

# R S McLAUGHLIN CVI PHASE-II

OSHAWA, ONTARIO

DURHAM DISTRICT SCHOOL BOARD  
CLIENT

SUSAN FRIEDRICH ARCHITECT INC.  
ARCHITECTS

LEA CONSULTING LIMITED  
STRUCTURAL

CIMA+ DES  
MECHANICAL AND ELECTRICAL

## LIST OF DRAWINGS

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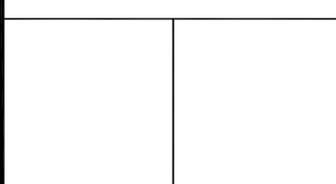
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DO NOT SCALE DRAWINGS.

3	APR 25 2023	ISSUED FOR TENDER
2	APR 18 2023	BUILDING PERMIT
1	APR 06 2023	ISSUED FOR CLIENT REVIEW

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1 T23-34

Title: TITLE PAGE

Scale: Not To Scale	Date: MAR 14 2023	Drawing: A001
Project: 21-60B	Drawn By:	

DATE PLOTTED: APR 24 2023

• PLOT SCALE: 1:1 AT 11x17" SHEET SIZE READ DRAWINGS ACCORDINGLY.  
• PLOT SCALE: 1:2 AT 11x17" SHEET SIZE READ DRAWINGS ACCORDINGLY.

STANDARD ABBREVIATIONS		
<p>MANY WORDS OR EXPRESSIONS THAT ARE REPEATED FREQUENTLY ON THE DRAWINGS ARE ABBREVIATED TO REDUCE THE AMOUNT OF WORDING THAT MIGHT ABSORB THE DETAILING. TO AVOID MISINTERPRETATION, THESE ABBREVIATIONS ARE LISTED, WITH THEIR FULL MEANING, IN THIS SECTION.</p> <ul style="list-style-type: none"> <li>REFER ALSO TO MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR OTHER ABBREVIATIONS USED IN MECHANICAL AND ELECTRICAL DOCUMENTS.</li> <li>ABBREVIATIONS NOT LISTED HERE MAY BE USED IN TECHNICAL SECTIONS OF THE SPECIFICATIONS AND ARE DEFINED IN THE SPECIFICATION SECTIONS WHERE THEY ARE USED.</li> </ul>		
<p>AB — anchor bolt ABV — above A/C — air conditioning ACT — acoustic tile ACOUST — acoustic AGT — fiberlock aqua tough AFF — above finished floor AGG — aggregate ALUM, AL — aluminum ANOD — anodized AP — acoustic panel ASPH — asphalt AVB, A/VB — air/vapour barrier BO — board BE — baked enamel BH — bulkhead BLDG — building BLK — block BLKG — blocking BM — bench mark or beam BOT — bottom BR — brick BS, B/S — both sides BSM — basement BU — built-up BUR — built-up roofing CA — cash allowance CAB — cabinet CAR — carpet CAR — carpet tile CB — catch basin or conc. block or chalkboard C/C — centre to centre CEM — cement CH — coat hook CJ — central joint C JT — construction joint CL — centre line CLG — ceiling CLNG — ceiling CLK — clock(ing) CLOS — closet CMT — ceramic mosaic tile CO — cleanout COL — column CONC — concrete COND — conduit CONN — connect or connection CONST — construction CONV — convector CP — control panel CPC — cement plaster ceiling CRC — cold rolled channel CRS — courses CS — convenience shelf CSK — countersink CTR — ceramic tile CT — centre CW — cold water CWP — crystalline waterproofing CWT — ceramic wall tile DB1, DB2 — decorative block DET — detail DF — drinking fountain DG — door grille DGL — double glazed DIA — diameter DIM — dimension DIV — division DO — ditto DN — down DR — drain DS — downspout DWG — drawing EC — emergency call system ECT — electrical change table ELEC — electrical ELEV — elevator EMERG — emergency ENCL — enclosure EP — electrical panel EQ — equal EQUIP — equipment EWC — electric water cooler EWP — exposed waterproofing membrane EXH — exhaust EXIST — existing EXP — exposed EX JT — expansion joint EXT — exterior FA — fire alarm FD — floor drain, or fire damper FND — foundation FE — fire extinguisher FEC — fire extinguisher cabinet FF — force flow heater F.F. — finished floor</p>	<p>FGB — folding grab bar FGLAS — fiberglass FHC — fire hose cabinet FIN — finish or finished FIG — figure FL, FLR — floor FPRG — fire proofing FRS — fire resistance rating FTG — footing FUT — future GA — gauge GALV — galvanized GB — grab bar GWB — gypsum board GWB-R — water resistant gypsum board GBBH — gypsum board bulkhead GL — glass GR — grade GRAN — granite or granular GRND — ground HB — hose bibb HD — hand dryer HWR — hardware HM — hollow metal HMS — hollow metal screen HORIZ — horizontal HSH — handheld shower HR — hour HT — height HTR — heater HW — hot water IC — included in contract ID — inside dimensions INSUL — insulation or insulated INT — interior INV — invert J or JAN — janitor JT — joint KO — knockout LAM — laminate(s) LAP — lay-in acoustic panel LAT — lateral LAV — lavatory LH — left hand LFT — overhead lift track LS — light stand LSSJ — long-span steel joint LWB — lightweight concrete block M — metres MACH — machine MAT — mineral acoustic tile MAX — maximum MECH — mechanical MET — metal MEMB — membrane MEZZ — mezzanine MFD — manufactured MFR — manufacture(r)/min. fire rating MG — make good MGTR — make good to match existing MH — mophead MIR — mirror MIN — minimum MISC — miscellaneous MM — millimetres MO — masonry opening MRT — marble tile MR — moisture resistance MST — mosaic tile MT — mounted MTD — not applicable N/A — not applicable NIC — not included in contract NO — number NOM — nominal NTS — not to scale OA — overall OC — on centre OD — outside dimension OO — obscure glass OGL — overhead OFS — overflow scuppers OPNG — opening OPP — opposite OWSJ — open-web steel joist P — point PA — public address PB — B/F push button PB-1 — B/F push button — to lock PC or PCC — precast concrete PE — porcelain enamel PEP — porcelain enamel panel PERIM — perimeter PERF — perforate(s) PF — prefinished PL — plaster, plate, or properly line PLAM — plastic laminate PLT — plate PLSTR — plaster PLYWD — plywood PNL — panel PTD — paper towel dispenser PTN — partition PTW — exterior grade veneer core plywood</p>	<p>PT — porcelain tile QT — quarry tile R — resilient (base or flooring), receptacle riser, or radius RAD — radius, radiator RC — recessed connector RCB — rubber continuous base RD — roof drain REC — recessed RECP — receptacle REINF — reinforced REQ, REQ'D — required REV — revised or revision RFG — rigid fiberglass (insul.) RF — rubber flooring / STAIR RES — resilient sheet flooring RSP — rubber sports flooring RH — roof hopper RO — rough opening RP — receptacle panel RT — rubber tile RUB — rubber RWL — rainwater leader S — stain SAF — safety flooring SAN — sanitary SCA, SCB — special coating (Type A,B, etc.) SD — soap dispenser SECT — section SFPNG — sprayed fireproofing SGL — single glazed SIM — similar SND — sanitary napkin disposal SNR — sanitary napkin receptacle SPEC — specifications SPD — standard proctor density SPT — sports surface flooring SQ — square SRC — semi-recessed connector SS — stainless steel, or slip sink ST or STL — steel STD — standard STM — storm STR or STRUC — structural STRUC or STRUCJ — structural SUSP — suspended SV — sheet vinyl flooring SW — switch SWBD — switchboard T — tread or terrazzo TB — tackboard T &amp; G — tongued and grooved TD — towel dispenser and disposal unit TDD — towel dispenser and disposal unit TEL — telephone TER — terrazzo TM — tilted mirror to match existing TME — top of T/O — top of TP — telephone pole TRANSF — transformer TRR — temperature rise rating T*STAT — thermostat TT — terrazzo tile TYP — typical U — up UC — undercut U/F — unfinished UFD — underfloor duct UNKD — under noted otherwise U/P or UP — under painted U/S — underside V — vanish VAR — variable or varies VAT — vinyl asbestos tile VB — vapour barrier VCT — vinyl composition tile VENT — ventilated, ventilator or ventilation VERT — vertical VEST — vestibule VOL — volume VWP — vinyl wall panel VF — vinyl faced VT — vinyl tile WBLKG — wood blocking WD — wood WDF — wood - FIRE RETARDANT WIN — window WDW — window WP — waterproofing WPG — waterproofing W/ — with WPG — wired plate glass WR — washroom</p>

GENERAL NOTES	
1.	ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT. DRAWINGS MUST NOT BE SCALED. THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE PRIOR TO PROCEEDING. DISCREPANCIES ARE TO BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK AFFECTED, FOR DIRECTION.
2.	ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO REQUIREMENTS OF THE ONTARIO BUILDING CODE LATEST EDITION AND THE OCCUPATIONAL HEALTH AND SAFETY ACT REGULATIONS FOR CONSTRUCTION PROJECTS. COMPLY WITH ALL MUNICIPAL REGULATIONS.
3.	CONFORM TO OWNERS GENERAL SPECIFICATIONS INCLUDING ALL SAFETY REQUIREMENTS.
4.	NOTIFY THE CONSULTANT PRIOR REMOVING ANY PORTION OF THE BUILDING THAT APPEARS TO BE STRUCTURAL REGARDLESS OF THE NOTATION ON THE DRAWINGS AND SPECIFICATION.
5.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING BUILDING AND EQUIPMENT AND REPAIR SAME TO THE SATISFACTION OF THE OWNER AND CONSULTANT. REPAIR ALL EXISTING JOINTS, FINISHES, ADJACENT SURFACES, ETC. WHERE NEW WORK JOINS. PROTECT EXISTING FROM DAMAGE DURING WORK. REPAIR ANY DAMAGE THAT SHOULD OCCUR.
6.	KEEP THE SITE THROUGHOUT THE WORK AREA IN A CLEAN AND ORDERLY CONDITION AT ALL TIMES TO THE SATISFACTION OF THE OWNER.
DEMOLITION NOTES	
1.	ALL EXISTING ITEMS NOT INCORPORATED INTO THE REVISED LAYOUT TO BE REMOVED AND DISPOSED.
2.	DISPOSE OF MATERIALS IN LEGAL LANDFILL OR RECYCLING SITES IN ACCORDANCE WITH THE REGION OF YORK REGULATIONS.
3.	ALL EXISTING SURFACES AND PARTITIONS ETC. WHICH ARE TO REMAIN SHALL BE PROTECTED DURING DEMOLITION.
4.	MAKE GOOD ALL DISTURBED SURFACES, ADJACENT FLOORS, WALLS AND CEILINGS TO MATCH EXISTING AFTER COMPLETION OF WORK, UNLESS OTHERWISE NOTED.
CONSTRUCTION NOTES	
1.	MAINTAIN ANY EXISTING FIRE RATED SEPARATIONS & ASSEMBLIES. MAKE GOOD ANY FIREPROOFING DISTURBED BY CONSTRUCTION.
2.	GENERAL CONTRACTOR SHALL CUT WALLS, FLOOR ETC. FOR MECHANICAL AND ELECTRICAL ACCESS AND SERVICES TO SUIT REQUIRED DIMENSIONS.
3.	FILL ALL OPENINGS & CRACKS DUE TO REMOVAL OF EXISTING PIPES, DUCTS, CONDUITS & FITMENTS PRIOR TO FINISHING FLOORS & WALLS.
4.	MAKE GOOD ALL PENETRATIONS THROUGH FIRE SEPARATIONS. ALL PENETRATIONS TO BE SEALED WITH RATED MATERIAL. REPAIR EXISTING SPRAYED ON FIREPROOFING AT ALL EXISTING DAMAGED AREAS AND WHERE DISTURBED BY THE WORK OF THIS CONTRACT. MAXIMUM FLAME - SPREAD RATING OF 150 FOR ALL INTERIOR FINISHES.
5.	MODIFY TELEPHONE, ELECTRICAL, ALARM & HVAC AS REQUIRED REFER TO M&E DRAWINGS.
6.	CONTRACTORS SHALL ATTEMPT TO FISH NEW FEEDS DOWN EXISTING WALLS, WHERE THIS IS NOT POSSIBLE (DN 1), SURFACE INSTALLATION IS ACCEPTABLE ON EXISTING BLOCK WALLS IN FINISHED AREAS AS FOLLOWS: - BOXES SHALL BE SHALLOW WIRE MOLD BOX WITH NO KNOCKOUTS - CONDUIT SHALL BE WIRE MOLD COLOUR TO MATCH ADJACENT SURFACES
7.	ALL EXPOSED DUCTWORK AND M&E EQUIPMENT TO BE PAINTED TO MATCH ADJACENT SURFACES UNLESS SPECIFICALLY NOTED. CONFIRM ALL FINISHES WITH ARCHITECT PRIOR TO PROCEEDING.
8.	SEE M & E DRAWINGS FOR RE-LOCATION AND/OR REMOVAL OF OBSOLETE EQUIPMENT. PATCH & MAKE GOOD AND FINAL FINISH TO MATCH NEW CONDITION
9.	HAZARDOUS AND DESIGNATED SUBSTANCES IF HAZARDOUS MATERIALS / DESIGNATED SUBSTANCES ARE ENCOUNTERED DURING CONSTRUCTION, OWNER IS TO BE NOTIFIED IMMEDIATELY. MATERIALS ARE NOT TO BE REMOVED BY CONTRACTOR. CONTRACTOR TO COORDINATE W/ OWNER AND OWNERS' CONTRACTOR.
10.	ENTIRE FLOOR AREA PROVIDE COVERS FOR ALL OPENINGS, SOCKETS, ETC. TO EXISTING UNDER FLOOR RACEWAY SYSTEM. PATCH OVER AND SEAL ALL CUTTING, DRILLING AND BURNING OF EXISTING FLOOR OR STRUCTURAL CEILING SLAB MUST ENSURE INTEGRITY OF STRUCTURAL SYSTEM (IE, REBAR, STEEL, ETC.) FIRE PROTECTION AND AIR TIGHTNESS ARE MAINTAINED.
11.	COORDINATE ALL CUTTING AND PATCHING AROUND SERVICES ETC. PENETRATING EXISTING OR NEW WALLS TO MAINTAIN STRUCTURAL, FIRESTOPPING, AIR TIGHTNESS INTEGRITY AND APPEARANCE. FINISH ALL OPENINGS AROUND DUCTS & OTHER OPENINGS, ETC WITH DRYWALL PRIOR TO DUCT PLACEMENT-TAPE, SEAL & PRIME. PROVIDE FIRE STOPPING FIRE BARBER SEALANT BETWEEN DUCT, ETC. AND DRYWALL PERIMETER. MAKE GOOD ALL SURFACES FOR FINAL FINISH.
12.	ALL EQUIPMENT LOCATIONS TO BE COORDINATED WITH THE OWNER. EQUIPMENT LOCATIONS INDICATED ARE FOR INFORMATION ONLY - CONTRACTOR TO COORDINATE INTERACTING TRADES TO FACILITATE FULL OPERATION WHEN THE EQUIPMENT IS INSTALLED BY OWNER.
13.	MODIFY CEILING & LIGHTING AT EXISTING AREAS AS REQ'D
14.	CONTRACTOR SHALL OUPLINE ALL PARTITIONS AND EQUIPMENT POSITIONS FOR REVIEW & APPROVAL BY OWNER PRIOR TO COMMENCEMENT OF WORK. IF CONFLICT ARISES BETWEEN DRAWINGS AND FIELD MEASUREMENTS THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ARCHITECT FOR DIRECTION. AT NO TIME SHALL THE CONTRACTOR PROCEED IN UNCERTAINTY.
15.	ALL ELECTRICAL BOXES, PENETRATIONS, ETC. THROUGH WALLS DESIGNATED TO BE AIR-TIGHT TO BE AIR SEALED.
16.	ELECTRONIC COPIES OF THE ARCHITECTURAL DRAWINGS FOR THIS PROJECT FOR USE IN THE PREPARATION OF SHOP DRAWINGS AND AS-BUILT DRAWINGS (AND FOR NO OTHER PURPOSE) ARE AVAILABLE AS-BUILT AND AT A COST OF \$100.00 PER DRAWING WITH A MINIMUM OF \$400.00 PER SUBMISSION. THE DRAWINGS WILL BE PROVIDED WITHOUT ANY TITLE BLOCKS OR SEALS.

DRAWING SYMBOL LEGEND	
NOTE: NOT ALL TYPES ARE NECESSARILY USED ON THIS PROJECT. REFER TO FLOOR PLANS.	
	BUILDING CROSS SECTION, SECTION NO. AND SHEET DRAWING ON
	WALL CROSS SECTION, SECTION NO. AND SHEET DRAWING ON
	INTERIOR ELEVATION REFERENCE NUMBERS INDICATE VIEW NUMBER
	ELEVATION DATUM
	DETAIL REFERENCE BUBBLE, DETAIL NO. AND SHEET DRAWING ON
	GRID LINE AND BUBBLE REFERENCE
	DETAIL REFERENCE BUBBLE, CEILING TYPE AND CEILING HEIGHT A.F.F.
	WALL TYPE
	DOOR NUMBER - FIRST FLOOR AT ROOM NO. A105
	WINDOW NUMBER
	SCREEN NUMBER
	ROOF TYPE
	ROOM NAME AND NUMBER
	EQUIPMENT NOT IN CONTRACT
	EXISTING FINISH FLOOR AREA APPROXIMATE. SITE VERIFY PRIOR TO COMMENCING CONSTRUCTION
DEMOLITION LEGEND	
	EXISTING DOOR TO REMAIN
	EXISTING WALL TO REMAIN
	DOOR TO BE DEMOLISHED
	WALL TO BE DEMOLISHED
	ACT TO BE DEMOLISHED
	EXISTING ACT TO REMAIN
	DENOTES: EXISTING DEVICE TO REMAIN
	DENOTES: EXISTING DEVICE TO BE RELOCATED
	DENOTES: EXISTING DEVICE TO BE REMOVED AND DISPOSED
REFER TO MECHANICAL & ELECTRICAL DRAWINGS FOR LIGHT FIXTURES, GRILLES, DIFFUSERS & DEVICES. LOCATIONS TO BE CONFIRMED.	
CONSTRUCTION LEGEND	
	NEW DOOR
	NEW WALL
	NEW ACT
	DENOTES: NEW DEVICE
	DENOTES: EXISTING RELOCATED DEVICE

WALL TYPE SCHEDULE			
NOTES: 1. ALL PENETRATIONS IN FIRE RATED WALLS & JUNCTIONS TO BE FIRESTOPPED & SEALED WITH RATED MATERIAL. 2. ALL FIRE SEPARATION PARTITIONS (INCLUDED OHR RATED WALLS AT CORRIDORS) TO EXTEND TO US OF SLAB OR MTL. DECK AND TO BE FIRESTOPPED & SEALED WITH RATED MATERIAL TO DECK, SLAB & ADJ. WALLS. 3. ALL PARTITIONS BETWEEN ROOMS TO EXTEND TO US OF SLAB OR MTL. DECK, FIRE AND SMOKE SEAL UNLESS OTHERWISE NOTED. 4. ALL EXPOSED MASONRY CORNERS TO BE BULLNOSED - TYPICAL.		CONCRETE BLOCK 1HR 90mm 75% SOLID 140mm STANDARD 2HR 140mm 75% SOLID 190mm 75% SOLID	
WALL TYPE	CONSTRUCTION	DESCRIPTION	MINIMUM FIRE RATING AND SOUND TRANSMISSION CLASS
1		INTERIOR MASONRY WALL 140mm CONCRETE BLOCK NOTE: • AT CORRIDOR: CONCRETE BLOCK SIZE (HEIGHT DIMENSION) TO MATCH EXISTING • NEW WALL TO U/S EXISTING BULKHEAD	
2		INTERIOR MASONRY WALL 190mm CONCRETE BLOCK TO MATCH EXISTING NOTE: • MASONRY TO BE EXTENDED TO U/S OF STRUCTURE	
P1		INTERIOR WALL PARTITION 16mm GWB WALL SHEATHING 13mm PLYWOOD 152mm METAL STUDS @ 600mm O.C. 150mm ACOUSTIC BATTS 13mm PLYWOOD 16mm GWB WALL SHEATHING NOTE: • EXTEND PARTITION TO U/S OF STRUCTURE	STC 50+
P2		EXISTING INTERIOR WALL PARTITION • PROVIDE 89mm ACOUSTIC BATTS TO 100mm ABOVE THE CEILING • REINFORCE EXISTING STEEL STUDS AS REQUIRED • NEW 13mm PLYWOOD • NEW 16mm GWB WALL SHEATHING TO MATCH EXISTING	STC 50
P3		INFILL INTERIOR WALL PARTITION • INFILL OPENING TO MATCH WALL TYPE P2	STC 50

**SUSAN FRIEDRICH ARCHITECT inc.**  
643 St. Clair Avenue West, Toronto, Ontario M6C 1A7  
Telephone (416) 588-3740 Fax (416) 588-2401

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3	APR 25 2023	ISSUED FOR TENDER
2	APR 18 2023	BUILDING PERMIT
1	APR 06 2023	ISSUED FOR CLIENT REVIEW

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1  
T23-34

Title:  
**LEGEND AND GENERAL NOTES**

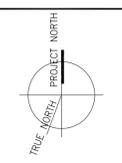
Scale: Not To Scale	Date: MAR 14 2023	Drawing: A002
Project: 21-60B	Drawn By:	

DATE PLOTTED: APR 25 2023

• PLOT SCALE: 1:1 AT 11x17" SHEET SIZE. READ DRAWINGS ACCORDINGLY. • PLOT SCALE: 1:1 AT 11x17" SHEET SIZE. READ DRAWING ACCORDINGLY.

LEGAL DESCRIPTION:  
 PLAN OF SURVEY  
 PART OF LOT 15  
 CONCESSION 2  
 (GEOGRAPHIC TOWNSHIP OF EAST WHITBY)  
 NOW IN THE  
 CITY OF OSHAWA  
 REGIONAL MUNICIPALITY OF DURHAM

SUSAN FRIEDRICH ARCHITECT INC.  
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LOCATION PLAN  
 NOT TO SCALE

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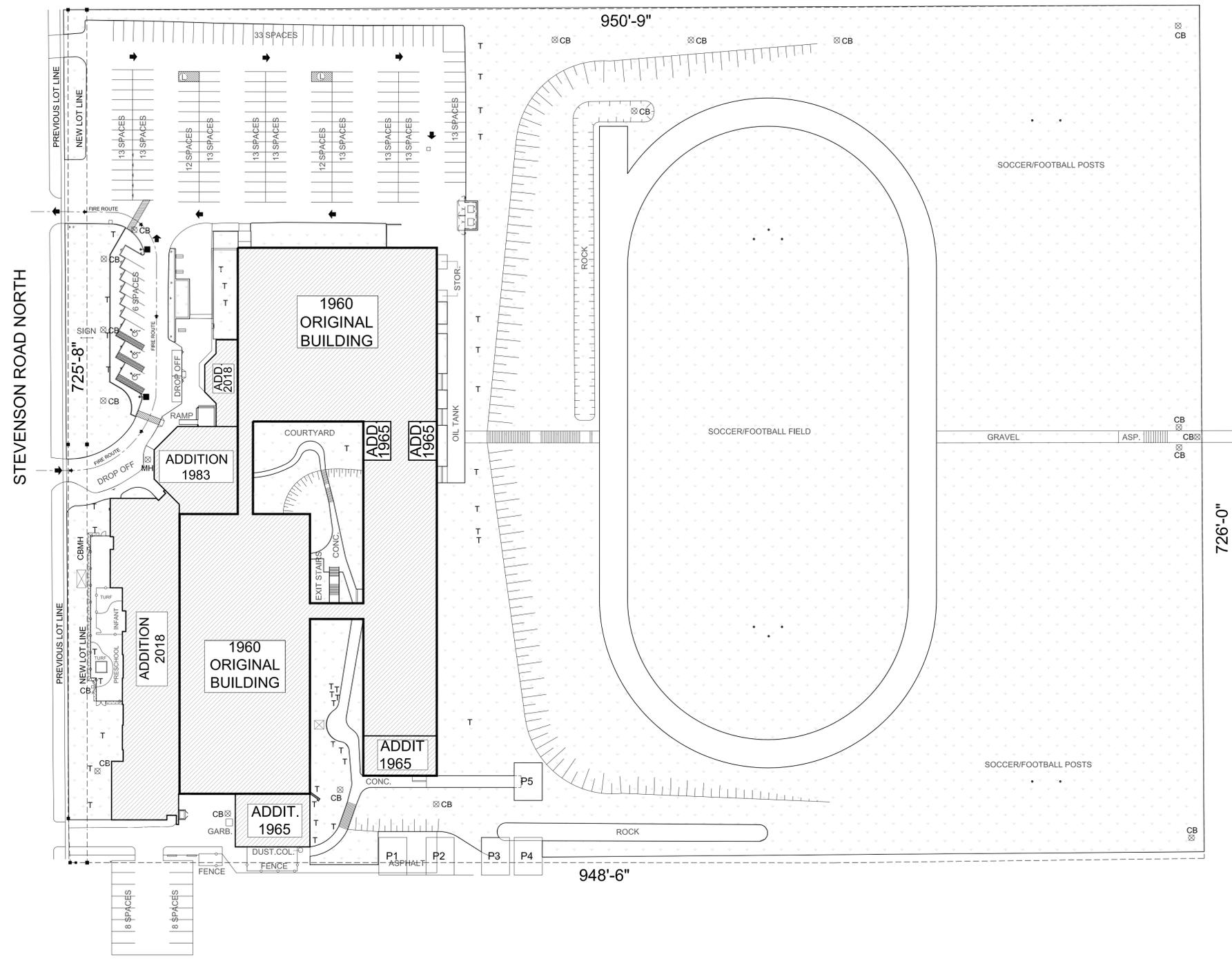
Revisions, Issues

Project:  
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 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1  
 T23-34

Title:  
 EXISTING SITE PLAN

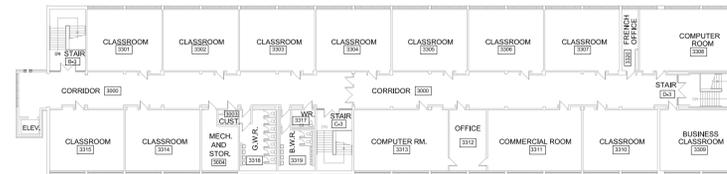
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As Noted	MAR 14 2023	A101
Project:	Drawn By:	
21-60B		

DATE PLOTTED: APR 24 2023

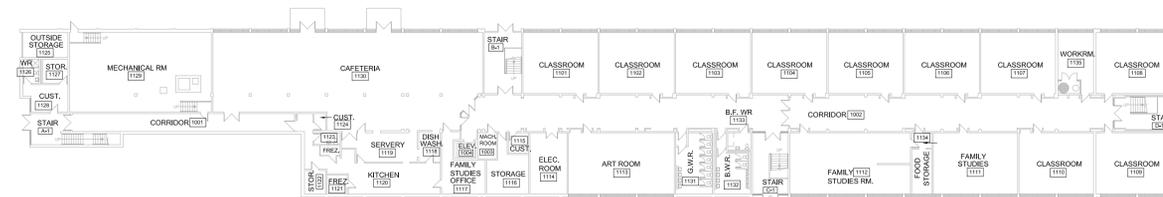


1 EXISTING SITE PLAN  
 NO WORK - FOR INFORMATION ONLY  
 SCALE 1:600

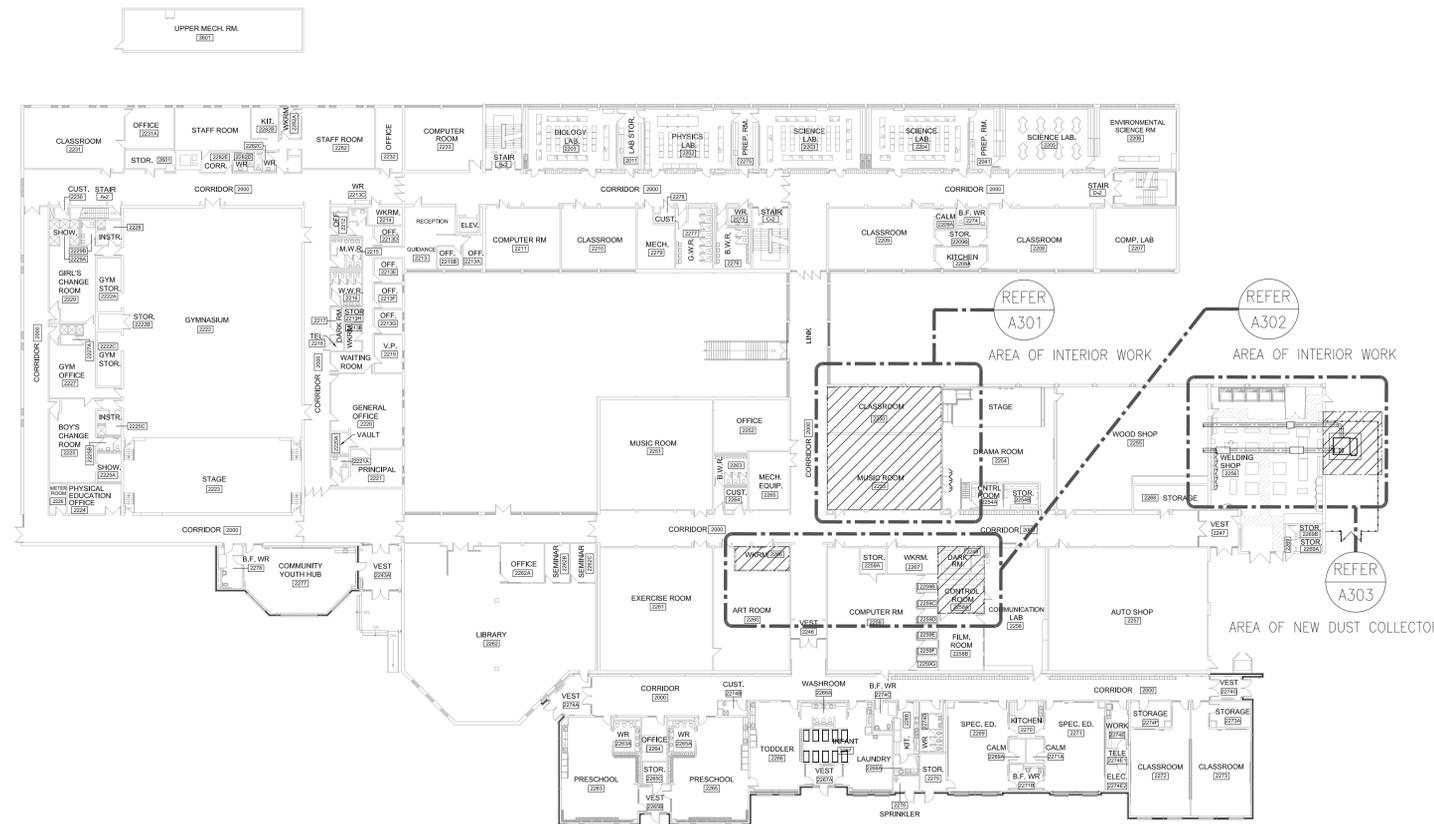
• PLOT SCALE: 1:12 AT 11x17" SHEET SIZE. READ DRAWINGS ACCORDINGLY.  
 • PLOT SCALE: 1:24 AT 11x17" SHEET SIZE. READ DRAWING ACCORDINGLY.



3 EXISTING UPPER FLOOR KEY PLAN  
(NO WORK - FOR INFORMATION ONLY) SCALE 1:400



2 EXISTING LOWER FLOOR KEY PLAN  
(NO WORK - FOR INFORMATION ONLY) SCALE 1:400



1 EXISTING MAIN FLOOR KEY PLAN  
SCALE 1:400

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**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1  
T23-34

Title:  
KEY PLANS

Scale:	Date:	Drawing:
As Noted	MAR 14 2023	A102
Project:	Drawn By:	
21-60B		

DATE PLOTTED: APR 24 2023

• PLOT SCALE: 1:400  
 • 36x36 SHEET SIZE  
 • READ DRAWINGS ACCORDINGLY  
 • PLOT SCALE: 1:400 AT 11x17 SHEET SIZE READ DRAWING ACCORDINGLY

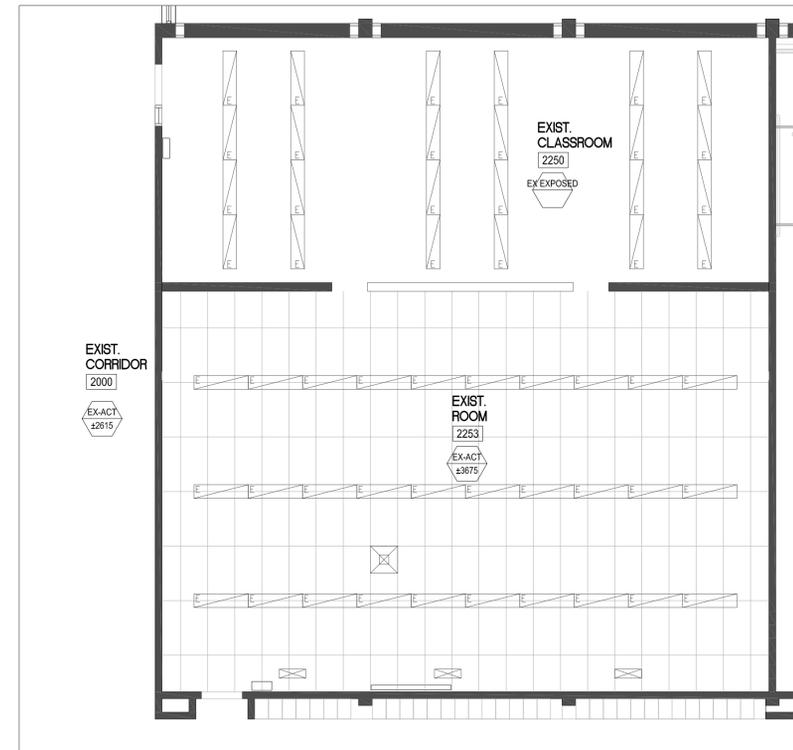
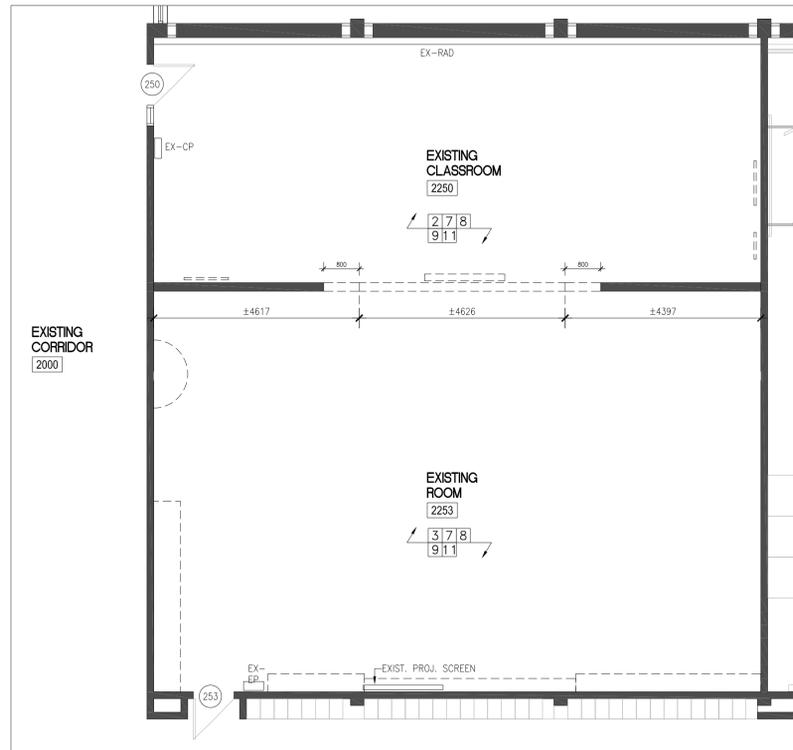
**DEMOLITION NOTES:**

THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS.

1. **AT EXISTING WORKROOM #2266:**
    - EXISTING FLOORING REMOVED AND DISPOSED AS PER LIMITED DESIGNATED SUBSTANCES SURVEY REPORT AS PART OF THIS TENDER.
    - PREPARE EXISTING FLOOR TO BE LEVELED FOR NEW FLOORING AS SPECIFIED
    - EXISTING FRIDGE AND MICROWAVE TO BE RELOCATED AS PER DDSB SITE INSTRUCTION
    - EXISTING FURNITURE AND TACKBOARDS TO BE REMOVED AND RELOCATED AS PER DDSB SITE INSTRUCTION
    - EXISTING ACT CEILING AND GRIDS TO REMAIN
    - REFER M&E DWGS FOR ALL M&E DEMOLITION & RELOCATIONS (TYPICAL)
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
  2. **AT EXISTING CLASSROOM #2250:**
    - REMOVE CAREFULLY EXISTING VCT FINISH FLOOR & BASE
    - PREPARE EXISTING FLOOR TO BE LEVELED FOR NEW FLOORING AS SPECIFIED
    - EXISTING WB, TB AND ALL FURNITURE TO BE REMOVED
    - EXISTING PROJECTOR & SCREEN TO BE REMOVED BY OTHERS
    - EXISTING NON-LOAD BEARING MASONRY/GWB WALL IN-BETWEEN EXISTING CONTROL JOINTS TO BE REMOVED FOR NEW OPENING
    - REFER STRUCTURAL DWGS FOR ALL STRUCTURAL SUPPORT AND DETAILS
    - REFER M&E DWGS FOR ALL M&E DEMOLITION & RELOCATIONS (TYPICAL)
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
  3. **AT EXISTING ROOM #2253:**
    - REMOVE CAREFULLY EXISTING CARPET FINISH FLOOR & BASE
    - PREPARE EXISTING FLOOR TO BE LEVELED FOR NEW FLOORING AS SPECIFIED
    - EXISTING MILLWORK AND TB TO BE REMOVED AND DISPOSED
    - EXISTING WHITEBOARDS TO BE TURNED OVER TO THE OWNER FOR REINSTALL BY CONTRACTOR AS NEEDED.
    - EXIST. BRADLEY SINK, SD & PTD TO BE REMOVED & REPLACED W/ NEW WATER BOTTLE FILLER
    - EXISTING EXERCISE EQUIPMENT TO BE REMOVED AND RELOCATED
    - EXISTING PROJECTOR AND SCREEN TO REMAIN AND TO BE COVERED + PROTECTED DURING CONSTRUCTION
    - EXISTING ACT CEILING AND GRIDS TO REMAIN + REPLACE ALL DAMAGED ACT CEILING TO MATCH EXISTING (TYPICAL)
    - REFER M&E DWGS FOR ALL M&E DEMOLITION & RELOCATIONS (TYPICAL)
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
  4. **AT EXISTING DARK ROOM #2249:**
    - ALL WOOD FLOORS AND BASE TO REMAIN, PATCH IN AS NEEDED AFTER DEMOLITION, SAND AND REFINISH AS PER SPECIFICATIONS.
    - PREPARE EXISTING FLOOR TO BE LEVELED FOR NEW FLOORING AS SPECIFIED
    - EXISTING MILLWORK, SINK, PTD ETC. TO BE REMOVED AND DISPOSED
    - EXISTING ACT/GWB CEILING, GRIDS AND M&E FIXTURES TO REMOVED AND REPLACED WITH NEW
    - PART OF EXISTING GWB WALL PARTITIONS TO BE REMOVED AND DISPOSED
    - INFILL EXISTING OPENING IN-BETWEEN DARK ROOM AND COMMUNICATION LAB ROOM TO MATCH EXISTING GWB WALL PARTITIONS
    - REFER M&E DWGS FOR ALL M&E DEMOLITION & RELOCATIONS (TYPICAL)
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
  - 4A. **REMOVE CAREFULLY PART OF EXISTING MASONRY WALL FOR NEW DOOR OPENING**
    - REFER STRUCTURAL DWGS FOR ALL STRUCTURAL SUPPORT AND DETAILS
    - ALL EXISTING MASONRY CUT TO BE REPLACED WITH NEW BULLNOSED SOLID BLOCK JAMBS & HEAD TO MATCH EXISTING (TYPICAL)
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING (TYPICAL)
  - 4B. **EXISTING DRYWALL TO BE CAREFULLY REMOVED AS REQUIRED FOR NEW SOUND INSULATION**
    - PROVIDE NEW STEEL STUDS AS REQUIRED TO REINFORCE THE AREA OF THE NEW UPPER CABINETS
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
  5. **AT EXISTING CONTROL ROOM #2258A:**
    - ALL WOOD FLOORS AND BASE TO REMAIN.
    - EXISTING CEILINGS TO BE REMOVED AS REQUIRED TO INCORPORATE NEW LAYOUTS.
    - EXISTING METAL SHELVING UNIT & LOW DESK MILLWORK TO BE REMOVED AND HANDED OVER TO SCHOOL
    - EXISTING HUB TO BE REMOVED AND RELOCATED BY OTHERS
    - REFER M&E DWGS FOR ALL M&E DEMOLITION & RELOCATIONS (TYPICAL)
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
  6. **AT EXISTING CORRIDOR #2000:**
    - PART OF EXISTING LOCKERS TO BE CAREFULLY REMOVED AS REQUIRED FOR NEW DOOR OPENING
    - PART OF EXISTING CONCRETE BASE/TERRAZZO TO BE CAREFULLY REMOVED
    - PREPARE EXISTING FLOOR TO BE LEVELED AND TO RECEIVE NEW TERRAZZO FINISH (FLOOR/BASE) TO MATCH EXISTING
    - AFTER REMOVING EXISTING LOCKERS, IF THERE ARE ANY OPENINGS ON EXISTING WALLS, PROVIDE NEW INFILL TO MATCH EXISTING (TYPICAL)
    - EXISTING GWB BULKHEAD TO BE REMOVED AS REQUIRED FOR THIS SCOPE OF WORK AND PROVIDE NEW GWB BULKHEAD TO MATCH EXISTING (TYPICAL)
  7. **ALL DEMOLITIONS AFFECTED FOR THIS SCOPE OF WORK:**
    - PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING (TYPICAL)
  8. **ALL M&E DEMOLITION/RELOCATIONS REFER M&E DWGS - TYPICAL**
  9. **REFER STRUCTURAL DWGS FOR ALL STRUCTURAL SUPPORT AND DETAILS (TYPICAL)**
  10. **DUSTPROOF PARTITIONS SHALL CONSIST OF CONSTRUCTION GRADE WOOD 38MM X 92MM FRAMING FROM FLOOR TO THE UNDERSIDE OF CEILING WITH VOIDS FILLED WITH SOUND ATTENUATION BATTS, WITH ONE LAYER OF 13 MM PLYWOOD SHEATHING COVERED WITH SEALED AND TAPED TO MIL POLYETHYLENE, CAULKED AND SEALED AROUND THE PERIMETER OF THE PARTITION AND COVERED BY ONE LAYER OF 16 MM TYPE X GYPSUM WALL BOARD EACH SIDE WITH OFFSET JOINTS TAPED**
  11. **ALL ITEMS EXISTING NOT INCORPORATED INTO THE REVISED LAYOUT TO BE REMOVED AND DISPOSED OF UNLESS NOTED. MAKE GOOD ALL DISTURBED SURFACES, ADJACENT FLOORS, WALLS AND CEILINGS TO MATCH EXISTING AFTER COMPLETION OF WORK, UNLESS OTHERWISE NOTED. ALL ABANDONED ELECTRIC PANELS, EQUIPMENT, CONDUIT, ETC., TO BE REMOVED**
- GENERAL CONTRACTOR TO VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS ON SITE.

**CONCRETE CUTTING AND CORING:**

1. PRIOR TO CUTTING OR CORING ANY CONCRETE SLAB OR ON GRADE, OR ANY CONCRETE BEAM, INVESTIGATE BY TELEMERICALLY SCANNING THE ELEMENT FOR PRESENCE OF EMBEDDED SERVICES (PIPING, CABLING, CONDUIT, ETC.), AND FOR LOCATIONS OF REINFORCING STEEL IN CONCRETE SLABS AND BEAMS.
2. ACCEPTABLE TELEMERIC SCANNING SYSTEMS INCLUDE:
  - a) EX-RAY SCANNING OF SLABS AND FOR CONCRETE BEAMS. (GROUND-PENETRATING) RADAR FOR SLAB ON GRADE, FOR SLABS AND FOR CONCRETE BEAMS.
  - b) MAGNETIC RADIO SCANNERS NOT ACCEPTABLE FOR TELEMERIC SCANNING. THE TERM EX-RAYS INCLUDE GAMMA RAY METHODS, AND PROCEDURES THAT USE ELECTRICALLY GENERATED EX-RAYS.
  - c) WHERE EX-RAYS EMPLOYED:
    - I. PROVIDE OWNER MINIMUM 5 WORKING DAYS ADVANCE NOTICE OF SCANNING TIME IN ORDER TO PROVIDE SUFFICIENT ADVANCE NOTICE TO PERSONNEL THAT MAY BE AFFECTED BY THE EX-RAY WORK.
    - II. CONFORM TO OWNER'S RADIATION PROTECTION REQUIREMENTS PRIOR TO START OF ANY XRAY WORK.
    - III. PROVIDE OWNER AND CONSULTANT WITH INSPECTION AGENCY'S WRITTEN REPORT, SUMMARIZING INVESTIGATIONS AND CONCLUSIONS.
    - IV. OBTAIN CONSULTANT'S DIRECTION WHERE INVESTIGATIONS REVEAL THAT CUTTING OR CORING REQUIRED IN CONTRACT WOULD CUT OR DAMAGE EMBEDDED SERVICES, OR CUT OR DAMAGE REINFORCING STEEL IN CONCRETE SLABS OR BEAMS.
    - V. EXECUTE CUTTING AND CORING TO PREVENT DAMAGE TO ALL EMBEDDED SERVICES. MAKE GOOD ALL DAMAGE ARISING FROM CUTTING EMBEDDED SERVICES.
    - VI. EXECUTE CUTTING AND CORING TO PREVENT DAMAGE (CUTTING IN WHOLE OR IN PART) REINFORCING STEEL IN CONCRETE SLABS WITH CONSULTANT'S PRIOR AUTHORIZATION.
    - VII. MAKE GOOD ALL DAMAGE ARISING FROM CUTTING REINFORCING STEEL IN CONCRETE SLABS AND BEAMS.



