		15M		20M		25M	30M	35M	
	VERTICAL BAR SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BAR SPACING (mm)	TIE VERTICAL SPACING (mm)	VERTICAL BAR SPACING (mm)	TIE VERTICAL SPACING (mm)	TIE VERTICAL SPACING (mm)	TIE VERTICAL SPACING (mm)	TIE VERTICAL SPACING (mm)	
200	< 200	160	< 400	200	< 600	200	-	-	-	
250	< 160	160	< 320	240	< 480	250	250	-	-	
300	< 140	160	< 270	240	< 400	300	300	300	-	
350	< 120	160	< 230	240	< 350	320	350	350	350	
400	< 100	160	< 200	240	< 300	320	400	400	400	
450	-	-	< 180	240	< 270	320	400	450	450	
500	-	-	< 160	240	< 240	320	400	480	480	
600	-	-	< 140	240	< 200	320	400	480	480	

NOTES:
1. TIES FOR DISTRIBUTED VERTICAL REINFORCEMENT ARE 10M.
2. THIS TABLE IS BASED ON fc ≤ 50MPa. FOR Fc > 50MPa REDUCE TIE VERTICAL SPACING IN TABLE BY MULTIPLYING BY 0.75.
3. DISTRIBUTED VERTICAL REINFORCEMENT WITH BAR SPACING LESS THAN THAT INDICATED FOR 10M, 15M AND 20M BARS SHALL BE TIED WITH MINIMUM TIE VERTICAL SPACING AS INDICATED.
4. DISTRIBUTED VERTICAL REINFORCEMENT WITH BAR SIZE LARGER THAN 20M SHALL BE TIED AT MINIMUM TIE VERTICAL SPACING INDICATED.
5. SEE ALSO DETAIL 7.

APPROVAL STAMP

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
2	ISSUED FOR TENDER	DEC/01/23
4	ISSUED FOR CONSTRUCTION	SEPT/09/09

PROJECT:
CITY OF VAUGHAN
FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

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PROFESSIONAL SEAL
LICENSED PROFESSIONAL ENGINEER
24-09-09
M.R. MARTTILA
100164027
PROVINCE OF ONTARIO

DWG TITLE
SHEAR WALL NOTES AND DETAILS

ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

DATE: SEPT. 2024
SCALE: 1 : 1
DRAWN BY: ___
CHECKED BY: MM
DWG STATUS: IFC
PROJECT No.: 20210932
DRAWING No.: S2-01
REVISION: 4

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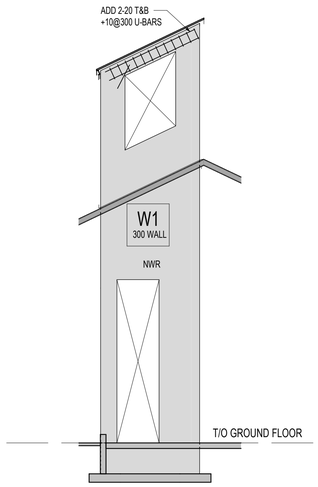

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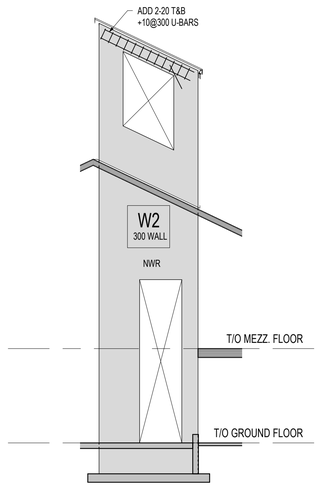

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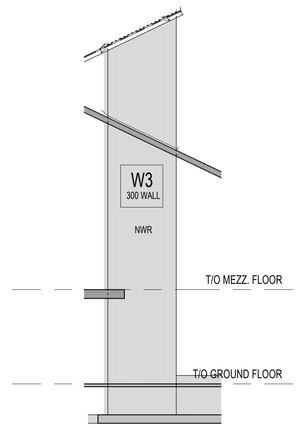

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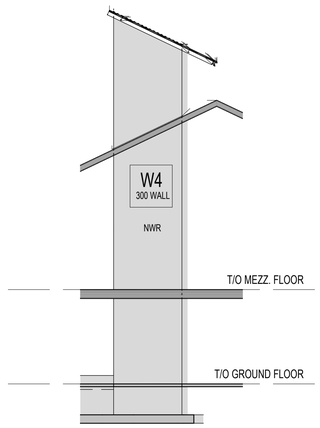

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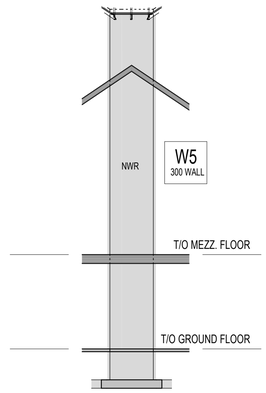

W5 WALL ELEVATION
S2-02 1 : 100

APPROVAL STAMP

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1	ISSUED FOR PERMIT	SEPT/18/23
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DWG TITLE
CONCRETE WALL ELEVATIONS

ORIENTATION

DATE SEPT. 2024

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1 : 100	—	MM

DWG STATUS : IFC

PROJECT No. 20210932

DRAWING No. **S2-02** REVISION 4

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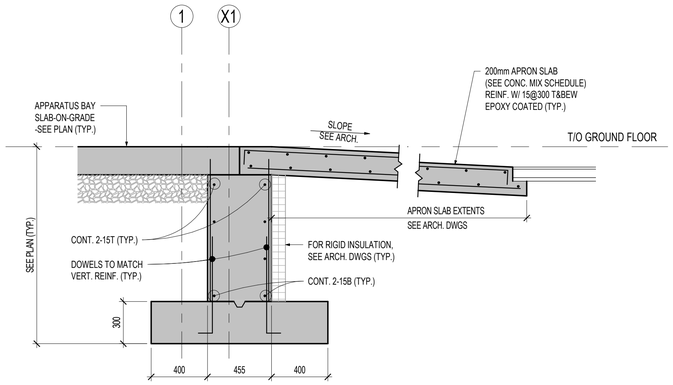

01 SECTION
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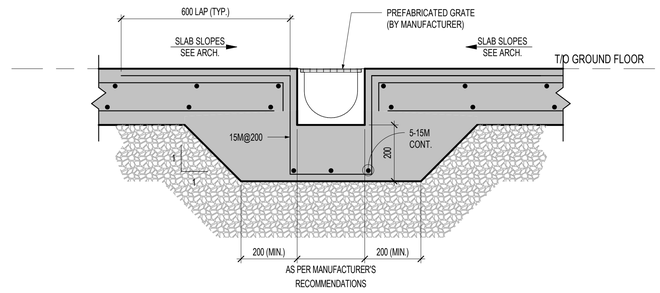
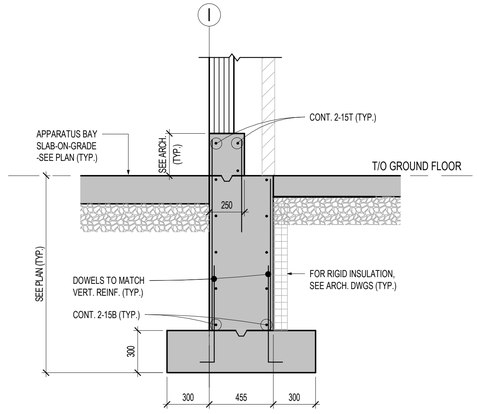


TYPICAL APPARATUS BAY TRENCH DETAIL

02 SECTION
S2-03 1 : 10



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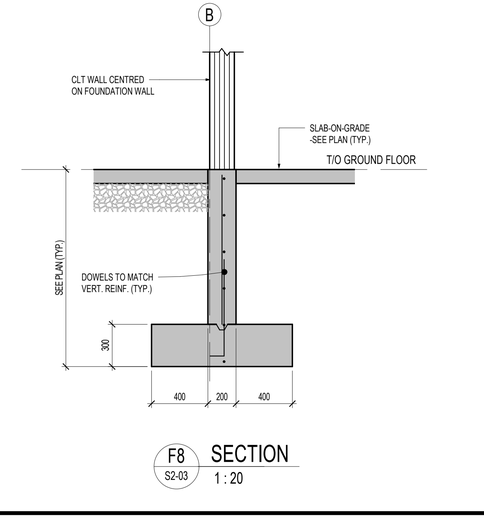

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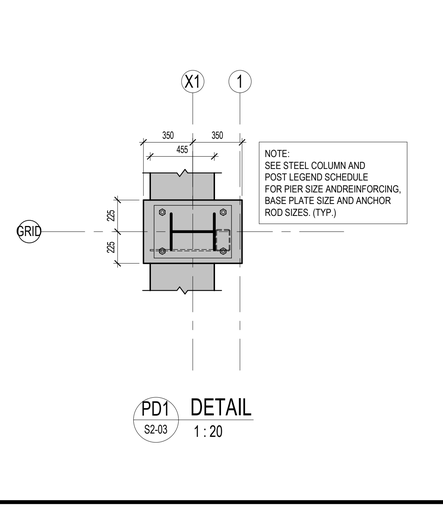
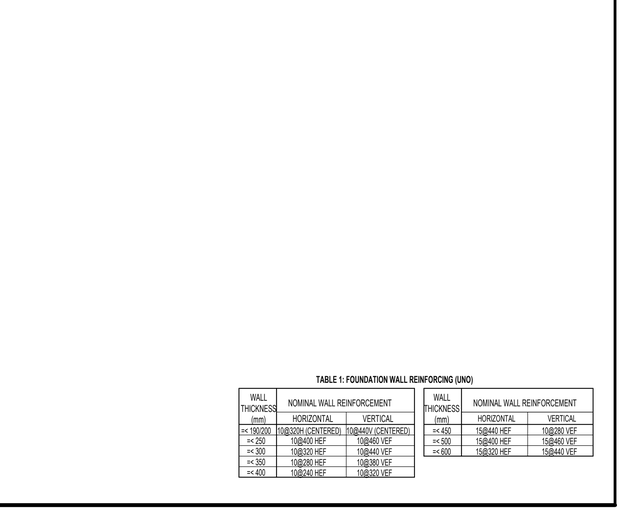


05 SECTION
S2-03 1 : 20

AT DOOR OPENINGS

06 SECTION
S2-03 1 : 20



07 SECTION
S2-03 1 : 20

F8 SECTION
S2-03 1 : 20

PD1 DETAIL
S2-03 1 : 20

TABLE 1: FOUNDATION WALL REINFORCING (UNO)

WALL THICKNESS (mm)	NOMINAL WALL REINFORCEMENT	
	HORIZONTAL	VERTICAL
=< 190/200	10@320H (CENTERED)	10@440V (CENTERED)
=< 250	10@400 HEF	10@460 VEF
=< 300	10@320 HEF	10@440 VEF
=< 350	10@280 HEF	10@380 VEF
=< 400	10@240 HEF	10@320 VEF

WALL THICKNESS (mm)	NOMINAL WALL REINFORCEMENT	
	HORIZONTAL	VERTICAL
=< 450	15@440 HEF	10@280 VEF
=< 500	15@400 HEF	15@460 VEF
=< 600	15@320 HEF	15@440 VEF

APPROVAL STAMP

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DWG TITLE
FOUNDATION
SECTIONS

ORIENTATION

DATE
SEPT. 2024

SCALE	DRAWN BY	CHECKED BY
As indicated	—	MM

DWG STATUS
IFC

PROJECT No.
20210932

DRAWING No.
S2-03

REVISION
4

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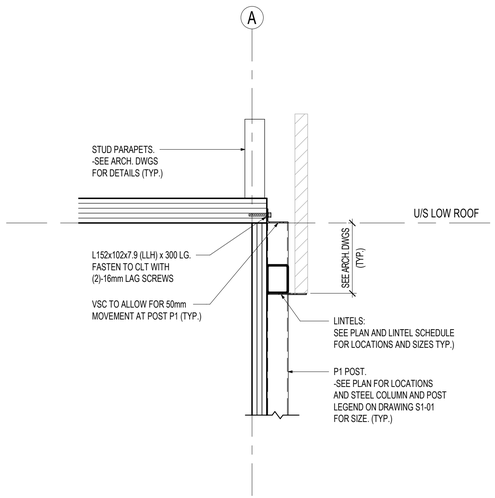

R1 SECTION
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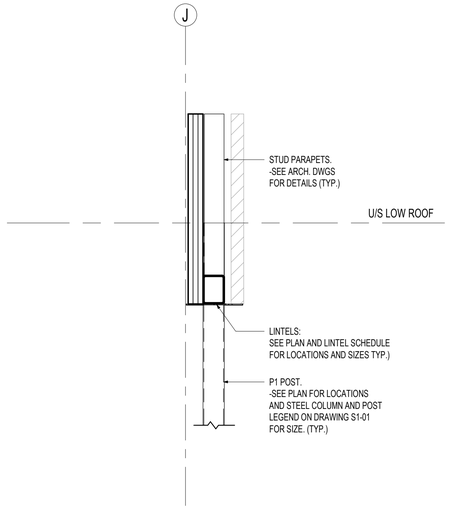

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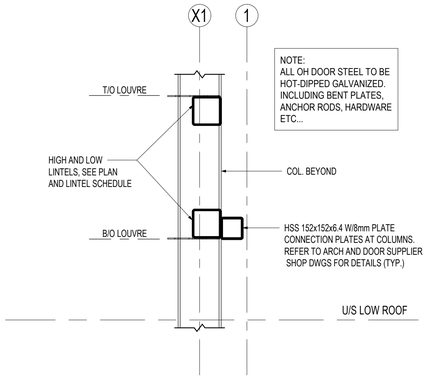

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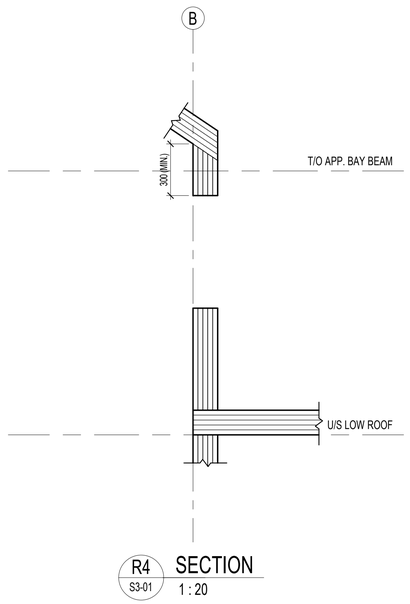

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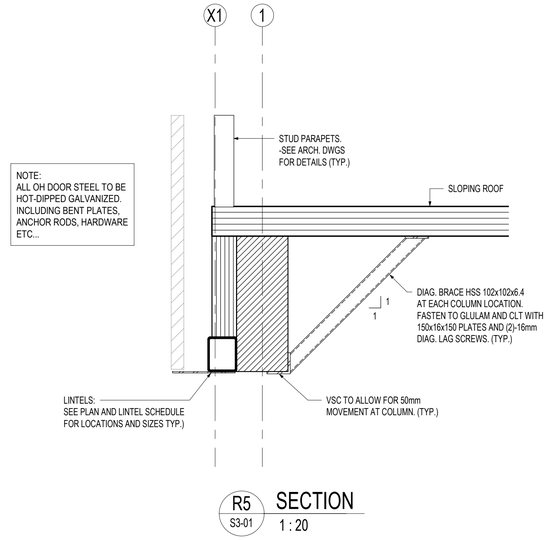

R5 SECTION
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APPROVAL STAMP

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DWG TITLE
ROOF SECTIONS

ORIENTATION

DATE SEPT. 2024
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DRAWING No. **S3-01** | REVISION 4

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STANDARD ABBREVIATIONS — A01

@ -At
ADJ -Adjustable
AIFB -Asphalt Impregnated Fibre Board
ALT -Alternate
ARCH -Architectural
A. ROD(A.R.) -Anchor Rod
ASL -Accumulated Snow Loading

B (BOT) -Bottom
BEW -Bottom Each Way
BLDG -Building
BLL -Bottom Lower Layer
BM -Beam
BML -Bottom Middle Layer
BNT -Base Nominal Thickness
B.O.F. -Bottom of Footing
BP -Baseplate
BSMT -Basement
BUL -Bottom Upper Layer

C -Standard Channel
CA -Column Above
CANT -Cantilever
C/C (o/c) -Centre to Centre
CJ -Control Joint
CL -Centreline
COL -Column
COMP -Compressible
CONC -Concrete
CONST -Construction
CONST JT (CJT) -Construction Joint
CONT (CONTIN) -Continuous
C/W -Complete With

D.FIR -Douglas Fir
DET -Detail
DIAG -Diagonal
Ø (DIA) -Diameter
DIM -Dimension
DJ -Double Joist
DL -Dead Load
DO -Ditto
DWG -Drawing
DWL -Dowel
DT -Double Tee

E-W -East-West
EA -Each
EE -Each End
EF -Each Face
ELECT -Electrical
ELEV (EL)-Elevation / Elevator
EQ -Equal
ES -Each Side
EW -Each Way
EXIST -Existing
EXP. JT. -Expansion Joint
EXT -Exterior

FDN -Foundation
FF -Far Face
FIN -Finished
FL -Floor
FMC -Full Moment Connection
FT -Foot / Feet
FTG -Footing

GA -Gauge
GALV -Galvanized
GEN -General

H (HOR) -Horizontal
HEF -Horizontal Each Face
HIF -Horizontal Inside Face
HOF -Horizontal Outside Face
HSC -Horizontally Slotted Connection
HSS -Hollow Structural Section

IF -Inside Face
INT -Interior
INV -Invert

JT -Joint

kg -Kilogram
kN.m -Kilo Newton Metres
kN/m² -Kilo Newton per Square Metre
kN/m -Kilo Newton per Metre
kPa -Kilo Pascals

L -Angle
LB. -Pounds
LG -Long
LL -Live Load / Lower Layer
LLH -Long Leg Horizontal
LLV -Long Leg Vertical
LSSJ -Long Span Steel Joists
LVL -Laminated Veneer Lumber

m -Metre
MAX -Maximum
MECH -Mechanical
MEZZ -Mezzanine
MIN -Minimum
MISC -Miscellaneous
ML -Middle Layer
MLL -Middle Lower Layer
mm -Millimetre
MOM, (M)-Moment
MPa -Mega Pascals
MUL -Middle Upper Layer

N -Newton
N-S -North-South
NF -Near Face
NIC -Not in Contract
No.(#) -Number
NTS -Not to Scale

OWSJ -Open Web Steel Joist

Pa -Pascal
PC -Precast
PL -Plate
PLF -Pounds per Lineal Foot
PREL -Preliminary
PROJ -Projection
PSF -Pounds per Square Foot
PSI -Pounds per Square Inch
PSL -Parallel Strand Lumber
PT -Pressure Treated

R -Reaction
RAD -Radius
REF -Reference
REINF -Reinforcing
REQ'D -Required
REV -Revision/Revised
Rf -Factored Vertical Reaction
R/W -Reinforced With

S -Standard Beam
SDF -Step Down Footing
SDL -Superimposed Dead Load
SECT -Section
SL -Slab
SQ -Square
SOG -Slab on Grade
S.P.F. -Spruce/Pine/Fir
SPEC -Specifications
ST -Steel
STD -Standard
STR -Straight
STRUCT -Structural

T -Top
TEMP -Temperature
Tf -Factored Tension Force
TJ -Tie Joist
TLL -Top Lower Layer
TMf -Factored Torsional Moment
TML -Top Middle Layer
TOD, T/D-Top of Deck
T.O.F. -Top of Footing
TOS, T/S-Top of Slab
TOST -Top of Steel
TSF -Tons per Square Foot
TUL -Top Upper Layer
TYP -Typical

UL -Upper Layer
U/N -Unless Noted
U.N.O. -Unless Noted Otherwise
U/S -Underside
USD -Underside of Deck

V (VERT)-Vertical
VBF -Vertically Braced Framing
VEF -Vertical Each Face
VIF -Vertical Inside Face
VOF -Vertical Outside Face
VSC -Vertically Slotted Connection

W -Wide Flange Beam
WP -Wall Plate
WWF -Welded WideFlange Beam
WWF (WWM) -Welded Wire Fabric/ Mesh

STANDARD LAP ABBREVIATIONS

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

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 RESPONSIBILTY FOR ALL SUCH MEASURES. IT SHALL ALSO BE THE RESPONSIBLITY 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.

2. SHOP DRAWINGS, PLACING DRAWINGS AND BAR LISTS

2.1. FOR ALL STRUCTURAL COMPONENTS SHOWN ON THE STRUCTURAL DRAWINGS, SUBMIT COPIES OF SHOP DRAWINGS AS DIRECTED FOR REVIEW BY THE STRUCTURAL CONSULTANT. SHOP DRAWINGS TO SHOW COMPLETE INFORMATION FOR THE FABRICATION AND ERECTION OF THE STRUCTURAL COMPONENTS.

2.2. REVIEW OF SHOP DRAWINGS BY THE STRUCTURAL CONSULTANT IS ONLY TO ASSESS THAT THE SUBMITTED SHOP DRAWINGS REFLECT THE INTENT OF THE STRUCTURAL DESIGN.

2.3. REVIEW BY THE STRUCTURAL CONSULTANT SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR SEEING THAT THE WORK IS COMPLETE, ACCURATE AND IN CONFORMITY WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.

3. INSPECTION AND TESTING

3.1. A SOILS CONSULTANT AND AN INDEPENDENT INSPECTION AND TESTING COMPANY ARE TO BE ENGAGED TO CARRY OUT THE FOLLOWING SERVICES
- 3.1.1. BEARING SOIL - REFER TO NOTES ON STRUCTURAL DRAWINGS AND ALSO TO THE SOIL REPORT.
- 3.1.2. FILL UNDER SLAB-ON-GRADE - CONFORM THAT FILL MATERIAL USED IS SATISFACTORY AND THAT THE REQUIRED DEGREE OF COMPACTION HAS BEEN ATTAINED.
- 3.1.3. CAST-IN-PLACE AND PRECAST CONCRETE - ROUTINE INSPECTION OF MATERIALS, INCLUDING SLUMP, CYLINDER AND AIR ENTRAINMENT TESTS AND REINFORCING ROD TESTS WHEN REQUIRED OR DIRECTED IN ACCORDANCE WITH CSA STANDARD A23.2.
- 3.1.4. THE PROJECT SUPERINTENDENT IS TO ADVISE THE STRUCTURAL CONSULTANT A MINIMUM OF 24 HOURS IN ADVANCE OF A CONCRETE POUR FOR A REVIEW OF PREPARATIONS.
- 3.1.5. STRUCTURAL STEEL AND OWSJ - ROUTINE SHOP AND FIELD INSPECTION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS CSA S16.
- 3.1.6. STEEL DECK - SEE STEEL DECK NOTES.
- 3.1.7. MASONRY - WHEN REQUIRED OR DIRECTED, CONCRETE BLOCKS SHALL BE TESTED IN ACCORDANCE WITH ASTM C140 BRICKS IN ACCORDANCE WITH CAN/CSA A82; AND MORTAR AND/OR GROUT IN ACCORDANCE WITH CSA A179.

3.2. ALL INSPECTION AND TESTING SERVICES ARE TO BE PERFORMED BY COMPANIES CERTIFIED BY THE CANADIAN STANDARDS ASSOCIATION AND FOR WELDING, INSPECTORS ARE TO BE CERTIFIED BY THE CANADIAN WELDING BUREAU.

4. FOUNDATIONS

4.1. REFER TO NOTES UNDER FOUNDATION PLANS. ALL EXTERIOR FOOTINGS OR OTHER FOOTINGS EXPOSED TO FREEZING IN THE FINISHED BUILDING SHALL BE FOUNDED AT A MINIMUM OF 1200mm (4'-0") BELOW FINISHED GRADE, UNLESS OTHERWISE NOTED. FOOTINGS EXPOSED TO FROST ACTION DURING CONSTRUCTION SHALL BE PROTECTED BY A MINIMUM OF 1200mm (4'-0") OF EARTH OR ITS EQUIVALENT SUFFICIENT TO PREVENT FREEZING.

4.2. THE LINE OF SLOPE BETWEEN ADJACENT EXCAVATIONS FOR FOOTINGS OR ALONG STEPPED FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10, MAXIMUM STEP APPROX. 600mm (2'-0").

4.3. PIER DEPTHS AND FOOTING ELEVATIONS SHOWN ON THE STRUCTURAL DRAWINGS ARE BASED UPON INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THE STRUCTURAL DRAWINGS.

4.4. IF ACTUAL JOB SITE OR SOIL CONDITIONS VARY FROM THOSE ASSUMED, THEN WRITTEN DIRECTIONS MUST BE OBTAINED FROM THE STRUCTURAL CONSULTANT BEFORE PROCEEDING WITH THE WORK.

4.5. KEEP EXCAVATIONS CONTINUOUSLY DRY BEFORE CONCRETE IS PLACED. IF THE SOIL IS SOFTENED BY WATER, THE EXCAVATION SHALL BE EXTENDED BELOW THE SOFTENED MATERIAL AND THE BOTTOM OF THE FOOTINGS LOWERED TO SUIT.

5. BACKFILLING AND COMPACTION

5.1. SLABS-ON-GRADE AND ALL STRUCTURAL ELEMENTS FRAMING INTO WALLS WHICH RETAIN EARTH MUST BE IN PLACE BEFORE BACKFILLING.

5.2. AT FOUNDATION WALLS WITH GRADE BOTH SIDES, UNLESS ADEQUATELY SHORED, BACKFILL AND COMPACT EACH SIDE OF WALL SIMULTANEOUSLY.

5.3. UNDER SLAB-ON-GRADE, REMOVE SOFT SPOTS, ORGANIC AND FOREIGN MATTER IN THE SUB-GRADE. (WHERE SUB-GRADE CONSISTS OF COMPACTED FILL, REFER TO SPECIFIC NOTES ON THE DRAWINGS).

5.4. BACKFILL UNDER SLAB-ON-GRADE, IN FOOTING EXCAVATIONS AND IN TRENCHES ONLY WITH APPROVED MATERIAL. UNLESS SPECIFICALLY NOTED OTHERWISE, BACKFILLING SHALL BE CARRIED OUT IN MAXIMUM OF 200mm (8")THICK LIFTS OF LOOSE FILL EACH COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR MAXIMUM DRY DENSITY.

5.5. UNLESS OTHERWISE NOTED IN GEOTECHNICAL REPORT, PROVIDE IMMEDIATELY UNDER SLABS-ON-GRADE A MINIMUM OF 200mm (8") OF COMPACTED (MTC) GRANULAR 'B' MATERIAL. COMPACTION TO ACHIEVE A MINIMUM OF 98% STANDARD PROCTOR MAXIMUM DRY DENSITY.

CAST-IN-PLACE CONCRETE NOTES — A03.1

1. GENERAL

1.1. PROVIDE ALL LABOUR, MATERIALS, TOOLS AND EQUIPMENT REQUIRED TO CARRY OUT THE WORK.

1.2. REFER ALSO TO GENERAL NOTES, NOTES UNDER PLANS AND SCHEDULES, TYPICAL DETAILS AND SPECIFICATION.

2. PRODUCTS

2.1. PORTLAND CEMENT, WATER AND AGGREGATES SHALL CONFORM TO CSA STANDARD A23.1.

2.2. PROVIDE AN APPROVED WATER REDUCING ADDITIVE IN ALL CONCRETE. PROVIDE AN APPROVED AIR ENTRAINING ADDITIVE IN ALL CONCRETE WHICH WILL BE EXPOSED TO A FREEZE/THAW CYCLE AND/OR THE ACTION OF DE-ICING SALT. ADMIXTURES SHALL CONFORM TO CSA STANDARD A23.1.

2.3. FORMWORK SHALL CONFORM TO CSA STANDARD A23.1 AND CSA STANDARD S269.1 AND FALSEWORK SHALL CONFORM TO CSA S269.1.

2.4. IF SO INSTRUCTED, THE DESIGNS FOR THE FORMWORK SHALL BE SUBMITTED FOR REVIEW BEFORE CONSTRUCTION. FORMWORK DRAWINGS AND DESIGN SHALL BEAR THE STAMP OF A LICENSED PROFESSIONAL ENGINEER.

2.5. PROVIDE SLAB AND BEAM FORMS WITH AN UPWARD CAMBER AS INDICATED ON PLANS THUS (mm). WHERE CAMBERS ARE NOT NOTED ON PLANS, CAMBER SLABS AND BEAMS FOR SPAN/500 AT INTERIOR BAYS, AND CANTILEVER LENGTH/250 AT CANTILEVER. CAMBER BOTH THE UNDERSIDE AND TOP OF CONCRETE IN A PARABOLIC PROFILE, WHILE MAINTAINING THE INDICATED STRUCTURAL THICKNESS OF MEMBERS.

2.6. PROVIDE STANDARD ADJUSTABLE MASONRY ANCHOR SLOTS FOR ALL MASONRY FACING OR ABUTTING CONCRETE FACES.

2.7. PROVIDE AND/OR INSTALL STANDARD ADJUSTABLE INSERTS AND ALL OTHER CAST-IN INSERTS AS REQUIRED BY THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATION.

2.8. REINFORCING STEEL UNLESS SPECIFICALLY NOTED, SHALL BE DEFORMED BARS CONFORMING TO CAN/CSA -G30.18-M GRADE 400 (58000 PSI).

2.9. WELDED WIRE FABRIC TO BE SUPPLIED IN FLAT SHEETS ONLY, UNLESS APPROVED OTHERWISE.

2.10. REINFORCING SHALL BE DETAILED, BENT, PLACED AND SUPPORTED TO CONFORM TO ACI DETAILING MANUAL AND THE MANUAL OF STANDARD PRACTICE PUBLISHED BY THE REINFORCING STEEL INSTITUTE OF CANADA.

2.11. DRY-PACK GROUT TO BE 1 PART PORTLAND CEMENT TO 1 1/2 PARTS SAND TO 2 PARTS OF 8 mm PEA GRAVEL WITH ONLY SUFFICIENT WATER TO DAMPEN MIXTURE. COMPRESSIVE STRENGTH 50MPa AT 28 DAYS.

2.12. NON-SHRINK GROUT TO BE AN APPROVED PRE-MIXED PROPRIETARY PRODUCT.

2.13. PROVIDE APPROVED EXTRUDED PVC WATERSTOPS OF SIZE AND STYLE INDICATED, WITH PRE-WELDED CORNERS AND INTERSECTIONS. SEE ALSO TYPICAL DETAILS.

2.14. CURING AND SEALING COMPOUNDS WHERE APPROVED FOR USE TO CONFORM TO ASTM STANDARD C309. GENERALLY ALL CONCRETE SURFACES ARE TO BE SEALED UNLESS NOTED OTHERWISE. COMPOUNDS ARE TO BE COMPATIBLE WITH APPLIED FINISHES.

2.15. SHEAR REINFORCEMENT AT SLAB CONNECTION AS SHOWN ON DRAWINGS AND DETAILS, SHALL BE STUDRAILS® AS MANUFACTURED BY DECON®. THE COMPLETE AND FINISHED STUDRAILI® SHALL BE ICC ES EVALUATED AND WELDING SHALL TAKE PLACE IN A ICC ES APPROVED AND AUDITED FACILITY. STUDRAILS® SHALL CONFORM TO THE LATEST UPDATE OF ASTM A1044.

3. EXECUTION

3.1. MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE @ 28 DAYS SHALL BE AS NOTED ON THE DRAWINGS (20MPa MINIMUM).

3.2. SLUMP AT THE POINT OF DISCHARGE SHALL BE CONSISTENT AT 80 mm ±30mm (3" ±1 1/8") UNLESS NOTED OTHERWISE. GREATER SLUMPS ARE NOT ACCEPTABLE.

3.3. CONCRETE MIXING, TRANSPORTATION, HANDLING AND PLACING SHALL CONFORM TO CSA STANDARD A23.1.

3.4. CONSTRUCTION JOINTS FOR WALLS ARE BASED UPON VERTICAL JOINTS AT A MAXIMUM SPACING OF 10000mm (30'-0") .UNLESS CONTROL JOINTS ARE PROVIDED AS PER DETAIL CFW02. TOTAL LENGTH OF POUR TO BE DISCUSSED WITH ENGINEER PRIOR TO PROCEEDING.

3.5. CONSTRUCTION JOINTS FOR WALLS, SLABS, AND BEAMS NOT SHOWN ON THE DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT BEFORE CONSTRUCTION. GENERALLY JOINTS IN SLABS SHALL BE AT RIGHT ANGLES TO THE SPANS, AT MID-SPAN IF POSSIBLE AND CLEAR OF SUPPORTS AND POINT LOADS.

3.6. INSERTS, FRAME-OUTS, SLEEVES, BRACKETS, CONDUITS AND FASTENING DEVICES, SHALL BE INSTALLED AS REQUIRED BY THE DRAWINGS AND SPECIFICATIONS IN A MANNER THAT SHALL NOT IMPAIR THE STRUCTURAL STRENGTH OF THE SYSTEM, BE SO INSTALLED THAT THEY SHALL NOT REQUIRE THE CUTTING, BENDING, OR DISPLACEMENT OF THE REINFORCING OTHER THAN AS SHOWN ON THE TYPICAL DETAILS.

3.7. ELECTRICAL CONDUIT SHALL NOT PASS THROUGH A COLUMN, SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN 1/3 SLAB THICKNESS OR WALL OR BEAM IN WHICH IT IS EMBEDDED, SHALL NOT BE SPACED CLOSER THAN 3 DIAMETERS ON CENTRE UNLESS APPROVED AND HAVE A MINIMUM CONCRETE COVER OF 25 mm (1") AND UNLESS SPECIFICALLY PERMITTED OTHERWISE, SHALL NOT RUN HORIZONTALLY IN A CONCRETE WALL.

3.8. OPENINGS AND DRIVEN FASTENERS REQUIRED IN THE CONCRETE AFTER THE CONCRETE IS PLACED SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT BEFORE PROCEEDING.

3.9. FINISHING, REFER TO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIRED FINISH TO EXPOSED CONCRETE. ALL HONEYCOMBING SHALL BE CUT OUT AND FILLED. FLOOR FINISHES SHALL BE AS REQUIRED BY THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS AND SHALL CONFORM TO CSA STANDARD A23.1.

3.10. TOLERANCES FOR PLACING STRUCTURAL CONCRETE, REINFORCING STEEL, CAST-IN HARDWARE AND FOR FLOOR AND ROOF FINISHES SHALL BE AS SPECIFIED IN CSA STANDARD A23.1.

3.11. MINIMUM REINFORCING FOR ANY CONCRETE WALL TO BE AS SHOWN ON TYPICAL DETAIL FOR CONCRETE WALLS.

3.12. MINIMUM REINFORCING FOR ANY SUSPENDED SLAB SHALL BE TEMPERATURE BARS BOTTOM EACH WAY PLUS 10M @ 400 (16") DOWELS 600x600 (2'-0" x 2'-0") TOP AROUND PERIMETER. REFER TO TYPICAL DETAIL OF ONE WAY SLABS.

3.13. PERFORM SURVEYS OF SLABS AS INDICATED IN SPECIFICATIONS.

CAST-IN-PLACE CONCRETE NOTES — A03.2

3.14. GENERAL REQUIREMENTS FOR CUTTING AND DRILLING INTO CONCRETE
- (A) DO NOT DRILL INTO, CORE THROUGH, SAW-CUT OR CHIP THE CONCRETE STRUCTURE WITHOUT WRITTEN AUTHORIZATION BY THE STRUCTURAL CONSULTANT.
- (B) UNLESS NOTED OTHERWISE, PRIOR TO CUTTING, CORING OR DRILLING INTO THE CONCRETE STRUCTURE, LOCATE EXISTING CONCRETE REINFORCEMENT AND EMBEDDED SERVICES AT THAT LOCATION USING SUITABLE SCANNING DEVICE (I.E. X-RAYS, GROUND PENETRATION RADAR (GPR), LOCAL CHIPPING OF SLAB - ONLY WHERE APPROVED BY THE STRUCTURAL CONSULTANT, ETC), AS AUTHORIZED BY PROPERTY MANAGER IF APPLICABLE
- (C) GPR SCANNING MUST BE DONE BY TRAINED TECHNICIANS WITH AT LEAST 5 YEARS OF EXPERIENCE AS SUCH.
- (D) GPR SCANNING DEVICES MUST BE CAPABLE OF ACCURATELY LOCATING REBAR IN A CONCRETE SLAB TO A MINIMUM DEPTH OF 300 mm, THIN A HORIZONTAL TOLERANCE OF +- 25 mm AND A VERTICAL (DEPTH) TOLERANCE OF THE LARGER OF +-25 mm OR +- 15% OF THE REBAR DEPTH.
- (E) AFTER ALL THE EXISTING REINFORCEMENT AND SERVICES HAVE BEEN LOCATED, NOTIFY THE STRUCTURAL CONSULTANT, WHO WILL REVIEW AND APPROVE THE PROPOSED LOCATION OF OPENINGS, CORES OR DRILLED HOLES. MAKE ANY NECESSARY ADJUSTMENTS TO THE HOLE LOCATIONS AS DIRECTED BY THE STRUCTURAL CONSULTANT.
- (F) THE REVIEW BY THE STRUCTURAL CONSULTANT IS LIMITED ONLY TO THE LOCATION OF THE PROPOSED CORES OR DRILLED HOLES THROUGH THE EXISTING STRUCTURE AND IT IS BASED ON THE ASSUMPTION THAT THE X-RAY OR SCAN RESULTS LOCATING SLAB REINFORCEMENT AND EMBEDDED SERVICES ARE COMPLETE AND ACCURATE. STEPHENSON ENGINEERING LTD. TAKES NO RESPONSIBILITY FOR THE ACCURACY OF THE X-RAY OR SCAN RESULTS.
- (G) CORE DRILL NEW HOLES FOR PIPES TO A DIAMETER NOT LARGER THAN THE OUTSIDE PIPE DIAMETER PLUS 25MM. DO NOT CUT EXISTING REINFORCEMENT OR SERVICES WITHOUT PRIOR APPROVAL OF THE CONSULTANT.
- (H) WHERE RECTANGULAR OPENINGS ARE TO BE CUT, PRE-DRILL THE CORNERS USING A 100 MM DIAMETER CORE DRILL OR DRILL A SERIES OF HOLES TO PREVENT OVER CUTTING OF THE CORNERS.

4. QUALITY CONTROL

4.1 FOR INSPECTION AND TESTING, SEE GENERAL NOTES AND/OR SPECIFICATION.

STRUCTURAL STEEL NOTES — A04A

1. GENERAL

1.1. STRUCTURAL STEEL DESIGN DETAILS AND CONNECTIONS SHALL CONFORM TO CSA STANDARD S16 AND SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER EXPERIENCED IN THIS TYPE OF WORK.

1.2. REFER ALSO TO GENERAL NOTES, NOTES UNDER PLANS AND TO THE SPECIFICATION.

1.3. WELDING SHALL CONFORM TO CSA STANDARD W59 AND BE PERFORMED BY A FABRICATOR CERTIFIED TO CSA W47.1.

1.4. BEAM CONNECTIONS SHALL BE DESIGNED FOR A MINIMUM OF FACTORED VERTICAL SHEAR FORCE OF 50% OF THE BEAM SHEAR CAPACITY. UNLESS OTHERWISE NOTED, AND IN NO CASE BE LESS THAN THE LOADS SHOWN ON OR IMPLIED BY THE DRAWINGS. WHERE BOLTED CONNECTIONS ARE UTILIZED, A MINIMUM OF TWO BOLTS PER CONNECTION SHALL BE USED.

1.5 MEMBER CONNECTIONS SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER FOR FORCES AND MOMENTS INDICATED. SHOP DRAWINGS [AND CALCULATIONS] BEARING THE STAMP AND SIGNATURE OF THE REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION AND ERECTION.

2. PRODUCTS

2.1. STRUCTURAL STEEL SECTIONS SHALL CONFORM TO CSA-G40.20/G40.21
- 2.1.1. S SHAPES, PLATES AND RODS: - GRADE 300 W
- 2.1.2. HSS SECTIONS: - GRADE 350W (CLASS C U/N)
- 2.1.3. WWF SHAPES, WT SHAPES AND W SHAPES, CHANNELS, ANGLES,: - GRADE 350W

2.2. BOLTS FOR CONNECTIONS TO CONFORM TO ASTM F3125/3125M, GRADE A325, UNLESS NOTED.

2.3. ANCHOR RODS FOR BASE PLATES, BEARING PLATES AND WELD PLATES TO CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED.

2.4. NUTS AND WASHERS TO CONFORM TO ASTM A563 AND ASTM F436.

2.5. SHEAR STUDS WHERE REQUIRED TO CONFORM TO ASTM A108, WELDING TO CONFORM TO CSA W59.

2.6. WELDING MATERIALS TO CONFORM TO CSA W48.

2.7. SURFACE PREPARATION AND PRIMER PAINT FOR STRUCTURAL STEEL MEMBERS INSIDE VAPOUR BARRIER TO CONFORM TO CISC/CPMA 1.73a OR CISC/CPMA 2.75 (IF EXPOSED TO VIEW), UNLESS NOTED ON DRAWINGS OR SPECIFICATIONS.

2.8. HOT DIP GALVANIZING WITH A MINIMUM ZINC COATING OF 600g/sq.m UNLESS OTHERWISE SPECIFIED.

3. EXECUTION

3.1. FABRICATION, HANDLING AND ERECTION TO CONFORM TO CAN/ CSA - S16.

3.2. PROVIDE A MINIMUM OF 2-12 mm (1/2") DIAMETER BY 250 (10") LONG WALL ANCHORS FOR ALL BEAM AND JOIST WALL PLATES ON MASONRY, OR AN APPROVED EQUAL, UNLESS OTHERWISE NOTED. BEAMS AND JOIST SHOES TO BE WELDED TO BEARING PLATES.

3.3. PROVIDE ADJUSTABLE ANCHORS TO ALL STEEL TO BE BUILT INTO, ABUTTED BY, OR FACED WITH MASONRY (REFER ALSO TO TYPICAL DETAILS IF SHOWN). SPACING OF ANCHORS TO BE:
FOR VERTICAL SPACING .... 600 (24") MAX. CENTRES.
FOR HORIZONTAL SPACING .... 10 TIMES WALL THICKNESS* (MAX. 2000 (6'-8") CENTRES)
(* NOTE, USE BACK-UP WYTHE THICKNESS ONLY, FOR CAVITY WALLS.)

3.4. WHERE STEEL PROVIDES LATERAL BRACING ONLY TO MASONRY (I.E. DOES NOT SUPPORT MASONRY) ANCHORS SHALL PERMIT DIFFERENTIAL VERTICAL MOVEMENT BETWEEN STRUCTURAL MEMBERS AND MASONRY.

3.5. PROVIDE L76X76X6.4(MIN) ANGLE SEATS FOR ALL STEEL DECK AT LOCATIONS WHERE THE CONNECTION TO SUPPORTING FRAMING IS INTERRUPTED. (EG. AT COLUMNS)

3.6. CLEAN, PREPARE SURFACES AND SHOP PRIME STRUCTURAL STEEL WITH ONE COAT OF SPECIFIED PRIMER PAINT IN ACCORDANCE WITH CAN/CSA - S16, EXCEPT WHERE MEMBERS ARE TO BE ENCASED IN CONCRETE, OR TO RECEIVE SPRAY APPLIED FIRE PROOFING. FIELD " TOUCH-UP" BOLTS, WELDS, BURNED OR SCRAPED SURFACES AFTER ERECTION.

3.7. PROVIDE ALL NECESSARY TEMPORARY BRACING TO KEEP STRUCTURE SAFE AND PLUMB. BRACING SHOWN ON STRUCTURAL DRAWINGS IS PERMANENT FOR FINISHED BUILDING ONLY.

3.8. CO-ORDINATE WITH MECHANICAL AND ELECTRICAL CONSULTANTS AND SUB-TRADES WHOSE WORK MAY AFFECT DETAILING, FABRICATION AND ERECTION OF THE STEEL STRUCTURE.

3.9. TOLERANCES:
VARIATION FROM PLUMB AND LEVEL EXTERIOR COLUMNS, COLUMNS AT ELEVATOR SHAFTS, AND SPANDREL BEAMS INCLUDING ANGLES ....1:1000 MAX. 25 mm (1/8" IN 10'-0" MAX. 1")
OTHER PIECES ....1:500 (1/4" IN 10'-0")

3.10. NO HOLES OTHER THAN THOSE SHOWN ON REVIEWED SHOP DRAWINGS SHALL BE MADE IN ANY STEEL MEMBER WITHOUT WRITTEN PERMISSION OF THE STRUCTURAL CONSULTANT.

4. QUALITY CONTROL

4.1. AN INDEPENDENT INSPECTION AND TESTING COMPANY IS TO INSPECT STRUCTURAL STEEL AND STEEL DECK IN THE SHOP AND IN THE FIELD FOR WELDING, CONNECTIONS, BOLT TORQUES, AND GENERAL CONFORMANCE WITH THE STRUCTURAL DRAWINGS AND SPECIFICATIONS.

4.2 SEE SPECIFICATIONS FOR ADDITIONAL INSPECTION AND TESTING REQUIREMENTS.

WOOD FRAMING NOTES — A08

1. GENERAL

1.1. THE FOLLOWING NOTES INDICATE ONLY THE MINIMUM REQUIREMENTS APPLICABLE TO STRUCTURAL WOOD CONSTRUCTION. SEE ALSO ARCHITECTURAL DRAWINGS AND THE SPECIFICATION (IF APPLICABLE) FOR REQUIREMENTS FOR NON-STRUCTURAL WOOD FRAMING.

1.2. WOOD CONSTRUCTION SHALL CONFORM TO CSA-086 & AND TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE.

1.3. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS OF AIR SPACES, INSULATION, ROOFING, FLOOR AND WALL FINISHES.

1.4. DUE TO THE CUSTOMIZED DETAILING AND ENGINEERING CHARACTERISTICS OF THE FRAMING ASSEMBLY, MICROLAM **LVL**, PARALLAM **PSL** AND WOOD **I** JOISTS BY TRUSS JOIST MacMILLAN HAVE BEEN USED AS A BASE AND ARE SHOWN ON THE DRAWINGS. ALTERNATIVE PRODUCTS MAY BE PROPOSED WHEN ACCOMPANIED BY PERTINENT DESIGN CRITERIA AND NO ALTERNATIVE MAY IMPEDE THE BASE BUILDING STRUCTURE. ACCEPTANCE OF ALTERNATIVE PRODUCT SHALL ONLY BE IN WRITING ISSUED SOLELY BY THE ARCHITECT.

2. MATERIALS

2.1. LUMBER:- UNLESS OTHERWISE NOTED TO BE SPRUCE-PINE-FIR (SPF) SPECIES, GRADE NO. 2, CONFORMING TO CSA-0141 WITH A MAXIMUM MOISTURE CONTENT OF 19% AT THE TIME OF INSTALLATION. LUMBER SHALL BEAR THE GRADING STAMP OF AN AGENCY APPROVED BY THE CANADIAN LUMBER STANDARDS ADMINISTRATION BOARD.

2.2. COMPLY WITH THE REQUIREMENTS OF ONTARIO BUILDING CODE FOR:-
SUB-FLOORING IN ARTICLE 9.23.14
ROOF SHEATHING IN ARTICLE 9.23.15
*WALL SHEATHING IN ARTICLE 9.23.16
(* REFER ALSO TO NOTES & DETAILS ON DRAWINGS AND TO ALL OTHER TYPICAL NOTES.)

2.3. NAILS, SPIKES, AND STAPLES:
TO CSA STANDARD B111; GALVANIZED FOR EXTERIOR WORK, OR HIGHLY HUMID AREAS AND FOR TREATED LUMBER; PLAIN ELSEWHERE. NAILING OF FRAMING UNLESS OTHERWISE NOTED, SHALL CONFORM TO ARTICLE 9.23.3 IN THE ONTARIO BUILDING CODE.

2.4. ROUGH HARDWARE:
BOLTS, NUTS, WASHERS, LAGS, PINS, SCREWS, ALL TO BE HOT DIP GALVANIZED.

2.5. WOOD PRESERVATIVES (PRESSURE TREATED):
WHERE REQUIRED TO CONFORM TO CSA-080 SERIES

2.6. FRAMING ANCHORS:
FRAMING ANCHORS, JOIST HANGERS, BEAM HANGERS, POST CAPS, POST ANCHORS, BACK-UP CLIPS AND ANGLES, UNLESS OTHERWISE SHOWN ON THE STRUCTURAL DRAWINGS, ARE ALL TO BE AS MANUFACTURED BY AN APPROVED EQUAL, SIZED TO THE JOB AT HAND. ALL ARE TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS UTILIZING "SPECIAL" NAILS WHERE REQUIRED.

2.7. SHEATHING - PLYWOOD TO CONFORM TO CSA STANDARD 0121, OR 0151.
WAFERBOARD AND STRANDBOARD TO CONFORM TO CSA-0437 SERIES.

3. EXECUTION

3.1. STUD WALLS:
- .1 SEE LOAD BEARING WOOD STUD WALL FRAMING NOTES.
- .2 NON-LOAD BEARING STUD WALLS TO CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE.

3.2. FLOOR AND ROOF JOISTS:-
- .1 PROVIDE JOISTS OF SIZE, SPACING AND SPAN AS NOTED ON THE STRUCTURAL DRAWINGS. UNLESS OTHERWISE NOTED, JOISTS SHALL BE CONTINUOUS IN ANY 1 SPAN WITH NO SPLICE.
- .2 WHERE JOISTS FRAME INTO THE SIDE OF A STEEL BEAM, JOISTS SHALL BE SUPPORTED ON THE BOTTOM FLANGE OF THE BEAM OR ON NOT LESS THAN 38x65 (2x3) LUMBER BOLTED TO THE WEB WITH MINIMUM 6mm (1/4") DIAMETER BOLTS AT MAXIMUM 600 mm (24") CENTRES.

3.3. BRIDGING OR BLOCKING:
- .1 PROVIDE CROSS-BRIDGING OR SOLID BLOCKING OR APPROVED PROPRIETARY METAL STRAPS IN ACCORDANCE WITH THE ONTARIO BUILDING CODE.
- .2 PROVIDE CONTINUOUS WOOD STRAPPING ACROSS BOTTOM OF JOISTS AS/WHEN REQUIRED BY THE ONTARIO BUILDING CODE.
- .3 SPACING OF BRIDGING TO BE AT 2100 mm (6'-10") MAXIMUM CENTRES.

3.4. SUB-FLOORING AND ROOF SHEATHING:-
- .1 TO BE TYPE AND THICKNESSES SHOWN ON THE STRUCTURAL DRAWINGS, INSTALLED WITH END JOINTS STAGGERED.
- .2 AT EDGES OF PANELS, PROVIDE NOT LESS THAN 39mmx39mm (2"x2") BLOCKING SECURELY NAILED BETWEEN FRAMING MEMBERS, UNLESS OTHERWISE APPROVED.
- .3 FOR ROOF SHEATHING PROVIDE AT LEAST A 2 mm (1/16") GAP BETWEEN SHEETS.
- .4 EXTERIOR TYPE PLYWOOD USED AS ROOF AND/OR WALL SHEATHING SHALL BE LEGIBLY IDENTIFIED THAT THE MATERIAL IS OF EXTERIOR TYPE.
- .5 SUB-FLOORING SHALL BE GLUED AND NAILED TO ALL JOISTS. GLUE TO BE A HIGH SOLIDS, RUBBER CONTACT TYPE SUPPLIED IN CARTRIDGES. USE A CONTINUOUS GLUE BEAD AND RUN A THIN BEAD INTO GROOVES JUST BEFORE INSERTING GROOVES OF T & G PLYWOOD.
- .6 NAILS TO BE 44 mm (13/4") SPIRAL OR RING THREAD AT 600 mm (24") ON CENTRES MAXIMUM.
- .7 MAKE BUTT JOINTS ON SOLID MATERIAL.

WOOD FRAMING NOTES — A08

3.5. WALL SHEATHING SHALL BE INSTALLED SO THAT ALL ENDS ARE SUPPORTED WITH END JOINTS STAGGERED. A GAP OF NOT LESS THAN 2mm (1/16") SHALL BE LEFT BETWEEN SHEETS OF PLYWOOD, WAFER BOARD OR FIBRE BOARD.

3.6. NOTCHING AND DRILLING:
ONLY ALLOWED WITHIN THE LIMITATIONS SET OUT IN THE ONTARIO BUILDING CODE.

3.7. BRICK VENEER:
- .1 UNLESS OTHERWISE NOTED, BRICK VENEER IS TO BE TIED TO WOOD STUDS WITH A MIN. 0.76x22 mm (22 GAUGE x 7/8") GALVANIZED CORRUGATED STRIP TIES SPACED AT MAX. 400X600 (16"X24") CENTRES, ON EVERY STUD. STRIP TIES TO CONFORM TO CSA-A370.
- .2 IF BRICK VENEER EXCEEDS 11000mm (36'-0") HIGH, CORRUGATED STRIP TIES ARE NOT TO BE USED, OBTAIN DIRECTIONS BEFORE PROCEEDING.

4. LAMINATED VENEER LUMBER (LVL), PARALLEL STRAND LUMBER (PSL), GLUED-LAMINATED TIMBER (GLULAM)

4.1. SEE NOTE #1.4 ABOVE. ACCEPTANCE OF ALTERNATIVE PRODUCTS SHALL ONLY BE IN WRITING ISSUED SOLELY BY THE ARCHITECT.

4.2. BEAMS, LINTELS AND JOISTS SHALL BE AS SUPPLIED BY AN APPROVED MANUFACTURER.

4.3. WOOD VENEERS & ADHESIVES:
SHALL BE IN ACCORDANCE WITH APPROVED MANUFACTURER'S STANDARDS AND APPLICABLE CSA STANDARDS.

4.4. ALL MEMBERS SHALL BEAR IDENTIFICATION MARKS OF THE MANUFACTURER.

4.5. EXECUTION:
- .1 MINIMUM END BEARING SHALL BE 75mm (3") UNLESS NOTED.
- .2 FOR SINGLE SPANS LVL SHALL NOT BE SPLICED BUT SHALL BE CONTINUOUS BETWEEN SUPPORTS.
- .3 WHERE INDIVIDUAL MEMBERS ARE BUTTED TOGETHER, JOINTS SHALL OCCUR OVER SUPPORTS, EXCEPT THAT WHERE BEAMS ARE CONTINUOUS OVER MORE THAN ONE SUPPORT, JOINTS MAY BE LOCATED WITHIN 150mm (6") OF THE QUARTER POINTS OF THE CLEAR SPANS. SUCH JOINTS SHALL BE STAGGERED END FOR END.
- .4 NAILING AND/OR BOLTING:
OF MULTI-PLYS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND IN NO CASE LESS THAN 2 ROWS OF 16d (3 1/2") NAILS AT 300mm (12") CENTRES, EACH ROW.
- .5 NAILS INTO EDGES OF LVL SHALL BE SPACED AT A MINIMUM OF 75mm (3") FOR 8d (2 1/2") NAILS AND 100 (4") FOR 10d (3") NAILS.
- .6 LVL BEARING ONTO MASONRY OR CONCRETE AT OR BELOW GRADE LEVEL SHALL BE PRESSURE TREATED (PT) TO PREVENT DECAY OR PROTECTED AT THE BEARING WITH A MIN. OF 0.05 POLYETHYLENE FILM.
- .7 NOTCHING & DRILLING:
PERMITTED ONLY WITH APPROVAL AND WITHIN THE LIMITATIONS SPECI-FIED IN THE ONTARIO BUILDING CODE.

4.6. LVL SHALL BE RESTRICTED TO DRY SERVICE LOCATIONS, AND SHALL NOT BE USED DIRECTLY EXPOSED TO WEATHER OR IN HIGH HUMIDITY AREAS WHEN A MOISTURE CONTENT EXCEEDING 19% CAN RESULT.

4.7. GLULAM TIMBER PRODUCTS SHALL CONFORM TO CSA-086, CSA-0122 AND BE MANUFACTURED IN ACCORDANCE WITH CSA-0177.

4.8. CONNECTIONS TO CONFORM TO CSA-G40.20/G40.21, PRIMED OR GALVANIZED AS NOTED TO CGSB-1.40 OR CSA-G164. WELDING TO CSA-W59 AND W47.1.

4.9. SUBMIT SHOP DRAWINGS AS DIRECTED.

5. WOOD I JOISTS

5.1. SEE NOTE #1.4 ABOVE.

5.2. ALL MATERIALS AND ADHESIVES SHALL BE IN ACCORDANCE WITH APPROVED MANUFACTURER'S STANDARDS AND APPLICABLE CSA STANDARDS.

5.3. WOOD I SHALL BE FABRICATED WITH A STRUCTURAL CONNECTION OF THE CHORDS TO THE WEB MATERIAL UTILIZING A PRESSURE GLUED TONGUE AND GROOVE JOINT.

5.4. SHOP DRAWINGS:
SHOWING DIMENSIONS, TYPICAL DETAILS, PLANS, INSTALLATION PROCEDURES AND IDENTIFICATION MARKS SHALL BE SUBMITTED FOR REVIEW WHEN REQUESTED. SHOP DRAWINGS TO BEAR THE STAMP OF A LICENSED PROFESSIONAL ENGINEER.

5.5. ALL MEMBERS TO BEAR IDENTIFICATION MARKS OF THE APPROVED MANUFACTURER.

5.6. EXECUTION:
- .1 MINIMUM END BEARING SHALL BE 75mm (3") UNLESS NOTED.
- .2 HANDLING, INSTALLATION, ANCHORAGE, BRACING AND BLOCKING OF WOOD I SHALL BE IN ACCORDANCE WITH MANUFACTURER'S REVIEWED SHOP DRAWINGS AND DIRECTIONS.
- .3 HOLES THROUGH WEBS PERMITTED ONLY WITHIN THE LIMITS PERMITTED BY THE MANUFACTURER.
- .4 NO CUTTING, NOTCHING OR DRILLING OF THE TOP AND BOTTOM CHORD IS PERMITTED WITHOUT THE SPECIFIC APPROVAL OF THE MANUFACTURER.

5.7. WOOD I BEARING ONTO MASONRY OR CONCRETE AT OR BELOW GRADE SHALL BE PROTECTED AT THE BEARING WITH A MIN. OF 0.05 POLYETHYLENE FILM.

5.8. WOOD I SHALL NOT BE USED DIRECTLY EXPOSED TO WEATHER OR IN HIGH HUMIDITY AREAS WHEN A MOISTURE CONTENT EXCEEDING 19% CAN RESULT.

