1.1.1. NATIONAL BUILDING CODE, NBC 2015.

1.1.2. PLUMBING CODE OF CANADA 2010

1.1.3. CAN/CSA-B149.1-15 NATURAL GAS AND PROPANE INSTALLATION CODE.

1.1.4. LOCAL AUTHORITY HAVING JURISDICTION.

1.1.5. NFPA 10-2002 PORTABLE FIRE EXTINGUISHERS.

1.1.6. ULC STANDARDS 1.2. PRIOR TO SUBMITTING TENDERS, EACH TRADE SHALL EXAMINE THE SITE TO DETERMINE THE CONDITIONS WHICH MAY AFFECT THE PROPOSED WORK. NO CLAIM FOR EXTRA PAYMENT WILL BE

CONSIDERED BECAUSE OF FAILURE TO FULFILL THIS CONDITION. START OF WORK WILL BE DEEMED EVIDENCE OF ACCEPTANCE OF, AND SATISFACTION WITH, EXISTING CONDITIONS. 1.3. THE DRAWINGS SHALL BE CONSIDERED TO SHOW THE GENERAL CHARACTER AND SCOPE OF THE WORK AND NOT THE EXACT DETAILS OF THE INSTALLATION. THE INSTALLATION SHALL BE COMPLETE WITH ALL ACCESSORIES AND SUPPORTS REQUIRED FOR A COMPLETE AND OPERATIVE INSTALLATION. THESE MECHANICAL DRAWINGS MUST BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, STRUCTURAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.

1.4. THE MECHANICAL CONTRACTOR SHALL COORDINATE THE WORK WITH ALL OTHER TRADES AND THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR COMMUNICATING SAFETY REQUIREMENTS TO ITS EMPLOYEES AND COMPLY WITH OCCUPATIONAL HEALTH AND SAFETY ACT.

1.5. ARRANGE, COORDINATE AND PAY ALL REQUIRED FEES AND PERMITS. SUBMIT DRAWINGS AND SPECIFICATIONS TO ALL AUTHORITIES AND OBTAIN APPROVAL BEFORE COMMENCING ANY WORK. PAY FOR FEES AND CHARGES LEVIED BY THE MUNICIPALITY, UTILITIES AND OTHER GOVERNING AUTHORITY FOR PERMITS, INSPECTIONS AND CERTIFICATES, AND WORK PERFORMED BY THE MUNICIPALITY OR UTILITIES IN CONNECTION WITH THE MECHANICAL WORK. ARRANGE AND COORDINATE SUCH WORK AND OBTAIN PERMITS. KEEP A COPY OF ALL SUCH PERMITS AND CERTIFICATES ON THE JOB SITE DURING THE PROJECT DURATION.

1.6. WORKMANSHIP AND MATERIALS SHALL MATCH OR EXCEED THAT OF THE EXISTING.

1.7. ALL WORK TO BE CONDUCTED DURING HOURS SPECIFIED BY THE PROJECT MANAGER. NO DISRUPTION TO BUILDING OPERATIONS WILL BE ALLOWED WITHOUT PRIOR APPROVAL OF THE OWNER. ALL CHANGES AND CONNECTIONS TO EXISTING SERVICES, REQUIRING THE SHUTDOWN OF THAT SERVICE SHALL BE DONE AT A TIME DESIGNATED BY THE PROJECT MANAGER. ALLOW FOR PREMIUM TIME

1.8. CAREFULLY REMOVE EQUIPMENT TO BE REUSED OR HANDED OVER TO THE OWNER. STORE EQUIPMENT FOR RE-INSTALLATION. RELOCATE ANY PIPING, DUCTWORK, OR EQUIPMENT INTERFERING WITH

1.9. THE CONTRACTOR SHALL AT ALL TIMES KEEP PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIAL TO THE SATISFACTION OF THE PROJECT MANAGER. THE CLEANING OF THE AFFECTED

AREA SHALL BE CONTINUOUS. PLACE DUST PROTECTION IN THE FORM OF COVER SHEETS OVER EQUIPMENT AND FURNITURE TO ENSURE NO DUST INFILTRATION. 1.10. MANUFACTURER'S INSTRUCTIONS REGARDING THE HANDLING, INSTALLATION AND TESTING OF EQUIPMENT SPECIFIED HEREIN SHALL BE CONSIDERED PART OF THIS SPECIFICATION.

1.11. SUPPLY TOOLS, EQUIPMENT AND PERSONNEL TO DEMONSTRATE AND INSTRUCT OPERATING AND MAINTENANCE PERSONNEL IN OPERATING, CONTROLLING, ADJUSTING, TROUBLESHOOTING AND

SERVICING OF ALL SYSTEMS AND EQUIPMENT DURING REGULAR WORK HOURS, PRIOR TO ACCEPTANCE. 1.12. MECHANICAL CONTRACTOR SHALL OBTAIN AND PAY FOR HOISTING OF MECHANICAL EQUIPMENT. COORDINATE HOISTING SCHEDULE WITH PROJECT MANAGER. ARRANGE AND PAY FOR ANY

1.13. INSPECT ALL EQUIPMENT UPON DELIVERY AND NOTIFY PROJECT ENGINEER OF ANY DAMAGE OR DEFICIENCIES.

1.14. SUBMIT ONE (1) COPY OF SHOP DRAWINGS AND PRODUCT DATA IN ELECTRONIC PDF FORMAT OF ALL SPECIFIED EQUIPMENT & SYSTEMS. HARD COPY SHOP DRAWINGS WILL NOT BE ACCEPTED. CERTIFY THAT SHOP DRAWINGS HAVE BEEN REVIEWED BY GENERAL CONTRACTOR PRIOR TO SUBMITTING TO CONSULTANT FOR REVIEW. REVIEWED ELECTRONIC SHOP DRAWINGS WILL BE RE-DISTRIBUTED AS PER PROJECT MANAGER'S INSTRUCTIONS.

