



LAKE LOUISE COMPOUND HEATING AND VENTILATION SYSTEM UPGRADE

MAY 1, 2015

DRAWING LIST

MECHANICAL

- M1 DEMOLITION
- M2 FIRST FLOOR RENOVATION
- M3 SECOND FLOOR RENOVATION
- M4 SCHEMATICS
- M5 DETAILS
- M6 SCHEDULES AND LEGENDS

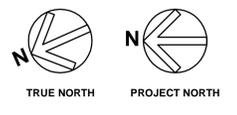
ELECTRICAL

- E1 FIRST FLOOR ELECTRICAL DEMOLITION AND RENOVATION
- E2 SECOND FLOOR MECHANICAL ROOM ELECTRICAL DEMOLITION AND RENOVATION
- E3 ELECTRICAL SCHEDULES AND LEGENDS



SNC•LAVALIN
Wiebe Forest

Division of
SNC-LAVALIN INC.
3613-33rd Street NW
Calgary, Alberta
Canada T2L 2A7
Tel: 403-670-7300
Fax: 403-670-7301



DO NOT SCALE DRAWINGS

5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01
Revision/	Description/Description	Date/Date

Parks Canada Agency

Project title/Titre du projet
Lake Louise, Alberta
Parks Canada

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approve par
JP

Designed by/Concept par
BD

Drawn by/Dessiné par
BD

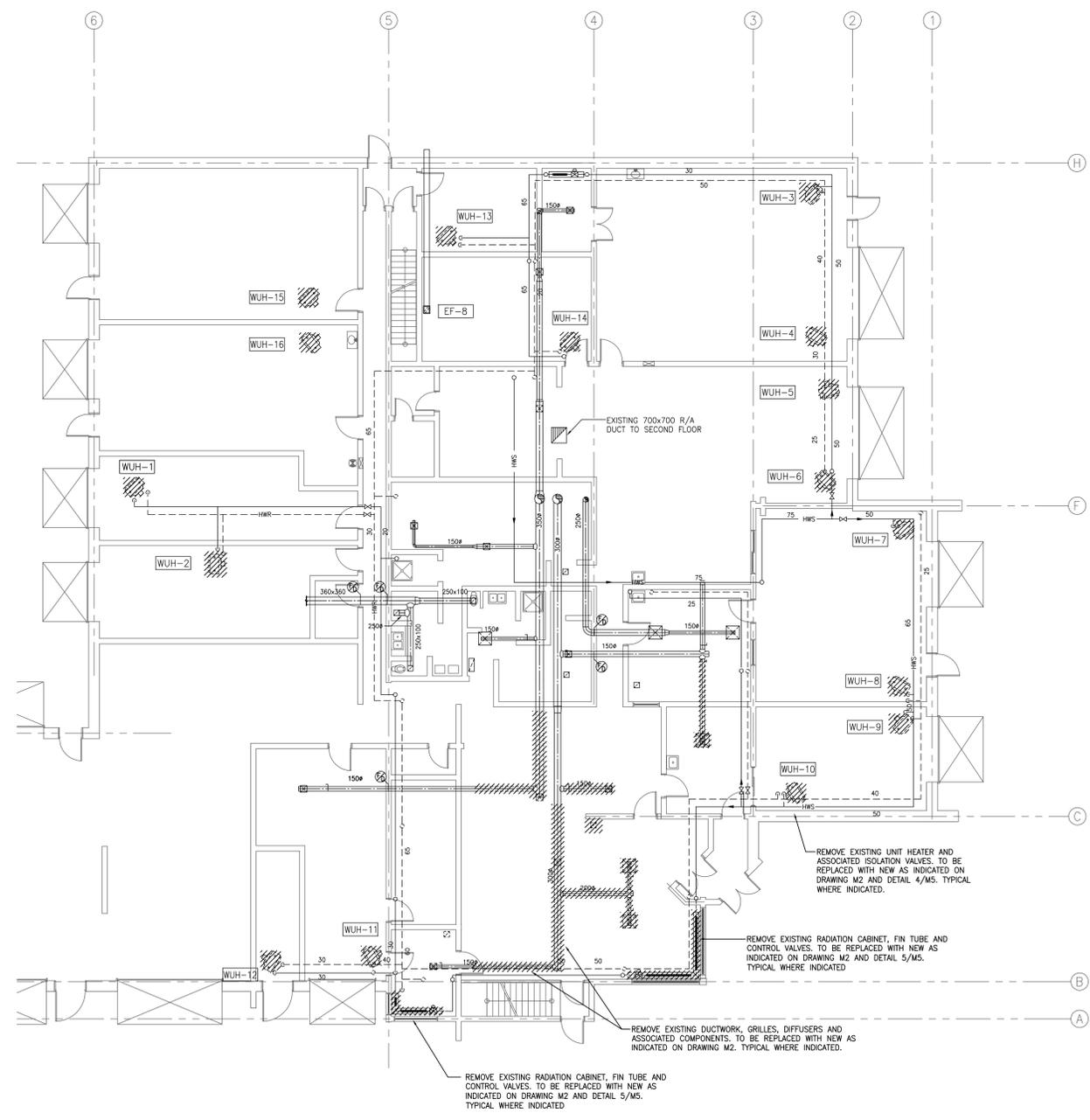
PWSC Project Manager/Administrateur de Projets TPSC

PWSC, Architectural and Engineering Resources Manager/
Ressources Architecturales et de Directeur d'ingénierie, TPSC

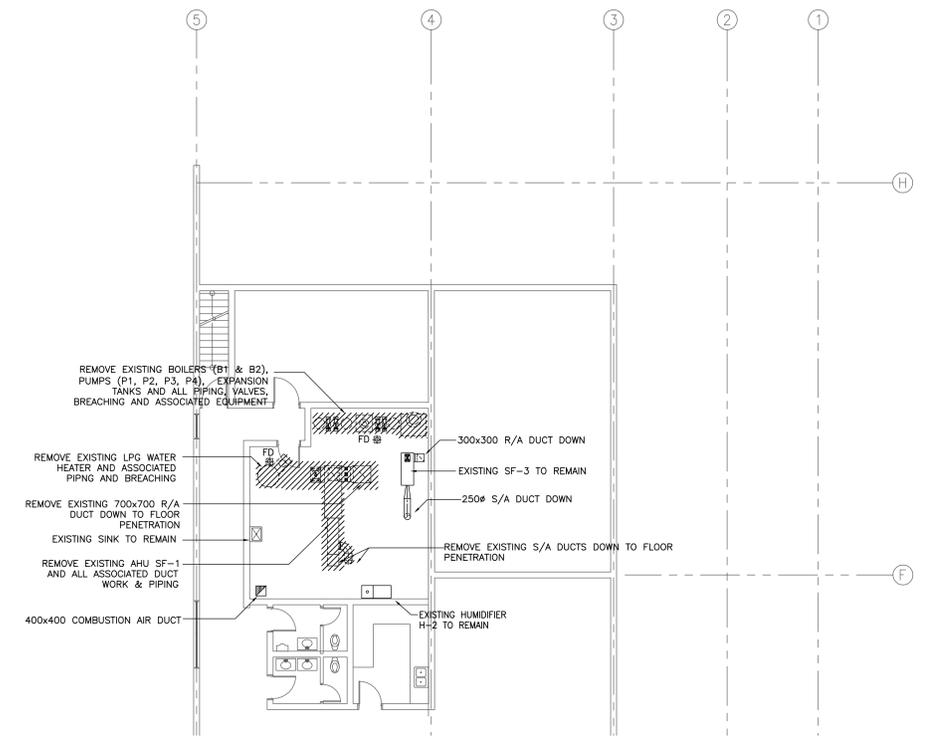
Client/Client
Parks Canada

Drawing title/Titre du dessin
DEMOLITION

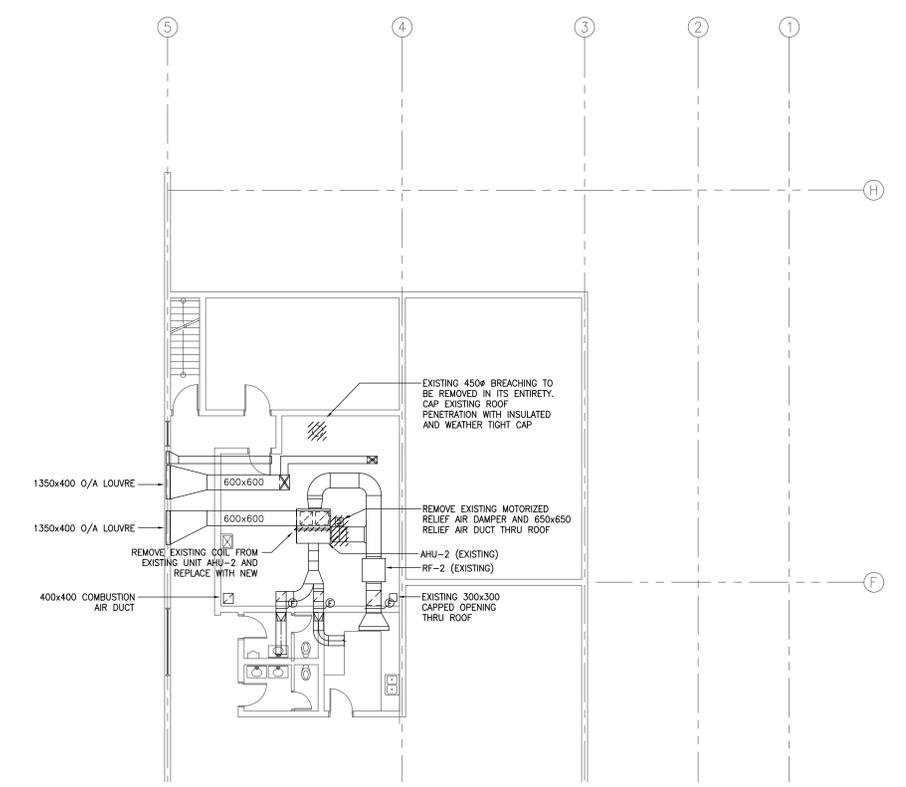
Project No./No. du projet	Sheet/Feuille	Revision No./ No. de Révision
10-19075	M1 OF 06	0