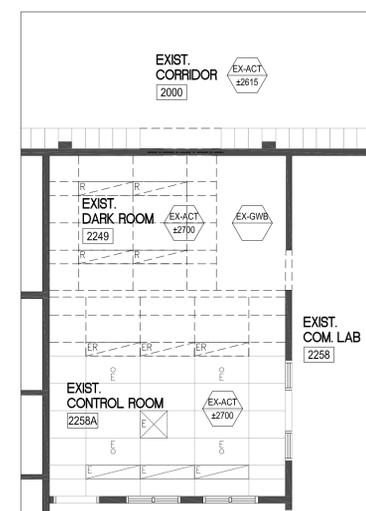
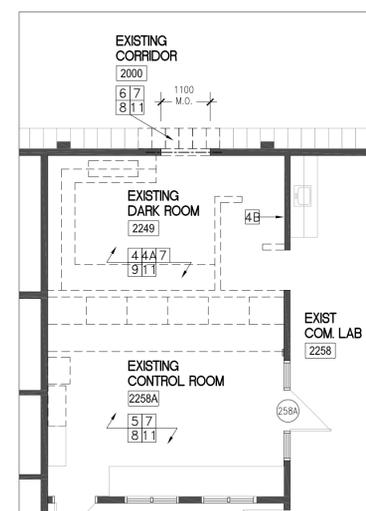
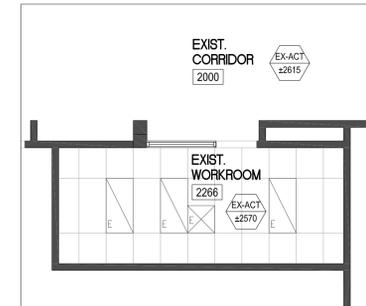
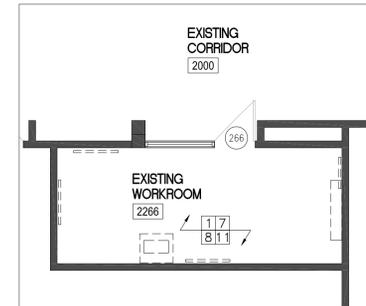
V1 EXIST. ROOM #2253      V2 EXIST. CLASSROOM #2250



V3 EXIST. WORKROOM #2266      V4 EXIST. CONTROL ROOM #2258A

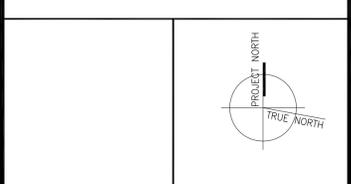


V5 EXIST. DARK ROOM #2249      V6 EXIST. CORRIDOR #2000



1 PART MAIN FLOOR PLAN - DEMOLITION  
SCALE 1:75

SUSAN FRIEDRICH ARCHITECT INC. ■  
643 St. Clair Avenue West, Toronto, Ontario M6C 1A7  
Telephone (416) 588-3740 Fax (416) 588-2401



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3	APR 25 2023	ISSUED FOR TENDER
2	APR 18 2023	BUILDING PERMIT
1	APR 06 2023	ISSUED FOR CLIENT REVIEW

Revisions, Issues

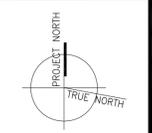
Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1  
T23-34

Title:  
PART FLOOR PLANS  
DEMOLITION

Scale:	Date:	Drawing:
As Noted	MAR 14 2023	A201
Project:	Drawn By:	
21-60B		

DATE PLOTTED: APR 24 2023

• PLOT SCALE IS 1:75. 300x420 SHEET SIZE. READ DRAWINGS ACCORDINGLY. • PLOT SCALE IS 1:75 AT 11x17" SHEET SIZE. READ DRAWING ACCORDINGLY.



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3	APR 25 2023	ISSUED FOR TENDER
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1	APR 06 2023	ISSUED FOR CLIENT REVIEW

Revisions, Issues

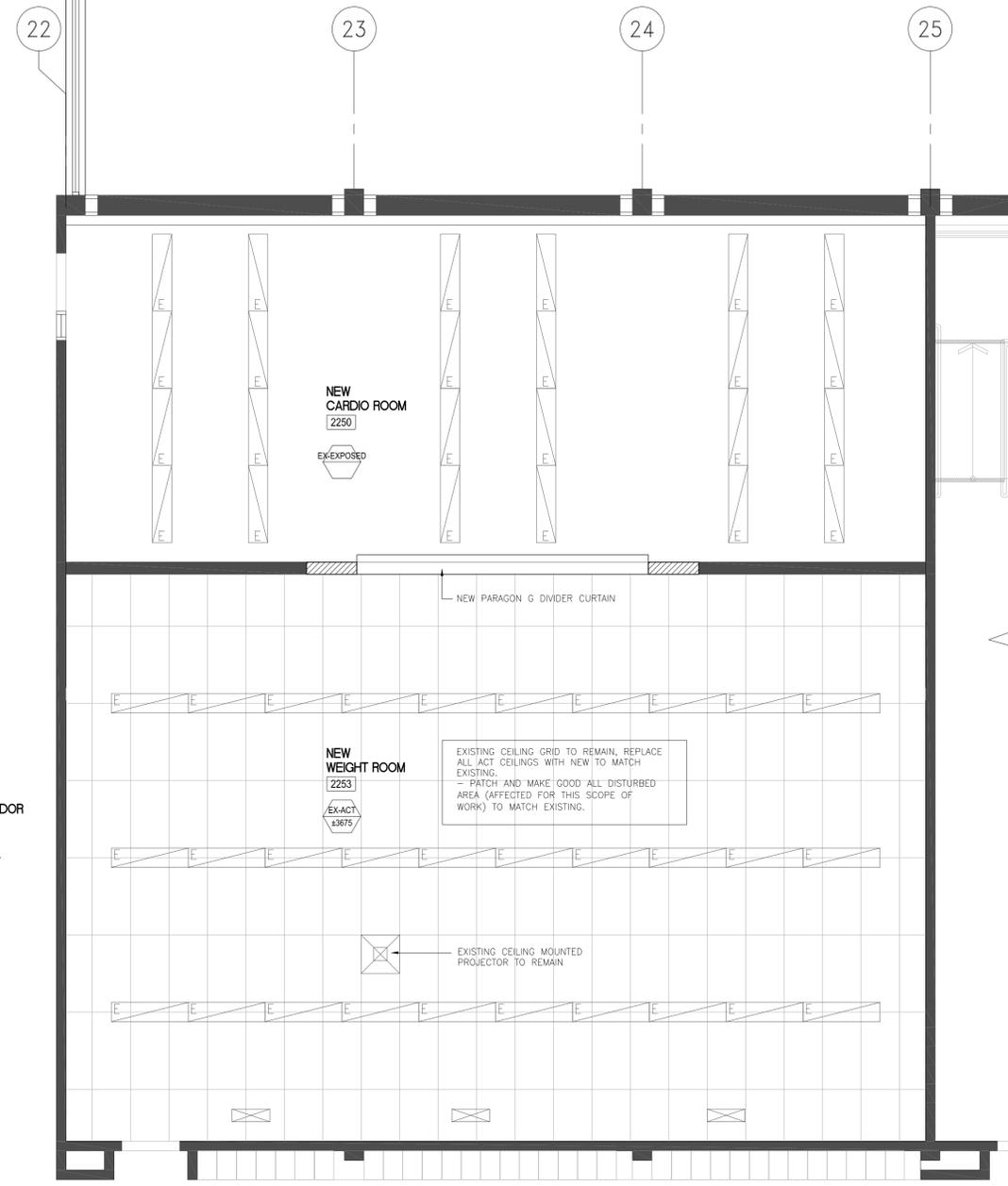
Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1  
 T23-34

Title:  
 PART MAIN FLOOR PLAN  
 NEW LAYOUT

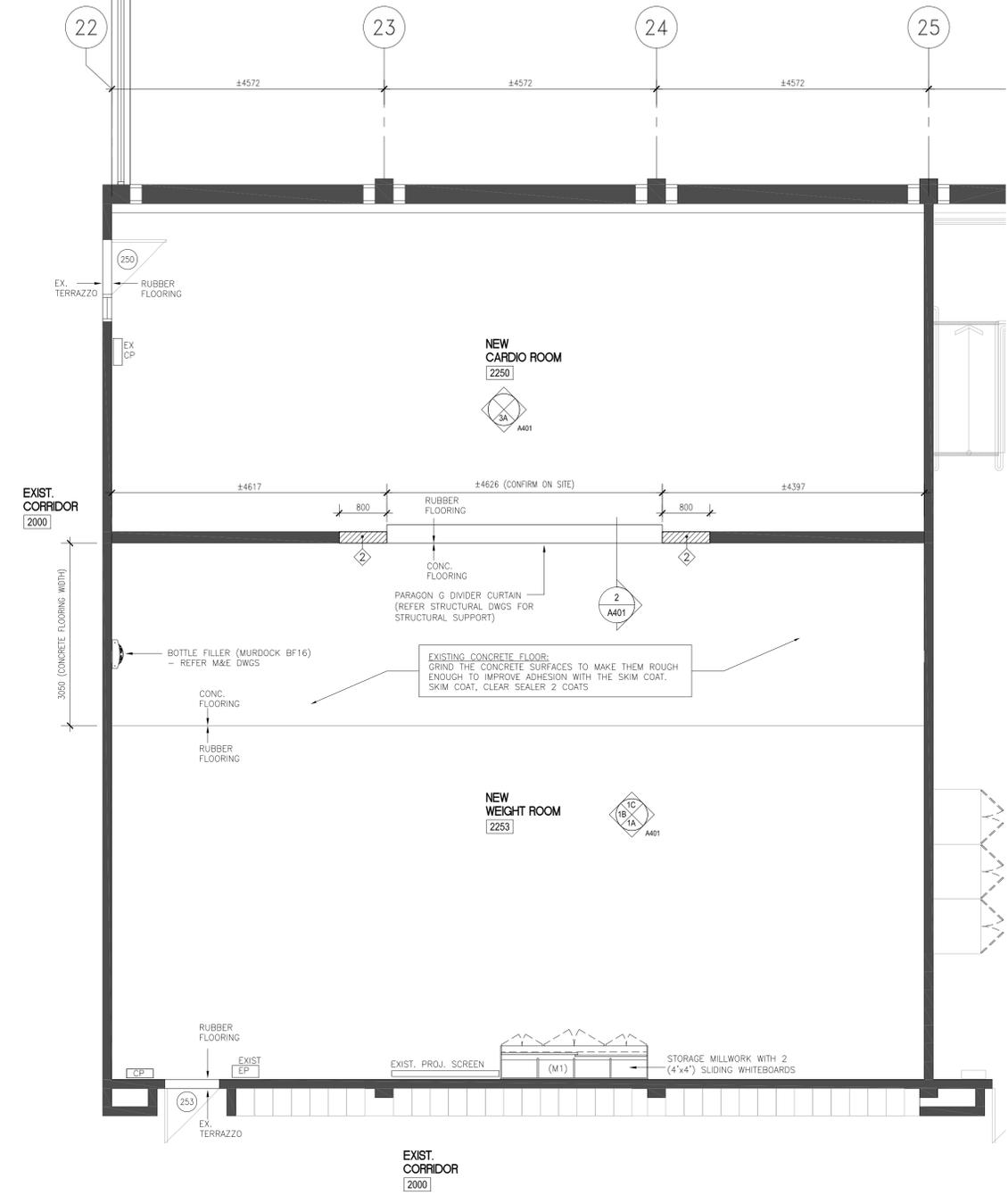
Scale:	Date:	Drawing:
As Noted	MAR 14 2023	A301
Project:	Drawn By:	
21-60B		

DATE PLOTTED: APR 24 2023

PLOT SCALE: 1/4" = 1'-0" SHEET SIZE: READ DRAWINGS ACCORDINGLY.  
 PLOT SCALE: 1/2" = 1'-0" SHEET SIZE: READ DRAWING ACCORDINGLY.



**2 PART MAIN RCP - NEW LAYOUT**  
 AT NEW CARDIO & WEIGHT ROOM SCALE 1:50



**1 PART MAIN FLOOR PLAN - NEW LAYOUT**  
 AT NEW CARDIO & WEIGHT ROOM SCALE 1:50





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2	APR 18 2023	BUILDING PERMIT
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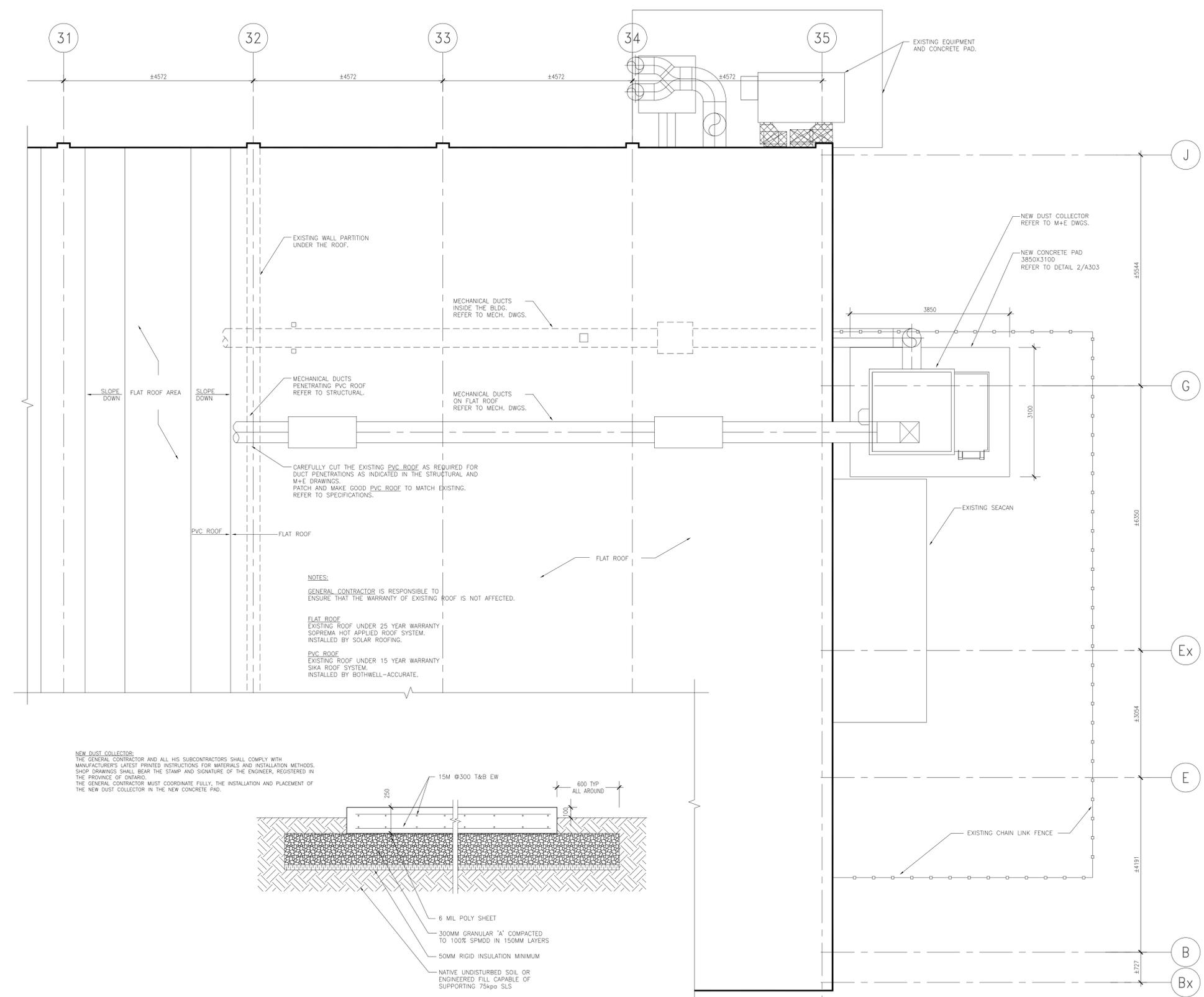
Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1  
 T23-34

Title:  
**PART ROOF PLAN & DETAILS**

Scale:	Date:	Drawing:
As Noted	MAR 14 2023	A303
Project:	Drawn By:	
21-60B		

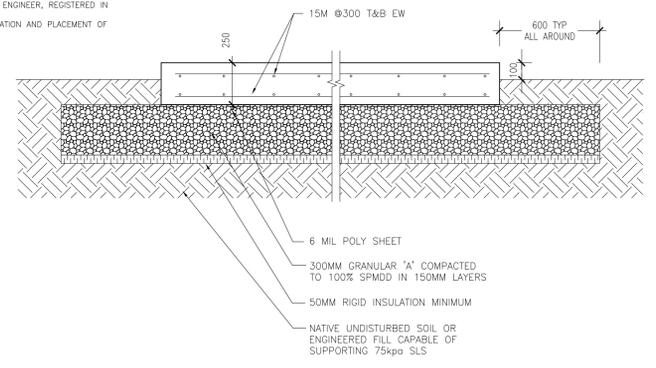
DATE PLOTTED: APR 24 2023



**2** EQUIPMENT PAD  
 SCALE 1:20

**1** PART ROOF PLAN  
 AT WELDING ROOM  
 SCALE 1:50

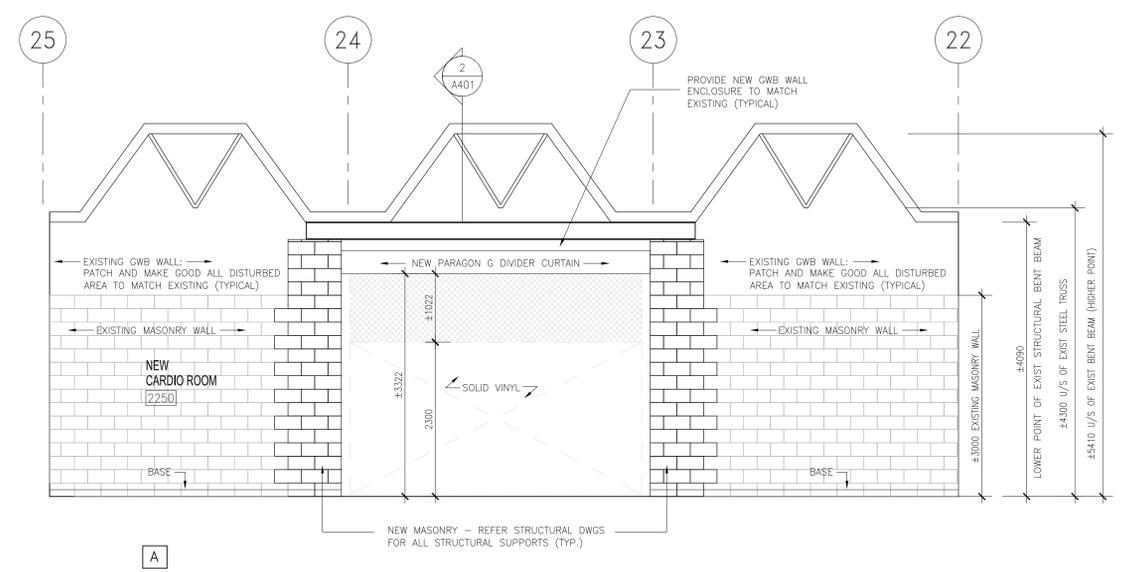
NEW DUST COLLECTOR:  
 THE GENERAL CONTRACTOR AND ALL HIS SUBCONTRACTORS SHALL COMPLY WITH MANUFACTURER'S LATEST PRINTED INSTRUCTIONS FOR MATERIALS AND INSTALLATION METHODS. SHOP DRAWINGS SHALL BEAR THE STAMP AND SIGNATURE OF THE ENGINEER, REGISTERED IN THE PROVINCE OF ONTARIO.  
 THE GENERAL CONTRACTOR MUST COORDINATE FULLY THE INSTALLATION AND PLACEMENT OF THE NEW DUST COLLECTOR IN THE NEW CONCRETE PAD.



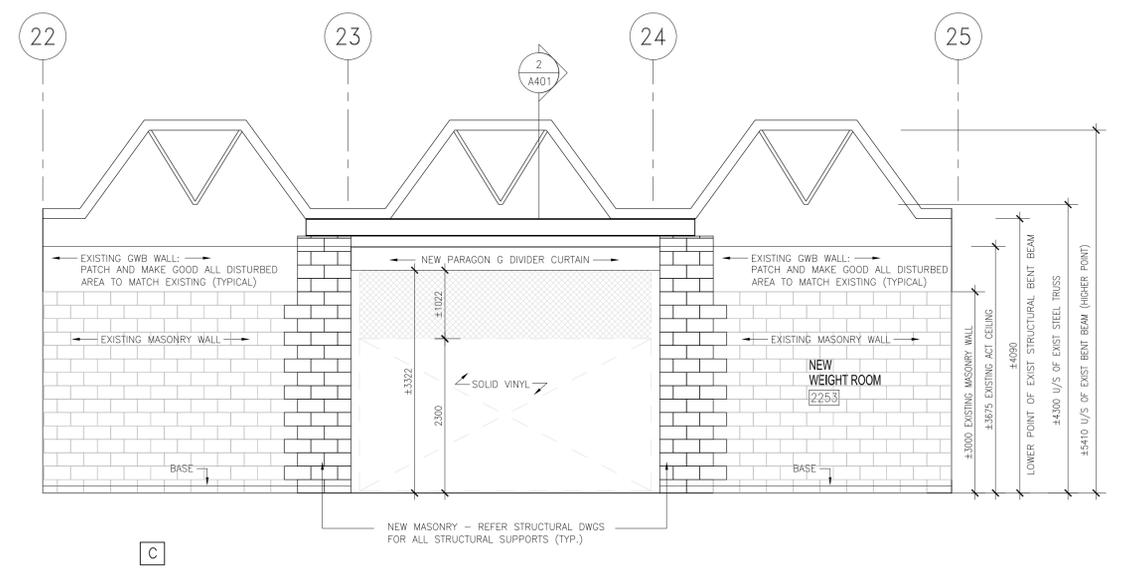
• PLOT SCALE 1:1 AT 46350 SHEET SIZE READ DRAWINGS ACCORDINGLY  
 • PLOT SCALE 1:2 AT 11017 SHEET SIZE READ DRAWING ACCORDINGLY



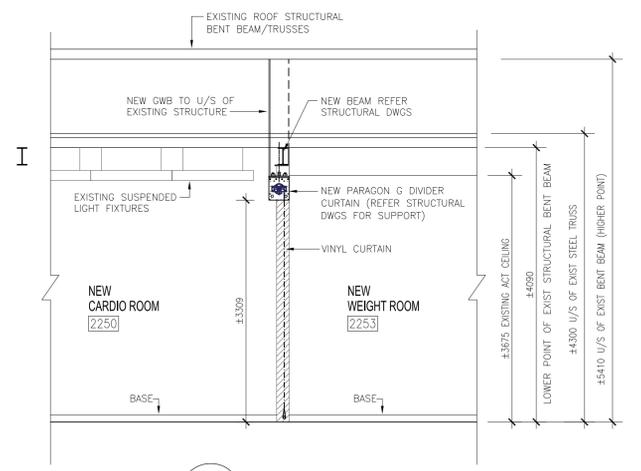
ALL DRAWINGS ARE THE PROPERTY OF THE ARCHITECT  
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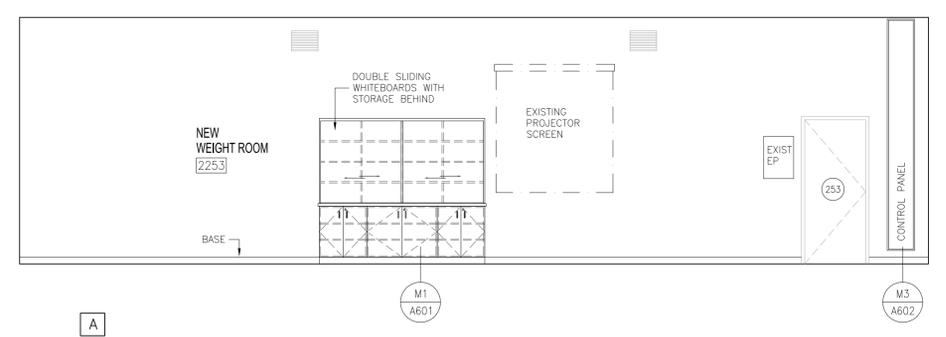
3 INTERIOR ELEVATIONS SCALE 1:50



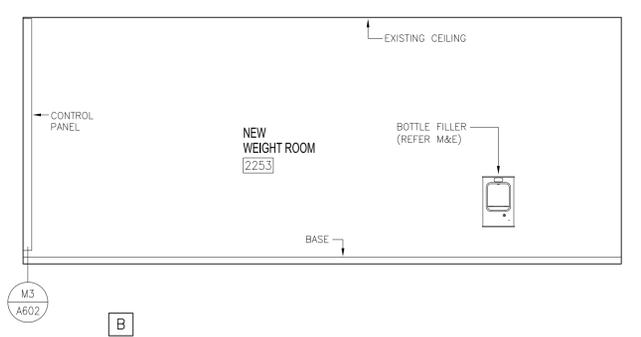
C



2 WALL SECTION SCALE 1:50



1 INTERIOR ELEVATIONS SCALE 1:50



B

3	APR 25 2023	ISSUED FOR TENDER
2	APR 18 2023	BUILDING PERMIT
1	APR 06 2023	ISSUED FOR CLIENT REVIEW

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1  
 T23-34

Title:  
 INTERIOR ELEVATIONS &  
 DETAILS

Scale: As Noted	Date: MAR 14 2023	Drawing: A401
Project: 21-60B	Drawn By:	

DATE PLOTTED: APR 24 2023

• PLOT SCALE: 1/8" = 1'-0" SHEET SIZE: READ DRAWINGS ACCORDINGLY  
 • PLOT SCALE: 1/2" = 1'-0" SHEET SIZE: READ DRAWINGS ACCORDINGLY

# DOOR SCHEDULE

DOOR NO.	GROUND FLOOR PLAN	SIZE	TYPE	FIRE RATING	MATERIAL OF DOOR		FINISH	SELF CLOSER	LATCH	LOCK	PANIC	GLAZING	REMARKS
					DOOR	FRAME							
249	NEW TECH. OFFICE 2249	1000x(±)2080x44	A	45 MIN	HM	HM	PT	○		○		FRGR	PROVIDE WOOD THRESHOLD (G.C. TO CONFIRM NEW DOOR HEIGHT TO MATCH EXISTING DOOR HEIGHT)
250	NEW CARDIO ROOM 2250	EXIST	EXIST	EXIST	EXIST	EXIST	PT	○		EXIST			PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
253	NEW WEIGHT ROOM 2253	EXIST	EXIST	EXIST	EXIST	EXIST	PT	○		EXIST			PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
258A	NEW CONTROL ROOM 2258A	EXIST	EXIST	EXIST	EXIST	EXIST	PT	○		EXIST			PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
258B	NEW CONTROL ROOM 2258A	EXIST	EXIST	EXIST	EXIST	EXIST	PT	○		EXIST			PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING
266	NEW CUSTODIAN OFFICE 2266	EXIST	EXIST	EXIST	EXIST	EXIST	PT	○		EXIST			PATCH AND MAKE GOOD ALL DISTURBED AREA TO MATCH EXISTING

# ROOM FINISH SCHEDULE - GROUND FLOOR

NOTE: REFER TO PLANS, ELEVATIONS AND DETAILS

ROOM NUMBER	ROOM NAME	CEILING		WALL								FLOOR								BASE					REMARKS								
		T-BAR SUSP. CEILING C/W ACOUSTICAL TILE	EXISTING EXPOSED CLG PAINTED	N.				E.				S.				W.				VCT	CONCRETE - PROVIDE NEW SEALER	TERRAZZO TO MATCH EXISTING	EXIST. WOOD FLOORING MAKE GOOD	TERRAZZO MAKE GOOD		FIRE RETARDANT TREAT. PLYWOOD - PAINTED	NONE	RESILIENT BASE	WOOD	TERRAZZO TO MATCH EXISTING	CARPET	EXIST. BASE MAKE GOOD	EXIST. - VCT MAKE GOOD
				UNFINISHED	EXISTING CLG. MAKE GOOD	GWB-PAINTED	CMU - PAINTED	PANT EXIST. WALL MAKE GOOD	CERAMIC TILE	EXIST. MAKE GOOD	GWB-PAINTED	CMU - PAINTED	PANT EXIST. WALL MAKE GOOD	CERAMIC TILE	EXIST. MAKE GOOD	GWB-PAINTED	CMU - PAINTED	PANT EXIST. WALL MAKE GOOD	CERAMIC TILE														
2000	EXIST. CORRIDOR		○																														PATCH & MAKE GOOD (TYPICAL). PAINT THE ENTIRE LENGTH OF CORRIDOR WALL TO MATCH EXISTING (TYPICAL).
2249	NEW TECH. OFFICE	○																															PATCH, MAKE GOOD AND PAINT ALL WALLS (TYPICAL)
2250	NEW CARDIO ROOM		○																														PATCH, MAKE GOOD AND PAINT ALL WALLS (TYPICAL)
2253	NEW WEIGHT ROOM			○																													PATCH, MAKE GOOD AND PAINT ALL WALLS (TYPICAL)
2258A	NEW CONTROL ROOM	○		○																													PATCH, MAKE GOOD AND PAINT ALL WALLS (TYPICAL) EXIST. WOOD FLOOR TO REMAIN.
2266	NEW CUSTODIAN OFFICE			○																													PATCH, MAKE GOOD AND PAINT ALL WALLS (TYPICAL)

NOTES:  
**MATERIALS**  
 PT1- BENJAMIN MOORE CC40 CLOUD WHITE (FLAT), TWO COATS  
 PT2- BENJAMIN MOORE 2063-10 OLD NAVY (SEM-GLOSS), TWO COATS  
 PT3- ICI PAINTS "TOUCH OF GREY" SPECIFY #30BB 72/003 ORDER #A2003 FINISH LATEX SEMI-GLOSS. PRIMER TO BE USED BEFORE FINISH COAT.  
 PT4- MATCH EXISTING.  
 RB-1 RUBBER FLOOR ADVANTAGE MAX FLOOR 10MM THICK (COLOUR TO BE DETERMINATE)

**ROOMS:**  
**WELDING SHOP**  
 REPAINT/PATCH CEILING WHERE REQUIRED, NEW DUCT WORK PAINT TO MATCH EXISTING.

**NEW CARDIO ROOM 2250**  
 CEILING SPRAY PAINT PT-1  
 WALLS PT-3  
 FRAMES PT-2  
 FLOOR RB-1

**NEW WEIGHT ROOM 2253**  
 CEILING REPLACE TILES KEEP T-BAR  
 WALLS PT-3  
 FRAMES PT-2  
 FLOOR RB-1 AND NEW SKIM COAT + SEALER

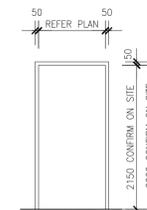
**NEW TECH OFFICE 2249**  
 CEILINGS NEW ACT CEILINGS  
 WALLS PT-4  
 FRAMES PT-4  
 FLOOR MAKE GOOD EXISTING WOOD FLOOR AND REFINISHED.

**NEW CONTROL ROOM 2258A**  
 CEILINGS EXISTING ACT CEILINGS  
 WALLS PT-4  
 FRAMES PT-4  
 FLOOR EXISTING WOOD FLOOR TO REMAIN.

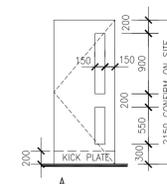
**NEW CUSTODIAN OFFICE 2266**  
 CEILINGS EXISTING ACT CEILINGS  
 WALLS PT-4  
 FRAMES PT-4  
 FLOOR NEW VCT AS SPECIFIED

**HARDWOOD FLOORS FINISHES:**

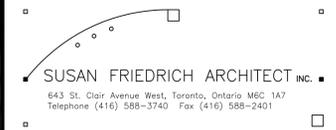
- MAKE GOOD ALL HARDWOOD FLOORS TO MATCH THE NEW LAYOUTS.  
 ALL HARDWOOD FLOORS IN THE AREAS OF WORK TO BE SANDED BACK TO THEIR ORIGINAL STATE AND CLEANED. REFINISH WITH ONE COAT OF BONA INTENSESEAL SEALER.
  - PROVIDE A MOCK UP (IN AN INCONSPICUOUS AREA) FOR APPROVAL BEFORE PROCEEDING WITH SEALER.
  - HARDWOOD FLOORS TO BE FINISHED WITH TWO COATS OF BONA TRAFFIC HD COMMERCIAL SEMI-GLOSS.
  - SCHOOL STAFF WILL REMOVE NON-FIXED FURNITURE IN EXISTING DARK ROOM 2249 AND EXISTING CONTROL ROOM 2258A.
  - ALL WALLS AND FIXED FURNITURE TO BE COVERED AND PROTECTED BY THE CONTRACTOR AND KEPT CLEAN OF ANY DUST OR DEBRIS FROM SANDING.
- NOTE: ALL SANDING DUST MATERIAL TO BE REMOVED FROM SITE AS SOON AS CAN BE ARRANGED.  
 ANY MATERIAL LEFT ON SITE, IS TO BE STORED IN PROPER CONTAINERS SO AS TO AVOID ANY CHANCE OF COMBUSTION.



2 FRAME TYPE SCALE 1:50



1 DOOR TYPES SCALE 1:50



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Revisions, Issues

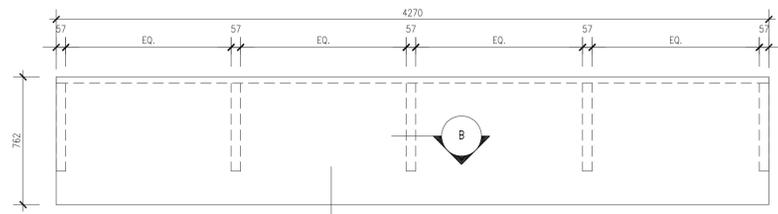
Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1  
 T23-34

Title:  
 SCHEDULES

Scale: As Noted	Date: MAR 14 2023	Drawing: A501
Project: 21-60B	Drawn By:	

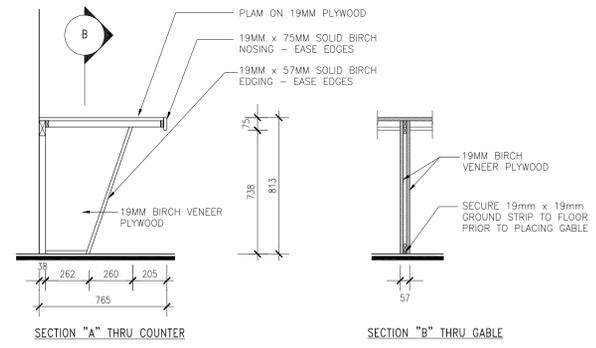
DATE PLOTTED: APR 24 2023

PLOT SCALE 1:12 AT 11017 SHEET SIZE READ DRAWING ACCORDINGLY.  
 PLOT SCALE 1:12 AT 11017 SHEET SIZE READ DRAWING ACCORDINGLY.

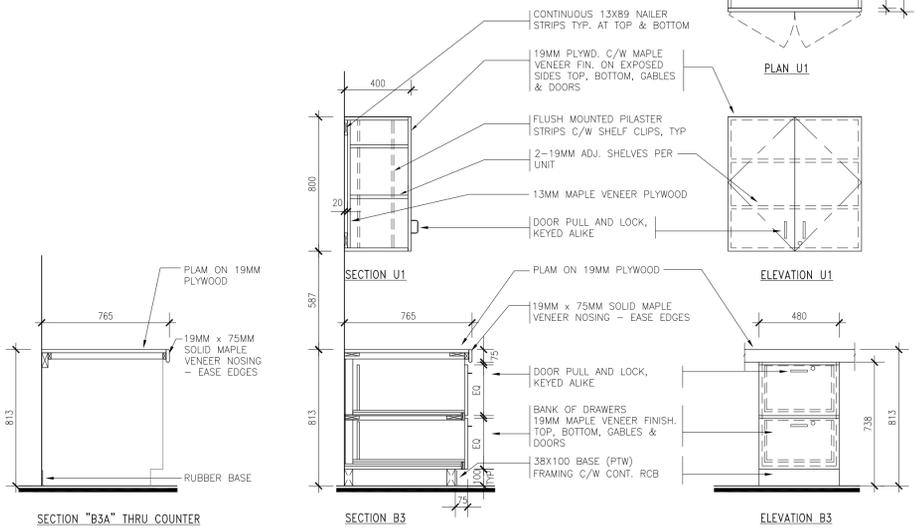
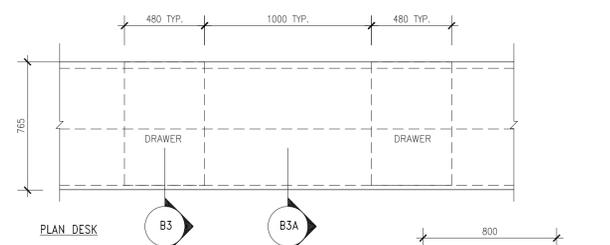


PLAN PRINTER COUNTER

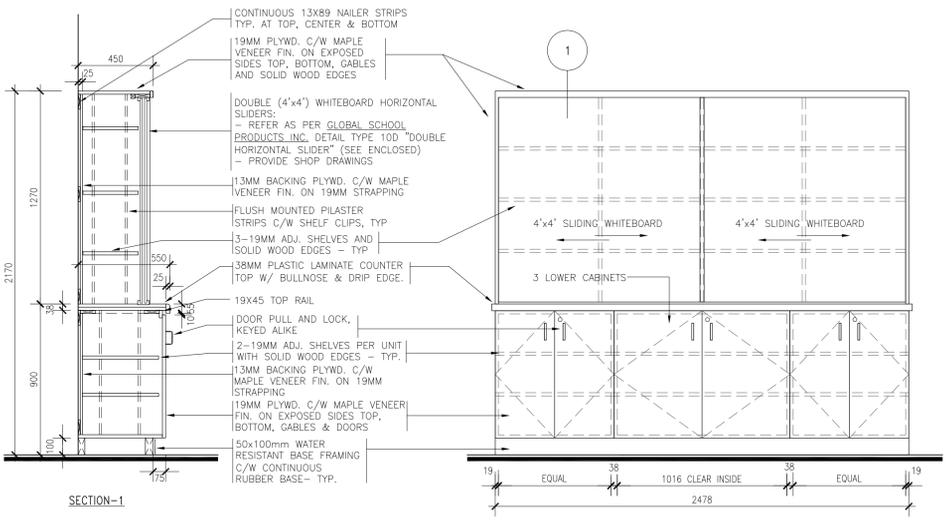
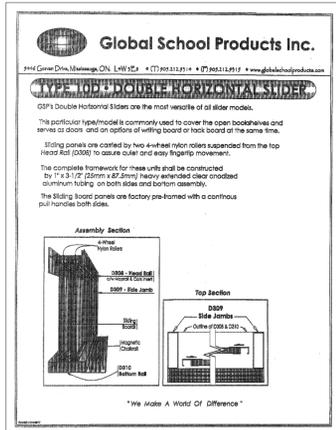
ONLY M2 AT CONTROL ROOM IS BIRCH TO MATCH EXITING.



3 M2 - MILLWORK DETAIL AT NEW CONTROL ROOM SCALE 1:20



2 B3/B3A/U1 - MILLWORK DETAIL AT NEW TECH. OFFICE SCALE 1:20



1 M1 - MILLWORK DETAIL AT NEW WEIGHT ROOM SCALE 1:20

SUSAN FRIEDRICH ARCHITECT INC.  
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**MILLWORK NOTES**

All Millwork to comply with AVMAC Architectural Woodwork Standards current edition.  
Fabricate Casework to AVMAC Custom Grade and as detailed on drawings.

ALL MILLWORK TO BE MAPLE PLYWOOD CONSTRUCTION ONLY.

ENSURE USE OF A SEPARATE 100mm TOE KICK & BASE MADE FROM EXTERIOR GRADE VENEER CORE PLYWOOD.

SHELVES THICKNESS AND LENGTHS TO COMPLY WITH AVMAC STANDARDS FOR SCHOOLS.

FINISH ON ALL HARDWOOD & VENEERED PLYWOOD TO BE SANDED, THEN SEALER COATED, AND SANDED W/ TWO FINISH COATS OF CATALYTIC TYPE, MOISTURE RESISTANT LACQUER.

ALL SOLID WOOD MATERIAL SHALL BE MAPLE.

ALL EXPOSED EDGES OF PLAM COUNTERTOP SHOULD BE COVERED WITH PLAM MATERIAL.

MILLWORK FINISHES:  
CONTROL PANEL-FORMICA "HARD ROCK MAPLE"  
COUNTER-"SIENNA" PROFILE  
EXPOSED EDGES TO BE CONCEALED.  
COLOUR - 7267-68 CONCRETE STONE MATTE  
ALL MILLWORK: WOOD-MAPLE VENEER

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1	APR 06 2023	ISSUED FOR CLIENT REVIEW

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1 T23-34

Title: MILLWORK DETAILS

Scale:	Date:	Drawing:
As Noted	MAR 14 2023	A601
Project:	Drawn By:	
21-60B		

DATE PLOTTED: APR 24 2023

• PLOT SCALE: 1:20 • 36x36 SHEET SIZE • READ DRAWINGS ACCORDINGLY • PLOT SCALE: 1:20 AT 11x17 SHEET SIZE • READ DRAWING ACCORDINGLY

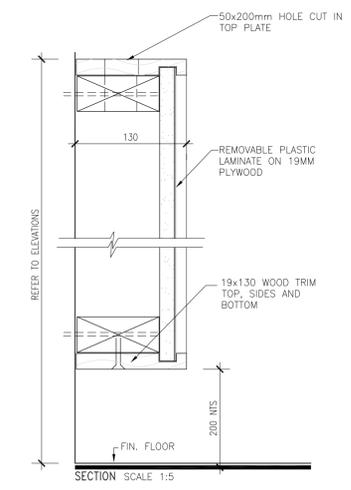
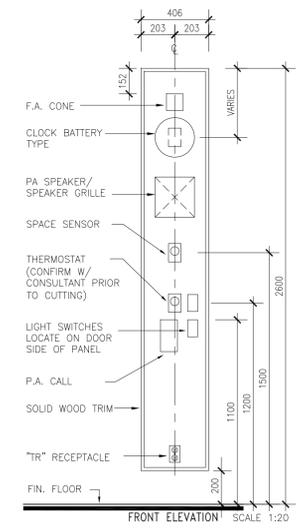
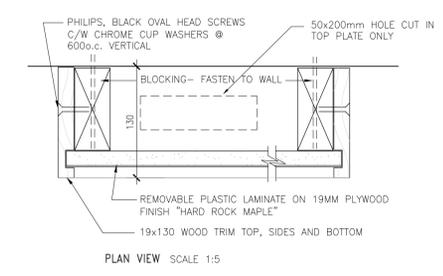
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 DO NOT SCALE DRAWINGS.

**MILLWORK NOTES**  
 All Millwork to comply with AWMAC Architectural Woodwork Standards current edition.  
 Fabricate Casework to AWMAC Custom Grade and as detailed on drawings.  
 ALL MILLWORK TO BE MAPLE PLYWOOD CONSTRUCTION ONLY.  
 ENSURE USE OF A SEPARATE 100mm TOE KICK & BASE MADE FROM EXTERIOR GRADE VENEER CORE PLYWOOD.  
 SHELVES THICKNESS AND LENGTHS TO COMPLY TO AWMAC STANDARDS FOR SCHOOLS.  
 FINISH ON ALL HARDWOOD & VENEERED PLYWOOD TO BE SANDED, THEN SEALER COATED, AND SANDED W/ TWO FINISH COATS OF CATALYTIC TYPE, MOISTURE RESISTANT LACQUER.  
 ALL SOLID WOOD MATERIAL SHALL BE MAPLE.  
 ALL EXPOSED EDGES OF PLAM COUNTERTOP SHOULD BE COVERED WITH PLAM MATERIAL.  
 MILLWORK FINISHES:  
 CONTROL PANEL-FORMICA "HARD ROCK MAPLE"  
 COUNTER-"SIENNA" PROFILE  
 EXPOSED EDGES TO BE CONCEALED.  
 COLOUR - 7267-68 CONCRETE STONE MATTE  
 ALL MILLWORK: WOOD-MAPLE VENEER

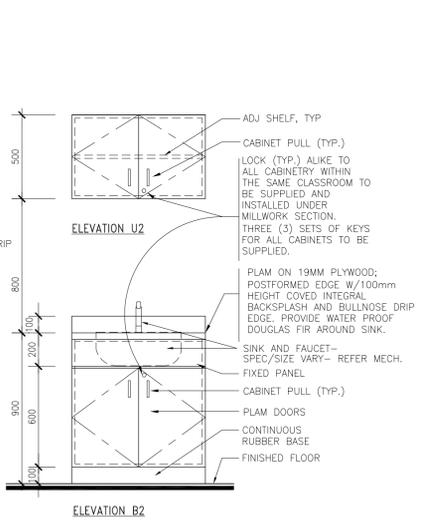
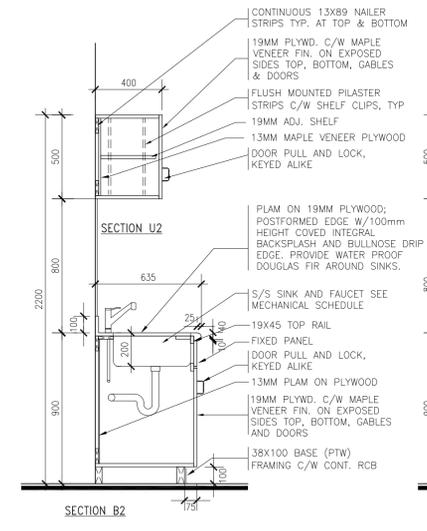
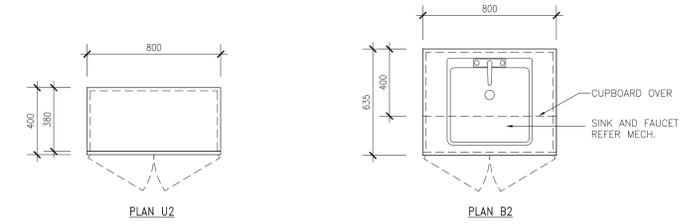
REFER M&E DRAWINGS FOR ALL M&E DEVICES

NOTES:  
 ALL EMERGENCY BUTTONS AND SWITCHES SHOULD BE COLOUR CODED AND CLEARLY MARKED WITH LAMICOID LABELS AS TO FUNCTION

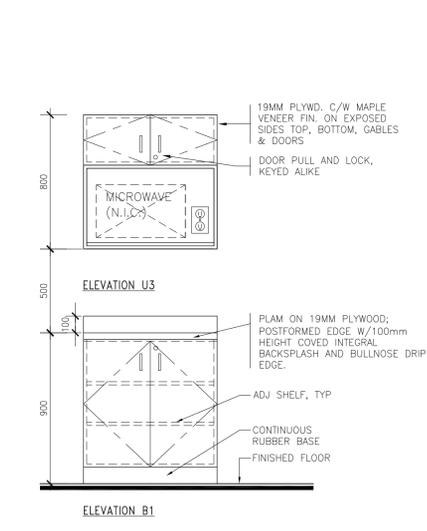
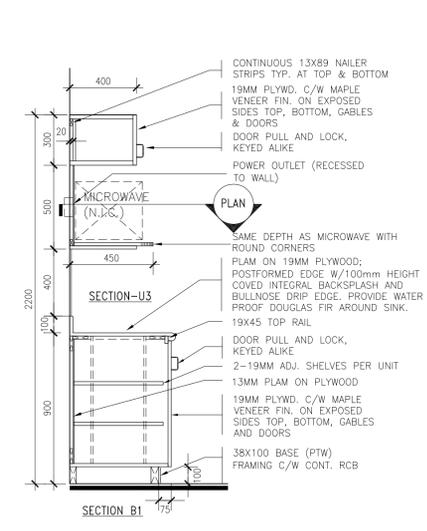
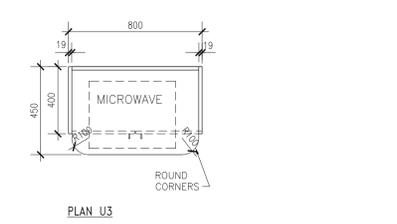
\* CUTOUTS TO BE COORDINATED W/ M&E DRAWINGS



**3 M3 - TYPICAL CONTROL PANEL**  
 AT NEW WEIGHT ROOM SCALE 1:20



**2 B2/U2 - MILLWORK DETAIL**  
 AT NEW TECH. OFFICE SCALE 1:20



**1 B1/U3 - MILLWORK DETAIL**  
 AT NEW TECH. OFFICE SCALE 1:20

2	APR 25 2023	ISSUED FOR TENDER
1	APR 06 2023	ISSUED FOR CLIENT REVIEW

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1 T23-34

Title: MILLWORK DETAILS		
Scale: As Noted	Date: MAR 14 2023	Drawing: A602
Project: 21-60B	Drawn By:	

DATE PLOTTED: APR 24 2023

PLOT SCALE: 1:2 AT 11x17 SHEET SIZE. READ DRAWINGS ACCORDINGLY.  
 PLOT SCALE: 1:2 AT 11x17 SHEET SIZE. READ DRAWINGS ACCORDINGLY.

