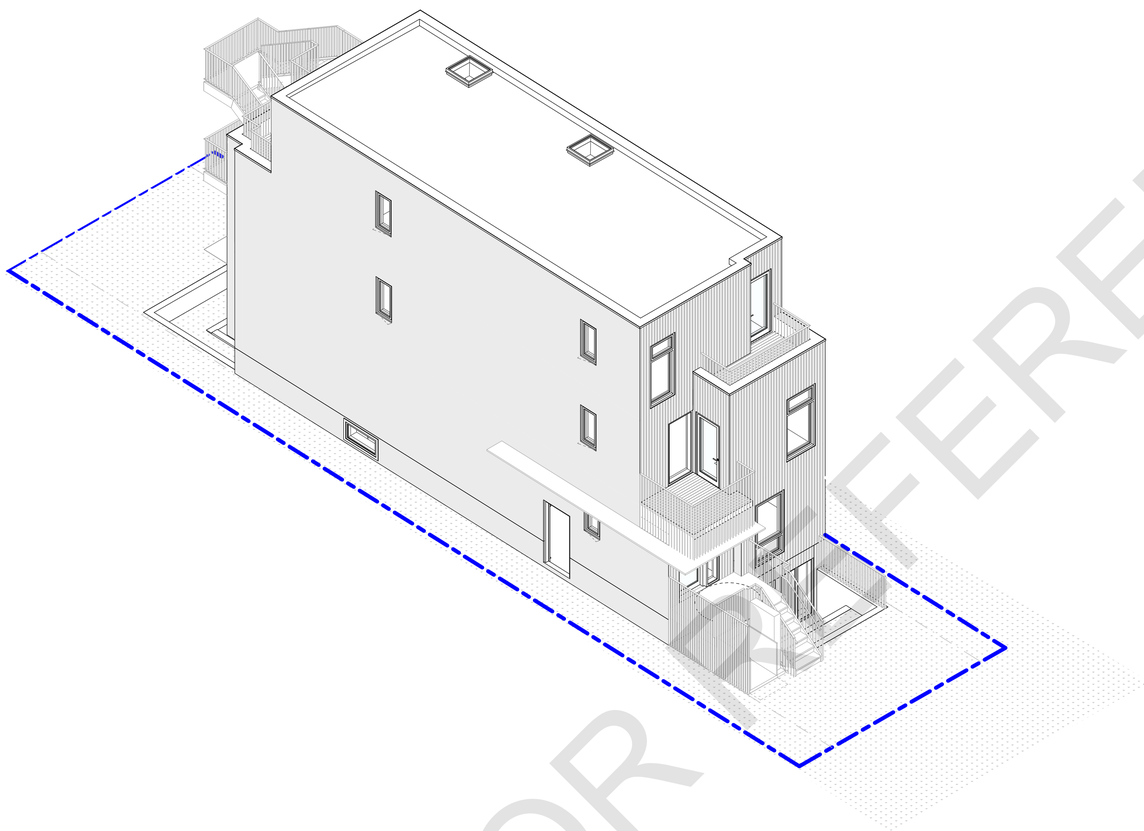
FOR REFERENCE

CITY OF TORONTO MULTIPLEX
FOURPLEX NARROW

TORONTO

CITY OF TORONTO MULTIPLEX
FOURPLEX NARROW



FOR REFERENCE ONLY

SHEET LIST - FOURPLEX NARROW

000	COVER
A000	COVER SHEET
A001	ASSEMBLIES SCHEDULE
A002	DOOR AND WINDOW SCHEDULE
A003	INTERIOR TYPICAL DETAILS
A004	EXTERIOR TYPICAL DETAILS
A005	EXTERIOR TYPICAL DETAILS
A006	EXTERIOR TYPICAL DETAILS
A010	EBF DIAGRAMS & CODE MATRIX
A011	SITE PLAN
A100	BASEMENT FLOOR PLAN
A101	MAIN FLOOR PLAN
A102	SECOND FLOOR PLAN
A103	THIRD FLOOR PLAN
A104	ROOF PLAN
A200	ELEVATIONS
A201	ELEVATIONS
A202	ELEVATIONS
A300	SECTIONS
A301	SECTION
A302	SECTIONS

ABBREVIATIONS

ABBREVIATIONS MAY OR MAY NOT INCLUDE PERIOD PUNCTUATION. ABBREVIATIONS APPLY TO ARCHITECTURAL DOCUMENTS ONLY.

AHJ	AUTHORITY HAVING JURISDICTION
ARCH	ARCHITECTURAL
B/O	BOTTOM OF
C/C	CENTRE TO CENTRE
CL	CENTER LINE
CIV	CIVIL
C/W	COMES WITH
CSA	CANADIAN STANDARDS ASSOCIATION
C/W	COMES WITH
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EBF	EXPOSED BUILDING FACE
EST	ESTABLISHED
ELEC	ELECTRICAL
ELEV	ELEVATION
EQ	EQUAL
FRM'G	FRAMING
GEOTECH	GEOTECHNICAL
GWB	GYPSUM WALL BOARD
GRD	GRADE
F/F	FINISH FLOOR
F/FE	FINISH FLOOR ELEVATION
FLR	FLOOR
FRR	FIRE RESISTANCE RATING
FD	FLOOR DRAIN
HR	HOUR
LP	LOW POINT
MAX	MAXIMUM
MECH	MECHANICAL
MIN	MINIMUM
N/A	NOT APPLICABLE
NC	NON-COMBUSTIBLE
NTS	NOT TO SCALE
OBC	ONTARIO BUILDING CODE
O/C	ON CENTRE
PARA	PARAPET
PRE-FIN	PREFINISHED
QDP	QUALIFIED DESIGN PROFESSIONAL
RM	ROOM
R/O	ROUGH OPENING
RWL	RAIN WATER LEADER
SCH	SCHEDULE
SF	SQUARE FEET
SIM	SIMILAR
SM	SQUARE METER
SPEC	SPECIFICATION
STC	SOUND TRANSMISSION CLASS
STRUC	STRUCURE
TBD	TO BE DETERMINED
T/O	TOP OF
T&G	TONGUE & GROOVE
TYP	TYPICAL
U/S	UNDERSIDE
W/C	WASHROOM
W/	WITH

ANNOTATION LEGEND

ASSEMBLY TAGS (REFER TO ASSEMBLIES SCHEDULES)

W# — EXTERIOR WALL TAG

P# — INTERIOR PARTITION TAG

R# — ROOF TAG

F# — FLOOR TAG

TAGS

D## — DOOR TAG
REFER TO DOOR SCHEDULE

W## ###/ ### AFF — WINDOW TAG
REFER TO WINDOW SCHEDULE

XYZ-# — MATERIAL TAG

— KEYNOTES
REFER TO SHEET SPECIFIC KEYNOTE SCHEDULE

DRAWING TAGS

1 A101 SIM — DETAIL NUMBER
DRAWING SHEET NUMBER

1 A101 SIM — BUILDING SECTION NUMBER
DRAWING SHEET NUMBER

1 A101 1 1 1 — EXTERIOR ELEVATION NUMBER
DRAWING SHEET NUMBER

0 — GRID BUBBLE

SPOT ELEVATION
(ABOVE FINISH FLOOR)

ROOM — ROOM TAG

℄ — CENTRELINE

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QDP MUST REVIEW AND UPDATE THE DESIGN ELEMENTS COLOURED IN BLUE TO CONFIRM SITE-SPECIFIC CONDITIONS AND VERIFY ASSUMPTIONS. THE QDP MUST ENSURE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS. IF ANY MODIFICATIONS TO ANY PORTION OF THE DESIGN OTHER THAN THE BLUE-HIGHLIGHTED ELEMENTS ARE MADE, THE PLANS WILL NO LONGER QUALIFY AS PRE-APPROVED, AND APPLICANTS WILL BE REQUIRED TO SUBMIT A BUILDING PERMIT APPLICATION THROUGH THE STANDARD REVIEW PROCESS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

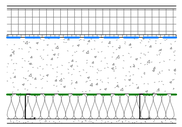
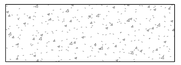
FOURPLEX NARROW

SHEET TITLE:
COVER SHEET

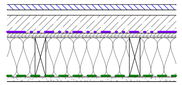
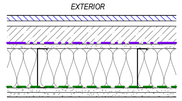
PROJECT NO: 241058
SCALE: 1 : 50

SHEET NO:
A000

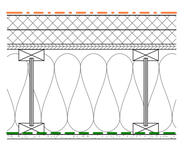
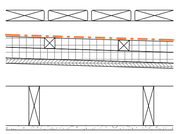
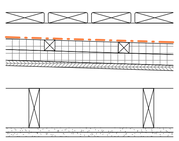
N - FOUNDATION WALL ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
N1		**CONCRETE FOUNDATION WALL, PERIMETER** 9mm CEMENT BOARD (EXTEND 18"/455mm BELOW GRADE), PARGED 4"/102mm EXTRUDED POLYSTYRENE (R-20.0) HIGH DENSITY 3/8"/10mm DRAINAGE BOARD VAR FOUNDATION WATERPROOFING MEMBRANE VAR CONCRETE FOUNDATION WALL. REFER TO STRUC VAR VAPOUR CONTROL BARRIER 1/2"/13mm AIR CAVITY 3 1/2"/89mm METAL STUD FRAMING @ 400mm O/C C/W 3 1/2"/89mm INSULATION (AS REQ.) 5/8"/16mm GYPSUM BOARD	R-VALUE: R-20.0 CI FRR: 1HR SEE TYPICAL DETAILS FOR ABOVE GRADE WALL ASSEMBLY FRR BASED ON SB-2 Table 2.1.1 WITH A MINIMUM CONCRETE THICKNESS OF 90mm
N2		**CONCRETE FOUNDATION RETAINING WALL, WINDOW WELL AND WALKOUT** VAR CONCRETE FOUNDATION WALL. REFER TO STRUC	

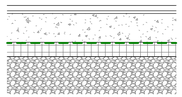
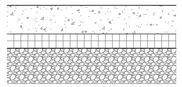
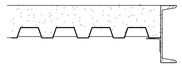
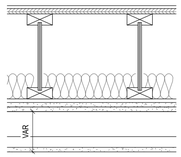
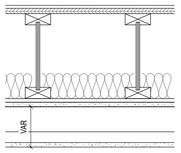
W - EXTERIOR WALL ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
W1		**EXTERIOR ENVELOPE WALL - COMBUSTIBLE** VAR LIGHT-WEIGHT CLADDING (SEE ELEV. FOR TYPE) 1/2"/13mm VENTED CAVITY W/ METAL Z-GIRTS @ 406mm O/C 2 1/2"/64mm SEMI-RIGID MINERAL WOOL (R-10.0) VAR AIR BARRIER, VAPOUR PERMEABLE 5/8"/16mm PLYWOOD SHEATHING, REFER TO STRUC 5 1/2"/140mm WOOD STUD FRAMING, 16"/406mm O/C REFER TO STRUC, C/W 5 1/2"/140mm STUD CAVITY IN-FILL INSULATION (R-24.0) VAR VAPOUR CONTROL BARRIER 5/8"/16mm GYPSUM BOARD, TYPE X	R-VALUE: R-10.0 CI + R-22.0 (R-32.0) FRR: 1HR REQUIRED FIRE RESISTANCE RATING, TYPE OF CONSTRUCTION, AND CLADDING TYPE PER SITE CONDITIONS - SEE OBC 9.10.14.4 AND 9.10.14.5 FRR BASED ON SB-2 Table 2.3.4.A and 2.3.4.E
W2		**EXTERIOR ENVELOPE WALL - RATED NON-COMBUSTIBLE** VAR NON-COMBUSTIBLE LIGHT-WEIGHT CLADDING (SEE ELEV. FOR TYPE) 1/2"/13mm VENTED CAVITY W/ METAL Z-GIRTS @ 406mm O/C 2 1/2"/64mm SEMI-RIGID MINERAL WOOL (R-10.0) VAR AIR BARRIER, VAPOUR PERMEABLE 5/8"/16mm NON-COMBUSTIBLE EXTERIOR SHEATHING 6"/152mm METAL STUD FRAMING, 16"/406 O/C REFER TO STRUC, C/W 6"/152mm NON-COMBUSTIBLE STUD CAVITY IN-FILL INSULATION (R-24.0) VAR VAPOUR CONTROL BARRIER 1/2"/13mm GYPSUM BOARD, TYPE X 1/2"/13mm GYPSUM BOARD, TYPE X	R-VALUE: R-10.0 CI + R-22.0 (R-32.0) FRR: 1HR REQUIRED FIRE RESISTANCE RATING, TYPE OF CONSTRUCTION, AND CLADDING TYPE PER SITE CONDITIONS - SEE OBC 9.10.14.4 AND 9.10.14.5 FRR BASED ON SB-2 Table 2.3.4.A and 2.3.4.E

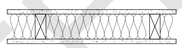
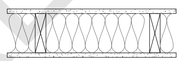
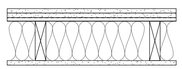
R - ROOF ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
R1		**MODIFIED BITUMINOUS MEMBRANE ROOFING,** VAR ROOFING MEMBRANE - 2 PLY MODIFIED BITUMEN ROOF C/W COVER BOARD (AS REQ.) 2"/51mm POLYISOCYANURATE INSULATION BOARD (R-11.1) 2"/51mm POLYISOCYANURATE INSULATION BOARD (R-11.1) 3/4"/19mm PLYWOOD ROOF DECK SHEATHING, TONGUE AND GROOVE - REFER TO STRUC 11 7/8"/302mm SLOPED WOOD I-JOISTS,REFER TO STRUC. 11"/279mm STUD CAVITY IN-FILL INSULATION (R-43.5) VAR VAPOUR CONTROL BARRIER 5/8"/16mm GYPSUM BOARD, TYPE X	R-VALUE: R-22.2 CI + R-43.5 ROOFING MEMBRANE TO MEET MINIMUM SOLAR REFLECTIVE INDEX (SRI) OF >78.
R2		**ROOF DECK, RATED** 1 1/2"/38mm WOOD DECKING VAR PRESSURE TREATED CANTED WOOD SLEEPERS PERPENDICULAR TO DIRECTION OF SLOPE C/W RUBBER UNDERLAY VAR MODIFIED BITUMINOUS MEMBRANE ROOFING 2"/51mm POLYISOCYANURATE INSULATION BOARD (R-11.1) 2"/51mm POLYISOCYANURATE INSULATION BOARD (R-11.1) 5/8"/16mm EXTERIOR GRADE PLYWOOD VAR CANTED WOOD SLEEPERS, MIN 2% SLOPE VAR ENGINEERED WOOD JOIST OR I-JOIST REFER TO STRUC C/W 4"/102mm SPRAY FOAM (R28.0) 1/2"/13mm RESILIENT FURRING CHANNELS @ 24"/610mm O/C 5/8"/16mm GYPSUM BOARD, TYPE X	R-VALUE: R-18.4 CI + R-28.0 FRR: 3/4 HR FRR BASED ON SB-2 TABLE 2.3.4.B. AND 2.3.4.F. REFER TO DETAILS TO AROUND DRAINING THROUGH PARAPET WALL
R3		**ROOF DECK, RATED SEPARATION** 1 1/2"/38mm WOOD DECKING VAR PRESSURE TREATED CANTED WOOD SLEEPERS PERPENDICULAR TO DIRECTION OF SLOPE C/W RUBBER UNDRELAY VAR MODIFIED BITUMINOUS MEMBRANE ROOFING 1 1/2"/38mm POLYISOCYANURATE INSULATION BOARD (R-9.3) 2"/51mm POLYISOCYANURATE INSULATION BOARD (R-9.3) 5/8"/16mm EXTERIOR GRADE PLYWOOD VAR CANTED WOOD SLEEPERS, MIN 2% SLOPE VAR ENGINEERED WOOD JOIST OR I-JOIST REFER TO STRUC C/W 4"/102mm SPRAY FOAM (R28.0) 1/2"/13mm RESILIENT FURRING CHANNELS @ 24"/610mm O/C 5/8"/16mm GYPSUM BOARD, TYPE X 5/8"/16mm GYPSUM BOARD, TYPE X	R-VALUE: R-18.4 CI + R-28.0 FRR: 1HR FRR BASED ON SB-2 TABLE 2.3.4.B AND 2.3.4.F. REFER TO DETAILS TO AROUND DRAINING THROUGH PARAPET WALL

F - FLOOR ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
F1		**BASEMENT FLOOR SLAB ON GRADE** 3/4"/19mm FLOOR FINISH 3/8"/10mm RUBBER UNDERLAY VAR CAST-IN-PLACE CONCRETE SLAB-ON-GRADE, REFER TO STRUC 2"/51mm XPS RIGID INSULATION (R-10.0) VAR VAPOUR CONTROL /DAMPROFFING LAYER 8"/200mm FREE-DRAINING GRANULAR BASE	R-VALUE: R-10 DAMPPROOFING LAYER PER 9.13.2.6(1) MIN 0.15mm THICK WITH JOINTS LAPPED NOT LESS THAN 100mm
F2		**EXTERIOR WALK-OUT SLAB ON GRADE** VAR CAST IN PLACE CONCRETE SLAB-ON-GRADE, REFER TO STRUC 2"/51mm XPS RIGID INSULATION (R-10.0) 8"/200mm FREE DRAINING GRANULAR BASE	R-VALUE: R-10 SLAB SLOPED TO FLOOR DRAIN
F3		**PORCH STEEL DECK WITH CONCRETE TOPPING** 3"/76mm CONCRETE TOPPING, REFER TO STRUCTRUAL 1 1/2" 38mm METAL DECK, REFER TO STRUC C/W STEEL FRAME, REFER TO STRUC	
F4		**WOOD FRAMED FLOOR, RATED SEPARATION** 3/4"/19mm FLOOR FINISH 3/8"/10mm RUBBER UNDERLAY 3/4"/19mm T&G PLYWOOD SUBFLOOR, SCREWED & GLUED VAR ENGINEERED WOOD JOIST OR I-JOIST REFER TO STRUC 6"/152mm ACOUSTIC BATT IN-FILL INSULATION 1/2"/13mm RESILIENT FURRING CHANNELS @ 610mm O/C 5/8"/16mm GYPSUM BOARD, TYPE X 5/8"/16mm GYPSUM BOARD, TYPE X VAR WOOD FRAME/DLIGHT GAUGE STEEL WITH GYPSUM BOARD BULKHEAD/SUSPENDED CEILING AT MECH DUCTS, REFER TO MECHANICAL FOR LOCATIONS	FRR: 1HR STC: 54 IIC: 48 ALL PERMITTED OPENINGS IN CEILING MEMBRANES TO CONFORM TO OBC 9.10.5.1 BASED ON F9d IN SB-3
F5		**WOOD FRAMED FLOOR, RATED** 3/4"/19mm FLOOR FINISH 3/8"/10mm RUBBER UNDERLAY 3/4"/19mm T&G PLYWOOD SUBFLOOR, SCREWED & GLUED VAR ENGINEERED WOOD JOIST OR I-JOIST REFER TO STRUC 6"/152mm ACOUSTIC BATT IN-FILL INSULATION 1/2"/13mm RESILIENT FURRING CHANNELS @ 610mm O/C 5/8"/16mm GYPSUM BOARD, TYPE X VAR WOOD FRAMED WITH GYPSUM BOARD BULKHEAD/SUSPENDED CEILING AT MECH DUCTS, REFER TO MECHANICAL FOR LOCATIONS	FRR: 3/4HR STC: N/A IIC: N/A ALL PERMITTED OPENINGS IN CEILING MEMBRANES TO CONFORM TO OBC 9.10.5.1 MIN FRR OF 3/4HR PER 9.10.8.1 BASED ON SB-2 Table 2.3.4.B. and 2.3.4.F

P - INTERIOR PARTITION ASSEMBLIES

TYPE	DIAGRAM	DESCRIPTION	PERFORMANCE
P1		**2x4 INTERIOR PARTITION** 5/8"/16mm GYPSUM BOARD 3 1/2"/89mm WOOD STUD FRAMING @ 16"/406mm O/C 5/8"/16mm GYPSUM BOARD	FRR: N/A STC: N/A 16mm/ 5/8" GYPSUM, TYPE X TO BE USED SUPPORTING STRUCTURE TO PROVIDE 1HR FRR. - FRR BASED ON SB-2 TABLE 2.3.4.A. AND 2.3.4.E. - SEE DRAWINGS FOR LOCATIONS
P1a		**2x4 INTERIOR PARTITION W/ BATTS** 5/8"/16mm GYPSUM BOARD 3 1/2"/89mm WOOD STUD FRAMING @ 16"/406mm O/C C/W 3 1/2"/89mm ACOUSTIC BATT IN-FILL INSULATION 5/8"/16mm GYPSUM BOARD	FRR: N/A STC: 36 16mm/ 5/8" GYPSUM, TYPE X TO BE USED SUPPORTING STRUCTURE TO PROVIDE 1HR FRR. - FRR BASED ON SB-2 TABLE 2.3.4.A. AND 2.3.4.E. - SEE DRAWINGS FOR LOCATIONS
P1b		**2x6 INTERIOR PARTITION W/ BATTS** 5/8"/16mm GYPSUM BOARD 5 1/2"/140mm WOOD STUD FRAMING @ 16"/406mm O/C C/W 5 1/2"/140mm ACOUSTIC BATT IN-FILL INSULATION 5/8"/16mm GYPSUM BOARD	FRR: N/A STC: 36 16mm/ 5/8" GYPSUM, TYPE X TO BE USED SUPPORTING STRUCTURE TO PROVIDE 1HR FRR. - FRR BASED ON SB-2 TABLE 2.3.4.A. AND 2.3.4.E. - SEE DRAWINGS FOR LOCATIONS
P2		**2x6 INTERIOR PARTITION - BETWEEN UNIT & STAIRS, RATED SEPARATION** 5/8"/16mm GYPSUM BOARD, TYPE X 5/8"/16mm GYPSUM BOARD, TYPE X 1/2"/13mm RESILIENT FURRING CHANNELS @ 16"/406mm O/C 5 1/2"/140mm WOOD STUD FRAMING REFER TO STRUC 5 1/2"/140mm ACOUSTIC BATT IN-FILL INSULATION 5/8"/16mm GYPSUM BOARD, TYPE X	FRR: 1HR STC: 51 FRR & STC BASED ON 'W4a' AS PER OBC SB-3 PROVIDE PLYWOOD SHEATHING ON ONE FACE WHERE REQ. - SEE STRUCT. FOR LOCATIONS
P3		**PLUMBING CHASE** 5/8"/16mm GYPSUM BOARD OR TILE BACKER 1/2"/13mm PLYWOOD SHEATHING, WHERE REQ. 3 1/2"/89mm WOOD STUD FRAMING @ 16"/406mm O/C	FRR: N/A STC: N/A

ASSEMBLIES GENERAL NOTES

1. REFER TO STRUC DRAWINGS AND DOCUMENTATION FOR STRUC DESIGN PARAMETERS INCLUDING LOAD-BEARING WALLS, POSTS, STAIRS, CONCRETE ETC.
2. ALL LOADBEARING WALLS SUPPORTING A RATED FLOOR ASSEMBLY SHALL HAVE A FIRE RESISTANCE RATING NOT LESS THAN THE SUPPORTED FLOOR ABOVE AS PER OBC 9.10.8.3.
3. THE DESCRIPTION OF THE ASSEMBLIES NOTED IN THE DRAWINGS ARE NOTED "AS BASIS OF DESIGN" AND MAY NOT REPRESENT THE FULL CRITERIA AS DEFINED BY THE TESTING AUTHORITIES.
4. FOR ALL ASSEMBLIES BASED ON AN ASSEMBLY FOUND IN MMAH SUPPLEMENTARY STANDARD SB-3, FOOTNOTES FOR EACH ASSEMBLY TYPE MUST BE CONSULTED FOR SPECIFIC REQUIREMENTS TO OBTAIN VALUES NOTED.
5. ALL WALL AND FLOOR ASSEMBLIES REQUIRED TO BE A FIRE SEPARATION SHALL BE CONSTRUCTED AS A CONTINUOUS BARRIER AGAINST THE SPREAD OF FIRE AND SMOKE AS PER OBC 9.10.9.2. REFER TO FIRE SEPARATION DRAWINGS FOR REQUIRED FIRE SEPARATION RATINGS.
6. UNLESS OTHERWISE NOTED, ALL RATED PARTITIONS (INCLUDING BUT NOT LIMITED TO ALL COMPONENTS THAT MAKE UP THE PARTITION) AND FURRING ASSEMBLIES ARE TO EXTEND FROM STRUC DECK/SLAB TO U/S OF STRUC DECK/SLAB ABOVE.
7. PROVIDE ULC-LISTED FIRE STOPPING SEALANT AT ALL RATED PARTITIONS AS REQUIRED.
8. ALL PENETRATIONS THROUGH A REQUIRED FIRE SEPARATION TO BE FIRESTOPPED AND/OR SEALED PER THE REQUIREMENTS OF OBC 9.10.9.6.
9. ALL PIPING PENETRATIONS THROUGH A RATED ASSEMBLY OR A MEMBRANE THAT FORMS PART OF A RATED ASSEMBLY TO CONFORM TO OBC 9.10.9.7.
10. ALL OPENINGS FOR ELECTRICAL OR SIMILAR OUTLET BOXES IN RATED ASSEMBLIES TO CONFORM TO OBC 9.10.9.8.
11. PROVIDE ULC-LISTED FIRESTOP SYSTEMS AS REQUIRED FOR ALL BUILDING SERVICE PENETRATIONS THROUGH RATED ASSEMBLIES AND TO ENSURE THE CONTINUITY OF RATED ASSEMBLIES. COORDINATE WITH MECHANICAL AND ELECTRICAL DESIGN DRAWINGS.
12. AS PER 9.10.5.1 (3), DRYWALL FORMING PART OF A RATED ASSEMBLY IS PERMITTED TO BE PIERCED BY AN OPENING LEADING TO DUCTS WITHIN THE CEILING SPACE PROVIDED THE DUCTS, THE AMOUNT OF OPENINGS, AND THEIR PROTECTION CONFORM TO SENTENCE 9.10.13.14 (1) AND THE REQUIREMENTS IN MMAH SUPPLEMENTARY STANDARD SB-2 "FIRE AND PERFORMANCE RATINGS".
13. FIRE SEPARATIONS THAT SEPARATE AN EXIT FROM THE REMAINDER OF THE BUILDING SHALL HAVE NO OPENINGS OR PENETRATIONS AS PER OBC 9.9.4.2.
14. PROVIDE CONTINUOUS ACOUSTICAL SEALANT (BOTH SIDES) AT TOP AND BOTTOM OF ALL INTERIOR STUD AND GYPSUM BOARD PARTITIONS.
15. ISOLATE ALL MECHANICAL PIPES, DUCTS, AND EQUIPMENT FROM INTERIOR PARTITIONS TO AVOID ACOUSTIC NOISE TRANSFER.
16. RECESSED LIGHTING FIXTURES SHALL NOT BE LOCATED IN INSULATED CEILINGS UNLESS THE FIXTURES ARE DESIGNED FOR SUCH INSTALLATIONS AS PER OBC 9.34.1.4
17. COORDINATE ACCESS PANELS LOCATED WITHIN SUSPENDED GYPSUM BOARD CEILING ASSEMBLIES. ACCESS PANELS TO BE PAINTED OUT TO MATCH THE SURROUNDING CEILING FINISH. PROVIDE ULC-LISTED ACCESS PANEL WHERE PANEL IS LOCATED IN A RATED CEILING. REFER ALSO TO FIRE SEPARATION DRAWINGS.
18. COORDINATE VERTICAL SERVICE SPACES THAT DO NOT EXTEND THROUGH THE ROOF AND/OR DO NOT TERMINATE AT HORIZONTAL FIRE RATED ASSEMBLY (ROOF, FLOOR, ETC.), TO BE ENCLOSED AT THE TOP AND/OR BOTTOM WITH A ULC CONSTRUCTION ASSEMBLY HAVING A FIRE RESISTANCE RATING NOT LESS THAN THAT REQUIRED FOR THE VERTICAL SERVICE SPACE WALLS.
19. PROVIDE ALL PLUMBING CHASES AND MECHANICAL SHAFTS IN ADDITION TO ASSEMBLIES. COORDINATE REQUIRED CRITICAL DIMENSIONS WHEN LAYING OUT WALLS.
20. UNLESS NOTED OTHERWISE, ASSEMBLIES ABOVE OR BELOW DOORS, WINDOWS, EXTERIOR OPENINGS AND INTERIOR SCREENS ARE TO BE THE SAME AS THE TYPE DENOTED ON EITHER SIDE. SEE TYPICAL DETAILS.
21. ALL INTERIOR SURFACES ARE REQUIRED TO MEET THE FLAME SPREAD LIMITS DESCRIBED IN OBC 9.10.17.
22. PROVIDE TILE BACKER IN LIEU OF GYPSUM BOARD AT ALL ASSEMBLIES TO RECEIVE TILE FINISHES, REFER TO PLANS. ENSURE TILE BACKER IS TYPE X GYPSUM AT REQUIRED FIRE RESISTANCE RATED ASSEMBLIES. ALL WATERPROOF WALL FINISHES TO MEET MIN. HEIGHT REQ. AS PER OBC 9.29.2. ALL TILED WALLS AS PER OBC 9.29.10.
23. IN AREAS WITH HIGH VAPOUR CONTENT (INCLUDING BUT NOT LIMITED TO BATHROOMS) PROVIDE MOISTURE AND MOULD-RESISTANT GYPSUM BOARD IN LIEU OF REGULAR GYPSUM BOARD. ENSURE THAT THE MOISTURE AND MOULD-RESISTANT GYPSUM BOARD MEETS ALL THE FIRE AND ACOUSTIC RATINGS REFERENCED IN THE ASSEMBLY SCHEDULE.
24. PROVIDE 19mm FIRE RATED PLYWOOD BLOCKING AND STUD REINFORCING IN WALLS FOR INSTALLATION OF ALL ELEMENTS NEEDING BLOCKING/REINFORCEMENT, INCLUDING BUT NOT LIMITED TO ALL FIXTURES, PLUMBING ACCESSORIES, MILLWORK, EQUIPMENT, ELECTRIC PANELS, ETC. DESIGN/BUILD ALL BLOCKING AND STUD REINFORCING AS REQUIRED.
25. ENSURE ADEQUATE BLOCKING/STUD WALL REINFORCEMENT FOR FUTURE GRAB BARS AS PER OBC 9.5.2.4. GRAB BARS SHALL BE CAPABLE OF RESISTING A LOAD OF NO LESS THAN 1.3kN AS PER OBC 9.31.2.3.
26. WHERE FLOOR DRAINS ARE LOCATED IN A ROOM, COORDINATE SLOPING ENTIRE FLOOR TOWARD THE DRAIN. THERE WILL BE NO FLAT FLOOR SURFACE IN THE ROOM WITH A REQUIRED FLOOR DRAIN WHERE WATER CAN PUDDLE. FLOOR TO SLOPE A MINIMUM OF 2% . REFER TO THE MECHANICAL DOCUMENTS TO DETERMINE WHICH ROOMS HAVE FLOOR DRAINS. REPAIR ANY FLOORS THAT PUDDLE WATER AND/ OR DO NOT DIRECT WATER TO THE PROPER FLOOR DRAIN.
27. FULLY COORDINATE MINIMUM STUD SPACE AND ALL ADDITIONAL SUPPORT REQUIRED FOR SUPPORT AND ANCHORAGE OF MECHANICAL EQUIPMENT OR DUCTS AND ELECTRICAL FIXTURES AS NOTED ON ARCHITECTURAL AND ENGINEERING DRAWINGS.
28. ALL ASSEMBLIES IN CONTACT WITH THE GROUND SHALL BE CONSTRUCTED TO RESIST THE LEAKAGE OF SOIL GAS FROM THE GROUND INTO THE BUILDING IN ACCORDANCE WITH OBC 9.13.4.2. IN AREAS OF THE PROVINCE WHERE RADON GASES ARE KNOWN TO BE A PROBLEM, THE BUILDING SHALL BE DESIGNED AND CONSTRUCTED TO MEET THE RADON LIMITATIONS IN ARTICLE 9.1.1.7. BUILDINGS CONTAINING RESIDENTIAL OCCUPANCIES SHALL BE PROVIDED WITH THE ROUGH IN FOR A RADON EXTRACTION SYSTEM CONFORMING TO ARTICLE 9.13.4.3 (SEE ALSO NOTE A-9.13.4.3)
29. ALL MEMBRANES OR MATERIALS THAT MAKE UP THE AIR BARRIER SYSTEM IN AN ASSEMBLY TO BE CONTINUOUS AT TRANSITIONS AND PENETRATIONS. ALL FLEXIBLE SHEET MATERIAL SHALL BE LAPPED A MIN. OF 100MM AND ALL JOINTS SEALED TO MAINTAIN CONTINUITY AS PER OBC 9.25.3.3.
30. ALL THERMAL VALUES DESCRIBED IN ASSEMBLIES ARE MINIMUMS BASED ON OBC **SB-12 TABLE 3.1.1.2.C** COMPLIANCE PACKAGE '**ELECTRIC SPACE HEATING**'. QDP TO VARIFY WITH ALL SB-12 PRESCRIPTIVE REQUIREMENTS.
31. THE BASIS OF DESIGN DOES NOT INCLUDE ANY AIRTIGHTNESS SUBSTITUTIONS PERMITTED BY SB-12 3.1.1.4.

MEMBRANE LEGEND

- AIR BARRIER, VAPOUR PERMEABLE
- TRANSITION MEMBRANE
- MODIFIED BITUMINOUS MEMBRANE ROOFING
- VAPOUR CONTROL BARRIER
- FOUNDATION WATER PROOFING
- PRE-FIN METAL FLASHING

INSULATION LEGEND

- SEMI-RIGID MINERAL WOOL
- POLYISOCYANURATE RIGID INSULATION
- EXTRUDED POLYSTYRENE
- STUD CAVITY IN-FILL INSULATION
- SPRAY FOAM

TORONTO

PROFESSIONAL SEAL:

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3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

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2. THE QDP MUST REVIEW AND UPDATE THE DESIGN ELEMENTS COLOURED IN BLUE TO CONFIRM SITE-SPECIFIC CONDITIONS AND VERIFY ASSUMPTIONS. THE QDP MUST ENSURE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS. IF ANY MODIFICATIONS TO ANY PORTION OF THE DESIGN OTHER THAN THE BLUE-HIGHLIGHTED ELEMENTS ARE MADE, THE PLANS WILL NO LONGER QUALIFY AS PRE-APPROVED, AND APPLICANTS WILL BE REQUIRED TO SUBMIT A BUILDING PERMIT APPLICATION THROUGH THE STANDARD REVIEW PROCESS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

DISCLAIMER (WALL ASSEMBLIES):

1. ALL THERMAL VALUES DESCRIBED IN THE ASSEMBLIES SHEET USE THE MOST RESTRICTIVE SB-12 PRESCRIPTIVE REQUIREMENTS (SB-12 TABLE 3.1.2.C – "ELECTRIC SPACE HEATING") AS THE BASIS OF DESIGN. THESE VALUES MAY NOT BE REQUIRED FOR ALL COMPLIANCE PACKAGES AND ARE DEPENDENT ON THE HEATING SYSTEM AND PROJECT SPECIFICATIONS. THE QUALIFIED DESIGN PROFESSIONAL IS RESPONSIBLE FOR VALIDATING THE BASIS OF DESIGN AND COMPLETING THE CITY OF TORONTO'S ENERGY EFFICIENCY DESIGN SUMMARY: PRESCRIPTIVE METHOD FORM AS PART OF A COMPLETE PERMIT SUBMISSION.
2. QDP RESPONSIBLE TO COMPLETE ENERGY EFFICIENCY DESIGN SUMMARY AND TO ENSURE WALL, FLOOR, AND ROOF ASSEMBLIES ACHIEVE THE REQUIRED R-VALUE.

NON-COMBUSTIBLE WALL TYPE AND TYPICAL SIDE WALL DETAILING – ASSUMED THAT LOT CONDITIONS REQUIRE A NON-COMBUSTIBLE WALL ASSEMBLY. WHERE PERMITTED (OBC 9.10.14.5), THIS WALL TYPE MAY BE CHANGED TO A MORE TYPICAL WOOD FRAME CONSTRUCTION.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

ASSEMBLIES SCHEDULE

PROJECT NO: 241058

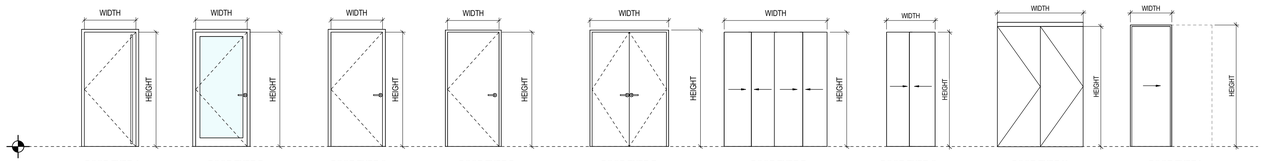
SCALE: As indicated

SHEET NO:

A001

FOR REFERENCE ONLY

DOOR TYPES



DOOR TYPE A EXTERIOR ENTRY DOOR

DOOR TYPE B EXTERIOR GLASS PANEL

DOOR TYPE C EXTERIOR SOLID PANEL

DOOR TYPE D INTERIOR SOLID PANEL

DOOR TYPE E INTERIOR SOLID BI-PANEL

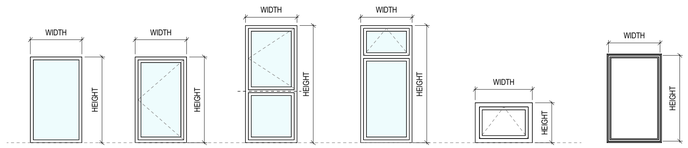
DOOR TYPE F INTERIOR QUADPANEL SLIDING DOOR

DOOR TYPE G INTERIOR BIPANEL SLIDING DOOR

DOOR TYPE H INTERIOR PIVOT HINGE DOOR

DOOR TYPE I INTERIOR SOLID PANEL POCKET DOOR

WINDOW TYPES



WINDOW TYPE A 'FIXED'

WINDOW TYPE B 'CASEMENT

WINDOW TYPE C 'CASEMENT TOP W/ BOTTOM FIXED'

WINDOW TYPE D 'AWNING TOP W/ BOTTOM FIXED'

WINDOW TYPE E 'AWNING'

SKYLIGHT TYPE A 'FIXED'

DOOR, WINDOW & SKYLIGHT GENERAL NOTES

1. WINDOWS AND DOORS TO CONFORM TO REQUIREMENTS OF OBC 9.7.3 AND 9.7.4.
2. ALL GLAZING TO MEET A MINIMUM U-VALUE OF 0.21 UNLESS OTHERWISE STATED IN SELECTED SB-12 COMPLIANCE PACKAGE.
3. MAXIMUM U-VALUE FOR WINDOWS AND DOORS TO CONFORM TO OBC TABLE 9.7.3.3 AND MMAH SUPPLEMENTARY STANDARD SB-12, 3.1.1.9 AND 3.1.1.10. WHERE THE U-VALUES DIFFER, THE MOST RESTRICTIVE U-VALUE SHALL APPLY.
4. ALL EXTERIOR DOORS SHALL HAVE A MINIMUM THERMAL RESISTANCE OF RSI 0.7 AND SHALL HAVE AN INSULATED CORE AND BE INSTALLED WITH WEATHERSTRIPPING AS PER SB-12 3.1.1.10.
5. FILL HOLLOW EXTERIOR DOOR FRAMES AND SPACE BETWEEN FRAMES AND ADJACENT MATERIALS WITH SPRAY FOAM INSULATION TO FULLY SEAL AGAINST ALL AIR INFILTRATION. PROVIDE BACKER ROD WHERE REQUIRED AND PROVIDE CONTINUOUS SEALANT AROUND FRAME TO PROVIDE AIR AND WATER TIGHT BARRIER.
6. ALL OPERABLE WINDOWS WITH A SILL HEIGHT OR OPERABLE SECTION LESS THAN 900mm ABOVE FINISHED FLOOR AND 1800mm ABOVE THE FLOOR OR GROUND ON THE OTHER SIDE OF THE WINDOW SHALL BE PROTECTED BY A SWING LIMITER RESTRICTING THE SWING TO NOT MORE THAN 100mm EITHER VERTICALLY OR HORIZONTALLY PER OBC 9.8.8.1. SEE ELEVATIONS FOR SILL HEIGHTS.
7. ALL GLASS TO MEET OBC 9.6.1.2. MATERIAL STANDARDS AND STRUCTURAL SUFFICIENCY REQUIREMENTS OF OBC 9.6.1.3.
8. ALL SIDELIGHTS OR GLAZING AT ENTRIES TO DWELLING UNITS TO BE TEMPERED OR LAMINATED PER 9.6.1.4.
9. ALL PRINCIPAL ENTRANCE DOORS, EXIT DOORS OR DOORS TO SUITES INCLUDING EXTERIOR DOORS TO DWELLING UNITS SHALL BE OPENABLE FROM THE INSIDE WITHOUT KEYS AND DOOR RELEASE HARDWARE; SHALL BE GRASPABLE WITH ONE HAND; AND INSTALLED AT 900mm ABOVE FINISHED FLOOR AS PER OBC 9.9.6.7.
10. ALL DOORS WITHOUT GLAZING OR SIDELIGHT SHALL HAVE A DOOR VIEWER AS PER OBC 9.7.2.1.
11. STEEL DOOR FRAMES FORMING PART OF A CLOSURE IN A FIRE SEPARATION SHALL CONFORM TO OBC 9.10.13.6.
12. ALL DOORS IN A FIRE SEPARATION SHALL HAVE LATCH AS PER OBC 9.10.13.9 AND A SELF CLOSING DEVICE AS PER OBC 9.10.13.10.
13. ALL SKYLIGHTS TO BE SIZED AND INSTALLED PER MANUFACTURES REQUIREMENTS.
14. ALL INTERIOR DOORS TO BE SOLID CORE WOOD DOORS WITH FINISH GRADE TRIM.
15. ALL GAZING TO HAVE TO HAVE BIRD FRIENDLY GLAZING AS PER TORONTO GREEN STANDARD VERSION 4.0

DOOR SCHEDULE (FOURPLEX NARROW)

TAG	TYPE	METRIC SIZE (mm)		IMPERIAL SIZE (FT'-IN")		FIRE RATING	NOTES
		WIDTH	HEIGHT	WIDTH	HEIGHT		
DA01	DOOR TYPE A	915	2032	3'-0"	6'-8"	1HR	DOOR VIEWER, SELF CLOSER
DB01	DOOR TYPE B	915	2032	3'-0"	6'-8"	N/A	
DB03	DOOR TYPE B	813	2032	2'-8"	6'-8"	N/A	
DC01	DOOR TYPE C	915	2032	3'-0"	6'-8"	1HR	SELF CLOSER
DD01	DOOR TYPE D	762	2032	2'-6"	6'-8"	N/A	
DD02	DOOR TYPE D	813	2032	2'-8"	6'-8"	N/A	
DD03	DOOR TYPE D	915	2032	3'-0"	6'-8"	N/A	
DD04	DOOR TYPE D	915	2032	3'-0"	6'-8"	1HR	DOOR VIEWER, SELF CLOSER
DD06	DOOR TYPE D	610	2032	2'-0"	6'-8"	N/A	
DF02	DOOR TYPE F	2134	2032	7'-0"	6'-8"	N/A	
DG01	DOOR TYPE G	864	2032	2'-10"	6'-8"	N/A	
DG02	DOOR TYPE G	1067	2032	3'-6"	6'-8"	N/A	
DG03	DOOR TYPE G	1219	2032	4'-0"	6'-8"	N/A	
DG04	DOOR TYPE G	1524	2032	5'-0"	6'-8"	N/A	
DH01	DOOR TYPE H	REFER TO PLAN	2134	REFER TO PLAN	7'-0"	N/A	
DI02	DOOR TYPE I	762	2134	2'-6"	7'-0"	N/A	
DI03	DOOR TYPE I	711	2134	2'-4"	7'-0"	N/A	

WINDOW SCHEDULE (FOURPLEX NARROW)

TAG	TYPE	METRIC SIZE (mm)		IMPERIAL SIZE (ft'-in")		GLAZING AREA
		WIDTH	HEIGHT	WIDTH	HEIGHT	
SA01	SKYLIGHT TYPE A	851	851	2'-9 1/2"	2'-9 1/2"	0.49 m²
WA01	WINDOW TYPE A	914	2083	3'-0"	6'-10"	1.28 m²
WA02	WINDOW TYPE A	610	2083	2'-0"	6'-10"	0.85 m²
WA04	WINDOW TYPE A	457	2083	1'-6"	6'-10"	0.64 m²
WA07	WINDOW TYPE A	610	1902	2'-0"	6'-2 7/8"	0.78 m²
WA08	WINDOW TYPE A	914	1901	3'-0"	6'-2 13/16"	1.16 m²
WB02	WINDOW TYPE B	610	1219	2'-0"	4'-0"	0.50 m²
WC02	WINDOW TYPE C	610	2083	2'-0"	6'-10"	0.85 m²
WC03	WINDOW TYPE C	1067	2083	3'-6"	6'-10"	1.49 m²
WD01	WINDOW TYPE D	1067	2083	3'-6"	6'-10"	1.49 m²
WD02	WINDOW TYPE D	914	2083	3'-0"	6'-10"	1.28 m²
WE01	WINDOW TYPE E	1219	610	4'-0"	2'-0"	0.50 m²

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

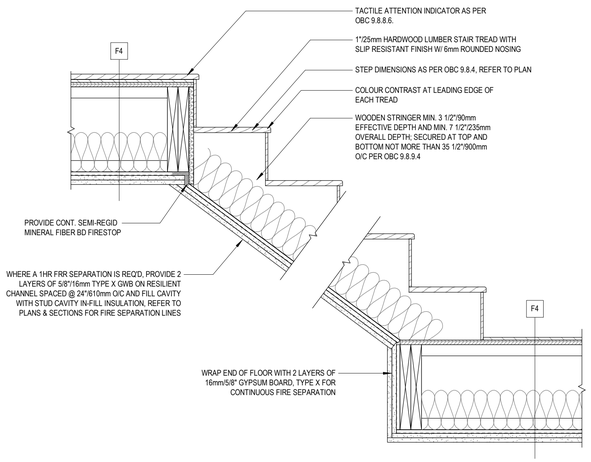
DOOR AND WINDOW SCHEDULE

PROJECT NO: 241058

SCALE: 1 : 50

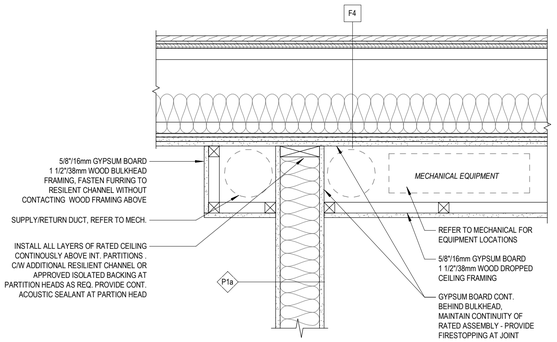
SHEET NO:

A002



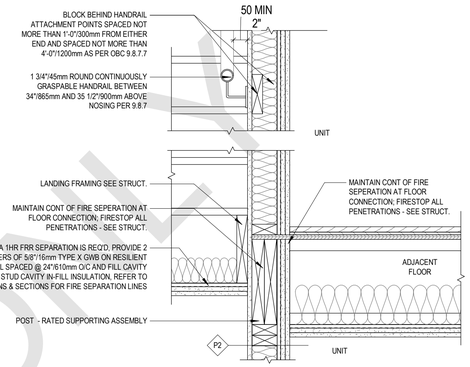
1 A003 INTERIOR DETAIL - FIRE SEPARATION STAIR ON FLOOR

1 : 10



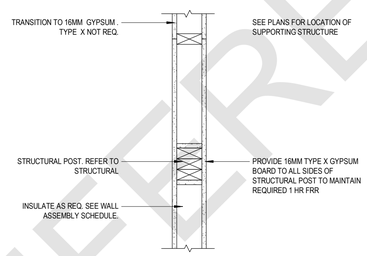
2 A003 INTERIOR DETAIL - FIRE SEPARATION, PARTITION & BULKHEAD TO FLOOR

1 : 10



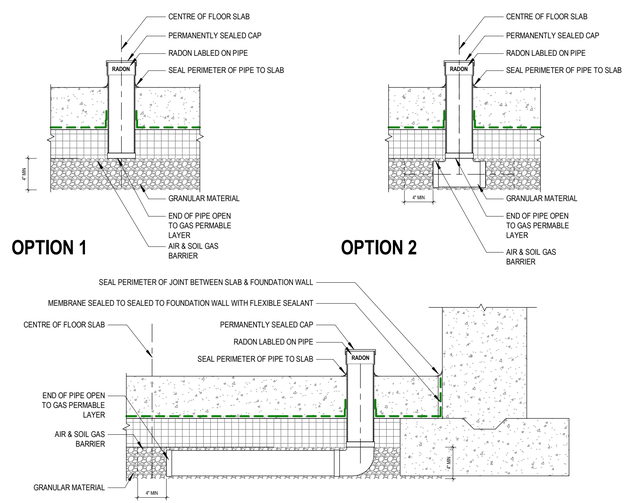
3 A003 INTERIOR DETAIL - FIRE SEPARATION, STAIR LANDING, ADJACENT FLOOR

1 : 10



4 A003 INTERIOR DETAIL - FIRE RATED STRUCTURAL POST, PARTITION WALL

1 : 10



5 A003 SECTION DETAIL - RADON MITIGATION OPTIONS

1 : 10

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

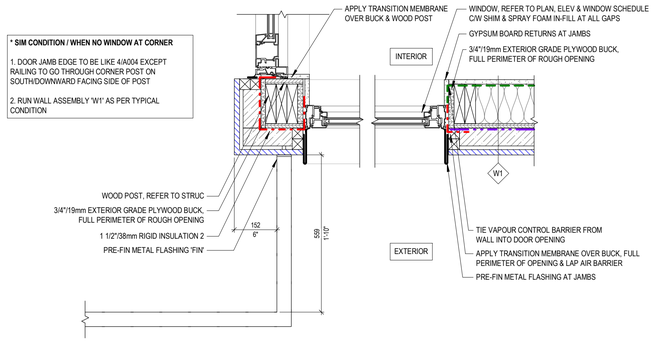
INTERIOR TYPICAL DETAILS

PROJECT NO: 241058

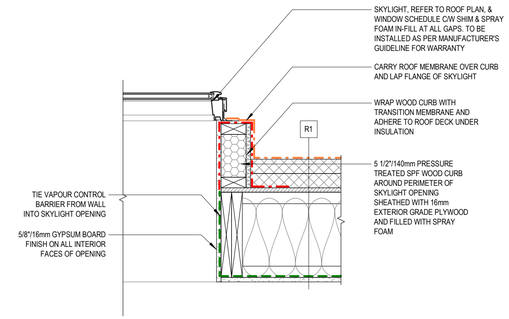
SCALE: 1 : 10

SHEET NO:

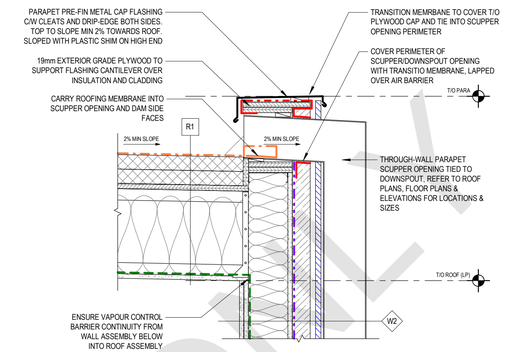
A003



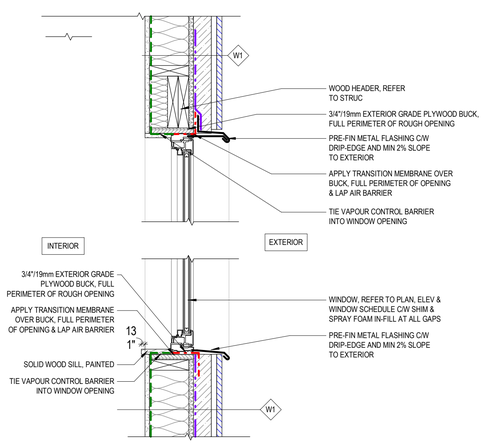
1 A004 PLAN DETAIL - CORNER WINDOW
1 : 10



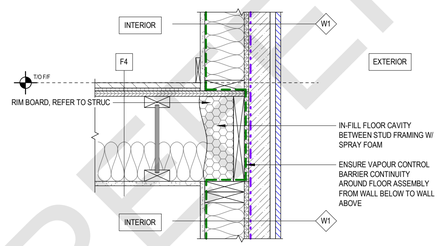
2 A004 SECTION DETAIL - SKYLIGHT
1 : 10



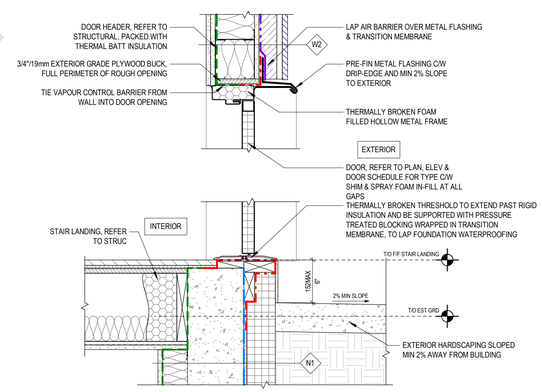
3 A004 SECTION DETAIL - ROOF SCUPPER
1 : 10



