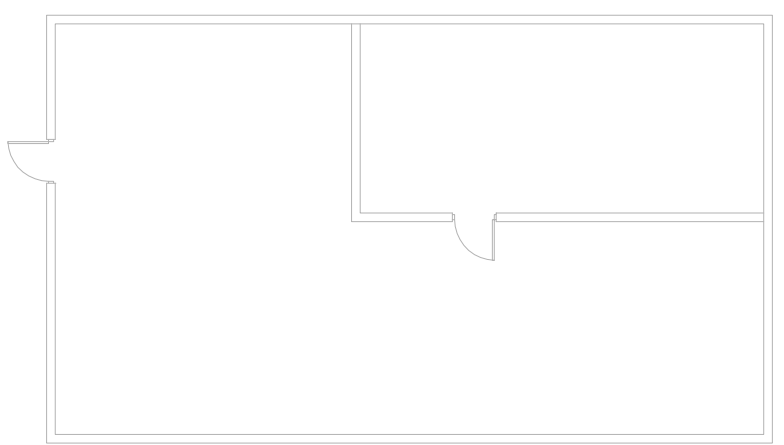


MAIN FLOOR
DWG SCALE : 1:175



BASEMENT FLOOR
DWG SCALE : 1:150



MECHANICAL LEGEND

---	SANITARY SEWER
---	SANITARY SEWER UNDERGROUND
---	STORM WATER SEWER
---	STORM WATER SEWER UNDERGROUND
---	ID
---	INDIRECT WASTE
---	SPD
---	SUMP PUMP DISCHARGE
---	DOMESTIC COLD WATER
---	DOMESTIC HOT WATER
---	DOMESTIC HOT WATER RECIRCULATION
---	PLUMBING VENT
---	NATURAL GAS
---	HYDRONIC HOT WATER SUPPLY LINE
---	HYDRONIC HOT WATER RETURN LINE
---	HYDRONIC GLYCOL WATER SUPPLY LINE
---	HYDRONIC GLYCOL WATER RETURN LINE
---	LOW/HIGH PRESSURE SUPPLY LINE
---	LOW/HIGH PRESSURE RETURN LINE
---	TOP TAKE OFF
---	BOTTOM TAKE OFF
---	ELBOW RISING
---	ELBOW DROPPING
---	CAP OR PLUG
---	CLEAN OUT
---	FLOOR DRAIN
---	PUMP
---	FIXTURE TRAP
---	UNION/FLANGE
---	NATURAL GAS METER/WATER METER
---	PRESSURE GAUGE/ PRESSURE TAP
---	THERMOMETER/ THERMOMETER WELL
---	AUTOMATIC AIR VENT
---	BACKFLOW PREVENTION VALVE
---	MANUAL BALANCING VALVE
---	BALL VALVE
---	BUTTERFLY VALVE
---	CHECK VALVE
---	GATE VALVE
---	GLOBE VALVE
---	LOCK SHIELD VALVE
---	PRESSURE REDUCING VALVE
---	STRAINER
---	3-WAY VALVE
---	FUSIBLE LINK VALVE
---	NEEDLE VALVE
---	PLUG VALVE
---	PRESSURE RELIEF VALVE
---	RELIEF VALVE
---	PRESSURE GAUGE
---	ELECTRONIC ACTUATOR
---	PNEUMATIC ACTUATOR
---	THERMOSTAT/HUMIDISTAT/WITH LOCKABLE CO
---	DUCT END CAP
---	SUPPLY DIFFUSER
---	RETURN OR EXHAUST INLET (CEILING TYPE)

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Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

1	ISSUED FOR TENDER (STAMPED)	13/05/13
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revisions	description	date
A	A detail no. du detail	A
B	B location drawing no. sur dessin no.	B
C	C drawing no. dessin no.	C

project HEATING AND CONTROLS UPGRADE
FORT SIMPSON DETACHMENT, NT

drawing DETACHMENT KEY PLAN AND LEGEND

Designed By	MA/EC	Conçu par
Date	2013/03/11	(yyyy/mm/dd)
Drawn By	MA	Dessiné par
Date	2013/03/11	(yyyy/mm/dd)
Reviewed By	EC	Examiné par
Date	2013/03/14	(yyyy/mm/dd)
Approved By		Approuvé par
Date		(yyyy/mm/dd)
Tender		Soumission

