Item	Ontario Building Code Matrix - Parts 3 & 9	OBC Reference	
1	Project Description ☐New ☐Addition ☐Change of Use ☒Alteration ☒ Part 11	☐ Part 3	☒ Part 9 2.1.1. 9.10.1.3
2	Major Occupancy(s) Group A & F 3.1.2.1.(1)	9.10.2.	
3	Building Area (m²) Existing 624.55 New 0.00 Total 624.55	1.1.3.2	1.1.3.2
4	Gross Area Existing 236.90 New 0.00 Total 236.90	1.1.3.2	1.1.3.2
5	Number of Storeys Above Grade 1 Below Grade 0	3.2.1.1. & 1.1.3.2	2.1.1.3.
6	Height of Building (m) 6.12m		2.1.1.3.
7	Number of Streets/Access Routes 1	3.2.2.10 & 3.2.5.5.	
8	Building Classification F - Industrial Occupancy	3.2.2.20 - .83	9.10.4.
9	Sprinkler System Proposed ☐ Entire Building		9.10.8.
	☐ Basement Only	3.2.2.20 - .83	
	☐ In Lieu of roof Rating	3.2.1.5	
	☒ Not Required	3.2.2.17	
10	Standpipe Required ☐ Yes ☒ No	3.2.9	
11	Fire Alarm Required ☐ Yes ☒ No	3.2.4	9.10.18.2
12	Water Service/Supply is Adequate ☒ Yes ☐ No		
13	High Building ☐ Yes ☒ No	3.2.6	
14	Permitted Construction ☒Combustible ☐Non-Combustible Actual Construction ☒Combustible ☐Non-Combustible	3.2.2.20 - .83	9.10.6.
15	Mezzanine(s) Area (m²)	3.2.1.1.(3) - (8)	9.10.4.1
16	Occupant Load Based On ☐m²/person ☒Design of Building Basement Occupancy ___ Load N/A Persons 1st Floor Occupancy ___ Load 31 Persons 2nd Floor Occupancy ___ Load N/A Persons 3rd Floor Occupancy ___ Load N/A Persons	3.1.1.6	9.9.1.3.
17	Barrier Free Design ☐Yes ☒No (Explain) 11.3.3.2.2.b	3.8	9.5.2
18	Hazardous Substances ☐Yes ☒No	3.3.1.2.(1) & 3.3.1.19(1)	9.10.1.3.
19	Required Fire Resistance Rating (FRR)	3.2.2.20 - .83 & 3.2.1.4	9.10.8. 9.10.9.
20	Spatial Separation - Construction of Exterior Walls	3.2.3	9.10.14
21	Other (Describe):		

Item 19:

Horizontal Assemblies FRR (Hours)	Listed Design No. or Description (SG-2)
Floors NA Hours	
Roof NA Hours	
Mezzanine NA Hours	
FRR of Supporting Members	Listed Design No. or Description (SG-2)
Floor NA Hours	
Roof NA Hours	
Mezzanine NA Hours	

Item 20:

Wall	Area of EBF (m²)	L.D. (m)	L/H or H/L	Permitted Max % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Comb. Const.	Comb Const. Nonc. Cladding	Non-Comb. Const.
North										
South										
East										
West										

NO PROPOSED CHANGES

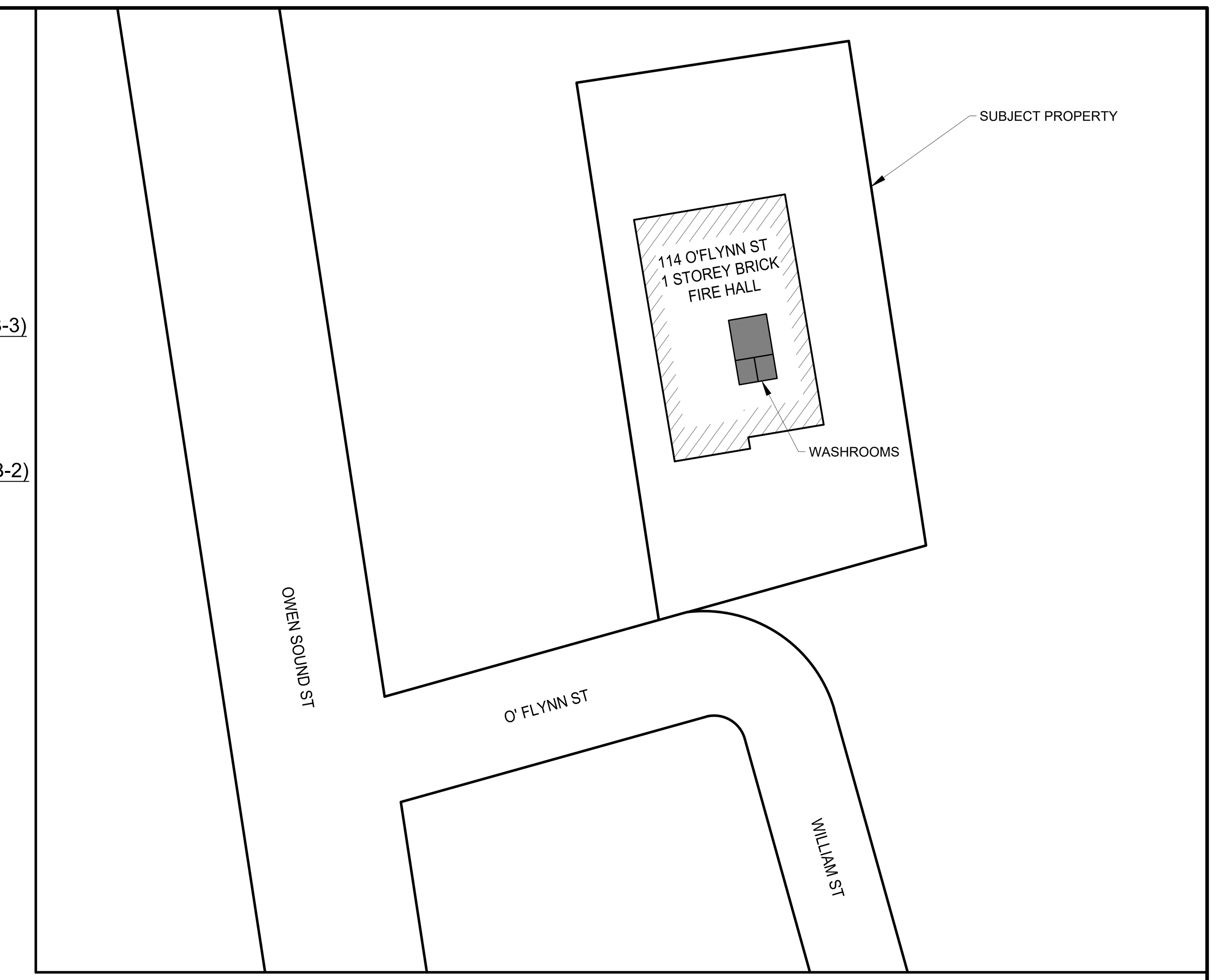
WALL SCHEDULE:

TAG	DEPTH	DESCRIPTION
W1		NEW INTERIOR NON LOAD BEARING WALL
	1/4"	CERAMIC BATHROOM TILE
	5/8"	TYPE-X GYPSUM WALLBOARD
	3 1/2"	2"x4" STEEL STUDS @ 16" O.C. SPACING
		WOOD FURRING TO MATCH EXISTING WALL WIDTH
	5/8"	TYPE-X GYPSUM WALLBOARD
	1/4"	CERAMIC BATHROOM TILE
W2		NEW INTERIOR NON LOAD BEARING WALL (**B2b** AS PER SB-3)
	1/4"	CERAMIC BATHROOM TILE
	5/8"	TYPE-X GYPSUM WALLBOARD
	5 3/8"	CMU (140mm)
	5/8"	TYPE-X GYPSUM WALLBOARD
	1/4"	CERAMIC BATHROOM TILE
W3		NEW INTERIOR NON LOAD BEARING WALL (2HR AS PER SB-2)
	9 5/8"	CMU (240mm)

DOOR SCHEDULE:

TAG	DESCRIPTION
D1	34"(W) x 84" (H) 1.5 HR FIRE RATING STEEL ENTRY DOOR

NOTES:
1) SITE PLAN INFORMATION GATHERED FROM SURVEY AND GOOGLE EARTH IMAGES.



1 KEY PLAN
SCALE: NTS

ABBREVIATIONS

AB	ANCHOR BOLT
ADD	ADDITIONAL
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
AIFB	ASPHALT IMPREGNATED FIBREBOARD
ALT	ALTERNATIVE
AR	ANCHOR ROD
ARCH	ARCHITECTURAL
B, BOTT	BOTTOM
BC	BOTTOM ELEVATION OF CAISSON
BEW	BOTTOM EACH WAY
BLL	BOTTOM LOWER LAYER
BM	BEAM
BMB	BENDING MOMENT BAR
BPL	BEARING/BASE PLATE
BRG	BEARING
BSMT	BASEMENT
BUL	BOTTOM UPPER LAYER
C	STANDARD CHANNEL
C/C	CENTRE TO CENTRE
C/W	COMPLETE WITH
CA	COLUMN ABOVE
CB	COLUMN BELOW
CANT	CANTILEVER
CF	CONCRETE FIREPROOFED
CJ	CONTROL JOINT
CL	CLEAR
C.L.	CENTRE LINE
COMP	COMPOSITE
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST JT	CONSTRUCTION JOINT
CONT	CONTINUOUS
DET	DETAIL
D FIR	DOUGLAS FIR
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DP	DEEP
DWG	DRAWING
DWL	DOWEL
EA	EACH
ECR	EPOXY COATED REINFORCMENT
EE	EACH END
EF	EACH FACE
EJ, EXT. JT	EXPANSION JOINT
EL, ELEV	ELEVATION
ELECT	ELECTRICAL
EMBED	EMBEDMENT
EQ	EQUAL
EW	EACH WAY
EX, EXIST	EXISTING
FIN	FINISHED
FL	FLOOR
FTG	FOOTING
FMC	FULL MOMENT CONNECTION
Fy	YIELD STRENGTH
F'c	COMPRESSIVE STRENGTH OF CONCRETE
FF	FAR FACE
GALV	GALVANIZED
HB	HIGH BEAM
HD	HANGER DOWN
HEF	HORIZONTAL EACH FACE
HH	HOOK-HOOK (HOOK EACH END)
HIF	HORIZONTAL INSIDE FACE
HOR	HORIZONTAL
HP	HIGH POINT
HSL	HORIZONTALLY SLOTTED CONNECTION
HSS	HOLLOW STRUCTURAL SECTION
HU	HANGER UP
ID	INSIDE DIAMETER
IF	INSIDE FACE
KB	KNEE BRACE
kN	KILONEWTON
kPa	KILOPASCAL
L	SINGLE ANGLE
2L	DOUBLE ANGLES
LB	LOWER BEAM
LE	LEFT END
LG	LONG/LENGTH
LL	LIVE LOAD
LLV	LONG LEG VERTICAL
LLH	LONG LEG HORIZONTAL
LP	LOW POINT
LSSJ	LONG SPAN STEEL JOIST
LVL	LAMINATED VENEER LUMBER
MAX	MAXIMUM
MC	MOMENT CONNECTION
MIN	MINIMUM
m	METER
m^2	SQUARE METER
mm	MILLIMITER
mm^2	SQUARE MILLIMETER
MECH	MECHANICAL
MPa	MEGAPASCAL
NBCC	NATIONAL BUILDING CODE OF CANADA
NCB	NO COLUMN BELOW
NF	NEAR FACE
NIC	NOT IN CONTRACT
No	NUMBER
NTS	NOT TO SCALE
OBC	ONTARIO BUILDING CODE
OC	ON CENTRE
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OWSJ	OPEN WEB STEEL JOIST
Pf,Cf,Tf,Mf,Vf,Rf	FACTORED LOADS
P,T,C,V,M,R	UNFACTORED LOADS
PC	PRECAST
PL	PLATE
PSL	PARALLEL STRAND LUMBER
PVC	POLYVINYL CHLORIDE
REIN	REINFORCEMENT
RE	RIGHT END
RTU	ROOF TOP UNIT
S	STANDARD BEAM
SECT	SECTION
SF	SPRAY FIRE PROOFED
SDF	STEP DOWN FOOTING
SIM	SIMILAR
SJ	STEEL JOIST
SL	SLAB
SOG	SLAB ON GRADE
SP	SPANDREL, SPRUCE
SPF	SPRUCE, PINE, FIR
ST	STRAIGHT
STIRR	STIRRUP
STRUCT	STRUCTURAL
t	THICKNESS
T	TOP
TC	TOP ELEVATION OF CAISSON
TCAP	TOP ELEVATION OF CAP
TDL	TENSION DEVELOPMENT LENGTH
TEW	TOP EACH WAY
T&G	TONGUE AND GROOVE
TJ	TIE JOIST
TLE	TOP LEFT END
TLL	TOP LOWER LAYER
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TRE	TOP RIGHT END
TSA	TENSION LAP SPLICE - CLASS A
TSB	TENSION LAP SPLICE - CLASS B
TUL	TUP UPPER LAYER
TYP	TYPICAL
UB	UPPER BEAM
U/S	UNDERSIDE
USD	UNDERSIDE OF DECK
UL	UPPER LAYER
U/N	UNLESS NOTED
UNO	UNLESS NOTED OTHERWISE
UPT	UPTURNED
VERT	VERTICAL
VBF	VERTICAL BRACED FRAME
VEF	VERTICAL EACH FACE
VIF	VERTICAL INSIDE FACE
VOF	VERTICAL OUTSIDE FACE
VSC	VERTICAL SLOTTED CONNECTION
W	WIDE FLANGE BEAM
WP	WALL PLATE
WT	STRUCTURAL TEE
WWF	WELDED WIRE FABRIC
WWF	WELDED WIRE FLANGE