4 A004 SECTION DETAIL - TYP WINDOW HEAD & SILL
1 : 10



5 A004 SECTION DETAIL - FLOOR CONNECTION, COMBUSTIBLE
1 : 10



6 A004 SECTION DETAIL - ENTRY AT GRADE
1 : 10

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

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NO.	DATE	DESCRIPTION

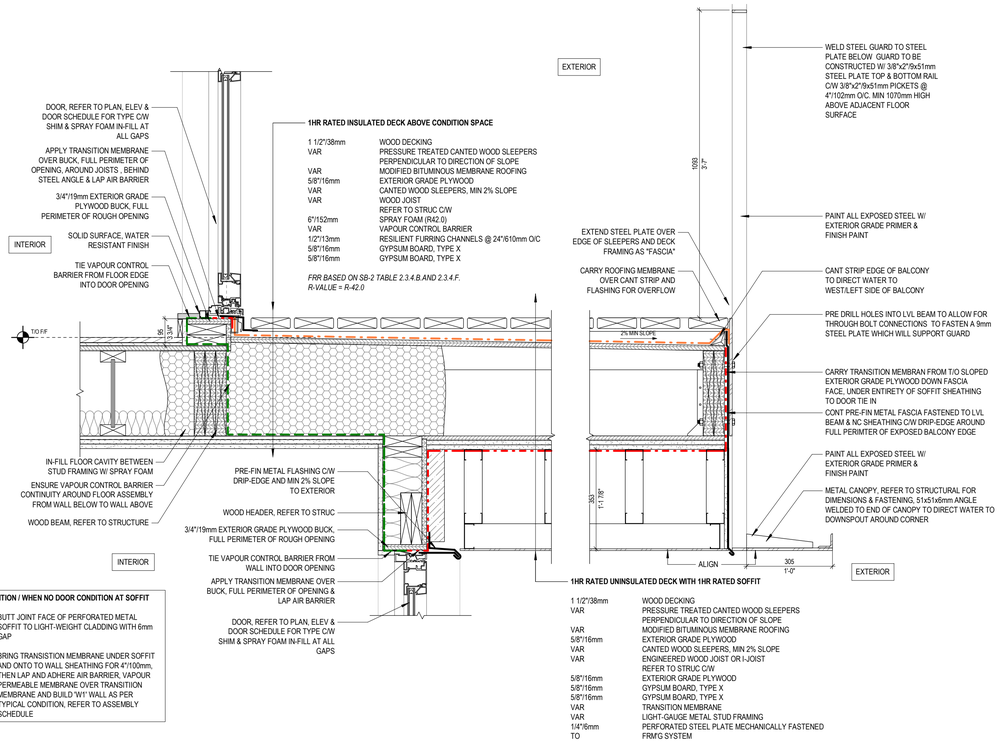
PROJECT:
City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:
EXTERIOR TYPICAL DETAILS

PROJECT NO: 241058
SCALE: 1 : 10

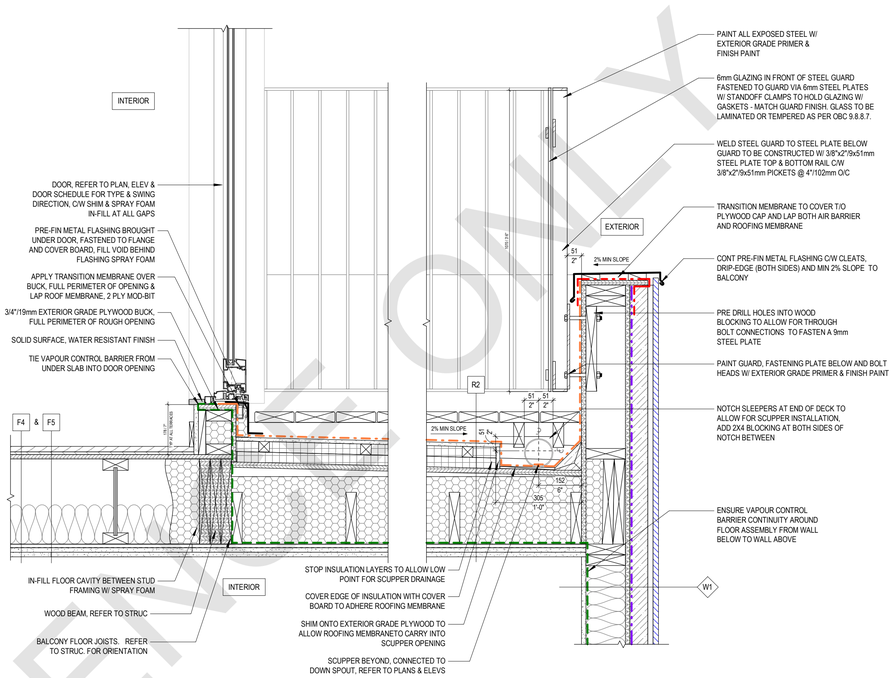
SHEET NO:
A004



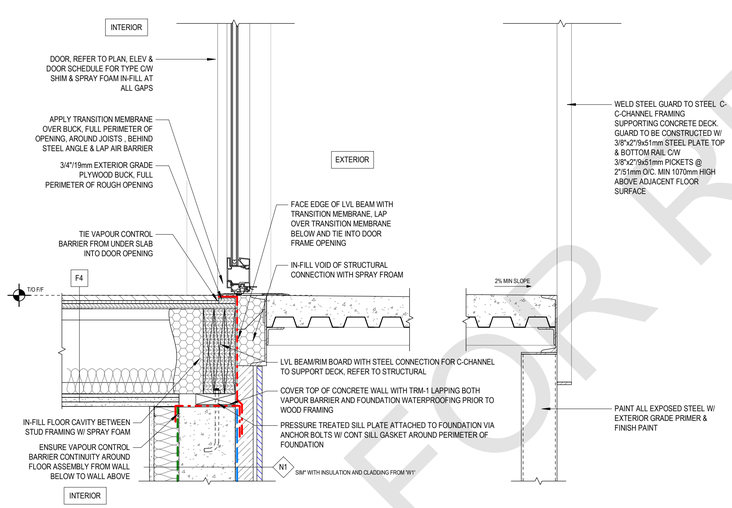
*** SIM CONDITION / WHEN NO DOOR CONDITION AT SOFFIT**

1. BUTT JOINT FACE OF PERFORATED METAL SOFFIT TO LIGHT-WEIGHT CLADDING WITH 6mm GAP
2. BRING TRANSISTION MEMBRANE UNDER SOFFIT AND ONTO TO WALL SHEATHING FOR 4"/100mm, THEN LAP AND ADHERE AIR BARRIER, VAPOUR PERMEABLE MEMBRANE OVER TRANSITION MEMBRANE AND BUILD 'W1' WALL AS PER TYPICAL CONDITION, REFER TO ASSEMBLY SCHEDULE

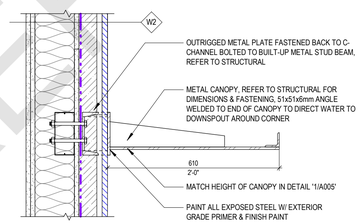
1 A005 SECTION DETAIL - BALCONY OVER CONDITIONED SPACE
1 : 10



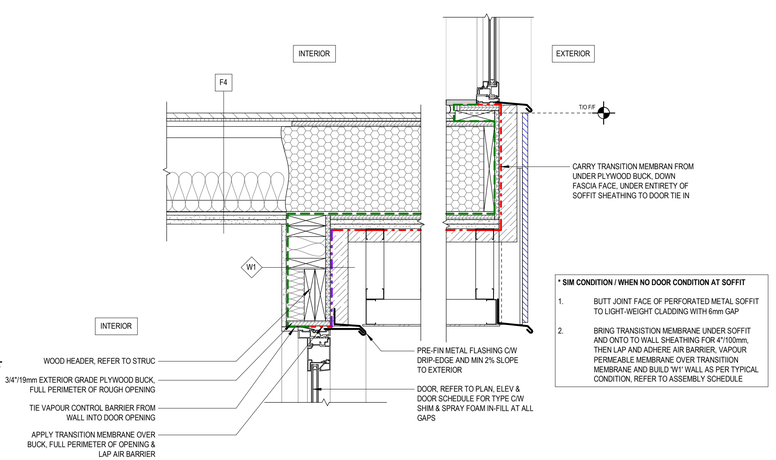
2 A005 SECTION DETAIL - ROOF DECK
1 : 10



3 A005 SECTION DETAIL- PORCH
1 : 10



4 A005 SECTION DETAIL - METAL CANOPY AT NON-COMBUSTIBLE WALL
1 : 10



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5 A005 SECTION DETAIL - SOFFIT
1 : 10

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

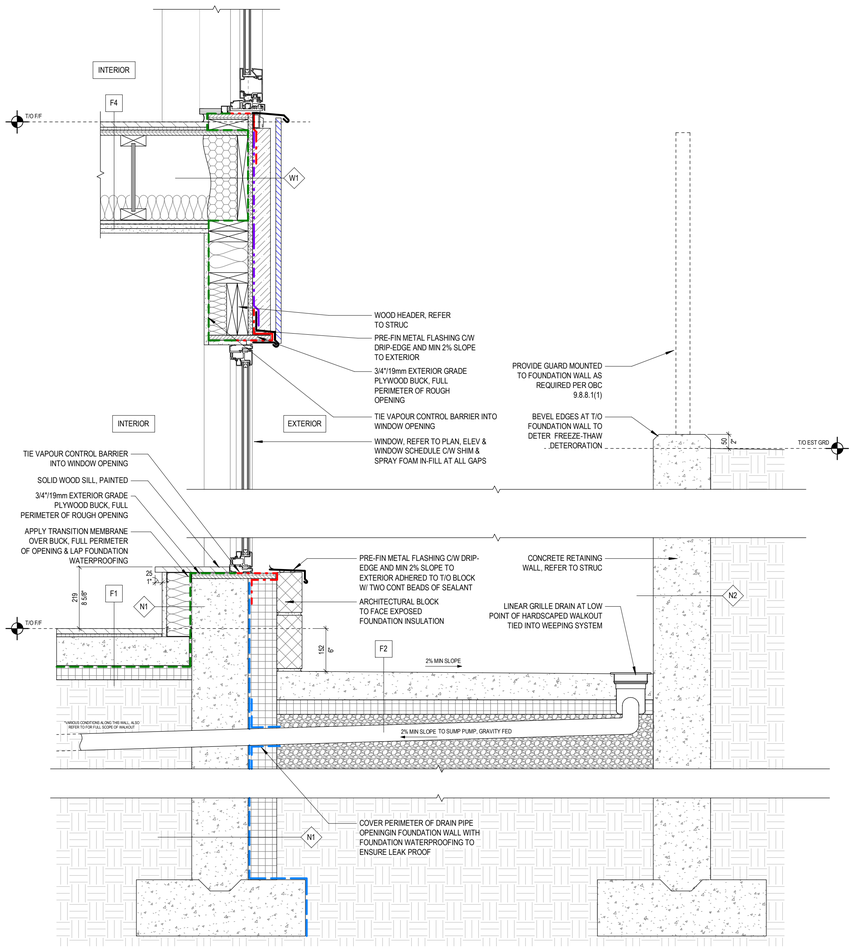
EXTERIOR TYPICAL DETAILS

PROJECT NO: 241058

SCALE: 1 : 10

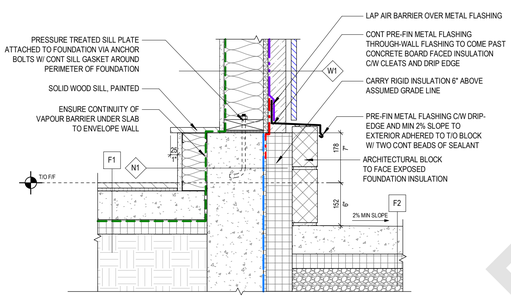
SHEET NO:

A005



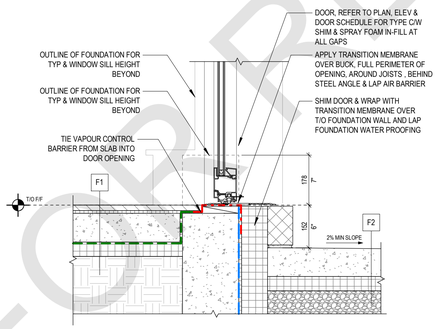
1 A006 SECTION DETAIL - BASEMENT WALKOUT AT WINDOW W/ FLOOR ABOVE

1 : 10



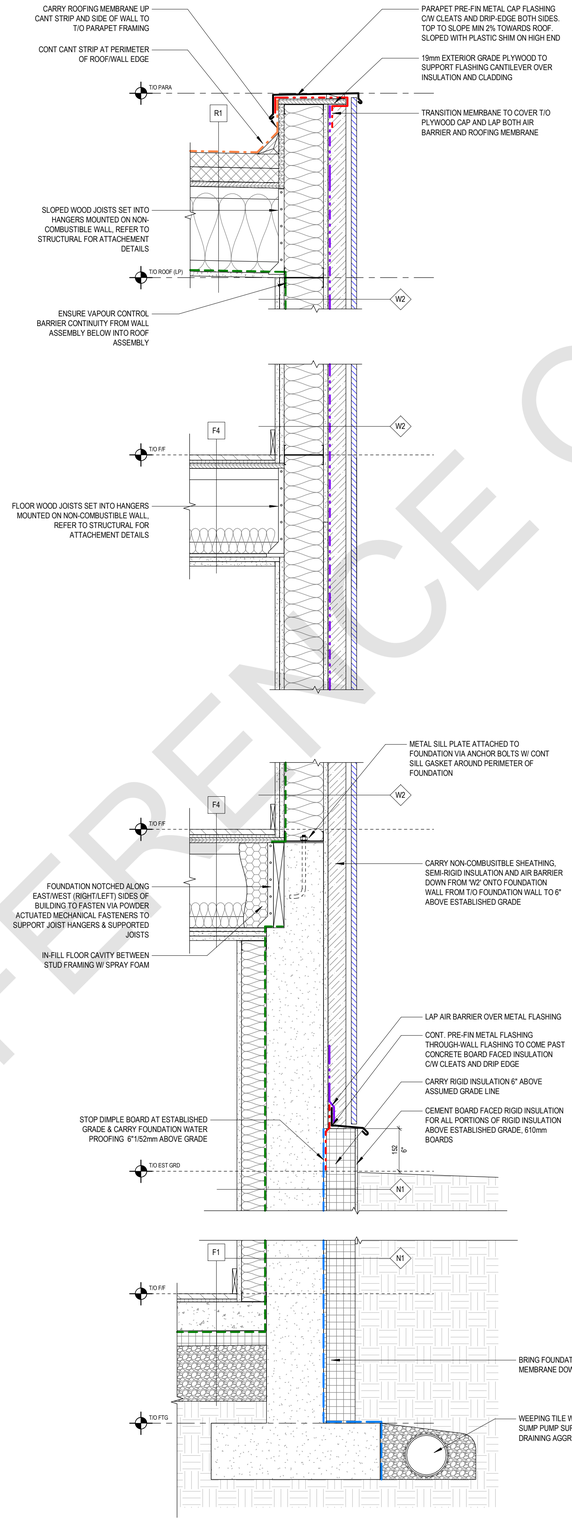
2 A006 SECTION DETAIL - BASEMENT WALKOUT AT SILL

1 : 10



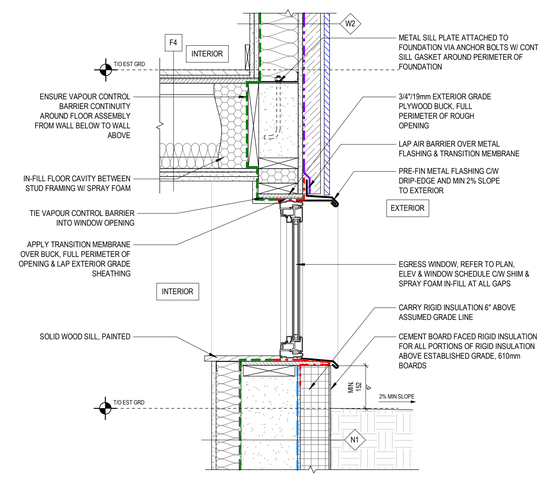
3 A006 SECTION DETAIL- BASEMENT WALKOUT AT DOOR

1 : 10



4 A006 SECTION DETAIL - NON COMBUSTIBLE WALL SECTION

1 : 10



5 A006 SECTION DETAIL - EGRESS WINDOW

1 : 10

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

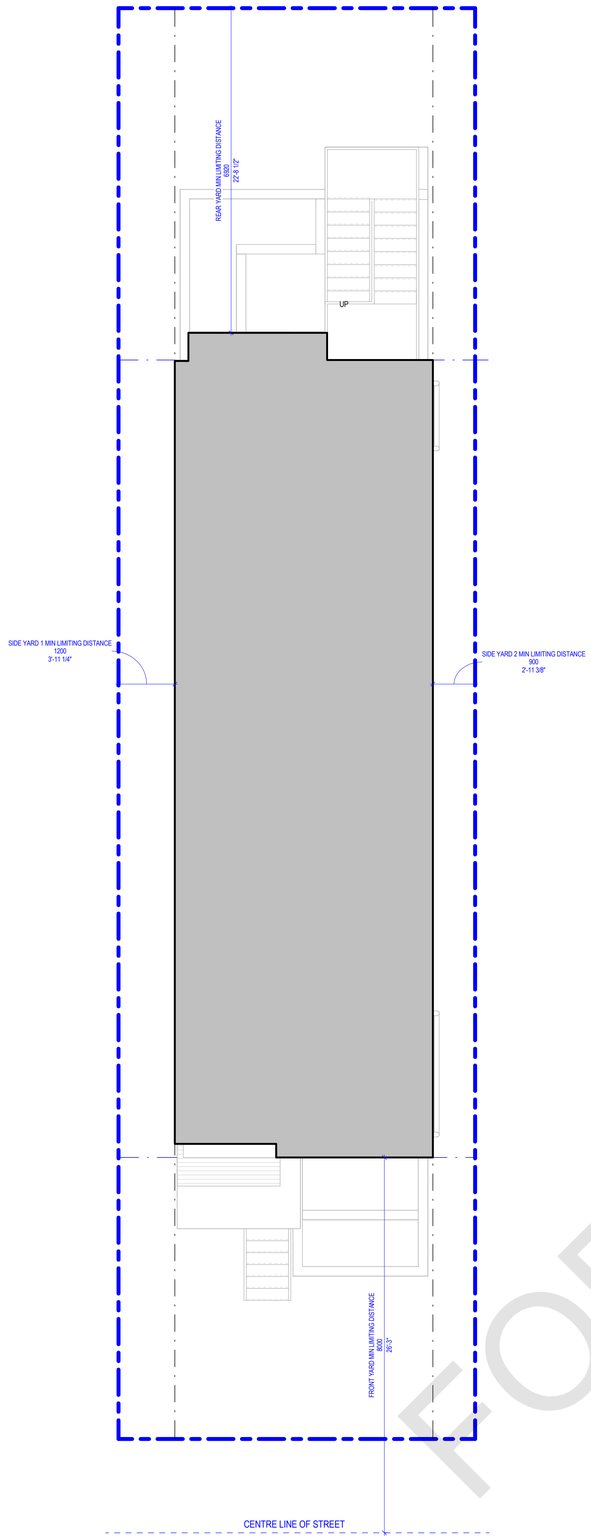
EXTERIOR TYPICAL DETAILS

PROJECT NO: 241058

SCALE: 1 : 10

SHEET NO:

A006



5 A010 EXPOSING BUILDING FACE DIAGRAM - SITE PLAN
1 : 60

BUILDING CODE DATA MATRIX

PART 9 - HOUSING AND SMALL BUILDINGS

BUILDING CODE VERSION	O.REG. 163/24		LAST AMENDMENT: O.REG. 5/25			**OBC REFERENCE**
PROJECT TYPE	NEW CONSTRUCTION CONSTRUCTION OF NEW THREE STOREY MULTI UNIT RESIDENTIAL BUILDING					**[A] 1.1.2.**
MAJOR OCCUPANCY CLASSIFICATION	**GROUP / DIVISION:**	**DESCRIPTION:**	**USE:**			**9.10.2.**
	C	THREE STOREY FOUR UNIT BUILDING	RESIDENTIAL			
SUPERIMPOSED MAJOR OCCUPANCIES	NO					**9.10.2.3.**
BUILDING AREA (m²)	**DESCRIPTION:**		**TOTAL (m²):**			**[A] 1.4.1.2.**
	NEW CONSTRUCTION		94.7			
GROSS AREA (m²)	**FLOOR LEVEL:**	**DESCRIPTION:**	**TOTAL (m²):**			**[A] 1.4.1.2.**
	BASEMENT	1 RESIDENTIAL UNIT	92.7			
	GROUND FLOOR	1 RESIDENTIAL UNIT	94.6			
	SECOND FLOOR	1 RESIDENTIAL UNIT	94.0			
	THIRD FLOOR	1 RESIDENTIAL UNIT	77.9			
	TOTAL (m²):		359.2			
BUILDING HEIGHT	3	STOREYS ABOVE GRADE	10.00 m ABOVE ASSUMED GRADE			**[A] 1.4.1.2. AND 9.10.4.**
NUMBER OF STREETS	1 STREET					**9.10.20**
SPRINKLER SYSTEM	NOT REQUIRED	PROVIDED: N/A				**9.10.8.2. TO 9.10.8.4.**
FIRE ALARM SYSTEM	NOT REQUIRED	TYPE PROVIDED: N/A				**9.10.18**
WATER SUPPLY IS ADEQUATE	YES/NO					**9.31.3**
CONSTRUCTION TYPE	**PERMITTED:**	COMBUSTIBLE	**HEAVY TIMBER CONSTRUCTION:**	NO		**9.10.6**
	PROPOSED:	COMBUSTIBLE				
POST-DISASTER BUILDING	NO					**[A] 1.1.2.2.(2)**
OCCUPANT LOAD	**FLOOR LEVEL:**	**UNIT #**	**OCCUPANCY TYPE:**	**BASED ON:**	**OCCUPANT LOAD (PERSONS):**	**3.1.17(1)b**
	BASEMENT	UNIT 1	RESIDENTIAL	2 SLEEPING ROOMS	4	
	GROUND FLOOR	UNIT 2	RESIDENTIAL	1 SLEEPING ROOM	2	
	SECOND FLOOR	UNIT 3	RESIDENTIAL	2 SLEEPING ROOMS	4	
	THIRD FLOOR	UNIT 4	RESIDENTIAL	1 SLEEPING ROOM	2	
	TOTAL COUNT:			6 SLEEPING ROOMS	12	
BARRIER-FREE DESIGN	1 BARRIER FREE UNIT REQUIRED. UNIT 2 CONFORMS TO THE REQUIREMENTS OF ASC/CSA B652:23					**9.5.2.**
HAZARDOUS SUBSTANCES	NO					**9.10.1.3.**
REQUIRED FIRE RESISTANCE RATINGS	**HORIZONTAL ASSEMBLY:**		**RATING:**	**SUPPORTING ASSEMBLY:**		**9.10.8.**
	FLOORS:		VARIES. REFER TO PLAN AND SECTION DRAWINGS AND LEGEND			

SPATIAL SEPARATION	**WALL:**	**EBF AREA (m²):**	**LD (m):**	**% OPENINGS MAX**	**% PROVIDED**	**REQ. RATING:**	**CONSTRUCTION TYPE:**	**CLADDING TYPE:**	**9.10.14.**
	FRONT	56.3	8.0	56%	31.0%	45 MIN	COMBUSTIBLE	NON-COMBUSTIBLE	
	REAR	58.2	6.9	34%	19.0%	45 MIN	COMBUSTIBLE	NON-COMBUSTIBLE	
	SIDE 1	153.2	1.2	7%	5.0%	1 HR	NON-COMBUSTIBLE	NON-COMBUSTIBLE	
	SIDE 2	153.3	0.9	0%	0.0%	1 HR	NON-COMBUSTIBLE	NON-COMBUSTIBLE	
PLUMBING FIXTURE REQUIREMENTS	A KITCHEN SINK, LAVATORY, BATHTUB OR SHOWER, AND WATER CLOSET SHALL BE PROVIDED FOR EVERY DWELLING UNIT								**9.31.4(1) and 3.7.4.5**
NOTES	01 ALL REFERENCES ARE TO DIVISION B OF THE ONTARIO BUILDING CODE UNLESS PRECEDED BY [A] FOR DIVISION A AND [C] FOR DIVISION C.								

EXPOSED BUILDING FACE DIAGRAMS GENERAL NOTES

1. ALL ITEMS IN BLUE DEPENDENT ON REQUIRED SITE SURVEY. TO BE UPDATED BY QDP.
2. ALL LIMITING DISTANCES ARE FOR REFERENCE ONLY. LIMITING DISTANCES AND ALLOWABLE UNPROTECTED OPENINGS TO BE UPDATED BY QDP. WITH REQUIRED SITE SURVEY.
3. FRONT YARD LIMITING DISTANCE SHOWN AS MINIMUM SETBACK FOR REFERENCE ONLY. QDP TO UPDATE LIMITING DISTANCE TO CENTRELINE OF FRONT FACING STREET FROM REQUIRED SURVEY.
4. AREA OF EXPOSED BUILDING FACE DEPENDENT ON ESTABLISHED GRADE. QDP TO UPDATE AREAS WITH REQUIRED SITE SURVEY.
5. QDP TO SELECT EXPOSED BUILDING FACE CALCULATION METHOD AS PER OBC 9.10.14.2.
6. EXPOSED BUILDING FACE OF BELOW GRADE WALKOUT SHOWN TYPICALLY TO HIGHLIGHT STRICTEST EBF AREA CALCULATION. QDP TO CALCULATE EBF FROM ESTABLISHED GRADE.
7. ALL GLAZING AND OPENINGS IN EXTERIOR WALL REQUIRING PROTECTION AS PER OBC 9.9.4.4 TO BE PROTECTED WITH WIRE GLASS, FIRE RATED GLASS, SPRINKLERS, OR FIRE SHUTTERS. SEE NOTE 16 ON WINDOW SCHEDULE. PROTECTED GLAZING NOT INCLUDED IN EBF CALCULATIONS.

EXPOSED BUILDING FACE DIAGRAMS KEY NOTES

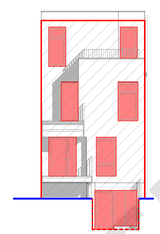
01 UNPROTECTED MECHANICAL OPENINGS REPRESENTATIVE ONLY. REFER TO MECH. FOR EXACT LOCATIONS.

02 RATED DOOR(S). REFER TO DOOR SCHED.

03 FIRE SHUTTERS IF REQUIRED. REFER TO NOTE 16 ON WINDOW SCHEDULE.

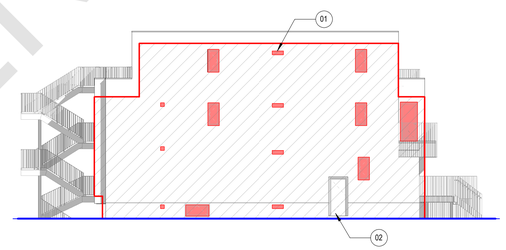
EXPOSING BUILDING FACE DIAGRAMS LEGEND

	UNPROTECTED OPENING
	EXPOSED BUILDING FACE (FIRE COMPARTMENT)
	EXPOSED BUILDING FACE (TOTAL BUILDING FACE)
	EXPOSED BUILDING FACE OF BELOW GRADE WALKOUT. REFER TO GENERAL NOTE 6.
	PROTECTED GLAZING. REFER TO GENERAL NOTE 7
	WIRE FRAMED GLAZING
	ESTABLISHED GRADE (EXTENT OF ESTABLISHED GRADE DEPENDENT ON REQUIRED SITE SURVEY. TO BE UPDATED BY QDP.)



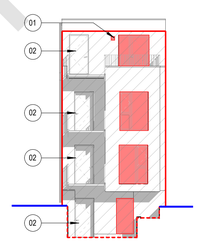
Comments	UPO - Exposed Building Face	UPO - Limiting Distance	UPO - Proposed Unprotected Opening Area	UPO - Allowable % Openings	UPO - Proposed % Openings
TOTAL EBF	56.3 m²	8m	17.3 m²	56	31

4 A010 EXPOSING BUILDING FACE DIAGRAM - FRONT ELEVATION
1 : 150



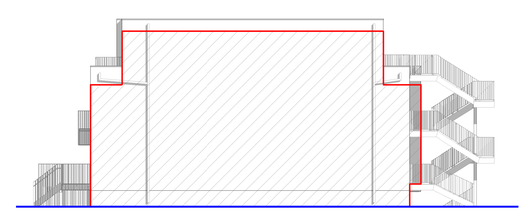
Comments	UPO - Exposed Building Face	UPO - Limiting Distance	UPO - Proposed Unprotected Opening Area	UPO - Allowable % Openings	UPO - Proposed % Openings
TOTAL EBF	153.2 m²	1.2	7.0 m²	7	5

3 A010 EXPOSING BUILDING FACE DIAGRAM - SIDE 1 ELEVATION
1 : 150



Comments	UPO - Exposed Building Face	UPO - Limiting Distance	UPO - Proposed Unprotected Opening Area	UPO - Allowable % Openings	UPO - Proposed % Openings
TOTAL EBF	58.2 m²	6.9	10.8 m²	34	19

2 A010 EXPOSING BUILDING FACE DIAGRAM - REAR ELEVATION
1 : 150



Comments	UPO - Exposed Building Face	UPO - Limiting Distance	UPO - Proposed Unprotected Opening Area	UPO - Allowable % Openings	UPO - Proposed % Openings
TOTAL EBF	153.3 m²	0.9m	0.0 m²	0	0

1 A010 EXPOSING BUILDING FACE DIAGRAM - SIDE 2 ELEVATION
1 : 150

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TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

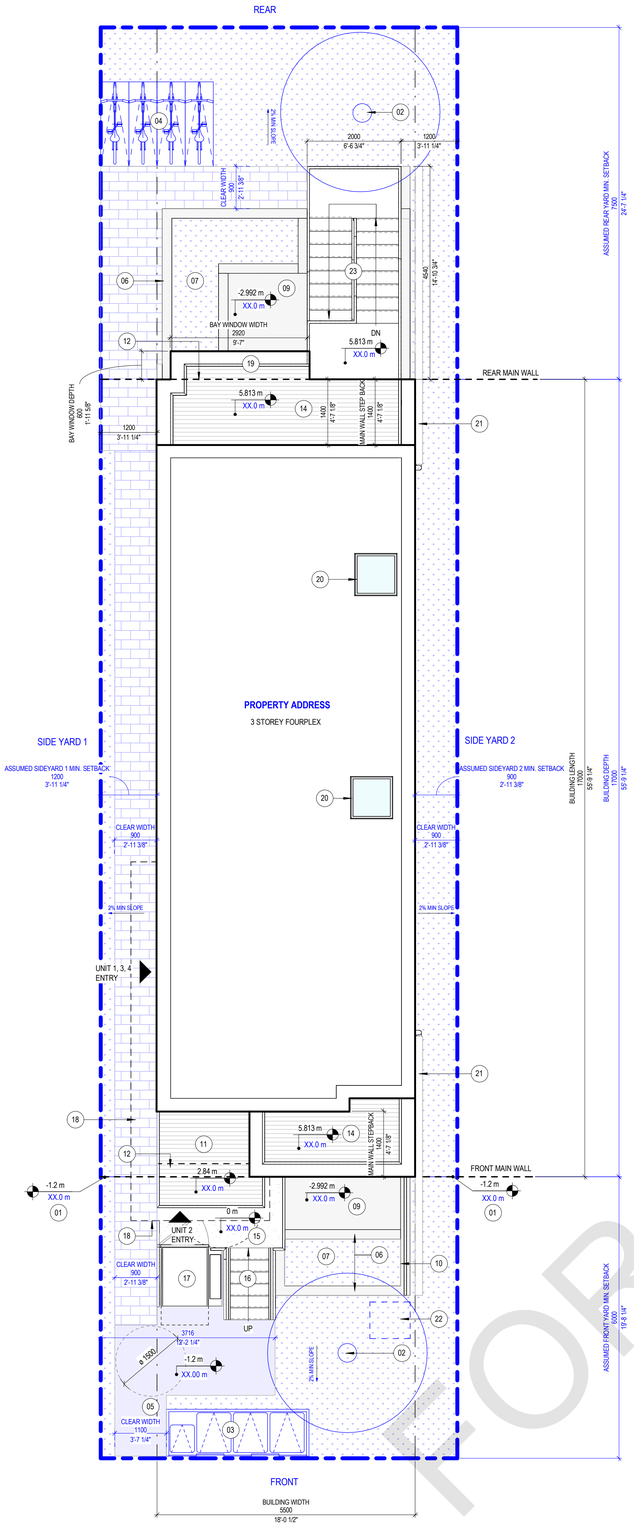
EBF DIAGRAMS & CODE MATRIX

PROJECT NO: 241058

SCALE: As indicated

SHEET NO:

A010



1 A011 SITE PLAN
1 : 60

COT ZONING MATRIX

			NOTES
LOT SIZE			
LOT AREA (m²)	____m²		LOT AREA, FRONTAGE, AND DEPTH DEPENDENT ON REQUIRED SITE SURVEY. QDP TO UPDATE.
LOT FRONTAGE (m)	____m		
LOT DEPTH (m)	____m		
SETBACKS			
FRONT YARD SETBACK	6.0m		ALL SETBACK REQUIREMENTS AND PERMITTED ENCROACHMENTS ARE DEPENDENT ON RESIDENTIAL ZONE AND SITE. QDP RESPONSIBLE TO ENSURE ALL SETBACKS AND PERMITTED ENCROACHMENTS TO COMPLY WITH APPLICABLE ZONING BYLAW AND BUILDING CODE (LIMITING DISTANCE).
REAR YARD SETBACK	7.5m		
SIDEYARD 1 SETBACK	1.2m		
SIDEYARD 2 SETBACK	0.9m		
RESIDENTIAL UNITS	**DESCRIPTION:**	**BEDROOMS:**	
BASEMENT	1 DWELLING UNIT	2 BEDROOMS	
GROUND FLOOR	1 DWELLING UNIT	1 BEDROOM	CSA B-652.23 ACCESSIBLE DWELLING UNIT
SECOND FLOOR	1 DWELLING UNIT	2 BEDROOMS	
THIRD FLOOR	1 DWELLING UNIT	1 BEDROOM	
TOTAL BEDROOMS		6 BEDROOMS	
TOTAL DWELLING UNITS	4		
BUILDING AREA			
	94.7m²		
GROSS FLOOR AREA			
BASEMENT	**78.5m²**		
OVERALL	92.7m²		
EXCLUSIONS (STAIRWELLS, UTILITY, STORAGE)	14.3m²		
GROUND FLOOR	**82.2m²**		
OVERALL	94.6m²		
EXCLUSIONS (STAIRWELLS)	12.4m²		
SECOND FLOOR	**81.8m²**		
OVERALL	94.0m²		
EXCLUSIONS (STAIRWELLS)	12.2m²		
THIRD FLOOR	**65.5m²**		
OVERALL	77.7m²		
EXCLUSIONS (STAIRWELLS)	12.2m²		
TOTAL GROSS FLOOR AREA	**308m²**		

LANDSCAPED AREA

	YARD AREA TOTAL	LANDSCAPING AREA TOTAL	% LANDSCAPING AREA	SOFT LANDSCAPING AREA TOTAL	% SOFT LANDSCAPING AREA	
FRONT YARD	____m²	____m²	____%	____m²	____%	LANDSCAPING AND SOFT LANDSCAPING REQUIREMENT IS DEPENDENT ON LOT DEPTH, FRONTAGE, EXISTENCE OF DRIVEWAY, AND IF SIDE YARD ABUTS A STREET. CALCULATION OF LANDSCAPING AND SOFT LANDSCAPING IS DEPENDENT ON REQUIRED SITE PLAN. QDP TO UPDATE AND ENSURE SITE MEETS ALL LANDSCAPING AND SOFT LANDSCAPING REQUIREMENTS.
REAR YARD	____m²	____m²	____%	____m²	____%	
SIDE YARD 1	____m²	____m²	____%	____m²	____%	
SIDE YARD 2	____m²	____m²	____%	____m²	____%	

BUILDING HEIGHT		
HEIGHT ALLOWABLE PER ZONING (m)	10.0m	BUILDING HEIGHT IS DEPENDENT ON CALCULATION OF ESTABLISHED GRADE. QDP TO UPDATE WITH REQUIRED SITE PLAN. LOWEST POINT OF MAIN PEDESTRIAN ENTRANCES TO BE NO HIGHER THAN 1.2 METERS ABOVE ESTABLISHED GRADE.
PROPOSED BUILDING HEIGHT	10.0m	
BUILDING DEPTH		
DEPTH ALLOWABLE PER ZONING (m)	17.0m	BUILDING DEPTH IS DEPENDENT ON FRONT YARD SETBACK AND LOCATION OF REAR MAIN WALL. BUILDING DEPTH REQUIREMENTS ARE DEPENDENT ON RESIDENTIAL ZONE, REQUIRED SETBACKS AND SITE CONDITIONS. QDP RESPONSIBLE TO ENSURE BUILDING DEPTH COMPLIES WITH APPLICABLE ZONING BYLAW.
DEPTH PROPOSED (m)	____m	
VEHICULAR PARKING PROVIDED		
PARKING SPACES	0	QDP TO PROVIDE PARKING QUANTITY IF PROPOSED
ACCESSIBLE PARKING SPACES	0	
BICYCLE PARKING PROVIDED		
LONG TERM STALLS	0	BICYCLE PARKING QTY. IS SUGGESTION ONLY. QDP TO PROVIDE BIKE PARKING QUANTITY IF PROPOSED
SHORT TERM STALLS	4	

SITE PLAN KEYNOTES

01 QDP TO CALCULATE ESTABLISHED GRADE USING THE REQUIRED SITE SURVEY. ESTABLISHED GRADE TO BE CALCULATED PER SECTION 800.50(240) OF THE CITY OF TORONTO ZONING BY-LAW.

02 PROPOSED TREE LOCATION AND REQUIRED SOIL VOLUME TO BE ADDED BY QDP. ALL EXISTING TREES SUBJECT TO TORONTO MUNICIPAL CODE CHAPTER 813, TREES.

03 WASTE STORAGE LOCATION AND SIZING TO BE DETERMINED BY QDP. ALL WASTE STORAGE SHOWN AS ENCLOSED WITH SCREEN. WASTE STORAGE SHALL NOT BE ENCLOSED WITH A ROOF OR WALL. SCREEN AND ACCESS DOOR SHALL NOT ENCROACH BEYOND PROPERTY LINE.

04 VISITOR BIKE PARKING LOCATION AND QUANTITY TO BE DETERMINED BY QDP. PROPOSED BIKE PARKING STALLS TO COMPLY WITH GUIDELINES FOR THE DESIGN AND MANAGEMENT OF BICYCLE PARKING FACILITIES (2024).

05 QDP TO ENSURE ALL EXTERIOR WALKWAYS LEADING TO ACCESSIBLE DWELLING UNIT TO CONFORM TO OBC BARRIER FREE REQUIREMENTS.

06 CONCRETE FOUNDATION RETAINING WALL. REFER TO STRUCT. QDP TO COORDINATE FOUNDATION WALL HEIGHT WITH REQUIRED SITE SURVEY. REFER TO STRUCT.

07 LANDSCAPED TERRACE. QDP TO CONFIRM GRADE CHANGE AT ALL LANDSCAPED TERRACES WITH REQUIRED SITE SURVEY. QDP TO DETERIMINE IF GRADE CHANGE REQUIRES GUARD PER OBC 9.8.8.1.(1).

08 RESERVED

09 BELOW GRADE WALKOUT. CONCRETE SLAB ON GRADE. REFER TO ARCH.

10 1070MM GUARD MOUNTED ON FOUNDATION WALL AS REQUIRED PER OBC 9.8.8.1.(1).

11 PROJECTED BALCONY. REFER TO ARCH.

12 EXTENT OF BUILDING FOOTPRINT BELOW. REFER TO ARCH.

13 JULIET BALCONY. REFER TO ARCH.

14 ROOF DECK. REFER TO ARCH.

15 ENTRY PORCH. STEEL DECK WITH CONCRETE TOPPING REFER TO STRUCT.

16 GALVANISED STEEL STAIR. WITH GALVANISED GRATE TREADS. REFER TO STRUCT.

17 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24

18 NON-COMBUSTIBLE CANOPY. REFER TO ARCH.

19 BAY WINDOW. REFER TO ARCH.

20 SKYLIGHT. REFER TO ARCH.

21 DOWN SPOUT AND EXTENSION AS PER OBC 9.26.18.2.(1). LENGTH AND PLACEMENT OF EXTENSION TO CONFIRMED BY QDP. PLACEMENT SHALL NOT IMPEDE SIDE YARD ACCESS.

22 DRAINAGE DITCH OR DRY WELL FOR SUMP PUMP IF REQUIRED PER 9.14.5.2(3). LOCATION TO BE DETERMINED BY QDP.

23 UNENCLOSED GALVANISED STEEL EXTERIOR EXIT STAIR AND LANDINGS. REFER TO STRUCT.

24 PADMOUNTED TRANSFORMER. QDP TO ENSURE LOCATION, DIMENSIONS, AND SETBACKS COMPLY WITH ALL TORONTO HYDRO REQUIREMENTS.

SITE PLAN GENERAL NOTES

1. A SITE SURVEY WILL BE REQUIRED FOR THE PERMIT APPLICATION AND ALL DIMENSIONS, SETBACKS AND GEODETIC ELEVATIONS IDENTIFIED ON THE FINAL SITE PLAN SHALL BE DERIVED FROM THE SITE SPECIFIC INFORMATION.
2. THE SITE PLAN IN THE DOCUMENT IS REPRESENTATIVE ONLY AND INTENDED TO ILLUSTRATE SAMPLE SOLUTIONS TO THE RANGE OF ITEMS TO BE INCLUDED IN THE FINAL SITE PLAN SUBMITTED FOR PERMIT. REFER TO SAMPLE COT ZONING MATRIX INCORPORATED IN THE PACKAGE FOR THE REQUIRED INFORMATION.
3. ALL ACCESSIBLE REQUIREMENTS ON THE SITE PLAN ARE BASED ON THE PERTINENT OBC DIMENSIONS. AN ALTERNATIVE COMPLIANCE DOCUMENT IS THE CSA B651:23.
4. ALL FINISHED LANDSCAPE SHOWN INCLUDING TREES AND SOFTSCAPE IS A GUIDELINE ONLY.
5. ALL MATERIALS INDICATED IN SITE PLAN KEY NOTES ARE REPRESENTATIVE ONLY AND INTENDED TO ILLUSTRATE A SAMPLE FINISH.
6. ALL STRUCTURED WASTE MANAGEMENT AND BICYCLE PARKING ON SITE PLAN ARE REPRESENTATIVE ONLY AND INTENDED TO ILLUSTRATE SAMPLE SOLUTIONS.
7. ALL SITE PLANS TO INCLUDE BUILDING NORTH.
8. THESE PLANS ARE EXPECTED TO COMPLY WITH PART 9 OF THE ONTARIO BUILDING CODE TAKING INTO CONSIDERATION THE BUILDING HEIGHT, AS DEFINED BY THE ONTARIO BUILDING CODE (OBC), IS DETERMINED BASED ON THE AVERAGE GRADE CALCULATED AROUND THE PERIMETER OF THE BUILDING. THE LOWEST LEVEL IS REQUIRED TO BE CLASSIFIED AS A "BASEMENT". THE QDP IS REQUIRED TO PROVIDE AVERAGE GRADE AND FIRST-STOREY CALCULATIONS DEMONSTRATING THIS. THE USE OF PLANTERS, RETAINING WALLS, OR PODIUMS TO ARTIFICIALLY ENHANCE THE GRADING OF THE SITE AS IT RELATES THE BUILDING HEIGHT IS NOT PERMITTED.
9. THE SITE PLAN SHOWN IS DIAGRAMMATIC ONLY. PROPERTY LINES, GRADES, ELEVATIONS, SETBACKS, SERVICING LOCATIONS, TREE PROTECTION ZONES, SOFT LANDSCAPING, PARKING, WASTE STORAGE, DRAINAGE PATTERNS, RETAINING WALLS, AND ACCESSIBILITY FEATURES SHALL BE DERIVED FROM A CURRENT SITE SURVEY AND VERIFIED BY THE QUALIFIED DESIGN PROFESSIONAL.

SITE PLAN LEGEND

	SOFT LANDSCAPE, QDP TO UPDATE AS PER SOFT LANDSCAPING REQUIREMENTS
	CONCRETE UNIT PAVERS
	CONCRETE HARDSCAPE AT GRADE TO BE UPDATED BY QDP
	CONCRETE HARDSCAPE (REFER TO ARCH.)
	DECKING AT WALKOUT TERRACE (REFER TO ARCH.)
	SCREENED WASTE STORAGE AREA. REFER TO KEYNOTE 03.
RELATIVE ELEV. (m) GEODETIC ELEV. (m)	SPOT ELEVATION. GEODETIC ELEVATION TO BE UPDATED BY QDP WITH REQUIRED SITE SURVEY.
1800 5'-10 7/8" 600 1'-11 5/8"	SHORT TERM BIKE PARKING STALL. REFER TO KEYNOTE 04.
MIN. 1200 3'-11 1/4" 800 2'-7 1/2"	UNENCLOSED VERTICAL LIFT. REFER TO KEYNOTE 17
Ø	1800MM TURNING DIAMETER AT ENTRY PORCH TO CONFORM TO CSA-B652:23. 1500MM TURNING DIAMETER AS PER OBC AT GRADE WHERE REQUIRED.
	SUGGESTED TREE LOCATION. REFER TO KEYNOTE 02.

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

SITE PLAN

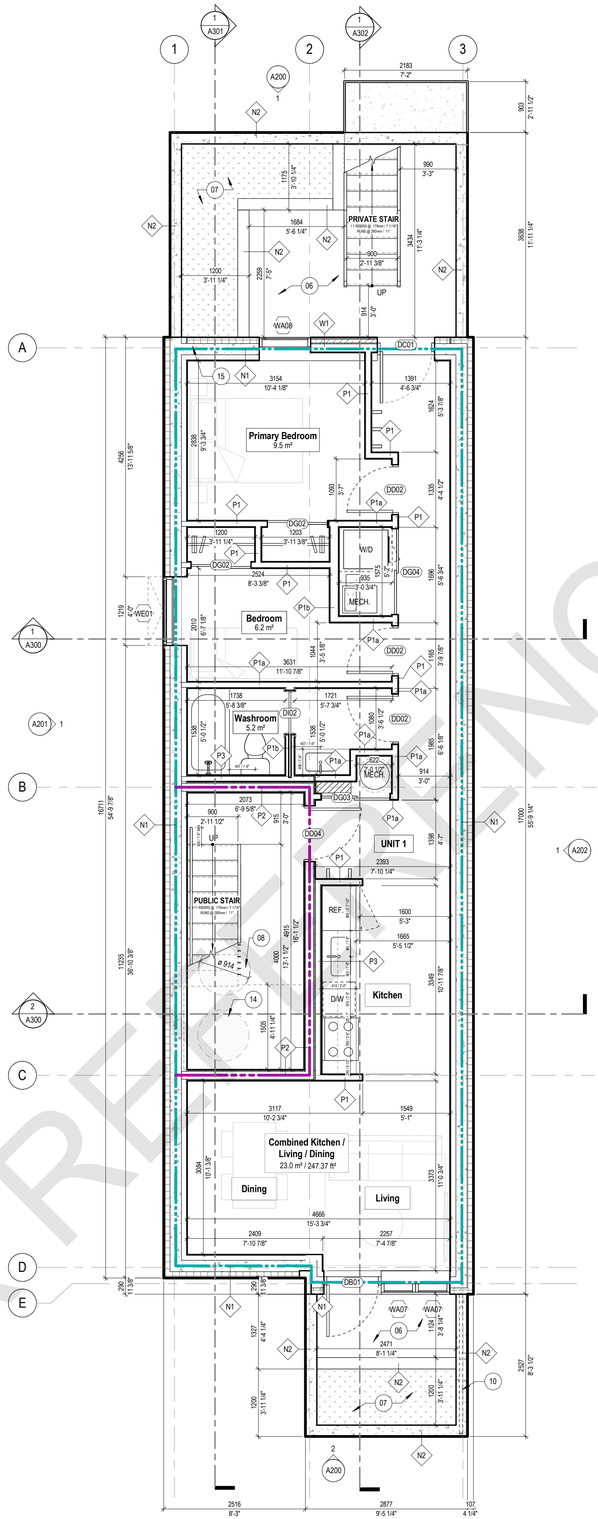
PROJECT NO: 241058

SCALE: As indicated

SHEET NO:

A011

FOR REFERENCE ONLY



1 A100 BASEMENT FLOOR PLAN
1 : 50

FLOOR PLAN GENERAL NOTES

1. MIN CEILING HEIGHTS AS PER OBC TABLE 9.5.3.1
   - BATHROOMS & HALLWAYS = 2100mm
   - BEDROOM = 2300mm (50%) OR 2100mm (100%)
   - LIVING/DINING/KITCHEN = 2300mm (75%) OR 2100mm(100%)
2. MIN ROOM AREAS AS PER OBC TABLE 9.5.3A-E
   - LIVING ROOM = 13.5m² (11m² COMBINED WITH KITCHEN & DINING FOR TWO PEOPLE)
   - DINING = 3.25m² (COMBINED ROOM)
   - KITCHEN = 4.2m² (3.7m2 FOR TWO PEOPLE)
   - BEDROOM = 6m² (WITH CLOSET)
   - MASTER BEDROOM = 8.8m² (WITH CLOSET)
   - COMBINED LIVING, DINING, AND KITCHEN = 21.25m² (17.95m² FOR TWO PEOPLE)
3. ALL ROOMS LABELLED AS 'DEN' SHALL NOT BE BE USED AS A BEDROOM. DENS SHALL NOT BE PROVIDED WITH A DOOR.
4. ALL DROPPED CEILINGS AND BULKHEADS FOR MECHANICAL TO PROVIDE MIN 2100mm CLEAR HEIGHT BELOW
5. UNITS SHOWING ONLY ONE BEDROOM ARE DESIGNED TO ACCOMMODATE NOT MORE THAN TWO PEOPLE
6. ALL EXTERIOR STAIRS DESIGNED FROM FLOOR LEVEL TO ASSUMED GRADE. QDP TO ADJUST AS REQ. PER SITE GRADING AND ENSURE REQUIREMENTS OF OBC 9.8 ARE MET.

FIRE SEPARATION LEGEND (MIN. REQ.)

- 1HR FIRE SEPARATION
- 45MIN FIRE SEPARATION

RATED ASSEMBLIES LEGEND (MIN. REQ.)

- 1HR FRR
- 45MIN FRR

FLOOR PLAN KEYNOTES

01 ROOF DECK
02 ROOF DRAIN/THROUGH WALL SCUPPER CONNECTED TO DOWNSPOUT
03 ALL STUD WALLS TO BE REINFORCED TO PERMIT FUTURE INSTALLATION OF GRAB BARS BEHIND WATER CLOSETS, BATHUBS/SHOWERS AS PER 9.5.2.4. ALL GWB TO BE MOISTURE RESISTANT AND SUBSTITUTED FOR TILE BACKER ON ALL TILED WALL SURFACES.
04 NON COMBUSTIBLE CANOPY ABOVE ENTRANCES
05 RESERVED
06 LANDSCAPED TERRACE
07 BELOW GRADE WALKOUT
08 STORM WATER SUMP PUMP BELOW SLAB REFER TO MECH- DISCHARGE PER SITE CONDITIONS - SEE SITE PLAN
09 RESERVED
10 1070MM GUARD AS REQUIRED PER 9.8.8.1(1)
11 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24
12 ENTRY PORCH
13 PROJECTED BALCONY
14 SANITARY SUMP PIT BELOW SLAB IF REQUIRED. REFER TO MECH
15 LATERAL STABILIZING COLUMN ON CONCRETE PIER. REFER TO STRUCT.
16 SKYLIGHT ABOVE
17 STRUCTURAL STUD WALL WITH PLYWOOD SHEATHING-REFER TO STRUCT. C/W 16 MM TYPE X GWB ON EACH SIDE.
18 1 HR FRR SUPPORTING STRUCTURE. SEE STRUC. REFER TO A003 INTERIOR DETAIL - FIRE RATED STRUCTURAL POST, PARTITION WALL
19 ALTERNATE CURVED LANDING. REFER TO STRUCT
20 DOUBLE STUD WALL WITH PLYWOOD SHEATHING ON ONE SIDE. REFER TO STRUCT.
21 PROTECTED WINDOW
22 PROVIDE FURRING ON WALL FRAMING AS REQUIRED TO ALIGN WITH STAIR DIMENSIONS
23 RESERVED

FLOOR PLAN LEGEND

- FLOOR MOUNTED TOILET
- PRE-FAB STANDING SHOWER
- PRE-FAB TUB
- KITCHEN SINK
- KITCHEN SINK (SMALL)
- WASHROOM SINK
- WASHER (W) DRYER (D) STACKED WASHER AND DRYER (W/D)
- DOMESTIC HOT WATER
- AIR HANDLER
- RANGE, TYPICAL
- RANGE, NARROW
- REFRIGERATOR
- REFRIGERATOR (NARROW)
- DISHWASHER
- DISHWASHER (NARROW)
- CLOSET COAT ROD
- ELECTRICAL PANEL

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:
BASEMENT FLOOR PLAN

PROJECT NO: 241058
SCALE: 1 : 50

SHEET NO:
A100

FOR REFERENCE ONLY

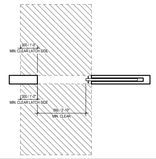
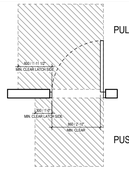
LEGEND

GENERAL NOTE:
UNIT 2 DESIGNED TO CSA/ASC B652:23 - "ACCESSIBLE DWELLINGS," CONSULT THE STANDARD FOR A COMPLETE SET OF REQUIREMENTS.