Project Manager Administrateur de projets
Project no. No. du projet

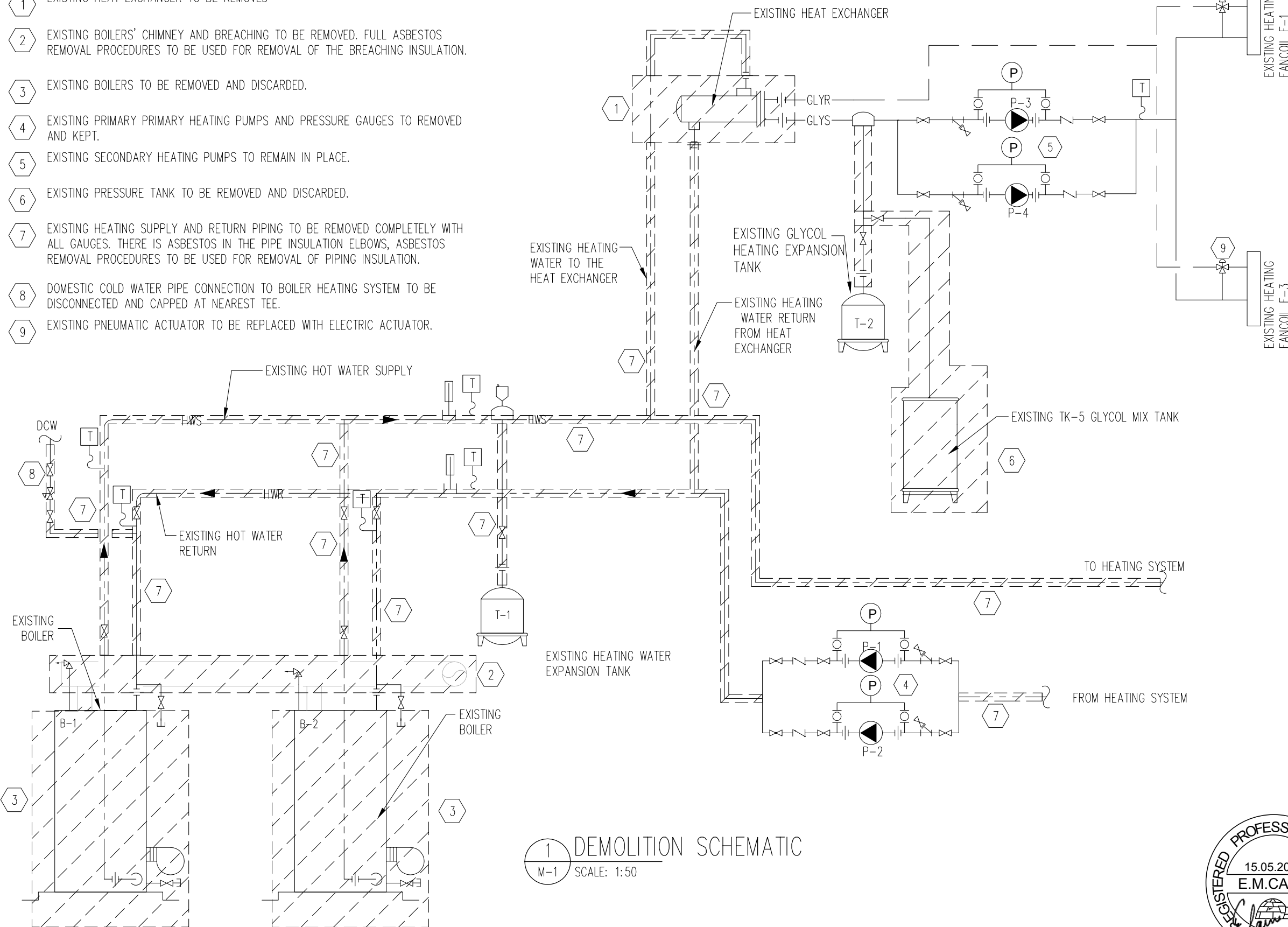
7185508

Drawing no. No. du dessin

M-1

DEMOLITION SCHEMATIC KEYNOTES:

- 1 EXISTING HEAT EXCHANGER TO BE REMOVED
- 2 EXISTING BOILERS' CHIMNEY AND BREACHING TO BE REMOVED. FULL ASBESTOS REMOVAL PROCEDURES TO BE USED FOR REMOVAL OF THE BREACHING INSULATION.
- 3 EXISTING BOILERS TO BE REMOVED AND DISCARDED.
- 4 EXISTING PRIMARY PRIMARY HEATING PUMPS AND PRESSURE GAUGES TO REMOVED AND KEPT.
- 5 EXISTING SECONDARY HEATING PUMPS TO REMAIN IN PLACE.
- 6 EXISTING PRESSURE TANK TO BE REMOVED AND DISCARDED.
- 7 EXISTING HEATING SUPPLY AND RETURN PIPING TO BE REMOVED COMPLETELY WITH ALL GAUGES. THERE IS ASBESTOS IN THE PIPE INSULATION ELBOWS, ASBESTOS REMOVAL PROCEDURES TO BE USED FOR REMOVAL OF PIPING INSULATION.
- 8 DOMESTIC COLD WATER PIPE CONNECTION TO BOILER HEATING SYSTEM TO BE DISCONNECTED AND CAPPED AT NEAREST TEE.
- 9 EXISTING PNEUMATIC ACTUATOR TO BE REPLACED WITH ELECTRIC ACTUATOR.



1 DEMOLITION SCHEMATIC
M-1 SCALE: 1:50



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revisions	description	date

project HEATING AND CONTROLS UPGRADE
 FORT SIMPSON DETACHMENT, NT

drawing HEATING DEMOLITION SCHEMATIC

Designed By	MA/EC	Conçu par
Date	2013/03/11	(yyyy/mm/dd)
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Date	2013/03/11	(yyyy/mm/dd)
Reviewed By	EC	Examiné par
Date	2013/03/14	(yyyy/mm/dd)
Approved By		Approuvé par
Date		(yyyy/mm/dd)
Tender		Soumission

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Project no.	No. du projet
	7185508
Drawing no.	No. du dessin
	M-2

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revisions	description	date

project projet

HEATING AND CONTROLS UPGRADE

FORT SIMPSON DETACHMENT, NT

drawing dessin

MECHANICAL NEW HEATING SCHEMATIC

Designed By MA/EC Conçu par

Date 2013/03/11 (yyyy/mm/dd)

Drawn By MA Dessiné par

Date 2013/03/11 (yyyy/mm/dd)

Reviewed By EC Examiné par

Date 2013/03/14 (yyyy/mm/dd)

Approved By Approuvé par

Date (yyyy/mm/dd)