APPROVAL STAMP

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	ISSUED FOR PERMIT	SEPT/18/23
2	ISSUED FOR TENDER	DEC/01/23
4	ISSUED FOR CONSTRUCTION	SEPT/09/09

PROJECT :
CITY OF VAUGHAN
FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

Salas O'Brien
2235 Sheppard Ave. E. Suite No. 1100
Toronto, ON M2J 5B5
Stephenson Engineering, a company of Salas O'Brien

PROFESSIONAL SEAL
LICENSED PROFESSIONAL ENGINEER
24-09-09
M.R. MARTTILA
100164027
PROVINCE OF ONTARIO

DWG TITLE
GENERAL NOTES

ORIENTATION

DATE: SEPT. 2024
SCALE: 1 : 1
DRAWN BY: __
CHECKED BY: MM
DWG STATUS : IFC
PROJECT No. 20210932
DRAWING No. S4-01
REVISION 4

2024-09-09 10:08:31 AM

TYPICAL CONCRETE COVER TABLE — C01

	VERTICAL ELEMENTS	PROJECT SPECIFIC COMMENTS	BAR SIZE	CONCRETE EXPOSURE: NO CHLORIDES WITH FREEZE THAW — COVER TO ALL FACES (mm) — FIRE RATING (7) ≤ 2 HR	3 HR	4 HR	NO CHLORIDES OR FREEZE THAW — COVER TO ALL FACES (mm) — FIRE RATING (7) ≤ 2 HR	3 HR	4 HR
WALLS	ANY WALLS EXPOSED TO FIRE ON ONE SIDE ONLY (FOUNDATION, ELEVATOR AND STAIRS, DEMISING WALLS, FIRE SEPARATION WALLS)		Ø ≤ 25M	40	40	40	25	25	25

	HORIZONTAL ELEMENTS	PROJECT SPECIFIC COMMENTS	BAR SIZE	NO CHLORIDES OR FREEZE THAW — TOP COVER (mm) — FIRE RATING ≤ 2 HR	3 HR	4 HR	BOTTOM & SIDE COVER (mm) — FIRE RATING ≤ 2 HR	3 HR	4 HR
BEAMS			Ø ≤ 20M	30	30	40	30	30	40

ELEMENTS EXPOSED TO EARTH	PROJECT SPECIFIC COMMENTS	BAR SIZE	COVER (mm)	
PERMANENTLY EXPOSED TO SOIL		ALL SIZES	GREATER OF 60mm OR 2.0Ø	GREATER OF 40mm OR 1.5Ø
CAST AGAINST AND PERMANENTLY EXPOSED TO SOIL		ALL SIZES	75	

TABLE NOTES

1. CONCRETE COVER SHALL BE MEASURED FROM THE DEEPEST POINT OF TEXTURED CONCRETE SURFACE TO THE NEAREST DEFORMATION OF REINFORCEMENT. REINFORCEMENT INCLUDES TIES, STIRRUPS AND MAIN BARS.
2. FOR FIRE RATING INFORMATION, REFER TO ARCHITECTURAL DRAWINGS
3. ALL LOAD BEARING ELEMENTS (WALLS AND COLUMNS) IMMEDIATELY BELOW A FLOOR ASSEMBLY MUST HAVE A FIRE-RESISTANCE RATING NOT LESS THAN THAT FOR THE SUPPORTED ASSEMBLY.

COMPRESSION-TENSION DEVELOPMENT AND LAP LENGTHS Fy = 400 MPa — C02A

NOTES
1. STANDARD ABBREVIATIONS ON PLANS AND SCHEDULES SHOULD BE AS FOLLOWS
   CLS - COMPRESSION LAP SPLICE
   CDL - COMPRESSION DEVELOPMENT LENGTH
   HEL - HOOK EMBEDMENT LENGTH

COMPRESSION LAP SPLICE AND DEVELOPMENT LENGTHS (Fy = 400 MPa)

CLS: COMPRESSION LAP SPLICE LENGTH (mm)

UNCOATED BLACK BAR								
10M	15M	20M	25M	30M	35M	45M	55M
300	440	590	730	880	1030	NOT PERMITTED	

CDL: COMPRESSION DEVELOPMENT LENGTH (mm)

f'c	UNCOATED BLACK BAR 10M	15M	20M	25M	30M	35M	45M	55M
20MPa	250	340	420	540	640	770	940	1210
25MPa	220	310	370	600	570	690	840	1080
30MPa	200	280	340	440	530	630	770	990
35MPa	200	280	340	440	530	630	770	990
40MPa	200	280	340	440	530	630	770	990
> 40 MPa	SEE MINIMUM VALUES FOR f'c = 40 MPa							

NOTES:
1. IF BUNDLED BARS ARE USED THE VALUES IN THE TABLES MUST BE INCREASED:
   a. MULTIPLY BY 1.1 (TWO BAR BUNDLES) b. MULTIPLY BY 1.2 (THREE BAR BUNDLES) c. MULTIPLY BY 1.33 (FOUR BAR BUNDLES)
2. FOR EMBEDMENTS ENCLOSED IN SPIRALS, MULTIPLY BY 0.75, BUT NOT LESS THAN 200mm.

HEL: MINIMUM TENSION EMBEDMENT LENGTH WITH STANDARD HOOK (mm)

f'c	UNCOATED BLACK BAR 10M	15M	20M	25M	30M	35M	45M	55M
20MPa	220	340	450	560	670	780	1010	1230
25MPa	200	300	400	500	600	700	900	1100
30MPa	180	270	370	460	550	640	830	1010
35MPa	170	250	340	420	510	590	770	930
40MPa	160	240	320	400	470	550	720	870
45MPa	150	220	300	370	450	520	680	820
50MPa	150	210	280	350	420	490	640	780
55MPa	150	200	270	340	400	470	610	750

NOTES:
1. FOR EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCREASED:
   a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 3 X BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
   b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES:
   a. MULTIPLY BY 1.2 (FOR SEMI-LOW DENSITY CONCRETE)
   b. MULTIPLY BY 1.3 (FOR LOW-DENSITY CONCRETE)
3. FOR 35M AND SMALLER BARS MULTIPLY THE VALUES IN THE TABLE BY 0.7 (BUT NOT LESS THAN 150mm) WHERE THE SIDE COVER (NORMAL TO THE PLANE OF THE HOOK) IS AT LEAST 60mm, AND FOR 90° HOOKS WHERE COVER ON THE BAR EXTENSION BEYOND THE HOOK IS AT LEAST 50mm.
4. FOR 35M AND SMALLER BARS MULTIPLY THE VALUES IN THE TABLE BY 0.8 (BUT NOT LESS THAN 150mm) WHERE THE HOOK IS ENCLOSED WITHIN AT LEAST THREE(3) TIES OR STIRRUPS SPACED ALONG A LENGTH EQUAL TO THE INSIDE DIAMETER OF THE HOOK AT A SPACING NOT MORE THAN 3 TIMES THE BAR DIAMETER.

TENSION DEVELOPMENT AND LAP SPLICE LENGTHS Fy = 400 MPa — C02B

NOTES
1. STANDARD ABBREVIATIONS ON PLANS AND SCHEDULES SHOULD BE AS FOLLOW
   TLS - TENSION LAP SPLICE
   TDL - TENSION DEVELOPMENT LENGTH

TENSION LAP SPLICE AND DEVELOPMENT LENGTHS (Fy = 400 MPa)

TLS: TENSION LAP SPLICE LENGTH (CLASS B) (mm)

f'c	UNCOATED BLACK BAR 10M Top	10M Bottom	15M Top	15M Bottom	20M Top	20M Bottom	25M Top	25M Bottom	30M Top	30M Bottom	35M Top	35M Bottom
20MPa	550	420	820	630	1090	840	1710	1310	2050	1570	2390	1840
25MPa	490	380	740	570	980	750	1530	1170	1830	1410	2130	1640
30MPa	450	350	670	520	890	690	1390	1070	1670	1290	1950	1500
35MPa	420	320	620	480	830	640	1290	990	1550	1190	1800	1390
40MPa	390	300	580	450	770	600	1210	930	1450	1110	1690	1300
45MPa	370	300	550	420	730	560	1140	880	1370	1050	1590	1230
50MPa	350	300	520	400	690	530	1080	830	1300	1000	1510	1160
55MPa	330	300	500	380	660	510	1030	790	1240	950	1440	1110
60MPa	320	300	480	370	630	490	990	760	1180	910	1380	1060
64MPa	310	300	460	360	610	470	960	740	1150	880	1340	1030

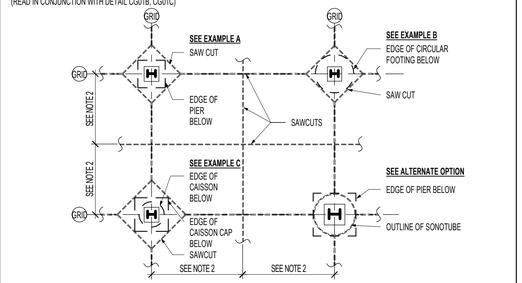
TDL: TENSION DEVELOPMENT LENGTH (mm) CLASS "A" LAP SPLICE

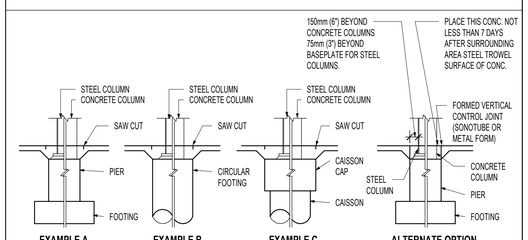
f'c	UNCOATED BLACK BAR 10M Top	10M Bottom	15M Top	15M Bottom	20M Top	20M Bottom	25M Top	25M Bottom	30M Top	30M Bottom	35M Top	35M Bottom
20MPa	420	330	630	490	840	650	1310	1010	1570	1210	1840	1410
25MPa	380	300	570	440	750	580	1170	900	1410	1080	1640	1260
30MPa	350	300	520	400	690	530	1070	830	1290	990	1500	1160
35MPa	320	300	480	370	640	490	990	770	1190	920	1390	1070
40MPa	300	300	450	350	600	460	930	720	1110	860	1300	1000
45MPa	300	300	420	330	560	430	880	680	1050	810	1230	940
50MPa	300	300	400	310	530	410	830	640	1000	770	1160	900
55MPa	300	300	380	300	510	390	790	610	950	730	1110	850
60MPa	300	300	370	300	490	380	760	590	910	700	1060	820
64MPa	300	300	360	300	470	360	740	570	880	680	1030	790

NOTES:
1. FOR EPOXY COATED BARS THE VALUES IN THE TABLES MUST BE INCRESED:
   a. MULTIPLY BY 1.2 (WHEN CLEAR COVER GREATER THAN 3 X BAR DIAMETER AND CLEAR SPACING GREATER THAN 6 X BAR DIAMETER)
   b. MULTIPLY BY 1.5 (WHEN COVER OR SPACING ARE LESS THAN ABOVE)
2. VALUES PROVIDED ARE BASED ON NORMAL WEIGHT CONCRETE AND MUST BE INCREASED FOR LIGHTWEIGHT CONCRETES:
   a. MULTIPLY BY 1.2 (FOR SEMI-LOW DENSITY CONCRETE)
   b. MULTIPLY BY 1.3 (FOR LOW-DENSITY CONCRETE)
3. IF BUNDLED BARS ARE USED THE VAULES IN THE TABLES MUST BE INCREASED:
   a. MULTIPLY BY 1.1 (TWO BAR BUNDLES)
   b. MULTIPLY BY 1.2 (THREE BAR BUNDLES)
   c. MULTIPLY BY 1.33 (FOUR BAR BUNDLES)

SLAB ON GRADE DETAILS — CG01A

(READ IN CONJUNCTION WITH DETAIL CG01B, CG01C)

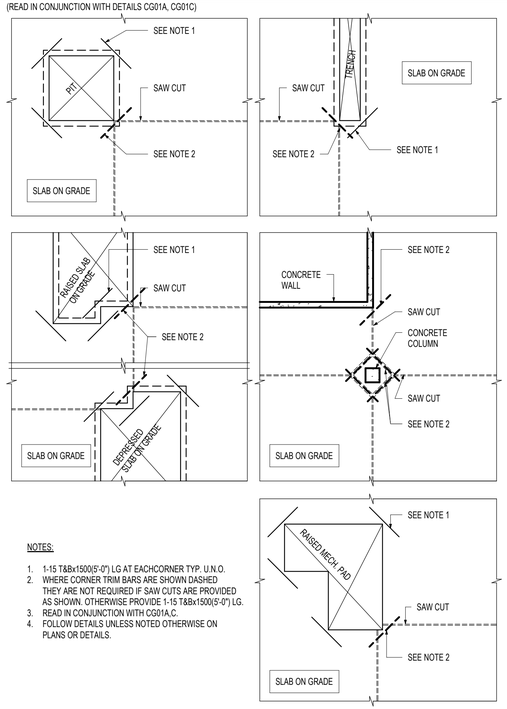




NOTES:
1. SAWCUTTING TO BE DONE AS SOON AS POSSIBLE AFTER SLAB IS PLACED. (MAX. 24 HOURS).
2. JOINTS TO BE AT MAX. 24x SLAB THICKNESS FOR MAXIMUM AGGREGATE SIZE SMALLER THAN 19mm(¾") AND 30 TIMES SLAB THICKNESS FOR AGGREGATE SIZE LARGER THAN 19mm (¾"),BUT NOT MORE THAN 4500mm (14'-9")
3. MAXIMUM RATIO BETWEEN LENGTH AND WIDTH OF ANY PANEL (CREATED BY SAWCUT) SHOULD NOT EXCEED 1.5
4. COORDINATE EXACT LOCATIONS OF SAWCUTS IN SLAB ON GRADE WITH ARCHITECTURAL REQUIREMENTS.
5. SAWCUT SLAB ON GRADE AT LOCATIONS SHOWN ON PLAN OR AS NOTED BELOW. ALTERNATE LOCATIONS SHALL BE SUBMITTED TO CONSULTANT FOR REVIEW, WELL IN ADVANCE OF POURING SLAB ON GRADE.
6. AFTER THE SLAB IS A MINIMUM 60 DAYS OLD, REMOVE ALL DEBRIS FROM THE SAW CUTS AND FILL WITH MORTAR CONTAINING CEMENT, SAND AND LATEX BONDING AGENT, OR AS NOTED IN SPECIFICATIONS.
7. PRIOR TO SUBSTANTIAL COMPLETION OF THE PROJECT ROUT ALL CRACKS IN THE SLAB ON GRADE AND FILL WITH MORTAR CONTAINING CEMENT, SAND AND LATEX BONDING AGENT OR AS NOTED IN SPECIFICATIONS.
8. REFER TO TYPICAL DETAIL CG01B, CG01C FOR SAW CUT DETAILS.

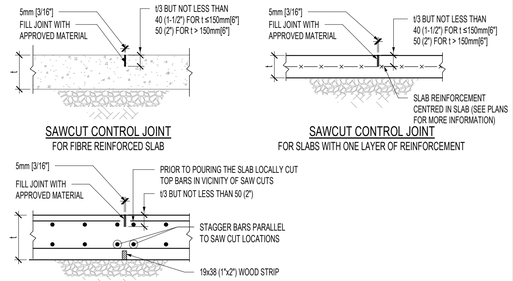
SLAB ON GRADE DETAILS — CG01B

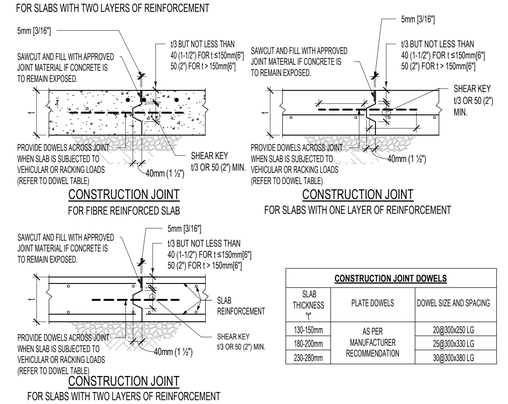
(READ IN CONJUNCTION WITH DETAILS CG01A, CG01C)



NOTES:
1. 1-15 T&Bx1500(5'-0") LG AT EACHCORNER TYP. U.N.O.
2. WHERE CORNER TRIM BARS ARE SHOWN DASHED THEY ARE NOT REQUIRED IF SAW CUTS ARE PROVIDED AS SHOWN. OTHERWISE PROVIDE 1-15 T&Bx1500(5'-0") LG.
3. READ IN CONJUNCTION WITH CG01A,C.
4. FOLLOW DETAILS UNLESS NOTED OTHERWISE ON PLANS OR DETAILS.

SLAB ON GRADE DETAILS — CG01C

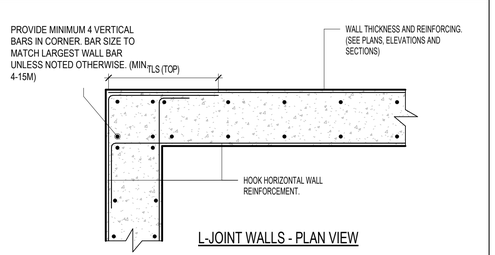


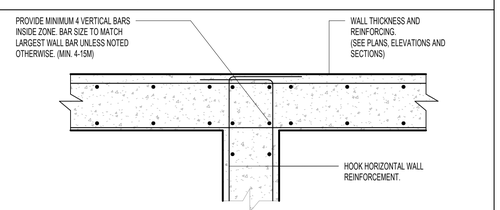


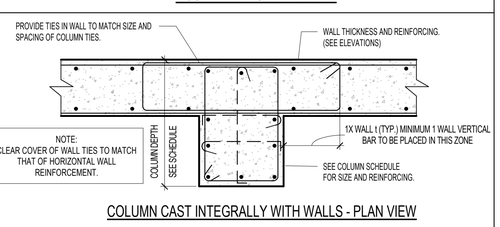
CONSTRUCTION JOINT DOWELS

SLAB THICKNESS 'T'	PLATE DOWELS	DOWEL SIZE AND SPACING
130-150mm	AS PER MANUFACTURER RECOMMENDATION	20@300x250 LG
180-200mm		25@300x330 LG
230-280mm		30@300x380 LG

TYPICAL JOINTS IN CONCRETE WALLS (NOT SPECIFIED AS SHEARWALLS) — CW01







APPROVAL STAMP

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	ISSUED FOR PERMIT	SEPT/18/23
2	ISSUED FOR TENDER	DEC/01/23
4	ISSUED FOR CONSTRUCTION	SEPT/09/09

PROJECT: CITY OF VAUGHAN FIRE STATION 7-12 — 9511 WESTON ROAD, VAUGHAN

CLIENT: VAUGHAN

Salas O'Brien
2235 Sheppard Ave. E. Suite No. 1100
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Stephenson Engineering, a company of Salas O'Brien

PROFESSIONAL SEAL: LICENSED PROFESSIONAL ENGINEER — 24-09-09 — M.R. MARTTILA — 100164027 — PROVINCE OF ONTARIO

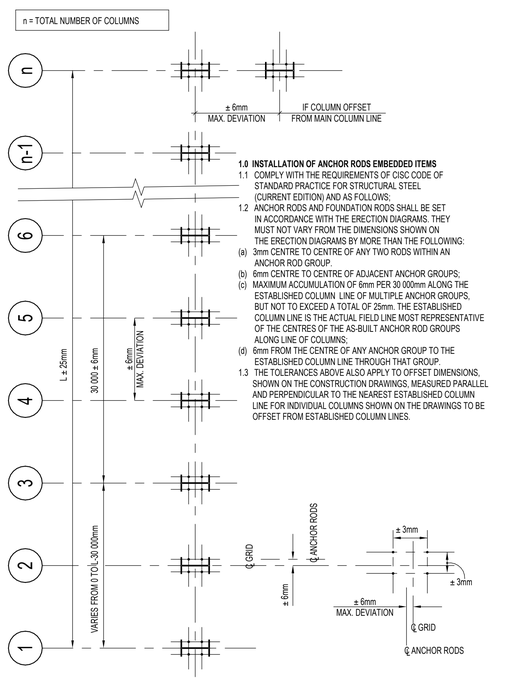
DWG TITLE: TYPICAL DETAILS

ORIENTATION

DATE: SEPT. 2024
SCALE: 1 : 1 | DRAWN BY: — | CHECKED BY: MM
DWG STATUS: IFC
PROJECT No.: 20210932
DRAWING No.: S4-02 | REVISION: 4

2024-09-09 10:08:33 AM

TOLERANCES ON ANCHOR ROD PLACEMENT — SAB01



1.0 INSTALLATION OF ANCHOR RODS EMBEDDED ITEMS

1.1 COMPLY WITH THE REQUIREMENTS OF CISC CODE OF STANDARD PRACTICE FOR STRUCTURAL STEEL (CURRENT EDITION) AND AS FOLLOWS.

1.2 ANCHOR RODS AND FOUNDATION RODS SHALL BE SET IN ACCORDANCE WITH THE ERECTION DIAGRAMS. THEY MUST NOT VARY FROM THE DIMENSIONS SHOWN ON THE ERECTION DIAGRAMS BY MORE THAN THE FOLLOWING:

(a) 3mm CENTRE TO CENTRE OF ANY TWO RODS WITHIN AN ANCHOR ROD GROUP

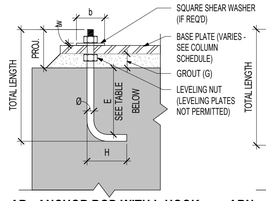
(b) 6mm CENTRE TO CENTRE OF ADJACENT ANCHOR GROUPS;

(c) MAXIMUM ACCUMULATION OF 6mm PER 30 000mm ALONG THE ESTABLISHED COLUMN LINE OF MULTIPLE ANCHOR GROUPS, BUT NOT TO EXCEED A TOTAL OF 25mm. THE ESTABLISHED COLUMN LINE IS THE ACTUAL FIELD LINE MOST REPRESENTATIVE OF THE CENTRES OF THE AS-BUILT ANCHOR ROD GROUPS ALONG LINE OF COLUMNS;

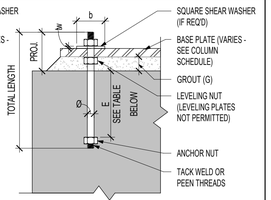
(d) 6mm FROM THE CENTRE OF ANY ANCHOR GROUP TO THE ESTABLISHED COLUMN LINE THROUGH THAT GROUP.

1.3 THE TOLERANCES ABOVE ALSO APPLY TO OFFSET DIMENSIONS, SHOWN ON THE CONSTRUCTION DRAWINGS, MEASURED PARALLEL AND PERPENDICULAR TO THE NEAREST ESTABLISHED COLUMN LINE FOR INDIVIDUAL COLUMNS SHOWN ON THE DRAWINGS TO BE OFFSET FROM ESTABLISHED COLUMN LINES.

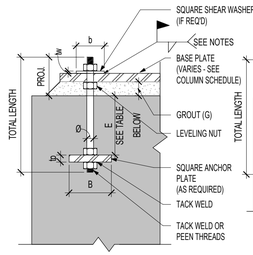
ANCHOR ROD DETAILS — SAB02



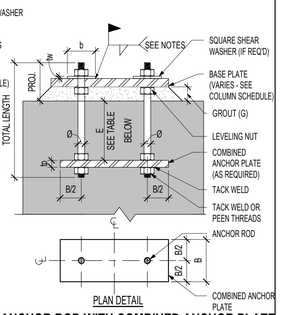
AR - ANCHOR ROD WITH L-HOOK



ARN - ANCHOR ROD WITH ANCHOR NUT



ARP - ANCHOR ROD WITH ANCHOR PLATE



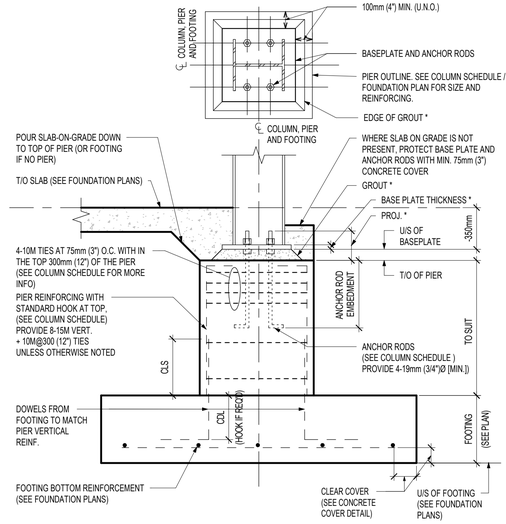
ARCP - ANCHOR ROD WITH COMBINED ANCHOR PLATE

ANCHOR	ANCHOR ROD						GROUT THICKNESS (G)	ANCHOR PLATE		PROJ. (MIN)	SHEAR WASHER	
MARK	TYPE	DIA (Ø)	EMBED (E)	HOOK (H)	GRADE (KSI)	Hf (kN)		WIDTH (B)	THICK (tp)		WIDTH (b)	THICK (tw)
AR1	AR	3/4"	300	75	36	N/A	50	N/A	N/A	180	N/A	N/A
AR2	ARP	1"	600	N/A	36	N/A	50	70	20	180	50	9.5

NOTES:
1. DESIGN CONNECTION OF SHEAR WASHER TO BASE PLATE FOR Hf NOTED IN TABLE IN EACH PLAN DIRECTION. IF NO FORCE NOTED, CONNECT FOR FULL SHEAR CAPACITY OF ANCHOR ROD.

STEEL GRAVITY COLUMN BASE DETAIL — SC02

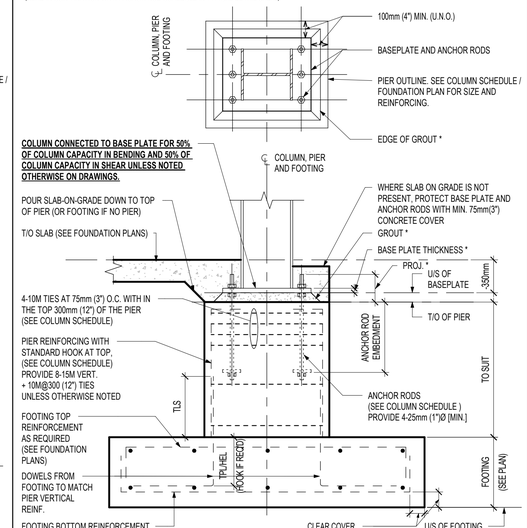
(READ IN CONJUNCTION WITH ANCHOR ROD SCHEDULE IN TYPICAL DETAIL SAB02)



NOTES:
1. FOOTINGS SHALL BE PLACED ON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY AS NOTED ON THE DRAWINGS.
2. GROUT UNDER BASE PLATES SHALL BE AN APPROVED PROPRIETARY BRAND PRE-MIXED, NON-METALLIC, NON-SHRINK GROUT UNLESS OTHERWISE APPROVED.
3. LEVELING PLATES ARE NOT PERMITTED.
4. REFER TO COLUMN SCHEDULE/FOUNDATION PLAN FOR BASE PLATES, ANCHOR ROD, PIER, FOOTING DIMENSIONS AND REINFORCEMENT.
5. REFER TO A04, SAB02 FOR ANCHOR ROD GRADE
6. REFER ALSO TO GENERAL NOTES, STEEL NOTES AND CAST-IN-PLACE CONCRETE NOTES.
7. REFER TO SPLICE AND DEVELOPMENT TABLES IN C02A, C02B, C03A AND C03B.
8. REFER TO SAB02 FOR ALL ITEMS MARKED WITH *

STEEL MOMENT COLUMN BASE DETAIL (NOTED AS M IN COLUMN SCHEDULE) — SC04

(READ IN CONJUNCTION WITH ANCHOR ROD SCHEDULE IN TYPICAL DETAIL SAB02)



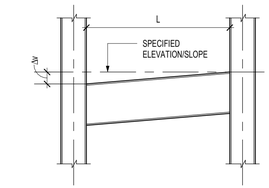
NOTES:
1. FOUNDATION DESIGN MOMENT Mf NOTED IN COLUMN SCHEDULE.
2. GROUT UNDER BASE PLATES SHALL BE AN APPROVED PROPRIETARY BRAND PRE-MIXED, NON-METALLIC, NON-SHRINK GROUT UNLESS OTHERWISE APPROVED.
3. LEVELING PLATES ARE NOT PERMITTED.
4. REFER TO COLUMN SCHEDULE/FOUNDATION PLAN FOR BASE PLATES, ANCHOR ROD, PIER, FOOTING DIMENSIONS AND REINFORCEMENT.
5. REFER TO E04, SAB02 FOR ANCHOR ROD GRADE.
6. REFER ALSO TO GENERAL NOTES, STEEL NOTES AND CAST-IN-PLACE CONCRETE NOTES.
7. REFER TO SPLICE AND DEVELOPMENT TABLES IN C02A, C02B, C03A AND C03B.
8. THIS DETAIL APPLIES FOR CONVENTIONAL CONSTRUCTION ONLY (Rd=1.5).
9. REFER TO SAB02 FOR ALL ITEMS MARKED WITH *.

ERECTION TOLERANCES FOR STEEL BEAMS — SB02A

(READ IN CONJUNCTION WITH SB02B)

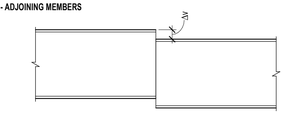
1. VERTICAL DEVIATION FROM SPECIFIED ELEVATION/SLOPE.

FLOOR BEAMS:	Δv = ± 10mm (3/8") OR = L/500
MEMBERS WITH ADJUSTABLE CONNECTIONS:	Δv =± 6mm (1/4") OR = L/1000



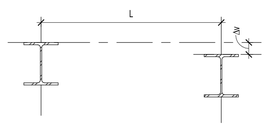
2. VERTICAL DEVIATION FROM SPECIFIED ELEVATION - ADJOINING MEMBERS

FLOOR BEAMS:	Δv = ±6mm (1/4")
MEMBERS WITH ADJUSTABLE CONNECTIONS:	Δv = ±2mm (3/32")



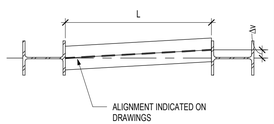
3. VERTICAL DEVIATION FROM ADJACENT BEAMS

FLOOR BEAMS:	Δv = L/1000



4. HORIZONTAL DEVIATION FROM INDICATED POSITION

FLOOR BEAMS:	ΔH = ±12mm (1/2") OR L/500
SPANDREL BEAMS:	ΔH = ±6mm (1/4") OR L/1000



NOTES

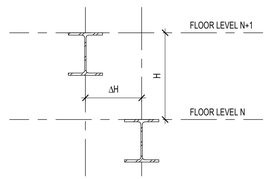
1. TOLERANCES PROVIDED IN THE DETAIL ABOVE SHALL NOT SUPERSEDE THE VALUES INDICATED IN CSA S16 AND REFERENCED DOCUMENTS.

ERECTION TOLERANCES FOR STEEL BEAMS — SB02B

(READ IN CONJUNCTION WITH SB802A)

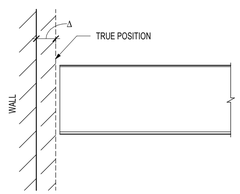
5. HORIZONTAL DEVIATION FROM ADJACENT BEAMS

FOR H < 3000mm (10'-0"):	ΔH = ±5mm (3/16")
FOR H > 3000mm (10'-0"):	ΔH = H/600



6. HORIZONTAL DEVIATION FROM SUPPORT POINT AT VERTICAL WALL

Δ = ±25mm (1")



NOTES

1. TOLERANCES PROVIDED IN THE DETAIL ABOVE SHALL NOT SUPERSEDE THE VALUES INDICATED IN CSA S16 AND REFERENCED DOCUMENTS.
2. FOR ERECTION TOLERANCES OF SPECIAL MEMBERS SUCH AS CRANE GIRDERS, CRANE RAILS AND MONORAIL BEAMS, SEE THE APPROPRIATE CODE RECOMMENDATIONS.
3. DEVIATIONS SHOWN FOR W-SHAPES ALSO APPLY TO BUILT-UP SECTIONS, HOLLOW STRUCTURAL SECTIONS, CHANNEL AND ANGLE SHAPES.
4. ERECTION TOLERANCES ARE TO BE MEASURED IN CALM WEATHER. RECORD AMBIENT TEMPERATURE AT TIME TOLERANCES ARE VERIFIED.

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)
550mm 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-L51x38x6.4(LLV)	1-L127x127x7.9 OR 2-L89x64x6.4 (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.

APPROVAL STAMP

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
2	ISSUED FOR TENDER	DEC/01/23
4	ISSUED FOR CONSTRUCTION	SEPT/09/09

PROJECT:
CITY OF VAUGHAN
FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT
VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

Salas O'Brien
2235 Sheppard Ave. E. Suite No. 1100
Toronto, ON M2J 5B5
Stephenson Engineering, a company of Salas O'Brien

PROFESSIONAL SEAL
LICENSED PROFESSIONAL ENGINEER
24-09-09
M.R. MARTTILA
100164027
PROVINCE OF ONTARIO

DWG TITLE
TYPICAL NOTES

ORIENTATION

DATE: SEPT. 2024

SCALE	DRAWN BY	CHECKED BY
1 : 1		MM

DWG STATUS : IFC

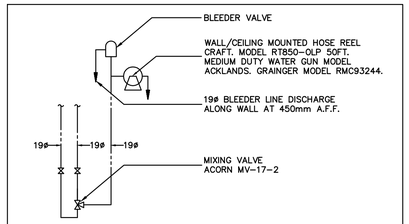
PROJECT No. 20210932

DRAWING No.	REVISION
S4-03	4

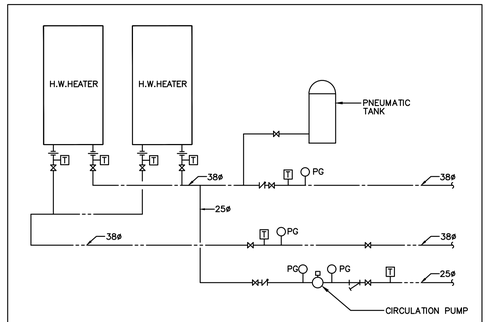
2024-09-09 10:08:35 AM

PLUMBING & DRAINAGE LEGEND

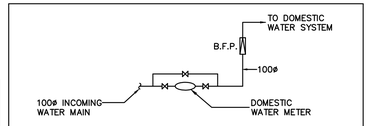
	SANITARY DRAIN (ABOVE GRADE)
	SANITARY DRAIN (BELOW GRADE)
	STORM DRAIN (ABOVE GRADE)
	STORM DRAIN (BELOW GRADE)
	VENT LINE
	DOMESTIC COLD WATER LINE
	DOMESTIC HOT WATER LINE
	DOMESTIC RECIRCULATION LINE
CO	CLEANOUT
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
	GATE VALVE
	CHECK VALVE
	GLOBE VALVE
	UNION
B.F.P.	BACKFLOW PREVENTER
F.E.	FIRE EXTINGUISHER
F.E. & CAB	FIRE EXTINGUISHER & CABINET
T.V. & F.	TRAP, VENT & FLUSH
R.W.L.	RAINWATER LEADER
F.D.	FLOOR DRAIN (T.V. AND F.)



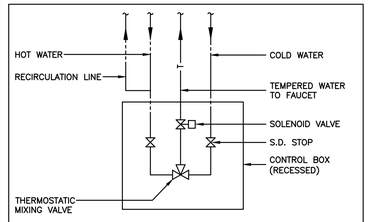
HOSE REEL DETAIL N.T.S.



DOMESTIC WATER HEATERS SCHEMATIC
N.T.S.



WATER METER SCHEMATIC N.T.S.



TYPICAL LAVATORY MIXING VALVE DETAIL
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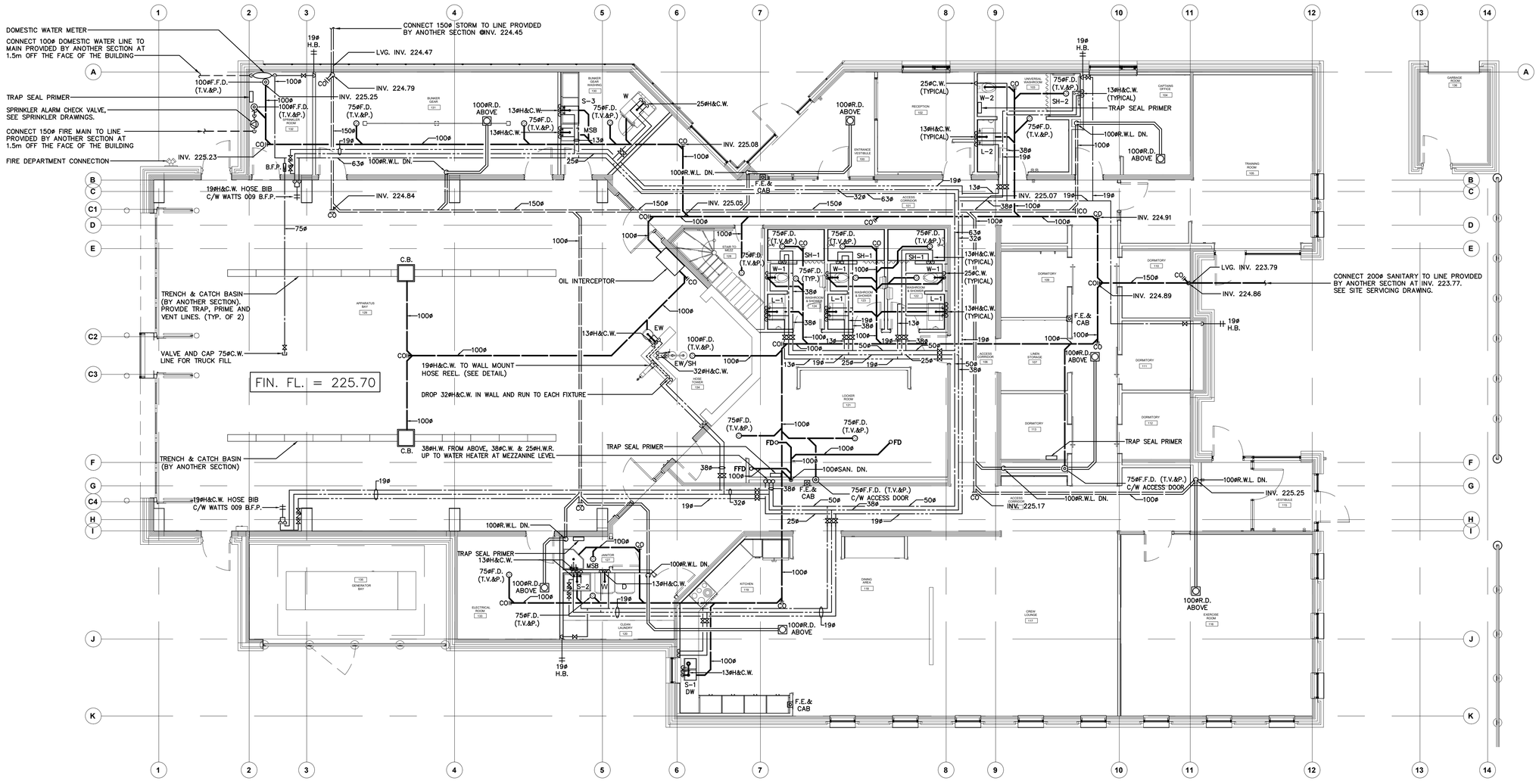

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022.07.07
2	BUILDING PERMIT	2023.09.07
3	CITY COMMENTS	2023.11.10
4	TENDER	2024.04.15
5	CONSTRUCTION	2024.09.09

PROJECT

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
D. JAIN
SEPTEMBER 9 2024
PROVINCE OF ONTARIO

21-237

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Email : mail@jainconsultants.com

DWG TITLE

FLOOR PLAN - PLUMBING -

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE: 2021-11-24

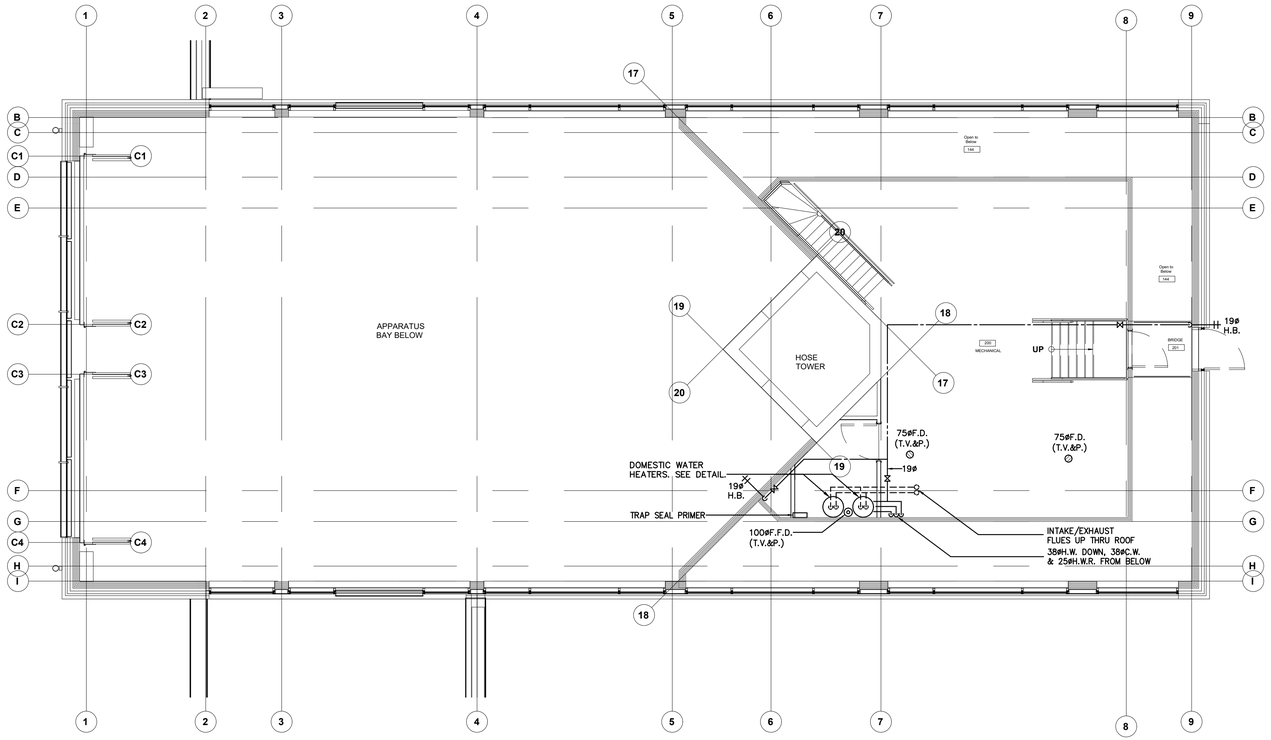
SCALE: 1 : 75 | DRAWN BY: C.R.

DWG STATUS: CONSTRUCTION

PROJECT No.: 2104

DRAWING No.: **M-1.1** | REVISION: 05

2022-06-20 2:29:07 PM



PLUMBING & DRAINAGE LEGEND

	SANITARY DRAIN (ABOVE GRADE)
	SANITARY DRAIN (BELOW GRADE)
	STORM DRAIN (ABOVE GRADE)
	STORM DRAIN (BELOW GRADE)
	VENT LINE
	DOMESTIC COLD WATER LINE
	DOMESTIC HOT WATER LINE
	DOMESTIC RECIRCULATION LINE
F	FIRE LINE (STANDPIPE SYSTEM)
G	GAS LINE
GW	GREY WATER
T	TEMPERED WATER LINE
CO	CLEANOUT
FD	FLOOR DRAIN
FFD	FUNNEL FLOOR DRAIN
	GATE VALVE
	CHECK VALVE
	GLOBE VALVE
	UNION
B.F.P.	BACKFLOW PREVENTER
F.E.	FIRE EXTINGUISHER
F.E. & CAB	FIRE EXTINGUISHER & CABINET
T.V. & F.	TRAP, VENT & FLUSH
R.W.L.	RAINWATER LEADER
F.D.	FLOOR DRAIN (T.V. AND F.)

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PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

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REGISTERED PROFESSIONAL ENGINEER
D. JAIN
SEPTEMBER 9
2024
PROVINCE OF ONTARIO

21–237

Jain

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Email : mail@jainconsultants.com

DWG TITLE

MEZZANINE PLAN - PLUMBING -

ORIENTATION

N — TRUE NORTH

N — CONSTRUCTION NORTH

DATE: 2021-11-24

SCALE: 1 : 75 | DRAWN BY: C.R.

DWG STATUS : CONSTRUCTION

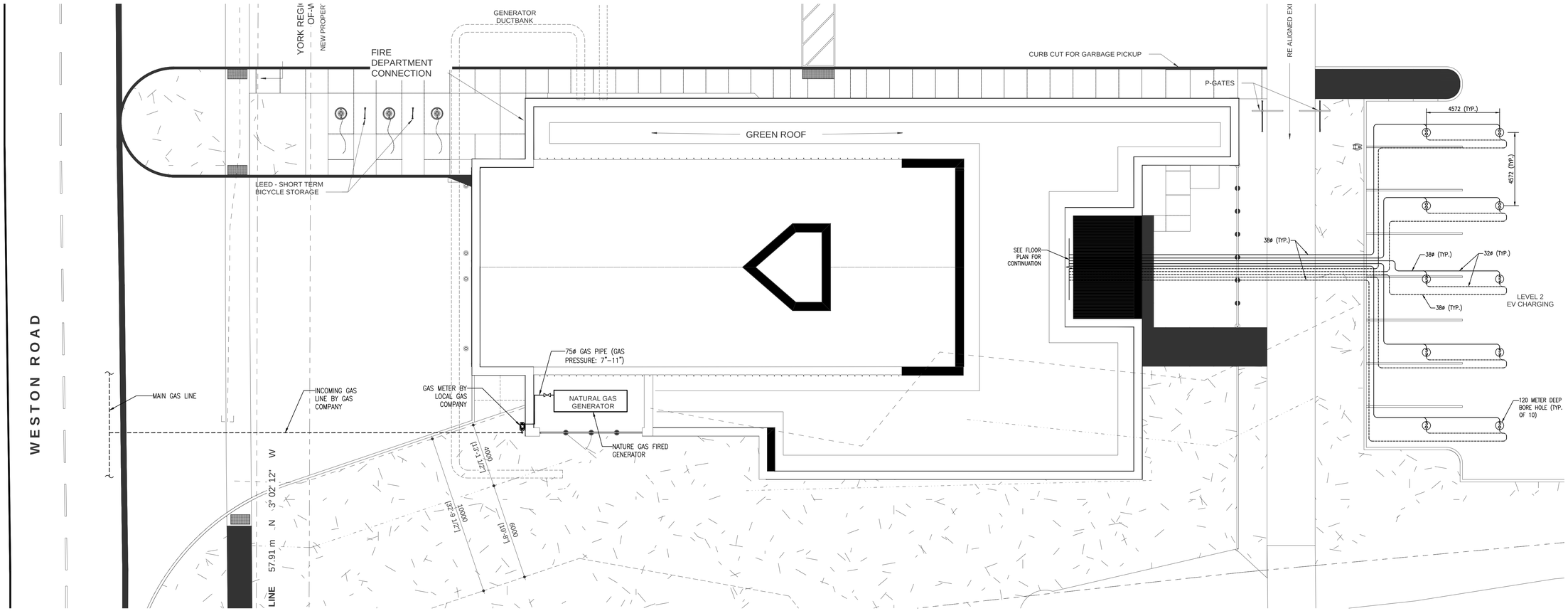
PROJECT No.: 2104

DRAWING No.: **M-1.2** | REVISION: 05

2022-06-20 2:29:07 PM

HVAC LEGEND

300x200	DOUBLE LINE DUCT (FIRST FIGURE IS DUCT WIDTH)	A1	300x300 RETURN/EXHAUST AIR GRILLE	B.D.	BALANCING DAMPER	S	SPEED CONTROLLER
	OPEN END DUCT C/W 13mm MESH SCREEN	A2	600x300 RETURN/EXHAUST AIR GRILLE	F.D.	FIRE DAMPER	H	HUMIDISTAT
	SUPPLY DUCT	A3	600x600 RETURN/EXHAUST AIR GRILLE	U/C	UNDER CUT DOOR BY ANOTHER TRADE SECTION	M	STARTER
	RETURN / EXHAUST DUCT	B1	300x300 RETURN/EXHAUST AIR GRILLE C/W 300x200 SOUNDLINED AIR TRANSFER DUCT	GLS	GLYCOL SUPPLY	BBH	BASEBOARD HEATER
	SQUARE DIFFUSER	250 A 350	NECK SIZE (mm) TYPE OF DIFFUSER AIR AMOUNT (L/S)	GLR	GLYCOL RETURN	FFH	FORCE FLOW HEATER
		300 x200 100	SUPPLY, RETURN, & EXHAUT GRILLE SIZE (mm) AIR AMOUNT (L/S)	T	THERMOSTAT	FFD	FUNNEL FLOOR DRAIN
				CO	CO SENSER	BDD	BACKDRAFT DAMPER
				NOX	NOX SECSER	SD	SPLITTER DAMPER



SITE PLAN - HVAC GEOTHERMAL SYSTEM AND GAS PIPING LAYOUT

SCALE: 1:125

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022-07-07
2	ISSUED FOR PERMIT	2023-09-06
3	ISSUED FOR TENDER	2024-04-15
4	ISSUED FOR CONSTRUCTION	2024-09-09

PROJECT:

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

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REGISTERED PROFESSIONAL ENGINEER
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SEP.09'24
PROVINCE OF ONTARIO

21-237

DWG TITLE

SITE PLAN - HVAC

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE: 2022-06-24

SCALE: As indicated | DRAWN BY: JY

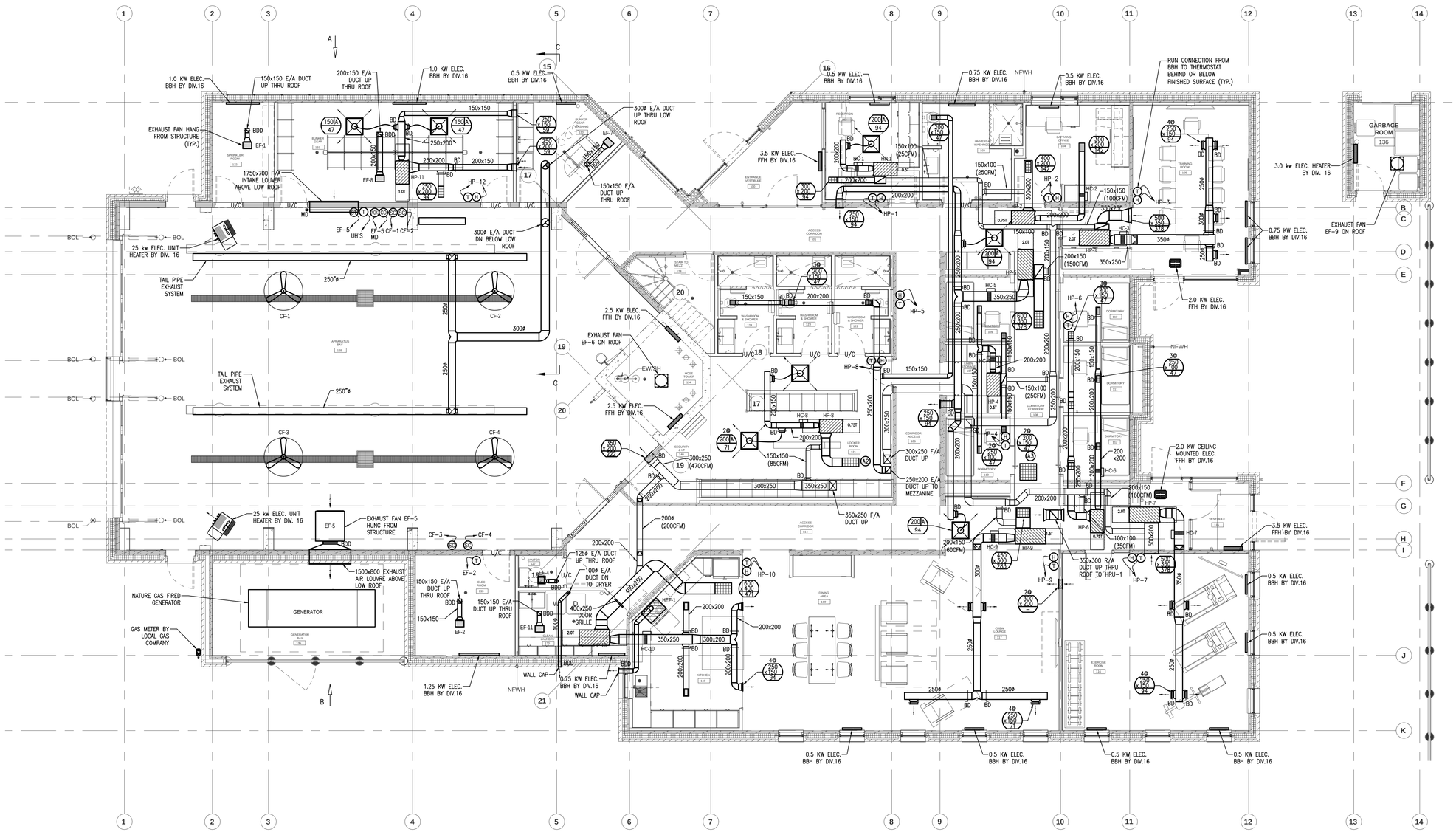
DWG STATUS: TENDER

PROJECT No.: 21-237

DRAWING No.: **M2.0** | REVISION:

2021-12-03 12:03:37 PM

V7-12 - IFC000066



FLOOR PLAN - HVAC

SCALE: 1:75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022-07-07
2	ISSUED FOR PERMIT	2023-09-06
3	ISSUED FOR TENDER	2024-04-15
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PROJECT :

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PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER D. JAIN SEP.09'24 PROVINCE OF ONTARIO

21-237

DWG TITLE

FLOOR PLAN - HVAC

ORIENTATION

TRUE NORTH CONSTRUCTION NORTH

DATE 2022-06-24

SCALE As indicated | DRAWN BY JY

DWG STATUS : TENDER

PROJECT No. 21-237

DRAWING No. M2.1 | REVISION

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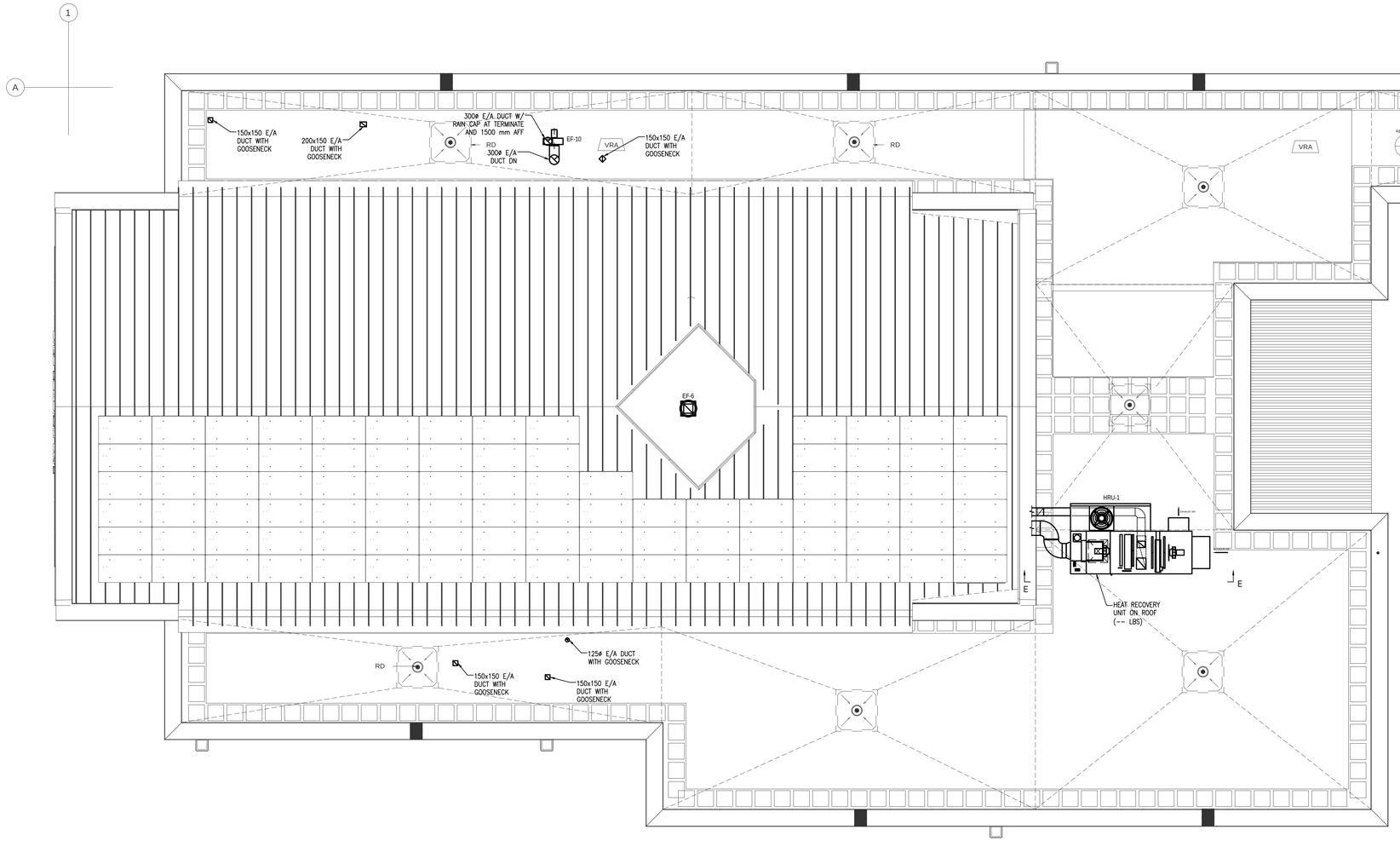

ROOF PLAN - HVAC

SCALE: 1:75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022-07-07
2	ISSUED FOR PERMIT	2023-09-06
3	ISSUED FOR TENDER	2024-04-15
4	ISSUED FOR CONSTRUCTION	2024-09-09

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

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SEP.09'24
PROVINCE OF ONTARIO