DOORS AND DOORWAYS (B652:23 5.7)

REFER TO B652:23 5.7 DOORS AND DOORWAYS FOR ADDITIONAL REQUIREMENTS:

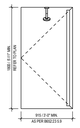
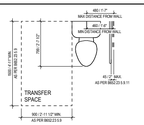
1. DOOR WIDTH AND CLEARANCE REQUIREMENTS
2. POWER DOOR OPERATOR REQUIREMENTS

SLIDING DOOR	SWINGING DOOR
	

BATHROOMS (B652:23 5.9)

REFER TO B652:23 5.9 BATHROOM(S) FOR ADDITIONAL REQUIREMENTS:

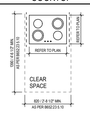
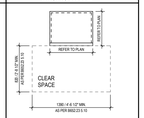
1. WALL REINFORCING BACKING AND GRAB BARS
2. VANITY AND ACCESSORY REQUIREMENTS
3. WASHROOM ILLUMINATION REQUIREMENTS

ROLL-IN SHOWER	TOILET	BATHROOM SINK
		
WHEN SHOWER IS USED AS PART OF THE TURNING DIAMETER, THE SHOWER TO REMAIN UNOBSTRUCTED, HAVE A SLOPE LESS THAN 2% AND BE CONSTRUCTED AS A WET ROOM.	TRANSFER SPACE AND CLEAR SPACE AS PER B652:23 5.9 BLOCKING BESIDE TOILET FOR GRAB BAR AS PER B652:23 5.9 GRAB RAILS AS PER B652:23 5.9.11 GRAB BARS	WASHROOM SINK AS PER B652:23 5.9 BATHROOM(S) CLEAR SPACE BELOW AS PER B652:23 5.9 BATHROOM(S)

KITCHEN (B652:23 5.10)

REFER TO B652:23 5.10 KITCHENS FOR ADDITIONAL REQUIREMENTS:

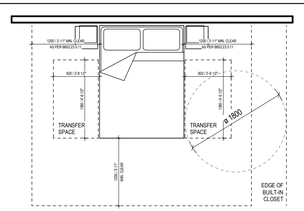
1. MIN. REQ COUNTER SPACE BETWEEN COOKTOP AND SINK NOT LESS THAN 820mm
2. ADDITIONAL KITCHEN FIXTURE AND APPLIANCE REQUIREMENTS
3. ELECTRICAL REQUIREMENTS IN KITCHEN
4. ADDITIONAL CABINETRY AND SPACE PLANNING REQUIREMENTS

REFRIGERATOR	KITCHEN SINK	COOKTOP	MICROWAVE
			
REFRIGERATOR AS PER B652:23 5.10 KITCHENS CLEAR SPACE IN FRONT AS PER B652:23 5.10 KITCHENS	KITCHEN SINK AS PER B652:23 5.10 KITCHENS CLEAR SPACE BELOW AS PER B652:23 5.10 KITCHENS	COOKTOP AS PER B652:23 5.10 KITCHENS CLEAR SPACE BELOW AS PER B652:23 5.10 KITCHENS	MICROWAVE AND OVEN AS PER B652:23 5.10 KITCHENS CLEAR SPACE IN FRONT AS PER B652:23 5.10 KITCHENS

BEDROOMS (B652:23 5.11)

REFER TO B652:23 5.11 BEDROOMS FOR ADDITIONAL REQUIREMENTS:

1. CLEAR SPACE AND TRANSFER SPACES AROUND BED
2. ELECTRICAL REQUIREMENTS IN BEDROOMS



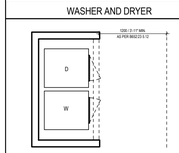
THE BED SHALL HAVE A 1200mm ACCESSIBLE PATH ON THREE SIDES AND PROVIDE A TURNING DIAMETER OF 1800mm WHERE A BEDROOM CONTAINS A BUILT-IN CLOSET

LAUNDRY (B652:23 5.12)

REFER TO B652:23 5.12 LAUNDRY FOR ADDITIONAL REQUIREMENTS:

1. APPLIANCE REQUIREMENTS
2. CLOSET DOORS SHALL ALLOW FULL ACCESS TO SIDE-BY-SIDE UNITS
3. STORAGE AND ACCESSORY REQUIREMENTS

WASHER AND DRYER

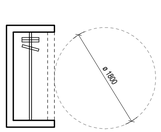


WASHER AND DRYER AS PER B652:23 5.12 KITCHENS
CLEAR SPACE AS PER B652:23 5.12 LAUNDRY

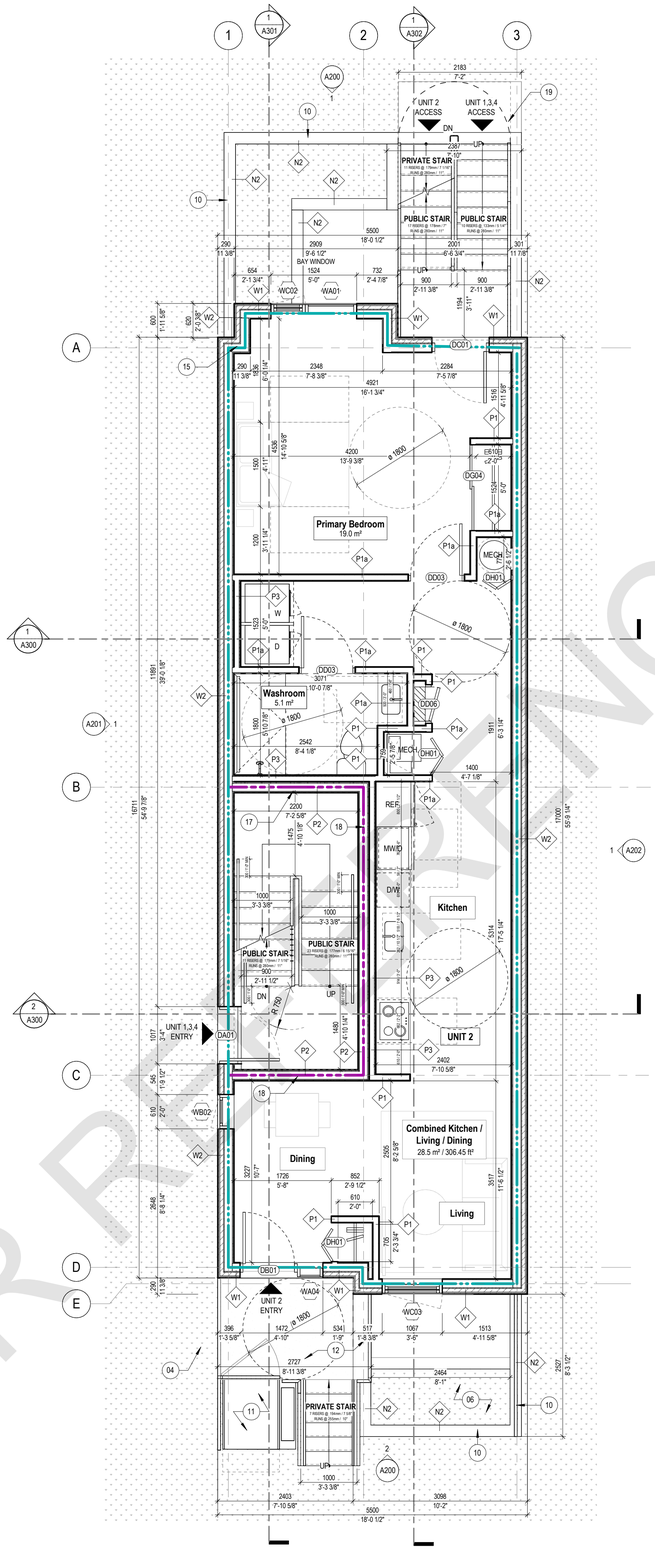
CLOSETS (B652:23 5.13)

REFER TO B652:23 5.13 CLOSETS FOR ADDITIONAL REQUIREMENTS:

1. SHELVES, HANGING ROD HEIGHTS AND STORAGE REQUIREMENTS



1800mm MIN. TURNING DIAMETER IN FRONT OF BEDROOM CLOSET AS PER B652:23 5.11 BEDROOMS



1 A101 MAIN FLOOR PLAN
1 : 50

FLOOR PLAN GENERAL NOTES

1. MIN CEILING HEIGHTS AS PER OBC TABLE 9.5.3.1
   BATHROOMS & HALLWAYS = 2100mm
   BEDROOM = 2300mm (50%) OR 2100mm (100%)
   LIVING/DINING/KITCHEN = 2300mm (75%) OR 2100mm(100%)
2. MIN ROOM AREAS AS PER OBC TABLE 9.5.3A-E
   LIVING ROOM = 13.5m² (11m² COMBINED WITH KITCHEN & DINING FOR TWO PEOPLE)
   DINING = 3.25m² (COMBINED ROOM)
   KITCHEN = 4.2m² (3.7m2 FOR TWO PEOPLE)
   BEDROOM = 6m² (WITH CLOSET)
   MASTER BEDROOM = 8.8m² (WITH CLOSET)
   COMBINED LIVING, DINING, AND KITCHEN = 21.25m² (17.95m² FOR TWO PEOPLE)
3. ALL ROOMS LABELLED AS 'DEN' SHALL NOT BE BE USED AS A BEDROOM. DENS SHALL NOT BE PROVIDED WITH A DOOR.
4. ALL DROPPED CEILINGS AND BULKHEADS FOR MECHANICAL TO PROVIDE MIN 2100mm CLEAR HEIGHT BELOW
5. UNITS SHOWING ONLY ONE BEDROOM ARE DESIGNED TO ACCOMMODATE NOT MORE THAN TWO PEOPLE
6. ALL EXTERIOR STAIRS DESIGNED FROM FLOOR LEVEL TO ASSUMED GRADE. QDP TO ADJUST AS REQ. PER SITE GRADING AND ENSURE REQUIREMENTS OF OBC 9.8 ARE MET.

FIRE SEPARATION LEGEND (MIN. REQ.)

- 1HR FIRE SEPARATION
- 45MIN FIRE SEPARATION

RATED ASSEMBLIES LEGEND (MIN. REQ.)

- 1HR FRR
- 45MIN FRR

FLOOR PLAN KEYNOTES

01 ROOF DECK
02 ROOF DRAIN/THROUGH WALL SCUPPER CONNECTED TO DOWNSPOUT
03 ALL STUD WALLS TO BE REINFORCED TO PERMIT FUTURE INSTALLATION OF GRAB BARS BEHIND WATER CLOSETS, BATHUBS/SHOWERS AS PER 9.5.2.4. ALL GWB TO BE MOISTURE RESISTANT AND SUBSTITUTED FOR TILE BACKER ON ALL TILED WALL SURFACES.
04 NON COMBUSTIBLE CANOPY ABOVE ENTRANCES
05 RESERVED
06 LANDSCAPED TERRACE
07 BELOW GRADE WALKOUT
08 STORM WATER SUMP PUMP BELOW SLAB REFER TO MECH- DISCHARGE PER SITE CONDITIONS - SEE SITE PLAN
09 RESERVED
10 1070MM GUARD AS REQUIRED PER 9.8.8.1(1)
11 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24
12 ENTRY PORCH
13 PROJECTED BALCONY
14 SANITARY SUMP PIT BELOW SLAB IF REQUIRED. REFER TO MECH
15 LATERAL STABILIZING COLUMN ON CONCRETE PIER. REFER TO STRUCT.
16 SKYLIGHT ABOVE
17 STRUCTURAL STUD WALL WITH PLYWOOD SHEATHING-REFER TO STRUCT. C/W 16 MM TYPE X GWB ON EACH SIDE.
18 1 HR FRR SUPPORTING STRUCTURE. SEE STRUC. REFER TO A003 INTERIOR DETAIL - FIRE RATED STRUCTURAL POST, PARTITION WALL
19 ALTERNATE CURVED LANDING. REFER TO STRUCT
20 DOUBLE STUD WALL WITH PLYWOOD SHEATHING ON ONE SIDE. REFER TO STRUCT.
21 PROTECTED WINDOW
22 PROVIDE FURRING ON WALL FRAMING AS REQUIRED TO ALIGN WITH STAIR DIMENSIONS
23 RESERVED

FLOOR PLAN LEGEND

	FLOOR MOUNTED TOILET
	PRE-FAB STANDING SHOWER
	PRE-FAB TUB
	KITCHEN SINK
	KITCHEN SINK (SMALL)
	WASHROOM SINK
	WASHER (W) DRYER (D) STACKED WASHER AND DRYER (W/D)
	DOMESTIC HOT WATER
	AIR HANDLER
	RANGE, TYPICAL
	RANGE, NARROW
	REFRIGERATOR
	REFRIGERATOR (NARROW)
	DISHWASHER
	DISHWASHER (NARROW)
	CLOSET COAT ROD
	ELECTRICAL PANEL

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QDP MUST REVIEW AND UPDATE THE DESIGN ELEMENTS COLOURED IN BLUE TO CONFIRM SITE-SPECIFIC CONDITIONS AND VERIFY ASSUMPTIONS. THE QDP MUST ENSURE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS. IF ANY MODIFICATIONS TO ANY PORTION OF THE DESIGN OTHER THAN THE BLUE-HIGHLIGHTED ELEMENTS ARE MADE, THE PLANS WILL NO LONGER QUALIFY AS PRE-APPROVED, AND APPLICANTS WILL BE REQUIRED TO SUBMIT A BUILDING PERMIT APPLICATION THROUGH THE STANDARD REVIEW PROCESS.
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4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

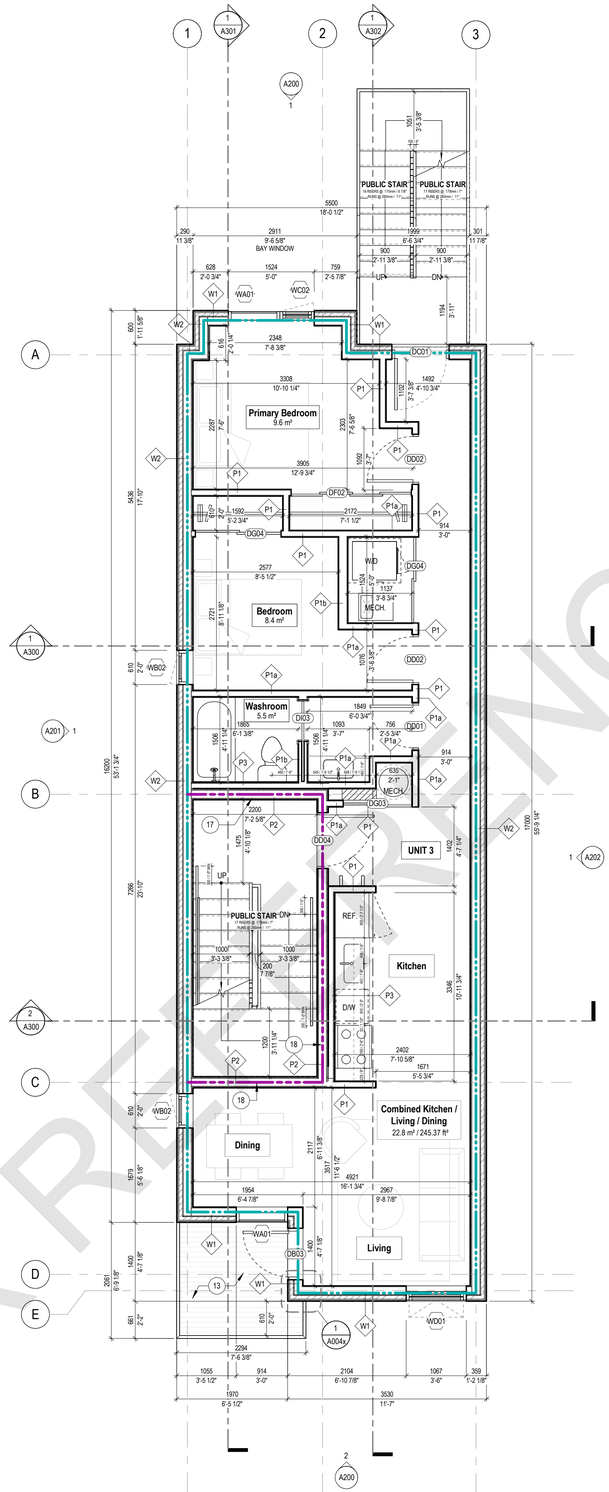
FOURPLEX NARROW

SHEET TITLE:
MAIN FLOOR PLAN

PROJECT NO: 241058
SCALE: 1 : 50

SHEET NO:
A101

FOR REFERENCE ONLY



1 A102 SECOND FLOOR PLAN
1 : 50

FLOOR PLAN GENERAL NOTES

1. MIN CEILING HEIGHTS AS PER OBC TABLE 9.5.3.1
   BATHROOMS & HALLWAYS = 2100mm
   BEDROOM = 2300mm (50%) OR 2100mm (100%)
   LIVING/DINING/KITCHEN = 2300mm (75%) OR 2100mm(100%)
2. MIN ROOM AREAS AS PER OBC TABLE 9.5.3A-E
   LIVING ROOM = 13.5m² (11m² COMBINED WITH KITCHEN & DINING FOR TWO PEOPLE)
   DINING = 3.25m² (COMBINED ROOM)
   KITCHEN = 4.2m² (3.7m2 FOR TWO PEOPLE)
   BEDROOM = 6m² (WITH CLOSET)
   MASTER BEDROOM = 8.8m² (WITH CLOSET)
   COMBINED LIVING, DINING, AND KITCHEN = 21.25m² (17.95m² FOR TWO PEOPLE)
3. ALL ROOMS LABELLED AS 'DEN' SHALL NOT BE BE USED AS A BEDROOM. DENS SHALL NOT BE PROVIDED WITH A DOOR.
4. ALL DROPPED CEILINGS AND BULKHEADS FOR MECHANICAL TO PROVIDE MIN 2100mm CLEAR HEIGHT BELOW
5. UNITS SHOWING ONLY ONE BEDROOM ARE DESIGNED TO ACCOMMODATE NOT MORE THAN TWO PEOPLE
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FIRE SEPARATION LEGEND (MIN. REQ.)

- 1HR FIRE SEPARATION
- 45MIN FIRE SEPARATION

RATED ASSEMBLIES LEGEND (MIN. REQ.)

- 1HR FRR
- 45MIN FRR

FLOOR PLAN KEYNOTES

01 ROOF DECK
02 ROOF DRAIN/THROUGH WALL SCUPPER CONNECTED TO DOWNSPOUT
03 ALL STUD WALLS TO BE REINFORCED TO PERMIT FUTURE INSTALLATION OF GRAB BARS BEHIND WATER CLOSETS, BATHUBS/SHOWERS AS PER 9.5.2.4. ALL GWB TO BE MOISTURE RESISTANT AND SUBSTITUTED FOR TILE BACKER ON ALL TILED WALL SURFACES.
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05 RESERVED
06 LANDSCAPED TERRACE
07 BELOW GRADE WALKOUT
08 STORM WATER SUMP PUMP BELOW SLAB REFER TO MECH- DISCHARGE PER SITE CONDITIONS - SEE SITE PLAN
09 RESERVED
10 1070MM GUARD AS REQUIRED PER 9.8.8.1(1)
11 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24
12 ENTRY PORCH
13 PROJECTED BALCONY
14 SANITARY SUMP PIT BELOW SLAB IF REQUIRED. REFER TO MECH
15 LATERAL STABILIZING COLUMN ON CONCRETE PIER. REFER TO STRUCT.
16 SKYLIGHT ABOVE
17 STRUCTURAL STUD WALL WITH PLYWOOD SHEATHING-REFER TO STRUCT. C/W 16 MM TYPE X GWB ON EACH SIDE.
18 1 HR FRR SUPPORTING STRUCTURE. SEE STRUC. REFER TO A003 INTERIOR DETAIL - FIRE RATED STRUCTURAL POST, PARTITION WALL
19 ALTERNATE CURVED LANDING. REFER TO STRUCT
20 DOUBLE STUD WALL WITH PLYWOOD SHEATHING ON ONE SIDE. REFER TO STRUCT.
21 PROTECTED WINDOW
22 PROVIDE FURRING ON WALL FRAMING AS REQUIRED TO ALIGN WITH STAIR DIMENSIONS
23 RESERVED

FLOOR PLAN LEGEND

	FLOOR MOUNTED TOILET
	PRE-FAB STANDING SHOWER
	PRE-FAB TUB
	KITCHEN SINK
	KITCHEN SINK (SMALL)
	WASHROOM SINK
	WASHER (W) DRYER (D) STACKED WASHER AND DRYER (W/D)
	DOMESTIC HOT WATER
	AIR HANDLER
	RANGE, TYPICAL
	RANGE, NARROW
	REFRIGERATOR
	REFRIGERATOR (NARROW)
	DISHWASHER
	DISHWASHER (NARROW)
	CLOSET COAT ROD
	ELECTRICAL PANEL

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

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4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

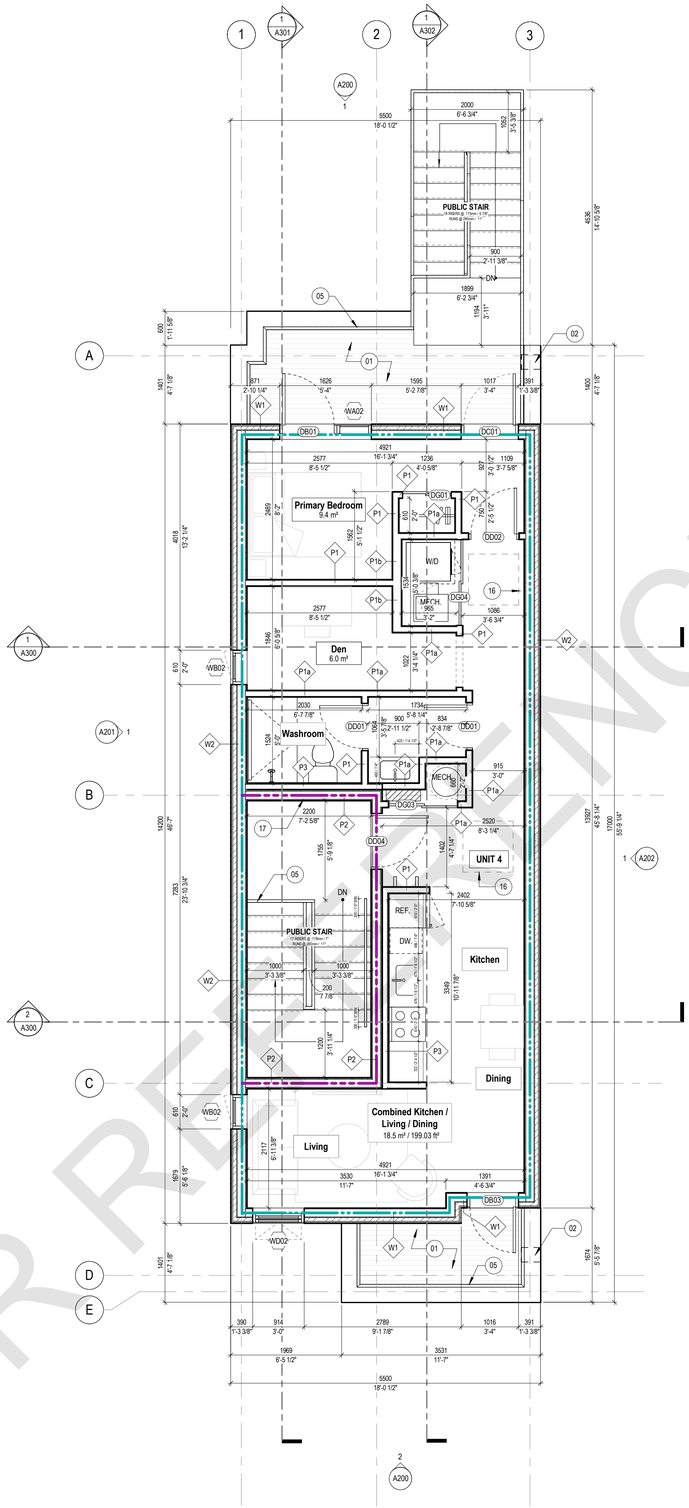
FOURPLEX NARROW

SHEET TITLE:
SECOND FLOOR PLAN

PROJECT NO: 241058
SCALE: 1 : 50

SHEET NO:
A102

FOR REFERENCE ONLY



1 A103 THIRD FLOOR PLAN

1 : 50

FLOOR PLAN GENERAL NOTES

1. MIN CEILING HEIGHTS AS PER OBC TABLE 9.5.3.1
   - BATHROOMS & HALLWAYS = 2100mm
   - BEDROOM = 2300mm (50%) OR 2100mm (100%)
   - LIVING/DINING/KITCHEN = 2300mm (75%) OR 2100mm(100%)
2. MIN ROOM AREAS AS PER OBC TABLE 9.5.3A-E
   - LIVING ROOM = 13.5m² (11m² COMBINED WITH KITCHEN & DINING FOR TWO PEOPLE)
   - DINING = 3.25m² (COMBINED ROOM)
   - KITCHEN = 4.2m² (3.7m2 FOR TWO PEOPLE)
   - BEDROOM = 6m² (WITH CLOSET)
   - MASTER BEDROOM = 8.8m² (WITH CLOSET)
   - COMBINED LIVING, DINING, AND KITCHEN = 21.25m² (17.95m² FOR TWO PEOPLE)
3. ALL ROOMS LABELLED AS 'DEN' SHALL NOT BE BE USED AS A BEDROOM. DENS SHALL NOT BE PROVIDED WITH A DOOR.
4. ALL DROPPED CEILINGS AND BULKHEADS FOR MECHANICAL TO PROVIDE MIN 2100mm CLEAR HEIGHT BELOW
5. UNITS SHOWING ONLY ONE BEDROOM ARE DESIGNED TO ACCOMMODATE NOT MORE THAN TWO PEOPLE
6. ALL EXTERIOR STAIRS DESIGNED FROM FLOOR LEVEL TO ASSUMED GRADE. QDP TO ADJUST AS REQ. PER SITE GRADING AND ENSURE REQUIREMENTS OF OBC 9.8 ARE MET.

FIRE SEPARATION LEGEND (MIN. REQ.)

- 1HR FIRE SEPARATION
- 45MIN FIRE SEPARATION

RATED ASSEMBLIES LEGEND (MIN. REQ.)

- 1HR FRR
- 45MIN FRR

FLOOR PLAN KEYNOTES

01 ROOF DECK

02 ROOF DRAIN/THROUGH WALL SCUPPER CONNECTED TO DOWNSPOUT

03 ALL STUD WALLS TO BE REINFORCED TO PERMIT FUTURE INSTALLATION OF GRAB BARS BEHIND WATER CLOSETS, BATHUBS/SHOWERS AS PER 9.5.2.4. ALL GWB TO BE MOISTURE RESISTANT AND SUBSTITUTED FOR TILE BACKER ON ALL TILED WALL SURFACES.

04 NON COMBUSTIBLE CANOPY ABOVE ENTRANCES

05 RESERVED

06 LANDSCAPED TERRACE

07 BELOW GRADE WALKOUT

08 STORM WATER SUMP PUMP BELOW SLAB REFER TO MECH- DISCHARGE PER SITE CONDITIONS - SEE SITE PLAN

09 RESERVED

10 1070MM GUARD AS REQUIRED PER 9.8.8.1(1)

11 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24

12 ENTRY PORCH

13 PROJECTED BALCONY

14 SANITARY SUMP PIT BELOW SLAB IF REQUIRED. REFER TO MECH

15 LATERAL STABILIZING COLUMN ON CONCRETE PIER. REFER TO STRUCT.

16 SKYLIGHT ABOVE

17 STRUCTURAL STUD WALL WITH PLYWOOD SHEATHING-REFER TO STRUCT. C/W 16 MM TYPE X GWB ON EACH SIDE.

18 1 HR FRR SUPPORTING STRUCTURE. SEE STRUC. REFER TO A003 INTERIOR DETAIL - FIRE RATED STRUCTURAL POST, PARTITION WALL

19 ALTERNATE CURVED LANDING. REFER TO STRUCT

20 DOUBLE STUD WALL WITH PLYWOOD SHEATHING ON ONE SIDE. REFER TO STRUCT.

21 PROTECTED WINDOW

22 PROVIDE FURRING ON WALL FRAMING AS REQUIRED TO ALIGN WITH STAIR DIMENSIONS

23 RESERVED

FLOOR PLAN LEGEND

- FLOOR MOUNTED TOILET
- PRE-FAB STANDING SHOWER
- PRE-FAB TUB
- KITCHEN SINK
- KITCHEN SINK (SMALL)
- WASHROOM SINK
- WASHER (W)
  DRYER (D)
  STACKED WASHER AND DRYER (W/D)
- DOMESTIC HOT WATER
- AIR HANDLER
- RANGE, TYPICAL
- RANGE, NARROW
- REFRIGERATOR
- REFRIGERATOR (NARROW)
- DISHWASHER
- DISHWASHER (NARROW)
- CLOSET COAT ROD
- ELECTRICAL PANEL

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

THIRD FLOOR PLAN

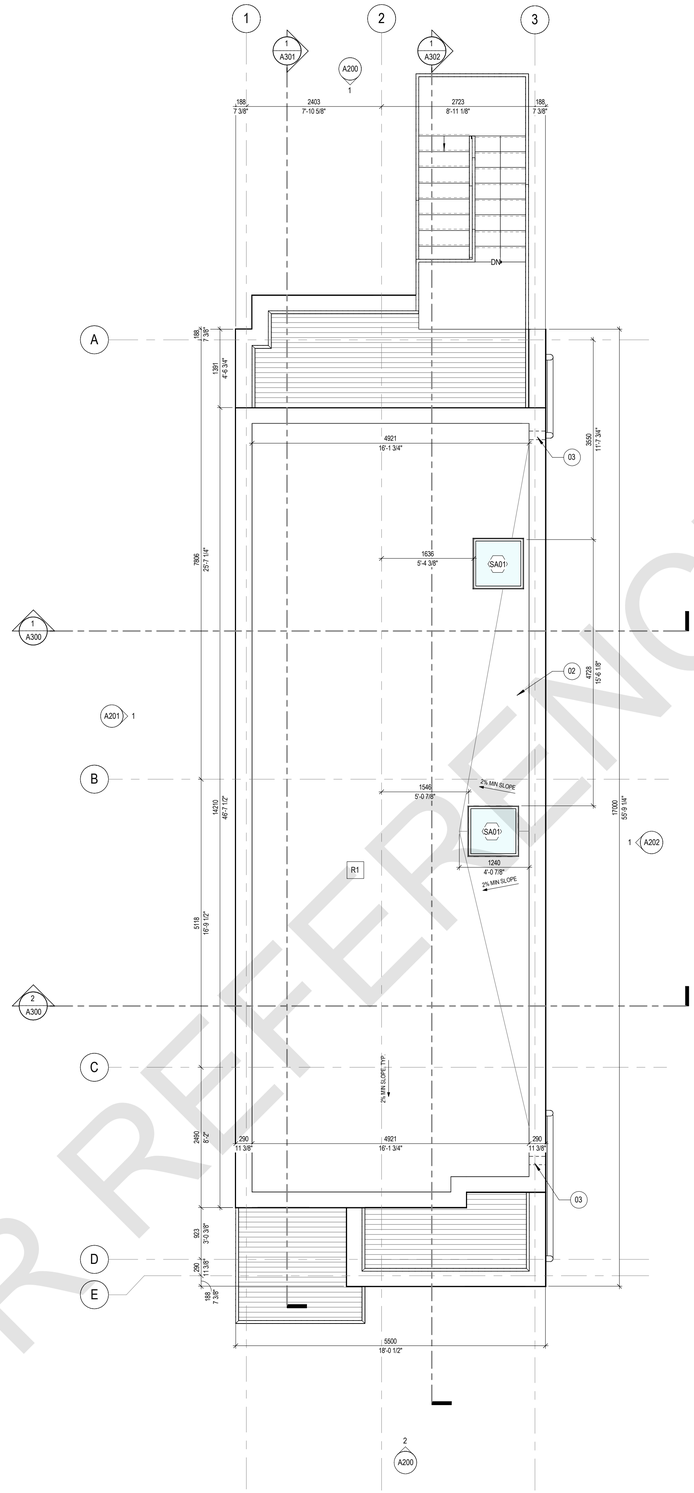
PROJECT NO: 241058

SCALE: 1 : 50

SHEET NO:

A103

FOR REFERENCE ONLY



1 A104 ROOF PLAN
1 : 50

ROOF PLAN GENERAL NOTES

1. ALL ROOFING TYPES TO COMPLY WITH REQUIRED MINIMUM SLOPES AS PER OBC 9.26.3 AND MANUFACTURER REQUIREMENTS FOR SPECIFIED ROOFING TYPE
2. ALL ROOFS, GUTTERS AND TROUGHS HAVE POSITIVE SLOPE TO DRAIN

ROOF PLAN KEYNOTES

01 RESERVED

02 COUNTER SLOPE TO DRAINS WITH TAPERED BOARD INSULATION OR SLOPE MARINE GRADE PLYWOOD

03 ROOF DRAIN/THROUGH WALL SCUPPER CONNECTED TO DOWNSPOUT

04 ROOF DRAIN/THROUGH WALL SCUPPER CONNECTED TO DOWNSPOUT WITH SLOPED HORIZONTAL TO MAIN ROOF DOWNSPOUT

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QDP MUST REVIEW AND UPDATE THE DESIGN ELEMENTS COLOURED IN BLUE TO CONFIRM SITE-SPECIFIC CONDITIONS AND VERIFY ASSUMPTIONS. THE QDP MUST ENSURE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS. IF ANY MODIFICATIONS TO ANY PORTION OF THE DESIGN OTHER THAN THE BLUE-HIGHLIGHTED ELEMENTS ARE MADE, THE PLANS WILL NO LONGER QUALIFY AS PRE-APPROVED, AND APPLICANTS WILL BE REQUIRED TO SUBMIT A BUILDING PERMIT APPLICATION THROUGH THE STANDARD REVIEW PROCESS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

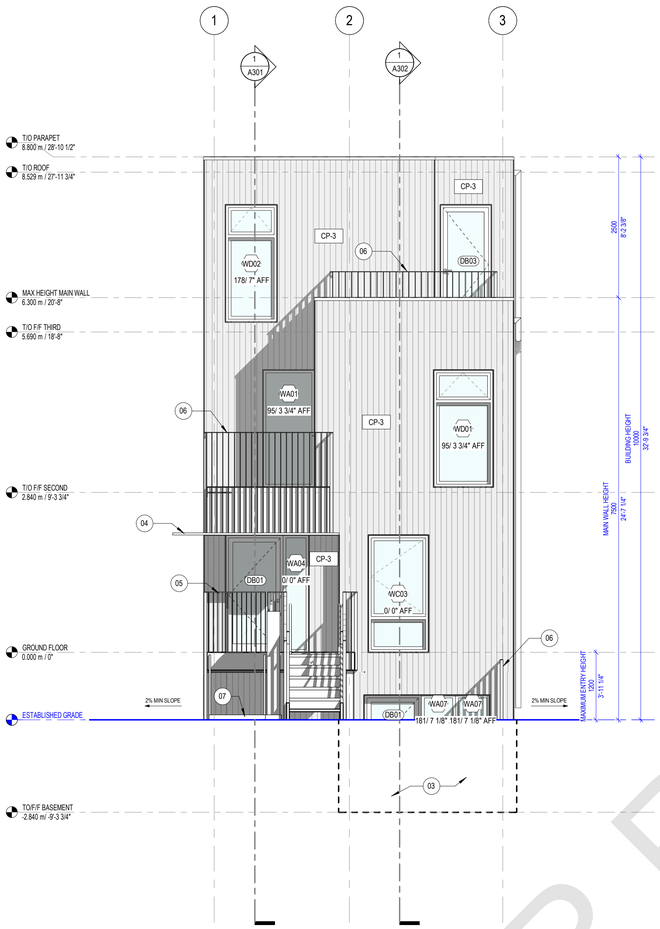
PROJECT:
City of Toronto - Multiplex

FOURPLEX NARROW

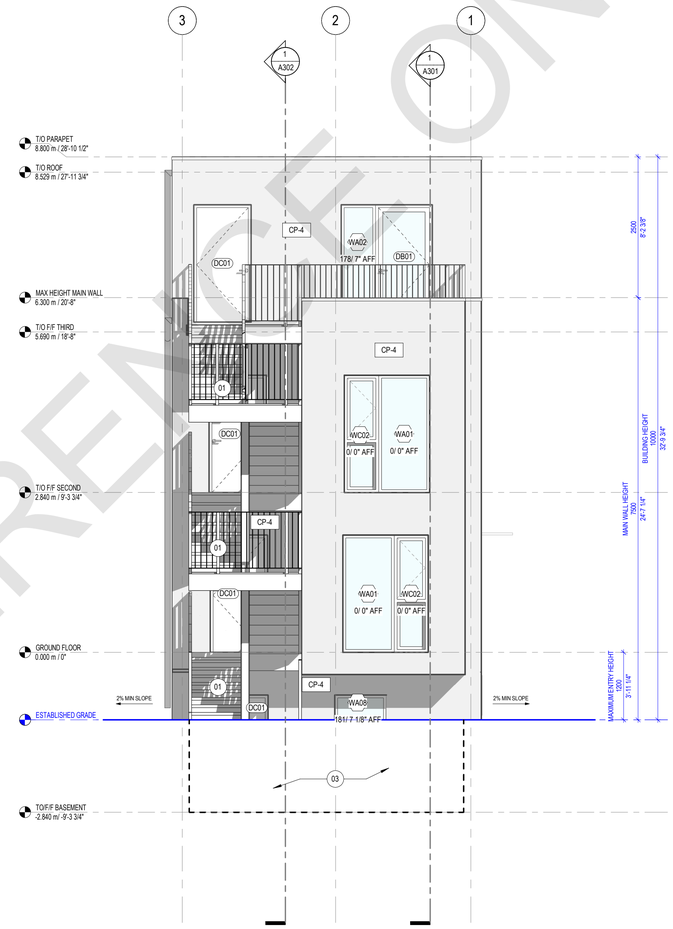
SHEET TITLE:
ROOF PLAN

PROJECT NO: 241058
SCALE: 1 : 50

SHEET NO:
A104



2 A200 BUILDING ELEVATION - FRONT
1 : 50



1 A200 BUILDING ELEVATION - REAR
1 : 50

ELEVATIONS KEYNOTES

01 UNENCLOSED GALVINISED STEEL EXTERIOR STAIR AND LANDINGS. REFER TO STRUCT.

02 JULIET BALCONY

03 BELOW GRADE WALKOUT. CONCRETE SLAB ON GRADE.

04 NON_COMBUSTIBLE CANOPY

05 OPERABLE GATE FOR ACCESSIBLE LIFT

06 GUARD, AS PER OBC 9.8.8.1.(1).

07 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24

08 DOWNSPOUT

09 DOWN SPOUT AND EXTENSION AS PER OBC 9.26.18.2.(1). LENGTH AND PLACEMENT OF EXTENSION TO BE CONFIRMED BY QDP. PLACEMENT SHALL NOT IMPEDE SIDE YARD ACCESS.

ELEVATION MATERIAL SCHEDULE

TAG	MATERIAL
CP-3	CLADDING, TYPE 3
CP-4	CLADDING, TYPE 4
PFM	PRE-FINISHED METAL FLASHING

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

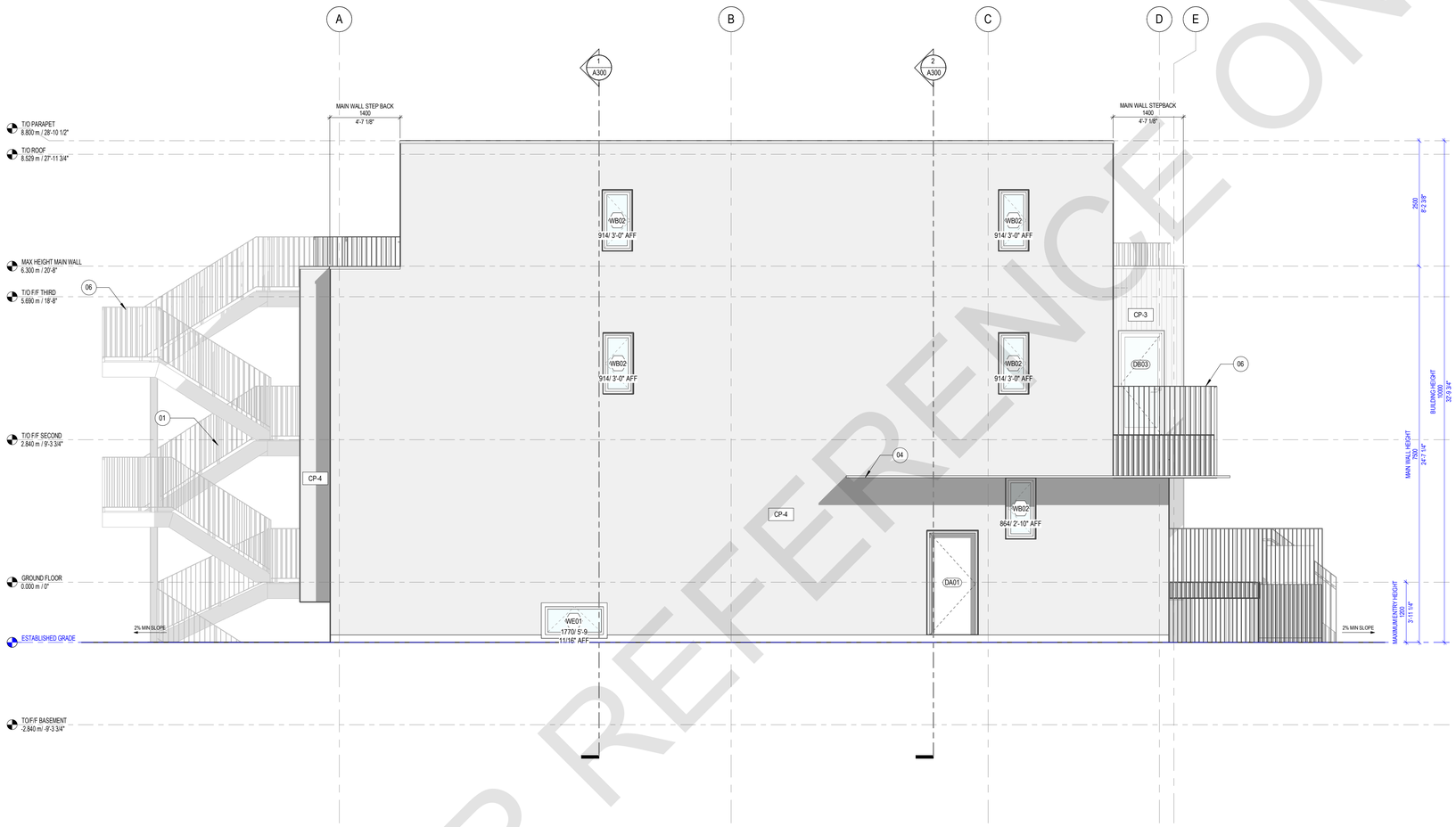
ELEVATIONS

PROJECT NO: 241058

SCALE: As indicated

SHEET NO:

A200



1 / A201 BUILDING ELEVATION - SIDE 1

1 : 50

ELEVATIONS KEYNOTES

01 UNENCLOSED GALVINISED STEEL EXTERIOR STAIR AND LANDINGS. REFER TO STRUCT.

02 JULIET BALCONY

03 BELOW GRADE WALKOUT. CONCRETE SLAB ON GRADE.

04 NON_COMBUSTIBLE CANOPY

05 OPERABLE GATE FOR ACCESSIBLE LIFT

06 GUARD, AS PER OBC 9.8.8.1.(1).

07 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24

08 DOWNSPOUT

09 DOWN SPOUT AND EXTENSION AS PER OBC 9.26.18.2.(1). LENGTH AND PLACEMENT OF EXTENSION TO BE CONFIRMED BY QDP. PLACEMENT SHALL NOT IMPEDE SIDE YARD ACCESS.

ELEVATION MATERIAL SCHEDULE

TAG	MATERIAL
CP-3	CLADDING, TYPE 3
CP-4	CLADDING, TYPE 4
PFM	PRE-FINISHED METAL FLASHING

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

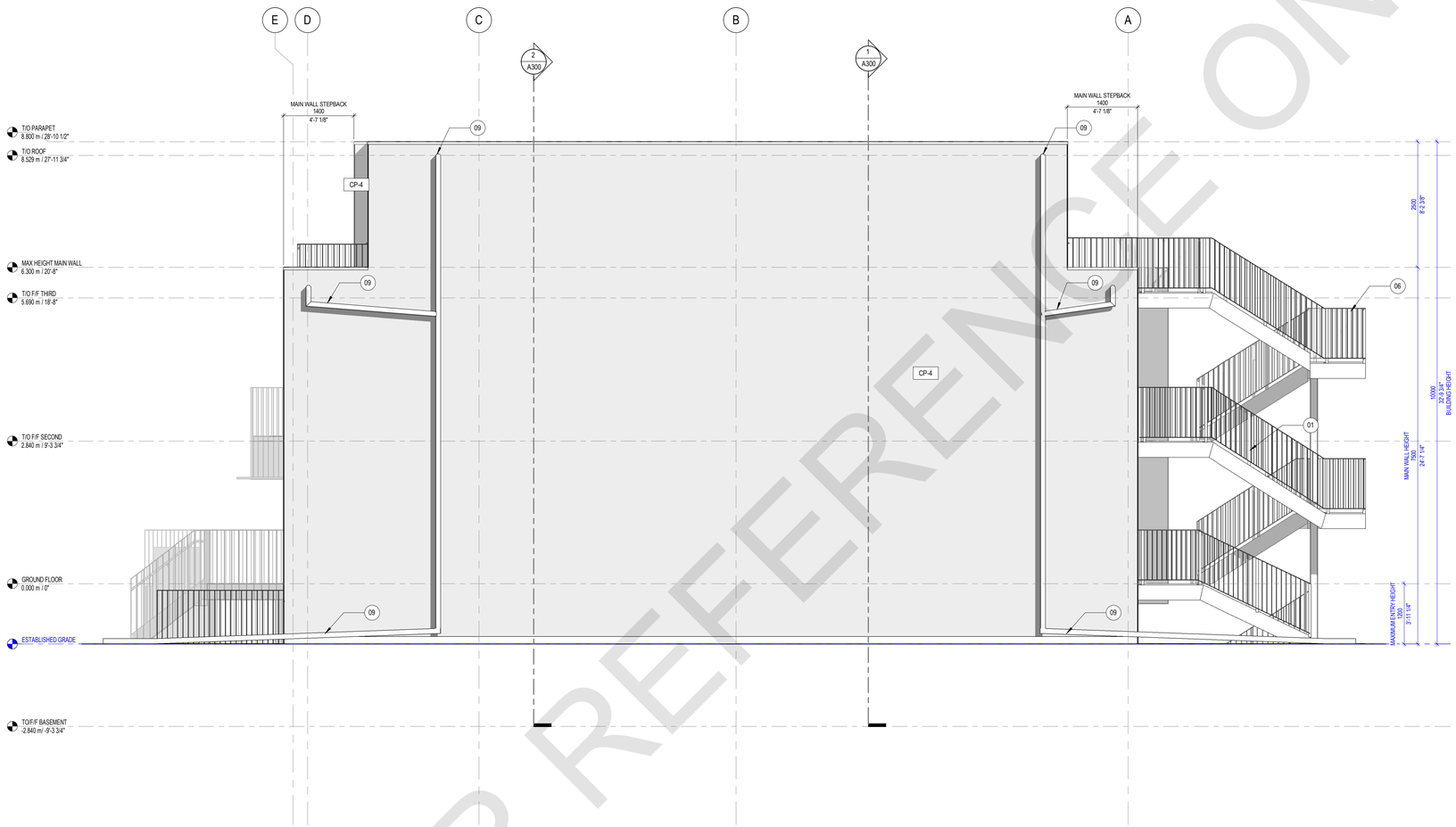
ELEVATIONS

PROJECT NO: 241058

SCALE: As indicated

SHEET NO:

A201



1 A202 BUILDING ELEVATI0N - SIDE 2

1 : 50

ELEVATIONS KEYNOTES

01 UNENCLOSED GALVINISED STEEL EXTERIOR STAIR AND LANDINGS. REFER TO STRUCT.

02 JULIET BALCONY

03 BELOW GRADE WALKOUT. CONCRETE SLAB ON GRADE.

04 NON_COMBUSTIBLE CANOPY

05 OPERABLE GATE FOR ACCESSIBLE LIFT

06 GUARD, AS PER OBC 9.8.8.1.(1).

07 UNENCLOSED VERTICAL LIFT AS PER CSA B355:24

08 DOWNSPOUT

09 DOWN SPOUT AND EXTENSION AS PER OBC 9.26.18.2.(1). LENGTH AND PLACEMENT OF EXTENSION TO BE CONFIRMED BY QDP. PLACEMENT SHALL NOT IMPEDE SIDE YARD ACCESS.

ELEVATION MATERIAL SCHEDULE

TAG	MATERIAL
CP-3	CLADDING, TYPE 3
CP-4	CLADDING, TYPE 4
PFM	PRE-FINISHED METAL FLASHING

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

ELEVATIONS

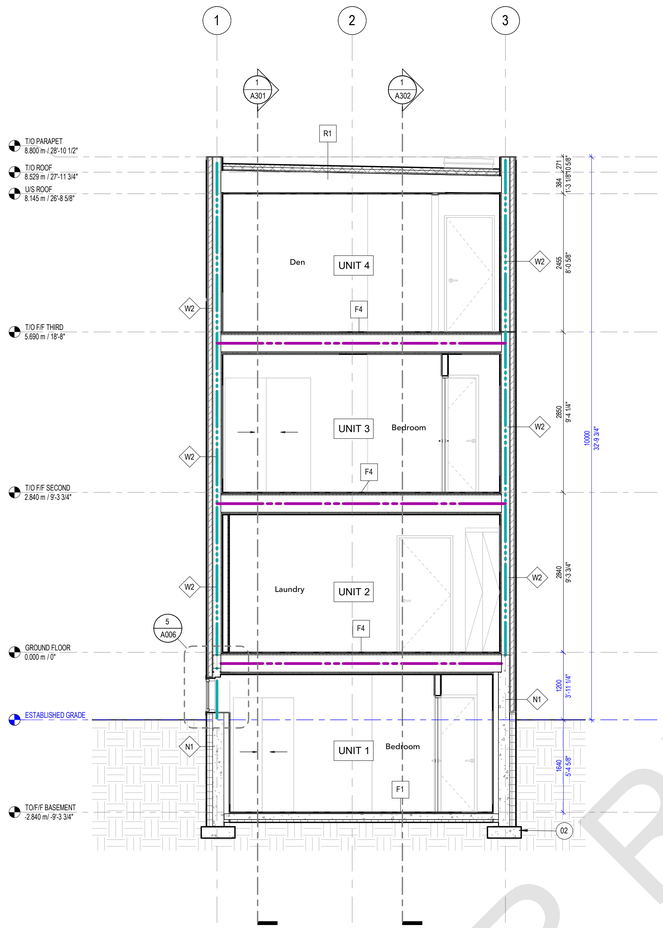
PROJECT NO: 241058

SCALE: As indicated

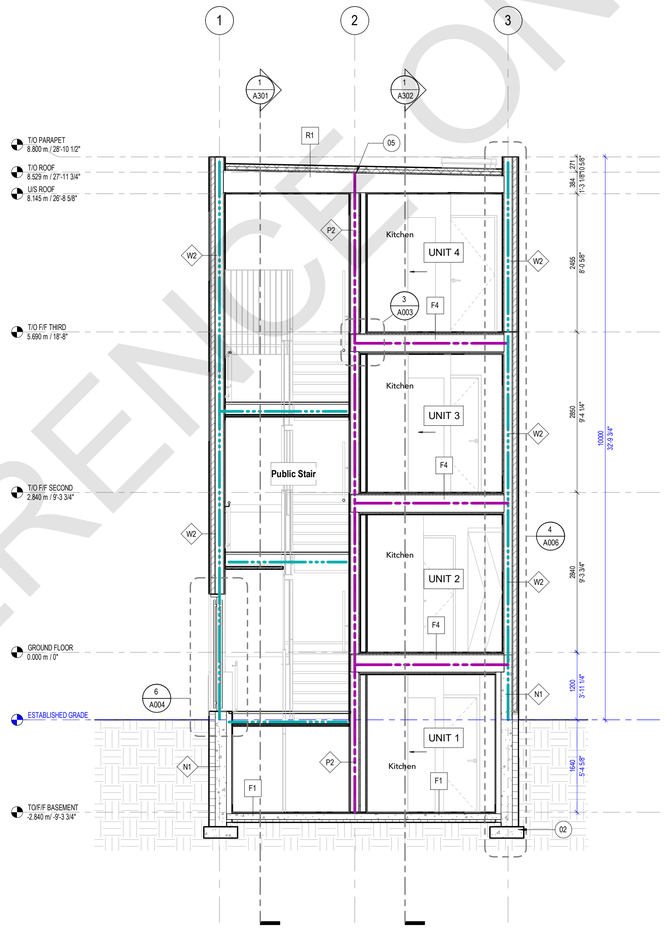
SHEET NO:

A202

FOR REFERENCE ONLY



1 A300 BUILDING SECTION 1
1 : 50



2 A300 BUILDING SECTION 2
1 : 50

FOR REFERENCE ONLY

SECTION KEYNOTES

01 STRUCTURAL STEEL COLUMNS REFER TO STRUCTURAL

02 ALL FOUNDATION WALLS AND FOOTING SIZES VARIES. REFER TO STRUCT.

03 THICKENED SLAB. REFER TO STRUCT.

04 ALL WALL AND FLOOR ASSEMBLIES AT STAIRS AND LANDINGS REQUIRED TO BE A FIRE SEPARATION SHALL BE CONSTRUCTED AS A CONTINUOUS BARRIER AGAINST THE SPREAD OF FIRE AND SMOKE AS PER OBC 9.10.9.2. REFER TO FIRE SEPARATION DRAWINGS FOR REQUIRED FIRE SEPARATION RATINGS.

05 CONTINUE FIRE SEPARATION THROUGH ROOF ASSEMBLY.

FIRE SEPARATION LEGEND (MIN. REQ.)

	1HR FIRE SEPARATION
	45MIN FIRE SEPARATION

RATED ASSEMBLIES LEGEND (MIN. REQ.)

	1HR FRR
	45MIN FRR

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

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NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:
SECTIONS

PROJECT NO: 241058
SCALE: 1 : 50

SHEET NO:
A300

SECTION KEYNOTES

01 STRUCTURAL STEEL COLUMNS REFER TO STRUCTURAL

02 ALL FOUNDATION WALLS AND FOOTING SIZES VARIES. REFER TO STRUCT.

03 THICKENED SLAB. REFER TO STRUCT.

04 ALL WALL AND FLOOR ASSEMBLIES AT STAIRS AND LANDINGS REQUIRED TO BE A FIRE SEPARATION SHALL BE CONSTRUCTED AS A CONTINUOUS BARRIER AGAINST THE SPREAD OF FIRE AND SMOKE AS PER OBC 9.10.9.2. REFER TO FIRE SEPARATION DRAWINGS FOR REQUIRED FIRE SEPARATION RATINGS.

05 CONTINUE FIRE SEPARATION THROUGH ROOF ASSEMBLY.

FIRE SEPARATION LEGEND (MIN. REQ.)

