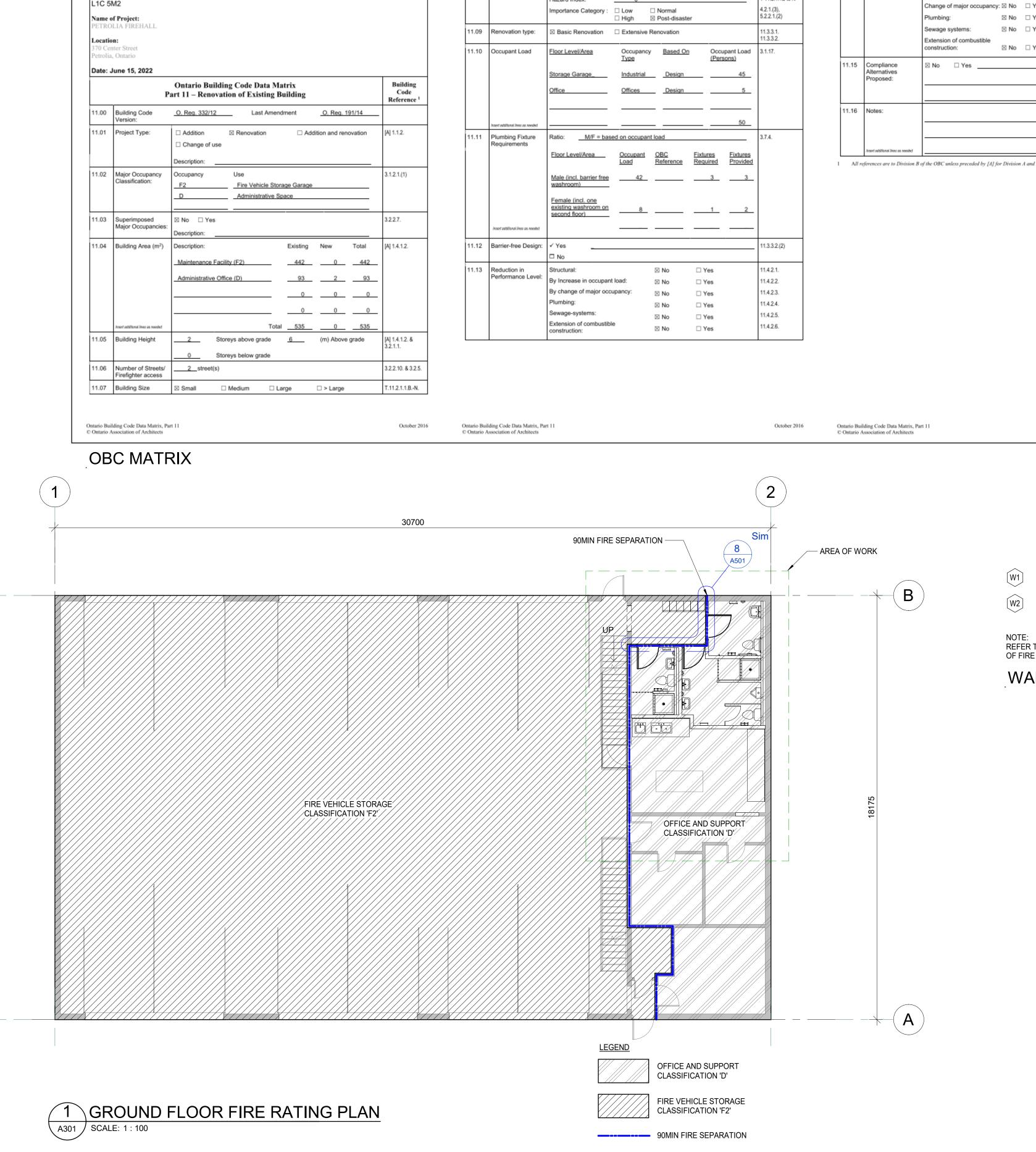
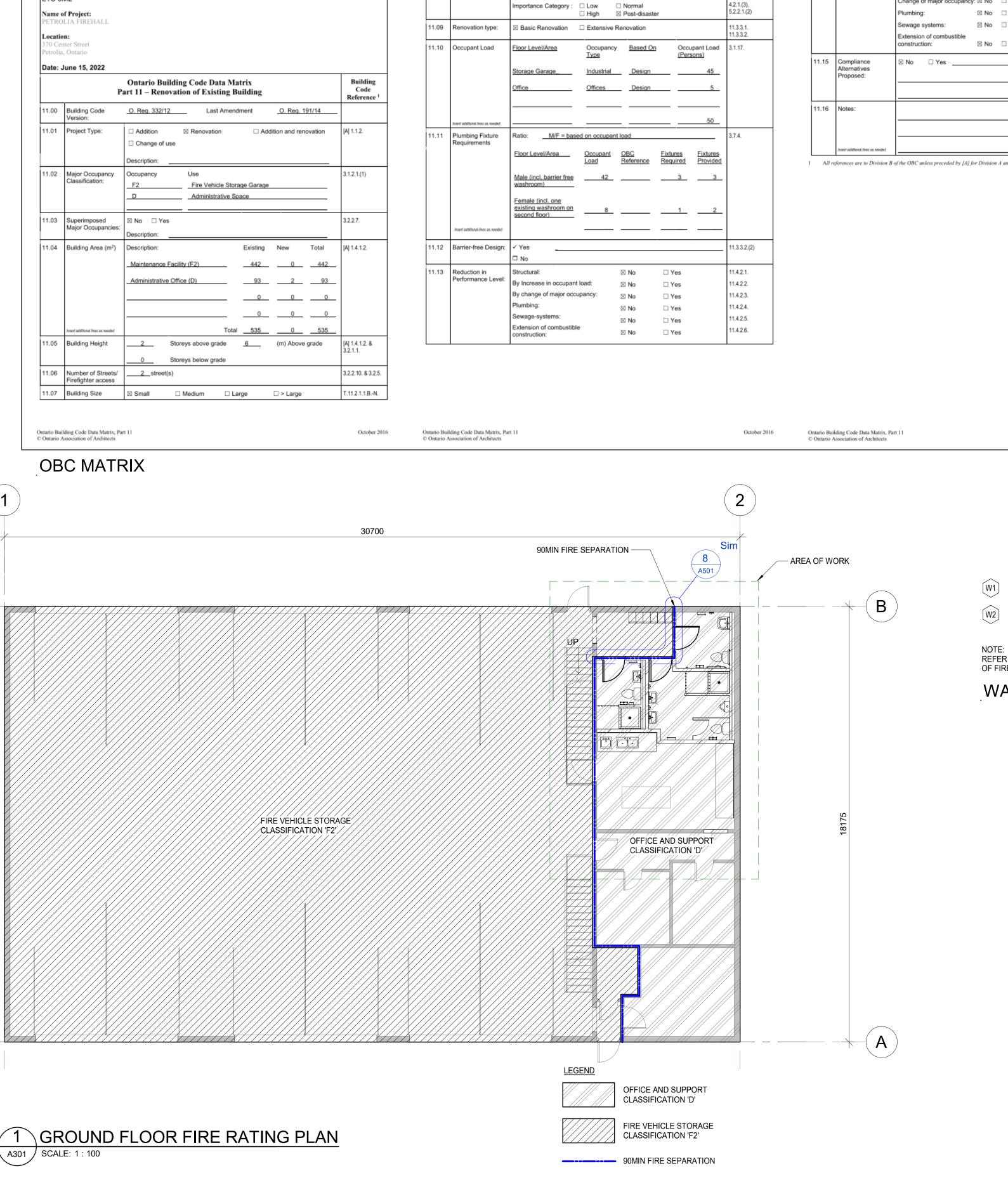
Name of Practice: C2 Architecture Inc. 2<sup>nd</sup> Floor - 415 Baseline Road West Bowmanville, Ontario L1C 5M2 Name of Project: PETROLIA FIREHALL Location: 370 Center Street etrolia, Ontario Date: June 15, 2022 Ontario Building Code Data Matrix Part 11 – Renovation of Existing Building 11.00 Building Code Version: 11.01 Project Type: Addition
 Renovation Change of use escription 11.02 Major Occupancy Occupancy Classification: E2 Use Administrative Space 11.03 Superimposed Major Occupancies: 🛛 No 🗆 Yes Description: 11.04 Building Area (m<sup>2</sup>) Description: 11.05 Building Height 0 Storeys below grade 11.07 Building Size





11.08 Existing Building Change in Major Occupancy: 

Yes 
Not Applicable

Construction Index:

Hazard Index:

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0

Classification:

11.2.1.1.

T 11.2.1.1A

T 11.2.1.1B to N

(no change of major occupancy)

11.14 Compensating

Construction:

🖾 No 🗆 Yes

Structural:

			KEY PLAN:	A
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⊠ No □ Yes Structural:	11.4.3.1, 11.4.3.2,	+ +		
Increase in occupant load: No Ves (Describe)	11.4.3.3,		James St.	
Change of major occupancy: ⊠ No □ Yes <u>(Describe)</u> Plumbing: ⊠ No □ Yes <u>(Describe)</u>	11.4.3.4, 11.4.3.5,	+		
Sewage systems: IN IN I Yes (Describe)	11.4.3.6,			Petrollia & North Enniskillen Fire Station No. 1
Extension of combustible construction:	11.4.3.7.		tre St.	
⊠ No □ Yes	11.5.1.		Centre	
			Andrew St.	
	11.5.1.			
the OBC unless preceded by [A] for Division A and [C] for Division C.			DISCLAIMER:	
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ALL DIMENSIONS ARE FOR REFERENCE ONLY, SITE VERIFY PRIOR TO CONSTRUCTIONS.

MAKE GOOD ANY DAMAGE DONE DURING CONSTRUCTION

ALL WORK TO BE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE, LATEST EDITION.

THE CONTRACTOR SHALL VISIT THE SITE AND SHALL SATISFY THEMSELVES WITH THE ACTUAL REQUIREMENTS AND CONDITIONS FOR THE WORK.

THE CONTRACTOR SHALL DO ALL CUTTING AND PATCHING AND MAKING GOOD OF THE WORK AS REQUIRED TO ACCOMMODATE THE WORK OF ALL TRADES.

PROVIDE TEMPORARY HOARDING & DUST SCREENS AS REQUIRED TO COMPLETE WORK. MAINTAIN FIRE EXITS WHERE REQUIRED.

OWNER TO HAVE ALL MISCELLANEOUS ITEMS, TOOLS, EQUIPMENT ETC., REMOVED FROM ROOMS AFFECTED BY WORK UNDER THIS CONTRACT.

DISCONNECT OF RELOCATE ALL MECH. PIPING AS PER DWGS. FILL ALL VOIDS IN FLOOR WITH CONCRETE. MAKE GOOD FLOOR SLAB FOR NEW FLOORING.

OBTAIN TWO EXTRA SETS OF WHITE PRINTS ON WHICH CONTRACTOR SHALL NOTE AND CLEARLY MARK ANY AND ALL DEVIATIONS FROM THE DRAWINGS AS THE INSTALLATION PROGRESSES. THESE SETS OF PRINTS SHALL BE KEPT UP TO DATE ON THE CONSTRUCTION SITE AND GIVEN TO THE OWNER, FOR RECORD PURPOSES

AT THE COMPLETION OF THE PROJECT A DIGITAL COPY SHALL ALSO BE SUPPLIED TO THE CLIENT. AT PROJECT COMPLETION, PROVIDE A TYPEWRITTEN MANUAL CONTAINING OPERATING AND MAINTENANCE INFORMATION FOR ALL EQUIPMENT; INCLUDING ALL SHOP DRAWINGS, MAINTENANCE SCHEDULES AND REPORTS. ALL MANUALS TO BE HARD COPY AND DIGITAL. THREE (3) COPIES REQUIRED IN HARD COVER THREE RING BINDER FORMAT WITH TABLE OF CONTENTS AND TABS. A COPY OF ALL DOCUMENTS SUCH AS SHOP DRAWINGS, LITERATURE, CHANGE ORDERS, SITE INSTRUCTION. CHANGE NOTICE, ETC. SHALL ALSO BE PROVIDED TO THE CLIENT IN "PDF" FORMAT. EACH ITEMIZED SUBJECT SHALL BE A SEPARATE DIGITAL FILE. ALL FILES TO BE SUPPLIED ON ONE CD. THE DIGITAL DWGS TO BE "PDF" FORMAT.

MAINTAIN NECESSARY INSURANCE TO PROTECT THE OWNER AND ALL TRADES FROM ALL POSSIBLE CLAIMS.

THE CONTRACTOR SHALL INCLUDE IN THE BID ALL COSTS ASSOCIATED WITH REMOVALS AND RELOCATIONS OF WORK AS DESCRIBED IN THE CONTRACT DOCUMENTS WITH ALLOWANCES FOR UNEXPECTED OR UNFORESEEN DIFFICULTIES WHEN CONCEALED WORK HAS BEEN OPENED. NO CLAIMS FOR ADDITIONAL FUNDS ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, EXCEPT IN CERTAIN CASES CONSIDERED JUSTIFIABLE BY THE CONSULTANT.

PROVIDE WARRANTIES AND GUARANTEE THE WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AND ACCEPTANCE BY THE OWNER. IF ANY DEFECTS BECOME EVIDENT WITHIN THE GUARANTEE PERIOD, ALL NECESSARY REPAIRS AND REPLACEMENTS TO THE WORK SHALL BE MADE WITHOUT COST TO THE OWNER. ALSO, PAY FOR MAKING GOOD ANY OTHER WORK DAMAGED THROUGH DEFECTS IN THE WORK OF THIS CONTRACT DURING BOTH CONSTRUCTION AND GUARANTEE PERIODS.

#### 0 – SHOP DRAWINGS

## SUBMISSION REQUIREMENTS

UNTIL SUBMISSION IS REVIEWED, WORK INVOLVING RELEVANT PRODUCT MAY NOT PROCEED. SCHEDULE SUBMISSIONS AT LEAST 15 WORKING DAYS BEFORE REVIEWED SUBMISSIONS WILL BE NEEDED. PROVIDE A SCHEDULE OF SHOP DRAWINGS TO CONSULTANT FOR REVIEW LISTING ALL DRAWINGS TO BE SUBMITTED AND DATES FOR SUBMISSIONS.

CONTRACTOR TO REVIEW ALL SUBMISSIONS PRIOR TO SUBMISSION TO THE CONSULTANT. THIS REVIEW REPRESENTS THAT NECESSARY REQUIREMENTS HAVE BEEN DETERMINED AND VERIFIED AND THAT EACH SUBMITTAL HAS BEEN CHECKED AND COORDINATED WITH THE REQUIREMENTS OF THE WORK AND THE CONTRACT DOCUMENTS. SUBMITTALS NOT STAMPED, SIGNED, DATED AND IDENTIFIED AS HAVING BEEN REVIEWED AND IDENTIFIED AS TO THE SPECIFIC PROJECT WILL BE RETURNED WITHOUT BEING EXAMINED AND SHALL BE CONSIDERED REJECTED.

SUBMIT A DIGITAL COPY OF THE SHOP DRAWINGS TO CONSULTANT FOR REVIEW. CONSULTANT WILL RETURN A DIGITAL COPY.

CONCURRENTLY WITH SUBMISSION TO THE CONSULTANT, SUBMIT A DIGITAL COPY TO THE OWNER.

PRE-PRINTED MATERIAL WILL ONLY BE ACCEPTED IF IT CONFORMS TO THE FOLLOWING

- DELETE INFORMATION WHICH IS NOT APPLICABLE TO PROJECT
- SUPPLEMENT STANDARD INFORMATION TO PROVIDE ADDITIONAL INFORMATION APPLICABLE TO PROJECT.
- SHOW DIMENSIONS AND CLEARANCES REQUIRED. SHOW PERFORMANCE, CHARACTERISTICS AND CAPACITIES
- SHOW WIRING DIAGRAMS AND CONTROLS

#### 1 - DEMOLITION

INSPECT AND VERIFY ITEMS DESIGNATED FOR REMOVAL, DISPOSAL AND/OR SALVAGE ANY ITEMS TO REMAIN

DISPOSE OF MATERIALS, IN AN ENVIRONMENTALLY RESPONSIBLE MANNER, NOT DESIGNATED FOR SALVAGE OR REUSE IN THE WORK, OFF SITE.

DO NOT DISTURB ADJACENT ITEMS DESIGNATED TO REMAIN.

RESTORE AREAS AND EXISTING WORKS OUTSIDE OF THE DEMOLITION TO MATCH CONDITION OF ADJACENT, UNDISTURBED AREAS.

ON A DAILY BASIS MAINTAIN CONSTRUCTION SITE, FREE FROM DEBRIS AND WASTE MATERIAL.

PROVIDE ON SITE CONTAINERS FOR COLLECTING WASTE MATERIALS AND RUBBISH.