LIGHTWEIGHT METAL FRAMING

1 GENERAL

1.1 THE FOLLOWING REFERENCE STANDARDS SHALL GOVERN THE WORK OF THIS SECTION:
- 1.1.1 CSA S16-14, DESIGN OF STEEL STRUCTURES
- 1.1.2 CSA S136-16 PACKAGE, COLD-FORMED STEEL STRUCTURAL MEMBERS
- 1.1.3 CANADIAN SHEET STEEL BUILDING INSTITUTE, CSSBI 51-06, LIGHTWEIGHT STEEL FRAMING DESIGN MANUAL
- 1.1.4 ASTM A653/A653M-15 STEEL SHEET, ZINC-COATED (GALVANIZED) OR ZINC-IRON ALLOY COATED (GALVANNEALED) BY HOT-DIP PROCESS.

1.2 DESIGN OF LIGHTWEIGHT METAL FRAMING INCLUDING ALL COMPONENTS SHALL BE BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.

1.3 DESIGN CRITERIA
- 1.3.1 DESIGN LIGHTWEIGHT STEEL FRAMING FOR GRAVITY LOADS NOTED ON PLANS, CONCENTRATED LOADS NOTED IN OBC AND WIND LOADS.
- 1.3.2 DESIGN LIGHTWEIGHT STEEL FRAMING FOR DEFLECTIONS NOT TO EXCEED:
  - .1 FLOOR JOISTS LIVE LOAD: SPAN/360
  - .2 FLOOR JOISTS TOTAL LOAD: SPAN/240
  - .3 EXTERIOR WALL STUDS BACKING UP MASONRY: SPAN/720
  - .4 EXTERIOR WALL STUDS NOT BACKING UP MASONRY: SPAN/360
  - .5 INTERIOR WALL STUDS (MINIMUM DIFFERENTIAL AIR PRESSURE = 0.5 kPa): SPAN/360
- 1.3.3 AXIAL LOADED MEMBERS THAT MEET AT A JOINT SHALL HAVE THEIR CENTROIDAL AXIS INTERSECT AT A COMMON POINT UNLESS SHOWN OTHERWISE.

1.4 SUBMITTALS
- 1.4.1 SUBMIT STRUCTURAL SHOW DRAWINGS.
  - .1 EACH SHOP DRAWING SUBMITTED SHALL BEAR THE SIGNATURE AND SEAL OF THE PROFESSIONAL ENGINEER RESPONSIBLE FOR THE DESIGN.
  - .2 INDICATE ALL DESIGN LOADS.
  - .3 PROVIDE ALL NECESSARY INFORMATION FOR FABRICATION AND ERECTION. INDICATE MEMBER SIZES, LOCATIONS, THICKNESS EXCLUSIVE OF COATINGS AND COATINGS, STEEL GRADE.
  - .4 PROVIDE CONNECTION DETAILS FOR LIGHTWEIGHT FRAMING MEMBERS TO EACH OTHER AND TO THE PRIMARY STRUCTURE.