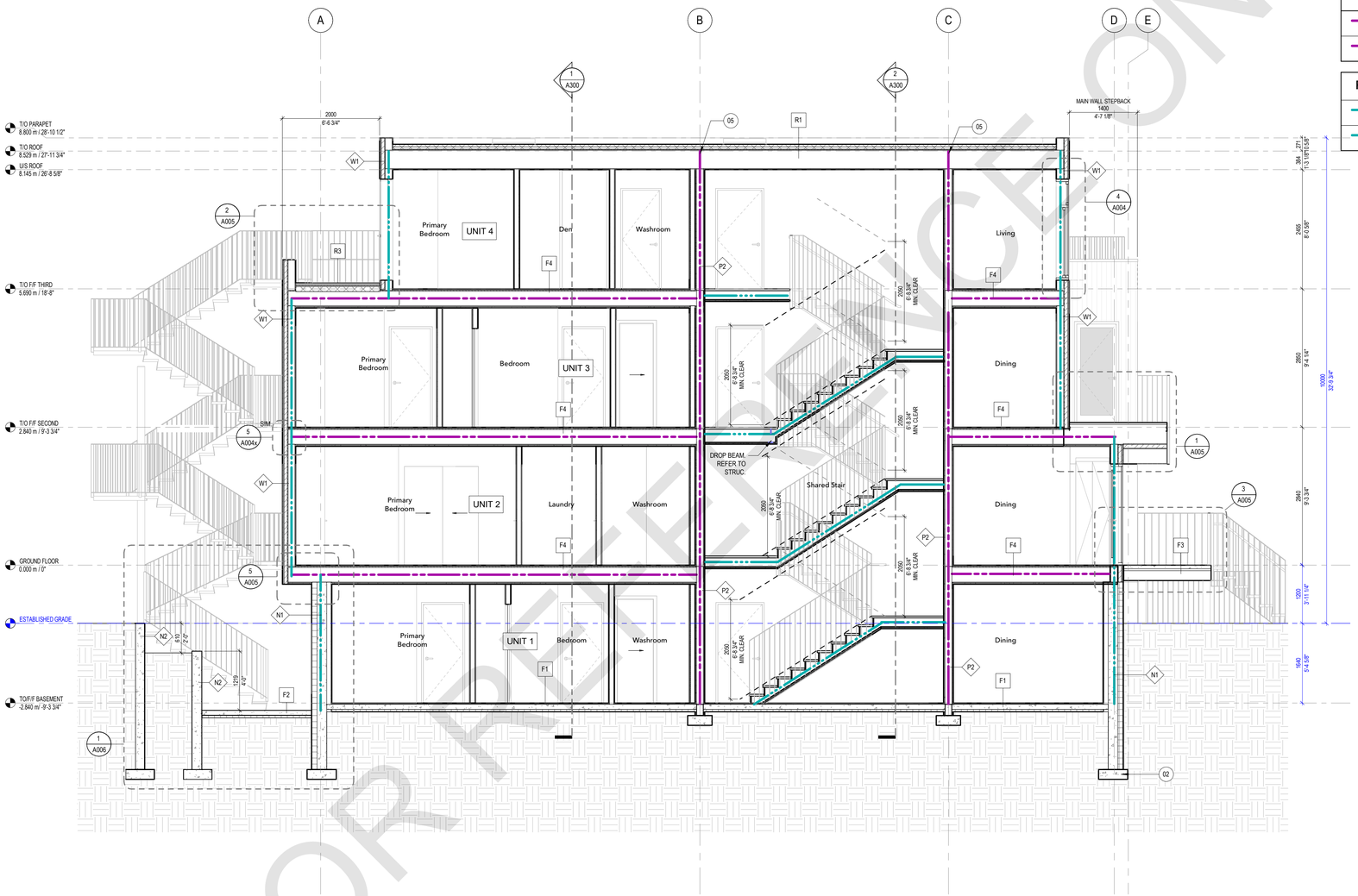
1HR FIRE SEPARATION

45MIN FIRE SEPARATION

RATED ASSEMBLIES LEGEND (MIN. REQ.)

1HR FRR

45MIN FRR



1 A301 BUILDING SECTION 3

1 : 50

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
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3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

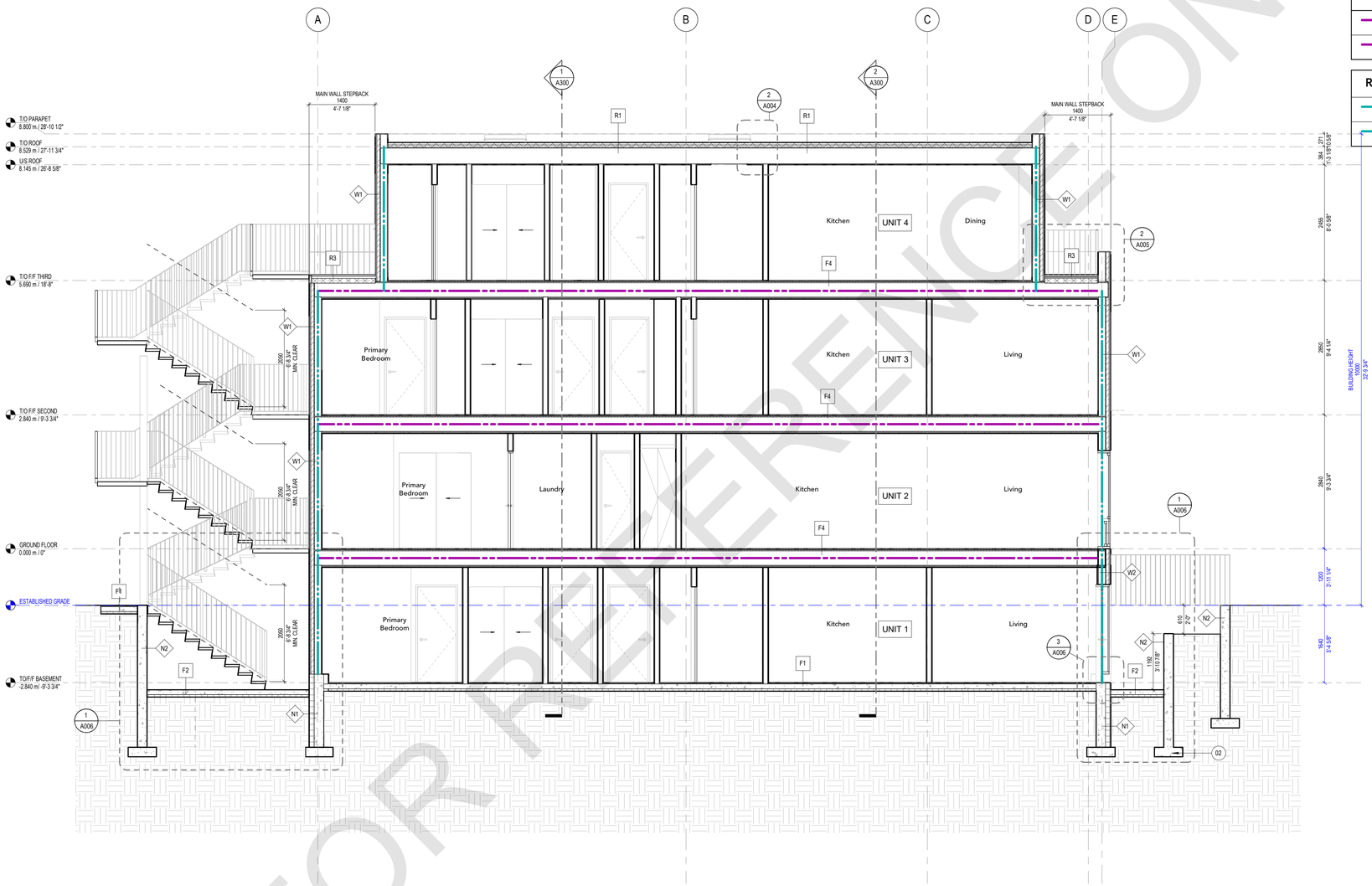
SECTION

PROJECT NO: 241058

SCALE: 1 : 50

SHEET NO:

A301



1 A302 BUILDING SECTION 4

1 : 50

SECTION KEYNOTES

01 STRUCTURAL STEEL COLUMNS REFER TO STRUCTURAL

02 ALL FOUNDATION WALLS AND FOOTING SIZES VARIES. REFER TO STRUCT.

03 THICKENED SLAB. REFER TO STRUCT.

04 ALL WALL AND FLOOR ASSEMBLIES AT STAIRS AND LANDINGS REQUIRED TO BE A FIRE SEPARATION SHALL BE CONSTRUCTED AS A CONTINUOUS BARRIER AGAINST THE SPREAD OF FIRE AND SMOKE AS PER OBC 9.10.9.2. REFER TO FIRE SEPARATION DRAWINGS FOR REQUIRED FIRE SEPARATION RATINGS.

05 CONTINUE FIRE SEPARATION THROUGH ROOF ASSEMBLY.

FIRE SEPARATION LEGEND (MIN. REQ.)

	1HR FIRE SEPARATION
	45MIN FIRE SEPARATION

RATED ASSEMBLIES LEGEND (MIN. REQ.)

	1HR FRR
	45MIN FRR

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

SECTIONS

PROJECT NO: 241058

SCALE: 1 : 50

SHEET NO:

A302

CITY OF TORONTO MULTIPLEX
FOURPLEX NARROW

STRUCTURAL DRAWINGS

STRUCTURAL SHEET LIST

S001	GENERAL NOTES AND TYPICAL DETAILS
S002	GENERAL NOTES AND TYPICAL DETAILS
S101	FOUNDATION PLAN
S102	BASMEMENT FLOOR PLAN SHOWING GROUND LEVEL FRAMING
S103	GROUND FLOOR PLAN SHOWING SECOND LEVEL FRAMING
S104	SECOND FLOOR PLAN SHOWING THIRD LEVEL FRAMING
S105	THIRD FLOOR PLAN SHOWING ROOF LEVEL FRAMING
S401	FOUNDATION DETAILS
S402	ENTRY PORCH AND EGRESS STAIR SUPPORT DETAILS
S403	WOOD FRAMING DETAILS
S404	CFS FRAMING DETAILS
S405	FOUNDATION DETAILS
S406	LATERAL STABILIZING COLUMN DETAILS

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

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3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QUALIFIED DESIGN PROFESSIONAL MUST REVIEW AND UPDATE THE PRE-APPROVED DESIGN DRAWINGS TO ALIGN WITH SITE CONDITIONS, VERIFY ASSUMPTIONS, MAKE ANY FINAL DESIGN SELECTIONS OR MODIFICATIONS DESIRED, AND ENSURE CODE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

COVER

PROJECT NO:

SCALE: N.T.S.

SHEET NO:

S-000

1. USE OF THESE STRUCTURAL DRAWINGS

1.1. STRUCTURAL MEMBERS SHOWN ON THIS SET OF DRAWINGS HAVE BEEN DESIGNED TO RESIST PART 9 ENVIRONMENTAL DESIGN LOADS BASED ON WORST CASE WIND, SNOW AND SEISMIC VALUES FOR METROPOLITAIN TORONTO LOCATIONS PER OBC 2024 SB-1 TABLE 2 - CLIMATIC DESIGN DATA.
1.2. SIZING OF ENGINEERED LUMBER FRAMING, STEEL ELEMENTS, COLD FORMED STEEL FRAMING, REINFORCED CONCRETE FOUNDATION WALLS AND FOOTINGS HAS BEEN CALCULATED IN ACCORDANCE WITH PART 4 OF THE OBC WHERE DESIGN REQUIREMENTS EXCEED THE LIMITS OF PART 9.
1.3. LATERAL RESISTANCE TO WIND LOADS PROVIDED ARE PROVIDED BY BRACED WALL BANDS AND PANELS CALCULATED IN ACCORDANCE WITH OBC 9.23.13 AND WHERE ARCHITECTURAL DESIGN IMPERATIVES EXCEED THE LIMITS OF PART 9, SHEAR WALLS AND LATERAL RESISTING ELEMENTS WERE DESIGNED IN ACCORDANCE WITH PART 4 OF THE OBC USING LOADS GENERATED USING PART 4.
1.4. ANY CHANGES TO FRAMING LAYOUT, ASSEMBLIES, MATERIALS, CONNECTIONS AND / OR LOCATION OF THE BUILDING OUTSIDE OF METROPOLITAIN TORONTO (2026 BOUNDARIES) MUST BE CARRIED OUT BY A STRUCTURAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
1.5. FOUNDATION ELEMENTS HAVE BEEN DESIGNED USING AN ALLOWABLE SOIL BEARING VALUE OF 75 kPa.
1.6. THE OWNER MUST CONFIRM THIS MINIMUM BEARING VALUE BY GEOTECHNICAL INVESTIGATION OR BY MEANS THAT IS IN ACCORDANCE WITH OBC 9.4 AND APPROVED BY THE CITY OF TORONTO'S CBO (CHIEF BUILDING OFFICIAL).
1.7. USE OF HIGHER ALLOWABLE SOIL BEARING VALUES TO OPTIMIZE FOOTING SIZES SHOWN ON THESE DRAWINGS MUST BE BASED ON FINDINGS AND RECOMMENDATIONS MADE BY A GEOTECHNICAL INVESTIGATION AND DESIGN REVISIONS CARRIED OUT BY A STRUCTURAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
1.8. THE OWNER MUST CONFIRM PRIOR TO CONSTRUCTION THAT PROPOSED EXCAVATIONS AND CONSTRUCTION OF FOUNDATIONS OR OTHER BUILDING ELEMENTS WILL BE ABOVE OR BELOW A 7:10 ANGLE OF REPOSE TO ADJACENT BUILDING FOUNDATIONS. CONSTRUCTING WITHIN THIS ANGLE OF REPOSE REQUIRES FOUNDATIONS TO BE DESIGNED AND REVIEWED ON SITE BY A PROFESSION ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.

2. LOADS USED IN THE DESIGN:

2.1. SNOW: 1.06 kPa
2.2. LIVE: 1.9 kPa RESIDENTIAL OCCUPANCY and 4.8 kPa COMMON AND EGRESS AREAS.
2.3. DEAD: 1.0 kPa (ROOF) and 1.7 kPa (FLOORS) and 0.75 kPa (EXTERIOR WALLS).
2.4. WIND: 0.83 kPa ULS and 0.63 kPa SLS FOR PART 4 SHEAR WALLS AND MOMENT RESISTING COLUMNS
2.5. INTERNAL WIND PRESSURE: 0.5 kPa

3. SUBMITTALS:

3.1. SHOP DRAWINGS DESIGNED BY A STRUCTURAL ENGINEER LICENCED IN THE PROVINCE OF ONTARIO or SUPPLIER APPROVED BY THE CHIEF BUILDING OFFICIAL OF THE CITY OF TORONTO ARE REQUIRED FOR REVIEW AND APPROVAL BY THE PROJECT DESIGN PROFESSONAL OF THE FOLLOWING ELEMENTS:
3.2. ENGINEERED LUMBER ROOF AND FLOOR FRAMING FOR GRAVITY LOADS SHOWN ON THESE DRAWINGS.
3.3. COLD FORMED STEEL (CFS) BEARING WALLS FOR GRAVITY, WIND, AND LATERAL FORCES SHOWN ON THESE DRAWING.
3.4. MISCELLANEOUS METALS ITEMS SUCH AS EXTERIOR ENTRY STAIRS, EXTERIOR EGRESS STAIRS, GUARD RAILS AND OTHER METAL ELEMENTS SUPPORTING LIVE, SNOW OR WIND LOADS.
3.5. GEOTECHNICAL ENGINEERING REPORTS AS REQUIRED.
3.6. CONFIRMATION THAT BUILDING FOUNDATIONS, SHORING AND EXCAVATIONS DO NOT ENCROACH ON SAFE ANGLE OF REPOSE TO ADJACENT BUILDING OR STRUCTURE FOUNDATIONS.
3.7. RESERVED.

4. GENERAL

4.1. CONFORM TO THE REQUIREMENTS OF THE ONTARIO BUILDING CODE 2024, O.REG. 163/24 AND ANY APPLICABLE ACTS OF AUTHORITY HAVING JURISDICTION.
4.2. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTS.
4.3. BEFORE PROCEEDING WITH WORK, CHECK ALL THE DIMENSIONS SHOWN ON THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND REPORT DISCREPANCIES TO THE APPROVED DESIGN PROFESSIONAL. DO NOT SCALE THE DRAWINGS.
4.4. REFER TO THE ARCHITECTURAL AND OTHER DRAWINGS FOR LOCATIONS AND DIMENSIONING OF OPENINGS AND SLEEVES NOT SHOWN ON THE STRUCTURAL DRAWINGS. ASSUME TYPICAL DETAILS APPLY, HOWEVER, OBTAIN THE APPROVED DESIGN PROFESSIONAL'S PRIOR APPROVAL BEFORE INSTALLING OPENINGS, SLEEVES, ETC. WHICH ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
4.5. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATIONS OF PITS, BASES, SUMPS, TRENCHES, DEPRESSIONS, GROOVES, CURBS, CHAMFERS AND SLOPES NOT SHOWN ON STRUCTURAL DRAWINGS. ADJUST UNDERSIDE ELEVATIONS OF FOOTINGS AS REQUIRED TO AVOID UNDERMINING THE FOOTINGS AND FOUNDATIONS.
4.6. HORIZONTAL AND VERTICAL DESIGN LOADS ARE NOTED. THEY SHALL NOT BE EXCEEDED DURING CONSTRUCTION.
4.7. TYPICAL STRUCTURAL DETAILS SHALL GOVERN THE WORK. IF DETAILS DIFFER ON THE DRAWINGS, THE MOST STRINGENT SHALL GOVERN.
4.8. CONTRACTOR TO PROVIDE AND BE SOLELY RESPONSIBLE FOR ALL TEMPORARY WORKS.
4.9. THE INFORMATION SHOWN ON STRUCTURAL DRAWINGS REPRESENT THE BUILDING IN ITS FINISHED STATE. CONTRACTOR TO REVIEW THESE REQUIREMENTS AND DETERMINE ALL TEMPORARY WORKS REQUIRED TO COMPLETE THE STRUCTURE PER CONTRACT DOCUMENTS INCLUDING MEANS , METHODS, TECHINQUES, SEQUENCES, PROCEDURES, TEMPORARY SHORING AND/OR BRACING, TEMPORARY OPENINGS, EXCAVATION SHORING, ERECTION PROCEDURES, ETC.

5. DESIGN NOTES

5.1. THE BUILDING IS DESIGNATED AS BELONGING TO THE NORMAL IMPORTANCE CATEGORY, AS DEFINED IN THE OBC 2024.
5.2. ALL REINFORCED CONCRETE ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD A23.3.
5.3. ALL STRUCTURAL TIMBER ELEMENTS HAVE BEEN DESIGNED IN ACCORDANCE WITH CSA STANDARD O86.
5.4. LATERAL FORCES ON STRUCTURAL FRAME
5.1. THE LATERAL FORCES ARE RESISTED BY BRACED WALLS AS PER 9.23.13.1.(2).(a) OF THE OBC 2024. WOOD SHEAR WALLS, CFS BRACED FRAMES, AND MOMENT RESISTING BEAM COLUMNS.
5.2. THE FRAME IS NOT STABLE UNTIL THE LATERAL LOAD RESISTING SYSTEM IS IN PLACE.
5.3. WIND:
5.3.1. THE DESIGN OF THE STRUCTURE FOR WIND IS BASED ON AN HOURLY WIND PRESSURE OF 0.47 kPa (BASED ON 1/50 YEAR RETURN FOR SCARBOROUGH).
5.3.2. EXPOSURE CONDITION: ROUGH TERRAIN.
5.3.3. THE IMPORTANCE FACTOR, Iw, FOR WIND DESIGN IS 1.0. FOR DEFLECTION ANALYSIS, THE FACTOR IS 0.75.
5.3.4. WHERE OBC 9.23.13.1 WAS NOT APPLICABLE THE DESIGN WIND FORCES HAVE BEEN CALCULATED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2024 AND WITH THE "STATIC" PROCEDURE DESCRIBED IN THE USER'S GUIDE - NBC 2020 - STRUCTURAL COMMENTARIES (PART 4).
5.4. LATERAL FORCES ON FOUNDATION WALLS
5.1.1. WALLS RETAINING EARTH ARE DESIGNED TO SAFELY WITHSTAND A HORIZONTAL PRESSURE AT ANY DEPTH (h) GIVEN BY THE EXPRESSION:
$P = K (\gamma h + q)$, WHERE
K IS THE LATERAL EARTH PRESSURE COEFFICENT
P IS THE PRESSURE EXERTED HORIZONTALLY
h IS THE DEPTH BELOW GRADE
γ IS THE UNIT WEIGHT OF SOIL
q IS THE SURCHARGE ON THE GROUND SURFACE
5.1.2. THE WALLS HAVE BEEN DESIGNED ASSUMING THAT THERE IS FREE-DRAINING BACKFILL, OR THAT OTHER PROVISIONS HAVE BEEN MADE, SUCH THAT THE WALLS ARE NOT SUBJECT TO HYDROSTATIC PRESSURE.
5.1.3. IN ACCORDANCE WITH OBC Cl.9.4.4.6, THE WALLS HAVE BEEN DESIGNED USING K=0.83, AND γ=21 kN/m3.
5.2. SNOW LOADS ON ROOFS
5.1.1. THE ROOFS HAVE BEEN DESIGNED WITH Ss = 1.2 kPa AND Sr = 0.4 kPa.
5.1.2. THE IMPORTANCE FACTOR, I/S, IS 1.0 FOR ULS AND 0.9 FOR SLS.
5.2. LIVE AND OTHER LOADS
5.1.1. SEE NOTES BELOW FLOOR PLANS.
5.1.2. IN THE DESIGN OF COLUMNS, WALLS, BEAMS, FLAT SLABS ETC. THE INDICATED LIVE LOADS HAVE NOT BEEN REDUCED AS PER TRIBUTARY AREA CONSIDERATIONS OF THE ONTARIO BUILDING CODE.
5.2. FUTURE EXTENSIONS
5.1.1. THE STRUCTURE HAS NOT BEEN DESIGNED FOR ANY FUTURE EXTENSIONS.

6. CONCRETE

6.1. MATERIALS

6.1.1. CONCRETE
6.1.1.1. CONFORM TO THE REQUIREMENTS OF CSA STANDARD A23.1 (LATEST VERSION) AND THE FOLLOWING FOR STRENGTH, SLUMP, WATER-TO-CEMENTING MATERIALS CONTENT AND AIR CONTENT.
6.1.1.2. FOR NOMINALLY UNREINFORCED CONCRETE; CONFORM TO THE REQUIREMENTS OF CSA STANDARD A438 (LATEST VERSION) AND THE FOLLOWING FOR STRENGTH, SLUMP, WATER-TO-CEMENTING MATERIALS CONTENT AND AIR CONTENT, INCLUDING THE FOLLOWING;
6.1.1.2.1. CONCRETE STRENGTH 20 MPa, INCREASE TO;
6.1.1.2.2. 32 MPa FOR GARAGE FLOORS, CARPORT FLOORS AND ALL EXTERIOR FLATWORK.
6.1.1.2.3. 25 MPa FOR INTERIOR SLABS ON GRADE, UNLESS DAMP PROOFING IS PROVIDED (0.15 mm POLYETHYLENE BELOW THE SLAB, OR EQUAL).
6.1.1.2.4. AIR CONTENT OF 5%-8% WHERE EXPOSED TO FREEZE-THAW, REDUCE TO 3%-6% FOR FOOTINGS.
6.1.1.2.5. MAXIMUM SLUMP OF 100 mm, INCREASE TO 150mm FOR CONVENTIONAL FOUNDATIONS.
6.1.1.3. NOMINAL MAXIMUM SIZE OF AGGREGATE SHALL BE 20 mm. USE SMALLER AGGREGATES AS APPROPRIATE IN AREAS OF CONGESTED REINFORCING STEEL OR TO IMPROVE WORKABILITY. MODIFY MIX DESIGNS TO SUIT.
6.1.1.3.1. WHERE AGGREGATES SMALLER THAN 14 mm ARE USED, INCREASE AIR CONTENT BY 1%
6.1.1.3.2. REINFORCED CONCRETE EXPOSED TO DE-ICING CHEMICALS TO HAVE DCI CORROSION INHIBITOR @ 11L/cu.m. DOSAGE OR APPROVED EQUIVALENT
6.1.1.3.3. MAX. 25kg CEMENT/cu.m.

6.1.2. REINFORCEMENT
6.1.2.1. CONFORM TO THE REQUIREMENTS OF CSA G30.18 FOR CARBON STEEL REINFORCING BARS
6.1.2.2. CONFORM TO THE REQUIREMENTS OF ASTM A1064/A1064M FOR WELDED WIRE FABRIC.
6.1.2.3. REINFORCING BARS SHALL HAVE A MINIMUM YIELD STRENGTH fy = 400 MPa, AND WELDED WIRE FABRIC SHALL HAVE A MINIMUM YIELD STRENGTH OF fy = 386 MPa, SUPPLY IN FLAT SHEETS.
6.1.2.4. WHERE WELDING OF REBAR IS INDICATED, WELDABLE GRADE REBAR SHALL BE USED.

6.2. EXECUTION

6.2.1. CONCRETE AND REINFORCEMENT
6.2.1.1. PROVIDE DOWELS TO WALLS AND COLUMNS SIMILAR IN NUMBER, SIZE, AND SPACING TO THE VERTICAL STEEL IN THE WALL OR COLUMN EXCEPT WHEN NOTED OTHERWISE.
6.2.1.2. CONSTRUCTION JOINTS:
6.2.1.2.1. VERTICAL CONSTRUCTION JOINS MAY BE MADE ONLY AT MID-SPAN OF BEAMS, JOISTS, AND SLABS UNLESS OTHERWISE SHOWN OR DIRECTED AND THEIR LOCATION SHALL BE REVIEWED BY THE CONSULTANT.
6.2.1.2.2. PROVIDE 38x89 KEYS AT CONSTRUCTION JOINTS UNLESS NOTED OTHERWISE.
6.2.1.2.3. NO SLEEVES TO BE PLACED VERTICALLY OR HORIZONTALLY THROUGH BEAMS WITHOUT BEING REVIEWED BY THE CONSULTANT.
6.2.1.2.4. WELDING OF REBAR SHALL BE DONE IN ACCORDANCE WITH CSA W186.
6.2.2. CONCRETE COVER TO REINFORCEMENT:
6.2.2.1. CONFORM TO THE REQUIREMENTS OF CSA STANDARD A23.1 (LATEST VERSION) FOR COVER TO REINFORCEMENT.
6.2.2.2. ADDITIONAL COVER REQUIREMENTS AS APPLICABLE:
6.2.2.2.1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH:
6.2.2.2.2. 35M BARS AND SMALLER: 75mm
6.2.2.2.3. CONCRETE EXPOSED TO CHLORIDES (C-1, C-3) (DOES NOT INCLUDE CONCRETE PROTECTED BY A WATERPROOFING MEMBRANE):
6.2.2.2.4. 30M BARS AND SMALLER: 60mm
6.2.2.3. EXPOSED TO EARTH OR WEATHER (F-1, F-2, N)
6.2.2.3.1. 25M AND SMALLER: 40mm

7. STRUCTURAL STEEL

7.1. MATERIALS

7.1.1. HSS MEMBERS - CONFORM TO THE REQUIREMENTS OF G40.21 350W CLASS C
7.1.1.1. NOTE THAT ASTM A500 IS NOT AN ACCEPTABLE ALTERNATE FOR HSS MEMBERS WITHOUT REVIEW AND RESIZING (INCREASED SECTION SIZE OR WALL THICKNESS) BY THE APPROVED DESIGN PROFESSIONAL.
7.1.1.2. HSS PRODUCED TO ASTM A1085 IS AN ACCEPTABLE ALTERNATE TO CSA G40.21 350W CLASS C.
7.1.2. BOLTS, NUTS AND WASHERS - ASTM F3125, GRADE A325
7.1.3. WELDS - CONFORM WITH CSA W59-03
7.1.4. ANCHOR RODS - CONFORM TO THE REQUIREMENTS OF CSA G40.21 GRADE 300W UNLESS NOTED OTHERWISE.
7.1.5. ALL OTHER - CONFORM TO THE REQUIREMENTS OF CSA G40.21 GRADE 300W
7.1.6. NOMINAL GRADE PAINT PROTECTION: IN ACCORDANCE WITH CISC/CPMA 1-73a - A QUICK-DRYING ONE COAT PAINT FOR USE ON STRUCTURAL STEEL.

7.2. EXECUTION

7.2.1. PROVIDE A MINIMUM BEARING OF 200 mm FOR ALL STEEL BEAMS BEARING ON MASONRY AND A MINIMUM OF 100 mm ON STRUCTURAL STEEL, UNLESS NOTED OTHERWISE.
7.2.2. CENTRE BEARING PLATES UNDER BEAMS, OR AS NOTED.
7.2.3. BEARING PLATE DIMENSION GIVEN FIRST INDICATES SIDE PARALLEL TO BEAM WEB.
7.2.4. NO STRUCTURAL STEEL SHALL BE CUT WITHOUT THE PERMISSION OF THE APPROVED DESIGN PROFESSIONAL.
7.2.5. PROVIDE FULL HEIGHT WEB STIFFENERS AT ALL BEAMS BEARING ON COLUMNS AND ALL BEAMS SUPPORTING COLUMNS. WEB STIFFENERS SHALL BE OF THE SAME SIZE AND THICKNESS AS THE COLUMN FLANGES AND SHALL ALIGN WITH THE FLANGES OF THE SUPPORTING COLUMN.
7.2.6. CONNECT BEAMS FOR THE FACTORED REACTIONS INDICATED ON THE DRAWINGS. IF BEAM REACTIONS ARE NOT INDICATED, THE CONNECTIONS SHALL BE DESIGNED FOR ONE-HALF THE TOTAL UNIFORM LOAD CAPACITY OF THE SIMPLE SPAN BEAM FOR THE GIVEN SPAN PRESENTED IN THE CISC HANDBOOK OF STEEL CONSTRUCTION. BOLTED CONNECTIONS SHALL HAVE A MINIMUM OF TWO BOLTS.
7.2.7. STEEL SUPPLIER TO DESIGN AND PROVIDE INTERCONNECTION BETWEEN BUILT UP MEMBERS AS NOTED. WHERE NOT NOTED, STEEL SUPPLIER IS TO INTERCONNECT AS REQUIRED TO ENSURE ADEQUATE CAPACITY FOR THE DESIGN FORCES SHOWN OR IMPLIED IN THE DRAWINGS.
7.2.8. STEEL SUPPLIER TO DESIGN CONNECTIONS OF SINGLE ANGLE MEMBERS FOR THE FORCES SHOWN OR IMPLIED IN THE DRAWINGS, SUCH THAT CONNECTIONS ARE MADE TO THE SAME LEG EACH END BY WELDING OR WITH A MINIMUM OF TWO BOLTS.
7.2.9. ALL STRUCTURAL STEEL LOCATED OUTSIDE OF THE BUILDING ENVELOPE OR EXPOSED TO HIGH HUMIDITY OR MOISTURE SHALL BE FULLY GALVANIZED IN ACCORDANCE WITH CSA G164.
7.2.9.1. WHERE GALVANIZING IS DAMAGED, THE COATING SHALL BE REPAIRED IN ACCORDANCE WITH ASTM A780/A780M.
7.2.9.2. PROVIDE 2 COATS OF BITUMINOUS COATING TO ALL STEEL EXTENDING BELOW GRADE, INCLUDING IF STEEL IS ENCASED IN CONCRETE.

8. LIGHTWEIGHT STEEL FRAMING SYSTEM

8.1. MATERIALS

8.1.1. CONFORM TO THE REQUIREMENTS OF CSA-S136.
8.1.2. STEEL SHALL MEET THE REQUIREMENTS OF CAN/CSA-S136 WITH A MINUMUM YIELD STRENGTH OF 228 MPa FOR MATERIAL 1.22mm THICK AND THINNER AND 345 MPa FOR MATERIAL 1.44mm AND THICKER.
8.1.3. USE METALLIC COATINGS CONFORMING TO ASTM-A653/A653M AND THE FOLLOWING:
8.1.3.1. MINIMUM COATING OF Z180 GALVANIZING IN ACCORDANCE WITH ASTM-A653/A653M FOR EXTERIOR BUILDING ENVELOPE FRAMING.
8.1.3.2. MINIMUM Z275 GALVANIZED COATING FOR STEEL STUD/BRICK VENEER ASSEMBLIES.
8.1.4. BOLTS, NUTS AND WASHERS - ASTM A307 OR ASTM F3125, HOT-DIP GALVANIZED WHERE EXPOSED TO CORROSION POTENTIAL.
8.1.5. SHEET METAL SCREWS AND CONCRETE ANCHORS - MINIMUM 0.008mm COATING OF ZINC.
8.1.6. USE ZINC RICH PAINT CONFORMING TO CAN/CGSB-1.181 FOR TOUCHING UP WELDS AND DAMAGED METALLIC COATING.
8.1.7. MINIMUM PLATE DESIGN THICKNESSES, EXCLUSIVE OF COATING:
MEMBER DEPTH 152mm OR LESS - 0.879mm
MEMBER DEPTH 203mm - 1.146mm
MEMBER DEPTH 254mm - 1.438mm
MEMBER DEPTH 305mm OR MORE - 1.818mm
BRIDGING CHANNELS - 1.087mm FOR STUDS, 1.367mm FOR JOISTS
CLIP ANGLES - 1.367mm FOR STUDS, 1.720mm FOR JOISTS
TRACK, CLIP ANGLES AND THE LIKE ARE TO BE AT LEAST THE SAME THICKNESS AS THE STUD OR JOIST.

8.2. DESIGN AND EXECUTION

8.2.1. DESIGN ALL FRAMING, INCLUDING CONNECTIONS, BRIDGING, TRACKS, CLOSURE CHANNELS, WEB STIFFENERS, WEB CUT-OUTS, SHEAR WALL CROSS BRACING, AND THE LIKE FOR THE LOADINGS AND FORCES SHOWN OR IMPLIED ON THE DRAWINGS. THE DESIGN AND REVIEW SHALL BE PERFORMED BY A PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO.
8.2.2. DESIGN WIND-BEARING EXTERIOR STUDS TO RESIST THE SPECIFIED WIND LOAD BUT NOT LESS THAN 1.0 KPa. DESIGN LOAD-BEARING EXTERIOR STUDS TO RESIST THE SPECIFIED WIND LOAD BUT NOT LESS THAN 1.25 KPa.
8.2.3. DESIGN EXTERIOR STUDS SUCH THAT THE DEFLECTION UNDER SLS WIND LOAD DOES NOT EXCEED 1/360 OF THE SPAN OF THE STUD.
8.2.4. FABRICATE STUDS IN SUCH A WAY THAT THERE IS AT LEAST 300mm FROM THE END OF THE MEMBER TO THE CENTRE OF THE FIRST PERFORATION.
8.2.5. PROVIDE HORIZONTAL BRIDGING SPACED AT NOT MORE THAN 1200mm FOR STUDS.
8.2.6. PERFORM FIELD REVIEW FOR THE ABOVE, AND SUBMIT FIELD REVIEW REPORTS BEARING THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO, FOR REVIEW BY THE CONSULTANT.
8.2.7. SUBMIT SHOP AND ERECTION DRAWINGS BEARING THE SEAL OF A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO FOR REVIEW BY THE CONSULTANT.
8.2.8. AT THE REQUEST OF THE CONSULTANT SUBMIT CALCULATIONS BEARING THE SIGNATURE AND SEAL OF A REGISTERED PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
8.2.9. NO STEEL SHALL BE CUT WITHOUT THE PERMISSION OF THE APPROVED DESIGN PROFESSIONAL.
8.2.10. PROVIDED CUT-OUTS CENTRED IN WEBS OF MEMBERS TO ACCOMMODATE SERVICES WHERE REQUIRED FOR MECHANICAL AND ELECTRICAL. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SERVICES.
8.2.11. PROVIDE FRAMING AROUND ALL OPENINGS GREATER THAN 100mm. SEE ARCHITECTURAL, MECHANICAL AND ELETRICAL DRAWINGS FOR OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

9. 060000 WOOD

9.1. MATERIALS

9.1.1. SAWN LUMBER
9.1.1.1. CONFORM TO THE REQUIREMENTS OF CSA-O141
9.1.1.2. SPECIES - SPRUCE-PINE-FIR
9.1.1.3. GRADE - No.1/No.2
9.1.1.4. ALL WOOD EXPOSED TO WEATHER AND EARTH TO BE PRESSURE TREATED IN ACCORDANCE WITH CSA O80.
9.1.2. PLYWOOD SHEATHING
9.1.2.1. CONFORM TO THE REQUIREMENTS OF CSA O121 AND CSA O151
9.1.2.2. FLOOR AND ROOF SHEATHING TO BE TONGUE AND GROOVE.
9.1.3. WOOD I-JOISTS
9.1.3.1. JOISTS MUST MEET OR EXCEED THE DESIGN REQUIREMENTS SHOWN ON THE STUCTURAL DRAWINGS AND BE IN CONFORMANCE WITH CSA O86 AND O325
9.1.4. LAMINATED VENEER LUMBER (LVL)
9.1.4.1. MUST MEET OR EXCEED THE DESIGN REQUIREMENTS SHOWN ON THE STUCTURAL DRAWINGS, BE IN CONFORMANCE WITH CSA O86
9.1.4.2. BENDING MEMBERS PROPERTIES - E = 2.0x10^6 psi, Fb = 4,805 psi
9.1.5. LAMINATED STRAND LUMBER (LSL)
9.1.4.1. MUST MEET OR EXCEED THE DESIGN REQUIREMENTS SHOWN ON THE STUCTURAL DRAWINGS, BE IN CONFORMANCE WITH CSA O86
9.1.4.2. BENDING MEMBERS PROPERTIES - E = 1.3x10^6 psi, Fb = 3,140 psi OR E = 1.55x10^6 psi, Fb = 4,295 psi
9.1.4.3. COMPRESSION MEMBERS PROPERTIES - E = 1.3x10^6 psi, Fb = 3,140 psi, Fcll = 2,235 psi

9.2. CONNECTIONS

9.1.1. ALL WOOD TO WOOD CONNECTIONS OR WOOD TO STEEL CONNECTIONS, UNLESS OTHERWISE NOTED, ARE TO BE THE APPROPRIATE FACE OR TOP MOUNT HANGERS, SIZED FOR THE CONNECTION FORCE AND MEMBER CONFIGURATION INDICATED.
9.1.2. NAILS ARE TO BE COMMON STEEL WIRE NAILS CONFORMING TO THE REQUIREMENTS OF ASTM F1667 OR CSA B111. NAILS SHALL HAVE A MINIMUM DIAMETER (CORRESPONDING TO NAIL LENGTH) AS FOLLOWS: 2.87mm (FOR 57mm/2-1/4" LONG NAILS); 3.25mm (64mm/2-1/2" LONG); 3.66mm (76mm/3" AND 82mm/3-1/4" LONG); 4.88mm (102mm/4" LONG).
9.1.2.1. SUBSTITUTION OF THE ABOVE-SPECIFIED NAIL DIAMETERS IS SUBJECT TO APPROVAL BY THE ENGINEER. FOR PART 9 BUILDINGS, NAIL SUBSTITUTION MAY BE PERFORMED IN ACCORDANCE WITH CL. A.9.23.3.1.(2) IN THE APPENDIX OF NBCC 2020.
9.1.3. WOOD SCREWS ARE TO CONFORM TO THE REQUIREMENTS OF ASTM B18.6.1. REFER TO CSA O86 FOR DIAMETER AND MINIMUM YIELD STRENGTH INFORMATION.
9.1.4. ALL NAILS AND SCREWS USED IN AN EXTERIOR APPLICATION OR USED WITH PRESERVATIVE TREATED WOOD SHALL BE APPROPRIATELY COATED WITH A PROTECTIVE COATING COMPATIBLE WITH THE WOOD PRESERVATIVE TREATMENT.
9.1.5. BOLTS, NUTS AND WASHERS: ASTM A307 OR SAE J429 GRADE 2.
9.1.6. LAG SCREWS ARE TO CONFORM TO THE REQUIREMENTS OF ASTM B18.2.1
9.1.7. ALL LAG BOLTS, THRU BOLTS AND OTHER HARDWARE TO BE HOT DIPPED GALVANIZED
9.1.8. ALL LAG BOLTS SHALL HAVE SHARP THREADS FOR AT LEAST ONE-HALF THE TOTAL BOLT LENGTH, UP TO 152 mm (6") THREADED LENGTH. LAG BOLT WITH DULL THREADS OR INSUFFICIENT THREADED LENGTH WILL BE REJECTED OUTRIGHT.
9.1.9. UNLESS OTHERWISE APPROVED BY THE APPROVED DESIGN PROFESSIONAL, ALL NAILS ARE TO HAVE FULL ROUND HEADS; CLIPPED HEAD NAILS ARE NOT ACCEPTABLE. NAILS ARE TO BE DRIVEN FLUSH; DO NOT OVERDRIVE NAILS.
9.1.10. HOLD DOWNS SHALL BE INSTALLED IN DOUBLE STUDS AT THE END OF THE SHEARWALL UNLESS NOTED OTHERWISE. SHOULD THE HOLD DOWN BE LOCATED INWARD FROM THE WALL END DUE TO FIELD CONDITIONS, THE SHEATHING SHALL BE NAILED TO THE DOUBLE STUDS CARRYING THE HOLD DOWN WITH EDGE NAIL SPACING.

9.2. EXECUTION

9.2.1. PROTECT ALL WOOD PRODUCTS FROM DAMAGE AND STAINING DUE TO WETTING AND MOISTURE.
9.2.2. PROTECT INSTALLED DECKING AND SHEATHING FROM EXCESSIVE MOISTURE UNTIL FINAL WATERPROOFING IS COMPLETE. ENSURE SURFACES THAT ARE TO RECEIVE FINISHES MEET MANUFACTURERS REQUIREMENTS FOR MAXIMUM MOISTURE CONTENT FOR THE FINISH SPECIFIED.
9.2.3. DIMENSION LUMBER WITH SMALLER NOMINAL DIMENSION OF 2 INCHES ("2-BY- ") PRESERVATIVE TREATED FOR EXTERIOR APPLICATIONS SHALL NOT BE INCISED. IF INCISED LUMBER IS TO BE USED, CONFIRM MEMBER SIZES WITH THE ENGINEER PRIOR TO CONSTRUCTION.
9.2.4. ALL JOISTS, LINTELS AND BUILT-UP BEAMS COMPRISED OF "2-BY- " SAWN LUMBER MUST BEAR FULLY 38mm MINIMUM ON THE SUPPORT SURFACE. IF HANGERS ARE USED, THEY MUST ADEQUATELY SUPPORT THE FULL SHEAR CAPACITY OF THE MEMBER, UNLESS NOTED OTHERWISE.
9.2.5. PROVIDE APPROPRIATE FACE OR TOP MOUNT CONNECTORS AT ALL JOIST TO JOIST, JOIST TO BEAM, AND BEAM TO POST CONNECTIONS UNLESS NOTED OTHERWISE.
9.2.6. NAIL ALL OTHER FRAMING IN ACCORDANCE WITH OBC CLAUSE 9.23.3 AND OBC TABLE 9.23.3.4.
9.2.7. THE NUMBER OF NAILS SPECIFIED IN TABLE 9.23.3.4 SHALL BE INCREASED BY 50% WHEN THE DIAMETER OF THE SUPPLIED NAILS DO NOT CONFORM TO THE DIAMETERS INDICATED ABOVE.

10. FOUNDATIONS

10.1. FOUND ALL FOOTINGS ON NATURALLY CONSOLIDATED UNDISTURBED SOIL CAPABLE OF SAFELY SUSTAINING AN ULTIMATE BEARING VALUE OF 125 kPA AND AN ALLOWABLE BEARING VALUE OF 75 kPA.
10.2. FOUND FOOTINGS EXPOSED TO FREEZING BELOW THE LEVEL AT WHICH POTENTIAL DAMAGE RESULTING FROM FROST ACTION CAN OCCUR, BUT A MINIMUM OF 1200 mm BELOW FINISHED GRADE IF NOT NOTED TO BE FOUNDED LOWER.
10.3. THE LINE OF SLOPE BETWEEN ADJACENT FOOTINGS OR EXCAVATIONS OR ALONG STEPPED FOOTINGS SHALL NOT EXCEED A RISE OF 7 IN A RUN OF 10. AT STEPS CONSTRUCT LOWER FOOTINGS PRIOR TO CONSTRUCTING HIGHER FOOTINGS.
10.4. PLACE SLABS ON GRADE ON MATERIAL CAPABLE OF SAFELY SUSTAINING 24 kPa WITHOUT SETTLEMENT RELATIVE TO THE BUILDING FOUNDATIONS.
10.5. BEFORE PLACING SLAB, PLACE 100mm OF COARSE, CLEAN GRANULAR MATERIAL OVER THE SUB-GRADE, CONTAINING NOT MORE THAN 10% OF MATERIAL THAT WILL PASS A 4mm SIEVE.
10.6. DO NOT PLACE BACKFILL AGAINST WALLS RETAINING EARTH (OTHER THAN CANTILEVER WALLS) UNTIL THE FLOOR CONSTRUCTION AT TOP AND BOTTOM OF THE WALLS IS POURED AND HAS ATTAINED 70% OF ITS SPECIFIED STRENGTH.
10.7. CARRY OUT BACKFILLING AGAINST FOUNDATION WALLS WHERE THERE IS GRADE ON BOTH SIDES IN SUCH A MANNER THAT THE LEVEL OF BACKFILLING ON ONE SIDE OF THE WALL IS NEVER MORE THAN 500 mm DIFFERENT FROM THE LEVEL ON THE OTHER SIDE OF THE WALL.

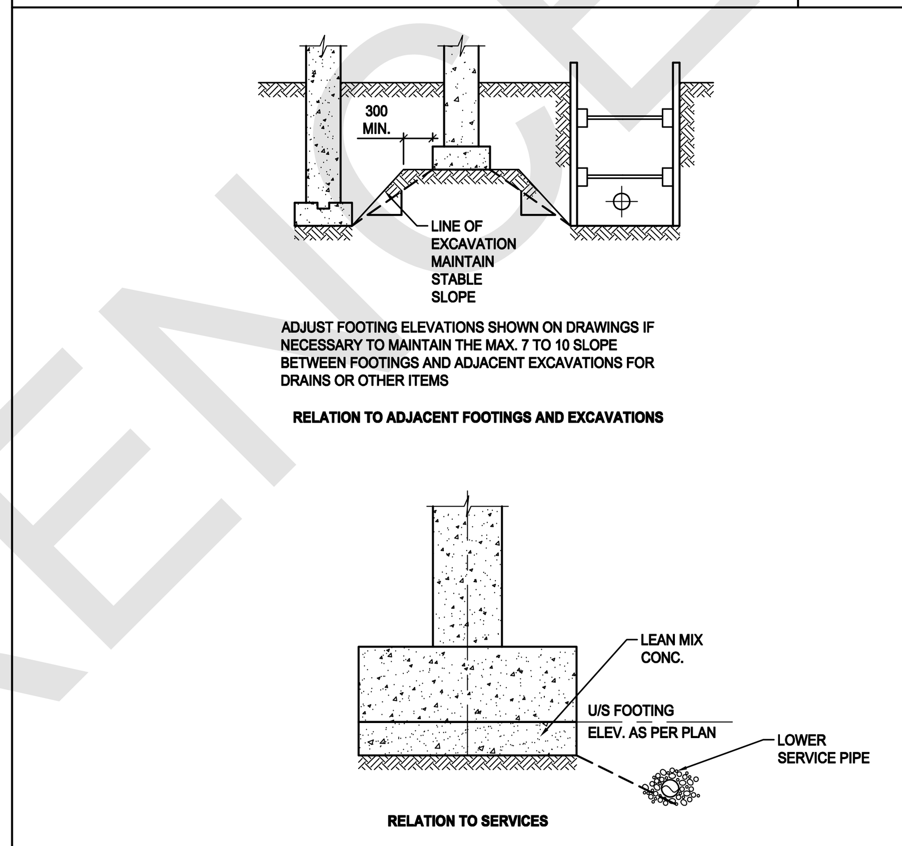
ABBREVIATIONS — TD0001

@	= AT	DS	= DRAG STRUT
A.BOLT	= ANCHOR BOLT	DWG(S)	= DRAWING(S)
ADJ	= ADJUSTABLE	DWL(S)	= DOWEL(S)
ALT	= ALTERNATE	EA	= EACH
ARCH	= ARCHITECTURAL	EF	= EACH FACE
ASL	= ACCUMULATED SNOW LOAD	EW	= EACH WAY
B	= BOTTOM	EL	= ELEVATION
BEW	= BOTTOM EACH WAY	ELEC	= ELECTRICAL
BLL	= BOTTOM LOWER LAYER	ELEV	= ELEVATOR
BUL	= BOTTOM UPPER LAYER	E-W	= EAST-WEST
BLDG	= BUILDING	EQ	= EQUAL
BM	= BEAM	EXIST	= EXISTING
BPL, BSPL	= BASE OR BEARING PLATE	EXPJT	= EXPANSION JOINT
BSMT	= BASEMENT	EXT	= EXTERIOR
c/c, o/c	= CENTRE TO CENTRE	FF	= FAR
c/w	= COMPLETE WITH	FDN	= FOUNDATION
C	= EPOXY COATED	FIN	= FINISHED
Cf, Pf, Af	= FACTORED COMPRESSION OR AXIAL FORCE, kN	FL	= FLOOR
		FTG	= FOOTING
CANT	= CANTILEVER	FW	= FOUNDATION WALL
CFW	= COLD-FORMED STUD WALL	f'c	= CONCRETE STRENGTH, MPa
CA	= COLUMN ABOVE	GA	= GAUGE
CB	= COLUMN BELOW	GALV	= GALVANIZED
CDL	= COMPRESSION DEVELOPMENT LENGTH, mm	GEN	= GENERAL
CIF	= CONFIRM IN FIELD	GL	= GLULAM
CJ	= CONSTRUCTION JOINT	H, HOR	= HORIZONTAL
CLS	= COMPRESSION LAP SPLICE, mm	HDG	= HOT DIP GALVANIZED
CLT	= CROSS LAMINATED TIMBER	HEF, H EF	= HORIZONTAL EACH FACE
CLTW	= CROSS LAMINATED TIMBER WALL	HEE	= HOOKED EACH END
COL	= COLUMN	Hf	= FACTORED HOR FORCE, kN
COMP	= COMPRESSION	HSC	= HORIZONTALLY SLOTTED CONNECTION
CONC	= CONCRETE	IF	= INSIDE FACE
CONSTR	= CONSTRUCTION	INT	= INTERIOR
CONT	= CONTINUOUS	J	= JOINT
CW	= CONCRETE WALL	kN	= KILONEWTON
DET	= DETAIL	kg	= KILOGRAM
DEV	= DEVELOPMENT	kNm	= KILONEWTON METRES
DIAG	= DIAGONAL	kN/sq.m	= kN PER SQUARE METRE
DIA, Ø	= (BAR) DIAMETER	kN/m	= kN PER METRE
DIM	= DIMENSION	kPa	= KILOPASCAL
DJ	= DOUBLE JOIST		
DL	= DEAD LOAD		
DLH	= DEVELOPMENT LENGTH FOR STANDARD HOOKS, mm		
DO	= DITTO		

ABBREVIATIONS — TD0002

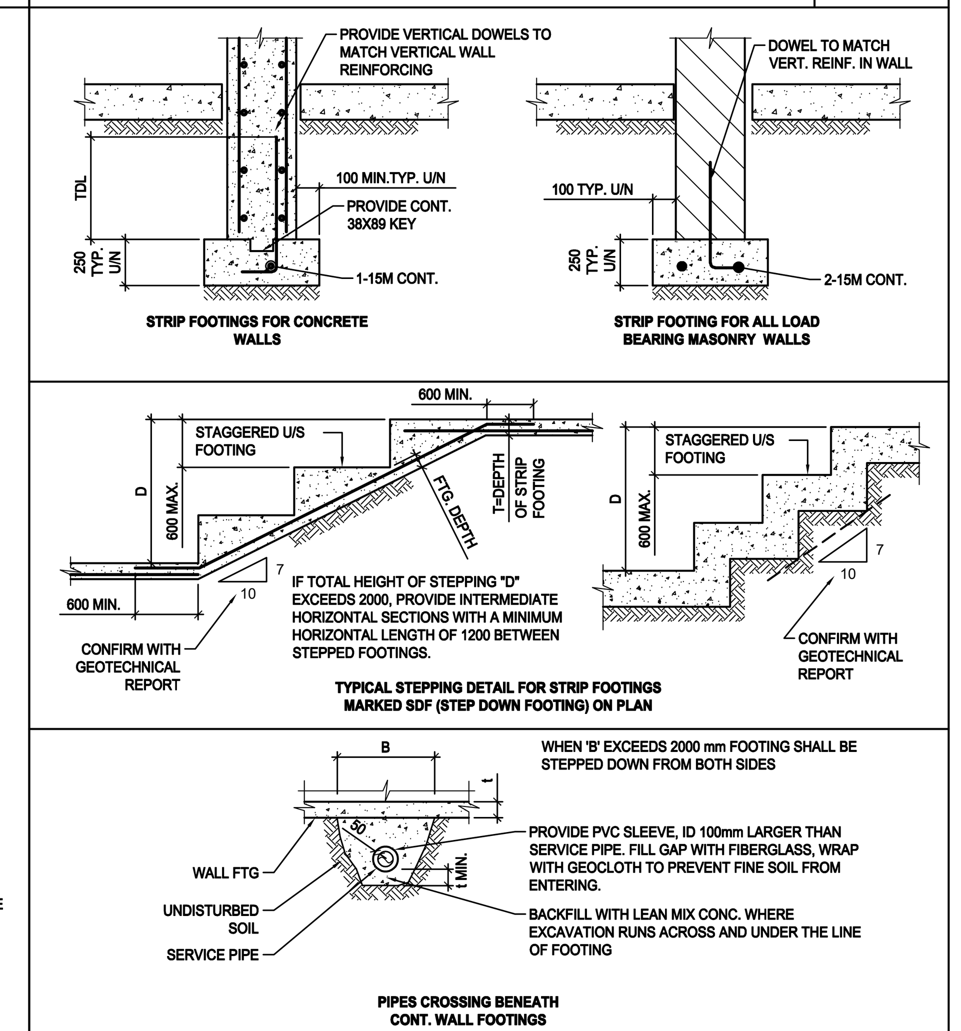
LL	= LIVE LOAD	SIM	= SIMILAR
LG	= LONG	SIP	= STRUCTURALLY INSULATED PANEL
LLV	= LONG LEG VERTICAL	SL	= SNOW LOAD
LLH	= LONG LEG HORIZONTAL	SOG	= SLAB ON GRADE
LW	= LIGHT-WOOD WALL	SPECS	= SPECIFICATIONS
MC, ►	= MOMENT CONNECTION	SQ	= SQUARE
MECH	= MECHANICAL	STD	= STANDARD
MEW	= MIDDLE EACH WAY	STRUCT	= STRUCTURAL
MEZZ	= MEZZANINE	SW	= SHEAR WALL OR STUD WALL
MID	= MIDDLE	T	= TOP
MISC	= MISCELLANEOUS	TD	= TYPICAL DETAIL
ML	= MIDDLE LAYER	TDL	= TENSION DEVELOPMENT LENGTH, mm
mm	= MILLIMETRE	T/O, TOS	= TOP OF SLAB
MOM	= MOMENT	TEN	= TENSION
m	= METRE, METRIC	TEW	= TOP EACH WAY
MPa	= MEGAPASCAL	TMf	= FACTORED TORSIONAL MOMENT, kNm
MW	= MASONRY WALL	Tf	= FACTORED TENSION FORCE, kN
Mf	= FACTORED MOMENT	TJ	= TIE JOIST
Mfx, Mfy	= FACTORED MOMENT ABOUT X-AXIS OR Y-AXIS, kNm	TLL	= TOP LOWER LAYER
		TUL	= TOP UPPER LAYER
MFW	= MASONRY FOUNDATION WALL	TEMP	= TEMPERATURE
MRW	= MASONRY RETAINING WALL	TLS	= TENSION LAP SPLICE, mm
N	= NETWONS	TYP	= TYPICAL
NF	= NEAR FACE	UL	= UPPER LAYER
NIC	= NOT IN CONTRACT	U/N, UNO	= UNLESS NOTED OTHERWISE
NLT	= NAIL LAMINATED TIMBER	U/S	= UNDERSIDE
N-S	= NORTH-SOUTH	Vf	= FACTORED SHEAR OR VERTICAL FORCE, kN
NTS	= NOT TO SCALE	V, VERT	= VERTICAL
OF	= OUTSIDE FACE	VEF, V EF	= VERTICAL EACH FACE
OWSJ	= OPEN WEB STEEL JOISTS	VB	= VERTICAL BRACE/BRACING
OPEN	= OPENING	VSC	= VERTICALLY SLOTTED CONNECTION
PL	= PLATE	WPL	= WALL PLATE
PC	= PRECAST	WW	= WOOD WALL
PROJ	= PROJECTION	WWF	= WELDED WIRE FABRIC
R	= REACTION	WWM	= WELDED WIRE MESH
RAD	= RADIUS	W/, w/	= WITH
REF	= REFERENCE	wD, wL	= UNIFORMLY DISTRIBUTED LOADS
REINF	= REINFORCE, REINFORCEMENT		
REQ'D	= REQUIRED		
REV	= REVISION, REVISED		
Rf	= FACTORED REACTION FORCE, kN		
r/w, R/W	= REINFORCED WITH		
RW	= RETAINING WALL		
SECT	= SECTION		
SDF	= STEP DOWN FOOTING		

FOOTING ADJACENT TO EXCAVATION — TD3101

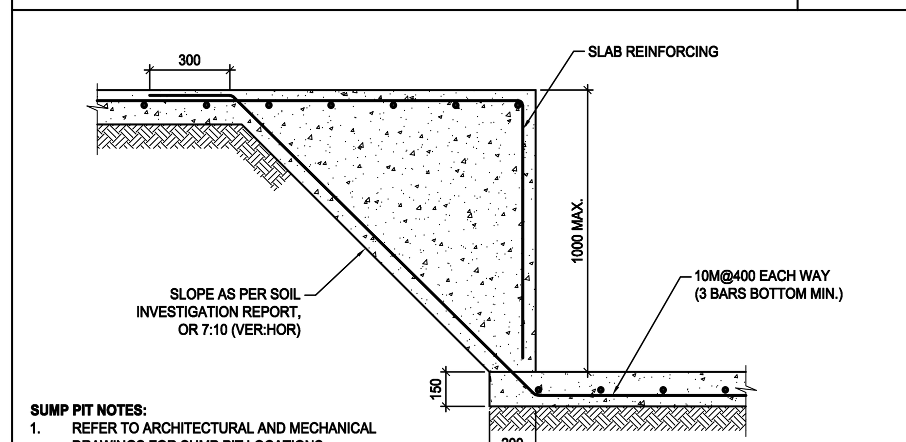


NOTES:
1. WHERE MECH SERVICES UNDERMINE PAD FOOTINGS, EXTEND EXCAVATION BELOW SLOPE OF REPOSE AND RAISE GRADE WITH EITHER LEAN MIX, ENGINEERED FILL (IF APPLICABLE) OR OVERPOUR FOOTING.
2. DO NOT PLACE SERVICE PIPES UNDER PAD FOOTINGS.
3. THE PROVISIONS NOTED ABOVE REGARDING THE PERMISSIBLE SOIL SLOPES ARE BASED ON THE STRUCTURAL REQUIREMENTS ONLY. CONTRACTORS ARE RESPONSIBLE FOR FOLLOWING ALL MINISTRY OF LABOUR REQUIREMENTS RELATED TO EXCAVATIONS AND TRENCHING.