Tender Soumission

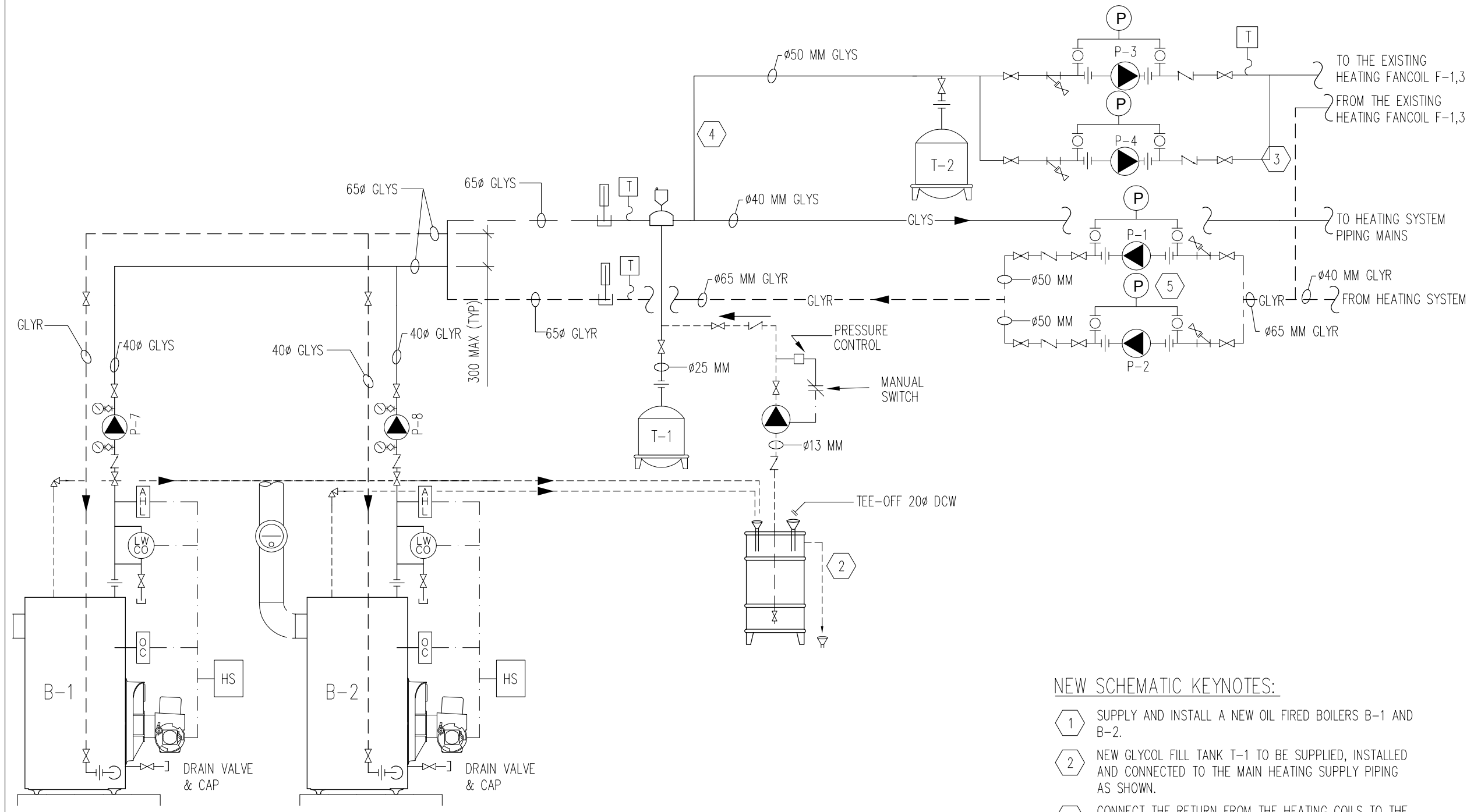
Project Manager Administrateur de projets