21-237

DWG TITLE

ROOF PLAN - HVAC

ORIENTATION

N — TRUE NORTH

N — CONSTRUCTION NORTH

DATE 2022-06-24

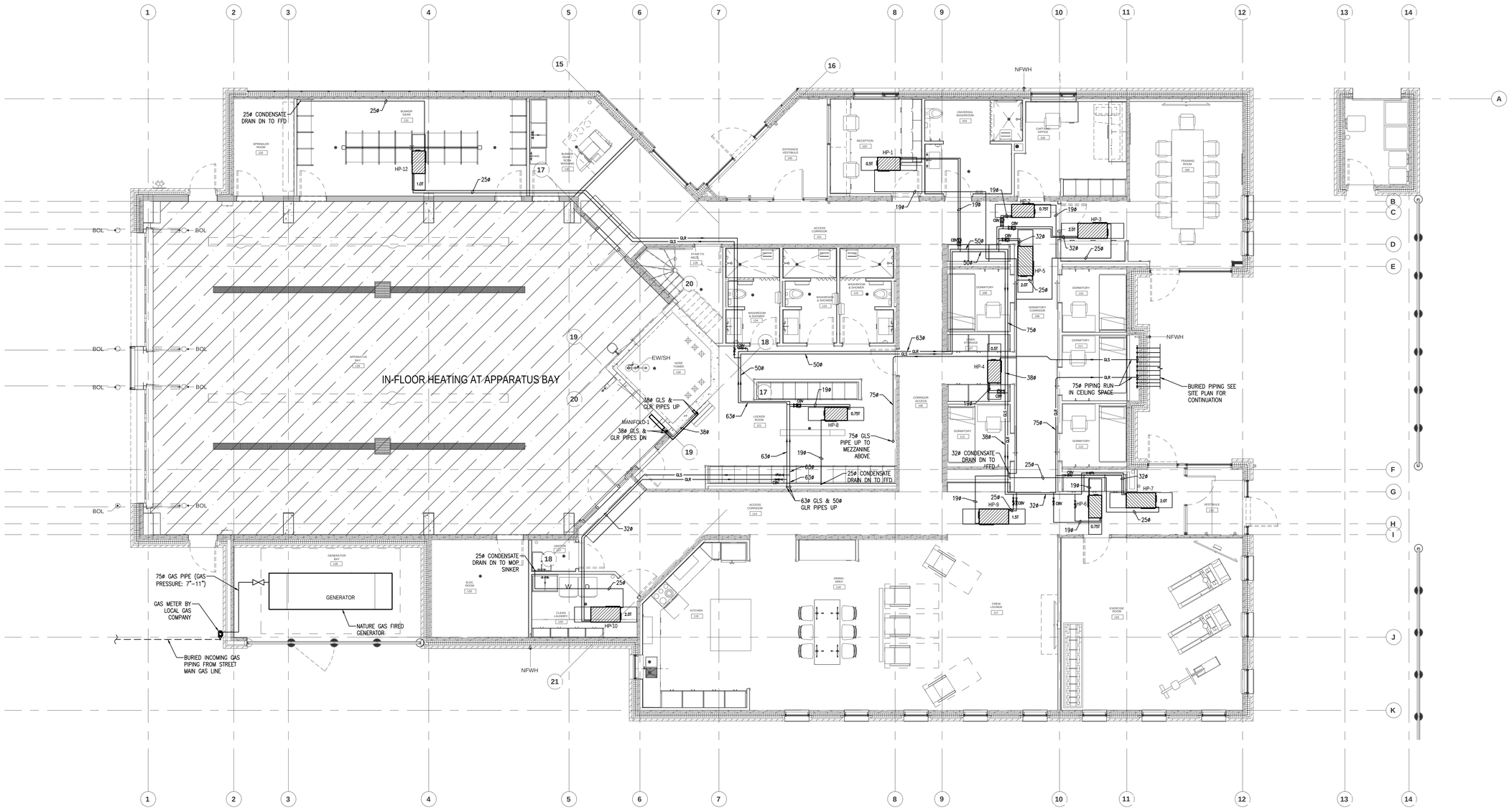
SCALE As indicated | DRAWN BY JY

DWG STATUS : TENDER

PROJECT No. 21-237

DRAWING No. **M2.2** | REVISION

2021-12-03 12:03:37 PM



FLOOR PLAN - HVAC PIPING

SCALE: 1:75

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022-07-07
2	ISSUED FOR PERMIT	2023-09-06
3	ISSUED FOR TENDER	2024-04-15
4	ISSUED FOR CONSTRUCTION	2024-09-09

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

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21-237

DWG TITLE

FLOOR PLAN - HVAC PIPING

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE 2022-06-24

SCALE As indicated | DRAWN BY JY

DWG STATUS : TENDER

PROJECT No. 21-237

DRAWING No. **M2.3** | REVISION

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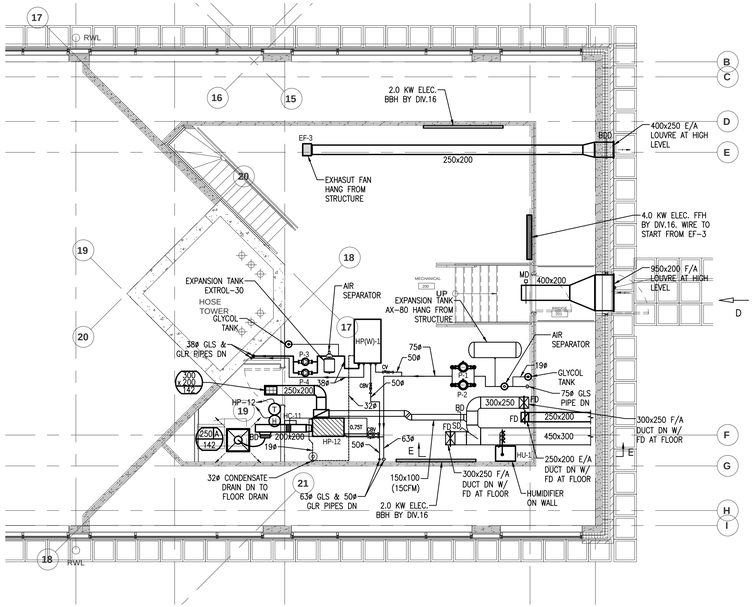
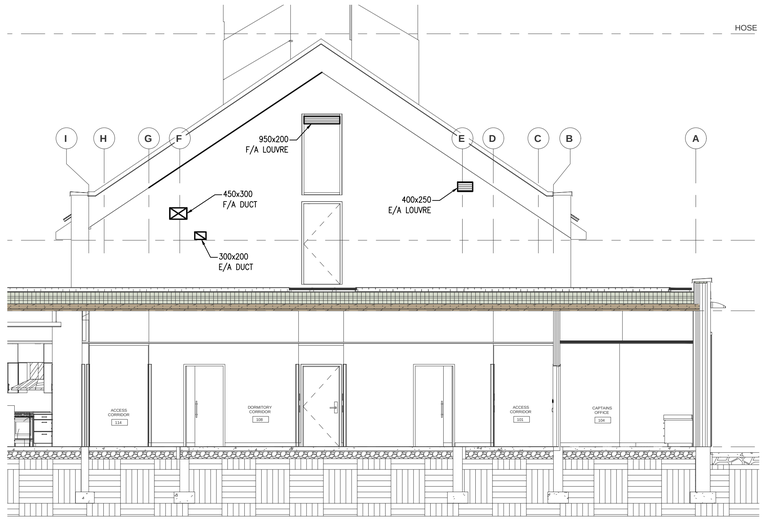
V7-12 - IFC000069



MEZZANINE FLOOR PLAN - HVAC

SCALE: 1:75



VIEW D

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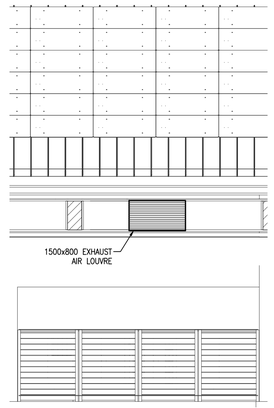

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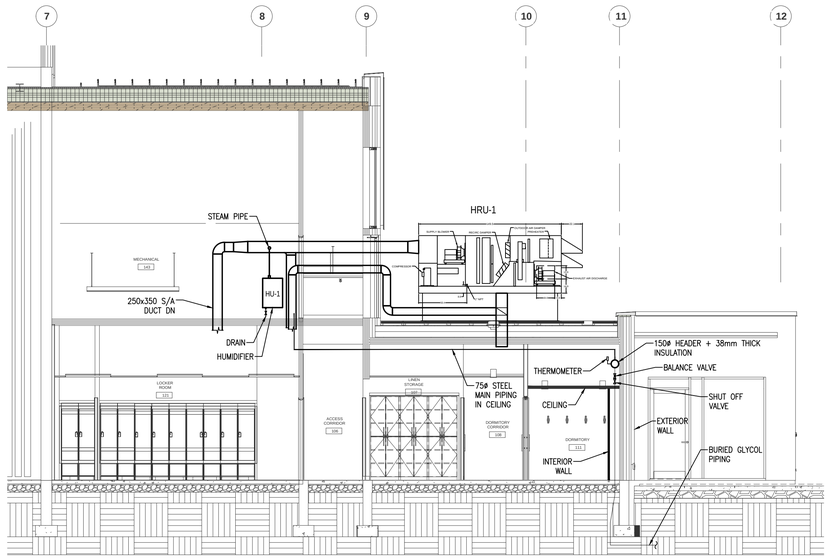

SECTION E - E

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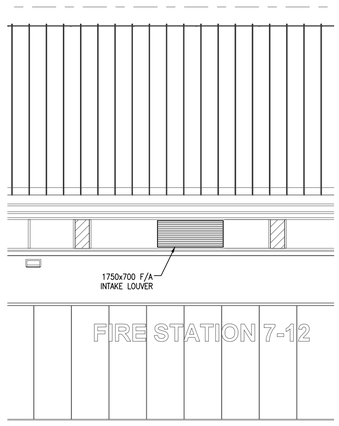

VIEW A

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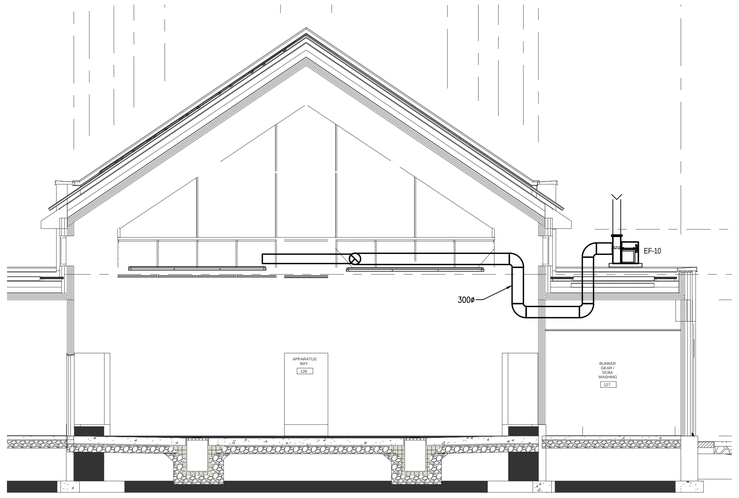

SECTION C - C

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ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022-07-07
2	ISSUED FOR PERMIT	2023-09-06
3	ISSUED FOR TENDER	2024-04-15
4	ISSUED FOR CONSTRUCTION	2024-09-09

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

Jain
7405 EAST DANBRO CRESCENT
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PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
D. JAIN
SEP.09'24
PROVINCE OF ONTARIO

21-237

DWG TITLE

MEZZ. MECH RM FLOOR PLAN & SECTIONS - HVAC

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE 2022-06-24

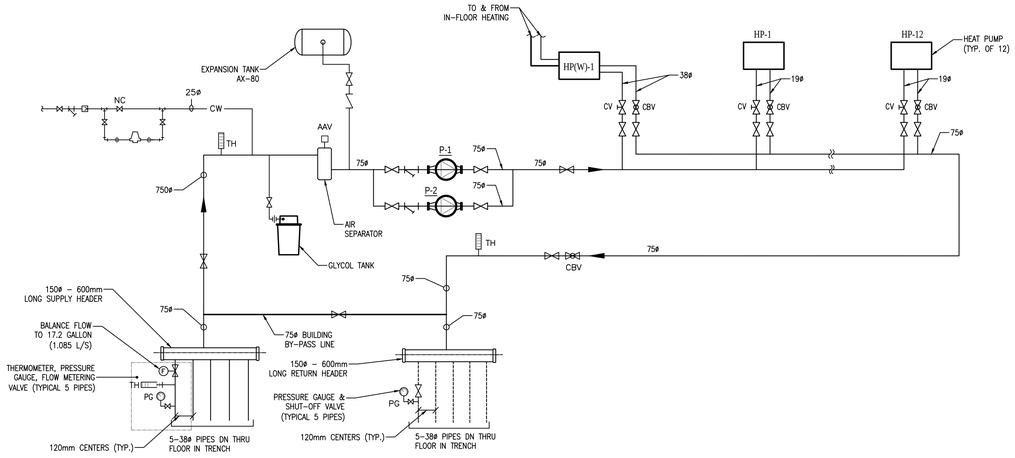
SCALE As indicated | DRAWN BY JY

DWG STATUS : TENDER

PROJECT No. 21-237

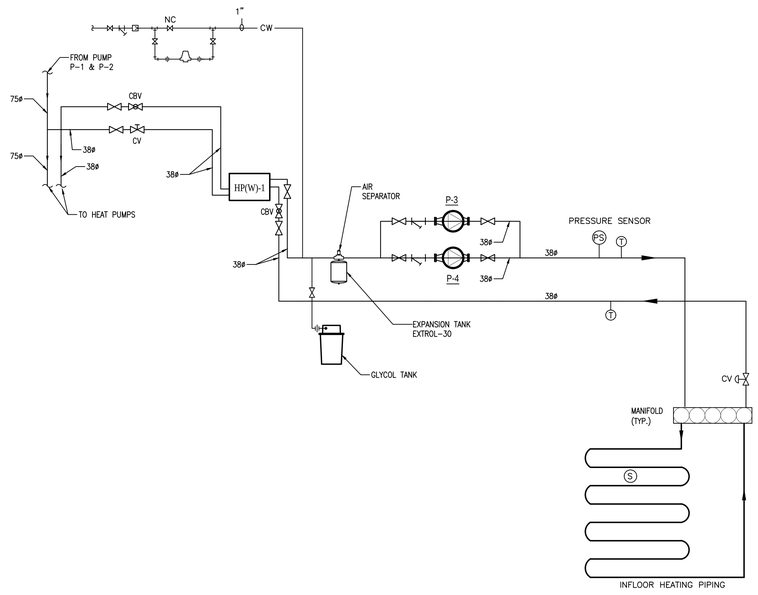
DRAWING No. **M2.4** | REVISION

2021-12-03 12:03:37 PM



GROUND SOURCE SYSTEM PIPING SCHEMATIC

SCALE: N.T.S.



IN FLOOR HAETING SYSTEM PIPING SCHEMATIC

SCALE: N.T.S.

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PROJECT:

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PROVINCE OF ONTARIO

21-237

DWG TITLE

GROUND SOURCE & IN FLOOR HEATING SYSTEM PIPING SCHEMATIC

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE: 2022-06-24

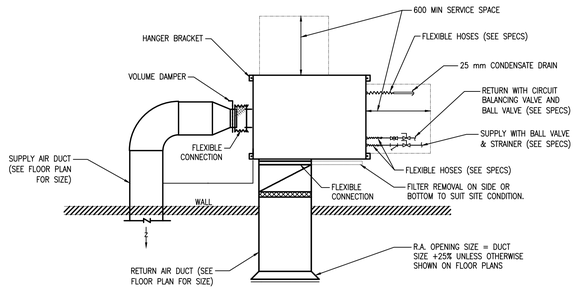
SCALE: As indicated | DRAWN BY: JY

DWG STATUS: TENDER

PROJECT No.: 21-237

DRAWING No.: **M2.5** | REVISION:

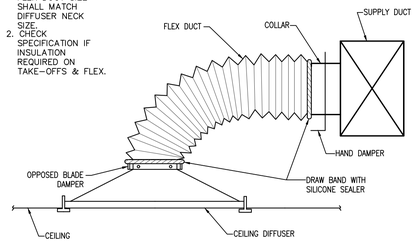
2021-12-03 12:03:37 PM



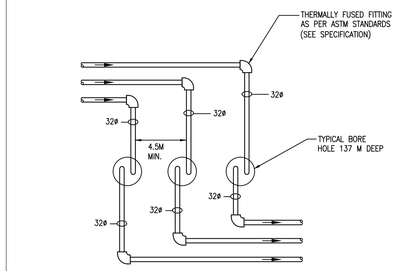
NOTE:
1. CIRCUIT BALANCING VALVES (CBV'S). SEE SPECS
2. DETAILS SHOW GENERAL ARRANGEMENT ONLY AND MUST BE READ IN CONJUNCTION WITH FLOOR PLANS WHICH SHOW SPECIFIC PIPE CONNECTIONS
3. SUPPLY & RETURN DUCTWORK SOUND LINED, SEE SPECS.

TYPICAL HORIZONTAL HEAT PUMP DETAIL
N.T.S.

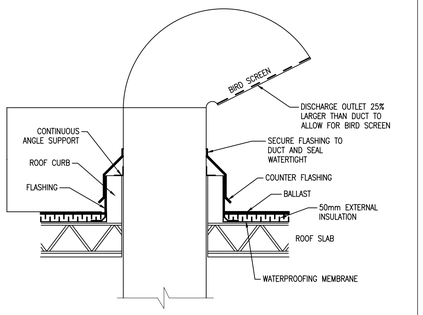
NOTE:
1. MAX. FLEX DUCT LENGTH IS 1800mm. FLEX DUCT SIZE SHALL MATCH DIFFUSER NECK SIZE.
2. CHECK SPECIFICATION IF INSULATION REQUIRED ON TAKE-OFFS & FLEX.



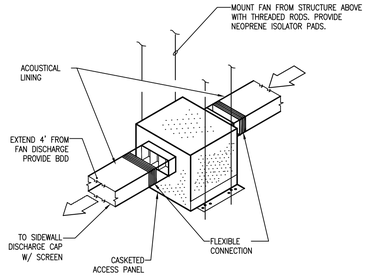
TYPICAL DIFFUSER CONNECTION
N.T.S.



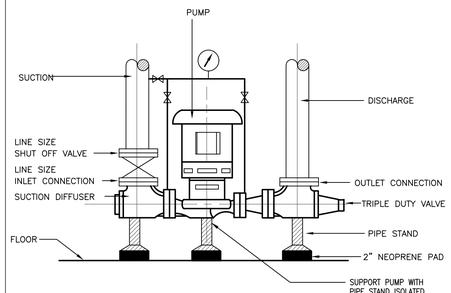
TYPICAL GROUND HEAT EXCHANGER LOOP (6 SETS)
N.T.S.



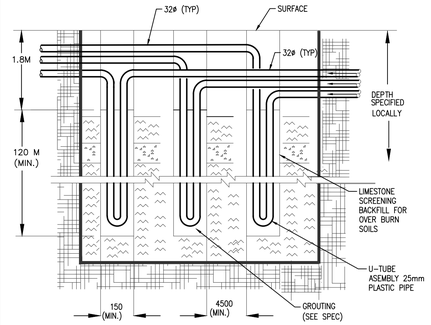
RELIEF GOOSENECK DETAIL
N.T.S.



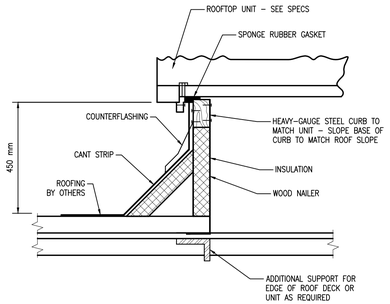
CABINET FAN INSTALLATION DETAIL
N.T.S.



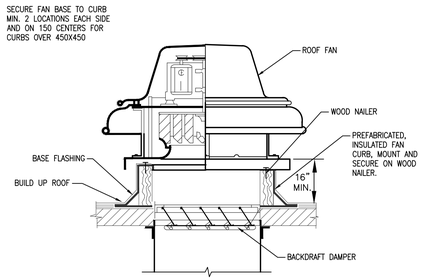
TYPICAL PUMP HOOK UP DETAIL
N.T.S.



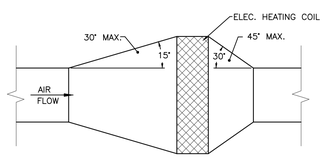
VERTICAL U-TUBE HEAT EXCHANGER DETAIL
N.T.S.



ROOFTOP EQUIPMENT CURB DETAIL
N.T.S.

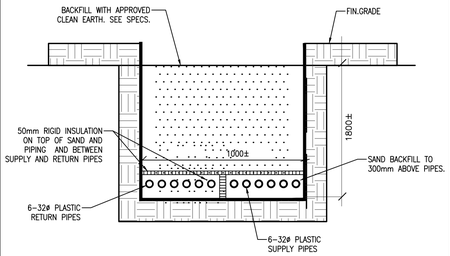


ROOF FAN MOUNTING DETAIL
N.T.S.

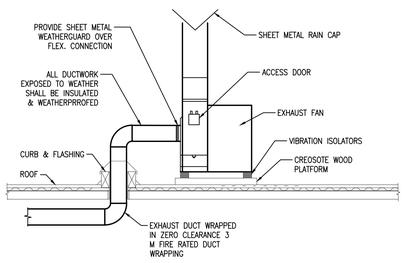


TYPICAL ELECTRICAL DUCT COIL INSTALLATION
N.T.S.

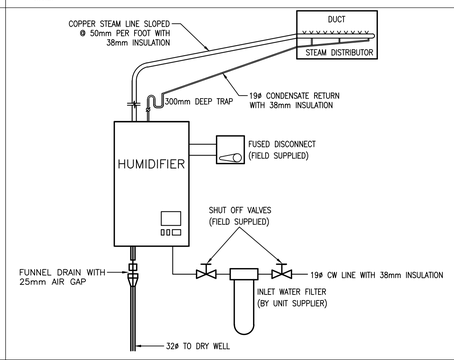
NOTE:
REFER ALSO TO GEOTECHNICAL REPORT FOR MORE INFORMATION



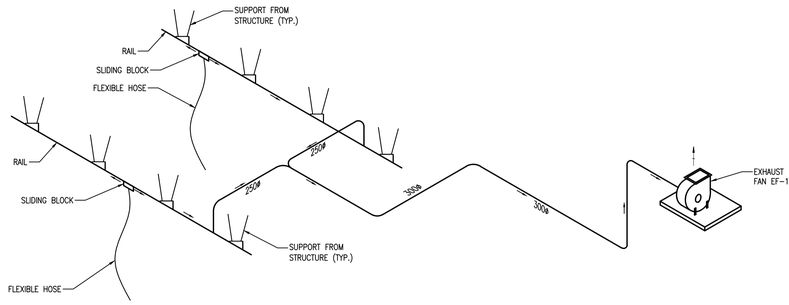
PIPE HEADER TRENCH
N.T.S.



DETAIL OF TAIL EXHAUST FAN ON ROOF
N.T.S.



DETAIL OF TYPICAL INSTALLATION OF HUMIDIFIER
N.T.S.



TAIL PIPE EXHAUST SYSTEM CONNECTION DETAIL
N.T.S.

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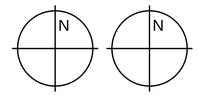
PROFESSIONAL SEAL

21-237

DWG TITLE
DETAILS

ORIENTATION



TRUE NORTH CONSTRUCTION NORTH

DATE 2022-06-24

SCALE As indicated | DRAWN BY JY

DWG STATUS : TENDER

PROJECT No. 21-237

DRAWING No. **M2.6** | REVISION

2021-12-03 12:03:37 PM

WATER TO WATER HEAT PUMP UNIT SCHEDULE

UNIT TAG	AREA SERVED	HEATING CAPACITY (MBH)	WATER FLOW SOURCE (GPM)	WATER P.D. SOURCE (FT)	WATER FLOW LOAD (GPM)	WATER P.D. LOAD (FT)	ELECTRIC			MAKE	MODEL	UNIT WT (LBS)	REMARK
							V/PH/HZ	MCA	MOCP				
HP(W)-1	IN FLOOR HEATING	119.5	30	16.2	14	12.3	208/3/60	43	60	CARRIER	50PSW122	720	30% GLYCOL. WATER TO WATER, HORIZONTAL, FLOOR MOUNTED

NOTE:
WINTER: EFT=40°F SUMMER: EFT=100°F

WATER SOURCE HEAT PUMP UNIT SCHEDULE

UNIT TAG	AREA SERVED	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	AIR FLOW (CFM)	E.S.P (inWC)	WATER FLOW (GPM)	WATER P.D. (FT)	ELECTRIC			MAKE	MODEL	FRESH AIR (CFM)	UNIT WT (LBS)	REMARK
								V/PH/HZ	MCA	TOTAL MFS					
HP-1	RECEPTION 102	5.5	5.3	200	0.33	1.5	2.5	208/1/60	4	15	CARRIER	50PCH007	25	96	HORIZONTAL
HP-2	CAPTAIN OFFICE 104	7.3	7.4	300	0.44	2.3	7.9	208/1/60	5	15	CARRIER	50PCH009	25	100	HORIZONTAL
HP-3	TRAINING ROOM 105	21.1	19.6	650	0.65	6.0	21.8	208/1/60	11	15	CARRIER	50PCH024	100	181	HORIZONTAL
HP-4	DORMITORY 109 & 113	5.5	5.3	300	0.33	1.5	2.5	208/1/60	4	15	CARRIER	50PCH007	25	96	HORIZONTAL
HP-5	CORRIDOR 101, 106, 108 & 114	21.1	19.6	650	0.65	6.0	21.8	208/1/60	11	15	CARRIER	50PCH024	150	181	HORIZONTAL
HP-6	DORMITORY 110, 111 & 112	7.3	7.4	300	0.44	2.3	7.9	208/1/60	5	15	CARRIER	50PCH009	35	100	HORIZONTAL
HP-7	EXERCISE ROOM 116	21.1	19.6	650	0.65	6.0	21.8	208/1/60	11	15	CARRIER	50PCH024	160	181	HORIZONTAL
HP-8	LOCKER ROOM 121	7.3	7.4	300	0.44	2.3	7.9	208/1/60	5	15	CARRIER	50PCH009	85	100	HORIZONTAL
HP-9	CREW LOUNGE 117	16.1	14.4	560	0.68	4.5	12.4	208/1/60	11	15	CARRIER	50PCH018	160	174	HORIZONTAL
HP-10	DINING 118 & KITCHEN 119	21.1	19.6	650	0.65	6.0	21.8	208/1/60	11	15	CARRIER	50PCH024	200	181	HORIZONTAL
HP-11	BUNKER GEAR 131 BUNKER GEAR WASHING 130	9.5	9.2	325	0.56	3.0	13.5	208/1/60	7	15	CARRIER	50PCH012	70	105	HORIZONTAL
HP-12	IT ROOM	7.3	7.4	300	0.44	2.3	7.9	208/1/60	5	15	CARRIER	50PCH009	15	100	HORIZONTAL

NOTE:
WINTER: EFT=40°F SUMMER: EFT=100°F

EXHAUST FAN SCHEDULE

UNIT TAG	SERVICE AREA	VOLUME FLOW CFM	E.S.P. inWC	SPEED RPM	MOTOR AMPS	MOTOR WATTS	POWER SUPPLY V/PH/HZ	MAKE	MODEL	WEIGHT LBS	REMARKS
HEF-1	HOOD EXHAUST (KITCHEN 119)	250	0.25	–	2.0	–	120/1/60	BROAN	ALLURE WS2		
EF-1	SPRINKLER ROOM 132	100	0.25	1550	–	79	120/1/60	PENN BARRY	ZEPHYR Z5H		
EF-2	ELECTRICAL ROOM 133	75	0.25	1050	–	47	120/1/60	PENN BARRY	ZEPHYR Z6S		
EF-3	MECHANICAL ROOM 200	150	0.25	1550	–	108	120/1/60	PENN BARRY	ZEPHYR Z6H		INTERLOCK WITH MOTORIZED DAMPER
EF-4	JANITOR 127	50	0.25	1380	–	50	120/1/60	PENN BARRY	ZEPHYR ZL2		
EF-5	APPARATUS BAY 129	4750	0.5	511	–	2 KW	208/1/60	PENN BARRY	ZEPHYR ZC18		
EF-6	HOSE TOWER 134	200	0.375	1060	–	187	120/1/60	PENN BARRY	DOMEX DX06B		
EF-7	BUNKER GEAR WASHING 130	75	0.25	1050	–	47	120/1/60	PENN BARRY	ZEPHYR Z6S		
EF-8	BUNKER GEAR 131	150	0.25	1550	–	108	120/1/60	PENN BARRY	ZEPHYR Z6H		
EF-9	GARBAGE ROOM 136	50	0.25	1550	–	52	120/1/60	PENN BARRY	DOMEX DX06R		
EF-10	APPARATUS BAY 129	410-2540	11.6-3.8	3515	–	4 HP	208/3/60	NEDERMAN	NCF30/20	187	RD 0° STANDARD
EF-11	CLEAN LAUNDRY 120	75	0.25	1050	–	47	120/1/60	PENN BARRY	ZEPHYR Z6S		
CF-1 TO CF-4	CEILING FAN NO. CF-1 TO CF-4 APPARATUS BAY 129	16800	–	–	–	157	120/1/60	WILCORP	60F (56")		C/W SPEED CONTROLLER AND FAN ENCLOSURE

MANIFOLD SCHEDULE

NAME	MANIFOLD TYPE	NUMBER OF CIRCUITS	TUBING SIZE	FLUID TYPE	SUPPLY TEMP (°F)	SUPPLY/RETURN DELTA-T (°F)	TOTAL FLOW (USGPM)	HEAD LOSS (FT WATER)	TOTAL LOAD (BTU/HR)
MANIFOLD 1	PRO-BALANCE 1" STAINLESS STEEL	7	5/8"	30-40% PROPYLENE GLYCOL	120	20	14	22	114,504

HEAT RECOVERY UNIT SCHEDULE

TAG	AREA SERVED	AIR FLOW RATE (CFM)		E.S.P (inWC)	COOLING CAPACITY		HEATING CAPACITY (MBH)	HEAT RECOVERY						BLOWER MOTOR (HP)		ELECTRICAL HEATING (KW)	ELECTRICS			MAKE MODEL	APPROX. WEIGHT (LBS)	REMARKS
		SUPPLY	EXHAUST		TOTAL (MBH)	SENSIBLE (MBH)		O/A EDB/EWB °F (SUM.)	O/A LDB/LWB °F (SUM.)	E/A EDB °F (SUM.)	O/A EDB/EWB °F (WIN.)	O/A LDB/LWB °F (WIN.)	E/A EDB °F (WIN.)	SUPPLY	EXHAUST		V/PH/HZ	MCA	MOPA			
HRU-1	WHOLE BUILDING	1450	1450	0.5	73.4	45.8	20.5	88.1 / 74.4	78.0 / 66.1	75	-4 / -5.3	52.8 / 43.6	72	1.0	1.0	12.3	208/3/60	74.2	80	VALENT VXE-112-36B-5A-1-A1	3135	

1. PROVIDE FRESH AIR INTAKE HOOD & EXHAUST AIR DISCHARGE HOODS.
2. PROVIDE FRESH AIR MOTORIZED MODULATING DAMPERS.
3. PROVIDE VFD SPEED CONTROL THROUGH CO2 SENSORS FOR SUPPLY AND EXHAUST.
4. PROVIDE RETURN AIR FILTER SECTION.
5. PROVIDE FLEXIBLE DUCT CONNECTIONS.
6. PROVIDE NON FUSED DISCONNECT SWITCH.

ELECTRIC DUCT COIL SCHEDULE

TAG	SERVICE	AIR FLOW CFM	DUCT SIZE in x in	HEATING CAPACITY (KW)	VOLT/PH/HZ	TAG	SERVICE	AIR FLOW CFM	DUCT SIZE in x in	HEATING CAPACITY (KW)	VOLT/PH/HZ	TAG	SERVICE	AIR FLOW CFM	DUCT SIZE in x in	HEATING CAPACITY (KW)	VOLT/PH/HZ	TAG	SERVICE	AIR FLOW CFM	DUCT SIZE in x in	HEATING CAPACITY (KW)	VOLT/PH/HZ	REMARK
HC-1	HP-1	260	8x8	1.0	208/1/60	HC-2	HP-2	300	8x8	1.3	208/1/60	HC-3	HP-3	800	14x10	2.5	208/3/60	HC-4	HP-4	260	8x8	1.0	208/1/60	ALL ELECTRICAL DUCT COILS WILL BE PROVIDED BY MECHANICAL (DIVISION 15). ELECTRICAL CONTRACT WILL CONNECT DUCT COILS TO POWER.
HC-5	HP-5	800	14x10	4.5	208/3/60	HC-6	HP-6	300	8x8	1.0	208/1/60	HC-7	HP-7	800	14x10	4.5	208/3/60	HC-8	HP-8	300	8x8	1.0	208/1/60	
HC-9	HP-9	600	12x10	2.4	208/3/60	HC-10	HP-10	800	14x10	2.5	208/3/60	HC-11	HP-12	260	8x8	1.0	208/1/60							

HUMIDIFIER SCHEDULE

NO.	SYSTEM SERVED	MAKE & MODEL	DISCHARGE CAPACITY LBS / HR	WATER INLET PSIG	POWER KW	ELECTRICAL DATA			FULL WEIGHT (LBS)	REMARKS
						V/PH/HZ	MCA	MOCP		
HU-1	HRU-1	CONDAIR EL 50	50	30 - 80	18.7	280/3/60	51.9	70	150	

CIRCULATING PUMP SCHEDULE

TAG	SYSTEM SERVED	SIZE	FLOW GPM	HEAD FT	MOTOR			DUTY	MAKE & MODEL	REMARKS
					HP	R.P.M.	V/PH/HZ			
P-1	CIRCULATING PUMP	2x2x8 VERTICAL-IN-LINE	74	65	3	1800	208/3/60	RUNNING	ARMSTRONG 4300	FLUID: 30% PROPYLENE GLYCOL
P-2	CIRCULATING PUMP	2x2x8 VERTICAL-IN-LINE	74	65	3	1800	208/3/60	STAND BY	ARMSTRONG 4300	FLUID: 30% PROPYLENE GLYCOL
P-3	IN-FLOOR HEATING CIRCULATING PUMP	H64	14	38	1	1800	208/1/60	RUNNING	SERIES H H64	FLUID: 30% PROPYLENE GLYCOL
P-4	IN-FLOOR HEATING CIRCULATING PUMP	H64	14	38	1	1800	208/1/60	STAND BY	SERIES H H64	FLUID: 30% PROPYLENE GLYCOL

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9511 WESTON ROAD, VAUGHAN

CLIENT

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PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER D. JAIN SEP.09'24 PROVINCE OF ONTARIO

21-237

DWG TITLE
SCHEDULES

ORIENTATION
TRUE NORTH CONSTRUCTION NORTH

DATE 2022-06-24
SCALE As indicated
DRAWN BY JY
DWG STATUS : TENDER
PROJECT No. 21-237
DRAWING No. M2.7
REVISION

2021-12-03 12:03:37 PM

MECHANICAL EQUIPMENT STARTER AND ELECTRICAL DATA SCHEDULE

EQUIPMENT & LABEL	STARTER LOCATION	ELECTRICAL DATA			STARTER TYPE	FUSED	PILOT LIGHT IN COVER ON/OFF SEL.	PILOT LIGHT IN COVER SEL. SWITCH IN COVER	START/STOP P.B. IN COVER	H/O/A SELECTOR SWITCH IN COVER	120V CONTROL TRANSFORMER	ELECTRIC TIME SWITCH	REMOTE P.B. & P.L. STATION	REMOTE SEL. S. & P.L. STATION	FIRESTAT & SD	M.C.C. No.	WIRING BY MECHANICAL	THERMISTOR	BMS	SOFT START	REMARKS
		KW / WATTS / AMPS	PHASE	VOLTAGE																	
WATER TO WATER HEAT PUMP NO. HP(W)-1 MECHANICAL ROOM	MECH. RM 200	MCA 43	3	208	MAGNETIC	●	●			●	●										
HEAT RECOVERY UNIT NO. HRU-1 ON ROOF	AT UNIT	MCA 74.2	3	208	INTEGRAL	●	●			●	●										ELECTRICAL DIVISION WILL PROVIDE WEATHER PROOF DISCONNECT & WIRE TO UNIT
HEAT PUMP NO. HP-1 TO HP-12 CEILING SPACE	SEE HEAT PUMP SCHEDULES						●			●	●										
EXHAUST FAN NO. HEF-1 HOOD EXHAUST	KITCHEN	AMPS 2.0	1	120	INTEGRAL		●			●											
EXHAUST FAN NO. EF-1 SPRINKLER ROOM	SPRINKLER RM 132	WATTS 79	1	120	MAGNETIC		●			●		●									
EXHAUST FAN NO. EF-2 ELECTRICAL ROOM	ELEC. RM. 133	WATTS 47	1	120	MANUAL		●			●											
EXHAUST FAN NO. EF-3 MECH. ROOM 200	MECH. RM. 200	WATTS 108	1	120	MAGNETIC		●			●											INTERLOCK TO OPEN O.A. MOTORIZED DAMPER. INTERLOCK TO TURN ON THE FFH IN WINTER
EXHAUST FAN NO. EF-4 JANITOR	JANITOR 127	WATTS 50	1	120	MAGNETIC		●			●											
EXHAUST FAN NO. EF-5 APPARATUS BAY 129	GEAR. RM. 131	KW 2.0	1	208	MAGNETIC		●			●	●										INTERLOCK TO OPEN O.A. MOTORIZED DAMPER
EXHAUST FAN NO. EF-6 HOSE TOWER 134	HOSE TOWER 134	WATTS 187	1	120	MAGNETIC		●			●											
EXHAUST FAN NO. EF-7 BUNKER GEAR WASHING 130	GEAR WASHING 130	WATTS 47	1	120	MAGNETIC		●			●											
EXHAUST FAN NO. EF-8 BUNKER GEAR 131	BUNKER GEAR 131	WATTS 108	1	120	MAGNETIC		●			●											
EXHAUST FAN NO. EF-9 GARBAGE ROOM 136	GARBAGE RM 136	WATTS 52	1	120	MAGNETIC		●			●											
EXHAUST FAN NO. EF-10 APPARATUS ABY 129	APPARATUS 129	HP 4	3	208	VFD																INTERLOCK TO OPEN O.A. MOTORIZED DAMPER
EXHAUST FAN NO. EF-11 CLEAN LAUNDRY 120	LAUNDRY. 120	WATTS 47	1	120	MAGNETIC		●			●		●									
CEILING FAN NO. CF-1 TO CF-4 APPARATUS BAY 129	APPARATUS BAY 129	WATTS 157	1	120	MANUAL		●			●											
CIRCULATING PUMP NO. P-1 MECH. ROOM 200	MECH. RM 200	HP 3	3	208	MAGNETIC	●	●			●	●										VFD
CIRCULATING PUMP NO. P-2 MECH. ROOM 200	MECH. RM 200	HP 3	3	208	MAGNETIC	●	●			●	●										VFD
IN-FLOOR HAETING PUMP NO. P-3 MECH. ROOM 200	MECH. RM 200	HP 1	1	208	MAGNETIC		●			●											
IN-FLOOR HAETING PUMP NO. P-4 MECH. ROOM 200	MECH. RM 200	HP 1	1	208	MAGNETIC		●			●											
HUMIDIFIER NO. HU-1 MECH. ROOM 200	MECH. RM 200	MCA 51.9	3	208	MAGNETIC	●	●			●	●										
ELECTRICAL DUCT HEATING COIL	SEE DUCT COIL SCHEDULES																				

STARTER SCHEDULE NOTES:

1. SEE "WIRING & MOTORS" IN MECHANICAL GENERAL REQUIREMENTS FOR FULL DETAILS OF STARTERS, FUSES, OVERLOAD HEATERS, ETC.
2. LABEL ON STARTERS FOR EQUIPMENT, FANS ETC., SHALL BE AS NOTED IN THEIR SCHEDULES. SEE SPECIFICATIONS FOR DETAIL.
3. INTERLOCKS, FREEZE & SAFETY CONTROL WIRING SHALL BE BY MECHANICAL TRADE. SEE SPECIFICATIONS FOR DETAIL.
4. STARTER LOCATION:
   - IN MECHANICAL ROOMS OR SERVICE ROOM STARTERS SHALL BE ON WALLS ADJACENT TO EQUIPMENT;
   - IN FINISHED ROOM STARTERS SHALL BE AT THE LIGHT SWITCH.
5. ROOF EQUIPMENT THAT START FROM REMOTE PUSH BUTTON OR SELECTOR SWITCH SHALL HAVE THEIR STARTERS LOCATED IN THE NEAREST MECHANICAL ROOM TO THE EQUIPMENT.

ABBREVIATION:

S.S. – SELECTOR SWITCH
P.B. – PUSH BUTTON
H/O/A – HAND-OFF-AUTOMATIC
P.L. – PILOT LIGHT
BMS – BUILDING MANAGEMENT SYSTEM

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022-07-07
2	ISSUED FOR PERMIT	2023-09-06
3	ISSUED FOR TENDER	2024-04-15
4	ISSUED FOR CONSTRUCTION	2024-09-09

PROJECT:
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

CLIENT

Jain
7405 EAST DANBRO CRESCENT
MISSISSAUGA, ONTARIO, L5N 6P8
TEL. 905 285 9900, FAX 905 567 5246
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PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
D. JAIN
SEP.09'24
PROVINCE OF ONTARIO

21-237

DWG TITLE
SCHEDULES

ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

DATE 2022-06-24

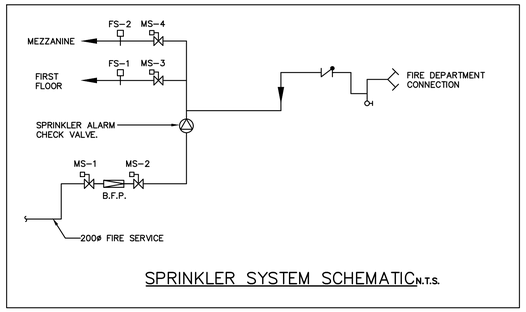
SCALE As indicated | DRAWN BY JY

DWG STATUS : TENDER

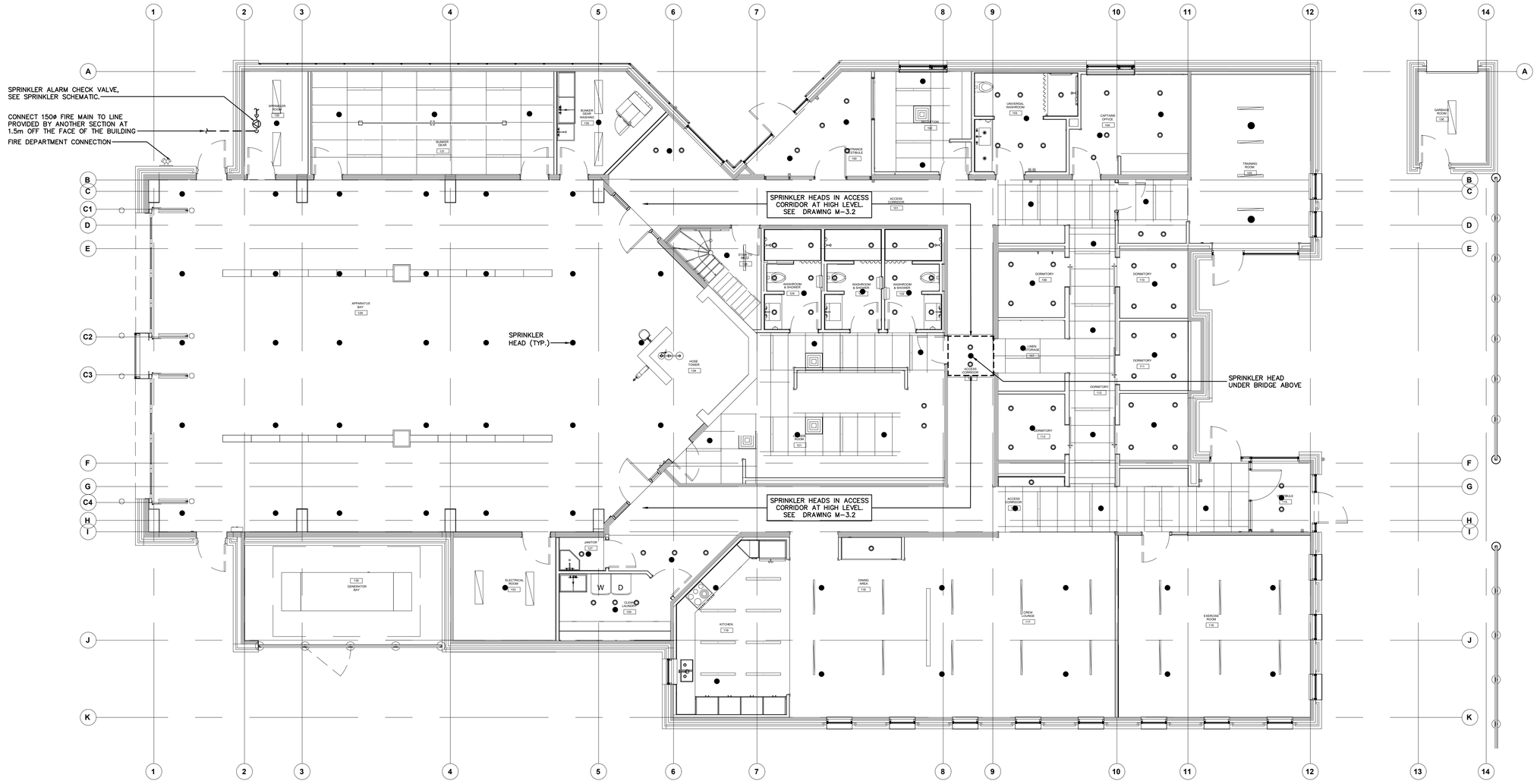
PROJECT No. 21-237

DRAWING No. **M2.8** | REVISION

2021-12-03 12:03:37 PM



SPRINKLER SYSTEM SCHEMATIC N.T.S.



ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022.07.07
2	BUILDING PERMIT	2023.09.07
3	CITY COMMENTS	2023.11.10
4	TENDER	2024.04.15
5	CONSTRUCTION	2024.09.09

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
D. JAIN
SEPTEMBER 9 2024
PROVINCE OF ONTARIO

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DWG TITLE

FLOOR PLAN - SPRINKLERS -

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

DATE	2021-11-24
SCALE	1 : 75
DRAWN BY	C.R.
DWG STATUS :	CONSTRUCTION
PROJECT No.	2104
DRAWING No.	M-3.1
REVISION	05

2022-06-20 2:29:07 PM

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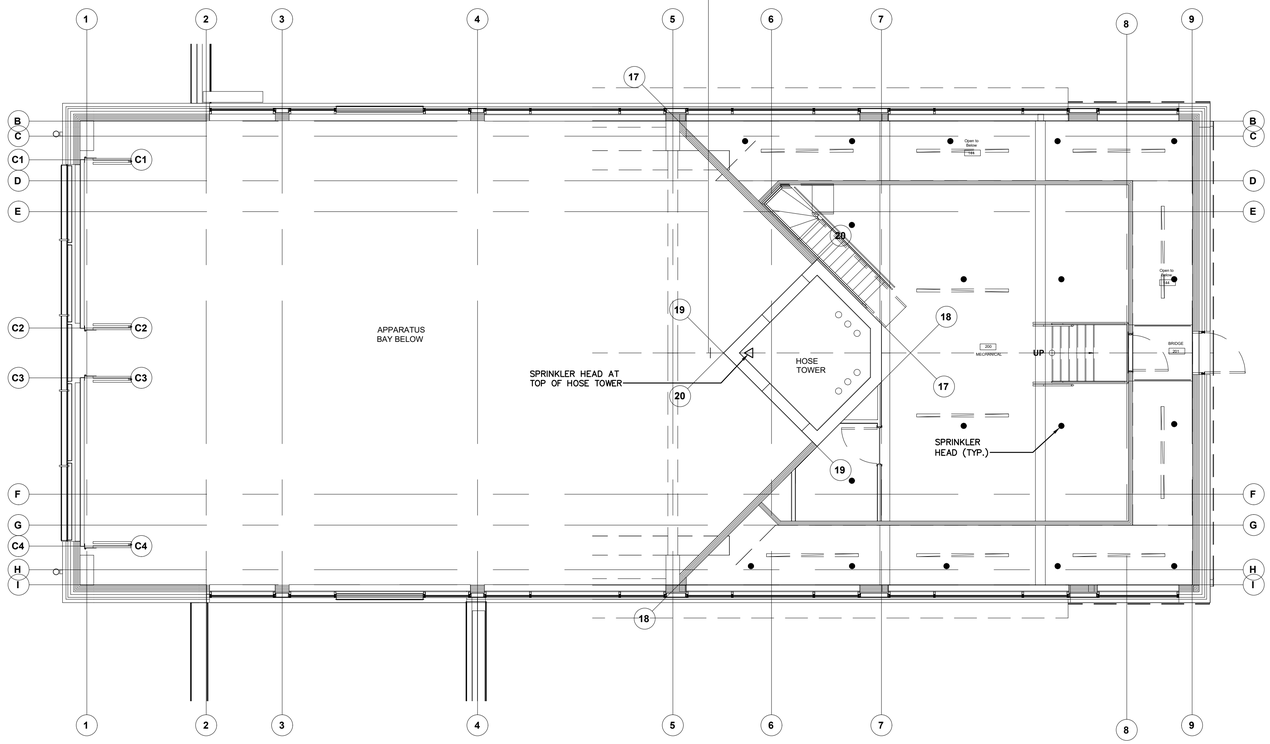

ISSUE OR REVISION

NO.	ISSUED FOR	DATE
1	DESIGN DEVELOPMENT FOR COSTING	2022.07.07
2	BUILDING PERMIT	2023.09.07
3	CITY COMMENTS	2023.11.10
4	TENDER	2024.04.15
5	CONSTRUCTION	2024.09.09

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

CLIENT

VAUGHAN

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
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SEPTEMBER 9
2024
PROVINCE OF ONTARIO

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DWG TITLE

MEZZANINE PLAN
- SPRINKLERS -

ORIENTATION

N — TRUE NORTH

N — CONSTRUCTION NORTH

DATE: 2021-11-24

SCALE: 1 : 75 | DRAWN BY: C.R.

DWG STATUS : CONSTRUCTION

PROJECT No. 2104

DRAWING No. **M-3.2** | REVISION 05

2022-06-20 2:29:07 PM

LEGEND

- A — LED LIGHT FIXTURE – LETTER DENOTES TYPE
- OD — LED, CEILING FIXTURE – LETTER DENOTES TYPE
- LED, LIGHT FIXTURE 24/7 'ON' NIGHT LIGHT FIXTURE
- LIGHT STANDARD
- C — LED WALL FIXTURE – LETTER DENOTES TYPE
- EXIT LIGHT FIXTURE WALL OR CEILING MOUNTED, PICTOGRAM TYPE – SHADED AREA DENOTES FACE
- EMERGENCY LIGHTING TYPE 1 (SINGLE HEAD)& TYPE 2. (DOUBLE HEADS), LED, 24V, 7W PER HEAD. BAGHELLI# BTMR–MR16–LED–7W/HEAD–24V OR APPROVED EQUAL EXCEPT FOR APPARATUS BAY & EMS BAY AREAS. BAGHELLI# SEA SERIES–MR16–LED–7W/HEAD–WEATHERPROOF–NEMA 4X OR APPROVED EQUAL SUITABLE FOR WET LOCATIONS SHALL BE PROVIDED FOR APPARATUS BAY & EMS BAY AREAS.
- WP WP — EMERGENCY LIGHTING TYPE 1 (SINGLE HEAD)& TYPE 2. (DOUBLE HEADS), LED, 24V, 7W PER HEAD, WEATHERPROOF. BAGHELLI# SEA SERIES–MR16–LED–7W/HEAD–WEATHERPROOF–NEMA 4X OR APPROVED EQUAL SUITABLE FOR WET LOCATIONS.
- EMERGENCY LIGHTING BATTERY UNIT, 24V, (BAGHELLI#NOVA–NV–24–WATTAGE AS SHOWN ON DRAWINGS OR APPROVED EQUAL), SUITABLE FOR 120V INPUT VOLTAGE UNLESS NOTED OTHERWISE.
- TR — STANDARD 15A 120V 1P DUPLEX RECEPTACLE. 'TR' DENOTES TAMPER RESISTANT TYPE.
- TR — STANDARD DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER. 'TR' DENOTES TAMPER RESISTANT TYPE.
- TR — STANDARD DUPLEX RECEPTACLE WITH SEPARATE NEUTRAL AND GROUND WIRE PER CIRCUIT. 'TR' DENOTES TAMPER RESISTANT TYPE.
- STANDARD DUPLEX RECEPTACLE 15A/20A (SPLIT FEED).
- STANDARD DUPLEX RECEPTACLE (SPLIT FEED) MOUNTED ABOVE COUNTER.
- TR — G.F.I DUPLEX RECEPTACLE. 'TR' DENOTES TAMPER RESISTANT TYPE.
- TR — G.F.I DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER. 'TR' DENOTES TAMPER RESISTANT TYPE.
- 15A QUAD. RECEPTACLE WITH SEPARATE NEUTRAL AND GROUND WIRE PER CIRCUIT. 'TR' DENOTES TAMPER RESISTANT.
- G.F.I QUAD. RECEPTACLE MOUNTED ABOVE COUNTER. 'TR' DENOTES TAMPER RESISTANT.
- C — CEILING MOUNTED DUPLEX RECEPTACLE
- TR T — 15A/20A T–SLOT RECEPTACLE ON 20A CIRCUIT. 'TR' DENOTES TAMPER RESISTANT.
- 2 — L5–20R TWIST LOCK RECEPTACLE BLACK IN COLOUR WITH SEPARATE NEUTRAL AND GROUND WIRE PER CIRCUIT FOR FEEDING POWER TO UPS OF I.T. RACK.
- T — L5–20RA, 20A RECEPTACLE BLACK IN COLOUR WITH SEPARATE NEUTRAL AND GROUND WIRE PER CIRCUIT FOR FEEDING POWER TO UPS OF I.T. RACK.
- RR — 120V, 15A CEILING MOUNTED EXTENSION CORD REEL C/W DUPLEX RECEPTACLE AND OUTLET BOX (HUBBELL# HBL45123R + HBL5252GY) C/W SUPPORTING SYSTEM. CO–ORDINATE ON SITE FOR EXACT LOCATION/ MORE INFORMATION AND PROCEED ACCORDINGLY.
- TAMPER RESISTANT USB CHARGER DUPLEX RECEPTACLE, 125V, 15A, 2–POLE,3W, 5–15R (HUBBELL# USB 15X2 OR ATTOW HART (COOPER# TR7745)
- 2 — 3–POLE, 250V RECEPTACLE 14–20R FOR UPS RACK
- 3 — 3–POLE, 250V RECEPTACLE 14–30R FOR DRYER
- 5 — 3–POLE, 250V RECEPTACLE 14–50R FOR RANGE
- SPECIAL OUTLET AS NOTED
- $ — SINGLE POLE LIGHT SWITCH UNLESS NOTED OTHERWISE.
- $k — KEYED SWITCH TO OPEN WASHROOM DOOR IN CASE OF EMERGENCY
- $3 — THREE WAY LIGHT SWITCH
- $4 — FOUR WAY LIGHT SWITCH
- $ — 1–BUTTON LOW VOLTAGE DLM TYPE LIGHT SWITCH (TYP.) UNLESS NOTED OTHERWISE.
- $4 — 4–BUTTON LOW VOLTAGE DLM TYPE LIGHT SWITCH (TYP.)
- 1 — ELECTRIC HEATING UNIT, NO. DENOTES TYPE
- DOOR OPERATOR PUSH BUTTON UNLESS NOTED OTHERWISE
- REX — REQUEST TO EXIT DEVICE
- PL — PUSH TO LOCK BUTTON
- PANELBOARD
- EF–3 F P S — MOTOR STARTER. LETTER F DENOTES FLUSH MTD, P= PILOT LIGHT, S=SURFACE MTD. EF–3 = EQUIPMENT CONTROLLED BY STARTER
- WP — DISCONNECT SWITCH – WP DENOTES WEATHERPROOF
- COMBINATION MOTOR STARTER AND DISCONNECT
- MOTOR OUTLET AS NOTED
- MOTOR & DISCONNECT SWITCH TO SUIT
- 1 — RECESSED P.A. SPEAKER CEILING MOUNTED IN CASE OF DRYWALL & T–BAR CEILINGS, SURFACE MOUNTED IN EXPOSED CEILINGS. REFER SCHEMATIC DIAGRAMS FOR MORE INFORMATION.
- 2 — RECESSED P.A. SPEAKER RECESSED, WALL MOUNTED. REFER SCHEMATIC DIAGRAMS FOR MORE INFORMATION.
- 3 — SURFACE MOUNTED P.A. SPEAKER. REFER SCHEMATIC DIAGRAMS FOR MORE INFORMATION.
- 4 — EXTERIOR TYPE P.A. SPEAKER, WALL MOUNTED. REFER SCHEMATIC DIAGRAMS FOR MORE INFORMATION.
- PC — PA CONSOLE/MICROPHONE. REFER SCHEMATIC DIAGRAMS FOR MORE INFORMATION.
- MIC — MICROPHONE OUTLET
- OS1 — WATT STOPPER LMDX–100 OCCUPANCY/VACANCY SENSOR, DUAL TECH WALL CORNER MOUNT/CEILING MOUNT C/W ROOM CONTROLLERS AS REQUIRED. LIGHTING CONTROL TO BE MANUAL–ON, AUTO–OFF.
- OS2 — WATT STOPPER DW–100–120 DUAL TECHNOLOGY WALLSWITCH SENSOR LINE VOLTAGE (AUTO–ON, AUTO–OFF).
- OS3 — WATT STOPPER LMUC–100 OCCUPANCY SENSOR, ULTRA SONIC CEILING MOUNT C/W ROOM CONTROLLERS AS REQUIRED.
- OS4 — WALL MOUNTED DUAL TECHNOLOGY TWO RELAY LINE VOLTAGE OCCUPANCY SENSOR. WATT STOPPER DW–200–120 (MANUAL–ON, AUTO–OFF)
- OS5 — WATT STOPPER LMDC–100 OCCUPANCY/VACANCY SENSOR, DUAL TECH CEILING MOUNT, 360 DEGREES C/W ROOM CONTROLLERS AS REQUIRED. LIGHTING CONTROL TO BE MANUAL–ON, AUTO–OFF.
- OS6 — WATT STOPPER LMDX–100 VACANCY SENSOR, DUAL TECH WALL CORNER MOUNT/CEILING MOUNT C/W ROOM CONTROLLERS AS REQUIRED.
- OS7 — WATT STOPPER LMDC–100 OCCUPANCY/VACANCY SENSOR, DUAL TECH CEILING MOUNT, 360 DEGREES C/W ROOM CONTROLLERS AS REQUIRED. LIGHTING CONTROL TO BE AUTO–ON, AUTO–OFF.
- DLS — WATT STOPPER LMLS–500 OPEN LOOP DAYLIGHT SENSOR.
- BATTERY OPERATED CLOCK (12" DIA, SEMI FLUSH, BATTERY OPERATED, BLACK/RED 24 HOUR DIAL AND GREY CASE WITH SYMMEYTY HANDS. EDWARDS MODEL# 1885A SERIES OR SIMPLEX.
- AV — CEILING MOUNTED A/V OUTLET FOR PROJECTOR
- VGA MONITOR OUTLET C/W 21 mmC. TO CEILING MOUNTED AV OUTLET.
- CABLE TV OUTLET C/W 21MM CONDUIT UPTO CABLE TRAY IN NEAREST CORRIDOR.
- CCL — COUNTDOWN CLOCK–FIRE STATION ALERT SYSTEM

LEGEND (CONTD.)