UPON DEMOLITION THAT INVOLVES THE DISCONNECTION OF ANY ELECT./MECH. SERVICES, TO BE COORDINATED WITH TRADES AND TO REDIRECTED SO THAT NORMAL OPERATIONS ARE MAINTAINED. DEMOLISH PARTS OF EXISTING BUILDING TO ACCOMMODATE NEW CONSTRUCTION OF ALTERATIONS AS INDICATED ON THE DRAWINGS.

JOIN AND MAKE GOOD NEW WORK TO EXISTING IN SUCH A MANNER THAT THE JOINT IS STRUCTURALLY SOUND AND INCONSPICUOUS.

NEW OPENINGS REQUIRED IN EXISTING WALLS OR REMOVAL OF WALL SECTIONS SHALL BE CAREFULLY CUT AND FORMED TO BLEND INTO EXISTING WORK. PROVIDE ANY NECESSARY SHORING, BRACING, ETC. MAKE GOOD ALL FINISHED.

ANY DAMAGE TO EXISTING BUILDING SHALL BE REPAIRED TO THE SATISFACTION OF AND AT NO COST TO THE OWNER.

DEMOLISH IN A MANNER TO MINIMIZE DUSTING. PROVIDE TEMPORARY SCREENS AS NECESSARY.

REMOVE AND DISPOSE OF ALL DEMOLITION ITEMS AND MATERIALS, UNLESS OTHERWISE NOTED, AT AN APPROVED DISPOSAL SITE AND IN ACCORDANCE WITH AUTHORITIES HAVING JURISDICTION.

LOCALLY DEMOLISH EXISTING SLAB ON GRADE. AS REQUIRED. FOR THE INSTALLATION OF NEW PLUMPLING WORKS. DO NOT OVER CUT, RE-INSTATE THE SLAB AND MAKE GOOD.

### 3 - MATERIALS

UNLESS NOTED OTHERWISE ON THE DRAWINGS THE FOLLOWING MATERIALS SHALL BE USED FOR CONSTRUCTION:

CONCRETE: SLAB ON GRADE = 35 MPa - 28 DAY MIN. COMP. STRENGTH, EXPOSURE CATEGORY N TO CSA FABRICATE AND INSTALL LABELLED STEEL FIRE RATED DOORS AND FRAMES TO NFPA 2000 AND ULC A23.1 CAN4-A105.

REINFORCING STEEL: CARBON STEEL BARS TO CSA G30.18, GRADE 400R, GRADE 400W WHERE WELDING IS REQUIRED.

#### CAST IN PLACE CONCRETE:

CONCRETE MATERIAL AND METHODS OF CONCRETE CONSTRUCTION SHALL CONFORM TO CSA-A23.1 FORMWORK AND TOLERANCES IN ACCORDANCE WITH THE LATEST VERSION OF THE APPLICABLE CODES

AND STANDARDS AS REQUIRED BY THE PROJECT SPECIFICATIONS.

SUBMIT REINFORCING SHOP DRAWINGS BEFORE FABRICATION FOR REVIEW BY THE ENGINEER.

REINFORCING IS TO BE GENERALLY IN ACCORDANCE WITH RISC MANUAL OF STANDARD PRACTICE (LATEST EDITION). SPLICES SHALL CONFORM TO "TABLE OF CLASS 'B' TENSION LAPS AND STANDARD 90° HOOKS"

THE CLEAR DISTANCE BETWEEN REINFORCING STEEL AND SURFACE OF CONCRETE SHALL BE 40mm

ALL REINFORCING STEEL PLACEMENT TO BE INSPECTED BY THE ENGINEER BEFORE PLACING THE CONCRETE.

NO WELDING OF REINFORCING BARS SHALL BE PERMITTED, UNLESS APPROVAL IS OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.

ALL REINFORCING BARS SHALL BE SUPPORTED IN THE FORMS AND SPACE WITH STANDARD A9

CURE CONCRETE IN ACCORDANCE WITH CSA-A23.1 FOR A MINIMUM OF 3 DAYS AFTER PLACEMENT OF CONCRETE. CONCRETE CURING SHALL BE DONE BY MOIST CURING, MOISTURE RETAINING COVER. CURING COMPOUND, OR BY COMBINATION OF THESE METHODS.

#### <u>4 – MASONRY</u>

NEW MASONRY WORK SHALL BE IN ACCORDANCE WITH CSA S304

CONCRETE BLOCK: METRIC MODULAR, CONFORMING TO CSA A165-SERIES-M1977, CONCRETE MASONRY UNITS.

B) SPECIAL UNITS – BULLNOSE AND CORNER BLOCKS, BASE BLOCKS, FILLERS, BOND BEAM AND LINTEL BLOCKS AND THE LIKE MAY BE REQUIRED.

## MASONRY WELL REINFORCEMENT:

A) MASONRY REINFORCEMENT WIRE 4.7MM DIAMETER, LADDER TYPE, BRIGHT FINISH FOR SOLID MASONRY AND CAVITY WALL LOCATIONS, SIZED 40MM TO 50MM NARROWER THAN WALL OR PARTITION AS MANUFACTURED BY

#### THE FOLLOWING

BLOCK-LOK OR BLOCK TRUSS BY BLOCK-LOK LIMITED DUR-O-WALL TRUSS BY DUR-O-WALL LIMITED

PROVIDE HORIZONTAL MASONRY REINFORCING EVERY SECOND BLOCK COURSE.

PREFABRICATED CORNER AND TEE SECTIONS SHALL BE USED TO FORM CONTINUOUS REINFORCEMENT AROUND CORNERS AND FOR ABUTTING WALLS AND PARTITIONS.

PROVIDE AND INSTALL LINTELS OVER ALL OPENINGS OR RECESSES IN MASONRY WALLS INCLUDING THOSE FOR MECHANICAL OR ELECTRICAL SERVICES OR EQUIPMENT, IN ACCORDANCE WITH THE REQUIREMENTS OF THE LINTEL SCHEDULE.

PROVIDE A MINIMUM LENGTH OF 200mm OF 100% SOLID MASONRY UNITS FOR BEARING OF STEEL, CONCRETE OR REINFORCED MASONRY LINTELS. FILL LINTELS WITH 20MPa CONCRETE GROUT CONTAINING 10mm AGGREGATE.

PROVIDE CONTINUOUS LADDER TYPE JOINT REINFORCING AT 400mm c/c AND USE "CORNER-LOK" AT ALL WALL INTERSECTIONS. REINFORCING TO BE GALVANIZED TO ASTM A153 CLASS B2 (458g/m<sup>2</sup>). • FOR CAVITY WALL AND SINGLE WYTHE 3.65mm Ø WIRES (9 GAUGE) FOR COMPOSITE WYTHE 4.76mm Ø WIRES

PROVIDE FERO BLOCK SHEAR TIE AS SUPPLIED BY STUART & ASSOCIATES, IN COMBINATION WITH 2-WIRE LADDER HORIZONTAL REINFORCING 3.66MM DIAMETER WIRE SIDE AND CROSS RODS. THE FERO BLOCK SHEAR LENGTH SHALL SUIT CONCRETE BLOCK (INNER WYTHE) WIDTH AND THICKNESS OF INSULATION. THE FERO V-TIE SHALL BE OF LENGTH TO PROVIDE PLACEMENT OF V-TIE LEGS AT CENTRELINE OF VENEER (OUTER WYTHE). PROVIDE BLOCK SHEAR TIES AT 800MM HORIZONTAL X 600MM VERTICAL SPACING AND 300MM MAXIMUM SPACING AROUND WALL OPENINGS. TOP. BASE AND CORNERS OR AS NOTED ON DRAWINGS

#### <u>4 – MORTAR</u>

GRADE.

MATERIALS SHALL CONFORM TO CSA A179-1975.

ALL MASONRY MORTAR SHALL BE TYPE "S" MORTAR FOR ABOVE GRADE AND TYPE "M" FOR BELOW

## 8 - DOOR HARDWARE

IT IS THE RESPONSIBILITY OF THE HARDWARE SUPPLIER TO CHECK MANUFACTURER'S SHOP DRAWINGS, ARCHITECTURAL DRAWINGS AND TEMPLATES TO VERIFY DOOR SWINGS, SIZES, MATERIALS, FINISHES AND OPERATING CONDITIONS BEFORE FURNISHING ANY HARDWARE. REPORT ANY PROBLEMS TO THE CONTRACTOR AND CONSULTANT IN WRITING.

FURNISH AND DELIVER TO THE PLACE OF WORK ALL FINISHING DOOR HARDWARE. PROVIDE REQUIRED TEMPLATES TO THE HOLLOW METAL DOOR FRAME SUPPLIER. ALL HARDWARE SHALL BE INSTALLED AND ADJUSTMENTS TO BE COMPLETE AS PER MANUFACTURER'S PRINTED INSTRUCTIONS AND TEMPLATES, BY SKILLED CARPENTERS IN THE APPLICATION OF ARCHITECTURAL HARDWARE.

PRODUCT MANUFACTURERS: HINGERS: HAGER OR STANLEY LOCKSETS/LATCHSET: BEST CLOSERS: LCN FLOOR/WALL STOPS: GLYNN-JOHNSON SWEEPS: K.N. CROWDER MFG. CO. WEATHER STRIPPING: K.N. CROWDER MFG. CO. DOOR OPERATOR: LCN

FINISH: 630 SATIN STAINLESS STEEL

#### 7 – FIRESTOPPING AND SMOKE SEALS

CAN/ULC S115 - STANDARD METHOD OF FIRE TESTS OF FIRESTOP SYSTEMS

CONTINUOUS FIRESTOPPING AND SMOKE SEALS TO BE PROVIDED AT THE TOP OF FIRE RESISTANCE RATED MASONRY WALLS AND AROUND MECHANICAL AND ELECTRICAL ASSEMBLIES PENETRATING FIRE SEPARATIONS.

CAULK AND SEAL WITH APPROVED SYSTEMS FROM: AD FIRE PROTECTION SYSTEMS. 3M CANADA INC. TREMCO CANADA. HILTI CANADA.

A) H/15/A/M CONCRETE, MASONRY UNITS, AUTOCLAVED, ALL LOCATIONS UNLESS NOTED OTHERWISE.

## 8 – STEEL DOORS AND FRAMES

CONFORM TO CANADIAN STEEL DOOR AND FRAME MANUFACTURERS' ASSOCIATION CANADIAN MANUFACTURING SPECIFICATIONS FOR STEEL DOORS AND FRAMES, 1982.

SUBMIT SHOP DRAWINGS TO INDICATE EACH TYPE OF DOOR AND FRAME, MATERIAL, STEEL CORE THICKNESSES, MORTISES, REINFORCEMENTS, LOCATIONS OF EXPOSED FASTENERS, OPENINGS, FIRE RATING AND HARDWARE PREPARATIONS. INCLUDING SCHEDULE IDENTIFYING EACH UNIT RELATING TO DOOR AND FRAME SCHEDULE ON DRAWINGS.

DOORS, FRAMES AND ACCESSORIES SHALL BE SUPPLIED BY S.W. FLEMING OR APPROVED ALTERNATE. ALL STEEL TO BE COMMERCIAL GRADE TO ASTM 568-81, CLASS 1, HOT DIP GALVANIZED TO ASTM A527-80. CORE

MATERIALS TO BE AS FOLLOWS: \*FIRE RATED DOORS: IN ACCORDANCE WITH FIRE TEST REQUIREMENTS \*INTERIOR DOORS: HOLLOW STEEL CONSTRUCTION VERTICALLY STIFFENED REINFORCING STEEL: GRADE 300W HOT DIP GALVANIZED TO CAN/CSA-G164-M92.

FINISHING MATERIALS: TOUCH-UP PAINT TO BE ZINC RICH PAINT TO CAN/CGSB-1.181-92; METAL FILLER TO BE TWO COMPONENT EPOXY TYPE.

PREPARE DOORS IN ACCORDANCE WITH TEMPLATES RECEIVED FROM HARDWARE SUPPLIER.

DOOR SKINS TO BE 1.6MM THICK. JOIN DOOR FACES AT VERTICAL DOOR EDGES BY CONTINUOUS WELD EXTENDING FULL HEIGHT OF DOOR. GRIND, FILL AND DRESS SMOOTH. HARDWARE REINFORCEMENTS SHALL BE MINIMUM 3.4MM THICK IN ADDITION TO DOOR SKIN THICKNESS. SURROUND OPENINGS IN FLUSH DOORS WITH MINIMUM 1.2MM THICK STEEL EDGE CHANNELS WELDED TO BOTH DACE SHEETS. PROVIDE REMOVABLE GLAZING STOP OF ZINC COATED STEEL CHANNELS MITRED AT CORNERS FASTENED WITH COUNTERSUNK TAMPERPROOF SCREWS. ATTACH ULC LABELS TO DOORS.

FRAMES TO BE A.6MM THICK SHEET STEEL TO PROFILES SHOWN. MITRE OUTSIDE CORNER JOINTS AND WELD ON INSIDE OF PROFILE. GRIND WELDS FLUSH AND SAND SMOOTH. PROVIDE ADJUSTABLE BASE CLIPS FOR ANCHORING TO FLOOR. PROVIDE THREE DOOR BUMPERS ON STRIKE JAMB AND TWO ON HEAD.

INSULATE FROM DISSIMILAR METALS OR CEMENTITIOUS MATERIALS TO PREVENT ELECTROLYSIS. SET FRAMES PLUMB, SQUARE, LEVEL AND CORRECT ELEVATION. PROVIDE THREE ANCHORS AT EACH JAMB. BRACE FRAMES WHILE BEING BUILT IN. BETWEEN DOOR AND FRAME DOORS PROVIDE 1.0MM TO HINGE SIDE, 1.5MM TO LATCH SIDE AND 1.5 TO HEAD. PROVIDE 13MM TO FINISHED FLOOR. TOUCH UP WITH PRIMER ANY GALVANIZED FINISH DAMAGED DURING INSTALLATION.

#### <u>9 – GYPSUM BOARD</u>

PLAIN TO CSA A82.27-M FOR NON-RELATED APPLICATIONS. 1219MM WIDE X MAXIMUM PRACTICAL LENGTH, ENDS SQUARE CUT, EDGES TAPERED WITH ROUND EDGE TO THICKNESS INDICATED ON THE DRAWINGS

DRYWALL SCREWS: NUMBER 6 GAUGE, SELF-DRILLING CASE HARDENED GYPSUM BOARD SCREWS, LENGTH TO SUIT MINIMUM 10MM PENETRATION INTO SUPPORT. CASING BEADS "L" PR "J" TYPE. CORNER BEADS (FILL TYPE), 0.5MM BASE THICKNESS, COMMERCIAL GRADE SHEET STEEL WITH G90 ZINC FINISH TO ASTM A525-80A, PERFORATED FLANGES, ONE PIECE LENGTH PER LOCATION.

MAXIMUM SPACING FOR SCREWS 300MM O/C. ALL GYPSUM BOARD TO BE FINISHED AND READY FOR PAINT FINISH.

#### <u>9 – TILING</u>

INSTALL TILING TO MANUFACTURER'S INSTRUCTIONS.

PORCELAIN FLOOR TILE: DIMENSIONS: 300 mm x 300 mm x 12 mm, INCLUDING COVE BASE: 100 MM HIGH, BEVELLED TOP EDGE, COLOUR TO MATCH TILE. SPECTRA SERIES BY OLYMPIA TILE, NORDIC MEDIUM GREY. PROVIDE INSIDE CORNERS TO MATCH FLOOR TILE.

MORTAR: THINSET MORTAR

GROUT: EPOXY RECOMMENDED BY FLOORING MANUFACTURER FOR SPECIFIC MATERIAL ON APPLICABLE SUBSTRATE.

GROUT JOINT WIDTH: 6 mm

GROUT COLOUR: TONAL CONTRAST MINIMUM 70%.

ACCESSORIES: AVAILABLE ACCESSORY TRIM PIECES AS REQUIRED TO COMPLETE INSTALLATION.

**INSPECTION:** ENSURE CONCRETE FLOORS ARE DRY, BY USING TEST METHODS RECOMMENDED BY TILE MANUFACTURER, AND EXHIBIT NEGATIVE ALKALINITY, CARBONIZATION OR DUSTING.

SUB-FLOOR TREATMENT: REMOVE SUB-FLOOR RIDGES AND BUMPS. FILL LOW SPOTS, CRACKS, JOINTS, HOLES AND OTHER DEFECTS WITH SUB-FLOOR FILLER. SAND FLOOR AS REQUIRED TO PROVIDE SMOOTH SURFACE. CLEAN FLOOR AND APPLY FILLER; TROWEL AND FLOAT TO LEAVE SMOOTH, FLAT HARD SURFACE. PROHIBIT UNTIL FILLER CURED. DRY VACUUM WHOLE AREA IMMEDIATELY PRIOR TO APPLICATION OF MORTAR.

CERAMIC WALL TILE: DIMENSIONS: 150 mm x 150 mm x 6 mm. COLOUR AND DIMENSION COLLECTION BY OLYMPIA TILE, ARCTIC WHITE BRIGHT

#### MORTAR: THINSET MORTAR

GROUT: EPOXY RECOMMENDED BY FLOORING MANUFACTURER FOR SPECIFIC MATERIAL ON APPLICABLE SUBSTRATE.