Project no. No. du projet

7185508

Drawing no. No. du dessin

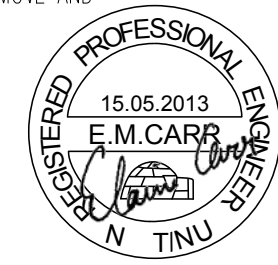
M-3



1 NEW HEATING SYSTEM SCHEMATIC
 M-2 SCALE: 1:50

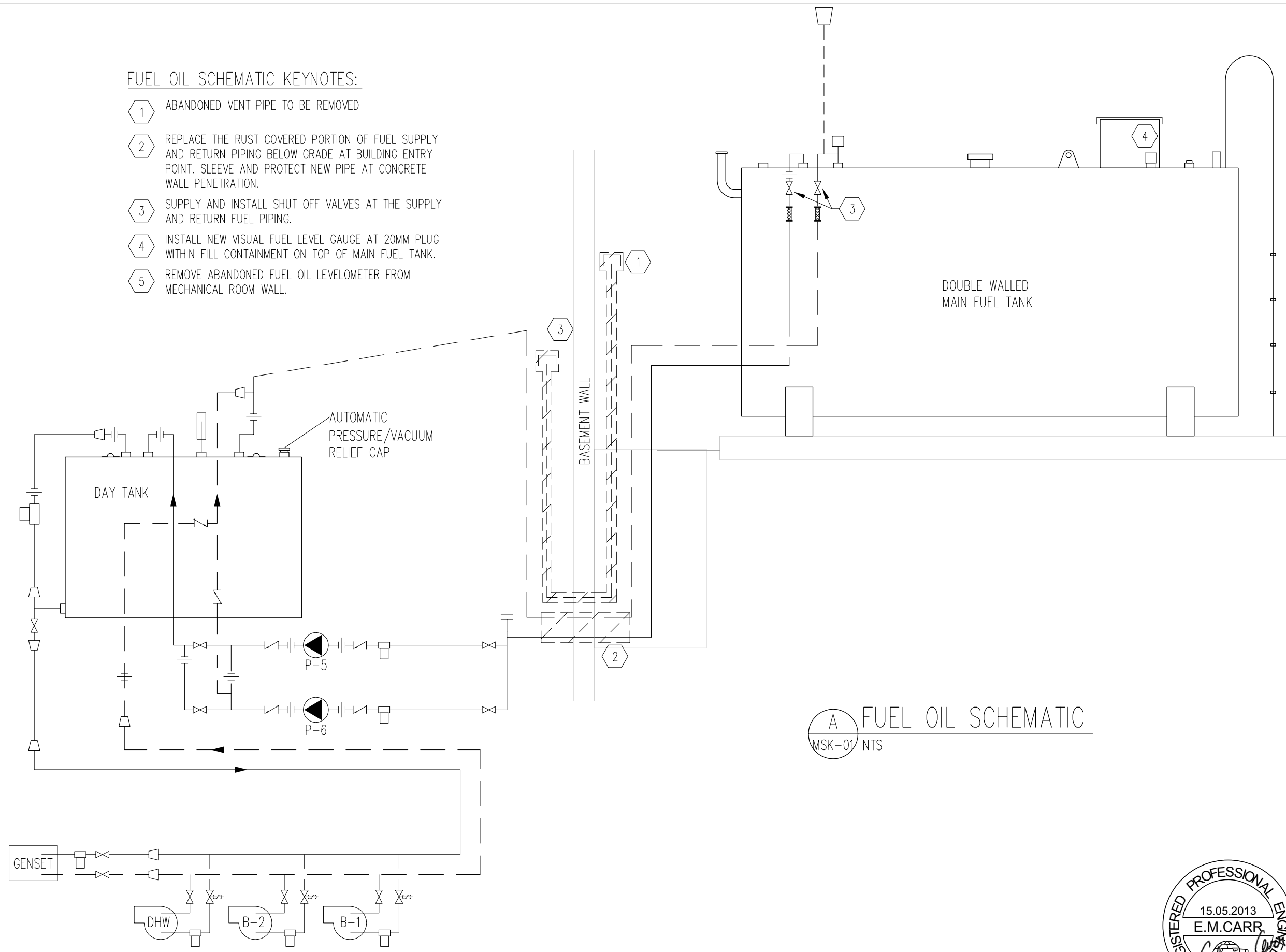
NEW SCHEMATIC KEYNOTES:

- 1 SUPPLY AND INSTALL A NEW OIL FIRED BOILERS B-1 AND B-2.
- 2 NEW GLYCOL FILL TANK T-1 TO BE SUPPLIED, INSTALLED AND CONNECTED TO THE MAIN HEATING SUPPLY PIPING AS SHOWN.
- 3 CONNECT THE RETURN FROM THE HEATING COILS TO THE NEW MAIN RETURN HEATING PIPING
- 4 CONNECT THE SUPPLY TO THE HEATING COILS TO THE NEW MAIN SUPPLY HEATING PIPING
- 5 REPLACE THE EXISTING PRIMARY PUMPS WITH NEW P-1&2 SPECIFIED IN EQUIPMENT SCHEDULE, REMOVE AND REINSTALL PRESSURE GAUGES.



FUEL OIL SCHEMATIC KEYNOTES:

- 1 ABANDONED VENT PIPE TO BE REMOVED
- 2 REPLACE THE RUST COVERED PORTION OF FUEL SUPPLY AND RETURN PIPING BELOW GRADE AT BUILDING ENTRY POINT. SLEEVE AND PROTECT NEW PIPE AT CONCRETE WALL PENETRATION.
- 3 SUPPLY AND INSTALL SHUT OFF VALVES AT THE SUPPLY AND RETURN FUEL PIPING.
- 4 INSTALL NEW VISUAL FUEL LEVEL GAUGE AT 20MM PLUG WITHIN FILL CONTAINMENT ON TOP OF MAIN FUEL TANK.
- 5 REMOVE ABANDONED FUEL OIL LEVELMETER FROM MECHANICAL ROOM WALL.



A FUEL OIL SCHEMATIC
MSK-01 NTS

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revisions	description	date
A	A detail no. no. du detail	A
B	B location drawing no. sur dessin no.	B
C	C drawing no. dessin no.	C

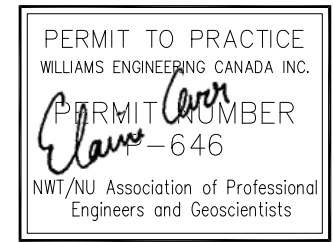
project
HEATING AND CONTROLS UPGRADE
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drawing
MECHANICAL FUEL OIL SCHEMATIC

Designed By	MA/EC	Conçu par
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Reviewed By	EC	Examiné par
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Approved By		Approuvé par
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Tender		Soumission

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Drawing no.	No. du dessin
	M-4





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project projet

HEATING AND CONTROLS UPGRADE

FORT SIMPSON DETACHMENT, NT

drawing dessin

MECHANICAL NEW HEATING SCHEMATIC

Designed By MA/EC Conçu par

Date 2013/03/11 (yyyy/mm/dd)

Drawn By MA Dessiné par

Date 2013/03/11 (yyyy/mm/dd)

Reviewed By EC Examiné par

Date 2013/03/14 (yyyy/mm/dd)

Approved By Approuvé par

Date (yyyy/mm/dd)