2 PRODUCTS

2.1 MATERIAL
- 2.1.1 PROVIDE NEW MATERIALS IN ACCORDANCE WITH REFERENCE STANDARDS, OF STRENGTH AND QUALITY NOTED IN GENERAL NOTES. ACCEPTABLE MANUFACTURERS INCLUDE BAILEY METAL PRODUCTS OR APPROVED EQUIVALENT.
- 2.1.2 GALVANIZED SHEET STEEL: ASTM A653/A653M
  - .1 GRADE A, 228 MPa [33 ksi] MINIMUM YIELD FOR 1.21 mm [0.048"] MATERIAL AND THINNER
  - .2 GRADE D, 345 MPa [50 ksi] MINIMUM YIELD FOR 1.52 mm [0.060"] MATERIAL AND THICKER
  - .3 METALLIC COATING: MINIMUM ZINC COATING Z275
- 2.1.3 TOUCH-UP PAINT: ZINC-RICH PAINT READY MIX TO SPCC-PAINT 20 STANDARD
- 2.1.4 SHEET METAL SCREWS: SELF-TAPPING, MINIMUM COATING THICKNESS 0.008 mm ZINC OR CADMIUM.
- 2.1.5 STEEL STUDS, JOISTS: FABRICATED FROM GALVANIZED SHEET STEEL FORMED TO CHANNEL SHAPE, DEPTH AS INDICATED, MINIMUM THICKNESS 1.21 mm [0.048"].
- 2.1.6 STUD TRACKS: FABRICATED FROM SAME MATERIAL AND FINISH AS STUDS, MINIMUM THICKNESS TO MEET DESIGN REQUIREMENTS BUT NOT LESS THAN METAL STUDS.
- 2.1.7 BRIDGING: FABRICATED FROM SAME MATERIAL AND FINISH AS STUDS.

3 EXECUTION

3.1 VERIFY AT SITE THAT THE WORK TO RECEIVE THE WORK OF THIS SECTION IS FREE OF IRREGULARITIES DETRIMENTAL TO THE INSTALLATION AND PERFORMANCE OF THE WORK AND THAT IS LOCATED CORRECTLY AND AT PROPER LEVELS BEFORE DELIVERY AND INSTALLATION. INSTALL COMPONENTS IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

3.2 METHODS OF CONSTRUCTION MAY BE EITHER PIECE BY PIECE (STICK-BUILT), OR BY FABRICATION INTO PANELS (PANELIZED), EITHER ON OR OFF SITE. HANDLING AND LIFTING OF PREFABRICATED PANELS SHALL NOT CAUSE PERMANENT DISTORTION TO ANY MEMBER OR COLLATERAL MATERIAL.

3.3 COLD-FORMED STEEL FRAMING SHALL BE ERECTED TRUE AND PLUMB WITHIN THE TOLERANCES SPECIFIED HEREIN. TEMPORARY BRACING SHALL BE EMPLOYED WHEREVER NECESSARY TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECT DURING ERECTION AND SUBSEQUENT CONSTRUCTION. TEMPORARY BRACING SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR THE SAFETY AND INTEGRITY OF THE STRUCTURE. CONTRACTOR SHALL ENSURE THAT DURING ERECTION A MARGIN OF SAFETY CONSISTENT WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE, THE NATIONAL BUILDING CODE AND CSA S136-12 EXISTS IN THE UNCOMPLETED STRUCTURE.

3.4 ERECTION TOLERANCES:
- 3.4.1 FOR THE PURPOSES OF ERECTION TOLERANCES, "CAMBER" IS DEFINED AS THE DEVIATION FROM STRAIGHTNESS OF A MEMBER OR ANY PORTION OF A MEMBER WITH RESPECT TO ITS MAJOR AXIS AND "SWEEP" IS DEFINED AS THE DEVIATION FROM STRAIGHTNESS OF A MEMBER OR ANY PORTION OF A MEMBER WITH RESPECT TO ITS MINOR AXIS.
- 3.4.2 FOR WIND BEARING STUDS, OUT OF PLUMBNESS SHALL NOT EXCEED 1/500TH OF THE MEMBER LENGTH. OUT OF STRAIGHTNESS (CAMBER AND SWEEP) SHALL NOT EXCEED 1/1000TH OF THE MEMBER LENGTH.
- 3.4.3 FOR RUNNERS/TRACKS, CHAMBER SHALL NOT EXCEED 1/1000TH OF THE MEMBER LENGTH.
- 3.4.4 SEAT STUDS INTO BOTTOM TRACK AND TWO PIECE TELESCOPING TOP TRACK FOR WIND BEARING STUDS. SEAT STUDS INTO BOTTOM TRACK AND TOP TRACK FOR GRAVITY LOAD BEARING STUDS.
- 3.4.5 WHERE COLD-FORMED METAL FRAMING IS MADE IN PREFABRICATED PANELS, ALIGN ADJACENT PREFABRICATED PANELS TO PROVIDE SURFACE CONTINUITY AT THE INTERFACE.
- 3.4.6 SPACING OF STUDS SHALL NOT BE MORE THAN 3 mm FROM THE DESIGN SPACING. THE CUMULATIVE ERROR IN SPACING SHALL NOT EXCEED THE REQUIREMENTS OF THE FINISHING MATERIALS.

3.5 ALIGN FLOOR AND CEILING RUNNERS/TRACKS, LOCATE TO WALL OR PARTITION LAYOUT. SECURE IN PLACE WITH SCREWS AT MAXIMUM 600 mm O.C. COORDINATE INSTALLATION OF SEALANT WITH FLOOR AND CEILING TRACK.