**GENERAL NOTES:**

1. THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT. BREAKDOWN OF THE WORK BY TRADE IS THE RESPONSIBILITY OF THE CONTRACTOR. EXISTING CONDITIONS ARE ASSUMED. REPORT ANY INCONSISTENCIES TO THE CONSULTANT BEFORE PROCEEDING WITH THE WORK.
2. THIS IS A METRIC PROJECT. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
3. DO NOT SCALE THESE DRAWINGS.
4. SEE ARCHITECTURAL DRAWINGS FOR FIREPROOFING REQUIREMENTS.
5. CODES AND STANDARDS:
  1. COMPLY WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE ONTARIO BUILDING CODE (OBC) IN FORCE AND ALL REGULATIONS AND STANDARDS THAT ARE IN EFFECT AT THE TIME OF THE CONSTRUCTION.
6. SHOP DRAWING AND OTHER SUBMITTALS:
  1. SUBMIT FOR REVIEW BEFORE START OF WORK:
    1. MASONRY REINFORCING STEEL
    2. STRUCTURAL STEEL
  2. SHOP DRAWINGS FOR STRUCTURAL STEEL MUST BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN ONTARIO WITH CERTIFICATE OF AUTHORIZATION FOR PRACTICE AND REQUIRED LIABILITY INSURANCE.
  3. REVIEW OF SHOP DRAWINGS IS ONLY FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS. COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE STRUCTURAL CONTRACT DOCUMENTS AND SPECIFICATIONS. NOR DO THEY AUTHORIZE ANY CHANGES TO THE CONTRACT. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR'S RESPONSIBILITIES INCLUDE ALL QUANTITIES, DETAIL DIMENSIONS, FIELD MEASUREMENTS, FABRICATION PROCESS, MEANS, METHODS, SEQUENCES AND PROCEDURES OF CONSTRUCTION, COORDINATION OF WORK WITH ALL TRADES AND PERFORMING ALL WORK IS A SAFE AND SATISFACTORY MANNER. THE REVIEW OF SHOP DRAWINGS DOES NOT IMPLY ANY CHANGE IN ANY OTHER CONSULTANTS' OR PROFESSIONALS' RESPONSIBILITIES RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS (SUCH AS STRUCTURAL STEEL CONNECTIONS, STEEL JOISTS, PRECAST ELEMENTS, ETC.).
  4. AFTER REVIEW OF SHOP DRAWINGS, ONLY ERECTION DIAGRAMS WILL BE RETURNED TO THE CONTRACTOR STAMPED TO SHOW ONE OF THE FOLLOWING:
    1. NOT REVIEWED - IF THE WORK IS NOT IN LEA CONSULTING LTD. SCOPE
    2. REVIEWED - NO COMMENTS NOTED
    3. REVIEWED AS MODIFIED - COMMENTS NOTED ON THE DRAWINGS
    4. RESUBMIT - CORRECTION OF THE NOTED ITEMS MUST BE MADE AND RESUBMITTED FOR REVIEW
  5. ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMISSION OF SHOP DRAWINGS IN THE STRUCTURAL OFFICE. ALLOW MORE TIME WHEN LARGE QUANTITIES OF SHOP DRAWINGS ARE SUBMITTED ALONG WITH A PRIORITY LIST OF SUBMITTALS. SUBMIT IN ORDER WITH THE INTENDED SEQUENCE OF CONSTRUCTION.
7. EXISTING STRUCTURE:
  1. EXISTING BUILDING STRUCTURAL INFORMATION IS BASED UPON DRAWINGS PREPARED BY GORDON S. ADAMSON AND ASSOCIATES ARCHITECTS DATED SEPTEMBER 1980.
  2. EXISTING CONDITIONS ARE ASSUMED. REPORT ANY VARIATIONS TO THE CONSULTANT IMMEDIATELY BEFORE PROCEEDING WITH THE WORK.
  3. PROTECT EXISTING STRUCTURE EXPOSED TO TEMPORARY CONSTRUCTION LOADING AND ACTIVITIES. WORK REQUIRED TO CONNECT OR REWORK EXISTING STRUCTURE FOR THE NEW WORK IS WITHIN THIS CONTRACT.
  4. PROVIDE TEMPORARY SHORING AND BRACING REQUIRED WHERE NEEDED.
  5. MAKE GOOD ONCE STRUCTURAL WORK IS DONE AND REVIEWED.
8. STRUCTURAL MASONRY:
  1. CONFORM TO CSA-A371 "MASONRY CONSTRUCTION FOR BUILDINGS".
  2. MATERIALS:
    1. HOLLOW BLOCK: CSA A165.1-H/15/A/M
    2. ABOVE-GRADE MORTAR: CSA A178M - TYPE S
    3. GROUT FOR BLOCK CORES: CSA A178M - COARSE GROUT 1:3:2
    4. CEMENT-SAND-PEA STONE BY VOLUME WITH 200mm (8") SLUMP
  3. DRILLED MASONRY ANCHORS (DMA) TO BE HILTI HLC SLEEVE ANCHORS OR EQUIVALENT. PULL TEST ANCHORS TO RATED CAPACITY AND REPORT RESULTS.
  4. NON LOAD-BEARING MASONRY WALLS ARE NOT NECESSARILY SHOWN ON STRUCTURAL DRAWINGS. SEE ARCHITECTURAL DRAWINGS.
  5. LAY UNITS IN RUNNING BOND. ALL FACE SHELLS SHALL BE FULLY BEDDED. GROUT USING LOW LIFT GROUTING METHODS AND MAXIMUM 1500mm (5'-0") LIFTS. DO NOT USE MORTAR INSTEAD OF GROUT.
  6. UNLESS OTHERWISE NOTED ON THE DRAWINGS, PROVIDE 3.66mm (9 GAUGE) GALVANIZED STEEL LADDER-TYPE JOINT REINFORCING EVERY SECOND BLOCK COURSE. PROVIDE JOINT REINFORCING IN THE FIRST TWO COURSES ABOVE AND BELOW WALL OPENINGS, AND EXTEND 600mm (2'-0") BEYOND EACH SIDE OF OPENING. USE HOT-DIPPED GALVANIZED MATERIAL FOR METAL TIES, GALVANIZED AFTER FABRICATION. USE PREFABRICATED CORNERS AND SPLICE LENGTHS OF 300mm (12") MINIMUM. PROVIDE LATERAL SUPPORT AT TOPS OF ALL WALLS.
  8. UNLESS OTHERWISE NOTED, PROVIDE MINIMUM 25 (1") DEFLECTION GAP AT TOP OF ALL NON-LOAD BEARING MASONRY WALLS.
  9. WHERE MASONRY WALLS ABUT COLUMNS OR CONCRETE WALLS, PROVIDE MINIMUM 25 (1") WIDE MOVEMENT JOINTS BETWEEN THEM AND FILL WITH COMPRESSIBLE MATERIAL. BUILD TIGHT FOR MASONRY SHEAR WALLS.
  10. REINFORCED MASONRY: NO OVER-HANGING MORTAR OR DEBRIS SHALL BE ALLOWED INSIDE THE REINFORCED CELLS. REINFORCING SHALL BE PROVIDED FULL-LENGTH WITHOUT SPLICING, BUT MAY BE INSTALLED AFTER THE FIRST 1500mm (5'-0") OF MASONRY IS ERECTED. LOCATE RODS ACCURATELY IN THE CELLS AS SHOWN ON THE DRAWINGS. HOLD IN POSITION TOP AND BOTTOM. FILL CELLS CONTAINING REINFORCEMENT SOLIDLY WITH COARSE GROUT (DO NOT USE MORTAR). CONSOLIDATE BY PUDDLING WHEN PLACING AND AGAIN RECONSOLIDATE BEFORE PLASTICITY IS LOST. PLACE GROUT IN LIFTS NOT EXCEEDING 1500mm (5'-0"). STOP EACH LIFT 40mm (1 1/2") BELOW THE TOP OF A MASONRY UNIT.
  11. PROVIDE STANDARD LINTELS OVER ALL OPENINGS IN MASONRY WALLS AND PARTITIONS AS SHOWN ON TYPICAL DETAILS. CHECK ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENINGS REQUIRING STANDARD LINTELS WHICH ARE NOT NECESSARILY SHOWN ON THE STRUCTURAL DRAWINGS.
9. STRUCTURAL STEEL:
  1. CONFORM TO CAN/CSA S16 "LIMIT STATES DESIGN OF STEEL STRUCTURES".
  2. FABRICATOR SHALL BE CERTIFIED BY CANADIAN WELDING BUREAU UNDER REQUIREMENTS OF CSA W47.1, DIVISION 1 OR 2.
  3. PROTECT COMBUSTIBLE MATERIALS AND FINISHES DURING WELDING OPERATIONS.
  4. MATERIALS:
    1. WIDE FLANGE SECTIONS: CAN/CSA G40.21, GRADE 350W
    2. CHANNEL ANGLES: CAN/CSA G40.21, GRADE 350W
    3. PLATES AND BARS: CAN/CSA G40.21, GRADE 300W
    4. MACHINE BOLTS: ASTM A307
    5. HIGH-STRENGTH BOLTS: ASTM A325M
    6. ANCHOR RODS - 300W OR ASTM F1554 GRADE 36
  5. REFERENCES:
    1. FABRICATION: CAN/CSA S16
    2. WELDING: CSA W59
    3. PRIMER PAINT: CISC/CPMA 2-75
    4. ZINC-RICH PRIMER: CGSB 1-GP-171M
    5. GALVANIZING: CAN/CSA G164
  6. DRILLED ANCHORS: SEE DRAWINGS
  7. ALL STRUCTURAL STEEL CONNECTIONS MUST BE DESIGNED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR TO CONFORM TO CAN/CSA S16-01. USE HEADER ANGLES AND HIGH-STRENGTH BOLTS. DESIGN BEAM CONNECTIONS FOR AN END REACTION DUE TO THE UNIFORMLY DISTRIBUTED LOAD CAPACITY OF THE MEMBER UNLESS A GREATER REACTION IS NOTED ON THE DRAWINGS.
  8. DO NOT SPLICE SECTIONS WITHOUT THE PRIOR ACCEPTANCE OF THE CONSULTANT AND THE SUBMISSION OF PERTINENT SHOP DRAWINGS. ACCEPTED SPLICES WILL BE REQUIRED TO DEVELOP THE SECTION. EACH SPLICE SHALL BE GIVEN A NON-DESTRUCTIVE TEST BY AN INDEPENDENT INSPECTION COMPANY ACCEPTABLE TO THE CONSULTANT. TESTING SHALL BE AT THE CONTRACTOR'S EXPENSE. EVALUATE RESULTS IN ACCORDANCE WITH CSA W59 AND REPORT TO THE CONSULTANT.
  9. WELD OR BOLT TOGETHER MULTIPLE ANGLE LINTELS. PROVIDE A MINIMUM OF 150mm (6") BEARING.
  10. PROVIDE ALL ERECTION BRACING REQUIRED TO KEEP THE STRUCTURE STABLE AND IN ALIGNMENT DURING CONSTRUCTION.
10. INSPECTION AND TESTING:
  1. THE CONTRACTOR MUST PROVIDE INSPECTION REPORTS FOR STRUCTURAL STEEL INCLUDING STEEL DECKING, MASONRY STRENGTH TESTS AND TEST REPORTS FOR CONCRETE. ALL REPORTS MUST BE PREPARED BY AN INDEPENDENT INSPECTION AND TESTING AGENCY.
  2. STRUCTURAL STEEL INSPECTION AND TESTING OF MATERIALS AND WORKMANSHIP, INCLUDING VISUAL THIRD-PARTY WELDING INSPECTION, WILL BE CARRIED OUT BY AN INDEPENDENT TESTING AGENCY. INDEPENDENT TESTING AGENCY TO BE CERTIFIED TO CSA W178.1 AND WELDING INSPECTOR TO BE CERTIFIED TO LEVEL 2 OR 3 OF CSA W178.2. SUBMIT INSPECTION AND TESTING CERTIFICATION AT THE REQUEST OF THE CONSULTANT.
  3. MAKE ONE STANDARD TEST FOR EACH 50 CUBIC METRES OF CONCRETE, BUT NOT LESS THAN ONE TEST FOR CONCRETE CAST EACH DAY. PROVIDE A GROUP OF THREE CONCRETE CYLINDERS FOR EACH STANDARD CONCRETE TEST. BREAK ONE CYLINDER AT 7 DAYS.
  4. AT LEAST 6 MORTAR CUBES ARE TO BE TESTED FOR EACH 500 SQUARE METRES OF WALL, OR PORTION THEREOF. AT LEAST 2 CYLINDER TESTS SHALL BE MADE FOR EACH 20 CUBIC METRES OF GROUT OR LESS. TEST METHODS AND RESULTS SHALL CONFORM TO CSA A179.
11. CUTTING AND CORING:
  1. THE CONTRACTOR SHALL CARRY THE PRICE TO RETAIN AN INDEPENDENT TESTING COMPANY TO LOCATE EXISTING REINFORCEMENT AND CONDUIT IN THE AREAS OF PROPOSED OPENINGS AND TO MARK LOCATIONS ON THE SURFACES OF SLABS AND WALLS ON WHICH THE CORES AND CUTS ARE TO BE STARTED. MARK LOCATIONS USING INDELEIBLE MARKERS AS FOLLOWS: RED FOR TOP BARS, GREEN FOR BOTTOM BARS, AND BLACK FOR CORES, OPENINGS, AND CONDUITS. X-RAY CONCRETE UNLESS OTHER METHODS CAN BE SHOWN BY CONTRACTOR TO ACCURATELY LOCATE REINFORCEMENT AND CONDUIT. THE CONTRACTOR SHALL ALSO LOCATE ALL SUSPENDED SERVICES ON BOTH SIDES OF THE PROPOSED OPENING. IF LOCATIONS ARE NOT ACCEPTABLE TO CONSULTANT, RELOCATE PROPOSED OPENINGS AND REPEAT PROCESS AT NO EXTRA COST TO THE CONTRACT.
  2. CORING: DO NOT CUT EXISTING REINFORCEMENT AND CONDUIT WHEN CORING EXISTING CONCRETE UNLESS APPROVED IN ADVANCE BY THE CONSULTANT. SAVE THE COMPLETE LENGTH OF ALL CORES. LABEL EACH CORE WITH LOCATION TAKEN. MAKE ALL CORES AVAILABLE FOR REVIEW BY CONSULTANT. DISPOSE OF CORES ONLY WITH APPROVAL OF CONSULTANT.
  3. CUTTING: DO NOT CUT EXISTING REINFORCEMENT AND CONDUIT WHEN CUTTING EXISTING CONCRETE UNLESS APPROVED IN ADVANCE BY THE CONSULTANT. DO NOT OVER CUT OPENINGS. CORE FOUR CORNERS AND ENDS OF INTERMEDIATE SAWCUTS OF ALL OPENINGS PRIOR TO CUTTING SIDES AND INTERMEDIATE LINES. SAWCUT SIDES AND INTERMEDIATE LINES CHIP CORNERS SQUARE IF NECESSARY. IF NEW REINFORCEMENT IS REQUIRED AT AN OPENING, INSTALL REINFORCEMENT BEFORE CUTTING OPENING OR SHORE UP STRUCTURE UNTIL NEW REINFORCEMENT IS INSTALLED.
12. CONSTRUCTION REVIEW:
  1. NOTIFY THE CONSULTANT TWO WORKING DAYS PRIOR TO CONCRETE POURS, BACKFILLING, AND COVERING UP THE STRUCTURE WITH FINISHES.
13. TEMPORARY WORKS:
  1. MAKE ADEQUATE PROVISIONS FOR ALL LOADS ACTING ON THE STRUCTURE DURING ERECTION. PROVIDE TEMPORARY SHORING AND BRACING TO KEEP THE STRUCTURE PLUMB AND IN TRUE ALIGNMENT DURING CONSTRUCTION. MEMBERS SHOWN ON THE PLANS ARE THOSE REQUIRED FOR THE COMPLETED STRUCTURE AND MAY NOT BE SUFFICIENT DURING CONSTRUCTION.
  2. TEMPORARY BRACING AND SHORING ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL SHORING SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR. PREPARE SHORING DRAWINGS SIGNED AND SEALED BY THE ENGINEER.
  3. REROUTE ALL SERVICES IN AREAS AFFECTED BY CONSTRUCTION AS REQUIRED. PROVIDE TEMPORARY REROUTING AS REQUIRED TO KEEP THE BUILDING OPERATIONAL DURING CONSTRUCTION. SITE VERIFY SERVICES IMPACTED BY THE WORK. SERVICES PRESENT NOT NECESSARILY SHOWN ON PLANS.
14. REJECTED WORK:
  1. DO NOT DELIVER TO THE SITE MATERIALS, WHICH ARE KNOWN NOT TO MEET THE REQUIREMENTS OF THE SPECIFICATIONS. IF REJECTED AFTER DELIVERY, REMOVE IMMEDIATELY FROM SITE.

SUSAN FRIEDRICH ARCHITECT INC.  
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 Telephone (416) 588-3740 Fax (416) 588-2401



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REV.	DATE	DESCRIPTION
2	2023-04-25	ISSUED FOR TENDER
1	2023-04-18	ISSUED FOR BUILDING PERMIT

Project:

**Renovations - Phase 2**

**R S McLAUGHLIN CVI**

570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1 T23- ???

Title:

GENERAL NOTES

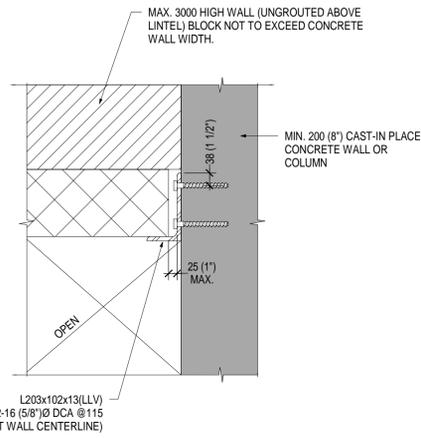
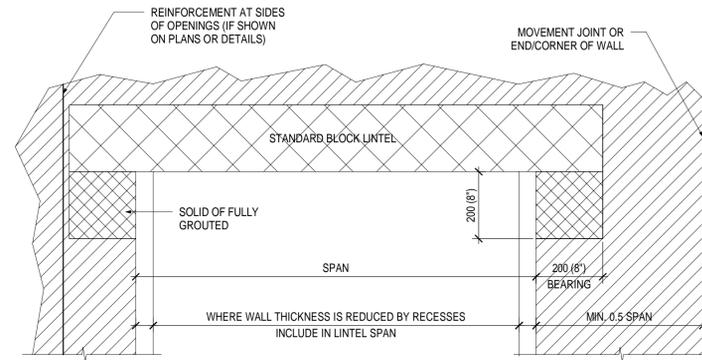
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Project:	Drawn By:	
22278	PS	

DATE PLOTTED:

TYPICAL MASONRY LINTELS IN NON-LOAD BEARING WALLS

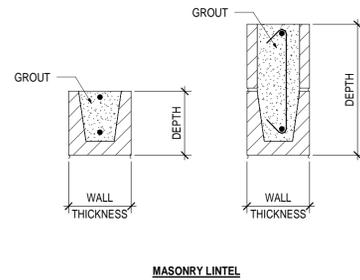
MD-300

SEE SD-312 FOR STANDARD STEEL LINTELS



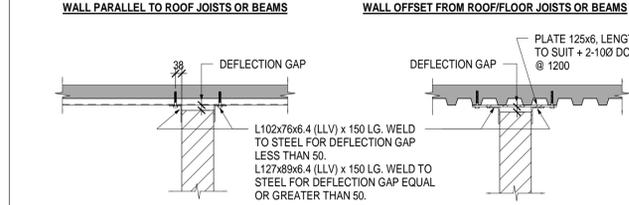
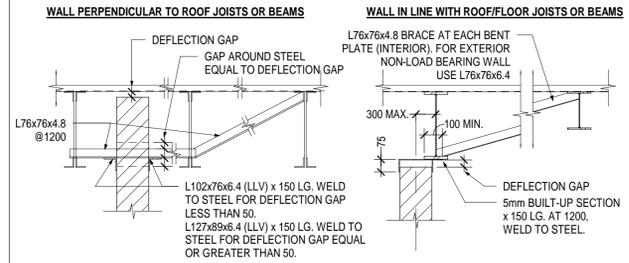
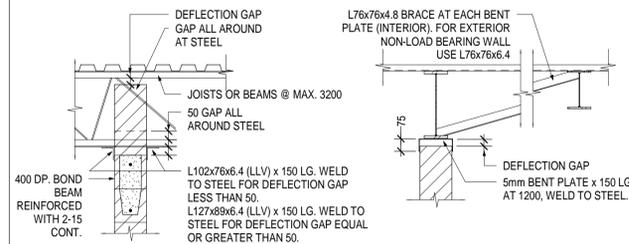
WALL THICKNESS	SPAN	BLOCK LINTEL DEPTH	REINFORCEMENT TOP & BOTTOM
90 (4'')	UP TO 1200 (4'-0'')	190	1-10
	1200 (4'-0'') TO 1800 (6'-0'')	N/A	N/A
	1800 (6'-0'') TO 2400 (8'-0'')	N/A	N/A
	2400 (8'-0'') TO 3000 (10'-0'')	N/A	N/A
140 (6'')	UP TO 1200 (4'-0'')	190	1-10
	1200 (4'-0'') TO 1800 (6'-0'')	190	1-10
180 (8'')	UP TO 1200 (4'-0'')	190	1-15
	1200 (4'-0'') TO 1800 (6'-0'')	190	1-15
	1800 (6'-0'') TO 2400 (8'-0'')	390	+1-10@200 (8'') STIRRUP
240 (10'')	UP TO 1200 (4'-0'')	190	1-15
	1200 (4'-0'') TO 1800 (6'-0'')	190	1-15
	1800 (6'-0'') TO 2400 (8'-0'')	390	+1-10@200 (8'') STIRRUP
	2400 (8'-0'') TO 3000 (10'-0'')	390	+1-10@200 (8'') STIRRUP
290 (12'')	UP TO 1200 (4'-0'')	190	1-15
	1200 (4'-0'') TO 1800 (6'-0'')	190	1-15
	1800 (6'-0'') TO 2400 (8'-0'')	390	+1-10@200 (8'') STIRRUP
	2400 (8'-0'') TO 3000 (10'-0'')	390	+1-10@200 (8'') STIRRUP

- NOTES:
- DO NOT USE MASONRY LINTELS FOR OPENINGS WHERE MOVEMENT JOINT OR WALL END OR CORNER IS LOCATED LESS THAN 0.5 OF THE LINTEL SPAN AWAY FROM THE FACE OF THE OPENING.
  - STANDARD LINTELS ARE NOT NECESSARILY SHOWN ON STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR OPENING LOCATIONS.
  - SEE PLANS FOR SPECIAL LINTELS.
  - FILL LINTEL BLOCKS WITH 20MPa GROUT. IT IS NOT ACCEPTABLE TO FILL LINTELS WITH MORTAR.



LATERAL SUPPORT OF NON-BEARING INTERIOR MASONRY PARTITIONS

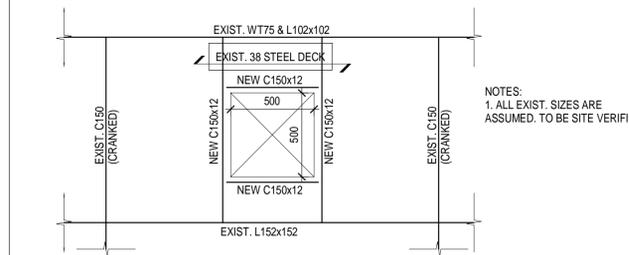
PD-M-001



- WALL PERPENDICULAR TO FLOOR DECK FLUTES
- WALL PARALLEL TO FLOOR DECK FLUTES
- DCA TO BE HILTI KB-3 WITH 64 EMBEDMENT.
  - PROVIDE 30mm DEFLECTION GAP TYPICAL UN.
  - MINIMUM WALL THICKNESS IS 140 FOR INTERIOR WALLS AND 190 FOR EXTERIOR WALLS. WALL HEIGHT SHALL NOT EXCEED 36 TIMES WALL THICKNESS FOR INTERIOR WALLS AND 30 TIMES WALL THICKNESS FOR EXTERIOR WALLS. REFER TO DETAIL FOR EXTERIOR NON-LOAD BEARING WALL REINFORCEMENT, TYPICAL UN.
  - FOR EXTERIOR WALL LATERAL SUPPORT INCREASE 150 LG. ANGLE/BENT PLATE SHOWN IN THE DETAILS TO 250 LG. AND REPLACE 2-100 DCA WITH 2-120 DCA + INCREASE ALL BENT PLATES TO 6mm THICK.
  - FOR CONCEALED LATERAL SUPPORT REFER TO ARCH SPEC. AND DRAWINGS.

ROOF DECK REINFORCING DETAIL AT MECH. OPENING

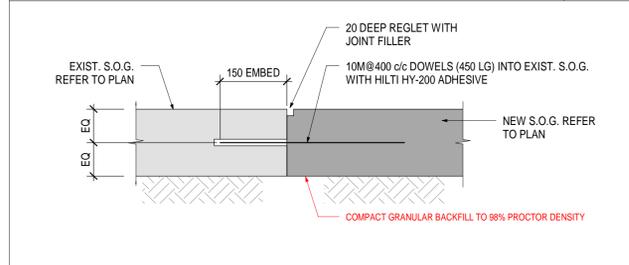
PD-000



- NOTES:
- ALL EXIST. SIZES ARE ASSUMED. TO BE SITE VERIFIED

DOWEL TO EXIST SLAB ON GRADE

PD-C-005



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PROJECT NORTH  
 TRUE NORTH

**DDSB**  
 Ignite Learning

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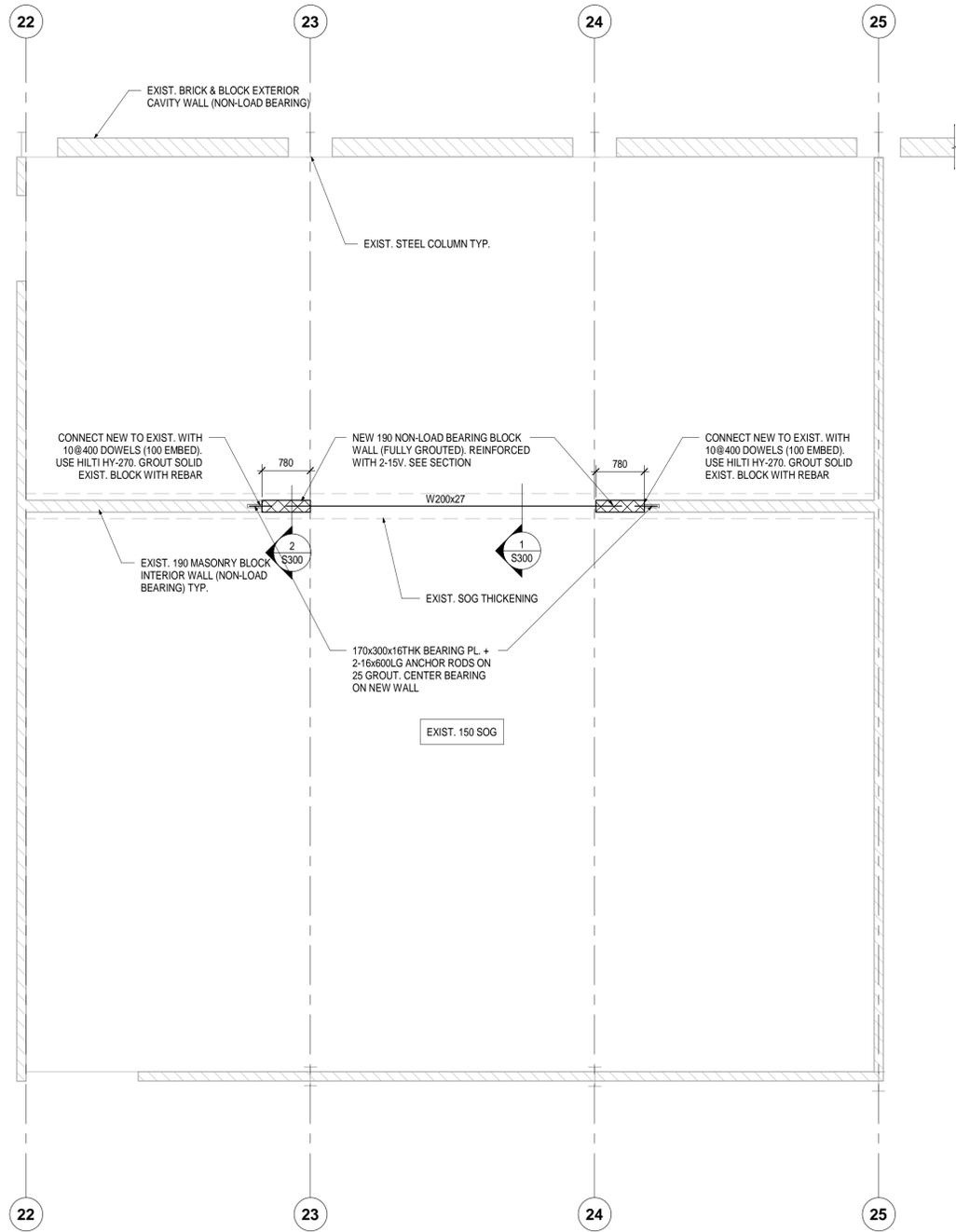
**LEA**  **LEA Consulting Ltd.**  
 425 University Avenue, Suite 400 | Tel: 905 470 0015  
 Toronto, Ontario | M5G 1T6 | Fax: 905 470 0030 **WWW.LEA.CA**

REV.	DATE	DESCRIPTION
3	2023-04-25	ISSUED FOR TENDER
2	2023-04-18	ISSUED FOR BUILDING PERMIT
1	2023-04-06	ISSUED FOR CLIENT REVIEW

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1 T23- ???

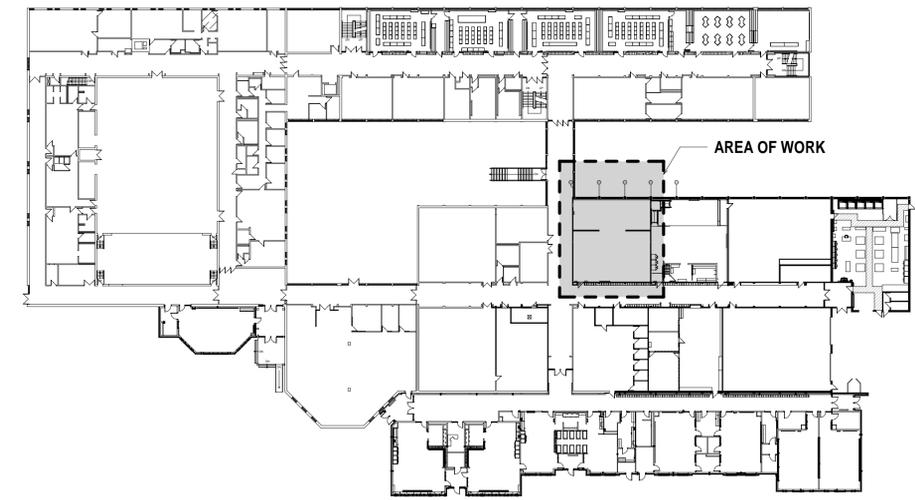
Title:  
**TYPICAL DETAILS**

Scale: 1 : 20 Date: APRIL 2023 Drawing:  
 Project: 22278 Drawn By: PS **S101**



1 EXIST. PART GROUND FLOOR PLAN 1  
S200 1:50

- NOTES:
- SEE GENERAL NOTES & TYPICAL DETAILS.
  - EXIST. STRUCTURAL FRAMING IS SHOWN SCHEMATICALLY AND ASSUMED. SITE VERIFY ALL DIMENSIONS, MEMBERS, ETC. AND IF ANY DISCREPANCIES, NOTIFY CONSULTANT IMMEDIATELY BEFORE PROCEEDING WITH THE WORK.
  - MAKE GOOD EXISTING STRUCTURE. DO NOT AFFECT STRUCTURAL INTEGRITY OF EXISTING ELEMENTS.
  - PROVIDE TEMPORARY SHORING AS REQUIRED TO PERFORM THE WORK.
  - EXISTING MASONRY COMPRESSIVE STRENGTH ASSUMED: 15MPa
  - SEE TYPICAL DETAILS FOR MECHANICAL OPENING DETAIL THROUGH SLANTED ROOF
  - INTERIOR WIND PRESSURE OF 0.25KPa WAS USED



KEY PLAN  
N.T.S.

SUSAN FRIEDRICH ARCHITECT INC. ■  
643 St. Clair Avenue West, Toronto, Ontario M6C 1A7  
Telephone (416) 588-3740 Fax (416) 588-2401

PROJECT NORTH  
TRUE NORTH

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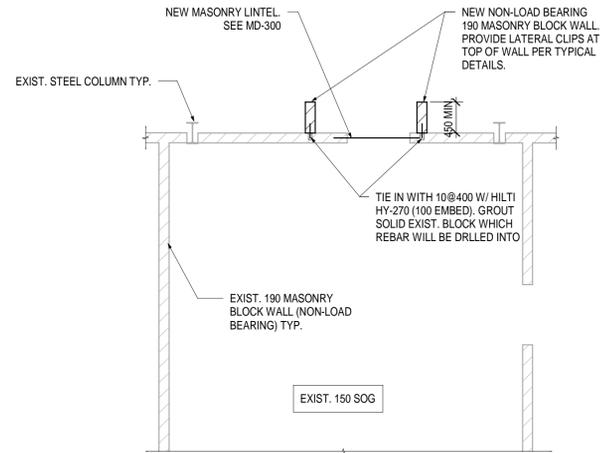

REV.	DATE	DESCRIPTION
3	2023-04-25	ISSUED FOR TENDER
2	2023-04-18	ISSUED FOR BUILDING PERMIT
1	2023-04-06	ISSUED FOR CLIENT REVIEW

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1 T23- ???

Title:  
**EXIST. PART GROUND FLOOR PLAN 1**

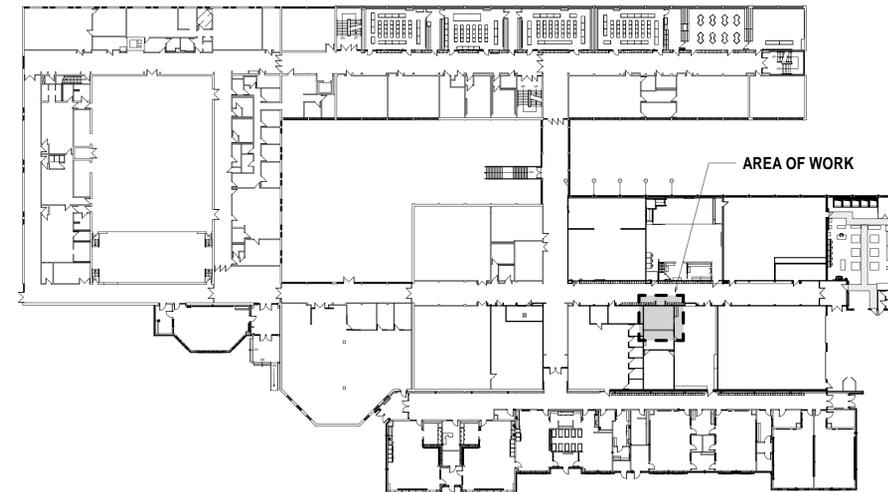
Scale: As indicated	Date: APRIL 2023	Drawing: <b>S200</b>
Project: 22278	Drawn By: PS	

DATE PLOTTED:



1 EXIST. PART GROUND FLOOR PLAN 2  
S201 1 : 50

REFER TO PLAN NOTES ON S200



KEY PLAN  
N. T. S.

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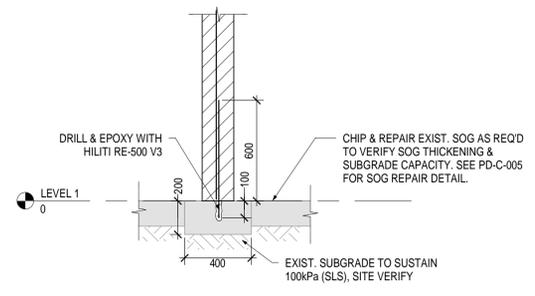
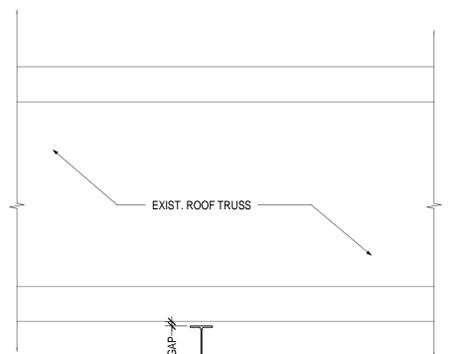
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Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1 T23- ???

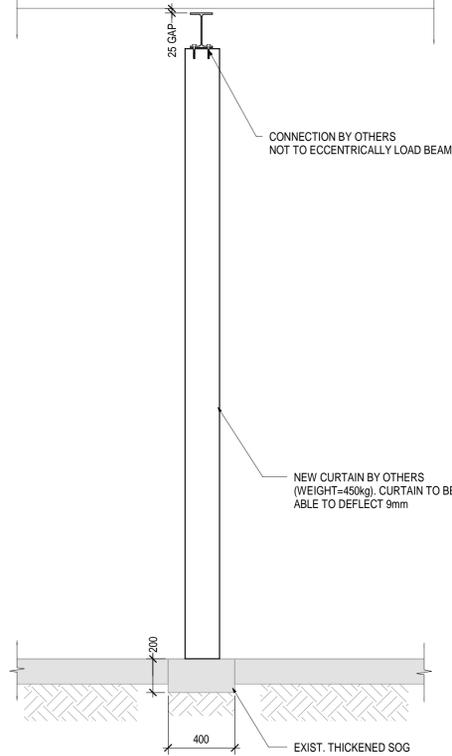
Title:  
**EXIST. PART GROUND  
FLOOR PLAN 2**

Scale: As indicated	Date: APRIL 2023	Drawing: <b>S201</b>
Project: 22278	Drawn By: PS	

DATE PLOTTED:



2 SECTION  
S300 1:20



1 SECTION  
S300 1:20

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Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1 T23- ???

Title:  
 SECTIONS

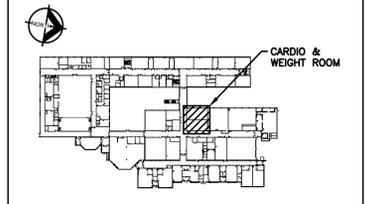
Scale: 1 : 20	Date: APRIL 2023	Drawing: S300
Project: 22278	Drawn By: PS	

DATE PLOTTED:

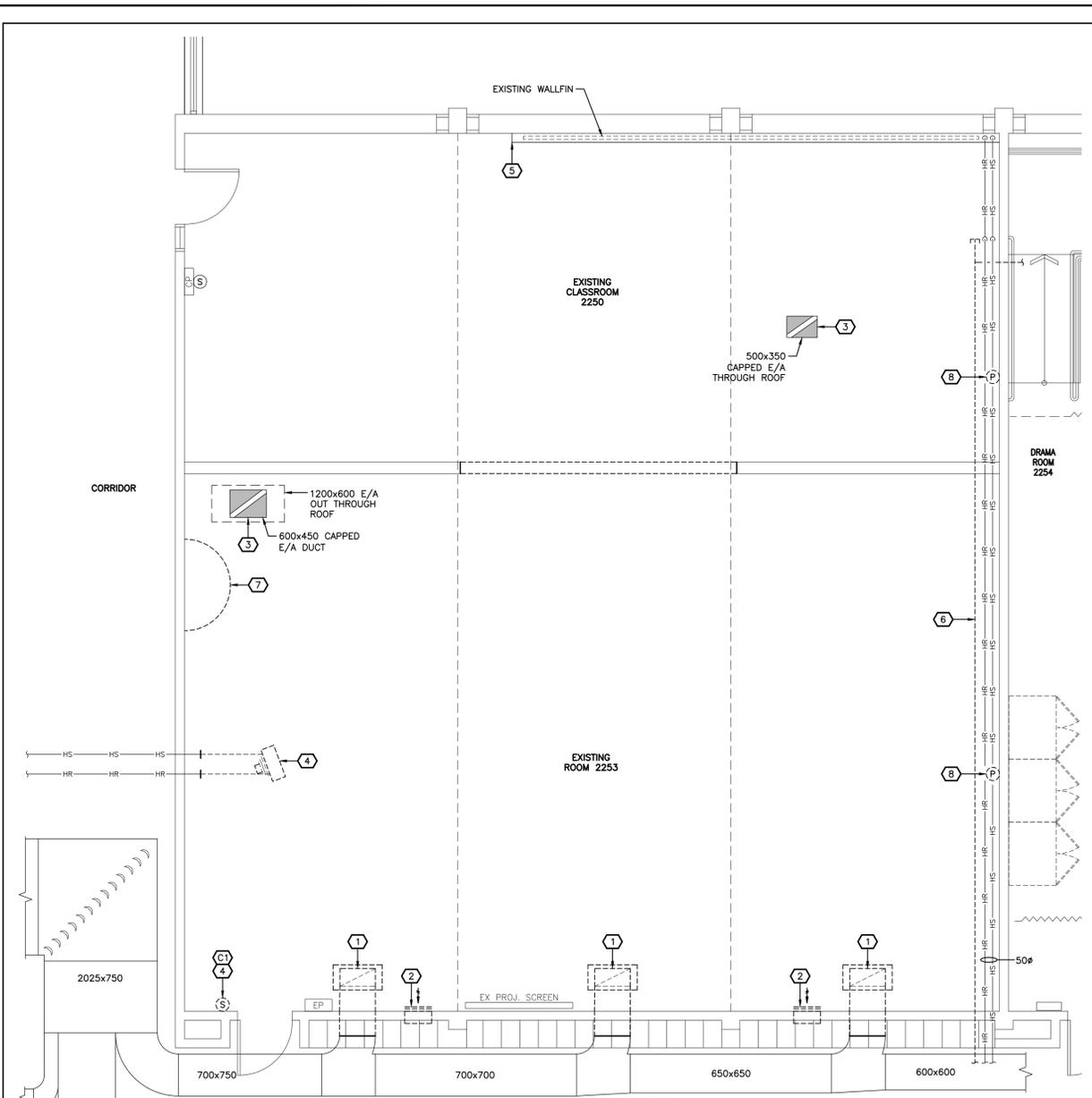


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KEY PLAN - GROUND FLOOR

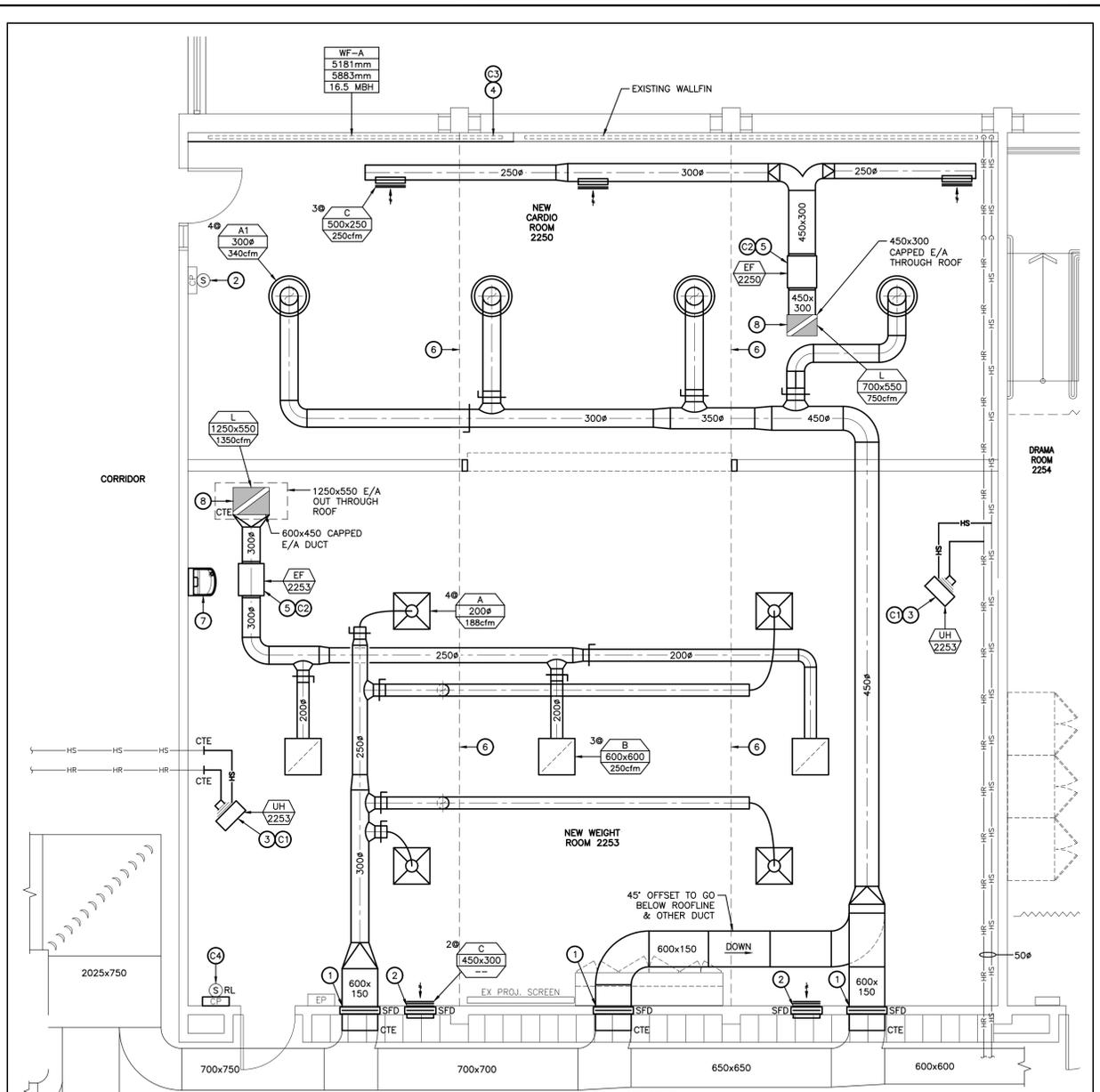


CARDIO & WEIGHT ROOM - DEMO MECHANICAL LAYOUT  
 1:50

- DEMO WORKING NOTES:**
1. REMOVE EXISTING S/A GRILLE, ELBOW AND SLEEVE THROUGH WALL.
  2. REMOVE EXISTING R/A GRILLE AND SLEEVE THROUGH WALL.
  3. REMOVE EXISTING CAP AND ANY REDUNDANT E/A DUCTWORK. REMOVE EXISTING LOUVER OR CAP ON ROOF OPENING. EXISTING WEATHERHOOD AND SLEEVE THROUGH ROOF TO REMAIN.
  4. REMOVE EXISTING UNIT HEATER C/W ALL VALVES AND ACCESSORIES. HS & HR PIPING TO REMAIN FOR CONNECTION TO NEW REHEAT COIL.
  5. REMOVE WALLFIN ENCLOSURE AND STORE IN SAFE AND CLEAN LOCATION ON SITE. VACUUM EXISTING WALLFIN ELEMENT AND REMOVE PIPE ENDS TO CONNECT TO NEW ELEMENT.
  6. REMOVE EXISTING REDUNDANT COMPRESSED AIR PIPING AND CAP AT CORRIDOR WALL.
  7. REMOVE EXISTING WASHFOUNTAIN AND ALL ACCESSORIES. DOW AND SAN SERVICES TO REMAIN FOR REUSE. CAP DHW PIPING WITHIN WALL.
  8. RETAIN THE SERVICES OF APS TO REMOVE EXISTING PNEUMATIC THERMOSTATS AND ALL PNEUMATIC TUBING ASSOCIATED WITH THE CONTROL OF REMOVED UNIT HEATER.