Tender Soumission

Project Manager Administrateur de projets

Project no. No. du projet

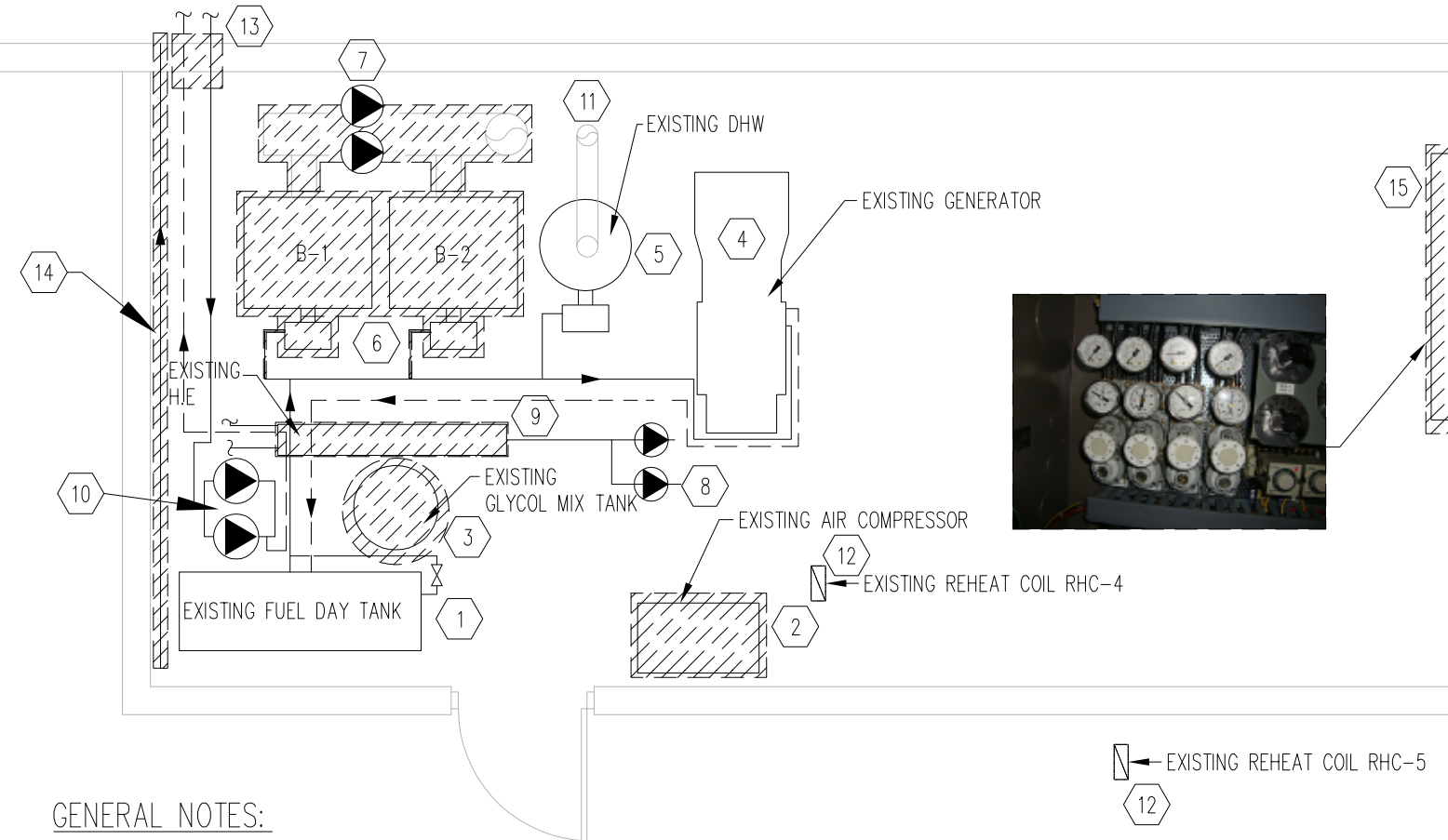
7185508

Drawing no. No. du dessin

M-5

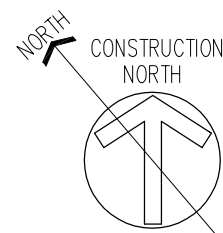
MECHANICAL DEMOLITION KEYNOTES:

- 1 DAY FUEL TANK TO REMAIN, THE LEAK OFF OF DAY TANK NEAR THE MECHANICAL ROOM DOOR TO BE FIXED.
- 2 EXISTING AIR COMPRESSOR COMPLETE WITH ELECTRICAL CONNECTIONS BE REMOVED.
- 3 PRESSURE TANK TO BE REMOVED.
- 4 ELECTRICAL GENERATOR TO REMAIN
- 5 DHW HEATER TANK TO REMAIN
- 6 EXISTING BOILERS COMPLETE WITH ALL ASSOCIATED ELECTRICAL, FUEL SUPPLY, HEATING SUPPLY AND RETURN PIPING, BREACHING AND CHIMNEY, AND DRAIN TO BE REMOVED.
- 7 PRIMARY BOILER LOOP PUMPS TO REMAIN AND TO BE RE-LABELLED AS P-1 & P-2.
- 8 SECONDARY GLYCOL HEATING LOOP TO REMAIN AND TO BE RE-LABELLED AS P-3 & P-4
- 9 EXISTING HEAT EXCHANGER TO BE REMOVED COMPLETELY WITH ALL ASSOCIATED PIPES AND VALVES.
- 10 OIL TRANSFER PUMPS TO REMAIN AND TO BE RE-LABELLED AS P-5 & P-6.
- 11 EXISTING DHW HEATER'S CHIMNEY TO BE REMOVED
- 12 REPLACE THE EXISTING 2-WAY PNEUMATIC CONTROL VALVES WITH 2-WAY ELECTRIC CONTROL VALVES AT THE EXISTING REHEAT COIL
- 13 REPLACE THE PORTION OF FUEL SUPPLY AND RETURN PIPING BELOW GRADE AT BUILDING ENTRY POINT.
- 14 REMOVE ABANDONED OIL VENT PIPING FROM BASEMENT TO OUTDOOR
- 15 REMOVE THE EXISTING PNEUMATIC CONTROL PANEL, REPLACE WITH ELECTRIC CONTROLS TO MAINTAIN FUNCTIONALITY. SEE SPECIFICATIONS FOR CURRENT CONTROL FUNCTIONALITY DETAILS.