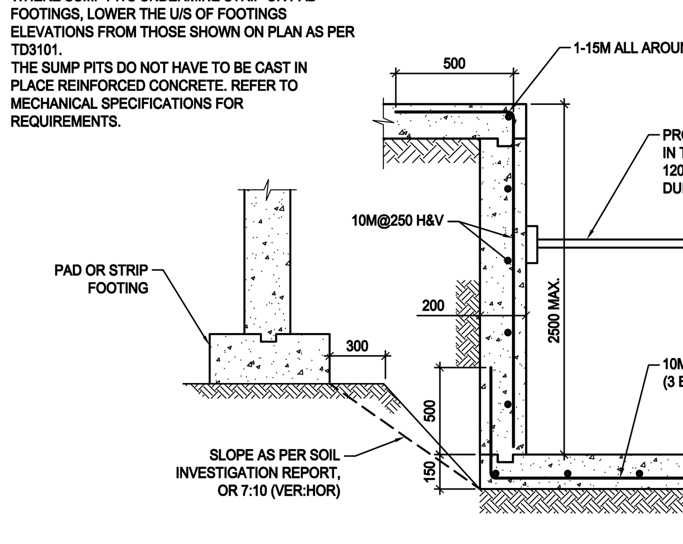
WALL FOOTINGS — TD3104



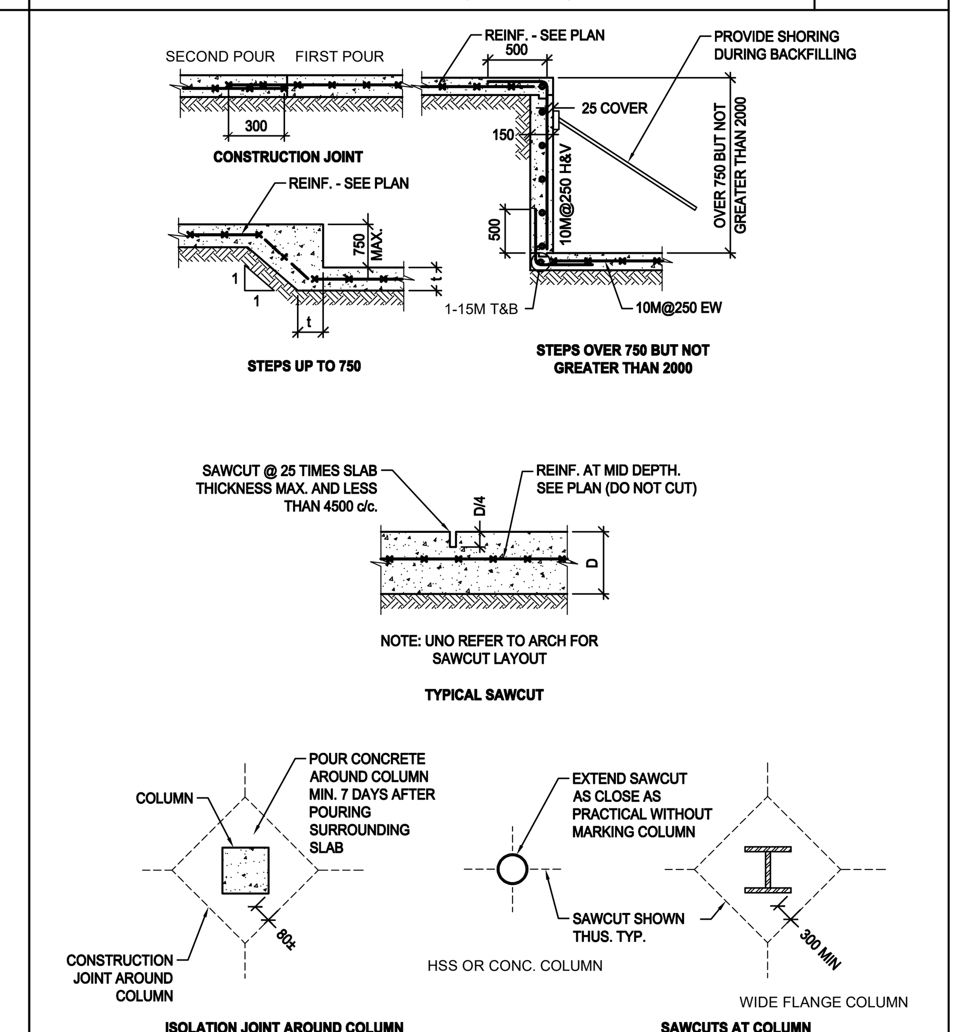
SUMP PITS AND TRENCHES — TD0322



SUMP PIT NOTES:
1. REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SUMP PIT LOCATIONS.
2. WHERE SUMP PITS UNDERMINE STRIP OR PAD FOOTINGS, LOWER THE U/S OF FOOTINGS ELEVATIONS FROM THOSE SHOWN ON PLAN AS PER TD3101.
3. THE SUMP PITS DO NOT HAVE TO BE CAST IN PLACE REINFORCED CONCRETE. REFER TO MECHANICAL SPECIFICATIONS FOR REQUIREMENTS.



SLAB ON GRADE - JOINTS, STEPS, SAWCUTS — TD0320



FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QUALIFIED DESIGN PROFESSIONAL MUST REVIEW AND UPDATE THE PRE-APPROVED DESIGN DRAWINGS TO ALIGN WITH SITE CONDITIONS, VERIFY ASSUMPTIONS, MAKE ANY FINAL DESIGN SELECTIONS OR MODIFICATIONS DESIRED, AND ENSURE CODE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

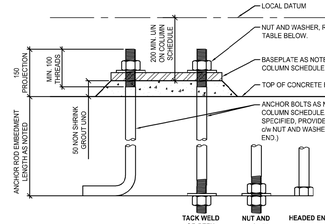
FOURPLEX NARROW

SHEET TITLE:
GENERAL NOTES AND TYPICAL DETAILS

PROJECT NO:
SCALE: N.T.S.

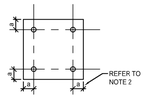
SHEET NO:
S-001

ANCHOR RODS AND BASEPLATES FOR GRAVITY COLUMNS — TD0501



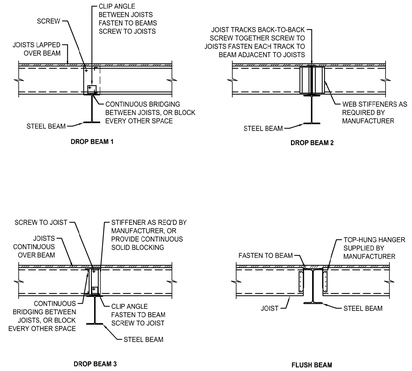
NOTES:

1. THE BASE PLATE DIMENSION GIVEN FIRST IS PARALLEL TO THE COLUMN WEB, OR TO THE LONG DIMENSION OF THE COLUMN. IF THE COLUMN IS SQUARE OR ROUND, THE DIMENSION GIVEN FIRST IS PARALLEL TO THE NORTH-SOUTH AXIS.
2. TYPICAL MINIMUM EDGE DISTANCE 'e' FROM CENTRE OF HOLE TO EDGE OF THE PLATE TO BE 1.2 x HOLE DIAMETER AT ROLLED, SAWN OR CUT EDGES, AND 1.6 x HOLE DIAMETER AT SHEARED EDGES.
3. CONNECT COLUMN TO THE BASE PLATE FOR BASE REACTIONS NOTED IN THE COLUMN SCHEDULE. IF NONE SPECIFIED, FIT COLUMN TO BEAM AND WELD FOR A SHEAR FORCE EQUAL TO 2% OF THE FACTORED AXIAL LOAD
4. REFER TO TABLE BELOW FOR MAXIMUM ANCHOR ROD HOLE SIZES AND MINIMUM PLATE WASHER SIZES. REFER TO PROJECT SPECIFIC DETAILS FOR WELD WASHERS AT BRACE OR FRAME LOCATIONS.
5. CIRCULAR (DIAMETER) OR SQUARE (SIDE) WASHERS MEETING THE MIN. WASHER SIZE ARE ACCEPTABLE.
6. DO NOT WELD WASHERS TO THE BASE PLATE UNLESS NOTED OTHERWISE.
7. FOR $\frac{3}{4}$" DIAMETER ANCHOR RODS, 27mm DIAMETER HOLES MAY BE USED WITH ASTM F844 WASHERS IN PLACE OF FABRICATED PLATE WASHERS.



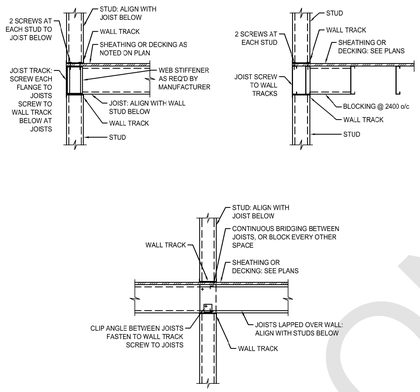
ANCHOR ROD DIAMETER (in.)	MAX HOLE DIAMETER	MIN. WASHER SIZE	MIN. WASHER THICKNESS (1554 Gr.36)	MIN. WASHER THICKNESS (1554 Gr.55)
$\frac{3}{4}$"	33	51	6.4	7.9
$\frac{7}{8}$"	40	64	7.9	7.9
1"	46	76	9.5	9.5
1$\frac{1}{8}$"	52	89	13	13
1$\frac{1}{4}$"	59	102	13	16
1$\frac{3}{8}$"	70	114	16	16
2"	83	127	19	19
2$\frac{1}{2}$"	95	140	19	22

COLD-FORMED STEEL - BEAM SUPPORTING JOISTS — TD0560



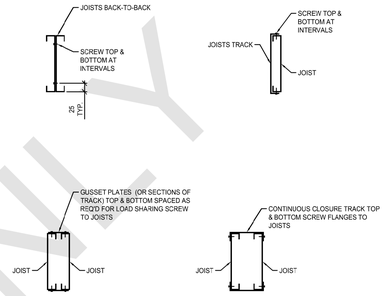
NOTE: SEE PLANS AND/OR SECTIONS FOR SIZES OF JOISTS AND BEAMS

COLD-FORMED STEEL - FRAMING AT WALLS — TD0561

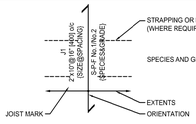


NOTE: SCREW BOTH FLANGES OF WALL TRACKS TO STUDS

COLD-FORMED STEEL - BUILT-UP BEAMS — TD0562



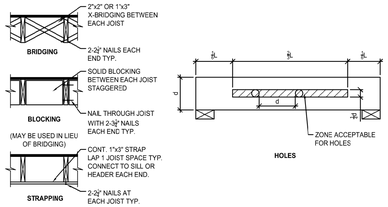
WOOD FRAMING (1 OF 2) — TD0601



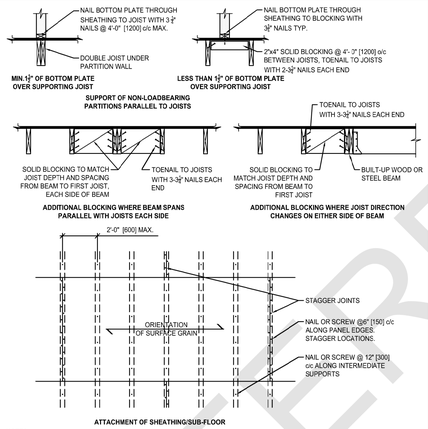
STANDARD NOTATION

NOTES:

1. SEE PLANS FOR JOIST SIZE, SPACING, SPECIES AND LUMBER GRADE. SPACING NOT TO EXCEED 16" [406].
2. UNLESS NOTED OTHERWISE ON THE DRAWINGS, PROVIDE BRIDGING AS PER THE DETAIL BELOW AND THE SPACING REQUIREMENTS OF NOTE 4.
3. WHERE SPECIFIED ON THE DRAWINGS, PROVIDE STRAPPING AS PER THE DETAIL BELOW AND THE SPACING REQUIREMENTS OF NOTE 4.
4. LINES OF BRIDGING AND/OR STRAPPING ARE TO BE LOCATED NOT MORE THAN 7'-0" FROM A SUPPORT AND SPACED AT NOT GREATER THAN 7'-0" o/c.
5. UNLESS NOTED OTHERWISE, JOISTS ARE NOT TO BE NOTCHED.
6. WHERE HOLES ARE REQUIRED IN UNIFORMLY LOADED JOISTS FOR WIRING OR PLUMBING, THEIR DIAMETER SHALL NOT EXCEED ONE QUARTER OF THE JOIST DEPTH. CENTRE HOLES AT THE MID-DEPTH OF THE JOISTS, WITHIN THE MIDDLE TWO-THIRDS OF THE SPAN. HOLES SHALL BE SPACED NO CLOSER THAN A CLEAR DISTANCE OF ONE FULL JOIST DEPTH FROM ONE ANOTHER AS PER THE DETAIL BELOW.
7. HOLES NOT CONFORMING TO THE REQUIREMENTS OF NOTE 6 MUST BE APPROVED BY THE CONSULTANT.



WOOD FRAMING (2 OF 2) — TD0602

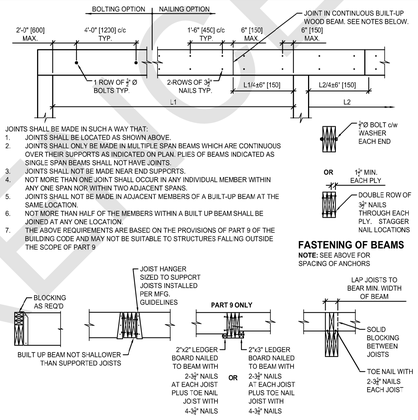


ATTACHMENT OF SHEATHING/SUB-FLOOR

NOTES:

1. EDGES OF FLOOR AND ROOF SHEATHING TO BE TONGUE AND GROOVE.
2. USE 2" NAILS OR $\frac{1}{2}$" SCREWS FOR SHEATHING LESS THAN $\frac{3}{4}$" THICK.
3. USE 2$\frac{1}{2}$" NAILS OR 2" SCREWS FOR $\frac{3}{4}$" TO 1" SHEATHING.
4. MINIMUM THICKNESS OF SUB-FLOOR SHALL BE $\frac{3}{4}$" FOR JOIST SPACING UP TO 1'-8" [500] AND $\frac{7}{8}$" FOR JOIST SPACING OF 2'-0" [600].

WOOD FRAMING - BUILT-UP BEAMS — TD0604



JOINTS SHALL BE MADE IN SUCH A WAY THAT:

1. JOINTS SHALL BE LOCATED AS SHOWN ABOVE.
2. JOINTS SHALL ONLY BE MADE IN MULTIPLE SPAN BEAMS WHICH ARE CONTINUOUS OVER THEIR SUPPORTS AS INDICATED ON PLAN. PLIES OF BEAMS INDICATED AS SINGLE SPAN BEAMS SHALL NOT HAVE JOINTS.
3. JOINTS SHALL NOT BE MADE NEAR END SUPPORTS.
4. NOT MORE THAN ONE JOINT SHALL OCCUR IN ANY INDIVIDUAL MEMBER WITHIN ANY ONE SPAN NOR WITHIN TWO ADJACENT SPANS.
5. JOINTS SHALL NOT BE MADE IN ADJACENT MEMBERS OF A BUILT-UP BEAM AT THE SAME LOCATION.
6. NOT MORE THAN HALF OF THE MEMBERS WITHIN A BUILT UP BEAM SHALL BE JOINED AT ANY ONE LOCATION
7. THE ABOVE REQUIREMENTS ARE BASED ON THE PROVISIONS OF PART 9 OF THE BUILDING CODE AND MAY NOT BE SUITABLE TO STRUCTURES FALLING OUTSIDE THE SCOPE OF PART 9

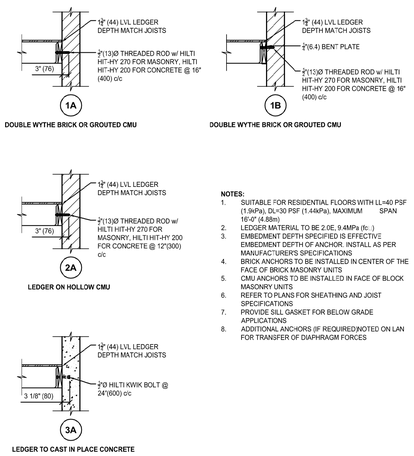
FASTENING OF BEAMS

NOTE: SEE ABOVE FOR SPACING OF ANCHORS

NOTES:

1. THE PLIES OF 4-PLY AND 5-PLY BEAMS ARE TO BE FASTENED USING BOLTS ONLY. 2-PLY AND 3-PLY BEAMS MAY BE NAILED OR BOLTED.
2. 4-PLY AND 5-PLY BEAMS ARE TO BE TOP LOADED WHENEVER POSSIBLE; THEY MAY BE SIDE LOADED PROVIDED THEY ARE LOADED EQUALLY FROM BOTH SIDES.

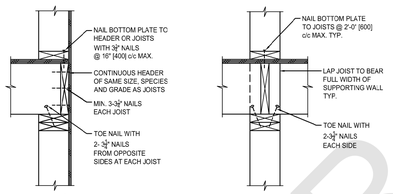
WOOD FRAMING - SUPPORTING LEDGERS — TD0605



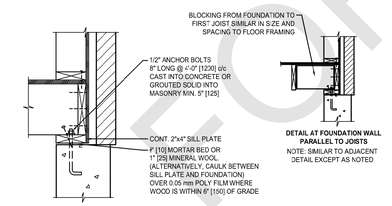
NOTES:

1. SUITABLE FOR RESIDENTIAL FLOORS WITH LL=40 PSF (1.9kPa), DL=30 PSF (1.44kPa), MAXIMUM SPAN 16'-0" (4.88m)
2. LEDGER MA'ERIAL TO BE 2.0E, 9.4MPa (fc:)
3. EMBEDMENT DEPTH SPECIFIED IS EFFECTIVE EMBEDMENT DEPTH OF ANCHOR. INSTALL AS PER MANUFACT'URER'S SPECIFICATIONS
4. BRICK ANCHORS TO BE INSTALLED IN CENTER OF THE FACE OF BRICK MASONRY UNITS
5. CMU ANCHORS TO BE INSTALLED IN FACE OF BLOCK MASONRY UNITS
6. REFER TO PLANS FOR SHEATHING AND JOIST SPECIFICATIONS
7. PROVIDE SILL GASKET FOR BELOW GRADE APPLICATIONS
8. ADDITIONAL ANCHORS (IF REQUIRED)NOTED ON LAN FOR TRANSFER OF DIAPHRAGM FORCES

STUD WALL - FLOOR FRAMING — TD0620

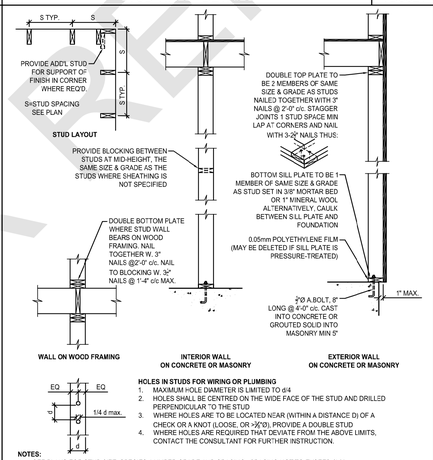


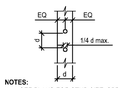
FLOOR FRAMING DETAILS AT WOOD STUD WALLS



NOTE: NAILING ETC. SIMILAR TO WOOD STUD WALLS

STUD WALL - DETAILS — TD0621





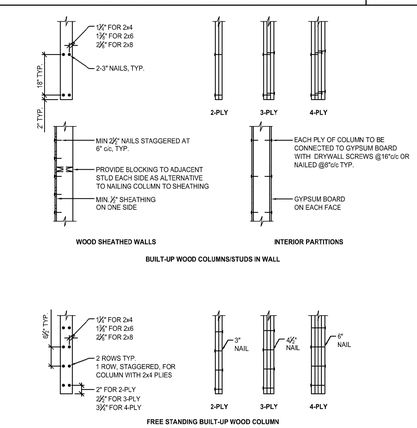
HOLES IN STUDS FOR WIRING OR PLUMBING

1. MAXIMUM HOLE DIAMETER IS LIMITED TO d/4
2. HOLES SHALL BE CENTRED ON THE WIDE FACE OF THE STUD AND DRILLED PERPENDICULAR "O THE STUD
3. WHERE HOLES ARE TO BE LOCATED N:AR (WITHIN A DISTANCE D) OF A CHECK OR A KNOT (LOOSE, OR >$\frac{1}{3}$"Ø), PROVIDE A DOUBLE STUD
4. WHERE HOLES ARE REQUIRED THAT DEVIATE FROM THE ABOVE LIMITS, CONTACT THE CONSULTANT FOR FURTHER INSTRUCTION.

NOTES:

1. SEE PLANS FOR STUD SIZE, SPECIES, LUMBER GRADE AND SPACING. SPACING NOT TO EXCEED 2'-0".
2. ALL STUDS TO BE CONT'NUOUS FOR FULL STOREY HEIGHT EXCEPT AT OPENINGS
3. WIDE FACE OF STUD IS TO BE ORIENTED PERPENDICULAR TO THE WALL FACE.
4. NOTES SHOWN FOR THE EXTERIOR WALL CONDITION APPLY TO THE INTERIOR WALL ALSO.

BUILT-UP WOOD COLUMN/STUD — TD0640

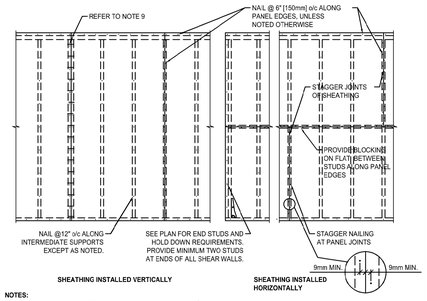


BUILT-UP WOOD COLUMNS/STUDS IN WALL

NOTES:

1. NO SPLICES SHALL BE MADE IN ANY BUILT-UP WOOD COLUMNS.
2. DETAILS ABOVE ONLY APPLY TO SPF COLUMNS.
3. ALL NAILS TO BE COMMON WIRE NAILS.

WOOD FRAMED SHEAR WALLS — TD0630



NOTES:

1. ALL PANEL EDGES ARE TO BE BACKED WITH MINIMUM $\frac{1}{2}$" [38] WIDE FRAMING MEMBERS.
2. SHEATHING IS TO BE PLYWOOD, OSB, OR WAFERBOARD. CONFORM TO CSA O121 FOR DOUGLAS FIR PIWOOD, OR CSA O151 FOR CANADIAN SOFTWOOD PLYWOOD. CONFORM TO CSA O437 OR CSA O452 FOR OSB AND WAFERBOARD. PANELS ARE TO BE 1200x2400 (4'x8') OR LARGER EXCEPT W'HERE SMALLER SHEETS ARE NEEDED NEAR BOUNDARIES.
3. UNLESS NOTED OTHERWISE ON THE DRAWINGS, ALL SHEAR WALLS ARE TO BE SHEATHED WITH MINIMUM 11mm [$\frac{7}{16}$"] THICK SHEATHING ON ONE SIDE, NAILED IN ACCORDANCE WITH THE PATTERNS SHOWN ABOVE.
4. NAIL LENGTHS ARE TO CONFORM TO THE FOLLOWING, U'N:

SHEATHING THICKNESS	NAIL LENGTH	NAIL DIA. (MIN.)
11mm [$\frac{7}{16}$"]	$\frac{2}{3}$"	3.25mm [0.128"]
12.5mm [$\frac{1}{2}$"] OR GREATER	3" U'N	3.66mm [0.144"]

NOTE: REDUCE NAIL SPACING BY $\frac{1}{3}$ IF USING 3.05mm (0.120") DIAMETER, POWER-DRIVEN NAILS. i.e. REDUCE SPACING TO 100mm o/c AROUND PANEL EDGES.

5. CLIPPED HEAD NAILS ARE NOT PERMITTED; NAILS MUST HAVE CONCENTRIC, FULL ROUND HEADS.
6. NAIL HEADS ARE TO BE DRIVEN FLUSH WITH FACE OF SHEATHING. DO NOT OVER-DRIVE NAILS MORE THAN 15% OF THE THICKNESS OF THE SHEATHING.
7. INTERMEDIATE NAILING IS TO BE AT 12" [300] o/c (AS SHOWN)
8. NAILS ARE TO BE SPACED NO CLOSER THAN 9mm TO PANEL EDGES.
9. WHERE PANELIZED WALLS WITH PRE-INSTALLED SHEATHING ARE USED, AND WHERE THE SHEATHING DOES NOT OVERLAP AND IS NOT NAILED TO ADJACENT PANELS, PROVIDE EQUIVALENT NAIL SIZE AND SPACING BETWEEN STUDS OF ADJACENT PANELS AS IS USED AROUND PANEL PERIMETER TO ENSURE CONTINUITY OF SHEARWALL.

FOR REFERENCE ONLY

TORONTO

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4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

GENERAL NOTES AND TYPICAL DETAILS

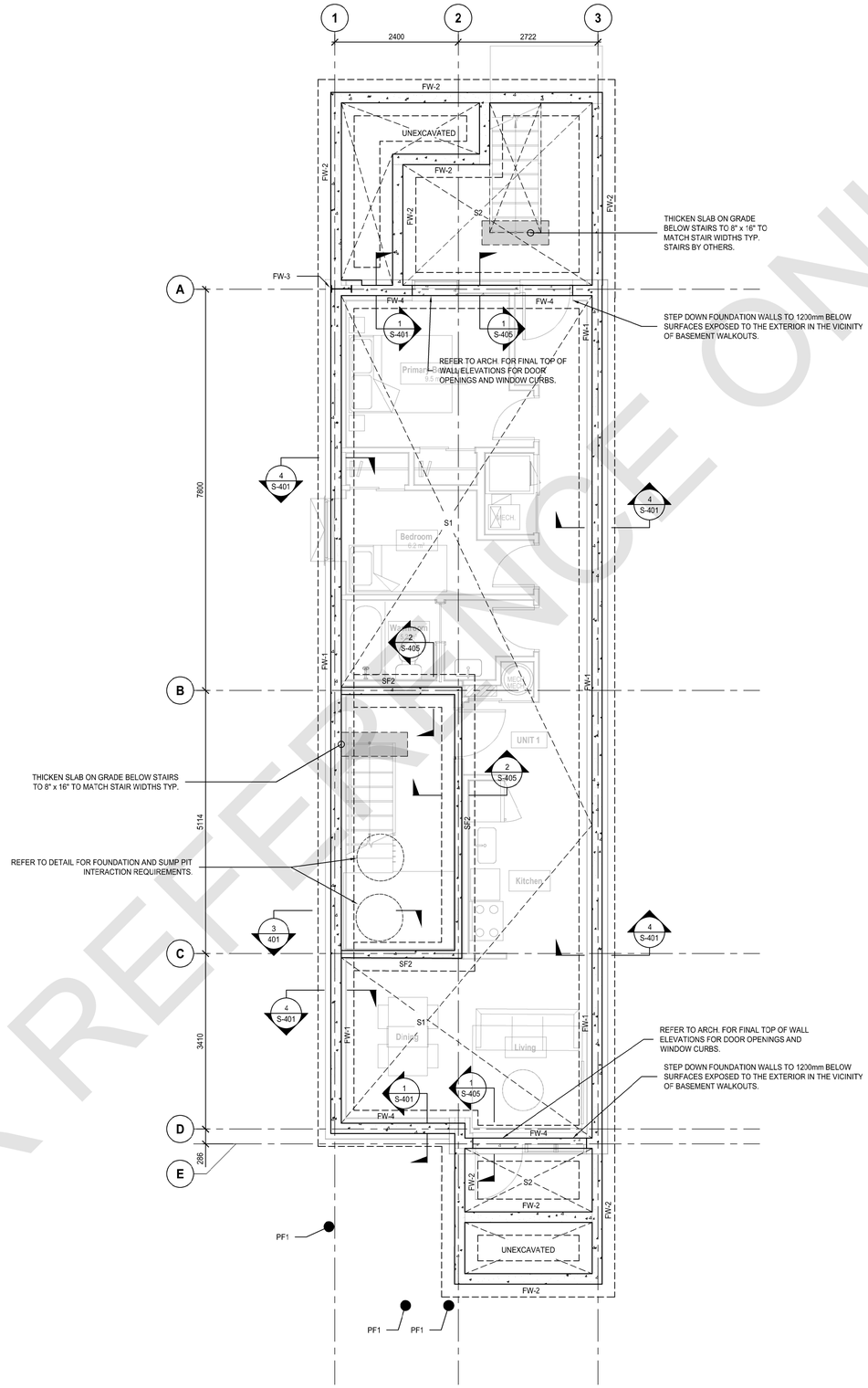
PROJECT NO:

SCALE: N.T.S.

SHEET NO:

S-002

4 PLEX NARROW FOUNDATIONS AND SLABS SCHEDULE			
LABEL	ELEMENT	COMMENTS	FINAL DESIGN (IFC)
FW-1	200 25 MPa CONCRETE FOUNDATION WALLS r/w 15M @500 H+V INSIDE FACE. SUPPORT ON 800 x 200 r/w (3) 15M CONT. & 15M TRANS. @400. PROVIDE 15M HOOKED DOWELS @1200	TW @ -44 BELOW GROUND FFE. SIDE FOUNDATION WALLS SUPPORTING CFS FRAMING	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
FW-2	200 25 MPa CONCRETE RETAINING WALLS AT BASEMENT WALKOUT. r/w 15M @400 H+V INSIDE FACE. SUPPORT ON 500 x 200 STRIP FOOTINGS r/w (2) 15M CONT. PROVIDE 15M HOOKED DOWELS @1200. NOTE FW-2 WALLS SPAN HORIZONTALLY. HORIZONTAL REBAR MUST BE INSTALLED INSIDE FACE OF WALL.	TYPICAL RETAINING WALL	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
FW-3	300 x 600 25 MPa CONCRETE FOUNDATION PIER r/w (8) 20M VERT AND 10M STIRRUPS @ 300. SUPPORT ON 900 x 300 r/w (4) 15M CONT. T&B & 15M TRANS. @400 T&B. PROVIDE HOOKED DOWELS TC MATCH VERT PIER REINF.	FOUNDATION WALL AT MC1	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
FW-4	200 25 MPa CONCRETE FOUNDATION WALLS r/w 15M @500 H+V INSIDE FACE. SUPPORT ON 800 x 200 r/w (3) 15M CONT. & 15M TRANS. @400. PROVIDE 15M HOOKED DOWELS @1200	TW @ -388 BELOW GROUND FFE. FRONT AND END REAR FOUNDATION WALLS SUPPORTING WOOD FRAMING	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
S1	100mm - 25 MPa CONCRETE SLAB ON GRADE. SAW CUT @ 2440mm oc EACH WAY	INTERIOR SLAB ON GRADE REFER TO TD0320 & TD0321	AS SHOWN ON PLAN
S2	100mm - 32 MPa CONCRETE SLAB ON GRADE. SAW CUT @ 2440mm oc EACH WAY	EXTERIOR SLAB ON GRADE REFER TO TD0320 & TD0321	AS SHOWN ON PLAN
PF1	305 DIA. - 32 MPa CONCRETE PIER FOOTINGS r/w (4) 15M VERT. BELL TO 600mm DIA. AT BASE MIN. 1500mm BELOW GRADE AT EACH STAIR STRINGER BASE TYP	TYPICAL STAIR STRINGER FOOTING	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
SF2	152 x 300 CONCRETE CURBS r/w (2) 15M CONT. ON STRIP FOOTING 500 x 200 r/w (2) 15M CONT.	INTERIOR STRIP FOOTING	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION



FOUNDATION PLAN NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR DATUM ELEVATIONS.
2. CONTRACTOR TO PROVIDE ADEQUATE SHORING AS REQUIRED DURING ALL PHASES OF CONSTRUCTION.
3. FOUND ALL FOOTINGS ON NATIVE UNDISTURBED SOILS WITH THE FOLLOWING BEARING CAPACITIES CONFIRMED ON SITE BY GEOTECHNICAL INVESTIGATION: 75 kPa (SLS), 115 kPa (ULS).
4. FOUND ALL FOOTINGS AT 4'-0" BELOW GRADE WHERE EXPOSED TO FROST.
5. 'SDF' DENOTES "STEP DOWN FOOTING."
6. DO NOT SCALE STRUCTURAL DRAWINGS.

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

FOUNDATION PLAN

PROJECT NO:

SCALE: 1 : 50

SHEET NO:

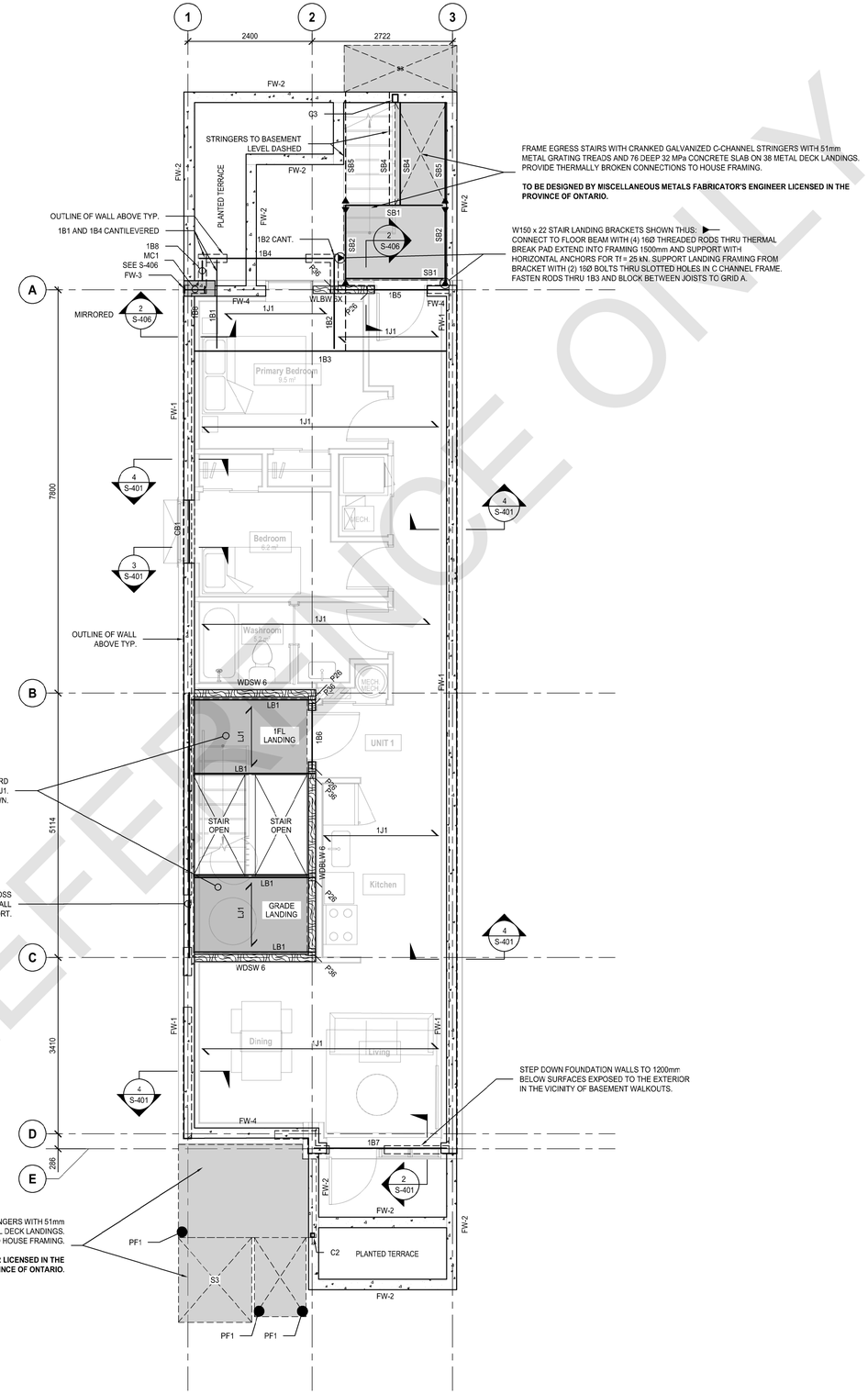
S-101

4PLEX NARROW GROUND FLOOR MEMBER SCHEDULE (FACTORED LOADS)					
LABEL	SECTION	REACTIONS (kN, UNO)		COMMENTS	FINAL DESIGN FOR CONSTRUCTION (IFC)
		LEFT	RIGHT		
LJ1	302 I-JOIST @406 oc	6	6	M_r > 7 kN·m V_r > 6 kN EI_{min} > 455 x10^6 N·mm^2	**BY EWP SUPPLIER**
LJ1	38 x 184 SPF @406 LANDING JOISTS	4	4	SUPPORT WITH LB1 AS PER PLAN	AS SHOWN ON PLAN
1B1	(2) 44 x 302 LVL (FLUSH)	5 (10)	40	SUPPORT LEFT SIDE w/ FACE-MOUNT HANGER, RIGHT SIDE ON FOUNDATION WALL	AS SHOWN ON PLAN
1B2	(2) 44 x 302 LVL (FLUSH)	5 (10)	40	SUPPORT LEFT SIDE w/ FACE-MOUNT HANGER, RIGHT SIDE W/ POST PER PLAN	AS SHOWN ON PLAN
1B3	(2) 44 x 302 LVL (FLUSH)	5 (5)	10	SUPPORT WITH FACE-MOUNT HANGERS.	AS SHOWN ON PLAN
1B4	(2) 44 x 302 LVL (FLUSH, CANTILEVERED)	20	20	SUPPORT WITH FACE-MOUNT HANGERS	AS SHOWN ON PLAN
1B5	(2) 44 x 302 LVL (FLUSH)	15	15	SUPPORT LEFT SIDE w/ STUD WALL PER PLAN. RIGHT SIDE ON FOUNDATION WALL	AS SHOWN ON PLAN
1B6	(2) 44 x 302 LVL (FLUSH)	10	10	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
1B7	(2) 44 x 302 LVL (FLUSH)	15	15	SUPPORT ON FOUNDATION WALL	AS SHOWN ON PLAN
1B8	(2) 44 x 302 LVL (FLUSH)	5	5	SUPPORT'S VARY, REFER TO PLAN	AS SHOWN ON PLAN
LB1	(2) 44 x 184 LVL LANDING BEAM	20	20	SUPPORT'S VARY, REFER TO PLAN	AS SHOWN ON PLAN
SB1	C250 x 30 LANDING BEAM	5	5	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB2	C250 x 30 LANDING BEAM	Rf = 25 Mf = 20kN·m Cf = Tf = 5 kN	Rf = 25 Mf = 5kN·m Cf = Tf = 5 kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB4	C250 x 30 STRINGER	Rf = 10 Cf=Tf= 15kN	Rf = 13 Cf=Tf= 15kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB5	C250 x 30 STRINGER	Rf = 10 Mf = 5kN·m Cf = Tf =10kN	Rf = 13 Mf = 5kN·m Cf = Tf =10kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
CB1	200 WIDE x 250 DEEP 25MPa CONC LINTEL r/w (2) 15M TA&B & 10M CLOSED STIRRUPS @300, EXTEND 15M RE NF. MIN 600 BEYOND OPENING EA. END TYP. PROVIDE DIAGONAL BARS AT CORNERS.				AS SHOWN ON PLAN

MEMBER SCHEDULE NOTES:

1. LEFT AND RIGHT ENDS OF BEAMS ARE DEFINED BY THE ORIENTATION OF THE BEAM MARK ON PLAN. PLAN DOWN = LEFT, PLAN UP = RIGHT.
2. PROVIDE APPROPRIATE HOLD DOWN STRAPS, TIES AND ANCHORS WHERE UPLIFT FORCES ARE NOTED OR AT BACK SPAN SUPPORT OF CANTILEVERED BEAMS.
3. WHERE REACTION FORCES ARE NOT SHOWN FOR WOOD BEAMS, BEAM CONNECTIONS SHALL BE DESIGNED FOR 70% OF THE SHEAR CAPACITY OF THE BEAM.

WALLS, COLUMNS, POSTS, FOUNDATIONS AND SLABS SCHEDULE			
LABEL	ELEMENT	COMMENTS	FINAL DESIGN (IFC)
MC1	W410 x 46 BEAM COLUMN MOMENT CONNECT TO TOP OF 300 FOUNDATION WALL WITH (6) 15Ø HEAVY HEX HEAD ANCHOR RODS - 610 EMBED	REFER TO S406	AS SHOWN ON PLAN & DETAILS
C2	HSS 76 x 76 x 6.4 STUB COLUMN SUPPORTING STEEL FRONT/REAR LANDING EDGE		**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
C3	HSS 152 x 102 x 13 COLUMN. C CHANNEL FLANGES MAY BE COPED AT COLUMN AND OUTRIGGER BEAMS TO REDUCE MEMBER SPACING AND OVERALL STAIR WIDTH	FOURPLEX NARROW REAR EXTERIOR STAIR COLUMN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
P(#)4	(#) 38 x 89 SPF BUILT UP POST		AS SHOWN ON PLAN
P(#)6	(#) 38 x 140 SPF BUILT UP POST		AS SHOWN ON PLAN
WLBW 6X	38 x 140 SPF @406 EXTERIOR LOAD BEARING STUD WALLS WITH 16mm PLYWOOD SHEATHING SHOWN THUS TYP.	TYPICAL EXTERIOR WOOD WALL	AS SHOWN ON PLAN
WDLBW 6	38 x 140 SPF @406 INTERIOR LOAD BEARING STUD WALL	INTERIOR LOAD BEARING WALLS	AS SHOWN ON PLAN
WDSW 6	38 x 140 SPF @406 STUD SHEAR WALL. CLAD ONE SIDE OF WALL WITH 12.7mm PLYWOOD SHEATHING FOR EXTENT SHOWN	INTERIOR LOAD BEARING SHEAR WALLS	AS SHOWN ON PLAN
FW-1	200 25 MPa CONCRETE FOUNDATION WALLS r/w 15M @500 H+V INSIDE FACE. SUPPORT ON 800 x 200 r/w (3) 15M CONT. & 15M TRANS. @400. PROVIDE 15M HOOKED DOWELS @1200	TW @ -44 BELOW GROUND FFE. SIDE FOUNDATION WALLS SUPPORTING CFS FRAMING	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
FW-2	200 25 MPa CONCRETE RETAINING WALLS AT BASEMENT WALKOUT. r/w 15M @400 H+V INSIDE FACE. SUPPORT ON 500 x 200 STRIP FOOTINGS r/w (2) 15M CONT. PROVIDE 15M HOOKED DOWELS @1200. NOTE FW-2 WALLS SPAN HORIZONTALLY. HORIZONTAL REBAR MUST BE INSTALLED INSIDE FACE OF WALL.	TYPICAL RETAINING WALL	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
FW-3	300 x 600 25 MPa CONCRETE FOUNDATION PIER r/w (8) 20M VERT AND 10M STIRRUPS @ 300. SUPPORT ON 500 x 300 r/w (4) 15M CONT. TA&B & 15M TRANS. @400 TA&B. PROVIDE HOOKED DOWELS TO MATCH VERT PIER REINF.	FOUNDATION WALL AT MC1	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
FW-4	200 25 MPa CONCRETE FOUNDATION WALLS r/w 15M @500 H+V INSIDE FACE. SUPPORT ON 800 x 200 r/w (3) 15M CONT. & 15M TRANS. @400. PROVIDE 15M HOOKED DOWELS @1200	TW @ -388 BELOW GROUND FFE. FRONT AND END REAR FOUNDATION WALLS SUPPORTING WOOD FRAMING	MIN BEARING PRESSURE PER OBC 9.15.1.1. OR REVISE TO SUIT GEOTECHNICAL INVESTIGATION
S3	152mm - 32 MPa CONCRETE LANDING SLAB ON GRADE ON COMPACTED CLEAR CRUSHED STONE	LANDING SLAB ON GRADE	AS SHOWN ON PLAN



GROUND LEVEL FRAMING NOTES

1. LOADS USED IN THE DESIGN:
   LIVE: 1.9 kPa RESIDENTIAL AREAS
   4.8 kPa COMMON AND EGRESS AREAS
   SNOW: 1.06 kPa

   DEAD LOAD: 0.50 kPa (PARTITIONS)
   0.15 kPa (FLOORING)
   0.25 kPa (STRUCTURE)
   0.20 kPa (INSULATION)
   0.10 kPa (FINISHES)
   0.50 kPa (SUSPENDED)
   1.70 kPa (FLOOR TOTAL)

   BALCONY: 0.30 kPa (ROOFING)
   0.20 kPa (STRUCTURE)
   0.10 kPa (FINISHES)
   0.40 kPa (SUSPENDED)
   1.80 kPa (CONCRETE ON METAL DECK)
   2.80 kPa (ROOF DECK TOTAL)

2. REFER TO ARCHITECTURAL DRAWINGS FOR DATUM ELEVATIONS.
3. ALL NEW FLOOR SHEATHING TO BE 3/4" T&G FASTENED DIRECTLY TO FLOOR JOISTS.
4. ALL WOOD-TO-WOOD CONNECTIONS ARE TO BE MADE WITH APPROPRIATE TOP OR FACE MOUNT HANGERS.
5. ALL TEMPORARY WORKS, INCLUDING SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. PROVIDE SOLID BLOCKING IN JOIST SPACE (SQUASH BLOCKS) AND CONTINUE ALL BUILT UP POSTS DOWN TO T/O FOUNDATION WALLS
7. "PA" DENOTES POST POINT LOAD FROM ABOVE & "CA" DENOTES COLUMN POINT LOAD FROM ABOVE.
8. BUILT-UP SPF POSTS MARKED "P36", "P46", ETC. DENOTES (3) 38x140, (4) 38x140, ETC.
9. WHERE POSTS ARE NOT MARKED ON PLAN, PROVIDE MATCHING NUMBER OF BUILT-UP STUCS TO SUPPORT DIMENSIONAL LUMBER BEAMS AND MATCHING NUMBER OF STUDS PLUS (1) TO SUPPORT ENGINEERED LUMBER BEAMS. TYP.
10. P-CFS NOTES BUILT-UP COLD FORMED STEEL POST BY SUPPLIER .
11. REFER TO GENERAL NOTES AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
12. DO NOT SCALE STRUCTURAL DRAWINGS.

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3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
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5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

BASEMENT FLOOR PLAN SHOWING GROUND LEVEL FRAMING

PROJECT NO:

SCALE: 1 : 50

SHEET NO:

S-102

4PLEX NARROW SECOND FLOOR MEMBER SCHEDULE (FACTORED LOADS)					
LABEL	SECTION	REACTIONS (kN, UNO) LEFT	REACTIONS (kN, UNO) RIGHT	COMMENTS	FINAL DESIGN FOR CONSTRUCTION (IFC)
2J1	302 I-JOIST @406 oc	6	6	M_r > 7 kN·m V_r > 6 kN EI_{min} > 455 x 10^6 N·mm^2	**BY EWP SUPPLIER**
2J2	38x235 SPF @406 oc CONTINUOUS	2 | 4 | 2		RECESSED BALCONY FRAMING. USE FACE-MOUNT HANGERS AT BEAMS	AS SHOWN ON PLAN
LJ1	38 x 184 SPF @406 LANDING JOISTS	4	4	SUPPORT WITH LB1 AS PER PLAN	AS SHOWN ON PLAN
2B1	(2) 38 x 184 SPF (DROPPED)	15	15	SUPPORT LEFT SIDE w/ FACE-MOUNT HANGER, RIGHT SIDE w/ POST AS PER PLAN	AS SHOWN ON PLAN
2B2	(2) 44 x 302 LVL (FLUSH)	15	10	SUPPORT LEFT SIDE w/ POST AS PER PLAN, RIGHT SIDE w/ FACE-MOUNT HANGER	AS SHOWN ON PLAN
2B3	(3) 44 x 302 LVL (FLUSH)	35	20	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
2B4	(2) 44 x 302 LVL (FLUSH, CONTINUOUS)	5 | 5 | 5		SUPPORTS VARY, REFER TO PLAN	AS SHOWN ON PLAN
2B5	(2) 600S200-68 + (2) 600T150-68 BUILT-UP CFS LINTEL	15	15	SUPPORT WITH POSTS AS PER PLAN	**BY CFS STUD SUPPLIER**
2B6	(2) 44 x 302 LVL (FLUSH, CANTILEVERED)	10	10	SUPPORT WITH FACE-MOUNT HANGERS	AS SHOWN ON PLAN
2B7	(2) 44 x 241 LVL (RECESSED, CANTILEVERED)	20	5 (10)	SUPPORT LEFT SIDE w/ POST AS PER PLAN, RIGHT SIDE w/ FACE-MOUNT HANGER	AS SHOWN ON PLAN
2B8	(2) 44 x 302 LVL (FLUSH)	5	5	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
LB1	(2) 44 x 184 LVL LANDING BEAM	20	20	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
SB1	C250 x 30 LANDING BEAM	5	5	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB2	C250 x 30 LANDING BEAM	Rf = 25 Mf = 20kN·m Cf = Tf = 5 kN	Rf = 25 Mf = 5kN·m Cf = Tf = 5 kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB4	C250 x 30 STRINGER	Rf = 10 Cf=Tf= 15kN	Rf = 13 Cf=Tf= 15kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB5	C250 x 30 STRINGER	Rf = 10 Mf = 5kN·m Cf = Tf =10kN	Rf = 13 Mf = 5kN·m Cf = Tf =10kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB6	C250 x 30 LANDING OUTRIGGER	Rf = 15 Mf = 10kN·m		REFER TO PLAN FOR MOMENT CONNECTION LOCATIONS	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB7	LOW C200 x 31	Rf = 15 Mf = 10kN·m		ALTERNATE ROUNDED LANDING FRAMING - REFER TO PLANS	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**

MEMBER SCHEDULE NOTES:

1. LEFT AND RIGHT ENDS OF BEAMS ARE DEFINED BY THE ORIENTATION OF THE BEAM MARK ON PLAN. PLAN DOWN = LEFT, PLAN UP = RIGHT.
2. PROVIDE APPROPRIATE HOLD DOWN STRAPS, TIES AND ANCHORS WHERE UPLIFT FORCES ARE NOTED OR AT BACK SPAN SUPPORT OF CANTILEVERED BEAMS.
3. WHERE REACTION FORCES ARE NOT SHOWN FOR WOOD BEAMS, BEAM CONNECTIONS SHALL BE DESIGNED FOR 70% OF THE SHEAR CAPACITY OF THE BEAM.