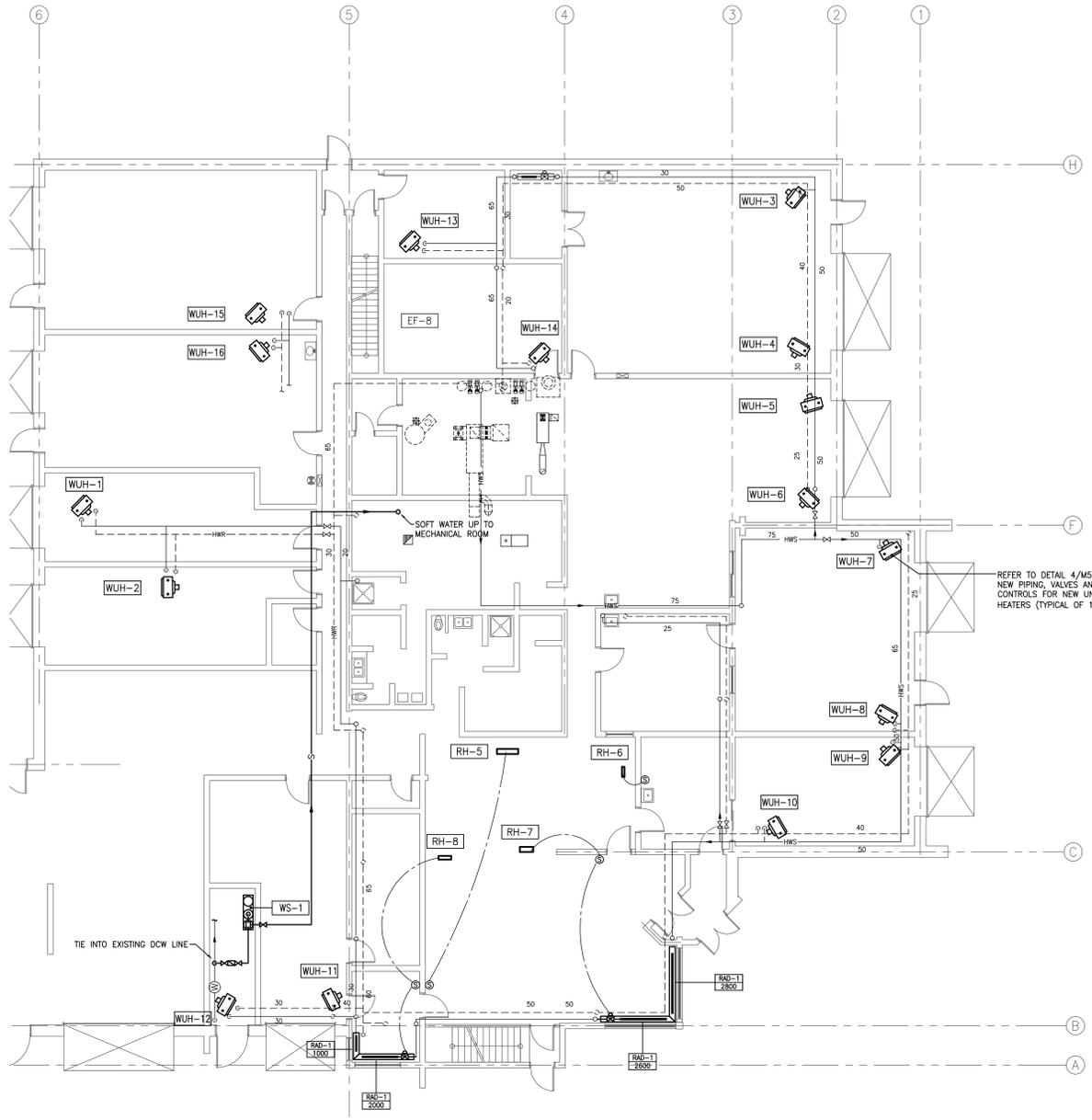
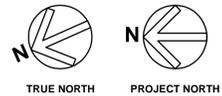
1 FIRST FLOOR DEMOLITION
M1 SCALE 1:100



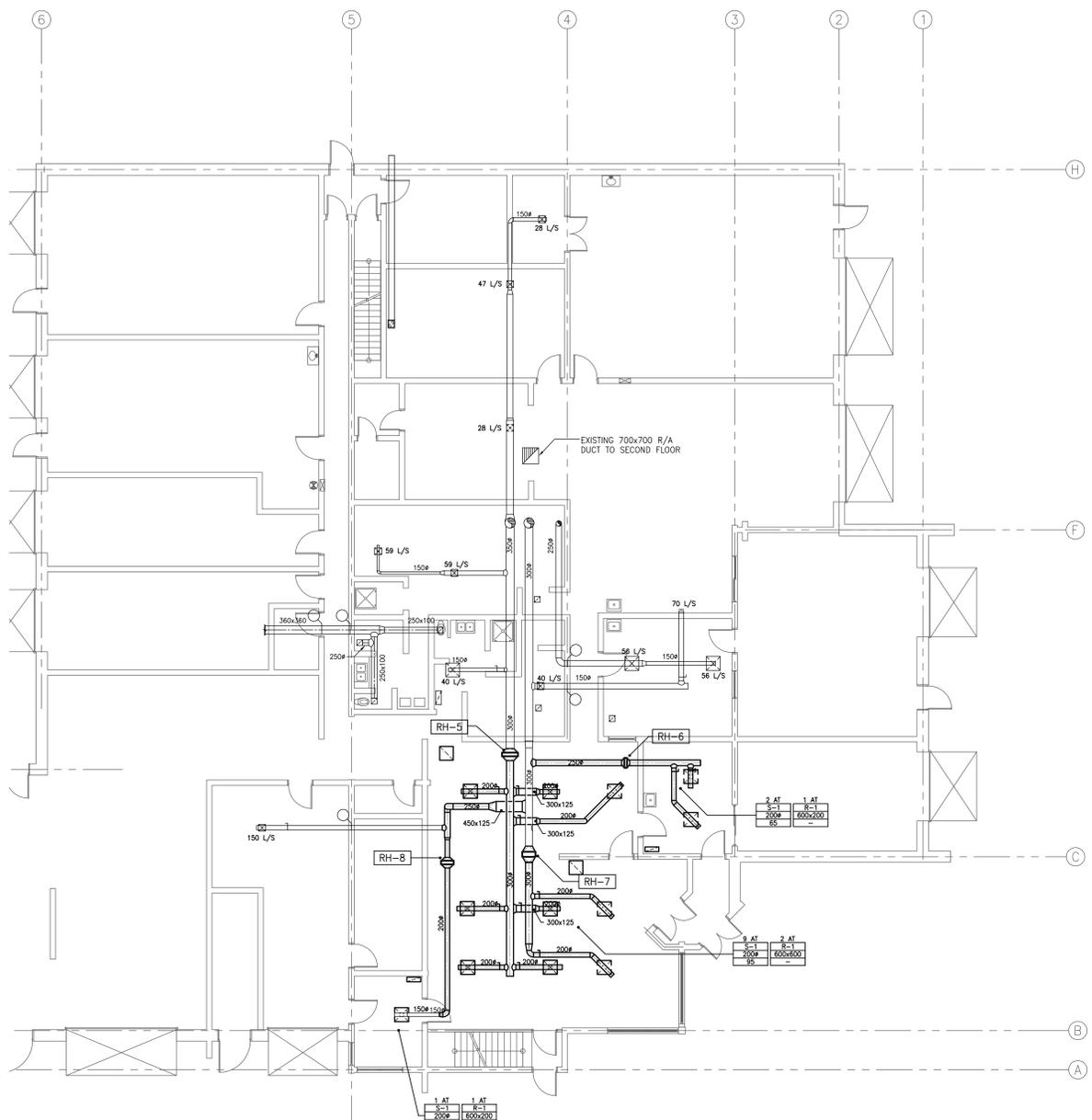
2 2nd FLOOR DEMOLITION - LOW LEVEL
M1 SCALE 1:100



3 2nd FLOOR DEMOLITION - HIGH LEVEL
M1 SCALE 1:100



1 FIRST FLOOR PLUMBING AND HEATING
M2 SCALE 1:100



2 FIRST FLOOR VENTILATION
M2 SCALE 1:100

NOTES:
1 EXACT LOCATIONS OF NEW DUCTWORK, GRILLES AND DIFFUSERS TO BE DETERMINED ON SITE AND MATCH EXISTING T-BAR CEILING.
2 REBALANCE ALL EXISTING S/A GRILLES TO THE VOLUMES INDICATED



DO NOT SCALE DRAWINGS

5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01
Revision/	Description/Description	Date/Date

Parks Canada Agency

Project title/Titre du projet
Lake Louise, Alberta
Parks Canada

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approve par
JP

Designed by/Concept par
BD

Drawn by/Designé par
BD

PWSC Project Manager/Administrateur de Projets TPSCC

PWSC, Architectural and Engineering Resources Manager/ Ressources Architecturales et de Directeur d'ingénierie, TPSCC