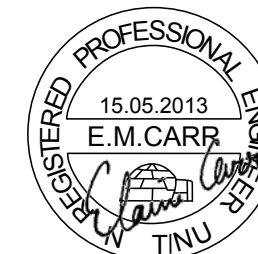


GENERAL NOTES:

1. THERE IS ASBESTOS IN THE PIPE INSULATION ELBOWS AND THE BOILER BREACHING AND CHIMNEY INSULATION IN THE MECHANICAL ROOM, FULL ASBESTOS REMOVAL PROCEDURES TO BE USED FOR THE REMOVAL OF PIPING AND BREACHING INSULATION FROM THE MECHANICAL ROOM.
2. PRIOR TO CONSTRUCTION, THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE AND CONFIRM THE LOCATION OF EXISTING SERVICES, PIPING AND EQUIPMENT.
3. CONTRACTOR TO COORDINATE DEMOLITION, SHUT DOWNS AND ISOLATIONS (HEATING WATER, OIL, ELECTRICAL, ETC.) WITH OTHER TRADES AND DETACHMENT OPERATOR.
4. CONTRACTOR TO CONFIRM SIZE OF EXISTING PIPING AND ELECTRICAL PRIOR TO CONSTRUCTION. INFORM ENGINEER OF ANY DISCREPANCIES.
5. REMOVE ALL UNUSED EQUIPMENT AND PIPING FROM EXISTING HEATING SYSTEM WHEN BOILERS ARE REPLACED.
6. REPLACE ALL SHUT OFF VALVES AT THE BASEMENT AND MAIN FLOOR HEATING SUPPLY AND RETURN PIPING.
7. PROVIDE LABELS FOR EQUIPMENTS IN MECHANICAL ROOM
8. CONTRACTOR TO BE RESPONSIBLE FOR APPROPRIATE AND LAWFUL DISPOSAL OF ALL REMOVED EQUIPMENT AND MATERIALS.



1 BASEMENT DEMOLITION PLAN
 M-4 SCALE: 1:50

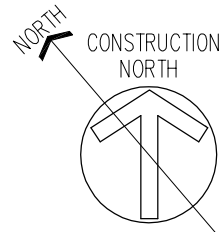
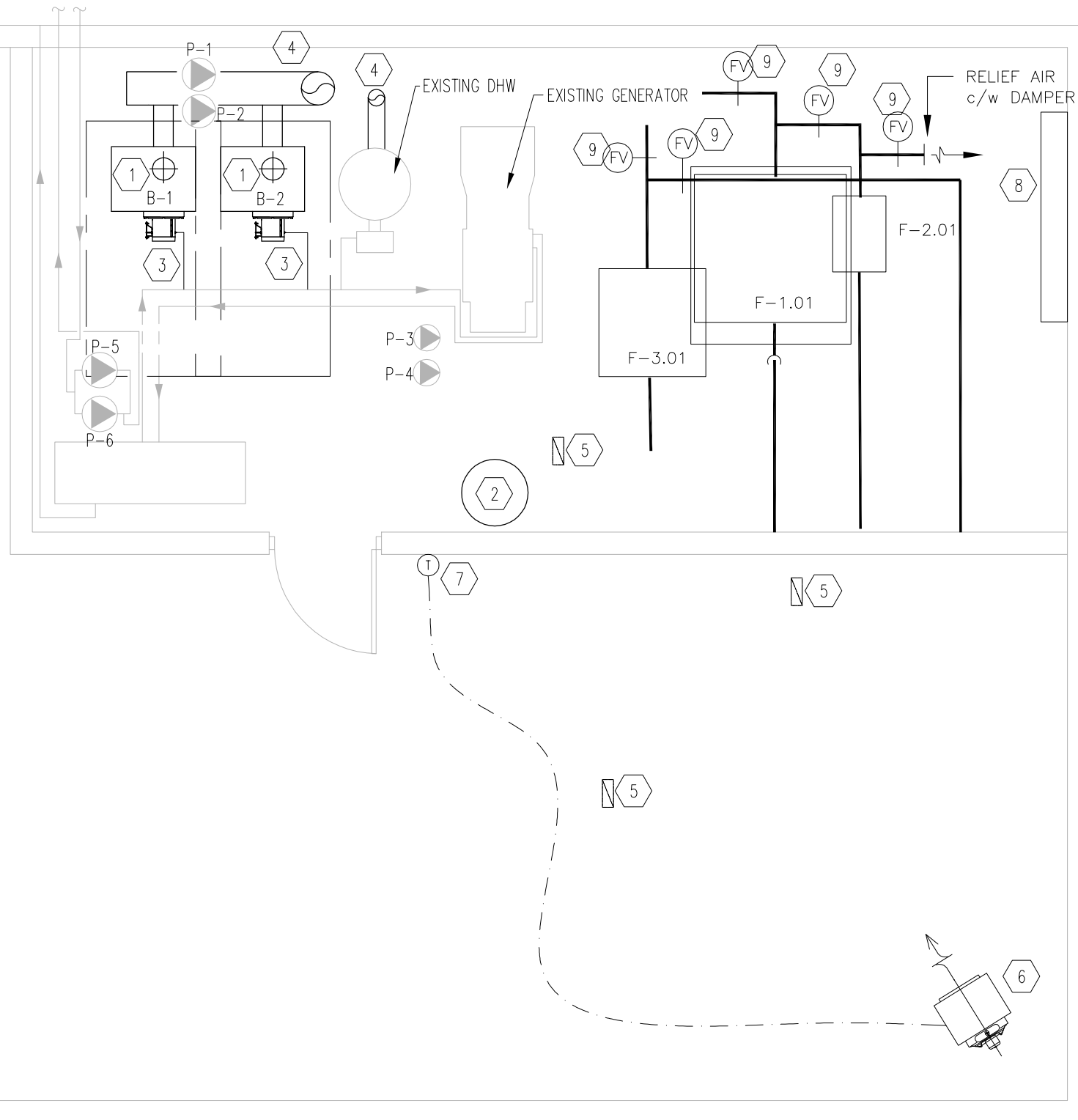