1.15. ALL EQUIPMENT, PIPING, DUCTWORK AND WIRING SHALL BE RUN AT RIGHT ANGLES TO AND BE SUSPENDED FROM THE BUILDING STRUCTURE.

1.16. PROVIDE BLACK WITH WHITE WRITING LAMACOID PLATE ON ALL NEW EQUIPMENT. LABEL UNIT AS SHOWN ON DRAWINGS. LETTERING SIZE TO BE MINIMUM 25MM HIGH. MOUNT NEAR CONTROL

1.17. PROVIDE CUTTING, PATCHING AND CORING OF ALL WALLS, CEILING AND OTHER SURFACES AS REQUIRED FOR MECHANICAL WORK. OBTAIN WRITTEN VERIFICATION OF LOCATIONS FROM THE ENGINEER

PRIOR TO CUTTING. ALL ROOFING WORK FOR MECHANICAL EQUIPMENT TO BE UNDERTAKEN BY QUALIFIED ROOFING CONTRACTORS UNDER THIS SECTION.

1.18. INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURER'S RECOMMENDATIONS WITH ADEQUATE ACCESS. 1.19. PIPING LAYOUT ILLUSTRATED ON DRAWINGS INDICATES GENERAL ROUTING OF PIPE WORK AND DOES NOT SHOW ALL FITTINGS AND OFFSETS REQUIRED FOR COMPLETE INSTALLATION. THE

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PIPING FITTINGS & OFFSETS REQUIRED FOR COORDINATED INSTALLATION WITH OTHER SYSTEMS (DUCTWORK, PIPING, CONDUITS, LIGHTS, ETC.).

1.20. CONTRACTOR SHALL BE RESPONSIBLE FOR DEACTIVATION, DRAINING, REFILLING AND REACTIVATING OF OPERATIONAL SYSTEMS. COORDINATE WITH OWNER AND ENSURE THAT NO UNDUE DISRUPTION OF BUILDING OPERATIONS OCCUR.

1.21. MAINTAIN A SET OF WHITE PRINTS MARKED UP TO "AS BUILT" CONDITION ON SITE, UPDATED ON AN ONGOING BASIS THROUGHOUT THE COURSE OF THE PROJECT. PURCHASE, FROM THE CONSULTANT, SET OF CADD FILES OF THE MECHANICAL CONTRACT DRAWINGS AND TRANSFER ALL INFORMATION ONTO THE CAD DRAWINGS. HAND OVER 2 SETS OF WHITE PRINTS AND CD WITH

CADD FILES SHOWING THE "AS BUILT" CONDITION TO THE CONSULTANT FOR FINAL REVIEW PRIOR TO FINAL INSPECTIONS. 1.22. SUBMIT THREE (3) COPIES OF OPERATION AND MAINTENANCE MANUALS FOR ENGINEER'S APPROVAL.

1.23. WARRANTY PERIOD SHALL BE FOR TWELVE (12) MONTHS AFTER THE DATE OF SUBSTANTIAL COMPLETION AS DETERMINED BY ENGINEER.

INSULATION

2.1. INSULATE DUCTWORK, PIPING, AND EQUIPMENT IN ACCORDANCE WITH NECB 2011.

2.2. ALL COMPONENTS OF INSULATION SYSTEM TO BE SUITABLE FOR PLENUM INSTALLATION, HAVING MAXIMUM FLAME SPREAD RATING OF 25 AND MAXIMUM SMOKE DEVELOPED RATING OF 50 IN ACCORDANCE WITH CAN4-S102

2.3. INSULATE DOMESTIC COLD WATER AND DOMESTIC HOT WATER PIPING WITH 1" FIBER GLASS INSULATION WITH FACTORY APPLIED VAPOUR BARRIER JACKED, MOLDED TO CONFORM TO PIPING K VALUE AT 24 C.

2.2. PROVIDE ISOLATING VALVES ON MAIN AND/OR BRANCH LINES AND AT ALL EQUIPMENT OR FIXTURES OR WHERE SHOWN. ALL VALVES SHALL BE SUITABLE FOR THE OPERATING PRESSURE OF THE SYSTEM.

2.3. ALL THE INDOOR SUPPLY DUCT WORK TO BE INSULATED WITH 25mmTHICK FIBERGLASS INSULATION.

2.4. OUTDOOR & COMBUSTION AIR DUCT WORKS ARE TO BE INSULATED WITH 50mm OF INSULATION. 2.5. INSULATE EXHAUST DUCTS WITH 25mm INSULATION FOR 3000mm FROM OUTSIDE WALL.

PLUMBING

3.1. PROVIDE DIELECTRIC COUPLINGS/UNION UNIONS WHERE DISSIMILAR METALS ARE JOINED.

3.2. PROVIDE ISOLATING VALVES ON MAIN AND/OR BRANCH LINES AND AT ALL EQUIPMENT OR FIXTURES OR WHERE SHOWN. ALL VALVES SHALL BE SUITABLE FOR THE OPERATING PRESSURE OF THE SYSTEM IN WHICH THEY ARE INSTALLED. MAKE AND MODEL SHALL BE AS PER BASE BUILDING STANDARDS AND SPECIFICATIONS UNLESS NOTED OTHERWISE.