3.6 PROVIDE DRILLED ANCHORS AT BOTTOM TRACK AT TYPICALLY 760 mm MAXIMUM SPACING.

3.7 PLACE STUDS TO MEET DESIGN REQUIREMENTS AS INDICATED ON APPROVED SHOP DRAWINGS, AND NOT MORE THAN 50 mm [2"] FROM ABUTTING WALLS, AND AT EACH SIDE OF OPENINGS. CONNECT STUDS TO TRACKS USING CLIPS AND TIES, AND SCREWS. DIAMETER OF SCREWS SHALL BE EQUAL TO, OR EXCEED THE MINIMUM DIAMETER INDICATED ON THE REVIEWED SHOP DRAWINGS.
- 3.7.1 PENETRATION OF SCREWS BEYOND JOINED MATERIALS SHALL BE NOT LESS THAN 3 EXPOSED THREADS. THREAD TYPES AND DRILLING CAPABILITY OF SCREWS SHALL CONFORM TO THE MANUFACTURER'S WRITTEN RECOMMENDATIONS TO SUIT DESIGN REQUIREMENTS AND CONDITIONS. SCREWS TO BE COVERED BY SHEATHING MATERIALS SHALL HAVE "LOW PROFILE" TYPE HEADS.

3.8 FIELD CUTTING OF COLD-FORMED STEEL FRAMING MEMBERS SHALL BE BY "POWER SAW" OR "SHEAR" METHODS. CUTTING BY "TORCH" METHOD SHALL NOT BE PERMITTED.

3.9 HOLES THAT ARE FIELD CUT INTO COLD-FORMED STEEL FRAMING MEMBERS SHALL CONFIRM TO THE DIMENSIONAL REQUIREMENTS OF TABLE 1, IN THE CSSBI 51-06. MANUAL.

3.10 BRACE STRUCTURAL METAL STUDS AS REQUIRED TO MEET DESIGN REQUIREMENTS AND AS INDICATED ON REVIEWED SHOP DRAWINGS.

3.11 CONSTRUCT CORNERS USING MINIMUM OF THREE STUDS. DOUBLE STUDS AT DOOR, WINDOW JAMBS AND WALL OPENINGS.

3.12 ERECT STUDS ONE PIECE FULL LENGTH. SPLICING OF STUDS IS NOT PERMITTED.

3.13 ERECT LOAD BEARING STUDS, BRACE AND REINFORCE TO DEVELOP FULL STRENGTH TO MEET DESIGN REQUIREMENTS.

3.14 TOUCH-UP DAMAGED GALVANIZED SURFACES WITH TWO COATS OF ZINC-RICH PAINT.

4 INSPECTION AND TESTING

4.1 INSPECTION AND TESTING COMPANY SHALL PERFORM:
- 4.1.1 INSPECTION OF ERECTION AND FIT-UP INCLUDING PLACING, PLUMBING AND LEVELING;
- 4.1.2 GENERAL INSPECTION OF FIELD CUTTING AND ALTERATIONS;
- 4.1.3 GENERAL INSPECTION OF COATING TOUCH-UP..

GENERAL NOTES

1 GENERAL

1.1 ALL CONSTRUCTION TO ADHERE TO THESE PLANS AND SPECIFICATIONS AND TO CONFORM TO THE ONTARIO BUILDING CODE AND ALL OTHER APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. THESE REQUIREMENTS ARE TO BE TAKEN AS MINIMUM SPECIFICATIONS. ONT. REG. 332/12.
1.2 CONTRACTOR MUST VERIFY ALL DIMENSIONS ON THE JOB AND REPORT ANY DISCREPANCY TO CRITERIUM-JANSEN ENGINEERS BEFORE PROCEEDING WITH THE WORK.
1.3 ANY MISSING INFORMATION MUST BE SUPPLIED BY THE DESIGNER ONLY.
1.4 READ DRAWINGS IN CONJUNCTION WITH SPECIFICATIONS.
1.5 DO NOT EXCEED DESIGN LOADS SHOWN ON PLANS DURING CONSTRUCTION.
1.6 DO NOT SCALE DRAWINGS.
1.7 DIMENSIONS ARE IN INCHES UNLESS NOTED OTHERWISE.
1.8 ALL DRAWINGS ARE TO BE USED FOR CONSTRUCTION ONLY AFTER BUILDING PERMIT HAS BEEN ISSUED.
1.9 THE GENERAL NOTES AND STRUCTURAL STANDARD DETAILS APPLY TO THE ENTIRE PROJECT EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY.
1.10 THE CONTRACTOR IS RESPONSIBLE TO CARRY OUT THE TEMPORARY SHORING WORK IN SUCH A MANNER THAT EXCESSIVE VIBRATION IS MINIMIZED. ALL COST OF DAMAGES IMPAIRED BY THE TEMPORARY SHORING WORK AS IDENTIFIED FROM POST CONSTRUCTION SURVEYS OF NEIGHBORING PROPERTIES AND EXISTING ADJACENT STRUCTURES SHALL BE BORNE BY THE CONTRACTOR.

2 DESIGN

2.1 DESIGN IS IN ACCORDANCE WITH THE ONTARIO BUILDING CODE, 2012 EDITION.
2.2 DESIGN STANDARDS
2.2.1 CONCRETE MEMBERS ARE DESIGNED IN ACCORDANCE WITH CSA STANDARD A23.3-14.
2.2.2 STRUCTURAL STEEL IS DESIGNED IN ACCORDANCE WITH CSA STANDARD S16-14.
2.2.3 MASONRY IS DESIGNED IN ACCORDANCE WITH CSA STANDARD S304-14.
2.2.4 TIMBER IS DESIGNED IN ACCORDANCE WITH CSA STANDARD CAN/CSA 086-14.