MECHANICAL LAYOUT KEYNOTES:

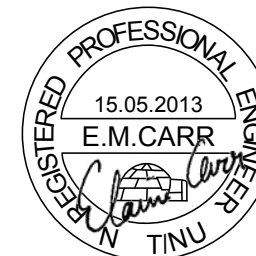
- 1 SUPPLY AND INSTALL TWO NEW BOILERS B-1&2 MODEL. THE INSTALLATION SHALL COMPLY WITH REQUIRED CLEARANCE AS PER CODE AND MANUFACTURER RECOMMENDATION . CONNECT NEW HEATING SUPPLY AND RETURN PIPING TO EXISTING MAIN PIPING. PROVIDE NEW DRAIN TO EXISTING FLOOR DRAIN. PROVIDE NEW POWER SUPPLY FROM EXISTING COMPLETE WITH NEW STARTERS AND WIRING TO MEET CANADIAN ELECTRICAL CODE. WHEN THE INSTALLATION IS COMPLETE REMOVE ALL UNUSED PIPING.
- 2 SUPPLY AND INSTALL NEW GLYCOL FILL TANK
- 3 CONNECT NEW FUEL LINES TO THE BURNER FROM THE EXISTING FUEL SUPPLY PIPING
- 4 NEW CLASS A CHIMNEYS TO BE INSTALLED FOR BOILERS AND DHW, AFTER COMPLETING THE INSTALLATION THE OPENING IN THE ROOF TO BE PATCHED AND SEALED.
- 5 NEW ELECTRIC 2-WAY VALVES TO BE SUPPLIED AND INSTALLED AT THE INDICATED REHEAT COILS. CONNECT CONTROL TO THE ASSOCIATED NEW THERMOSTAT.
- 6 EXISTING UNIT HEATER TO REMAIN
- 7 EXISTING LINE VOLTAGE THERMOSTAT TO REMAIN
- 8 SUPPLY AND INSTALL NEW ELECTRIC CONTROL PANEL COMPLETE WITH ALL NEEDED WIRING, TIMERS, PRESSURE AND TEMPERATURE OUTPUTS AS DESCRIBED IN SPECIFICATION.
- 9 REPLACE ALL PNEUMATIC DAMPER ACTUATORS ON AIR SYSTEM WITH NEW ELECTRIC DAMPER ACTUATORS.

SEQUENCE OF OPERATION

1. BOILERS ARE TO OPERATE TO MEET HEATING FLUID THERMOSTAT HEATING SET POINT. HEATING SET POINT TO VARY BASED ON NEW INDOOR/OUTDOOR TEMPERATURE CONTROLLER.
2. T-STAT FOR AREAS HEATED BY PERIMETER RADIATION, CABINET UNIT HEATER OR UNIT HEATER TO BE SINGLE STAGE HEATING THERMOSTATS C/W MANUAL SETPOINTS AND VISUAL READOUTS.
3. CONTROL VALVES AT REHEAT COILS TO MODULATE THE FLOW OF GLYCOL SUPPLY TO MAINTAIN A DISCHARGE AIR TEMPERATURE BASED ON THERMOSTAT CALL FOR HEAT.



1 NEW MECHANICAL ROOM LAYOUT
M-4 SCALE: 1:50



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A C	A detail no. no. du detail	A B C
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	C drawing no. dessin no.	