3.3. INSTALL ALL ABOVE GRADE PIPING TO ALLOW COMPLETE DRAINAGE. 3.4. BALL VALVES NPS 2 AND UNDER, SCREWED, CLASS 150, BRONZE BODY, STAINLESS STEEL BALL, PTFE TEFLON ADJUSTABLE PACKING, BRASS GLAND AND PTFE TEFLON SEAT, STEEL LEVER HANDLE, CRANE

OR APPROVED EQUAL. 3.5. HANGERS AND SUPPORTS SHALL BE OF MANUFACTURED TYPE AND ASSEMBLED AS PER MANUFACTURER'S INSTRUCTIONS. DESIGN HANGERS AND SUPPORTS TO OPERATE UNDER ALL OPERATING CONDITIONS. ALLOW FOR FREE EXPANSION AND CONTRACTION AND PREVENT THE TRANSMISSION OF EXCESSIVE STRESSES INTO PIPE WORK OR CONNECTED EQUIPMENT. PROVIDE FOR VERTICAL ADJUSTMENT AFTER INSTALLATION. DESIGN SHALL BE IN ACCORDANCE WITH ANSI B31.1 AND MSS-SP58. SUPPORT FROM TOP OR BOTTOM OF STRUCTURAL MEMBERS. WHERE STRUCTURAL BEARING DOES NOT EXIST OR INSERTS ARE NOT IN SUITABLE LOCATIONS, PROVIDE SUPPLEMENTARY STRUCTURAL STEEL MEMBERS. PROVIDE ADDITIONAL SUPPORTS AT CHANGES IN PIPE DIRECTION AND FOR CONCENTRATION OF LOADS DUE TO WEIGHT OF VALVES, STRAINERS, ETC. HANGER SPACING: COPPER PIPING UP TO NPS 1/2 EVERY 5 FT, STEEL PIPING EVERY 10'. HANGERS SHALL BE WITHIN 12" OF

3.6. PROVIDE PIPE IDENTIFICATION TO MATCH EXISTING BASE BUILDING STANDARD; IDENTIFY PIPE ON EITHER SIDE OF WALL / SLAB / ROOF PENETRATIONS, AND AT NOT LESS THAN 30' INTERVALS

3.7. SHUT-OFF VALVE: BALL TYPE FOR NPS 2 ID AND SMALLER. BUTTERFLY TYPE FOR 65 MM (2-1/2") AND LARGER.

3.8. PLUMBING FIXTURES TO BE AS DWG M20-01.

3.9. DOMESTIC WATER PIPING SHALL BE TYPE 'L' COPPER WITH CAST BRASS OR WROUGHT COPPER FITTINGS. ALL JOINTS SHALL BE MADE USING LEAD-free 95/5 TIN-ANTIMONY SOLDER. PRESSURE TEST ALL PIPES IN ACCORDANCE APPLICABLE CODE REQUIREMENTS BEFORE APPLYING INSULATION, AT A MINIMUM PRESSURE OF 150% OF THE MAXIMUM OPERATING PRESSURE, FOR 6 HORS WITHOUT THE LOSS OF PRESSURE. SUBMIT TEST REPORT TO THE OWNER AND TO THE CONSULTANT.

3.10. SANITARY DRAIN LINES AND MAIN VENT STACKS SHALL BE CAST IRON COMPLETE WITH MJ JOINTS. BRANCH VENTS, SANITARY DRAINS UNDER 75MM (3") DIAMETER. BALL TEST ALL DRAIN LINES. PERFORM WATER TEST ON ALL NEW DRAIN AND VENT PIPES WHEN ROUGH-IN OF THE SYSTEM OR SECTION THEREFORE INCLUDING FITTINGS, BRANCHES, CLEANOUTS AND TRAPS EXCEPT FIXTURE TRAPS IN COMPLETE, FOR ONE HOUR. THERE SHALL BE NO LOSS OF WATER DUE TO LEAKAGE DURING THIS TIME.

3.11. NATURAL GAS STEEL, SCHEDULE 40: ASTM A53/A53M, GRADE B 3.12. FITTINGS: NATURAL GAS EITHER MALLEABLE IRON OR STEEL IN COMPLIANCE WITH ANSI/ASME B16.3, 1035 KPA, FOR SIZED 40MM AND UNDER SCREWED. STEEL, SAME SCHEDULE AS PIPE, FOR SIZES 50MM AND LARGER, AND FOR HIGH PRESSURE (OVER1.4 KPA) - ALL SIZES WELDED.

4. HEATING, VENTILATION, AND AIR CONDITIONING

4.1. GALVANIZED STEEL DUCT LOCK FORMING QUALITY: TO ASTM A 525M, Z90 ZINC COATING. THICKNESS, FABRICATION, JOINTS AND REINFORCEMENT: TO ASHRAE AND SMACNA. ALL TRANSVERSE JOINTS AND CONNECTIONS SHALL BE SEALED WITH WATER BASED DUCT SEALANT AND TAPE.

4.2. HANGERS: ALL DUCTWORK AND HANGERS SHALL BE FABRICATED IN ACCORDANCE WITH THE LATEST ASHRAE AND SMACNA RECOMMENDATIONS AND STANDARDS.