- F — RECESSED FLOOR BOX C/W COVER AND DEVICES AS PER LAYOUT DWGS. WIREMOLD RFB–SS SERIES, FINISH TO ARCHITECT SELECTION.
- EMERGENCY PUSH BUTTON (CAMDEN 5/8" MUSHROOM, STAINLESS STEEL FACEPLATE, PUSH/PULL, 'PRESS FOR ASSISTANCE' : CM–450R/12) OF CALL FOR ASSISTANCE SYSTEM (CALL FOR ASSISTANCE SYSTEM SHALL BE CAMDEN# CX–WEC10). THE EMERGENCY PUSH BUTTON SHALL BE MOUNTED ON A SINGLE GANG BOX. REFER FLOOR PLAN DWGS. FOR MORE INFORMATION.
- SINGLE GANG LED ANNUNCIATOR C/W SOUNDER, 'ASSISTANCE REQUESTED' (CAMDEN: CM–AF501SO) OF CALL FOR ASSISTANCE SYSTEM (CALL FOR ASSISTANCE SYSTEM SHALL BE CAMDEN# CX–WEC10). REFER FLOOR PLAN DWGS. FOR MORE INFORMATION.
- S — SINGLE GANG DOME LIGHT WITH SOUNDER. 'ASSISTANCE REQUIRED' (CAMDEN: CM–AF140SO) OF CALL FOR ASSISTANCE SYSTEM (CALL FOR ASSISTANCE SYSTEM SHALL BE CAMDEN# CX–WEC10). REFER FLOOR PLAN DWGS. FOR MORE INFORMATION.
- WG — FIRE ALARM MANUAL STATION C/W PLASTIC COVER WITH LOCAL HORN – LETTERS WG DENOTES C/W WIREGUARD
- 2 G — AUTOMATIC FIRE DETECTOR RATE OF RISE 135 DEG. F. UNLESS NOTED OTHERWISE – NUMBER DENOTES ZONE, LETTER G DENOTES GUARD
- 190° — AUTOMATIC FIRE DETECTOR – FIXED TEMPERATURE AS NOTED FIRE ALARM HORN. 'S' DENOTES C/W STROBE LIGHT, WG – WIRE GUARD
- PHOTO ELECTRIC SMOKE DETECTOR
- ALARM DUCT TYPE SMOKE DETECTOR
- 120V AC 3–IN–1 LED STROBE SMOKE ALARM/CO (THREE IN ONE) C/W STROBE & 10 YEAR SEALED BATTERY BACK–UP (KIDDE#P4010ACLEDSCOCA).
- E.O.L. — END–OF–LINE RESISTOR
- S — FIRE ALARM HORN. 'S' DENOTES C/W STROBE LIGHT.
- S — FIRE ALARM STROBE.
- FS — FLOW SWITCH–SPRINKLER SYSTEM
- SV — SUPERVISORY ZONE SWITCH–SPRINKLER SYSTEM
- CO — 120V CARBON MONOXIDE DETECTOR C/W BATTERY BACK–UP AND AUXILIARY CONTACTS TO INITIATE A DEDICATED SUPERVISORY ZONE IN FIRE ALARM SYSTEM.
- TELEPHONE/DATA OUTLET C/W JACK & CABLE & 21mm EMT CONDUIT TO I.T. ROOM AT MEZZANINE LEVEL. REFER SPECIFICATIONS FOR MORE INFORMATION.
- 2 — DATA OUTLET C/W JACK & CABLE & 21mm EMT CONDUIT TO I.T. ROOM AT MEZZANINE LEVEL. NO. DENOTES NUMBER OF DATA DROPS. REFER SPECIFICATIONS FOR MORE INFORMATION.
- TELEPHONE OUTLET C/W JACK & CABLE & 21mm EMT CONDUIT TO I.T. ROOM AT MEZZANINE LEVEL. REFER SPECIFICATIONS FOR MORE INFORMATION.
- WAP — CEILING MOUNTED WIRELESS ACCESS POINT CONSISTING OF A DATA DROP C/W 27MM CONDUIT & WIRING TO I.T. ROOM AT MEZZANINE LEVEL. REFER SPECIFICATIONS FOR MORE INFORMATION.
- ES — DOOR ELECTRIC STRIKE
- KO — KEY OVERRIDE SWITCH TO OVERRIDE ELECTRIC STRIKE
- KP — SECURITY KEY PAD C/W 16MM CONDUIT SECURITY PANEL IN I.T. ROOM.
- CR — CARD READER C/W 16MM CONDUIT UPTO CABLE TRAY IN NEAREST CORRIDOR UNLESS NOTED OTHERWISE.
- CCTV — CCTV CAMERA C/W 27mm CONDUIT UPTO I.T. ROOM
- CCTV — CCTV MONITOR C/W 27mm CONDUIT UPTO UPTO DVR PANEL/CCTV RACK
- M — SECURITY SYSTEM– MOTION SENSOR, WALL MOUNTED C/W 27MM CONDUIT UPTO CABLE TRAY IN NEAREST CORRIDOR
- MDG — SECURITY SYSTEM– MOTION SENSOR/GLASS BREAK COMBO, 360 DEGREE CEILING MOUNTED, WALL MOUNTED C/W 27MM CONDUIT UPTO SECURITY PANEL
- DH — DOOR HOLD OPEN DEVICE C/W CONDUIT AND WIRING
- DC — SECURITY SYSTEM DOOR CONTACT C/W 16MM CONDUIT UPTO SECURITY PANEL VIA A JUNCTION BOX IN NEAREST ACCESSIBLE CEILING SPACE.
- RDC — SECURITY SYSTEM ROOF HATCH DOOR CONTACT C/W 27MM CONDUIT UPTO CABLE TRAY IN NEAREST CORRIDOR
- OHD — SECURITY SYSTEM OVERHEAD DOOR CONTACT C/W 16MM CONDUIT UPTO SECURITY PANEL VIA A JUNCTION BOX IN NEAREST ACCESSIBLE CEILING SPACE.
- PB — PUSH BUTTON FOR DOOR BELL (STI STOPPER STATION SERIES, NO TEXT, SS2XY0, UNIVERSAL STOPPER LABEL SHELL, MOMENTARY (ILLUMINATED), ENGLISH, C/W ACCESSORIES AS REQUIRED.
- DB — 120V DOOR BELL (EDWARDS# STRAP MOUNTED BELL/BUZZER, MODEL–762, 590 SERIES TRANSFORMER, #593 MOUNTING PLATES FOR 590 SERIES TRANSFORMERS, TRANSFORMER MOUNTING PLATES, SINGLE AND MULTIPLE GANG UTILITY BOXES & ALL ACCESSORIES REQUIRED FOR MOUNTING & FULLY OPERATIONAL SYSTEM.
- AB — ARMING BUTTON C/W 27MM CONDUIT UPTO CABLE TRAY IN NEAREST CORRIDOR
- B — SECURITY SYSTEM BUZZER C/W 27MM CONDUIT UPTO CABLE TRAY IN NEAREST CORRIDOR
- PH — PHOTOCELL
- T — THERMOSTAT
- ACK — ACKNOWLEDGE BUTTON–FIRE ALERT SYSTEM.
- CCL — COUNTDOWN CLOCK–FIRE ALERT SYSTEM.
- REX — REQUEST TO EXIT PUSH BUTTON/BAR: SHALL RELEASE ELECTRIC STRIKE OF RESPECTIVE DOOR.
- PG — MAINTAINED TWIST RELEASE RED COLORED MUSHROOM KEYLESS TYPE EMERGENCY PUSH BUTTON FOR SHUT DOWN OF POWER FOR GAS SOLENOID VALVE IN CASE OF EMERGENCY. PROVIDE SUITABLE LABEL ON THE PUSH BUTTON.
- J — WALL MOUNTED J–HOOK IN CEILING
- 53 MM(2") CONDUIT SLEEVE THRU WALL ABOVE CEILING
- SC — SPEED CONTROLLER OF CEILING FAN

TRF.	DENOTES TRANSFORMER
HWT	DENOTES DOMESTIC HOT WATER TANK
RH	DENOTES RANGE HOOD
RG	DENOTES RANGE
DW	DENOTES DISHWASHER
MW	DENOTES MICROWAVE
MD	DENOTES MOTORIZED DAMPER
PT	DENOTES PIPE HEAT TRACING
WG	DENOTES WIRE GUARD
FACP	DENOTES FIRE ALARM CONTROL PANEL
FAAP	DENOTES RECESSED LED TYPE OF FIRE ALARM ANNUNCIATOR PANEL C/W PASSIVE GRAPHICS
FMP	DENOTES RECESSED FIRE ALARM MONITORING PANEL. PROVIDE A DEDICATED PHONE LINE FOR THIS MONITORING PANEL AND PROVIDE 1–21MM CONDUIT FROM THIS PANEL TO FACP.
DO	DENOTES DOOR OPERATOR
FGE	DENOTES FRIDGE
FZR	DENOTES FREEZER
EFC	DENOTES POWER FOR ELECTRONIC FAUCET/PLUMBING FIXTURES
FSA	DENOTES FIRE STATION ALERT SYSTEM

LEGEND (CONTD.)

ATS	DENOTES AUTOMATIC TRANSFER SWITCH
H.D.	DENOTES HEAT DETECTOR
S.D.	DENOTES SMOKE DETECTOR
P.S.	DENOTES PULL STATION
CUH	DENOTES CABINET UNIT HEATER
UH	DENOTES UNIT HEATER
WSH	DENOTES WASHER
DR	DENOTES DRYER
WP	DENOTES WEATHER PROOF.
VVT	DENOTES VARIABLE VOLUME TEMPERATURE.
HD	DENOTES HAND DRYER
CUH	DENOTES CABINET UNIT HEATER
A/V	DENOTES AUDIO/VISUAL SYSTEM
VC	DENOTES LOCAL VOLUME CONTROL OF P.A. SPEAKERS
M&V	DENOTES METERING & VERIFICATION SYSTEM
O/H DOOR	DENOTES OVERHEAD DOOR
CF–1	DENOTES CEILING FAN#1 (TYP.)
TRF.	DENOTES TRANSFORMER
FC–1	DENOTES FAN COIL#1 (TYP.)
FSA	DENOTES FIRE STATION ALERT SYSTEM
LVMSP	DENOTES LV MASTER SWITCH PANEL
1A–1	DENOTES EQUIPMENT FED FROM PANEL '1A' AND BREAKER #1
1A–2.1	DENOTES EQUIPMENT FED FROM PANEL '1A' AND BREAKER #2 AND CONTROLLED BY SWITCH #1
1A–3.R1	DENOTES EQUIPMENT FED FROM PANEL '1A' AND BREAKER #3 AND CONTROLLED VIA RELAY–R1.
1A–5/7.R2(2P)	DENOTES EQUIPMENT FED FROM PANEL '1A' AND 2–POLE BREAKER #5/7 AND CONTROLLED VIA 2–POLE RELAY–R2.
1/E101	DETAIL 1 ON DRAWING E101
1	NOTE PERTAINING TO SPECIFIC ITEM OR AREA

NOTES FOR LEGEND:

1. THE WEATHERPROOF RECEPTACLES SHALL BE PROVIDED WITH COVER PLATES SUITABLE FOR WET LOCATIONS WHETHER OR NOT A PLUG IS INSERTED INTO THE RECEPTACLE (IN–USE COVER PLATE) AND MARKED # EXTRA DUTY# AS PER RULE 26–702(2) OF OESC.
2. 'T' INDICATED BESIDE SYMBOL OF A DUPLEX RECEPTACLE DENOTES THAT THE RECEPTACLE SHALL BE T–SLOT ON 20A CCT.
3. 'C' INDICATED BESIDE SYMBOL OF A DEVICE DENOTES THAT THE DEVICE SHALL BE CEILING MOUNTED.
4. 'TR' INDICATED BESIDE SYMBOL OF A DUPLEX RECEPTACLE DENOTES THAT THE RECEPTACLE SHALL BE TAMPER RESISTANT TYPE OF RECEPTACLE.
5. SLASH LINE SHOWN ON SYMBOL OF A DEVICE (RECEPTACLE, DATA OUTLET, TELEPHONE OUTLET OR DATA/PHONE OUTLET) MEANS THAT THE DEVICE/OUTLET IS TO BE LOCATED ABOVE COUNTER.

HEATER SCHEDULE

TYPE	DESCRIPTION
A	500W 120V BASEBOARD HEATER C/W REMOTE THERMOSTAT DIMPLEX CAT. # AF6F205 STELPRO, OUELLETT
B	750W 120V BASEBOARD HEATER C/W REMOTE THERMOSTAT DIMPLEX CAT. # AF6F307 STELPRO, OUELLETT
C	1250W 120V BASEBOARD HEATER C/W REMOTE THERMOSTAT DIMPLEX CAT. # AF6F512 STELPRO, OUELLETT
D	2000W, 208V, 1–PH. BASEBOARD HEATER C/W REMOTE THERMOSTAT DIMPLEX CAT. # AF6F820 STELPRO, OUELLETT
E	2250W 208V, 1–PH. SURFACE MOUNTED FLOW HEATER C/W REMOTE THERMOSTAT. DIMPLEX CAT. # RFI830D31–RFIP8CW STELPRO, OUELLETT
F	2250W 208V, 1–PH. SEMI RECESSED FORCED FLOW HEATER TO BE MOUNTED IN T–BAR CEILING C/W MOUNTING ACCESSORIES, BRACKETS, SUPPORTS, HARDWARE & REMOTE THERMOSTAT. DIMPLEX CAT. # RFI830D31 STELPRO, OUELLETT
G	3000W 208V, 1–PH. SEMI RECESSED FORCED FLOW HEATER C/W REMOTE THERMOSTAT. DIMPLEX CAT. # RFI840D31 STELPRO, OUELLETT
H	6000W 208V, 1–PH. SURFACE MOUNTED FORCED FLOW HEATER C/W REMOTE THERMOSTAT DIMPLEX CAT. # RFF86021–RFFP8CW STELPRO, OUELLETT
J	1000W 120V BASEBOARD HEATER C/W BUILT–IN THERMOSTAT CHROMALOX CAT. # AF6F410 STELPRO, OUELLETT
K	3000W 208V, 1–PH. WALL SURFACE MOUNTED FORCED FLOW HEATER C/W REMOTE THERMOSTAT. DIMPLEX CAT. # RFI840D31–RFP8DW STELPRO, OUELLETT
UH–1	25.0KW 208V, 3–PH. ELECTRICAL INDUSTRIAL UNIT HEATER, SUSPENDED FROM CEILING TYPE (WAREHOUSE TYPE) C/W REMOTE THERMOSTAT & COMPLETE MOUNTING ACCESSORIES AS REQUIRED. OUELLETT# OAS25038+MOUNTING ACCESSORIES STELPRO, DIMPLEX
UH–2	25.0KW 208V, 3–PH. ELECTRICAL INDUSTRIAL UNIT HEATER, SUSPENDED FROM CEILING TYPE (WAREHOUSE TYPE) C/W REMOTE THERMOSTAT & COMPLETE MOUNTING ACCESSORIES AS REQUIRED. OUELLETT# OAS25038+MOUNTING ACCESSORIES STELPRO, DIMPLEX

NOTES:

1. COORDINATE WITH MECHANICAL DRAWINGS/MECHANICAL TRADE FOR EXACT LOCATION OF REMOTE THERMOSTATS PRIOR TO ROIGH–INS.

LUMINAIRE SCHEDULE

L2	120V, 4" DIA LED DOWN LIGHT FIXTURE, 7.0W, 801 LUMENS, 3000K, DIMMING DRIVER, WET LOCATION C/W MOUNTING ACCESSORIES AS REQUIRED. ORBIT# RIM–R–30K–7W–60D–WH–NC–120V–WET SENSO ARTEMIS, COOPER, ACUITY
L2A	6" HIGH, 3" WIDE, 1" DEEP WALL RECESSED LED (RED LIGHT EMITTING LIGHT FIXTURE), 3.0W, 352 LUMENS, 120V DRIVER. FINISH TO ARCHITECT'S SELECTION. SOLERA# DOMI–RED LIGHT EMISSION–3WLED–120V–R–CPL–120V AXISSTEPLIGHT, COOPER, ACUITY
L2B	120V, 2" DIA LED DOWN LIGHT FIXTURE, 6.7W, 516 LUMENS, 3000K, DIMMING DRIVER C/W MOUNTING ACCESSORIES AS REQUIRED. HEW# 2DR–L5–830–DIM–OW–OF–CS–120V SENSO ARTEMIS, COOPER, ACUITY
L2C	120V, 4" DIA LED DOWN LIGHT FIXTURE, 5.0W, 501 LUMENS, 3000K, DIMMING DRIVER, WET LOCATION C/W MOUNTING ACCESSORIES AS REQUIRED. ORBIT# RIM–R–30K–5W–60D–WH–NC–120V–WET SENSO ARTEMIS–WET, COOPER, ACUITY
L3	NOT USED
L4	LED TAPE LIGHT FIXTURE (LENGTH TO COVER ENTIRE LENGTH AS SHOWN ON DRAWINGS. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR EXTENT OF APPLICATION AND PROCEED ACCORDINGLY), 1.5W/FT., 117 LUMENS/FT., 3000K, C/W CHANNELS, POWER SUPPLIES AS REQUIRED, TRANSFORMERS AS REQUIRED, 120V DRIVERS AS REQUIRED. SUITABLE FOR UNDER CABINET MOUNTING. C/W ALL MOUNTING ACCESSORIES AS REQUIRED. CRI: 90+, FINISH TO ARCHITECT'S SELECTION DIODE# D1–24V–BLBSC1–30–016–CEC–120V–LENGTH TO COVER ENTIRE LENGTH AS PER DRAWINGS/ARCHITECTURAL DRAWINGS–FINISH TO ARCHITECT'S SELECTION–COMPLETE MOUNTING ACCESSORIES–CHANNELS–TRANSFORMERS–TRANSFORMERS–120V DRIVERS–90+ CRI COOPER, LUMINII–KENDO, JUNO
L5	4' LONG LED PENDANT LIGHT FIXTURE (SUSPENDED BY AIRCRAFT CABLES. BOTTOM OF LIGHT FIXTURE TO BE @ 3.1M), 15.9W, 2233 LUMENS., 3000K, 120V DRIVER, FINISH TO ARCHITECT'S SELECTION. C/W LOUVERS– CRI: 90+. JESCO# LINSL–E–48–3000K–LOU–120V–LOUVERS–FINISH TO ARCHITECT'S SELECTION–90+ COOPER, AXIS LIGHTING, MARK ARCHITECTURAL SLOT 4 SERIES
L5A	4' LONG LED PENDANT LIGHT FIXTURE (SUSPENDED BY AIRCRAFT CABLES. BOTTOM OF LIGHT FIXTURE TO BE @ 3.1M), 28.3W, 3812 LUMENS., 3000K, 120V DRIVER, FINISH TO ARCHITECT'S SELECTION. C/W LOUVERS– CRI: 90+. JESCO# LINSL–D–B–48–3000K–LOU–120V–LOUVERS–FINISH TO ARCHITECT'S SELECTION–90+ COOPER, AXIS LIGHTING, MARK ARCHITECTURAL SLOT 4 SERIES
L6	NOT USED
L7	4' LONG, SURFACE (CEILING/WALL) MOUNTED LED LIGHT FIXTURE, 31.9W, 4445 LUMENS, 120V DRIVER, 4000K, HEW# 39–4–L52 (L43)–840–A–DIM–120V SIGNIFY, COOPER, ACUITY
L7A	4' LONG, SURFACE MOUNTED LED LIGHT FIXTURE, 33.1W, 4604 LUMENS, 120V DRIVER, 4000K, HEW# 39–4–L52 (L45)–840–A–DIM–120V SIGNIFY, COOPER, ACUITY
L7B	4' LONG, SURFACE (MOUNTED ON UNISTRUT SUSPENSION SYSTEM) MOUNTED LED LIGHT FIXTURE, 16.5W, 2191 LUMENS, 120V DRIVER, 4000K, JESCO# STEP–E–LINSL–D–48–4000K–OP–120V COOPER, AXIS LIGHTING, MARK ARCHITECTURAL SLOT 4 SERIES
L8A	4' LONG LED RECESSED LIGHT FIXTURE IN T–BAR CEILING, 15.9W, 2233 LUMENS., C/W LOUVERS, 3000K, 120V DRIVER, FINISH TO ARCHITECT'S SELECTION. CRI: 90+ JESCO# LINSL–RECESSED IN T–BAR CEILING–E–48–LOU–3000K–T GRID KIT–120V–CRI: 90+ FINISH TO ARCHITECT'S SELECTION COOPER, AXIS LIGHTING, MARK ARCHITECTURAL SLOT 4 SERIES
L8B	4' LONG LED PENDANT LIGHT FIXTURE (SUSPENDED BY AIRCRAFT CABLES. BOTTOM OF LIGHT FIXTURE TO BE @ 5.0M A.F.F.), 24.8W, 4156 LUMENS., 3000K, 120V DRIVER, LOUVERS, FINISH TO ARCHITECT'S SELECTION. CRI: 90+. JESCO# LINSL–A–48–3000K–LOU–120V–LENS–FINISH TO ARCHITECT'S SELECTION–90+ COOPER, AXIS LIGHTING, MARK ARCHITECTURAL SLOT 4 SERIES
L8C	SAME AS TYPE–L8A EXCEPT THAT LIGHT FIXTURE L8C TO BE RECESSED IN DRYWALL CEILING.
L8D	SAME AS TYPE–L8A EXCEPT THAT LIGHT FIXTURE SHALL BE 4000K.
L9	8' LONG LED SURFACE MOUNTED LIGHT FIXTURE,128.8W, 8055 LUMENS, 4000K, 120 DRIVER. LIGHT FIXTURES TO BE MOUNTED SO AS TO HAVE A CONTINUOUS RUN. SOLERA# ZRR–PM–66–8–SYM–4K–XX–PC–WET–120V COOPER, LUMENWERX LIGHTING, HOLOPHANE
L10	NOT USED
L11	LED WALL MOUNTED FLOOD LIGHT TO BACKLIGHT WINDOWS, 35W, 126 LUMENS/WATT, IP66, 120V DRIVER, FINISH TO ARCHITECT'S SELECTION, MOUNTING OPTION TO SUIT APPLICATION, JUNCTION BOXES, COMPLETE MOUNTING ACCESSORIES2. MOUNTED @ 11.0M A.F.F. (COORDINATE ON SITE FOR EXACT MOUNTING HEIGHT FOR OPTIMUM RESULTS), 3000K. NLS# NV–F1–85–16L–35W–30K–TM/KM (COORDINATE ON SITE FOR MOUNTING OPTION TO SUIT)–120V–JUNCTION BOXES–MOUNTING ACCESSORIES–FINISH TO ARCHITECT'S SELECTION SIGNIFY, COOPER, ACUITY
MA	960MM HIGH, LANTERN TYPE LED LIGHTING STANDARD (56.0W, 3522 LUMENS) C/W 3.47M HIGH STEEL STRAIGHT POLE ON 760MM ABOVE GRADE CONCRETE BASE (TOTAL HEIGHT OF THE LIGHT STANDARD TO BE 5.49M ABOVE GRADE), SINGLE HEAD C/W 208V DRIVER. 3000K. POLE AND LUMINAIRE SHALL HAVE FINISH AS PER ARCHITECT SELECTION. NLS# DMR–1–T3–MO–32L–53–30K8–HSS–RO–AM–PT. B0–U0–G1 COOPER, LUMEC RA856 & BALTIMORE POLE, ACUITY PUCL3 SERIES
MB	960MM HIGH, LANTERN TYPE LED LIGHTING STANDARD (56.0W, 3539 LUMENS) C/W 3.47M HIGH STEEL STRAIGHT POLE ON 760MM ABOVE GRADE CONCRETE BASE (TOTAL HEIGHT OF THE LIGHT STANDARD TO BE 5.49M ABOVE GRADE), SINGLE HEAD C/W 208V DRIVER. 3000K. POLE AND LUMINAIRE SHALL HAVE FINISH AS PER ARCHITECT SELECTION. NLS# DMR–1–T4–MO–32L–53–30K8–HSS–RO–AM–PT. B0–U0–G1 COOPER, LUMEC RA856 & BALTIMORE POLE, ACUITY PUCL3 SERIES
W1	LED WALL PACK (9.4W, 1064 LUMENS), MOUNTED @ 3.1M, C/W 120V DRIVER, 3000K. FINISH TO ARCHITECT'S SELECTION. SOLERA# SRBK–4–D–30K–U0. B1–U0–G0 COOPER, SENSO–LETO11 WM, LUMINIS
LSP	1.0M LONG, LED LINEAR LED LIGHT FIXTURE, IP65 (TO BE MOUNTED AS RECESSED IN CHANNEL C/W LENS), 3000K, FOR LIGHTING METAL FACADE, 4.2W/FT., 512 LUMENS/FT. LENGTH & QUANTITIES TO SUIT SITE CONDITIONS (VERIFY ON SITE FOR EXACT EXTENT OF APPLICATION). FINISH TO ARCHITECT'S SELECTION.120V DRIVER. MOUNTED @ 3.2M A.F.F. DIODE# D1–24V–VL5–30K–W016–D1–CPCHB–16–120V. TOTAL LENGTH AS PER SITE CODITIONS COOPER, LUMINII–KENDO, JUNO
LSP1	SAME AS LIGHT FIXTURE TYPE–LSP EXCEPT THAT THIS LIGHT FIXTURE SHALL BE LOCATED IN A COVE AND SHALL BE C/W LENS TO DIRECT LIGHT TOWARDS WALL & SPREADING LIGHT TO THE WALKWAY.

NOTES:

1. ALL LAMPS SHALL BE OF SINGLE MANUFACTURER, UNLESS NOTED OTHERWISE.
2. ALL LINEAR & LED LAMPS SHALL HAVE COLOR TEMPERATURE AS INDICATED
3. THE MANUFACTURER SPECIFIED AS EQUAL TO ENSURE COMPLIANCE WITH BASE LUMINAIRE SPECIFICATIONS. ANY DISCREPANCIES ARE TO BE BROUGHT UP DURING TENDER STAGE.
4. COORDINATE ON SITE WITH ARCHITECT AND CONSULTING ENGINEER FOR MOUNTING HEIGHT OF ALL SURFACE MOUNTED LUMINAIRES PRIOR TO ROUGH IN.
5. ALL THE LIGHT FIXTURES SHOWN IN LUMINAIRE SCHEDULES SHALL BE SUPPLIED & INSTALLED BY ELECTRICAL CONTRACTOR.
6. ELECTRICAL CONTRACTOR SHALL PROVIDE BACKBOXES/JUNCTION BOXES WHEREVER REQUIRED FOR THE INSTALLATION OF THE LIGHT FIXTURES.
7. IN CASE OF PENDANT LIGHT FIXTURES, THE LIGHT FIXTURES SHALL BE SUSPENDED BY AIRCRAFT CABLES. THESE SHOULD BE SEISMICALLY RESTRAINT TO MEET THE POST–DISASTER BUILDING REQUIREMENTS.

GENERAL NOTES:

1. ELECTRICAL CONTRACTOR SHALL REFER TO ARCHITECTURAL & MECHANICAL DRAWINGS FOR ALL SCOPE OF WORK OF ELECTRICAL CONTRACTOR WHICH ARE RELATED TO OTHER TRADES.
2. PROVIDE EACH ITEM MENTIONED OR INDICATED OF QUALITY AND SUBJECT TO QUALIFICATIONS NOTED; PERFORM ACCORDING TO CONDITIONS STATED EACH OPERATIONS STATED, EACH OPERATION PRESCRIBED; AND PROVIDE THEREFORE ALL LABOR, MATERIAL, EQUIPMENT, INCIDENTALS AND SERVICES REQUIRED TO COMPLETE THE INSTALLATION.
3. EXAMINE THE SITE, EXISTING EQUIPMENT AND THE LOCAL CONDITIONS AFFECTING THE WORK UNDER THIS CONTRACT. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY FOR ANY OBVIOUS CONSIDERATIONS OVERLOOKED.
4. SCHEDULE AND COORDINATE ALL WORK WITH OTHER TRADES.
5. CONTRACTOR SHALL BALANCE CIRCUIT LOADS AS CLOSELY AS POSSIBLE.
6. REFER TO MECHANICAL DRAWINGS AND COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION OF EQUIPMENT & DEVICES PRIOR TO ROUGH IN.
7. ALL ELECTRICAL INSTALLATIONS SHALL BE RECESSED/CONCEALED INSTALLATIONS WHEREVER POSSIBLE; OTHERWISE PROVIDE WIREMOLD STEEL SURFACE MOUNTED RACEWAY C/W SURFACE MOUNTED OUTLETS.
8. PROVIDE FIRE ALARM VERIFICATION REPORT & CERTIFICATE FOR THE COMPLETE FIRE ALARM SYSTEM AS REQUIRED BY AUTHORITIES.
9. CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS FOR ALL BRANCH CIRCUITS (LIGHTING AS WELL AS POWER) AND SHALL MAINTAIN VOLTAGE DROP WITHIN PERMISSIBLE LIMITS AS PER OESC REQUIREMENTS AND PROVIDE PROPER WIRE SIZES ACCORDINGLY PRIOR TO COMMENCING OF ROUGH–IN INSTALLATION. THE VOLTAGE DROP CALCULATIONS SHALL BE BASED ON MAXIMUM CIRCUIT AMPACITY.
10. IN CASE OF NON–ACCESSIBLE CEILING, ALL WIRING UPTO ELECTRICAL DEVICES SHALL BE DONE IN CONDUITS TO SUIT APPLICATION TO FACILITATE MAINTENANCE.
11. ELECTRICAL CONTRACTOR SHALL MAKE SUITABLE ARRANGEMENTS TO MAKE ALL THE ELECTRICAL DEVICES AS ACCESSIBLE TO FACILITATE MAINTENANCE. NO ELECTRICAL DEVICE SHALL BE INSTALLED IN SUCH A WAY THAT IT IS UN–ACCESSIBLE AT ANY STAGE FOR MAINTENANCE. CO–ORDINATE ON SITE AND PROCEED ACCORDINGLY.
12. ROOM CONTROLLERS OF LMRC–200 SERIES FOR LIGHTING CONTROL HAVE CONNECTIONS AT ITS BACK. ACCORDINGLY, THIS TYPE OF ROOM CONTROLLERS ARE REQUIRED TO BE MOUNTED ON A BACKBOX. THE DEPTH OF THIS BACKBOX IS REQUIRED TO BE 2.5" DEEP. THEREFORE THE DEPTH OF THE RECESSED BACKBOXES (FOR MOUNTING ROOM CONTROLLERS) WHEREVER APPLICABLE SHALL BE SELECTED TO SUIT APPLICATION.
13. PROVIDE LABELING OF ELECTRICAL POWER OUTLETS AND RECEPTACLES THROUGHOUT THE ENTIRE BUILDING TO PROVIDE IDENTIFICATION OF ELECTRICAL CIRCUITS. THE LABEL SHALL INDICATE CCT.# FED TO THE OUTLET/RECEPTACLE.
14. PROVIDE CONDUITS AND BACK BOXES FOR LIGHTING CONTROL DEVICES TO SUIT APPLICATIONS AND AS PER MANUFACTURER'S RECOMMENDATIONS.
15. ALL LIGHTING CONTROL WIRING IN CASE OF CAT CABLING SYSTEM, SHALL BE PROVIDED IN CONDUITS EXCEPT FOR T–BAR CEILINGS APPLICATIONS WHERE FT6 CABLES (PLENUM RATED) SHALL BE PROVIDED.
16. ALL EMPTY CONDUITS SHALL BE PROVIDED C/W PULL WIRES.
17. ALL THE MI CABLES SHALL BE INSTALLED IN ACCORDANCE WITH THE RESPECTIVE MANUFACTURER RECOMMENDATIONS, OESC AND TO THE SATISFACTION OF THE LOCAL ESA INSPECTOR FOR FULLY OPERATIONAL SYSTEM. PROVIDE ALL NECESSARY MATERIAL & LABOR FOR COMPLETE OPERATIONAL SYSTEM TO SUIT APPLICATIONS.
18. ALL FIRE ALARM CABLES FROM FACP TO ALL FIRE ALARM LCD/LED REMOTE ANNUNCIATOR PANELS SHALL HAVE FIRE RATING OF NOT LESS THAN ONE HOUR.
19. RESERVED.
20. PROVIDE PANEL DIRECTORIES FOR ALL THE NEW PANELS INDICATING ALL CIRCUITS FED FROM THE RESPECTIVE PANELS. NAME THE UNUSED BREAKERS AS 'SPARE'.
21. PROVIDE FIRE STOPPING AROUND CONDUITS AND CABLES WHEN PASSING THROUGH FIRE RATED WALLS OR FLOORS.
22. PROVIDE #10 AWG CONDUCTORS FOR LIGHTING CIRCUITS IN CASE THE TOTAL CIRCUIT LENGTH EXCEEDS 80' FROM THE RESPECTIVE PANEL UNLESS SPECIFIED OTHERWISE.
23. VERIFY ON SITE FOR EXACT LOCATION OF MECHANICAL EQUIPMENT PRIOR TO ROUGH–IN.
24. LOCATION OF THE OCCUPANCY SENSORS FOR LIGHTING CONTROLS HAVE BEEN SHOWN ON LIGHTING DRAWINGS FOR GROUPING PURPOSES ONLY. CO–ORDINATE WITH SYSTEM SUPPLIER FOR EXACT LOCATION OF THE OCCUPANCY SENSORS SO AS TO ACHIEVE OPTIMUM COVERAGE AND TO AVOID MAL FUNCTIONING OF THE OCCUPANCY SENSORS.
25. ALL CONDUITS ON FLAT ROOF SHALL RUN AS CONCEALED.
26. ALL COMMUNICATION WIRING SHALL BE TERMINATED IN I.T. RACK LOCATED IN I.T. ROOM AT MEZZANINE LEVEL.
27. IN CASE OF PENDANT LIGHT FIXTURES, THE LIGHT FIXTURES SHALL BE SUSPENDED BY AIRCRAFT CABLES. THESE SHOULD BE SEISMICALLY RESTRAINT TO MEET THE POST–DISASTER BUILDING REQUIREMENTS.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR ADD#1	05.23.24
6	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

MEP

Jain
7405 EAST DANBRO CRESCENT
MISSISSAUGA, ONTARIO, L5N 6P8
TEL. 905 285 9900, FAX 905 567 5246
Email : mail@jainconsultants.com

PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER — D. JAIN — SEPT.04'24 — PROVINCE OF ONTARIO
21–237

DWG TITLE
LEGEND & DETAILS

ORIENTATION

TRUE NORTH — CONSTRUCTION NORTH

DATE

SCALE: N.T.S. | DRAWN BY: CV | CHECKED BY: RH

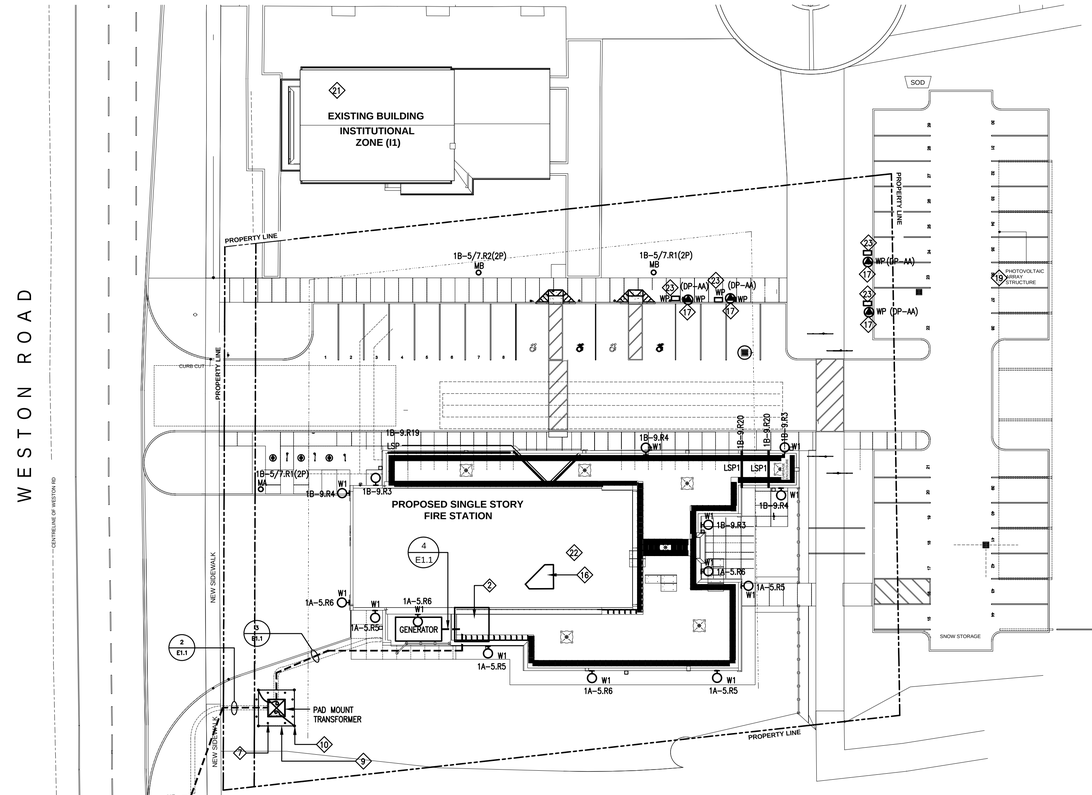
DWG STATUS :

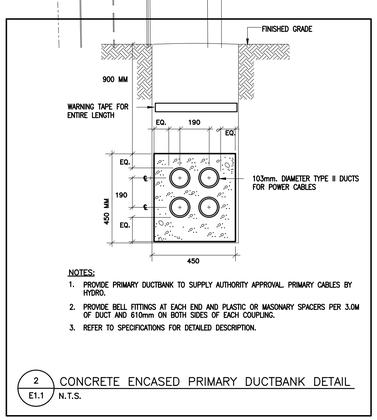
PROJECT No.

DRAWING No. **E1.0** | REVISION

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Property Line	Illuminance	Fc	0.00	0.1	0.0	N.A.	N.A.
V F Stn site	Illuminance	Fc	0.66	17.6	0.0	N.A.	N.A.

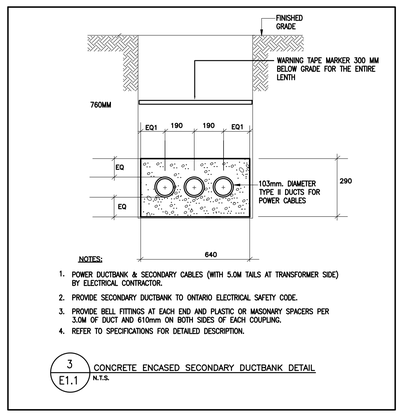
Light levels are Maintained at Grade and 3m on ctrs
All luminaires have a U rating of 0





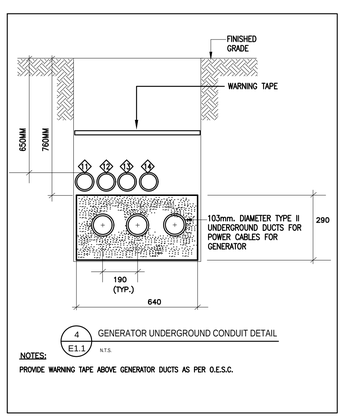
NOTES:
1. PROVIDE PRIMARY DUCTBANK TO SUPPLY AUTHORITY APPROVAL. PRIMARY CABLES BY HYDRO.
2. PROVIDE BELL FITTINGS AT EACH END AND PLASTIC OR MASONARY SPACERS PER 3.0M OF DUCT AND 610mm ON BOTH SIDES OF EACH COUPLING.
3. REFER TO SPECIFICATIONS FOR DETAILED DESCRIPTION.

2 E1.1 CONCRETE ENCASED PRIMARY DUCTBANK DETAIL
N.T.S.



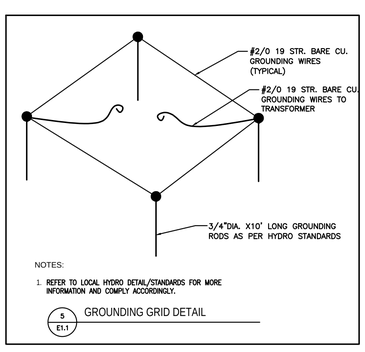
NOTES:
1. POWER DUCTBANK & SECONDARY CABLES (WITH 5.0M TAILS AT TRANSFORMER SIDE) BY ELECTRICAL CONTRACTOR.
2. PROVIDE SECONDARY DUCTBANK TO ONTARIO ELECTRICAL SAFETY CODE.
3. PROVIDE BELL FITTINGS AT EACH END AND PLASTIC OR MASONARY SPACERS PER 3.0M OF DUCT AND 610mm ON BOTH SIDES OF EACH COUPLING.
4. REFER TO SPECIFICATIONS FOR DETAILED DESCRIPTION.

3 E1.1 CONCRETE ENCASED SECONDARY DUCTBANK DETAIL
N.T.S.



4 E1.1 GENERATOR UNDERGROUND CONDUIT DETAIL
N.T.S.

NOTES:
PROVIDE WARNING TAPE ABOVE GENERATOR DUCTS AS PER O.E.S.C.

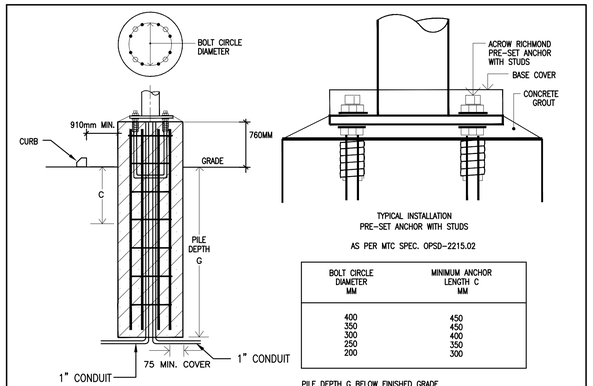


NOTES:
1. REFER TO LOCAL HYDRO DETAIL/STANDARDS FOR MORE INFORMATION AND COMPLY ACCORDINGLY.

5 E1.1 GROUNDING GRID DETAIL

DRAWING NOTES:

1. PRIMARY DUCT BANK SHALL BE TERMINATED AT HYDRO POLE. COORDINATE WITH HYDRO FOR EXACT LOCATION OF THE HYDRO POLE & TERMINATION OF THE PRIMARY DUCT BANK PRIOR TO ROUGH-IN.
2. APPROXIMATE LOCATION OF MAIN ELECTRICAL ROOM AT GROUND FLOOR.
3. RESERVED.
4. THE WARNING TAPES SHOWN/DESCRIBED ON THIS DRAWING SHALL COMPLY WITH RULE 12-012(11) OF OESC. THE TAPE MUST BE BURIED APPROXIMATELY HALFWAY BETWEEN THE INSTALLATION AND GRADE LEVEL, COVERING THE WIDTH OF THE RACEWAYS OR CABLES FOR THE ENTIRE LENGTH & SHALL BE INSTALLED AS PER BULLETIN 12-2 OF OESC.
5. ALL EXTERIOR LIGHTING CIRCUITS SHALL BE CARRIED OUT WITH #10 AWG CONDUCTOR.
6. ANY METAL (I.E. METAL FENCES, BOLLARDS, PROTECTIVE BARRIERS, ETC.) LOCATED WITHIN 2.4M OF THE PAD MOUNTED TRANSFORMER SHALL BE BONDED TO STATION GROUND ELECTRODE WITH 2/0 AWG COPPER CONDUCTORS AS PER RULE 36-308 & BULLETIN 36-10 OF LATEST OESC.
7. PROVIDE PROTECTIVE BOLLARDS (TYP.). CO-ORDINATE WITH HYDRO FOR EXACT LOCATIONS, QUANTITIES OF THE BOLLARDS AND MOUNTING DETAIL OF BOLLARDS PRIOR TO ROUGH-IN AND COMPLY ACCORDINGLY.
8. PROVIDE POWER & DATA OUTLET FOR PYLON SIGNAGE. COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN.
9. PROVIDE GROUNDING LOOP TO TRANSFORMER AS PER HYDRO STANDARDS (TYP.). REFER DETAIL#5 ON DWG. E1.1 FOR MORE INFORMATION.
10. PROVIDE GROUNDING RODS, QUANTITIES, LOCATIONS, TYPE TO BE AS PER HYDRO REQUIREMENTS/HYDRO STANDARDS. COORDINATE WITH HYDRO & PROCEED ACCORDINGLY.
11. PROVIDE 1-53MM UNDERGROUND CONDUIT C/W WIRING TO GENERATOR ANNUNCIATOR PANEL.
12. PROVIDE 1-41MM UNDERGROUND CONDUIT C/W WIRING FOR GEN. PANEL FROM PANEL-1A
13. PROVIDE 1-27MM UNDERGROUND CONDUIT C/W WIRING TO ATS-1 FOR START OPTION.
14. PROVIDE 1-27MM UNDERGROUND CONDUIT C/W WIRING TO ATS-1 FOR TRIPPING GENERATOR LOAD TESTING BREAKER-G2.
15. PROVIDE PROTECTIVE BOLLARDS (TYP.) FOR GENERATOR, COORDINATE ON SITE FOR EXACT LOCATION & QUANTITIES PRIOR TO ROUGH-INS.
16. APPROXIMATE LOCATION OF I.T. ROOM-140 AT MEZZANINE LEVEL.
17. PROVIDE DATA OUTLET & POWER FOR EV CHARGING STATION (TO BE FED FROM DP-AA FROM 40A,2P BREAKER, REFER DWG. E4.0 FOR MORE INFORMATION) COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN.
18. RESERVED.
19. PROVIDE 2-3" CONDUITS FROM THIS LOCATION TO MAIN ELECTRICAL ROOM-133 FOR PHOTOVOLTAIC SYSTEM, COORDINATE ON SITE FOR EXACT LOCATION OF TERMINATION OF CONDUITS PRIOR TO ROUGH-INS. BOTH ENDS OF THE CONDUITS TO BE SEALED SUITABLE TO AVOID ENTRY OF WATER/FOREIGN MATERIAL INTO THE CONDUITS.
20. REFER DWG. E6.1 FOR HYDRO DETAILS & COMPLY ACCORDINGLY.
21. PROVIDE 2-103 mm CONDUITS FOR TEL/CABLE/FIBRE FROM I.T. ROOM OF EXISTING BUILDING INSTITUTIONAL ZONE (VELLORE HALL) TO I.T. ROOM AT MEZZANINE LEVEL (IDENTIFIED BY DWG. NOTE-16) FOR COMMUNICATION WIRING, COORDINATE ON SITE FOR EXACT POINTS OF TERMINATION & ROUTE OF THE CONDUIT PRIOR TO ROUGH-INS. THE CONDUITS SHALL BE RUN AS FOLLOWS: 2-103 mm EMT CONDUITS FROM EXISTING I.T. ROOM IN VELLORE HALL TO RUN IN CEILING SPACE UPTO EXTERIOR WALL OF VELLORE HALL BUILDING. THEN 2-103 MM RIGID PVC CONDUITS DOWN THE EXTERIOR WALL. THEN 2-103 PVC UNDERGROUND CONDUITS TO I.T. ROOM AT MEZZANINE LEVEL OF 7-12 VAUGHAN FIRE STATION. THE UNDERGROUND CONDUITS SHALL BE C/W WARNING TAPES AS PER OESC TO BE LOCATED BELOW GRADE AS PER TABLE-53 OF LATEST OESC REQUIREMENTS.
22. PROVIDE 2-3" CONDUITS FROM THIS LOCATION AT ROOF TO MAIN ELECTRICAL ROOM-133 FOR PHOTOVOLTAIC SYSTEM, COORDINATE ON SITE FOR EXACT LOCATION OF TERMINATION OF CONDUITS PRIOR TO ROUGH-INS. BOTH ENDS OF THE CONDUITS TO BE SEALED SUITABLE TO AVOID ENTRY OF WATER/FOREIGN MATERIAL INTO THE CONDUITS.
23. PROVIDE 2" CONDUIT FROM EV CHARGING STATION TO I.T. ROOM AT MEZZANINE LEVEL FOR COMMUNICATION WIRING. COORDINATE ON SITE FOR EXACT LOCATION OF THE CONDUIT.



BORED CONCRETE PILE

VERTICAL REINFORCING: 6-20 M BARS
10M TIES AT 400mm

MATERIALS: CONC. f'c = 20 MPa
REINF.fy = 400MPa

MINIMUM PILE DIAMETER = 600 mm
MINIMUM BOLT SIZE = 25 mm
MINIMUM PILE DEPTH BELOW GRADE
=1500 mm TO UNDISTURBED BED LEVEL

N.T.S.
1 E1.1 TYPICAL BASE FOR LIGHTING POLES

TYPICAL INSTALLATION
PRE-SET ANCHOR WITH STUDS

AS PER MTC SPEC. OPSD-2215.02

BOLT CIRCLE DIAMETER MM	MINIMUM ANCHOR LENGTH C MM
400	450
350	450
300	400
250	350
200	300

PILE DEPTH G BELOW FINISHED GRADE

1. TO BE SELECTED BASED ON CALCULATED BASE SHEAR AND BASE MOMENT IN ACCORDANCE WITH LATEST EDITION OF NBC FOR WIND PRESSURE, 13mm RADIAL ICE & EFFECTIVE PROJECTED AREA OF LUMINAIRES. SUBMIT CALCULATIONS FOR APPROVED LUMINAIRES & POLES BEFORE INSTALLING.
2. TO BE NOT LESS THAN 1500MM BELOW FINISHED GRADE.
3. TOP OF BASE ABOVE FINISHED GRADE AS SPECIFIED. IN EXCESS OF 150MM, INCREASE TO 8 VERTICAL REINFORCING BARS, AND INCREASE ANCHOR LENGTH BY 100MM.

LUMINAIRE SCHEDULE

MA 960MM HIGH, LANTERN TYPE LED LIGHTING STANDARD (56.0W, 3522 LUMENS) C/W 3.47M HIGH STEEL STRAIGHT POLE ON 760MM ABOVE GRADE CONCRETE BASE (TOTAL HEIGHT OF THE LIGHT STANDARD TO BE 5.49M ABOVE GRADE), SINGLE HEAD C/W 208V DRIVER. 3000K. POLE AND LUMINAIRE SHALL HAVE FINISH AS PER ARCHITECT SELECTION.
NLS# DMR-1-T3-MO-32L-53-30K8-HSS-RO-AM-PT. B0-U0-G1
ACUITY, COOPER, SIGNIFY

MB 960MM HIGH, LANTERN TYPE LED LIGHTING STANDARD (56.0W, 3539 LUMENS) C/W 3.47M HIGH STEEL STRAIGHT POLE ON 760MM ABOVE GRADE CONCRETE BASE (TOTAL HEIGHT OF THE LIGHT STANDARD TO BE 5.49M ABOVE GRADE), SINGLE HEAD C/W 208V DRIVER. 3000K. POLE AND LUMINAIRE SHALL HAVE FINISH AS PER ARCHITECT SELECTION.
NLS# DMR-1-T4-MO-32L-53-30K8-HSS-RO-AM-PT. B0-U0-G1
ACUITY, COOPER, SIGNIFY

W1 LED WALL PACK (9.4W, 1064 LUMENS), MOUNTED @ 3.1M, C/W 120V DRIVER. 3000K. FINISH TO ARCHITECT'S SELECTION.
SOLERA# SRBK-4-D-30K-U0. B1-U0-G0
ACUITY, COOPER, SIGNIFY

LSP 1.0M LONG, LED LINEAR LED LIGHT FIXTURE, IP65 (TO BE MOUNTED AS RECESSED IN CHANNEL C/W LENS), 3000K, FOR LIGHTING METAL FACADE, 4.2W/FT., 512 LUMENS/FT. LENGTH & QUANTITIES TO SUIT SITE CONDITIONS (VERIFY ON SITE FOR EXACT EXTENT OF APPLICATION). FINISH TO ARCHITECT'S SELECTION.120V DRIVER. MOUNTED @ 3.2M A.F.F. DIODE# D1-24V-WL5-30K-WD16-D1-OPOHB-16-120V. TOTAL LENGTH AS PER SITE CODITIONS
ACUITY, COOPER, SIGNIFY

PROVIDE 2-103 mm UNDERGROUND CONDUITS (C/W WARNING TAPES AS PER OESC) FOR TEL/CABLE/FIBRE TO BE LOCATED BELOW GRADE AS PER TABLE-53 OF LATEST OESC REQUIREMENTS FROM I.T. ROOM OF EXISTING BUILDING INSTITUTIONAL ZONE (VELLORE HALL) TO I.T. ROOM AT MEZZANINE LEVEL (IDENTIFIED BY DWG. NOTE-16) FOR COMMUNICATION WIRING, COORDINATE ON SITE FOR EXACT POINTS OF TERMINATION & ROUTE OF THE CONDUIT PRIOR TO ROUGH-INS.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE (M.D.Y)
1	ISSUED FOR SPA	05.03.22
2	RE-ISSUED FOR SPA	06.03.22
3	DESIGN DEVELOPMENT FOR COSTING	07.07.22
4	RE-ISSUED FOR SPA	05.16.23
5	RE-ISSUED FOR SPA	06.12.23
6	RE-ISSUED FOR SPA	06.20.23
7	ISSUED FOR PERMIT	09.07.23
8	RE-ISSUED FOR SPA	09.20.23
9	ISSUED FOR REVIEW	02.13.24
10	ISSUED FOR TENDER	04.15.24
11	ISSUED FOR ADD#1	05.23.24
12	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

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PROFESSIONAL SEAL
REGISTERED PROFESSIONAL ENGINEER D. JAIN SEPT.04'24 PROVINCE OF ONTARIO
21-237

DWG TITLE
SITE PLAN - ELECTRICAL

ORIENTATION
TRUE NORTH CONSTRUCTION NORTH

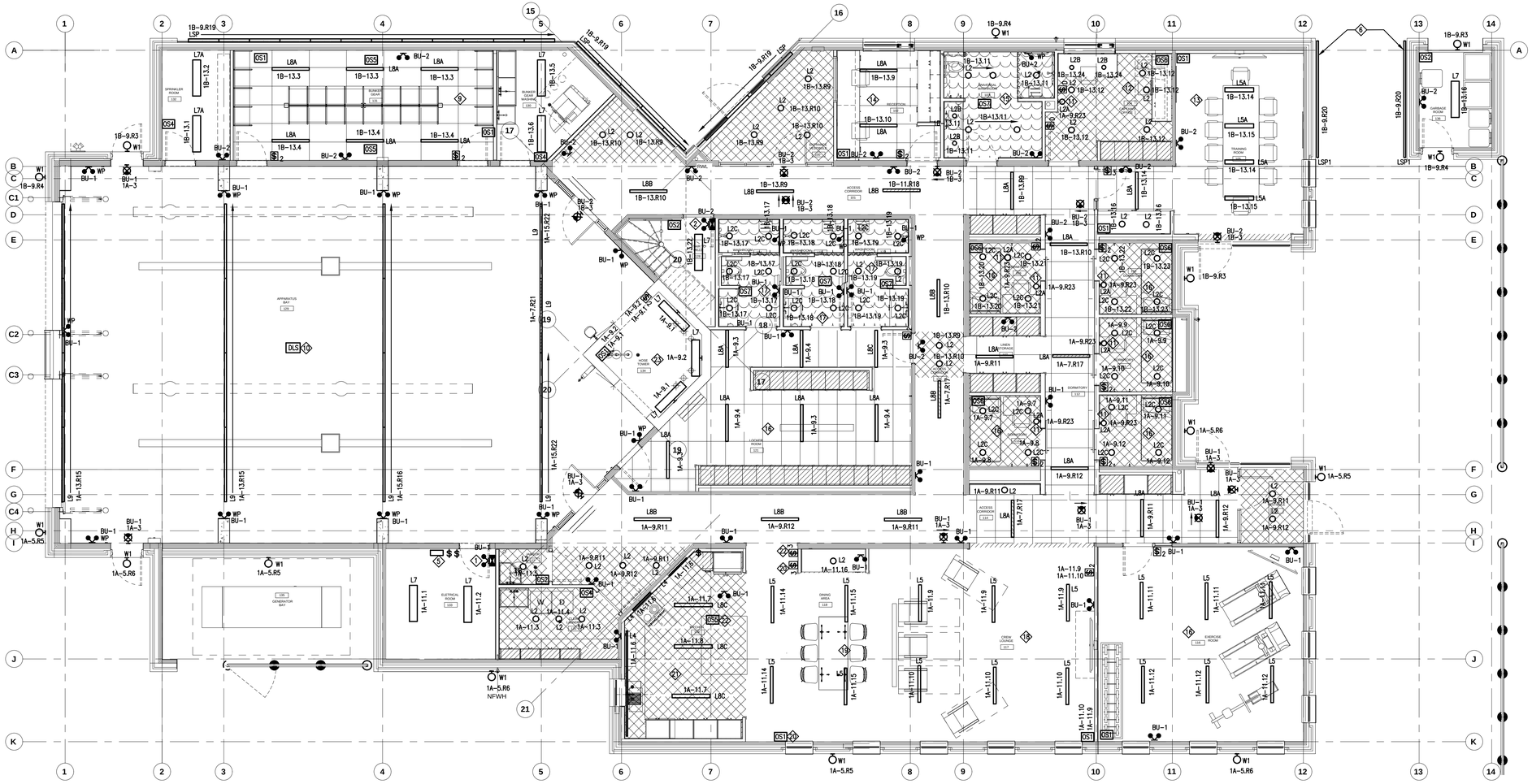
DATE

SCALE	DRAWN BY	CHECKED BY
1 : 300	CV	RH

DWG STATUS :

PROJECT No.