- DEMO CONTROLS WORKING NOTES:**
- C1. REMOVE EXISTING BAS SPACE SENSOR AND RETAIN FOR REINSTALLATION IN NEW CONTROL PANEL.

- GENERAL DEMOLITION NOTES:**
1. THE CONTRACTOR SHALL ALLOW FOR DETAILED SITE INVESTIGATION TO CONFIRM ALL SERVICES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
  2. SCOPE/CAMERA EXISTING UNDERGROUND SANITARY AND STORM PIPING THROUGH WORK AREA TO CONFIRM CONDITION OF PIPE, ROUTING AND INVERTS. SUBMIT REPORT AND VIDEO ON USB.
  3. SCAN FLOOR PRIOR TO FLOOR CUTS AND UNDERGROUND PIPING INSTALLATION.
  4. DISCONNECT AND REMOVE ALL REDUNDANT EQUIPMENT, FIXTURES, DUCTWORK, PIPING AND OTHER REDUNDANT SERVICES THROUGHOUT AREA OF WORK.
  5. ABANDON ANY UNDERGROUND SERVICES AND CAP FLUSH WITH FLOOR. REMOVE REDUNDANT UNDERGROUND SERVICES WHERE REQUIRED TO SUIT NEW UNDERGROUND SERVICES.
  6. REMOVE OBSOLETE ABOVEGROUND SERVICES BACK TO SOURCE/MAINS AND CAP.
  7. ANY REDUNDANT RISERS CAN REMAIN WITHIN EXISTING WALLS (WHERE WALLS ARE SCHEDULED TO REMAIN) BUT SERVICES SHALL BE CUT AND CAPPED WITHIN WALL SO FACE OF WALL CAN BE PATCHED AND FINISHED SMOOTH.
  8. MAINTAIN VENT PIPING FOR REUSE WHERE POSSIBLE AND REMOVE ANY REDUNDANT.
  9. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.



CARDIO & WEIGHT ROOM - NEW MECHANICAL LAYOUT  
 1:50

- NEW WORKING NOTES:**
1. PROVIDE NEW ULC LISTED COMBINATION SMOKE & FIRE DAMPER AND MOUNT IN EXISTING WALL OPENING. CONNECT TO EXISTING S/A MAIN IN CORRIDOR. COORDINATE WITH ELECTRICAL CONTRACTOR FOR NEW DUCT SMOKE DETECTOR AND ASSOCIATED WIRING.
  2. PROVIDE NEW ULC LISTED COMBINATION SMOKE & FIRE DAMPER AND MOUNT IN EXISTING WALL OPENING. MOUNT SUCH THAT DAMPER IS ON CORRIDOR SIDE SO GRILLE CAN BE INSTALLED FLUSH WITH WALL. SUPPLY FIRE RATED ACCESS DOOR AND TURN OVER TO GENERAL CONTRACTOR FOR INSTALLATION IN DRYWALL CEILING BELOW. COORDINATE WITH ELECTRICAL CONTRACTOR FOR NEW DUCT SMOKE DETECTOR AND ASSOCIATED WIRING.
  3. PROVIDE NEW HOT WATER UNIT HEATER C/W VALVES AND ACCESSORIES. SUSPEND BELOW T-BAR CEILING AT HIGH LEVEL. REFER TO DETAIL.
  4. PROVIDE NEW SECTION OF WALLFIN TO MATCH EXISTING AND CONNECT TO EXISTING ELEMENT. REINSTALL EXISTING ENCLOSURE AND REBALANCE TO 3.5gpm TO PROVIDE ADDITIONAL REQUIRED FLOW.
  5. PROVIDE NEW EXHAUST FAN AND CONNECT NEW E/A DUCTWORK TO EXISTING SLEEVE UP THROUGH ROOF. PROVIDE THERMAL INSULATION ON LAST 2.4m OF E/A DUCT BACK FROM ROOF.
  6. OFFSET NEW S/A & E/A DUCTWORK DOWN AS REQUIRED TO OFFSET TIGHT BELOW EXISTING VALVEYS IN THE PEAKED ROOF.
  7. PROVIDE NEW BOTTLE FILLER AND CONNECT TO EXISTING DOW & SAN SERVICES IN WALL. COORDINATE REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
  8. PROVIDE NEW LOUVER IN EXISTING OPENING THROUGH ROOF.

- NEW CONTROLS WORKING NOTES:**
- C1. PROVIDE CONTROLS AND CONTROL WIRING FOR NEW UNIT HEATER.
  - C2. PROVIDE CONTROLS AND CONTROL WIRING FOR NEW EXHAUST FAN.
  - C3. REWORK CONTROLS AND CONTROL WIRING AS REQUIRED TO INTEGRATE NEW REHAT COIL CONTROLS INTO THE CONTROLS SEQUENCE FOR THE ROOM.
  - C4. REINSTALL EXISTING BAS SPACE SENSOR. EXTEND OR REPLACE WIRING AS REQUIRED AND REMOVE ANY REDUNDANT WIRING.

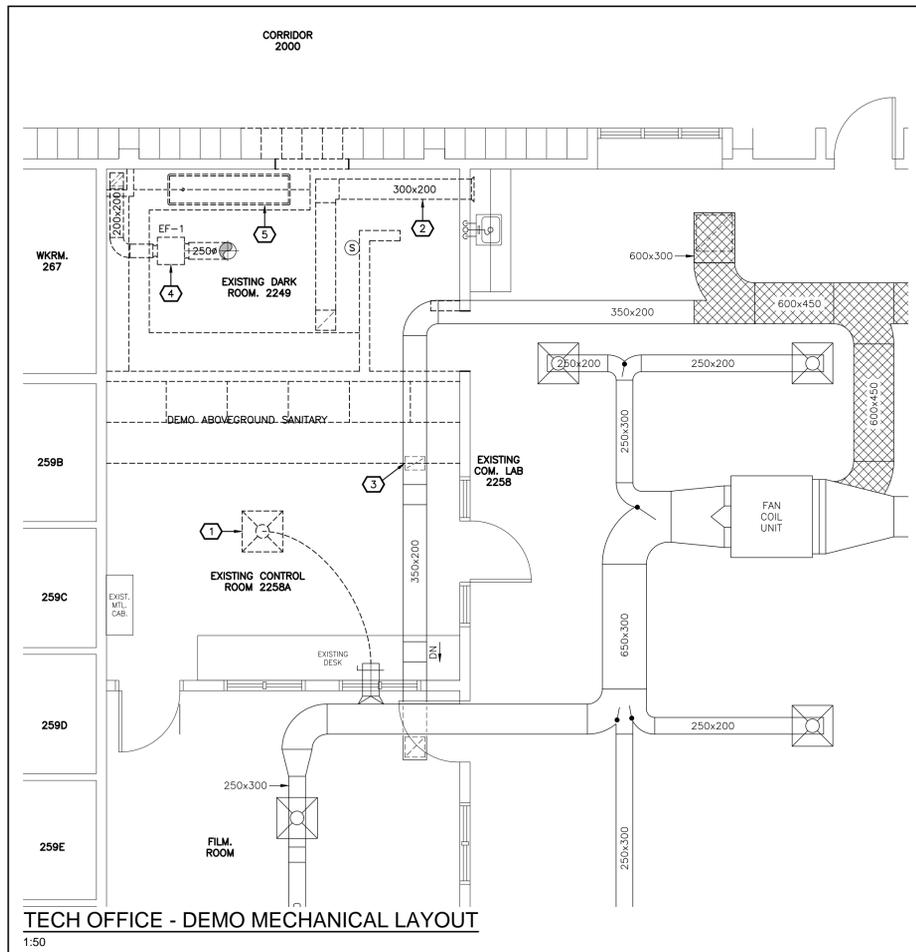
- GENERAL NEW MECHANICAL NOTES:**
1. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM SERVICES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
  2. SCOPE/CAMERA EXISTING UNDERGROUND SANITARY AND STORM PIPING THROUGH WORK AREA TO CONFIRM CONDITION OF PIPE, ROUTING AND INVERTS. SUBMIT REPORT AND VIDEO ON USB.
  3. SCAN FLOOR PRIOR TO FLOOR CUTS AND UNDERGROUND PIPING INSTALLATION.
  4. REFER TO ARCHITECTURAL DRAWINGS AND/OR GENERAL CONTRACTOR FOR CEILING HEIGHTS TO ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
  5. PREPARE INTERFERENCE DRAWINGS AND COORDINATE ALL SERVICES WITH ALL TRADES PRIOR TO INSTALLATION.
  6. COVER ALL FLOOR DRAINS DURING CONSTRUCTION.
  7. PROVIDE NEW PLUMBING VENTS THROUGH ROOF AS REQUIRED OR TIE INTO EXISTING WHERE POSSIBLE.
  8. INSULATE AND LABEL ALL NEW PIPING WITHIN CEILING SPACE IN AREA OF WORK. PROVIDE LABELS ON ALL EXISTING PIPING. PROVIDE PVC JACKET ON ANY NEW & EXISTING EXPOSED PIPING.
  9. FIRE STOP ALL EXISTING AND NEW PIPING THROUGH RATED WALLS IN AREA OF WORK.
  10. LABEL CEILING GRID AT ACCESS TO MECHANICAL EQUIPMENT AND DEVICES WITH LAMACOID NAMEPLATE.
  11. THE CONTRACTOR SHALL FLUSH, SCOPE, AND PROVIDE VIDEO INSPECTION OF THE SANITARY SYSTEM AFTER COMPLETION OF WORK AND PRIOR TO SUBSTANTIAL COMPLETION. FLUSHING, SCOPING AND VIDEO SHALL INCLUDE AREA OF WORK TO WHERE IT TIES INTO THE MAIN. SUBMIT REPORT AND VIDEO ON USB.
  12. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.

3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023
No.	DESCRIPTION	DATE

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1

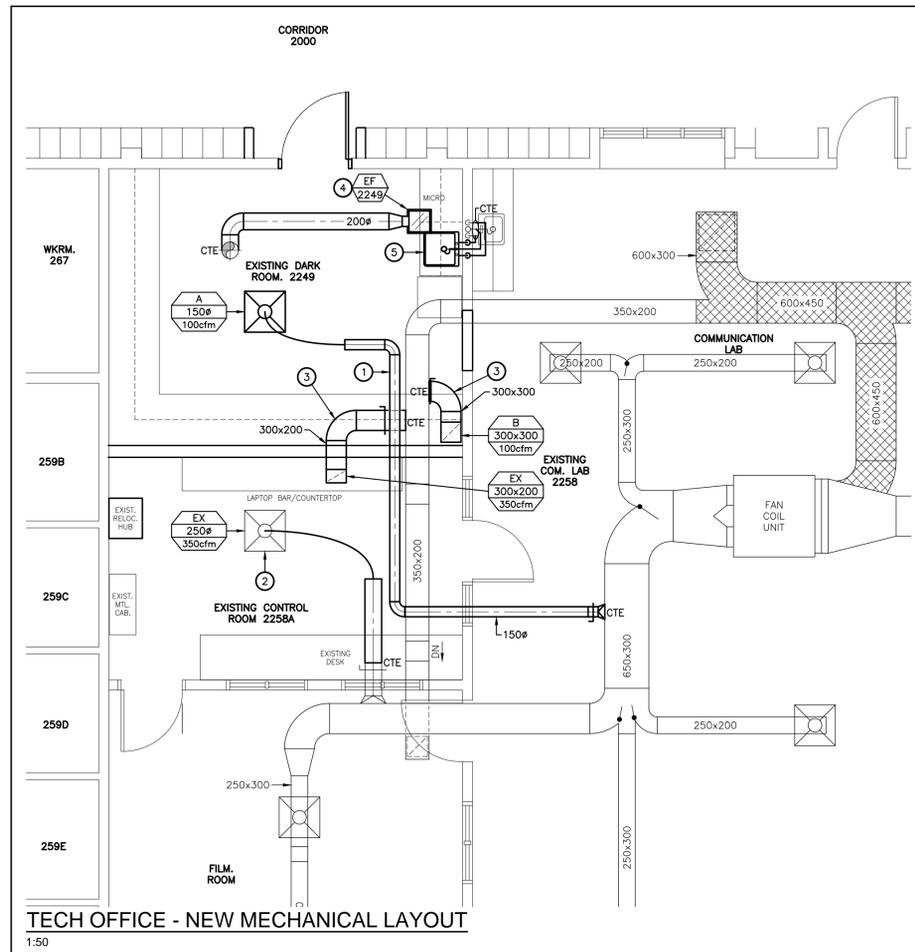
Title: <b>CARDIO &amp; WEIGHT ROOM DEMO &amp; NEW LAYOUTS</b>		
Scale: AS NOTED	Date: APRIL 2023	Drawing: M201
Project: 21-60B	Drawn By: MRC	



**TECH OFFICE - DEMO MECHANICAL LAYOUT**  
1:50

- DEMO WORKING NOTES:**
- 1 REMOVE EXISTING DIFFUSER AND RETAIN FOR REINSTALLATION. REMOVE EXISTING FLEXIBLE DUCTWORK.
  - 2 REMOVE EXISTING TRANSFER DUCT AND ASSOCIATED GRILLES.
  - 3 REMOVE EXISTING R/A GRILLE. REMOVE DUCTWORK BACK TO MAIN AND CAP.
  - 4 REMOVE EXISTING EXHAUST FAN C/W ALL DAMPERS, ACCESSORIES AND DUCTWORK. EXISTING SLEEVE UP THROUGH ROOF TO REMAIN FOR REUSE.
  - 5 REMOVE EXISTING SINK C/W ALL ACCESSORIES. CAP EXISTING SERVICES WITHIN WALL.

- GENERAL DEMOLITION NOTES:**
1. THE CONTRACTOR SHALL ALLOW FOR DETAILED SITE INVESTIGATION TO CONFIRM ALL SERVICES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
  2. SCOPE/CAMERA EXISTING UNDERGROUND SANITARY AND STORM PIPING THROUGH WORK AREA TO CONFIRM CONDITION OF PIPE, ROUTING AND INVERTS. SUBMIT REPORT AND VIDEO ON USB.
  3. SCAN FLOOR PRIOR TO FLOOR CUTS AND UNDERGROUND PIPING INSTALLATION.
  4. DISCONNECT AND REMOVE ALL REDUNDANT EQUIPMENT, FIXTURES, DUCTWORK, PIPING AND OTHER REDUNDANT SERVICES THROUGHOUT AREA OF WORK.
  5. ABANDON ANY UNDERGROUND SERVICES AND CAP FLUSH WITH FLOOR. REMOVE REDUNDANT UNDERGROUND SERVICES WHERE REQUIRED TO SUIT NEW UNDERGROUND SERVICES.
  6. REMOVE OBSOLETE ABOVEGROUND SERVICES BACK TO SOURCE/MAINS AND CAP.
  7. ANY REDUNDANT RISERS CAN REMAIN WITHIN EXISTING WALLS (WHERE WALLS ARE SCHEDULED TO REMAIN) BUT SERVICES SHALL BE CUT AND CAPPED WITHIN WALL SO FACE OF WALL CAN BE PATCHED AND FINISHED SMOOTH.
  8. MAINTAIN VENT PIPING FOR REUSE WHERE POSSIBLE AND REMOVE ANY REDUNDANT.
  9. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.



**TECH OFFICE - NEW MECHANICAL LAYOUT**  
1:50

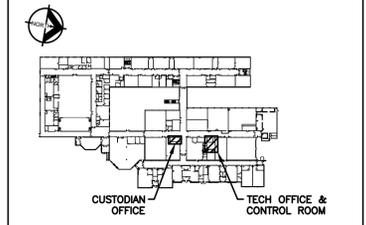
- NEW WORKING NOTES:**
- 1 PROVIDE NEW DIFFUSER AND CONNECT BACK TO EXISTING S/A MAIN C/W BALANCE DAMPER AT TAKEOFF.
  - 2 REINSTALL EXISTING DIFFUSER. PROVIDE NEW DUCTWORK AS REQUIRED TO SUIT REVISED LOCATION.
  - 3 PROVIDE NEW R/A GRILLE AND BALANCE DAMPER AND TIE INTO EXISTING R/A MAIN ABOVE.
  - 4 PROVIDE NEW EXHAUST FAN AND MOUNT IN CEILING. CONNECT NEW E/A DUCT TO EXISTING SLEEVE UP THROUGH ROOF. THERMALLY INSULATE LAST 2.4m BACK FROM ROOF.
  - 5 PROVIDE NEW SINK AND MOUNT IN NEW MILLWORK. RUN SERVICES THROUGH WALL TO TIE INTO EXISTING DCW, DHW AND SAN SERVICES FOR EXISTING SINK ON OPPOSITE SIDE OF WALL.

- GENERAL NEW MECHANICAL NOTES:**
1. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM SERVICES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
  2. SCOPE/CAMERA EXISTING UNDERGROUND SANITARY AND STORM PIPING THROUGH WORK AREA TO CONFIRM CONDITION OF PIPE, ROUTING AND INVERTS. SUBMIT REPORT AND VIDEO ON USB.
  3. SCAN FLOOR PRIOR TO FLOOR CUTS AND UNDERGROUND PIPING INSTALLATION.
  4. REFER TO ARCHITECTURAL DRAWINGS AND/OR GENERAL CONTRACTOR FOR CEILING HEIGHTS TO ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
  5. PREPARE INTERFERENCE DRAWINGS AND COORDINATE ALL SERVICES WITH ALL TRADES PRIOR TO INSTALLATION.
  6. COVER ALL FLOOR DRAINS DURING CONSTRUCTION.
  7. PROVIDE NEW PLUMBING VENTS THROUGH ROOF AS REQUIRED OR TIE INTO EXISTING WHERE POSSIBLE.
  8. INSULATE AND LABEL ALL NEW PIPING WITHIN CEILING SPACE IN AREA OF WORK. PROVIDE LABELS ON ALL EXISTING PIPING. PROVIDE PVC JACKET ON ANY NEW & EXISTING EXPOSED PIPING.
  9. FIRE STOP ALL EXISTING AND NEW PIPING THROUGH RATED WALLS IN AREA OF WORK.
  10. LABEL CEILING GRID AT ACCESS TO MECHANICAL EQUIPMENT AND DEVICES WITH LAMACOID NAMEPLATE.
  11. THE CONTRACTOR SHALL FLUSH, SCOPE AND PROVIDE VIDEO INSPECTION OF THE SANITARY SYSTEM AFTER COMPLETION OF WORK AND PRIOR TO SUBSTANTIAL COMPLETION. FLUSHING, SCOPING AND VIDEO SHALL INCLUDE AREA OF WORK TO WHERE IT TIES INTO THE MAIN. SUBMIT REPORT AND VIDEO ON USB.

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**KEY PLAN - GROUND FLOOR**

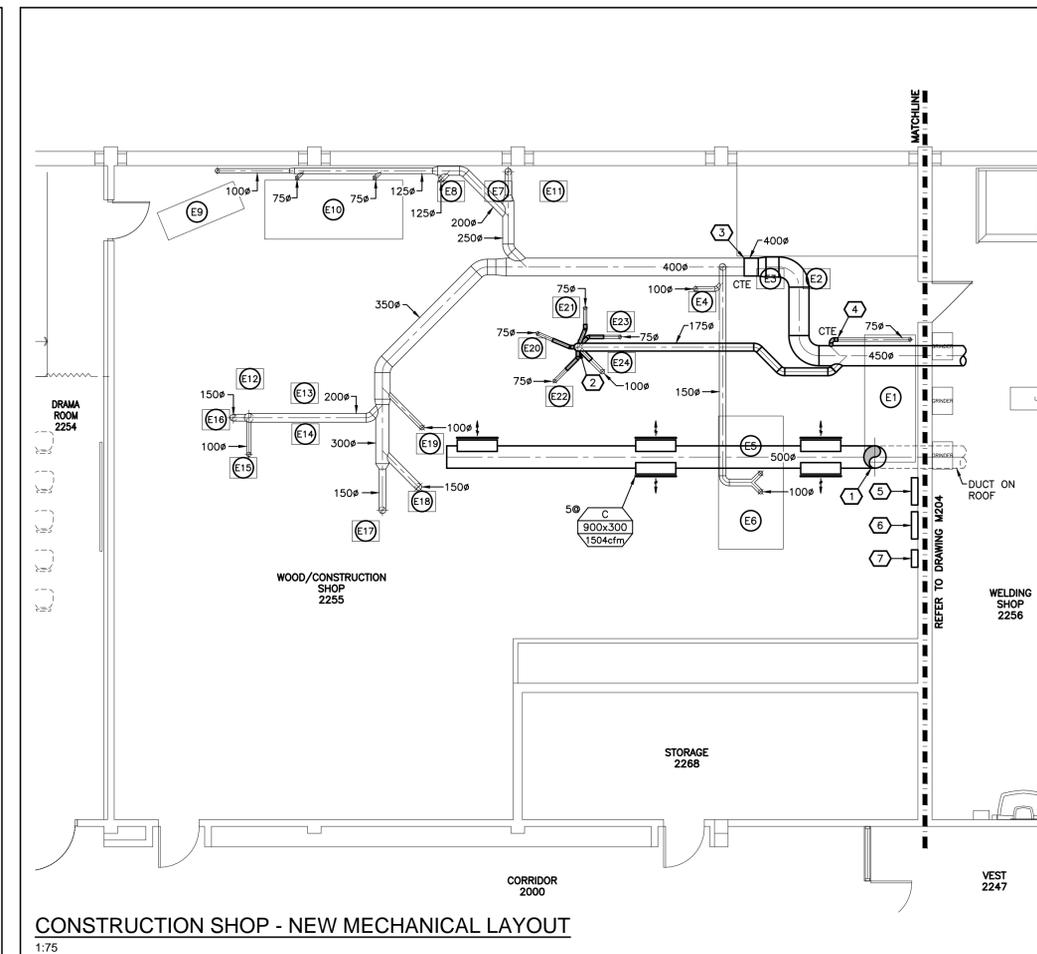
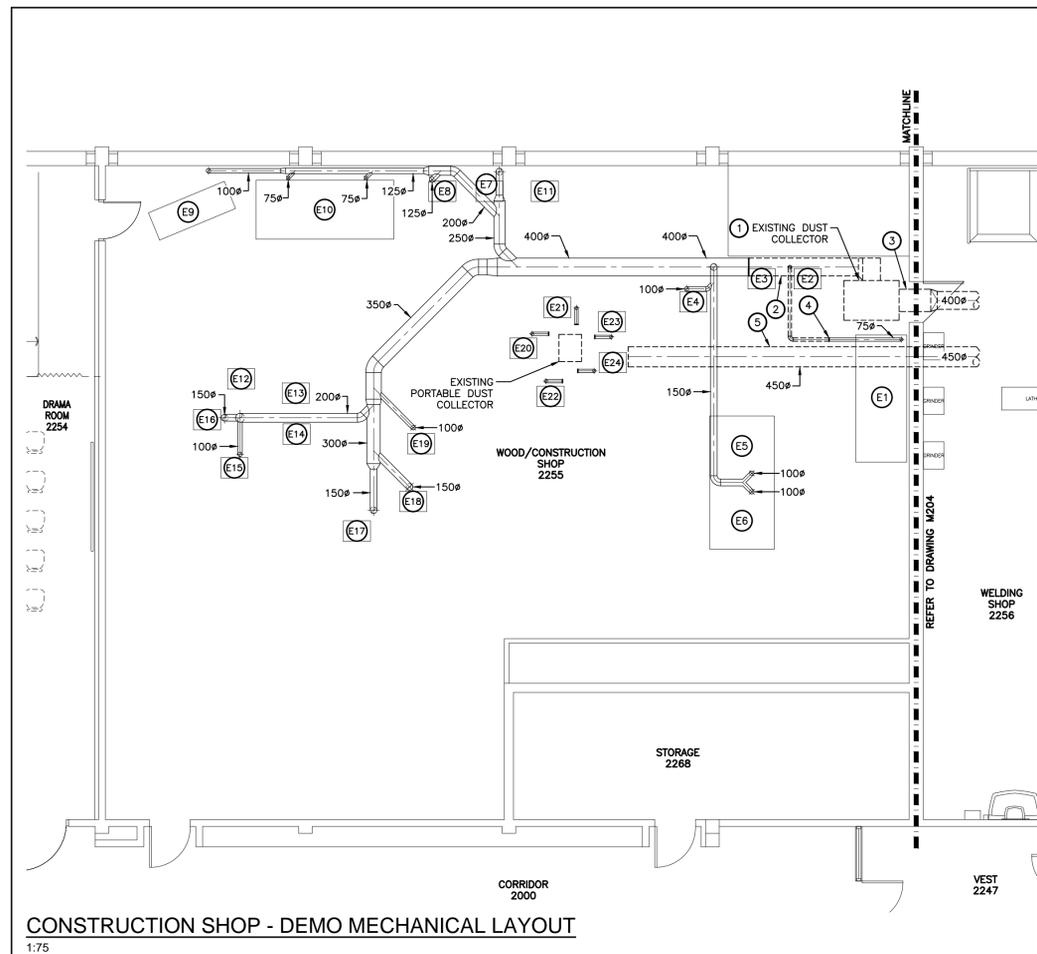
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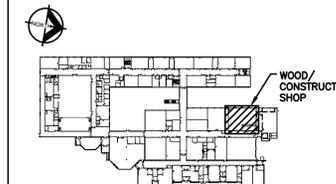
Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title:  
**CUSTODIAL & TECH OFFICES**  
**DEMO & NEW LAYOUTS**

Scale: AS NOTED Date: APRIL 2023 Drawing: M202  
Project: 21-60B Drawn By: MRC



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 CIMA+ JOB No.: C14-0573 DWG SIZE: D



KEY PLAN - GROUND FLOOR

- DEMOLITION WORKING NOTES:**
- 1 REMOVE EXISTING DUST COLLECTOR, SUPPORTS AND ASSOCIATED DUCTWORK, DAMPERS AND ACCESSORIES.
  - 2 CUT AND REMOVE PORTIONS OF EXISTING DUST COLLECTOR S/A DUCTWORK AS SHOWN & PREPARE FOR CONNECTION TO NEW DUCT.
  - 3 REMOVE EXISTING DUST COLLECTOR S/A DUCTWORK BACK THROUGH WALL INTO WELDING SHOP. COORDINATE WALL PATCHING WITH GENERAL CONTRACTOR.
  - 4 DISCONNECT AND REMOVE PORTION OF S/A BRANCH DUCTWORK AS SHOWN & PREPARE FOR CONNECTION TO NEW DUCT.
  - 5 DISCONNECT AND REMOVE EXISTING 450# R/A DUCT THROUGH WALL INTO WELDING SHOP. EXISTING WALL PENETRATION TO BE RE-USED. COORDINATE WITH GENERAL CONTRACTOR.
  - 6 REMOVE EXISTING PORTABLE DUST COLLECTOR & TURN OVER TO THE DDSB. EXISTING DUCT FLEX CONNECTIONS TO EQUIPMENT TO REMAIN.

- NEW WORKING NOTES:**
- 1 NEW 500# R/A DUCT DOWN THROUGH SLOPED FACE OF ROOF. PROVIDE WEATHER-SEALING AND FLASHING AS REQUIRED. COORDINATE ROOFING FOR DUCT PENETRATION WITH GENERAL CONTRACTOR.
  - 2 PROVIDE NEW 175# SPIRAL DUCT DOWN AND CONNECT TO EXISTING FLEX CONNECTIONS FROM EXISTING EQUIPMENT WITH TAGS 'E20' THROUGH 'E24'. PROVIDE ADDITIONAL SPIRAL DUCTWORK AND TRANSITIONS AS REQUIRED.
  - 3 PROVIDE NEW 400# HEAVY GAUGE SPIRAL DUCT AND CONNECT TO EXISTING DUST COLLECTION DUCTWORK SERVING WOOD SHOP EQUIPMENT.
  - 4 PROVIDE NEW 75# HEAVY GAUGE SPIRAL DUCT AND CONNECT BACK TO EXISTING DUCT DROP SERVING MITRE SAW 'E1'.
  - 5 NEW DUST COLLECTOR CONTROL PANEL. COORDINATE WITH ELECTRICAL.
  - 6 NEW NRV CONTROL PANEL. COORDINATE WITH ELECTRICAL.
  - 7 NEW SPARK DETECTION PANEL. COORDINATE WITH ELECTRICAL.

- DUST COLLECTOR SCHEDULING NOTE:**
- EXISTING DUST COLLECTOR TO REMAIN IN OPERATION UNTIL NEW UNIT HAS BEEN ASSEMBLED ON PAD AND IS READY FOR STARTUP.
- FINAL CHANGEOVER/INSTALLATION OF NEW SUPPLY DUCT TO BE SCHEDULED WITH THE SCHOOL AND WITH THE GENERAL CONTRACTOR TO MINIMIZE DOWNTIME OF DUST GENERATING ACTIVITIES IN WOOD SHOP.
- NEW RETURN DUCTWORK MAY BE INSTALLED AHEAD OF TIME ON ROOF.

- GENERAL MECHANICAL NOTES:**
1. THE CONTRACTOR SHALL ALLOW FOR DETAILED SITE INVESTIGATION TO CONFIRM ALL SERVICES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
  2. REFER TO ARCHITECTURAL DRAWINGS AND/OR GENERAL CONTRACTOR FOR CEILING HEIGHTS TO ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
  3. PREPARE INTERFERENCE DRAWINGS AND COORDINATE ALL SERVICES WITH ALL TRADES PRIOR TO INSTALLATION.
  4. DISCONNECT AND REMOVE ALL REDUNDANT EQUIPMENT, FIXTURES, DUCTWORK, OTHER REDUNDANT SERVICES THROUGHOUT AREA OF WORK.
  5. REMOVE OBSOLETE ABOVEGROUND SERVICES BACK TO SOURCE/MAINS AND CAP.
  6. ANY REDUNDANT RISERS CAN REMAIN WITHIN EXISTING WALLS (WHERE WALLS ARE SCHEDULED TO REMAIN) BUT SERVICES SHALL BE CUT AND CAPPED WITHIN WALL SO FACE OF WALL CAN BE PATCHED AND FINISHED SMOOTH.
  7. FIRE STOP ALL EXISTING AND NEW PIPING THROUGH RATED WALLS IN AREA OF WORK.
  8. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.

EXISTING EQUIPMENT LIST						
TAG	EQUIPMENT	QUANTITY OF CONNECTIONS	DUCT SIZE (mm/INCHES)	UNIT EXHAUST (cfm)	TOTAL EXHAUST (cfm)	CONNECTION TYPE
E1	MITRE SAW	1	75#	200	200	DIRECT CONNECTION
E2	DRILL PRESS	N/A	N/A	0	0	
E3	DRILL PRESS	N/A	N/A	0	0	
E4	BAND SAW	1	100#	350	350	DIRECT CONNECTION
E5	TABLE SAW	1	100#	350	350	DIRECT CONNECTION
E6	TABLE SAW	1	100#	350	350	DIRECT CONNECTION
E7	DRUM/SPINDLE SANDER	1	125#	545	545	DIRECT CONNECTION
E8	BELT SANDER	1	125#	545	545	DIRECT CONNECTION
E9	TURNING LATHE	1	100#	350	350	DIRECT CONNECTION
E10	DRILL TABLE	2	75#	200	400	DIRECT CONNECTION
E11	MORTISER	N/A	N/A	0	0	
E12	MORTISER	N/A	N/A	0	0	
E13	SCROLL SAW	N/A	N/A	0	0	
E14	SCROLL SAW	N/A	N/A	0	0	
E15	BAND SAW	1	100#	350	350	DIRECT CONNECTION
E16	JOINTER	1	150#	785	785	DIRECT CONNECTION
E17	JOINTER	1	150#	785	785	DIRECT CONNECTION
E18	PLANER	1	150#	785	785	DIRECT CONNECTION
E19	TABLE SAW	1	100#	350	350	DIRECT CONNECTION
E20	MITRE SAW	1	75#	185	185	DIRECT CONNECTION
E21	ROUTER TABLE	1	75#	185	185	DIRECT CONNECTION
E22	ROUTER TABLE	1	75#	185	185	DIRECT CONNECTION
E23	ROUTER TABLE	1	75#	185	185	DIRECT CONNECTION
E24	DRUM SANDER	1	100#	350	350	DIRECT CONNECTION
TOTAL					7,520	

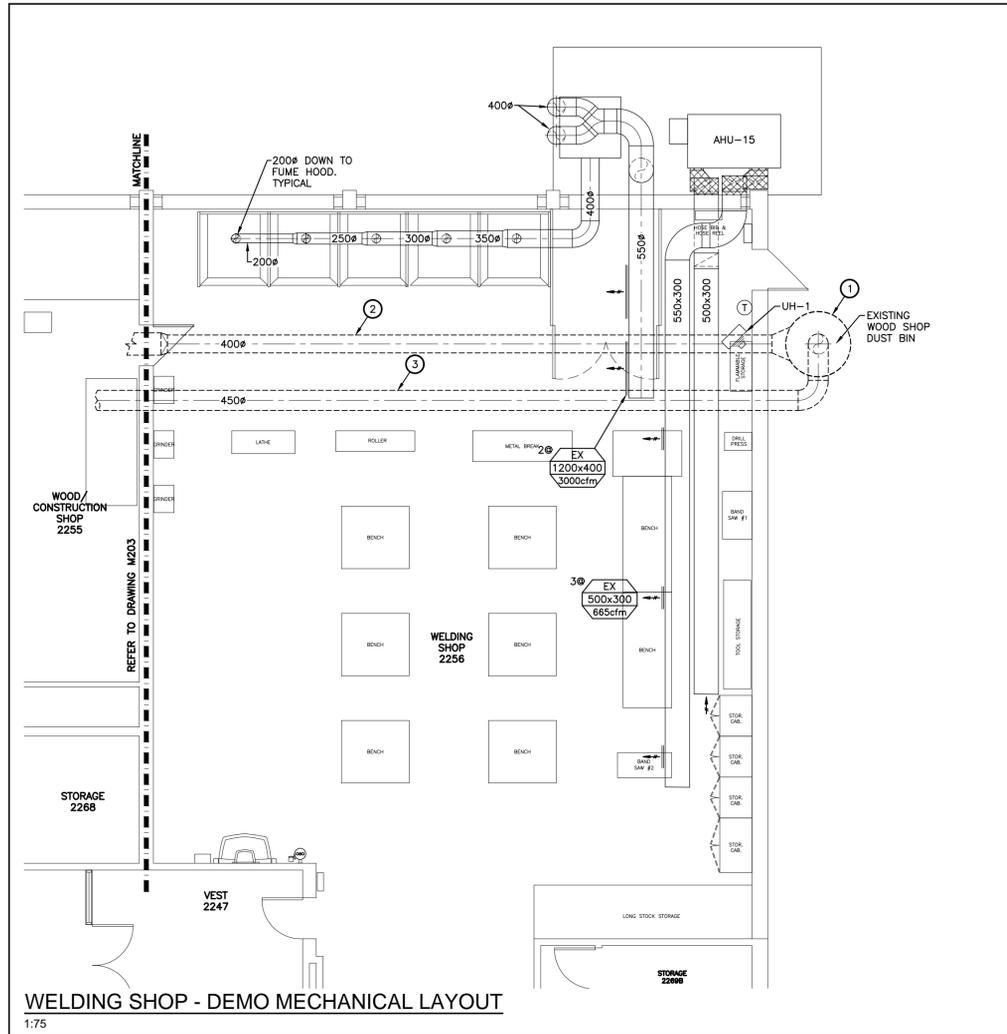
No.	DESCRIPTION	DATE
3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1

Title:  
**CONSTRUCTION SHOP**  
**DEMO & NEW LAYOUTS**

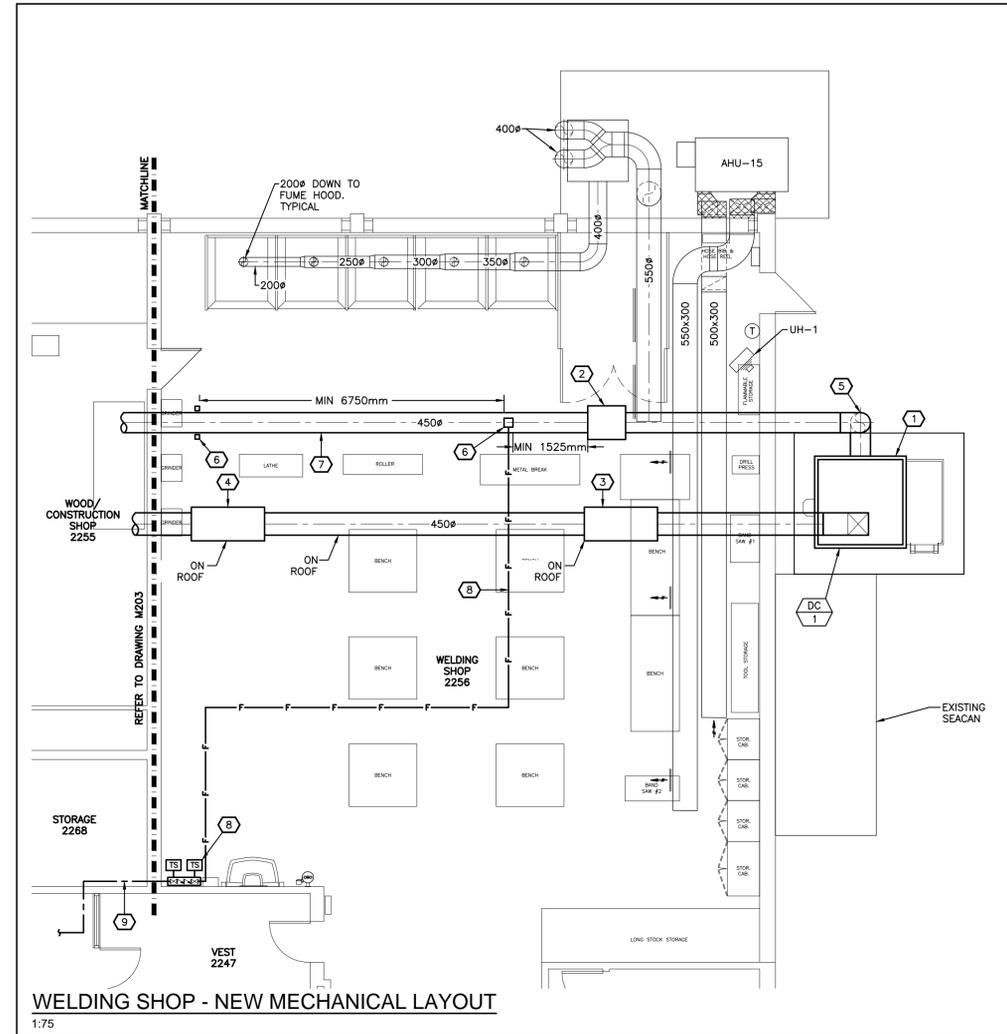
Scale: AS NOTED Date: APRIL 2023 Drawing: M203  
 Project: 21-60B Drawn By: MRC



**WELDING SHOP - DEMO MECHANICAL LAYOUT**  
1:75

**DEMO WORKING NOTES:**

- ① REMOVE EXISTING DUST COLLECTOR WASTE BIN C/W ALL DUCTWORK AND SUPPORTS.
- ② REMOVE EXISTING 400# DUCT AS SHOWN. COORDINATE WALL PATCHING WITH GENERAL CONTRACTOR.
- ③ REMOVE EXISTING 450# DUCT AS SHOWN. EXISTING PENETRATIONS TO BE RE-USED. COORDINATE WITH GENERAL CONTRACTOR.



**WELDING SHOP - NEW MECHANICAL LAYOUT**  
1:75

**NEW WORKING NOTES:**

- ① PROVIDE NEW DUST COLLECTOR AND DRUM STORAGE UNIT. UNIT MOUNTED ON CONCRETE PAD C/W MOUNTING PADS SUPPLIED BY MANUFACTURER. CONCRETE PAD BY GENERAL CONTRACTOR. COORDINATE WITH SAME.
- ② INSTALL NEW NON-RETURN VALVE SUPPLIED BY DUST COLLECTOR MANUFACTURER. INSTALL WITHIN JOIST SPACE OF WELDING SHOP. PROVIDE REQUIRED CLEARANCE AS PER MANUFACTURER'S SPECIFICATIONS TO ENSURE NRV CAN BE SERVICED AND INSPECTED.
- ③ INSTALL NEW ABORT DAMPER SUPPLIED BY DUST COLLECTOR MANUFACTURER AND MOUNT ON ROOF ON RIGID INSULATION, PATIO STONES AND UNISTRUT FRAME. PROVIDE STAINLESS STEEL BUG SCREEN ON OUTLET OF ABORT DAMPER.
- ④ INSTALL NEW SILENCER SUPPLIED BY UNIT MANUFACTURER. MOUNT JUST BEFORE DUCT PENETRATION THROUGH ANGLED SECTION OF ROOF INTO WOOD SHOP.
- ⑤ OFFSET NEW 450# DUST COLLECTOR HEAVY GAUGE SUPPLY DUCT AS REQUIRED TO ENTER BUILDING THROUGH EXISTING 450# PENETRATION IN EXTERIOR WALL. FOLLOW ROUTING OF REMOVED DUCTWORK. WEATHERSEAL OPENING AND PROVIDE FLASHING AND COORDINATE WITH GENERAL CONTRACTOR FOR REPAIR OF WALL.
- ⑥ INSTALL NEW SPARK DETECTION SENSORS AND SPRAY NOZZLE SUPPLIED BY DUST COLLECTOR MANUFACTURER. REFER TO DETAIL AND COORDINATE FINAL LOCATION WITH DUCT LAYOUTS. INSTALL IN WOOD SHOP AND RUN THROUGH WALL IF REQUIRED TO OBTAIN MINIMUM LENGTHS AND OFFSET ABOVE EXISTING WELD SHOP DUCTWORK.
- ⑦ RUN NEW HEAVY GAUGE S/A DUCTWORK THROUGH WELD SHOP UP BETWEEN JOISTS FOLLOWING ROUTING OF REMOVED R/A DUCTWORK.
- ⑧ NEW 1-1/4" FIRE LINE CONNECTION TO EXISTING DCW IN MEZZANINE. C/W ULC LISTED BACKFLOW PREVENTER AND SUPERVISED VALVES IN ACCESSIBLE SPACE WITHIN WELD SHOP. RUN HIGH LEVEL FIRE LINE THROUGH SHOP TO DUCT SUPPRESSION SYSTEM ASSEMBLY. PAINT ALL PIPING RED.
- ⑨ CONNECT 1-1/4" DCW BACK TO EXISTING 2" DCW MAIN IN CORRIDOR CEILING. COORDINATE DRYWALL CEILING RE&RE WITH GENERAL CONTRACTOR.
- ⑩ ALLOW FOR SHIFTING OF SEACAN BY 2-3 FEET TO SUIT CLEARANCE AND ACCESS REQUIREMENTS OF NEW DUST COLLECTOR.

**DUST COLLECTOR SCHEDULING NOTE:**

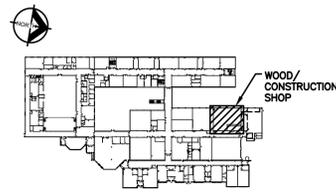
EXISTING DUST COLLECTOR TO REMAIN IN OPERATION UNTIL NEW UNIT HAS BEEN ASSEMBLED ON PAD AND IS READY FOR STARTUP.  
FINAL CHANGEOVER/INSTALLATION OF NEW SUPPLY DUCT TO BE SCHEDULED WITH THE SCHOOL AND WITH THE GENERAL CONTRACTOR TO MINIMIZE DOWNTIME OF DUST GENERATING ACTIVITIES IN WOOD SHOP.  
NEW RETURN DUCTWORK MAY BE INSTALLED AHEAD OF TIME ON ROOF.

**GENERAL MECHANICAL NOTES:**

1. THE CONTRACTOR SHALL ALLOW FOR DETAILED SITE INVESTIGATION TO CONFIRM ALL SERVICES PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
2. REFER TO ARCHITECTURAL DRAWINGS AND/OR GENERAL CONTRACTOR FOR CEILING HEIGHTS TO ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
3. PREPARE INTERFERENCE DRAWINGS AND COORDINATE ALL SERVICES WITH ALL TRADES PRIOR TO INSTALLATION.
4. DISCONNECT AND REMOVE ALL REDUNDANT EQUIPMENT, FIXTURES, DUCTWORK, OTHER REDUNDANT SERVICES THROUGHOUT AREA OF WORK.
5. REMOVE OBSOLETE ABOVEGROUND SERVICES BACK TO SOURCE/MAINS AND CAP.
6. ANY REDUNDANT RISERS CAN REMAIN WITHIN EXISTING WALLS (WHERE WALLS ARE SCHEDULED TO REMAIN) BUT SERVICES SHALL BE CUT AND CAPPED WITHIN WALL SO FACE OF WALL CAN BE PATCHED AND FINISHED SMOOTH.
7. FIRE STOP ALL EXISTING AND NEW PIPING THROUGH RATED WALLS IN AREA OF WORK.
8. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.