#### GROUT JOINT WIDTH: 3 mm

GROUT COLOUR: TONAL CONTRAST MINIMUM 70%.

ACCESSORIES: AVAILABLE ACCESSORY TRIM PIECES AS REQUIRED TO COMPLETE INSTALLATION.

### <u>9 – SEALANTS</u>

CAULKING SHALL BE CARRIED OUT IN ACCORDANCE WITH MANUFACTURERS PRINTED DIRECTIONS. PRIMER SHALL BE AS PER MANUFACTURER'S RECOMMENDATION AND APPLIED TO ENSURE SEALANT PERFORMANCE.

JOINT FILLER SHALL BE COMPATIBLE WITH CAULKING AND PRIMER AND OVERSIZED 30% AND SHALL BE EXTRUDED CLOSED CELL FOAM BY W.R. MEADOWS.

CAULKING SHALL BE "SILICONE" BY TREMCO FOR ALL SITUATIONS.

GENERALLY CAULK: PERIMETER OF DOORS AND OTHER ITEMS PENETRATING OR BUILT INTO WALLS AND FLOORS, JOINTS BETWEEN DISSIMILAR MATERIALS MECHANICAL AND ELECTRICAL PENETRATIONS OF WALLS

REMOVE ALL DUST, DIRT ETC AND APPLY CAULKING TO DRY SURFACES.

## <u>9 – PAINT</u>

## CLEAN SUBSTRATE SURFACES FREE FRO ARE DETRIMENTAL TO FINISH.

PATCH, REPAIR, AND SMOOTH MINOR SUBSTRATE DEFECTS AND DEFICIENCIES, SUCH AS TOOL AND SAND PAPER MARKS, SHALLOW GOUGES, MARKS AND NIBS.

REFER TO MPI, ARCHITECTURAL PAINTERS SPECIFICATION MANUAL, FOR SURFACE PREPARATION REQUIREMENTS OF SUBSTRATES.

WHERE FINISH HARDWARE, ELECTRICAL COVER PLATES, LIGHT FIXTURES, GRILLES, GRATINGS, LOUVRES, ACCESS PANELS AND OTHER ESCUTCHEONS AND APPURTENANCES HAVE BEEN INSTALLED, REMOVE, STORE, AND RE-INSTALL TO ACCOMMODATE PAINTING. DO NOT CLEAN HARDWARE WITH SOLVENT THAT WILL DAMAGE OR REMOVE PERMANENT LACQUER FINISHES

MATTER.

TOUCH-UP DAMAGED GALVANIZED AREAS WITH ORGANIC ZINC-RICH PRIMER.

EQUALIZE ABSORPTION AREAS.

PREVIOUSLY PAINTED SURFACES: PREPARE EXISTING SURFACES TO BE REPAINTED IN ACCORDANCE WITH PAINT MANUFACTURER'S RECOMMENDATIONS.

THE NEW FINISH.

PEELED, CHIPPED, SCRATCHED OR OTHERWISE DAMAGED SURFACES TO BE FILLED, MADE GOOD AND SANDED, TO PROVIDE PERFECTLY SMOOTH AND EVEN SURFACE, WITH SURFACE TEXTURE MATCHING SURROUNDING AREAS.

CHECK FOR COMPATIBILITY BY APPLYING A TEST PATCH OF THE RECOMMENDED PAINT SYSTEM, COVERING AT LEAST 1 M<sup>2</sup>. ALLOW TO DRY BEFORE TESTING ADHESION. IF THE NEW PAINT SYSTEM IS INCOMPATIBLE, COMPLETE REMOVAL OF THE EXISTING PAINT SYSTEM IS REQUIRED.

MATERIALS: PRIMERS AND PAINT: USE ONLY PRODUCTS LISTED IN THE MPI APPROVED PRODUCTS LIST, INTERIOR SYSTEMS AS MANUFACTURER'S PREMIUM GRADE AND QUALITY PRODUCTS

## MANUFACTURERS:

BENJAMIN MOORE & CO. LIMITED. DEVOE COATINGS DULUX PAINTS GLIDDEN BRAND PPG ARCHITECTURAL COATINGS CANADA INC. THE SHERWIN-WILLIAMS COMPANY.

#### APPLICATION:

APPLY PAINTING SYSTEMS IN ACCORDANCE WITH THE MPI, ARCHITECTURAL PAINTERS SPECIFICATION MANUAL. APPLY EACH PRODUCT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED DRY FILM THICKNESS (DFT).

PAINTING SYSTEMS LISTED ARE THE MINIMUM ACCEPTABLE LEVEL OF QUALITY. APPLY ADDITIONAL COATS IF NECESSARY TO OBTAIN SUBSTRATE HIDING ACCEPTABLE TO CLIENT.

SAND LIGHTLY BETWEEN COATS TO ACHIEVE A SUITABLE BONDING SURFACE FOR SUBSEQUENT COATS. APPLY PAINT UNIFORMLY IN THICKNESS, COLOUR, TEXTURE AND GLOSS. APPLY FINISHES FREE OF DEFECTS IN MATERIALS AND APPLICATION .DEFECTS INCLUDE, BUT ARE NOT LIMITED TO: IMPROPER CLEANING AND PREPARATION OF SURFACES.

ENTRAPPED DUST, DIRT, RUST. ALLIGATORING, BLISTERS, PEELING. SCRATCHES, BLEMISHES.

DO NOT APPLY COATINGS ON SUBSTRATES, WHICH ARE NOT SUFFICIENTLY DRY. UNLESS INDICATED OTHERWISE, ALLOW EACH PAINTING SYSTEM COAT TO CURE UNTIL DRY AND HARD BEFORE THE FOLLOWING COATS ARE APPLIED.

REPAINT ENTIRE AREAS OF DAMAGED OR INCOMPLETELY COVERED SURFACES. TO THE NEAREST INSIDE OR OUTSIDE CORNER. PATCHING WILL NOT BE PERMITTED.

## <u> 10 - LOCKERS</u>

MANUFACTURERS HADRIAN MANUFACTURING INC. LINCORA GROUP INC.

LOCKERS: 4 TIER LOCKER, A BANK OF LOCKERS, FREESTANDING. SIZE: 300 MM WIDE X 450 MM DEEP X 1830 HIGH.

ASSEMBLY: WELDED CONSTRUCTION. TOP: FLAT.

DOORS: ONE-PIECE DOUBLE-WALL ENVELOPE CONSTRUCTION, COLD ROLLED STRETCHER LEVELLED SHEET STEEL 20 MSG THICK OUTER PANEL AND 24 MSG THICK INNER PANEL SPOT WELDED TOGETHER ON 4 SIDES. DOORS SET FLUSH TO FRAMES WITH CONTINUOUS HINGE.

DOOR FRAMES: COLD ROLLED MINIMUM 16 MSG THICK SHEET STEEL FORMED TO A CHANNEL SHAPE AND HORIZONTAL MEMBERS WELDED TO VERTICAL MEMBER.

PROVIDE POSITIVE DRAIN IN BOTTOM.

SHELF: 24 MSG THICK COLD ROLLED STEEL WITH CHANNEL FORMED FRONT, ONE PER LOCKER. TRIM: 22 MSG THICK SHEET STEEL EXCEPT ROLL FORMED TRIM FOR WHICH 20 MSG THICK SHEET STEEL IS ACCEPTABLE.

LOCKING DEVICE: PADLOCK HASP

LOCKERS.

	005405					
OM DUST,	GREASE,	SOILING	OREXIN	RANEOUS	MATTER	WHICH

MASONRY: REMOVE DIRT, LOOSE MORTAR, SCALE, POWDER, EFFLORESCENCE AND OTHER FOREIGN

GALVANIZED IRON AND STEEL: PREPARE GALVANIZED METAL SURFACES IN ACCORDANCE WITH SSPC-

GYPSUM BOARD: APPLY PRIMER/SEALER PAINT TO REVEAL DEFECTS AND DEFICIENCIES AND TO

COORDINATE REPAIRS AND TOUCH-UPS WITH THE RESPONSIBLE TRADE. REPRIME REPAIRS.

CLEAN AS REQUIRED TO REMOVE OIL, GREASE, LOOSE PAINT, MILL SCALE, DIRT, FOREIGN MATTER, RUST, MOULD, MILDEW, MORTAR EFFLORESCENCE AND SEALERS WHICH MAY IMPAIR PROPER BOND OF

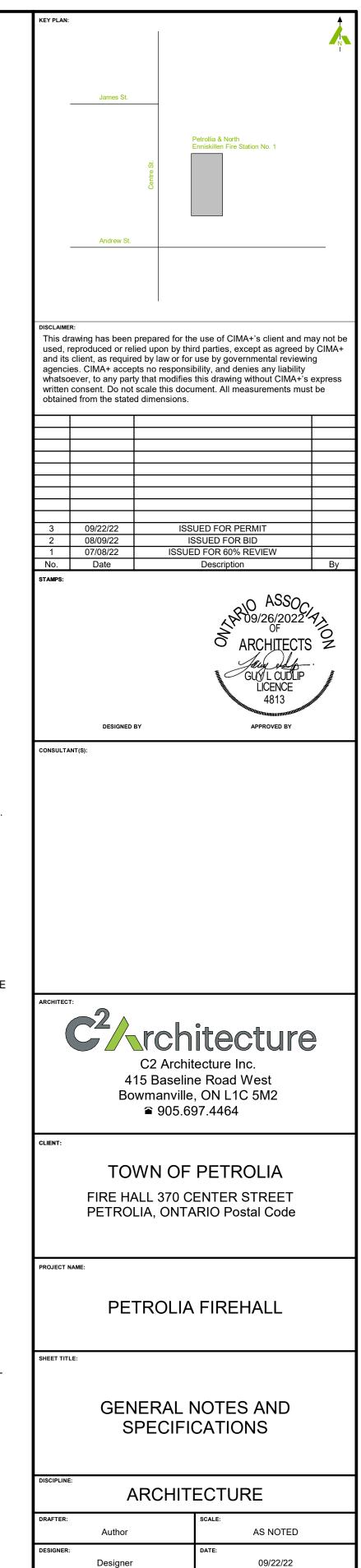
UNEVEN COVERAGE, MISSES, DRIPS, RUNS AND POOR CUTTING IN.

DOOR HANDLE: RECESSED HANDLE ALUMINUM, APPROVED COLOUR ANODIZED.

BODY: COMPRISED OF SIDES, BACK, TOP AND BOTTOM 24 MSG THICK COLD ROLLED STEEL WITH FORMED EDGES, OR 26 MSG IF SIDES ARE PROVIDED WITH STIFFENING RIBS AND BACK IS FLANGED.

VENTILATION: PROVIDE PROVEN, UNOBSTRUCTED FREE-FLOW VENTILATION AT TOP AND BOTTOM OF

ASSEMBLE AND INSTALL LOCKERS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.



Checker

A002

Approve

C14-0502

IEET No:

REMOVE SHALL MEAN DISCONNECT, DETACH AND DISPOSE OF IN A LAWFUL MANNER.

REMOVALS OF PIPING, DUCTWORK AND EQUIPMENT SHALL INCLUDE ALL ASSOCIATED COMPONENTS, INCLUDING BUT NOT LIMITED TO VALVES, FITTINGS, INSULATION, HANGERS AND SUPPORTS. EXERCISE DUE CARE DURING REMOVALS TO AVOID DAMAGE TO EXISTING SERVICES AND BUILDING ELEMENTS TO REMAIN.

WHERE EQUIPMENT AND CONTROL OR POWER WIRING IS TO BE REMOVED, COORDINATE WITH ELECTRICAL TRADES FOR DISCONNECTION AT EQUIPMENT AND SOURCE AND ENSURE MADE SAFE. COORDINATE REMOVALS WITH ONGOING USE OF THE BUILDING OUTSIDE OF THE WORK AREA COORDINATE SHUTDOWN OF SERVICES ACTIVELY SERVING OTHER PARTS OF THE BUILDING WITH THE OWNER.

UPON REMOVAL OF PLUMBING FIXTURES AND EXPOSURE OF PIPING IN WALLS AND CEILINGS. RECORD WITH DIMENSIONS AS-BUILT LOCATION OF EXISTING WATER, DRAINAGE AND VENT PIPING, INCLUDING BUT NOT LIMITED TO PIPING THROUGH GROUND FLOOR, VENT PIPING UP TO MEZZANINE, WATER PIPING SUPPLIES UP TO MEZZANINE, SUSPENDED DRAINAGE PIPING SERVING MEZZANINE AND DROPPING DOWN TO BELOW GROUND FLOOR SLAB. ROD OR CAMERA DRAINAGE PIPES THROUGH FLOOR WHERE PLUMBING FIXTURES REMOVED, OR WHERE CLEANOUTS EXIST, IN ORDER TO DETERMINE THE DIRECTION OF HORIZONTAL DRAINAGE PIPING BELOW SLAB. SUBMIT AS-BUILT MARKUP SKETCH FOR REVIEW.

#### **MECHANICAL FLOOR PLAN GENERAL NOTES:**

DO NOT CUT, DRILL OR MODIFY ANY STRUCTURE, STRUCTURAL WALLS, OR STRUCTURAL SLABS UNLESS EXPLICITLY INDICATED ON STRUCTURAL DRAWINGS AND REVIEWED SHOP DRAWINGS.

PROVIDE DOMESTIC HOT AND COLD WATER, VENT PIPING AND SANITARY DRAINAGE PIPING TO SERVE ALL NEW PLUMBING FIXTURES AND MAINTAIN SERVICE OF EXISTING PLUMBING FIXTURES TO REMAIN, IN ACCORDANCE WITH THE ONTARIO BUILDING CODE PART 7 AND THE EXISTING CONDITIONS. DO NOT RUN VENT PIPING BELOW SLAB EXCEPT FOR WET VENTS WHERE INDICATED.

ALL SANITARY BRANCH PIPING BELOW GRADE SHALL BE MINIMUM 75 mm. ALL SANITARY MAIN PIPING ABOVE AND BELOW GRADE SHALL BE MINIMUM 100 mm.

MARK PROPOSED LAYOUT OF WATER, DRAINAGE AND VENT PIPING ON AS-BUILT MARKUP SKETCH OF EXISTING WATER, DRAINAGE AND VENT PIPING, AND SUBMIT FOR REVIEW PRIOR TO INSTALLATION.

PROVIDE TRAP PRIMER FOR FLOOR SINK TRAP. NON-ELECTRIC TRAP PRIMER CONNECTED TO URINAL BRANCH IS ACCEPTABLE, ZURN OR PPP; TERMINATE TRAP PRIMER LINE OVER FLOOR SINK IN LIEU OF CONNECTION BELOW SLAB.

PROVIDE IDENTIFICATION OF PIPING AND DUCTWORK WHERE EXPOSED TO ROOM OR IN CEILING SPACE. IDENTIFICATION TYPE TO MATCH EXISTING ON SITE.

PROVIDE ACCESSIBLE ISOLATION VALVES OR CHECK STOPS FOR EACH PLUMBING FIXTURE.

#### MECHANICAL SPECIFICATIONS:

MECHANICAL SPECIFICATIONS HEREIN SHALL BE READ IN CONJUNCTION WITH GENERAL, ARCHITECTURAL AND ELECTRICAL SPECIFICATIONS. IN THE EVENT OF DISCREPANCY, ALLOW FOR THE MOST CONSERVATIVE AND SUBMIT QUERIES TO THE CONSULTANT.

PERFORM ALL MECHANICAL WORK DETAILED ON THESE DRAWINGS TO PROVIDE COMPLETE AND FULLY FUNCTIONAL AND OPERATING PLUMBING, HEATING, AIR CONDITIONING AND VENTILATION SYSTEMS FOR THE ALL PORTIONS OF THE BUILLDING TO THE SATISFACTION OF THE MECHANICAL CONSULTANT SPECIFIED WORK DESCRIBED OR INDICATED ON DRAWINGS DOES NOT DELEGATE FUNCTION TO ANY SPECIFIED SUBCONTRACTOR OR IDENTIFY ABSOLUTE CONTRACTUAL LIMITS BETWEEN MECHANICAL OR SUBCONTRACTORS.

CODES AND BYLAWS SHALL BE STRICTLY ADHERED TO. OBTAIN NECESSARY PERMITS, APPROVALS AND INSPECTIONS FROM THE AUTHORITIES HAVING JURISDICTION. PERMITS AND FEES REQUIRED BY THE AUTHORITIES HAVING JURISDICTION SHALL BE OBTAINED AND PAID FOR BY THIS CONTRACTOR. INCLUDE ALL APPLICABLE TAXES.

EXISTING SITE CONDITIONS AFFECTING THE WORK OF THIS TRADE SHALL BE REVIEWED PRIOR TO TENDER SUBMISSION. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF FULL CONTRACT RESPONSIBILITY.