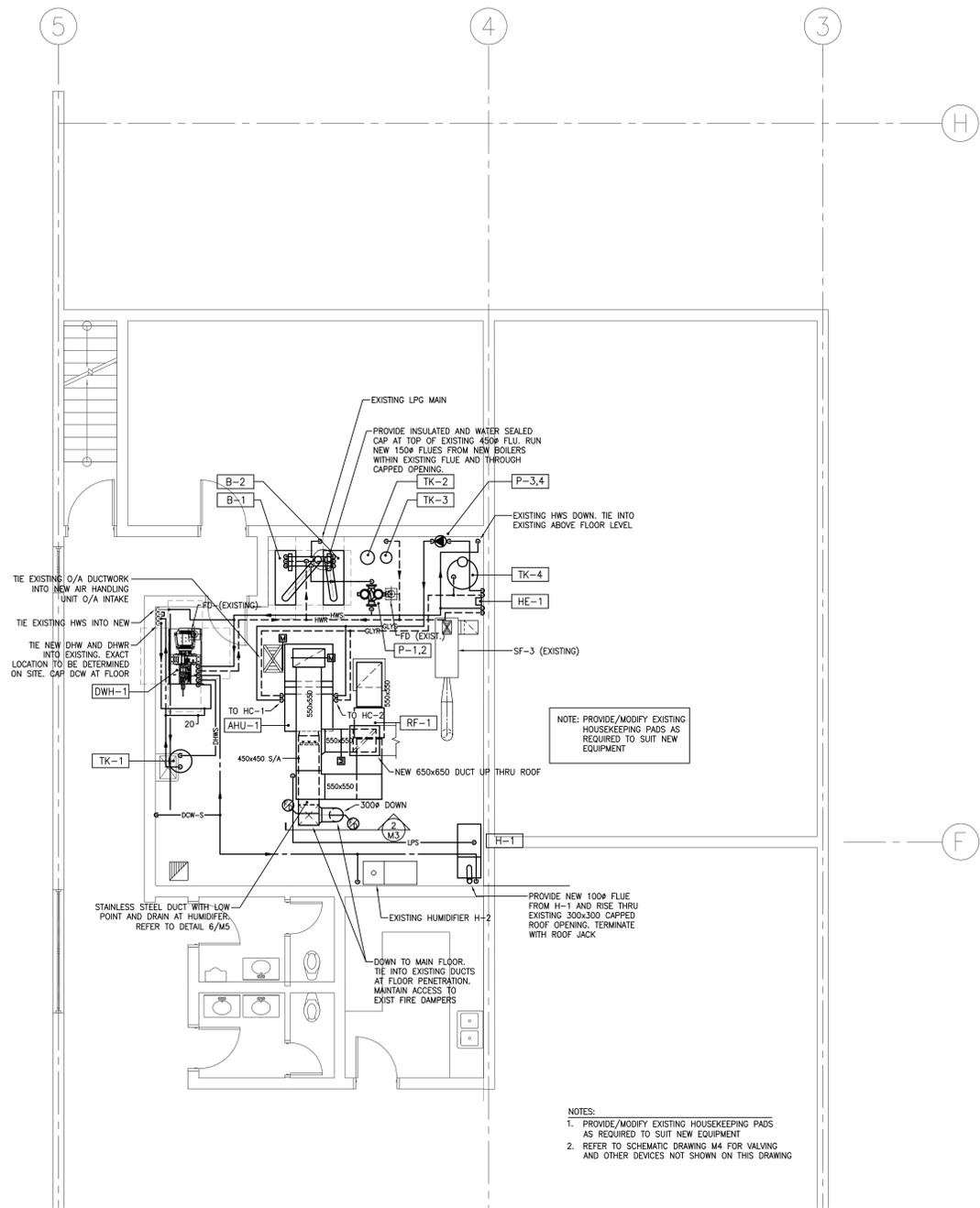
Client/Client
Parks Canada

Drawing title/Titre du dessin

FIRST FLOOR RENOVATION

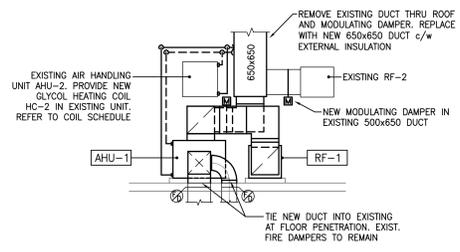
Project No./No. du projet	Sheet/Feuille	Revision no./No. de Révision
10-19075	M2 OF 06	0



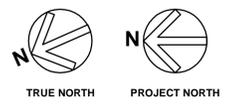


1 MECHANICAL ROOM PLAN
M3 SCALE 1:50

- NOTES:
1. PROVIDE/MODIFY EXISTING HOUSEKEEPING PADS AS REQUIRED TO SUIT NEW EQUIPMENT
 2. REFER TO SCHEMATIC DRAWING M4 FOR VALVING AND OTHER DEVICES NOT SHOWN ON THIS DRAWING



2 SECTION
M3 SCALE 1:50



DO NOT SCALE DRAWINGS

Revision/Revisão	Description/Description	Date/Date
5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01

Client/Client
Parks Canada Agency

Project Title/Titre du projet
**Lake Louise, Alberta
Parks Canada**

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approuvé par
JP

Designed by/Concept par
BD

Drawn by/Dessiné par
BD
PWSC Project Manager/Administrateur de Projets TPSCC

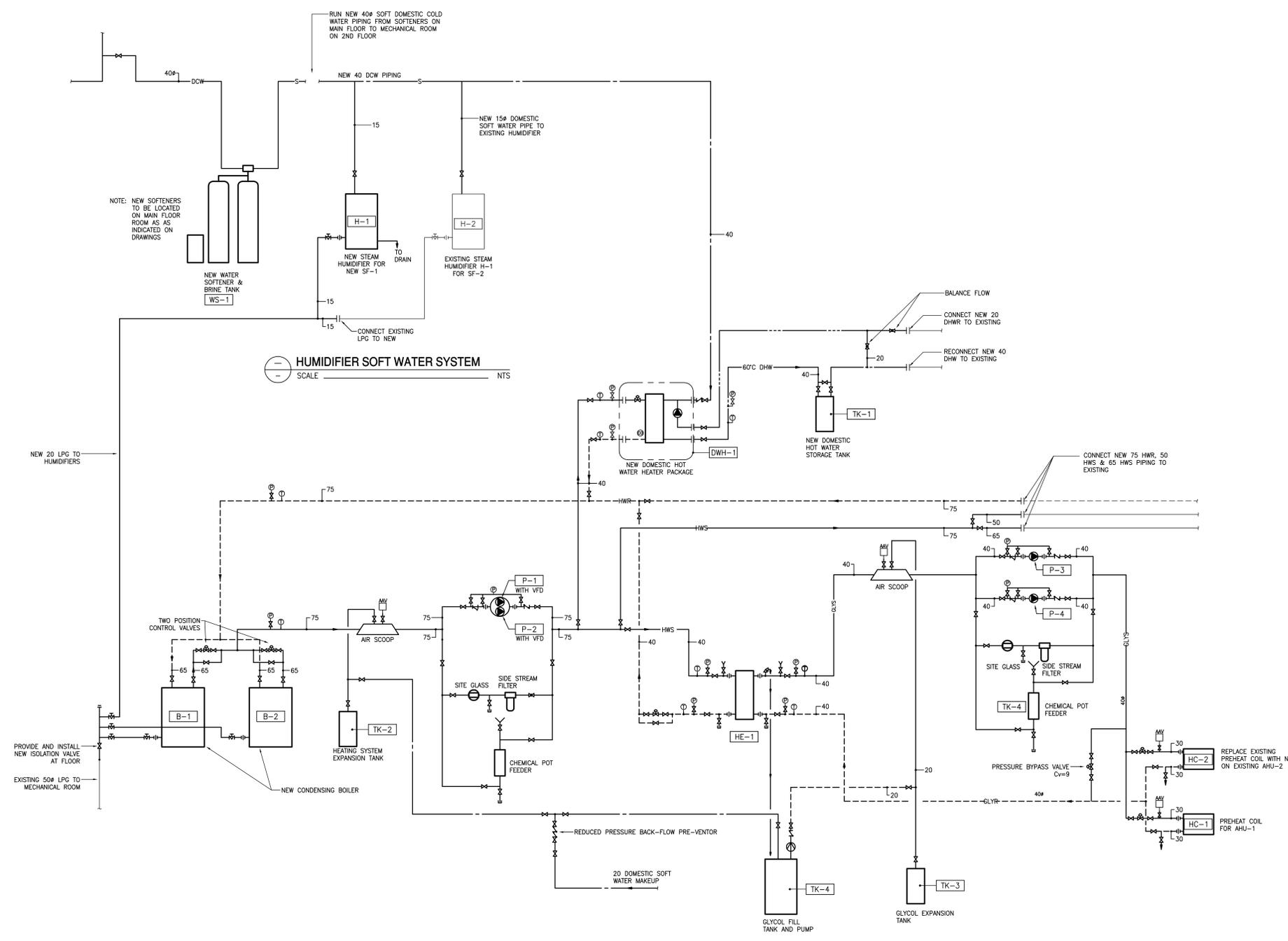
PWSC, Architectural and Engineering Resources Manager/
Ressources Architecturales et de Directeur d'Ingénierie, TPSCC

Client/Client
Parks Canada

Drawing Title/Titre du dessin
SECOND FLOOR RENOVATION

Project No./No. du projet	Sheet/Feuille	Revision No./No. de Révision
10-19075	M3 OF 06	0





HUMIDIFIER SOFT WATER SYSTEM
SCALE _____ NTS

1 HEATING SYSTEM SCHEMATIC
SCALE _____ NTS



DO NOT SCALE DRAWINGS

5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01
Revision/	Description/Description	Date/Date

Client/Client
Parks Canada Agency

Project Title/Titre du projet
**Lake Louise, Alberta
Parks Canada**

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approuvé par
JP

Designed by/Concept par
BD

Drawn by/Dessiné par
BD

PWSC Project Manager/Administrateur de Projets TPSCC

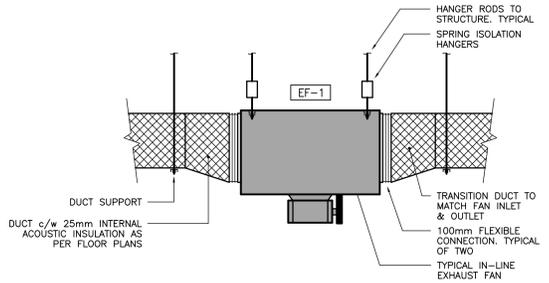
PWSC, Architectural and Engineering Resources Manager/
Ressources Architecturales et de Directeur d'Ingénierie, TPSCC

Client/Client
Parks Canada

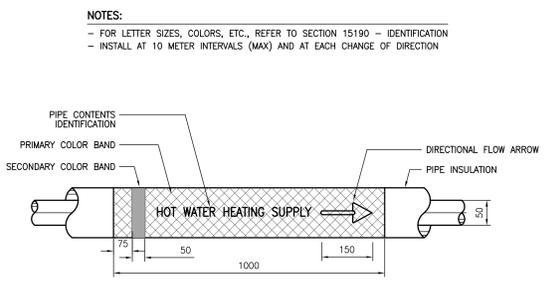
Drawing Title/Titre du dessin
SCHEMATICS

Project No./No. du projet 10-19075	Sheet/Feuille M4 OF 06	Revision No./ Le Révision no. 0
--	-------------------------------------	---

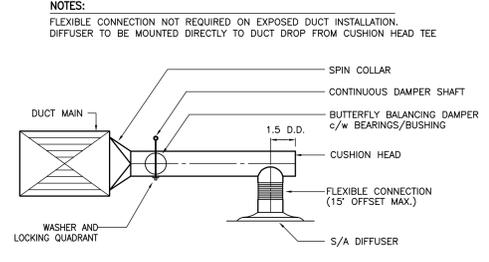




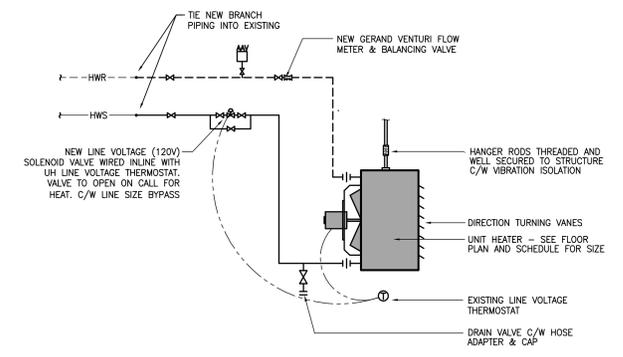
1 IN-LINE EXHAUST FAN DETAIL
M5 SCALE NTS



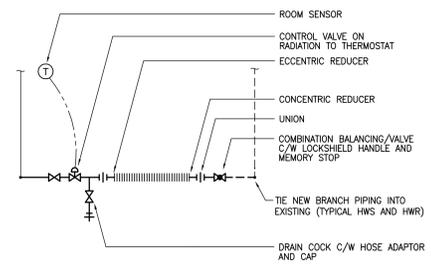
2 PIPE IDENTIFICATION DETAIL
M5 SCALE NTS



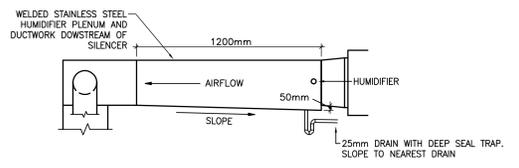
3 SUPPLY AIR DIFFUSER INSTALLATION DETAIL
M5 SCALE NTS



4 UNIT HEATER DETAIL
M5 SCALE NTS



5 TYPICAL RADIATION HOOK-UP
M5 SCALE NTS



6 HUMIDIFIER DUCT DETAIL
M5 SCALE NTS



DO NOT SCALE DRAWINGS

5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01
Revision/	Description/Description	Date/Date