3 MATERIALS

3.1 CONCRETE: SEE SCHEDULE OF CONCRETE PROPERTIES AND SPECIFICATION.
3.2 STRUCTURAL STEEL: UNLESS NOTED OTHERWISE TO CSA G40.20/G40.21-13 OR ASTM STANDARD A992/A992M-15
W AND WWF SHAPES: GRADE 350W
PLATES: GRADE 350W
CHANNELS AND ANGLES: GRADE 300W
HOLLOW STRUCTURAL SECTIONS: 350W CLASS C OR ASTM STANDARD A1085-15
ANCHOR RODS: 300W
3.3 REINFORCING STEEL: UNLESS NOTED OTHERWISE TO CSA G30.18-09(R2014) GRADE 400W
3.3.1 REINFORCING BAR AREAS ARE 100, 200, 300, 500, 700, 1000, 1500 AND 2500 SQ. MM FOR BAR DESIGNATIONS 10M, 15M, 20M, 25M, 35M, 45M AND 55M RESPECTIVELY.
3.3.2 STRENGTH: DEFORMED REINFORCING BARS: 400MPa, WELDED WIRE FABRIC: 440 MPa

NON-STRUCTURAL ELEMENTS

1 "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT PART OF THE STRUCTURAL DESIGN SHOWN ON THESE DRAWINGS. SUCH ELEMENTS ARE DESIGNED, DETAILED AND REVIEW IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THESE STRUCTURAL DRAWINGS. WHERE STRUCRTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, THIS SHALL BE PROVIDED BY SPECIALTY STRUCTURAL ENGINEERS, WHO SHALL ALSO PROVIDE ANY DOCUMENTATION REQUIRED BY BUILDING PERMIT AUTHORITIES.

2 EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO:
- ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, MISCELLANEOUS STEEL STAIRS, FLAG POLES, CANOPIES, CEILINGS, MILLWORK, ETC.
- LANDSCAPE ELEMENTS SUCH AS BENCHES, LIGHT POSTS, PLANTERS, ETC.
- CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.
- ARCHITECTURAL PRECAST, PRECAST CLADDING.
- SKYLIGHTS
- MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS, AND THEIR ATTACHMENT DETAILS. CONNECTION DESIGNED SEISMIC RESTRAINT ACCORDING TO OBC 2012 CLAUSE 4.1.8.18. or NBC 2010 CLAUSE 4.1.8.18.
- WINDOW WASHING EQUIPMENT, FALL ARREST ANCHORS AND THEIR ATTACHMENTS.
- ESCALATORS, ELEVATORS, AND CONVEYING SYSTEMS.
- GLASS BLOCK AND ITS ATTACHMENTS.
- NON-LOAD BEARING MASONRY.
- NON-STRUCTURAL CONCRETE TOPPINGS.

3 SUBMIT SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM TO CONSULTANT. THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE LOAD EFFECT OF THE ELEMENT ON THE PRIMARY STRUCTURAL SYSTEM.

PLUMBING NOTES:

1. INSULATION:
- 1.1. PROVIDE INSULATION OF PIPING AS DESCRIBED OR NOTED. INSULATION, JACKET ADHESIVES, AND MATERIALS SHALL BE NON-COMBUSTIBLE, IN COMPLIANCE WITH THE ONTARIO BUILDING CODE: INSTALLED TO MANUFACTURER'S STANDARDS, AND TO APPROVAL. WHEAT PASTES SHALL NOT BE USED. PROVIDE SUITABLE APPROVED OPENINGS IN INSULATION FOR INSPECTION OUTLETS, EQUIPMENT NAMEPLATES AND OTHER FITTINGS.
- 1.2. INSULATE HOT AND COLD WATER PIPING, WITH 13mm THICK GLASS FIBRE PIPE COVERING (MAXIMUM 0.23 CONDUCTIVITY @ 24°F MEAN) WITH FACTORY APPLIED FIRE RESISTIVE VAPOUR BARRIER OF NOT MORE THAN 0.02 PERM RATING WITH SEALED LAPPED JOINTS.

2. LINES, GRADES AND SLOPES:
- 2.1. INSTALL ALL PIPING IN CONFORMITY WITH ELEVATIONS AND GRADED INDICTED, PIPING DRAINS AND SEWERS SHALL SLOPE EVENLY AND CONSISTENT AND AS INDICATED BELOW:
  - 2.1.1. DRAINAGE PIPING = 2% ON 75mm SIZE AND LESS & 1% ON 100mm SIZE AND LARGER.
  - 2.1.2. WATER LINES, PITCH TO LOW POINT FOR COMPLETE DRAINAGE.
- 2.2. VERIFY ALL FIELD SERVICE CONDITIONS TO ENSURE THAT DRAINAGE RUNS CAN MEET THE SIZES AND INVERTS OF THE SITE SERVICES. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCY DISCOVERED. IF PIPE INVERT DISCREPANCIES ARE NOT CLARIFIED AT AN EARLY STAGE, NO EXTRA SHALL BE PAID AT A LATER DATE FOR RE ROUTING OF DRAINS.
- 2.3. PROVIDE REQUIRED ADAPTORS TO MAKE CONNECTIONS BETWEEN NEW/EXISTING PIPING, AND SITE SERVICE TERMINATIONS.