DRAWING No. **E1.1** REVISION



DRAWING NOTES:

1. PROVIDE BATTERY UNIT BU-1 (720W) AT HIGH LEVEL, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN. PROVIDE CCT.#1A-1 TO THE BATTERY UNIT.
2. PROVIDE BATTERY UNIT BU-2 (720W) AT HIGH LEVEL, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN. PROVIDE CCT.#1B-1 TO THE BATTERY UNIT.
3. RESERVED.
4. RESERVED.
5. PROVIDE LOW VOLTAGE MASTER SWITCH PANEL (LVMSP) IN A LOCKABLE BACKBOX. REFER DETAIL#1 ON DWG. E7.0 FOR MORE INFORMATION.
6. CONCEAL LED STRIP LIGHTING @ BOTH SOFFIT SIDES.
7. REFER DETAIL#2 ON DWG. E7.0 FOR LIGHTING CONTROL OF LIGHT FIXTURES CONTROLLED BY OCCUPANCY SENSORS TYPE-OS2.
8. REFER DETAIL#3 ON DWG. E7.0 FOR LIGHTING CONTROL OF LIGHT FIXTURES CONTROLLED BY OCCUPANCY SENSORS TYPE-OS4.
9. REFER DETAIL#7 ON DWG. E7.0 FOR LIGHTING CONTROL OF THIS ROOM.
10. THIS DAYLIGHT SENSOR SHALL CONTROL LIGHTING RELAYS FEEDING LIGHT FIXTURES IN APPARATUS AREA IN TWO STEPS AS FOLLOWS: STEP-1: RELAYS R15, R21. STEP-2: RELAY R16.
11. LIGHT FIXTURE-L2A SHALL BE CONTROLLED BY FSA SYSTEM (FIRE STATION ALERT SYSTEM). FEED THE LIGHT FIXTURE FROM CCT.# AS INDICATED. CO-ORDINATE ON SITE FOR EXACT LOCATION OF THE LIGHT FIXTURE PRIOR TO ROUGH-IN. THE LIGHT FIXTURE SHALL REMAIN 'ON' UPON RECEIPT OF FSA SIGNAL AND SHUT-OFF AUTOMATICALLY AFTER TWO (2) MINUTES. THE RELAY-R23 SHALL BE PROGRAMMED ACCORDINGLY. REFER LIGHTING CONTROL RELAY SCHEDULE FOR MORE INFORMATION. PROVIDE ALL NECESSARY CONDUITS, WIRING, OTHER MATERIAL AS REQUIRED AS WELL AS LABOUR FOR FULLY OPERATIONAL SYSTEM AS INTENDED.
12. REFER DETAIL#1 ON DWG. E7.1 FOR LIGHTING CONTROL OF THIS ROOM.
13. REFER DETAIL#2 ON DWG. E7.1 FOR LIGHTING CONTROL OF THIS ROOM.
14. REFER DETAIL#5 ON DWG. E7.0 FOR LIGHTING CONTROL OF THIS ROOM.
15. REFER DETAIL#4 ON DWG. E7.0 FOR LIGHTING CONTROL OF THIS ROOM.
16. LIGHTING CONTROL OF THIS ROOM SHALL BE SIMILAR TO THE ONE AS DESCRIBED UNDER DETAIL#5 ON DWG. E7.0.
17. LIGHTING CONTROL OF THIS ROOM SHALL BE SIMILAR TO THE ONE AS DESCRIBED UNDER DETAIL#4 ON DWG. E7.0.
18. LIGHTING CONTROL OF THIS ROOM (CCT.#1A-11.9, 1A-11.10) SHALL BE SIMILAR TO THE ONE AS DESCRIBED UNDER DETAIL#5 ON DWG. E7.0.
19. LIGHTING CONTROL OF THIS DINING ROOM (CCT.#1A-11.15, 1A-11.14, 1A-11.16) SHALL BE SIMILAR TO THE ONE AS DESCRIBED UNDER DETAIL#2 ON DWG. E7.1.
20. DIGITAL SWITCH/OCCUPANCY SENSOR TO CONTROL CCT.#1A-11.15, 1A-11.14 & 1A-11.16.
21. REFER DETAIL#3 ON DWG. E7.1 FOR LIGHTING CONTROL OF KITCHEN AREA.
22. DIGITAL SWITCH/OCCUPANCY SENSOR TO CONTROL CCT.#1A-11.6, 1A-11.7 & 1A-11.8.
23. LIGHTING CONTROL OF THESE LIGHT FIXTURES (CCT.#1A-9.1, 1A-9.2) SHALL BE SIMILAR TO THE ONE AS DESCRIBED UNDER DETAIL#5 ON DWG. E7.0.

ISSUE OR REVISION		
NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

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D. JAIN
SEPT.04'24
REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

21-237

DWG TITLE

LIGHTING LAYOUT -GROUND FLOOR

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

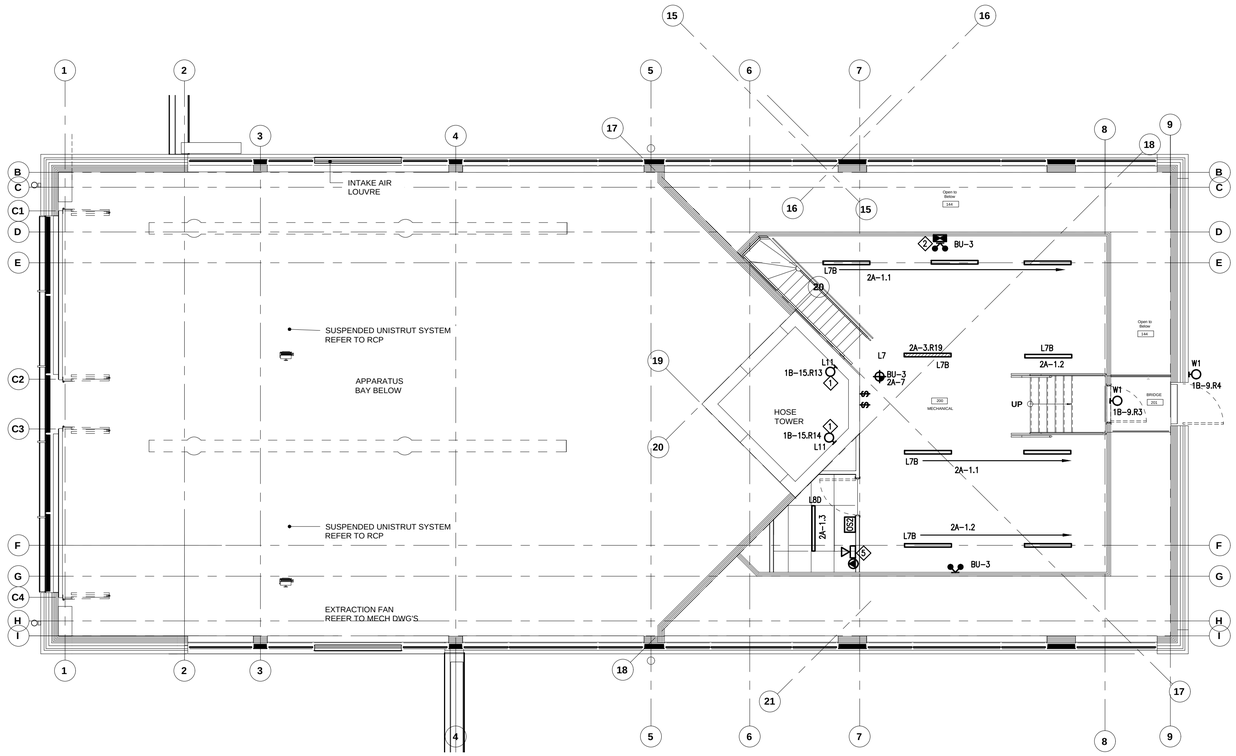
DATE

SCALE 1 : 75 | DRAWN BY CV | CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. **E2.1** | REVISION



DRAWING NOTES:

1. PROVIDE LIGHT FIXTURE (@11.0M. COORDINATE ON SITE FOR EXACT MOUNTING HEIGHT TO HAVE OPTIMUM RESULTS AS INTENDED) TO BACKLIGHT WINDOW SO THAT THE LOGO OUT OF TRANSPARENT RED GLASS IS VISIBLE AT NIGHT.
2. PROVIDE BATTERY UNIT BU-3 (320W) @ HIGH LEVEL, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN. PROVIDE CCT.#2A-5 TO THE BATTERY UNIT.
3. REFER DETAIL#2 ON DWG. E7.0 FOR LIGHTING CONTROL OF LIGHT FIXTURES CONTROLLED BY OCCUPANCY SENSORS TYPE-OS2.
4. REFER DETAIL#3 ON DWG. E7.0 FOR LIGHTING CONTROL OF LIGHT FIXTURES CONTROLLED BY OCCUPANCY SENSORS TYPE-OS4.
5. FIRE ALERT SYSTEM. PROVIDE POWER (CCT.#2A-29) & DATA OUTLET FOR THE SYSTEM. THE FIRE ALERT SYSTEM SHALL TURN LIGHT FIXTURES TYPE-L2A 'ON' LOCATED IN CAPTION OFFICE-104 & DORMITORY ROOMS THROUGH RELAY-R23. REFER LIGHTING CONTROL RELAY SCHEDULE ON DWG. E7.0 & DWG. NOTE-11 ON DWG. E2.1 FOR MORE INFORMATION.

ISSUE OR REVISION

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5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

CLIENT

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PROFESSIONAL SEAL

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90P1247H
REGISTERED PROFESSIONAL ENGINEER PROVINCE OF ONTARIO

21-237

DWG TITLE

LIGHTING LAYOUT -MEZZANINE LEVEL

ORIENTATION

N TRUE NORTH

N CONSTRUCTION NORTH

DATE

SCALE 1 : 75

DRAWN BY CV

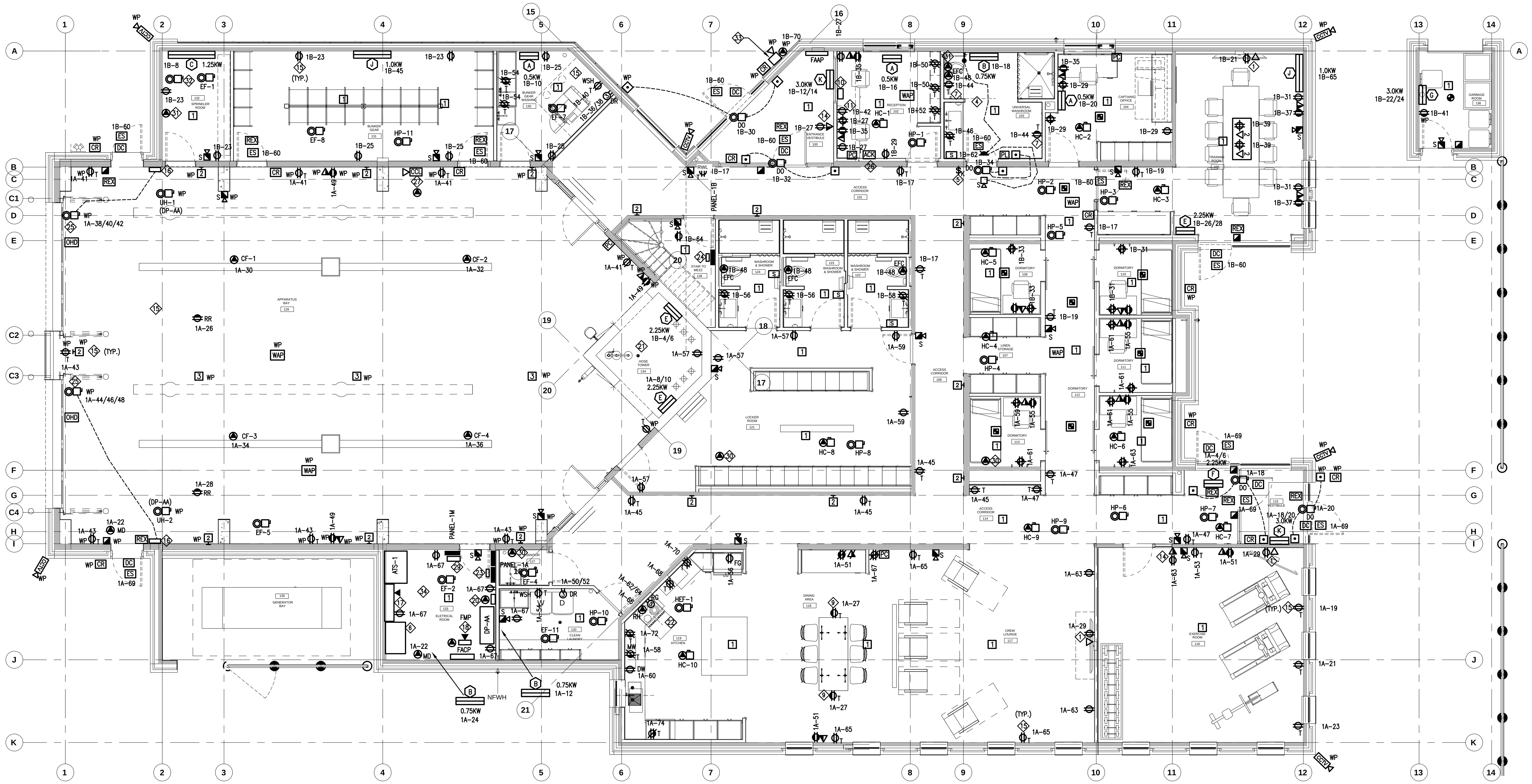
CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. **E2.2**

REVISION



DRAWING NOTES:

1. COORDINATE ON SITE FOR EXACT LOCATION & MOUNTING HEIGHT OF OUTLETS FOR TV PRIOR TO ROUGH–IN.
2. PROVIDE 19MM THICK, 2.44M HIGH FIRE RESISTANT COMMUNICATION PLYWOOD BOARD FOR TEL/CABLE/DATA SERVICES
3. PROVIDE #6 AWG GROUNDING CONDUCTOR IN CONDUIT C/W GROUNDING BUS BARS OF SIZE 1/4"X2"X10" FOR EACH SYSTEM (AS REQUIRED BY SYSTEM SUPPLIERS) FOR TELEPHONE, I.T RACK, FACP, SERVER, SECURITY PANEL CABLE TV , DATA EQUIPMENTS BONDING IN I.T. ROOM. EXACT LOCATION TO BE VERIFIED ON SITE. GROUNDING OF THE EQUIPMENTS IN THE I.T. ROOM SHALL BE CONNECTED TO MAIN GROUNDING BUS BAR OF THE MAIN BUILDING.
4. PROVIDE CALL FOR ASSISTANCE SYSTEM IN THIS WASHROOM WHICH SHALL BE CAMDEN# CX–WEC10 CONSISTING OF:
   1 NO. MUSHROOM PUSH BUTTON, STAINLESS STEEL, PUSH/PULL, 'PRESS FOR EMERGENCY ASSISTANCE', CAMDEN# CM–450R/12. THE PUSH BUTTON SHALL BE MOUNTED ON A SINGLE GANG BACKBOX.
   1 NO. SINGLE GANG LED ANNUNCIATOR C/W SOUNDER, 'ASSISTANCE REQUESTED', CAMDEN# CM–AF501SO. THE SINGLE GANG LED ANNUNCIATOR C/W SOUNDER SHALL BE MOUNTED INSIDE THE B.F. WASHROOM.
   1 NO. SINGLE GANG DOME LIGHT WITH SOUNDER, 'ASSISTANCE REQUESTED', CAMDEN# CM–AF140SO. TO BE MOUNTED OUTSIDE THE B.F. WASHROOM.
   1 NO. ENGLISH, SOLID WHITE SIGN (152MMX270MM, IN THE EVENT OF AN EMERGENCY, PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE), CAMDEN# CM–SE21A. THIS SIGN SHALL BE MOUNTED ABOVE THE EMERGENCY PUSH BUTTON OF CALL FOR ASSISTANCE SYSTEM.
   1 NO. POWER SUPPLY, 24VAC C/W 40VA STANDARD MOUNT TRANSFORMER AND AC/DC RECTIFIER (CAMDEN# CX–TRK24–50). THE POWER SUPPLY SHALL BE LOCATED IN NEAREST ACCESSIBLE CEILING SPACE.
   REFER LEGEND FOR MORE INFORMATION.
   PROVIDE ALL MATERIAL, LABOR, CONDUITS AND WIRING FOR FULLY OPERATIONAL SYSTEM AS PER LATEST OBC REQUIREMENTS.
5. KEYED SWITCH TO RELEASE ELECTRIC STRIKE OF UNIVERSAL ROOM–103 IN CASE OF EMERGENCY.
6. 208V, 1000A/1000AT,3P, 100% RATED MAIN BREAKER C/W ENCLOSURE (65KA).
7. PROVIDE POWER FOR ADULT CHANGE TABLE, COORDINATE ON SITE FOR EXACT LOCATION & MOUNTING HEIGHT PRIOR TO ROUGH–IN.
8. COORDINATE ON SITE FOR EXACT LOCATION & MOUNTING HEIGHTS OF OUTLETS FOR MICROWAVES, DISHWASHERS & FRIDGES PRIOR TO ROUGH–IN.
9. RECEPTACLE TO BE LOCATED ON ISLAND, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN.
10. PA SYSTEM, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN.
11. PROVIDE POWER FOR PA SYSTEM (ADJACENT TO THE PA SYSTEM), COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN.
12. COORDINATE ON SITE FOR EXACT LOCATION OF FLOOR BOXES PRIOR TO ROUGH–IN.
13. NO SURFACE MOUNTED CONDUITS SHALL BE PROVIDED IN CREW AREA (CAPTION OFFICE & DORMITORY ROOMS).
14. PROVIDE POWER & VOICE/DATA FOR PHONE/INTERCOM WITH RECEPTION. COORDINATE ON SITE FOR EXACT LOCATION & MOUNTING HEIGHT PRIOR TO ROUGH–IN.
15. POWER FEED FOR ALL THE OUTLETS LOCATED ON PERIMETER SHALL BE PROVIDED FROM BELOW SLAB (TYP.).
16. CONTROL PANEL (UP/DOWN/OFF SWITCH) FOR OVERHEAD DOOR, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN.
17. HYDRO METERING CABINET. PROVIDE A DEDICATED PHONE LINE & POWER FOR THE METERING CABINET.
18. FIRE ALARM MONITORING PANEL (FMP). PROVIDE A DEDICATED PHONE LINE FOR THE MONITORING PANEL. PROVIDE 1–21MM CONDUIT FROM THIS MONITORING PANEL TO FACP. PROVIDE POWER (CCT.#1A–75) TO THE MONITORING PANEL.
19. COORDINATE ON SITE FOR EXACT LOCATION OF MECHANICAL EQUIPMENT PRIOR TO ROUGH–IN.
20. GENERATOR ANNUNCIATOR PANEL, PROVIDE CCT.#1A–80 TO THE ANNUNCIATOR PANEL.
21. ALL CONDUITS TO RUN INSIDE TOWER INCLUDING CONDUITS FOR LIGHT FIXTURES.
22. COORDINATE ON SITE & WITH KITCHEN DRAWINGS FOR EXACT LOCATION & MOUNTING HEIGHTS OF RECEPTACLES/OUTLETS FOR VARIOUS APPLIANCES PRIOR TO ROUGH–IN.
23. RELAY PANEL–R1A SHALL BE LOCATED ABOVE PANEL–1A.
24. RELAY PANEL–R1B SHALL BE LOCATED ABOVE PANEL–1A.
25. PROVIDE POWER FOR OVERHEAD DOOR OPERATOR, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN. PROVIDE FUSIBLE DISCONNECT SWITCH TO CONTROL POWER TO THE OVERHEAD DOOR OPERATOR. 30A,3P BREAKER HAS BEEN USED TO FEED THE DOOR OPERATOR, COORDINATE WITH SHOP DWGS. OF THE O/H DOOR OPERATOR AND PROVIDE POWER/WIRING (1–PH. OR 3–PH.) & FUSES TO SUIT THE O/H DOOR OPERATOR.
26. ACKNOWLEDGE BUTTON FOR THE FIRE STATION ALERT SYSTEM. CO–ORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN. PROVIDE 1–21MM CONDUIT & WIRING FROM THIS BUTTON TO FIRE STATION ALERT SYSTEM.
27. COUNTDOWN CLOCK–FIRE STATION ALERT SYSTEM (SUPPLIED & INSTALLED BY OTHERS). PROVIDE POWER (CCT.#1A–39) & DATA OUTLET FOR THE ALERT SYSTEM. CO–ORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN. PROVIDE 1–21MM CONDUIT & WIRING FROM FIRE STATION ALERT SYSTEM TO PA SYSTEM.
28. RESERVED.
29. PTE–1, EMP–1 & EMP–2 FOR DIGITAL METERING SYSTEM, COORDINATE ON SITE AND WITH SYSTEM SUPPLIER FOR EXACT LOCATION & MOUNTING HEIGHT PRIOR TO ROUGH–IN. REFER DWG. E9.0 FOR MORE INFORMATION.
30. PROVIDE POWER (CCT.#1A–77) FOR TRAP SEAL PRIMER, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN.
31. PROVIDE POWER (CCT.#1B–84) FOR TRAP SEAL PRIMER, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN.
32. PROVIDE POWER FOR EXCESS PRESSURE PUMP, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN.
33. PROVIDE RECESSED WEATHERPROOF SINGLE GANG BOX FOR EMERGENCY CALL BOX. PROVIDE POWER (CCT.#1B–70) & DATA DROP FOR THE SYSTEM. COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH–IN. PROVIDE 1–21MM CONDUIT FROM THIS LOCATION TO RECEPTION ROOM–102.
34. PROVIDE 2–3" CONDUITS FROM MAIN ELECTRICAL ROOM–133 TO ROOF FOR PHOTOVOLTAIC SYSTEM, COORDINATE ON SITE FOR EXACT LOCATION OF TERMINATION OF CONDUITS PRIOR TO ROUGH–INS. BOTH ENDS OF THE CONDUITS TO BE SEALED SUITABLE TO AVOID ENTRY OF WATER/FOREIGN MATERIAL INTO THE CONDUITS.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
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PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

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REGISTERED PROFESSIONAL ENGINEER
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SEPT.04'24
PROVINCE OF ONTARIO
21–237

DWG TITLE
POWER & SYSTEMS LAYOUT -GROUND FLOOR

ORIENTATION
TRUE NORTH — CONSTRUCTION NORTH

DATE

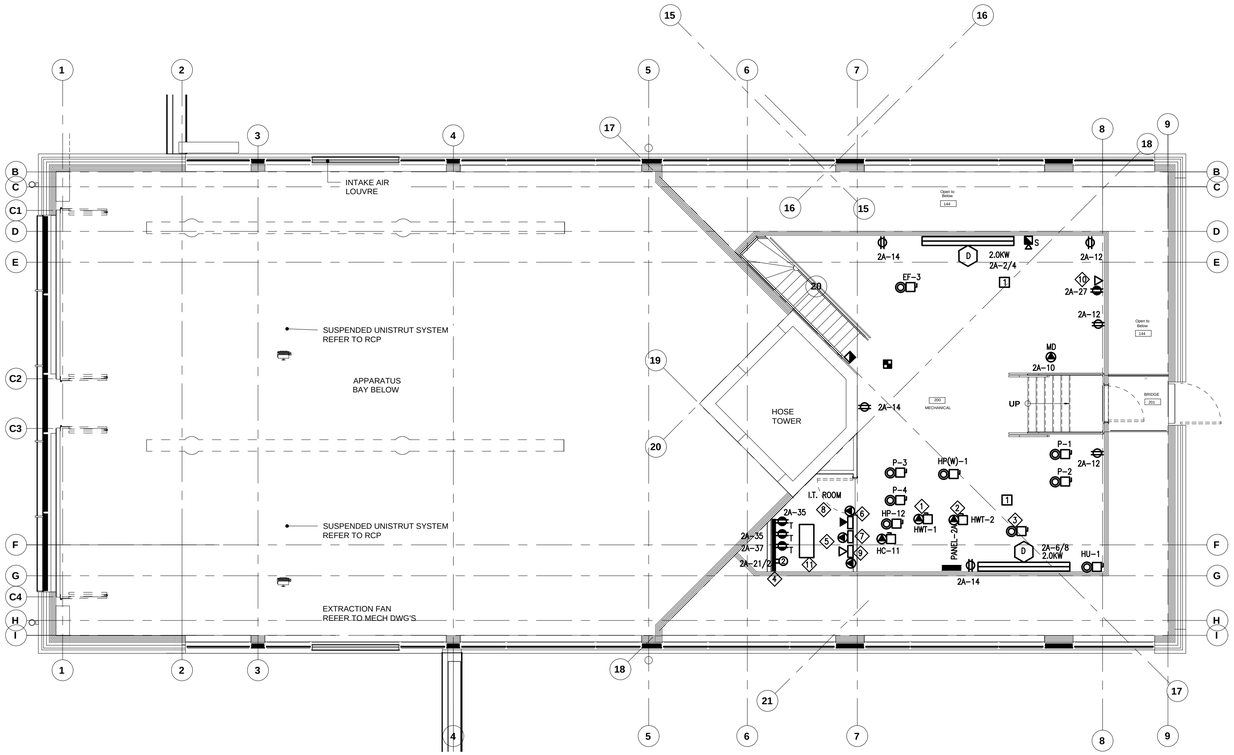
SCALE 1 : 75

DRAWN BY CV — CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. **E3.1** — REVISION



DRAWING NOTES:

1. PROVIDE POWER FOR HOT WATER TANK (HWT-1), COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN.
2. PROVIDE POWER FOR HOT WATER TANK (HWT-2), COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN.
3. PROVIDE POWER FOR CIRC. PUMP FOR HWT-1 & HWT-2, COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN.
4. PROVIDE 19MM THICK, 2.44M HIGH FIRE RESISTANT COMMUNICATION PLYWOOD BOARD FOR TEL/CABLE/DATA SERVICES
5. PROVIDE #6 AWG GROUNDING CONDUCTOR IN CONDUIT C/W GROUNDING BUS BARS OF SIZE 1/4"X2"X10" FOR EACH SYSTEM (AS REQUIRED BY SYSTEM SUPPLIERS) FOR TELEPHONE, I.T RACK, FACP, SERVER, SECURITY PANEL CABLE TV , DATA EQUIPMENTS BONDING IN I.T. ROOM. EXACT LOCATION TO BE VERIFIED ON SITE. GROUNDING OF THE EQUIPMENTS IN THE I.T. ROOM SHALL BE CONNECTED TO MAIN GROUNDING BUS BAR OF THE MAIN BUILDING.
6. SECURITY PANEL, PROVIDE POWER (CCT.#2A-33) & A DEDICATED PHONE LINE FOR THE SECURITY PANEL.
7. DOOR ACCESS PANEL, PROVIDE POWER (CCT.#2A-31) FOR THE DOOR ACCESS PANEL.
8. PROVIDE 1-63MM CONDUIT FROM I.T. ROOM TO ROOF FOR ANTENA/SETALITE. COORDINATE ON SITE FOR EXACT LOCATION OF TERMINATION OF THE CONDUIT.
9. FIRE ALERT SYSTEM. PROVIDE POWER (CCT.#2A-29) & DATA OUTLET FOR THE SYSTEM. THE FIRE ALERT SYSTEM SHALL TURN LIGHT FIXTURES TYPE-L2A 'ON' LOCATED IN CAPTION OFFICE-104 & DORMITORY ROOMS THROUGH RELAY-R23. REFER LIGHTING CONTROL RELAY SCHEDULE ON DWG. E7.0 & DWG. NOTE-11 ON DWG. E2.1 FOR MORE INFORMATION.
10. PROVIDE POWER & DATA OUTLET FOR BMS SYSTEM, VERIFY ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN.
11. FLOOR MOUNTED I.T. RACK

ISSUE OR REVISION

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2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

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21-237

DWG TITLE

POWER & SYSTEMS LAYOUT
-MEZZANINE LEVEL

ORIENTATION

TRUE NORTH | CONSTRUCTION NORTH

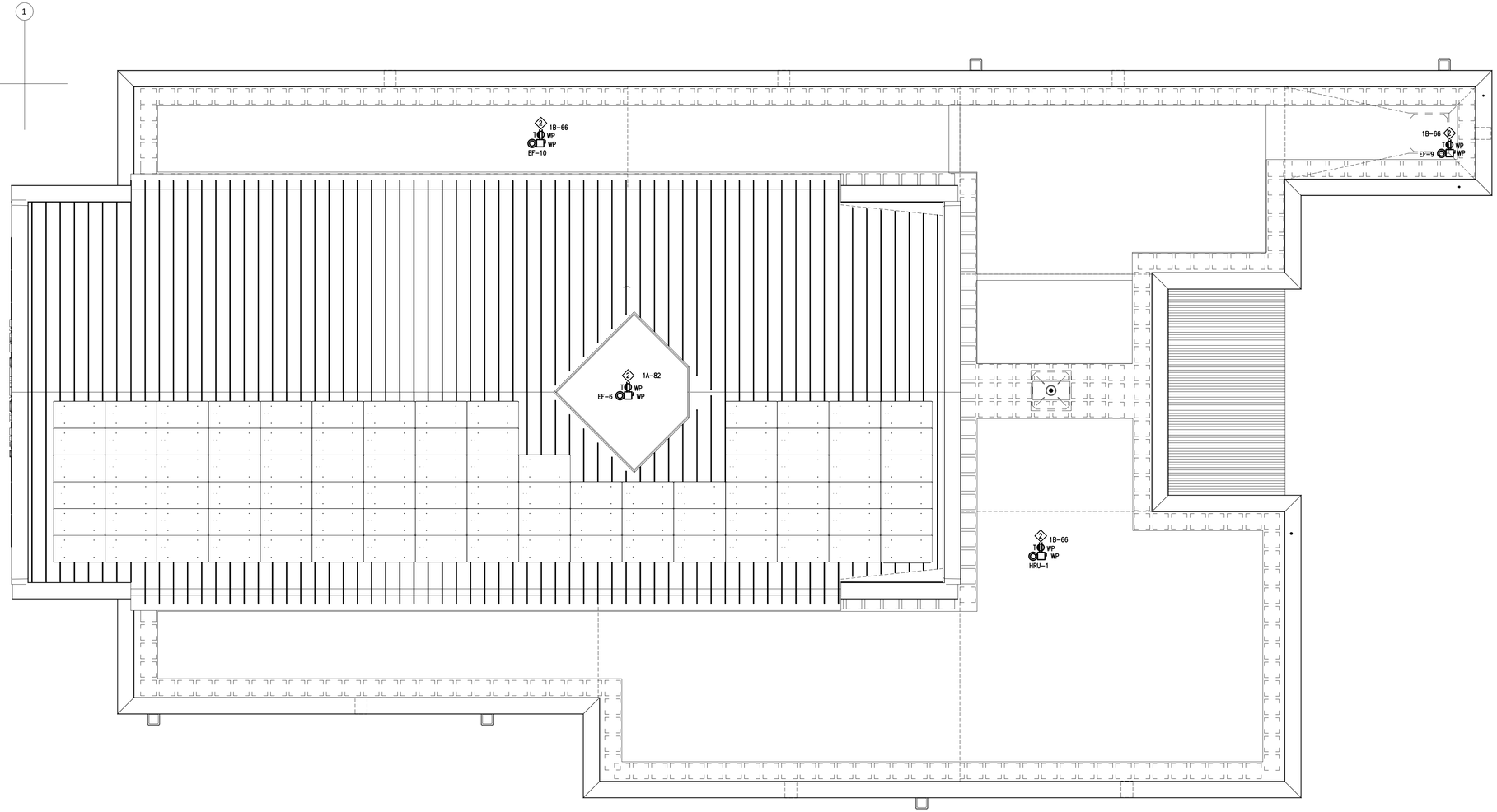
DATE

SCALE 1 : 75 | DRAWN BY CV | CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. **E3.2** | REVISION



DRAWING NOTES:

1. VERIFY ON SITE FOR EXACT LOCATION OF MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN.
2. PROVIDE T-SLOT, GFI, WEATHERPROOF RECEPTACLE ON THE UNIT ITSELF FOR MAINTENANCE PURPOSES. COORDINATE ON SITE FOR EXACT LOCATION PRIOR TO ROUGH-IN.

ISSUE OR REVISION

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PROJECT :

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DWG TITLE

POWER & SYSTEMS LAYOUT
-ROOF PLAN

ORIENTATION

N — TRUE NORTH

N — CONSTRUCTION NORTH

DATE

SCALE 1 : 75

DRAWN BY CV

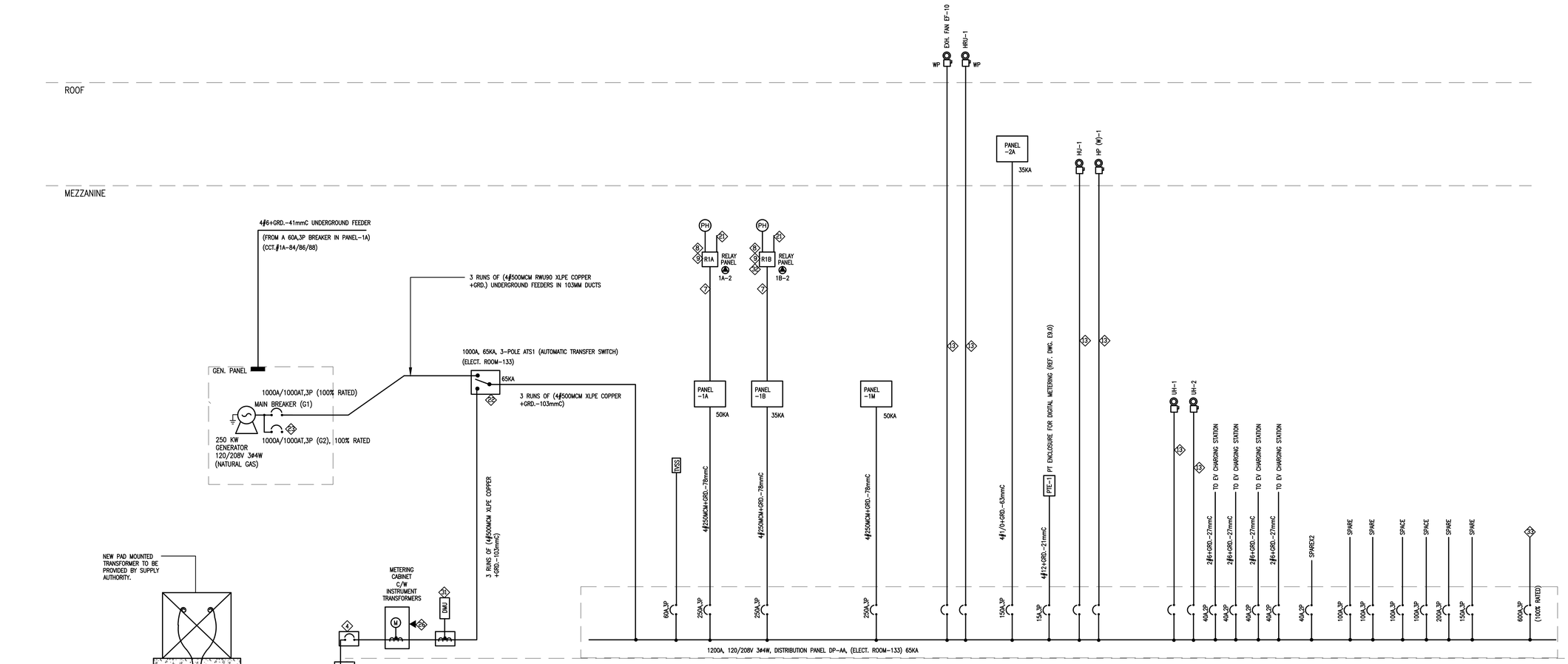
CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. **E3.3**

REVISION



1 E4.0 SINGLE LINE DIAGRAM
N.T.S.

DRAWING NOTES :

1. ALL THE OVER CURRENT DEVICES SHALL BE MARKED IN A CONSPICUOUS AND LEGIBLE MANNER TO INDICATE THAT THEY MUST ONLY BE REPLACED WITH COMPONENTS OF THE SAME TYPE AND RATING.
2. VERIFY INTERRUPTING CAPACITY OF ALL EQUIPMENT WITH CO-ORDINATION STUDY PRIOR TO MANUFACTURING.
3. REFER TO HYDRO STANDARDS & DETAILS PROVIDED IN THE SPECS. FOR MORE INFORMATION AND COMPLY ACCORDINGLY.
4. 208V, 1000A/1000AT,3P, 100% RATED MAIN BREAKER C/W ENCLOSURE (65KA).
5. COORDINATE WITH LOCAL HYDRO FOR EXACT SCOPE OF WORK AND REQUIREMENT AND COMPLY ACCORDINGLY. PROVIDE ALL NECESSARY MATERIAL AND LABOR FOR FULLY OPERATIONAL SYSTEM.
6. PROVIDE PHOTOCELL LOCATED ON THE ROOF ON NORTH SIDE OF THE BUILDING AND CONNECT TO LIGHTING CONTROL SYSTEM.
7. PROVIDE SUITABLE CONDUIT SIZE FOR CIRCUITING WIRES WITH A MAXIMUM OF 40% CONDUIT FILL.
8. PROVIDE LOW VOLTAGE RELAY PANEL FOR EXTERIOR/INTERIOR LIGHTING C/W STEP DOWN TRANSFORMER. RELAY PANELS SHALL BE LOCATED ADJACENT TO RELAVANT LIGHTING PANEL.
9. PROVIDE ALL NECESSARY CONDUIT, WIRING, BACKBOXES ETC. FOR LIGHTING CONTROL FOR FULLY OPERATIONAL SYSTEM.
10. MAIN SWITCHBOARD & DISTRIBUTION PANELS SHALL HAVE 25% SPACE PROVISION AS A MINIMUM.
11. ALL FEEDERS SHALL BE MINIMUM R90XLPE COPPER CABLES.
12. ALL BREAKERS OF 400A AND ABOVE SHALL HAVE ELECTRONIC TRIP SETTINGS.
13. REFER TO MECH. EQUIPMENT WIRING SCHEDULE FOR BREAKER/FEEDER/CONDUIT SIZES.
14. CONTRACTOR SHALL PERFORM VOLTAGE DROP CALCULATIONS FOR ALL BRANCH CIRCUITS AND SHALL MAINTAIN VOLTAGE DROP WITHIN PERMISSIBLE LIMITS (for both lighting as well as power circuits) AS PER OESC REQUIREMENTS AND PROVIDE PROPER WIRE SIZES ACCORDINGLY PRIOR TO COMMENCING OF ROUGH-IN INSTALLATION. THE VOLTAGE DROP CALCULATIONS SHALL BE BASED ON MAXIMUM CIRCUIT AMPACITY.
15. PROVIDE LOCK-ON BREAKERS FOR CIRCUITS FEEDING EXIT LIGHTS, EMERGENCY INVERTER UNITS, FIRE ALARM PANEL, SERVER ROOMS, PA SYSTEM, MECHANICAL CONTROLS.
16. REFER TO FLOOR PLANS FOR TYPE OF DISCONNECT SWITCHES I.E. WEATHER PROOF, NON-FUSED, FUSED ETC.

DRAWING NOTES (CONTD.):

17. ALL POWER EQUIPMENT/PANELS/RELAY PANELS SHALL BE OF SPRINKLER PROOF DESIGN.
18. AT EACH DISTRIBUTION POINT, CIRCUIT BREAKERS, FUSES AND SWITCHES SHALL BE MARKED, ADJACENT THERETO, IN A CONSPICUOUS MANNER TO INDICATE WHICH INSTALLATION OR PORTION OF INSTALLATION THEY PROTECT OR CONTROL AND THE MAXIMUM RATING OF OVERCURRENT DEVICE THAT IS PERMITTED AS PER RULE 2-100(3) OF OESC.
19. KA RATING OF THE EQUIPMENT SHALL BE AS SHOWN ON THE DWG.
20. THE AUTOMATIC TRANSFER SWITCH-ATS1 SHALL BE 3-POLE SWITCH AND THE GENERATOR NEUTRAL SHALL BE INTERCONNECTED TO THE BUILDING NEUTRAL. THE GENERATOR MUST HAVE A FLOATING NEUTRAL AS DETAILED IN BULLETIN 10-10, RULE 2-100, RULE 10-210, RULE 10-212 OF THE OESC CODE.
21. TO LIGHTING LOADS
22. PROVIDE FOLLOWING FEEDERS FROM THE ATS-1 TO GENERATOR CONTROLLER:
    2#12+GRD.-27mmC FOR START OPTION.
    3#12+GRD.-27mmC FOR VOLTAGE SENSING.
    1-27MM CONDUIT C/W WIRING TO GENERATOR FOR TRIPPING LOAD TESTING BREAKER-G2
    CO-ORDINATE WITH SYSTEM SUPPLIER FOR EXACT POINTS OF TERMINATIONS.
23. GENERATOR BREAKER-G2 C/W TRIP UNIT FOR LOAD TEST. PROVIDE TRIP SIGNAL C/W CONDUITS & WIRING FROM AUTOMATIC TRANSFER SWITCH ATS1 SO AS TO TRIP THIS BREAKER BEFORE THE ATS1 IS AUTOMATICALLY TRANSFERRED TO GENERATOR POWER UPON LOSS OF HYDRO POWER. ACCORDINGLY, PROVIDE TRIP SIGNAL TO THIS BREAKER FROM THE ATS1 FROM PRE-TRANSFER CONTACT ON HYDRO POWER SIDE.
24. WHERE ADJUSTABLE TRIP BREAKERS ARE INSTALLED, PERMANENT LABELS SHALL BE ATTACHED TO THE SWITCHGEAR OR PANEL BOARD TO CLEARLY INDICATE FOR EACH ADJUSTABLE TRIP BREAKER THE MAXIMUM PERMISSIBLE TRIP SETTING FOR THE INSTALLATION (BOTH IN AMPERES AND IN TERMS OF THE SCALE/READ-OUT) (RULE 2-100), AND IF THE AMPERE RATING OF THE BREAKER CAN BE CHANGED WITHOUT REMOVING THE TRIP UNIT, THE MEANS OF ADJUSTMENT SHALL BE FACTORY SEALED OR BEHIND SEALED COVERS.

DRAWING NOTES (CONTD.):

25. ELECTRICAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LAYOUT OF ELECTRICAL EQUIPMENT IN ELECTRICAL ROOMS (OR WHEREVER ELECTRICAL PANELS ARE LOCATED) SO AS TO ADJUST ALL THE ELECTRICAL EQUIPMENT IN ELECTRICAL ROOMS/RESPECTIVE ROOMS AS PER DRAWINGS AND TO HAVE CLEARANCES IN FRONT OF ALL ELECTRICAL EQUIPMENT AS PER APPLICABLE CODES (1.0M IN FRONT OF PANELS OF RATINGS LESS THAN 1200A AND 1.5M IN FRONT OF PANELS OF RATINGS 1200A & ABOVE). ALL TRANSFORMERS UPTO RATINGS OF 75KVA SHOULD BE LOCATED AT HIGH LEVEL FOR MAXIMUM UTILIZATION OF THE AVAILABLE SPACES IN ELECTRICAL ROOMS. THEREFORE ELECTRICAL CONTRACTOR SHALL VERIFY DIMENSIONS OF THE ELECTRICAL ROOMS & DOOR OPENINGS (SO AS TO CHECK THAT THE ELECTRICAL EQUIPMENT CAN PASS THROUGH THE RESPECTIVE DOOR/DOORS) AND THE ELECTRICAL EQUIPMENT/PANELS WITH VARIOUS SUPPLIERS/MANUFACTURERS PRIOR TO ORDERING AND ORDER ELECTRICAL EQUIPMENT/PANELS ACCORDINGLY AND SHALL ORDER CUSTOM MADE EQUIPMENT, IF NEED BE. NO EXTRA ALLOWANCE, WHATSOEVER SHALL BE ADMISSIBLE ON THIS ACCOUNT AT A LATER DATE. HOWEVER, ELECTRICAL CONTRACTOR CAN RE-ADJUST THE LOCATION OF VARIOUS EQUIPMENT IN ELECTRICAL ROOM/RESPECTIVE ROOMS TO ACHIEVE VARIOUS CLEARANCES REQUIRED.
26. PROVIDE DEDICATED TELEPHONE LINE FOR METERING.
27. PROVIDE 1" CONDUITS C/W COMMUNICATION CABLES (AS RECOMMENDED BY SUPPLIER/MANUFACTURER) BETWEEN LOW VOLTAGE LIGHTING RELAY PANELS-R1A & R1B FOR INTERFACE PURPOSES. PROVIDE ALL NECESSARY MATERIAL & LABOUR AS RECOMMENDED BY SYSTEM MANUFACTURER FOR A FULLY OPERATIONAL SYSTEM. ALSO PROVIDE 1" CONDUIT FROM RELAY 'R1A' UPTO BMS SYSTEM.
28. ALL BREAKER OF RATING MORE THAN 250A SHALL BE C/W ELECTRONIC TRIP UNIT FULLY ADJUSTABLE IN TIME & CURRENT INCLUDING THE FOLLOWING:
    -LONG TIME DELAY
    -LONG TIME PICK UP
    -SHORT TIME DELAY
    -SHORT TIME PICK UP
    -INSTANTANEOUS TIME DELAY
    -INSTANTANEOUS TIME PICK UP
29. ALL 600V, 3-PH. BREAKERS OF RATING 1000A & ABOVE SHALL HAVE GFI PROTECTION.
30. ALL 208V, 3-PH. BREAKERS OF RATING 2000A & ABOVE SHALL HAVE GFI PROTECTION.
31. ELECTRICAL DIGITAL METERING SYSTEM, REFER SPECIFICATIONS FOR MORE INFORMATION.
32. PROVIDE A CAUTION NOTE ON THIS RELAY PANEL SAYING POWER TO THIS RELAY PANEL COMES FROM TWO PANELS (PANEL-1B & PANEL-2A).

DRAWING NOTES (CONTD.):

33. PROVIDE THIS BREAKER AT THE END OF BUS FOR PV SYSTEM

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5	ISSUED FOR ADD#1	05.23.24
6	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

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PROFESSIONAL SEAL
REGISTERED PROFESSIONAL ENGINEER D. JAIN SEPT.04'24 PROVINCE OF ONTARIO
21-237

DWG TITLE
SINGLE LINE DIAGRAM

ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

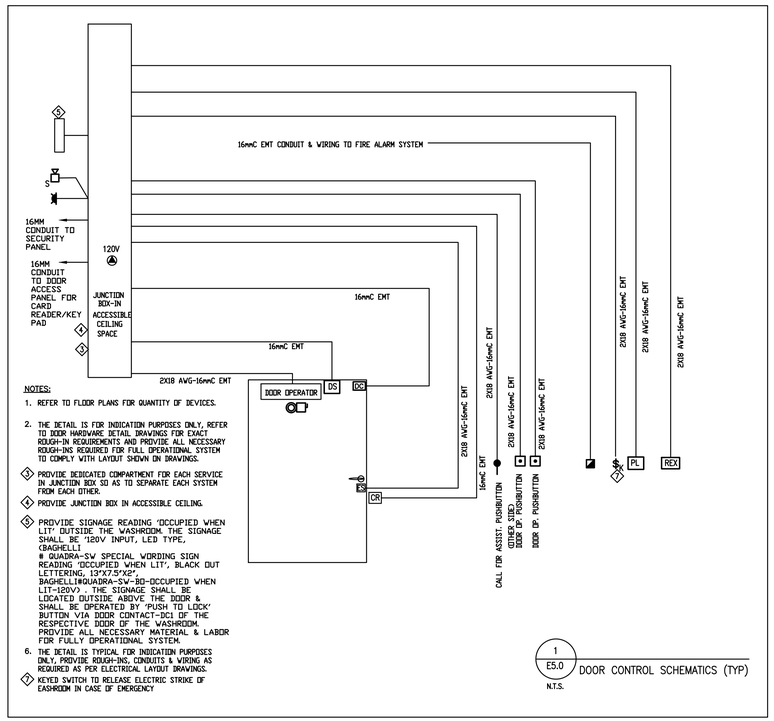
DATE

SCALE	DRAWN BY	CHECKED BY
N.T.S.	CV	RH

DWG STATUS :

PROJECT No.

DRAWING No. **E4.0** REVISION



NOTES:

1. REFER TO FLOOR PLANS FOR QUANTITY OF DEVICES.
2. THE DETAIL IS FOR INDICATION PURPOSES ONLY, REFER TO DOOR HARDWARE DETAIL DRAWINGS FOR EXACT ROUGH-IN REQUIREMENTS AND PROVIDE ALL NECESSARY ROUGH-INS REQUIRED FOR FULL OPERATIONAL SYSTEM TO COMPLY WITH LAYOUT SHOWN ON DRAWINGS.

③ PROVIDE DEDICATED COMPARTMENT FOR EACH SERVICE IN JUNCTION BOX SO AS TO SEPARATE EACH SYSTEM FROM EACH OTHER.

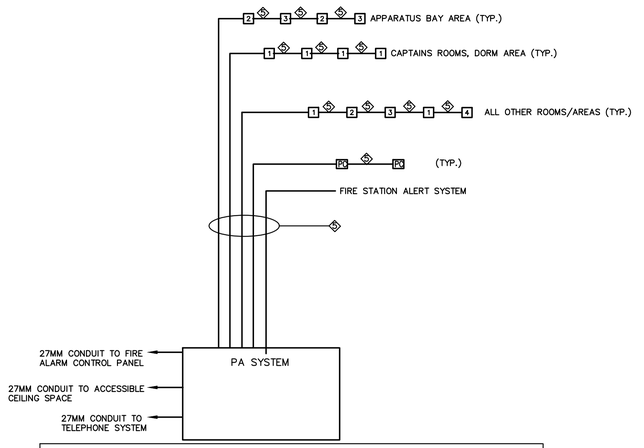
④ PROVIDE JUNCTION BOX IN ACCESSIBLE CEILING.

⑤ PROVIDE SIGNAGE READING 'OCCUPIED WHEN LIT' OUTSIDE THE WASHROOM. THE SIGNAGE SHALL BE 120V INPUT, LED TYPE, (BAGHELLI # QUADRA-SV SPECIAL WORDING SIGN READING 'OCCUPIED WHEN LIT', BLACK CUT LETTERING, 13"X7.5"X2", BAGHELLI#QUADRA-SV-RD-OCCUPIED WHEN LIT-120V) . THE SIGNAGE SHALL BE LOCATED OUTSIDE ABOVE THE DOOR & SHALL BE OPERATED BY 'PUSH TO LOCK' BUTTON VIA DOOR CONTACT-DC1 OF THE RESPECTIVE DOOR OF THE WASHROOM. PROVIDE ALL NECESSARY MATERIAL & LABOR FOR FULLY OPERATIONAL SYSTEM.

6. THE DETAIL IS TYPICAL FOR INDICATION PURPOSES ONLY, PROVIDE ROUGH-INS, CONDUITS & WIRING AS REQUIRED AS PER ELECTRICAL LAYOUT DRAWINGS.

⑦ KEYED SWITCH TO RELEASE ELECTRIC STRIKE OF EASHROOM IN CASE OF EMERGENCY

1 / E5.0 DOOR CONTROL SCHEMATICS (TYP)
N.T.S.



NOTES:

1. THIS IS TYPICAL SCHEMATIC ONLY. REFER TO FLOOR PLANS FOR THE DEVICE QUANTITIES AND LOCATIONS.
2. PROVIDE A MINIMUM OF 27mm CONDUITS AS MINIMUM (UNLESS NOTED OTHERWISE) FOR ALL WIRING AND COORDINATE WITH SYSTEM SUPPLIER FOR FURTHER RECOMMENDATION AND COMPLY ACCORDINGLY.
3. REFER TO SPECIFICATIONS FOR MORE INFORMATION.
4. PROVIDE BACKBOXES FOR SPEAKERS, JACKS AND ETC. AS PER SYSTEM SUPPLIER RECOMMENDATION. COODINATE FOR ADDITIONAL DETAILS.

⑤ 27MM CONDUITS

2 / E5.0 P.A. SYSTEM SCHEMATIC DIAGRAM
N.T.S.

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PROJECT :
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9541 WESTON ROAD, VAUGHAN

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PROFESSIONAL SEAL

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SEPT.04'24
PROVINCE OF ONTARIO

21-237

DWG TITLE
SCHEMATICS & DETAILS

ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

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SCALE	DRAWN BY	CHECKED BY
N.T.S.	CV	RH

DWG STATUS :

PROJECT No.

DRAWING No. **E5.0** REVISION

FIRE ALARM ZONE SCHEDULE

ALARM ZONES

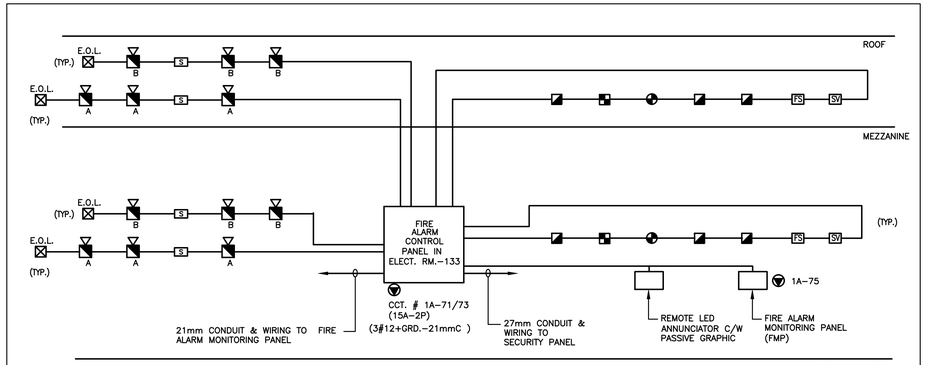
ZONE NO.	AREA SERVED	DEVICES	ALARM	TROUBLE
FZ–01	GROUND FLOOR	P.S./S.D./H.D.	✓	✓
FZ–02	MEZZANINE	P.S./S.D./H.D.	✓	✓
FZ–03	GARBAGE ROOM	P.S./S.D./H.D.	✓	✓
FZ–04	MAIN SPRINKLER CHECK VALVE	FLOW SWITCH	✓	✓
FZ–05	SPRINKLER SYSTEM–GROUND FLOOR	FLOW SWITCH	✓	✓
FZ–06	SPRINKLER SYSTEM–MEZZANINE	FLOW SWITCH	✓	✓
SPARE	10 NOS.		✓	✓
			✓	✓
			✓	✓
			✓	✓

TROUBLE ZONES

ZONE NO.	AREA SERVED	DEVICES	ALARM	TROUBLE
SZ–01	GENERATOR RUNNING	MONITOR SWITCH		✓
SZ–02	GENERATOR TROUBLE	MONITOR SWITCH		✓
SZ–03	ATS–1 AT BYPASS MODE	MONITOR SWITCH		✓
SZ–04	GENERATOR GAS SUPPLY OFF	PRESSURE SWITCH		✓
SZ–05	MAIN SPRINKLER CHECK VALVE	TAMPER SWITCH		✓
SZ–06	SPRINKLER SYSTEM–GROUND FLOOR	TAMPER SWITCH		✓
SZ–07	SPRINKLER SYSTEM–LOW PRESSURE	PRESSURE SWITCH		✓
SZ–08	SPRINKLER SYSTEM– BACK FLOW PREVENTOR–INLET	TAMPER SWITCH		✓
SZ–09	SPRINKLER SYSTEM– BACK FLOW PREVENTOR–OUTLET	TAMPER SWITCH		✓
SZ–10	SPRINKLER SYSTEM–MEZZANINE	TAMPER SWITCH		✓
SPARE	10 NOS.			✓
				✓
CZ–01	PROVIDE A CONTROL ZONE TO OPERATE RELAYS–R9, R10, R11, R12, R15, R16, R17, R21 & R22 UPON OPERATION OF FIRE ALARM SYSTEM SO AS TO TURN ON ALL LIGHT FIXTURES FED FROM THESE RELAYS.			

NOTES:–

1. PROVIDE FIRE ALARM GRAPHICS TO BE INSTALLED ADJACENT TO THE LED ANNUNCIATOR IN THE MAIN ENTRANCE.
2. 'FZ'– DENOTES FIRE ALARM ZONE
3. 'SZ'– DENOTES SUPERVISORY ZONE
4. 'CZ'– DENOTES CONTROL ZONE
5. 'S.D'– DENOTES SMOKE DETECTOR
6. 'P.S'– DENOTES PULL STATION
7. 'H.D'– DENOTES HEAT DETECTOR
8. 'D.S'– DENOTES DUCT SMOKE DETECTOR
9. FOR NUMBER AND LOCATION OF DEVICES REFER TO FLOOR PLANS.
10. PROVIDE WIRING IN CONDUIT FOR COMPLETE OPERATIONAL SYSTEM
11. ALL PULL STATIONS SHALL BE C/W PLASTIC COVERS WITH LOCAL HORN.
12. PROVIDE ISOLATORS FOR EVERY ONE TO TWO HOUR RATED FIRE COMPARTMENT.
13. ALL LOOP WIRING FOR INITIATING CIRCUITS SHOULD RUN ON SEPARATE ROUTE INCLUDING RISER.
14. SOUND ALL AUDIBLE SIGNALS AND SHUT DOWN AIR SYSTEM IN CASE OF GENERAL ALARM.
15. PROVIDE CONNECTIONS C/W EMT CONDUIT AND WIRING TO ALL FIRE PROTECTION EQUIPMENT AND DEVICES (SPRINKLER SYSTEM) SHOWN ON THE FIRE ALARM ZONE SCHEDULE AS ALARM OR SUPERVISORY ZONE. REFER TO MECHANICAL DRAWINGS AND COORDINATE WITH MECHANICAL CONTRACTOR FOR LOCATIONS OF DEVICES PRIOR TO ROUGH IN. ALSO COORDINATE WITH SPRINKLER CONTRACTOR FOR ALARM ZONE AREAS BOUNDARIES AND LIMITATIONS AND COMPLY ACCORDINGLY.



NOTES:

1. THIS IS ONLY A TYPICAL SCHEMATIC DIAGRAM. FOR QUANTITY AND LOCATION OF DEVICES REFER TO FLOOR PLANS.
2. PROVIDE WIRING IN CONDUITS FOR COMPLETE OPERATIONAL SYSTEM AS PER MANUFACTURER RECOMMENDATION.
3. FIRE ALARM CABLES SHALL RUN IN EMT CONDUITS.

1/E502 FIRE ALARM RISER SCHEMATIC DIAGRAM N.T.S.

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PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER D. JAIN SEPT.04'24 PROVINCE OF ONTARIO

21–237

DWG TITLE

FIRE ALARM SYSTEM

ORIENTATION

N TRUE NORTH

N CONSTRUCTION NORTH

DATE

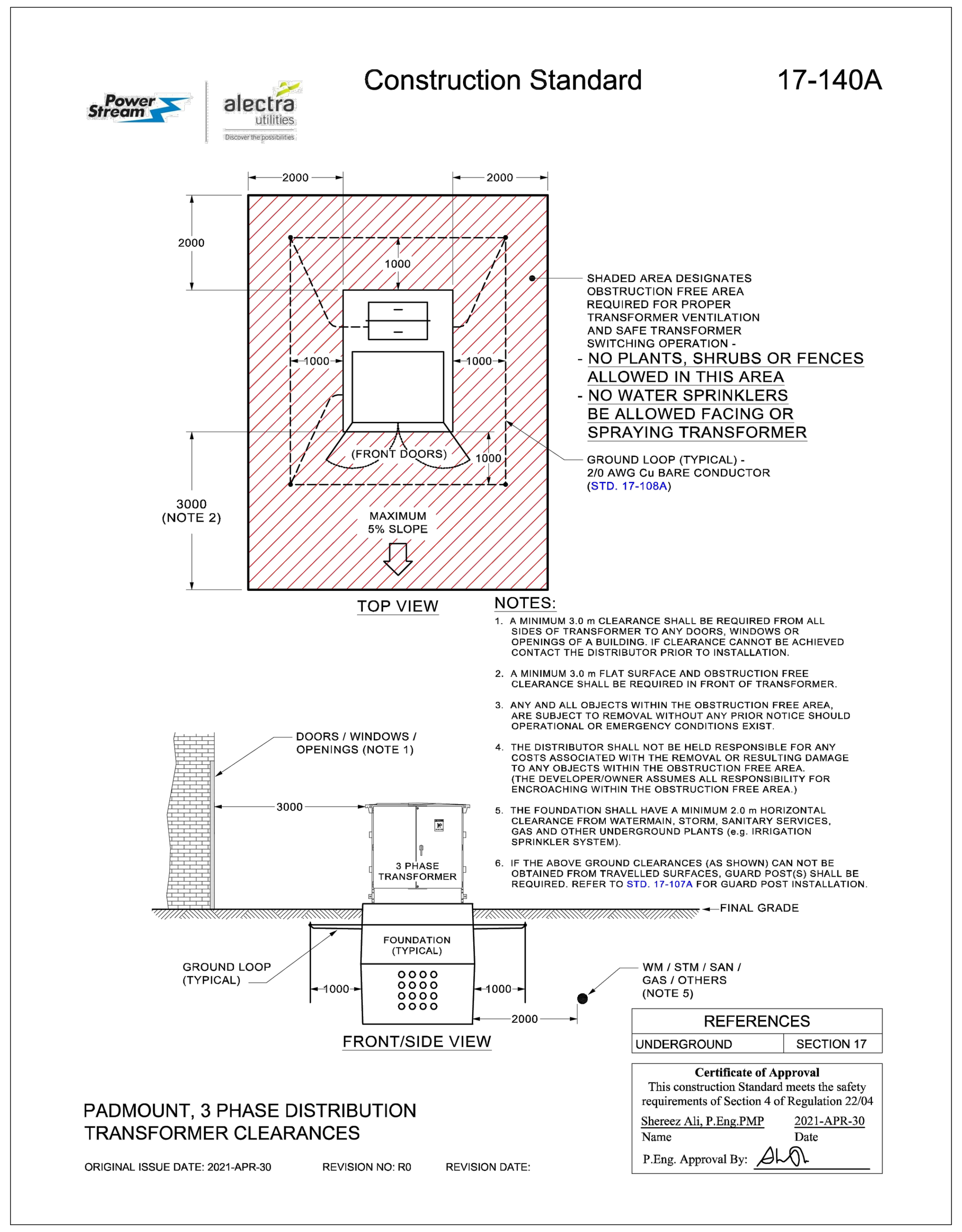
SCALE N.T.S.