4.3. IDENTIFICATION DUCTWORK SYSTEMS STENCILLED LETTERS 50 MM (2") HIGH. DIRECTIONAL ARROWS 150 MM (6") LONG X 50 MM (2") HIGH. COLORS: BLACK, OR CO-ORDINATED WITH BASE COLOR TO ENSURE STRONG CONTRAST. TESTING, ADJUSTING AND BALANCING

5.1. TEST NEW HEATING PIPING AND DUCTWORK, ADJUST AND BALANCE THE ENTIRE HEATING SYSTEM AND AIR SYSTEM.

5.2. REPORT: PROVIDE REPORT INDICATING AIR FLOW RATES AND LOCATION OF TESTING ON A COPY OF CONSTRUCTION DRAWINGS. SUBMIT 3 BOUND COPIES OF TAB REPORTS, COMPLETE WITH INDEX TABS FOR VERIFICATION AND APPROVAL OF ENGINEER.

FIRE PROTECTION

6.1. MULTI PURPOSE ABC TYPE DRY CHEMICAL, PRESSURIZED WITH HOSE AND SHUT OFF NOZZLE OR INTEGRAL SHUTOFF NOZZLE AND MOUNTING BRACKET.10 LB CAPACITY.

CONTROLS

7.1. PROVIDE ALL CONTROLS AND WIRING INCLUDING APPURTENANCES NECESSARY FOR COMPLETE AND OPERATING SYSTEM.

8. LIST OF APPROVED MANUFACTURERS

8.1. AIR TERMINALS - GRILLES, REGISTERS, DIFFUSERS: E.H PRICE, TITUS, NAILOR.

8.2. ACCESS DOORS: MAXAM, MILCOR, MIFAB, ACUDOR.

8.3. AIR VENTS: HOFFMAN, MAID-O-MIST, TACO.

8.4. BALANCING AGENTS: KD ENGINEERING, MDT SYSTEMS, WESTERN MECHANICAL SYSTEMS 8.5. DRAINS-FLOOR, CLEANOUTS, PRIMERS: ZURN, ANCON, PPP, J.R-SMITH.

8.6. FANS: BROAN, GREENHECK, ACME, NUTONE, COOK.

8.7. FIRE EXTINGUISHERS: FLAG, NFE, WILSON & COUSINS.

8.8. ELECTRIC HEATERS:OULLET, CHROMALOX, STELPRO, QMARK.

MECHANICAL DRAWING LEGEND								
DESIGNATION	SERVICE	DESIGNATION	SERVICE	DESIGNATION	SERVICE			
	DOMESTIC COLD WATER	——CHWS——	CHILLED WATER SUPPLY	S	SLAB SENSOR			
	DOMESTIC HOT WATER	CHWR	CHILLED WATER RETURN	RC	ROOM CONTROLLER			
	DOMESTIC HOT WATER RETURN	—— HWS ——	HOT WATER SUPPLY	WS	WALL SWITCH			
v	VENT	HWR	HOT WATER RETURN	0	PUMP			
SAN	SANITARY ABOVE GRADE	——CD——	CONDENSATE	FD +	FIRE DAMPER			
SAN	SANITARY BELOW GRADE	─	CLEANOUT ABOVE / BELOW GRADE	+ + + + + + + + + + + + + + + + + + + +	BALANCING DAMPER			
PSAN ——	PUMPED SANITARY	── ►	BALANCING VALVE		— DIFFUSER/GRILLE TYP —SIZE			
ST	STORM ABOVE GRADE	X	PRESSURE REDUCING VALVE	ø	——SIZE ——AIRFLOW			
ST	STORM BELOW GRADE	₩	CONTROL VALVE		— TYPE — CAPACITY (kW)			
—— PST ——	PUMPED STORM	── ₩	ISOLATION VALVE		— LENGTH (mm)			
WT	WEEPING TILE ABOVE GRADE	₹	PLUG VALVE	PR-XX SR-XX	PLUMBING RISER SANITARY RISER			
WT	WEEPING TILE BELOW GRADE	——BFP——	BACKFLOW PREVENTER	GR-XX HC-XX	GAS RISER HEATING/COOLING RISE			
PWT	PUMPED WEEPING TILE	FD RD	FLOOR / ROOF DRAIN	S/A R/A	SUPPLY AIR RETURN AIR			
MPG——	MEDIUM PRESSURE GAS	(§) FE	FIRE EXTINGUISHER	E/A T/A	EXHAUST AIR TRANSFER AIR			
P	PROPANE	①	THERMOSTAT	GLYS GLYR	GLYCOL SUPPLY GLYCOL RETURN			

DRAWING LIST					
DRAWING NO. DRAWING NAME					
M00-00-01	MECHANICAL LEGEND, SCHEDULE, DRAWING LIST, SPECIFICATIONS				
M20-00-01	PIPING DEMOLITION AND CONSTRUCTION PLANS				
M50-00-01 VENTILATION DEMOLITION AND CONSTRUCTION PLANS					

FORCE FLOW SCHEDULE													
TAG	G MANUFACTURER MODEL		ARRANGEMENT	SERVICE	AIR FLOW	E.W.T.	L.W.T.	WATER FLOW	HEATING OUTPUT	MO	ΓOR	VOLTAGE	NOTES
TAG MANUFACTO	MANUFACTORER	MODEL	ODEL ARRANGEMENT	NI SERVICE	(L/S)	(°C)	(°C)	(L/S)	(KW)	KW	RPM	V/PH/HZ	NOTES
FF-1	ROSEMEX	RECESSED	CRW-6	VEST	142	87.8	76.7	0.19	8.4	0.05	1050	120/1/60	EXISTING
FF-2	ROSEMEX	EXPOSED	RW-4	VEST	142	87.8	76.7	0.19	8.4	0.05	1075	120/1/60	EXISTING
FF-3	ROSEMEX	RECESSED	CRW-6	VEST	142	87.8	76.7	0.19	8.4	0.05	1075	120/1/60	EXISTING
FF-4	ROSEMEX	RECESSED	CRW-6	126	142	87.8	76.7	0.19	8.4	0.05	1050	120/1/60	NEW, 1