Client/Client
Parks Canada Agency

Project Title/Titre du projet
**Lake Louise, Alberta
Parks Canada**

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approve par
JP

Designed by/Concept par
BD

Drawn by/Dessiné par
BD

PWSC Project Manager/Administrateur de Projets TPSC

PWSC, Architectural and Engineering Resources Manager/ Ressources Architectural et de Directeur d'ingénierie, TPSC

Client/Client
Parks Canada

Drawing Title/Titre du dessin
DETAILS

Project No./No. du projet 10-19075	Sheet/Feuille M5 OF 06	Revision no./ La Révision no. 0
--	-------------------------------------	--



TAG	DESCRIPTION	CAPACITY			TSP Pg	HEAD kPa	RPM	ELECTRICAL		MANUFACTURER	MODEL	REMARKS	
		L/S	IN	OUT				HP	VOLTS				PHASE
DWH-1	DOMESTIC WATER HEATER	-	-	-	-	-	-	-	-	-	-	REFER TO SPECIFICATIONS	
TK-1	DOMESTIC HOT WATER TANK	-	-	-	-	-	-	-	-	-	-	REFER TO SPECIFICATIONS	
B-1,2	BOILERS	-	-	-	-	-	-	-	-	-	-	REFER TO SPECIFICATIONS	
H-1	HUMIDIFIER	-	-	-	-	-	-	3 AMP	120	1	NORTEC	GHMC100	PROPANE FIRED, STAGED MODULATION. 23 TO 45 KG/HR
AHU-1	SUPPLY FAN	1485	-	-	750	-	1700	3.0	208	3	ENGINEERED AIR	LM-3	C/W GLYCOL COIL HC-2, FLAT FILTER SECTION AND MIXED AIR SECTION
RF-1	RETURN FAN	1300	-	-	500	-	1600	2.0	208	3	GREENHECK	BSQ-160	-
TK-2	HEATING SYSTEM EXPANSION TANK	-	-	-	-	-	-	-	-	-	TACO	CX84	BLADDER TYPE EXPANSION TANK, 85 LITRE VOLUME, 36 LITRE ACCEPTANCE VOLUME
TK-3	GLYCOL SYSTEM EXPANSION TANK	-	-	-	-	-	-	-	-	-	TACO	CX15	BLADDER TYPE EXPANSION TANK, 29 LITRE VOLUME, 9.5 LITRE ACCEPTANCE VOLUME
TK-4	GLYCOL FILL TANK AND PUMP	-	-	-	-	-	0.5	120	1	-	-	-	REFER TO SPECIFICATIONS FOR GLYCOL FILL PACKAGE
WS-1	WATER SOFTENER	-	-	-	-	-	-	-	120	1	-	-	REFER TO SPECIFICATIONS
P1,2	PUMP PACKAGE C/W VFD CONTROLLER	8.8	-	-	-	210	3600	5.0	208	3	ARMSTRONG	SERIES 43R2 3x3x6 DUAL	DUAL PUMP, SINGLE PIPE CONNECTION. VFD (VS SENSORLESS (MF) EACH PUMP
P3,4	GLYCOL PUMPS	1.26	-	-	-	75	1800	0.5	120	1	ARMSTRONG	SERIES 1050 1-1/2"	-

TAG	DESCRIPTION	MODEL	GENERAL			HEATING MEDIA				HEATED MEDIA				REMARKS		
			WORKING PRESSURE (kPa)	FOULING FACTOR	HEATING SURFACE (SQ. M)	KW	TYPE	ENTER °C	LEAVE °C	FLOW (L/S)	TYPE	ENTER (DEG.C)	LEAVE (DEG.C)		FLOW (L/S)	P.D. (RPS)
HE-1	ARMSTRONG	SBS-60	3100	0.0005	3.4	52.9	WATER	71.0	60.0	1.17	50% P.G.	54.4	65.5	1.26	16	316 S.S. BRAZED PLATE WITH COPPER BRAZING

TAG	MANUFACTURER	MODEL	AIR FLOW (L/S)	MOTOR HP	HEATING (kW)	WATER FLOW (L/S)	REMARKS
WUH-1	ENGINEERED AIR	H2	293	0.05	9.0	0.2	71°C EWT, 11°C TD
WUH-2	ENGINEERED AIR	H2	293	0.05	9.0	0.2	71°C EWT, 11°C TD
WUH-3	ENGINEERED AIR	H5	585	0.17	15.0	0.33	71°C EWT, 11°C TD
WUH-4	ENGINEERED AIR	H5	585	0.17	15.0	0.33	71°C EWT, 11°C TD
WUH-5	ENGINEERED AIR	H4	472	0.08	13.4	0.3	71°C EWT, 11°C TD
WUH-6	ENGINEERED AIR	H4	472	0.08	13.4	0.3	71°C EWT, 11°C TD
WUH-7	ENGINEERED AIR	H5	585	0.17	15.0	0.33	71°C EWT, 11°C TD
WUH-8	ENGINEERED AIR	H4	472	0.08	13.4	0.3	71°C EWT, 11°C TD
WUH-9	ENGINEERED AIR	H2	293	0.05	9.0	0.2	71°C EWT, 11°C TD
WUH-10	ENGINEERED AIR	H2	293	0.05	9.0	0.2	71°C EWT, 11°C TD
WUH-11	ENGINEERED AIR	H5	585	0.17	15.0	0.33	71°C EWT, 11°C TD
WUH-12	ENGINEERED AIR	H5	585	0.17	15.0	0.33	71°C EWT, 11°C TD
WUH-13	ENGINEERED AIR	H2	293	0.05	9.0	0.2	71°C EWT, 11°C TD
WUH-14	ENGINEERED AIR	H2	293	0.05	9.0	0.2	71°C EWT, 11°C TD
WUH-15	ENGINEERED AIR	H8	1076	0.25	28.1	0.93	71°C EWT, 11°C TD
WUH-16	ENGINEERED AIR	H8	1076	0.25	28.1	0.93	71°C EWT, 11°C TD

NOTE: ELECTRICAL = 120V 1Ø (TYPICAL)

TAG	MANUFACTURER	MODEL	ROWS	HEIGHT (mm)	OUTPUT (kW)	REMARKS
RAD-1	ENGINEERED AIR	WF-1A	1	300	0.9	71°C EWT

TAG	MANUFACTURER	WORK. PRESS. (kPa)	SERIES FFP	TYPE	AIR SIDE				FLUID SIDE				FOULING FACTOR	REMARKS									
					COIL FACE LGTH. (mm)	COIL FACE HT. (mm)	NO. OF COILS	TOTAL FACE AREA (M²)	FLOW (L/S)	VEL. (M/S)	S.P. (Pa)	ENT. °C			LVG. °C	FLOW (L/S)	VEL. (M/S)	HEAD LOSS (kPa)	TEMP. °C	ENT. °C	LVG. °C		
HC-1	ENGINEERED AIR	1033	116	-	914	610	1	0.56	1	1485	2.67	25	7.2	-	21.4	-	0.54	0.4	5	65.5	54.4	0.0005	50% PROPYLENE GLYCOL
HC-2*	ENGINEERED AIR	1033	117	-	610	1219	1	0.70	1	1900	2.7	25	7.2	-	21.4	-	0.69	0.4	5	65.5	54.4	0.0005	50% PROPYLENE GLYCOL
RHC-5	ENGINEERED AIR	1033	80	-	610	381	1	0.23	1	660	2.8	25	12.8	-	24	-	0.19	0.98	10	71.1	60	0.0005	WATER
RHC-6	ENGINEERED AIR	1033	80	-	305	229	1	0.07	1	130	1.8	25	12.8	-	24	-	0.04	0.4	5	71.1	60	0.0005	WATER
RHC-7	ENGINEERED AIR	1033	110	-	305	229	1	0.07	1	190	2.7	25	12.8	-	24	-	0.06	0.4	5	71.1	60	0.0005	WATER
RHC-8	ENGINEERED AIR	1033	80	-	254	229	1	0.06	1	80	1.4	25	12.8	-	24	-	0.03	0.4	5	71.1	60	0.0005	WATER

* NOTE: THIS COIL TO REPLACE EXISTING GLYCOL COIL ON EXISTING AHU-2. CONFIRM SIZE AND PIPING ARRANGEMENT TO MATCH EXISTING PRIOR TO ORDERING NEW COIL.

SYMBOL	MANUFACTURER	MODEL	REMARKS
	EH PRICE	SPB/610x610/31/B12	SUPPLY AIR PLAQUE DIFFUSER
	EH PRICE	80/78/B12	RETURN AIR EGGRATE GRILLE

VENTILATION LEGEND

- SUPPLY AIR DUCT
- RETURN AIR DUCT
- EXHAUST AIR DUCT
- OUTSIDE AIR OR COMBUSTION AIR DUCT
- ACOUSTIC DUCT LINING - INTERNAL
- TRANSFER SLEEVE
- VOLUME BALANCING DAMPER
- FIRE DAMPER
- DIFFUSER AND GRILLE TAG (SEE SCHEDULE)
- EQUIPMENT TAG (SEE SCHEDULE)

VALVE AND FITTING LEGEND

- ISOLATION VALVE
- BALANCING VALVE
- PRESSURE REGULATING VALVE
- CHECK VALVE
- UNION
- PIPE DOWN
- PIPE UP

FIRE PROTECTION LEGEND

- 4.5KG ABC FIRE EXTINGUISHER - WALL MOUNTED
- 4.5KG ABC FIRE EXTINGUISHER IN SEM-RECESSED CABINET

HEATING AND COOLING LEGEND

- EXISTING HEATING WATER SUPPLY
- EXISTING HEATING WATER RETURN
- NEW HEATING WATER SUPPLY
- NEW HEATING WATER RETURN
- THERMOSTAT c/w TAMPER PROOF COVER
- THERMOSTAT
- ROOM TEMPERATURE SENSOR
- CARBON MONOXIDE SENSOR
- EQUIPMENT TAG (SEE SCHEDULE)
- RADIATION TAG (SEE SCHEDULE)