415 BASELINE ROAD WEST  
BOWMANVILLE, ON L1C 5M2  
T 905.697.4464  
www.cima.ca  
CIMA+ JOB No.: C14-0573 DWG SIZE: D



**KEY PLAN - GROUND FLOOR**

No.	DESCRIPTION	DATE
3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023

Revisions, Issues  
Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title: <b>WELDING SHOP DEMO &amp; NEW LAYOUTS</b>		
Scale: AS NOTED	Date: APRIL 2023	Drawing: M204
Project: 21-60B	Drawn By: MRC	

**HVAC MATERIAL SPECIFICATIONS:**

- 1. DUCTWORK:
1.1 IN CONFORMANCE WITH SMACNA, ASHRAE, OBC, NFPA 90A.
1.2 SHEET METAL SHALL BE BEST QUALITY LOCK FORMING GALVANIZED SHEET METAL GALVANIZING SHALL BE TO ASTM A525 (90), HAVING A THICKNESS OF 0.054 MM AND WEIGHING NOT LESS THAN 0.31 KG/M2 ON EACH SURFACE.
1.3 ALL ROUND DUCTWORK SHALL BE SPIRAL.
1.4 COORDINATE WITH GENERAL CONTRACTOR FOR PAINTING OF EXPOSED DUCTWORK.
1.5 REFER TO DUST COLLECTION SYSTEM SPECIFICATIONS FOR CARPENTRY SHOP DUST COLLECTOR DUCTWORK & ACCESSORIES.
2. DUCT ACCESS DOORS
2.1 DUCT ACCESS DOORS SHALL BE EQUAL TO MAILOR 085CL(SQUARE) OR 0800(OVAL). REFER TO DETAIL.
3. HOT WATER HEATING PIPING:
3.1 PIPING UP TO INCLUDING 2"(50mm): PIPING SHALL BE BLACK STEEL SCHEDULE 40 WITH MALLEABLE STEEL THREADED SCREW FITTINGS OR COPPER WITH SOLDER JOINTS.
3.2 PIPING 2-1/2"(63mm) AND OVER: PIPING SHALL BE BLACK STEEL SCHEDULE 40 WITH WELDED FITTINGS.
3.3 BRASS ADAPTERS SHALL BE PROVIDED AT ALL CONNECTIONS BETWEEN COPPER TUBING AND FERROUS PIPING.
3.4 PROVIDE AUTOMATIC AIR VENTS C/W BALL VALVE AT ALL HIGH POINTS. REFER TO SPECIFICATIONS BELOW.
3.5 PROVIDE DRAIN VALVES C/W HOSE CONNECTION AND CAP AT ALL LOW POINTS AND AS NOTED ON DETAILS.
3.6 ALLOW FOR ANY CHEMICAL TREATMENT TO BRING SYSTEM TO ACCEPTABLE LEVELS AND SUBMIT REPORTS.
4. PIPE HANGERS:
4.1 ADJUSTABLE WROUGHT IRON CLEVIS TYPE AND/OR ADJUSTABLE RING WITH THREADED SUSPENSION RODS.
4.2 FOR COPPER PIPING (INCLUDING PIPING WITHIN WALLFIN ENCLOSURE) PROVIDE COPPER PLATED OR EPOXY TYPE HANGERS OR PROVIDE SEPARATION OF DISSIMILAR METALS WITH APPROVED DIELECTRIC MATERIALS. INSULATING TAPE IS NOT ACCEPTABLE.
4.3 WHERE HANGERS WRAP AROUND OUTSIDE OF PIPE INSULATION PROVIDE SADDLES TO PREVENT CRUSHING OF INSULATION.
4.4 PIPE HANGER SPACING:
-SIZES UP TO 1-1/4"(32mm) = 8'(2.5m) SPACING
-SIZES 1-1/2"(38mm) TO 2"(50mm) = 10'(3m) SPACING
-SIZES 2-1/2"(63mm) AND OVER = 12'(3.5m) SPACING
4.5 PROVIDE HANGER WITHIN 12"(300mm) OF EVERY ELBOW
5. VALVES AND ACCESSORIES:
5.1 ALL VALVES SHALL BE LINE SIZED UNLESS OTHERWISE NOTED. (CBVs GENERALLY NOT LINE SIZED)
5.2 CIRCUIT BALANCING VALVES SHALL BE IMI TA STAS/STAD/STAF SERIES (NO ALTERNATES ACCEPTABLE). MOUNT WITH PORTS UPRIGHT OR AT LEAST 90° UP FROM BOTTOM. SUBMIT SHOP DRAWINGS COMPLETE WITH VALVE SIZING SCHEDULE.
5.3 BALL VALVES SHALL BE EQUAL TO KITZ 58 & 59.
5.4 AUTOMATIC AIR VENTS SHALL BE EQUAL TO:
-WALLFINS, CONNECTORS, RADS: "MAID-0-MIST" #67 COMPLETE WITH BALL VALVE.
-PIPE MAINS & LINES, MECHANICAL ROOMS, EQUIPMENT, COILS, CEILING SPACES AND ALL OTHER SPACES EXCEPT NOTED ABOVE: "MAID-0-MIST" #71 COMPLETE WITH BALL VALVE.
6. WATER TREATMENT:
6.1 ALLOW FOR CHEMICAL TREATMENT TO BRING SYSTEM TO ACCEPTABLE LEVELS AND SUBMIT REPORTS.
6.2 OBTAIN THE SERVICES OF MK SERVICES FOR ALL WATER TREATMENT.
7. DUCT INSULATION:
7.1 ACUSTIC DUCT INSULATION
7.1.1 FIBERGLASS INSULATION, COATED TO PREVENT FIBRE EROSION AT AIR VELOCITIES UP TO 400 fpm.
7.1.2 ALL SUBSTRATE MATERIAL TO BE NON-DARKENED, CONTRASTING COLOUR FROM LINER LAYER.
7.1.3 THICKNESS: 1" (25mm)
7.2 THERMAL DUCT INSULATION
7.2.1 INSULATION SHALL BE PRECOVERED, PREFORMED RIGID FIBROUS GLASS INSULATION COMPLETE WITH FOIL OR KRAFT ALL-PURPOSE JACKET.
7.2.2 0.75 PCF (12 kg/m³) DENSITY, 0.29 K-WALUE WITH 25/50 FLAME SPREAD/SMOKE DEVELOPMENT CLASSIFICATION IN ACCORDANCE WITH CAN/ULC S102.
7.2.3 SUPPLY, RETURN AND EXHAUST DUCT APPLICATION THICKNESS: 1" (25mm) MINIMUM.
7.2.4 OUTDOOR AIR INTAKE DUCT APPLICATION THICKNESS: 2"(50mm) MINIMUM
7.2.5 RECOVERING JACKETS (INTERIOR): ULC LISTED "THERMO CANVAS", TREATED COTTON FABRIC.
7.3 THERMAL DUCT INSULATION (EXTERIOR TO BUILDING)
7.3.1 INSULATION: 3.0 PCF DENSITY, 2" RIGID FIBERGLASS INSULATION BOARD WITH FACTORY APPLIED FSK FACING, EQUAL TO KNAUF INSULATION BOARD WITH ECOSSE TECHNOLOGY.
7.3.2 JACKET: WEATHER PROOF FLEXIBLE JACKET EQUAL TO "ALUMAGUARD 60".
8. PIPE INSULATION:
8.1 PROVIDE 1-1/2"(38mm) PIPE INSULATION ON ALL HEATING PIPING SIZES UP TO AND INCLUDING 1-1/4"(32mm)
8.2 PROVIDE 2"(50mm) PIPE INSULATION ON ALL HEATING PIPING SIZES 1-1/2"(38mm) AND OVER
8.3 PROVIDE 1"(25mm) PIPE INSULATION ON ALL VENT PIPING 10"(3m) BACK FROM ROOF.
8.4 EXTERNAL PIPE INSULATION SHALL BE RIGID, SECTIONAL FIBERGLASS TYPE AND BE COMPLETE WITH FACTORY SUPPLIED ALL PURPOSE VAPOUR BARRIER, PRE-FORMED INSULATION SHALL BE USED AT PIPE FITTINGS, VALVES, ETC. PROVIDE NON-CRUSHING INSULATION AT ALL PIPE HANGERS AND PROVIDE SADDLES.
8.5 PROVIDE PVC JACKET ON ALL INSULATION IN EXPOSED AREAS.
9. ACCESS DOORS/COVERS
9.1 FLUSH ACCESS DOOR - UNIVERSAL: ACUDOR #UF-5000 UNIVERSAL ACCESS DOORS, 14 GA. (1.7mm) STEEL, BAKED ENAMEL PRIME COAT, CONTINUOUS CONCEALED HINGE, WITH POSITIVE AND SELF-OPENING SCREWDRIVER OPERATED LOCK. DOORS IN WASHROOMS SHALL BE STAINLESS STEEL. ALL OTHER PANELS SHALL BE BAKED ENAMEL PRIME COATED FOR FIELD PAINTING. MINIMUM SIZE OF PANELS SHALL BE 12"x18" (300mmx450mm), WHEREVER POSSIBLE 24"x24" (600mmx600mm) PANELS SHALL BE USED.
9.2 RECESSED ACCESS DOOR - DRYWALL AREA: ACUDOR #DW-5015 SERIES RECESSED ACCESS DOOR, 16 GA. (1.5mm) STEEL, BAKED ENAMEL PRIME COAT, WITH CONCEALED PIVOTING ROD TYPE HINGE AND SELF-OPENING SCREWDRIVER OPERATED LOCK. DOOR TO BE RECESSED 5/8" (14mm) TO RECEIVE DRYWALL. FLANGE OF DOOR TO BE GALVANIZED STEEL TAPING BEADING TO PROVIDE FINISH OF DRYWALL JOINTS FOR FIELD PAINTING.

**HVAC NOTES:**

- 1. CONCEAL ALL SERVICES IN CEILING SPACES AND FURRED CONSTRUCTION UNLESS INSTALLED IN UNFINISHED OR EXPOSED AREAS OR IF SPECIFICALLY NOTED TO BE EXPOSED.
2. COORDINATE INSTALLATION WITH ALL OTHER TRADES.
3. REFER TO REFLECTED CEILING PLAN TO CONFIRM EXACT LOCATION OF GRILLES AND DIFFUSERS. LIGHTING TAKES PRECEDENCE.
4. PROVIDE ACOUSTIC INSULATION ON ALL TRANSFER DUCTS AND AS INDICATED ON DRAWINGS. SEAL ALL EXPOSED ENDS OF INSULATION.
5. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS AND SHORT RADIUS ELBOWS FOR SUPPLY AIR DUCTS.
6. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.
7. SEAL ALL JOINTS ON ALL SUPPLY & RETURN AIR DUCTS WITH DURODYNE DUCT SEALER IN CONFORMANCE TO CLASS "C" ASHRAE 90.1 AND SMACNA STANDARDS. USE CLEAR DUCT SEALER OR SEAL BEHIND JOINTS FOR ALL EXPOSED DUCTWORK.
8. BRANCH DUCTWORK TO DIFFUSERS TO BE SAME SIZE AS DIFFUSER NECK.
9. PROVIDE BALANCE DAMPERS ON ALL BRANCH DUCTS CLOSE TO MAIN TAKE-OFF. REVIEW WITH BALANCING CONTRACTOR TO CONFIRM LOCATIONS OF ALL BALANCE DAMPERS PRIOR TO CONSTRUCTION.
10. INCLUDE FOR THE SUPPLY AND INSTALLATION OF TWO(2) EXTRA BALANCE DAMPERS AFTER CONSTRUCTION AND BALANCING COMPLETION. (PENDING BALANCING RESULTS AND COMMENTS).
11. FLEXIBLE DUCT SHALL ONLY BE USED IN SUPPLY AIR APPLICATIONS FOR CONNECTIONS TO DIFFUSERS IN DROPPED CEILING. FLEXIBLE DUCT SHALL BE MAXIMUM 6' (1.8m) IN LENGTH AND SHALL BE SECURELY FASTENED TO DUCTS AND DIFFUSERS. PROVIDE HANGERS AND FLEXIBLE DUCTWORK WITHOUT SHARP 90's, SAGGING, OR CRUSHING OF DUCT. FLEXIBLE DUCT IS NOT ACCEPTABLE IN ANY OTHER APPLICATION.
12. PROVIDE EXTERNAL INSULATION ON ALL SUPPLY AIR DUCTS, ALL OUTSIDE AIR DUCTS AND ON ALL EXHAUST DUCTS WITHIN 8' (2.4m) OF OUTSIDE WALL/ROOF INCLUDING RIGID AND FLEXIBLE DUCT.
13. CONFIRM EXACT LOCATIONS OF SENSORS WITH ENGINEER AND OWNER. MOUNT SENSORS AT 59" (1500mm) AFF. ENSURE THAT SENSOR LOCATIONS WILL NOT BE AFFECTED BY DIRECT SUNLIGHT, COLD WALLS OR MILLWORK.
14. ALL INDOOR CONTROL WIRING SHALL BE RUN IN EMT CONDUIT OR FT6 (EMT SHALL BE USED IN EXPOSED AREAS). LAST 3' SHALL BE BX WHEN USING CONDUIT. ALL OUTDOOR CONTROL WIRING SHALL BE RUN IN LIQUIDTIGHT. ALL CONTROL WIRING SHALL RUN PARALLEL TO BUILDING LINES AND TIGHT TO ROOF DECK OR WALLS. ALL CONTROL WIRING PASSING THROUGH WALLS SHALL BE RUN IN EMT CONDUIT C/W BUSHINGS AT EACH END.
15. PROVIDE FIRE DAMPERS OR COMBINATION SMOKE/FIRE DAMPERS AT ALL FIRE SEPARATION FIRE DAMPERS AT ALL FIRE SEPARATIONS. FIRE DAMPERS SHALL BE TYPE 'B' C/W LINKAGE OUT OF THE AIR STREAM. FIRE DAMPER RATING TO MATCH THE RATING OF THE SEPARATION CROSSED. PROVIDE COMBINATION SMOKE AND FIRE DAMPERS WHERE NOTED (WHERE OUTLETS FROM DUCTWORK SERVE MULTIPLE FIRE COMPARTMENTS).INSTALLATION MUST CONFORM TO LATEST NFPA/CSA 90A SPECIFICATIONS. ONLY USE ULC APPROVED EQUIPMENT. PROVIDE DUCT ACCESS DOORS AND BREAK AWAY FLANGES FOR ALL FIRE DAMPERS IN CONFORMANCE WITH CODE AND INSTALLATION INSTRUCTIONS. ACCESS DOORS SHALL BE TWIST LOCK TYPE - SCREWED PANELS ARE NOT ACCEPTABLE.
16. PROVIDE ACCESS DOOR IN DUCTWORK IMMEDIATELY UPSTREAM AND DOWNSTREAM OF REHEAT COILS. ACCESS DOORS SHALL BE TWIST LOCK TYPE - SCREWED PANELS ARE NOT ACCEPTABLE.
17. PROVIDE SLEEVES FOR PIPES THROUGH ALL NEW BLOCK WALLS. FILL VOIDS AROUND PIPES. ENSURE NO CONTACT BETWEEN DISSIMILAR METALS.
18. SUPPLY DRYWALL ACCESS DOORS FOR CONCEALED FIRE AND BALANCE DAMPERS AND ANY OTHER CONCEALED DEVICES [AND TURN OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION. DOORS TO BE GALVANIZED STEEL FOR FIELD PAINTING. DOORS SHALL BE RATED WHERE INSTALLED IN FIRE SEPARATIONS.
19. DRAIN HEATING SYSTEMS AS REQUIRED FOR NEW WORK. FILL, FLUSH, TEST AND TREAT (ON SITE TREATMENT) AFTER WORK IS COMPLETE. PROVIDE ALL PORTS, VALVES AND GAUGES AS REQUIRED. SUBMIT CHEMICAL TREATMENT REPORT TO ENGINEER. FREEZING OF PIPING TO ALLOW INSULATION OF WORK AREA IS ACCEPTABLE IN LIEU OF DRAINING.
20. ALL CBVs SHALL BE MOUNTED WITH PORTS IN HORIZONTAL (90°) POSITION.
21. PROVIDE EXTERNAL INSULATION ON ALL HEATING PIPING EXCEPT IN WALLFIN ENCLOSURES.
22. PROVIDE FIRE STOPPING AROUND ALL EXISTING AND NEW PIPING THROUGH FIRE SEPARATIONS.
23. LABEL ALL NEW HEATING PIPING COMPLETE WITH FLOW ARROWS. LABELS SHALL BE MAX 3m(10') SPACING AND ON EITHER SIDE OF WALLS. LABELING MUST BE COMPLETE PRIOR TO NEW CEILING BEING INSTALLED OTHERWISE IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE CEILING TILES FOR INSPECTION AT THE DIRECTION OF THE CONSULTANT.
24. LABEL CEILING TILE WITH PERMANENT ADHESIVE LABELS OR LAMACOID NAMEPLATES FOR ACCESS TO MECHANICAL ITEMS.
25. [TBC]OBTAIN THE SERVICES OF A NADCA QUALIFIED CONTRACTOR FOR DUCT CLEANING.
26. OBTAIN THE SERVICES OF A NEBB, CAABC OR NBCTA ACCREDITED BALANCING COMPANY TO BALANCE THE COMPLETE HVAC SYSTEM. PROVIDE REPORT TO ENGINEER FOR REVIEW. REFER TO SPECIFICATIONS FOR APPROVED AGENTS.
27. PROVIDE TESTING AND STARTUP OF ALL NEW EQUIPMENT AND PROVIDE REPORTS TO THE ENGINEER FOR REVIEW.

**BALANCING SPECIFICATIONS:**

- 1. OBTAIN THE SERVICES OF A 3rd PARTY ACCREDITED BALANCING COMPANY TO BALANCE THE COMPLETE AIR AND WATER HVAC SYSTEM.
2. PROVIDE PRELIMINARY REPORT TO ENGINEER FOR REVIEW AND COMMENTS.
3. ALLOW FOR ONE FOLLOW-UP SITE VISIT FOR ADJUSTMENTS.
4. RETURN TO SITE FOR ANY ADJUSTMENTS AND SUBMIT FINAL REPORT TO ENGINEER AND CONTRACTOR FOR INCLUSION INTO MAINTENANCE MANUAL.
5. ACCEPTABLE AGENTS:
1. QUALITY AIR DISTRIBUTION INC
CONTACT: MIKE NOONAN
TEL: (289)892-7168
EMAIL: mike@qualityairdistribution.com
2. DESIGN TEST & BALANCE
CONTACT: SURINDER SINGH
TEL: (905)886-6513
EMAIL: mail@designtest.ca
3. FLOWSET BALANCING
CONTACT: CHRIS PITHER
PHONE: (416)410-9793 OR (647)321-5114
EMAIL: chrisp@flowset.com
4. COMPLETE SYSTEMS BALANCING
CONTACT: TREVOR KELLY
PHONE: 705-760-0390
EMAIL: trevor@csbalancing.com

**PLUMBING SPECIFICATIONS:**

- 1. ALL PLUMBING PRODUCTS SHALL BE "LEAD-FREE" CERTIFIED TO ANSI/NFPA 372.
2. ALL NEW ABOVE GROUND WATER PIPING SHALL BE TYPE "L" HARD COPPER, CERTIFIED TO ASTM B88, WITH SOLDER JOINTS.
3. DRAINAGE SYSTEM (ABOVE GROUND):
3.1 2-1/2"(63mm) AND OVER: CAST IRON MJ PIPE WITH MJ FITTINGS AND STAINLESS STEEL CLAMPS.
3.2 2"(50mm) AND UNDER - COPPER DWV PIPE WITH WROUGHT COPPER SOLDER FITTINGS IPEX XFR OR PVC DWV.
4. DRAINAGE SYSTEM (UNDERGROUND):
4.1 PIPE UP TO AND INCLUDING 75mm(3") SHALL BE:
4.1.1 ULC CERTIFIED PVC 40 DWV PIPE TO CAN/CSA B181.2 COMPLETE WITH PVC DWV FITTINGS TO CAN/CSA B181.2 WITH SOLVENT WELD JOINT.
4.2 PIPE 75mm(3") UP TO AND INCLUDING 100mm(4") SHALL BE:
4.2.1 ULC CERTIFIED PVC 40 DWV PIPE TO CAN/CSA B181.2 COMPLETE WITH PVC DWV FITTINGS TO CAN/CSA B181.2 WITH SOLVENT WELD JOINT. OR
4.2.2 ULC CERTIFIED PVC SDR 28/35 BDS PIPE TO CAN/CSA B182.1 COMPLETE WITH PVC BDS FITTINGS TO CAN/CSA B182.2 WITH SOLVENT WELD JOINTS.
5. ALL NEW PIPE HANGERS SHALL BE:
5.1 EPOXY COATED CLEVIS TYPE WITH THREADED SUSPENSION RODS WHERE HANGER DIRECTLY TOUCHES PIPING.
5.2 ADJUSTABLE WROUGHT IRON CLEVIS TYPE AND/OR ADJUSTABLE RING WITH THREADED SUSPENSION RODS WHERE HANGERS WRAP AROUND OUTSIDE OF PIPE INSULATION. PROVIDE SADDLES TO PREVENT CRUSHING OF INSULATION.
5.3 PIPE HANGER SPACING
-SIZES UP TO 1-1/4"(32mm) = 8'(2.5m) SPACING
-SIZES 1-1/2"(38mm) TO 2"(50mm) = 10'(3m) SPACING
-SIZES 2-1/2"(63mm) AND OVER = 12'(3.5m) SPACING
5.4 PROVIDE HANGER WITHIN 12"(300mm) OF EVERY ELBOW
6. PROVIDE A SPLY SHUT OFF VALVE ON HOT, COLD AND/OR TEMPERED WATER SUPPLY TO EACH FIXTURE. SUPPLY SHUT OFF SHALL BE EQUAL TO MCGUIRE H165. ALL VALVES SHALL BE LINE SIZE.
7. BALL VALVES SHALL BE LEAD FREE WITH SOLDERED OR THREADED ENDS. BALL VALVES SHALL BE EQUAL TO KITZ #858 & #859. ALL VALVES SHALL BE LINE SIZE.
8. FLEXIBLE SUPPLIES ARE NOT ACCEPTABLE FOR ANY EXPOSED INSTALLATION, WHERE SUPPLIES ARE INSTALLED UNDER COUNTER OR BEHIND SHROUDS FLEXIBLE SUPPLIES ARE ACCEPTABLE.
9. REFER TO PLUMBING FIXTURE SPEC INCLUDING FIXTURES, TRAP SEAL PRIMERS, WATER HAMMER ARRESTORS, ACCESS DOORS, ETC.
10. INSULATION:
10.1 EXTERNAL PIPE INSULATION SHALL BE RIGID, SECTIONAL FIBERGLASS TYPE AND BE COMPLETE WITH FACTORY APPLIED ALL PURPOSE VAPOUR BARRIER. PRE-FORMED INSULATION SHALL BE USED AT PIPE FITTINGS, VALVES, ETC. PROVIDE NON-CRUSHING INSULATION AT ALL PIPE HANGERS AND PROVIDE SADDLES.
10.2 INSULATE DW, DHW, DRW AND DTW PIPING.
10.3 INSULATION THICKNESS: 1"(25mm)
11. TEST ALL BACKFLOW PREVENTERS AND SUBMIT REPORT TO CONSULTANT.

**DUST COLLECTION SYSTEM SPECIFICATIONS:**

- 1. ALL SYSTEMS SHALL BE CONSTRUCTED WITH THE MATERIALS RECOMMENDED HEREIN AND SHALL BE INSTALLED IN A PERMANENT AND WORKMANLIKE MANNER. INTERIOR OF ALL DUCTS SHALL BE SMOOTH AND FREE FROM OBSTRUCTIONS.
2. RIGID DUCT:
2.1 GALVANIZED G60 SPIRAL
2.2 SEAL ALL DUCT JOINTS.
2.3 GAUGE:
3 TO 14" DIAMETER = 24ga.
15 TO 18" DIAMETER = 22ga.
20 TO 25" DIAMETER = 20ga.
26 TO 29" DIAMETER = 18ga.
30 TO 36" DIAMETER = 16ga.
2.4 PRIME AND PAINT ALL EXTERIOR DUCTWORK TO MATCH DUST COLLECTOR
2.5 ALL DUCTWORK BETWEEN DUST COLLECTOR AND NRV = 14ga.
3. FITTINGS:
3.1 ELBOWS AND ANGLES SHALL BE MINIMUM TWO GAUGES HEAVIER THAN STRAIGHT SECTIONAL CONNECTION BRANCHES.
3.2 SEAL ALL DUCT AND FITTING JOINTS.
3.3 PROVIDE PILOT TUBE PORTS MINIMUM 4x DUCT DIAMETER DOWNSTREAM OF BLAST GATES FOR BALANCING.
4. HOODS:
4.1 HOODS SHALL BE MINIMUM TWO GAUGES HEAVIER THAN STRAIGHT SECTIONAL CONNECTION BRANCHES.
5. FLEXIBLE PIPING:
5.1 RE-INFORCED RUBBER FLEX HOSE, NON-COLLAPSIBLE, MAXIMUM 1.5m (5') IN LENGTH UNLESS IT RUNS ACROSS ACCESSIBLE AREA/PATHWAY.
5.2 SECURE TO RIGID SPIRAL DUCT WITH STAINLESS STEEL HOSE/BAND CLAMPS, 13mm (1/2") BAND WIDTH.
6. BLAST GATES:
6.1 ALUMINUM
6.2 PROVIDED AT EACH EQUIPMENT CONNECTION.
6.3 PROVIDE SCREWS THROUGH FLANGES TO LOCK GATE IN POSITION AFTER BALANCING.
7. SPARK DETECTION:
7.1 SPARK DETECTION PANEL AND ACCESSORIES SUPPLIED WITH DUST COLLECTOR. REFER TO ACCESSORIES IN DUST COLLECTOR SCHEDULE AND DETAIL.
7.2 FIRE/WATER PIPING SHALL BE STEEL SCHEDULE 40 WITH THREADED FITTINGS.
7.3 CONTRACTOR SHALL PROVIDE SUPERVISORY VALVE AND FLOW SWITCH ON SUPPLY LINE, MOUNT WITHIN SPACE AND THE INTO CONTROL PANEL. REFER TO SPARK DETECTION DETAIL.
7.4 PERFORM WATER FLOW TEST AND CALCULATIONS TO CONFIRM EXACT PIPE SIZE. SUBMIT REPORT TO ENGINEER.

**GENERAL NOTES:**

- 1. OBTAIN, ARRANGE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
2. THE CONTRACTOR AND ITS SUB-TRADES SHALL ATTEND BI-WEEKLY SITE MEETINGS OR AS ARRANGED BY CONSULTANT OR OWNER.
3. OBTAIN AND REVIEW THE DESIGNATED SUBSTANCE REPORT FROM THE CLIENT AND COORDINATE ANY DESIGNATED SUBSTANCE ISSUES WITH THE CLIENT PRIOR TO ANY WORK BEING DONE.
4. PROVIDE SHOP DRAWINGS ELECTRONICALLY IN PDF FORMAT TO CONSULTANT FOR REVIEW. ALL SHOP DRAWINGS MUST BE REVIEWED, STAMPED AND SIGNED BY THE MECHANICAL CONTRACTOR PRIOR TO SUBMITTING TO THE CONSULTANT. REVIEW SHALL INCLUDE BUT NOT BE LIMITED TO: VERIFYING UNIT VOLTAGE WITH ELECTRICIAN AND/OR SITE. EQUIPMENT PERFORMANCE, DIMENSIONS AND CLEARANCES. SUBMIT SHOP DRAWINGS ELECTRONICALLY TO THE CIMA+ PROJECT MANAGER AND ADMINISTRATOR.
5. THOROUGHLY REVIEW AND COORDINATE WITH SITE CONDITIONS AND COMPLETE DRAWING SET PRIOR TO PRICING AND INSTALLATION.
6. INSTALL ALL WORK IN CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
7. DO NOT USE ANY NEW PERMANENT EQUIPMENT FOR TEMPORARY USE DURING CONSTRUCTION WITHOUT WRITTEN APPROVAL. WHERE SYSTEMS ARE USED AND ARE CONTAMINATED BY DUST OR DIRT, THE CONTRACTOR SHALL CLEAN IN A MANNER ACCEPTABLE TO THE CONSULTANT.
8. MAINTAIN AS-BUILT DRAWINGS ON AN ON-GOING BASIS. DRAWINGS SHALL BE AVAILABLE FOR PERIODIC REVIEW BY THE CONSULTANT DURING CONSTRUCTION.
9. ALL WORK SHALL COMPLY WITH APPLICABLE CODES.
10. REMOVE ALL REDUNDANT EQUIPMENT, MATERIALS AND GARBAGE FROM SITE AND DISPOSE OF IN AN APPROVED MANNER. REDUNDANT EQUIPMENT AND MATERIALS SHALL NOT BE ABANDONED IN PLACE.
11. ALL CUTTING AND CORING SHALL BE BY THIS CONTRACTOR. COORDINATE PATCHING WITH GENERAL CONTRACTOR. TRENCHING, EXCAVATION AND BACKFILL FOR UNDERGROUND PLUMBING SHALL BE BY THIS CONTRACTOR. ALL SAW CUTTING AND RESTORATION OF CONCRETE FLOOR BY GENERAL CONTRACTOR. COORDINATE WITH SAME.
12. COORDINATE ROOFING FOR DUCT AND PIPE ROOF PENETRATIONS WITH GENERAL CONTRACTOR.
13. MAINTAIN REQUIRED ACCESS AND CLEARANCE TO ALL EQUIPMENT AND SYSTEMS AS REQUIRED BY CODE AND AS PER MANUFACTURER'S REQUIREMENTS.
14. TAG ALL EQUIPMENT WITH LAMACOID NAMEPLATES. TAG ALL VALVES WITH LAMACOID NAMEPLATES OR BRASS TAGS ON CHAINS.
15. LABEL ALL NEW PIPING WITH SERVICE AND FLOW ARROWS EVERY 10'(3m) AND ON EITHER SIDE OF WALLS.
16. THE CONTRACTOR SHALL ARRANGE FOR INSPECTIONS BY THE ENGINEER PRIOR TO CEILING AND WALLS BEING CLOSED IN, WHERE THIS HAS NOT BEEN ARRANGED BY THE CONTRACTOR'S INSPECTION REPORT INDICATING ALL DEFICIENCIES ARE COMPLETED, A RE-INSPECTION WILL ONLY BE DONE ONCE THE CONSULTANT RECEIVES THIS IN WRITING. WHERE THE CONSULTANT PERFORMS THE RE-INSPECTION AND THE WORK IS NOT COMPLETE, THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE CONSULTANT FOR THE FIELD REVIEW. THE FEE FOR ADDITIONAL REVIEWS WILL BE AT THE CONSULTANT'S HOURLY RATES PLUS MILEAGE AND APPLICABLE TAXES TO BE PAID DIRECTLY TO THE CONSULTANT PRIOR TO PERFORMING THE NEXT FIELD REVIEW.
17. PERFORM TESTING AND START UP OF ALL SYSTEMS AS REQUIRED BY CODE, THE CONSULTANT, MANUFACTURER'S REQUIREMENTS, AND AUTHORITIES HAVING JURISDICTION. SUBMIT REPORTS TO THE CONSULTANT.
18. INSTRUCT AND DEMONSTRATE TO THE OWNER ON PROPER OPERATION OF THE SYSTEM. RECORD AND SUBMIT A LOG DATED AND SIGNED BY ALL ATTENDEES.
19. UPON COMPLETION OF THE PROJECT THE CONSULTANT WILL DO A FINAL REVIEW. UPON RECEIVING THE FINAL INSPECTION REPORT, THE CONTRACTOR MUST CORRECT AND SIGN BACK THE INSPECTION REPORT INDICATING ALL DEFICIENCIES ARE COMPLETED. A RE-INSPECTION WILL ONLY BE DONE ONCE THE CONSULTANT RECEIVES THIS IN WRITING. WHERE THE CONSULTANT PERFORMS THE RE-INSPECTION AND THE WORK IS NOT COMPLETE, THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE CONSULTANT FOR THE FIELD REVIEW. THE FEE FOR ADDITIONAL REVIEWS WILL BE AT THE CONSULTANT'S HOURLY RATES PLUS MILEAGE AND APPLICABLE TAXES TO BE PAID DIRECTLY TO THE CONSULTANT PRIOR TO PERFORMING THE NEXT FIELD REVIEW.
20. PROVIDE ONE (1) YEAR WARRANTY ON ALL MATERIAL AND LABOUR FROM THE DATE OF SUBSTANTIAL COMPLETION.
21. PROGRESS DRAWS SHALL INCLUDE MINIMUM \$2,500.00 FOR MANUALS AND AS-BUILT DRAWINGS. TOTAL AMOUNT SHALL REMAIN UNBILLED UNTIL MANUALS AND AS-BUILT DRAWINGS HAVE BEEN SUBMITTED AND APPROVED.
22. PROVIDE ONE(1) ELECTRONIC COPY OF MAINTENANCE MANUALS VIA WEB TRANSFER AND ON USB. MANUAL SHALL INCLUDE:
- TABLE OF CONTENTS
- CONTRACTOR INFORMATION
- WARRANTY LETTER
- SHOP DRAWINGS
- O&Ms
- INSPECTION & TEST REPORTS
- AS-BUILT DRAWINGS.
AS-BUILT DRAWINGS SHALL INCLUDE COMPLETE MECHANICAL DRAWING SET WITH ALL CHANGES MARKED CLEARLY AND NEATLY IN COLOUR. AS-BUILTS SHALL BE STAMPED ACCORDINGLY BY THE CONTRACTOR (ALL DRAWINGS). DRAWINGS SHALL BE SUBMITTED HARD COPY IN FULL SIZE. SUBSTANTIAL COMPLETION WILL NOT BE AWARDED UNTIL THE MANUALS AND AS-BUILTS HAVE BEEN SUBMITTED TO THE CONSULTANT AND THE CONSULTANT HAS APPROVED.

**PLUMBING NOTES:**

- 1. PROVIDE BEFORE AND AFTER SCOPING/FLUSHING.
2. PROVIDE CLEANOUTS AS REQUIRED BY CODE. SIZE OF CLEANOUTS TO BE SAME SIZE AS SANITARY LINES.
3. PROVIDE ALL TRENCHING, EXCAVATING AND BACKFILL FOR UNDERGROUND PLUMBING. ALL SAW CUTTING AND RESTORATION OF CONCRETE FLOOR IS BY GENERAL CONTRACTOR. COORDINATE WITH SAME.
4. PROVIDE NEW PLUMBING VENTS THROUGH ROOF AS REQUIRED BY CODE OR THE INTO EXISTING WHERE POSSIBLE. SUPPLY AND INSTALL ROOF VENTS AS PER SPECIFICATIONS. ALL ROOFING WORK INCLUDING CUTTING, FLASHING AND MODIFICATIONS TO ROOF MEMBRANE SHALL BE BY GENERAL CONTRACTOR. COORDINATE WITH SAME.
5. PROVIDE ISOLATION VALVES AT ALL FIXTURES.
6. INSULATE ALL NEW DOMESTIC HOT, COLD AND TEMPERED WATER PIPING WITH 1"(25mm) INSULATION. PROVIDE PVC JACKET OVER INSULATION IN EXPOSED AREAS.
7. PROVIDE SLEEVES FOR PIPES THROUGH ALL NEW BLOCK WALLS. FILL VOIDS AROUND PIPES. ENSURE NO CONTACT BETWEEN DISSIMILAR METALS.
8. PROVIDE FIRE STOPPING AROUND ALL PIPING THROUGH FIRE SEPARATIONS.
9. LABEL ALL NEW PIPING COMPLETE WITH SERVICE AND FLOW ARROWS. LABELS SHALL BE MAX 3m(10') SPACING AND ON EITHER SIDE OF WALLS.
10. SUPPLY ACCESS DOORS WHERE REQUIRED AND TURN OVER TO GENERAL CONTRACTOR FOR INSTALLATION. REFER TO PLUMBING FIXTURE SCHEDULE.
11. PROVIDE ESCUTCHEONS AROUND WATER AND SANITARY PIPING THROUGH WALL, FLOOR OR MILLWORK AT ALL FIXTURES.
12. LABEL CEILING GRID AT ACCESS TO ALL DEVICES.
13. FLUSH AND PERFORM A VIDEO INSPECTION OF ALL UNDERGROUND PIPING SYSTEMS AFTER CONSTRUCTION AND IMMEDIATELY PRIOR TO APPLYING FOR SUBSTANTIAL COMPLETION.

**PIPING**

	NEW
	EXISTING
	DEMOLITION
	HOT WATER HEATING SUPPLY (HS)
	HOT WATER HEATING RETURN (HR)
	COMPRESSED AIR LINE
	DOMESTIC COLD WATER (DOW)
	DOMESTIC HOT WATER (DHW)
	DOMESTIC HOT WATER RECIRC (DRW)
	ABOVEGROUND SANITARY LINE
	UNDERGROUND SANITARY LINE
	SUPPLY DUCTS (UP / DOWN)
	RETURN DUCTS (UP / DOWN)
	EXHAUST DUCTS (UP / DOWN)
	ROUND DUCTS (UP / DOWN)
	FLEXIBLE DUCT
	ACOUSTIC LINED DUCT
	TURNING VANES
	BALANCE DAMPER
	FIRE DAMPER
	COMBINATION SMOKE/FIRE DAMPER
	SPLITTER DAMPER
	SUPPLY DIFFUSER
	RETURN/EXHAUST CEILING GRILLE
	RETURN/EXHAUST SIDE WALL/DUCT GRILLE
	ELBOW RISING
	ELBOW DROPPING
	BRANCH RISING FROM TEE
	BRANCH DROPPING FROM TEE
	BALL SHUT-OFF VALVE
	GATE SHUT-OFF VALVE
	CHECK VALVE
	GLOBE VALVE
	BAS 2-WAY CONTROL VALVE
	BAS 3-WAY CONTROL VALVE
	CIRCUIT BALANCING VALVE (CBV)
	REDUCER
	STRAINER
	UNION
	AUTOMATIC AIR VENT C/W 1/4" BALL VALVE AND NIPPLE/COUPPLING (MINI BALL VALVES NOT ACCEPTABLE)
	PIPE TEMPERATURE SENSOR C/W WELL
	DUCT TEMPERATURE SENSOR
	FLOOR DRAIN / FUNNEL FLOOR DRAIN
	STACK / FLOOR CLEANOUT
	HOSEBIB (HB)
	PNEUMATIC THERMOSTAT
	BAS SPACE SENSOR
	FIXTURE TAG
	EQUIPMENT SYMBOLS
	TYPE ID
	GRILLE SYMBOLS
	TYPE SIZE AIR
	TYPE SIZE-1
	TYPE SIZE-2
	CAPACITY
	TYPE FIN LENGTH (in/mm)
	TYPE ENCLOSURE LENGTH (in/mm)
	CAPACITY (MBH)

**MECHANICAL ABBREVIATIONS**

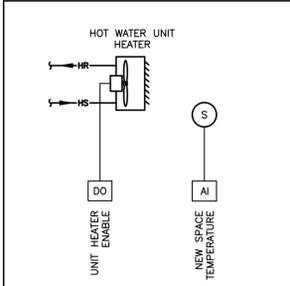
EX	EXISTING TO REMAIN
CTE	CONNECT TO EXISTING
C/W	COMPLETE WITH
U/S	UNDERSIDE
S/A	SUPPLY AIR
R/A	RETURN AIR
E/A	EXHAUST AIR
HB	HOSE BIBB
TMV	THERMOSTATIC MIXING VALVE



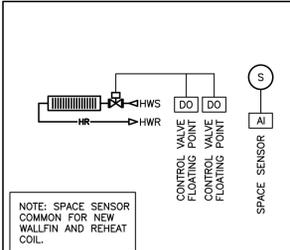
CIMA+ DES
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
T 905.697.4464
www.cima.ca
CIMA+ JOB No.: C14-0573 DWG SIZE: D

3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023

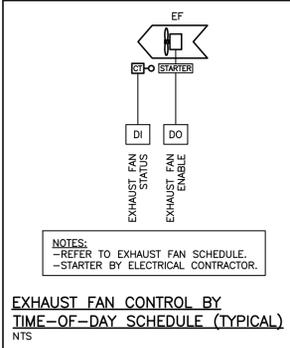
Revisions, Issues
Project:
Renovations - Phase 2
R S McLAUGHLIN CVI
570 STEVENSON ROAD NORTH
OSHAWA, ON L1J 5P1
Title: LEGENDS & NOTES
Scale: NTS Date: APRIL 2023 Drawing: M801
Project: 21-60B Drawn By: MRC



**HOT WATER UNIT HEATER CONTROL SCHEMATIC NTS**



**WALLFIN CONTROL SCHEMATIC NTS**



**EXHAUST FAN CONTROL BY TIME-OF-DAY SCHEDULE (TYPICAL) NTS**

**PNEUMATIC DEMOLITION SCOPE OF WORK:**

1. THE MECHANICAL CONTRACTOR SHALL RETAIN THE SERVICES OF ANALYSTS OF PNEUMATIC SYSTEMS LTD. (APS) FOR ALL PNEUMATIC DEMOLITION SCOPE OF WORK:

DAVE STRAIN  
PHONE: 905-640-2333  
analysts@pneumatic@bellnet.ca

**CONTROLS SCOPE OF WORK:**

- THE GENERAL (PRIME) CONTRACTOR SHALL RETAIN THE INSTALLING CONTROLS CONTRACTOR FOR ALL NEW BAS CONTROLS WORK UNDER A CASH ALLOWANCE. ONCE THE CONTRACT IS AWARDED, THE DDSB SHALL SELECT A PRE-QUALIFIED INSTALLING CONTROLS CONTRACTOR BASED ON THE SCOPE OF WORK OUTLINED ON THE DRAWINGS. THE GENERAL (PRIME) CONTRACTOR SHALL CARRY THE SUCCESSFUL INSTALLING CONTROLS CONTRACTOR AS A SUB-TRADE UNDER THE ALLOTTED CASH ALLOWANCE (REFER TO CASH ALLOWANCE SPECIFICATION).
- THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMO ELECTRIC (120V) CONTROLS WORK AND CONTROL WIRING ASSOCIATED WITH THE EXISTING AC UNITS.
- THE INSTALLING CONTROLS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMO AND NEW BAS CONTROLS WORK.
- DDSB SHALL SUPPLY ALL REQUIRED SENSORS, RELAYS, CURRENT SWITCHES, CONTROL ENCLOSURES, AND ALL OTHER NECESSARY CONTROL DEVICES FOR A FULLY OPERATIONAL SYSTEM EXCEPT AS NOTED HEREIN AND TURN OVER TO INSTALLING CONTROLS CONTRACTOR FOR INSTALLATION. (THE EXISTING BAS SYSTEM IS SIEMENS CONTROLS).
- DDSB SHALL SUPPLY ALL ELECTRIC (24V) AND NEW BAS CONTROL VALVES AND TURN OVER CONTROL VALVE BODIES TO MECHANICAL CONTRACTOR FOR INSTALLATION. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP VALVES FROM DDSB OFFICE AND TRANSPORTING VALVES TO SITE. COORDINATE WITH DDSB.
- DDSB SHALL SUPPLY ALL NEW TEMPERATURE SENSOR WELLS AND TURN OVER TO MECHANICAL CONTRACTOR FOR INSTALLATION. MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PICKING UP WELLS FROM DDSB OFFICE AND TRANSPORTING WELLS TO SITE. COORDINATE WITH DDSB.
- SCOPE OF WORK SHALL INCLUDE BUT IS NOT LIMITED TO:
  - REMOVAL OF REDUNDANT CONTROLS.
  - PROVIDE NEW SPACE SENSORS, RELOCATE EXISTING SENSORS, OR REWIRE EXISTING SENSORS TO SUIT NEW CONTROLS AS REQUIRED AND AS INDICATED ON DRAWINGS.
  - PROVIDE NEW OR UPGRADE EXISTING BAS CONTROLLERS AS INDICATED AND FOR COMPLETELY FUNCTIONAL SYSTEMS. THE NEW CONTROLLERS INTO EXISTING BAS CONTROL NETWORK. RELOCATE EXISTING CONTROLLERS AS REQUIRED AND TIE BACK INTO EXISTING BAS CONTROL NETWORK.
  - PROVIDE CONTROLS AND CONTROL WIRING AS REQUIRED FOR COMPLETE CONTROL OF NEW HOT WATER UNIT HEATERS.
  - REWORK CONTROLS AND CONTROL WIRING AS NOTED FOR COMPLETE CONTROL OF NEW/EXISTING HOT WATER WALLFIN.
  - PROVIDE CONTROLS AND CONTROL WIRING AS REQUIRED FOR COMPLETE CONTROL FOR NEW EXHAUST FAN.
- MECHANICAL CONTRACTOR AND INSTALLING CONTROLS CONTRACTOR SHALL TAKE PRECAUTIONS DURING DEMOLITION AND NEW WORK TO ENSURE BAS COMMUNICATIONS WIRING REMAINS FULLY FUNCTIONAL AND OPERATIONAL DURING RENOVATION. CONTROLS CONTRACTOR SHALL PROVIDE ANY TEMPORARY WIRING REQUIRED TO MAINTAIN SYSTEM UPTIME AND INTEGRITY.
- GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING, REPAIRING, AND SEALING ANY WALLS, CEILINGS, OR EQUIPMENT WHERE EXISTING CONTROLS DEVICES ARE REMOVED. COORDINATE LOCATION AND PATCHING FOR NEW CONTROLS WITH INSTALLING CONTROLS CONTRACTOR.

**PLUMBING FIXTURE SCHEDULE**

SK-1 - COUNTERTOP MOUNT SINK - SINGLE BOWL - TWO HANDLE FAUCET

Franke Commercial #LBS6808-1/3 Single Bowl Countertop Mount Sink, 3 holes, 8" (203 mm) center, 508 mm (20") wide x 521 mm (20-1/2") long x 203 mm (8") high deep. Counter mounted, backedge, Grade 18-10 20 GA. (0.9 mm) type 302 stainless steel, self-rimming, Satin finish rim and bowls. Mounting kit provided. Fully undercoated to reduce condensation and resonance, factory applied rim seal, 3-1/2" (89 mm) crumb cup waste assembly with 1-1/2" (38 mm) tailpiece.

Moen Commercial #8287 two handle kitchen faucet, deck mount, brass construction with chrome plated finish, vandal resistant torx head screws, lever style handles with hot and cold water colour indicators, 1.5 gpm max (5.7L/min) @ 60 psi, 8" (203 mm) center.

McGuire #LFBV170 Faucet Supplies, Chrome plated finish polished brass, commercial duty 1/4 turn ball valve angle stops, 13 mm (1/2") I.D. Inlet x 127 mm (5") horizontal extension tubes, convertible 1/4 turn/loose key handles, Escutcheon and flexible copper risers.