FIRE STOP SHALL BE ULC LISTED FOR THE REQUIRED SEPARATION AND PROVIDED AT ALL PIPE PENETRATIONS THROUGH RATED ASSEMBLIES. REFER TO ARCHITECTURAL DETAILS AND SPECIFICATIONS.

PREMIUM TIME COSTS SHALL BE INCLUDED FOR WORK OUTSIDE OF NORMAL WORKING HOURS. FLASHING AND COUNTER FLASHING FOR EXTERIOR PENETRATIONS SHALL BE PROVIDED UNDER THIS CONTRACT.

SUBMITTALS SHALL BE COMPLETE WITH CONTRACTOR'S REVIEWED STAMP. SUBMIT ELECTRONIC COPIES. ALLOW ONE (1) WEEK FOR CONSULTANT REVIEW. SUBMITTALS SHALL INCLUDE, BUT NOT BE LIMITED TO: PLUMBING FIXTURES; PLUMBING FITTINGS AND TRIM, INCLUDING VALVES; ELECTRIC HEATERS, INCLUDING THERMOSTATS; HEAT RECOVERY VENTILATOR; GRILLES, REGISTERS AND DIFFUSERS.

EQUIPMENT SUBSTITUTIONS AFTER AWARD OF CONTRACT WILL NOT BE CONSIDERED WITHOUT WRITTEN EXPLANATION AND CONSULTANT'S WRITTEN AUTHORIZATION. THE QUALITY AND PERFORMANCE CHARACTERISTICS OF SUBSTITUTED PRODUCT SHALL BE EQUIVALENT TO THE SPECIFIED PRODUCT. ALL SUBSTITUTE PRODUCTS SHALL BE APPROVED BY CONSULTANTS. ANY ADDITIONAL COSTS INCURRED BY ALL TRADES FOR SUBSTITUTED EQUIPMENT INSTALLATION MUST BE INCURRED BY THIS CONTRACT.

ELECTRICAL DEVICES SHALL BE PROVIDED FOR ALL LOAD SIDES INCLUDING WIRING, STARTERS, DISCONNECT, ETC. VERIFY AND COORDINATE VOLTAGE AND PHASE WITH THE ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

ACCESS DOORS SHALL BE PROVIDED FOR ALL INACCESSIBLE MECHANICAL EQUIPMENT, VALVES AND SERVICES REQUIRING INSPECTION OR SERVICE. FINISH SHALL SUIT ARCHITECT/DESIGNERS REQUIREMENTS. ACCESS DOORS SHALL BE RECESSED AS REQUIRED TO SUIT WALL FINISH (EG. TILE.) ONE YEAR WRITTEN WARRANTY SHALL BE PROVIDED FOR THE COMPLETE MECHANICAL INSTALLATION FROM DATE OF ACCEPTANCE.

OPERATING AND MAINTENANCE MANUALS CONTAINING CONSULTANT REVIEWED SUBMITTALS, TEST REPORTS, EQUIPMENT DATA SHEETS, WRITTEN WARRANTY, OPERATING INSTRUCTIONS AND MAINTENANCE PROCEDURES SHALL BE SUBMITTED TO CONSULTANT FOR REVIEW. MANUALS SHALL BE SEPARATED WITH DIVIDERS IN APPROPRIATE SECTIONS. MAKE ALL CORRECTIONS REQUESTED BY CONSULTANT AND RESUBMIT FOR REVIEW.

CHANGE NOTICE QUOTATIONS SHALL BE SUBMITTED COMPLETE WITH COST BREAKDOWN OF LABOUR AND MATERIALS. FAILURE TO PROVIDE WILL RESULT IN REJECTION. ALL MECHANICAL CHANGE NOTICES SHALL BE PRICED IN ACCORDANCE WITH "MECHANICAL CONTRACTORS ASSOCIATION" (MCA). LABOUR UNITS STRICTLY FOR LABOUR AND FOR MATERIAL COST USE "ALL PRICER" LESS DISCOUNT, TYPICALLY 20%-30%.

TEMPORARY FILTERS 25MM (1 IN.) SHALL BE PROVIDED AT RETURN AIR OPENINGS WHICH REMAIN OPERATIONAL DURING CONSTRUCTION. FILTERS TO BE REPLACED WEEKLY. REMOVE UPON CONSTRUCTION COMPLETION.

COMPLY WITH THE GENERAL CONTRACTOR'S CONSTRUCTION SCHEDULE.

#### **COORDINATION**

COORDINATE AND SCHEDULE THE WORK OF THIS DIVISION WITH OTHER WORK TO FACILITATE MUTUAL PROGRESS.

IDENTIFY AND RESOLVE INTERFERENCE PROBLEMS PRIOR TO PREFABRICATION AND INSTALLATION OF EQUIPMENT. SUBMIT INTERFERENCE DRAWINGS FOR REVIEW PRIOR TO INSTALLING ANYTHING ON SITE. DO NO PROCEED UNTIL DRAWINGS HAVE BEEN REVIEWED.

EXAMINE THE SITE AND ALL CONTRACT DOCUMENTS PRIOR TO BID SUBMISSION. NO ALLOWANCE WILL BE MADE FOR ANY DIFFICULTIES ENCOUNTERED DUE TO ANY FEATURES OF THE BUILDING, METHODS OF CONSTRUCTION, SITE OR SURROUNDING PUBLIC AND PRIVATE PROPERTY WHICH EXISTED UP TO THE BID CLOSE.

### DUCTWORK

REMOVALS IN THIS BUILDING AND CONTRACT.

FIRE DAMPERS SHALL BE OUT OF STREAM ULC LABELED. PROVIDE FIRE DAMPERS AS REQUIRED IN NEW AND EXISTING DUCTWORK C/W ACCESS DOORS.

BALANCING AND VOLUME CONTROL DAMPERS SHALL BE PROVIDED IN NEW DUCTWORK TO PROVIDE A COMPLETE AND BALANCED SYSTEM. ALLOW FOR BALANCING OF ALL NEW, EXISTING AND MODIFIED SYSTEMS IN THE BUILDING TO THE SATISFACTION OF THE CONSULTANT. ALLOW FOR BALANCING AFTER THE TENANT HAS MOVED IN, AS MAY BE REQUIRED FOR COMFORT BALANCING.

#### GAS PIPING SYSTEMS

PROVIDE ALL LABOUR, MATERIALS, PRODUCTS, EQUIPMENT AND SERVICES TO SUPPLY AND INSTALL THE NATURAL GAS PIPING SYSTEM INDICATED ON THE DRAWINGS.

INSTALL NATURAL GAS SYSTEM ONLY WITH FITTERS CERTIFIED TO ONTARIO GAS UTILIZATION REGULATIONS AND CGA REQUIREMENTS, INCLUDING BUT NOT LIMITED TO CAN/CSA B149.1. GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL TO ASTM A53/A53M WITH CLASS 150 SCREWED MALLEABLE IRON

'TYPE D2' OWENS CORNING FLEXIBLE DUCT INSULATION, JOHNS MANVILLE MICROLITE TYPE 75 DUCT FITTINGS. WRAP, MANSON MICROLITE INSULATION OR KRAFT DUCT WRAP, (3/4LB./CU.FT.) DENSITY WITH FACTORY APPLIED REINFORCED FOIL FACING. ADHERE INSULATION TO DUCT SURFACE WITH CHILDERS CP82 OR PROVIDE ALL EQUIPMENT AND MATERIALS REQUIRED FOR THE BUILDING NATURAL GAS DISTRIBUTION BAKELITE 230-39 ADHESIVE, WHICH SHALL BE APPLIED IN STRIPS 6" WIDE AT NOT GREATER THAN 12" SYSTEMS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT VERSION OF THE ONTARIO GAS UTILIZATION CENTERS. BUTT EDGES OF INSULATION TIGHTLY TOGETHER, AND SEAL BREAKS AND JOINTS OF FACING REGULATIONS. WITH SELF-ADHERING 4" WIDE ALUMINUM TAPE OR ADHERE FOIL WITH CHILDER CP82 OR BAKELITE 230-39 ADHESIVE.

PROVIDE PRESSURE REDUCING, REGULATING AND RELIEF VALVING REQUIRED FOR COMPATIBILITY BETWEEN EQUIPMENT AND BUILDING NATURAL GAS DISTRIBUTION SYSTEM.

PROVIDE GAS PRESSURE REDUCING STATION(S) WHERE NOTED ON DRAWINGS AND WHERE REQUIRED TO REDUCE BUILDING DISTRIBUTION SYSTEM PRESSURES TO APPLIANCE OPERATING PRESSURE RANGES.

PRESSURE REGULATORS SHALL BE SPRING-LOADED SELF-OPERATED DESIGN AND SHALL BE TIGHT CLOSING WITH REPLACEABLE ORIFICES AND DISCS AND CONCEALED ACCESSIBLE MANUAL ADJUSTMENT. VALVE BODIES SHALL BE CAST IRON RATED FOR {1034 KPA} [150 PSIG] GAS PRESSURE AND ALL VALVE MATERIALS SHALL BE EPOXY PAINTED TO RESIST CORROSIVE AMBIENT CONDITIONS.

PROVIDE GAS PRESSURE RELIEF STATIONS DOWNSTREAM OF ALL PRESSURE REDUCING STATIONS.

PROVIDE RELIEF VALVES OF SPRING-LOADED DESIGN WITH THROTTLING CHARACTERISTICS TO REDUCE SYSTEM PRESSURE SURGES. VALVE BODIES SHALL BE CAST IRON RATED FOR {1034 KPA} [150 PSIG] GAS PRESSURE WITH REPLACEABLE ORIFICES AND DISCS AND CONCEALED ACCESSIBLE MANUAL ADJUSTMENT. ALL VALVE MATERIALS SHALL BE EPOXY PAINTED TO RESIST CORROSIVE AMBIENT CONDITIONS.

INSTALL NATURAL GAS SERVICE TO MEET CGA, AND THE ONTARIO GAS UTILIZATION REGULATIONS AND ALL AUTHORITIES HAVING JURISDICTION. CONFIRM GAS DISTRIBUTION PRESSURE ON SITE.

SELECT PRESSURE REDUCING VALVES TO MAINTAIN DOWNSTREAM PRESSURES WITHIN +5% RANGE OF SETTING. SUBMIT SIZING DATA FOR EACH VALVE WITH SHOP DRAWINGS.

SELECT PRESSURE RELIEF VALVES FOR THE MAXIMUM CAPACITY OF THE PRESSURE REDUCING STATION SERVED PLUS NOT LESS THAN 25%. SUBMIT SIZING DATA FOR EACH VALVE WITH SHOP DRAWINGS. PIPE ALL RELIEF VENTS INDIVIDUALLY TO OUTDOORS. SIZE PIPING FOR A MAXIMUM PRESSURE DROP OF 10% OF THE PRESSURE REDUCING VALVE SETPOINT GAUGE PRESSURE WITH A 25% CAPACITY SAFETY FACTOR.

PROVIDE UPSTREAM AND DOWNSTREAM ISOLATING VALVES AND PRESSURE GAUGES COMPLETE WITH GAUGE COCKS AT ALL PRESSURE REDUCING STATIONS. CONNECT RELIEF VALVES SO THAT THEY CANNOT BE ISOLATED FROM THE APPLIANCES WHICH THEY SERVE. CONNECT GAS PIPING TO ALL GAS FIRED EQUIPMENT.

PAINT GAS SERVICE PIPING TO MEET CODE REQUIREMENTS

#### INSULATION

PROVIDE INSULATION AS SPECIFIED BELOW, ON ALL NEW PIPING AND DUCTWORK, AND ALSO ALL EXISTING PIPING AND DUCTWORK WITHIN THE WORK AREA WHERE UNINSULATED AND ACCESSIBLE. PIPING INSULATION

COMPLY WITH ASHRAE 90.1 2013 INSULATION REQUIREMENTS. PROVIDE ALL LABOUR, MATERIALS, PRODUCTS, EQUIPMENT AND SERVICES TO SUPPLY AND INSTALL THERMAL INSULATION, VAPOUR BARRIERS AND FINISHES FOR MECHANICAL WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED IN THIS SECTION OF THESE SPECIFICATIONS. MAINTAIN AMBIENT TEMPERATURES AND CONDITIONS REQUIRED BY MANUFACTURERS OF ADHESIVES, MASTICS AND INSULATING CEMENTS.

INSULATION MATERIALS MUST BE MANUFACTURED AT FACILITIES CERTIFIED AND REGISTERED WITH AN APPROVED REGISTRAR TO CONFORM TO ISO 9000 QUALITY STANDARD.

ALL INSULATION PERTAINING TO DIVISION 15 SHALL BE CARRIED OUT BY ONE FIRM SPECIALIZING IN INSULATION WORK. DO NOT MIX SIMILAR PRODUCTS OF MULTIPLE MANUFACTURERS. ACCEPTABLE INSULATION MANUFACTURERS ARE OWENS CORNING CANADA, JOHNS MANVILLE, MANSON INSULATION INC. KNAUF FIBER GLASS AND CERTAINTEED.

PROVIDE INSULATION AND COVERS IN STRICT ACCORDANCE WITH AUTHORITIES GOVERNING COMBUSTIBILITY AND FIREPROOFING OF MATERIALS AND IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

PROVIDE NON-COMBUSTIBLE INSULATION, JACKETS AND FINISHES HAVING A FLAME SPREAD/SMOKE DEVELOPED RATING OF 25/50 OR LESS, MEETING CAN/ULC S-102 REQUIREMENTS.

ATTAIN A COMPLETE AND CONTINUOUS VAPOUR BARRIER OVER INSULATION APPLIED TO COLD AND DUAL TEMPERATURE PIPING, SHEET METAL AND EQUIPMENT. USE EITHER FACTORY APPLIED VAPOUR BARRIER JACKET OF FIELD APPLIED REINFORCED FOIL FLAME RESISTANT KRAFT VAPOUR BARRIER JACKET. APPLY TO PIPING, FITTINGS. VALVES AND INLINE COMPONENTS, SHEET METAL AND FITTINGS AND EQUIPMENT. SEAL LONGITUDINAL AND CIRCUMFERENTIAL LAPS WITH CHILDERS CP82 OR BAKOR 230-39 ADHESIVE. IF VAPOUR BARRIER JACKET IS NOT LAPPED, SEAL JOINTS WITH SELF-ADHERING 4" WIDE PLAIN ALUMINUM FOIL TAPE OR ADHERE 4" WIDE ALUMINUM FOIL TAPE WITH CHILDERS CP82 OR BAKOR 230-39 ADHESIVE, JACKETING WITH SELF-ADHESIVE LAPS AND SELF-ADHESIVE BARRIER TAPE WILL BE AN ACCEPTABLE ALTERNATIVE CLOSURE SYSTEM.

PROVIDE PVC JACKET ON PIPE AND FITTINGS FOR DOMESTIC HOT AND COLD WATER WHERE EXPOSED TO THE ROOM.

PROVIDE INSULATION MATERIALS WITH A MINIMUM THERMAL CONDUCTIVITY OF 0.25 BTU.IN/(HR. SQ.FT°F) AT 125°F MEAN TEMPERATURE.

ON HOT PIPING APPLICATIONS, HOLD INSULATION IN PLACE WITH FLARE TYPE STAPLES (OUTWARD CLINCH).

ON COLD PIPING APPLICATIONS, APPLY VAPOUR BARRIER JACKET OVER INSULATION AND SEAL LONGITUDINAL AND CIRCUMFERENTIAL LAPS WITH CHILDERS CP82 OR BAKELITE 230-39 ADHESIVE. SEAL ALL PIPE TERMINATIONS, INCLUDING FITTINGS, WALL PENETRATIONS AND PIPE SUPPORTS WITH VAPOUR BARRIER MASTIC. FOR CHILLED WATER SYSTEMS PROVIDE VAPOUR SEAL PIPE TERMINATIONS EVERY FOUR PIPE SECTIONS.

INSULATE FITTINGS WITH FABRICATED MITERED OR PREFORMED SECTIONS OF SPECIFIED INSULATION. INSULATE OVER FLANGES AND MECHANICAL COUPLINGS WITH SPECIFIED INSULATION AND THICKNESS, SIZED TO SUIT FLANGE DIAMETERS. FILL SPACES BETWEEN INSULATION AND ADJOINING PIPE INSULATION WITH SIMILAR MATERIAL.

INSULATE VALVES AND INLINE COMPONENTS WITH FLEXIBLE INSULATION DENSITY (3/4 LBS./CU.FT.) COMPRESSED NOT MORE THAN 50% OF ORIGINAL THICKNESS. BUILD UP TO SPECIFIED THICKNESS WITH APPROVED ASBESTOS FREE FINISHING CEMENT.

PROVIDE THE FOLLOWING PIPE INSULATION TYPE AS INDICATED IN THE PIPE INSULATION TABLE BELOW. 'TYPE P1' OWENS CORNING 850 PIPE INSULATION, JOHNS MANVILLE MICRO-LOK AP-T PLUS FIBERGLAS PIPE INSULATION, MANSON FIBERGLAS PIPE INSULATION OR KNAUF PIPE INSULATION WITH FACTORY APPLIED ALL PURPOSE VAPOUR BARRIER JACKET WHERE SCHEDULED.