DRAWN BY CV CHECKED BY RH

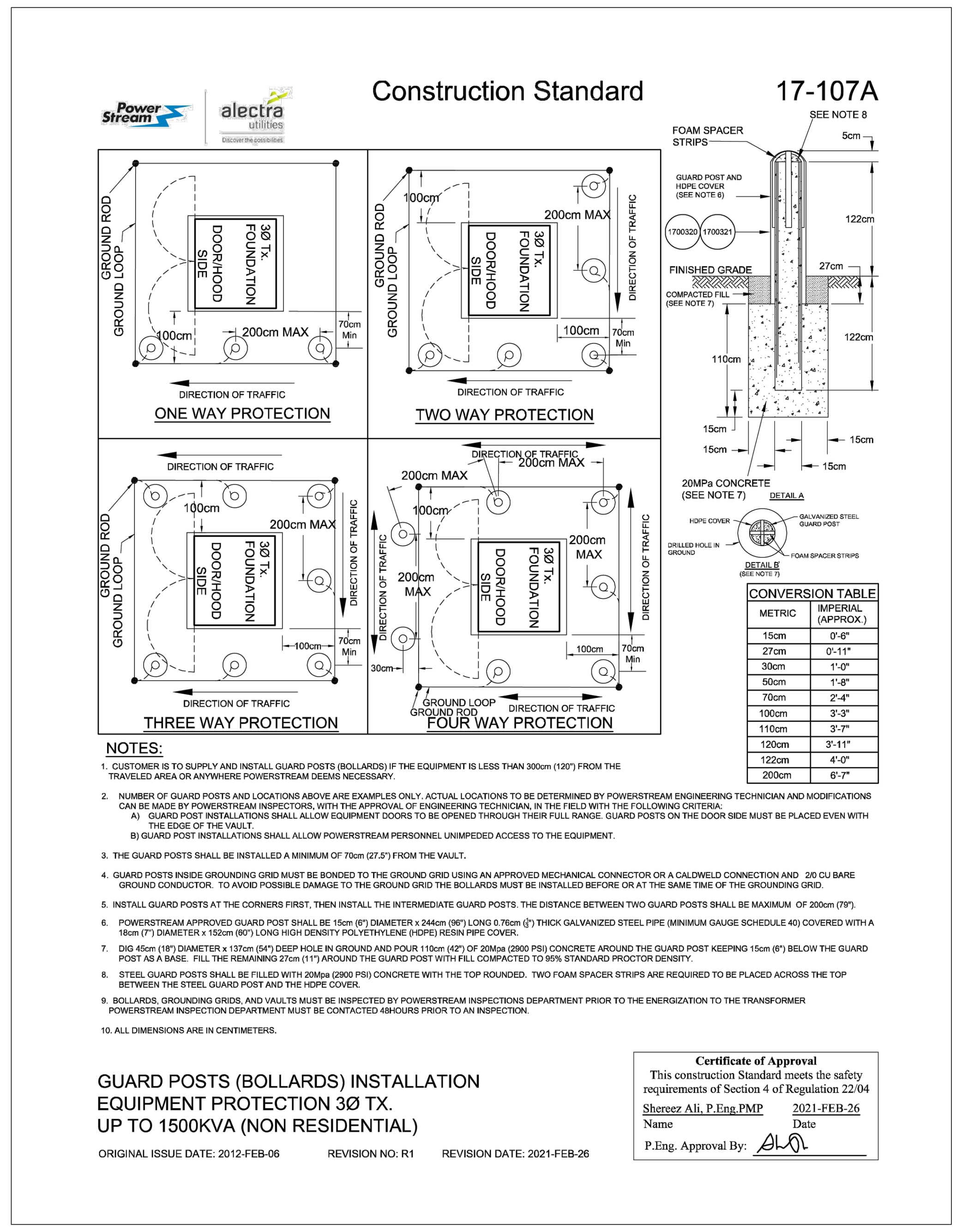
DWG STATUS :

PROJECT No.

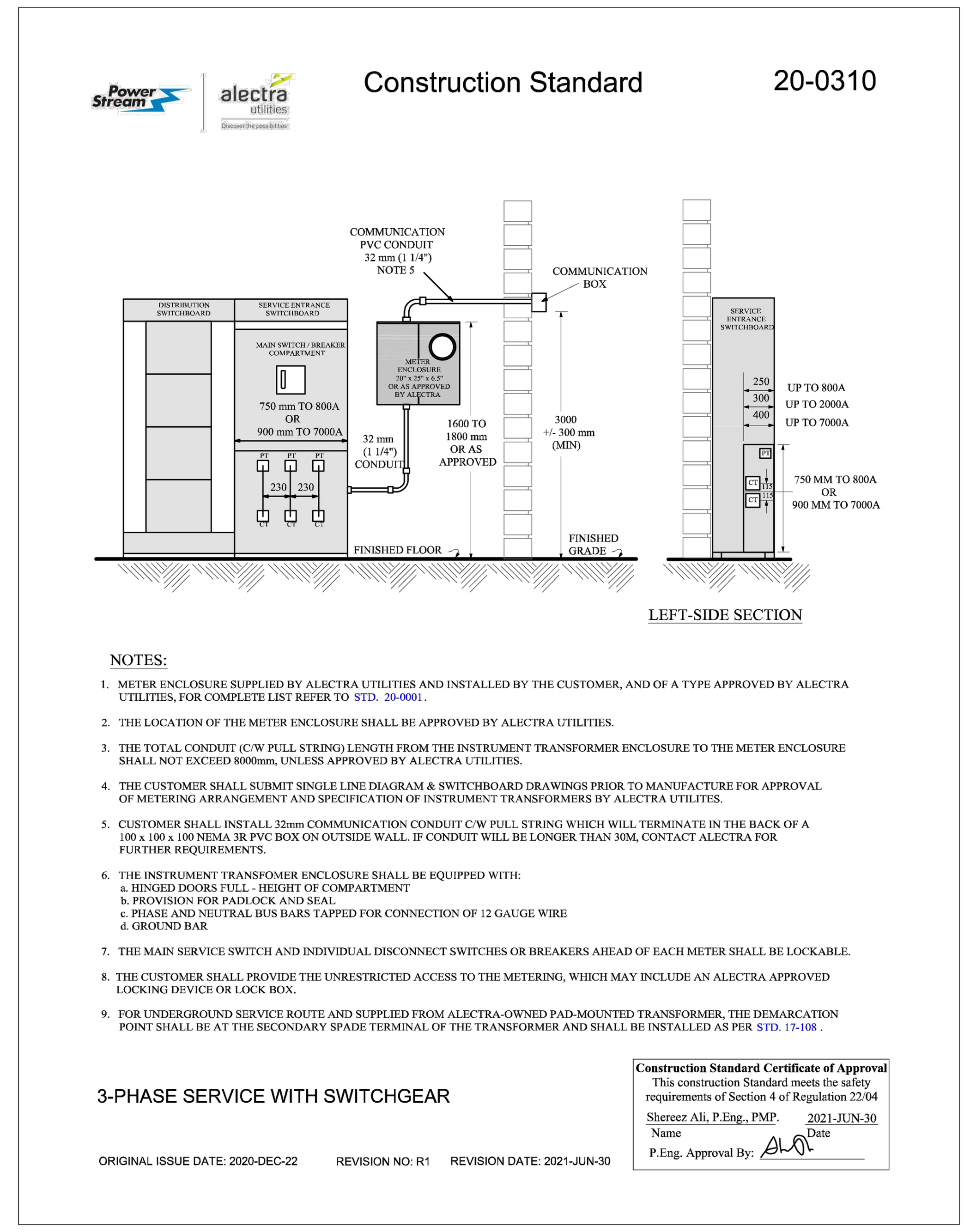
DRAWING No. **E6.0** REVISION



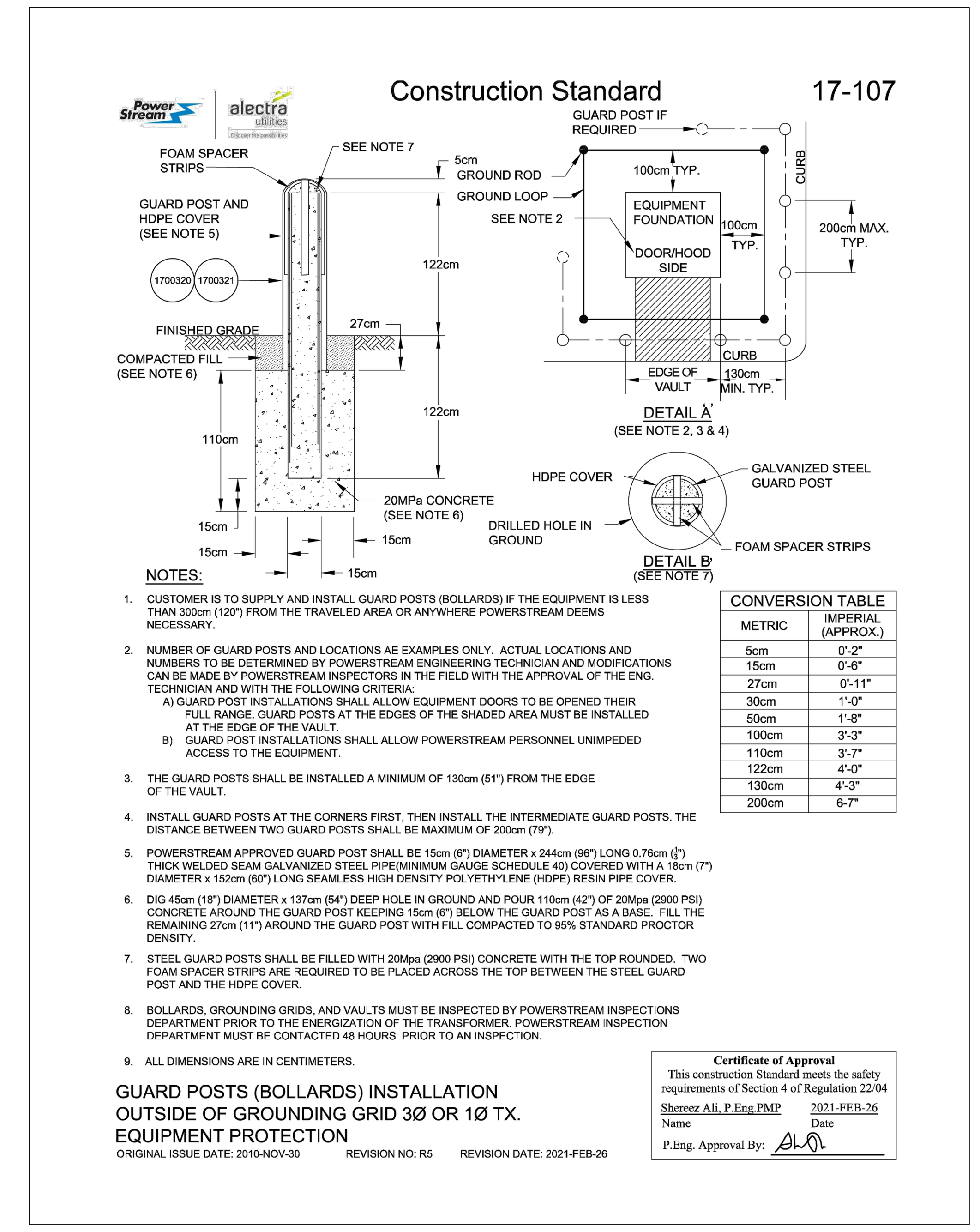
1 E6.1 PADMOUNT, CLEARANCES



2 E6.1 BOLLARDS INSTALLATION



3 E6.1 3-PHASE SERVICE WITH SWITCHGEAR



4 E6.1 BOLLARDS INSTALLATION

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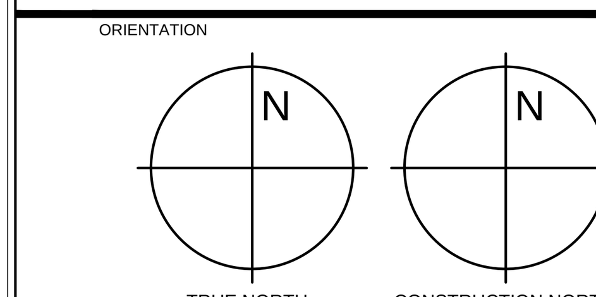
SEPT.04'24
21-237

DWG TITLE

HYDRO DETAILS

ORIENTATION



DATE

SCALE N.T.S.

DRAWN BY CV

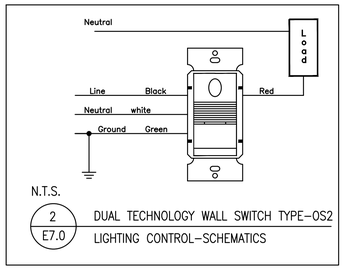
CHECKED BY RH

DWG STATUS :

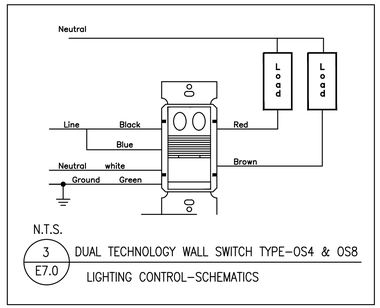
PROJECT No.

DRAWING No. E6.1

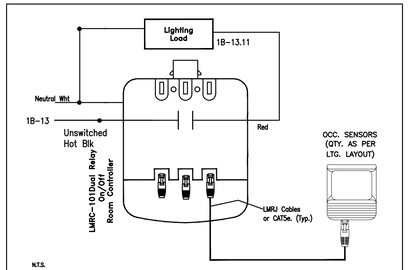
REVISION



2 / E7.0 DUAL TECHNOLOGY WALL SWITCH TYPE-OS2
LIGHTING CONTROL-SCHEMATICS



3 / E7.0 DUAL TECHNOLOGY WALL SWITCH TYPE-OS4 & OS8
LIGHTING CONTROL-SCHEMATICS



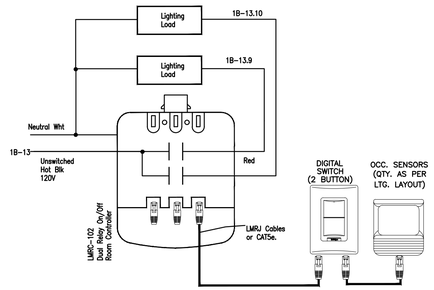
4 / E7.0 LIGHTING CONTROL SCHEMATICS-TYP.

DRAWING NOTES:

1. THIS IS A TYPICAL SCHEMATIC SHOWN ONLY FOR UNIVERSAL WASHROOM-103. SIMILAR CONCEPT SHALL APPLY FOR LIGHTING CONTROL OF SIMILAR LIGHTING LAYOUTS OF VARIOUS ROOMS/AREAS EXCEPT THAT OCCUPANCY SENSORS/ROOM CONTROLLERS SHALL BE PROVIDED AS REQUIRED AS PER LIGHTING LAYOUTS/LIGHTING CIRCUITS OF RESPECTIVE ROOM /AREA.

NOTES:

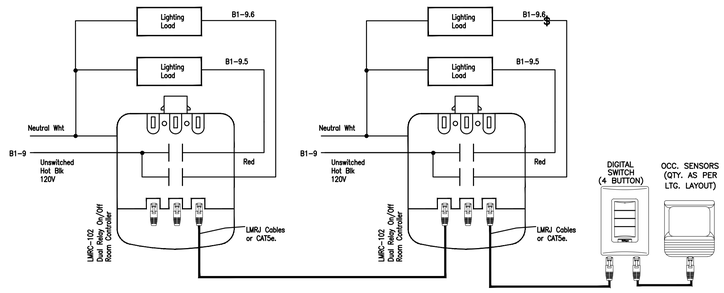
1. THIS IS A TYPICAL SCHEMATIC ONLY SHOWN FOR LIGHTING CONTROL OF RECEPTION ROOM-102. SAME CONCEPT SHALL APPLY FOR LIGHTING CONTROL OF ROOMS WITH SIMILAR LAYOUT EXCEPT THAT DIGITAL SWITCHES, OCCUPANCY SENSORS & ROOM CONTROLLERS SHALL BE PROVIDED AS REQUIRED FOR THE RESPECTIVE LAYOUT FOR FULLY OPERATIONAL SYSTEM AS INTENDED.



5 / E7.0 LIGHTING CONTROL SCHEMATICS (TYP.)
N.T.S.

NOTES:

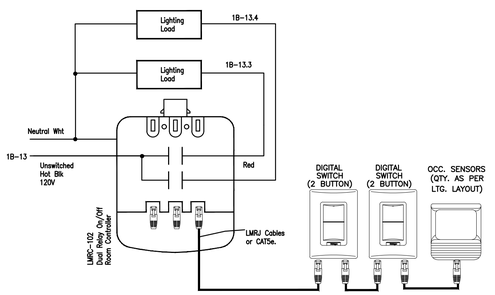
1. THIS IS A TYPICAL SCHEMATIC ONLY SHOWN FOR LIGHTING CONTROL OF OFFICE-019. SAME CONCEPT SHALL APPLY FOR LIGHTING CONTROL OF ROOMS WITH SIMILAR LAYOUT EXCEPT THAT DIGITAL SWITCHES, OCCUPANCY SENSORS, DAYLIGHT SENSOR & ROOM CONTROLLERS SHALL BE PROVIDED AS REQUIRED FOR THE RESPECTIVE LAYOUT FOR FULLY OPERATIONAL SYSTEM AS INTENDED.



6 / E7.0 LIGHTING CONTROL SCHEMATICS (TYP.)
N.T.S.

NOTES:

1. THIS IS A TYPICAL SCHEMATIC ONLY SHOWN FOR LIGHTING CONTROL OF BUNKER GEAR ROOM-130. SAME CONCEPT SHALL APPLY FOR LIGHTING CONTROL OF ROOMS WITH SIMILAR LAYOUT EXCEPT THAT DIGITAL SWITCHES, OCCUPANCY SENSORS, DAYLIGHT SENSOR & ROOM CONTROLLERS SHALL BE PROVIDED AS REQUIRED FOR THE RESPECTIVE LAYOUT FOR FULLY OPERATIONAL SYSTEM AS INTENDED.



7 / E7.0 LIGHTING CONTROL SCHEMATICS (TYP.)
N.T.S.

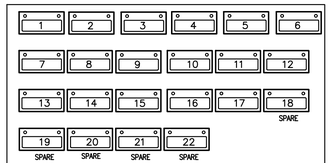
LIGHTING CONTROL RELAY SCHEDULE

RELAY NUMBER	AREA SERVED	CCT.#	CONTROLLED BY	BUTTON# IN LVMSP	RELAY PANEL
R1(2P)	SITE LIGHTING	1B-5/7	BUTTON#1 OF LVMSP+TIMER+PHOTOCELL	1	R1B
R2(2P)	SITE LIGHTING	1B-5/7	BUTTON#2 OF LVMSP+TIMER+PHOTOCELL	2	R1B
R3	EXTERIOR LIGHTING	1B-9	BUTTON#3 OF LVMSP+TIMER+PHOTOCELL	3	R1B
R4	EXTERIOR LIGHTING	1B-9	BUTTON#4 OF LVMSP+TIMER+PHOTOCELL	4	R1B
R5	EXTERIOR LIGHTING	1A-5	BUTTON#4 OF LVMSP+TIMER+PHOTOCELL	4	R1A
R6	EXTERIOR LIGHTING	1A-5	BUTTON#3 OF LVMSP+TIMER+PHOTOCELL	3	R1A
R7	EXTERIOR LIGHTING	1B-9	BUTTON#5 OF LVMSP+TIMER+PHOTOCELL	5	R1B
R8	EXTERIOR LIGHTING	1B-9	BUTTON#6 OF LVMSP+TIMER+PHOTOCELL	6	R1B
R9	CORRIDOR LIGHTING	1B-13	BUTTON#7 OF LVMSP+TIMER	7	R1B
R10	EXTERIOR LIGHTING	1B-13	BUTTON#8 OF LVMSP+TIMER	8	R1B
R11	CORRIDOR LIGHTING	1A-9	BUTTON#7 OF LVMSP+TIMER	7	R1A
R12	CORRIDOR LIGHTING	1A-9	BUTTON#8 OF LVMSP+TIMER	8	R1A
R13	FLOOD LIGHTING-HOSE TOWER	1B-15	BUTTON#9 OF LVMSP+TIMER+PHOTOCELL	9	R1B
R14	FLOOD LIGHTING-HOSE TOWER	1B-15	BUTTON#10 OF LVMSP+TIMER+PHOTOCELL	10	R1B
R15	LIGHTING APPARATUS BAY-128	1A-13	BUTTON#11 OF LVMSP+TIMER	11	R1A
R16	LIGHTING APPARATUS BAY-128	1A-15	BUTTON#12 OF LVMSP+TIMER	12	R1A
R17	NIGHT LIGHTING	1A-7	BUTTON#13 OF LVMSP+TIMER	13	R1A
R18	NIGHT LIGHTING	1B-11	BUTTON#13 OF LVMSP+TIMER	13	R1B
R19	EXTERIOR LIGHTING	1B-9	BUTTON#14 OF LVMSP+TIMER+PHOTOCELL	14	R1B
R20	EXTERIOR LIGHTING	1B-9	BUTTON#15 OF LVMSP+TIMER+PHOTOCELL	15	R1B
R21	NIGHT LIGHTING	1A-7	BUTTON#16 OF LVMSP+TIMER	16	R1A
R22	LIGHTING APPARATUS BAY-128	1A-15	BUTTON#17 OF LVMSP+TIMER	17	R1A
R23	RED LIGHT FIXTURE-FSA SYSTEM	1A-13	FSA (FIRE STATION ALERT SYSTEM) ◈		R1A
SPARE	10 RELAYS IN EACH RELAY PANEL				

NOTES:

1. LVMSP DENOTES LOW VOLTAGE MASTER SWITCH PANEL. REFER DETAIL#1 ON THIS DWG. FOR MORE INFORMATION.

◈ RELAY-R23 SHALL BE PROGRAMMED IN SUCH A WAY THAT IT TURNS 'ON' THE RED LIGHT FIXTURES-L2A UPON RECEIPT OF FSA (FIRE STATION ALERT SYSTEM) SIGNAL AND TURNS-OFF THE LIGHT FIXTURES-L2A AFTER TWO MINUTES. REFER DWG. E2.1 FOR MORE INFORMATION.



NOTES:

1. LV MASTER SWITCH PANEL (LVMSP) SHALL BE LOCATED IN ELECTRICAL ROOM-131 IN A LOCKABLE BACK BOX. REFER DWG. NOTE-5 ON DWG. E2.1 FOR MORE INFORMATION.

1 / E7.0 LV MASTER SWITCH PANEL (LVMSP) FOR RELAY PANELS
N.T.S.

ISSUE OR REVISION		
NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

MEP
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PROFESSIONAL SEAL
D. JAIN
SEPTEMBER 24
PROVINCE OF ONTARIO
21-237

DWG TITLE
LIGHTING CONTROL SCHEMATICS

ORIENTATION
TRUE NORTH
CONSTRUCTION NORTH

DATE

SCALE	DRAWN BY	CHECKED BY
N.T.S.	CV	RH

DWG STATUS :

PROJECT No.

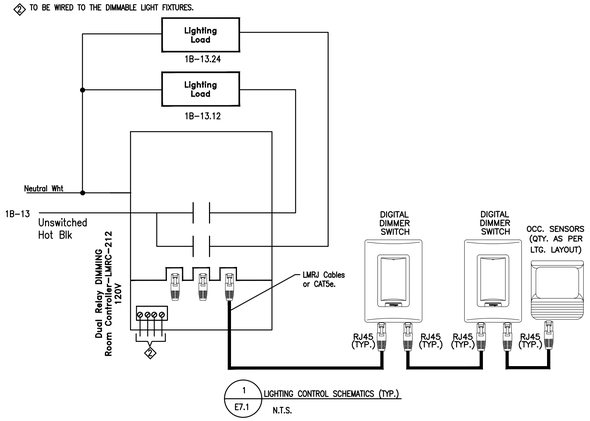
DRAWING No. E7.0

REVISION

DRAWING NOTES:

1. THIS IS A TYPICAL SCHEMATIC ONLY FOR CAPTION OFFICE-104 . SAME CONCEPT SHALL APPLY FOR LIGHTING CONTROL OF SIMILAR ROOMS/AREAS EXCEPT THAT LV DIMMER SWITCHES, ROOM CONTROLLERS & OCCUPANCY SENSORS ETC. SHALL BE PROVIDED AS REQUIRED AS PER LIGHTING LAYOUT OF THE RESPECTIVE ROOM/AREA.

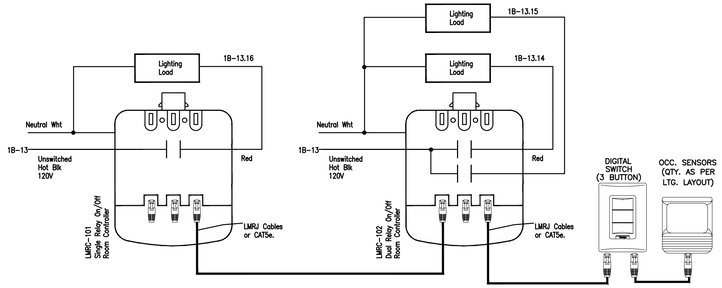
◇ TO BE WIRED TO THE DIMMABLE LIGHT FIXTURES.



1 / E7.1 LIGHTING CONTROL SCHEMATICS (TYP.)
N.T.S.

NOTES:

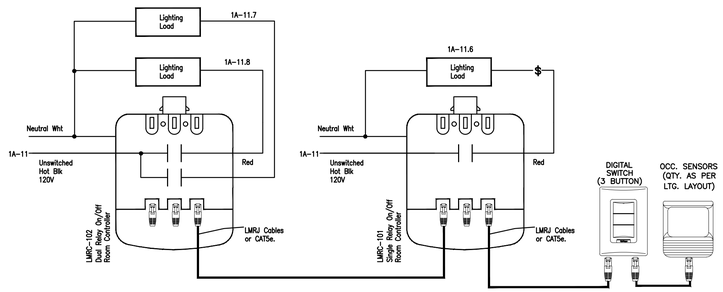
1. THIS IS A TYPICAL SCHEMATIC ONLY SHOWN FOR LIGHTING CONTROL OF TRAINING ROOM-105. SAME CONCEPT SHALL APPLY FOR LIGHTING CONTROL OF ROOMS WITH SIMILAR LAYOUT EXCEPT THAT DIGITAL SWITCHES, OCCUPANCY SENSORS, & ROOM CONTROLLERS SHALL BE PROVIDED AS REQUIRED FOR THE RESPECTIVE LAYOUT FOR FULLY OPERATIONAL SYSTEM AS INTENDED.



2 / E7.1 LIGHTING CONTROL SCHEMATICS (TYP.)
N.T.S.

NOTES:

1. THIS IS A TYPICAL SCHEMATIC ONLY SHOWN FOR LIGHTING CONTROL OF KITCHEN AREA-119. SAME CONCEPT SHALL APPLY FOR LIGHTING CONTROL OF ROOMS WITH SIMILAR LAYOUT EXCEPT THAT DIGITAL SWITCHES, OCCUPANCY SENSORS, DAYLIGHT SENSOR & ROOM CONTROLLERS SHALL BE PROVIDED AS REQUIRED FOR THE RESPECTIVE LAYOUT FOR FULLY OPERATIONAL SYSTEM AS INTENDED.



3 / E7.1 LIGHTING CONTROL SCHEMATICS (TYP.)
N.T.S.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

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PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER D. JAIN SEPT.04'24 PROVINCE OF ONTARIO

21-237

DWG TITLE
LIGHTING CONTROL SCHEMATICS (CONTD.)

ORIENTATION
N TRUE NORTH
N CONSTRUCTION NORTH

DATE

SCALE N.T.S. | DRAWN BY CV | CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. **E7.1** | REVISION

PANEL 1A — PANELBOARD SCHEDULE

DESCRIPTION	BRKR SIZE	WATTS PER PHASE A	B	C	CIR NO	BUS ABC	CIR NO	WATTS PER PHASE A	B	C	BRKR SIZE	DESCRIPTION
BATTERY UNIT BU-1	20A	800			1		2	100			15A	RELAY PANEL
EXIT LIGHT FIXTURES	15A		100		3		4		1100		15A	HEATER
EXTERIOR LIGHTING	20A			400	5		6			1100	2P	
NIGHT LIGHTING	20A	300			7		8	1100			15A	HEATER
LIGHTING	20A		900		9		10		1100		2P	
LIGHTING	20A			900	11		12			1000	15A	HEATER
LIGHTING	20A	1100			13		14	1500			25A	HEATER
LIGHTING	20A		900		15		16		1500		2P	
					17		18			200	15A	DOOR OPERATOR
RECEPTACLES	20A	800			19		20	200			15A	DOOR OPERATOR
RECEPTACLES	20A		800		21		22		100		15A	MOTORIZED DAMPERS
RECEPTACLES	20A			800	23		24			800	15A	HEATER
RECEPTACLES	20A	800			25		26	600			15A	RECEPTACLES
RECEPTACLES	20A		600		27		28		600		15A	RECEPTACLES
TV	15A			800	29		30			200	15A	CEILING FAN CF-1
SPARE	20A	600			31		32	200			15A	CEILING FAN CF-1
SPARE	20A		600		33		34		200		15A	CEILING FAN CF-1
SPARE	20A			200	35		36			200	15A	CEILING FAN CF-1
	2P	200			37		38	200				
FIRE ALERT SYSTEM	15A		200		39		40		200		30A 3P	O/H DOOR
RECEPTACLES	20A			600	41		42			200		
RECEPTACLES	20A	600			43		44	200				
RECEPTACLES	20A		600		45		46		200		30A 3P	O/H DOOR
RECEPTACLES	20A			600	47		48			200		
RECEPTACLES	15A	600			49		50	2000			30A 2P	DRYER
RECEPTACLES	15A		600		51		52		2000			
RECEPTACLES	20A			600	53		54			600	20A	WASHER
RECEPTACLES	15A	600			55		56	600			15A	FRIDGE
RECEPTACLES	15A		600		57		58		1000		20A	MICROWAVE
RECEPTACLES	15A			600	59		60			600	15A	DISHWASHER

* -DENOTES 'GFI' TYPE OF BREAKER Ⓐ -DENOTES 'AFCI' TYPE OF BREAKER SHT. 1 OF 2

PANEL : 1A (CONTD.) SHT. 2 OF 2

DESCRIPTION	BRKR SIZE	WATTS PER PHASE A	B	C	CIR NO	BUS ABC	CIR NO	WATTS PER PHASE A	B	C	BRKR SIZE	DESCRIPTION
RECEPTACLES	15A	600			61		62	3000			40A 2P	RANGE
RECEPTACLES	15A		600		63		64		3000			
RECEPTACLES	20A			600	65		66			600	15A	RANGEHOOD
RECEPTACLES	15A	600			67		68	600			20A	RECEPTACLES
ELECTRIC STRIKES	15A		600		69		70		600		20A	RECEPTACLES
FACP (3#12+GRD.-21mmC)	15A			100	71		72			600	20A	RECEPTACLES
	2P	100			73		74	600			20A	RECEPTACLES
FIRE ALARM MONITORING PANEL (FMP)	15A		100		75		76		100		15A	SPARE
TRAP SEAL PRIMERS	15A *			100	77		78			100	15A	SPARE
ELECTRONIC FAUCETS	15A *	100			79		80	100			15A	GEN. ANNUNCIATOR PANEL
SPARE	15A				81		82		600		20A	RECEPTACLES
SPARE	15A				83		84			800	60A 3P	GENERATOR PANEL
SPARE	15A				85		86	800				
SPARE	15A				87		88		800			
SPARE	15A				89		90				20A	SPARE
SPARE	15A				91		92				20A	SPARE
SPARE	15A				93		94				20A	SPARE
SPARE	15A				95		96				20A	SPARE
SPARE	15A				97		98				20A	SPARE
SPARE	15A				99		100				20A	SPARE
SPARE	15A *				101		102				20A	SPARE
EXH. FAN HEF-1	15A	300			103		104				20A	SPARE
EXH. FAN EF-2	15A		100		105		106				20A	SPARE
EXH. FAN EF-4	15A			100	107		108				20A	SPARE
EXH. FAN EF-6	15A	200			109		110	1000			50A 2P	EXH. FAN EF-5
EXH. FAN EF-11	15A		100		111		112		1000			
					113		114					
					115		116					
					117		118					
					119		120					
* -DENOTES 'GFI' TYPE OF BREAKER		8200	5800	6200	TOTALS			11800	13100	7200		
					20000	18900	13400					

52.3 kW CONNECTED LOAD
161.3 A TOTAL AMPS
ELECT. RM.-131 LOCATION
FLUSH ☐ SURFACE ☒ X LUGS ☐ BREAKER
120/208 VOLTS
400 MAIN
120/2 CCTS/TUBS
Ⓐ -DENOTES 'AFCI' TYPE OF BREAKER

PANEL 1B — PANELBOARD SCHEDULE

DESCRIPTION	BRKR SIZE	WATTS PER PHASE A	B	C	CIR NO	BUS ABC	CIR NO	WATTS PER PHASE A	B	C	BRKR SIZE	DESCRIPTION
BATTERY UNIT BU-2	20A	800			1		2	100			15A	RELAY PANEL
EXIT LIGHT FIXTURES	15A		100		3		4		1100		15A	HEATER
SITE LIGHTING	20A			100	5		6			1100	2P	
	2P	100			7		8	1300			15A	HEATER
EXTERIOR LIGHTING	20A		800		9		10		500		15A	HEATER
NIGHT LIGHTING	20A			200	11		12			1500	25A 2P	HEATER
LIGHTING	20A	1000			13		14	1500				
LIGHTING	20A		800		15		16		500		15A	HEATER
RECEPTACLES	20A			600	17		18			800	15A	HEATER
RECEPTACLES	20A	600			19		20	500			15A	HEATER
TV	15A		600		21		22		1500		25A 2P	HEATER
RECEPTACLES	15A			600	23		24			1500		
RECEPTACLES	15A	600			25		26	1100			15A 2P	HEATER
RECEPTACLES	15A		600		27		28		1100			
RECEPTACLES	15A			600	29		30			200	15A	DOOR OPERATOR
RECEPTACLES	15A	600			31		32	200			15A	DOOR OPERATOR
RECEPTACLES	15A		600		33		34		200		15A	DOOR OPERATOR
RECEPTACLES	15A			600	35		36			2000	30A 2P	DRYER
RECEPTACLES	15A	600			37		38	2000				
RECEPTACLES	15A		600		39		40		600		20A	WASHER
RECEPTACLES	15A			600	41		42			100	15A	PA SYSTEM
EXCESS PRESSURE PUMP	15A	200			43		44	600			20A	RECEPTACLES
HEATER	15A		1000		45		46		600		20A	RECEPTACLES
SPARE	15A				47		48			100	15A *	ELECTRONIC FAUCETS/PLUMBING FIXTURES
SPARE	15A				49		50	800			20A	RECEPTACLES
SPARE	15A				51		52		800		20A	RECEPTACLES
SPARE	15A				53		54			800	20A	RECEPTACLES
SPARE	15A				55		56	800			20A	RECEPTACLES
SPARE	15A				57		58		800		20A	RECEPTACLES
SPARE	15A				59		60			100	15A	ELECTRIC STRIKES
SPARE	15A				61		62	100			15A	INDICATION
SPARE	15A *				63		64		800		15A	RECEPTACLES
HEATER	15A			1000	65		66			800	20A	RECEPTACLES
SPARE	20A				67		68	100			15A	EXH. FAN EF-1
SPARE	20A				69		70		100		15A	EMERGENCY CALL BOX
SPARE	20A				71		72				15A	SPARE
SPARE	20A				73		74	100			15A	EXH. FAN EF-7
SPARE	20A				75		76		100		15A	EXH. FAN EF-8
SPARE	20A				77		78			100	15A	EXH. FAN EF-9
SPARE	20A				79		80				15A	SPARE
SPARE	20A				81		82				15A	SPARE
SPARE	20A				83		84			100	15A *	TRAP SEAL PRIMERS
* -DENOTES 'GFI' TYPE OF BREAKER		4300	4100	3300	TOTALS			9200	9600	11000		
					13500	13700	14300					

41.5kW CONNECTED LOAD
128.0A TOTAL AMPS
JANITOR-126 LOCATION
FLUSH ☐ SURFACE ☒ X LUGS ☐ BREAKER
120/208 VOLTS
400 MAIN
84/1 CCTS/TUBS
Ⓐ -DENOTES 'AFCI' TYPE OF BREAKER

PANEL 2A — PANELBOARD SCHEDULE

DESCRIPTION	BRKR SIZE	WATTS PER PHASE A	B	C	CIR NO	BUS ABC	CIR NO	WATTS PER PHASE A	B	C	BRKR SIZE	DESCRIPTION
LIGHTING	20A	400			1		2	1000			15A 2P	HEATER
NIGHT LIGHTING	20A		200		3		4		1000			
BATTERY UNIT BU-3	20A			600	5		6			1000	15A 2P	HEATER
EXIT LIGHTS	15A	100			7		8	1000				
HOT WATER TANK HWT-1	15A 3P		1000		9		10		100		15A	MOTORIZED DAMPERS
				1000	11		12			800	15A	RECEPTACLES
		1000			13		14	800			15A	RECEPTACLES
HOT WATER TANK HWT-2	15A 3P		1000		15		16		100		15A	EXH. FAN EF-3
				1000	17		18			700	25A 3P	PUMP P-1
		1000			19		20	700				
UPS	20A 2P				21		22		700		25A 3P	PUMP P-2
					23		24			700		
RE-CIRC. PUMP	15A	200			25		26	700			20A 2P	PUMP P-3
BMS SYSTEM	15A				27		28		700			
FIRE ALERT SYSTEM	15A				29		30			500		
DOOR ACCESS PANEL	15A				31		32	500				
SECURITY PANEL	15A				33		34		500		20A 2P	PUMP P-4
RECEPTACLES	20A				35		36			500		
RECEPTACLES	20A				37		38				20A	SPARE
SPARE	15A				39		40				20A	SPARE
SPARE	15A				41		42				20A	SPARE
SPARE	15A				43		44				20A	SPARE
SPARE	15A				45		46				20A	SPARE
SPARE	15A				47		48				20A	SPARE
SPARE	15A				49		50				20A	SPARE
SPARE	15A				51		52				20A	SPARE
SPARE	15A				53		54				20A	SPARE
SPARE	15A				55		56				20A	SPARE
SPARE	15A				57		58					
SPARE	15A *				59		60					
* -DENOTES 'GFI' TYPE OF BREAKER		3700	3200	3600	TOTALS			4700	3100	4200		
					8400	6300	7800					

22.5 kW CONNECTED LOAD
69.4 A TOTAL AMPS
MECH. RM.-143 (MEZZANINE) LOCATION
FLUSH ☐ SURFACE ☒ X LUGS ☐ BREAKER
120/208 VOLTS
225 MAIN
60/1 CCTS/TUBS
Ⓐ -DENOTES 'AFCI' TYPE OF BREAKER

PANEL 1M — PANELBOARD SCHEDULE

DESCRIPTION	BRKR SIZE	WATTS PER PHASE A	B	C	CIR NO	BUS ABC	CIR NO	WATTS PER PHASE A	B	C	BRKR SIZE	DESCRIPTION
DUCT COIL HC-1	15A 2P	500			1		2	400			15A 2P	HEAT PUMP HP-1
			500		3		4		400			
DUCT COIL HC-2	15A 2P			700	5		6			400	15A 2P	HEAT PUMP HP-2
		700			7		8	400				
DUCT COIL HC-3	15A 3P		800		9		10		1000		15A 2P	HEAT PUMP HP-3
				800	11		12			1000		
		800			13		14	400			15A 2P	HEAT PUMP HP-4
DUCT COIL HC-4	15A 2P		500		15		16		400			
				500	17		18			1000	15A 2P	HEAT PUMP HP-5
		1000			19		20	1000				
DUCT COIL HC-5	20A 3P		1000		21		22		400		15A 2P	HEAT PUMP HP-6
				1000	23		24			400		
DUCT COIL HC-6	15A 2P	1000			25		26	1000			15A 2P	HEAT PUMP HP-7
			1000		27		28		1000			
				1000	29		30			400	15A 2P	HEAT PUMP HP-8
DUCT COIL HC-7	20A 3P	1000			31		32	400				
			1000		33		34		1000		15A 2P	HEAT PUMP HP-9
DUCT COIL HC-8	15A 2P			500	35		36			1000		
		500			37		38	1000			15A 2P	HEAT PUMP HP-10
DUCT COIL HC-9	15A 3P		800		39		40		1000			
				800	41		42			400	15A 2P	HEAT PUMP HP-11
		800			43		44	400				
DUCT COIL HC-10	15A 3P		800		45		46		600		15A 2P	HEAT PUMP HP-12
				800	47		48			600		
		800			49		50	800			15A 2P	SPARE
SPARE	15A 2P				51		52					
					53		54				20A 2P	SPARE
					55		56					
DUCT COIL HC-12	15A 2P		500		57		58				15A 3P	SPARE
				500	59		60					
SPARE	15A 2P				61		62					
					63		64				20A 3P	SPARE
SPARE	15A 2P				65		66					
					67		68					
SPARE	15A 2P				69		70				20A	SPARE
					71		72				20A	SPARE
SPARE	15A 2P				73		74				20A	SPARE
					75		76				15A	SPARE
SPARE	15A 2P				77		78				15A	SPARE
					79		80				15A	SPARE
SPARE	15A 2P				81		82					
					83		84					
* -DENOTES 'GFI' TYPE OF BREAKER		9100	8400	8600	TOTALS			5000	5800	5200		
					14200	14200	13800					

42.2kW CONNECTED LOAD
130.1A TOTAL AMPS
ELECT. RM.-131 LOCATION
FLUSH ☐ SURFACE ☒ X LUGS ☐ BREAKER
120/208 VOLTS
400 MAIN
84/1 CCTS/TUBS
Ⓐ -DENOTES 'AFCI' TYPE OF BREAKER

ISSUE OR REVISION

NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

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PROFESSIONAL SEAL
REGISTERED PROFESSIONAL ENGINEER D. JAIN SEPT.04'24 PROVINCE OF ONTARIO
21-237

DWG TITLE
SCHEDULES

ORIENTATION
TRUE NORTH CONSTRUCTION NORTH

DATE
SCALE N.T.S.
DRAWN BY CV
CHECKED BY RH
DWG STATUS :
PROJECT No.
DRAWING No. E7.2
REVISION

MECHANICAL EQUIPMENT WIRING SCHEDULE

EQUIPMENT & LABEL	STARTER LOCATION	UNIT POWER	UNIT PHASE	UNIT VOLTAGE	STARTER TYPE	BREAKER SIZE	FEEDER SIZE	PANEL AND CCT. NOS.	REMARKS
HEAT RECOVERY UNIT HRU-1	ON UNIT	MCA 74.2	3	208	INTEGRAL	100A,3P	3#3+GRD.-41mmC	DP-AA	PROVIDE WEATHERPROOF 100A/80AF-3P FUSIBLE DISCONNECT SWITCH AT THE UNIT C/W LABEL SAYING MAX FUSES TO BE 80A
HEAT PUMP HP(W)-1	MECH.RM. -143	MCA 43.0	3	208	INTEGRAL	60A,3P	3#6+GRD.-35mmC	DP-AA	
EXH. FAN HEF-1	MECH.RM. -143	AMP. 2.0	1	120	INTEGRAL	15A,1P	2#12+GRD.-16mmC	1A-103	
EXH. FAN EF-1	SPKL.RM. -132	WATTS 79	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1B-68	
EXH. FAN EF-2	ELECT.RM. -133	WATTS 47	1	120	MANUAL	15A,1P	2#12+GRD.-16mmC	1A-105	
EXH. FAN EF-3	MECH.RM. -200	WATTS 79	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	2A-16	
EXH. FAN EF-4	JAN.RM. -127	WATTS 50	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1A-107	
EXH. FAN EF-5	GEAR RM. -131	KW 2.0	1	208	MAGNETIC	50A,2P	2#8+GRD.-27mmC	1A-110/112	PROVIDE WEATHERPROOF 60A/45AF-3P FUSIBLE DISCONNECT SWITCH TO CONTROL POWER TO THE UNIT C/W LABEL SAYING MAX FUSES TO BE 45A
EXH. FAN EF-6	HOSE TOWER -134	WATTS 187	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1A-109	
EXH. FAN EF-7	BUNKER GEAR -130	WATTS 47	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1B-74	
EXH. FAN EF-8	BUNKER GEAR -131	WATTS 108	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1B-76	
EXH. FAN EF-9	GARBAGE.RM. -136	WATTS 52	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1B-78	
EXH. FAN EF-10	APPARATUS -129	HP 4.0	3	208	VFD	30A,3P	3#10+GRD.-27mmC	DP-AA	PROVIDE WEATHERPROOF 30A-3P FUSIBLE DISCONNECT SWITCH (C/W FUSES TO SUIT) TO CONTROL POWER TO THE UNIT.
EXH. FAN EF-11	LAUNDRY -120	WATTS 47	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1A-111	
CEILING FAN CF-1	APPARATUS -129	WATTS 157	1	120	MANUAL	15A,1P	2#12+GRD.-16mmC	1A-30	SPEED CONTROLLER SUPPLIED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR
CEILING FAN CF-2	APPARATUS -129	WATTS 157	1	120	MANUAL	15A,1P	2#12+GRD.-16mmC	1A-32	SPEED CONTROLLER SUPPLIED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR
CEILING FAN CF-3	APPARATUS -129	WATTS 157	1	120	MANUAL	15A,1P	2#12+GRD.-16mmC	1A-34	SPEED CONTROLLER SUPPLIED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR
CEILING FAN CF-4	APPARATUS -129	WATTS 157	1	120	MANUAL	15A,1P	2#12+GRD.-16mmC	1A-36	SPEED CONTROLLER SUPPLIED BY OTHERS, INSTALLED BY ELECTRICAL CONTRACTOR
PUMP P-1	MECH.RM. -200	HP 3.0	3	208	MAGNETIC	25A,3P	3#10+GRD.-21mmC	2A-18/20/22	
PUMP P-2	MECH.RM. -200	HP 3.0	3	208	MAGNETIC	25A,3P	3#10+GRD.-21mmC	2A-24/26/28	
PUMP P-3	MECH.RM. -200	HP 1.0	1	208	MAGNETIC	20A,2P	2#12+GRD.-16mmC	2A-30/32	
PUMP P-4	MECH.RM. -200	HP 1.0	1	208	MAGNETIC	20A,2P	2#12+GRD.-16mmC	2A-34/36	
HUMIDIFIER HU-1	MECH.RM. -200	MCA 51.9	3	208	INTEGRAL	70A,3P	3#4+GRD.-35mmC	DP-AA	PROVIDE 100A-3P FUSIBLE DISCONNECT SWITCH (C/W FUSES TO SUIT) TO CONTROL POWER TO THE UNIT.
ELECTRIC DUCT COIL HC-1	--	KW 1.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-1/3	
ELECTRIC DUCT COIL HC-2	--	KW 1.3	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-5/7	
ELECTRIC DUCT COIL HC-3	--	KW 2.5	3	208	INTEGRAL	15A,3P	3#12+GRD.-21mmC	1M-9/11/13	
ELECTRIC DUCT COIL HC-4	--	KW 1.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-15/17	
ELECTRIC DUCT COIL HC-5	--	KW 4.5	3	208	INTEGRAL	20A,3P	3#12+GRD.-21mmC	1M-19/21/23	
ELECTRIC DUCT COIL HC-6	--	KW 1.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-25/27	
ELECTRIC DUCT COIL HC-7	--	KW 4.5	3	208	INTEGRAL	20A,3P	3#12+GRD.-21mmC	1M-29/31/33	
ELECTRIC DUCT COIL HC-8	--	KW 1.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-35/37	
ELECTRIC DUCT COIL HC-9	--	KW 2.4	3	208	INTEGRAL	15A,3P	3#12+GRD.-21mmC	1M-39/41/43	
ELECTRIC DUCT COIL HC-10	--	KW 2.4	3	208	INTEGRAL	15A,3P	3#12+GRD.-21mmC	1M-45/47/49	
ELECTRIC DUCT COIL HC-11	--	KW 1.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-57/59	

NOTES

1. PROVIDE POWER CONNECTION TO ALL EQUIPEMENTS LISTED IN THE SCHEDULE. REFER TO ELECTRICAL AND MECHANICAL LAYOUTS FOR EXACT LOCATION OF EQUIPMENTS.
2. PROVIDE SEPARATE BREAKER FOR INDIVIDUAL MECHANICAL EQUIPEMENT. SIZE AS INDICATED IN THE SCHEDULE.
3. PROVIDE LOCAL DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENTS AS REQUIRED BY OESC.
4. ELECTRICAL CONTRACTOR TO PROVIDE POWER WIRING TO & FROM STARTERS/VFD'S (STARTERS/VFD'S SUPPLIED BY MECH. CONTRACTOR & INSTALLED BY ELECTRICAL CONTRACTOR) TO MECHANICAL EQUIPMENTS.
5. ELECTRICAL CONTRACTOR SHALL REFER TO MECHANICAL DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT AND SHALL COORDINATE FOR MECHANICAL EQUIPMENT LOCATIONS, STARTERS LOCATIONS AND BREAKERS SIZES & WIRES WITH THE MECHANICAL CONTRACTOR & CONSULTANT PRIOR TO ROUGH-IN.
6. LOCATIONS OF THE EQUIPMENT STARTERS SHALL BE NEXT TO THE LIGHT SWITCH IN FINISHED ROOMS AND NEXT TO EQUIPMENT IN THE SERVICE ROOMS UNLESS OTHERWISE NOTED.
7. LOCATIONS OF BOILERS AND HOT WATER HEATERS DISCONNECT SWITCHES SHALL BE NEXT TO THE ENTRANCE DOOR OF THE MECHNICAL ROOM.
8. REFER TO MECHANICAL EQUIPMENT STARTER AND ELECTRICAL DATA SCHEDULES IN MECHANICAL DRAWING FOR ELECTRICAL CONTRACTOR'S SCOPE OF WORK.
9. RESERVED.
10. LOCATION OF ON/OFF SWITCH'S, THERMOSTATS AND SPEED CONTROLLER SWITCH'S SHALL BE VERIFIED ON SITE WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH IN.
11. PROVIDE POWER CONNECTION TO ALL REVERSE ACTING THERMOSTATS AND SPEED CONTROLLER SWITCHES AND FEED FROM RESPECTIVE CIRCUITS FEEDING REPECTIVE MECHANICAL EQUIPMENT WHICH SHALL BE CONTROLLED VIA THE REVERSE ACTING THERMOSTATS AND SPEED CONTROLLERS. LOCATIONS OF DEVICES SHALL BE WITHIN THE SAME ARE SERVED BY THE RSPECTIVE MECHANICAL EQUIPMENT. COORDINATE ON SITE FOR FOR DEVICE LOCATIONS WITH ARCHITECT AND CONSULTANT PRIOR TO ROUGH IN.
12. COORDINATE BREAKER SIZE FOR SPECIAL EQUIPMENT SUCH AS MECHANICAL EQUIPMENT, KITCHEN APPLIANCES, ELEVATOR ETC. BASED ON SELECTED MAKE, MODEL AND ELECTRICAL DATA. BOTH CONTRACTOR AND SUPPLIER/MANUFACTURER SHALL MAKE ALLOWANCE FOR VARIATION IN RATING TO TWO (2) SIZE HIGHER OR LOWER THAN SPECIFIED & RESPECTIVE VARIATION/REVISION OF FEEDER SIZES AT NO EXTRA COST.

MECHANICAL EQUIPMENT WIRING SCHEDULE

EQUIPMENT & LABEL	STARTER LOCATION	UNIT POWER	UNIT PHASE	UNIT VOLTAGE	STARTER TYPE	BREAKER SIZE	FEEDER SIZE	PANEL AND CCT. NOS.	REMARKS
HEAT PUMP HP-1	ON UNIT	MCA 4.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-2/4	
HEAT PUMP HP-2	ON UNIT	MCA 5.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-6/8	
HEAT PUMP HP-3	ON UNIT	MCA 11.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-10/12	
HEAT PUMP HP-4	ON UNIT	MCA 4.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-14/16	
HEAT PUMP HP-5	ON UNIT	MCA 11.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-18/20	
HEAT PUMP HP-6	ON UNIT	MCA 5.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-22/24	
HEAT PUMP HP-7	ON UNIT	MCA 11.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-26/28	
HEAT PUMP HP-8	ON UNIT	MCA 5.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-30/32	
HEAT PUMP HP-9	ON UNIT	MCA 11.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-34/36	
HEAT PUMP HP-10	ON UNIT	MCA 11.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-38/40	
HEAT PUMP HP-11	ON UNIT	MCA 5.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-42/44	
HEAT PUMP HP-12	ON UNIT	MCA 7.0	1	208	INTEGRAL	15A,2P	2#12+GRD.-16mmC	1M-46/48	
UNIT HEATER UH-1	ON UNIT	KW 25.0	3	208	--	100A,3P	3#3+GRD.-41mmC	DP-AA	
UNIT HEATER UH-2	ON UNIT	KW 25.0	3	208	--	100A,3P	3#3+GRD.-41mmC	DP-AA	
HOT WATER TANK HWT-1	MECH.RM. -200	KW 3.0	3	208	MANUAL	15A,3P	3#12+GRD.-21mmC	2A-9/11/13	PROVIDE LOCKABLE DISCONNECT SWITCH NEAR THE ENTRANCE DOOR OF THE ROOM
HOT WATER TANK HWT-2	MECH.RM. -200	KW 3.0	3	208	MANUAL	15A,3P	3#12+GRD.-21mmC	2A-15/17/19	PROVIDE LOCKABLE DISCONNECT SWITCH NEAR THE ENTRANCE DOOR OF THE ROOM
RE-CIRC. PUMP FOR HWT-1 & HWT-2	MECH.RM. -200	HP 1/4	1	120	MANUAL	15A,1P	2#12+GRD.-16mmC	2A-25	
EXCESS PRESSURE PUMP	SPKL.RM. -132	HP 1/4	1	120	MAGNETIC	15A,1P	2#12+GRD.-16mmC	1B-43	

NOTES

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2. PROVIDE SEPARATE BREAKER FOR INDIVIDUAL MECHANICAL EQUIPEMENT. SIZE AS INDICATED IN THE SCHEDULE.
3. PROVIDE LOCAL DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENTS AS REQUIRED BY OESC.
4. ELECTRICAL CONTRACTOR TO PROVIDE POWER WIRING TO & FROM STARTERS/VFD'S (STARTERS/VFD'S SUPPLIED BY MECH. CONTRACTOR & INSTALLED BY ELECTRICAL CONTRACTOR) TO MECHANICAL EQUIPMENTS.
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8. REFER TO MECHANICAL EQUIPMENT STARTER AND ELECTRICAL DATA SCHEDULES IN MECHANICAL DRAWING FOR ELECTRICAL CONTRACTOR'S SCOPE OF WORK.
9. RESERVED.
10. LOCATION OF ON/OFF SWITCH'S, THERMOSTATS AND SPEED CONTROLLER SWITCH'S SHALL BE VERIFIED ON SITE WITH THE MECHANICAL CONTRACTOR PRIOR TO ROUGH IN.
11. PROVIDE POWER CONNECTION TO ALL REVERSE ACTING THERMOSTATS AND SPEED CONTROLLER SWITCHES AND FEED FROM RESPECTIVE CIRCUITS FEEDING REPECTIVE MECHANICAL EQUIPMENT WHICH SHALL BE CONTROLLED VIA THE REVERSE ACTING THERMOSTATS AND SPEED CONTROLLERS. LOCATIONS OF DEVICES SHALL BE WITHIN THE SAME ARE SERVED BY THE RSPECTIVE MECHANICAL EQUIPMENT. COORDINATE ON SITE FOR FOR DEVICE LOCATIONS WITH ARCHITECT AND CONSULTANT PRIOR TO ROUGH IN.
12. COORDINATE BREAKER SIZE FOR SPECIAL EQUIPMENT SUCH AS MECHANICAL EQUIPMENT, KITCHEN APPLIANCES, ELEVATOR ETC. BASED ON SELECTED MAKE, MODEL AND ELECTRICAL DATA. BOTH CONTRACTOR AND SUPPLIER/MANUFACTURER SHALL MAKE ALLOWANCE FOR VARIATION IN RATING TO TWO (2) SIZE HIGHER OR LOWER THAN SPECIFIED & RESPECTIVE VARIATION/REVISION OF FEEDER SIZES AT NO EXTRA COST.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :

CITY OF VAUGHAN FIRE STATION 7-12

9541 WESTON ROAD, VAUGHAN

CLIENT

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MEP

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PROFESSIONAL SEAL

REGISTERED PROFESSIONAL ENGINEER
D. JAIN
SEPT.04'24
PROVINCE OF ONTARIO

21-237

DWG TITLE

SCHEDULES (CONTD.)

ORIENTATION

N TRUE NORTH

N CONSTRUCTION NORTH

DATE

SCALE N.T.S.