TAG	SYSTEM NAME	OBJECT NAME	EXPENDED ID	FIELD DEVICE	POINT TYPE
-	-	-	BOILER B-1 ENABLE	COMM	BO
-	-	-	BOILER B-1 CONTROL	COMM	AO
-	-	-	BOILER B-1 FLOW CONTROL VALVE	VM	BO
-	-	-	BOILER B-1 LWT	TS	AI
-	-	-	BOILER B-1 EWT	TS	AI
-	-	-	BOILER B-1 FAILURE ALARM	COMM	BI
-	-	-	BOILER B-2 ENABLE	COMM	BO
-	-	-	BOILER B-2 CONTROL	COMM	AO
-	-	-	BOILER B-2 FLOW CONTROL VALVE	VM	BO
-	-	-	BOILER B-2 LWT	TS	AI
-	-	-	BOILER B-2 EWT	TS	AI
-	-	-	BOILER B-2 FAILURE ALARM	COMM	BI
-	-	-	OUTDOOR TEMPERATURE	TS	AI
-	-	-	PUMP P-1 VFD COMMUNICATION	COMM	AI
-	-	-	PUMP P-1 ENABLE	COMM	BO
-	-	-	PUMP P-1 STATUS	CT	AI
-	-	-	PUMP P-1 CONTROL	COMM	AO
-	-	-	PUMP P-2 VFD COMMUNICATION	COMM	AI
-	-	-	PUMP P-2 ENABLE	COMM	BO
-	-	-	PUMP P-2 STATUS	CT	AI
-	-	-	PUMP P-2 CONTROL	COMM	AO
-	-	-	DIFFERENTIAL PRESSURE	PS	AI
-	-	-	PUMP P-3 START/STOP	ET	BO
-	-	-	PUMP P-3 STATUS	CT	AI
-	-	-	PUMP P-4 START/STOP	ER	BO
-	-	-	PUMP P-4 STATUS	CT	AI
-	-	-	DIFFERENTIAL PRESSURE	PS	AI
-	-	-	PRESSURE BYPASS VALVE	VM	BO
-	-	-	GLYCOL CONVERTER EWT	TS	AI
-	-	-	GLYCOL CONVERTER LWT	TS	AI
-	-	-	GLYCOL CONVERTER EGT	TS	AI
-	-	-	GLYCOL CONVERTER LGT	TS	AI
-	-	-	GLYCOL CONVERTER CONTROL VALVE	VM	AO
-	-	(TYPICAL)	ROOM TEMPERATURE SENSOR	TS	AI
-	-	(TYPICAL)	REHEAT COIL CONTROL VALVE	VM	AO
-	-	(TYPICAL)	RADIATION CONTROL VALVE	VM	AO
-	-	(TYPICAL)	UNIT HEATER SOLENOID VALVE	-	-
-	-	-	PACKAGE DHW HEATER	DC	BI
-	-	-	DHW TEMPERATURE SENSOR	TS	AI
-	-	-	AHU-1 START/STOP	ER	BO
-	-	-	AHU-1 STATUS	CT	BI
-	-	-	RF-1 START/STOP	ER	BO
-	-	-	RF-1 STATUS	CT	BI
-	-	-	OAD CONTROL	DM	AO
-	-	-	RAD CONTROL	DM	AO
-	-	-	EAD CONTROL	DM	AO
-	-	-	MIXED AIR TEMPERATURE	TS	AI
-	-	-	SUPPLY AIR TEMPERATURE	TS	AI
-	-	-	HEATING CONTROL VALVE	VB	AO
-	-	-	FILTER PRESSURE DIFFERENTIAL	PS	AI
-	-	-	RETURN AIR TEMPERATURE	TS	AI
-	-	-	FREEZE STAT	LLTS	BI
-	-	-	OUTDOOR AIR NO2 SENSOR	NO2 SENSOR	AI
-	-	-	OUTDOOR AIR CO SENSOR	CO SENSOR	AI
-	-	-	AIR PROVING SENSOR	PS	BI
-	-	-	SUPPLY AIR HUMIDITY HIGH LIMIT	HS	BI
-	-	-	RETURN AIR HUMIDITY	HS	AI
-	-	-	HUMIDIFIER H-1 ENABLE	COMM	BO
-	-	-	HUMIDIFIER H-1 CONTROL	COMM	AO
-	-	-	HUMIDIFIER H-1 FAILURE ALARM	COMM	BI
-	-	-	AHU-2 START/STOP	ER	BO
-	-	-	AHU-2 STATUS	GT	BI
-	-	-	RF-2 START/STOP	ER	BO
-	-	-	RF-2 STATUS	CT	BI
-	-	-	OAD CONTROL	DM	AO
-	-	-	RAD CONTROL	DM	AO
-	-	-	EAD CONTROL	DM	AO
-	-	-	MIXED AIR TEMPERATURE	TS	AI
-	-	-	SUPPLY AIR TEMPERATURE	TS	AI
-	-	-	FREEZE STAT	LLTS	BI
-	-	-	OUTDOOR AIR NO2 SENSOR	NO2 SENSOR	AI
-	-	-	OUTDOOR AIR CO SENSOR	CO SENSOR	AI
-	-	-	AIR PROVING SENSOR (EXISTING)	-	-
-	-	-	SUPPLY AIR HUMIDITY HIGH LIMIT (EXISTING)	-	-
-	-	-	RETURN AIR HUMIDITY (EXISTING)	-	-
-	-	-	HUMIDIFIER H-2 FAILURE	COMM	BI
-	-	-	HEATING CONTROL VALVE	VM	AO
-	-	-	DX SYSTEM ENABLE	ER	BO
-	-	-	FILTER PRESSURE DIFFERENTIAL	PS	AI
-	-	-	RETURN AIR TEMPERATURE	TS	AI



DO NOT SCALE DRAWINGS

NO.	REVISION/DESCRIPTION	DATE
5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01

Client/Client
Parks Canada Agency

Project Title/Titre du projet
**Lake Louise, Alberta
Parks Canada**

**Lake Louise Compound
Heating & Ventilation
System Upgrade**

Approved by/Approve par
JP

Designed by/Concept par
BD

Drawn by/Designé par
BD

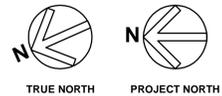
PWSC Project Manager/Administrateur de Projets TPSSC

PWSC, Architectural and Engineering Resources Manager/
Ressources Architecturales et de Directeur d'Ingénierie, TPSSC

Client/Client
Parks Canada

Drawing Title/Titre du dessin

SCHEDULES AND LEGENDS



PERMIT TO PRACTICE
SNC-LAVALIN INC.
Signature: _____
Date: May 01, 2015
PERMIT NUMBER: P 5645
The Association of Professional Engineers and Geoscientists of Alberta



DO NOT SCALE DRAWINGS

Revision/Revisions	Description/Description	Date/Date
5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01

Client/Client
Parks Canada Agency

Project Title/Titre du projet
**Lake Louise, Alberta
Parks Canada**

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approve par
JS

Designed by/Concept par
SA

Drawn by/Dessiné par
SA

PWSC Project Manager/Administrateur de Projets TPSCC

PWSC Architectural and Engineering Resources Manager/Ressources Architecturales et de Directeur d'Ingénierie, TPSCC