McGuire #8912CB P-Trap, heavy cast brass adjustable body, with slip nut, 38 mm (1-1/2") size. Box flange and Seamless tubular wall bend.

BF-1 BOTTLE FILLING STATION - BARRIER FREE

Murdock BF16-BCD Series bottle filling station, wall hung, ADA compliant, lead free, 120VAC/9VDC plug-in transformer, 100. Mesh inline strainer. Bottle filling unit shall include an electronic sensor for touchless activation and 20-second auto shut-off timer. Shall include bottle sover counter. Bottle filler shall provide 1.0 gpm flow rate with laminar flow spout to minimize splashing. Shall be constructed of 304 stainless steel with anti-microbial impact resistant ABS surfaces.

ACCESS DOORS/COVERS - FLUSH ACCESS DOOR - UNIVERSAL

Acudor #UF-5000 Universal Access Doors, 14 GA. (1.7mm) steel, baked enamel prime coat, continuous concealed hinge, with positive and self-opening screwdriver operated lock. Doors in tile walls shall be stainless steel and shall suit tile pattern. All other panels shall be prime painted steel. Minimum size of panels shall be 12" x 18" (300mm x 450mm). Wherever possible 24" x 24" (600mm x 600mm) panels shall be used universal Flush Access Door - For Walls and Ceilings.

WATER HAMMER ARRESTORS - PPP SC SERIES

SMS INC. #SC Series Water Hammer Arrestors with brass piston in a type 'K' copper casing size according to manufacturer's recommendations to eliminate water hammer and shock from piping system. Provide Water Hammer Arrestors on hot and cold water supplies to all quick valves, solenoids, and plumbing fixtures, and locate in an upright position between the last two fixtures on a line, or horizontally at the end of line closest to supply source. On projects exceeding five stories in height, provide water hammer arrestors on domestic water risers as follows. Locate arrestors at the end of riser opposite supply source.

**FAN SCHEDULE**

TAG		EF-2250	EF-2253	EF-2249
SERVICE		WEIGHT ROOM 2253	CARDIO ROOM 2250	TECH OFFICE 2249
TYPE		INLINE CENTRIFUGAL	INLINE CENTRIFUGAL	CEILING MOUNTED
MANUFACTURER		COOK	COOK	BROAN
MODEL		150SQN10D	100SQN2BD-VF	DX90
AIR FLOW	cfm	1350	750	90/75
EXTERNAL STATIC	in.w.c.	0.5	0.5	0.1/0.25
SOUND		57 dBA/7.9 SONES	57dBA/7.8 SONES	2.5 @ 0.1"ESP
FAN RPM		1006	1781	---
FAN MOTOR	hp	1/3	1/3	FRACTIONAL
FAN TYPE		DIRECT DRIVE C/W FSC	DIRECT DRIVE C/W FSC	CENTRIFUGAL BLOWER
AMPS	amps	---	---	0.5A
ELECTRICAL	volt/ph	120/1	120/1	120/1
DIMENSIONS	inches	20 SQ x 24 L	12 SQ x 22 L	10.625 x 11.125 GRILLE
APPROX. WEIGHT	lbs	121	73	---
CONTROLS		-TIE INTO BAS TO RUN DURING OCCUPIED HOURS	-TIE INTO BAS TO RUN DURING OCCUPIED HOURS	-TIE INTO BAS TO RUN DURING OCCUPIED HOURS
ACCESSORIES		-HANGING ISOLATOR KIT -FAN SPEED CONTROLLER -NEMA-1 DISCONNECT -BACKDRAFT DAMPER	-HANGING ISOLATOR KIT -FAN SPEED CONTROLLER -NEMA-1 DISCONNECT -FAN CASING INSULATION	-PLUG-IN -POLYMERIC GRILLE -RESILIENT ANTI-VIBRATION MOTOR MOUNTS -6" DUCT CONNECTER ASSEMBLY
ALTERNATE MANUFACTURERS		GREENHECK, PENN, ZONEX, CARNES		

**AIR OUTLET SCHEDULE**

TAG	A	A1	B	C	L
TYPE	SQUARE CONE DIFFUSER	ROUND CONE DIFFUSER	EGG CRATE RETURN	LOUVERED FACE RETURN	LOUVERED FACE RETURN
MANUFACTURER	PRICE	PRICE	PRICE	PRICE	VENTEX
MODEL	SCD-31-3C	RCD	80	535(D)-F-L-A	2425
SIZE	SEE DRAWINGS	SEE DRAWINGS	SEE DRAWINGS	SEE DRAWINGS	SEE DRAWINGS
COLOUR	B12	B12	B12	B12	V1161
NOTES	-24x24 CEILING MODULE FOR T-BAR MOUNTING	-DUCT MOUNTED -SAFETY CHAINS	-NO BORDER FOR T-BAR MOUNTING -C/W BORDER (F) AND SCREWS FOR DRYWALL MOUNTING	-SINGLE DEFLECTION (FIXED BLADES) -1/2" BLADE SPACING	-ALUMINUM CONSTRUCTION -BIRDCREEN
ALTERNATE MANUFACTURERS	NAIROL, TITUS, METALAIRE				

**HOT WATER WALLFIN SCHEDULE**

TAG		WF-A
MANUFACTURER		SIGMA
WALLFIN MODEL		SWE-24S (PAINTED)
ELEMENT		ELMT-44C075
TYPE		SLOPE TOP OUTLET OPEN BOTTOM INLET
FLUID		WATER (OR GLYCOL)
ENCLOSURE HEIGHT	in.	24
ENCLOSURE DEPTH	in.	5-1/4
ENCLOSURE LENGTH		SITE MEASURE
ENCLOSURE COLOUR		SNOW WHITE (SUBMIT COLOUR CHART)
ELEMENT LENGTH		REFER TO DRAWINGS
HEATING CAPACITY	btuh/ft	968
EWT/LWT	'F	160/140
NO OF TIERS/ROWS		1
COPPER TUBING DIA.	in.	3/4"
ALUMINUM FINS	in.	4"x4"
CONTROLS		-CONTROL VALVE AND SENSOR. REFER TO DETAILS.
ACCESSORIES		-CONTINUOUS COVER C/W SPACERS, JOINERS ETC. AS REQUIRED -SLOPE TOP OUTLET -LOUVERED BOTTOM INLET
NOTES		CONTRACTOR / SUPPLIER SHALL SITE MEASURE ALL WALLFIN AND ENCLOSURE LENGTHS & HEIGHTS PRIOR TO ORDERING MATERIAL. LENGTHS & HEIGHTS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
ALTERNATE MANUFACTURERS		ENGINEERED AIR, E.H. PRICE, TRANE

**HOT WATER UNIT HEATER SCHEDULE**

TAG		UH-2253
SERVICE		STORAGE 241D (NEW ROOF ACCESS)
QUANTITY		2
MANUFACTURER		SIGMA
MODEL		025H
HEATING CAPACITY	btuh	16,800
AIR FLOW	cfm	590
MOTOR	hp	1/20
MOTOR RPM		1050
FLUID		100% WATER
EWT/LWT	'F	160/140
EAT/LAT	'F	60/99.1
WATER FLOW	gpm	2.6
WATER PRESSURE DROP	ft	0.74
WATER CONNECTION	in	1/2" CU SWEAT
ELECTRICAL	volt/ph	120/1
AMPS	amps	0.68
WEIGHT	lbs	34
MAX MOUNTING HEIGHT	ft.	9
ACCESSORIES		OSHA FAN GUARD
CONTROLS		REFER TO CONTROLS DETAILS
ALTERNATE MANUFACTURERS		REFER TO SPECIFICATIONS

**DUST COLLECTOR SCHEDULE**

TAG		DC-1
SERVICE		WOOD/CONSTRUCTION SHOP 2255
TYPE		INDUSTRIAL EXHAUSTER
MANUFACTURER		N.R. MURPHY
SIZE		19" EA-1
AIR FLOW	cfm	7,520
OUTLET VELOCITY	fpm	3,817
BHP	hp	30
EXTERNAL STATIC	in.w.c.	14
FAN RPM		1800
FAN MOTOR	hp	22.5
MOTOR RPM		---
ELECTRICAL	volt/ph	575/3
FILTER UNIT		
MANUFACTURER		N.R. MURPHY
MODEL		MKA-425-2D
ELECTRIC SHAKER	hp	0.5
FILTER AREA	sq.ft	425
FILTERS		POLYESTER SPUN (TERYLENE), 8 oz./sq.yd.
FILTER PERMEABILITY	cfm	20-30
AIR TO CLOTH RATIO		7 TO 1
DIMENSIONS	in	81"W x 81"D x 242"H
ACCESSORIES		-WELDED, ANGLE IRON REINFORCED 14ga WIPED GALVANIZED ENCLOSURE C/W FILTER ACCESS DOOR -60" SLOPE HOPPERS TO SOLID MATERIAL DISCHARGE CONNECTORS, 45 GALLON DRUMS & DRUM LIFT RACKS -1/2 HP TEFC ELECTRIC MOTOR DRIVEN SHAKER AND GEARBOX DRIVE IN WEATHER HOOD -EXPLOSION VENTING SECTION C/W NFPA-68 RUPTURE STYLE DEFLAGRATION RELIEF VENT -INTEGRAL SOLID WELDED SUPPORT STRUCTURE C/W CROSS BRACING & BASE PLATES -MANOMETER FITTINGS & ROOF MOUNTED HEAT SENSOR (SENSOR SUPPLIED LOOSE FOR FIELD INSTALLATION) -FILTER UNIT: -PULL THRU DESIGN -CONSTRUCTED FROM 12 GA. WIPED GALVANIZED MATERIAL -CONTINUOUS WELDED TO MAKE AIR TIGHT -ANGLE IRON REINFORCED -ELECTRIC SHAKER C/W 1/2 HP MOTOR AND WEATHER COVER -EXHAUST OUTLET -1 TOP MOUNTED SIZE 18-10, TYPE BINOL AIR HANDING INDUSTRIAL EXHAUSTER, ARRANGEMENT 4, BACKWARD INCLINED NON-OVERLOAD WHEEL -30HP TEFC P.EFF MOTOR, MOTOR COVER, TYPE C SPARK RESISTANT CONSTRUCTION -BOLT-ON INLINE ACOUSTIC SILENCER (SILENCER SHIPPED LOOSE FOR FIELD INSULATION) -FILTER SECTION -4 CUSTOM 45 GALLON STORAGE DRUMS C/W CASTERS TO SUIT -NRV UNIT: -ECO-MAXX 18" -SHIPPED LOOSE FOR FIELD INSTALLATION -CERTIFIED TO ATEX EN16447 -MICROSWITCH & INTRINSIC CONTROL PANEL -SILENCER: -SHIPPED LOOSE FOR FIELD INSTALLATION -FULL FLOW INLINE DUCT SILENCER C/W SILENCING MEDIA, PERFORATED METAL WALL AND MATCHING DRILLED FLANGES BOTH ENDS -PREWIRED EEMAC-12 CSA APPROVED 208V/3Ø CONTROL PANEL C/W: -EXHAUSTER STARTER -SHAKER STARTER -SOLID STATE AUTOMATIC SHAKER CONTROLLER -120V CONTROL TRANSFORMER -PUSH BUTTON -2x PILOT LIGHTS -AUXILIARY CONTACTS -FUSED DOOR DISCONNECT -20" DIA. HIGH SPEED ABORT DAMPER C/W DISCHARGE COWL, 110V LIMIT SWITCH, WEATHER COWL AND DRILLED FLANGES BOTH ENDS. SHIPPED LOOSE FOR FIELD INSTALLATION.
ALTERNATE MANUFACTURERS		NEDERMAN, AIREX



CIMA+ JOB No.: C14-0573 DWG SIZE: D

No.	DESCRIPTION	DATE
3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023

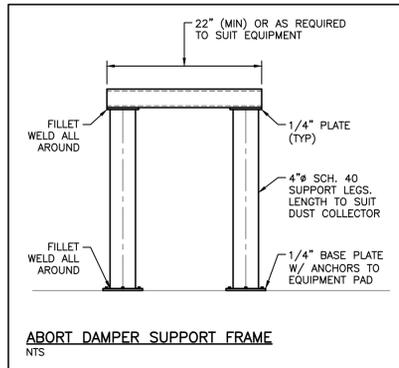
Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

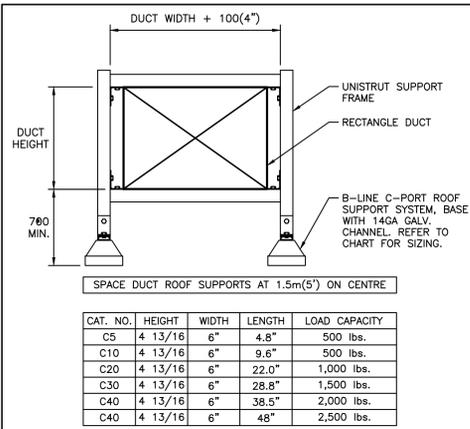
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**SCHEDULES & CONTROLS**

Scale:	Date:	Drawing:
NTS	APRIL 2023	M802
Project:	Drawn By:	
21-60B	MRC	

DATE PLOTTED: --



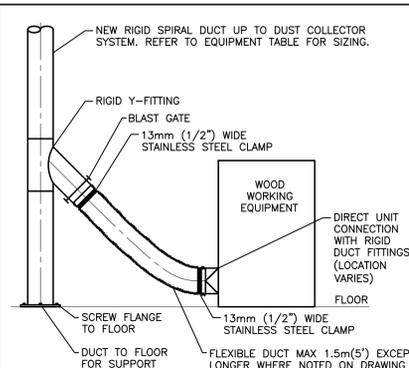
**ABORT DAMPER SUPPORT FRAME**  
NTS



**ROOF SUPPORT SYSTEM DETAIL**  
NTS

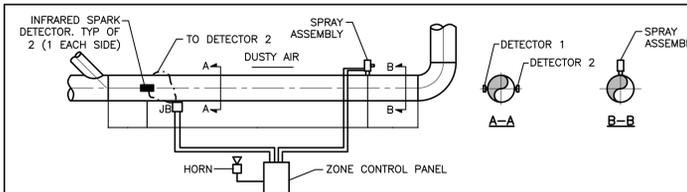
CAT. NO.	HEIGHT	WIDTH	LENGTH	LOAD CAPACITY
C5	4 13/16	6"	4.8"	500 lbs.
C10	4 13/16	6"	9.6"	500 lbs.
C20	4 13/16	6"	22.0"	1,000 lbs.
C30	4 13/16	6"	28.8"	1,500 lbs.
C40	4 13/16	6"	38.5"	2,000 lbs.
C40	4 13/16	6"	48"	2,500 lbs.

\*DIMENSION SHOWN IS APPROXIMATE ONLY. HEIGHT MAY VARY DEPENDING ON FAN DISCHARGE, DUCT SIZE AND DUCT SLOPE - THE CONTRACTOR SHALL VERIFY PRIOR TO FABRICATION AND INSTALLATION.



- NOTE:**
- COORDINATE FINAL DROP LOCATION ON SITE WITH DDSB PERSONNEL AND/OR CONSULTANT.
  - LOCATE DROPS TO FACILITATE ACCESSIBILITY TO MACHINE FOR OPERATION & MAINTENANCE.

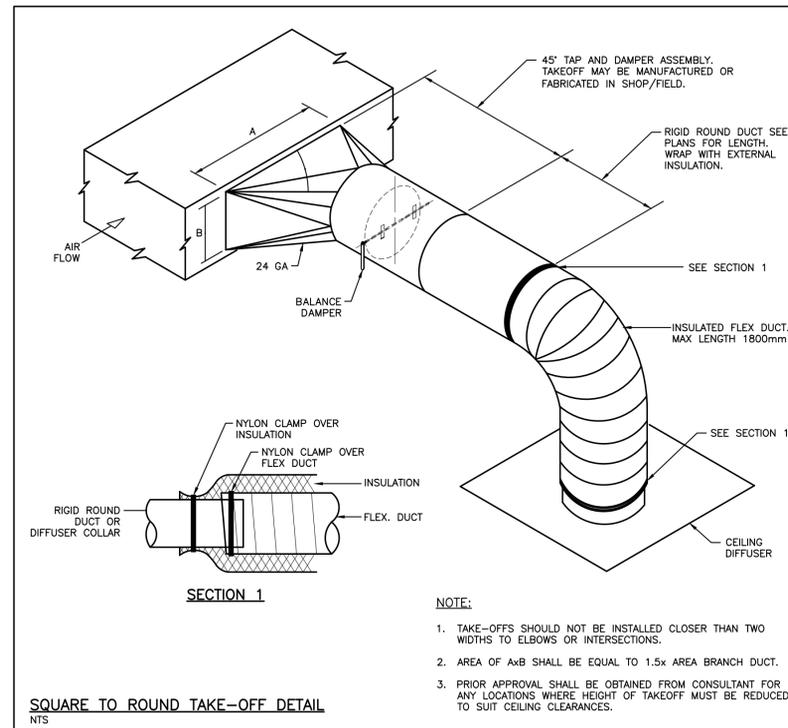
**TYPICAL DUCT TO EQUIPMENT DIRECT CONNECTION**  
NTS



- HANSENTEK AN104 SPARK DETECTION SYSTEM**  
(SUPPLIED WITH DUST COLLECTOR)
- 1 10 AN104 ZONE CONTROL PANEL
  - 2 120-1 INFRA-RED SPARK DETECTOR C/W MOUNTING PLATES
  - 1 910-1 24V ALARM HORN
  - 1 940-1 4.5A HOUR BATTERIES
  - 1 901-1 NOZZLE/VALVE SPRAY ASSEMBLY

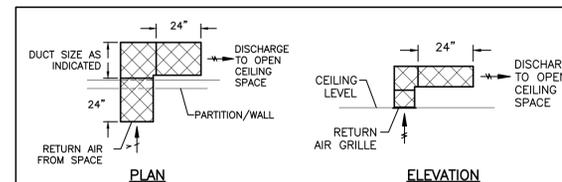
- MECHANICAL WORK:**
- INSTALL AS PER MANUFACTURER'S REQUIREMENTS.
  - INSTALL DETECTORS(2) AND SPRAY ASSEMBLY(1) IN DUCTWORK.
  - PROVIDE WATER SUPPLY TO SPRAY NOZZLE C/W SUPERVISORY VALVE AND FLOW SWITCH.
  - THE WATER PRESSURE AT THE VALVE MUST BE MINIMUM 50 PSI AND MUST NOT EXCEED 100 PSI. THE WATER SUPPLY MUST DELIVER A MINIMUM OF 19 US GALLONS PER MINUTE PER NOZZLE. A PRESSURE REDUCER MUST BE USED IF WATER PRESSURE IS GREATER THAN 100 PSI.
  - PIPING MUST CONFORM TO ASTM AND NFPA STANDARDS. MINIMUM WATER SUPPLY LINE FOR A SINGLE NOZZLE IS 1" (25mm).
  - CONTRACTOR SHALL PERFORM AND SUBMIT CALCULATIONS.
  - PIPE FITTINGS MUST CONFORM TO NFPA.
  - DUST COLLECTING OR CONVEYANCE DUCT VELOCITIES MUST BE CONFIRMED PRIOR TO SPARK DETECTION INSTALLATION. SUBMIT RESULTS TO CONSULTANT.
  - WORK WITH ELECTRICAL CONTRACTOR TO TEST COMPLETE SYSTEM AND ALL DEVICES. SUBMIT REPORTS.

**SPARK DETECTION SYSTEM DETAIL**  
NTS

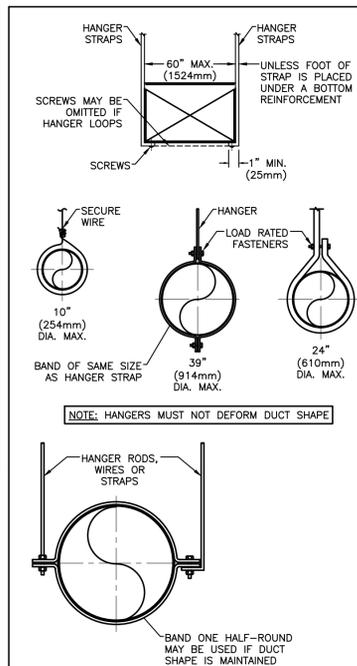


**SQUARE TO ROUND TAKE-OFF DETAIL**  
NTS

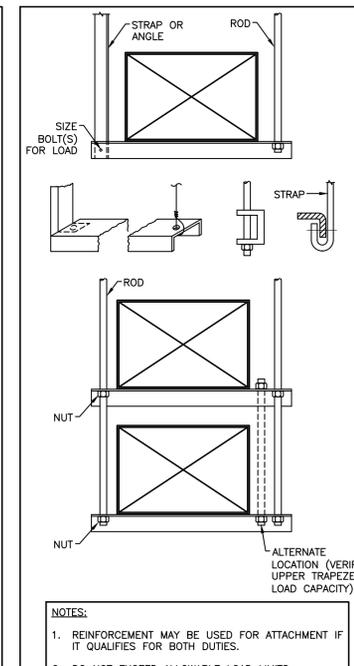
- NOTE:**
- TAKE-OFFS SHOULD NOT BE INSTALLED CLOSER THAN TWO WIDTHS TO ELBOWS OR INTERSECTIONS.
  - AREA OF AXB SHALL BE EQUAL TO 1.5x AREA BRANCH DUCT.
  - PRIOR APPROVAL SHALL BE OBTAINED FROM CONSULTANT FOR ANY LOCATIONS WHERE HEIGHT OF TAKEOFF MUST BE REDUCED TO SUIT CEILING CLEARANCES.



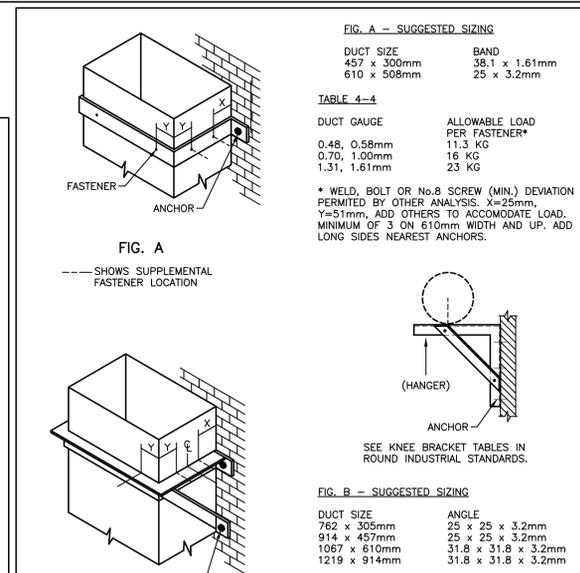
**TRANSFER DUCT WITH SOUND ATTENUATION DETAIL**  
NTS



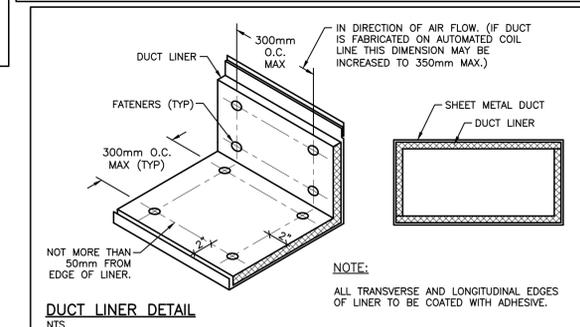
**STRAP HANGERS**  
NTS



**TRAPEZE HANGERS**  
NTS



**SUPPORTS FROM WALL**  
NTS



**DUCT LINER DETAIL**  
NTS

- NOTE:**
- ALL TRANSVERSE AND LONGITUDINAL EDGES OF LINER TO BE COATED WITH ADHESIVE.

SUSAN FRIEDRICH ARCHITECT INC. ■  
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**DDSB**  
Ignite Learning

**CIMA+ DES**  
415 BASELINE ROAD WEST  
BOWMANVILLE, ON L1C 5M2  
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CIMA+ JOB No.: C14-0573 DWG SIZE: D

No.	DESCRIPTION	DATE
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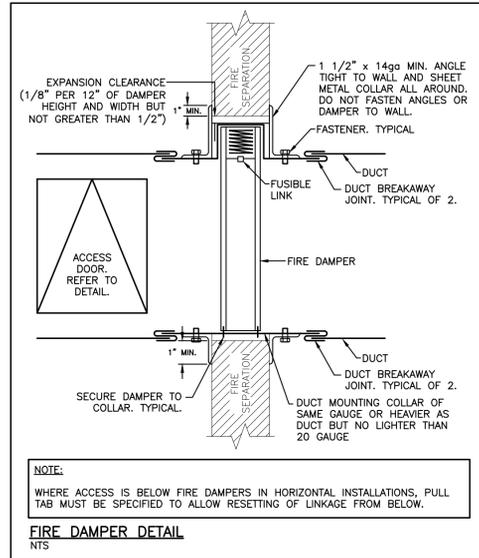
Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title:  
**DETAILS**

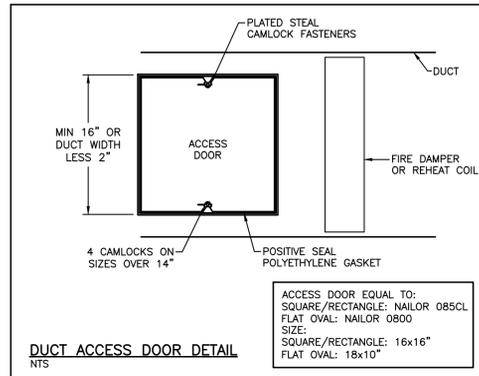
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Project: 21-60B Drawn By: MRC **M901**

DATE PLOTTED: -



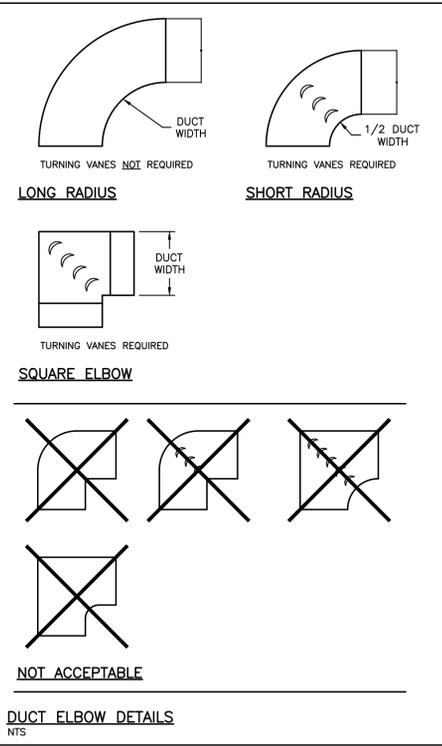
NOTE:  
WHERE ACCESS IS BELOW FIRE DAMPERS IN HORIZONTAL INSTALLATIONS, PULL TAB MUST BE SPECIFIED TO ALLOW RESETTING OF LINKAGE FROM BELOW.

**FIRE DAMPER DETAIL**  
NTS

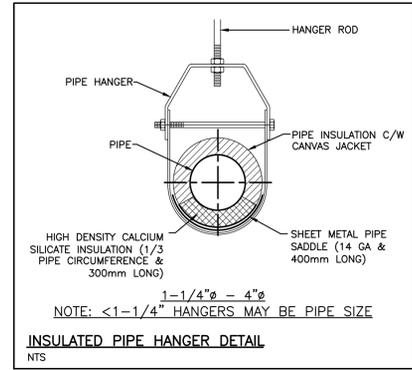


ACCESS DOOR EQUAL TO:  
SQUARE/RECTANGLE: NAILOR 085CL  
FLAT OVAL: NAILOR 0800  
SIZE:  
SQUARE/RECTANGLE: 16x16"  
FLAT OVAL: 18x10"

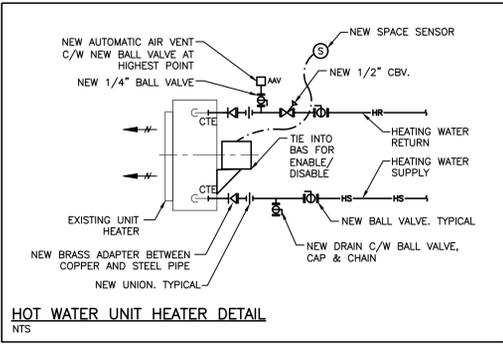
**DUCT ACCESS DOOR DETAIL**  
NTS



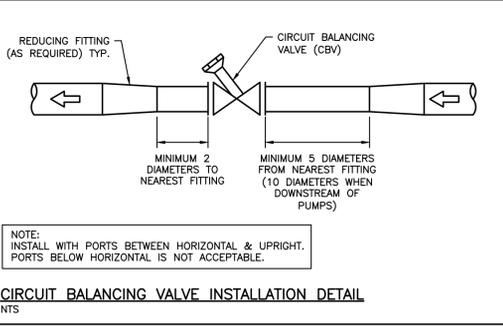
**DUCT ELBOW DETAILS**  
NTS



**INSULATED PIPE HANGER DETAIL**  
NTS

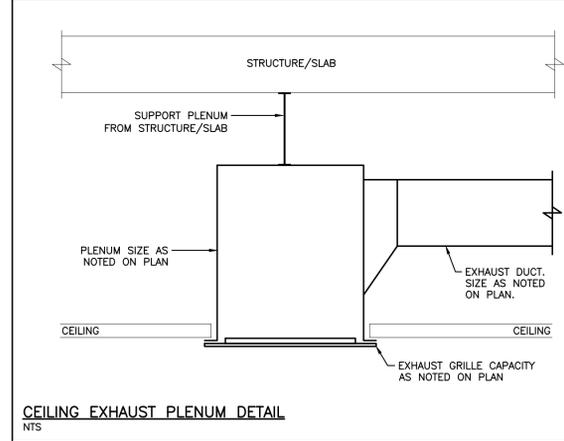


**HOT WATER UNIT HEATER DETAIL**  
NTS

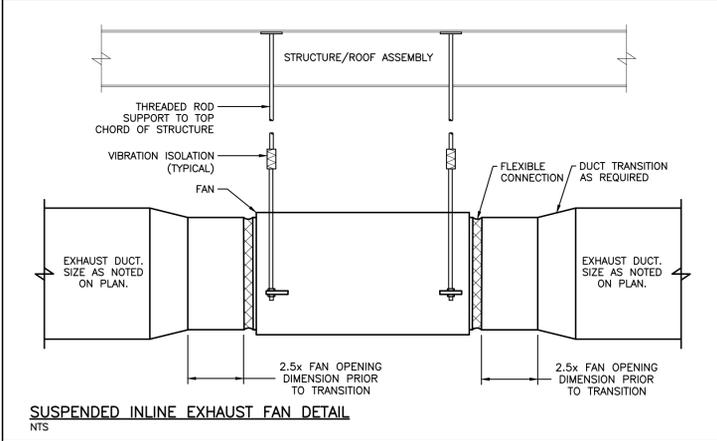


NOTE:  
INSTALL WITH PORTS BETWEEN HORIZONTAL & UPRIGHT. PORTS BELOW HORIZONTAL IS NOT ACCEPTABLE.

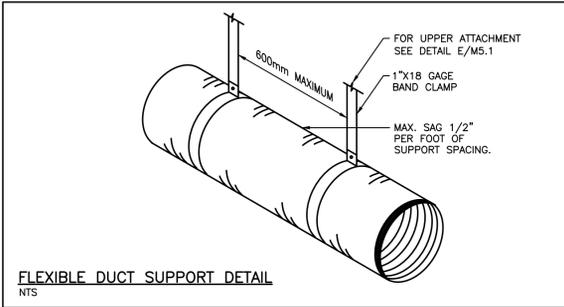
**CIRCUIT BALANCING VALVE INSTALLATION DETAIL**  
NTS



**CEILING EXHAUST PLENUM DETAIL**  
NTS



**SUSPENDED INLINE EXHAUST FAN DETAIL**  
NTS



**FLEXIBLE DUCT SUPPORT DETAIL**  
NTS

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CIMA+ JOB No.: C14-0573 DWG SIZE: D

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Revisions, Issues  
Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

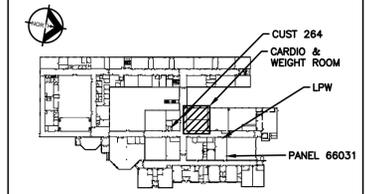
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Scale: NTS	Date: APRIL 2023	Drawing: M902
Project: 21-60B	Drawn By: MRC	

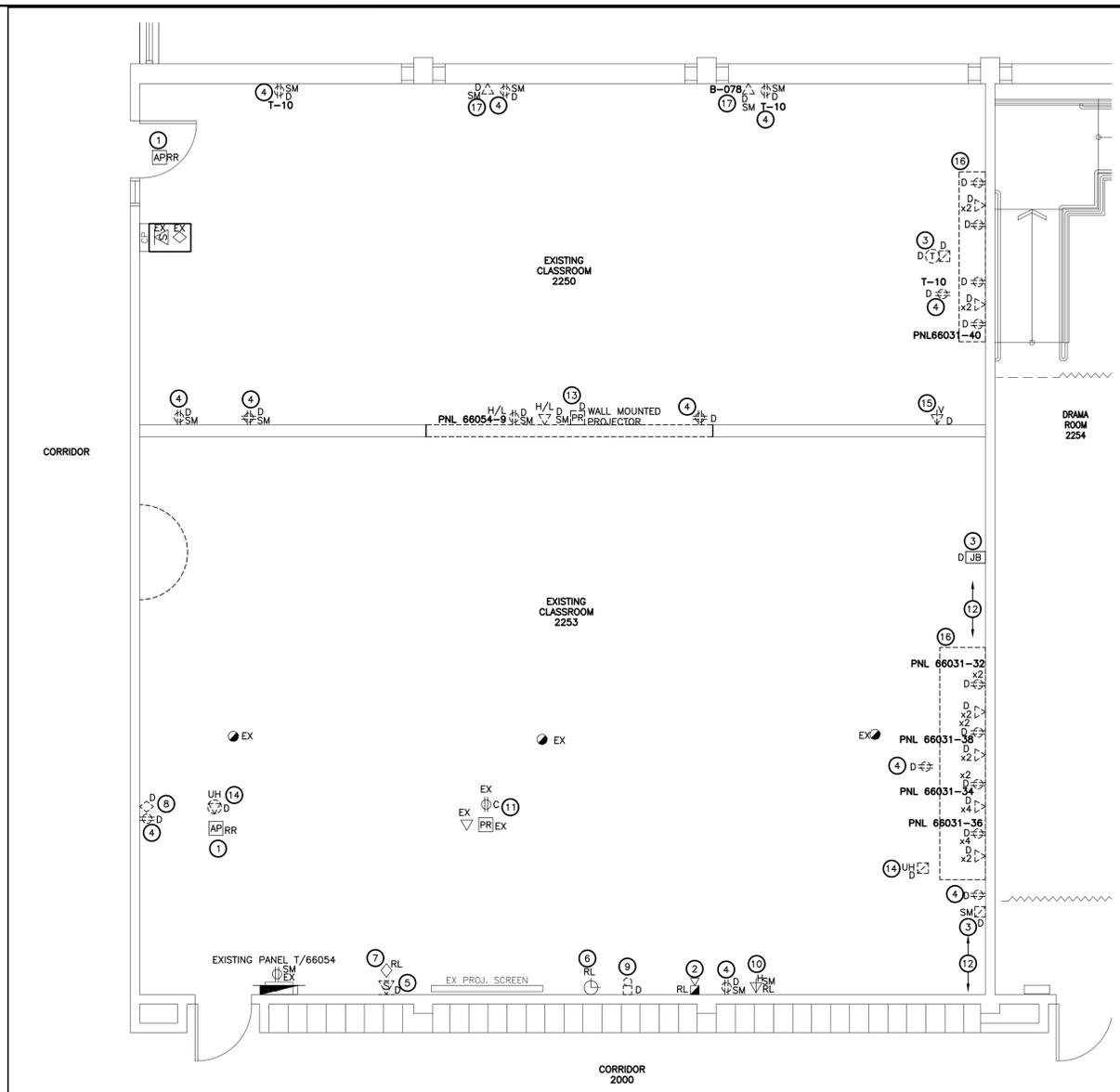
DATE PLOTTED: --



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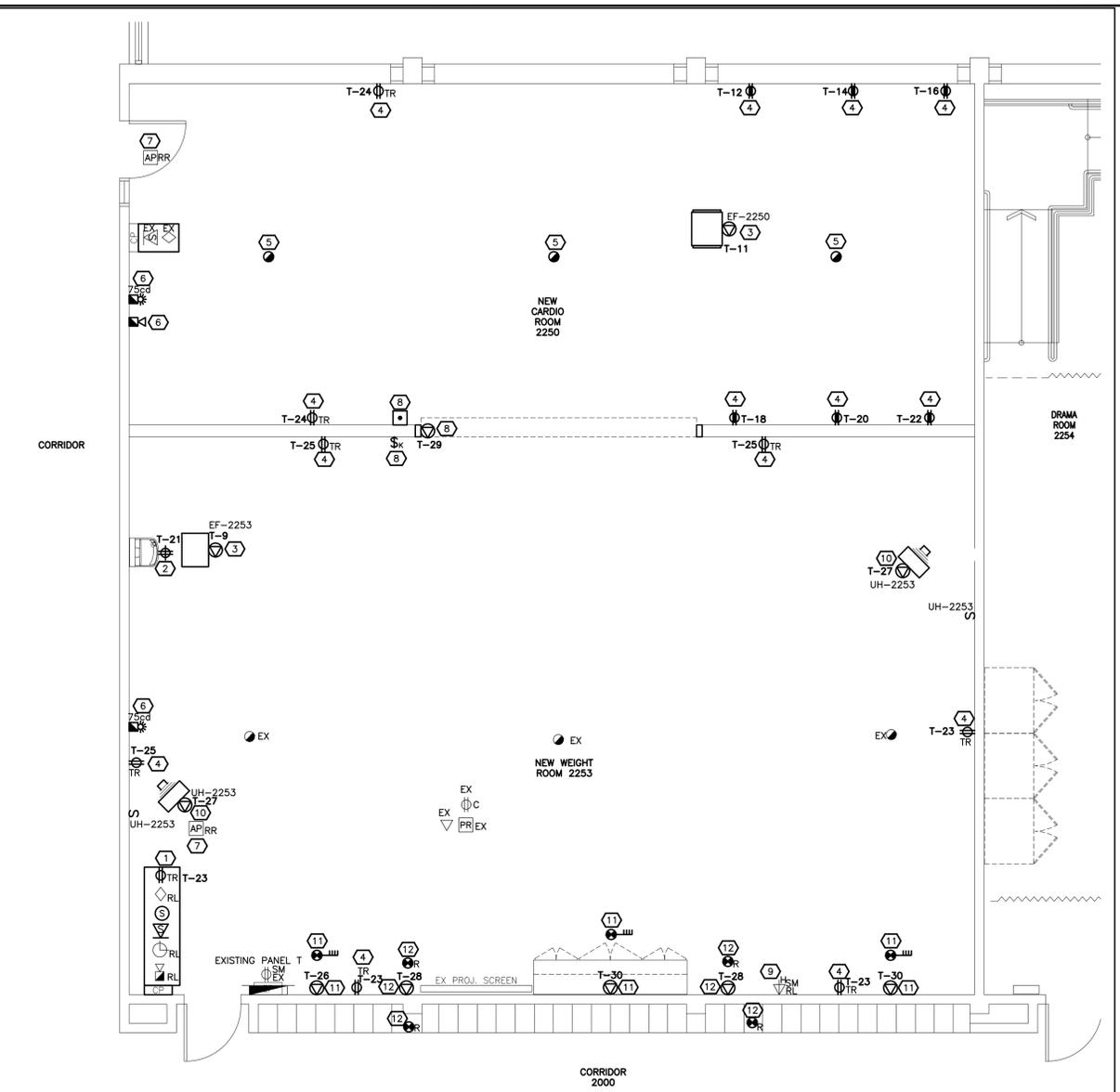


KEY PLAN - GROUND FLOOR



CARDIO & WEIGHT ROOM - DEMO POWER LAYOUT  
 1:50

- CARDIO & WEIGHT ROOM DEMO POWER WORKING NOTES:**
- 1 DISCONNECT AND REMOVE EXISTING ACCESS POINT C/W DATA OUTLET AND RETAIN FOR RELOCATION TO SUIT CONSTRUCTION.
  - 2 DISCONNECT EXISTING FIRE ALARM DEVICE AND RETAIN FOR RELOCATION.
  - 3 DISCONNECT AND REMOVE DEVICE C/W POWER FEED BACK TO SOURCE.
  - 4 DISCONNECT AND REMOVE DEVICE C/W POWER FEED BACK TO SOURCE. PROVIDE STAINLESS STEEL COVER PLATE FOR BACK BOX.
  - 5 DISCONNECT AND REMOVE EXISTING PA SPEAKER C/W WIRING BACK TO CORRIDOR. PROVIDE 12X12" COVER PLATE FOR EXISTING BACK BOX.
  - 6 REMOVE EXISTING CLOCK AND RETAIN FOR REINSTALLATION.
  - 7 DISCONNECT AND REMOVE EXISTING PA DEVICE AND RETAIN FOR REINSTALLATION. REMOVE WIRING BACK TO CORRIDOR AND RETAIN FOR EXTENSION TO SUIT NEW LAYOUT.
  - 8 DISCONNECT AND REMOVE EXISTING PA PHONE C/W WIRING BACK TO CORRIDOR. PROVIDE COVER PLATE FOR EXISTING BACK BOX.
  - 9 EXISTING BELL ASSUMED TO BE REDUNDANT. CONTRACTOR TO CONFIRM. DISCONNECT AND REMOVE DEVICE C/W FEED BACK TO SOURCE.
  - 10 DISCONNECT AND REMOVE VIDEO OUTLET C/W CABLING UP TO CEILING SPACE. RETAIN FOR REINSTALLATION.
  - 11 EXISTING CEILING MOUNTED PROJECTOR TO REMAIN. PROVIDE COVER FOR PROTECTION DURING CONSTRUCTION.
  - 12 REMOVE EXISTING UNITSTRUT SUPPORTS AT HIGH LEVEL FROM WALL. EXISTING FEEDS TO BE REMOVED DURING DEMOLITION.
  - 13 EXISTING WALL MOUNTED PROJECTOR TO BE REMOVED AND STORED BY OTHERS (DDSB IT DEPT). DISCONNECT AND REMOVE HIGH LEVEL SURFACE MOUNTED RECEPTACLE AND DATA DROP. REMOVE SURFACE MOUNTED FEEDS BACK TO SOURCE.
  - 14 DISCONNECT AND REMOVE 120V POWER FOR UNIT HEATER C/W WALL MOUNTED STARTER. COORDINATE WITH MECHANICAL CONTRACTOR.
  - 15 DISCONNECT AND REMOVE VIDEO OUTLET C/W CABLING BACK TO PROJECTOR.
  - 16 DISCONNECT AND REMOVE SURFACE MOUNTED RACEWAY C/W RECEPTACLES AND DATA DEVICES. REMOVE FEEDS BACK TO SOURCE.
  - 17 DISCONNECT AND REMOVE COMMUNICATION DEVICE C/W FEED BACK TO SOURCE.



CARDIO & WEIGHT ROOM - NEW POWER LAYOUT  
 1:50

- CARDIO & WEIGHT ROOM NEW POWER WORKING NOTES:**
- 1 PROVIDE DEVICES AS NOTED IN NEW CONTROL PANEL. REFER TO CONTROL PANEL DETAIL AND PA SYSTEM NOTES. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
  - 2 PROVIDE NEW GFI RECEPTACLE FOR NEW BOTTLE FILLER C/W NEW 15A/1P CIRCUIT BREAKER.
  - 3 PROVIDE 120V POWER FOR NEW EXHAUST FAN C/W WALL MOUNTED STARTER EQUAL TO FRANKLIN BAS-1P IN CUST 264. COORDINATE WITH MECHANICAL CONTRACTOR.
  - 4 PROVIDE NEW RECEPTACLE. TIE INTO CIRCUITED NOTED.
  - 5 PROVIDE NEW FIRE ALARM DEVICE. TIE INTO EXISTING INITIATING CIRCUIT.
  - 6 PROVIDE NEW SIGNAL DEVICE. PROVIDE NEW DEDICATED STROBE CIRCUIT FROM FIRE ALARM CONTROL PANEL TO SUPPORT STROBE LOAD. TIE HORN INTO EXISTING SIGNAL CIRCUIT.
  - 7 REINSTALL EXISTING ACCESS POINT.
  - 8 PROVIDE 120V POWER FOR DIVIDER CURTAIN AS NOTED. PROVIDE INTERLOCK WIRING FROM KEYED SWITCH PROVIDED BY CURTAIN MANUFACTURER. PROVIDE PUSHBUTTON FOR DUAL PERSON OPERATOR C/W INTERLOCK WIRING. KEYED SWITCH AND PUSH BUTTON SHALL BE WIRED IN SERIES. COORDINATE INSTALLATION REQUIREMENTS WITH MANUFACTURER.
  - 9 REINSTALL EXISTING VIDEO OUTLET. COORDINATE FINAL LOCATION WITH DDSB.
  - 10 PROVIDE 120V POWER FOR UNIT HEATER C/W WALL MOUNTED ISOLATION SWITCH. COORDINATE WITH MECHANICAL CONTRACTOR.
  - 11 PROVIDE NEW STAND ALONE DUCT SMOKE DETECTORS ON S/A DUCT FOR CONTROL OF SMOKE FIRE DAMPER SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE 120V POWER TO DUCT SMOKE DETECTOR AS NOTED. PROVIDE INTERLOCK WIRING FROM DETECTOR TO SMOKE FIRE DAMPER.
  - 12 PROVIDE NEW STAND ALONE CEILING MOUNTED SMOKE DETECTORS C/W RELAY BASE ON BOTH SIDES ON RETURN AIR TRANSFER FOR CONTROL OF SMOKE FIRE DAMPER SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR. PROVIDE 120V POWER TO SMOKE DETECTOR AS NOTED. PROVIDE INTERLOCK WIRING FROM DETECTOR TO SMOKE FIRE DAMPER. COORDINATE REVIEW OF INSTALLATION WITH CONSULTANT DURING CONSTRUCTION.