DRAWN BY CV CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. **E8.0**

REVISION

GENERAL NOTES:

1. THIS DIGITAL METERING SYSTEM IS A STANDALONE SYSTEM REQUIRED BY ASHRAE 90.1 2013 PER BUILDING CODE TO MONITORING BUILDING ENERGY CONSUMPTION PURPOSE ONLY FOR BELOW SYSTEMS:
   a. TOTAL ELECTRICAL ENERGY
   b. HVAC SYSTEMS
   c. INTERIOR LIGHTING
   d. EXTERIOR LIGHTING
   e. RECEPTACLE CIRCUITS

   THE ELECTRICAL ENERGY USAGE FOR ALL LOADS LISTED ABOVE SHALL BE RECORDED A MINIMUM OF EVERY 15 MINUTES AND REPORTED AT LEAST HOURLY, DAILY, MONTHLY, AND ANNUALLY. THE SYSTEM SHALL BE CAPABLE OF MAINTAINING ALL DATA COLLECTED FOR A MINIMUM OF 36 MONTHS.
2. THIS SCHEMATIC DRAWING IS FOR REFERENCE PURPOSE ONLY. REFER TO ELECTRICAL SPECIFICATION AND SUPPLIER'S SHOP DRAWING FOR INSTALLATION INSTRUCTION FOR MORE DETAILED REQUIREMENT. THE SYSTEM SHALL INCLUDE BUT NOT LIMITED TO: ENERGY MONITORING PANEL, ALL CTs, PTs, CABLING, METER INTERFACE DEVICES AT EACH PANEL AND ITS ENCLOSURE, JUNCTION BOXES, PATHWAY CONDUITS, BREAKERS FOR ALL METERING SYSTEM DEVICES AND EQUIPMENT, GROUNDING AND BONDING, ETC. CO-ORDINATE WITH SYSTEM SUPPLIER FOR WIRING SIZES AND MORE INFORMATION & PROCEED ACCORDINGLY. ALL WIRING SHALL BE PROVIDED IN CONDUITS.
3. FOR PANELS SERVING HEATING & VENTILATION, LIGHTING AND RECEPTACLES, RUN ALL LIGHTING FEEDERS IN ONE PANEL THROUGH THREE CTs TO MEASURE INTERIOR LIGHTING LOADS, THREE CT'S TO MEASURE EXTERIOR LIGHTING LOADS, THREE CT'S TO MEASURE HEATING & VENTILATION LOADS, AND THREE CTs TO MEASURE RECEPTACLE LOADS.

④ PROVIDE PROVO FT4-2263 STRANDED (600V) OR EQUIVALENT

⑤ METER INTERFACE DEVICE SHALL BE LOCATED WITHIN 10' FROM THE RESPECTIVE CT'S.

⑥ PROVIDE 6#14AWG STRANDED COLOUR WIRE TYPICALLY LESS THAN 10'. ALL EXTENSIONS TO BE MADE WITH CRIMPS, NO MARRETS.

⑦ PROVIDE PROVO FT4-2263 STRANDED (600V) OR EQUIVALENT TO EMP-1 (UPTO 1000').

⑧ PROVIDE PROVO FT4-2263 STRANDED (600V) OR EQUIVALENT TO EMP-2 (UPTO 1000').

⑨ RESERVED.

10. ALSO PROVIDE CT'S FOR MEASUREMENT/VERIFICATION OF TOTAL ELECTRICAL ENERGY OF THE PROJECT.

⑪ RESERVED.

⑫ PROVIDE CT'S FOR MEASUREMENT/VERIFICATION OF POWER FOR INTERIOR LIGHTING.

⑬ PROVIDE CT'S FOR MEASUREMENT/VERIFICATION OF POWER FOR EXTERIOR LIGHTING.

⑭ PROVIDE CT'S FOR MEASUREMENT/VERIFICATION OF POWER FOR RECEPTACLES LOAD.

⑮ PROVIDE DEDICATED CT'S FOR MEASUREMENT/VERIFICATION OF POWER INDIVIDUALLY (SEPARATELY) FOR FOLLOWING HVAC EQUIPMENTS:
ALL ELECTRIC HEATING (CLUBBED TOGETHER)
ALL EXHAUST FANS (CLUBBED TOGETHER)
ALL AIR CONDITIONING EQUIPMENTS/DEVICES (CONDENSING UNITS & FAN COILS)-CLUBBED TOGETHER
ALL PUMPS (CLUBBED TOGETHER)

⑯ PROVIDE CT'S FOR MEASUREMENT/VERIFICATION OF POWER FOR HEAT PUMPS

⑰ PROVIDE DEDICATED CT'S FOR MEASUREMENT/VERIFICATION OF POWER INDIVIDUALLY (SEPARATELY) FOR FOLLOWING EQUIPMENTS:
HRU-1.
UH-1 & UH-2 (BOTH CLUBBED TOGETHER)

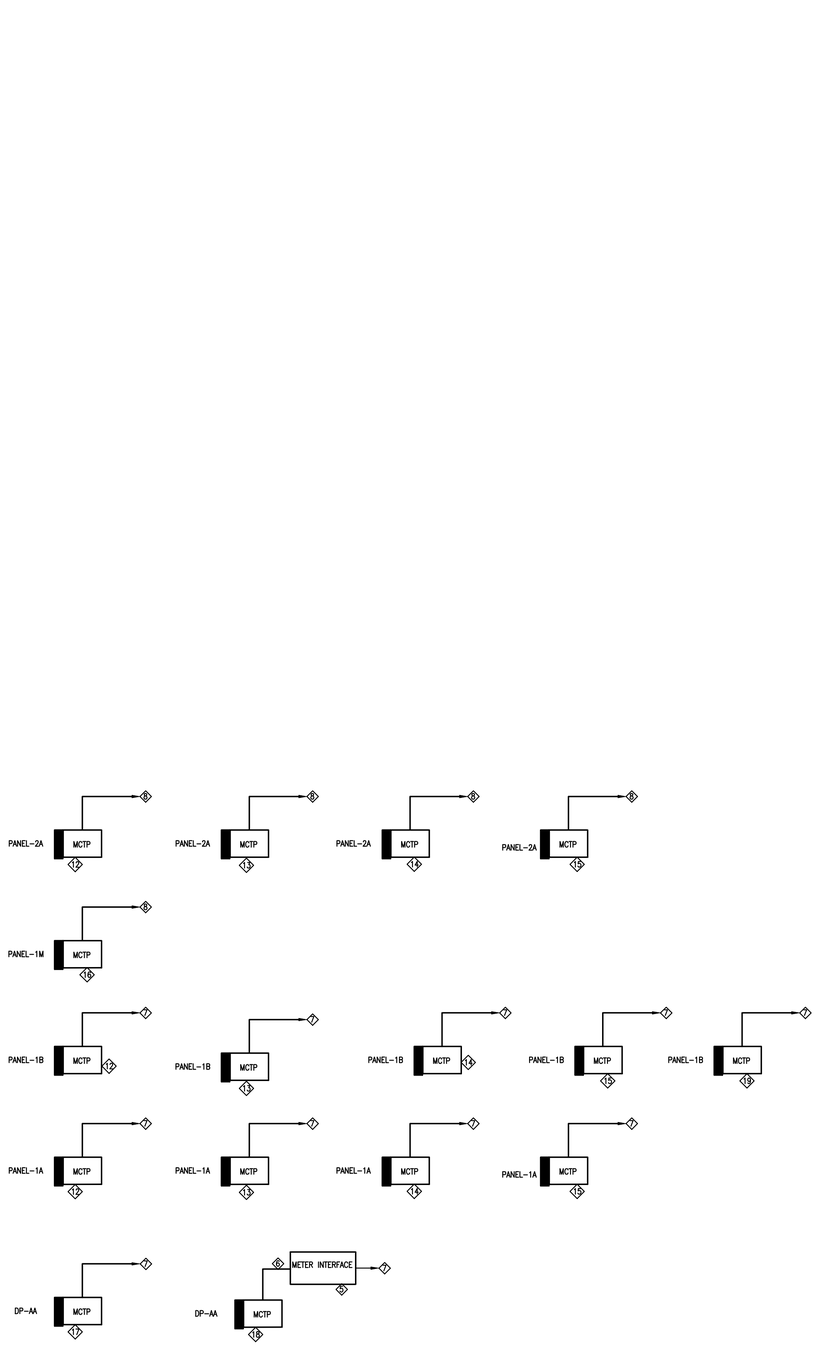
GENERAL NOTES (CONTD.):

⑱ FOR CUSTOMER OWNED DIGITAL METER (LOCATED IN SWITCHBOARD ITSELF) FOR MEASUREMENT OF TOTAL POWER OF THE PROJECT.

⑲ PROVIDE DEDICATED CT'S FOR MEASUREMENT/VERIFICATION OF POWER INDIVIDUALLY (SEPARATELY) FOR FOLLOWING EQUIPMENTS:
DOMESTIC HOT WATER TANK DHW-1
RE-CIRCULATING PUMP FOR DHW-1

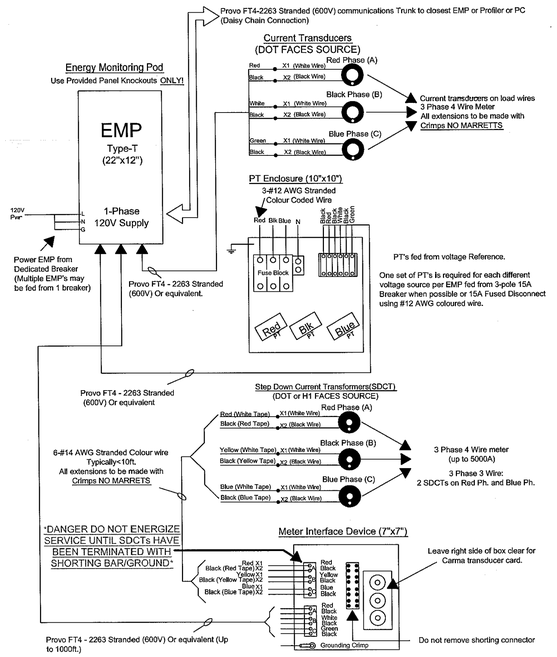
LEGEND:

MCTP	DIGITAL METERING CT ENCLOSURE (3 CTs) , LOCATED BESIDE EACH POWER PANEL AS SHOWN. '1' DENOTES JUNCTION BOX TO ACCOMMODATE THREE CTs FOR LIGHTING OR HVAC LOADS BRANCH FEEDERS RUN THOUGH CTs. SIZE TO SUIT ALL CTs AND BRANCHES RUN THROUGH.



1 E9.0 DIGITAL METERING SYSTEM SCHEMATIC DIAGRAM
N.T.S.

Carma Industries Typical Metering Configuration



METERING SCHEMATICS & VERIFICATIONS

2 E9.0 N.T.S.

ISSUE OR REVISION

NO.	ISSUED FOR	DATE (M.D.Y)
1	DESIGN DEVELOPMENT FOR COSTING	07.07.22
2	ISSUED FOR PERMIT	09.07.23
3	ISSUED FOR REVIEW	02.13.24
4	ISSUED FOR TENDER	04.15.24
5	ISSUED FOR CONSTRUCTION	09.04.24

PROJECT :
CITY OF VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, VAUGHAN

CLIENT

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORK. ANY DISCREPANCIES ARE TO BE REPORTED TO THE CONSULTANT.

MEP

Jain
7405 EAST DANBRO CRESCENT
MISSISSAUGA, ONTARIO, L5N 6P8
TEL 905 285 9900, FAX 905 567 5246
Email : mail@jainconsultants.com

PROFESSIONAL SEAL

D. JAIN
SEPTEMBER 24
21-237

DWG TITLE

DIGITAL METERING SYSTEM

ORIENTATION

TRUE NORTH
CONSTRUCTION NORTH

DATE

SCALE N.T.S.
DRAWN BY CV
CHECKED BY RH

DWG STATUS :

PROJECT No.

DRAWING No. E9.0
REVISION

BENCHMARK:
ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM CITY OF VAUGHAN BENCHMARK No. 32–3, HAVING A PUBLISHED ELEVATION OF 225.764 METRES (CGVD28:78).
EXISTING INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PROVIDED BY J.D.BARNES, REFERENCE No. 21–21–719–00, DATED DECEMBER 21, 2021.

WESTON ROAD

JOHNSWOOD CRESCEN

CONSTRUCTION NORTH

HEAVY–DUTY SILT FENCE PER OPSD 219.130 (SEE DWG. No. CV–4)

MULTIPLE BAND TESTS WERE PERFORMED BUT WAS INCONCLUSIVE. CCTV INVESTIGATION RECOMMENDED FOR A PRECISE CONNECTION

TEMPORARY CONSTRUCTION ACCESS PER REGIONAL STANDARD DS–217 (SEE DWG. No. CV–4)

60x10x0.3m DEEP MUD MAT PER REGIONAL STANDARD DS–217 (SEE DWG. No. CV–4)

REMOVE EX. CB AND DISPOSE OFF–SITE

DOUBLE HEAVY–DUTY SILT FENCE PER OPSD 219.130 (SEE DWG. No. CV–4)

TEMPORARY TOPSOIL STOCKPILE 537m³–26.5x14x2.5m (LxWxH)

LIMIT OF CONTRUCTION

PROTECT EX. INFILTRATION GALLERY DURING CONSTRUCTION

DEWATERING LOCATION CONTROLLED WITH GEOTEXTILE FILTER BAG AND FILTER RING. PROPOSED LOCATION FOR DEWATERING MUST BE MORE THAN 30m FROM WETLAND (SEE DETAIL ON DWG. NO. CV–4)

REMOVE EX. LIGHT STANDARD AND DISPOSE OFF–SITE

CONCRETE WASHOUT STATION

DOUBLE ROW HEAVY DUTY SILT FENCE WITH STRAW BALES IN–BETWEEN PER OPSD 219.130 (SEE DWG. No. CV–4)

CATCHBASIN SEDIMENT PROTECTION

EROSION AND SEDIMENT CONTROL NOTES

1. DURING THE SERVICING CONSTRUCTION, LIMIT OPEN TRENCH LENGTHS TO MINIMIZE EROSION POTENTIAL.
2. DURING WORK STOPPAGES OR INCLEMENT WEATHER, PLUG ENDS OF OPEN SEWERS TO PREVENT DOWNSTREAM SEDIMENTATION.
3. PROVIDE CATCHBASIN SEDIMENT PROTECTION ON ALL CATCHBASIN AND CATCHBASIN MANHOLES FOR THE DURATION OF CONSTRUCTION.
4. ENSURE SILT LADEN WATER FROM TRUCK WASH AREAS ARE DIRECTED TO AREAS PROTECTED BY A FILTER RING AND AT LEAST 15 METERS FROM A WATERCOURSE.
5. ALL SILT LADEN WATER DURING DEWATERING OF TRENCHES TO BE DIRECTED TO AN AREA PROTECTED BY A FILTER RING OR TO A GEOTEXTILE FILTER BAG. FILTRATION TO BE 30m AWAY FROM NATURAL WATER COURSES.
6. PROVIDE DUST CONTROL DURING DRY PERIODS AS DIRECTED BY THE SITE ENGINEER OR CONSERVATION.
7. SWEEP EXTERNAL STREETS AS DIRECTED BY THE ENGINEER OR CONSERVATION
8. FOLLOWING BASE COURSE ASPHALT, CATCHBASINS TO BE REWRAPPED WITH GEOTEXTILE.
9. PERIODIC STREET CLEANING AND CATCHBASIN CLEANOUT TO BE PERFORMED AS REQUIRED.
10. ADOPT A MULTI–BARRIER APPROACH TO PROVIDE EROSION AND SEDIMENT CONTROL THROUGH EROSION CONTROLS FIRST.
11. RETAIN EXISTING VEGETATION AND STABILIZE EXPOSED SOILS WITH VEGETATION WHERE POSSIBLE.
12. LIMIT THE DURATION OF SOIL EXPOSURE AND PHASE CONSTRUCTION WHERE POSSIBLE.
13. LIMIT THE SIZE OF DISTURBED AREAS BY MINIMIZING NONESSENTIAL CLEARING AND GRADING.
14. MINIMIZE SLOPE LENGTH AND GRADIENT OF DISTURBED AREAS.
15. MAINTAIN OVERLAND SHEET FLOW AND AVOID CONCENTRATED FLOWS.
16. STORE/STOCKPILE SOIL AWAY (E.G. GREATER THAN 15 METERS) FROM WATERCOURSES, DRAINAGE FEATURES AND TOP OF STEEP SLOPES
17. ENSURE CONTRACTORS AND ALL INVOLVED IN THE ESC PRACTICES ARE TRAINED IN ECS PLAN, IMPLEMENTATION, INSPECTIONS, MAINTENANCE, AND REPAIRS,
18. ADJUST ECS PLAN AT CONSTRUCTION SITE TO ADAPT TO SITE FEATURES

EROSION AND SEDIMENT INSPECTION AND MAINTENANCE

1. ALL EROSION AND SILTATION MEASURES ARE TO BE INSPECTED ON A WEEKLY BASIS BY THE CONTRACTOR
2. ALL EROSION AND SILTATION MEASURES ARE TO BE INSPECTED AFTER EVERY RAINFALL EVENT BY THE CONTRACTOR
3. ALL EROSION AND SILTATION MEASURES ARE TO BE INSPECTED AFTER SIGNIFICANT SNOWFALL EVENTS BY THE CONTRACTOR.
4. ALL EROSION AND SILTATION MEASURES ARE TO BE INSPECTED DAILY DURING EXTENDED RAIN OR SNOWMELT PERIODS BY THE CONTRACTOR

NOTES

1. EROSION AND SEDIMENT CONTROL (ESC) MEASURES WILL BE IMPLEMENTED PRIOR TO, AND MAINTAINED DURING THE CONSTRUCTION PHASES, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER. ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED AND/OR REPLACED WITHIN 48 HRS OF THE INSPECTION. EROSION AND SEDIMENT CONTROLS WILL BE INSPECTED WEEKLY, AFTER EVERY RAINFALL AND SNOWMELT EVENT AND DAILY DURING EXTENDED RAIN OR SNOWMELT PERIODS.
2. THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO MINIMIZE SEDIMENT LADEN RUNOFF FROM LEAVING THE WORK AREAS. IF THE PRESCRIBED MEASURES ON THE PLANS ARE NOT EFFECTIVE IN PREVENTING THE RELEASE OF DELETERIOUS SUBSTANCES, INCLUDING SEDIMENT, THEN ALTERNATIVE MEASURES MUST BE IMPLEMENTED IMMEDIATELY TO MINIMIZE POTENTIAL ECOLOGICAL IMPACTS. TRCA ENFORCEMENT OFFICER SHOULD BE IMMEDIATELY CONTACTED. ADDITIONAL ESC MEASURES TO BE KEPT ON SITE AND USED AS NECESSARY

LEGEND

- 224.40 – EXISTING ELEVATIONS
- CB#4 T/G 225.45 – EXISTING CATCHBASIN
- MH#3 T/G 224.24 – EXISTING MAINTENANCE HOLE
- STM – EXISTING STORM SEWER
- SAN – EXISTING SANITARY SEWER
- W – EXISTING WATERMAIN
- G – EXISTING GAS LINE
- UH – EXISTING UNDERGROUND HYDRO
- UC – EXISTING UNDERGROUND CABLE
- FO – EXISTING UNDERGROUND FIBRE OPTIC
- UT – EXISTING UNDERGROUND TELEPHONE LINE
- PROPOSED SEDIMENT PROTECTION
- PROPOSED SILTATION FENCE
- ITEM IDENTIFIED AS REMOVAL
- ASPHALT REMOVAL
- CONCRETE REMOVAL
- EXISTING OVERLAND FLOW ROUTE
- PROPOSED OVERLAND FLOW ROUTE

WOVEN GEOTEXTILE

NOTES:

1. TO BE INSTALLED ON ALL CATCHBASINS AND MAINTAINED BETWEEN APRIL AND DECEMBER. REMOVE FOR WINTER SEASON.
2. WOVEN GEOTEXTILE TO HAVE EQUIVALENT OPENING SIZE BETWEEN 0.15mm AND 0.25mm.
3. WOVEN GEOTEXTILE TO BE REPLACED PERIODICALLY WHEN ACCUMULATED SEDIMENTS INTERFERES WITH DRAINAGE.

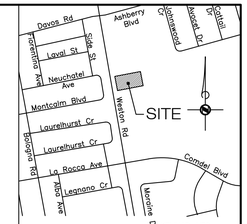
CATCHBASIN SEDIMENT PROTECTION
NTS

TRCA STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL (ESC) MEASURES WILL BE IMPLEMENTED PRIOR TO, AND MAINTAINED DURING THE CONSTRUCTION PHASES, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER. (ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED AND/OR REPLACED WITHIN 48 HOURS OF THE INSPECTION.
2. DISTURBED AREAS WILL BE MINIMIZED TO THE EXTENT POSSIBLE, AND TEMPORARILY OR PERMANENTLY STABILIZED OR RESTORED AS THE WORK PROGRESSES.
3. ALL IN–WATER AND NEAR–WATER WORKS WILL BE CONDUCTED IN THE DRY WITH APPROPRIATE EROSION AND SEDIMENT CONTROLS.
4. THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO MINIMIZE SEDIMENT LADEN RUNOFF FROM LEAVING THE WORK AREAS. IF THE PRESCRIBED MEASURES ON THE PLANS ARE NOT EFFECTIVE AT PREVENTING THE RELEASE OF A DELETERIOUS SUBSTANCE, INCLUDING SEDIMENT, THEN ALTERNATIVE MEASURES MUST BE IMPLEMENTED IMMEDIATELY TO MINIMIZE POTENTIAL ECOLOGICAL IMPACTS. TRCA ENFORCEMENT OFFICER SHOULD BE IMMEDIATELY CONTACTED. ADDITIONAL ESC MEASURES TO BE KEPT ON SITE AND USED AS NECESSARY.
5. AN ENVIRONMENTAL MONITOR WILL ATTEND THE SITE TO INSPECT ALL NEW CONTROLS IMMEDIATELY AFTER INSTALLATION. INSPECTION OF ESC MEASURES TO BE WILL OCCUR, AT MINIMUM: ON A WEEKLY BASIS; PRIOR TO SIGNIFICANT RAINFALL EVENTS (MINIMUM PREDICTED 25mm OVER 24 HOURS); AFTER EVERY RAINFALL/SNOWMELT EVENT; AND DAILY DURING EXTENDED RAINFALL EVENTS. INSPECTIONS WILL FOCUS ON MEASURES RELATED TO EROSION AND SEDIMENT CONTROLS, DEWATERING OR UNWATERING, RESTORATION AND IN– OR NEAR– WATER WORKS. SHOULD CONCERNS ARISE ON SITE THE ENVIRONMENTAL MONITOR WILL CONTACT THE TRCA ENFORCEMENT OFFICER AS WELL AS THE PROPONENT.
6. ALL ACTIVITIES, INCLUDING MAINTENANCE PROCEDURES, WILL BE CONTROLLED TO PREVENT THE ENTRY OF PETROLEUM PRODUCTS, DEBRIS, RUBBLE, CONCRETE OR OTHER DELETERIOUS SUBSTANCES INTO THE WATER. VEHICULAR REFUELING AND MAINTENANCE WILL BE CONDUCTED A MINIMUM OF 30 METRES FROM THE WATER
7. ALL GRADES WITHIN THE REGULATORY FLOOD PLAIN WILL BE MAINTAINED OR MATCHED.
8. THE PROPONENT/CONTRACTOR SHALL MONITOR THE WEATHER SEVERAL DAYS IN ADVANCE OF THE ONSET OF THE PROJECT TO ENSURE THAT THE WORKS WILL BE CONDUCTED DURING FAVOURABLE WEATHER CONDITIONS. SHOULD AND UNEXPECTED STORM ARISE, THE CONTRACTOR WILL REMOVE ALL UNFIXED ITEMS FROM THE REGIONAL STORM FLOOD PLAIN THAT WOULD HAVE THE POTENTIAL TO CAUSE A SPILL OR AN OBSTRUCTION TO FLOW, E.G. FUEL TANKS, PORTA–POTTIES, MACHINERY, EQUIPMENT, CONSTRUCTION MATERIALS, ETC.
9. ALL DEWATERING/UNWATERING SHALL BE TREATED AND RELEASED TO THE ENVIRONMENT AT LEAST 30 METRES FROM A WATERCOURSE OR WETLAND AND ALLOWED TO DRAIN THROUGH A WELL–VEGETATED AREA. NO DEWATERING EFFLUENT SHALL BE SENT DIRECTLY TO ANY WATERCOURSE, WETLAND OR FOREST, OR ALLOWED TO DRAIN ONTO DISTURBED SOILS WITHIN THE WORK AREA. THESE CONTROL MEASURES SHALL BE MONITORED FOR EFFECTIVENESS AND MAINTAINED OR REVISED TO MEET THE OBJECTIVE OF PREVENTING THE RELEASE OF SEDIMENT LADEN WATER.
10. ALL ACCESS TO THE WORK SITE SHALL BE FROM EITHER SIDE OF THE WATERCOURSE. NO EQUIPMENT OR VEHICLES ARE PERMITTED TO CROSS THROUGH THE WATERCOURSE UNLESS PERMITTED BY TRCA.
11. PRIOR TO SITE DISTURBANCE THE CONTRACTOR/PROPONENT SHOULD ENSURE THAT THE WORKS ARE IN CONFORMANCE WITH THE MIGRATORY BIRDS CONVENTION ACT. PLEASE NOTE THAT THE GENERAL BREEDING BIRD TIMING WINDOW FOR THIS AREA IS APRIL 1ST TO AUGUST 31ST, HOWEVER, BREEDING ACTIVITIES MIGHT INITIATE PRIOR TO AND CONTINUE PAST THIS PERIOD.
12. WHERE IMPACTS TO LOCAL FISH POPULATIONS MAY OCCUR DURING THEIR SPAWNING, NURSERY AND MIGRATORY PERIODS, CONSTRUCTION TIMING WINDOWS SHOULD APPLY TO IN–WATER OR NEAR–WATER ACTIVITIES. THE PROPONENT/CONTRACTOR SHOULD CONFIRM APPLICABILITY AND DATES WITH APPROPRIATE PROVINCIAL AND FEDERAL AGENCIES.
13. FISH AND WILDLIFE STRANDED WITHIN THE WORK AREA SHALL BE CAPTURED AND RELEASED LIVE IN SUITABLE HABITAT UPSTREAM OF THE WORK AREA AND UNDER THE SUPERVISION OF QUALIFIED AQUATIC TECHNICAL STAFF. THE PROPONENT/CONTRACTOR SHOULD CONFIRM REQUIREMENTS DIRECTLY WITH THE MINISTRY OF NATURAL RESOURCES AND FORESTRY.
14. PLEASE NOTIFY TRCA ENFORCEMENT OFFICER (PAUL NOWAK, 416–881–2473), AND TRCA PROJECT MANAGER (KRISTEN SULLIVAN, 437–880–2424) 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
15. AN ENVIRONMENTAL MONITOR WILL BE ON SITE, AND PROVIDE ADVICE, TO ENSURE THAT ACTIVITIES THAT COULD HAVE A NEGATIVE IMPACT TO THE NATURAL ENVIRONMENT ARE EFFECTIVELY MITIGATED AS CONSTRUCTION PROCEEDS. THE ENVIRONMENTAL MONITOR SHALL NOTIFY THE TRCA ENFORCEMENT OFFICER AND PROJECT MANAGER IF ISSUES ARISE.

NOTE:
CONTRACTOR TO INVITE REGION'S CONSTRUCTION INSPECTION STAFF FROM (ENGassetapprovals@york.ca) TO PRE–CONSTRUCTION MEETING FOR ANY WORKS WITH 2 WEEKS NOTICE. CONTRACTOR TO CONTACT MGM CONSULTING INC. IMMEDIATELY SHOULD THERE BE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND PROPOSED GRADING AND/OR SERVICING DESIGN, OR CONFLICTS IN CONSTRUCTING THE WORK AS PER THE INTENT OF THE APPROVED DESIGN PRIOR TO CONSTRUCTION.

NOTE:
1. ALL WORK TO CONFORM TO THE LATEST MUNICIPAL STANDARDS AND SPECIFICATIONS AS WELL AS THE LATEST ADOPTED ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
2. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER TO SATISFACTION OF THE MUNICIPALITY AND MGM CONSULTING INC.
3. CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING SERVICES AND UTILITIES PRIOR TO AND DURING CONSTRUCTION
4. CONTRACTOR TO LOCATE AND CONFIRM ALL EXISTING UTILITIES AND SERVICE INFORMATION PRIOR CONSTRUCTION
5. CONTRACTOR TO ENSURE ADEQUATE CLEARANCE FROM ALL EXISTING SERVICES AND UTILITIES
6. CONTRACTOR TO CONFIRM ALL EXISTING INVERTS PRIOR TO INTERNAL SERVICING.



The Contractor shall verify all dimensions prior to commencement of the work.
All print and specifications are the property of the Architect and must be returned upon completion of the work.

ISSUE OR REVISION

No.	Description	Date
1	ISSUED FOR SPA	05/27/22
2	ISSUED FOR SPA RESUBMISSION	06/12/23
3	ISSUED FOR CONSTRUCTION	09/09/24

PROJECT :
VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD,
WOODBRIDGE, ONTARIO

MGM CONSULTING INC
Consulting Engineering & Project Management
555 Industrial Drive, Suite 201, Milton, Ontario L9T 5E1
Tel: (905) 567-8678
Fax: (905) 875-1339
Email: mgm@mgm-on.ca
www.mgm-on.ca

PROFESSIONAL SEAL :

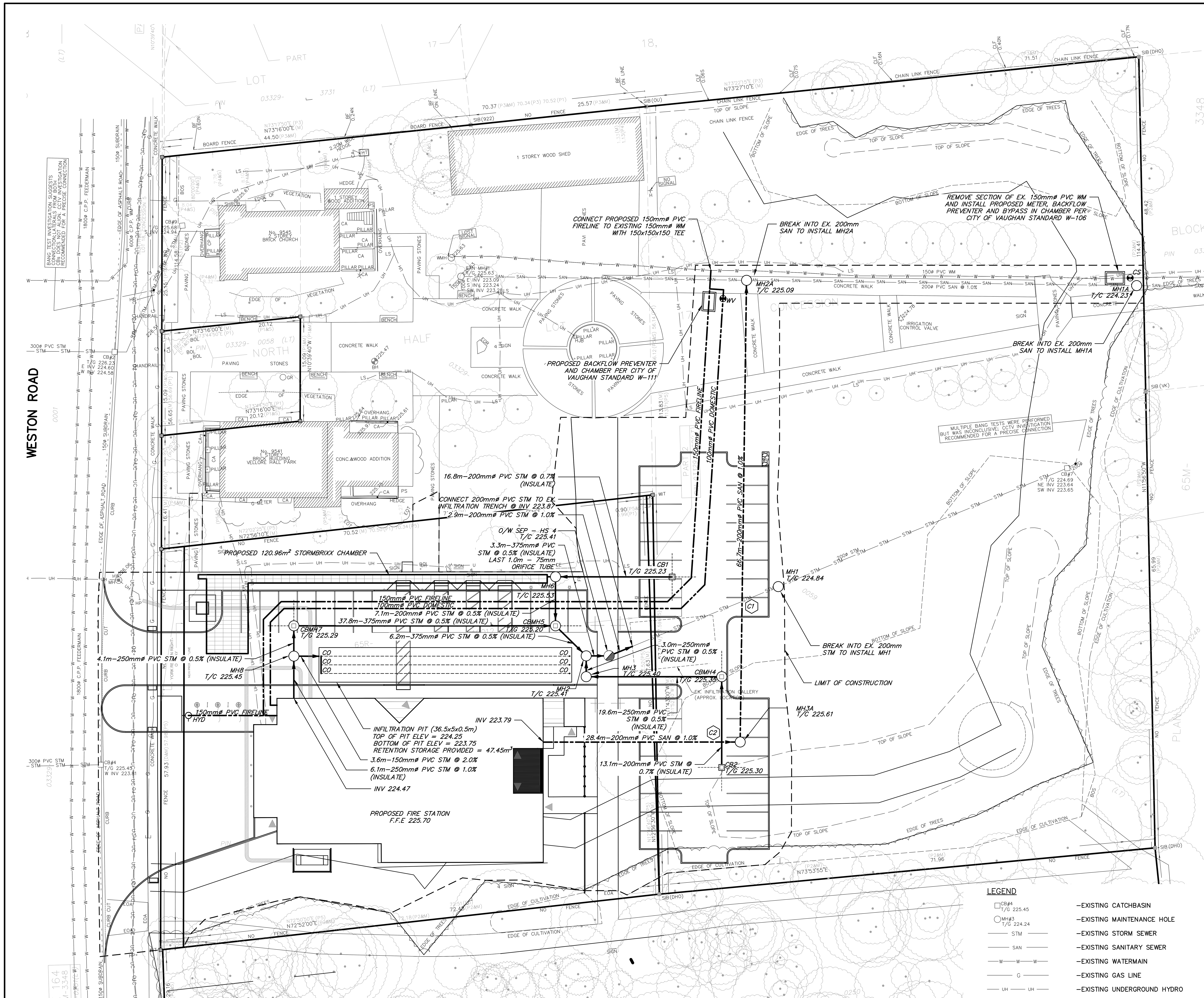
DWG TITLE :
SEDIMENT & EROSION CONTROL & REMOVALS PLAN

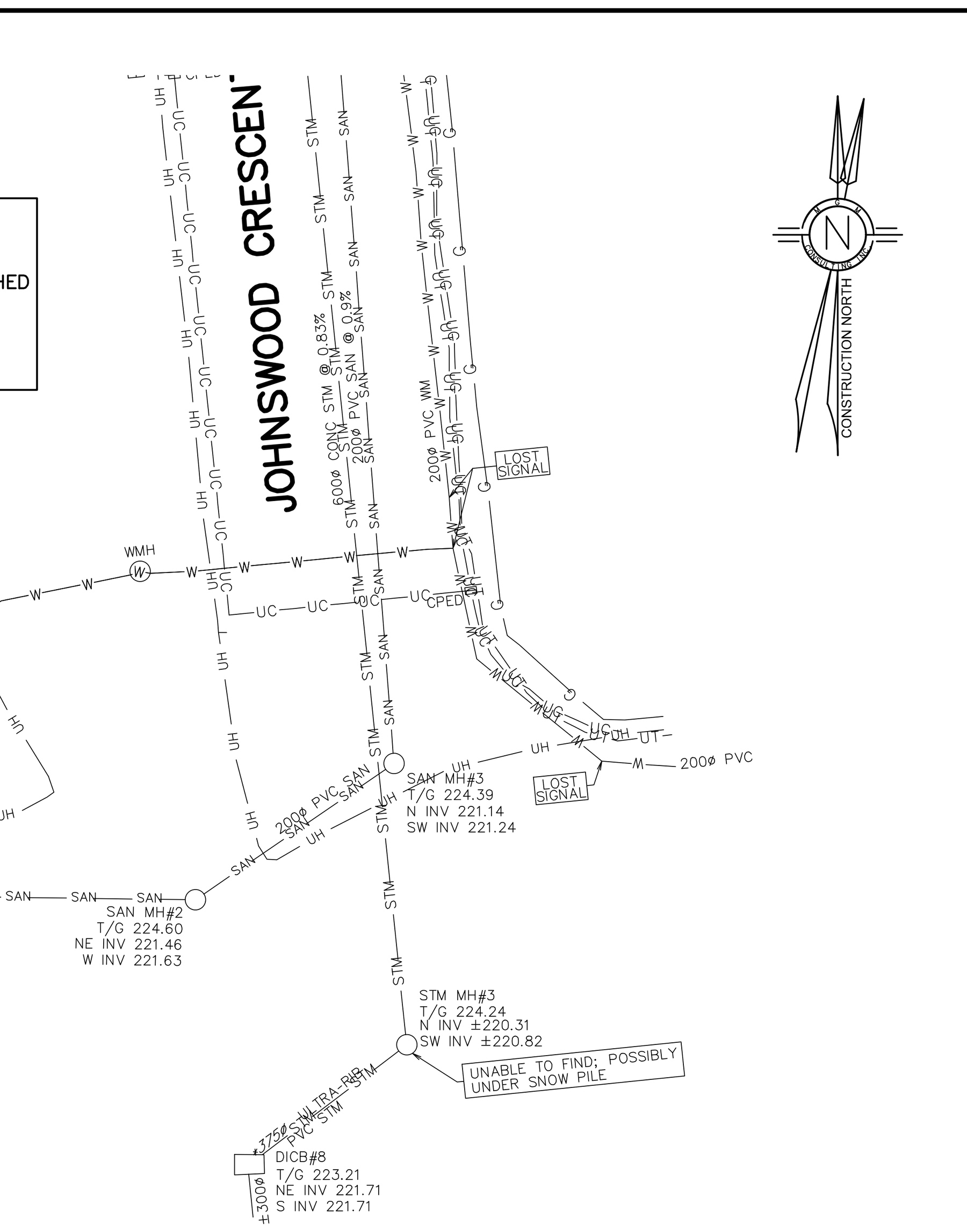
THOMASBROWN ARCHITECTS
394 King Street East, Toronto, Ontario M5A 1K9
Tel: 416.364.5710
Fax: 416.364.4662
info@tbrownarch.ca

FILE No. DA.22.035

DATE :	MAR 2022
SCALE :	1 : 300
DRAWN BY:	AB
CHECKED BY :	KL
DESIGNED BY:	AB
DWG STATUS :	ISSUED FOR SPA
PROJECT No. :	2022-007
DRAWING No. :	CV-1
REVISION	3

N:\Projects\2022-007 – Vaughan Fire Station\Working Folders\Drawings\2022-007 A2.dwg





BENCHMARK:
ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM CITY OF VAUGHAN BENCHMARK No. 32–3, HAVING A PUBLISHED ELEVATION OF 225.764 METRES (CGVD28:78). EXISTING INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PROVIDED BY J.D.BARNES, REFERENCE No. 21–21–719–00, DATED DECEMBER 21, 2021.

GENERAL CITY OF VAUGHAN NOTES:

- STANDARD DRAWINGS OF THE CITY OF VAUGHAN CONSTITUTE PART OF THESE DRAWING(S).
- ALL CONSTRUCTION WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- THE OWNER SHALL RETAIN THE SERVICES OF HIS CONSULTANTS TO ENSURE REQUIRED INSPECTION REPORTS AND OR CERTIFICATION REQUIREMENTS ARE SUBMITTED TO THE DEVELOPMENT ENGINEERING DEPARTMENT AND OTHER AFFECTED CITY DEPARTMENTS.
- THE OWNER AND/OR HIS REPRESENTATIVE SHALL RECTIFY ALL DISTURBED AREAS TO ORIGINAL CONDITION OR BETTER AND TO THE SATISFACTION OF THE CITY.
- THE LOCATION OF ALL UNDER/ABOVE GROUND UTILITIES AND STRUCTURES IS APPROXIMATE ONLY AND WHERE SHOWN ON THE DRAWING(S) THE ACCURACY OF THE LOCATION OF SUCH UTILITIES IS NOT GUARANTEED. THE OWNER AND/OR HIS REPRESENTATIVE SHALL DETERMINE THE LOCATION OF ALL SUCH UTILITIES AND STRUCTURES BY CONSULTING THE APPROPRIATE AUTHORITIES OR UTILITY COMPANIES CONCERNED. THE OWNER SHALL PROVE THE LOCATION OF SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE OR RESTORATION OR ADJUSTMENT FOR THE SAME.
- ANY CONFLICTS WITH EXISTING SERVICES SHALL BE RECTIFIED AT THE OWNER'S EXPENSE.
- APPROPRIATE CONSTRUCTION DETAILS SHOULD BE PROVIDED FOR RETAINING WALLS HIGHER THAN 1.0 M. DETAILS SHALL BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER UPON APPROVAL. HANDRAIL/GUARD/FENCE IS REQUIRED WHEN HEIGHT EXCEEDS 0.60 M (AS PER CITY STANDARD DRAWING FRW–105 OR APPROVED EQUAL). UPON COMPLETION, RETAINING WALLS GREATER THAN 1.0 M TO BE CERTIFIED BY A STRUCTURAL AND GEOTECHNICAL ENGINEERS. LANDSCAPING WORK SHALL NOT ENCROACH ON BOULEVARD NOR SHALL BOULEVARD GRADES BE ALTERED.
- SLOPES IN LANDSCAPED AREAS AND ON BERMS SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL.
- GRASSED DRAINAGE SWALE GRADES: MIN. 2%; MAX 5%.
- OUTSIDE LIGHTING SHALL BE DIRECTED DOWNWARD AND INWARD AND DESIGNED TO MAINTAIN ZERO CUT–OFF LIGHT LEVEL DISTRIBUTION AT THE PROPERTY LINE.
- SILT FENCE(S) AND OTHER EROSION CONTROL MEASURES TO BE INSTALLED AND MAINTAINED TO PREVENT SILT FLOWING ONTO ADJACENT LANDS UNTIL THE COMPLETION OF SODDING ACTIVITIES.
- CONSTRUCTION ACCESS SHALL BE CONSTRUCTED WITH A MINIMUM DEPTH OF 450 MM CRUSHED STONE BASE FROM THE MUNICIPAL CURB OR EDGE OF PAVEMENT TO THE PROPERTY LINE, TO THE SATISFACTION OF THE CITY.
- ALL PROPOSED BARRIER–FREE PARKING SPACES TO INCLUDE "RB–93 BY PERMIT ONLY" TRAFFIC SIGN AND BARRIER–FREE PAVEMENT SYMBOL MARKING.

SEWER & WATER

- SANITARY AND STORM CONTROL MAINTENANCE HOLES SHALL BE IN ACCORDANCE WITH ALL APPLICABLE OPSD DETAILS. FRAME AND COVER SHALL BE OPSD 401.010 TYPE A OR APPROVED EQUAL. THE MAINTENANCE HOLES SHALL BE BENCHED TO THE OBVERT (TOP) OF PIPES.
- ALL SANITARY MAINTENANCE HOLE COVERS IN THE PONDING AREAS TO BE WATER TIGHT SEALED COVERS.
- ALL CATCHBASINS SHALL BE INSTALLED IN ACCORDANCE WITH CITY STANDARD DRAWING S–103. ALL CATCHBASIN FRAMES AND GRATES SHALL BE OPSD 400.010 OR OPSD 400.110 OR APPROVED EQUAL.
- WATERMAIN SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 0.5 M AND HORIZONTAL SEPARATION OF 2.5 M BETWEEN ANY SEWER OR MAINTENANCE HOLE UNLESS OTHERWISE NOTED.
- HYDRANTS TO BE INSTALLED AS PER CITY STANDARD W–104 WITH 1.0 M MINIMUM CLEAR FROM ALL OBSTRUCTIONS.
- ALL INDUSTRIAL/COMMERCIAL/CONDOMINIUM WATERMAIN CONNECTIONS SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY STANDARD DRAWINGS C–102, C–103, W–106, W–109 AND RELATED STANDARD DRAWINGS.
- SANITARY, STORM AND WATER SERVICE CONNECTIONS WHICH ARE NOT IN PLACE ON THE MUNICIPAL ROAD ALLOWANCE TO THE PROPERTY LINE SHALL BE ARRANGED FOR INSTALLATION BY THE CITY ON PAYMENT OF INSTALLATION COSTS BY THE OWNER. TO INITIATE THE INSTALLATION OF THE SERVICE CONNECTION(S), THE OWNER SHALL FILE AN APPLICATION WITH THE CONSTRUCTION SERVICES DIVISION OF THE DEVELOPMENT ENGINEERING PAGE | 125 ENGINEERING DESIGN CRITERIA & STANDARD DRAWINGS (DECEMBER 2020) DEPARTMENT WHICH INCLUDES 2 COPIES OF THE APPROVED SITE SERVICING AND GRADING DRAWING(S) WITH DEPARTMENT'S APPROVAL SEAL AND, IF REQUIRED, A COPY OF THE REGION OF YORK APPROVAL SCHEDULE AS PER THE EXECUTED SITE PLAN AGREEMENT.

TRCA STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL (ESC) MEASURES WILL BE IMPLEMENTED PRIOR TO, AND MAINTAINED DURING THE CONSTRUCTION PHASES, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER. (ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED AND/OR REPLACED WITHIN 48 HOURS OF THE INSPECTION.
2. DISTURBED AREAS WILL BE MINIMIZED TO THE EXTENT POSSIBLE, AND TEMPORARILY OR PERMANENTLY STABILIZED OR RESTORED AS THE WORK PROGRESSES.
3. THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO MINIMIZE SEDIMENT LADEN RUNOFF FROM LEAVING THE WORK AREAS. IF THE PRESCRIBED MEASURES ON THE PLANS ARE NOT ARE NOT EFFECTIVE AT PREVENTING THE RELEASE OF A DELETERIOUS SUBSTANCE, INCLUDING SEDIMENT, THEN ALTERNATIVE MEASURES MUST BE IMPLEMENTED IMMEDIATELY TO MINIMIZE POTENTIAL ECOLOGICAL IMPACTS. TRCA ENFORCEMENT OFFICER SHOULD BE IMMEDIATELY CONTACTED. ADDITIONAL ESC MEASURES TO BE KEPT ON SITE AND USED AS NECESSARY.
4. ALL GRADES WITHIN THE REGULATORY FLOOD PLAIN WILL BE MAINTAINED OR MATCHED.
5. THE PROPONENT/CONTRACTOR SHALL MONITOR THE WEATHER SEVERAL DAYS IN ADVANCE OF THE ONSET OF THE PROJECT TO ENSURE THAT THE WORKS WILL BE CONDUCTED DURING FAVOURABLE WEATHER CONDITIONS. SHOULD AND UNEXPECTED STORM ARISE, THE CONTRACTOR WILL REMOVE ALL UNFIXED ITEMS FROM THE REGIONAL STORM FLOOD PLAIN THAT WOULD HAVE THE POTENTIAL TO CAUSE A SPILL OR AN OBSTRUCTION TO FLOW, E.G. FUEL TANKS, PORTA–POTTIES, MACHINERY, EQUIPMENT, CONSTRUCTION MATERIALS, ETC.
6. ALL DEWATERING/UNWATERING SHALL BE TREATED AND RELEASED TO THE ENVIRONMENT AT LEAST 30 METRES FROM A WATERCOURSE OR WETLAND AND ALLOWED TO DRAIN THROUGH A WELL–VEGETATED AREA. NO DEWATERING EFFLUENT SHALL BE SENT DIRECTLY TO ANY WATERCOURSE, WETLAND OR FOREST, OR ALLOWED TO DRAIN ONTO DISTURBED SOILS WITHIN THE WORK AREA. THESE CONTROL MEASURES SHALL BE MONITORED FOR EFFECTIVENESS AND MAINTAINED OR REVISED TO MEET THE OBJECTIVE OF PREVENTING THE RELEASE OF SEDIMENT LADEN WATER.
7. PRIOR TO SITE DISTURBANCE THE CONTRACTOR/PROPONENT SHOULD ENSURE THAT THE WORKS ARE IN CONFORMANCE WITH THE MIGRATORY BIRDS CONVENTION ACT. PLEASE NOTE THAT THE GENERAL BREEDING BIRD TIMING WINDOW FOR THIS AREA IS APRIL 1ST TO AUGUST 31ST, HOWEVER, BREEDING ACTIVITIES MIGHT INITIATE PRIOR TO AND CONTINUE PAST THIS PERIOD.
8. FISH AND WILDLIFE STRANDED WITHIN THE WORK AREA SHALL BE CAPTURED AND RELEASED LIVE IN SUITABLE HABITAT UPSTREAM OF THE WORK AREA AND UNDER THE SUPERVISION OF QUALIFIED AQUATIC TECHNICAL STAFF. THE PROPONENT/CONTRACTOR SHOULD CONFIRM REQUIREMENTS DIRECTLY WITH THE MINISTRY OF NATURAL RESOURCES AND FORESTRY.
9. AN ENVIRONMENTAL MONITOR WILL BE ON SITE, AND PROVIDE ADVICE, TO ENSURE THAT ACTIVITIES THAT COULD HAVE A NEGATIVE IMPACT TO THE NATURAL ENVIRONMENT ARE EFFECTIVELY MITIGATED AS CONSTRUCTION PROCEEDS. THE ENVIRONMENTAL MONITOR SHALL NOTIFY THE TRCA ENFORCEMENT OFFICER AND PROJECT MANAGER IF ISSUES ARISE.

NOTE
ALL BOULEVARDS OR RIGHT–OF–WAY DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO THEIR ORIGINAL OR BETTER CONDITIONS WITH A MINIMUM 100mm TOPSOIL PLUS SOD.

STORM SEWER STRUCTURES

STRUCTURE	OPSD STRUCTURE STANDARD	OPSD/GRATE COVER STANDARD	RIM	INVERT
CB1*	705.010	400.010	225.23	S 224.30
CB2*	705.010	400.010	225.30	N 224.32
MH1	701.010	401.010	224.84	SW 223.80 NE 223.79
MH2	701.010	401.010	225.41	NW 224.02 S 224.02 E 223.97
MH3	701.010	400.010	225.40	N 224.03 E 224.08
CBMH4*	701.010	400.010	225.35	S 224.23 W 224.18
CBMH5*	701.010	400.010	225.20	N 224.10 SE 224.05 W 224.10
MH6	701.010	401.010	225.40	S 224.13 E 224.18 W 224.23
CBMH7*	701.010	400.010	225.29	S 224.34 E 224.29
MH8	701.010	401.010	225.45	N 224.36 S 224.41 E 223.95

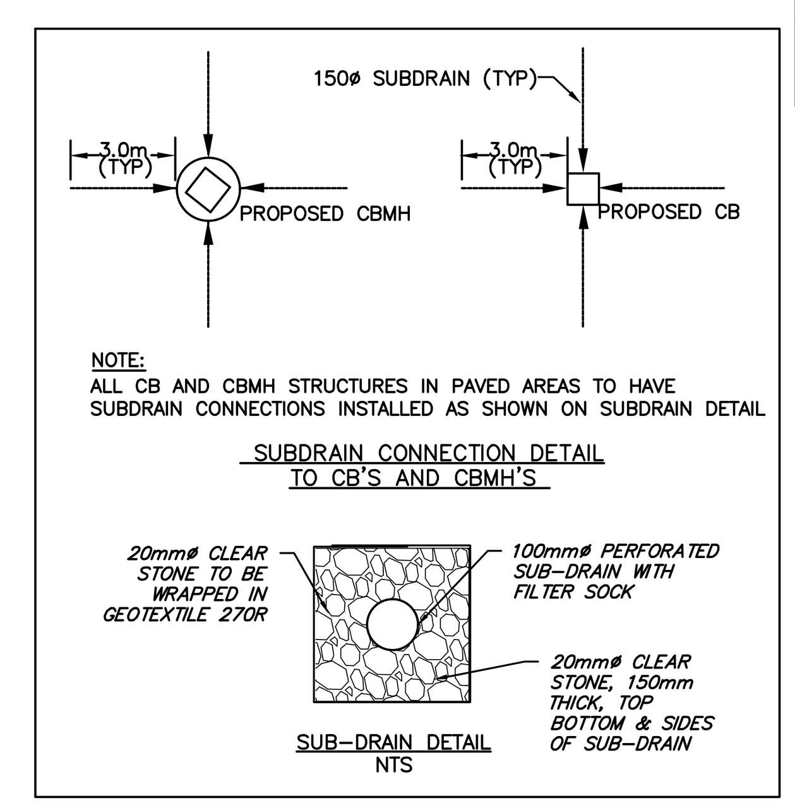
* INSTALL CB/CBMH SHIELD – SEE CV–4 FOR DETAILS

SANITARY SEWER STRUCTURES

STRUCTURE	OPSD STRUCTURE STANDARD	OPSD/GRATE COVER STANDARD	RIM	INVERT
MH1A	701.010	401.010	224.23	W 222.11 E 222.10
MH2A	701.010	401.010	225.34	S 222.76 W 222.68 E 222.67
MH3A	701.010	401.010	225.61	S 223.43 W 223.51
O/W SEP	HL 4		225.41	NE 223.90 W 223.95

LEGEND

Symbol	Description
CB#4 T/G 225.45	–EXISTING CATCHBASIN
MH#3 T/G 224.24	–EXISTING MAINTENANCE HOLE
STM	–EXISTING STORM SEWER
SAN	–EXISTING SANITARY SEWER
W	–EXISTING WATERMAIN
G	–EXISTING GAS LINE
UH	–EXISTING UNDERGROUND HYDRO
UC	–EXISTING UNDERGROUND CABLE
FO	–EXISTING UNDERGROUND FIBRE OPTIC
UT	–EXISTING UNDERGROUND TELEPHONE LINE
CB1 T/G 225.23	–PROPOSED CATCHBASIN
CBMH6 T/G 225.29	–PROPOSED CATCHBASIN MAINTENACE HOLE
MH7 T/C 225.45	–PROPOSED MAINTENACE HOLE
O/W SEP T/C 225.41	–PROPOSED OIL/GRIT SEPARATOR
WV	–PROPOSED WATER VALVE
CS	–PROPOSED CURB STOP
	–PROPOSED SANITARY SEWER
	–PROPOSED STORM SEWER
	–PROPOSED WATERMAIN
	–PROPOSED SUBDRAIN (SEE DETAIL THIS SHEET)



NOTE:
ALL CB AND CBMH STRUCTURES IN PAVED AREAS TO HAVE SUBDRAIN CONNECTIONS INSTALLED AS SHOWN ON SUBDRAIN DETAIL

SUBDRAIN CONNECTION DETAIL TO CB'S AND CBMH'S

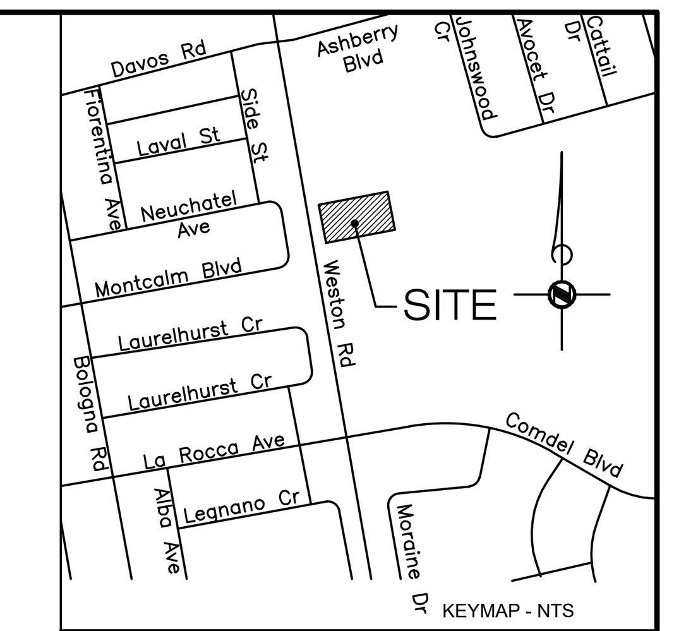
SUB–DRAIN DETAIL
NTS

CROSSINGS

No.	INV UPPER	OBV LOWER	CLEARANCE
1	223.81 STM	223.43 SAN	0.38m
2	224.29 STM	223.74 SAN	0.55m

NOTE:
CONTRACTOR TO INVITE REGION'S CONSTRUCTION INSPECTION STAFF FROM (ENVassestapprovals@york.ca) TO PRE–CONSTRUCTION MEETING FOR ANY WORKS WITH 2 WEEKS NOTICE. CONTRACTOR TO CONTACT MGM CONSULTING INC. IMMEDIATELY SHOULD THERE BE ANY CONFLICTS BETWEEN EXISTING CONDITIONS AND PROPOSED GRADING AND/OR SERVICING DESIGN, OR CONFLICTS IN CONSTRUCTING THE WORK AS PER THE INTENT OF THE APPROVED DESIGN PRIOR TO CONSTRUCTION.

NOTE:
1. ALL WORK TO CONFORM TO THE LATEST MUNICIPAL STANDARDS AND SPECIFICATIONS AS WELL AS THE LATEST ADOPTED ONTARIO PROVINCIAL STANDARD DRAWINGS AND SPECIFICATIONS.
2. ALL DISTURBED AREAS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER TO SATISFACTION OF THE MUNICIPALITY AND MGM CONSULTING INC.
3. CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING SERVICES AND UTILITIES PRIOR TO AND DURING CONSTRUCTION
4. CONTRACTOR TO LOCATE AND CONFIRM ALL EXISTING UTILITIES AND SERVICE INFORMATION PRIOR CONSTRUCTION
5. CONTRACTOR TO ENSURE ADEQUATE CLEARANCE FROM ALL EXISTING SERVICES AND UTILITIES
6. CONTRACTOR TO CONFIRM ALL EXISTING INVERTS PRIOR TO INTERNAL SERVICING.



The Contractor shall verify all dimensions prior to commencement of the work.
All print and specifications are the property of the Architect and must be returned upon completion of the work.