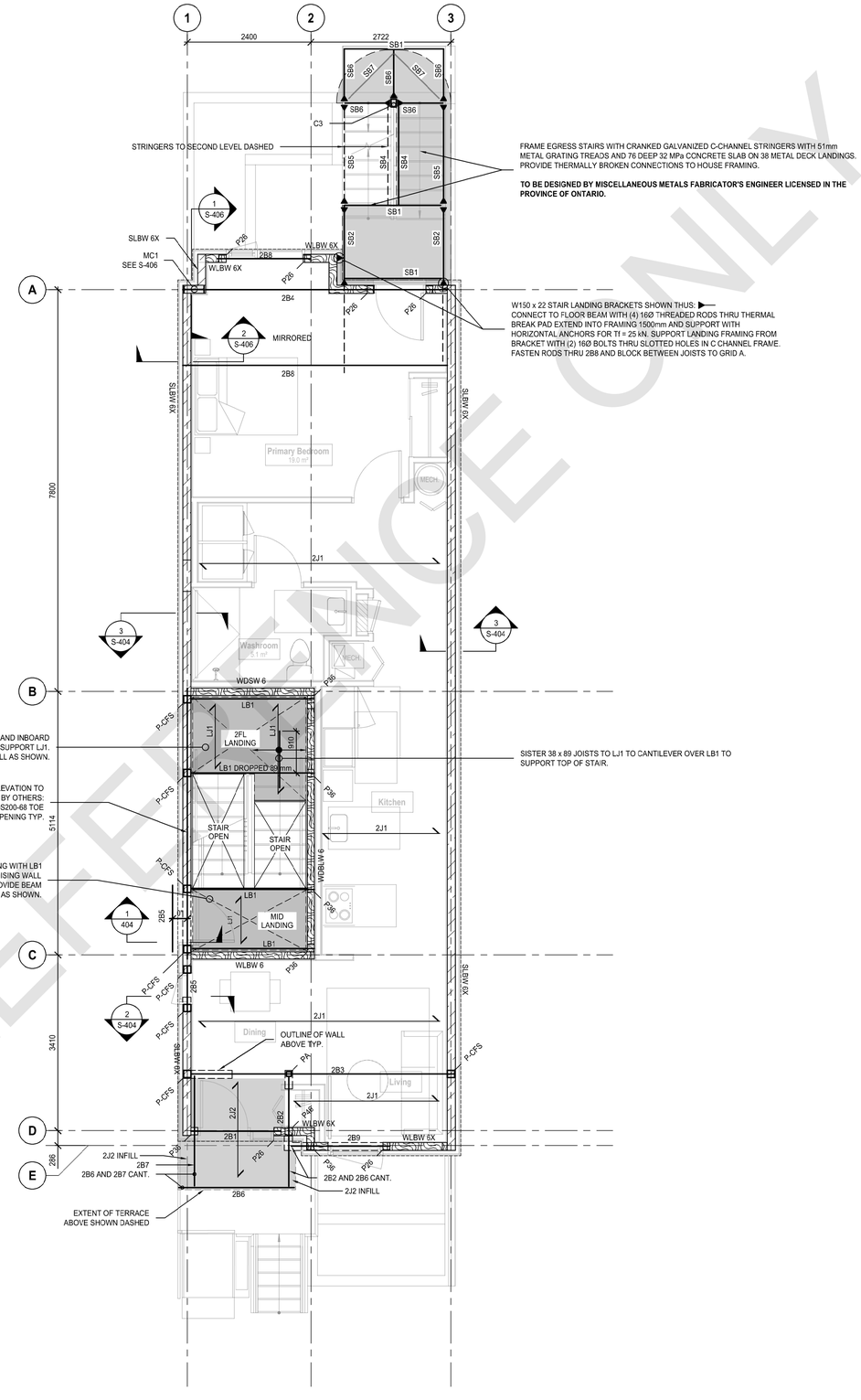
WALL, COLUMN AND POST SCHEDULE			
LABEL	ELEMENT	COMMENTS	FINAL DESIGN (IFC)
MC1	W410 x 46 BEAM COLUMN MOMENT CONNECT TO TOP OF 300 FOUNDATION WALL WITH (6) 19D HEAVY HEX HEAD ANCHOR RODS - 610 EMBED	REFER TO S406	AS SHOWN ON PLAN & DETAILS
C3	HSS 152 x 102 x 13 COLUMN. C CHANNEL FLANGES MAY BE COPED AT COLUMN AND OUTRIGGER BEAMS TO REDUCE MEMBER SPACING AND OVERALL STAIR WIDTH	FOURPLEX NARROW REAR EXTERIOR STAIR COLUMN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
WLBW 6X	38 x 140 SPF @406 EXTERIOR LOAD BEARING STUD WALLS WITH 16mm PLYWOOD SHEATHING SHOWN THUS TYP.	TYPICAL EXTERIOR WOOD WALL	AS SHOWN ON PLAN
SLBW 6X	600S162-68 CFS STUDS @406 + 600T150 T&B-68 TRACKS WITH 16mm NON-COMBUSTIBLE SHEATHING BY CFS SUPPLIER.	TYPICAL EXTERIOR CFS WALL	**BY CFS STUD SUPPLIER**
WDLBW 6	38 x 140 SPF @406 INTERIOR LOAD BEARING STUD WALL	INTERIOR LOAD BEARING WALLS	AS SHOWN ON PLAN
WDSW 6	38 x 140 SPF @406 STUD SHEAR WALL. CLAD ONE SIDE OF WALL WITH 12.7mm PLYWOOD SHEATHING FOR EXTENT SHOWN.	INTERIOR LOAD BEARING SHEAR WALLS	AS SHOWN ON PLAN
PJ(#)4	(#) 38 x 89 SPF BUILT UP POST		AS SHOWN ON PLAN
PJ(#)6	(#) 38 x 140 SPF BUILT UP POST		AS SHOWN ON PLAN
P-CFS	BUILT-UP CFS STUDS TO MATCH WALL WIDTH		**BY CFS STUD SUPPLIER**

SECOND LEVEL FRAMING NOTES

1. LOADS USED IN THE DESIGN:
   LIVE: 1.9 kPa RESIDENTIAL AREAS
   4.8 kPa COMMON AND EGRESS AREAS
   SNOW: 1.06 kPa

   DEAD LOAD: 0.50 kPa (PARTITIONS)
   0.15 kPa (FLOORING)
   0.25 kPa (STRUCTURE)
   0.20 kPa (INSULATION)
   0.10 kPa (FINISHES)
   0.50 kPa (SUSPENDED)
   1.70 kPa (FLOOR TOTAL)

   BALCONY: 0.30 kPa (ROOFING)
   0.20 kPa (STRUCTURE)
   0.10 kPa (FINISHES)
   0.40 kPa (SUSPENDED)
   0.30 kPa (DECK FRAMING)
   1.30 kPa (ROOF DECK TOTAL)
2. REFER TO ARCHITECTURAL DRAWINGS FOR DATUM ELEVATIONS.
3. ALL NEW FLOOR SHEATHING TO BE 3/4" T&G FASTENED DIRECTLY TO FLOOR JOISTS.
4. ALL WOOD-TO-WOOD CONNECTIONS ARE TO BE MADE WITH APPROPRIATE TOP OR FACE MOUNT HANGERS.
5. ALL TEMPORARY WORKS, INCLUDING SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. PROVIDE SOLID BLOCKING IN JOIST SPACE (SQUASH BLOCKS) AND CONTINUE ALL BUILT UP POSTS DOWN TO T/O FOUNDATION WALLS
7. "PA" DENOTES POST POINT LOAD FROM ABOVE & "CA" DENOTES COLUMN POINT LOAD FROM ABOVE.
8. BUILT-UP SPF POSTS MARKED "P36", "P46", ETC. DENOTES (3) 38x140, (4) 38x140, ETC..
9. WHERE POSTS ARE NOT MARKED ON PLAN, PROVIDE MATCHING NUMBER OF BUILT-UP STUDS TO SUPPORT DIMENSIONAL LUMBER BEAMS AND MATCHING NUMBER OF STUDS PLUS (1) TO SUPPORT ENGINEERED LUMBER BEAMS. TYP.
10. P-CFS NOTES BUILT-UP COLD FORMED STEEL POST BY SUPPLIER .
11. REFER TO GENERAL NOTES AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
12. DO NOT SCALE STRUCTURAL DRAWINGS.



FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QUALIFIED DESIGN PROFESSIONAL MUST REVIEW AND UPDATE THE PRE-APPROVED DESIGN DRAWINGS TO ALIGN WITH SITE CONDITIONS, VERIFY ASSUMPTIONS, MAKE ANY FINAL DESIGN SELECTIONS OR MODIFICATIONS DESIRED, AND ENSURE CODE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

GROUND FLOOR PLAN SHOWING SECOND LEVEL FRAMING

PROJECT NO:

SCALE: 1 : 50

SHEET NO:

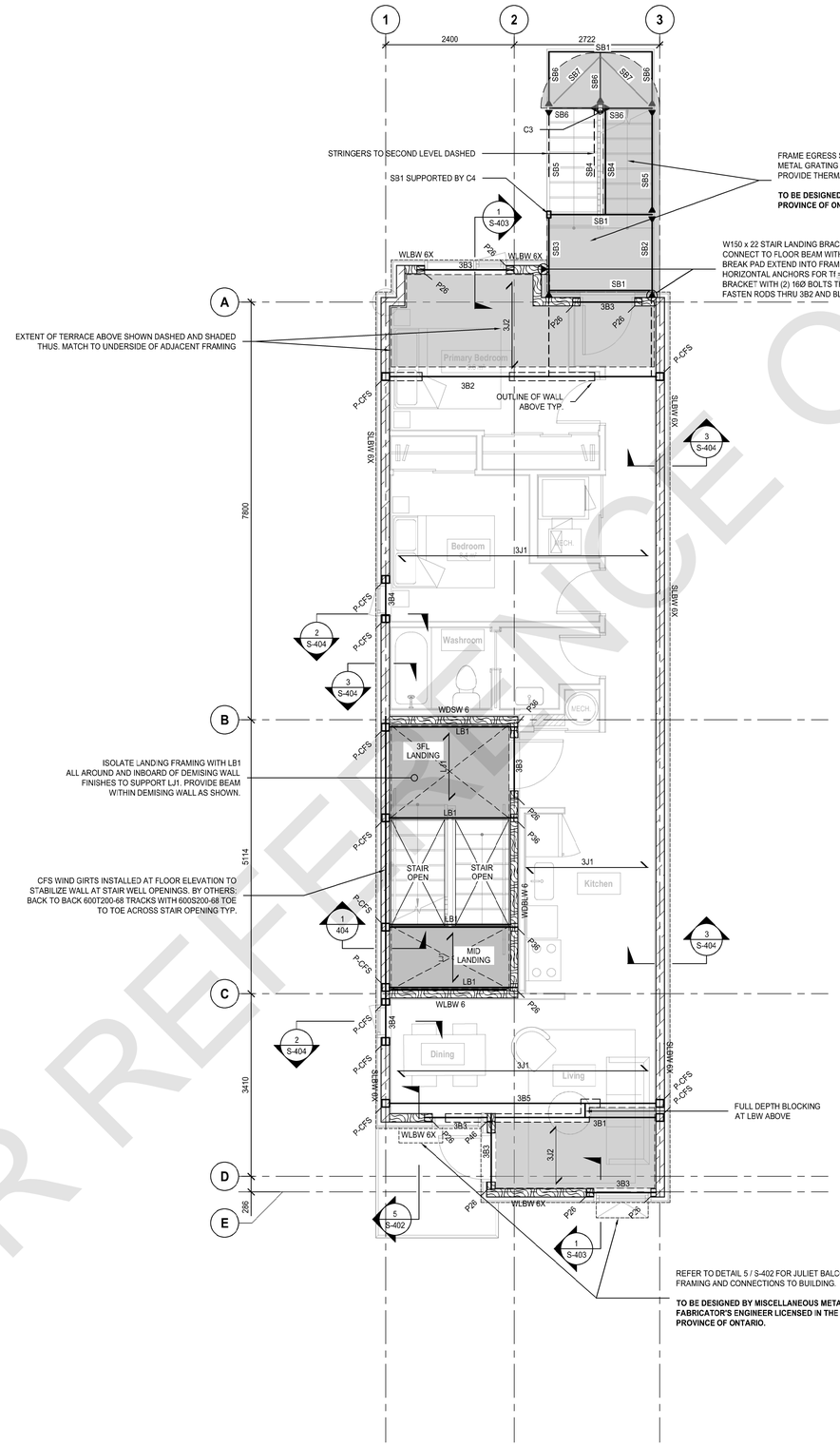
S-103

4PLEX NARROW THIRD FLOOR MEMBER SCHEDULE (FACTORED LOADS)					
LABEL	SECTION	REACTIONS (kN, UNO)		COMMENTS	FINAL DESIGN FOR CONSTRUCTION (IFC)
		LEFT	RIGHT		
3J1	302 I-JOIST @406 oc	6	6	M_r > 7 kN·m V_r > 6 kN EI_{min} > 455 x 10^6 N·mm^2	**BY EWP SUPPLIER**
3J2	38 x 235 SPF @406 oc	3	3	RECESSED BALCONY FRAMING. USE FACE-MOUNT HANGERS AT BEAMS	AS SHOWN ON PLAN
LJ1	38 x 184 SPF @406 LANDING JOISTS	4	4	SUPPORT WITH LB1 AS PER PLAN	AS SHOWN ON PLAN
3B1	(2) 44 x 241 LVL (RECESSED)	15	10	SUPPORT LEFT SIDE w/ FACE-MOUNT HANGER, RIGHT SIDE w/ POST AS PER PLAN	AS SHOWN ON PLAN
3B2	(3) 44 x 302 LVL (FLUSH)	30	30	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
3B3	(2) 44 x 302 LVL (FLUSH)	5	5	SUPPORTS VARY, PROVIDE FACE-MOUNT HANGER AT BEAMS	AS SHOWN ON PLAN
3B4	(2) 600S200-68 + (2) 600T150-68 BUILT-UP CFS LINTEL	10	10	SUPPORT WITH POSTS AS PER PLAN	**BY CFS STUD SUPPLIER**
3B5	(2) 44 x 302 LVL (FLUSH)	10	10	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
LB1	(2) 44 x 184 LVL LANDING BEAM	20	20	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
SB1	C250 x 30 LANDING BEAM	5	5	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB2	C250 x 30 LANDING BEAM	Rf = 25 Mf = 20kN·m Cf = Tf = 5 kN	Rf = 25 Mf = 5kN·m Cf = Tf = 5 kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB3	C250 x 30 LANDING BEAM	Rf = 25 Mf = 20kN·m Cf = Tf = 5 kN	Rf = 25 Cf = Tf = 5 kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB4	C250 x 30 STRINGER	Rf = 10 Cf=Tf= 15kN	Rf = 13 Cf=Tf= 15kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB5	C250 x 30 STRINGER	Rf = 10 Mf = 5kN·m Cf = Tf =10kN	Rf = 13 Mf = 5kN·m Cf = Tf =10kN	SUPPORT WITH FRAMING AS PER PLAN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB6	C250 x 30 LANDING OUTRIGGER	Rf = 15 Mf = 10kN·m		REFER TO PLAN FOR MOMENT CONNECTION LOCATIONS	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
SB7	LOW C200 x 31 LANDING OUTRIGGER	Rf = 15 Mf = 10kN·m		ALTERNATE ROUNDED LANDING FRAMING - REFER TO PLANS	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**

MEMBER SCHEDULE NOTES:

1. LEFT AND RIGHT ENDS OF BEAMS ARE DEFINED BY THE ORIENTATION OF THE BEAM MARK ON PLAN, PLAN DOWN = LEFT, PLAN UP = RIGHT.
2. PROVIDE APPROPRIATE HOLD DOWN STRAPS, TIES AND ANCHORS WHERE UPLIFT FORCES ARE NOTED OR AT BACK SPAN SUPPORT OF CANTILEVERED BEAMS.
3. WHERE REACTION FORCES ARE NOT SHOWN FOR WOOD BEAMS, BEAM CONNECTIONS SHALL BE DESIGNED FOR 70% OF THE SHEAR CAPACITY OF THE BEAM.

WALL, COLUMN AND POST SCHEDULE			
LABEL	ELEMENT	COMMENTS	FINAL DESIGN (IFC)
C3	HSS 152 x 102 x 13 COLUMN. C CHANNEL FLANGES MAY BE COPED AT COLUMN AND OUTRIGGER BEAMS TO REDUCE MEMBER SPACING AND OVERALL STAIR WIDTH	FOURPLEX NARROW REAR EXTERIOR STAIR COLUMN	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
C4	HSS 64 x 64 x 6.4 LANDING COLUMN	FOURPLEX NARROW BETWEEN THIRD AND SECOND LEVEL ONLY	**STEEL TO STEEL CONNECTIONS BY MISCELLANEOUS METALS FABRICATOR**
WLBW 6X	38 x 140 SPF @406 EXTERIOR LOAD BEARING STUD WALLS WITH 16mm PLYWOOD SHEATHING SHOWN THUS TYP.	TYPICAL EXTERIOR WOOD WALL	AS SHOWN ON PLAN
SLBW 6X	600S162-68 CFS STUDS @406 + 600T150 T&B-68 TRACKS WITH 16mm NON-COMBUSTIBLE SHEATHING BY CFS SUPPLIER.	TYPICAL EXTERIOR CFS WALL	**BY CFS STUD SUPPLIER**
WDLBW 6	38 x 140 SPF @406 INTERIOR LOAD BEARING STUD WALL	INTERIOR LOAD BEARING WALLS	AS SHOWN ON PLAN
WDSW 6	38 x 140 SPF @406 STUD SHEAR WALL. CLAD ONE SIDE OF WALL WITH 12.7mm PLYWOOD SHEATHING FOR EXTENT SHOWN	INTERIOR LOAD BEARING SHEAR WALLS	AS SHOWN ON PLAN
P(#)4	(#) 38 x 89 SPF BUILT UP POST		AS SHOWN ON PLAN
P(#)6	(#) 38 x 140 SPF BUILT UP POST		AS SHOWN ON PLAN
P-CFS	BUILT-UP CFS STUDS TO MATCH WALL WIDTH		**BY CFS STUD SUPPLIER**



THIRD LEVEL FRAMING NOTES

1. LOADS USED IN THE DESIGN:
   LIVE: 1.9 kPa RESIDENTIAL AREAS
   4.8 kPa COMMON AND EGRESS AREAS
   SNOW: 1.06 kPa

   DEAD LOAD: 0.50 kPa (PARTITIONS)
   0.15 kPa (FLOORING)
   0.25 kPa (STRUCTURE)
   0.20 kPa (INSULATION)
   0.10 kPa (FINISHES)
   0.50 kPa (SUSPENDED)
   1.70 kPa (FLOOR TOTAL)

   BALCONY: 0.30 kPa (ROOFING)
   0.20 kPa (STRUCTURE)
   0.10 kPa (FINISHES)
   0.40 kPa (SUSPENDED)
   0.30 kPa (DECK FRAMING)
   1.30 kPa (ROOF DECK TOTAL)
2. REFER TO ARCHITECTURAL DRAWINGS FOR DATUM ELEVATIONS.
3. ALL NEW FLOOR SHEATHING TO BE 3/4" T&G FASTENED DIRECTLY TO FLOOR JOISTS.
4. ALL WOOD-TO-WOOD CONNECTIONS ARE TO BE MADE WITH APPROPRIATE TOP OR FACE MOUNT HANGERS.
5. ALL TEMPORARY WORKS, INCLUDING SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
6. PROVIDE SOLID BLOCKING IN JOIST SPACE (SQUASH BLOCKS) AND CONTINUE ALL BUILT UP POSTS DOWN TO T/O FOUNDATION WALLS
7. "PA" DENOTES POST POINT LOAD FROM ABOVE & "CA" DENOTES COLUMN POINT LOAD FROM ABOVE.
8. BUILT-UP SPF POSTS MARKED "P36", "P46", ETC. DENOTES (3) 38x140, (4) 38x140, ETC.
9. WHERE POSTS ARE NOT MARKED ON PLAN, PROVIDE MATCHING NUMBER OF BUILT-UP STUDS TO SUPPORT DIMENSIONAL LUMBER BEAMS AND MATCHING NUMBER OF STUDS PLUS (1) TO SUPPORT ENGINEERED LUMBER BEAMS. TYP.
10. P-CFS NOTES BUILT-UP COLD FORMED STEEL POST BY SUPPLIER .
11. REFER TO GENERAL NOTES AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
12. DO NOT SCALE STRUCTURAL DRAWINGS.

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QUALIFIED DESIGN PROFESSIONAL MUST REVIEW AND UPDATE THE PRE-APPROVED DESIGN DRAWINGS TO ALIGN WITH SITE CONDITIONS, VERIFY ASSUMPTIONS, MAKE ANY FINAL DESIGN SELECTIONS OR MODIFICATIONS DESIRED, AND ENSURE CODE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

SECOND FLOOR PLAN SHOWING THIRD LEVEL FRAMING

PROJECT NO:

SCALE: 1 : 50

SHEET NO:

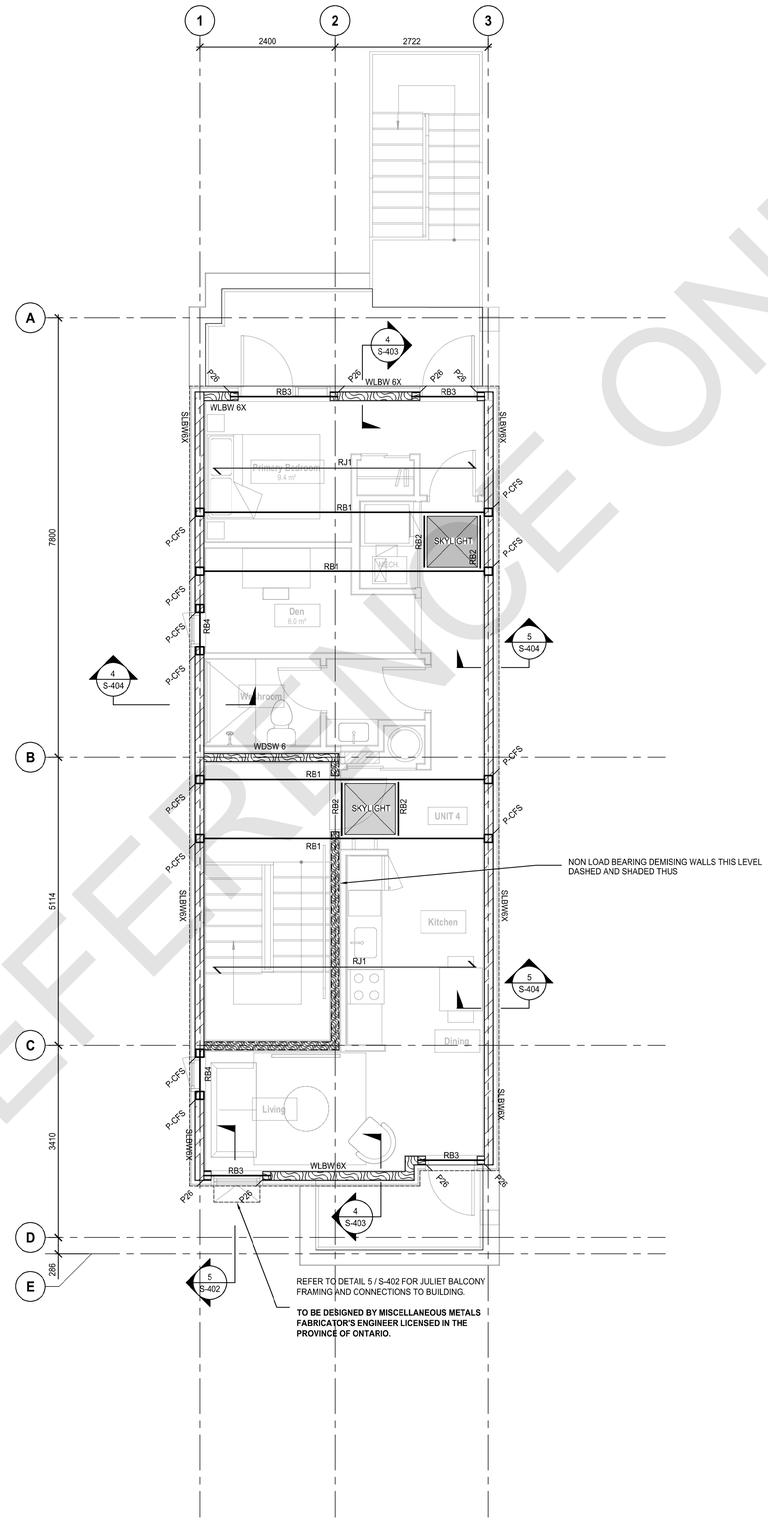
S-104

4PLEX NARROW ROOF MEMBER SCHEDULE (FACTORED LOADS)					
LABEL	SECTION	REACTIONS (kN, UNO)		COMMENTS	FINAL DESIGN FOR CONSTRUCTION (IFC)
		LEFT	RIGHT		
RJ1	302 I-JOIST @406 oc SLOPED ROOF JOISTS	4	4	M_r > 5 kN·m V_r > 4 kN EI_{min} = 255 x 10^9 N·mm^2	**BY EWP SUPPLIER**
RB1	(2) 44 x 302 LVL	10	15	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
RB2	(2) 44 x 302 LVL	5	5	SUPPORT ROOF JOISTS w/ SLOPE- ABLE FACE MOUNT HANGERS	AS SHOWN ON PLAN
RB3	(2) 38 x 302 LVL	5	5	SUPPORT WITH POSTS AS PER PLAN	AS SHOWN ON PLAN
RB4	(2) 600S200-68 + (2) 600T150-68 BUILT-UP CFS LINTEL	5	5	SUPPORT WITH POSTS AS PER PLAN	**BY CFS STUD SUPPLIER**

MEMBER SCHEDULE NOTES:

1. LEFT AND RIGHT ENDS OF BEAMS ARE DEFINED BY THE ORIENTATION OF THE BEAM MARK ON PLAN. PLAN DOWN = LEFT, PLAN UP = RIGHT.
2. PROVIDE APPROPRIATE HOLD DOWN STRAPS, TIES AND ANCHORS WHERE UPLIFT FORCES ARE NOTED OR AT BACK SPAN SUPPORT OF CANTILEVERED BEAMS.
3. WHERE REACTION FORCES ARE NOT SHOWN FOR WOOD BEAMS, BEAM CONNECTIONS SHALL BE DESIGNED FOR 70% OF THE SHEAR CAPACITY OF THE BEAM.

WALL AND POST SCHEDULE			
LABEL	ELEMENT	COMMENTS	FINAL DESIGN (IFC)
WLBW 6X	38 x 140 SPF @406 EXTERIOR LOAD BEARING STUD WALLS WITH 16mm PLYWOOD SHEATHING SHOWN THUS TYP.	TYPICAL EXTERIOR WOOD WALL	AS SHOWN ON PLAN
SLBW 6X	600S162-68 CFS STUDS @406 + 600T150-68 T&B TRACKS WITH 16mm NON-COMBUSTIBLE SHEATHING BY CFS SUPPLIER.	TYPICAL EXTERIOR CFS WALL	**BY CFS STUD SUPPLIER**
WDSW 6	38 x 140 SPF @406 STUD SHEAR WALL. CLAD ONE SIDE OF WALL WITH 12.7mm PLYWOOD SHEATHING FOR EXTENT SHOWN	INTERIOR LOAD BEARING SHEAR WALLS	AS SHOWN ON PLAN
P(#)4	(#) 38 x 89 SPF BUILT UP POST		AS SHOWN ON PLAN
P(#)6	(#) 38 x 140 SPF BUILT UP POST		AS SHOWN ON PLAN
P-CFS	BUILT-UP CFS STUDS TO MATCH WALL WIDTH		**BY CFS STUD SUPPLIER**



ROOF LEVEL FRAMING NOTES

1. LOADS USED IN THE DESIGN:
   SNOW: 1.06 kPa
   DEAD LOAD: 0.30 kPa (ROOFING)
   0.20 kPa (STRUCTURE)
   0.10 kPa (FINISHES)
   0.40 kPa (SUSPENDED)
   1.00 kPa (ROOF TOTAL)
2. SOLAR PANEL ALLOWANCE OF 0.5 kPa HAS BEEN ASSESSED FOR ROOF FRAMING DESIGN.
3. REFER TO ARCHITECTURAL DRAWINGS FOR DATUM ELEVATIONS.
4. ALL NEW FLOOR SHEATHING TO BE 3/4" T&G FASTENED DIRECTLY TO ROOF-JOISTS.
5. ALL WOOD-TO-WOOD CONNECTIONS ARE TO BE MADE WITH APPROPRIATE TOP OR FACE MOUNT HANGERS.
6. ALL TEMPORARY WORKS, INCLUDING SHORING IS THE RESPONSIBILITY OF THE CONTRACTOR.
7. PROVIDE SOLID BLOCKING IN JOIST SPACE (SQUASH BLOCKS) AND CONTINUE ALL BUILT UP POSTS DOWN TO T/O FOUNDATION WALLS
8. BUILT-UP SPF POSTS MARKED "P36", "P46", ETC. DENOTES (3) 38x140, (4) 38x140, ETC.
9. WHERE POSTS ARE NOT MARKED ON PLAN, PROVIDE MATCHING NUMBER OF BUILT-UP STUDS TO SUPPORT DIMENSIONAL LUMBER BEAMS AND MATCHING NUMBER OF STUDS PLUS (1) TO SUPPORT ENGINEERED LUMBER BEAMS. TYP.
10. P-CFS NOTES BUILT-UP COLD FORMED STEEL POST BY SUPPLIER.
11. REFER TO GENERAL NOTES AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION.
12. DO NOT SCALE STRUCTURAL DRAWINGS.

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

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5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

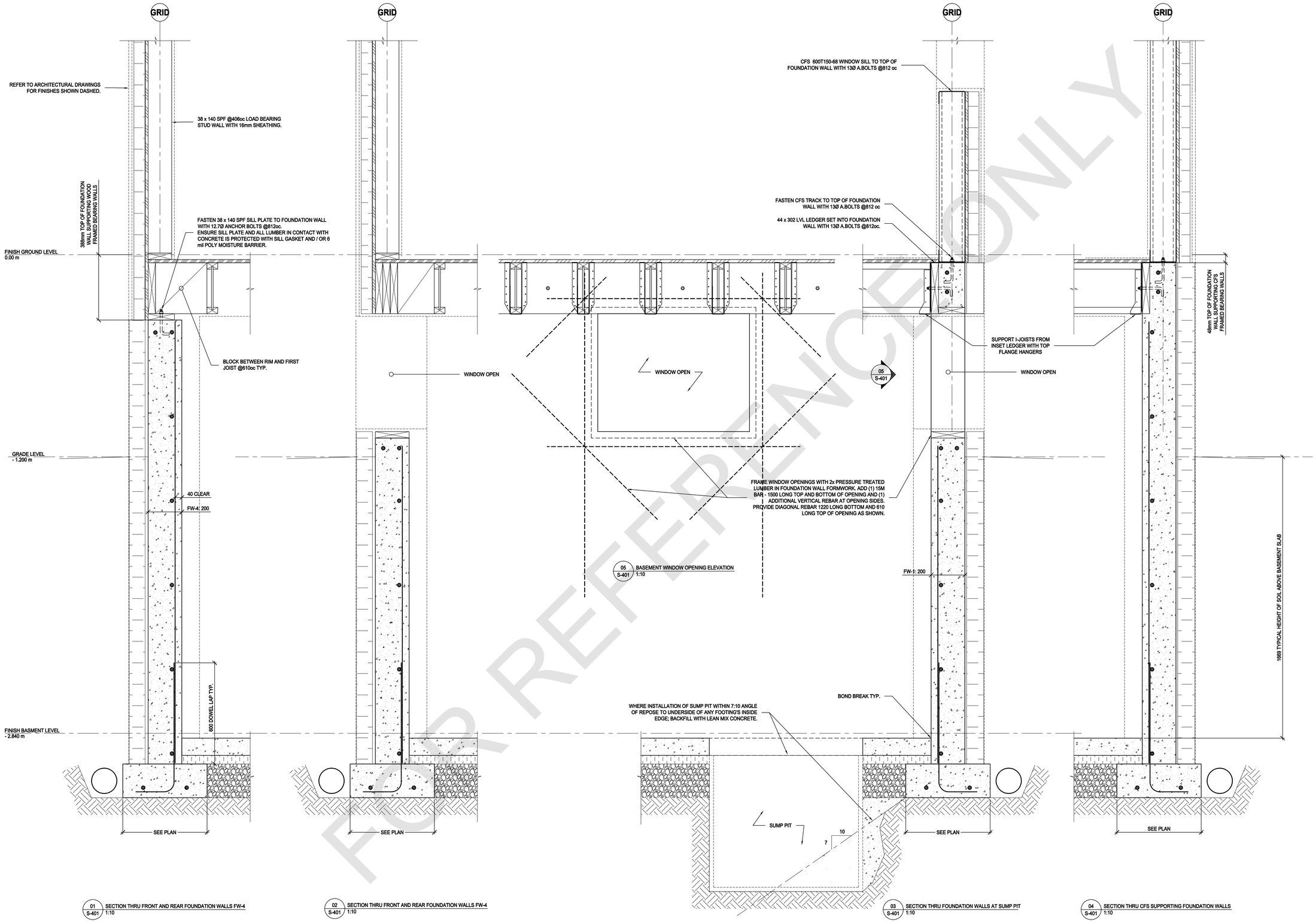
THIRD FLOOR PLAN SHOWING ROOF LEVEL FRAMING

PROJECT NO:

SCALE: 1 : 50

SHEET NO:

S-105



01 S-401 SECTION THRU FRONT AND REAR FOUNDATION WALLS FW-4 1:10

02 S-401 SECTION THRU FRONT AND REAR FOUNDATION WALLS FW-4 1:10

03 S-401 SECTION THRU FOUNDATION WALLS AT SUMP PIT 1:10

04 S-401 SECTION THRU CFS SUPPORTING FOUNDATION WALLS 1:10

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

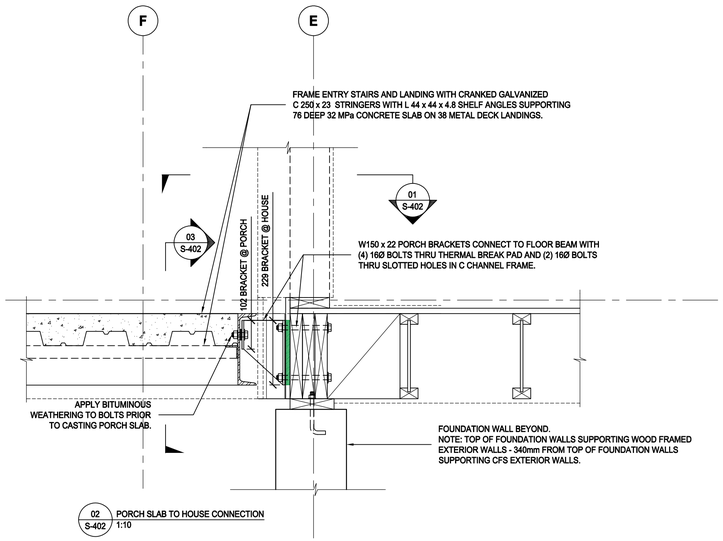
PROJECT:
City of Toronto - Multiplex

FOURPLEX NARROW

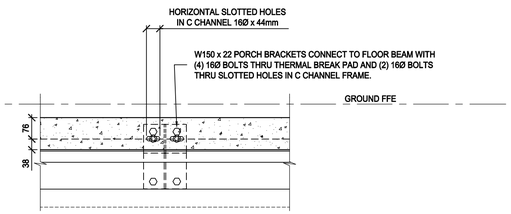
SHEET TITLE:
FOUNDATION DETAILS

PROJECT NO:
SCALE: 1 : 10

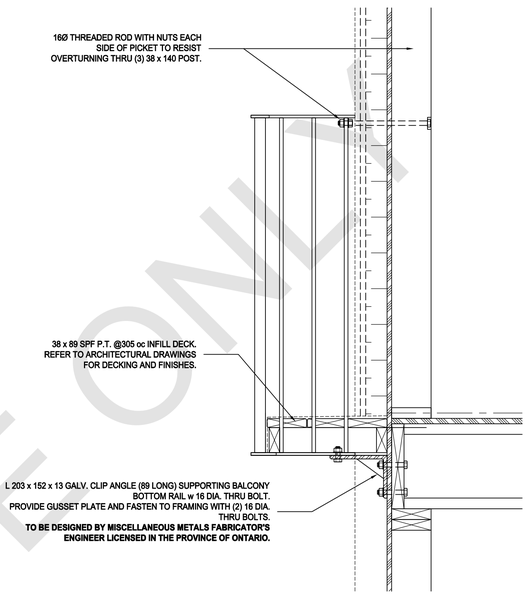
SHEET NO:
S-401



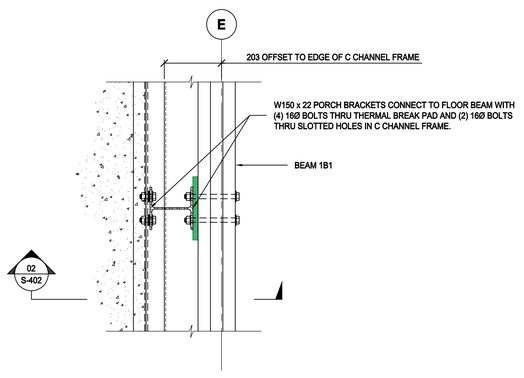
02 S-402 PORCH SLAB TO HOUSE CONNECTION 1:10



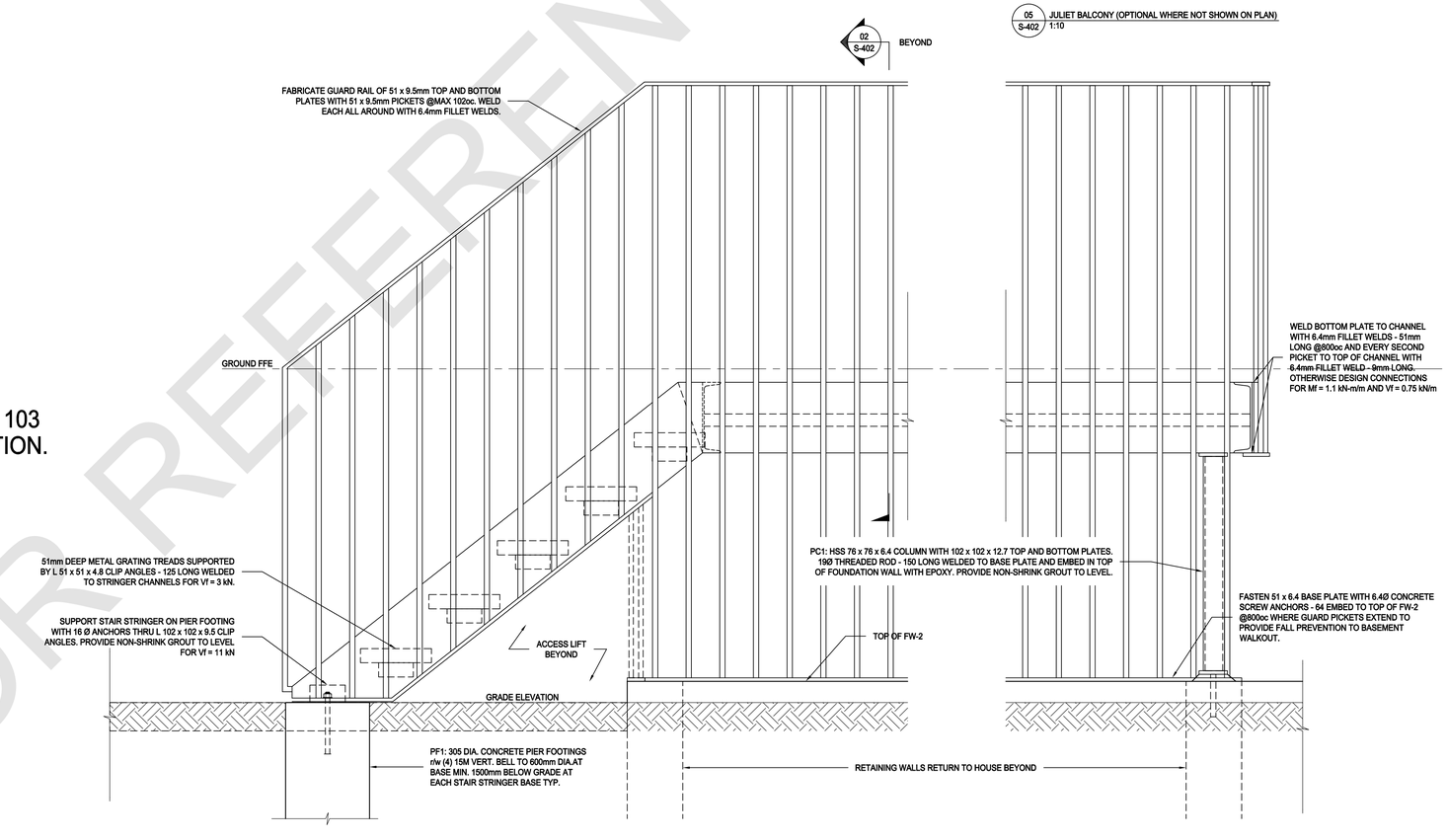
03 S-402 PORCH SLAB TO HOUSE CONNECTION 1:10



05 S-402 JULIET BALCONY (OPTIONAL WHERE NOT SHOWN ON PLAN) 1:10



REFER TO ARCHITECTURAL DRAWINGS, S-101, 102, 103 FOR PORCH AND STAIR LAYOUTS AND CONFIGURATION.



04 S-402 PORCH STAIR SUPPORT OOUTBOARD OF HOUSE 1:10

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

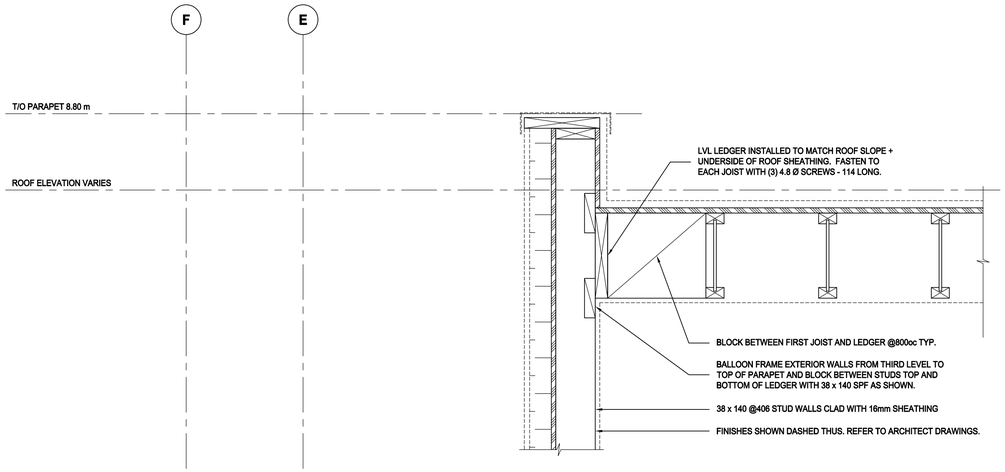
ENTRY PORCH AND EGRESS STAIR SUPPORT DETAILS

PROJECT NO:

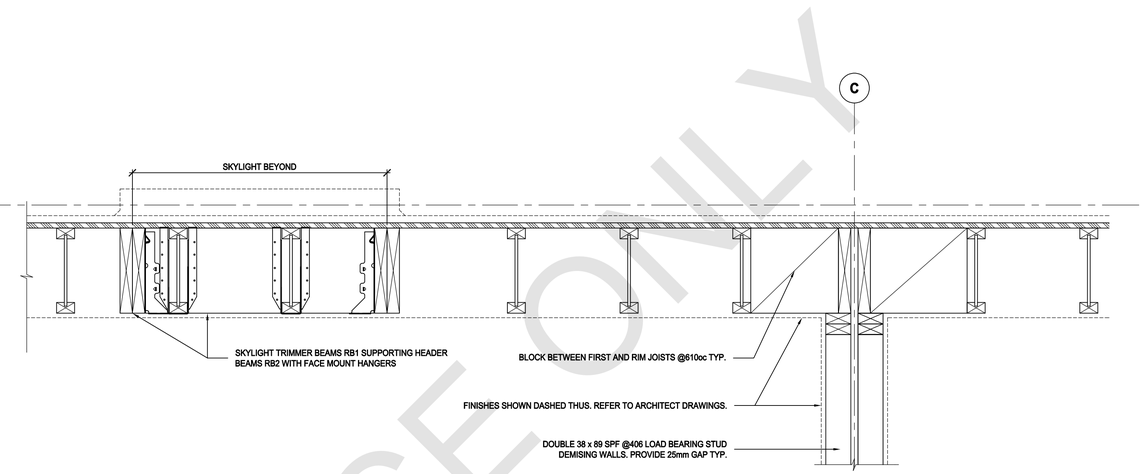
SCALE: 1 : 10

SHEET NO:

S-402

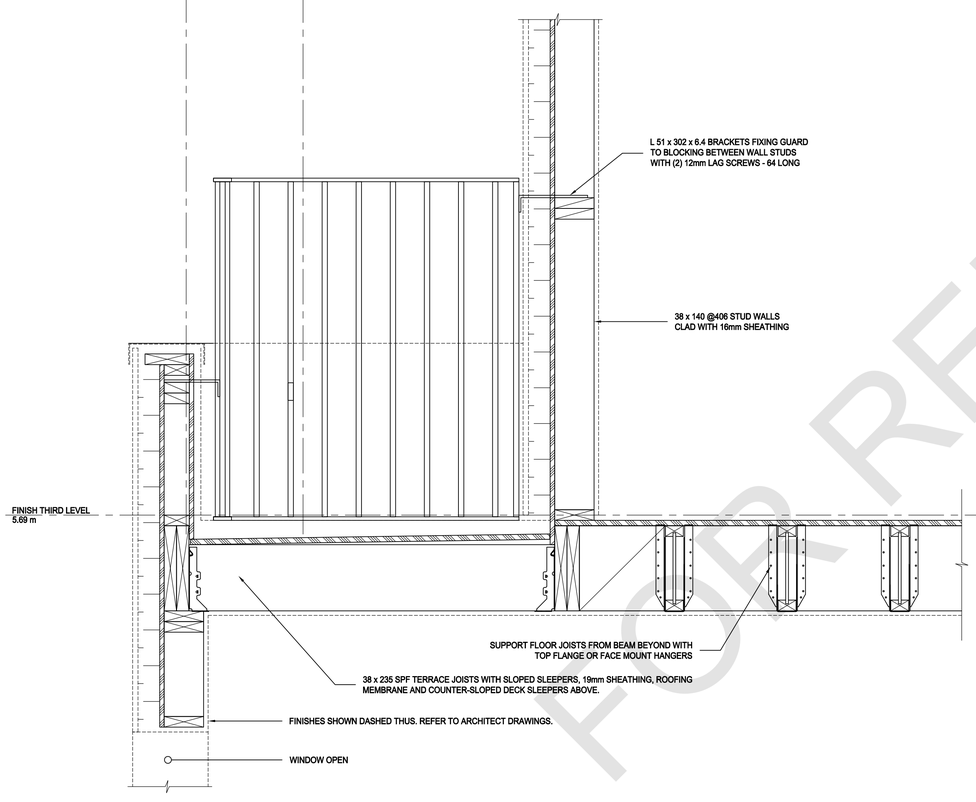


04 S-403 SECTION THRU ROOF FRAMING AT PARAPET 1:10

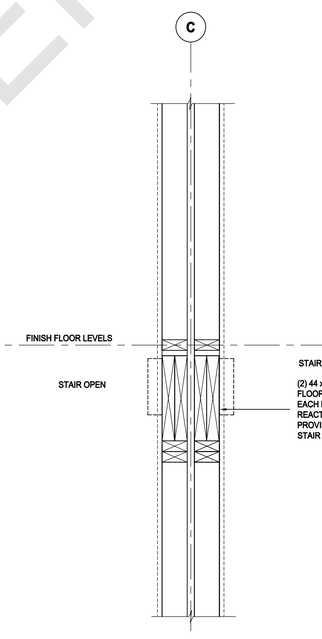


05 S-403 SECTION THRU ROOF FRAMING AT DEMISING WALL 1:10

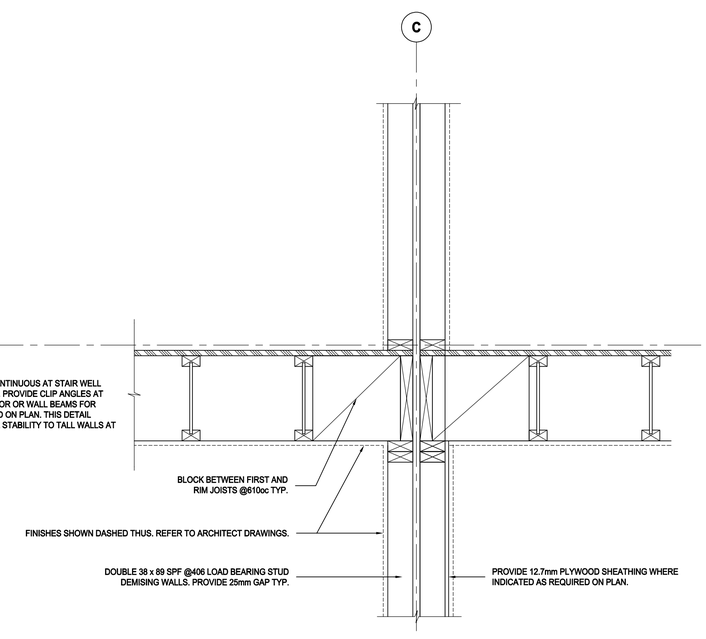
REFER TO ARCHITECTURAL DRAWINGS, S-103, 104 FOR TERRACE LAYOUTS AND FRAMING CONFIGURATION.