1 LINE VOLTAGE ROOM THERMOSTAT C/W LOCKING COVER

REHEAT COIL SCHEDULE																	
TAG	MANUFACTURER	MODEL	MODEL SERVICE	AIR FLOW	APD HTG CAP EWT		EWT	LWT	FLOW RATE	ROWS	CIRCUITS	WPD	EAT DB	LAT DB	DI	М	
IAG	IVIAINOFACTORER	IVIODEL	SERVICE	L/S	PA	KW	°C	°C	L/S	NOV/3	CINCUITS	KPA	°C	°C	W (MM)	H (MM)	NOTES
RH-1	ROSEMEX	WBH	Room 109	180	37.5	4	87.8	76.7	0.09	1	1	1.4	26.7	46.9	305	229	1
RH-2	ROSEMEX	WBH	Room 107	900	42.5	19.6	87.8	76.7	0.42	1	1	0.5	26.7	46.1	711	457	1
RH-3	ROSEMEX	WBH	Room 111	140	20	3	87.8	76.7	0.07	2	0.5	0.8	26.7	46.1	381	229	1
RH-4	ROSEMEX	WBH	Room 114	230	35	5.5	87.8	76.7	0.12	1	1	3	26.7	48.3	305	305	1
RH-5	ROSEMEX	WBH	Room 15, 106	320	45	9.3	87.8	76.7	0.2	1	1	9.9	26.7	47.8	457	305	1
RH-6	ROSEMEX	WBH	Room 121	100	-	2	87.8	76.7	0.043	1	1	-	26.7	48.3	381	305	2
RH-7	ROSEMEX	WBH	Room 122	190	-	3.8	87.8	76.7	0.082	1	1	-	26.7	48.3	381	305	2
RH-8	ROSEMEX	WBH	Room 102	240	32.5	3.8	87.8	76.7	0.08	1	1	1.3	26.7	47.8	305	229	1
RH-9	ROSEMEX	WBH	Room 126	165	32.5	3.8	87.8	76.7	0.08	1	1	1.3	26.7	47.2	305	229	1
RH-10	ROSEMEX	WBH	Room 119	110	27.5	2	87.8	76.7	0.06	1	1	0.4	26.7	46.1	305	152	1
RH-11	ROSEMEX	WBH	Room 120, 123	135	35	2.5	87.8	76.7	0.06	1	1	0.4	26.7	46.1	305	152	1
RH-12	ROSEMEX	WBH	Room 115	445	37.5	15	87.8	76.7	0.33	1	1	0.3	26.7	46.1	610	457	1
RH-13	ROSEMEX	WBH	Room 110	120	37.5	2.6	87.8	76.7	0.06	1	1	0.4	26.7	46.1	305	152	1
RH-14	ROSEMEX	WBH	Room 110a	120	37.5	2.6	87.8	76.7	0.06	1	1	0.4	26.7	46.1	305	152	1
RH-15	ROSEMEX	WBH	Room 112	122	27.5	2.2	87.8	76.7	0.05	1	1	0.3	26.7	46.7	305	152	1
RH-16	ROSEMEX	WBH	Room 126	300	37.5	7.20	87.8	76.7	0.16	1	1	5.70	26.7	48.3	381	305	3

EXISTING REHEAT COIL TO REMAIN

EXISTING REHEAT COIL TO BE REBALANCED TO THE AIR FLOW AS INDICATED

3 NEW REHEAT COIL

FIRE EXTINGUISHER SCHEDULE							
TAG	MANUFACTURER	FIRE EXTINGUISHER TYPE	NOM CAP (KG)	TYPE			
FE-1	NATIONAL FIRE EQUIPMENT LTD.	ALL PURPOSE	WALL HUNG	4.5	WALL HOOK MOUNTING		

GRILLE & DIFFUSER SCHEDULE									
TAG	MANUFACTURER	MODEL	TYPE	NOTES					
S 1	PRICE	SCD	CEILING MOUNT	B12	SCD 600x600 STEEL CONSTRUCTION GRILLE				
R1	PRICE	80 SERIES	SIDEWALL, DRYWALL, WALL MOUNTED	B12	1/2"x1/2"x1/2" ALUMINUM GRID CORE				

DATE	ISSUED FOR	KEV
)18-02-07	ISSUED FOR 60% REVIEW	1
)18-03-02	ISSUED FOR 95% REVIEW	2
)18-03-29	ISSUED FOR TENDER	3
	_	

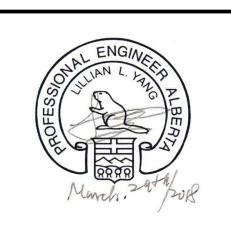
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Project Component LUNCHROOM EXPANSION

Consultants

Architectural: NORR Architects Engineers Planners Structural: NORR Architects Engineers Planners Mechanical: NORR Architects Engineers Planners Electrical: NORR Architects Engineers Planners



2300, 411 - 1st Street SE, Calgary, AB Canada T2G 4Y5 NORR ARCHITECTS ENGINEERS PLANNERS