ISSUE OR REVISION

No.	Description	Date
1	ISSUED FOR COORDINATION	03/21/22
2	ISSUED FOR COORDINATION	03/31/22
3	ISSUED FOR COORDINATION	05/18/22
4	ISSUED FOR SPA	05/27/22
5	ISSUED FOR COORDINATION	06/06/23
6	ISSUED FOR SPA RESUBMISSION	06/12/23
7	ISSUED FOR CONSTRUCTION	09/09/24

PROJECT :
VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, WOODBRIDGE, ONTARIO

MGM CONSULTING INC
Consulting Engineering & Project Management
555 Industrial Drive
Suite 201
Milton, Ontario
L9T 5E1
Tel: (905)567-8678
Fax: (905)875-1339
Email: mgm@mgm.on.ca
www.mgm.on.ca

PROFESSIONAL SEAL :
REGISTERED PROFESSIONAL ENGINEER M. L. STAIRS SEPT. 09, 2024 PROVINCE OF ONTARIO

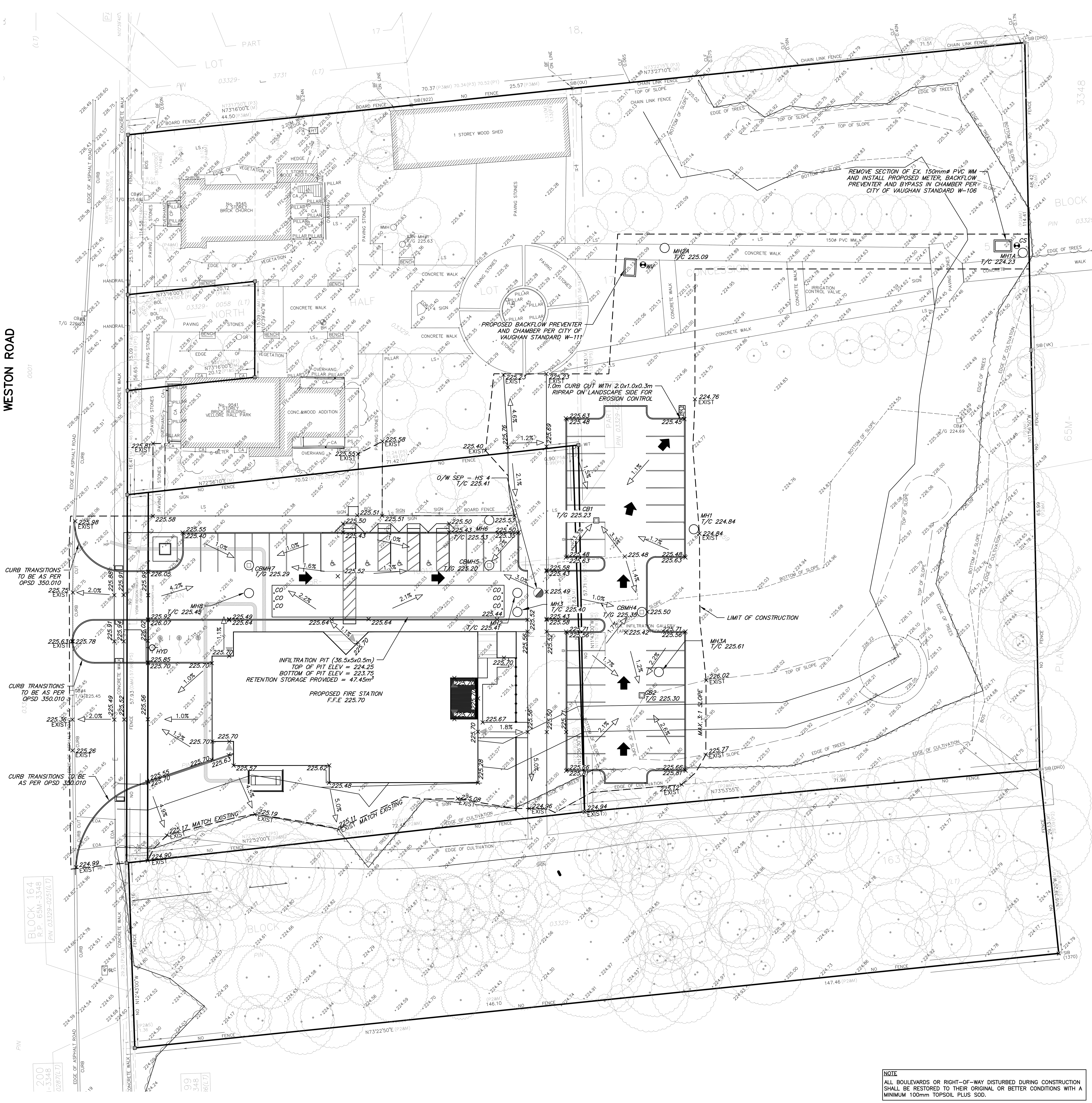
DWG TITLE :
SERVICING PLAN

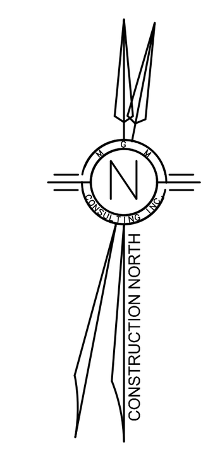
THOMASBROWN ARCHITECTS
394 King Street East,
Toronto, Ontario
M5A 1K9
Tel: 416.364.5710
Fax: 416.364.4662
info@tbrownarch.ca

FILE No. DA.22.035

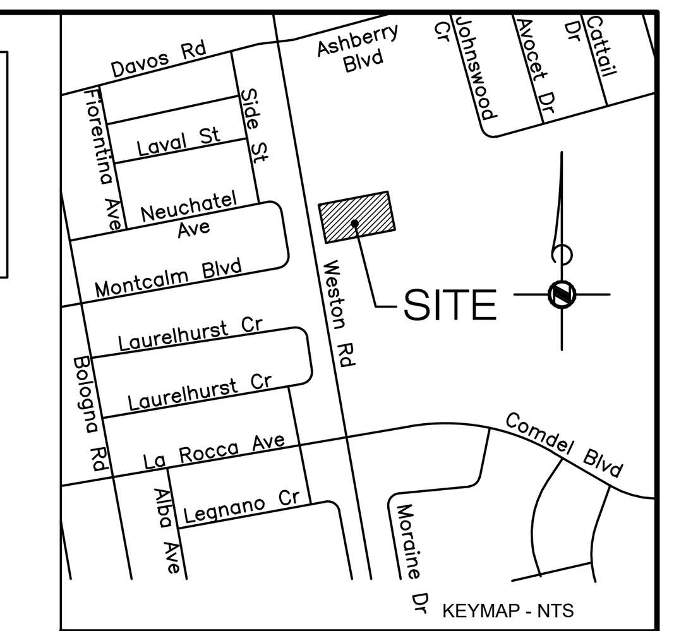
DATE :	MAR 2022
SCALE :	1 : 300
DRAWN BY:	AB
CHECKED BY :	KL
DESIGNED BY:	AB
DWG STATUS :	ISSUED FOR SPA
PROJECT No. :	2022-007
DRAWING No. :	CV-2
REVISION	7

N:\Projects\2022–007 – Vaughan Fire Station\Working Folders\Drawings\2022–007 A1.dwg





BENCHMARK:
ELEVATIONS SHOWN ON THIS PLAN ARE RELATED TO GEODETIC DATUM AND ARE DERIVED FROM CITY OF VAUGHAN BENCHMARK No. 32-3, HAVING A PUBLISHED ELEVATION OF 225.764 METRES (CGVD28:78). EXISTING INFORMATION TAKEN FROM TOPOGRAPHIC SURVEY PROVIDED BY J.D.BARNES, REFERENCE No. 21-21-719-00, DATED DECEMBER 21, 2021.



GENERAL CITY OF VAUGHAN NOTES:

- STANDARD DRAWINGS OF THE CITY OF VAUGHAN CONSTITUTE PART OF THESE DRAWING(S).
- ALL CONSTRUCTION WORK TO BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS.
- THE OWNER SHALL RETAIN THE SERVICES OF HIS CONSULTANTS TO ENSURE REQUIRED INSPECTION REPORTS AND OR CERTIFICATION REQUIREMENTS ARE SUBMITTED TO THE DEVELOPMENT ENGINEERING DEPARTMENT AND OTHER AFFECTED CITY DEPARTMENTS.
- THE OWNER AND/OR HIS REPRESENTATIVE SHALL RECTIFY ALL DISTURBED AREAS TO ORIGINAL CONDITION OR BETTER AND TO THE SATISFACTION OF THE CITY.
- THE LOCATION OF ALL UNDER/ABOVE GROUND UTILITIES AND STRUCTURES IS APPROXIMATE ONLY AND WHERE SHOWN ON THE DRAWING(S) THE ACCURACY OF THE LOCATION OF SUCH UTILITIES IS NOT GUARANTEED. THE OWNER AND/OR HIS REPRESENTATIVE SHALL DETERMINE THE LOCATION OF ALL SUCH UTILITIES AND STRUCTURES BY CONSULTING THE APPROPRIATE AUTHORITIES OR UTILITY COMPANIES CONCERNED. THE OWNER SHALL PROVE THE LOCATION OF SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE OR RESTORATION OR ADJUSTMENT FOR THE SAME.
- ANY CONFLICTS WITH EXISTING SERVICES SHALL BE RECTIFIED AT THE OWNER'S EXPENSE.
- APPROPRIATE CONSTRUCTION DETAILS SHOULD BE PROVIDED FOR RETAINING WALLS HIGHER THAN 1.0 M. DETAILS SHALL BE DESIGNED AND CERTIFIED BY A PROFESSIONAL ENGINEER UPON APPROVAL. HANDRAIL/GUARD/FENCE IS REQUIRED WHEN HEIGHT EXCEEDS 0.60 M (AS PER CITY STANDARD DRAWING FRW-105 OR APPROVED EQUAL). UPON COMPLETION, RETAINING WALLS GREATER THAN 1.0 M TO BE CERTIFIED BY A STRUCTURAL AND GEOTECHNICAL ENGINEERS. LANDSCAPING WORK SHALL NOT ENCROACH ON BOULEVARD NOR SHALL BOULEVARD GRADES BE ALTERED.
- SLOPES IN LANDSCAPED AREAS AND ON BERMS SHALL NOT EXCEED 3 HORIZONTAL TO 1 VERTICAL.
- GRASSED DRAINAGE SWALE GRADES: MIN. 2%; MAX 5%.
- OUTSIDE LIGHTING SHALL BE DIRECTED DOWNWARD AND INWARD AND DESIGNED TO MAINTAIN ZERO CUT-OFF LIGHT LEVEL DISTRIBUTION AT THE PROPERTY LINE.
- SILT FENCE(S) AND OTHER EROSION CONTROL MEASURES TO BE INSTALLED AND MAINTAINED TO PREVENT SILT FLOWING ONTO ADJACENT LANDS UNTIL THE COMPLETION OF SODDING ACTIVITIES.
- CONSTRUCTION ACCESS SHALL BE CONSTRUCTED WITH A MINIMUM DEPTH OF 450 MM CRUSHED STONE BASE FROM THE MUNICIPAL CURB OR EDGE OF PAVEMENT TO THE PROPERTY LINE, TO THE SATISFACTION OF THE CITY.
- ALL PROPOSED BARRIER-FREE PARKING SPACES TO INCLUDE "RB-93 BY PERMIT ONLY" TRAFFIC SIGN AND BARRIER-FREE PAVEMENT SYMBOL MARKING.

ROADWORKS

- ENTRANCE DRIVEWAYS SHALL BE CONSTRUCTED WITH HEAVY DUTY ASPHALT FROM THE BACK OF THE MUNICIPAL CURB OR EDGE OF PAVEMENT TO THE PROPERTY LINE (AREA HIGHLIGHTED ON DRAWING(S) IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:
  - -50 MM COMPACTED DEPTH OF HL3 ASPHALT – TOP COURSE
  - -75 MM COMPACTED DEPTH OF HL8 ASPHALT – BINDER COURSE
  - -150 MM COMPACTED DEPTH OF 20 MM CRUSHER-RUN LIMESTONE – GRANULAR BASE
  - -300 MM COMPACTED DEPTH OF 50 MM CRUSHER-RUN LIMESTONE – GRANULAR SUB-BASE
- THE SURFACE OF ALL LOADING SPACES AND RELATED DRIVEWAYS, PARKING SPACES, AND MANEUVERING AREAS WITHIN THE SITE SHALL BE PAVED WITH A HARD SURFACE. THE MINIMUM DEPTH REQUIREMENTS ARE AS FOLLOWS, OR AS SPECIFIED BY GEOTECHNICAL ENGINEER:
  - -40 MM COMPACTED DEPTH HL3 ASPHALT – TOP COURSE
  - -50 MM COMPACTED DEPTH HL8 ASPHALT – BINDER COURSE
  - -150 MM COMPACTED DEPTH 20 MM CRUSHER-RUN LIMESTONE – GRANULAR BASE
  - -200 MM COMPACTED DEPTH 50 MM CRUSHER-RUN LIMESTONE – GRANULAR SUB-BASE
- FOR CONDOMINIUM UNIT DRIVEWAYS, THE MINIMUM DEPTH REQUIREMENTS ARE AS FOLLOWS, OR AS SPECIFIED BY GEOTECHNICAL ENGINEER:
  - -25 MM COMPACTED DEPTH HL3 ASPHALT TOP COURSE (TOP COURSE ASPHALT SHALL NOT BE PLACED UNTIL THE BASE COURSE ASPHALT HAS BEEN IN PLACE FOR ONE WINTER SEASON. OTHER HARD SURFACES MAY BE INSTALLED AS APPROVED BY THE CITY.)
  - -50 MM COMPACTED DEPTH HL8 ASPHALT BASE COURSE
  - -200 MM COMPACTED DEPTH 20 MM CRUSHER-RUN LIMESTONE BASE
- ALL CONCRETE CURB FROM EXISTING ROAD CURB TO STREET LINE SHALL BE BARRIER CURB OPSD 600.110. ALL CONCRETE CURB HEIGHTS SHALL BE 150 MM UNLESS OTHERWISE NOTED. ENTRANCE DRIVEWAY CURB TO BE DISCONTINUOUS AT SIDEWALK AND TAPERED BACK 600 MM MINIMUM.
- ALL REQUIRED CURB CUTTING AT ENTRANCE DRIVEWAY AND CURB DEPRESSIONS AT SIDEWALK CROSSINGS SHALL BE INSTALLED TO THE SATISFACTION OF THE CITY.
- EXISTING ROADWAY CURB AND GUTTER TO BE CONTINUOUS THROUGH THE PROPOSED NEW DRIVEWAY ENTRANCE(S) ALONG WITH THE MUNICIPAL SIDEWALK.
- SIDEWALK TO BE 200 MM THICK THROUGH DRIVEWAY ENTRANCE PER CITY STANDARD R-128 AND TO INCLUDE TACTILE INDICATORS IN ACCORDANCE WITH YORK REGION STANDARD.
- ENTRANCE DRIVEWAYS SHALL BE SETBACK A MINIMUM CLEARANCE OF 1.0 M FROM ALL ABOVEGROUND SERVICES OR OTHER OBSTRUCTIONS. PAVEMENT GRADES: MIN. 0.5%; MAX 5%.

LEGEND

×194.40	-EXISTING ELEVATIONS
CB#4 T/G 225.45	-EXISTING CATCHBASIN
MH#3 T/G 224.24	-EXISTING MAINTENANCE HOLE
×199.75	-PROPOSED GRADE ELEVATION
193.67 ×EXISTS	-MATCH EXISTING GRADE
5.0%	-PROPOSED SLOPE
➡	-PROPOSED MAJOR OVERLAND FLOW
CB1 T/G 225.23	-PROPOSED CATCHBASIN
CBMH6 T/G 225.29	-PROPOSED CATCHBASIN MAINTENACE HOLE
MH7 T/C 225.45	-PROPOSED MAINTENACE HOLE
O/W SEP T/C 225.41	-PROPOSED OIL/GRIT SEPARATOR
WV	-PROPOSED WATER VALVE
CS	-PROPOSED CURB STOP

TRCA STANDARD EROSION AND SEDIMENT CONTROL NOTES

1. EROSION AND SEDIMENT CONTROL (ESC) MEASURES WILL BE IMPLEMENTED PRIOR TO, AND MAINTAINED DURING THE CONSTRUCTION PHASES, TO PREVENT ENTRY OF SEDIMENT INTO THE WATER. (ALL DAMAGED EROSION AND SEDIMENT CONTROL MEASURES SHOULD BE REPAIRED AND/OR REPLACED WITHIN 48 HOURS OF THE INSPECTION.
2. DISTURBED AREAS WILL BE MINIMIZED TO THE EXTENT POSSIBLE, AND TEMPORARILY OR PERMANENTLY STABILIZED OR RESTORED AS THE WORK PROGRESSES.
3. THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO MINIMIZE SEDIMENT LADEN RUNOFF FROM LEAVING THE WORK AREAS. IF THE PRESCRIBED MEASURES ON THE PLANS ARE NOT ARE NOT EFFECTIVE AT PREVENTING THE RELEASE OF A DELETERIOUS SUBSTANCE, INCLUDING SEDIMENT, THEN ALTERNATIVE MEASURES MUST BE IMPLEMENTED IMMEDIATELY TO MINIMIZE POTENTIAL ECOLOGICAL IMPACTS. TRCA ENFORCEMENT OFFICER SHOULD BE IMMEDIATELY CONTACTED. ADDITIONAL ESC MEASURES TO BE KEPT ON SITE AND USED AS NECESSARY.
4. ALL GRADES WITHIN THE REGULATORY FLOOD PLAIN WILL BE MAINTAINED OR MATCHED.
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6. ALL DEWATERING/UNWATERING SHALL BE TREATED AND RELEASED TO THE ENVIRONMENT AT LEAST 30 METRES FROM A WATERCOURSE OR WETLAND AND ALLOWED TO DRAIN THROUGH A WELL-VEGETATED AREA. NO DEWATERING EFFLUENT SHALL BE SENT DIRECTLY TO ANY WATERCOURSE, WETLAND OR FOREST, OR ALLOWED TO DRAIN ONTO DISTURBED SOILS WITHIN THE WORK AREA. THESE CONTROL MEASURES SHALL BE MONITORED FOR EFFECTIVENESS AND MAINTAINED OR REVISED TO MEET THE OBJECTIVE OF PREVENTING THE RELEASE OF SEDIMENT LADEN WATER.
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PAVEMENT DESIGN

(PER ENGLOBE DRAFT GOTECH REPORT DATED MARCH 30, 2022. CONTACTOR TO ENSURE PAVEMENT STRUCTURE IS CONSISTENT WITH LATEST GEOTECHNICAL REPORT)

LIGHT DUTY PAVEMENT STRUCTURE:
40mm DEPTH OF HL3 ASPHALT
50mm DEPTH OF HL8 ASPHALT
150mm DEPTH OF GRANULAR 'A'
300mm DEPTH OF GRANULAR 'B'

HEAVY DUTY PAVEMENT STRUCTURE:
40mm DEPTH OF HL3 ASPHALT
80mm DEPTH OF HL8 ASPHALT
150mm DEPTH OF GRANULAR 'A'
300mm DEPTH OF GRANULAR 'B'

CONCRETE PAVEMENT:
250mm DEPTH OF 32MPa CONCRETE
100mm DEPTH OF OGDL (OPEN GRADED DRAINAGE LAYER)
200mm DEPTH OF GRANULAR 'A'

NOTE:

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ISSUE OR REVISION

No.	Description	Date
1	ISSUED FOR COORDINATION	03/21/22
2	ISSUED FOR COORDINATION	03/31/22
3	ISSUED FOR SPA	05/27/22
4	ISSUED FOR SPA RESUBMISSION	06/12/23
5	ISSUED FOR CONSTRUCTION	09/09/24

PROJECT :
VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD, WOODBRIDGE, ONTARIO

MGM CONSULTING INC
Consulting Engineering & Project Management
555 Industrial Drive
Suite 201
Milton, Ontario
L9T 5E1
Tel: (905)567-8678
Fax: (905)875-1339
Email: mgm@mgm.on.ca
www.mgm.on.ca

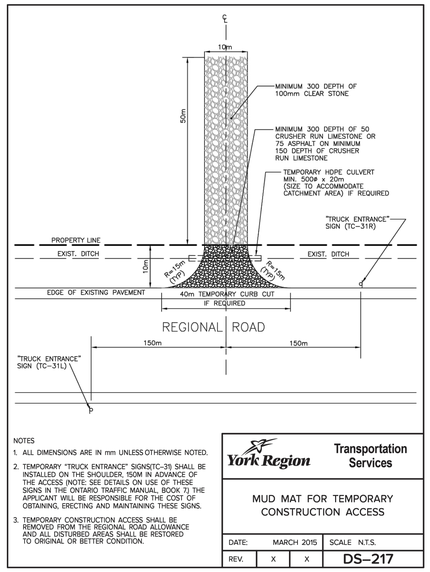
PROFESSIONAL SEAL :
REGISTERED PROFESSIONAL ENGINEER
M. L. STAIRS
SEPT. 09, 2024
PROVINCE OF ONTARIO

DWG TITLE :
GRADING PLAN

THOMASBROWN ARCHITECTS
394 King Street East,
Toronto, Ontario
M5A 1K9
Tel: 416.364.5710
Fax: 416.364.4662
info@tbrownarch.ca

FILE No. DA.22.035

DATE :	MAR 2022
SCALE :	1 : 300
DRAWN BY:	AB
CHECKED BY :	KL
DESIGNED BY:	AB
DWG STATUS :	ISSUED FOR SPA
PROJECT No. :	2022-007
DRAWING No. :	CV-3
REVISION	5



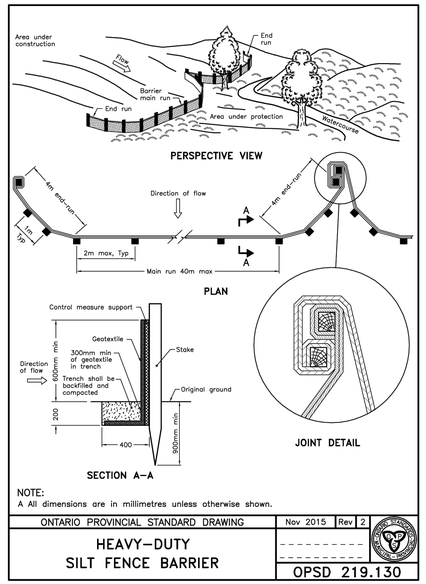
NOTES

1. ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE NOTED.
2. TEMPORARY "TRUCK ENTRANCE" SIGNS(TC-31) SHALL BE INSTALLED ON THE SHOULDER, 150M IN ADVANCE OF THE ACCESS (NOTE: SEE DETAILS ON USE OF THESE SIGNS IN THE ONTARIO TRAFFIC MANUAL, BOOK 7) THE APPLICANT WILL BE RESPONSIBLE FOR THE COST OF OBTAINING, ERECTING AND MAINTAINING THESE SIGNS.
3. TEMPORARY CONSTRUCTION ACCESS SHALL BE REMOVED FROM THE REGIONAL ROAD ALLOWANCE AND ALL DISTURBED AREAS SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.

York Region — Transportation Services

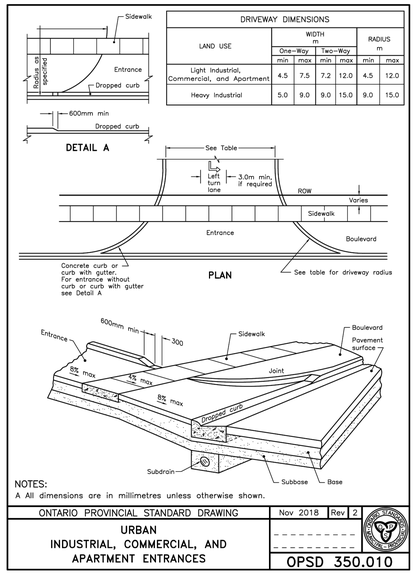
MUD MAT FOR TEMPORARY CONSTRUCTION ACCESS

DATE:	MARCH 2015		SCALE N.T.S.
REV.	X	X	DS-217



NOTE:
A All dimensions are in millimetres unless otherwise shown.

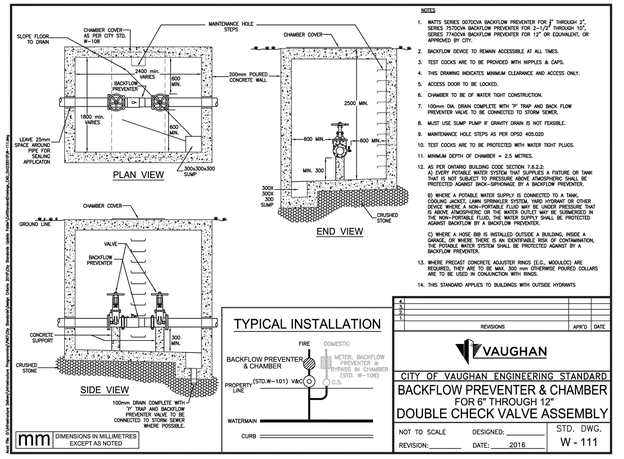
ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
HEAVY–DUTY SILT FENCE BARRIER		OPSD 219.130



DRIVEWAY DIMENSIONS						
LAND USE	WIDTH m				RADIUS m	
	One–Way		Two–Way			
	min	max	min	max	min	max
Light Industrial, Commercial, and Apartment	4.5	7.5	7.2	12.0	4.5	12.0
Heavy Industrial	5.0	9.0	9.0	15.0	9.0	15.0

NOTES:
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2018	Rev 2
URBAN INDUSTRIAL, COMMERCIAL, AND APARTMENT ENTRANCES		OPSD 350.010



NOTES

1. WATTS SERIES 007QT/QA BACKFLOW PREVENTER FOR 2" THROUGH 3", SERIES 757QT/QA BACKFLOW PREVENTER FOR 2-1/2" THROUGH 10", SERIES 774QT/QA BACKFLOW PREVENTER FOR 12" OR EQUIVALENT, OR APPROVED BY CITY.
2. BACKFLOW DEVICE TO REMAIN ACCESSIBLE AT ALL TIMES.
3. TEST COCKS ARE TO BE PROVIDED WITH NIPPLES & CAPS.
4. THIS DRAWING INDICATES MINIMUM CLEARANCE AND ACCESS ONLY.
5. ACCESS DOOR TO BE LOCKED.
6. CHAMBER TO BE OF WATER TIGHT CONSTRUCTION.
7. 100mm DIA. DRAIN COMPLETE WITH "P" TRAP AND BACK FLOW PREVENTER VALVE TO BE CONNECTED TO STORM SEWER.
8. MUST USE SUMP PUMP IF GRAVITY DRAIN IS NOT FEASIBLE.
9. MAINTENANCE HOLE STEPS AS PER OPSD 405.020
10. TEST COCKS ARE TO BE PROTECTED WITH WATER TIGHT PLUGS.
11. MINIMUM DEPTH OF CHAMBER = 2.5 METRES.
12. AS PER ONTARIO BUILDING CODE SECTION 7.6.2.2:
    A) EVERY POTABLE WATER SYSTEM THAT SUPPLIES A FIXTURE OR TANK THAT IS NOT SUBJECT TO PRESSURE ABOVE ATMOSPHERIC SHALL BE PROTECTED AGAINST BACK–SIPHONAGE BY A BACKFLOW PREVENTER.
    B) WHERE A POTABLE WATER SUPPLY IS CONNECTED TO A TANK, COOLING JACKET, LAWN SPRINKLER SYSTEM, YARD HYDRANT OR OTHER DEVICE WHERE A NON–POTABLE FLUID MAY BE UNDER PRESSURE THAT IS ABOVE ATMOSPHERIC OR THE WATER OUTLET MAY BE SUBMERGED IN A NON–POTABLE FLUID, THE POTABLE WATER SHALL BE PROTECTED AGAINST BACKFLOW BY A BACKFLOW PREVENTER.
    C) WHERE A HOSE BIB IS INSTALLED OUTSIDE A BUILDING, INSIDE A GARAGE, OR WHERE THERE IS AN IDENTIFIABLE RISK OF CONTAMINATION, THE POTABLE WATER SYSTEM SHALL BE PROTECTED AGAINST BY A BACKFLOW PREVENTER.
13. WHERE PRECAST CONCRETE ADJUSTER RINGS (E.G., MODULOC) ARE REQUIRED, THEY ARE TO BE MAX. 300 mm. OTHERWISE POURED COLLARS ARE TO BE USED IN CONJUNCTION WITH RINGS.
14. THIS STANDARD APPLIES TO BUILDINGS WITH OUTSIDE HYDRANTS

TYPICAL INSTALLATION

REVISIONS	APP'D	DATE

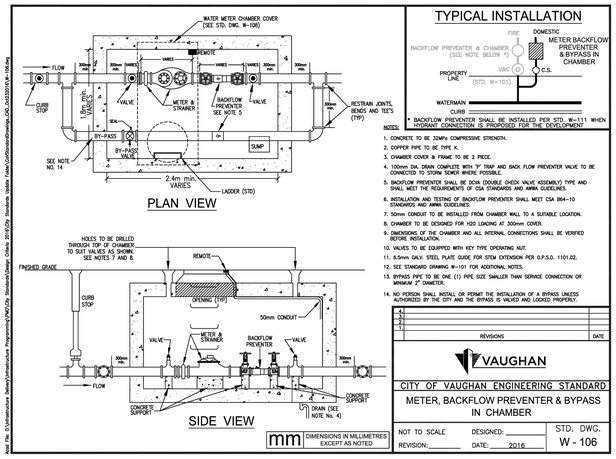
VAUGHAN

CITY OF VAUGHAN ENGINEERING STANDARD

BACKFLOW PREVENTER & CHAMBER FOR 6" THROUGH 12" DOUBLE CHECK VALVE ASSEMBLY

NOT TO SCALE	DESIGNED:	STD. DWG.
REVISION:	DATE: 2016	W - 111

mm DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED



TYPICAL INSTALLATION

* BACKFLOW PREVENTER SHALL BE INSTALLED PER STD. W–111 WHEN HYDRANT CONNECTION IS PROPOSED FOR THE DEVELOPMENT

NOTES:

1. CONCRETE TO BE 32MPa COMPRESSIVE STRENGTH.
2. COPPER PIPE TO BE TYPE K.
3. CHAMBER COVER & FRAME TO BE 2 PIECE.
4. 100mm DIA. DRAIN COMPLETE WITH "P" TRAP AND BACK FLOW PREVENTER VALVE TO BE CONNECTED TO STORM SEWER WHERE POSSIBLE.
5. BACKFLOW PREVENTER SHALL BE DCVA (DOUBLE CHECK VALVE ASSEMBLY) TYPE AND SHALL MEET THE REQUIREMENTS OF CSA STANDARDS AND AWWA GUIDELINES.
6. INSTALLATION AND TESTING OF BACKFLOW PREVENTER SHALL MEET CSA B64–10 STANDARDS AND AWWA GUIDELINES.
7. 50mm CONDUIT TO BE INSTALLED FROM CHAMBER WALL TO A SUITABLE LOCATION.
8. CHAMBER TO BE DESIGNED FOR H20 LOADING AT 300mm COVER.
9. DIMENSIONS OF THE CHAMBER AND ALL INTERNAL CONNECTIONS SHALL BE VERIFIED BEFORE INSTALLATION.
10. VALVES TO BE EQUIPPED WITH KEY TYPE OPERATING NUT.
11. 6.5mm GALV. STEEL PLATE GUIDE FOR STEM EXTENSION PER O.P.S.D. 1101.02.
12. SEE STANDARD DRAWING W–101 FOR ADDITIONAL NOTES.
13. BYPASS PIPE TO BE ONE (1) PIPE SIZE SMALLER THAN SERVICE CONNECTION OR MINIMUM 2" DIAMETER.
14. NO PERSON SHALL INSTALL OR PERMIT THE INSTALLATION OF A BYPASS UNLESS AUTHORIZED BY THE CITY AND THE BYPASS IS VALVED AND LOCKED PROPERLY.

REVISIONS	DATE

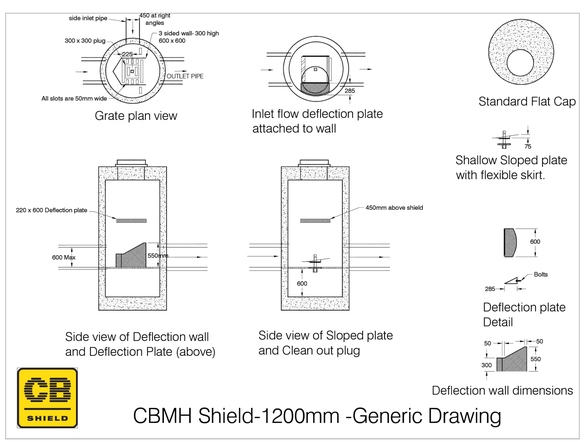
VAUGHAN

CITY OF VAUGHAN ENGINEERING STANDARD

METER, BACKFLOW PREVENTER & BYPASS IN CHAMBER

NOT TO SCALE	DESIGNED:	STD. DWG.
REVISION:	DATE: 2016	W - 106

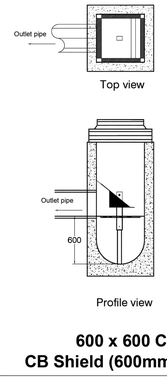
mm DIMENSIONS IN MILLIMETRES EXCEPT AS NOTED



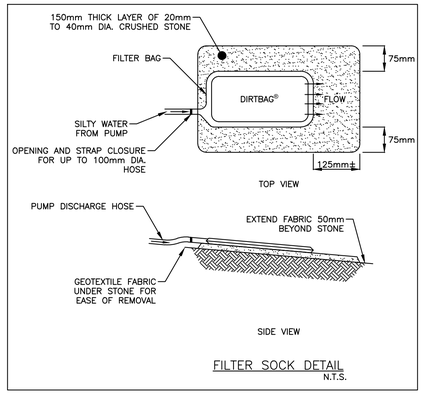
CBMH Shield-1200mm -Generic Drawing

Notes

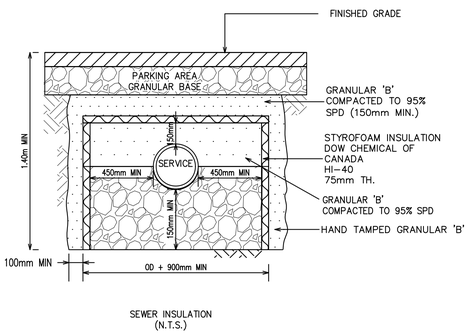
1 Recommended depth t/g - invert = 1.2m
Maximum depth t/g - invert = 2.4m
1. CB Shield to be installed in non frozen conditions.
2. The frame and cover should be well aligned with the catchbasin.
3. The sump must be clean before installation
4. The grate is at the same elevation as pipe invert.
5. Pipes must be cut flush with inside walls



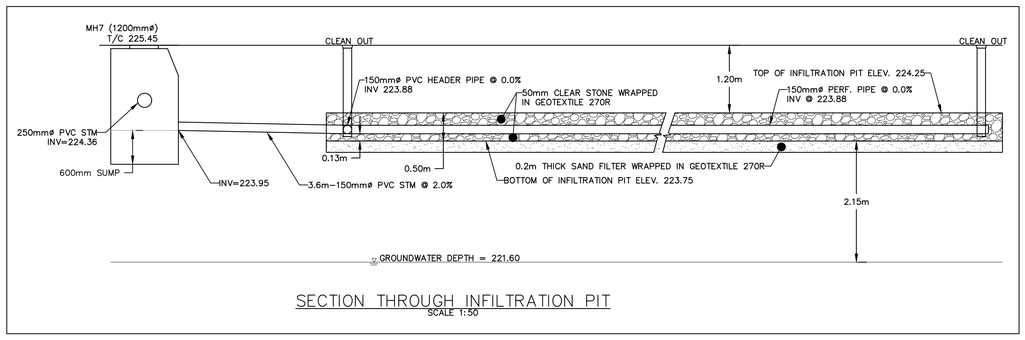
600 x 600 CB
CB Shield (600mm Sump)



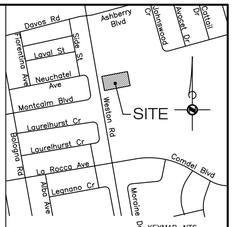
FILTER SOCK DETAIL
N.T.S.



SEWER INSULATION
(N.T.S.)



SECTION THROUGH INFILTRATION PIT
SCALE 1:50



The Contractor shall verify all dimensions prior to commencement of the work.
All print and specifications are the property of the Architect and must be returned upon completion of the work.

ISSUE OR REVISION

No.	Description	Date
1	ISSUED FOR SPA	05/27/22
2	ISSUED FOR SPA RESUBMISSION	06/12/23
3	ISSUED FOR CONSTRUCTION	09/09/24

PROJECT :
VAUGHAN FIRE STATION 7-12
9541 WESTON ROAD,
WOODBRIDGE, ONTARIO

MGM CONSULTING INC
Consulting Engineering & Project Management
555 Industrial Drive
Suite 201
Milton, Ontario
L9T 5E1
Tel: (905) 567-8678
Fax: (905) 875-1339
Email: mgm@mgm.on.ca
www.mgm.on.ca

PROFESSIONAL SEAL :

DWG TITLE :
DETAILS

THOMASBROWN ARCHITECTS
394 King Street East,
Toronto, Ontario
M5A 1K9
Tel: 416.364.5710
Fax: 416.364.4062
info@tbrownarch.ca

FILE No. DA.22.035

DATE :	MAR 2022
SCALE :	1 : 300
DRAWN BY:	AB
CHECKED BY :	KL
DESIGNED BY:	AB
DWG STATUS :	ISSUED FOR SPA
PROJECT No. :	2022-007
DRAWING No. :	CV-4
REVISION	3

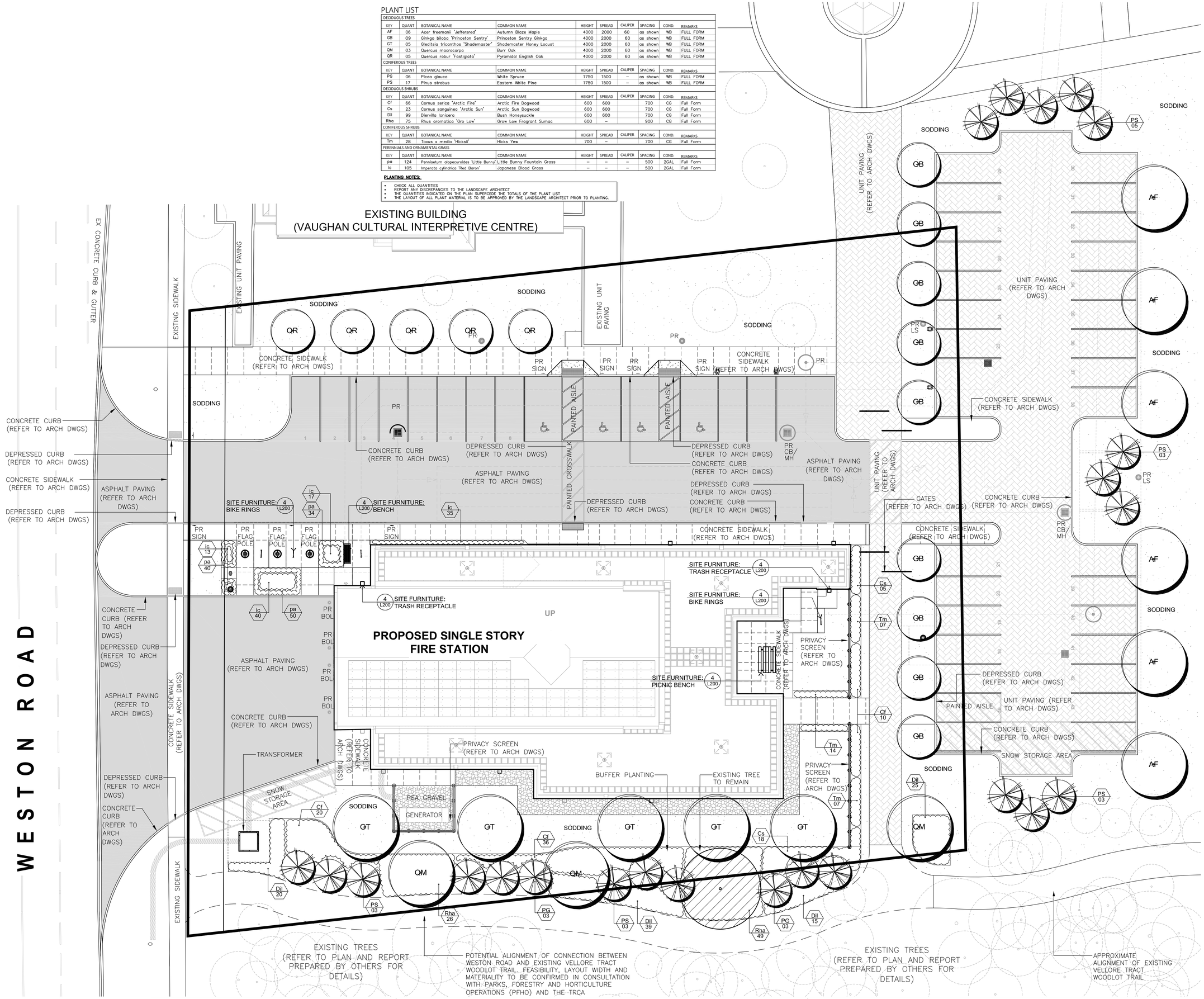
N:\Projects\2022-007 - Vaughan Fire Station\Working Folders\Drawings\2022-007 A1.dwg

PLANT LIST

KEY	QUANT	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CALIPER	SPACING	COND.	REMARKS
DECIDUOUS TREES									
AF	06	Acer freemanii 'Jeffersred'	Autumn Blaze Maple	4000	2000	60	as shown	WB	FULL FORM
GB	09	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	4000	2000	60	as shown	WB	FULL FORM
GT	05	Gleditsia tricanthos 'Shademaster'	Shademaster Honey Locust	4000	2000	60	as shown	WB	FULL FORM
QM	03	Quercus macrocarpa	Burr Oak	4000	2000	60	as shown	WB	FULL FORM
QR	05	Quercus robur 'Fastigiata'	Pyramidal English Oak	4000	2000	60	as shown	WB	FULL FORM
CONIFEROUS TREES									
KEY	QUANT	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CALIPER	SPACING	COND.	REMARKS
PG	06	Picea glauca	White Spruce	1750	1500	–	as shown	WB	FULL FORM
PS	17	Pinus strobus	Eastern White Pine	1750	1500	–	as shown	WB	FULL FORM
DECIDUOUS SHRUBS									
KEY	QUANT	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CALIPER	SPACING	COND.	REMARKS
Cf	66	Cornus serica 'Arctic Fire'	Arctic Fire Dogwood	600	600		700	CG	Full Form
Cs	23	Cornus sanguinea 'Arctic Sun'	Arctic Sun Dogwood	600	600		700	CG	Full Form
Dll	99	Diervilla lonicera	Bush Honeysuckle	600	600		700	CG	Full Form
Rha	75	Rhus aromatica 'Gro Low'	Grow Low Fragrant Sumac	600	–		900	CG	Full Form
CONIFEROUS SHRUBS									
KEY	QUANT	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CALIPER	SPACING	COND.	REMARKS
Tm	28	Taxus x media 'Hicksii'	Hicks Yew	700	–		700	CG	Full Form
PERENNIALS AND ORNAMENTAL GRASS									
KEY	QUANT	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	CALIPER	SPACING	COND.	REMARKS
pa	124	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	–	–	–	500	2GAL	Full Form
ic	105	Imperata cylindrica 'Red Baron'	Japanese Blood Grass	–	–	–	500	2GAL	Full Form

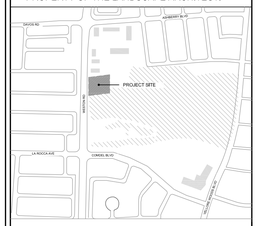
PLANTING NOTES:

- CHECK ALL QUANTITIES
- REPORT ANY DISCREPANCIES TO THE LANDSCAPE ARCHITECT
- THE QUANTITIES INDICATED ON THE PLAN SUPERCEDE THE TOTALS OF THE PLANT LIST
- THE LAYOUT OF ALL PLANT MATERIAL IS TO BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING.



GENERAL NOTES

- VERIFY ALL DIMENSIONS.
- DO NOT SCALE DRAWINGS.
- REPORT ANY DISCREPANCIES, DISCOVERED ERRORS, OR OMISSIONS TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING.
- IT IS ADVISED THAT CONTRACTORS CONTACT THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION TO ENSURE THE USE OF THE LATEST REVISED DRAWINGS.
- DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE LANDSCAPE ARCHITECT.



KEY MAP

LEGEND

- EXISTING TREES TO BE PRESERVED
- PROPOSED DECIDUOUS TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED SHRUBS
- SODDING
- CONCRETE WALKWAY
- UNIT PAVING
- ASPHALT PAVING
- BIKE PARKING

No.	DATE.	REVISION.	BY.
1	SEPT 29, 2023	ISSUED FOR SPA (FOLLOWING PREVIOUS LANDSCAPE SUBMISSION BY OTHERS)	JB

It is the responsibility of the Contractor and/or Owner to ensure that the drawings with the latest revisions are used for construction.

5770 HURONTARIO STREET, SUITE 320
MISSISSAUGA, ONTARIO, L5R 3G5
T: 416.695.4949 F: 905.712.3101
WWW.STRYBOS.COM
STRYBOS BARRON KING
LANDSCAPE ARCHITECTURE

PROJECT.

CITY OF VAUGHAN FIRE STATION 7-12

9511 WESTON ROAD, VAUGHAN

DRAWING TITLE.

LANDSCAPE PLAN

SCALE. 1:125	PROJECT No. 23–5941
DATE. AUGUST 2023	
DRAWN BY. S.S.	DRAWING No. L100
CHECKED BY. J.B.	

GENERAL NOTES:

MAINTENANCE and ACCEPTANCE:

- ALL PLANT MATERIAL SHALL BE MAINTAINED BY THE CONTRACTOR IMMEDIATELY AFTER ANY PLANTING HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL THE DATE OF FINAL ACCEPTANCE.
- SUCH MAINTENANCE SHALL INCLUDE ALL MEASURES NECESSARY TO ESTABLISH AND MAINTAIN ALL PLANTS IN AN ACCEPTABLE, VIGOROUS AND HEALTHY GROWING CONDITION INCLUDING CULTIVATING AND WEEDING, WATERING WHEN REQUIRED, PRUNING AND MAINTENANCE OF ALL ACCESSORIES.
- AT TIME OF INSPECTION FOR INITIAL & FINAL ACCEPTANCE, ALL PLANTING BEDS AND TREE PITS SHALL BE FRESHLY CULTIVATED, FREE OF WEEDS, LEAVES, BROKEN BRANCHES AND RUBBISH AND SHALL BE IN A NEAT AND TIDY CONDITION.
- ALL PLANT MATERIAL TO BE GUARANTEED FOR A PERIOD OF 2 (TWO) YEARS FROM THE DATE OF ACCEPTANCE BY THE LANDSCAPE ARCHITECT AND LOCAL AUTHORITY UNLESS OTHERWISE NOTED.
- MAINTAIN PLANTING BEDS AND TREE PITS FREE OF WEEDS THROUGHOUT THE GUARANTEE PERIOD.
- THE DEVELOPER SHALL REGULARLY REMOVE DEBRIS FROM THE WETLAND UNTIL THE COMPLETION OF ALL BUILDING CONSTRUCTION WITHIN THE DEVELOPMENT.

UTILITIES:

- APPLICANT IS RESPONSIBLE FOR OBTAINING NECESSARY APPROVALS FROM THE UTILITY COMPANIES FOR WORKS WITHIN THE MUNICIPAL BOULEVARD.
- ALL UTILITIES WITHIN THE BOULEVARDS MUST BE LOCATED PRIOR TO COMMENCING CONSTRUCTION WITHIN THE BOULEVARD.

TREE LOCATION:

- NO TREES SHALL BE PLANTED UNDER OVERHEAD WIRES OR OVER UNDERGROUND SERVICES.
- TREES ARE NOT TO BE PLANTED LESS THAN 1M FROM CURBS, UNDERGROUND UTILITIES, SIDEWALKS AND DRIVEWAYS, 2m FROM FIRE HYDRANTS AND TRANSFORMERS, AND 4m FROM LIGHT STANDARDS.
- THE CONTRACTOR IS TO STAKE OUT LOCATIONS OF TREE PITS. THIS STAKE OUT IS TO BE INSPECTED BEFORE THE EXCAVATION OF ANY TREE PITS.
- BEFORE THIS STAKE OUT, THE CONTRACTOR IS TO REQUEST A STAKE OUT ALL UNDERGROUND SERVICES.
- THE LANDSCAPE ARCHITECT AND THE MUNICIPALITY MAY, AT THEIR DISCRETION REDISTRIBUTE TREE LOCATIONS, PRIOR TO PLANTING, IN ORDER TO MINIMIZE CONFLICTS WITH UTILITIES, DRIVEWAYS AND INTERSECTION VISIBILITY.

TOPSOIL:

- USE EVENLY MIXED TOPSOIL OF FERTILE, FRIABLE NATURAL LOAM CONTAINING NOT LESS THAN 4% ORGANIC MATTER FOR CLAY LOAMS AND 2% MINIMUM ORGANIC MATTER FOR SAND LOAMS WITH AN ACIDITY RANGE OF 5.5 TO 7.5 pH.
- ALL TOPSOIL SHOULD BE FREE OF SUBSOILS, CLAY, STONES, ROOTS, EXCESS WATER, FROST AND OTHER EXTRANEOUS MATTER.

PLANTING:

(UNLESS OTHERWISE SPECIFIED)

- PREPARE PLANTING SOIL BY EVENLY MIXING FOUR PARTS SANDY TOPSOIL, ONE PART ORGANIC SOIL ADDITIVE WITH 500g BONE MEAL AND 750g COMMERCIAL FERTILIZER PER CUBIC METER. THE FOREGOING RATES ARE SUBJECT TO ADJUSTMENT ON RECEIPT OF TOPSOIL ANALYSIS REPORT.
- EXCAVATE AND PROVIDE PLANTING SOILS AS PER PLANTING DETAILS.
- PROVIDE ALL SHRUBS AND TREES ACCORDING TO THE GUIDE SPECIFICATIONS FOR NURSERY STOCK OF THE CANADIAN NURSERY TRADE ASSOCIATION WITH REGARD TO QUALITY AND GRADING AND SIZED AS PER PLANT LIST.
- SPRAY ALL PLANTINGS IN LEAF WITH ANTIDESICCANT. PROVIDE TREES WITH STAKES.
- PLANTS ARE TO BE No. 1 NURSERY GROWN, UNDER PROPER CULTURAL PRACTICES, IN PARTICULAR WITH RESPECT TO AMPLE SPACING, PEST AND DISEASE CONTROL, AND BRANCH AND ROOT PRUNING.
- TREES ARE TO HAVE STURDY, STRAIGHT TRUNKS.
- TREES SHALL BE WELL BRANCHED AND BALANCED WITH A STRONG CENTRAL LEADER.
- DECIDUOUS SHADE TREES SHALL BE FREE OF BRANCHES NOT LESS THAN 1.8m ABOVE THE GROUND.
- ALL SHRUBS ARE TO BE PLANTED IN CONTINUOUS BEDS.
- DO NOT SOD BETWEEN PLANTS. EXCAVATE ENTIRE AREA OF SHRUB BED UNIFORMLY TO SPECIFIED DEPTH AND FILL WITH SPECIFIED PLANTING SOIL.

RODENT PROTECTION:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL TREES AND SHRUBS FROM RODENT INJURY FOR THE DURATION OF THE GUARANTEE PERIOD. PROTECTIVE WIRE MESH GUARDS SHALL BE EMPLOYED AROUND ALL DECIDUOUS TREES. GUARDS SHALL BE INSTALLED PRIOR TO THE APPLICATION OF MULCH AND SHOULD BE PLACED A MINIMUM OF 50mm OUT FROM THE TREE TRUNK ON ALL SIDES. SUFFICIENT MESH SHOULD BE CUT TO COMPLETE THIS CIRCUMFERENCE AS WELL AS TO PROVIDE A MINIMUM OF 25mm OVERLAP.
- THE WIRE MESH GUARDS MUST BE OF GALVANIZED STEEL 12mm SQUARE MESH, 19 GAUGE AND SUPPLIED IN 600mm ROLLS. THE WIRE MESH CAN BE FASTENED WITH ANY ACCEPTABLE GALVANIZED WIRE TIE. ALL SHRUBS AND CONIFEROUS TREES SHALL HAVE AN APPLICATION OF "SKOOT" OR APPROVED EQUIVALENT RODENT FORMULA, TO BE APPLIED AT THE END OF OCTOBER. FOLLOW MANUFACTURER'S DIRECTIONS FOR APPLICATION.

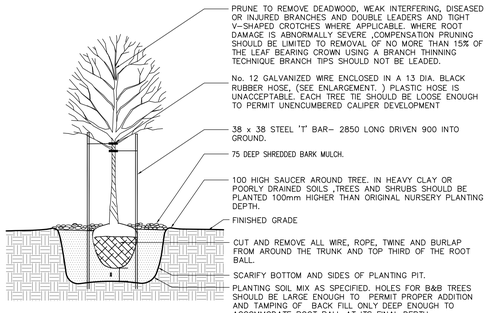
SODDING:

- PREPARE A MINIMUM 100mm DEPTH OF TOPSOIL WITH A 10–6–4 COMMERCIAL FERTILIZER AT 7.3Kg./100Sq.m. AND SUPER PHOSPHATE AT 5Kg./100Sq.m.. THE PROPORTIONS SPECIFIED ARE SUBJECT TO ADJUSTMENT DEPENDING ON TOPSOIL ANALYSIS REPORT.
- LAY No. 1 NURSERY SOD ON ALL AREAS OF THE PROJECT NOT COVERED BY BUILDINGS OR PAVING.
- IMMEDIATELY AFTER INSTALLATION, SOD MUST BE WATERED AND ROLLED.

1 L200 LANDSCAPE GENERAL NOTES

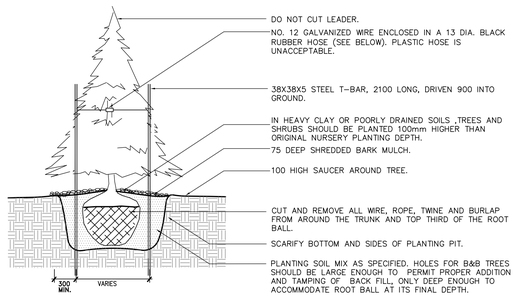
NOTE :
– DO NOT DAMAGE ROOT BALL WHEN INSTALLING STAKES.
– WATER THOROUGHLY AFTER INSTALLATION.
– WILTPROOF IN NURSERY BEFORE DELIVERY.

– SOIL DEPTH FOR PLANTING OVER SLAB SHALL BE AS FOLLOWS:
– DECIDUOUS TREE 1000 + 50 DRAINAGE COURSE.
– CONIFEROUS TREE 950 + 20 DRAINAGE COURSE.
– FLOWERING SHRUB 850 + 50 DRAINAGE COURSE.
– SHRUB 700 + 50 DRAINAGE COURSE.
– LAWN 400 + 50 DRAINAGE COURSE.



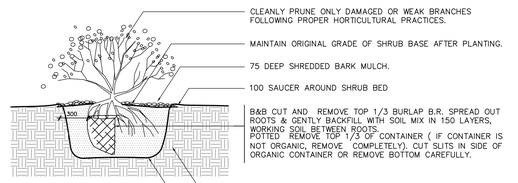
NOTE:
· DO NOT DAMAGE ROOT BALL WHEN INSTALLING STAKES.
· WATER THOROUGHLY AFTER INSTALLATION.
· WILTPROOF IN NURSERY BEFORE DELIVERY.

DECIDUOUS TREE PLANTING DETAIL



NOTE:
· DO NOT DAMAGE ROOT BALL WHEN INSTALLING STAKES.
· WATER THOROUGHLY AFTER INSTALLATION.

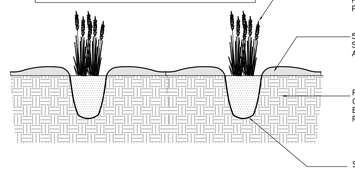
CONIFEROUS TREE PLANTING DETAIL



NOTE:
DO NOT ALLOW ANY PORTION OF CONTAINER TO REMAIN EXPOSED. WATER THOROUGHLY SUBSEQUENT TO INSTALLATION.

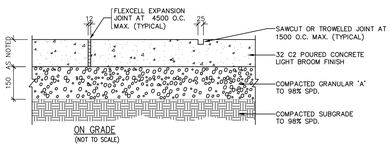
SHRUB PLANTING DETAIL

NOTES:
1. SEE SPECIFICATIONS FOR PLANTING SOIL REQUIREMENTS.
2. PROVIDE 100MM HIGH EARTH SAUCER AROUND SHRUB BED WITH 100MM WIDE SMOOTH BED EDGE TO RETAIN MULCH.
3. MINIMAL PERENNIAL POT SIZE IS 1 GALLON NURSERY STANDARD.
4. REMOVE PERENNIAL POT (INCL. FIBRE POT) AND SCARIFY ROOT BALL BEFORE PLANTING
5. ALL MEASUREMENTS ARE IN MILLIMETERS UNLESS STATED OTHERWISE



PERENNIAL PLANTING DETAIL

2 L200 PLANTING DETAILS



ON GRADE
(NOT TO SCALE)

NOTES:

TYPE 'C' LOADING:
CONCRETE TO BE 200mm THICK REINFORCED WITH 10M REBAR, 400 O/C BOTH WAYS. COMPACTED GRANULAR TO BE MIN 300mm THICK.

STANDARD PAVING
CONCRETE TO BE 125mm THICK.

REINFORCEMENT
FOR SIDEWALKS– NYLON SYNTHETIC FIBERS OR WELDED WIRE MESH 150X150 GRID.
FOR POOL DECK, PATIO, DRIVEWAY– 10M REBAR, 400mm O/C BOTH WAYS.

3 L200 CONCRETE PAVING

MAGLIN MAGLIN SITE FURNITURE INC.
VAUGHAN, ONTARIO
TEL: 888-716-5566
FAX: 877-268-9393

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TITLE: CLUSTER SEATING, 210, SURFACE MOUNT,PLASTIC, WCA
PART NO: MLPT210-S-RXX-WCA
SCALE: NTS | WEIGHT: 394.54LBS | REV: 2014-08-26

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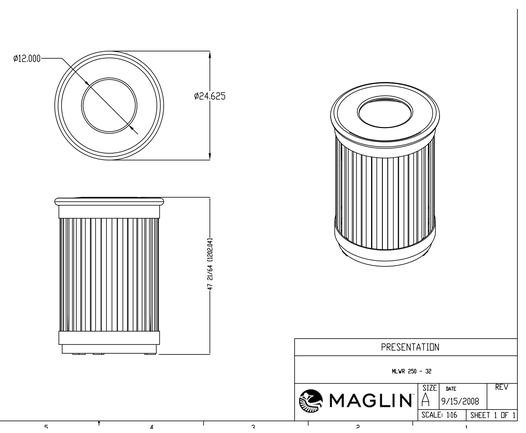
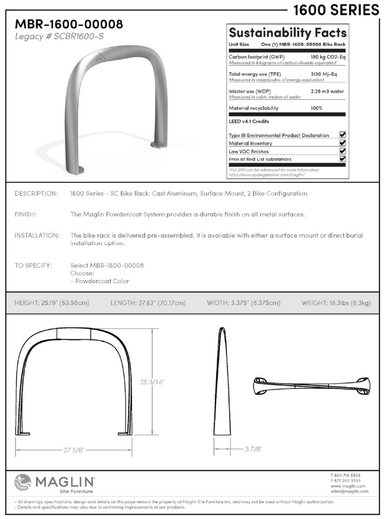
TITLE: LEGO BENCH, BACKLESS, HDPC SEAT
PART NO: MLBB72B-PCOO
SCALE: as fits | WEIGHT: 76.19LBS | DATE: 10/13/2016 | REV: M03



PRESENTATION
MLVR 250 – 32

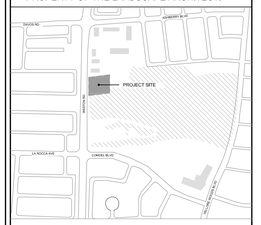
MAGLIN | SIZE A | DATE 9/15/2008 | REV
SCALE: 1:6 | SHEET 1 OF 1



4 L200 SITE FURNITURE

GENERAL NOTES

- VERIFY ALL DIMENSIONS.
- DO NOT SCALE DRAWINGS.
- REPORT ANY DISCREPANCIES, DISCOVERED ERRORS, OR OMISSIONS TO THE LANDSCAPE ARCHITECT BEFORE PROCEEDING.
- IT IS ADVISED THAT CONTRACTORS CONTACT THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION TO ENSURE THE USE OF THE LATEST REVISED DRAWINGS.
- DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF THE LANDSCAPE ARCHITECT.



No.	DATE.	REVISION.	BY.
1	SEPT 29, 2023	ISSUED FOR SPA (FOLLOWING PREVIOUS LANDSCAPE SUBMISSION BY OTHERS)	JB

It is the responsibility of the Contractor and/or Owner to ensure that the drawings with the latest revisions are used for construction.

SBK
5770 HURONTARIO STREET, SUITE 320
MISSISSAUGA, ONTARIO, L5R 3G5
T: 416.695.4949 F: 905.712.3101
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STRYBOS BARRON KING
LANDSCAPE ARCHITECTURE

PROJECT.
CITY OF VAUGHAN FIRE STATION 7-12
9511 WESTON ROAD, VAUGHAN

DRAWING TITLE.
LANDSCAPE DETAILS

SCALE.	PROJECT No. 23–5941
DATE. AUGUST 2023	
DRAWN BY. S.S.	DRAWING No. L200
CHECKED BY. J.B.	