01 S-403 SECTION THRU THIRD LEVEL TERRACE 1:10



02 S-403 SECTION THRU DEMISING WALL AT STAIR OPENINGS 1:10



03 S-403 SECTION THRU DEMISING WALL AT FLOOR LEVELS 1:10

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

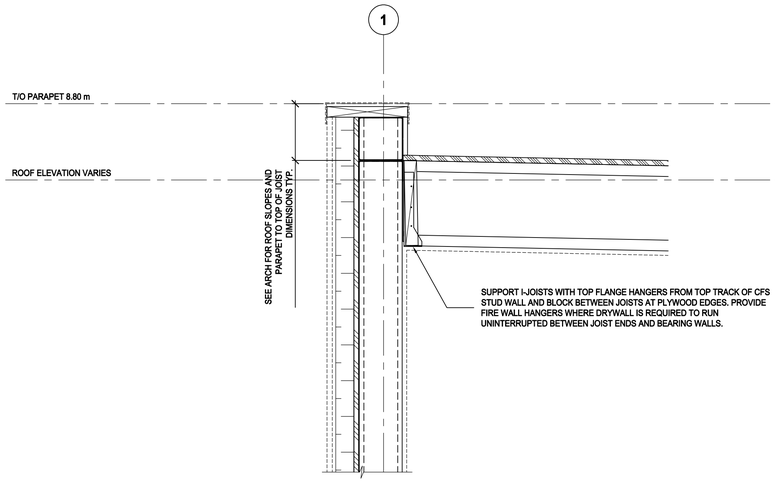
WOOD FRAMING DETAILS

PROJECT NO: 250580

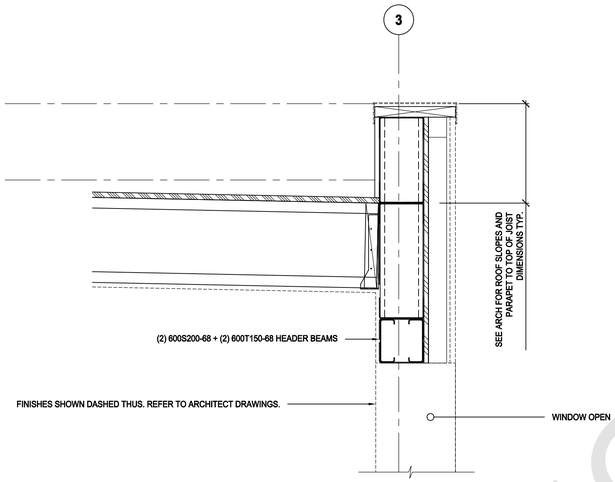
SCALE: 1 : 10

SHEET NO:

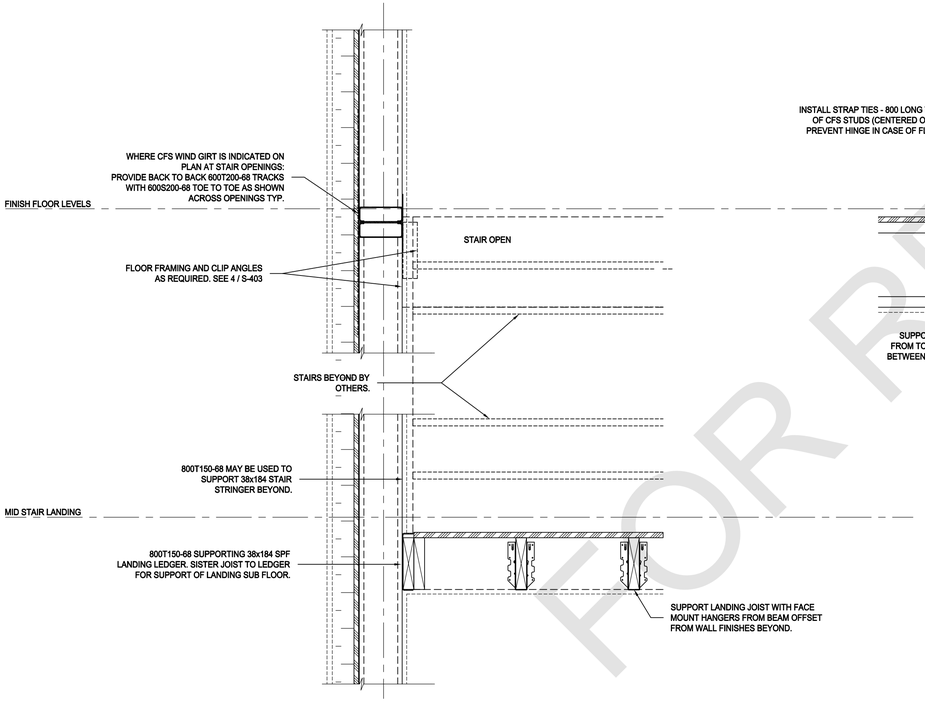
S-403



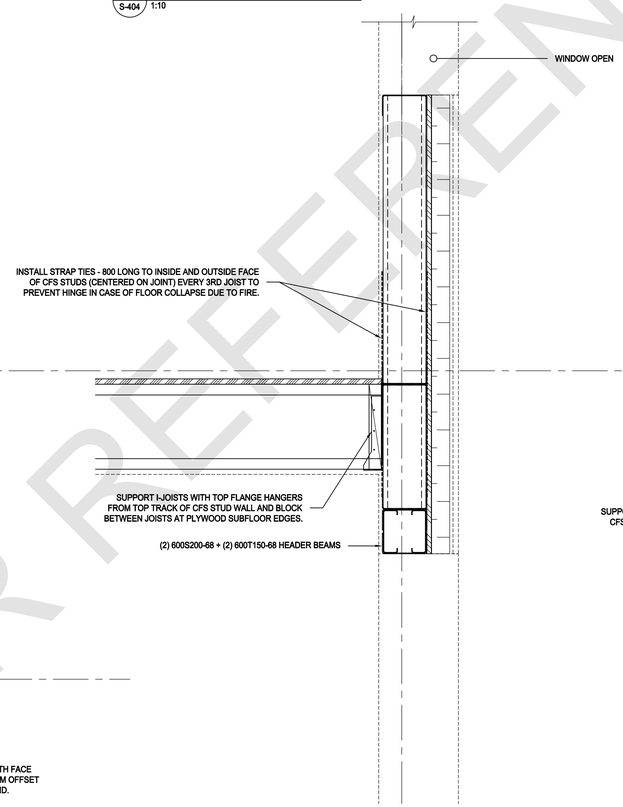
04 S-404 SECTION THRU EXTERIOR WALL ROOF
1:10



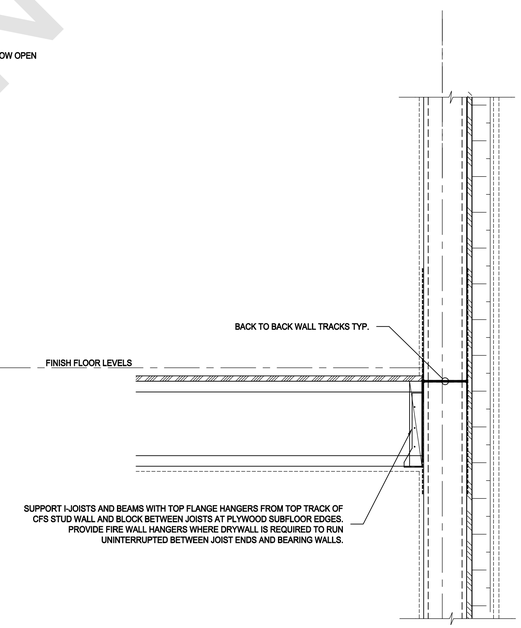
05 S-404 SECTION THRU EXTERIOR WALL AT WINDOW OPENING
1:10



01 S-404 SECTION THRU EXTERIOR WALL AT STAIR
1:10



02 S-404 SECTION THRU EXTERIOR WALL AT WINDOW OPENING
1:10



03 S-404 TYPICAL FLOOR FRAMING SECTION AT EXTERIOR CFS WALL
1:10

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

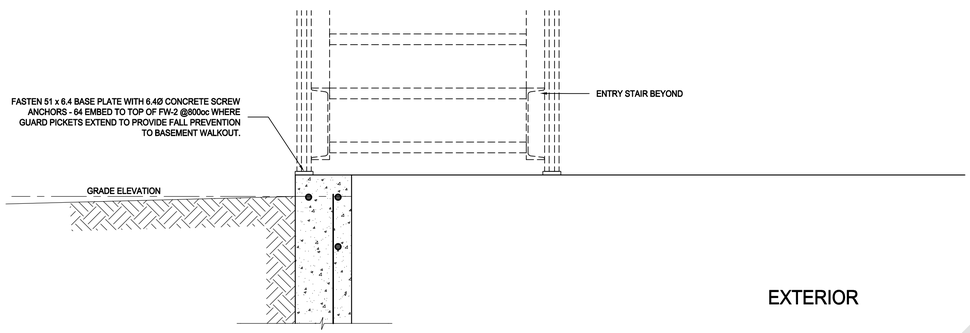
FOURPLEX NARROW

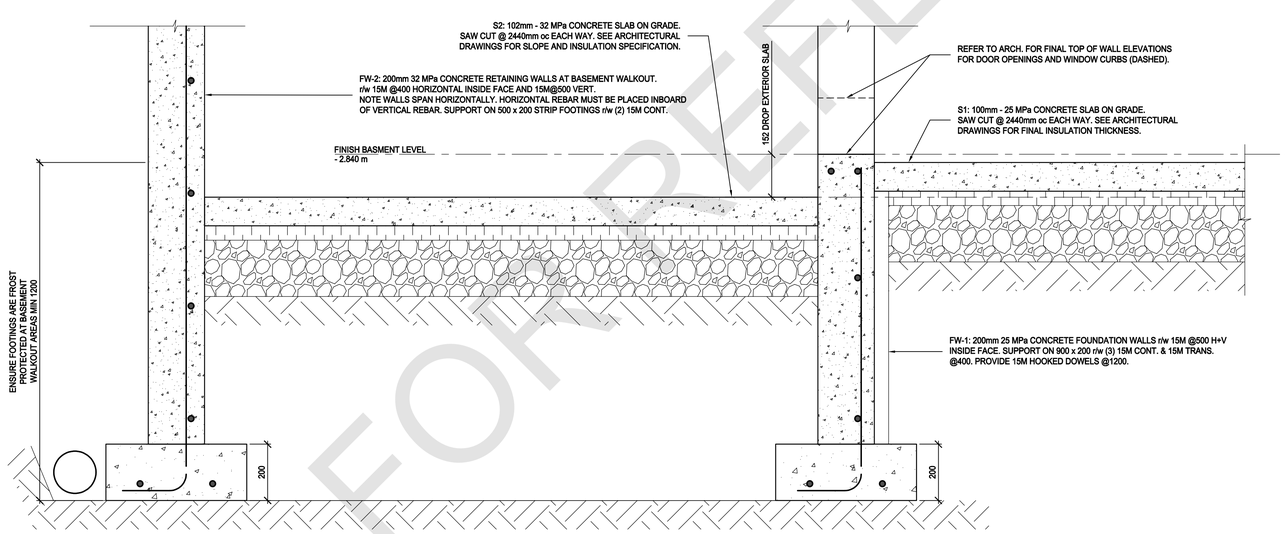
SHEET TITLE:
CFS FRAMING DETAILS

PROJECT NO:
SCALE: 1 : 10

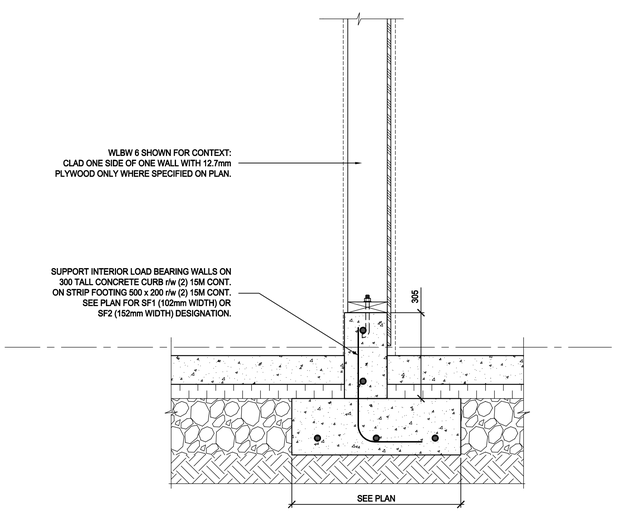
SHEET NO:
S-404

REFER TO ARCHITECTURAL DRAWINGS, S-101, 102, 103
FOR PORCH AND STAIR LAYOUTS AND CONFIGURATION.





01 S-405 SECTION THRU BASEMENT WALKOUT SLAB AND WALLS
1:10



02 S-405 SECTION THRU INTERIOR LOAD BEARING WALL FOOTING
1:10

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

FOURPLEX NARROW

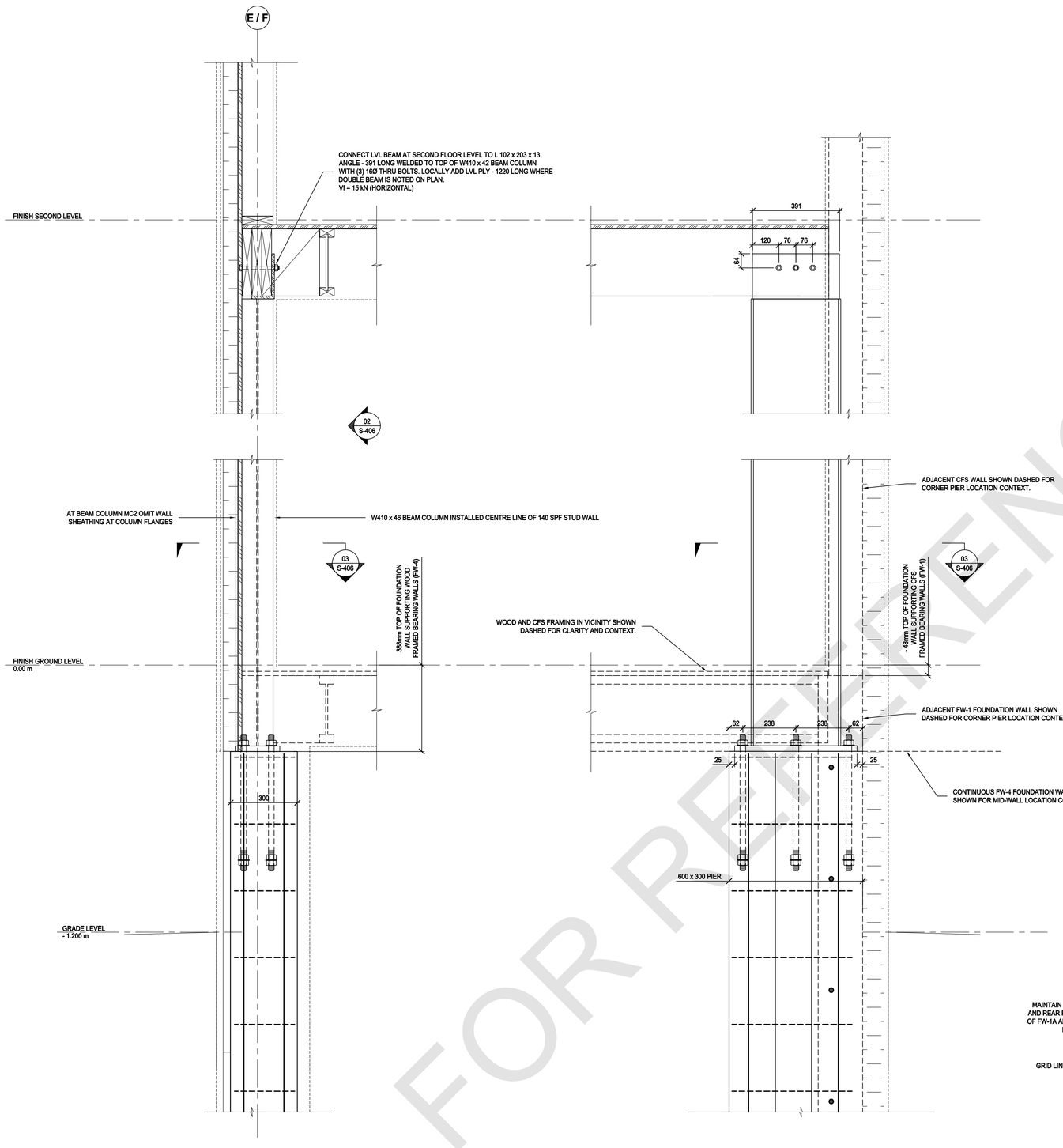
SHEET TITLE:
FOUNDATION DETAILS

PROJECT NO:
SCALE: 1 : 10

SHEET NO:
S-405

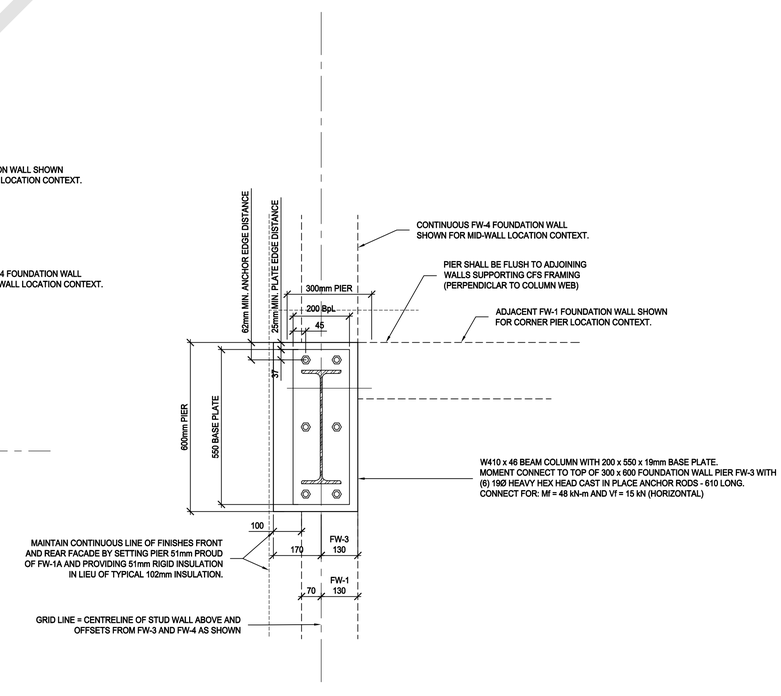
REFER TO ARCHITECTURAL DRAWINGS, S102, S103 FOR COLUMN LAYOUTS AND CONFIGURATION.

A E F



01 S-406 SECTION THRU MOMENT RESISTING COLUMN AT PIER 1:10

02 S-406 MOMENT RESISTING COLUMN ELEVATION 1:10



03 S-406 PLAN VIEW OF BEAM COLUMN ON PIER FW-3 1:10

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

FOURPLEX NARROW

SHEET TITLE:

LATERAL STABILIZING COLUMN DETAILS

PROJECT NO:

SCALE: 1 : 10

SHEET NO:

S-406

CITY OF TORONTO MULTIPLEX
FOURPLEX NARROW
MECHANICAL DRAWINGS - ALL ELECTRIC

MECHANICAL DRAWING LIST

DRAWING NO.	DRAWING NAME
M000	MECHANICAL COVER SHEET & SYMBOLS
M001	MECHANICAL OUTLINE SPECIFICATIONS
M002	MECHANICAL DETAILS - ALL ELECTRIC
M100	FOURPLEX NARROW PLUMBING (BELOW GRADE & BASEMENT) - ALL ELECTRIC
M101	FOURPLEX NARROW PLUMBING (MAIN FLOOR TO THIRD FLOOR) - ALL ELECTRIC
M102	FOURPLEX NARROW HVAC

ABBREVIATIONS

SYMBOL	DESCRIPTION
S/A	SUPPLY AIR
R/A	RETURN AIR
E/A	EXHAUST AIR
O/A	OUTDOOR AIR

PLUMBING AND DRAINAGE

SYMBOL	DESCRIPTION
	P-TRAP
CO CO	CLEAN OUT (FLOOR & CEILING)
FD	ROUND FLOOR DRAIN
HD	HUB DRAIN
	DOMESTIC COLD WATER (DCW) PIPING
	DOMESTIC HOT WATER (DHW) PIPING
SAN	SANITARY DRAINAGE (SAN) PIPING
M	WATER METER

MECHANICAL PIPING

SYMBOL	DESCRIPTION
	PIPE DOWN
	PIPE UP
	PIPE UP & DOWN
	VALVE
	BALANCING VALVE
	PIPE CONTINUATION
CD	CONDENSATE DRAINAGE PIPING
	FLOW DIRECTION

DUCTWORK

SYMBOL	DESCRIPTION
	SUPPLY AIR DUCT UP & DOWN
	RETURN / EXHAUST AIR DUCT UP & DOWN
	ROUND DUCT UP & DOWN
	DUCT CONTINUATION (ROUND & RECTANGULAR)
	SUPPLY / RETURN GRILLE
	RETURN / EXHAUST GRILLE
F	TOILET EXHAUST FAN
	FLOOR GRILLE
	CEILING GRILLE
	FLOOR BOOT
T	THERMOSTAT
U/C	DOOR UNDERCUT

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

SHEET TITLE:

MECHANICAL COVER SHEET & SYMBOLS

PROJECT NO: 241058

SCALE: NTS

SHEET NO:

M000

MECHANICAL OUTLINE SPECIFICATIONS

DESIGN CRITERIA AND REQUIREMENTS

1. THE MECHANICAL SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE (OBC), SPECIFIC REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION, DESIGN PRINCIPLES AND STANDARDS OBTAINED FROM THE OWNER AND DESIGN TEAM AS WELL AS STANDARDS OF GOOD ENGINEERING PRACTICES.
2. WORK SHALL BE COMPLETED IN ACCORDANCE WITH STANDARDS PUBLISHED BY THE FOLLOWING PARTIAL LIST OF AUTHORITIES:
   - A. THERMAL ENVIRONMENTAL CONDITIONS FOR HUMAN OCCUPANCY, ANSI/ASHRAE STANDARD 55 (LATEST EDITION);
   - B. VENTILATION REQUIREMENTS TO BE BASED ON MOST CURRENT OBC PART 9 TABLE 9.32.3.3.
   - C. HANDBOOKS PUBLISHED BY AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE).
3. HEATING AND COOLING CALCULATIONS TO BE BASED ON MOST CURRENT CLIMATICAL DATA (SB-1) AND ENERGY EFFICIENCY OF HOUSING COMPLIANCE PACKAGES (SB-12) PUBLISHED IN THE ONTARIO BUILDING CODE AND SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARD CAN/CSA-F280-12 (R2021) TO DETERMINE THE SIZE/CAPACITY OF THE HEATING/AIR CONDITIONING SYSTEMS.
   - A. ALL OCCUPIED AREAS WILL BE AIR CONDITIONED WITH THE FOLLOWING ENVIRONMENTAL CONDITIONS;
     - a. WINTER: 22.0°C ± 1°C AND 20% ± 5% RELATIVE HUMIDITY
     - b. SUMMER: 24.0°C ± 1°C AND 60% ± 5% RELATIVE HUMIDITY
4. PIPING, DUCTWORK AND EQUIPMENT SIZED IN THESE PACKAGES ARE BASIS OF DESIGN AND ALL LOAD CALCULATIONS SHALL BE COMPLETED BY THE QUALIFIED DESIGN PROFESSIONAL. THE CAPACITY OF SYSTEM, CORRESPONDING FLOW RATE AND ALL SERVICES SIZING SHALL BE CONFIRMED WITH RESPECT TO ACTUAL SITE CONDITION AND ORIENTATION.
5. ALL EFFICIENCIES NOTED IN SPECIFICATION ARE MINIMUMS. DESIGNER SHALL CONFIRM EQUIPMENT TO BE COORDINATED WITH THOSE EFFICIENCY DESIGN FORM PER ENERGY EFFICIENCY OF HOUSING COMPLIANCE PACKAGES (SB-12).
6. ALL UNPROTECTED MECHANICAL PENETRATIONS ON EXPOSING BUILDING FACE MORE THAN 130MM2 SHALL BE COORDINATED WITH THE QUALIFIED DESIGN PROFESSIONAL AND NOTED ON ARCHITECTURAL DRAWINGS AS PER OBC 9.10.14.6.

SITE SERVICES

1. WATER SERVICES:
   - A. ONE (1) POTABLE WATER SERVICE WILL BE PROVIDED TO THE BUILDING THEN THE SERVICE WILL SPLIT AND RUN TO INDIVIDUAL UTILITY METER INSIDE EACH RESIDENTIAL UNIT.
2. SANITARY SEWERS:
   - A. ONE (1) SANITARY SERVICE CONNECTION WILL BE PROVIDED TO THE BUILDING COMPLETE WITH SAMPLING PORT IN COORDINATION WITH THE THE QUALIFIED DESIGN PROFESSIONAL OF SITE SERVICES. COORDINATE LOCATION AND INVERT OF INCOMING CONNECTION WITH THE QUALIFIED DESIGN PROFESSIONAL OF SITE SERVICES. THE QUALIFIED DESIGN PROFESSIONAL SHALL CONFIRM SANITARY PUMP DESIGN TO SUIT ACTUAL SITE CONDITION AS REQUIRED.
   - B. ROOF GUTTERS TO BE PIPED AND ROUTED DOWN THE SIDE OF THE BUILDING TO SPILL ON GRADE.

PLUMBING AND DRAINAGE

1. POTABLE WATER:
   - A. AN INCOMING POTABLE WATER CONNECTION COMPLETED WITH A METER ASSEMBLY WILL SUPPLY WATER TO EACH RESIDENTIAL UNIT. OPTIONAL WATER FILTRATION INCLUDING CARBON ACTIVATED FILTERS, UV AND RO CAN BE PROVIDED IN AREAS WHERE WATER QUALITY IS OF CONCERN.
   - B. POLYETHYLENE PEX PIPING WILL BE PROVIDED TO DISTRIBUTE COLD AND HOT WATER THROUGHOUT THE UNIT.
     - a. TUBE SHALL BE CROSS-LINKED POLYETHYLENE (PEX) MANUFACTURED BY PEX-A OR PEROXIDE METHOD. PEX TUBING SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM F876, ASTM F877 AND CAN/CSA-B137.5. THE TUBE SHALL BE LISTED TO ASTM BY AN INDEPENDENT THIRD PARTY AGENCY.
     - b. FITTINGS SHALL BE MANUFACTURED OF ENGINEERED PLASTIC (EP). FITTINGS SHALL BE PEX-A COLD EXPANSION TYPE CERTIFIED TO ASTM F1960.
       - (1)FITTINGS SHALL BE SUPPLIED BY THE PEX TUBING MANUFACTURER.
       - (2)PEX-A COLD EXPANSION TYPE FITTINGS SHALL BE AN ASSEMBLY CONSISTING OF INSERT AND PEX-A COLD EXPANSION RING.
       - (3)FITTING TYPE: UPONOR ENGINEERED PLASTIC (EP).
2. DRAINAGE:
   - A. ALL SANITARY DRAIN AND MAIN VENT STACKS SHALL BE PLASTIC ABS WITH GLUED CONNECTIONS. WHERE REQUIRED TO MEET FIRE SPREAD AND SMOKE DEVELOPMENT RATINGS METALLIC PIPING OR XFR PIPING IS TO BE PROVIDED BASED ON LOCAL JURISDICTION APPROVAL.
   - B. UNDERGROUND DRAINAGE PIPING SHALL BE PVC DR35 RIGID SEWER PIPING. PIPING 4" AND LARGER TO BE GREEN PVC HUB AND SPIGOT SEWER PIPE AND FITTINGS TO CAN/CSA B182.2. SIZE 3" PIPE TO BE PVC WITH SOLVENT WELD JOINTS CERTIFIED TO CSA B182.1 AND COLOUR CODED AS PER LOCAL CODES.
3. DOMESTIC HOT WATER PRODUCTION:
   - A. AN ELECTRIC DOMESTIC HOT WATER (DHW) TANK WILL BE PROVIDED FOR EACH RESIDENTIAL UNIT.
   - B. DOMESTIC HOT WATER SHALL BE STORED AT A MINIMUM OF 52°C (125°F).
   - C. A MIXING VALVE SHALL BE PROVIDED TO SUPPLY 49°C (120°F) DOMESTIC HOT WATER TO THE FIXTURES.
4. PRESSURE BALANCING TYPE MIXING VALVES SHALL BE PROVIDED FOR ALL SHOWERS.
5. DRAIN WATER HEAT RECOVERY COIL SHALL BE PROVIDED FOR EACH MULTI-STOREY UNIT.
6. PLUMBING FIXTURES SHALL BE LOW FLOW AND OF FIRST QUALITY.
7. SANITARY DRAINS WILL BE COLLECTED AND CONNECTED TO THE MUNICIPAL SANITARY NETWORK, UNLESS OTHERWISE NOTED, SLOPE ALL 75 MM (3") DRAINAGE PIPING AT 2% SLOPE AND ALL 100 MM (4") AND LARGER DRAINAGE PIPING AT 1% SLOPE.

HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

1. HEATING AND COOLING SYSTEMS:
   - A. HEATING AND COOLING WILL BE PRODUCED BY SELECTING ONE OF THE FOLLOWING OPTIONS:
     - COLD CLIMATE HEAT PUMP & ERV (ALL ELECTRIC)
     - GAS FURNACE C/W HEAT PUMP & ERV (HYBRID)
     - GAS FURNACE C/W DX COOLING & ERV (GAS)
   - B. THE CAPACITY OF THE SYSTEM SHALL BE SIZED AND SELECTED TO MEET THE FULL HEATING AND COOLING LOAD REQUIREMENTS OF THE RESIDENTIAL UNIT.
   - C. UNIT TO BE COMPLETE WITH MINIMUM MERV 8 FILTRATION.
   - D. THE OUTDOOR CONDENSING UNIT IS TO BE LOCATED WITHIN CLOSE PROXIMITY TO THE INDOOR UNIT AND CONNECTED WITH REFRIGERANT PIPING.
   - E. REFER TO SEPARATE SPECIFICATION AND DETAILS SHEET FOR PARTICULAR OPTION OF SYSTEM.
2. VENTILATION AND EXHAUST SYSTEMS:
   - A. VENTILATION AIR WILL BE PROVIDED BY AN ENERGY RECOVERY VENTILATOR (ERV) THAT WILL TRANSFER ENERGY FROM THE PRIMARY BATHROOM EXHAUST TO PRE-CONDITION OUTDOOR AIR THAT WILL BE DUCTED BACK TO THE INDOOR UNIT. SIZE OF ERV TO BE DETERMINED BASED ON OBC PART 9 REQUIREMENT. ERV PERFORMANCE SHALL HAVE A MINIMUM OF 75% EFFECTIVENESS. WHERE REQUIRED, AN ELECTRIC DUCT HEATER SHALL BE PROVIDED. THE ERV SHALL BE CONTROLLED BY A LOCAL TIMER SWITCH.
   - B. SECONDARY WASHROOMS WILL BE PROVIDED WITH DEDICATED CEILING MOUNTED TOILET EXHAUST FANS COMPLETE WITH LOCAL SWITCH.
   - C. CLOTHES DRYERS WILL BE PROVIDED WITH A LINT TRAP AND DRYER BOOSTER FAN CONNECTED TO A CURRENT SENSOR TO AID IN DRYER EXHAUST. LINT TRAPS WILL BE PROVIDED ON THE SUCTION SIDE OF THE FAN WITHIN THE SUITE LAUNDRY ROOM.
   - D. KITCHEN HOOD EXHAUSTS WILL BE SIZED FOR MINIMUM 150 CFM AND DUCTED TO OUTDOORS.
   - E. ALL EXHAUST DUCTWORK WILL BE DISCHARGED TO THE EXTERIOR THROUGH THE EXTERIOR WALLS OF THE UNIT OR THROUGH THE ROOF FOR THE TOP LEVEL.
   - F. EXHAUST DUCTWORK SHALL BE INSULATED FOR THE FIRST 10FT FROM THE EXTERIOR LOUVRE.
3. AIR DISTRIBUTION:
   - A. DUCTWORK SHALL BE GALVANIZED SHEET METAL UNLESS OTHERWISE INDICATED. DUCTS SHALL BE SIZED AT A PRESSURE DROP OF 0.08" (20PA) PER 100' (30.5M) WITH MAXIMUM AIR VELOCITIES OF 1400 FEET (427M) PER MINUTE.
   - B. DUCTWORK TO BE INSULATED TO MEET ASHRAE 90.1 AND THE GOVERNING AUTHORITY REQUIREMENTS.
   - C. PROVIDE ACOUSTIC LINING FOR ALL SUPPLY AND RETURN AIR DUCTWORK SERVING MECHANICAL EQUIPMENT WITH FANS TO A MAXIMUM OF 4.5M (15') FROM THE EQUIPMENT, MEASURED OUTWARD IN ALL DIRECTIONS.
   - D. SUPPLY AIR FROM THE INDOOR UNIT SHALL BE DUCTED TO EACH ROOM VIA 200X100 SIDEWALL GRILLES OR FLOOR REGISTERS.
   - E. EACH ROOM SHALL HAVE A RETURN AIR GRILLE OR AN 1" (25MM) DOOR UNDERCUT FOR AIR TRANSFER.
   - F. PROVIDE BALANCING DAMPERS AT ALL DUCT BRANCHES FOR AIR BALANCING.
   - G. A PROGRAMMABLE THERMOSTAT WITH OCCUPANCY SENSOR SHALL BE PROVIDED TO CONTROL THE SUITE HVAC SYSTEM.
   - H. DUCTWORK PENETRATING CEILING MEMBRANES REQUIRED TO HAVE A FIRE-RESISTANCE RATING SHALL CONFORM TO REQUIREMENTS MENTIONED PER OBC 9.10.5.1. (3).
4. REFRIGERATION:
   - A. DESIGN AND INSTALLATION OF REFRIGERATION SYSTEM SHALL BE IN ACCORDANCE WITH CSA B52 MECHANICAL REFRIGERATION CODE, ONTARIO BUILDING CODE, AHRI, AND EQUIPMENT MANUFACTURERS RECOMMENDATIONS.
   - B. NEW REFRIGERATION PIPING SHALL BE ACR SEAMLESS COPPER TUBING SUITABLE FOR AIR CONDITIONING OR REFRIGERATION SYSTEMS.
   - C. KEEP TUBING RUNS AND NUMBER OF ELBOWS AND FITTINGS TO A MINIMUM.
   - D. ENSURE TUBING IS DEHYDRATED, TESTED, ADEQUATELY CHARGED, AND GAS TIGHT.
   - E. PIPING SHALL BE INSULATED WITH FLEXIBLE ELASTOMERIC, CLOSED CELL, SLEEVE TYPE LONGITUDINALLY SPLIT SELF-SEAL FORMED PLASTIC PIPE INSULATION EQUAL TO ARMACELL AP/ARMAFLEX SS. INSULATION SHALL BE 25 MM (1") THICK.
   - F. COORDINATE AND RUN ALL REFRIGERANT LINES INSIDE DESIGNATED CAVITY. NO EXTERIOR RUNS PERMITTED UNLESS OTHERWISE INSTRUCTED.
5. FIRE STOPPING AND SMOKE SEAL SYSTEMS
   - A. ASBESTOS-FREE, ELASTOMERIC MATERIALS AND INTUMESCENT MATERIALS, TESTED, LISTED AND LABELLED BY ULC IN ACCORDANCE WITH CAN/ULC S115, AND CAN/ULC S101 FOR INSTALLATION IN ULC DESIGNATED FIRESTOPPING, AND SMOKE SEAL SYSTEMS TO PROVIDE A POSITIVE FIRE, WATER AND SMOKE SEAL AND A FIRE RESISTANCE RATING (FLAME, HOSE STREAM AND TEMPERATURE) NO LESS THAN FIRE RATING FOR SURROUNDING CONSTRUCTION.
   - B. FIRESTOPPING AND SMOKE SEAL MATERIAL SYSTEM TO BE SPECIFICALLY ULC CERTIFIED WITH DESIGNATED REFERENCE NUMBER FOR ITS SPECIFIC INSTALLATION.
   - C. SMOKE AND FIRE SEAL MATERIALS AND MANUFACTURERS MUST BE SPECIFICALLY APPROVED FOR EACH APPLICATION OF PENETRATED SURFACES, AS APPROVED BY FM GLOBAL AND LISTED IN FM GLOBAL APPROVAL GUIDE. LISTED COMPANIES HEREIN AND OTHER MANUFACTURERS ARE ONLY ACCEPTABLE IF COMPLIANT WITH THESE REQUIREMENTS.
   - D. MATERIALS ARE TO BE COMPATIBLE WITH ABUTTING DISSIMILAR MATERIALS AND FINISHES AND COMPLETE WITH PRIMERS, DAMMING AND BACK-UP MATERIALS, SUPPORTS, AND ANCHORING DEVICES IN ACCORDANCE WITH FIRESTOPPING MANUFACTURER'S RECOMMENDATIONS AND ULC TESTED ASSEMBLY. COORDINATE MATERIAL REQUIREMENTS WITH TRADES SUPPLYING ABUTTING AREAS OF MATERIALS.
   - E. TYPICALLY, FOR OPENINGS OF UP TO 250 MM (10") IN DIAMETER, PROVIDE PUTTY PAD TYPE FIRESTOP MATERIALS INTUMESCENT, NON-HARDENING, WATER RESISTANT PUTTIES CONTAINING NO SOLVENTS, INORGANIC FIBRES OR SILICONE COMPOUNDS.
   - F. TYPICALLY, FOR OPENINGS OF GREATER THAN 250 MM (10") IN DIAMETER, AND FOR RECTANGULAR OPENINGS, PROVIDE PILLOW TYPE FIRESTOP MATERIALS RE-ENTERABLE, NON-CURING, MINERAL FIBRE CORE ENCAPSULATED ON SIX SIDES WITH INTUMESCENT COATING CONTAINED IN A FLAME RETARDANT POLY BAG.
   - G. SUPPLY PRODUCTS OF A SINGLE MANUFACTURER FOR USE ON WORK OF THIS DIVISION.
   - H. INSTALLER TO BE MANUFACTURER TRAINED AND CERTIFIED ON SPECIFIC PRODUCT.
   - I. INCLUDE FOR MANUFACTURER'S AUTHORIZED REPRESENTATIVE TO INSPECT AND VERIFY EACH INSTALLATION AND APPLICATION.

ENERGY RECOVERY VENTILATOR (ERV)

1. UNIT SHALL BE FACTORY ASSEMBLED, WIRED AND TESTED AND SHALL CONFORM TO CSA AND UL STANDARDS.
2. UNIT SHALL BE COMPACT WITH A LOW PROFILE SUITABLE FOR INSTALLATION IN BULKHEADS AND DROPPED CEILINGS WITH MINIMUM 2100mm CLEAR HEIGHT BELOW.
3. CABINET SHALL BE CONSTRUCTED OF 22-GAUGE PRE-PAINTED GALVANIZED STEEL FOR CORROSION RESISTANCE AND INSULATED TO PREVENT EXTERIOR CONDENSATION. CABINET SHALL BE COMPLETE WITH DRAIN CONNECTIONS, BALANCING PORTS, AND THREADED INSERTS TO ACCEPT S-HOOKS AND HANGING STRAPS SUPPLIED WITH UNIT.
4. ENERGY RECOVERY ASSEMBLY SHALL BE THERMALLY CONDUCTIVE, ALUMINUM CROSS-FLOW ENERGY RECOVERY CORE WITH MINIMUM SRE OF 75% OR MINIMUM EFFICIENCY IN COMPLIANCE WITH ENERGY EFFICIENCY OF HOUSING COMPLIANCE PACKAGES (SB-12). THE CORE SHALL BE EASILY REMOVABLE FOR CLEANING AND SERVICE.
5. UNIT COMPLETE WITH WASHABLE MERV-6 AIR FILTERS LOCATED IN EXHAUST AND SUPPLY AIR STREAMS.
6. EACH AIRSTREAM HAS AN INDEPENDENT CENTRIFUGAL HIGH EFFICIENCY ECM BLOWER WITH MULTIPLE FAN SPEED OPERATION.
7. DEFROST MODE: SUPPLY AIR SHUTS OFF TO DEFROST CORE WITH WARM EXHAUST AIR AT HIGH SPEED.
8. UNIT COMPLETE WITH WALL MOUNT CONTROLLER WITH SELECTABLE ON/OFF, AND FAN SPEED SETTINGS.

ELECTRIC DOMESTIC HOT WATER TANK

1. CSA CERTIFIED ELECTRIC DOMESTIC HOT WATER TANK AND HEATER WITH MINIMUM EF RATING OF 0.8, AND COMPLETE WITH:
   - A. 1035 KPA (150 PSI) RATED (WORKING PRESSURE) STEEL TANK, GLASS LINED, INSULATED (EXCEPT FOR CONTROL PANEL AREA) WITH INJECTED MINIMUM R-16 FOAM INSULATION, COVERED WITH AN ENAMELLED STEEL JACKET, AND EQUIPPED WITH 40 MM (1-½") DIA. NPS BRASS NIPPLE WATER INLET AND OUTLET CONNECTIONS, A DRAIN VALVE, AND SACRIFICIAL ANODE RODS;
   - B. REMOVABLE MULTIPLE IMMERSION HEATING ELEMENTS, EACH CONSISTING OF A WIRE FILAMENT IN A SEALED STAINLESS STEEL SHEATH;
   - C. ASME RATED TEMPERATURE AND PRESSURE RELIEF VALVE;
   - D. FACTORY PRE-WIRED POWER AND CONTROL PANEL.
2. EQUIP ENAMELLED STEEL VENTILATED CONTROL PANEL WITH REMOVABLE GLASS FIBRE INSULATION TO COVER BARE AREA OF TANK, A HINGED DOOR, MULTIPLE KNOCKOUTS, A GROUND SCREW, AND FOLLOWING:
   - A. TERMINAL BLOCK FOR POWER WIRING CONNECTIONS;
   - B. MAGNETIC CONTACTORS FOR HEATING ELEMENTS;
   - C. ADJUSTABLE IMMERSION THERMOSTAT;
   - D. MANUAL RESET IMMERSED HIGH TEMPERATURE LIMIT CONTROL FOR EACH ELEMENT;
   - E. FUSE BLOCK WITH FUSES;
   - F. ELEMENT DIAGNOSTIC PANEL WITH LED'S FOR EACH ELEMENT TO MONITOR ON-OFF OPERATION OF EACH ELEMENT.
3. UNIT SHALL HAVE MINIMUM EFFICIENCY IN COMPLIANCE WITH ENERGY EFFICIENCY OF HOUSING COMPLIANCE PACKAGES (SB-12).

TOILET EXHAUST FANS

1. CEILING EXHAUST FAN SHALL BE HVI CERTIFIED AND IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
2. 26 GAUGE ZINC-ALUMINUM-MAGNESIUM (ZAM) HOUSING C/W INTEGRATED 6" DUCT ADAPTOR, BUILT-IN DAMPER AND BUILT IN METAL FLANGE;
3. FAN C/W POLY PRO MATERIAL AND ATTACHES DIRECTLY TO HOUSING WITH TORSION SPRINGS;
4. MOTOR BE TO TOTALLY ENCLOSED WITH A BRUSHLESS ECM MOTOR TECHNOLOGY RATED FOR CONTINUOUS RUN AND EQUIPPED WITH THERMAL-CUTOFF FUSE. MOTOR TO BE REMOVABLE WITH PERMANENTLY LUBRICATED PLUG-IN MOTOR;
5. FAN VENTILATION RATES SHALL BE MANUALLY ADJUSTABLE;
6. FAN SHALL BE UL AND CUL LISTED FOR TUB/SHOWER ENCLOSURE WHEN GFCI PROTECTED.

DRYER EXHAUST

1. DRYER BOOSTER FAN SHALL BE HVI CERTIFIED AND IN ACCORDANCE WITH THE FOLLOWING REQUIREMENTS:
   - A. 26-GAUGE GALVANISED STEEL HOUSING SUPPLIED WITH VIBRATION ISOLATION TO SUIT MOUNTING;
   - B. ROUND INLET AND DISCHARGE COLLAR;
   - C. FIELD WIRING COMPARTMENT WITH REMOVABLE ACCESS PANEL;
   - D. BACKWARDLY-INCLINED, SELF-CLEANING IMPELLER, FULLY-SEALED IMPELLER ASSEMBLY WITH AUTOMATIC-RESET THERMAL OVERLOAD PROTECTION, AND PERMANENTLY-LUBRICATED MOTOR;
   - E. ACCESSORIES:
     - a. AMP SENSOR (CURRENT-SENSING RELAY SWITCH);
     - b. LINT TRAP;
     - c. WALL BOX.

KITCHEN RANGE HOOD

1. DUCTED RANGE HOODS, CSA CERTIFIED, ROTARY SOLID STATE SPEED CONTROL PROVIDING INFINITE RANGE, ROTARY LIGHT CONTROL SWITCH, BACKDRAFT DAMPER, WITH LIGHT LENS AND PERMANENT, WASHABLE ALUMINUM MESH GREASE FILTER(S).

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

SHEET TITLE:

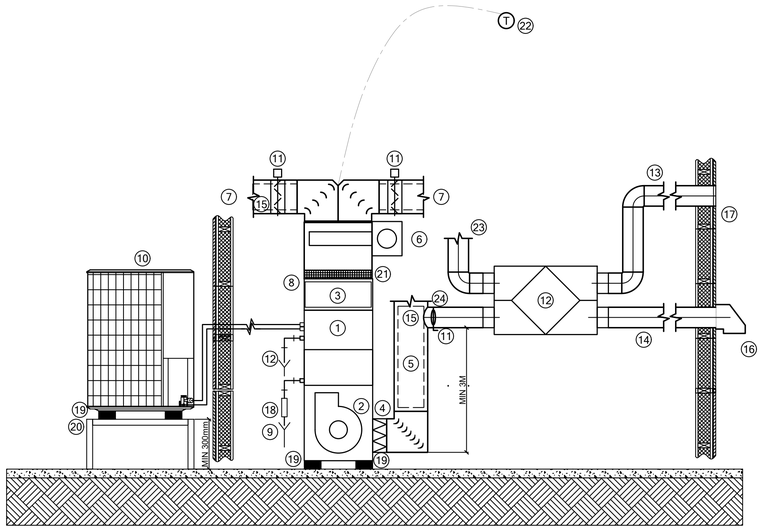
MECHANICAL OUTLINE SPECIFICATIONS

PROJECT NO: 241058

SCALE: NTS

SHEET NO:

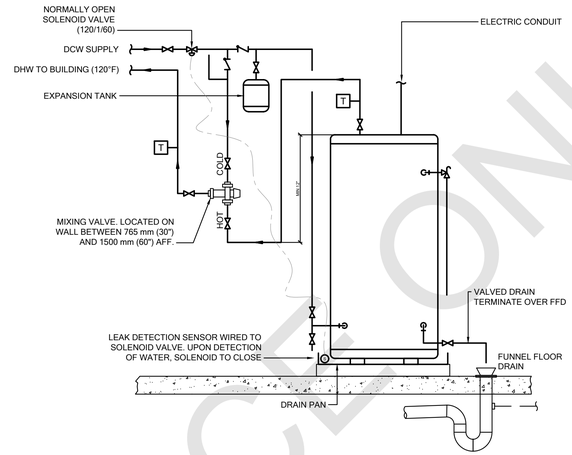
M001



1. HEAT PUMP COIL
2. BLOWER
3. AUXILIARY ELECTRIC HEATER
4. AIR FILTER
5. RETURN AIR DUCT
6. OPTIONAL AIR HUMIDIFIER
7. SUPPLY AIR DUCT
8. REFRIGERANT LINES
9. DRAIN LINE WITH TRAP
10. HEAT PUMP
11. BALANCING DAMPER
12. ENERGY RECOVERY VENTILATOR
13. VENTILATION AIR DUCT
14. EXHAUST AIR DUCT
15. ACOUSTIC LINING (FIRST 8' OF S/A AND R/A DUCTS)
16. ERV EXAUST MOUNT
17. VENTILATION INTAKE LOUVRE
18. ACID NEUTRALIZER
19. NEOPRENE ISOLATOR
20. HEAVY DUTY ALUMINUM SUPPORT
21. FLEXIBLE DUCT CONNECTION
22. THERMOSTAT
23. EXHAUST AIR DUCT FROM WASHROOM
24. FRESH AIR DUCT CONNECTION TO R/A DUCT. ENSURE CONNECTION IS MADE 3M UPSTREAM OF PLENUM CONNECTION TO FURNACE.

DETAIL OF COLD CLIMATE HEAT PUMP & ERV

SCALE: NTS



DETAIL OF ELECTRIC DHW TANK

SCALE: NTS

MECHANICAL EQUIPMENT SPECIFICATION - ALL ELECTRIC

COLD CLIMATE HEAT PUMP SYSTEM

1. FACTORY ASSEMBLED AND TESTED, PACKAGE TYPE SYSTEM CONSISTING OF AN INDOOR VERTICAL HANDLER UNIT AND A DEDICATED EXTERIOR CONDENSING UNIT, CSA OR ETL LISTED AND LABELLED, AHRI RATED AND CERTIFIED AND WITH A MINIMUM SYSTEM EFFICIENCY OF 17 SEER AND 9.0 HSPF. UNIT SHALL HAVE A MINIMUM OF EFFECTIVENESS IN COMPLIANCE WITH ENERGY EFFICIENCY OF HOUSING COMPLIANCE PACKAGES (SB-12)
2. HIGH STATIC, VERTICAL DUCTED INDOOR EVAPORATOR UNIT CONSISTING OF GALVANIZED STEEL PLATE CASING C/W COATED POLYSTYRENE INSULATING MATERIAL ON COLD SURFACES. EVAPORATOR COMPLETE WITH:
   - A. FLANGED SUPPLY AND RETURN AIR OPENING READY FOR FIELD INSTALLED DUCTWORK;
   - B. FACTORY ASSEMBLED, PIPED AND WIRED ELECTRONIC EXPANSION VALVE (EEV) FOR REFRIGERANT CONTROL;
   - C. DIRECT DRIVEN SUPPLY FANS WITH THE FAN MOTOR MOUNTED ON VIBRATION ATTENUATING RUBBER GROMMETS, DIGITALLY CONTROLLED WITH PERMANENTLY LUBRICATED AND SEALED BEARINGS;
   - D. REMOVABLE, WASHABLE RETURN AIR FILTER;
   - E. COIL COMPRISED OF ALUMINIUM FINS MECHANICALLY BONDED ON COPPER TUBING C/W FACTORY SUPPLIED CONDENSATE DRAIN PAN BELOW COIL;
   - F. FACTORY INSTALLED AND WIRED CONDENSATE PUMP WITH SAFETY SWITCH TO SHUT OFF UNIT IF CONDENSATE RISES TOO HIGH IN DRAIN PAN;
   - G. FACTORY INSTALLED TEMPERATURE THERMISTORS FOR RETURN AIR, REFRIGERANT ENTERING COIL, AND REFRIGERANT LEAVING COIL.
3. FACTORY RUN TESTED, WEATHERPROOF CONDENSING UNIT EQUIPPED WITH A FACTORY INSTALLED MICROPROCESSOR CONTROLLER TO INTERFACE WITH INDOOR UNIT AND PERFORM ALL NECESSARY OPERATION FUNCTIONS. EACH CONDENSING UNIT COMPLETE WITH:
   - A. 20-GAUGE GALVANIZED STEEL WITH AN ENAMEL FINISH CABINET C/W HEAVY GAUGE COATED WIRE COIL GUARD WITH FRONT ACCESS PANEL;
   - B. REFRIGERANT STRAINER, CHECK VALVES, OIL SEPARATOR, ACCUMULATOR, 4-WAY REVERSING VALVE, ELECTRONIC EXPANSIVE VALVE, HIGH SIDE AND LOW SIDE REFRIGERANT CHARGING PORTS, AND A SERVICE PORT;
   - C. INTELLIGENT DEFROST OPERATION TO MELT ACCUMULATED FROST, SNOW AND ICE OFF THE OUTDOOR UNIT HEAT EXCHANGER;
   - D. OIL MANAGEMENT SYSTEM TO MAXIMIZE COMPRESSOR EFFICIENCY AND ENSURE CONSISTENT FILM OF OIL ON ALL MOVING COMPRESSOR PARTS AT ALL SPEEDS;
   - E. DIRECT DRIVE VARIABLE SPEED PROPELLER FAN(S) WITH PERMANENTLY LUBRICATED BEARINGS, DIGITALLY CONTROLLED INVERTER MOTOR AND A VERTICAL AIR DISCHARGE C/W RAISED FERROUS WIRE METAL GUARD WITH A BANKED ENAMEL FINISH;
   - F. OUTDOOR COIL COMPRISED OF ALUMINIUM FINS MECHANICALLY BONDED ON COPPER TUBING WITH FACTORY APPLIED CORROSION RESISTANT MATERIAL;
   - G. HERMETICALLY SEALED, DIGITALLY CONTROLLED, INVERTER DRIVEN HIGH SIDE SHELL (HSS) SCROLL COMPRESSOR(S) MOUNTED ON VIBRATION ATTENUATING RUBBER GROMMETS. ALL COMPRESSORS SHALL BE PROTECTED WITH HIGH PRESSURE SWITCH, OVER-CURRENT/UNDER CURRENT PROTECTION, PHASE FAILURE, AND PHASE REVERSAL.
   - H. SUCTION TEMPERATURE SENSOR, DISCHARGE TEMPERATURE SENSOR, HIGH PRESSURE SENSOR, LOW PRESSURE SENSOR, OUTDOOR TEMPERATURE SENSOR, AND OUTDOOR HEAT EXCHANGE TEMPERATURE SENSOR.
4. SYSTEM CONTROLS CONSISTING OF A MICROPROCESSOR IN EACH INDOOR AND OUTDOOR UNIT, INDOOR WALL MOUNTED CONTROLLER SITE CONNECTED TO THE ASSOCIATED INDOOR EVAPORATOR UNIT AND A CENTRAL CONTROLLER.
   - A. INDOOR WALL MOUNTED REMOTE CONTROLLER SHALL BE CAPABLE OF MONITORING AND CONTROLLING THE INDOOR UNIT IN TERMS OF ON/OFF, MODE OF OPERATION, AIRFLOW DIRECTION, FAN SPEED, SPACE TEMPERATURE, AND SPACE TEMPERATURE SETPOINT BASED ON A 7 DAY PROGRAMMABLE SCHEDULING OF OCCUPIED/UNOCCUPIED SETTINGS. CONTROLLER SHALL HAVE A TOUCH-SCREEN, BACKLIT, LCD DISPLAY.
   - B. SYSTEM CENTRAL CONTROLLER SHALL BE CAPABLE OF MONITORING AND CONTROL OF THE INDOOR UNIT AND OUTDOOR UNIT VIA A DAISY-CHAIN CONFIGURATION THROUGH ITS TOUCHSCREEN INTERFACE AND EMBEDDED WEB BROWSER. IT CAN PROVIDE PROGRAMMABLE SCHEDULING OF OCCUPIED/UNOCCUPIED SETTINGS, ON/OFF, MODE OF OPERATION, SETPOINT AND FAN SPEED FOR THE ENTIRE SYSTEM. THE CENTRAL CONTROLLER SHALL BE CAPABLE OF GENERATING OPERATION AND ERROR HISTORY LOG, REMOTE CONTROLLER LOCK (ALL, SETPOINT, MODE, FAN SPEED), ERROR EMAIL NOTIFICATION, AND VISUAL FLOOR NAVIGATION.

SCHEDULE OF ELECTRIC DOMESTIC HOT WATER STORAGE HEATERS

TAG	SIZE DIA. x HEIGHT (IN.)	STORAGE CAPACITY (USGAL)	APPROX. WEIGHT (KG)	INPUT (kW)	NO. OF ELEMENTS	RECOVERY (GPH @ 100°F RISE)	STORAGE TEMP (°F)	POWER (V/Ø/Hz)	FLA (A)	EXPANSION TANK	MIXING VALVE	ACCESSORIES	REMARKS
DHWT-1	26"Ø x 33-7/8"	36	190	4	2	16	140	208/3/60	33	ET-1, VERTICAL DIAGHRAM TYPE, 10"Ø x 13.5" HEIGHT 4.5 USGAL, 2.88 USG ACCEPTANCE VOLUME	THERMOSTATIC	MOUNT UNIT C/W DRAIN PAN, WATTS LFWDS LEAK DETECTION SENSOR & DCW SOLENOID VALVE. REFER TO DETAILS	

SCHEDULE OF AIR HANDLER & HEAT PUMP SYSTEMS

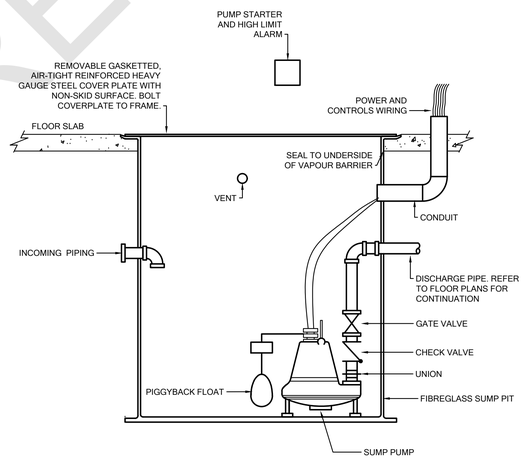
SYSTEM	AIRFLOW	COOLING	HEATING				ELECTRICAL			AUXILIARY HEATING COIL	REMARKS
		RATED COOLING CAPACITY (80°F)	RATED HEATING CAPACITY (47°F)	RATED HEATING CAPACITY (17°F)	MAX HEATING CAPACITY (-4°F)	MAX HEATING CAPACITY (-13°F)	MCA	MOCP	POWER		
	(CFM)	(MBH)	(MBH)	(MBH)	(MBH)	(MBH)			(V/PH/HZ)		
HP-1	471 - 573 - 675	21	23	14	16	10	17	31	208/1/60	3KW	

SCHEDULE OF INDOOR ERV

TAG	DIMENSIONS			SENSIBLE EFFECTIVENESS @ 49 CFM AND 32°F	SENSIBLE EFFICIENCY @ 49 CFM AND 32°F	SIZE OF DUCT CONNECTIONS	FAN		ELECTRICAL			REMARKS
	DEPTH	LENGTH	HEIGHT				AIRFLOW	ESP	MCA	MOP	(V/PH/HZ)	
	(IN.)	(IN.)	(IN.)			(IN.)	(CFM)	(IN.)				
ERV-1	9-3/4	20-3/4	19-3/8	79%	72%	6	60-100	0.3	2.0	15	120/1/60	NOTES 1, 2

NOTES:

1. C/W 1 KW ELECTRIC PRE-HEATER BEFORE ERV CORE ON THE OUTDOOR AIR INTAKE
2. C/W 5 SPEED OPTIONS



NOTES:

1. CAREFULLY CO-ORDINATE INSTALLATION OF COVER PLATE FRAME, PIPING, LADDER RUNGS & CHAIN HOOK WITH DIVISION RESPONSIBLE FOR SUMP CONSTRUCTION.
2. DO NOT REMOVE PLUG FROM POWER CORD. PULL POWER CORD WITH PLUG THROUGH SUMP CONDUIT & PLUG INTO RECEPTACLE.
3. THE EXACT LENGTH OF PUMP POWER CORD SHALL SUIT SITE CONDITIONS.
4. MINIMUM DEPTH OF PIT SHALL BE 750MM AS PER OBC 9.1.4.5.2

DETAIL OF FIBREGLASS SUMP PIT AND SIMPLEX PUMP

SCALE: NTS

GENERAL NOTE

1.	ALL EQUIPMENT SIZED IN THIS PACKAGE ARE BASIS OF DESIGN AND ALL LOAD CALCULATIONS SHALL BE COMPLETED BY THE QUALIFIED DESIGN PROFESSIONAL. THE CAPACITY OF SYSTEM, CORRESPONDING FLOW RATE AND ALL SERVICES SIZING SHALL BE CONFIRMED WITH RESPECT TO ACTUAL SITE CONDITION AND ORIENTATION.
2.	ALL EFFICIENCIES NOTED IN SPECIFICATION ARE MINIMUMS. QUALIFIED DESIGN PROFESSIONAL SHALL CONFIRM EQUIPMENT TO BE COORDINATED WITH THOSE EFFICIENCY DESIGN FORM PER ENERGY EFFICIENCY OF HOUSING COMPLIANCE PACKAGES (SB-12).