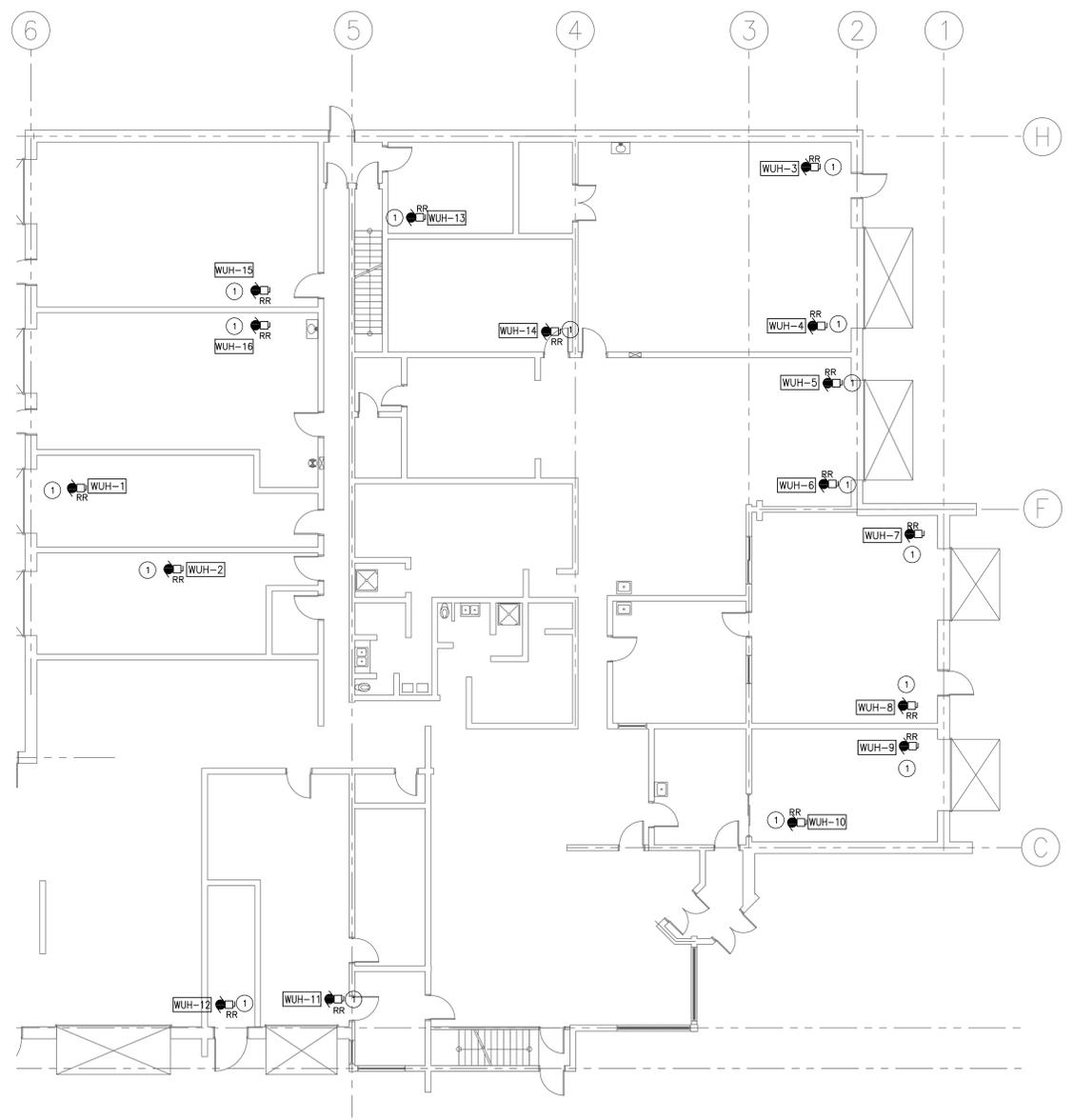
Client/Client
Parks Canada

Drawing Title/Titre du dessin
FIRST FLOOR ELECTRICAL DEMOLITION AND RENOVATION

Project No./No. du projet
10-19075

Sheet/Feuille
E1

Revision no./La Révision no.
0



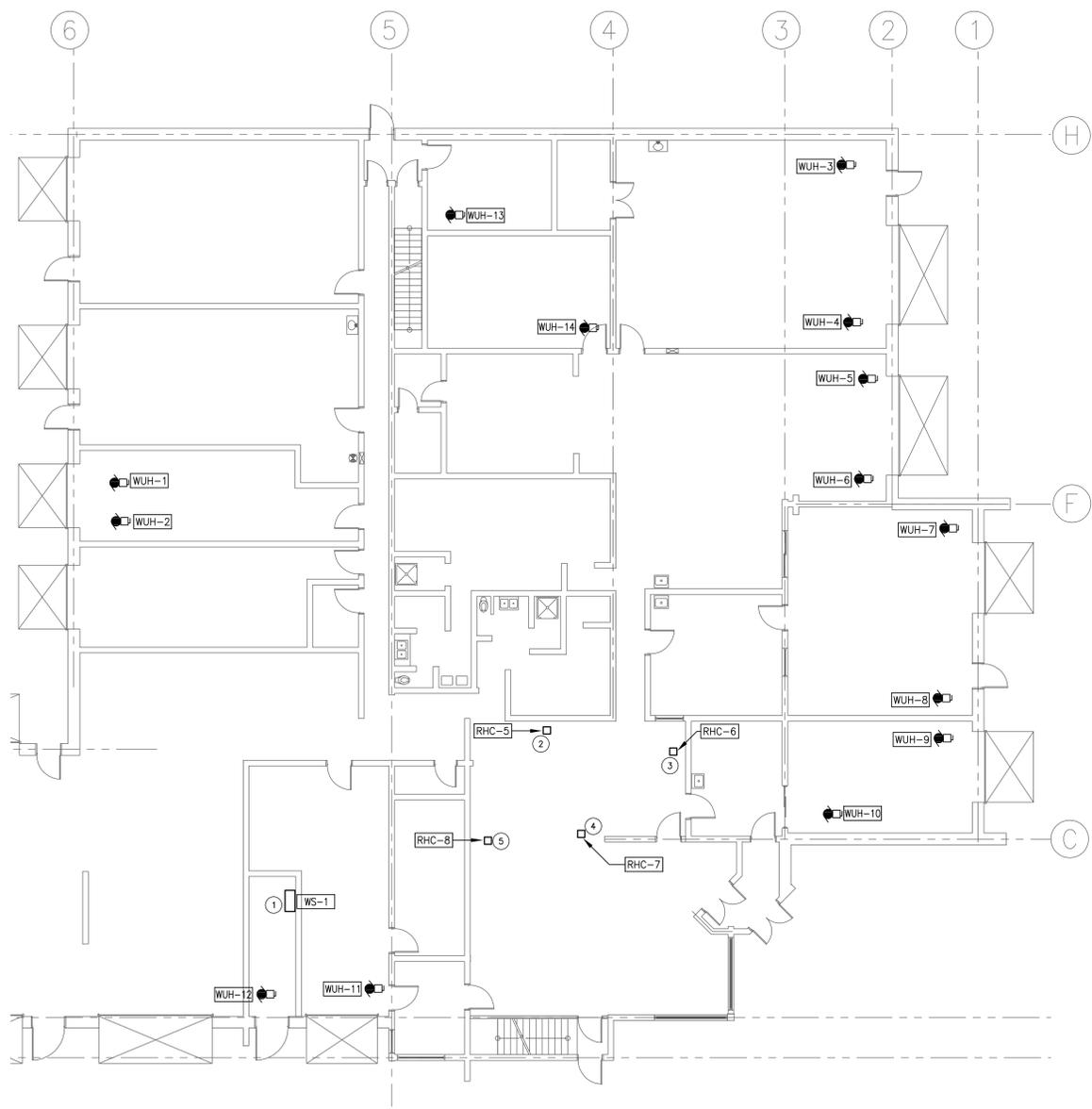
1 FIRST FLOOR ELECTRICAL DEMOLITION
E1.0 SCALE 1:100

GENERAL NOTES

- ELECTRICAL DEVICES SHOWN IN SOLID LINES ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED.
- ELECTRICAL DEVICES SHOWN IN SOLID LINES AND DENOTED WITH A 'RR' ARE EXISTING TO BE REPLACED WITH NEW DEVICE UNLESS OTHERWISE NOTED. RECONNECT TO EXISTING WIRES.
- NOT WITH STANDING ACTS, ALL ELECTRICAL DEMOLITION TO BE DONE BY ELECTRICAL CONTRACTOR.
- LOCATION OF EXISTING SYSTEMS ARE APPROXIMATE ONLY, DETERMINE EXACT LOCATIONS AND SIZES ON SITE.
- THE OWNER RESERVES THE RIGHT TO CLAIM ANY AND ALL MATERIALS AND EQUIPMENT REMOVED DURING DEMOLITION. ANY MATERIALS AND EQUIPMENT NOT CLAIMED BECOMES THE PROPERTY OF THE CONTRACTOR AND ARE TO BE REMOVED FROM THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE INCURRED DURING DEMOLITION. PATCH AND REPAIR DAMAGE AS REQUIRED.
- COORDINATE ALL DEMOLITION WITH GENERAL CONTRACTOR AND OWNERS REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
- COORDINATE ALL SYSTEM SHUT DOWNS WITH THE GENERAL CONTRACTOR AND THE OWNERS REPRESENTATIVE SHUT DOWN SCHEDULES TO CONFORM TO OWNERS REQUIREMENTS.
- REFER TO RELEVANT DRAWINGS FOR CONSTRUCTION OF NEW SYSTEMS IN THIS AREA. COORDINATE THE EXACT DEMOLITION REQUIREMENTS WITH NEW SYSTEM REQUIREMENTS.
- EXISTING ELECTRICAL SYSTEMS ARE TO BE RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW EQUIPMENT.

DEMOLITION KEY NOTES

- EXISTING WATER UNIT HEATERS WUH-1 TO WUH-16 TO BE REMOVED AND REPLACE WITH NEW WATER UNIT HEATERS. EXISTING WIRING AND CONDUIT TO BE USED FOR RENOVATION.



2 FIRST FLOOR ELECTRICAL RENOVATION
E1.0 SCALE 1:100

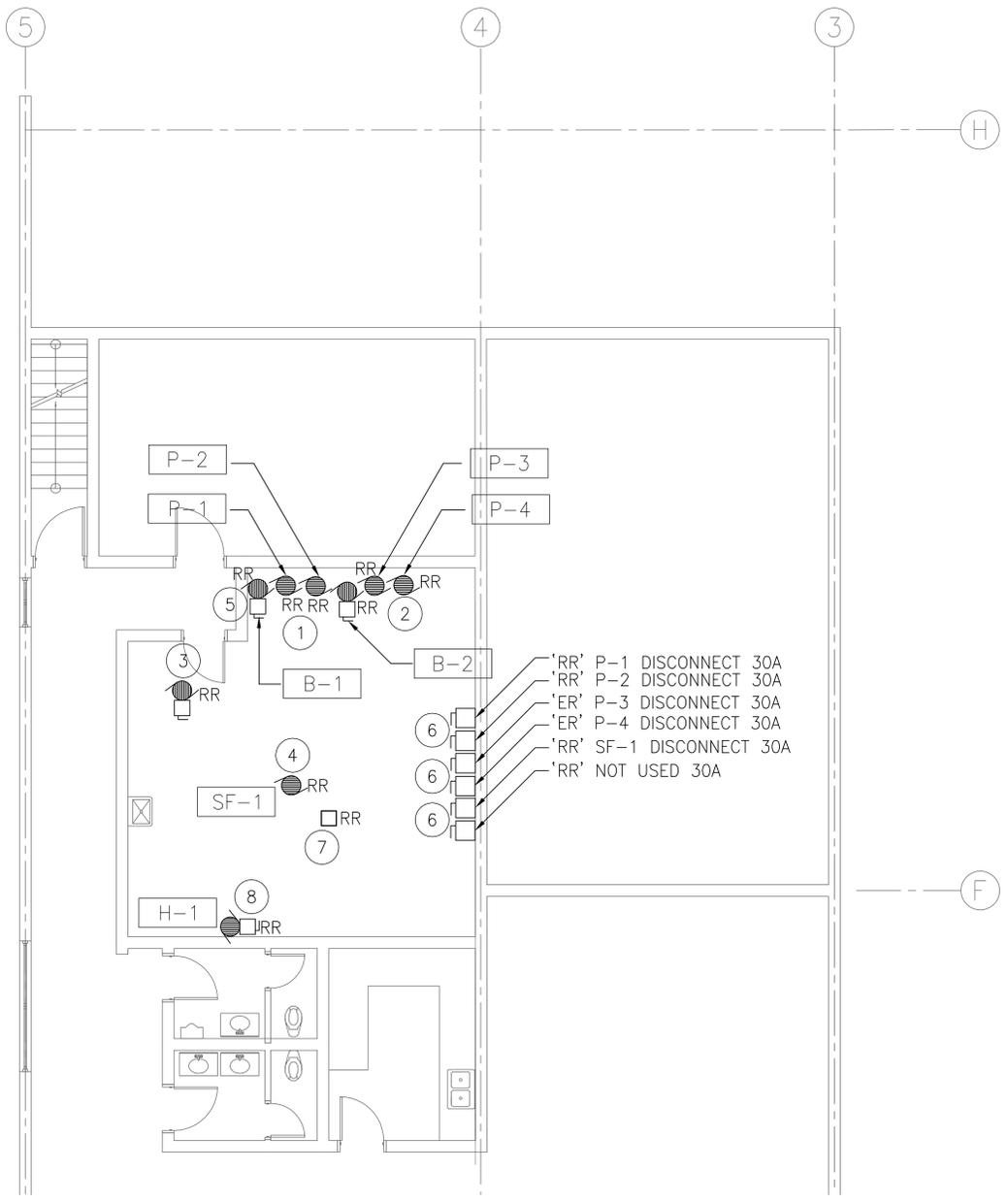
NOTES

- NEW WATER UNIT HEATER WUH-1 THROUGH WUH-16 TO BE FED FROM SEPARATE 1P-15A CIRCUIT BREAKERS (1P-15A BRKR FOR EACH WUH). REUSE EXISTING WIRING AND CONDUIT (SHALL BE #12 AND #14 GND IN 21mm) ACCORDING TO NOTE 2. ELECTRICAL CONTRACTOR TO VERIFY EXISTING MATCH SPECIFICATIONS ABOVE.
- REUSE EXISTING CONDUIT AND WIRING WHERE INDICATED ONLY UPON SATISFACTORY RESULTS OF MEGGER TESTING. PROVIDE NEW WIRING TO NEW EQUIPMENT. REFER TO EQUIPMENT SCHEDULE ON DWG E3.0 FOR WIRING AND CONDUIT SIZING.
- ELECTRICAL CONTRACTOR TO CONFIRM EXISTING MOTOR DISCONNECT SWITCHES SATISFY APPLICABLE CODES AND IN SATISFACTORY OPERATING CONDITION BEFORE REUSING FOR RENOVATION.
- PROVIDE 1P 120V CIRCUIT FOR CONTROLS ON SOLENOIDS, BOILERS AND OTHER MECHANICAL EQUIPMENT AS PER SHOP DRAWINGS.