DUTY	INSULATION TYPE	THICKNESS	VAPOUR BARRIER
DOMESTIC ( < 1 1/2" DOMESTIC I	COLD WATER (ABO\ P-1	/E 40°F) 1/2"	YES
< 1 1/2"	P-1	1"	NO

NEW MATERIAL AND EQUIPMENT SHALL BE PROVIDED. DO NOT REUSE USED DUCTWORK EVEN IF FROM DUCTWORK AND HANGERS SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS.

### SHEET METAL INSULATION

PROVIDE INSULATION WITH A MINIMUM THERMAL RESISTANCE OF 0.25 BTU.IN/HR. SQ.FT °F AT 75°F MEAN TEMPERATURE.

APPLY VAPOUR BARRIER OVER INSULATION ON COLD TEMPERATURE DUCTWORK. PROVIDE THE FOLLOWING DUCTWORK INSULATION TYPE AS INDICATED IN THE DUCTWORK INSULATION TABLE BELOW.

'TYPE D1' OWENS CORNING RIGID VAPOUR SEAL DUCT INSULATION, JOHN MANSVILLE 814 SPIN-GLAS WITH FSK FACING, MANSON SPIN-GLAS RIGID INSULATING BOARD WITH REINFORCED FOIL FACING, OR KNAUF RIGID INSULATION BOARD WITH FSK FACING. DENSITY SHALL BE NOT LESS THAN 3LBS./CU.FT. IMPALE ON MECHANICALLY FASTENED PINS LOCATED AT NOT GREATER THAN 12" CENTERS. SECURE WITH SPEED WASHERS. BUTT JOINTS TIGHTLY TOGETHER AND SEAL WASHERS. BREAKS AND JOINTS WITH SELF-ADHERING 4" WIDE PLAIN ALUMINUM TAPE OR ADHERE FOIL WITH CHILDERS CP82 OR BAKELITE 230-39 ADHESIVE.

TYPE		BARRIER	
SUPPLY AND EXHAUST DUCTWORK D-1 OR D-2	1"	YES	

PROTECT THE WORK OF THIS TRADE FROM BEING DEFACED BY OTHER TRADES. MAKE GOOD ANY DAMAGE AND LEAVE IN PERFECT CONDITION, READY FOR FINAL PAINTING.

APPLY INSULATION OVER CLEAN DRY SURFACES, FIRMLY BUTTING ALL SECTIONS TOGETHER.

#### PLUMBING SYSTEM

PIPING LOCATIONS AND INVERT ELEVATIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF WORK

PROVIDE NEW BRANCH SUPPLY AND DRAINAGE PIPING, INCLUDING ALL TRIM, VALVES AND FITTINGS, FOR THE INSTALLATION OF PLUMBING FIXTURES AS INDICATED ON THE DRAWINGS, WHETHER INDICATED OR NOT.

PIPING MATERIALS: DOMESTIC HOT AND COLD WATER PIPING - TYPE "L" COPPER WITH COPPER FITTINGS USE 95/5 TIN/ANTIMONY SOLDER.

DRAINAGE AND VENT PIPING (2-1/2"Ø AND SMALLER): SANITARY PIPING DWV COPPER PIPE WITH DRAINAGE FITTINGS AND 50/50 SOLDER JOINTS, OR PVC DWV IPEX SYSTEM 15.

DWV COPPER PIPE WITH DRAINAGE FITTINGS, 50/50 SOLDER VENT PIPING JOINTS, OR PVC DWV IPEX SYSTEM 15. DRAINAGE AND VENT PIPING (3"Ø AND LARGER)

CSA CLASS 4000 CAST IRON SOIL PIPE AND FITTINGS, SANITARY PIPING -WITH MECHANICAL JOINTS, OR PVC DWV IPEX SYSTEM 15.

PROVIDE APPROPRIATE TRANSITIONS WHERE PIPES OF DIFFERENT MATERIALS ARE CONNECTED. INCLUDING TRANSITION CEMENT IF PVC IS CONNECTED TO ABS. VALVES CRANE OR JENKINS (JENKINS FIGURE NUMBERS LISTED BELOW)

,				
	TO 1379 KPA [200	) PSI] WORKING F	PRESSURE:	
	-	GATE	GLOBE	BALL
	50 MM [2 IN.] AND	SMALLER		
	SOLDERED	813	106-BP	34
	SCREWED	810	106-B	33

PROVIDE ALL BRONZE BALL TYPE SHUT OFF VALVES ON MAIN AND BRANCH LINES AND ISOLATING VALVES FOR EACH INDIVIDUAL PLUMBING FIXTURE SERVED.

CONNECT ALL NEW BRANCH AND FIXTURE VENTS TO EXISTING VENT SYSTEM.

PLUMBING FIXTURES SHALL BE NEW, OF FIRST QUALITY, IN PERFECT CONDITION AND INSTALLED IN BEST WORKMANLIKE MANNER. VERIFY PLUMBING FIXTURE QUANTITIES AND LOCATIONS WITH ARCHITECT'S/DESIGNER'S DRAWINGS. REUSE OF DOMESTIC WATER HEATER IS NOT PERMITTED. ALL PLUMBING FIXTURES SHALL MEET THE REQUIREMENTS OF THE ONTARIO BUILDING CODE PART 3 (FOR BARRIER FREE REQUIREMENTS) AS WELL AS PART 7. ACCEPTABLE MANUFACTURERS: CRANE, AMERICAN STANDARD, KOHLER, MOEN, CHICAGO.

EXPOSED PIPING AND FITTINGS WITHIN WASHROOMS SHALL BE CHROME PLATED. PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPING PASSING THROUGH FINISHED SURFACES AND MILLWORK. FIXTURE TRAPS SHALL BE COMPLETE WITH CLEANOUT PLUGS.

STAINLESS STEEL WATER HAMMER ARRESTORS, ZURN SHOKTROL OR PPP SHALL BE PROVIDED ON ALL LINES SERVING GROUPS OF FIXTURES (NEW WASHROOMS) AND QUICK CLOSING VALVES (CLOTHES WASHER HOT AND COLD CONNECTIONS).

## **CONTROLS**

PROVIDE THERMOSTATS AND MOTION SENSORS WHERE INDICATED ON THE DRAWINGS FOR NEW HEATERS AND HEAT RECOVERY VENTILATOR EQUIPMENT. PRODUCTS SHALL MEET THE REQUIREMENTS OF THE EQUIPMENT MANUFACTURERS AND THE ELECTRICAL REQUIREMENTS HEREIN.

MOUNTING HEIGHT OF OCCUPANT ADJUSTABLE THERMOSTATS SHALL BE 1200 MM [3FT, 11 IN.] FROM FINISHED FLOOR. MOUNTING HEIGHT OF NON-ADJUSTABLE THERMOSTATS SHALL BE 1500 MM [5 FT. 0 IN.] FROM FINISHED FLOOR. COORDINATE LOCATION WITH ARCHITECT/DESIGNER. DO NOT INSTALL IN VISCINITY OF ELECTRICAL LIGHTING DIMMERS.

CLEAN AND RECALIBRATE ALL EXISTING THERMOSTATS UPON COMPLETION OF CONSTRUCTION. PROVIDE ALL NECESSARY CONDUIT, FITTINGS AND WIRE TO PROVIDE A COMPLETE AND OPERATING CONTROL SYSTEM. HARD WIRE ALL ELECTRICAL CONTROL DEVICES INTO THE ASSOCIATED SYSTEM STARTER.

### **ELECTRICAL DEMOLITION**

ALL CONDITIONS OF THE CONTRACT APPLY TO THE WORK OF THIS SECTION.

PREPARE AND SUBMIT FOR APPROVAL BY THE ENGINEER AND OWNER A SCHEDULE FOR SEQUENCE AND TIMING OF DEMOLITION OF THE AREAS PRIOR TO COMMENCEMENT OF THE DEMOLITION. SEE DIVISION 1 FOR CONSTRUCTION SEQUENCE.

ALL MISCELLANEOUS ELECTRICAL EQUIPMENT BEING REMOVED SHALL BE DISPOSED OR UNLESS INDICATED BY THE OWNER TO BE RETAINED. IF EQUIPMENT IS TO BE RETAINED, IT SHALL BE STORE IN AN APPROPRIATE LOCATION AND MANNER AS INDICATED BY THE OWNER.

VISIT THE SITE AND EXAMINE THE CONDITIONS AND MAKE NECESSARY ALLOWANCES IN THE TENDER PRICE FOR REMOVAL, REROUTING, RELOCATION AND RECONNECTING OF ELECTRICAL EQUIPMENT AND WIRING AS MAY BE NECESSARY FOR THE EXECUTION AND COMPLETION OF THE PROJECT. CHARGES FOR PREMIUM TIME SHALL BE INCLUDED IN THE TENDER AMOUNT.

WIRING LOCATED IN AREAS BEING ALTERED OR DEMOLISHED, BUT FEEDING OUTLETS OR EQUIPMENT REQUIRED TO REMAIN IN SERVICE SHALL BE REROUTED AS REQUIRED TO MAINTAIN THE CONTINUITY OF THESE SERVICES.

INSPECT THE PROJECT FOR EQUIPMENT THAT MAY CONTAIN POLYCHLORINATED BIPHENYL MATERIAL (PCB). REMOVE AND HAND OVER TO THE OWNER ALL EQUIPMENT CONTAINING PCB MATERIALS. THIS SHALL BE DONE IN S SAFE MANNER AND ACCORDING TO CURRENT APPLICABLE RULES AND REGULATIONS. THE OWNER SHALL BE RESPONSIBLE FOR THE SAFE STORAGE AND/OR DISPOSAL OF THE PCB MATERIAL.

PROVIDE ADEQUATE PROTECTION TO THE EXISTING WIRING AND EQUIPMENT THROUGHOUT THE PROJECT AND PARTICULARLY WHERE WIRING AND ELECTRICAL EQUIPMENT HAS BECOME EXPOSED TO MECHANICAL INJURY OR MOISTURE IN THE COURSE OF ALTERATIONS OR NEW CONSTRUCTION.

PROVIDE AND LOCATE ALL SLEEVES REQUIRED TO PASS WIRING THROUGH BUILDING WALLS AND FLOORS. FILL VOIDS BETWEEN CONDUITS AND SLEEVES WITH MATERIAL AND CAULKING SEALANTS TO SUIT APPLICATION AND FIRE RATING. CUT AND PATCH HOLES CREATED AND OR LOCATED INCORRECTLY OR TOO LATE.

WHERE REQUIRED, PROVIDE STRUCTURAL SUPPORTS FOR ADJACENT STRUCTURES.

COMPLETELY REMOVE ALL UNNECESSARY ELECTRICAL EQUIPMENT FROM THE EXISTING RENOVATED PROJECT AREA AS INDICATED IN THE SPECIFICATIONS AND DRAWINGS. THE DRAWINGS MAY NOT INDICATE ALL ITEMS TO BE REMOVED OR REWORKED.

SYSTEM INTERRUPTIONS SHALL BE KEPT TO A MINIMUM. INTERRUPTIONS MUST BE COORDINATED WITH THE OWNER AND ALL OTHER JURISDICTIONS. WRITTEN APPROVAL FOR INTERRUPTIONS MUST BE RECEIVED FROM THE OWNER INDICATING THE DATE, TIME AND ESTIMATED DURATION OF THE INTERRUPTIONS. APPLICATION FOR THE APPROVAL OF THE INTERRUPTIONS MUST BE SUBMITTED TO THE OWNER AND/OR THE ENGINEER AT LEAST SEVEN DAYS PRIOR TO THE REQUESTED SHUT DOWN DATE.

MATERIALS AND DEBRIS SHALL NOT BE STACKED IN BUILDING

AT END F EACH DAY'S WORK LEAVE WORK IN SAFE CONDITION ENSURING THAT NO PARTS OF STRUCTURE ARE IN DANGER OF COLLAPSING.

REMOVE ALL MOVABLE MATERIALS AND EQUIPMENT REQUIRED TO PERFORM THE WORK AND REINSTALL AFTER COMPLETION OF WORK.

SELLING OR BURNING MATERIALS ON SITE IS NOT PERMITTED

## ELECTRICAL NOTES

COMPLY WITH THE ONTARIO ELECTRICAL SAFETY CODE, MOST RECENT EDITION AND THE CODES AND REGULATIONS OF ALL GOVERNING AUTHORITIES HAVING JURISDICTION OVER THE WORK.

VISIT AND EXAMINE THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS AFFECTING HE WORK, PRIOR TO SUBMITTING TENDER. NO ALLOWANCES IN COST WILL BE MADE BY THE OWNER FOR ANY DIFFICULTIES ENCOUNTERED IN THE WORK ARISING OUT OF CONDITIONS EXISTING AT THE TIE OF TENDERING. SITE VERIFY ALL DIMENSIONS PRIOR TO ORDERING WIRING OR EQUIPMENT FOR INSTALLATION. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CABLE AND PIPING "LOCATES" FOR ANY EXISTING CONCEALED SERVICES IN THE AREA WHERE THE UNDERGROUND/UNDER-FLOOR INSTALLATIONS ARE TO BE CARRIED OUT. COORDINATE NEW INSTALLATIONS WITH OTHER TRADES TO AVOID CONFLICTS DURING THE DURATION OF THIS CONTRACT.

ARRANGE ALL INSPECTIONS OF DRAWINGS, EQUIPMENT, MATERIALS AND INSTALLATION OF WORK, AND PAY FOR ALL PERMITS, INSPECTION FEES, CERTIFICATES, ETC. CONNECTED THEREWITH. DELIVER FINAL CERTIFICATES TO THE CONSULTANT AT THE COMPLETION OF THE PROJECT, ONE COPY OF EACH BOUND IN EACH OPERATIONS AND MAINTENANCE MANUAL.

OBTAIN TWO EXTRA SETS OF WHITE PRINTS ON WHICH TO NOTE AND CLEARLY MARK, ANY APPROVED DEVIATIONS FROM THE WORK SHOWN ON THE PLANS, AS THE JOB PROGRESSES, THESE SETS OF AS-BUILT PRINTS SHALL BE KEPT UP TO DATE AND RETURNED TO THE OWNER FOR RECORD PURPOSES AT THE COMPLETION OF THE PROJECT.

GUARANTEE ALL WORK OF THE ELECTRICAL DIVISION OF THE CONTRACT FOR A PERIOD OF ONE YEAR AFTER THE DATE OF ISSUE OF THE FINAL COMPLETION CERTIFICATE, UNLESS STATED OTHERWISE ON THE DRAWINGS OR IN THE SPECIFICATIONS.

NO ORAL INTERPRETATIONS SHALL BE EFFECTIVE TO MODIFY ANY OF THE PROVISIONS OF THE CONTRACT DOCUMENTS. ALL REQUESTS FOR INTERPRETATIONS OR CHANGES SHALL BE MADE IN WRITING TO THE CONSULTANT.

PERFORM ANY AND ALL TESTS AS SPECIFIED HEREINAFTER OR AS REQUIRED BY THE CONSULTANT. SUPPLY ALL NECESSARY LABOUR AND EQUIPMENT FOR THE TESTS. MEGGER ALL WIRING TO ENSURE THAT INSULATION RESISTANCE IS IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE. DEFECTIVE WIRING SHALL BE REPLACED AND RETESTED.

ALL MATERIALS AND EQUIPMENT UNLESS SPECIFICALLY NOTED OTHERWISE ARE TO BE NEW AND HAVE C.S.A AND OR ESA SPECIAL APPROVAL. MATERIALS AND EQUIPMENT ARE SPECIFIED BY NAME TO ESTABLISH A STANDARD OF QUALITY AND WORKMANSHIP. ALTERNATE MATERIALS PROPOSED SHALL MEET OR EXCEED THE QUALITY OF THE SPECIFIED MATERIALS.

WHERE THE SUPPLY OF AN ITEM, THE WIRING OR INSTALLATION METHOD, IS SPECIFIED WITHOUT EXTENSIVE DETAIL. THE ITEM AND/OR WORK SHALL CONFORM WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY, LOCAL ESA INSPECTION DEPARTMENT, PUBLIC UTILITIES, TELEPHONE COMPANY, ETC.

UNLESS OTHERWISE NOTED ALL EXPOSED WIRING SHALL BE RUN IN THE E.M.T. CONDUIT. FINAL CONNECTIONS TO LIGHT FIXTURES AND MOTORS SHALL BE IN LIQUID-TITE CONDUIT. WIRING RUN IN OR BELOW CONCRETE SLABS IN THE BUILDING SHALL BE RUN IN RIGID PVC CONDUIT. CONDUIT DIRECT BURIED BELOW GRADE OR ENCASED IN CONCRETE SHALL BE TYPE II PVC DUCT.