3. CLEANOUTS:
- 3.1. MAKE EACH CLEANOUT FULL SIZE OF DRAIN UP TO AND INCLUDING 100mm AND 100mm SIZE FOR DRAINS over 100mm. EXTEND BURIED CLEANOUTS UP TO FLOOR WITH 'Y' BEND AND RECESSED BRASS PLUG.
- 3.2. MAKE EACH CLEANOUT ACCESSIBLE AND WHEREVER NECESSARY, EXTEND BRANCH CONNECTIONS TO FINISHED SURFACES OF WALLS AND FLOORS AND FIT WITH CLEANOUT COVER AND ACCESS DOOR.
- 3.3. FIT EACH FLOOR CLEANOUT IN CONCRETE FLOOR WITH ZURN ZN1500 ADJUSTABLE FLOOR CLEANOUT WITH ROUND SCORIATED NICKLE BRONZE COVER; INTERRAZZO AREAS WITH ZN1510 CLEANOUT COVER; CERAMIC OR QUARRY TILE AREAS, CLEANOUTS SHALL BE AS FOR TERRAZZO EXCEPT WITH SQUARE TOP. ALL CLEANOUTS MUST HAVE INSIDE GASKETTED C.I. PLUG. (ACCEPTABLE ALTERNATE MANUFACTURERS: ZURN, ANCON, JOSAM, ENPOCO)

4. PIPING:
- 4.1. ALL PIPING SHALL CONFORM TO PART 7 OF THE LATEST EDITION OF THE O.B.C.
- 4.2. ALL PIPE SIZES SHOWN ON DWGS IS DIAMETER OF PIPE IN MILLIMETERS.
- 4.3. THE FOLLOWING PIPING SPECS ARE GENERAL AND COVERS VARIOUS TYPES OF SERVICES AND SHALL BE APPLICABLE TO THE SERVICES INDICATED ON THE DWGS, MATERIALS SHALL BE NEW AND FREE FROM DEFECTS.
- 4.4. DOMESTIC HOT AND COLD WATER:
  - 4.4.1. ABOVE GROUND:
    SIZES UP TO AND INCLUDING 50mm - TYPE 'L' (CSA #HC 7.6) HARD COPPER TUBING WITH SOLDERED PRESSURE FITTINGS.
  - 4.4.2. UNDERGROUND:
    SIZE 75mm AND LESS SHALL BE TYPE 'K' COPPER TUBING, SOFT TIMBER, WITH WROUGHT COPPER SOLDER FITTINGS.
- 4.5. SANITARY DRAINS (ABOVE GROUND AND BELOW GROUND):
  - 4.5.1. SIZE UP TO AND INCLUDING 50mm - TYPE DWV COPPER TUBING WITH CAST BRASS ALLOY DRAINAGE FITTINGS.
  - 4.5.2. SIZE 75mm AND OVER - CLASS 4000 CAST IRON MJ PIPES AND FITTINGS, (OR HUB & SPIGOT) OR (DWV COPPER TUBING WITH CAST BRASS ALLOY FITTINGS).
  - 4.5.3. WHERE ACCEPTED BY LOCAL AUTHORITIES, PROVIDE AN ALTERNATE PRICE FOR POLYVINYL CHLORIDE (P.V.C.) PIPE PER CSA B181.2 (SDR 35 AND 28) COMPLETE WITH RING TIGHT JOINTS AND GASKETTED FITTINGS PER CSA B182.1. P.V.C. PIPING IS NOT TO BE USED IN RETURN AIR PLENUM CEILING SPACES.

LICENSED PROFESSIONAL ENGINEER
M. ARESTA
100519774
21-09-09
PROVINCE OF ONTARIO

REVISIONS

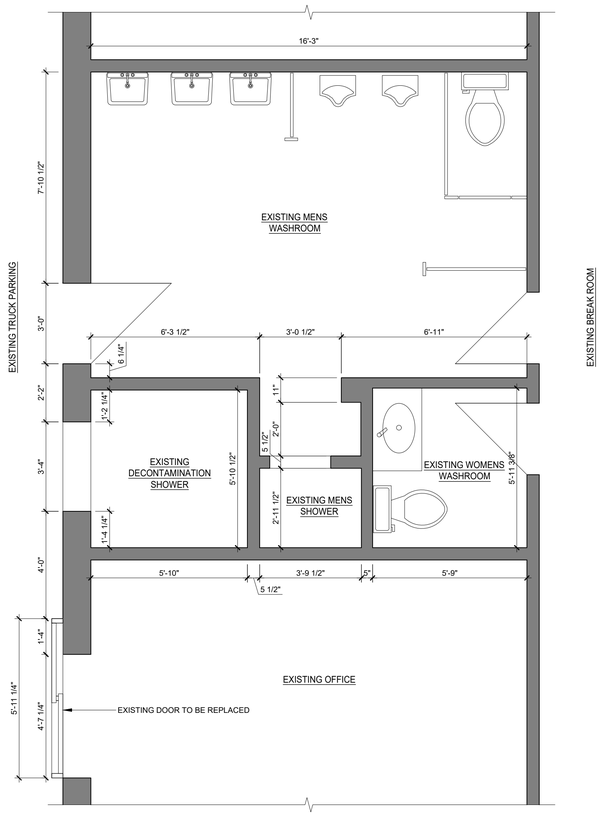
LTR:	DATE:	DESCRIPTION:
A	21-09-09	ISSUED FOR TENDER

TRUE NORTH:

CRITERIUM®
JANSEN ENGINEERS
25 FIRST STREET
ORANGEVILLE, ON, L9W 2C8
1-(888) 940-0571

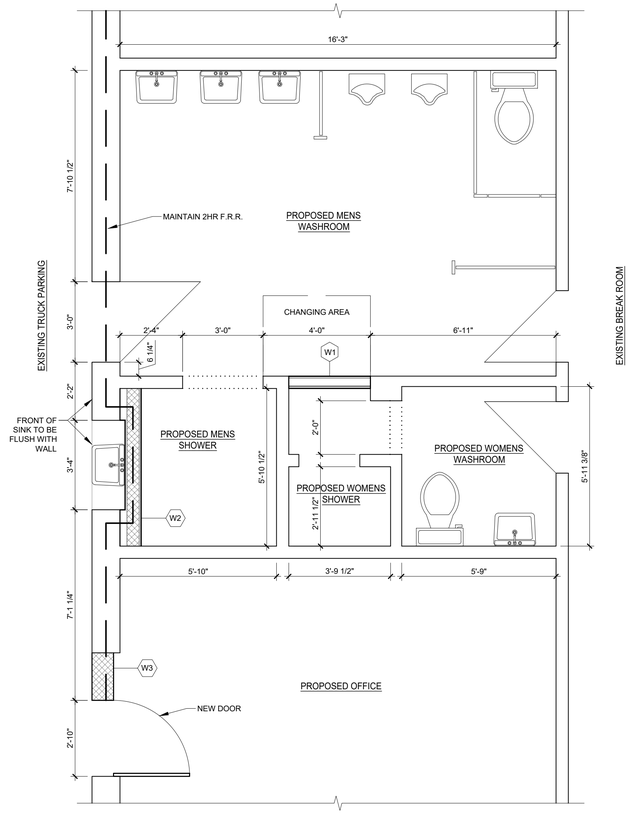
WASHROOM RENOVATION
GENERAL NOTES, SCHEDULE, MATRIX, KEY PLAN
CLIENT: RALPH SNYDER
114 O'FLYNN ST., SHELBURNE, ON L0N 1S1

DATE: 2020-11-16	DESIGN BY: HJJ		
DRAWN BY: PB	REVIEWED BY: HJJ		
PROJECT No.: 07-3754	DRAWING No.: A001	REV.: 0	
SCALE: N/A			



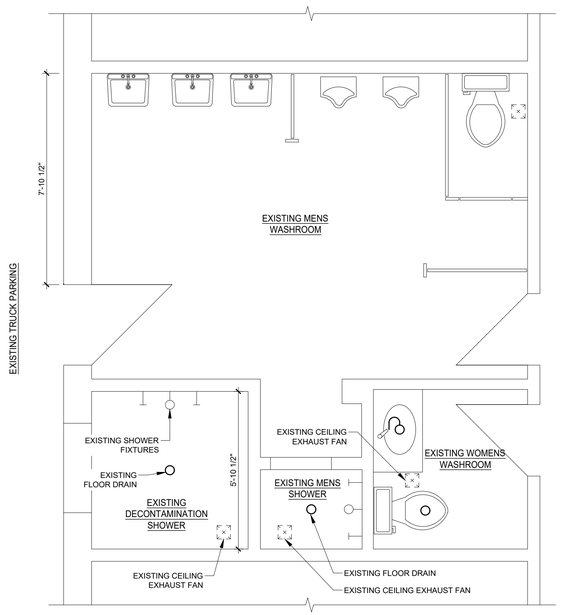
1 EXISTING WASHROOM PLAN

SCALE: 3/8"=1'-0"



2 PROPOSED WASHROOM PLAN

SCALE: 3/8"=1'-0"

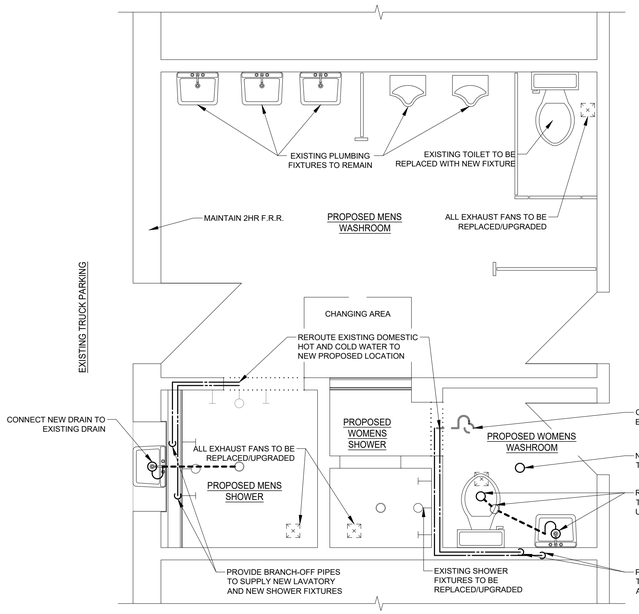


3 EXISTING WASHROOM PLUMBING PLAN

SCALE: 3/8"=1'-0"

PLUMBING LEGEND:

- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- UNDERSLAB SANITARY
- P-TRAP
- EXHAUST FAN



4 PROPOSED WASHROOM PLUMBING PLAN

SCALE: 3/8"=1'-0"

PLUMBING LEGEND:

- EXISTING DOMESTIC COLD WATER
- PROPOSED DOMESTIC COLD WATER
- EXISTING DOMESTIC HOT WATER
- PROPOSED DOMESTIC HOT WATER
- EXISTING UNDERSLAB SANITARY
- PROPOSED UNDERSLAB SANITARY
- EXISTING P-TRAP
- PROPOSED P-TRAP
- EXHAUST FAN - ALL FANS TO BE REPLACED/UPGRADED

ADDITIONAL NOTES:

- ALL PROPOSED PIPE SIZES TO MATCH EXISTING PIPE SIZES

LICENSED PROFESSIONAL ENGINEER
M. ARESTA
100519774
21-09-09
PROVINCE OF ONTARIO

REVISIONS		
LTR:	DATE:	DESCRIPTION:
A	21-09-09	ISSUED FOR TENDER

TRUE NORTH:

CRITERIUM
JANSEN ENGINEERS
25 FIRST STREET
ORANGEVILLE, ON. L9W 2C8
1-(888) 940-0571

WASHROOM RENOVATION
EXISTING AND PROPOSED PLANS
CLIENT: RALPH SNYDER
114 O'FLYNN ST., SHELBURNE, ON L0N 1S1

DATE:	2020-11-16	DESIGN BY:	HJJ
DRAWN BY:	PB	REVIEWED BY:	HJJ
PROJECT No.:	07-3754	DRAWING No.:	A100
SCALE:	3/8" = 1' - 0"	REV.:	0