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Project Manager	Drawn
D. HIDER	N. ALY
Project Leader	Checked
D. HIDER	L. YANG
Oli 1	

INNISFAIL PDSTC LUNCHROOM EXPANSION

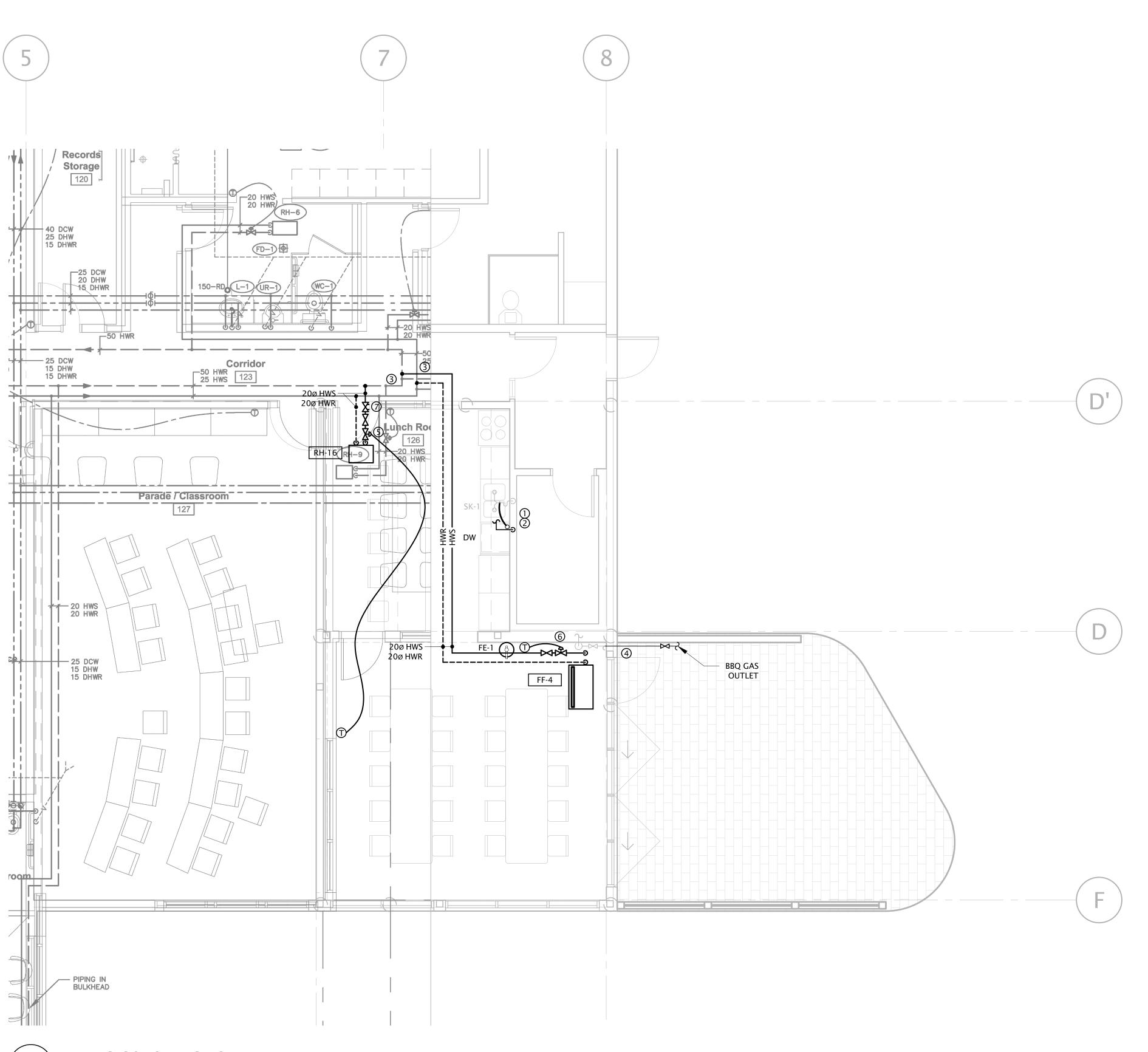
RCMP

Drawing Title

MECHANICAL LEGEND, SCHEDULE, DRAWING LIST, SPECIFICATIONS

Check Scale (may be photo reduced)
0 1inch NCCA17-0228

M00-00-01



PIPING CONSTRUCTION PLAN

MECHANICAL GENERAL NOTES:

- A. CONTRACTOR TO VERIFY THE EXISTING CONDITION BEFORE COMMENCEMENT OF DEMOLITION.
- B. SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE ALBERTA BUILDING CODE AND THE LOCAL AUTHORITIES.
- MECHANICAL SYSTEMS AND THEIR SUPPORTS, AND THE LIKE, MUST BE DESIGNED AND DETAILED TO ACCOMMODATE THE ANTICIPATED MOVEMENTS NOTED UNDER 'SERVICEABILITY CRITERIA' ON THE STRUCTURAL DRAWINGS.
- DESIGN AND DETAIL ALL NECESSARY SEISMIC RESTRAINTS FOR MECHANICAL SYSTEMS SHOWN ON THE CONTRACT DOCUMENTS. SUBMIT SHOP DRAWINGS PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA, FOR REVIEW BY THE CONSULTANT.
- MECHANICAL CONTRACTOR SHALL SUBMIT SLEEVING DRAWINGS INDICATING LAYOUT AND SIZES OF ALL INTENDED PENETRATIONS THROUGH ANY STRUCTURAL ELEMENTS, INCLUDING ANY EMBEDDED ITEMS, FOR REVIEW BY CONSULTANT WELL IN ADVANCE OF COMPLETING THE WORK.