INTERIOR BUILDING WIRING SHALL BE RUN SURFACE MOUNTED IN UNFINISHED AREAS AND CONCEALED IN FINISHED AREA WHERE POSSIBLE. SURFACE MOUNTED CONDUIT IN FINISHED AREAS SHALL BE APPROVED IN WRITING BY THE ENGINEER BEFORE INSTALLATION. ALL EXTERIOR BUILDING WIRING SHALL BE CONCEALED. EXPOSED CONDUITS SHALL BE RUN IN A MANNER THAT IS INCONSPICUOUS AS POSSIBLE AND THE NUMBER OF RUNS KEPT TO A MINIMUM.

EXPOSED WIRING SHALL BE RUN PARALLEL AND PERPENDICULAR TO BUILDING LINES, WITH EQUAL SPACINGS AND CONCENTRIC BENDS IN CONDUITS. NO SINGLE RUN SHALL EXCEED THREE EQUIVALENTS 90 DEGREE BENDS. INSTALL PULL BOXES AS REQUIRED WHETHER SHOWN OR NOT. ALL EMPTY CONDUITS SHALL BE INSTALLED WITH A POLY PULL ROPE LEFT FOR FUTURE USE AND LABELLED AT BOTH ENDS. ALL JUNCTION OF WIRING BOXES MUST BE INSTALLED SO THAT THEY ARE ACCESSIBLE FOR FUTURE MAINTENANCE.

TYPE AC-90, FLEXIBLE ARMOURED CABLE SHALL NOT BE USED, EXPECT FOR CONCEALED FINAL CONNECTIONS TO LIGHT FIXTURES.

ALL POWER WIRING SHALL BE COPPER. MINIMUM #12WG, TYPE TW EXPECT WHERE NOTED OTHERWISE. ALL CONTROL WIRING SHALL BE COPPER MINIMUM #14DG, TYPE TW.

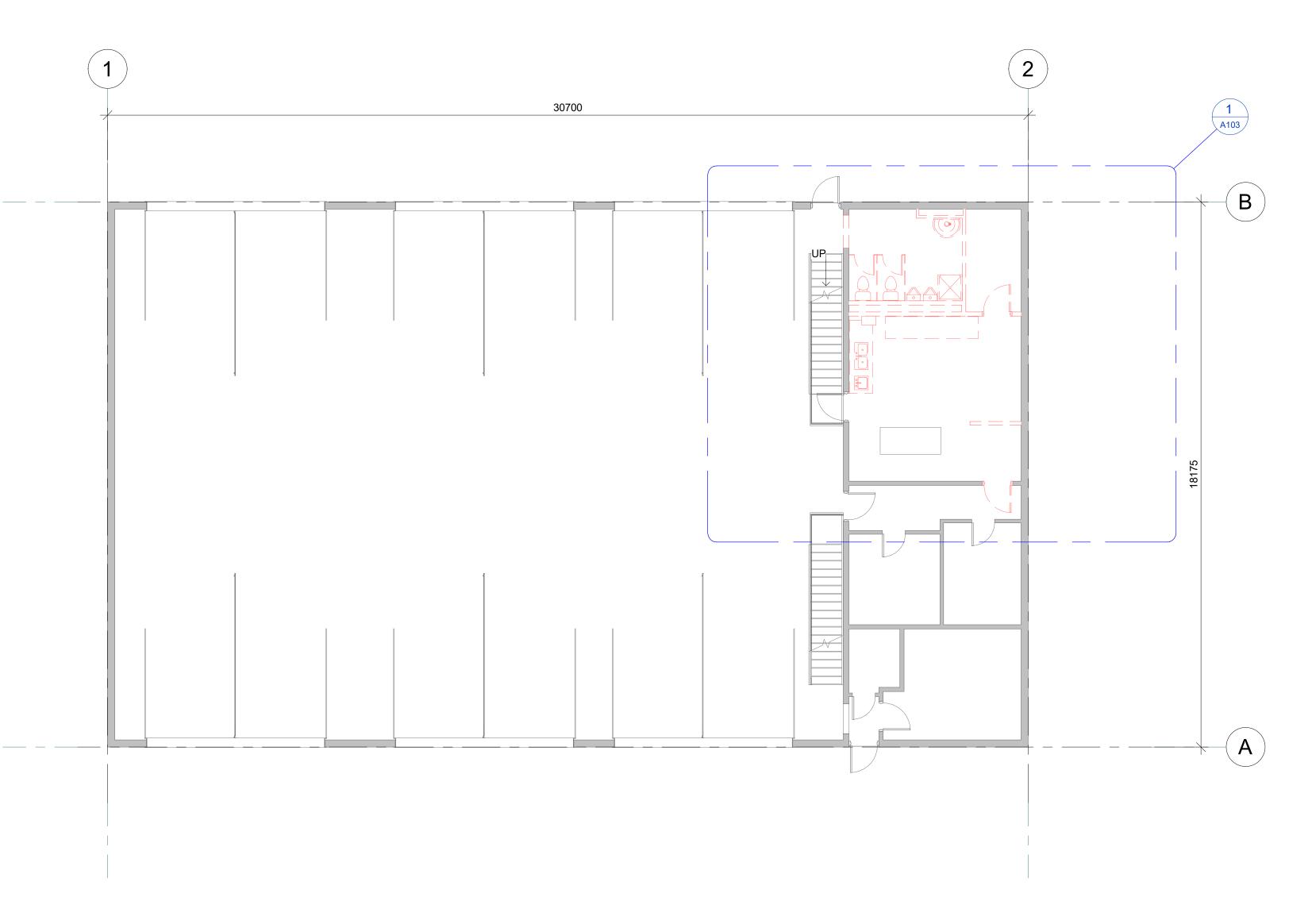
ALL CUTTING AND PATCHING TO BE DONE BY THIS CONTRACTOR. ALL OPENINGS SHALL BE SEALED WITH ULC APPROVED ASSEMBLY TO MATCH EXISTING FIRE RATING. SUBMIT SHOP DRAWINGS AND DETAILS FOR REVIEW.

MOUNTING HEIGHTS – NORMAL MOUNTING HEIGHT DESIGNATIONS ARE MEASURED FROM THE CENTRE LINE OF THE DEVICE TO THE TOP OF FINISHED FLOOR UNLESS OTHERWISE NOTED.

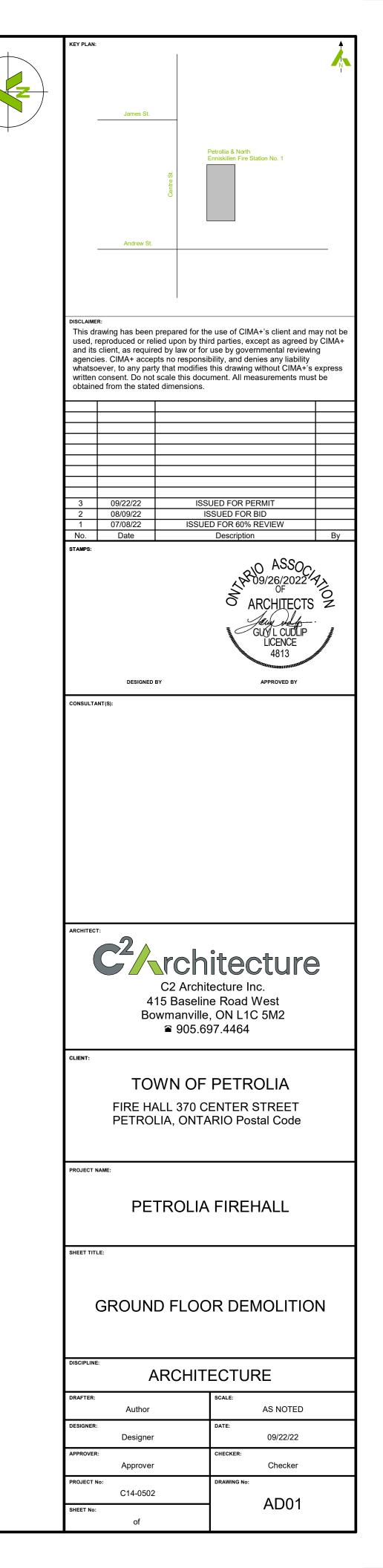
WIRING DEVICES SHALL BE AS FOLLOWS: RECEPTACLES - (WHITE) - HUBBELL #5262-I OR SMITH AND STONE #4-5262-I a.GROUND FAULT RECEPTACLES – (WHITE) – HUBBELL #GF-5262-I OR SMITH AND STONE #4-5000 b.ISOLATED GROUND RECEPTACLES – (ORANGE) – HUBBELL #GF-5262-I OR SMITH AND STONE #46200



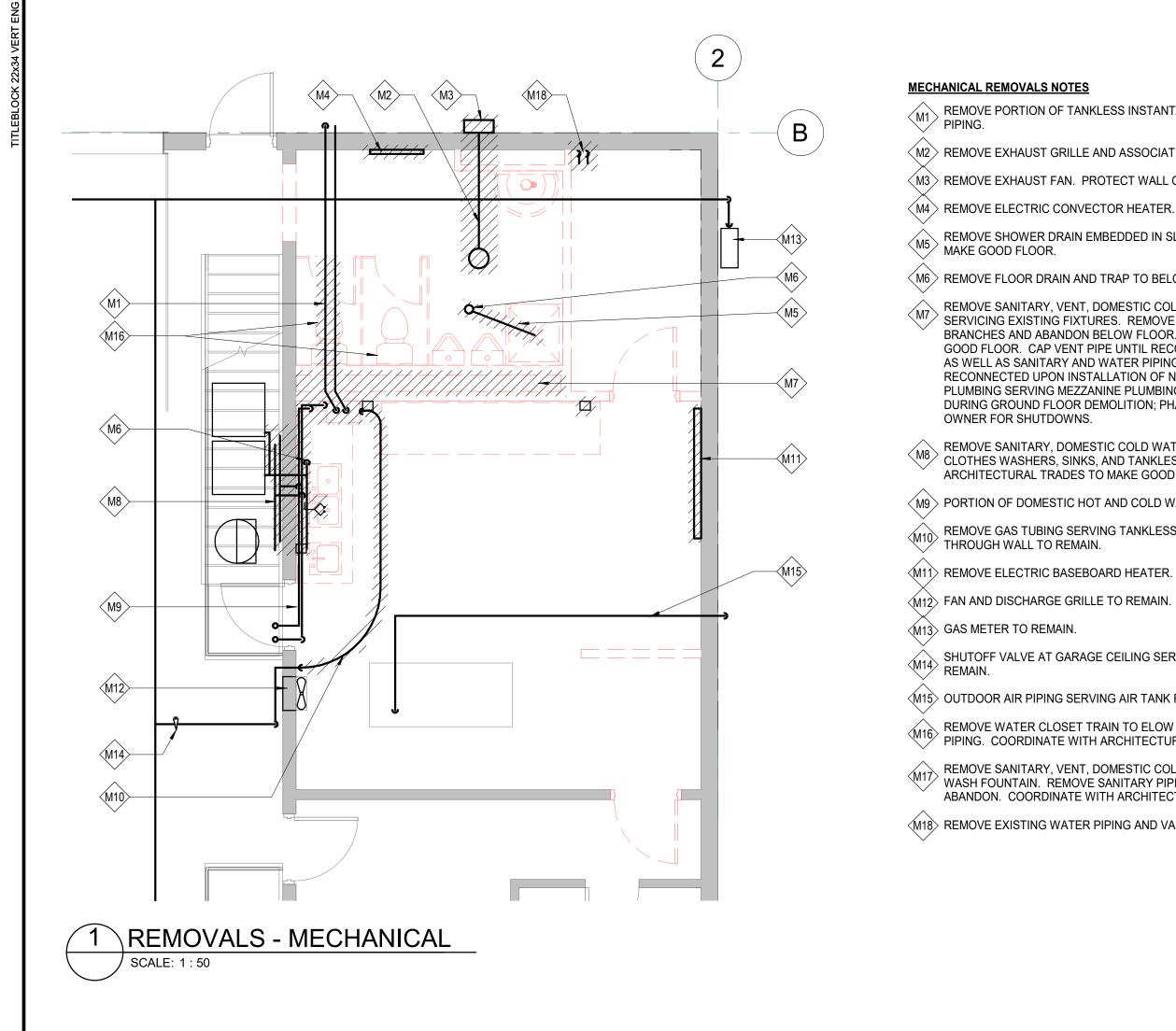
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Designer	09/22/22
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SHEET No:	A003
of	











M1 REMOVE PORTION OF TANKLESS INSTANTANEOUS WATER HEATER COMBUSTION AIR AND VENT

 $\langle M2 \rangle$  REMOVE EXHAUST GRILLE AND ASSOCIATED DUCTWORK.

(M3) REMOVE EXHAUST FAN. PROTECT WALL OPENING DURING CONSTRUCTION.

(M4) REMOVE ELECTRIC CONVECTOR HEATER.

REMOVE SHOWER DRAIN EMBEDDED IN SLAB. COORDINATE WITH ARCHITECTURAL TRADES TO

(M6) REMOVE FLOOR DRAIN AND TRAP TO BELOW SLAB. CAP AND ABANDON REMAINING PIPING.

REMOVE SANITARY, VENT, DOMESTIC COLD WATER, AND DOMESTIC HOT WATER PIPING SERVICING EXISTING FIXTURES. REMOVE SANITARY PIPING TO BELOW FLOOR SLAB, CAP UNUSED BRANCHES AND ABANDON BELOW FLOOR. COORDINATE WITH ARCHITECTURAL TRADES TO MAKE GOOD FLOOR. CAP VENT PIPE UNTIL RECONNECTION TO NEW. RETAIN VENT PIPE UP TO ABOVE AS WELL AS SANITARY AND WATER PIPING SERVING MEZZANINE PLUMBING FIXTURES, TO BE RECONNECTED UPON INSTALLATION OF NEW GROUND FLOOR WASHROOM PLUMBING. LEAVE PLUMBING SERVING MEZZANINE PLUMBING FIXTURES IN OPERATION AS LONG AS POSSIBLE DURING GROUND FLOOR DEMOLITION; PHASE WORK ACCORDINGLY AND COORDINATE WITH

REMOVE SANITARY, DOMESTIC COLD WATER AND DOMESTIC HOT WATER PIPING SERVING CLOTHES WASHERS, SINKS, AND TANKLESS INSTANTANEOUS WATER HEATER. COORDINATE WITH ARCHITECTURAL TRADES TO MAKE GOOD WALLS TO REMAIN.

(M9) PORTION OF DOMESTIC HOT AND COLD WATER SERVING GARAGE TO REMAIN.

REMOVE GAS TUBING SERVING TANKLESS INSTANTANEOUS WATER HEATER. CAP GAS PIPE

SHUTOFF VALVE AT GARAGE CEILING SERVING TANKLESS INSTANTANEOUS WATER HEATER TO

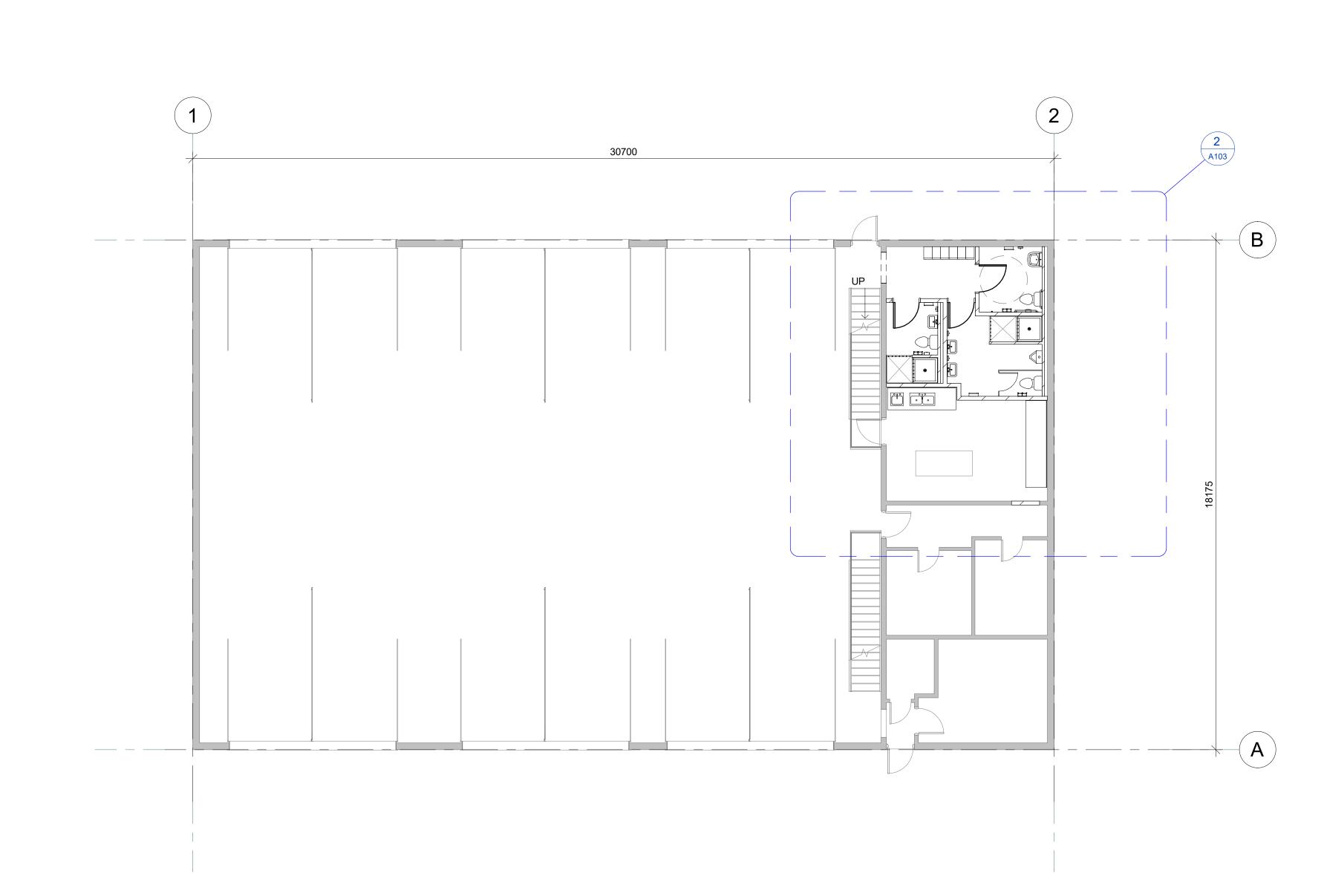
(M15) OUTDOOR AIR PIPING SERVING AIR TANK FILL MACHINE TO REMAIN.