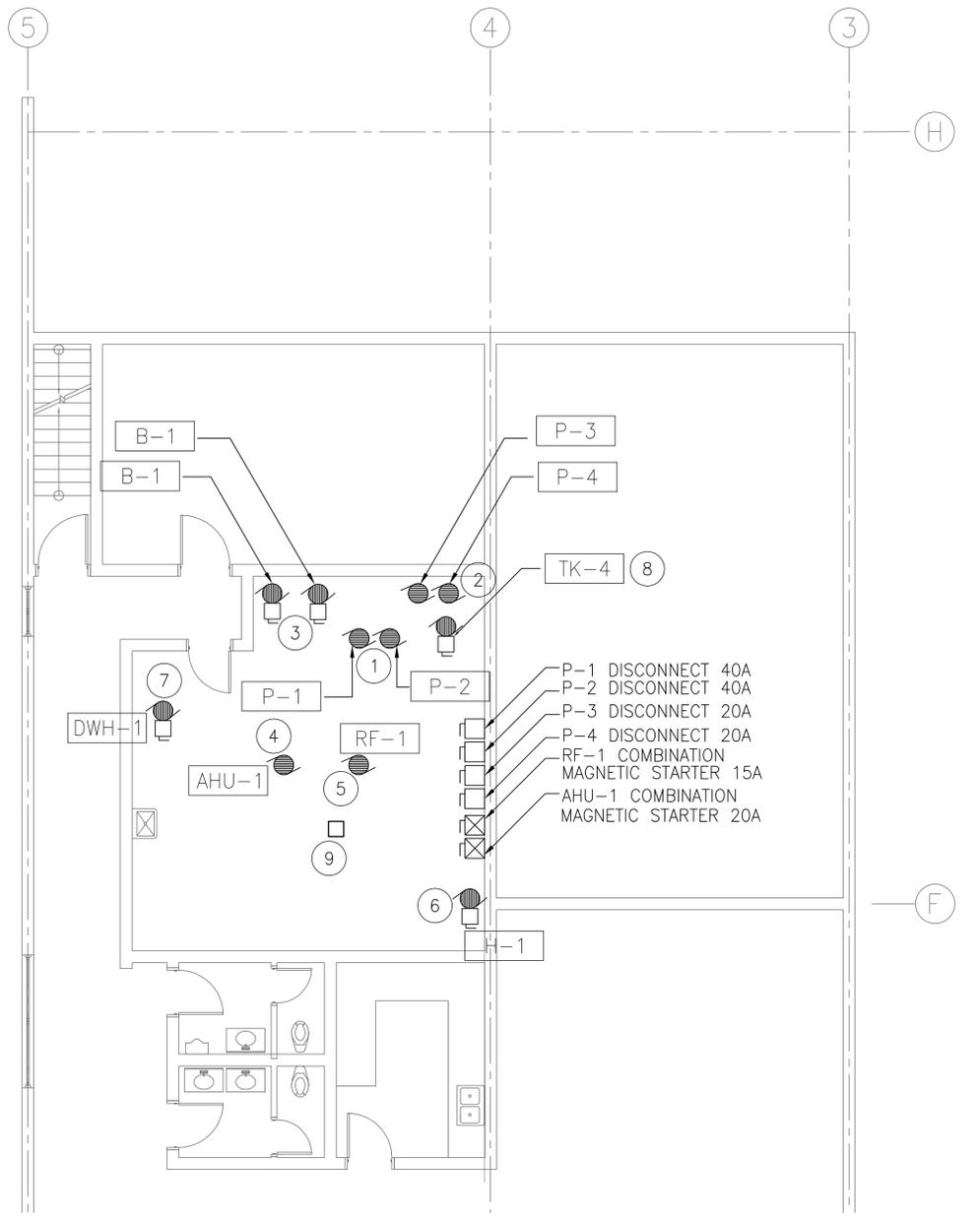
RENOVATION KEY NOTES

- NEW WATER SOFTENER WS-1 TO BE FED FROM 1P 120V CIRCUIT FROM THE NEAREST 120V PANEL. REFER TO MECHANICAL EQUIPMENT SCHEDULE ON DWG E3.0.
- PROVIDE 120V 1P-15A CIRCUIT FROM THE NEAREST 120V PANEL TO NEW RHC-5 SOLENOID VALVE.
- PROVIDE 120V 1P-15A CIRCUIT FROM THE NEAREST 120V PANEL TO NEW RHC-6 SOLENOID VALVE.
- PROVIDE 120V 1P-15A CIRCUIT FROM THE NEAREST 120V PANEL TO NEW RHC-7 SOLENOID VALVE.
- PROVIDE 120V 1P-15A CIRCUIT FROM THE NEAREST 120V PANEL TO NEW RHC-8 SOLENOID VALVE.





1 MECHANICAL ROOM-ELECTRICAL DEMOLITION
E2.0 SCALE 1:50



2 MECHANICAL ROOM ELECTRICAL RENOVATION
E2.0 SCALE 1:50

GENERAL NOTES

- ELECTRICAL DEVICES SHOWN IN SOLID LINES ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED.
- ELECTRICAL DEVICES SHOWN IN SOLID LINES AND DENOTED WITH A 'RR' ARE EXISTING TO BE REPLACED WITH NEW DEVICE UNLESS OTHERWISE NOTED. RECONNECT TO EXISTING WIRES.
- ELECTRICAL DEVICES SHOWN IN SOLID LINES AND DENOTED WITH AN 'ER' ARE EXISTING TO BE RELOCATED UNLESS OTHERWISE NOTED.
- NOT WITH STANDING ACTS, ALL ELECTRICAL DEMOLITION TO BE DONE BY ELECTRICAL CONTRACTOR.
- LOCATION OF EXISTING SYSTEMS ARE APPROXIMATE ONLY, DETERMINE EXACT LOCATIONS AND SIZES ON SITE.
- THE OWNER RESERVES THE RIGHT TO CLAIM ANY AND ALL MATERIALS AND EQUIPMENT REMOVED DURING DEMOLITION. ANY MATERIALS AND EQUIPMENT NOT CLAIMED BECOMES THE PROPERTY OF THE CONTRACTOR AND ARE TO BE REMOVED FROM THE SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE INCURRED DURING DEMOLITION. PATCH AND REPAIR DAMAGE AS REQUIRED.
- COORDINATE ALL DEMOLITION WITH GENERAL CONTRACTOR AND OWNERS REPRESENTATIVE PRIOR TO THE COMMENCEMENT OF WORK.
- COORDINATE ALL SYSTEM SHUT DOWNS WITH THE GENERAL CONTRACTOR AND THE OWNERS REPRESENTATIVE SHUT DOWN SCHEDULES TO CONFORM TO OWNERS REQUIREMENTS.
- REFER TO RELEVANT DRAWINGS FOR CONSTRUCTION OF NEW SYSTEMS IN THIS AREA. COORDINATE THE EXACT DEMOLITION REQUIREMENTS WITH NEW SYSTEM REQUIREMENTS.
- EXISTING ELECTRICAL SYSTEMS ARE TO BE RELOCATED AS REQUIRED TO ACCOMMODATE THE NEW EQUIPMENT.

DEMOLITION KEY NOTES

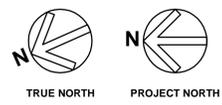
- REMOVE EXISTING PUMPS P-1 AND P-2 AND ALL ASSOCIATED WIRING AND CONDUIT INCLUDING EXISTING CONTROL UNIT BACK TO SOURCE. REMOVED EQUIPMENT TO BE RETURNED TO OWNER.
- REMOVE EXISTING PUMPS P-3 AND P-4 AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE. REUSE EXISTING CONTROL UNIT FOR RENOVATION. REMOVED EQUIPMENT TO BE RETURNED TO OWNER.
- REMOVE EXISTING LPG WATER HEATER AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE. REMOVED EQUIPMENT TO BE RETURNED TO OWNER.
- REMOVE EXISTING SUPPLY FAN SF-1 AND ALL ASSOCIATED WIRING AND CONDUIT INCLUDING CONTROL UNIT BACK TO SOURCE. REMOVED EQUIPMENT TO BE RETURNED TO OWNER.
- REMOVE EXISTING BOILER PUMPS B-1 AND B-2 AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE. REMOVED EQUIPMENT TO BE RETURNED TO OWNER.
- REMOVE EXISTING DISCONNECT AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE. REMOVED EQUIPMENT TO BE RETURNED TO OWNER.
- REMOVE EXISTING HEATING GLYCOL COIL ON EXISTING AHU-2. REUSE EXISTING WIRING AND CONDUIT FOR RENOVATION.
- REMOVE EXISTING HUMIDIFIER H-1 AND ALL ASSOCIATED WIRING AND CONDUIT BACK TO SOURCE. REMOVED EQUIPMENT TO BE RETURNED TO OWNER.

GENERAL NOTES

- PROVIDE 1P 120V CIRCUIT FOR CONTROLS ON SOLENOIDS, BOILERS AND OTHER MECHANICAL EQUIPMENT AS PER SHOP DRAWINGS.
- REUSE EXISTING CONDUIT AND WIRING WHERE INDICATED ONLY UPON SATISFACTORY RESULTS OF MEGGER TESTING. OTHERWISE PROVIDE NEW WIRING TO NEW EQUIPMENT. REFER TO EQUIPMENT SCHEDULE ON DWG E3.0 FOR WIRING AND CONDUIT SIZING.
- ELECTRICAL CONTRACTOR TO CONFIRM EXISTING MOTOR DISCONNECT SWITCHES SATISFY APPLICABLE CODES AND IN SATISFACTORY OPERATING CONDITION BEFORE REUSING FOR RENOVATION.

RENOVATION KEY NOTES

- NEW PUMPS P-1 AND P-2 TO BE FED FROM 3P-40A CIRCUIT BREAKERS EACH FROM THE NEAREST 208V PANEL. USE 3#10 AND 1#10 GND IN 21mm². ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL NEW 40A DISCONNECTS, WIRING AND CONDUIT TO P-1 AND P-2.
- NEW PUMPS P-3 AND P-4 TO BE FED FROM 1P-20A CIRCUIT BREAKERS EACH FROM THE NEAREST 120V PANEL. USE 2#12 AND 1#14 GND IN 21mm². ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL WIRING AND CONDUIT FROM P-3 AND P-4 TO EXISTING 30A DISCONNECTS.
- NEW BOILERS B-1 AND B-2 TO BE FED FROM 1P-15A CIRCUIT BREAKER EACH FROM THE NEAREST 120V PANEL. USE 2#12 AND 1#14 GND IN 21mm².
- NEW AHU-1 TO BE FED FROM 3P-20A CIRCUIT BREAKER FROM THE NEAREST 208V PANEL. USE 3#12 AND 1#14 GND IN 21mm².
- NEW RETURN FAN RF-1 TO BE FED FROM 3P-15A CIRCUIT BREAKER FROM THE NEAREST 208V PANEL. USE 3#12 AND 1#14 GND IN 21mm².
- NEW HUMIDIFIER H-1 TO BE FED FROM 1P-15A CIRCUIT BREAKER FROM THE NEAREST 120V PANEL. USE 2#12 AND 1#14 GND IN 21mm².
- NEW DOMESTIC HOT WATER PUMP DWH-1 TO BE FED FROM 1P-15A CIRCUIT BREAKER FROM THE NEAREST 120V PANEL. USE 2#12 AND 1#14 GND IN 21mm².
- NEW GLYCOL FILL TANK PUMP TK-4 TO BE FED FROM 1P-20A CIRCUIT BREAKER FROM THE NEAREST 120V PANEL. USE 2#12 AND 1#14 GND IN 21mm².
- REUSE EXISTING WIRING AND CONDUIT TO RECONNECT NEW HEATING COIL HC-2. CIRCUIT SHALL BE 1P-15A 120V. ELECTRICAL CONTRACTOR TO VERIFY EXISTING MATCH SPEC'S.