MECHANICAL LEGEND:

EXISTING TO BE REMOVED — EXISTING TO REMAIN

MECHANICAL KEY NOTES:

- 1) CONNECT 15Ø DRAINAGE PIPE FROM DISH WASHER (DW) TO EXISTING KITCHEN SINK DRAINAGE PIPE (KS-1).
- 2 TAKE OFF 15Ø DOMESTIC HOT WATER LINE TO NEW DISHWASHER FROM EXISTING HOT WATER LINE TO THE KITCHEN SINK (KS-1).
- 3 TAKE OFF 20Ø HWS&HWR PIPING TO CONNECT NEW RH-20
- 4 EXTEND EXISTING GAS PIPE SERVING BBQ ALONG THE EXTERIOR WALL TO NEW LOCATION OUT SIDE C/W SHUT-OFF VALVE AND QUICK CONNECT.
- 5 2-WAY MODULATING CONTROL VALVE.
- (6) 2-WAY ON/OFF CONTROL VALVE.
- 7 CIRCUIT BALANCING VALVE.

ISSUED FOR 2018-02-07 | ISSUED FOR 60% REVIEW 2018-03-02 | ISSUED FOR 95% REVIEW 2018-03-29 ISSUED FOR TENDER

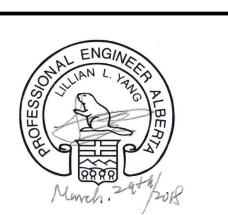
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Project Manager	Drawn
D. HIDER	N. ALY
Project Leader	Checked
D. HIDER	L. YANG
Client	

RCMP

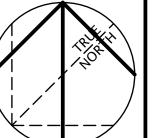
INNISFAIL PDSTC LUNCHROOM EXPANSION

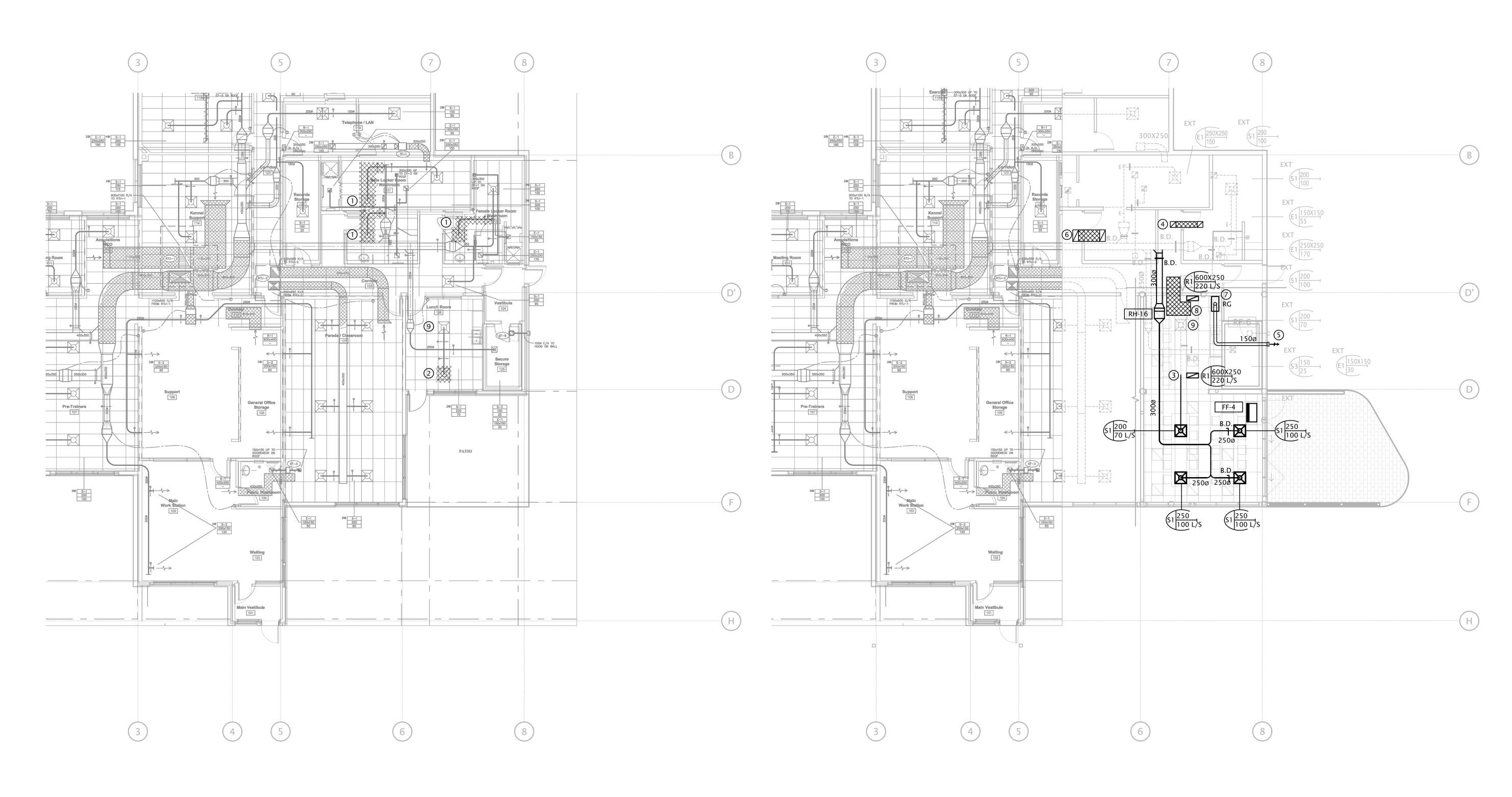
Drawing Title

PIPING DEMOLITION AND CONSTRUCTION PLANS

Check Scale (may be photo reduced) 0 1inch NCCA17-0228

Drawing No. M20-00-01









MECHANICAL GENERAL NOTES:

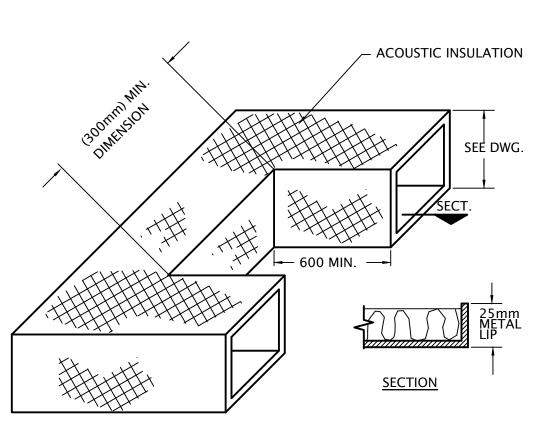
- A. CONTRACTOR TO VERIFY THE EXISTING CONDITION BEFORE COMMENCEMENT OF DEMOLITION.
- SUPPLY AND INSTALL ALL FIRE STOPPING MATERIAL AND ENSURE THAT ALL FIRE PENETRATIONS ARE PROTECTED AS REQUIRED BY THE ALBERTA BUILDING CODE AND THE LOCAL AUTHORITIES.
- MECHANICAL SYSTEMS AND THEIR SUPPORTS, AND THE LIKE, MUST BE DESIGNED AND DETAILED TO ACCOMMODATE THE ANTICIPATED MOVEMENTS NOTED UNDER 'SERVICEABILITY CRITERIA' ON THE STRUCTURAL DRAWINGS.
- DESIGN AND DETAIL ALL NECESSARY SEISMIC RESTRAINTS FOR MECHANICAL SYSTEMS SHOWN ON THE CONTRACT DOCUMENTS. SUBMIT SHOP DRAWINGS PREPARED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE PROVINCE OF ALBERTA, FOR REVIEW BY THE CONSULTANT.
- E. PROVIDE COLLAR CONNECTION; LENGTH TO SUIT SITE CONDITION.

MECHANICAL LEGEND:

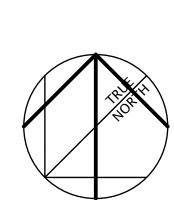
- EXISTING TO BE REMOVED
 - EXISTING TO REMAIN

MECHANICAL KEY NOTES:

- 1) REMOVE S/A DUCT AND DIFFUSER, CAP-OFF AT MAIN.
- 2 REMOVE DIFFUSER AND ASSOCIATED DIFFUSER NECK, CAP-OFF AT MAIN FOR EXTENSION.
- (3) EXTEND EXISTING 200Ø S/A DUCT AND RELOCATE THE
- EXISTING DIFFUSER AS INDICATED. (4) PROVIDE 300X300 TRANSFER AIR DUCT C/W ACOUSTIC LINER, AND TRANSFER AIR GRILLE ON CORRIDOR AND
- WASHROOM CEILING. T/A GRILLE TO BE 300X300. 5 150Ø KITCHEN RANGE HOOD EXHAUST C/W WALL CAP.
- 6 PROVIDE 600X300 TRANSFER AIR DUCT C/W ACOUSTIC LINER, AND TRANSFER AIR GRILLE ON CORRIDOR AND WASHROOM CEILING. T/A GRILLE TO BE 600X300.
- (7) RANGE EXHAUST FAN WILL BE PROVIDED BY RCMP.
- 8 PROVIDE 700X450 TRANSFER AIR DUCT C/W ACOUSTIC
- 9 RELOCATE EXISTING DIFFUSER TO MATCH NEW CEILING GRID.



CROSS TALK SILENCER M50-00-01 N.T.S



ISSUED FOR 2018-02-07 | ISSUED FOR 60% REVIEW 2018-03-02 ISSUED FOR 95% REVIEW 2018-03-29 ISSUED FOR TENDER

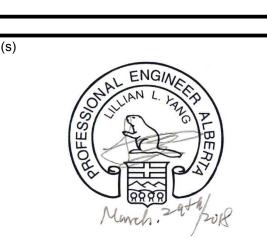
This drawing has been prepared solely for the use of the CLIENT and there are no representations of any kind made by NORR Architects Engineers Planners to any party with whom NORR Architects Engineers Planners has not entered into a contract.

This drawing shall not be used for construction purposes until the seal appearing hereon is signed and dated by the Architect or Engineer.

LUNCHROOM EXPANSION

Consultants

Architectural: NORR Architects Engineers Planners Structural: NORR Architects Engineers Planners Mechanical: NORR Architects Engineers Planners Electrical: NORR Architects Engineers Planners



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Project Manager	Drawn
D. HIDER	N. ALY
Project Leader	Checked
D. HIDER	L. YANG
Client	

RCMP

INNISFAIL PDSTC LUNCHROOM EXPANSION

Drawing Title

VENTILATION DEMOLITION AND CONSTRUCTION PLANS

Check Scale (may be photo reduced)
0 1inch NCCA17-0228

Drawing No. M50-00-01