REMOVE WATER CLOSET TRAIN TO ELOW SLAB. CAP AND ABANDON REMAINING <sup>2</sup> PIPING. COORDINATE WITH ARCHITECTURAL TRADES TO MAKE GOOD FLOOR.

REMOVE SANITARY, VENT, DOMESTIC COLD WATER AND DOMESTIC HOT WATER PIPING SERVING WASH FOUNTAIN. REMOVE SANITARY PIPING TO BELOW FLOOR SLAB, CAP AND ABANDON. COORDINATE WITH ARCHITECTURAL TRADES TO MAKE GOOD FLOOR.

(M18) REMOVE EXISTING WATER PIPING AND VALVES.



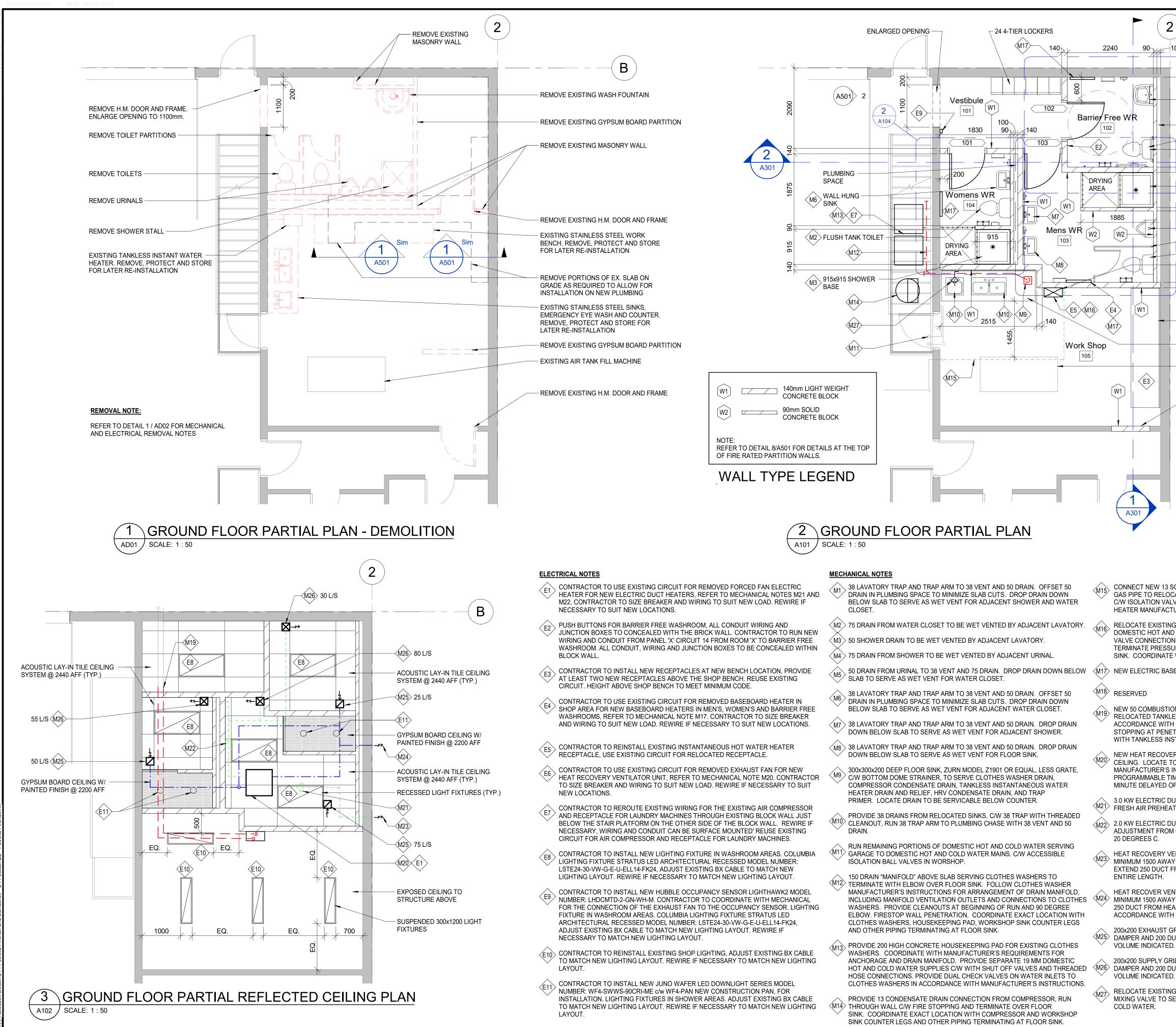




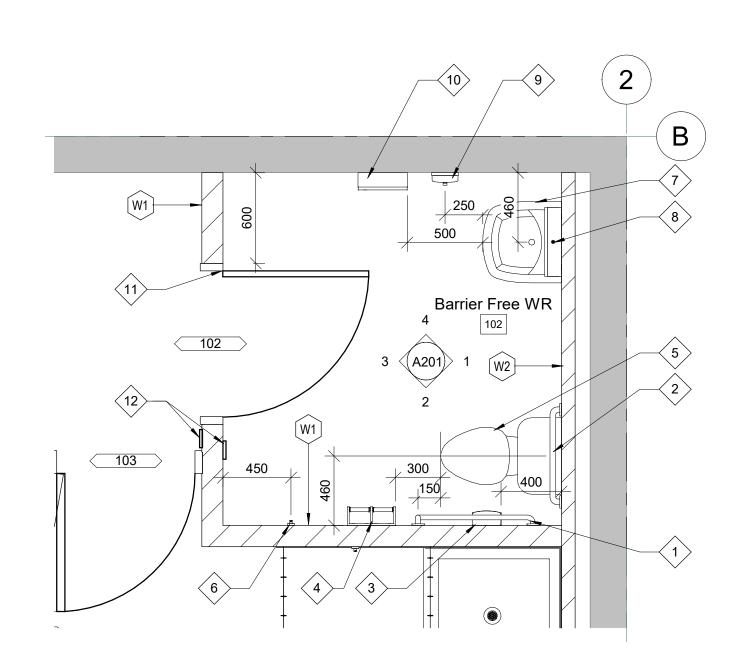




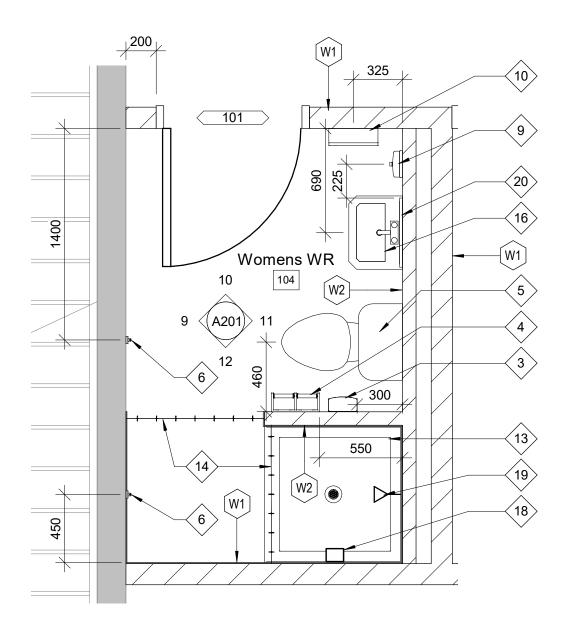




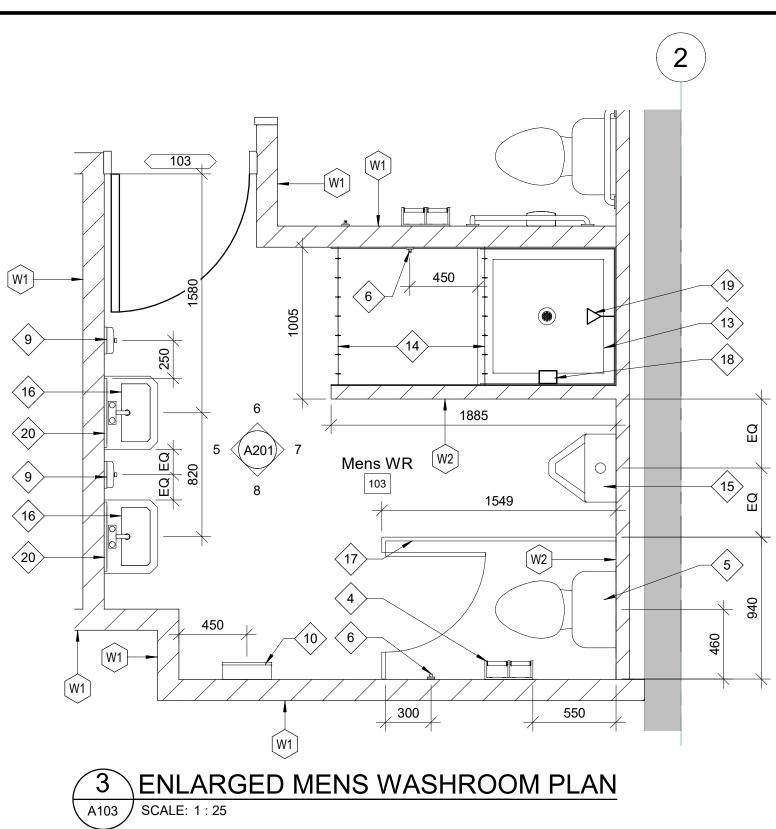
	KEY PLAN:	
	James St.	
		Petrollia & North Enniskillen Fire Station No. 1
	Centre St.	
PLUMBING SPACE		
FLUSH TANK TOILET W/ GRAB BARS	Andrew St.	
915x915 SHOWER BASE M3 5		
FLUSH VALVE URINALS M5 PREFIN TOILET PARTITION	DISCLAIMER: This drawing has been prepared for th used, reproduced or relied upon by thi and its client, as required by law or for agencies. CIMA+ accepts no responsi whatsoever, to any party that modifies written consent. Do not scale this doc	use by governmental reviewing bility, and denies any liability this drawing without CIMA+'s express
FLUSH TANK TOILET M4 RELOCATED TANKLESS WATER HEATER 9	obtained from the stated dimensions.	
3 A104		
EXISTING STAINLESS STEEL WORK BENCH IN NEW LOCATION	2 08/09/22 15	UED FOR PERMIT SSUED FOR BID
EXISTING STAINLESS STEEL SINK     AND COUNTER IN NEW LOCATION	No. Date	D FOR 60% REVIEW Description By
EXISTING AIR TANK FILL MACHINE IN EXISTING LOCATION	D PROFESSION AL	09/23/2022 T.G. BARICHELLO
- MASONRY INFILL OF EXISTING DOOR	S. J. Grawford Bourke	
<u>STRUCTURAL NOTE:</u> REFER TO DETAIL 3, 4, 5, 6 AND 7 ON A500 FOR TOP	MECHANICALO	BOLINCE OF ONTHRO
OF MASONRY WALL LATERAL SUPPORT DETAILS. CONTRACTOR TO DETERMINE ON SITE THE APPROPRIATE DETAILS TO BE USED.	DESIGNED BY CONSULTANT(S):	ZZ-UZZ APPROVED BY
CHEDULE 40 STEEL GAS PIPE TO EXISTING C/W DIRT LEG. EXTEND CATED TANKLESS INSTANTANEOUS WATER HEATER, DROP DOWN VE AND DIRT LEG, FOLLOW TANKLESS INSTANTANEOUS WATER URER'S INSTRUCTIONS FOR CONNECTION.		C ARCHITECTS Z GUV L CUDLIP LICENCE 4813
G TANKLESS INSTANTANEOUS WATER HEATER. PROVIDE COLD WATER, GAS, DRAIN AND PRESSURE/TEMPERATURE RELIEF IS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. IRE/TEMPERATURE RELIEF VALVE DRAIN OVER FLOOR	ARCHITECT:	itecture
WITH ELECTRICAL TRADES FOR RECONNECTION OF POWER. EBOARD HEATER C/W WALL MOUNTED THERMOSTAT.	C2 Archit 415 Baselin	ecture Inc. e Road West , ON L1C 5M2
ON AIR AND VENT DUCTS, IPEX SYSTEM 636 OR EQUAL, EXTEND TO ESS INSTANTANEOUS WATER HEATER AND CONNECT IN MANUFACTURER'S INSTRUCTIONS. PROVIDE INTUMESCENT FIRE TRATIONS OF FIRE RATED WALL. SLOPE DUCTS IN ACCORDANCE STANTANEOUS WATER HEATER MANUFACTURER'S INSTRUCTIONS. RY VENTILATOR, "OXYGEN 8 SERENA S300", MOUNTED ABOVE O ALLOW ACCESS FOR SERVICING IN ACCORDANCE WITH NSTRUCTIONS. PROVIDE MOTION DETECTORS AND MER TO RUN UNIT UPON OCCUPANCY OF ANY WASHROOM, WITH 5	CLIENT: TOWN OF FIRE HALL 370 C PETROLIA, ONTA	
FF, AS WELL AS PERIODIC RUN OF 5 MINUTES PER HOUR. JCT HEATER, C/W DUCT MOUNTED THERMOSTAT, SET TO MAINTAIN I TEMPERATURE AT -5 DEGREES C.		FIREHALL
JCT HEATER, C/W DUCT MOUTED THERMOSTAT, WITH MANUAL CONTROLLER MOUNTED IN WORKSHOP, WITH INITIAL SETTING AT	FEIROLIA	
ENTILATOR INTAKE WALL HOOD, C/W INSECT SCREEN. LOCATE 7 FROM DISCHARGE WALL HOOD. SEAL WALL PENETRATION. ROM WALL HOOD TO HEAT RECOVERY VENTILATOR. INSULATE		ARTIAL PLANS
ITILATOR DISCHARGE WALL HOOD, C/W INSECT SCREEN. LOCATE 7 FROM INTAKE WALL HOOD. SEAL WALL PENETRATION. EXTEND AT RECOVERY VENTILATOR TO WALL HOOD. INSULATE IN HEAT RECOVERY VENTILATOR MANUFACTURER'S INSTRUCTIONS.		
RILLE, TBAR CEILING MOUNTED, C/W DUCT MOUNTED BALANCING JCT BRANCH, CONNECTED TO 250 EXHAUST HEADER. BALANCE TO		ECTURE scale:
ILLE, TBAR CEILING MOUNTED, C/W DUCT MOUNTED BALANCING	Author DESIGNER:	AS NOTED
JCT BRANCH, CONNECTED TO 250 SUPPLY HEADER. BALANCE TO	Designer APPROVER: Approver	09/22/22 Checker: Checker
G EYE WASH. PROVIDE NEW WALL MOUNTED THERMOSTATIC ERVE EYE WASH, SIZED TO SUIT, SUPPLIED BY DOMESTIC HOT AND	PROJECT No: C14-0502	DRAWING No:
	SHEET No:	A103