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Revisions, Issues

Project:  
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**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
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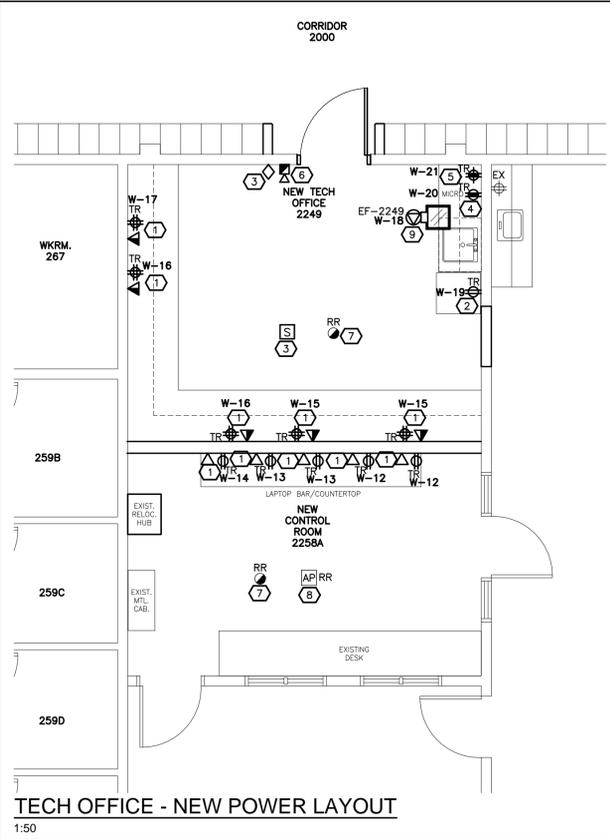
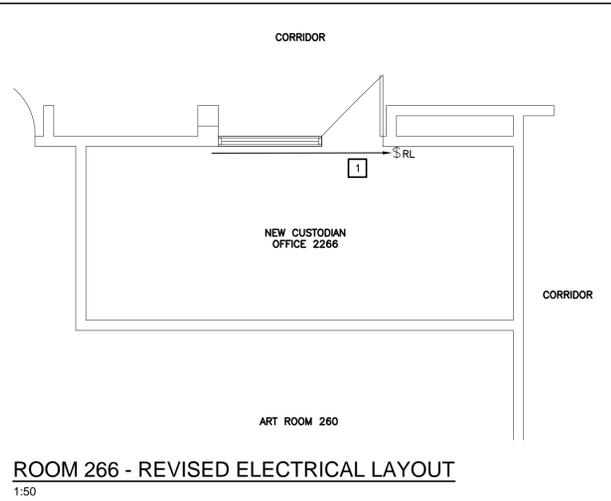
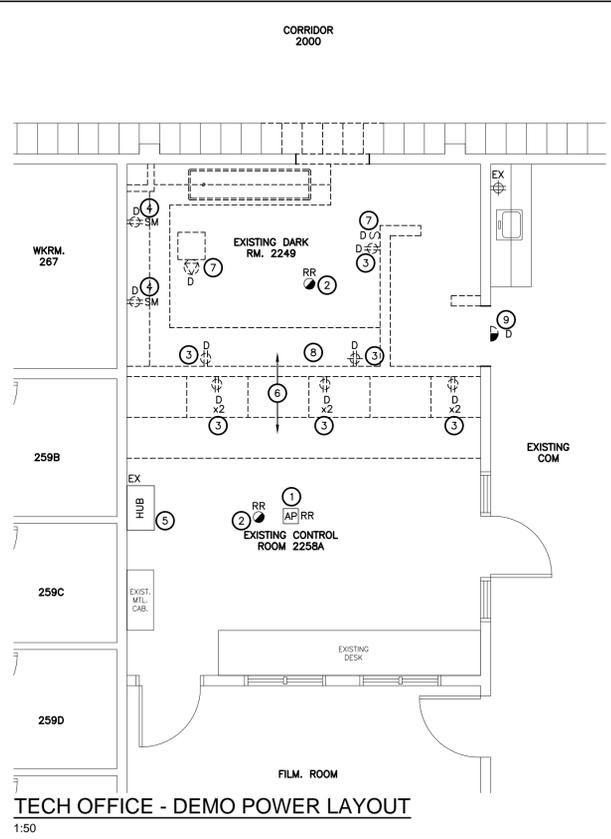
Title:  
**CARDIO & WEIGHT ROOM**  
**DEMO & NEW POWER LAYOUTS**

Scale: AS NOTED	Date: APRIL 2023	Drawing: E201
Project: 21-60B	Drawn By: RJC	

- TECH OFFICE DEMO POWER WORKING NOTES:**
- 1 DISCONNECT AND REMOVE EXISTING ACCESS POINT C/W DATA OUTLET AND RETAIN FOR RELOCATION TO SUIT CONSTRUCTION.
  - 2 DISCONNECT EXISTING FIRE ALARM DEVICE AND RETAIN FOR REINSTALLATION.
  - 3 DISCONNECT AND REMOVE DEVICE C/W POWER FEED BACK TO PANEL 66031.
  - 4 DISCONNECT AND REMOVE DEVICE C/W POWER FEED BACK TO PANEL 66031. PROVIDE STAINLESS STEEL COVER PLATE FOR BACK BOX.
  - 5 EXISTING HUB TO BE PROTECTED DURING CONSTRUCTION.
  - 6 ALLOW FOR DISCONNECTION OF 70 DATA AND 5 FIBRE CABLES FROM EXISTING HUB IN CONTROL ROOM. REMOVE CABLING BACK TO CORRIDOR AND SUPPORT TO PROTECT DURING CONSTRUCTION. REINSTALL CABLING TO EXISTING HUB FOLLOWING CONSTRUCTION.
  - 7 DISCONNECT AND REMOVE 120V POWER FOR EXHAUST FAN C/W WALL MOUNTED STARTER. COORDINATE WITH MECHANICAL CONTRACTOR.
  - 8 DISCONNECT AND REMOVE EMPTY 12X12" JUNCTION BOX C/W WIRING BACK TO SOURCE.
  - 9 DISCONNECT AND REMOVE INDICATION LIGHT C/W WIRING BACK TO SOURCE.

- TECH OFFICE NEW POWER WORKING NOTES:**
- 1 PROVIDE NEW POWER AND DATA. COORDINATE WITH OWNER TO SUIT MILLWORK. ALLOW FOR MOUNTING ABOVE MILLWORK FOR ACCESS TO DEVICES WHERE APPLICABLE.
  - 2 PROVIDE NEW RECEPTACLE FOR NEW FRIDGE C/W NEW DEDICATED CIRCUIT. COORDINATE WITH CLIENT FOR EQUIPMENT SPECS TO CONFIRM POWER CONNECTION PRIOR TO ROUGH-IN.
  - 3 PROVIDE NEW PA DEVICE C/W NEW WIRING FOR TIE INTO EXISTING PA CIRCUIT IN CORRIDOR.
  - 4 PROVIDE 20A RECEPTACLE MOUNTED IN MILLWORK FOR MICROWAVE MOUNTED APPROXIMATELY 65" AFF. COORDINATE ROUGH-IN WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
  - 5 PROVIDE NEW RECEPTACLE MOUNTED APPROXIMATELY 40" AFF C/W NEW DEDICATED CIRCUIT. COORDINATE HEIGHT WITH GENERAL CONTRACTOR TO SUIT MILLWORK.
  - 6 PROVIDE NEW FIRE ALARM SIGNAL DEVICE. TIE INTO EXISTING CORRIDOR SIGNAL CIRCUIT.
  - 7 REINSTALL EXISTING HEAT DETECTOR.
  - 8 REINSTALL EXISTING ACCESS POINT.
  - 9 PROVIDE 120V POWER FOR NEW EXHAUST FAN C/W WALL MOUNTED STARTER EQUAL TO FRANKLIN BAS-1P IN CUST 264. COORDINATE WITH MECHANICAL CONTRACTOR.

- REVISED ELECTRICAL WORKING NOTES:**
- 1 RELOCATE EXISTING LIGHT SWITCH. EXTEND FEED AS REQUIRED TO SUIT NEW LOCATION.

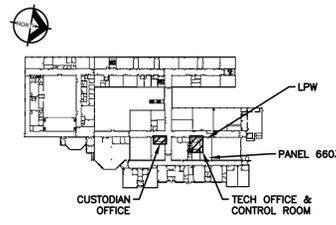


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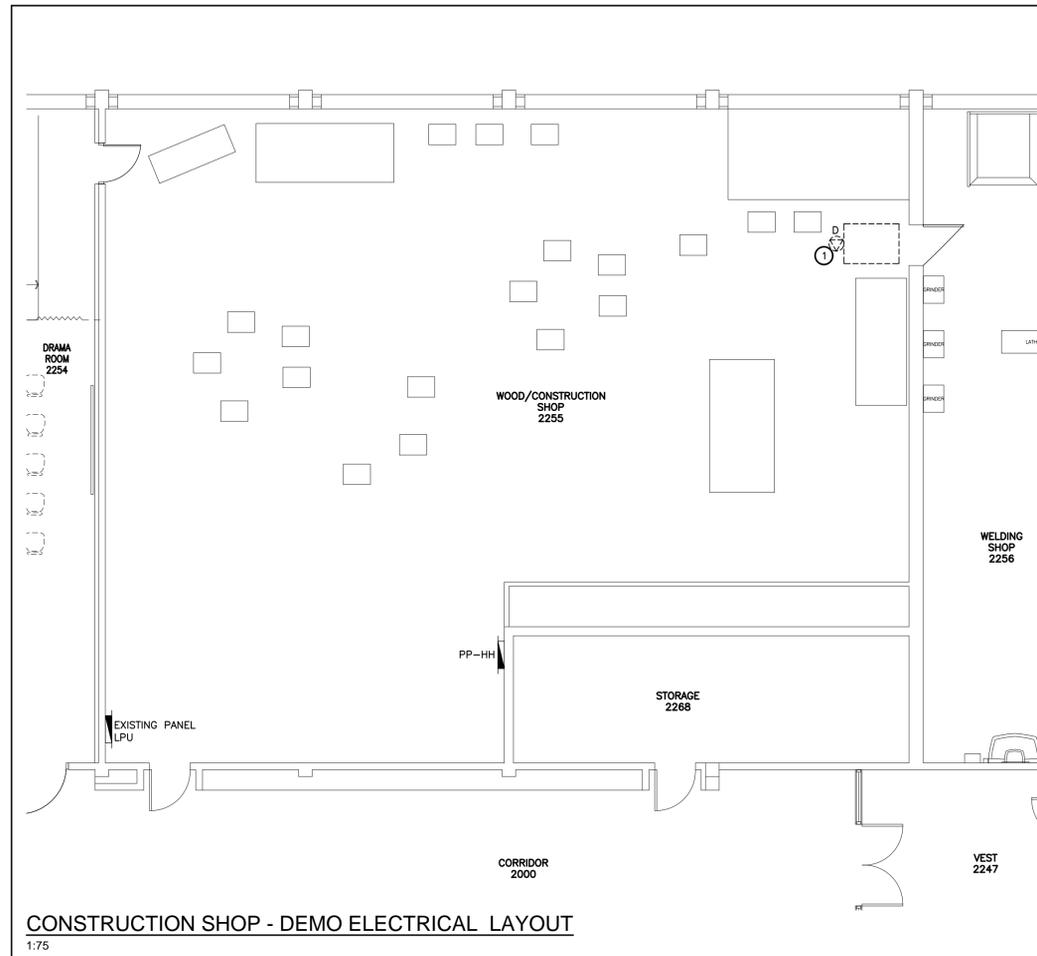
Revisions, Issues

Project:  
**Renovations - Phase 2**  
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 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1

Title:  
**CUSTODIAL & TECH OFFICES**  
**DEMO & NEW LAYOUTS**

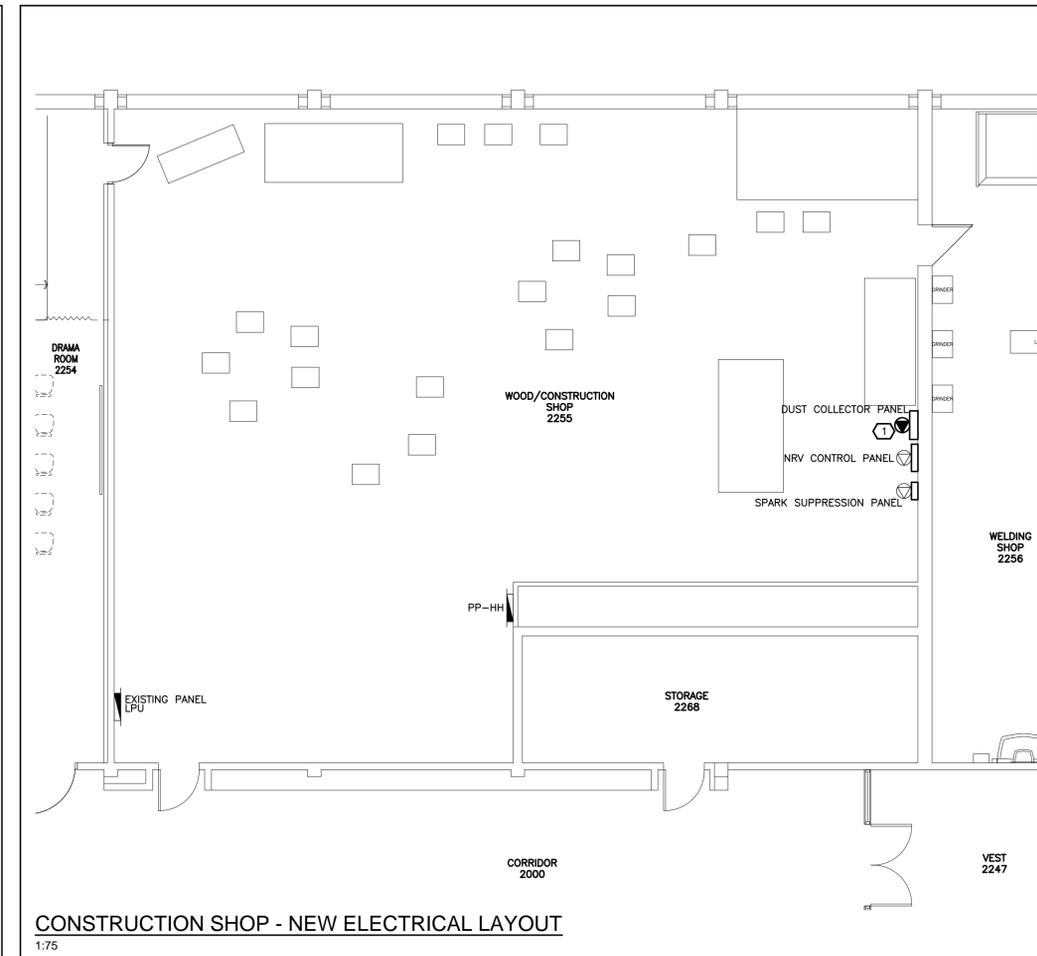
Scale:	Date:	Drawing:
AS NOTED	APRIL 2023	E202
Project: 21-60B	Drawn By: RJC	

DATE PLOTTED: --



**DEMO ELECTRICAL WORKING NOTES:**

- ① DISCONNECT AND REMOVE 120V POWER FOR DUST COLLECTOR C/W FEED BACK TO PANEL LPU.



**NEW ELECTRICAL WORKING NOTES:**

- ① PROVIDE NEW 600V/3Ø POWER FOR NEW DUST COLLECTOR PANEL. PROVIDE NEW 30A/3P BREAKER FROM MAIN DISTRIBUTION PANEL IN MECHANICAL ROOM. PROVIDE 3#8 CU + #12 CU GND IN 3/4" C FOR FEED. EXISTING PANEL IS SQUARE D TYPE MCM. SUPPRESSION PANEL TO BE FED FROM SPARK DUST COLLECTOR BREAKER IN PANEL LPU. NRV PANEL TO BE FED FROM EXISTING CIRCUIT IN PANEL LPU. CONTRACTOR TO CONFIRM EXISTING LOADS. CONTRACTOR TO ALLOW FOR INSTALLATION OF PANELS. REFER TO SCOPE OF WORK ON DRAWING E301. ALLOW FOR 25x10 OF #6 GROUND WIRE FROM ELECTRICAL PANEL TO DUCT WORK AT EACH PIECE OF EQUIPMENT SERVED BY DUST COLLECTOR. PROVIDE NEW SUPERVISORY POINT FROM FIRE ALARM CONTROL PANEL TO SPARK SUPPRESSION SYSTEM INSTALLED BY MECHANICAL CONTRACTOR. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.

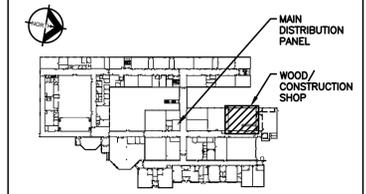
SUSAN FRIEDRICH ARCHITECT INC. ■  
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**CIMA+ DES**

415 BASELINE ROAD WEST  
BOWMANVILLE, ON L1C 5M2  
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CIMA+ JOB No.: C14-0573 DWG SIZE: D



**KEY PLAN - GROUND FLOOR**

No.	DESCRIPTION	DATE
3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023

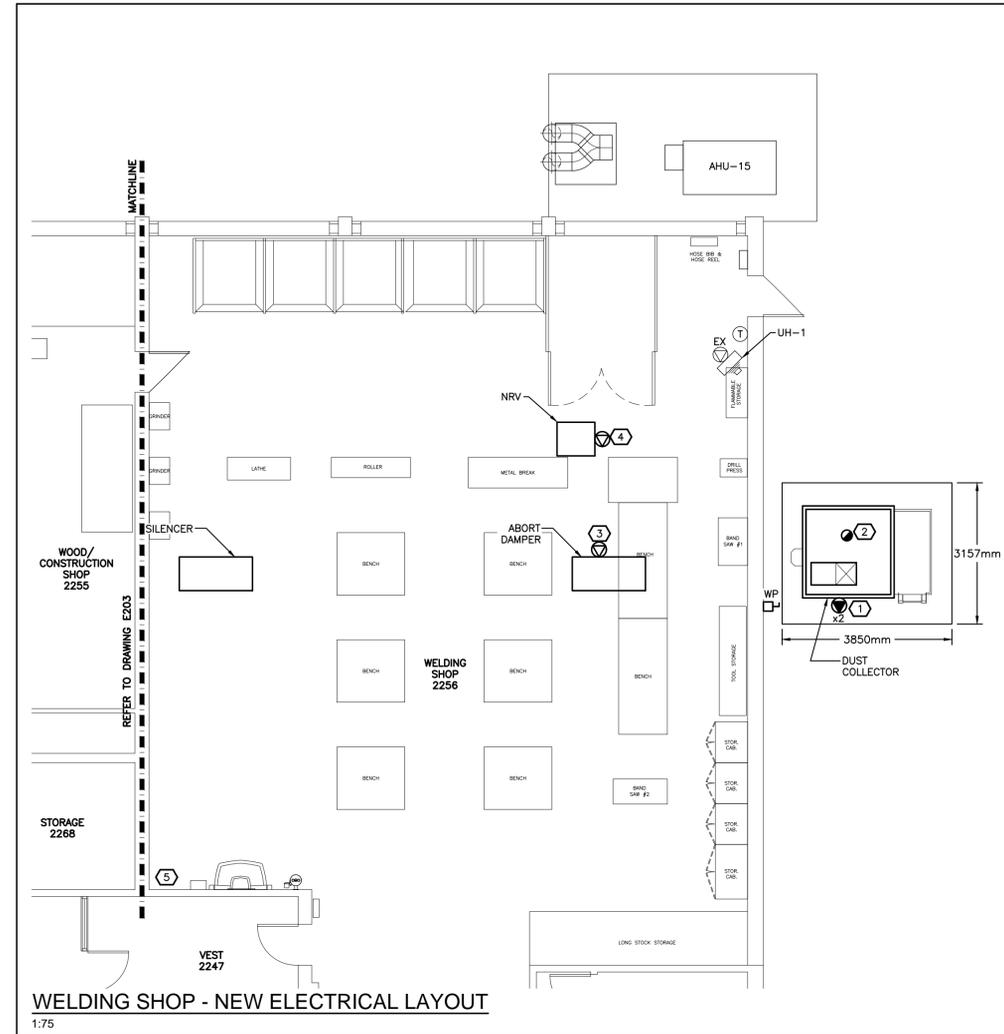
Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title:  
**CONSTRUCTION SHOP  
DEMO & NEW LAYOUTS**

Scale: AS NOTED	Date: APRIL 2023	Drawing: <b>E203</b>
Project: 21-60B	Drawn By: RJC	

DATE PLOTTED: --



**WELDING SHOP - NEW ELECTRICAL LAYOUT**  
1:75

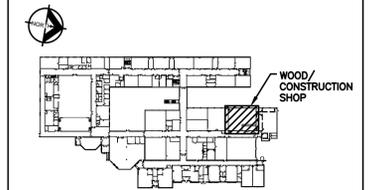
**NEW ELECTRICAL WORKING NOTES:**

- ① PROVIDE 600V/34 FEED FROM DUST COLLECTOR PANEL TO WEATHERPROOF DISCONNECT AND FROM DISCONNECT TO DUST COLLECTOR MOTOR. COORDINATE WITH MECHANICAL CONTRACTOR.
- ② NEW HEAT DETECTOR SUPPLIED BY DUST COLLECTOR MANUFACTURER AND INSTALLED BY ELECTRICAL CONTRACTOR IN NEW DUST COLLECTOR. PROVIDE NEW WIRING FROM DETECTOR TO SPARK SUPPRESSION CONTROL PANEL. COORDINATE WITH MECHANICAL CONTRACTOR.
- ③ PROVIDE 120V POWER TO ABORT DAMPER FROM SPARK DETECTION PANEL. PROVIDE 120V POWER TO ABORT DAMPER SOLENOID FROM SPARK DETECTION PANEL.
- ④ PROVIDE 120V POWER TO NRV MICRO SWITCH FROM DUST COLLECTOR PANEL CONTACTS.
- ⑤ PROVIDE INTERLOCK FROM SUPPRESSION PANEL TO BACKFLOW PREVENTER SUPERVISORY POINTS (X2). BACKFLOW PREVENTER TO BE WIRED IN SERIES WITH SUPPRESSION SYSTEM SUPERVISORY SWITCH.



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**KEY PLAN - GROUND FLOOR**

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No.	DESCRIPTION	DATE

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

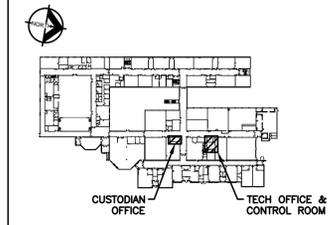
Title:  
**WELDING SHOP**  
**DEMO & NEW LAYOUTS**

Scale: AS NOTED	Date: APRIL 2023	Drawing: <b>E204</b>
Project: 21-60B	Drawn By: RJC	

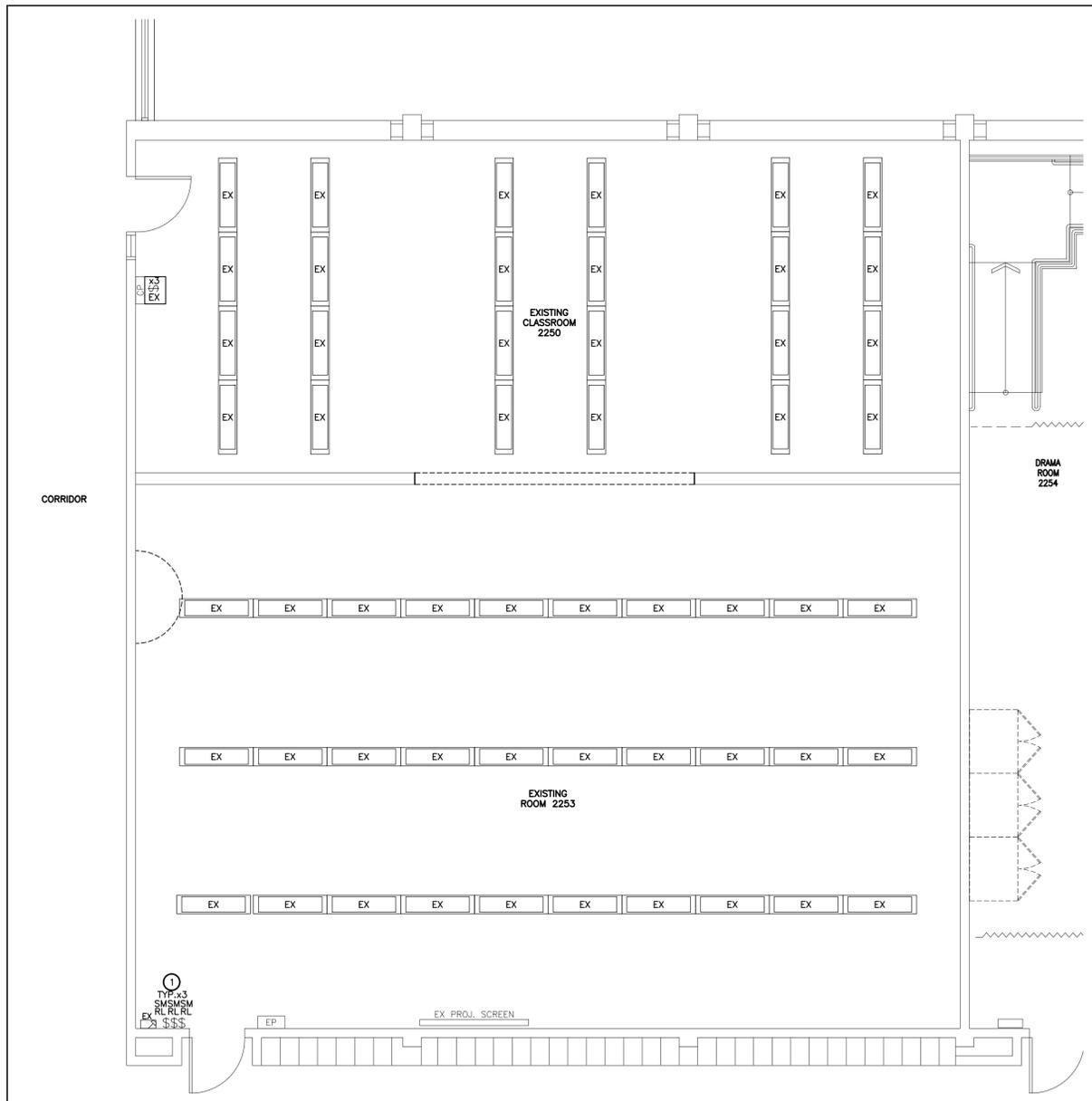


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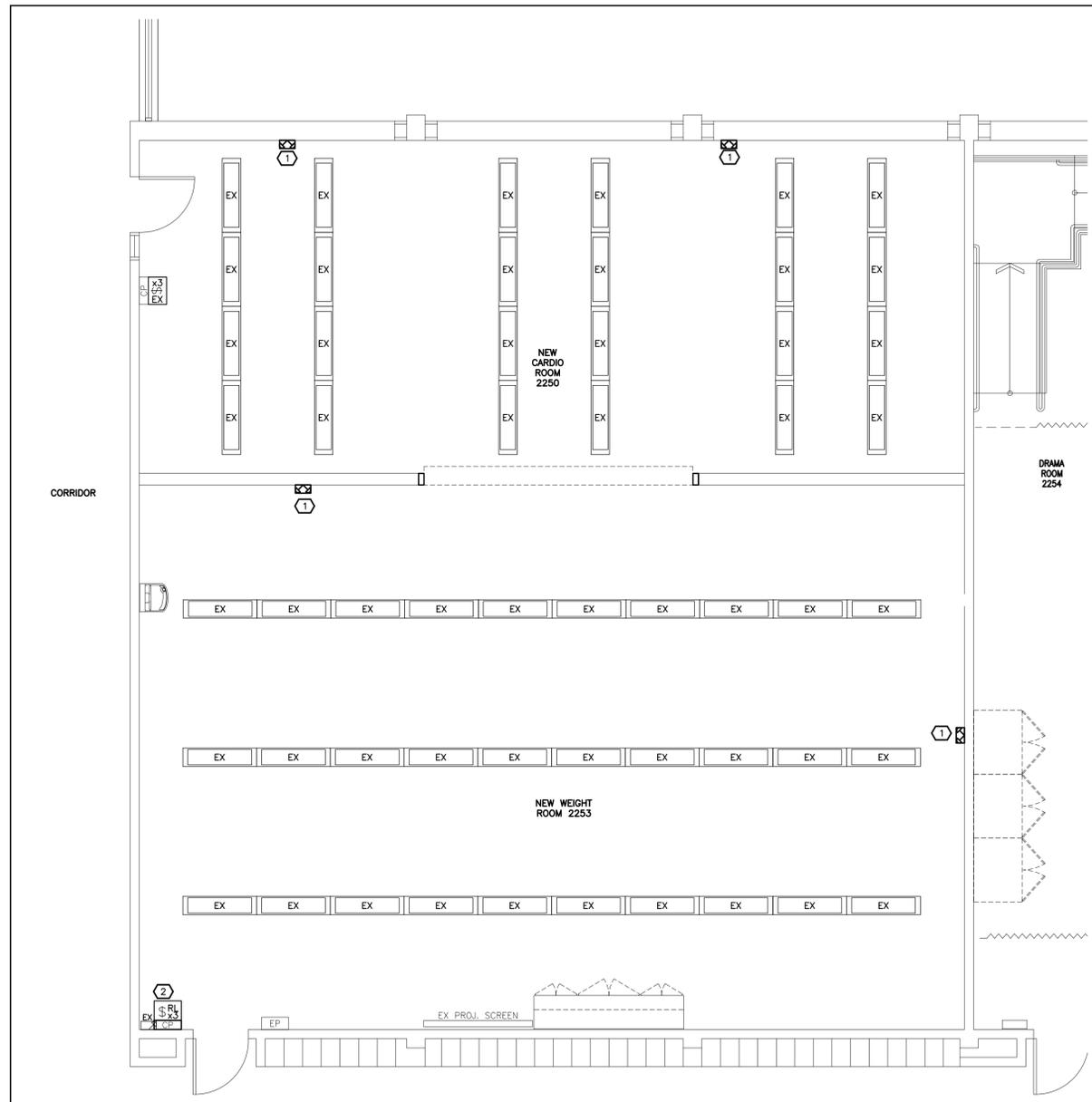
KEY PLAN - GROUND FLOOR



CARDIO & WEIGHT ROOM - DEMO ELECTRICAL LAYOUT  
 1:50

**CARDIO & WEIGHT ROOM - DEMO LIGHTING WORKING NOTES:**

① DISCONNECT AND REMOVE EXISTING LIGHT SWITCHES. RETAIN FOR RELOCATION. PROVIDE COVER PLATE FOR THREE GANG BACK BOX.



CARDIO & WEIGHT ROOM - NEW ELECTRICAL LAYOUT  
 1:50

**TECH OFFICE NEW LIGHTING WORKING NOTES:**

① PROVIDE NEW EMERGENCY LIGHTING DEVICE. TIE INTO EXISTING EMERGENCY LIGHTING BATTERY UNIT IN EXISTING COMMUNICATION LAB.

② REINSTALL EXISTING LIGHT SWITCHES IN NEW CONTROL PANEL. EXTEND FEEDS AS REQUIRED.

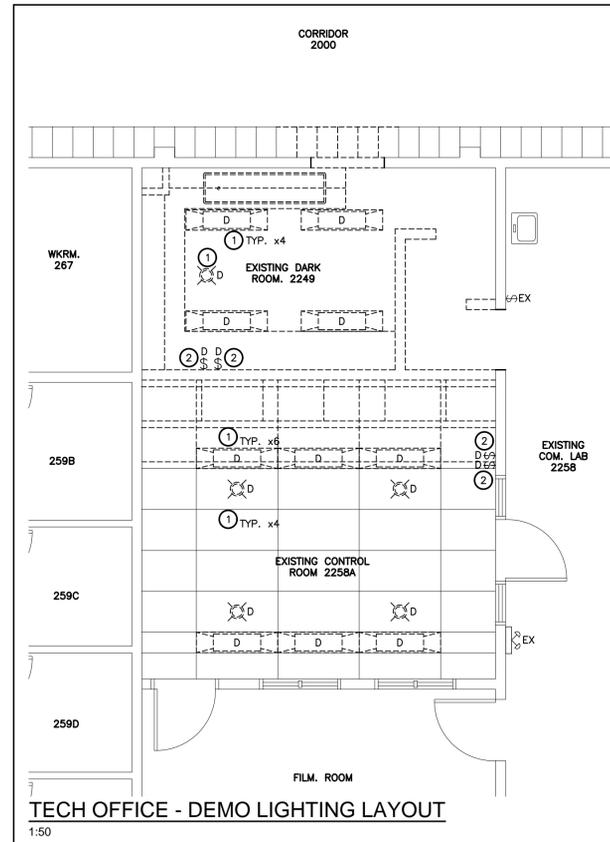
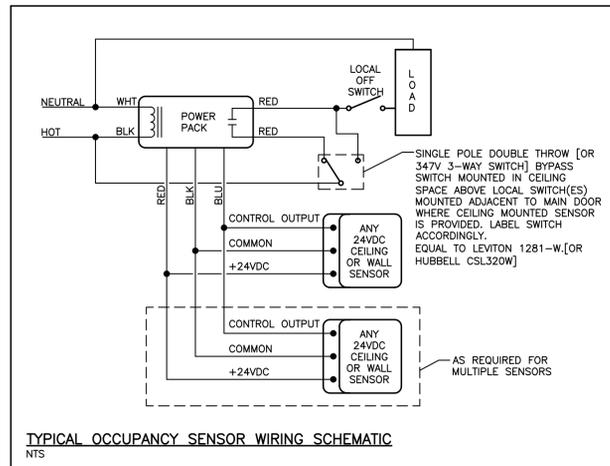
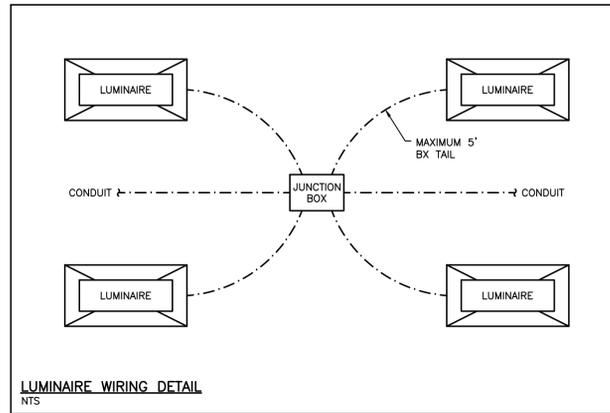
No.	DESCRIPTION	DATE
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Revisions, Issues

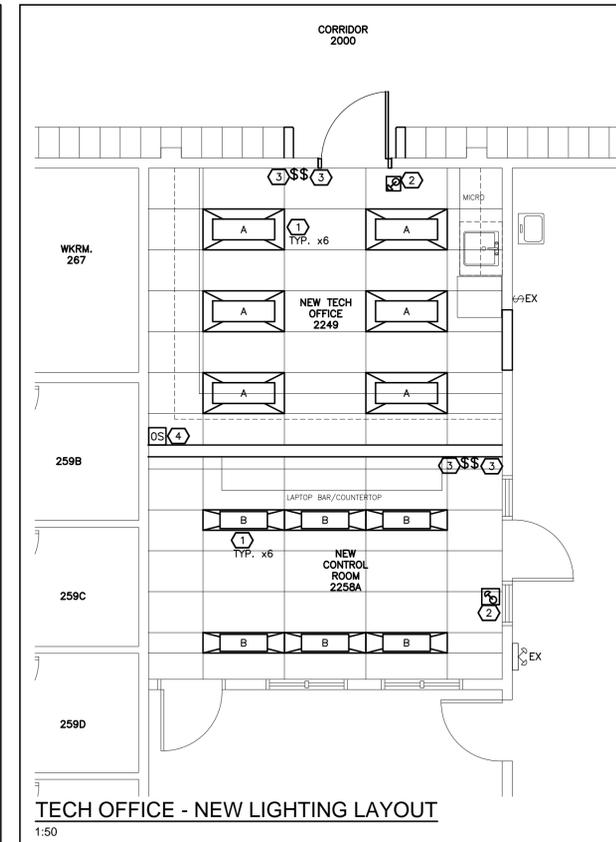
Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
 570 STEVENSON ROAD NORTH  
 OSHAWA, ON L1J 5P1

Title:  
**CARDIO & WEIGHT ROOM DEMO & NEW LIGHTING LAYOUT**

Scale: AS NOTED	Date: APRIL 2023	Drawing: E301
Project: 21-60B	Drawn By: RJC	



- TECH OFFICE DEMO LIGHTING WORKING NOTES:**
- ① DISCONNECT AND REMOVE EXISTING LUMINAIRE AND DISPOSE OF PROPERLY. REMOVE FEED BACK TO SOURCE.
  - ② DISCONNECT AND REMOVE EXISTING SWITCH C/W BRANCH WIRING BACK TO SOURCE.



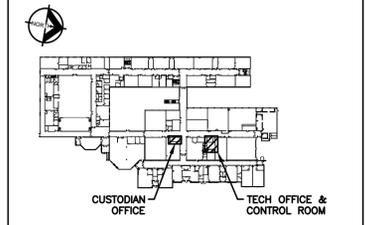
- TECH OFFICE NEW LIGHTING WORKING NOTES:**
- ① PROVIDE NEW LUMINAIRES. PROVIDE NEW WIRING AS PER WIRING DETAIL.
  - ② PROVIDE NEW EMERGENCY DEVICE. TIE INTO EXISTING BATTERY UNIT IN COMMUNICATION LAB.
  - ③ PROVIDE NEW SWITCHES FOR LIGHTING CONTROL.
  - ④ PROVIDE NEW OCCUPANCY SENSOR FOR LIGHTING CONTROL. REFER TO OCCUPANCY SENSOR SPECIFICATIONS AND WIRING DETAIL.

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No.	DESCRIPTION	DATE

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title:  
**TECH OFFICE DEMO & NEW LIGHTING LAYOUT**

Scale: AS NOTED Date: APRIL 2023 Drawing: E302  
Project: 21-60B Drawn By: RJC

DATE PLOTTED: --

EMERGENCY LIGHTING SCHEDULE		
TAG	DESCRIPTION	MAKE / MODEL
EX	EXISTING BATTERY UNIT	EXISTING
EX	EXISTING WALL MOUNTED VANDAL RESISTANT REMOTE SINGLE HEAD	EXISTING
EX	WALL MOUNTED REMOTE DUAL HEAD 12V 4W LED EMERGENCY LIGHT, INJECTION MOLDED IMPACT RESISTANT FLAME RETARDANT THERMOPLASTIC, ADJUSTABLE LENSES, SUITABLE FOR INSTALLATION ON 4" OCTAGON BOX.	EQUAL TO LUMACELL RSQB2LD7 (OR VOLTAGE TO MATCH EXISTING BATTERY UNITS)
EX	CEILING MOUNTED REMOTE SINGLE HEAD 4W LED EMERGENCY LIGHT, INJECTION MOLDED IMPACT RESISTANT FLAME RETARDANT THERMOPLASTIC, ADJUSTABLE LENSES, SUITABLE FOR INSTALLATION ON 4" OCTAGON BOX.	EQUAL TO LUMACELL RSQB2LD7 (OR VOLTAGE TO MATCH EXISTING BATTERY UNITS)
APPROVED ALTERNATES: BEGHELLI, EMERGI-LITE, AMLITE, STAN PRO		
NOTE: 1. ## DENOTES BATTERY UNIT. 2. 'DS' DENOTES DOUBLE SIDED. 3. ALLOW 20% SAFETY ON BACK-UP BATTERY PACK SIZING. 4. ALL UNITS TO BE CSA CERTIFIED. 5. EMERGENCY LIGHTING LIGHT LEVELS ARE TO BE TAKEN IN FOOT CANDLES BY THE CONTRACTOR AFTER PROJECT COMPLETION. ADVISE CONSULTANT OF TEST DATE FOR WITNESS AND OWN READINGS.		

LIGHT FIXTURE SCHEDULE			
TAG	DESCRIPTION	MAKE / MODEL	ALTERNATE
EX	SURFACE MOUNTED 1'x4' LIGHT FIXTURE	EXISTING	
EX	INDOOR RECESSED CEILING MOUNTED POT LIGHT,	EXISTING	
EX	RECESSED 2X4 LED LUMINAIRE, K12 0.125" PATTERN ACRYLIC LENS, 3-14W LED LAMPS, 2 INSTANT START BALLASTS (ONE FOR SWITCHING OUTER LAMPS, ONE FOR SWITCHING INNER LAMP), 4000K, 120V.	PIONEER LIGHTING TB24-348-120/2-K125	LITHONIA PEERLESS-ELECTRIC VISIONEERING COOPER CREE LIGHTING SIGNIFY
EX	RECESSED 1X4 LED LUMINAIRE, K12 0.125" PATTERN ACRYLIC LENS, 1-12W LED LAMPS, 1 INSTANT START BALLAST, 4000K, 120V	PIONEER LIGHTING TB14-248-120-K125	
\$\$\$	LIGHT SWITCH - '3' DENOTES 3-WAY	HUBBELL 1200 SERIES (120V)	LEVITON LEGRAND ACUITY
DS	WALL/CORNER MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, WHITE, 24V	LEVITON OSW12-MOW	HUBBELL LEGRAND ACUITY CONTROLS

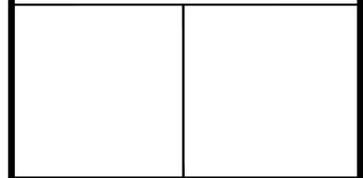
FIRE ALARM LEGEND	
	HEAT DETECTOR FIXED TEMPERATURE
	FIRE ALARM HORN
	STROBE ONLY. '##' DENOTES STROBE CANDELA RATING. PROVIDE 15cd UNLESS OTHERWISE NOTED.

ELECTRICAL ABBREVIATIONS	
EX	EXISTING TO REMAIN
D	EXISTING TO BE REMOVED C/W CONDUIT/WIRING BACK TO SOURCE
RL	EXISTING TO BE RELOCATED. EXTEND FEED AS REQUIRED.
RR	EXISTING TO BE REMOVED & REINSTALLED IN SAME LOCATION.
x#	QUANTITY OF DEVICES
H/L	HIGH LEVEL
AFF	ABOVE FINISHED FLOOR
C/W	COMPLETE WITH
WG	PROVIDE WIRE GUARD OR VANDAL COVER
SM	SURFACE MOUNTED

COMMUNICATIONS LEGEND		
TAG	DESCRIPTION	MAKE/MODEL
AP	EXISTING ACCESS POINT	
	EXISTING CLOCK	
	P.A. TELEPHONE	
	DATA ONLY OUTLET BOX - WALL BOX, OUTLET & 3/4" CONDUIT C/W PULL STRING UP WALL TO CEILING SPACE	
	DATA AND VOICE OUTLET BOX - WALL BOX, OUTLET & 3/4" CONDUIT C/W PULL STRING UP WALL TO CEILING SPACE	
S	CEILING MOUNTED P.A. SPEAKER	VALCOM
	WALL MOUNTED P.A. SPEAKER	VALCOM

POWER LEGEND		
TAG	DESCRIPTION	MAKE/MODEL
	EXISTING CEILING MOUNTED RECEPTACLE TO BE REMOVED	HUBBELL BR15WHI OR EQUAL
	EXISTING PANEL	
	15A 120V 1PH GROUNDED DUPLEX RECEPTACLE TAMPER RESISTANT C/W STAINLESS STEEL COVER PLATE	HUBBELL BR15WHITR OR EQUAL
	20A 120V 1PH GROUNDED DUPLEX RECEPTACLE C/W STAINLESS STEEL COVER PLATE	HUBBELL BR20WHI OR EQUAL
	15A 120V 1PH GROUNDED QUAD RECEPTACLE TAMPER RESISTANT C/W STAINLESS STEEL COVER PLATE	HUBBELL BR15WHITR OR EQUAL
	120V 1PH GROUNDED DIRECT EQUIPMENT CONNECTION	
	575V 3PH GROUNDED DIRECT EQUIPMENT CONNECTION	
S	POWER ISOLATION SWITCH C/W LOCKABLE COVER PLATE. RATED TO SUIT LOAD.	EQUAL TO HUBBELL HEAVY DUTY
Sk	MAINTAINED 2 POSITION KEYED SELECTOR SWITCH	PROVIDED BY MANUFACTURER
	MOMENTARY PUSHBUTTON	EQUAL
	DUCT SMOKE DETECTOR	EQUAL TO SYSTEM SENSOR D4120A
	SMOKE DETECTOR C/W INDICATION LIGHT	EQUAL TO SYSTEM SENSOR

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CIMA+ JOB No.: C14-0573 DWG SIZE: D

3	ISSUED FOR TENDER	APR 24 2023
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No.	DESCRIPTION	DATE

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title: LEGENDS

Scale: NTS	Date: APRIL 2023	Drawing: E801
Project: 21-60B	Drawn By: RJC	

DATE PLOTTED: --

**GENERAL NOTES:**

- 1. THOROUGHLY REVIEW AND COORDINATE WITH SITE CONDITIONS AND COMPLETE DRAWING SET PRIOR TO PRICING AND INSTALLATION.
2. OBTAIN, ARRANGE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
3. OBTAIN AND REVIEW THE DESIGNATED SUBSTANCE REPORT FROM THE CLIENT AND COORDINATE ANY DESIGNATED SUBSTANCE ISSUES WITH THE CLIENT PRIOR TO ANY WORK BEING DONE.
4. THE ELECTRICAL CONTRACTOR AND SUB-TRADES SHALL ATTEND ALL SITE MEETINGS UNLESS OTHERWISE APPROVED.
5. PROVIDE ELECTRONIC SHOP DRAWINGS IN PDF FORMAT TO CONSULTANT FOR REVIEW. ALL SHOP DRAWINGS MUST BE REVIEWED, STAMPED AND SIGNED BY THE ELECTRICAL CONTRACTOR PRIOR TO SUBMITTING TO THE CONSULTANT. REVIEW SHALL INCLUDE, BUT NOT LIMITED TO, VERIFYING VOLTAGE, RATING, DIMENSIONS AND CLEARANCES.
6. INSTALL ALL WORK IN CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
7. MAINTAIN RECORD DRAWINGS ON AN ON-GOING BASIS. DRAWINGS SHALL BE AVAILABLE FOR PERIODIC REVIEW BY THE CONSULTANT DURING CONSTRUCTION.
8. ALL WORK SHALL COMPLY WITH APPLICABLE CODES.
9. REMOVE ALL REDUNDANT EQUIPMENT AND MATERIALS FROM SITE AND DISPOSE OF IN AN APPROVED MANNER. REDUNDANT EQUIPMENT AND MATERIALS SHALL NOT BE ABANDONED IN PLACE.
10. ALL CUTTING, CORING AND PATCHING SHALL BE COORDINATED WITH GENERAL CONTRACTOR.
11. MAINTAIN REQUIRED ACCESS AND CLEARANCE TO ALL EQUIPMENT AND SYSTEMS AS REQUIRED BY CODE AND AS PER MANUFACTURER'S REQUIREMENTS.
12. PROVIDE ACCESS DOORS WHERE REQUIRED TO MAINTAIN ACCESS TO DEVICES, EQUIPMENT, JUNCTION BOXES ETC. COORDINATE AND TURN OVER TO GENERAL CONTRACTOR FOR INSTALLATION. CONTRACTOR TO INSTALL WHERE NOT COORDINATED PROPERLY WITH GENERAL CONTRACTOR.
13. TAG ALL EQUIPMENT (INCLUDING MECHANICAL EQUIPMENT), EQUIPMENT DISCONNECTS/STARTERS AND PANELS WITH LAMACOD NAMEPLATES. PANEL NAMEPLATE SHALL STATE PANEL DESIGNATION, VOLTAGE, AMPERAGE AND SOURCE OF FEEDS. EQUIPMENT SHALL STATE PANEL AND CIRCUIT NUMBER. PROVIDE TYPED PANEL SCHEDULES IN ALL PANELS. CONFIRM WITH CONSULTANT IF UNCLEAR.
14. LABEL ALL RECEPTACLES AND JUNCTION BOXES WITH PANEL AND CIRCUIT NUMBER. USE BLACK MARKER ON CONCEALED JUNCTION BOXES AND CLEAR ADHESIVE LABELS WITH BLACK WRITING ON RECEPTACLES. PAINT ALL JUNCTION BOXES RED FOR FIRE ALARM.
15. THE CONTRACTOR SHALL ARRANGE FOR FIELD REVIEWS BY THE CONSULTANT PRIOR TO CEILING AND WALLS BEING CLOSED IN WHERE THIS HAS NOT BEEN ARRANGED IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE CEILING TILES OR ACCESS DOORS FOR REVIEW AT THE DIRECTION OF THE CONSULTANT.
16. PERFORM TESTING OF ALL SYSTEMS AS REQUIRED BY CODE AND THE CONSULTANT.
17. ASSIST WITH START-UP AND COMMISSIONING OF ALL SYSTEMS AS REQUIRED.
18. INSTRUCT AND TRAIN THE OWNER ON PROPER OPERATION OF THE SYSTEM.
19. UPON COMPLETION OF THE PROJECT THE CONSULTANT WILL DO A FINAL REVIEW. UPON RECEIVING THE FINAL INSPECTION REPORT, THE CONTRACTOR MUST CORRECT AND SIGN BACK THE INSPECTION REPORT INDICATED ALL DEFICIENCIES ARE COMPLETED. A RE-INSPECTION WILL ONLY BE DONE ONCE THE CONSULTANT RECEIVES THIS IN WRITING. WHERE THE CONSULTANT PERFORMS THE RE-INSPECTION AND THE WORK IS NOT COMPLETE, THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE CONSULTANT FOR THE FIELD REVIEW. THE FEE FOR ADDITIONAL REVIEWS WILL BE AT THE CONSULTANT'S HOURLY RATES PLUS MILEAGE AND APPLICABLE TAXES TO BE PAID DIRECTLY TO THE CONSULTANT PRIOR TO PERFORMING THE NEXT FIELD REVIEW.
20. PROVIDE ONE (1) YEAR WARRANTY ON ALL MATERIAL AND LABOUR FROM THE DATE OF SUBSTANTIAL COMPLETION.
21. PROGRESS DRAWS SHALL INCLUDE MINIMUM \$1,500.00 FOR MANUALS AND AS-BUILT DRAWINGS. TOTAL AMOUNT SHALL REMAIN UNBILLED UNTIL MANUALS AND AS-BUILT DRAWINGS HAVE BEEN SUBMITTED AND APPROVED AND UNTIL ALL DES FIELD REVIEW REPORTS HAVE BEEN SIGNED AND RETURNED TO DES ALONG WITH PICTURES AS REQUESTED BY CONSULTANT.
22. PROVIDE ONE(1) ELECTRONIC COPY OF USB, CLOSE-OUT DOCUMENTATION INCLUDING CONTRACTOR INFORMATION, WARRANTY LETTER, ESA CERTIFICATE, FIRE ALARM VERIFICATION REPORT, EMERGENCY LIGHTING TEST REPORT, SHOP DRAWINGS, O&Ms, ANY OTHER REQUIRED REPORTS AND AS-BUILT DRAWINGS INCLUDING ALL PANEL SCHEDULES. AS-BUILT DRAWINGS SHALL INCLUDE COMPLETE ELECTRICAL DRAWING SET WITH ANY CHANGES MARKED CLEARLY AND NEATLY IN COLOUR.