TORONTO

PROFESSIONAL SEAL:

DISCLAIMER

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QUALIFIED DESIGN PROFESSIONAL (QDP)

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6. QDP SHALL COMPLETE EEDS AND CONFIRM COMPLIANCE WITH SELECTED SB-12 PACKAGE.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

SHEET TITLE:

MECHANICAL DETAILS - ALL ELECTRIC

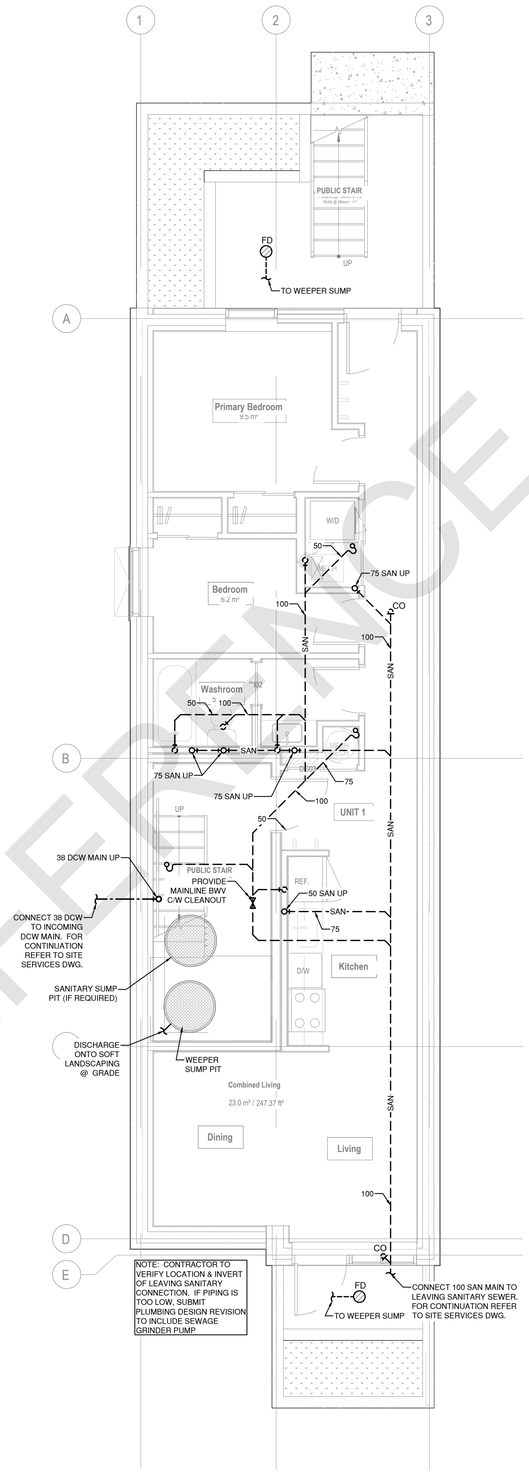
PROJECT NO: 241058

SCALE: NTS

SHEET NO:

M002

FOR REFERENCE ONLY



1 M100 PLUMBING - BELOW GRADE

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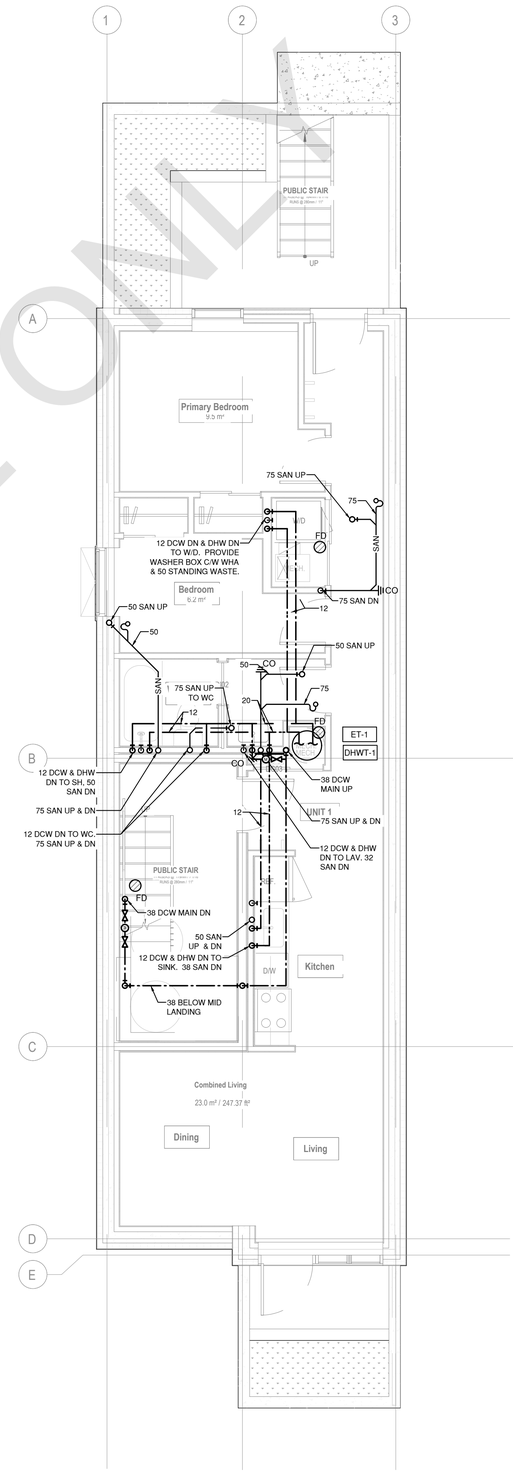

2 M100 PLUMBING - BASEMENT FLOOR

Scale: 1:50

FOR REFERENCE ONLY

TORONTO

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DISCLAIMER

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

SHEET TITLE:

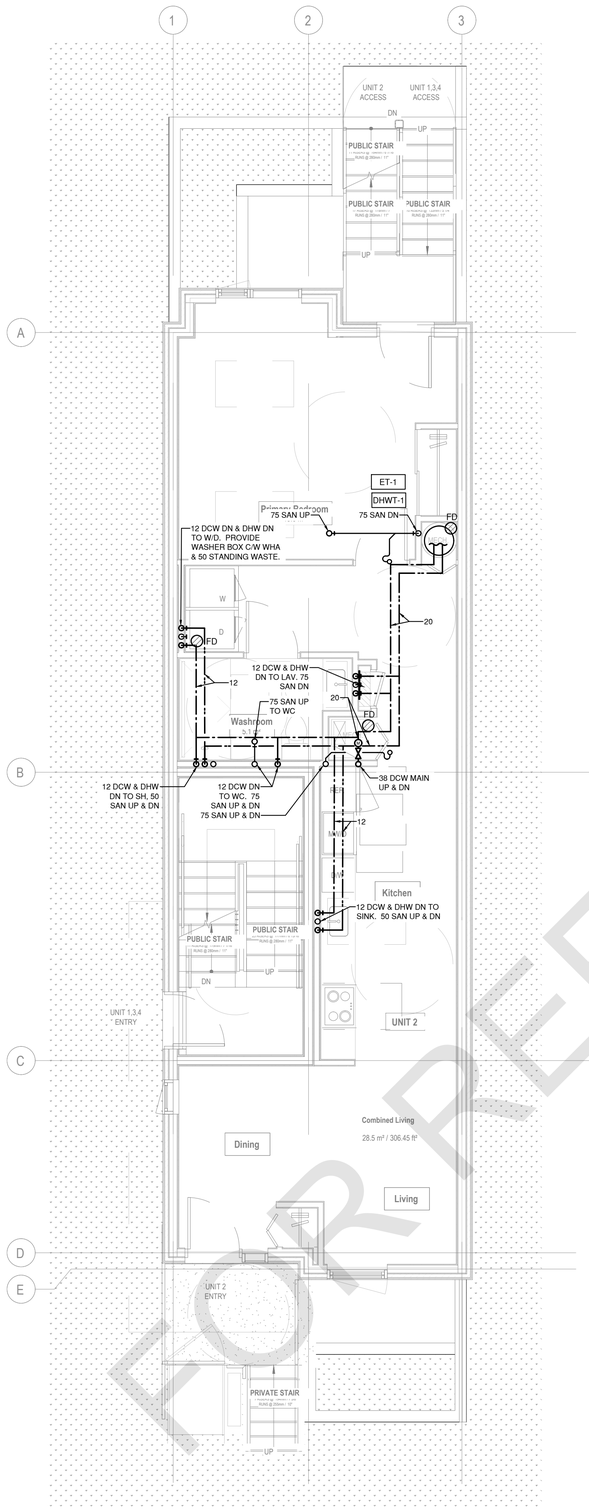
FOURPLEX NARROW PLUMBING (BELOW GRADE & BASEMENT) - ALL ELECTRIC

PROJECT NO: 241058

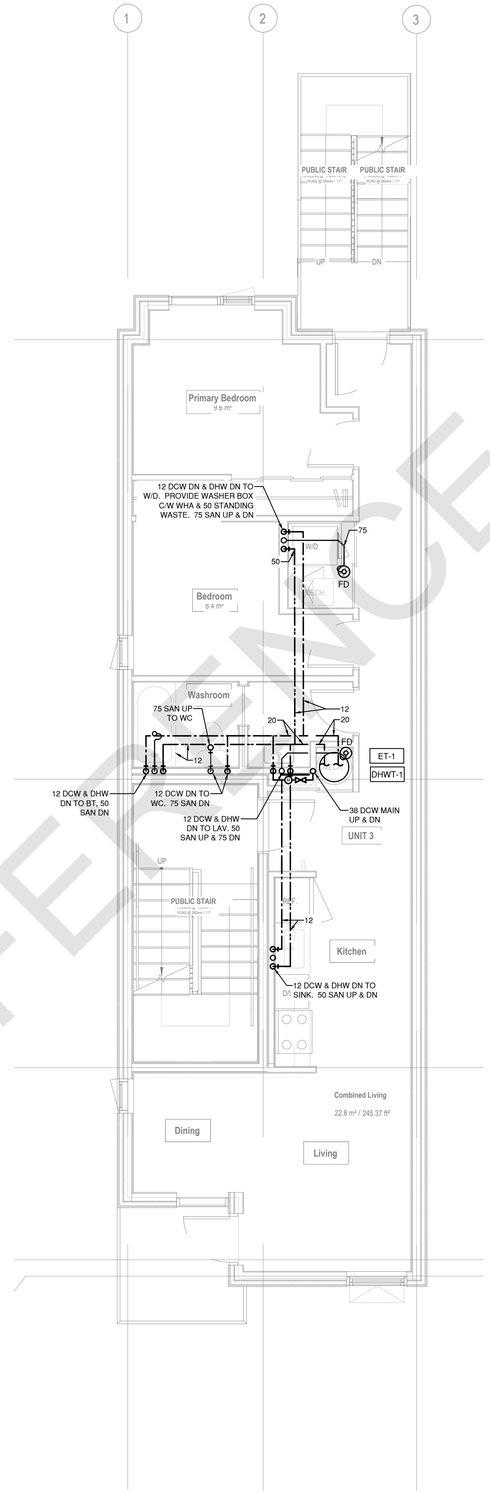
SCALE: AS NOTED

SHEET NO:

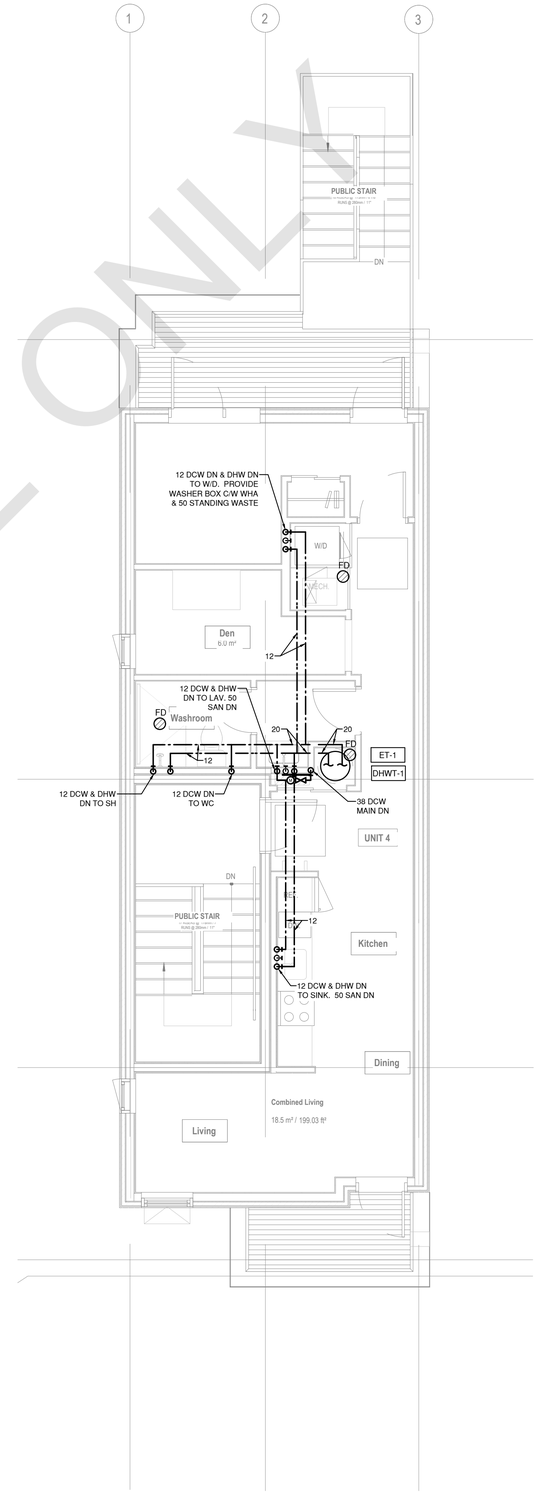
M100



1 M101 PLUMBING - MAIN FLOOR
Scale: 1:50



2 M101 PLUMBING - SECOND FLOOR
Scale: 1:50



3 M101 PLUMBING - THIRD FLOOR
Scale: 1:50

FOR REFERENCE ONLY

TORONTO

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NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

SHEET TITLE:

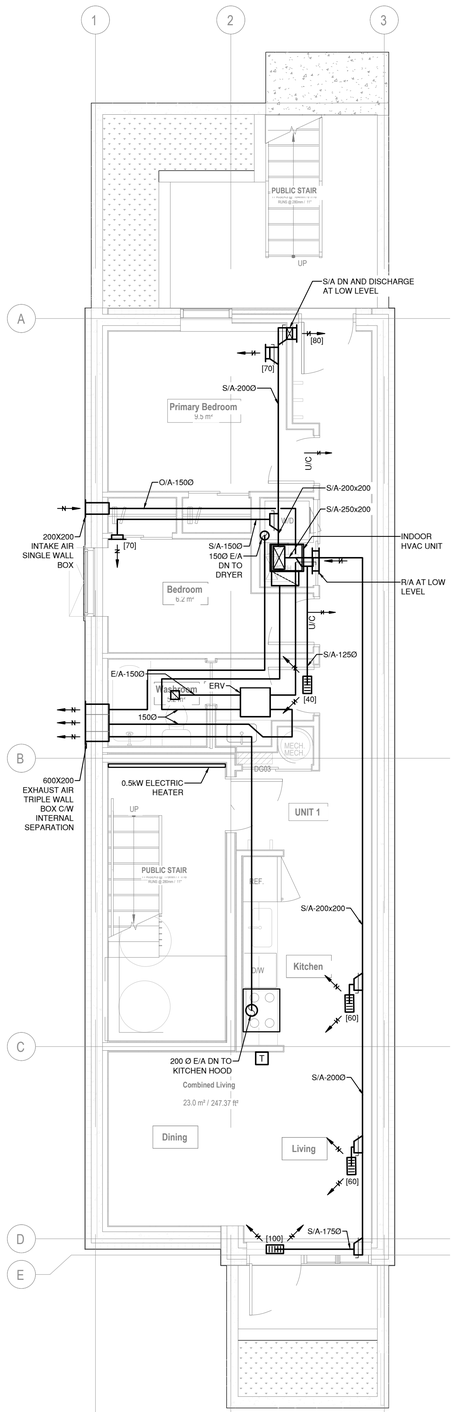
FOURPLEX NARROW PLUMBING (MAIN FLOOR TO THIRD FLOOR) - ALL ELECTRIC

PROJECT NO: 241058

SCALE: AS NOTED

SHEET NO:

M101



1 M102 HVAC - BASEMENT
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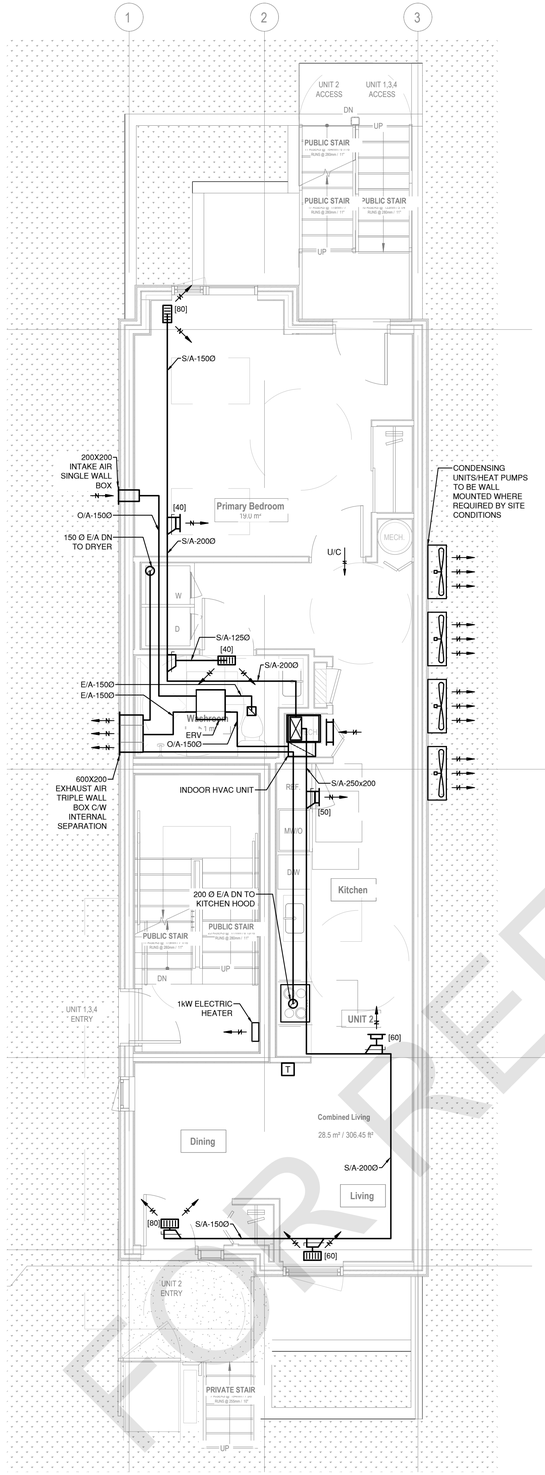
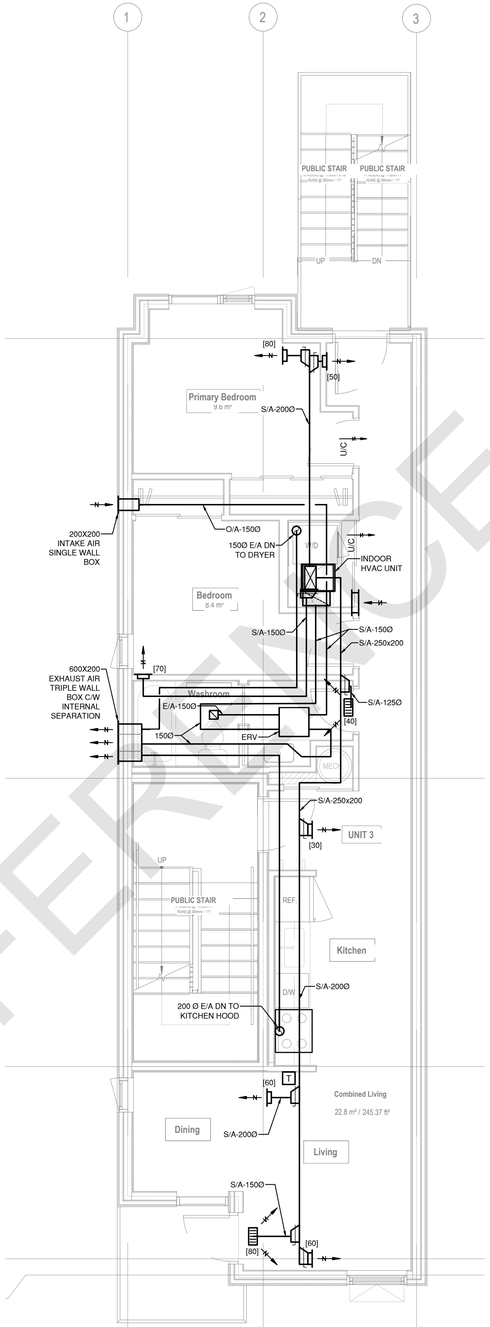
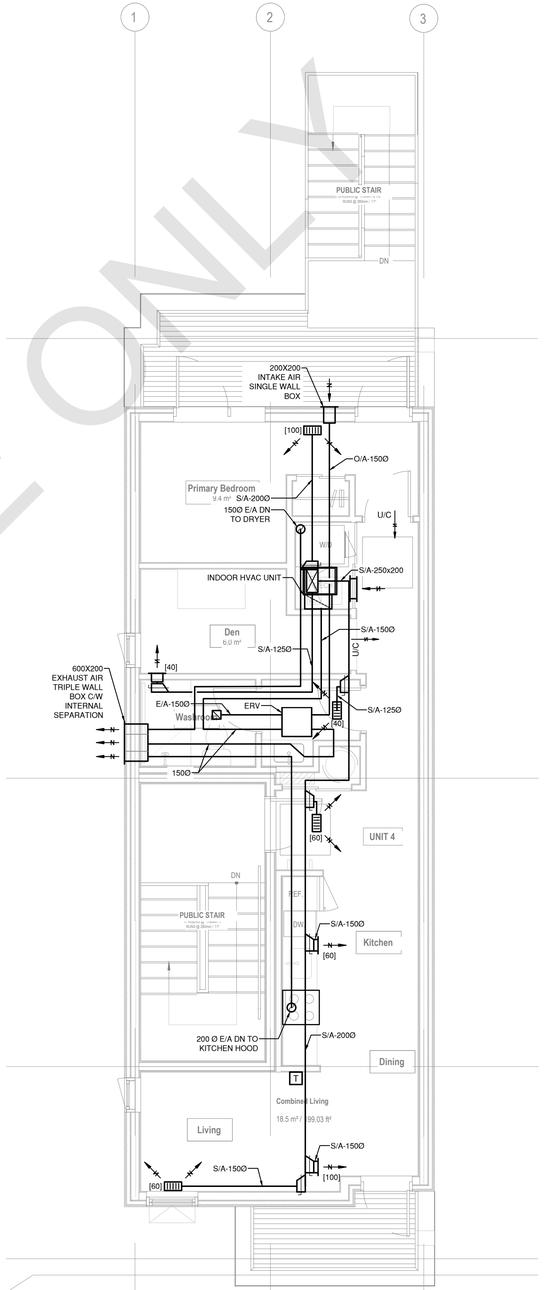


2 M102 HVAC - MAIN FLOOR
Scale: 1:50



3 M102 HVAC - SECOND FLOOR
Scale: 1:50



4 M102 HVAC - THIRD FLOOR
Scale: 1:50

FOR REFERENCE ONLY

TORONTO

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6. HEATING AND COOLING LOAD CALCULATIONS SHALL BE COMPLETED BY THE QDP.
7. EQUIPMENT SCHEDULES SHOWN ARE CONCEPTUAL AND MUST BE CONFIRMED FOR THE PROJECT.
8. SUPPLY, RETURN AND EXHAUST AIRFLOW QUANTITIES SHALL BE VERIFIED BY THE QDP.
9. QDP SHALL COMPLETE EEDS AND CONFIRM COMPLIANCE WITH SELECTED SB-12 PACKAGE.

NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

SHEET TITLE:
FOURPLEX NARROW
HVAC

PROJECT NO: 241058
SCALE: AS NOTED

SHEET NO:
M102

CITY OF TORONTO MULTIPLEX
FOURPLEX NARROW
ELECTRICAL DRAWINGS

ELECTRICAL OUTLINE SPECIFICATIONS

1. GENERAL

1.1. THE DOCUMENT IS MEANT TO BE VIEWED IN CONJUNCTION WITH AND CROSS REFERENCED TO THE ENCLOSED ELECTRICAL SCHEMATIC DRAWINGS.

2. ELECTRICAL SYSTEMS

2.1. DESIGN AND PERFORMACNE GOALS

2.1.1. THE FOLLOWING INFORMATION IS PROVIDED AS GUIDANCE

2.1.2. THIS OUTLINE SPECIFICATION PROVIDE CITY OF TORONTO - MULTIPLEX REQUIREMENTS FOR THE ELECTRICAL SYSTEM.

2.2. APPLICABLE CODES AND STANDARDS

2.2.1. ELECTRICAL SYSTEMS FOR THE BUILDING SHALL BE DESIGNED IN ACCORDANCE WITH THE FOLLOWING LATEST STANDARDS AND CODES:

2.2.1.1. LATEST EDITION OF THE ONTARIO ELECTRICAL SAFETY CODE (OESC);

2.2.1.2. CAN/ULC-S524

2.2.1.3. CANADIAN STANDARDS ASSOCIATION (CSA-C22.1);

2.2.1.4. LATEST EDITION OF THE ONTARIO BUILDING CODE (OBC).

3. DESIGN CRITERIA AND REQUIREMENTS

3.1. THE FOLLOWING INFORMATION IS PROVIDED AS A REQUIREMENT.

3.1.1. WIRING DEVICES:

3.1.1.1. ALL ELECTRICAL DEVICES AND EQUIPMENT SHALL BE CSA APPROVED.

3.1.1.2. DUPLEX RECEPTACLE SHALL BE MINIMUM RESIDENTIAL GRADE, TAMPER RESISTANT AND ARC FAULT CIRCUIT INTERRUPTER PER ONTARIO ELECTRICAL SAFETY CODE REQUIREMENT.

3.1.1.3. RECEPTACLE WITHIN 1.5 METER TO THE SINK SHALL BE RATED FOR GROUND FAULT INTERRUPTER.

3.1.1.4. PROVIDE 5-20R DUPLEX RECEPTACLE OR SPLIT 5-15R DUPLEX RECEPTACLE ABOVE KITCHEN COUNTER, QUANTITY AND SPACING SHALL BE DESIGNED PER ONTARIO ELECTRICAL SAFETY CODE REQUIREMENT.

3.1.1.5. RECEPTACLES EXPOSED TO WEATHER SHALL BE PROVIDED WITH WET LOCATION COVER PLATE, AND GROUND FAULT INTERRUPTER.

3.1.1.6. INTERIOR SPACE RECEPTACLE LAYOUT SHALL BE DESIGNED IN CONFORMANCE TO THE ONTARIO ELECTRICAL SAFETY CODE REQUIREMENT.

3.1.2. BASIC MATERIAL

3.1.2.1. ALL POWER WIRING SHALL BE COPPER, NON-METALLIC SHEATH CABLES, RESIDENTIAL RATED, SIMILAR TO ROMEX WITHIN THE UNIT.

3.1.2.2. OUTLET BOX PENETRATE THE MEMBRANE OF AN ASSEMBLY REQUIRE TO HAVE FIRE-RESISTANCE RATING MUST BE SEALED AT THE PENETRATION BY A FIRESTOP THAT HAS AN FT RATING NOT LESS THAN THE FIRE-RESISTANCE RATING OF THE FIRE SEPARATION.

3.1.2.3. PROVIDE EMT CONDUIT COMPLETE WITH SEPARATE INSULATED GROUND WRING FROM HYDRO METER TO SUITE LOAD CENTER.

3.1.2.4. CONDUITS INSTALLED UNDERGROUND SHALL BE RIGID PVC.

3.1.2.5. LOAD CENTER SHALL BE SIZED PER ONTARIO ELECTRICAL SAFETY CODE REQUIREMENT AND SHALL COMPLETE WITH THE FOLLOWING COMPONENTS:

3.1.2.5.1. MAIN BREAKER

3.1.2.5.2. SURFACE MOUNTED AT PLYWOOD BACKBOARD IN ELECTRICAL CLOSET/CABINET.

3.1.2.5.3. QUANTITY OF BRANCH BREAKERS MEETING DESIGN REQUIREMENT.

3.1.2.5.4. TYPE PRINTED PANEL DIRECTORY

3.1.2.5.5. FILLER PLATE FOR ANY OPENING.

3.1.3. MOUNTING HEIGHT

3.1.3.1. MOUNTING OF EQUIPMENT SHALL BE COMPLIANT WITH ONTARIO BUILDING CODE.

3.1.3.2. UNLESS OTHERWISE INDICATED, INSTALL EQUIPMENT AT FOLLOWING HEIGHT.

3.1.3.2.1.	LOCAL SWITCH:	900MM TO 1100MM ABOVE THE FINISHED FLOOR
3.1.3.2.2.	DUPLEX RECEPTACLE:	400MM TO THE CENTRE
3.1.3.2.3.	SUITE PANEL:	2000MM TO THE TOP
3.1.3.2.4.	DATA/TV OUTLET:	400MM TO THE CENTRE
3.1.3.2.5.	INTERCOM	900MM TO 1100MM ABOVE THE FINISHED FLOOR

3.1.4. SMOKE ALARM

3.1.4.1. PROVIDE A/C POWERED SMOKE ALARMS (COMPLETE WITH STROBE & SOUNDER BASES) IN ACCORDANCE WITH OBC REQUIREMENTS. THESE DETECTORS SHALL BE "NON-ADDRESSABLE" TYPES. A COMBINATION OF SMOKE AND CO ALARMS SHALL BE PROVIDED ADJACENT TO, AND ABOVE AND BELOW THE FLOOR LEVEL OF THE GAS-FIRED EQUIPMENT.

3.1.4.2. SMOKE ALARM/ COMBINATION OF SMOKE & CO ALARM SHALL BE 120V HARD WIRE CONNECTION COMPLETE WITH BATTERY BACKUP.

3.1.4.3. SMOKE ALARM/COMBINATION OF SMOKE & CO ALARM SHALL BE CONNECTED TO A LIGHTING CIRCUIT OR A MIX OF LIGHTING & RECEPTACLE CIRCUIT IN ACCORDANCE WITH ONTARIO ELECTRICAL SAFETY CODE.

3.1.4.4. WHERE MORE THAN ONE SMOKE ALARM IS REQUIRED IN A DWELLING UNIT, THE SMOKE ALARMS SHALL BE WIRED SO THAT THE ACTIVATION OF ONE ALARM WILL CAUSE ALL ALARMS WITHIN THE DWELLING UNIT TO SOUND.

3.1.4.5. SMOKE ALARM/COMBINATION OF SMOKE & CO ALARM SHALL BE EQUIPPED WITH A TESTING/SILENCE BUTTON ON THE FRONT OF THE UNIT.

3.1.4.6. SMOKE ALARM SOUND PATTERN SHALL EMIT A T3 ALARM (THREE INTERMITTENT BEEPS FOLLOWS BY A PERIOD OF SILENCE).

3.1.4.7. CARBON MONOXIDE ALARM SOUND PATTERN SHALL EMIT T4 ALARM (FOUR INTERMITTENT BEEPS FOLLOWED BY A PERIOD OF SILENCE)

3.1.5. LIGHTING

3.1.5.1. PRODUCT SHALL BE CSA APPROVED AND/OR ULC LISTED.

3.1.5.2. ENERGY-EFFICIENT LED LIGHTING FIXTURE SHALL BE PROVIDED.

3.1.5.3. RECESSED LIGHTING SHALL NOT BE LOCATED IN FIRE RATED CEILING.

3.1.5.4. RECESSED LIGHTING SHALL NOT BE LOCATED IN INSULATED CEILINGS UNLESS THE FIXTURES ARE DESIGNED FOR SUCH INSTALLATIONS.

3.1.5.5. LIGHTING SHALL BE CONTROLLED THROUGH A LOCALIZED LIGHT SWITCH IN EACH SPACE.

3.1.5.6. AN EXTERIOR LIGHTING OUTLET WITH FIXTURE CONTROLLED BY A WALL SWITCH LOCATED WITHIN THE BUILDING SHALL BE PROVIDED AT EVERY ENTRANCE.

3.1.5.7. 3-WAY WALL SWITCHES LOCATED AT THE HEAD AND FOOT OF EVERY STAIRWAY SHALL BE PROVIDED TO CONTROL AT THE LEAST ONE LIGHTING OUTLET.

3.1.5.8. MINIMUM LIGHTING LEVEL TO BE ACHIEVED FOR THE FOLLOWING AREAS:

a.	KITCHEN	300LX
b.	BEDROOM ADULT	100 TO 300LX
c.	BEDROOM (CHILD)	500LX
d.	BATHROOM	300LX
e.	LIVING ROOM/DEN	300LX
f.	FAMILY ROOM	300LX (TV REVIEWING 150LX)
g.	LAUNDRY/UTILITY	200LX
h.	DINING ROOM	200LX
i.	HALL/LANDING/STAIRWAY	100LX TO 500LX
j.	HOME OFFICE	500LX
k.	GARAGE	500LX
l.	WORKSHOP	800LX
m.	EXTERIOR (PATIO, BALCONIES)	50LX

4. ELECTRICAL DESIGN BY UNIT TYPE

4.0.1. 4-PLEX WIDE RESIDENTIAL UNITS SERVICE

4.0.1.1. PROVIDE ONE (1) 120/240V SERVICE FOR THE SITE. THE EXACT SIZE SHALL BE DESIGNED PER ONTARIO ELECTRICAL SAFETY CODE, AND TORONTO HYDRO UTILITY REQUIREMENTS. COORDINATE WITH TORONTO HYDRO UTILITY EARLY IN THE PROJECT TO SUPPORT THE DESIGN OF THE INCOMING SERVICE WORK AND TO AVOID POTENTIAL DELAYS.

4.0.1.1.1. DEPENDING ON THE REQUIRED LOAD, ON-SITE TRANSFORMATION FACILITIES MAY BE NECESSARY. LOCATION AND CAPACITY OF THE ON-SITE TRANSFORMER SHALL BE COORDINATED WITH TORONTO HYDRO WHERE REQUIRED.

4.0.1.1.2. PROVISION OF AN ALTERNATIVE SUPPLY AT 120/208V, THREE-PHASE, FOUR-WIRE SERVICE MAY BE AVAILABLE, SUBJECT TO TORONTO HYDRO REQUIREMENT AND SYSTEM CAPACITY.

4.0.1.2. PROVIDE GANGED RESIDENTIAL GRADE HYDRO METERS AND ASSOCIATED EQUIPMENT AND INSTALL ON THE EXTERIOR WALL OF THE RESIDENTIAL UNITS PER TORONTO HYDRO UTILITY REQUIREMENTS.

4.0.1.2.1. FOR ROW- OR TOWN HOUSE TYPE DEVELOPMENTS, INDIVIDUALLY METER SUPPLIED ARRANGEMENT MAY BE AVAILABLE BY THE TORONTO HYDRO UTILITY. CONTACT THE TORONTO HYDRO UTILITY FOR AVAILABILITY.

4.0.1.3. PROVIDE ONE (1) 120/240V RATED ELECTRICAL LOAD CENTRE PANEL AT THE ELECTRICAL CLOSET/CABINET IN EACH UNIT FOR POWER DISTRIBUTION.

4.0.1.4. PROVIDE TELECOMMUNICATION SERVICE AND TERMINATE AT THE ELECTRICAL/CABINET IN EACH UNIT FOR COMMUNICATION SERVICE DISTRIBUTION

4.0.1.5. ELECTRICAL LAYOUT SHOWN ARE SCHEMATIC ONLY AND REQUIRE COMPLETION BY THE ELECTRICAL QUALIFIED DESIGN PROFESSIONAL.

4.0.2. RECEPTACLE

4.0.2.1. DUPLEX RECEPTACLE SPACING SHALL BE PER ONTARIO ELECTRICAL SAFETY CODE REQUIREMENT.

4.0.2.2. DUPLEX RECEPTACLE SHALL BE TAMPER RESISTANT.

4.0.2.3. OTHER THAN WASHROOM AND KITCHEN, RECEPTACLES SHALL BE AFCI RATED PER ONTARIO ELECTRICAL SAFETY CODE REQUIREMENT,.

4.0.2.4. COORDINATE WITH DESIGN PROFESSION TO CONFIRM KITCHEN APPLIANCES - STOVE OR COOK TOP & WALL OVEN. PROVIDE SUITABLE POWER CONNECTION.

5. ACCESSIBLE UNIT

5.1. THE ELECTRICAL DESIGN FOR THE ACCESSIBLE UNIT SHALL BE IN COMPLIANCE TO CSA/ASC B652:23, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:

5.1.1. LIGHTING & LIGHTING CONTROL

5.1.1.1. LIGHTING ILLUMINATION REQUIREMENT SHALL REFER TO SECTION 3.1.5.

5.1.1.2. VANITY (TASK) LIGHTING SHALL BE DIMMABLE AND MOUNTED AT MINIMUM 1000MM TO 1700MM ABOVE FINISH FLOOR.

5.1.1.3. LIGHT SWITCH SHALL BE ILLUMINATED TYPE IN THE BATHROOM.

5.1.1.4. LIGHT SWITCH SHALL BE LUMINANCE (COLOR) CONTRASTED WITH THEIR BACKGROUND IN ALL OTHER SPACES.

5.1.1.5. AT THE LEAST ONE (1) LIGHT SWITCH SHALL BE PROVIDED BESIDE THE BED AT A HEIGHT BETWEEN 550MM AND 650MM ABOVE THE FLOOR.

5.1.2. RECEPTACLE

5.1.2.1. PROVIDE ONE RECEPTACLE IN THE CEILING FOR FUTURE LIFT ABOVE THE BED.

5.1.2.2. PROVIDE ONE RECEPTACLE BELOW THE BED TO ACCOMMODATE FUTURE ELECTRICALLY ADJUSTABLE BEDS OR LIFTS.

5.1.2.3. RECEPTACLE IN THE KITCHEN SHALL BE INSTALLED ON FRONT FACE OF COUNTERS. HOWEVER, IT IS ACCEPTABLE TO BE INSTALLED ALONG THE BACK OF COUNTERS IF NEEDED.

5.1.2.7. INSTALL ALL RECEPTACLE AT THE SPACING PER CSA/ASC B652 REQUIREMENT.

5.1.2.8. INSTALL ALL ELECTRICAL DEVICE AT THE HEIGHT PER CSA/ASC B652 REQUIREMENT.

5.1.2.9. PROVIDE QUAD RECEPTACLE NEXT TO THE BED PER CSA/ASC B652 REQUIREMENT.

5.1.2.10. BATHROOM SHALL BE DESIGNED IN ACCORDANCE WITH CSA/ASC B652 REQUIREMENT,

5.1.2.11. KITCHEN COUNTER RECEPTACLE SHALL BE INSTALLED ALONG THE BACK COUNTER

5.1.2.12. OUTLET CONNECTION FOR STACK DRYER & WASHER SHALL BE INSTALLED SIDE BY SIDE.

5.2. PROVIDE FOLLOWING ELECTRICAL DEVICES IN COMPLIANCE TO ACCESSIBLE UNIT REQUIREMENT,

5.2.1. LIGHT SWITCH BY THE BED SIDE.

5.2.2. ONE OUTLET BELOW BED AND ONE OUTLET IN THE CEILING OF THE BEDROOM COMPLETE WITH PULL STRING FOR FUTURE ADJUSTABLE BED AND LIFT

5.2.3. OUTLET FOR AUTOMATED DOOR OPENER FOR THE ASSIGNED ADAPTABLE WASHROOM, UNIT ENTRANCE.

5.2.4. OUTLET FOR DOOR BELL, INTERCOM AND SECURITY CAMERA.

5.2.5. OUTLET CONNECTION FOR VANITY LIGHTING IN THE BATHROOM.

5.2.6. PROVIDE POWER ASSISTED DOOR AT BATHROOM DOOR AND MAIN ENTRANCE.

ELECTRICAL DRAWING LIST

DRAWING NO.	DRAWING NAME
E000	ELECTRICAL COVER SHEET, SYMBOLS & ELECTRICAL OUTLINE SPECIFICATION
E100	FOURPLEX NARROW ELECTRICAL

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
SA C	120V COMBINATION SMOKE/CARBON MONOXIDE ALARM COMPLETE WITH STROBE, AUDIO ALARM AND BATTERY BACKUP.
	SURFACE OR FLUSH MOUNTED ELECTRICAL PANELS
M	HYDRO METER & METER BASE
	FUSED DISCONNECT SWITCH

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

DISCLAIMER

GENERAL NOTES:

1. NO DRAWINGS WILL BE FOR CONSTRUCTION UNLESS STAMPED BY THE QUALIFIED DESIGN PROFESSIONAL (QDP) AND ISSUED FOR THAT PURPOSE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING AND VERIFYING ALL LEVELS AND DIMENSIONS AND SHALL REPORT ALL DISCREPANCIES TO THE QUALIFIED DESIGN PROFESSIONAL PRIOR TO COMMENCING WORK.
3. DO NOT SCALE THE DRAWINGS.

QUALIFIED DESIGN PROFESSIONAL (QDP)

1. ALL END USERS REQUIRE A QUALIFIED DESIGN PROFESSIONAL – EITHER AN ARCHITECT, ENGINEER, OR OTHER PROFESSIONAL AS DESIGNATED BY THE RELEVANT PROFESSIONAL ASSOCIATIONS AND THE AUTHORITY HAVING JURISDICTION.
2. THE QUALIFIED DESIGN PROFESSIONAL MUST REVIEW AND UPDATE THE PRE-APPROVED DESIGN DRAWINGS TO ALIGN WITH SITE CONDITIONS, VERIFY ASSUMPTIONS, MAKE ANY FINAL DESIGN SELECTIONS OR MODIFICATIONS DESIRED, AND ENSURE CODE COMPLIANCE WITH ALL APPLICABLE CODES, BYLAWS, AND OTHER REGULATIONS.
3. THE QUALIFIED DESIGN PROFESSIONAL WILL TAKE RESPONSIBILITY FOR THE ENTIRE SET OF DOCUMENTS ONCE UPDATED. THIS INCLUDES APPLYING THE ARCHITECT'S OR ENGINEER'S SEAL AS REQUIRED BY THE RELEVANT PROFESSIONAL ASSOCIATION AND THE AUTHORITIES HAVING JURISDICTION (AHJS). QUALIFIED DESIGN PROFESSIONALS ARE RESPONSIBLE FOR COMPLYING WITH THE RELEVANT REGULATORY ACTS, BYLAWS, AND PROFESSIONAL REQUIREMENTS APPLICABLE TO THEIR JURISDICTION.
4. THE END USER OR THE QUALIFIED DESIGN PROFESSIONAL MAY SUBMIT THE FINALIZED DESIGN FOR A BUILDING PERMIT TO THE APPROPRIATE AUTHORITY HAVING JURISDICTION (AHJ).
5. CONSTRUCTION REVIEW IS THE RESPONSIBILITY OF THE QUALIFIED DESIGN PROFESSIONAL IN ACCORDANCE WITH APPLICABLE REGULATORY REQUIREMENTS AND PROFESSIONAL PRACTICE STANDARDS.

NO.	DATE	DESCRIPTION

PROJECT:

City of Toronto - Multiplex

SHEET TITLE:

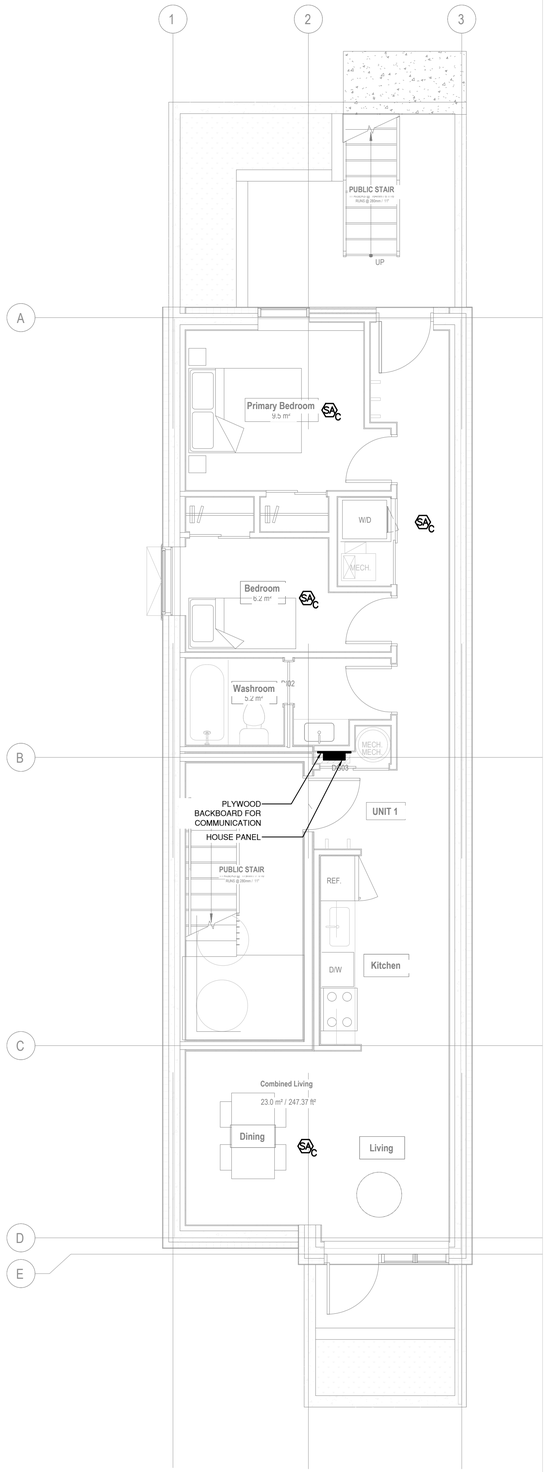
ELECTRICAL COVER SHEET, SYMBOLS & ELECTRICAL OUTLINE SPECIFICATION

PROJECT NO: 241058

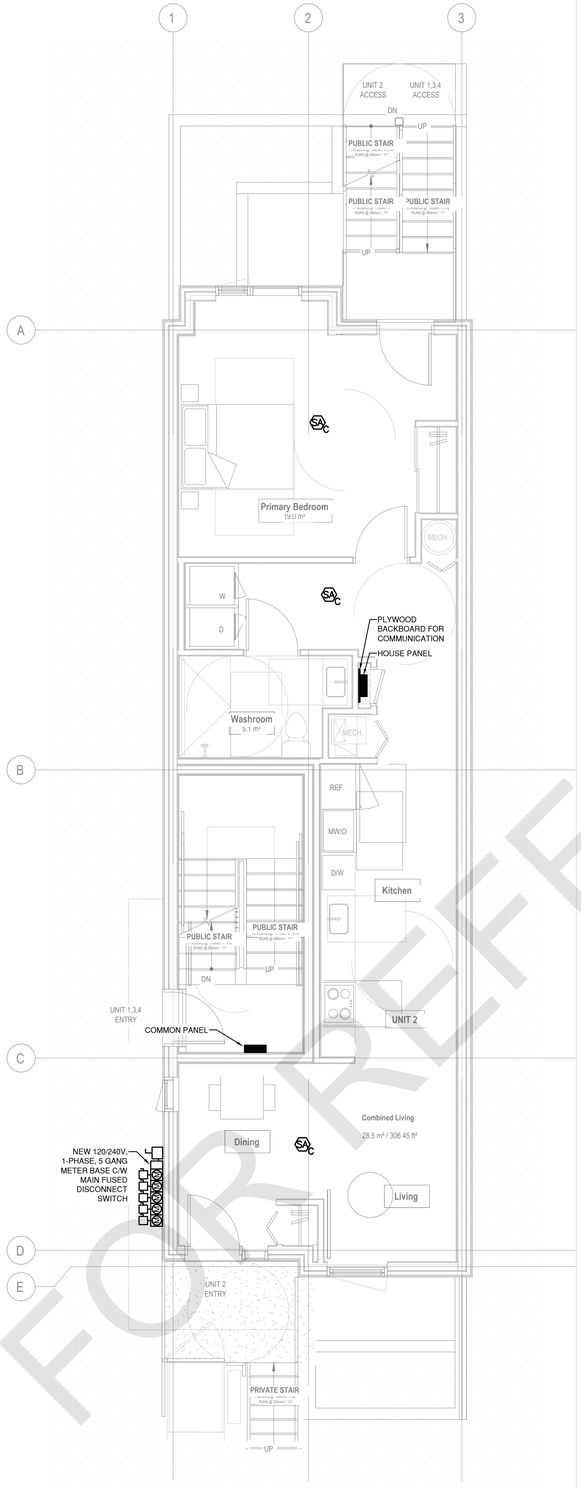
SCALE: N.T.S

SHEET NO:

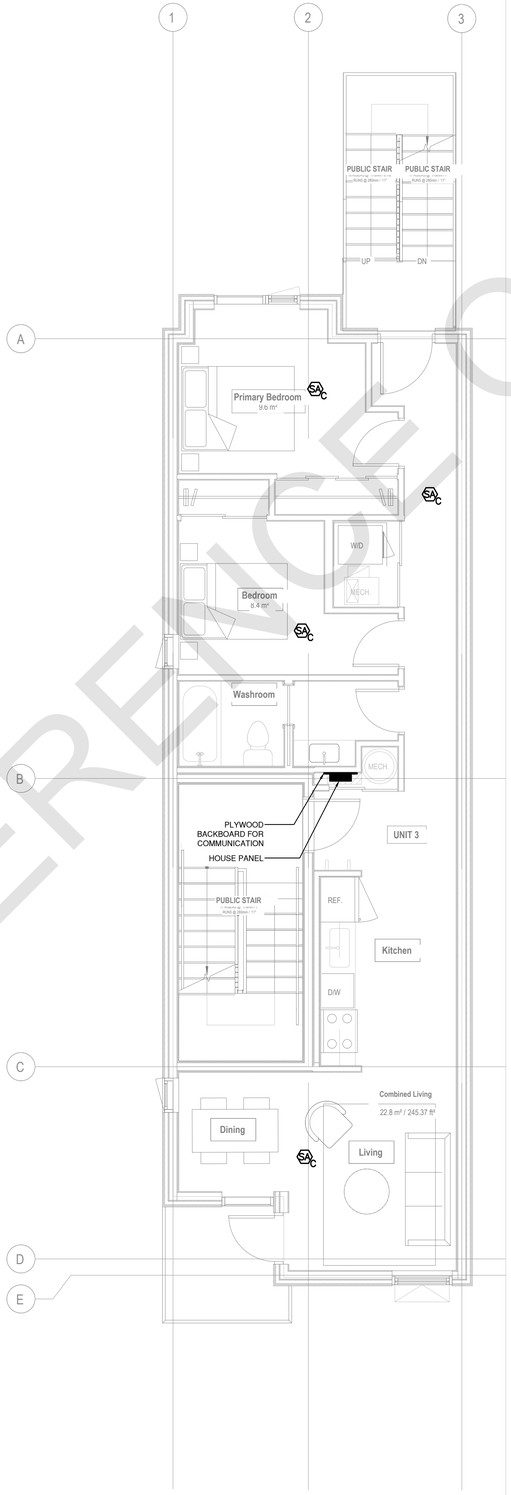
E000



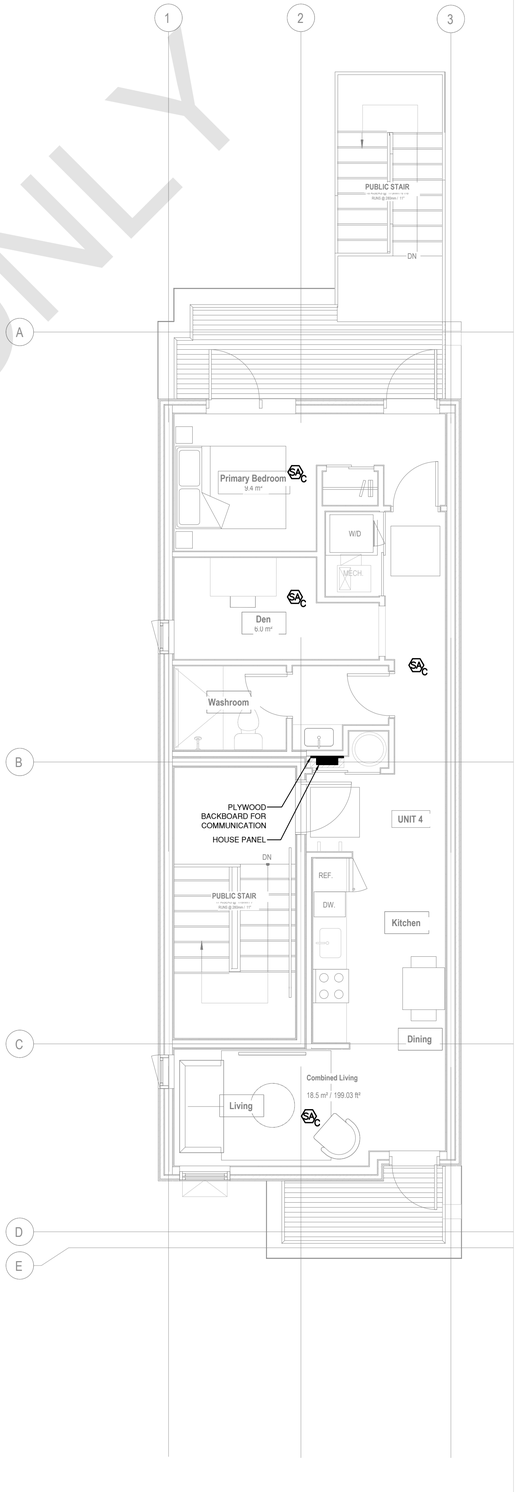
1 E100 ELECTRICAL - BASEMENT
Scale: 1:50



2 E100 ELECTRICAL - MAIN FLOOR
Scale: 1:50



3 E100 ELECTRICAL - SECOND FLOOR
Scale: 1:50



4 E100 ELECTRICAL - THIRD FLOOR
Scale: 1:50

FOR REFERENCE ONLY

TORONTO

PROFESSIONAL SEAL:

DISCLAIMER

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NO.	DATE	DESCRIPTION

PROJECT:
City of Toronto - Multiplex

SHEET TITLE:
FOURPLEX NARROW ELECTRICAL

PROJECT NO: 241058
SCALE: AS NOTED

SHEET NO:
E100