2 ENLARGED WOMENS WASHROOM PLAN A103 SCALE: 1:25



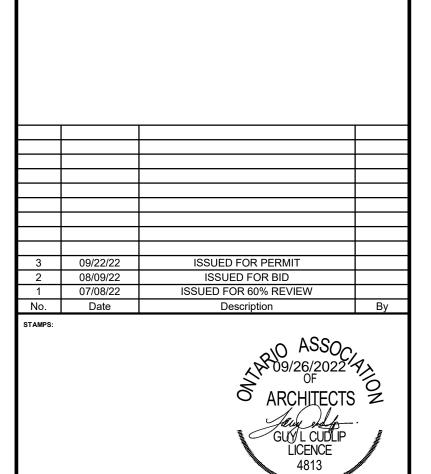
STANDARD - MURRO 0954004EC.020		
ANGLED BARRIER FREE MIRROR BY BOBRICK B293 1830	CLIENT:	
9 SOAP DISPENSER BY BOBRICK B818615		
10 PAPER TOWEL DISPENSER BY BOBRICK B359039		
POWER DOOR OPERATOR BY LCN MODEL 4040XP W/ EMBEDDED CONDUIT	PROJECT NAME:	
12 DOOR OPERATOR BUTTON BY LCN W/ EMBEDDED CONDUIT	PROJECT NAME.	
13 915 x 915 TERRAZO SHOWER BASE BY FIAT PRODUCTS - MFT	PETROLIA	FIREHALL
14 SHOWER CURTAIN, ROD AND CURTAIN HOOKS BY BOBRICK	SHEET TITLE:	
FLUSH VALVE URINAL BY AMERICAN STANDARD WASHBROOK FLOWISE 6590.00/17301242-100 W/ FLUSHVALVE 8315, BY MOEN INC.		
WALL HUNG SINK BY AMERICAN STANDARD - LUCERNE 0355012.020	ENLARGED WAS	
17 FLOOR MOUNTED PREFINISHED METAL TOILET PARTITION BY HADRIAN		
18 SOAP HOLDER BY BOBRICK B6807	DISCIPLINE:	
19 SHOWER HEAD	ARCHIT	ECTURE
20 WALL HUNG MIRROR BY BOBRICK B290 1836	drafter: Author	scale: AS NOTED
21 PAINTED MASONRY BLOCK WALL	designer: Designer	date: 09/22/22
22 150x150 CERAMIC TILE	Approver: Approver	CHECKER: Checker
23 PAINTED GYPSUM BOARD	PROJECT No: C14-0502	
·	SHEET NO: Of	A104
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WASHROOM LEGEND

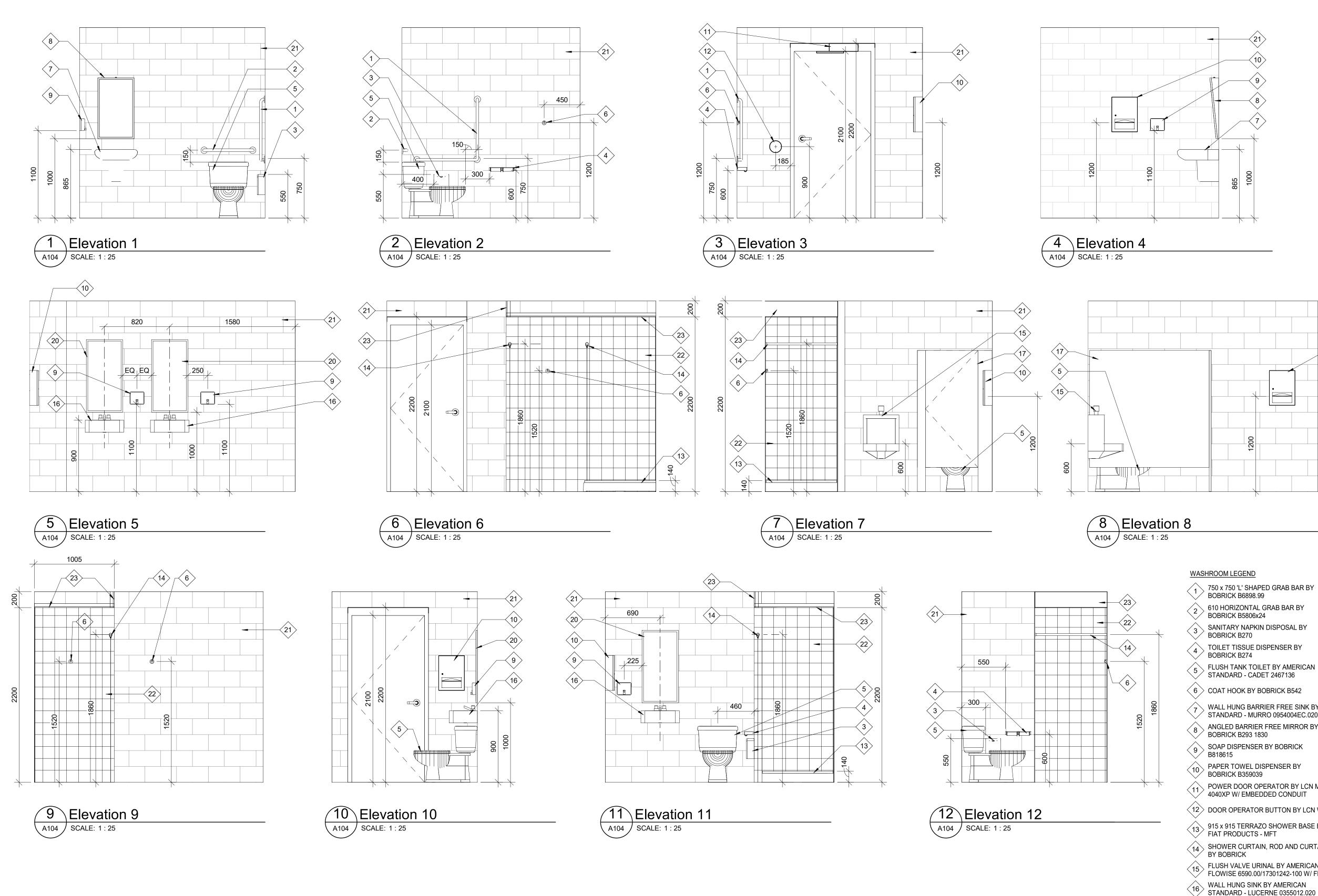
610 HORIZONTAL GRAB BAR BY

SANITARY NAPKIN DISPOSAL BY

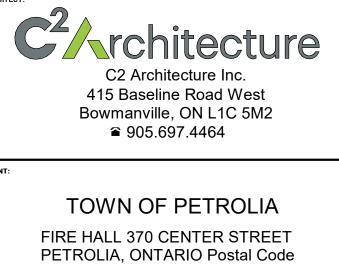


# OM PLANS

	ARCHITECTURE										
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SHEET No:	A104										



$\sim$	BOBRICK B5806x24	
3	SANITARY NAPKIN DISPOSAL BY BOBRICK B270	ARCHITECT:
4	TOILET TISSUE DISPENSER BY BOBRICK B274	
5	FLUSH TANK TOILET BY AMERICAN STANDARD - CADET 2467136	
6	COAT HOOK BY BOBRICK B542	
$\langle 7 \rangle$	WALL HUNG BARRIER FREE SINK BY AMERICAN STANDARD - MURRO 0954004EC.020	
8	ANGLED BARRIER FREE MIRROR BY BOBRICK B293 1830	CLIENT:
9	SOAP DISPENSER BY BOBRICK B818615	
	PAPER TOWEL DISPENSER BY BOBRICK B359039	
	POWER DOOR OPERATOR BY LCN MODEL 4040XP W/ EMBEDDED CONDUIT	
	DOOR OPERATOR BUTTON BY LCN W/ EMBEDDED CONDUIT	PROJECT NAME:
	915 x 915 TERRAZO SHOWER BASE BY FIAT PRODUCTS - MFT	
	SHOWER CURTAIN, ROD AND CURTAIN HOOKS BY BOBRICK	SHEET TITLE:
	FLUSH VALVE URINAL BY AMERICAN STANDARD WASHBROOK FLOWISE 6590.00/17301242-100 W/ FLUSHVALVE 8315, BY MOEN INC.	SHEET TILE.
	WALL HUNG SINK BY AMERICAN STANDARD - LUCERNE 0355012.020	
	FLOOR MOUNTED PREFINISHED METAL TOILET PARTITION BY HADRIAN	
	SOAP HOLDER BY BOBRICK B6807	DISCIPLINE:
19	SHOWER HEAD	Discir Line.
20>	WALL HUNG MIRROR BY BOBRICK B290 1836	DRAFTER:
21	PAINTED MASONRY BLOCK WALL	DESIGNER:
22	150x150 CERAMIC TILE	APPROVER:
23	PAINTED GYPSUM BOARD	PROJECT No:
$\checkmark$		SHEET No:



PETROLIA FIREHALL

INTERIOR ELEVATIONS

ARCHITECTURE

HECKEF

AWING No:

Author

Designer

Approver

C14-0502

of

AS NOTED

09/22/22

Checker

A201



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Description

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ARCHITECTS

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APPROVED BY

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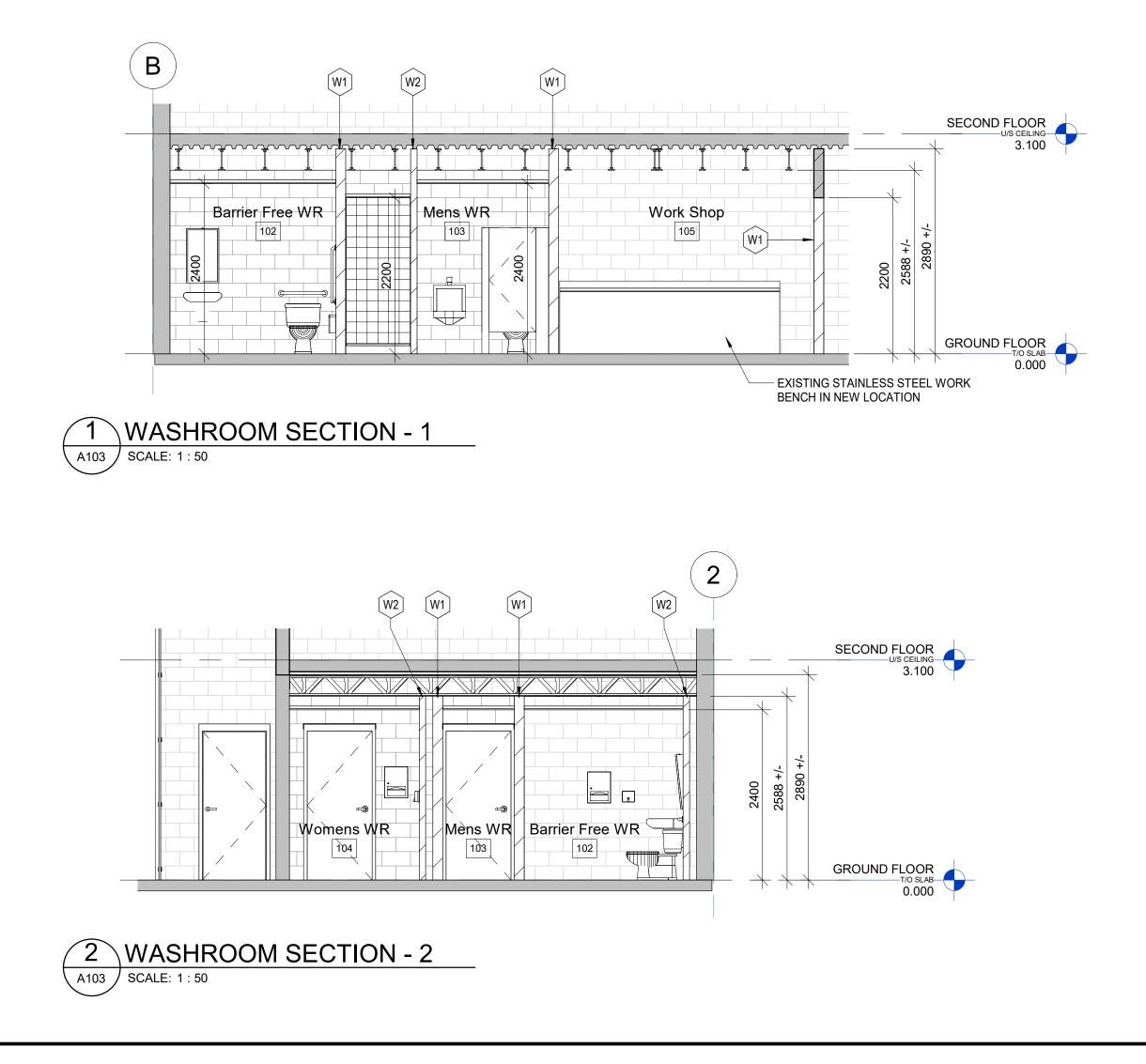
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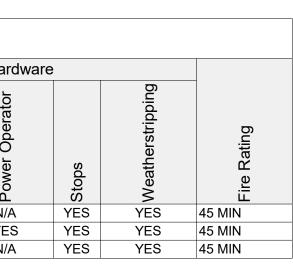
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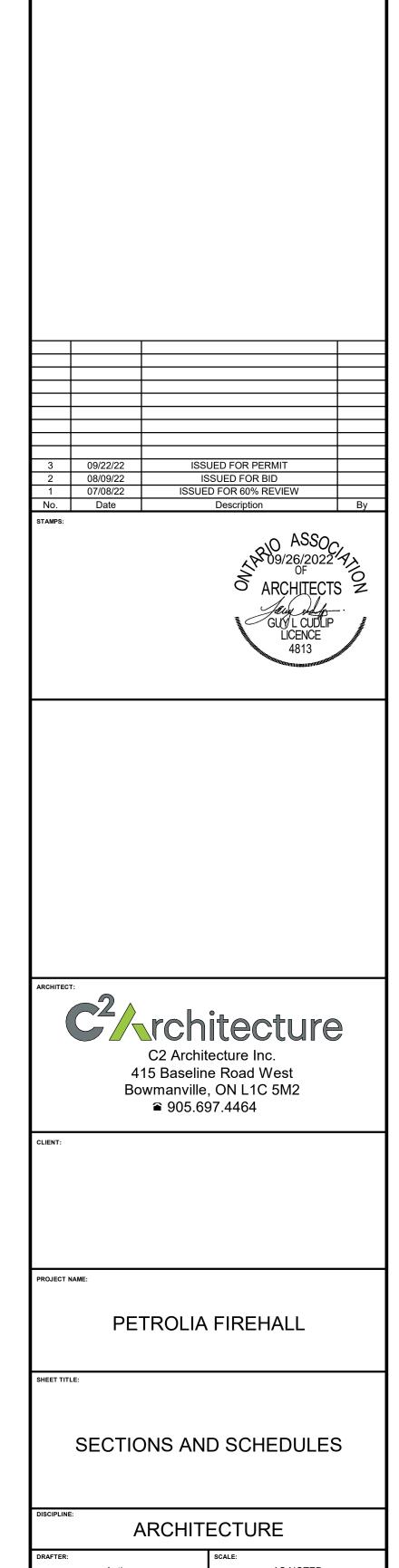
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			Leaf Frame								or
Door No.	To Room: No.	W	н	Т	Mat.	Fin.	Mat.	Fin.	Closers	Hinges	Power Operator
101	104	915	2100	45	HM	PAINT	HM	PAINT	YES	YES	N/A
102	102	965	2100	45	HM	PAINT	HM	PAINT	N/A	YES	YES
103	103	915	2100	45	HM	PAINT	HM	PAINT	YES	YES	N/A

								Scl	nedule -	Room						
Roo		FI	oor		Base				W	all				Ceiling		
m		Sub Floor				No	orth	So	uth	Ea	ast	We	est			
No.	Room Name	Mat.	Fin.	Height	Mat.	Mat.	Fin.	Mat.	Fin.	Mat.	Fin.	Mat.	Fin.	Height	Mat.	Comments
101	Vestibule	Concrete	Porcelain Tile	100	Porcelain Tile	Conc. Block	Paint	Conc. Block	Paint	Conc. Block	Paint	Conc. Block	Paint	2400	Acoustic Tile	
	Barrier Free WR	Concrete	Porcelain Tile	100	Porcelain Tile	Conc. Block	Paint	Conc. Block	Paint	Conc. Block	Paint	Conc. Block	Paint	2400	Acoustic Tile	
103	Mens WR	Concrete	Porcelain Tile	100	Porcelain Tile	Conc. Block	Paint	Conc. Block	Paint/Cer. Tile	Conc. Block	Paint/Cer. Tile	Conc. Block	Paint/Cer. Tile	2400	Acoustic Tile	
104	Womens WR	Concrete	Porcelain Tile	100	Porcelain Tile	Conc. Block	Paint	Conc. Block	Paint/Cer. Tile	Conc. Block	Paint/Cer. Tile	Conc. Block	Paint/Cer. Tile	2400	Acoustic Tile	
105		Ex. Concrete	Existing	N/A	N/A	Conc. Block	Existing	Conc. Block	Existing	Conc. Block	Paint	Conc. Block	Existing	Existing	Ex. Exposed	







Author AS NOTED GNER DATE: Designer 09/22/22 PPROVER: CHECKER Checker Approver PROJECT No: RAWING No: C14-0502 A301 SHEET No: of