**FIRE ALARM SPECIFICATIONS:**

- 1. THE CONTRACTOR SHALL RELOCATE OR FURNISH NEW LABOUR, SERVICES AND MATERIALS NECESSARY TO PROVIDE A COMPLETE, FUNCTIONAL, LIFE SAFETY FIRE SYSTEM. THE SYSTEM SHALL COMPLY IN ALL RESPECTS WITH ALL PERTINENT CODES, RULES, REGULATIONS AND LAWS OF THE LOCAL JURISDICTION. THE SYSTEM SHALL COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE SPECIFICATIONS, MANUFACTURER'S RECOMMENDATIONS AND UNDERWRITERS LABORATORIES OF CANADA (ULC) LISTINGS. ALL COMPONENTS SHALL BE ULC LISTED.
2. THE EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE CURRENT PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
1. LOCAL AND PROVINCIAL BUILDING CODES
2. LOCAL AND PROVINCIAL FIRE CODES
3. LOCAL, PROVINCIAL AND CANADIAN ELECTRICAL CODES
4. NFPA 72 - NATIONAL FIRE ALARM CODE
5. NFPA 101 - LIFE SAFETY CODE
6. CAN/ULC-SS24 AND OTHER APPLICABLE ULC STANDARDS
7. AUTHORITY HAVING JURISDICTION
3. ALL SIGNAL DEVICES SHALL HAVE FIELD ADJUSTABLE DB SETTINGS VIA DIP SWITCHES OR PROGRAMMING FOR LOW, MEDIUM AND HIGH. PERMANENT MODIFICATION TO DEVICE TO CHANGE AUDIBLE LEVEL IS NOT ACCEPTABLE.
4. FIRE DETECTOR MOUNTING:
1. FIRE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 1000mm HORIZONTALLY FROM TIP OF A CEILING SUSPENDED (PADDLER) FAN OR CEILING MOUNTED UNIT HEATER MEASURED TO THE EDGE OF THE DETECTOR.
2. FIRE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 450mm FROM ANY SUPPLY OUTLET OR EXHAUST OUTLET AS MEASURED TO THE EDGE OF THE DETECTOR.
5. DEVICE MOUNTING HEIGHT:
1. PULL STATION(S) TO BE MOUNTED 45" (1150mm) A.F.F. TO CENTER OF DEVICE
2. WALL MOUNTED AUDIBLE SIGNAL TO BE MOUNTED MINIMUM 6" (150mm) BELOW CEILING AND NO LESS THAN 90"(2300mm) A.F.F. TO THE TOP OF THE DEVICE
3. STROBE(S) TO BE MOUNTED SO THAT ENTIRE LENS IS 78"-94" (2000-2400mm) A.F.F.
4. COMBINATION HORN/STROBE(S) SHALL CONFORM TO BOTH 5.1 AND 5.2
5. END OF LINE RESISTORS TO BE MOUNTED LESS THAN 70" (1800mm) A.F.F.
6. CONDUIT AND WIRE:
1. WIRING SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL AND NATIONAL CODES, AND AS RECOMMENDED BY THE MANUFACTURER OF THE FIRE ALARM SYSTEM.
2. NUMBER AND SIZE OF CONDUCTORS SHALL BE AS RECOMMENDED BY THE FIRE ALARM SYSTEM MANUFACTURER, BUT NOT LESS THAN 18 AWG (1.02 MM) FOR INITIATING DEVICE CIRCUITS AND SIGNALING LINE CIRCUITS, AND 14 AWG (1.63 MM) FOR NOTIFICATION APPLIANCE CIRCUITS (UNLESS OTHERWISE DIRECTED BY MANUFACTURER).
3. ALL WIRE AND CABLE SHALL BE LISTED AND/OR APPROVED BY A RECOGNIZED TESTING AGENCY FOR USE WITH A PROTECTIVE SIGNALING SYSTEM.
4. ALL FIELD WIRING SHALL BE ELECTRICALLY SUPERVISED FOR OPEN CIRCUIT AND GROUND FAULT.
5. ALL WIRE SHALL BE INSTALLED IN CONDUIT. PROVIDE WIREMOLD FOR ALL WIRING IN EXPOSED AREAS: ALL SURFACE MOUNTED CONDUIT MUST BE APPROVED BY OWNER OR CONSULTANT PRIOR TO INSTALLATION.
6. WIRE AND CABLE NOT INSTALLED IN CONDUIT SHALL HAVE A FIRE RESISTANCE RATING SUITABLE FOR THE INSTALLATION AS INDICATED IN NFPA 70 (E.G., FRLR) AND AS PER OBC.
7. ALL JUNCTION BOXES SHALL BE PAINTED 'RED' AND IDENTIFIED AS SIGNAL OR INITIATING. ALL LBS SHALL BE PAINTED RED. ANY CONDUIT LENGTH EXCEEDING 10'(3m) SHALL HAVE COUPLING PAINTED RED FOR IDENTIFICATION.
7. SURFACE DEVICES AND EXPOSED CONDUIT:
1. ALL SURFACE MOUNTED CONDUIT MUST BE APPROVED BY OWNER OR CONSULTANT PRIOR TO INSTALLATION.
2. PROVIDE WIREMOLD (PANDUIT) FOR ALL WIRING IN EXPOSED AREAS.
3. ANY SURFACE BOXES SHALL BE "FS" (NO KNOCKOUTS) AND BE PRE-APPROVED BY OWNER OR CONSULTANT.
8. FIRE STOP ALL EXISTING AND NEW CONDUIT THROUGH FIRE SEPARATIONS IN ACCORDANCE WITH OBC.

**FIRE ALARM SCOPE OF WORK:**

- 1. EXISTING FIRE ALARM CONTROL PANEL IS SIMPLEX 4100U.
2. FIRE ALARM MANUFACTURER TO ATTEND SITE PRIOR TO PRICING TO REVIEW EXISTING SYSTEM FOR CONFORMANCE WITH NEW PROPOSED DEVICES. FIRE ALARM MANUFACTURER TO INCLUDE FOR ALL LABOUR AND COMPONENTS REQUIRED TO CONNECT EXISTING DEVICES TO EXISTING FIRE ALARM CONTROL PANEL IN CONFORMANCE WITH ALL APPLICABLE CODES. ALLOW FOR WIRING BACK TO FIRE ALARM CONTROL PANEL TO SUPPORT NEW ZONE IF REQUIRED.
3. INSTALL NEW DEVICES OF TYPE AS INDICATED ON DRAWINGS.
4. ADD ADDITIONAL HORN/STROBES AND STROBES AS INDICATED. FIRE ALARM MANUFACTURER TO CONFIRM CIRCUIT LOADING PRIOR TO PRICING IF CONNECTING NEW DEVICES TO EXISTING CIRCUITS. ALLOW FOR NEW CIRCUIT FROM FACP TO RENOVATION AREA TO HANDLE NEW STROBE LOADING.
5. ALL DEVICE AND SIGNAL CIRCUITS TO BE WIRED TO MATCH EXISTING.
6. PROVIDE NEW DEDICATED ZONE FOR DUST COLLECTOR SUPPRESSION PANEL.
7. NEW END OF LINE RESISTORS TO BE MOUNTED BY FIRE ALARM CONTROL PANEL.
8. LABELING:
1. PAINT ALL FIRE ALARM JUNCTION BOXES RED. IDENTIFY EACH JUNCTION BOX AS EITHER SIGNAL OR INITIATING CIRCUIT.
2. LABEL ALL POWER JUNCTION BOXES WITH PANEL AND CIRCUIT NUMBER.
3. BREAKER FOR FACP AND FIRE COMMUNICATOR SHALL BE LOCKED AND PAINTED RED.
9. TEST AND VERIFY THE FIRE ALARM SYSTEM IN CONFORMANCE WITH CAN/ULC-SS37-M STANDARD FOR THE VERIFICATION OF FIRE ALARM SYSTEMS TO ENSURE SATISFACTORY OPERATION.
10. PERFORM AUDIBILITY TESTS AS PER ONTARIO FIRE CODE (MINIMUM 65DBA, MAXIMUM 100DBA THROUGHOUT) AND PROVIDE REPORT TO THE CONSULTANT. ALL SPACES WITHIN THE PROJECT AREA MUST BE TESTED. DOORS SHALL BE CLOSED DURING TESTING. CONTRACTOR AND VERIFIER TO ALLOW FOR SYSTEM MODIFICATIONS AND REVERIFICATIONS AS REQUIRED TO MEET AUDIBILITY REQUIREMENTS.
11. PROVIDE VERIFICATION REPORT AND AUDIBILITY TESTS TO THE CONSULTANT FOR REVIEW. SUBMIT FINAL COPY OF REPORT TO THE BUILDING DEPARTMENT/FIRE PREVENTION.
12. ARRANGE FOR A SITE INSPECTION BY THE BUILDING DEPARTMENT/FIRE PREVENTION, CONSULTANT AND ESA AT COMPLETION OF THE PROJECT FOR FINAL ACCEPTANCE. PERFORM ADDITIONAL AUDIBILITY TESTS AS REQUESTED.

**ELECTRICAL NOTES:**

- 1. ALL WORK SHALL CONFORM TO ESA REQUIREMENTS.
2. PROVIDE CHAINS FOR ALL LIGHT FIXTURES. CHAINS SHALL BE PROVIDED AT ALL FOUR CORNERS.
3. BOND ALL METALLIC WATER, DRAIN AND GAS PIPING AS PER ESA REQUIREMENTS.
4. PROVIDE JUNCTION BOXES C/W COVERPLATES AS REQUIRED.
5. COORDINATE INSTALLATION WITH ALL OTHER TRADES.
6. REFER TO "EMT (ELECTRICAL METALLIC TUBING) vs. LIQUIDTIGHT vs. FLEXIBLE CABLE" FOR ACCEPTABLE USE OF EACH.
7. EMT AND BOXES SHALL BE SIZED ACCORDING TO CODE REQUIREMENT BASED ON THE NUMBER OF CONDUCTORS.
8. FOR EMT AND/OR CONDUITS BENDS GREATER THAN OR EQUAL TO 270°, A PULL BOX MUST BE PROVIDED.
9. ALL EMT (ELECTRICAL METALLIC TUBING) SHALL BE FIRMLY FASTENED IN PLACE SO AS TO SUPPORT THE WEIGHT OF CONDUIT AND TO PREVENT ANY STRAIN OR STRESS AT TERMINATIONS ACCORDING TO ELECTRICAL CODE 12-1010.
10. CONTRACTORS SHALL ATTEMPT TO FISH NEW FEEDS DOWN EXISTING WALLS WHERE THIS IS NOT POSSIBLE (ONLY), SURFACE INSTALLATION IS ACCEPTABLE ON EXISTING BLOCK WALLS IN FINISHED AREAS AS FOLLOWS:
1. BOXES SHALL BE SHALLOW WIRE MOLD BOX WITH NO KNOCKOUTS.
2. CONDUIT SHALL BE WIRE MOLD. COLOUR TO BE WHITE.
11. CONCEAL ALL EMT (ELECTRICAL METALLIC TUBING) AND COMPONENTS IN CEILING SPACE OR WALLS. RUN TIGHT TO ROOF DECK OR FLOOR ABOVE WHERE CEILING IS EXPOSED. RUN TIGHT TO WALL OR COLUMN WHERE WALLS ARE EXPOSED.
12. WHERE EMT RUNS HORIZONTALLY ACROSS WALL STUDS, NOTCHES SHOULD BE CUT AND PROTECTED BY STEEL PLATES.
13. MOUNTING HEIGHTS
1. MOUNT NEW CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO, P.A. CALL SWITCHES, LIGHT SWITCHES NO LESS THAN 36" (900mm) A.F.F. TO BOTTOM OF BOX AND 43"(1100mm) MAXIMUM A.F.F. TO TOP OF BOX, UNLESS OTHERWISE NOTED.
2. MOUNT NEW RECEPTACLES 16" (400mm) A.F.F. UNLESS OTHERWISE NOTED.
3. THERMOSTATS TO BE MOUNTED 47"(1200mm).
4. SPACE SENSORS SHALL BE MOUNTED 59"(1500mm)
14. RECEPTACLES LOCATED WITHIN 5'(1.5m) OF A DAMP OR WET LOCATION SHALL BE GROUND FAULT CIRCUIT INTERRUPTER TYPE.
15. CONTRACTOR TO ALLOW FOR THE RELOCATION OF ANY RECEPTACLE OR DEVICE/EQUIPMENT CONNECTION WITHIN 10' OF LOCATION SHOWN AT NO EXTRA COST.
16. DEVICE COVER PLATES SHALL BE STAINLESS STEEL IN ALL AREAS.
17. BRANCH CIRCUIT BREAKER AMPERE INTERRUPTING CAPACITY TO MATCH BUS RATING. PROVIDE 10% SPARE FOR FUTURE.
18. MAXIMUM VOLTAGE DROP IN BRANCH CIRCUITS TO BE 3%. CONDUCTORS SHALL BE OVERSIZED TO SUIT VOLTAGE DROP WHERE APPLICABLE.
19. CONDUCTORS TO BE COPPER UNLESS OTHERWISE NOTED. CONDUCTORS IN RACEWAYS SHALL BE T75 NYLON (T90 ACCEPTABLE IF DERATED AS PER OESC). ALL CONDUCTORS SHALL BE MINIMUM #10AWG FOR EMERGENCY BATTERY CIRCUITS AND EXTERIOR LIGHTING. #14AWG FOR CONTROL WIRING AND MINIMUM #12AWG FOR ALL OTHER APPLICATIONS.
20. ALL WIRE SIZES INDICATED ON DRAWINGS ARE BASED ON A 75°C TERMINATION TEMPERATURE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE TERMINATION TEMPERATURE OF EACH DEVICE AND MODIFY THE WIRE SIZE TO SUIT OR NOTIFY ENGINEER FOR DIRECTION.
21. IDENTIFY EACH WIRE AND CABLE AT EVERY TERMINATION POINT. IDENTIFY ALL EMT AND/OR CONDUITS WITH "NEAT" COLOUR BANDS AT NO MORE THAN 25'(7.5m) INTERVALS AND ON BOTH SIDES OF WALLS & FLOOR.
22. NON-CURRENT CARRYING METAL PARTS FOR FIXED EQUIPMENT SHALL BE BONDED TO GROUND. INSTALL SEPARATE BONDING IN LIQUIDTIGHT CONDUITS.
23. DISCONNECT SWITCHES FOR HVAC EQUIPMENT MUST BE INSTALLED WITHIN 10' (3m).
24. MOTORS OTHER THAN AIR CONDITIONERS MUST HAVE DISCONNECT WITHIN SIGHT AND 30' (9m) OF THE MOTOR AND/OR STARTER.
25. FIRE STOP ALL EXISTING AND NEW CONDUIT THROUGH FIRE SEPARATIONS.
26. ARRANGE FOR ESA INSTALLATION PERMIT AND INSPECTION AND FORWARD A COPY OF THE ESA CERTIFICATE TO THE ENGINEER UPON ACCEPTANCE (INCLUDING FIRE ALARM LISTED AS A SEPARATE ITEM). ARRANGE AND PAY FOR OCCUPANCY PERMIT IF FINAL INSPECTION CANNOT BE SCHEDULED BY COMPLETION DATE SET FORTH IN TENDER DOCUMENTS.

**EMT vs. LIQUIDTIGHT vs. FLEXIBLE CABLE**

- EMT (ELECTRICAL METALLIC TUBING) MUST BE USED IN THE FOLLOWING INDOOR APPLICATIONS:
1. ALL EXPOSED AREAS (USE WIREMOLD ON EXPOSED WALLS IN FINISHED AREAS WHERE EXPOSED WIRING HAS BEEN APPROVED).
2. T-BAR CEILING SPACES.
LIQUIDTIGHT MUST BE USED IN THE FOLLOWING INDOOR AND OUTDOOR APPLICATIONS:
1. LAST 5' (1.5m) FOR FINAL CONNECTION TO INDOOR MECHANICAL EQUIPMENT. LIQUID TIGHT CONDUIT IN CEILING SPACE MUST BE PLENUM RATED.
2. ALL OUTDOOR WIRING.
FLEXIBLE CABLE IS ONLY ACCEPTABLE IN THE FOLLOWING INDOOR APPLICATIONS:
1. LAST 5' (1.5m) FOR FINAL CONNECTION TO LIGHTING AND SMALL EQUIPMENT/COMPONENTS IN CEILING SPACES. DAISY CHAIN OF LUMINAIRES IS NOT ALLOWED.
2. LAST 5'(1.5m) FOR FINAL CONNECTION TO MECHANICAL EQUIPMENT LOCATED IN CEILING SPACE OR ON ROOF.
3. FISHED DOWN IN EXISTING WALL(S). FLEXIBLE CABLE IN NOT PERMITTED IN NEW WALL(S).

**P.A. SYSTEMS**

- 1. ELECTRICAL CONTRACTOR TO CARRY OUT ALL WORK ASSOCIATED WITH P.A. SYSTEM INCLUDING BUT NOT LIMITED TO DEVICES, BACK BOXES, CONDUIT, WIRING, TESTING AND VERIFICATION.
2. EXISTING SYSTEM IS SIMPLEX.
3. ANY NEW DEVICES TO MATCH EXISTING SYSTEM. PROVIDE SHOP DRAWINGS FOR REVIEW.
4. ALL P.A. WIRING TO RUN BACK TO MAIN CONTROL PANEL AS NOTED.
5. PROVIDE AS-BUILT MARKUPS OF ANY NEW DEVICES AND ANY NEW JUNCTION BOXES PROVIDED TO SUIT.
6. ALL WIRING TO BE CAT3 FT4 RATED AND INSTALLED IN CONDUIT. WHERE IT IS NOT POSSIBLE TO INSTALL IN CONDUIT, PROVIDE J-HOOKS AND RUN FT6 RATED CABLE. J-HOOK SPACING AS PER MANUFACTURER RECOMMENDATIONS. SUPPORT ALL J-HOOKS FROM BUILDING STRUCTURE. J-HOOKS SHALL BE SUPPORTED INDEPENDENT OF ALL OTHER SERVICES.
7. CONFIRM ALL NECESSARY WIRING REQUIREMENTS WITH MANUFACTURER AND DDSB.
8. INSTALL ALL P.A. SYSTEM DEVICES I.E. P.A. SPEAKERS AND WIRING TO DDSB STANDARDS.
9. SPEAKERS SHALL BE VALCOM 2X2 LAY-IN CEILING SPEAKER W/ BACKBOX WHITE SQUARE GRILL AND 25 VOLT TRANSFORMERS. SPEAKERS TO BE TAPPED TO 1 WATT. SPEAKER WITHOUT GRILL IS V-9022.
10. ALLOW FOR REPROGRAMMING ENTIRE SYSTEM TO SUIT NEW ROOM NUMBERING AS PER ARCHITECTURAL DRAWINGS. CONFIRM ROOM NUMBERING IS FINALIZED WITH ARCHITECT AND CLIENT PRIOR TO REPROGRAMMING SYSTEM.
11. CONTRACTOR MUST PROVIDE INSPECTION, INITIAL TEST, REQUIRED ADJUSTMENTS, COMMISSIONING VERIFICATION AND CERTIFICATION OF ALL EXISTING CIRCUITS MODIFIED AND ALL NEW CIRCUITS.
12. SUBMIT REPORT TO CONSULTANT AND INCLUDE IN MANUAL.
13. COST OF SUB-CONTRACTOR TO BE CARRIED UNDER CASH ALLOWANCE. APPROVED SUB-CONTRACTORS: ANY CERTIFIED SIMPLEX CONTRACTOR OR CONTRACTOR WITH SIMPLEX SYSTEM EXPERIENCE.

**LED LAMP & BALLAST SPECIFICATION**

- 1. LED LAMPS.
1.1. ALL LAMPS MUST BE OF GLASS CONSTRUCTION.
1.2. LAMPS MUST HAVE MINIMUM 220° BEAM ANGLE.
1.3. LUMEN OUTPUT MUST BE MINIMUM 2000 LUMENS.
1.4. LAMPS MUST BE ABLE TO BE INSTALLED IN LUMINAIRE HOUSING WITHOUT ANY MODIFICATIONS REQUIRED TO BE MADE TO HOUSING.
1.5. MAXIMUM LAMP WATTAGE TO BE 16W.
1.6. COLOUR TEMPERATURE TO BE 4100K.
1.7. LAMPS MUST BE RATED FOR 50,000 HOURS LIFE SPAN BASED ON L70.
1.8. LAMPS MUST BE DLC LISTED FOR APPLICABLE ENERGY GRANTS.
1.9. WARRANTY: MINIMUM 5 YEAR.
1.10. APPROVED PRODUCT: SYLVANIA LED13T8/L48/DIM/841/SUB/G6
1.11. ALTERNATES: NONE
2. BALLAST
2.1. BALLAST MUST BE ON LED LAMP MANUFACTURER'S APPROVED BALLAST COMPATIBILITY LIST. NO ADDITIONAL COSTS WILL BE INCURRED FOR USING NON-APPROVED BALLAST/LAMP CONFIGURATIONS.
2.2. BALLAST MUST BE INSTANT START OR PROGRAM-START.
2.3. THD < 20% AND POWER FACTOR > 0.90.
2.4. WARRANTY: MINIMUM 5 YEARS.
2.5. APPROVED PRODUCT: SYLVANIA QHEX232T8/UNV ISN
2.6. ALTERNATES: NONE

**COMMUNICATIONS SCOPE OF WORK/SPECS:**

- 1. ELECTRICAL CONTRACTOR RESPONSIBLE FOR OBTAINING THE SERVICES OF A QUALIFIED COMMUNICATION CONTRACTOR TO CARRY OUT ALL WORK ASSOCIATED WITH TELEPHONE AND DATA SYSTEMS INCLUDING BUT NOT LIMITED TO DEVICES, WIRING, TESTING AND VERIFICATION.
2. ELECTRICAL CONTRACTOR RESPONSIBLE FOR PROVIDING ALL INFRASTRUCTURE FOR COMMUNICATION CABLING INCLUDING BUT NOT LIMITED TO BACK BOXES, CONDUIT UP WALL WITH PULL STRING AND INSULATING BUSHINGS, AND CONDUIT INFRASTRUCTURE IN CEILING SPACE INCLUDING JUNCTION BOXES, CONDUIT STUBS AS REQUIRED.
3. COMMUNICATION CONTRACTOR RESPONSIBLE FOR ALL DEMOLITION WORK. CONTRACTOR TO INVESTIGATE EXISTING SERVICES PRIOR TO DEMOLITION TO ENSURE DESIGN INTENT IS FEASIBLE. ADVISE CONSULTANT OF ANY ISSUES.
4. ALL COMMUNICATION CABLING SHALL BE RUN USING J-HOOKS. SPACING AS PER MANUFACTURERS RECOMMENDATIONS. SUPPORT ALL J-HOOKS FROM BUILDING STRUCTURE. J-HOOKS SHALL BE SUPPORTED INDEPENDENT OF ALL OTHER SERVICES.
5. EXISTING SYSTEM SHOULD BE BASED ON PANDUIT STRUCTURED CABLING SYSTEM. ALL NEW DEVICES AND CABLE SHALL BE PANDUIT. MAXIMUM HORIZONTAL CABLE RUN LENGTH TO NOT EXCEED 300'.
6. ALL CABLING MUST BE PANDUIT 24AWG CAT6 4 PAIR FT6 RATED. CATEGORY MARKING SHALL BE PRINTED EVERY FOOT. JACKET SHALL BE PRINTED WITH TRU-MARK 1000' TO 0' MARKING SYSTEM WITH BLUE OUTER SHEATH FOR DATA AND GREY OUTER SHEATH FOR VOICE.
7. FACEPLATES SHALL BE ABLE TO MOUNT ONE/TWO/THREE/FOUR OR SIX JACKS IN A SINGLE GANG AND SIX OR NINE JACKS IN A DOUBLE GANG.
8. JACKS SHALL BE 8-POSITIONED UN-KEYED WITH 94 VO RATING. ALL DROPS MUST BE CLEARLY LABELED ON THE PATCH PANEL AND CABLE BOX. PROVIDE YELLOW FOR VOICE AND GREEN FOR DATA.
9. PROVIDE 4' AND 6' CAT6 PATCH CABLES AT WORK STATION END AS REQUIRED TO SUIT INSTALLATION. COORDINATE WITH DDSB.
10. ANY HORIZONTAL EXPOSED CABLE SHALL BE RUN IN WIREMOLD 500/700 SERIES UNLESS OTHERWISE SPECIFIED.
11. CONTRACTOR TO TEST ALL DATA AND PHONE DROPS AND SUBMIT REPORT TO CONSULTANT. REPORT SHALL BE INCLUDED IN MAINTENANCE MANUAL.
12. COMMUNICATION CONTRACTOR TO PROVIDE ONE YEAR WARRANTY ON ALL MATERIAL AND LABOUR.
13. APPROVED SUB-CONTRACTOR: ANY CERTIFIED PANDUIT COMMUNICATION CONTRACTOR



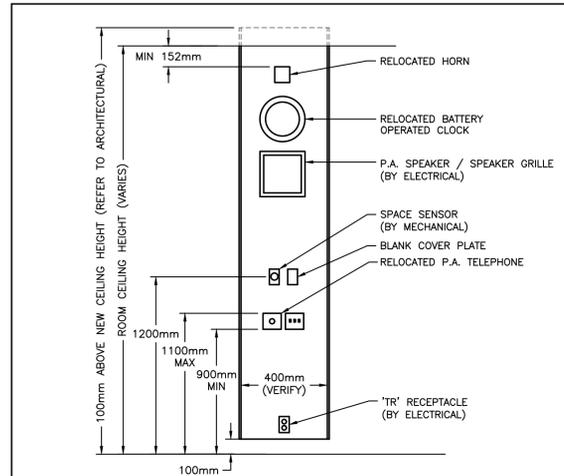
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CIMA+ JOB No.: C14-0573 DWG SIZE: D

Table with 3 columns: Issue No., Description, Date. Row 1: 3 ISSUED FOR TENDER APR 24 2023. Row 2: 2 ISSUED FOR PERMIT APR 18 2023. Row 3: 1 ISSUED FOR CLIENT REVIEW APR 4 2023.

Revisions, Issues

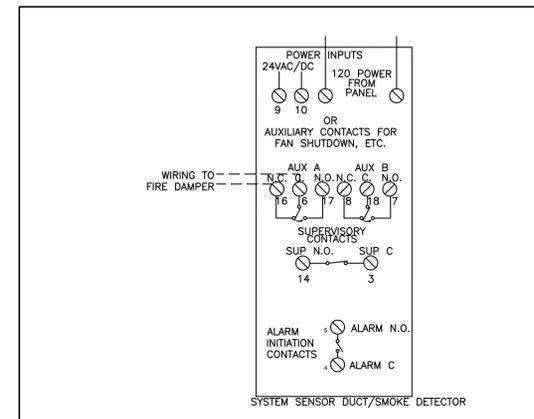
Project: Renovations - Phase 2
R S McLAUGHLIN CVI
570 STEVENSON ROAD NORTH
OSHAWA, ON L1J 5P1
Title: NOTES
Scale: NTS Date: APRIL 2023 Drawing: E802
Project: 21-60B Drawn By: RJC

DATE PLOTTED: --



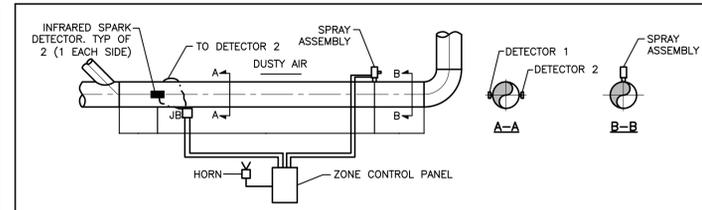
**NOTE:**  
DETAIL IS FOR GENERAL LAYOUT OF ALL DEVICES SHOWN. REFER TO FLOOR PLAN DRAWINGS FOR ACTUAL DEVICES REQUIRED FOR EACH CONTROL PANEL.

**CONTROL PANEL DETAIL (SUPPLIED BY GENERAL)**  
NTS



- NOTES:**
- COORDINATE ALL REQUIREMENTS WITH ALL PARTIES. THIS DETAIL APPLIES TO BOTH DUCT MOUNTED AND REGULAR SMOKE DETECTORS.
  - CONTRACTOR TO TEST OPERATION AND ENSURE DAMPERS CLOSE. CONTRACTOR TO PROVIDE A LETTER INDICATING TEST OF DAMPER CONTROL AND OPERATION.
  - DAMPERS MUST HAVE CONTINUOUS POWER TO REMAIN OPEN. DAMPERS TO CLOSE WHEN SMOKE IS DETECTED.
  - PROVIDE REMOTE TEST STATION RTS151KEY FOR TESTING AND RESET OF DUCT SMOKE DETECTOR AND DAMPER. MOUNT AT AN ACCESSIBLE LOCATION BELOW DAMPER AND PROVIDE LAMACOID NAMEPLATE TO IDENTIFY SWITCH.

**DUCT/SMOKE SMOKE FIRE DAMPER CONTROL DETAIL**  
NTS



MAX AIR FLOW = 4,785 cfm  
DUCT DIAMETER = 15"Ø (330mm)  
DUCT VELOCITY = 3,900 fpm  
Dc = 5" MIN.  
Ds = 20' MIN.  
Db = 15" MIN (2.5 TIMES LAST BRANCH DIAMETER)

**NOTE:** CONFIRM ACTUAL DUCT VELOCITY PRIOR TO INSTALLATION OF DEVICES.

- HANSENTEK AN104 SPARK DETECTION SYSTEM (EXISTING)**
- 1Ø AN104 ZONE CONTROL PANEL
  - 2Ø 120-1 INFRA-RED SPARK DETECTOR C/W MOUNTING PLATES
  - 1Ø 910-1 24V ALARM HORN
  - 1Ø 940-1 4.5A HOUR BATTERIES
  - 1Ø 901-1 NOZZLE/VALVE SPRAY ASSEMBLY

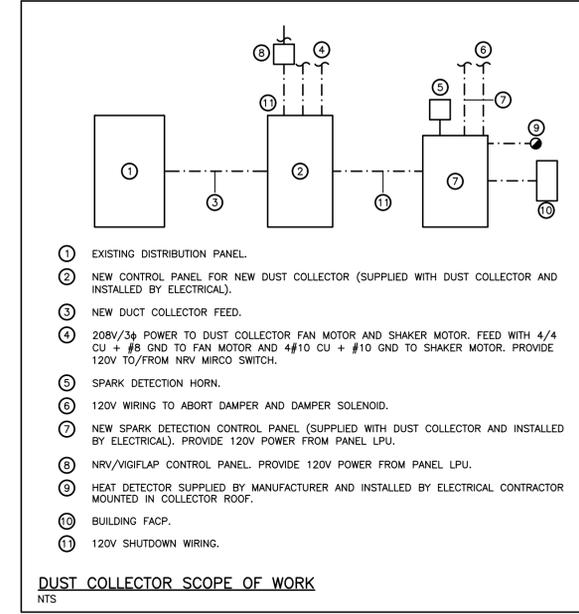
**MECHANICAL WORK:**

- INSTALL AS PER MANUFACTURER'S REQUIREMENTS.
- INSTALL DETECTORS(2) AND SPRAY ASSEMBLY(1) IN DUCTWORK.
- PROVIDE WATER SUPPLY TO SPRAY NOZZLE C/W SUPERVISORY VALVE AND FLOW SWITCH.
- THE WATER PRESSURE AT THE VALVE MUST BE MINIMUM 50 PSI AND MUST NOT EXCEED 100 PSI. THE WATER SUPPLY MUST DELIVER A MINIMUM OF 19 US GALLONS PER MINUTE PER NOZZLE. A PRESSURE REDUCER MUST BE USED IF WATER PRESSURE IS GREATER THAN 100 PSI.
- PIPING MUST CONFORM TO ASTM AND NFPA STANDARDS. MINIMUM WATER SUPPLY LINE FOR A SINGLE NOZZLE IS 1" (25mm).
- CONTRACTOR SHALL PERFORM AND SUBMIT CALCULATIONS.
- PIPE FITTINGS MUST CONFORM TO NFPA.
- DUST COLLECTING OR CONVEYANCE DUCT VELOCITIES MUST BE CONFIRMED PRIOR TO SPARK DETECTION INSTALLATION. SUBMIT RESULTS TO CONSULTANT.
- WORK WITH ELECTRICAL CONTRACTOR TO TEST COMPLETE SYSTEM AND ALL DEVICES. SUBMIT REPORTS.

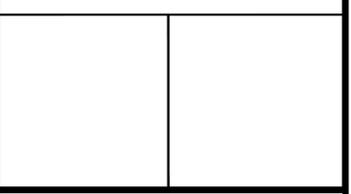
**ELECTRICAL WORK:**

- INSTALL AS PER MANUFACTURER'S REQUIREMENTS.
- INSTALL DUST COLLECTOR CONTROL PANEL.
- SUPPLY AND INSTALL DISCONNECTS AND ALL REQUIRED ELECTRICAL DEVICES.
- GROUND ALL PANELS, ENCLOSURES, CONDUIT, DUCTWORK AND DEVICES.
- PROVIDE ALL LINE VOLTAGE WIRING TO DETECTION PANEL AND ASSOCIATED DEVICES. RUN ALL WIRING IN CONDUIT. RUN ALL WIRING TO MEET ESA AND NATIONAL ELECTRICAL CODES.
  - 1 120V TO ABORT DAMPER INSTALLED THROUGH SPARK DETECTION PANEL.
  - 2 120V TO ABORT DAMPER SOLENOID FROM SPARK DETECTION PANEL CONTACTS.
  - 3 120V TO NRV MICRO SWITCH FROM DUST COLLECTOR PANEL CONTACTS.
  - 4 120V TO NRV MICRO SWITCH FROM DUST COLLECTOR PANEL CONTACTS.
  - 5 FIRE ALARM WIRING FROM DETECTION PANEL AND FIRE ALARM DEVICES TO EXISTING FIRE ALARM CONTROL PANEL AS SEPARATE ZONE.
- ALL WIRING TO ABORT DAMPERS AND STARTERS MUST BE FED FROM A SEPARATE DEDICATED ELECTRICAL CIRCUIT. NO OTHER ELECTRICAL CAN BE FED FROM THE CIRCUIT BREAKER THAT IS BEING USED BY THE SPARK DETECTION PANEL.
- A CLEAN UNINTERRUPTED SOURCE OF 115VAC MUST BE USED FOR THE SPARK DETECTION PANEL. THE CIRCUIT BREAKER MUST BE DEDICATED TO THE SPARK DETECTION SYSTEM AND MUST BE LOCKABLE.
- TEST COMPLETE SYSTEM AND ENSURE WOOD SHOP EQUIPMENT DOES NOT START WHEN DUST COLLECTOR IS NOT OPERATIONAL. SUBMIT TEST REPORT FOR ALL EQUIPMENT AND DEVICES.

**SPARK DETECTION SYSTEM DETAIL**  
NTS



**DUST COLLECTOR SCOPE OF WORK**  
NTS



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No.	DESCRIPTION	DATE
3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title: DETAILS		
Scale: NTS	Date: APRIL 2023	Drawing: E901
Project: 21-60B	Drawn By: RJC	

**EXISTING PANEL U**  
EXISTING MANUFACTURER SQUARE D TYPE NQDD  
225A, 42 CIRCUIT, 3φ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER  
PANEL BOARD WITH MAIN LUGS ONLY

DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
DUST FILTERS	15A	1	2	15A		DUST FILTERS
LIGHTS 1ST ROW	20A	3	4	15A		LIGHTS 2ND ROW
LIGHTS	15A	5	6	15A		LIGHTS 1ST HIGHT BAYS ROW
FAN	15A	7	8	15A		MITRE SAW
RECEPTACLES, WEST WALL	15A	9	10	15A		RECEPTACLES, SOUTH WALL
RECEPTACLES, WEST WALL	15A	11	12	15A		RECEPTACLES, NORTH WALL
RECEPTACLES, WEST WALL/DRILL PRESS	15A	13	14	15A		RECEPTACLES, SOUTH WALL CENTRE
KING JOINTER	15A 2P	15 17	16 18	20A 2P		TABLE SAW (SOUTH BY PLANNER)
SAW STOP REAR-EAST	20A 2P	19 21	20 22	15A		SHOP POWER CONTROL
DUST COLLECTOR	30A	23	24	15A		RECEPTACLES (DRILL PRESS)
SAW STOP REAR-WEST	20A 2P	25 27	26 28	15A		RECEPTACLES & CNC ROUTER
PROJECTOR + TEACHERS PLUG HANGING	15A	29	30	15A		RECEPTACLES

**EXISTING PANEL W**  
EXISTING MANUFACTURER SQUARE D TYPE NQDD  
225A, 30 CIRCUIT, 3φ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER  
PANEL BOARD WITH MAIN LUGS ONLY

+ DENOTES MISLABELED CIRCUIT. CONTRACTOR TO VERIFY LOAD

DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
LIGHTING	15A	1	2	15A		LIGHTING
LIGHTING	15A	3	4	15A		LIGHTING
LIGHTING	15A	5	6	15A		LIGHTING
RECEPT. WEST WALL	15A	7	8	15A+		UNKNOWN
RECEPT. EAST WALL	15A	9	10	15A		JOHNSON CONTROL
TEACHER'S RECEIPT	15A	11	12			
		13	14			
		15	16			
		17	18			
		19	20			
		21	22			
		23	24			
		25	26			
		27	28			
		29	30			

**EXISTING PANEL T**  
EXISTING MANUFACTURER SQUARE D TYPE NQDD  
225A, 42 CIRCUIT, 3φ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER  
PANEL BOARD WITH MAIN LUGS ONLY

+ DENOTES MISLABELED CIRCUIT. CONTRACTOR TO VERIFY LOAD

DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
LIGHTING 253A	15A	1	2	15A		LIGHTING 253
LIGHTING 253A	15A	3	4	15A		LIGHTING 253
LIGHTING 253A	15A	5	6	15A		LIGHTING 253
DISPLAY CABINET OUTLETS	15A	7	8	15A		RECEPTS SOUTH W.
RM 253 RECEPT NORT W	15A	9	10	15A		RM 250 RECEPTS 20A
HEATING: 253' & 253A UNIT HEATER	15A	11	12			
REC BACK OF ROOM	15A	13	14			
RM 250 HEAT	15A	15	16			
UNKNOWN	15A+	17	18			
UNKNOWN	15A+	19	20			
		21	22			
		23	24			
		25	26			
		27	28			
		29	30			

**REVISED PANEL U**  
EXISTING MANUFACTURER SQUARE D TYPE NQDD  
225A, 42 CIRCUIT, 3φ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER  
PANEL BOARD WITH MAIN LUGS ONLY

DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
DUST FILTERS	15A	1	2	15A		DUST FILTERS
LIGHTS 1ST ROW	20A	3	4	15A		LIGHTS 2ND ROW
LIGHTS	15A	5	6	15A		LIGHTS 1ST HIGHT BAYS ROW
FAN	15A	7	8	15A		MITRE SAW
RECEPTACLES, WEST WALL	15A	9	10	15A		RECEPTACLES, SOUTH WALL
RECEPTACLES, WEST WALL	15A	11	12	15A		RECEPTACLES, NORTH WALL
RECEPTACLES, WEST WALL/DRILL PRESS	15A	13	14	15A		RECEPTACLES, SOUTH WALL CENTRE
KING JOINTER	15A 2P	15 17	16 18	20A 2P		TABLE SAW (SOUTH BY PLANNER)
SAW STOP REAR-EAST	20A 2P	19 21	20 22	15A		SHOP POWER CONTROL
<b>SPARK DETECTION PANEL</b>	30A	23	24	15A		RECEPTACLES (DRILL PRESS)
SAW STOP REAR-WEST	20A 2P	25 27	26 28	15A		RECEPTACLES & CNC ROUTER
PROJECTOR + TEACHERS PLUG HANGING	15A	29	30	15A		RECEPTACLES/NRV PANEL

**REVISED PANEL W**  
EXISTING MANUFACTURER SQUARE D TYPE NQDD  
225A, 30 CIRCUIT, 3φ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER  
PANEL BOARD WITH MAIN LUGS ONLY

++ DENOTES NEW BREAKER REQUIRED

DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
LIGHTING	15A	1	2	15A		LIGHTING
LIGHTING	15A	3	4	15A		LIGHTING
LIGHTING	15A	5	6	15A		LIGHTING
RECEPT. WEST WALL	15A	7	8	15A+		UNKNOWN
RECEPT. EAST WALL	15A	9	10	15A		JOHNSON CONTROL
TEACHER'S RECEIPT	15A	11	12	15A++		CONTROL ROOM PRINTERS
CONTROL ROOM PRINTERS	15A++	13	14	15A++		CONTROL ROOM PRINTERS
TECH OFFICE RECEPTACLES	15A++	15	16	15A++		TECH OFFICE RECEPTACLES
TECH OFFICE RECEPTACLES	15A++	17	18	15A++		EF-2249
FRIDGE	15A++	19	20	20A++		MICROWAVE
COUNTER REC TECH OFFICE	20A++	21	22			
		23	24			
		25	26			
		27	28			
		29	30			

**REVISED PANEL T**  
EXISTING MANUFACTURER SQUARE D TYPE NQDD  
225A, 42 CIRCUIT, 3φ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER  
PANEL BOARD WITH MAIN LUGS ONLY

\* DENOTES GFI BREAKER REQUIRED  
+ DENOTES MISLABELED CIRCUIT. CONTRACTOR TO VERIFY LOAD

DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
LIGHTING 253A	15A	1	2	15A		LIGHTING 253
LIGHTING 253A	15A	3	4	15A		LIGHTING 253
LIGHTING 253A	15A	5	6	15A		LIGHTING 253
DISPLAY CABINET OUTLETS	15A	7	8	15A		RECEPTS SOUTH W.
EF-2253	15A	9	10	15A		RM 250 RECEPTS 20A
EF-2250	15A	11	12	20A++		TREADMILL
REC BACK OF ROOM	15A	13	14	20A++		TREADMILL
RM 250 HEAT	15A	15	16	20A++		TREADMILL
UNKNOWN	15A	17	18	20A++		TREADMILL
UNKNOWN	15A	19	20	20A++		TREADMILL
BOTTLE FILLER	15A++	21	22	20A++		TREADMILL
RECEPTACLES ROOM 2253	15A++	23	24	15A++		RECEPTACLES ROOM 2250
RECEPTACLES ROOM 2253	15A++	25	26	15A++		SMOKE FIRE DAMPERS
UNIT HEATERS 2253	20A++	27	28	15A++		SMOKE FIRE DAMPERS
DIVIDER CURTAIN	20A++	29	30	15A++		SMOKE FIRE DAMPERS



**CIMA+ DES**

415 BASELINE ROAD WEST  
BOWMANVILLE, ON L1C 5M2  
T 905.697.4464  
www.cima.ca

CIMA+ JOB No.: C14-0573 DWG SIZE: D

3	ISSUED FOR TENDER	APR 24 2023
2	ISSUED FOR PERMIT	APR 18 2023
1	ISSUED FOR CLIENT REVIEW	APR 4 2023
No.	DESCRIPTION	DATE

Revisions, Issues

Project:  
**Renovations - Phase 2**  
**R S McLAUGHLIN CVI**  
570 STEVENSON ROAD NORTH  
OSHAWA, ON L1J 5P1

Title:  
**PANEL SCHEDULES**

Scale: NTS	Date: APRIL 2023	Drawing: E902
Project: 21-60B	Drawn By: RJC	