PERMIT TO PRACTICE
SNC-LAVALIN INC.
Signature: [Signature]
Date: May 01, 2015
PERMIT NUMBER: P 5645
The Association of Professional Engineers and Geoscientists of Alberta



DO NOT SCALE DRAWINGS

Revision/Description	Date
5	-
4	-
3	-
2	-
1	-
0	ISSUED FOR BID 15-05-01

Client/Client
Parks Canada Agency

Project Title/Titre du projet
**Lake Louise, Alberta
Parks Canada**

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approve par
JS

Designed by/Conception par
SA

Drawn by/Dessiné par
SA

PWSC Project Manager/Administrateur de Projets TPSCC

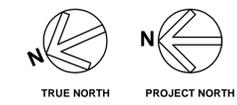
PWSC Architectural and Engineering Resources Manager/ Ressources Architecturales et de Directeur d'Ingénierie, TPSCC

Client/Client
Parks Canada

Drawing Title/Titre du dessin
SECOND FLOOR MECHANICAL ROOM ELECTRICAL DEMOLITION AND RENOVATION

Project No./No. du projet	Sheet/Feuille	Revision no./No. de Révision
10-19075	E2 OF 03	0





PERMIT TO PRACTICE
SNC-LAVALIN INC.
Signature: _____
Date: May 01, 2015
PERMIT NUMBER: P 5645
The Association of Professional Engineers and Geoscientists of Alberta



DO NOT SCALE DRAWINGS

5	-	-
4	-	-
3	-	-
2	-	-
1	-	-
0	ISSUED FOR BID	15-05-01

Revisions/Revisions	Description/Description	Date/Date
---------------------	-------------------------	-----------

Client/Client
Parks Canada Agency

Project Title/Titre du projet
**Lake Louise, Alberta
Parks Canada**

Lake Louise Compound Heating & Ventilation System Upgrade

Approved by/Approuvé par
JS

Designed by/Concept par
SA

Drawn by/Dessiné par
SA

PWSC Project Manager/Administrateur de Projets TPSSC

PWSC Architectural and Engineering Resources Manager/Ressources Architecturales et de Directeur d'Ingénierie, TPSSC

Client/Client
Parks Canada

Drawing Title/Titre du dessin

ELECTRICAL SCHEDULES AND LEGENDS

Project No./No. du projet
10-19075

Sheet/Feuille
E3
OF 03

Revision no./No. de Révision
0

MECHANICAL EQUIPMENT SCHEDULE – RENOVATION

EQUIP NO	DESCRIPTION LOCATION	LOAD	VOLTS	PHASE	FEED PROTECTION	CIRCUIT	COMMENTS/CONTROLS
P-1	CIRCULATION PUMP	5HP	208	3	3#10 – 21mmC 3P-40A BRKR	-	C/W VARIABLE FREQUENCY DRIVE CONTROLS BY MECHANICAL
P-2	CIRCULATION PUMP	5HP	208	3	3#10 – 21mmC 3P-40A BRKR	-	C/W VARIABLE FREQUENCY DRIVE CONTROLS BY MECHANICAL
P-3	GLYCOL PUMP	0.5HP	120	1	2#12 – 21mmC 1P-20A BRKR	-	RECONNECT TO EXISTING H.O.A. CONTROL DISCONNECT BY ELECTRICAL
P-4	GLYCOL PUMP	0.5HP	120	1	2#12 – 21mmC 1P-20A BRKR	-	RECONNECT TO EXISTING H.O.A. CONTROL DISCONNECT BY ELECTRICAL
AHU-1	SUPPLY FAN	3HP	208	3	3#12 – 21mmC 3P-20A BRKR	-	C/W COMBINATION MAGNETIC STARTER BY ELECTRICAL C/W H.O.A. CONTROL
RF-1	RETURN FAN	2HP	208	3	3#12 – 21mmC 3P-15A BRKR	-	C/W COMBINATION MAGNETIC STARTER BY ELECTRICAL C/W H.O.A. CONTROL
WUH-1	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-2	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-3	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-4	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-5	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-6	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-7	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-8	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-9	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-10	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-11	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-12	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-13	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-14	WATER UNIT HEATER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-15	WATER UNIT HEATER	1/4 HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
WUH-16	WATER UNIT HEATER	1/4 HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
DWH-1	DOMESTIC WATER HEATER	2A	120	1	2#12 – 21mmC 1P-15A BRKR	-	RECONNECT TO EXISTING CONTROL CIRCUIT
WS-1	WATER SOFTENER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
H-1	STEAM HUMIDIFIER	3A	120	1	2#12 – 21mmC 1P-15A BRKR	-	CONTROLS BY MECHANICAL
B-1	CONDENSING BOILER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	MOTOR PROTECTION SWITCH BY ELECTRICAL CONTROLS BY MECHANICAL
B-2	CONDENSING BOILER	FRAC. HP	120	1	2#12 – 21mmC 1P-15A BRKR	-	MOTOR PROTECTION SWITCH BY ELECTRICAL CONTROLS BY MECHANICAL
TK-4	GLYCOL TANK PUMP	0.5HP	120	1	2#12 – 21mmC 1P-20A BRKR	-	PROVIDE DISCONNECT & STARTER AT UNIT CONTROLS BY MECHANICAL

- GENERAL NOTES**
- COORDINATE NEW MECHANICAL EQUIPMENT SPECIFICATIONS WITH MECHANICAL CONTRACTOR AND EQUIPMENT SHOP DRAWINGS.
 - COORDINATE ON SITE FOR EXISTING MECHANICAL EQUIPMENT FEEDS AND PROTECTION.
 - MOTOR CONTROLS AND INTERLOCKS ARE SPECIFIED BY MECHANICAL AND WIRING TO BE DONE BY ELECTRICAL.

MISCELLANEOUS

- ELECTRIC HEATING
- MULTI OUTLET ASSEMBLY
- HEAT TRACING WITH JUNCTION BOX
- (1) FIXTURE TYPE DESIGNATION (TYPICAL)
- a INSTALL ABOVE COUNTER OR MILLWORK
- b INSTALL BUILT INTO MILLWORK
- c INSTALL DEVICE IN CHASSIS/RACK
- e EXISTING DEVICE TO REMAIN
- ER EXISTING DEVICE TO BE RELOCATED
- RE RELOCATED EXISTING DEVICE
- X EXISTING DEVICE TO BE REMOVED
- RS REMOVE EXISTING DEVICE & REPLACE WITH NEW
- P PEDESTAL MOUNTED
- NL NIGHT LIGHT
- XP EXPLOSION PROOF
- FT FIXED TEMPERATURE
- WP WEATHER-PROOF
- Conduit HOMERUN (WIRE COUNT SHOWN)
- Conduit RUN UP
- Conduit RUN DOWN
- Conduit RUN IN FLOOR OR BELOW GRADE
- DIAGRAMMATIC OR FLEXIBLE CONNECTION

SWITCH/MOTOR LEGEND

- 69 SINGLE POLE LOCAL LIGHT SWITCH
- 69.3 3 WAY SWITCH
- 69.4 4 WAY SWITCH
- 69.9 KEY OPERATED SWITCH
- 69.12 MANUAL DIMMER SWITCH
- 69.9 TIME SWITCH
- 69 SINGLE POLE SWITCHES IN MULTIPLE GANG
- 69.9 SINGLE POLE LOCAL SWITCH W/ PILOT LIGHT
- 69.9 SPECIAL PURPOSE SWITCH - AS NOTED
- 69 LOW VOLTAGE SWITCH
- 69 CEILING MOUNTED JUNCTION BOX
- 69 WALL MOUNTED JUNCTION BOX
- 69 LINE VOLTAGE THERMOSTAT
- 69 FLEXIBLE HARD WIRED CONNECTION
- 69 FUSIBLE SAFETY DISCONNECT SWITCH
- 69 NON-FUSIBLE SAFETY DISCONNECT SWITCH
- 69 MAGNETIC STARTER
- 69 COMBINATION MAGNETIC STARTER
- 69 CONTACTOR
- 69 START/STOP PUSHBUTTON STATION
- 69 PHOTOCCELL
- 69 PLUG AND CORD CAP
- 69 MOTORIZED DAMPER
- 69 MOTOR
- 69 MOTOR WITH PLUG CONNECTION

MECHANICAL EQUIPMENT SCHEDULE – DEMOLITION

EQUIP NO	DESCRIPTION LOCATION	LOAD	VOLTS	PHASE	FEED PROTECTION	CIRCUIT	COMMENTS/CONTROLS
P-1	PUMP MECHANICAL ROOM	3HP	208	3	-	-	C/W 30A DISCONNECT
P-2	PUMP MECHANICAL ROOM	3HP	208	3	-	-	C/W 30A DISCONNECT
P-3	PUMP MECHANICAL ROOM	FRAC. HP	120	1	-	-	C/W 30A DISCONNECT
P-4	PUMP MECHANICAL ROOM	FRAC. HP	120	1	-	-	C/W 30A DISCONNECT
SF-1	SUPPLY FAN MECHANICAL ROOM	1HP	208	3	PANEL 'D'	-	C/W 30A DISCONNECT
WUH-1	WATER UNIT HEATER STORAGE	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-2	WATER UNIT HEATER STORAGE	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-3	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-4	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-5	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-6	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-7	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-8	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-9	WATER UNIT HEATER AMBULANCE	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-10	WATER UNIT HEATER AMBULANCE	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-11	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-12	WATER UNIT HEATER	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-13	WATER UNIT HEATER ELECTRICAL ROOM	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-14	WATER UNIT HEATER 2ND FLOOR STORAGE	FRAC. HP	120	1	PANEL 'E'	-	-
WUH-15	WATER UNIT HEATER	1/4 HP	120	1	PANEL 'E'	-	-
WUH-16	WATER UNIT HEATER	1/4 HP	120	1	PANEL 'E'	-	-
H-2	STEAM HUMIDIFIER	3KW	208	1	PANEL 'D'	-	-
B-1	CONDENSING BOILER	-	-	-	-	-	-
B-2	CONDENSING BOILER	-	-	-	-	-	-