project **HEATING AND CONTROLS UPGRADE** projet
 FORT SIMPSON DETACHMENT, NT

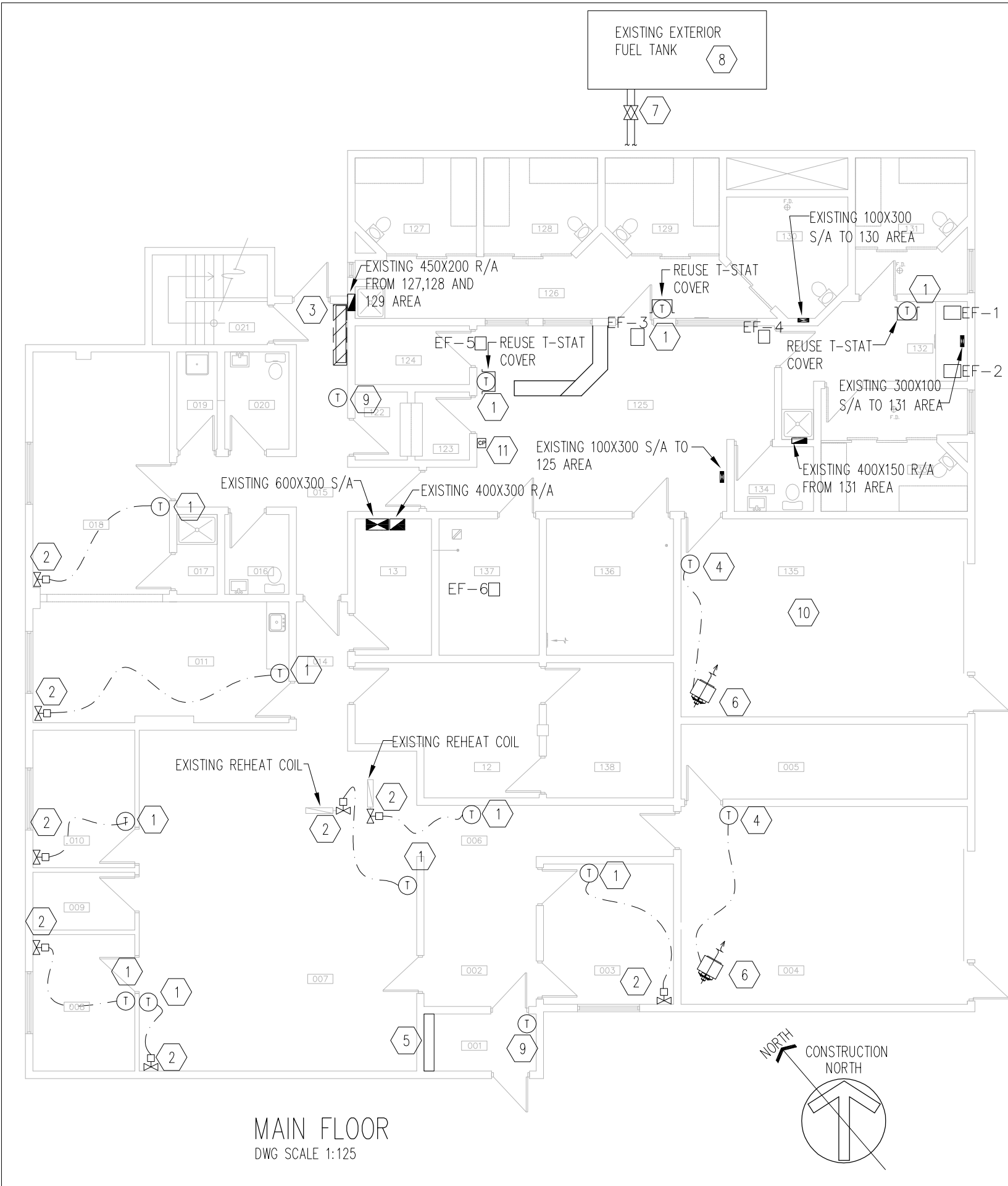
drawing **NEW MECHANICAL ROOM & BASEMENT LAYOUT** dessin

Designed By	MA/EC	Conçu par
Date	2013/03/11	(yyyy/mm/dd)
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Project Manager Administrateur de projets

Project no. **7185508** No. du projet

Drawing no. **M-6** No. du dessin



MAIN FLOOR
DWG SCALE 1:125

KEYNOTES:

- 1 REPLACE THE EXISTING THERMOSTAT WITH NEW. PENITENTIARY GRADE T-STAT COVER TO BE USED WHERE SHOWN IN SECURE AREAS.
- 2 REPLACE THE EXISTING PNEUMATIC CONTROL VALVES BY ELECTRIC CONTROL VALVES.
- 3 EXISTING CABINET UNIT HEATER TO BE REPLACED WITH NEW CUH-1.
- 4 EXISTING UNIT HEATER LINE VOLTAGE THERMOSTAT TO REMAIN.
- 5 EXISTING CABINET UNIT HEATER TO REMAIN.
- 6 EXISTING UNIT HEATER TO REMAIN.
- 7 SUPPLY AND INSTALL SHUT OFF VALVES ON THE SUPPLY AND RETURN FUEL PIPING AS PER DRAWING M-3.
- 8 OUTDOOR TANK AND TANK PIPING TO BE SANDED AND TOUCH UP PAINTED WHEREVER SIGNS OF RUST ARE NOTED.
- 9 EXISTING CABINET HEATER'S THERMOSTAT TO REMAIN
- 10 SUPPLY AND INSTALL AUTOMATIC AIR VENTS IN THE SUPPLY HEATING PIPE RUNNING IN THE GARAGE AREA NEXT TO EXISTING UNIT HEATERS.
- 11 EXISTING EXHAUST FANS PNEUMATIC CONTROL PANEL TO BE REPLACED WITH ELECTRIC CONTROL.

GENERAL NOTES:

- 1. INTENT IS TO REPLACE ALL PNEUMATIC CONTROL ELEMENTS THROUGHOUT BUILDING. CONTRACTOR TO NOTIFY ENGINEER IN ADDITIONAL PNEUMATIC CONTROL ARE NOTED ON SITE.



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revisions	description	date
A	A detail no. no. du detail	A
B	B location drawing no. sur dessin no.	B C
C	C drawing no. dessin no.	

project HEATING AND CONTROLS UPGRADE projet

HEATING AND CONTROLS UPGRADE

FORT SIMPSON DETACHMENT, NT

drawing REPLACEMENT OF CONTROL VALVES AND THERMOSTAT dessin

Designed By	MA/EC	Conçu par
Date	2013/03/14	(yyyy/mm/dd)
Drawn By	MA	Dessiné par
Date	2013/03/11	(yyyy/mm/dd)
Reviewed By	EC	Examiné par
Date	2013/03/14	(yyyy/mm/dd)
Approved By		Approuvé par
Date		(yyyy/mm/dd)
Tender		Soumission

Project Manager Administrateur de projets
Project no. No. du projet

7185508

Drawing no. No. du dessin

M-7

MECHANICAL EQUIPMENT SCHEDULE

HEATING EQUIPMENT

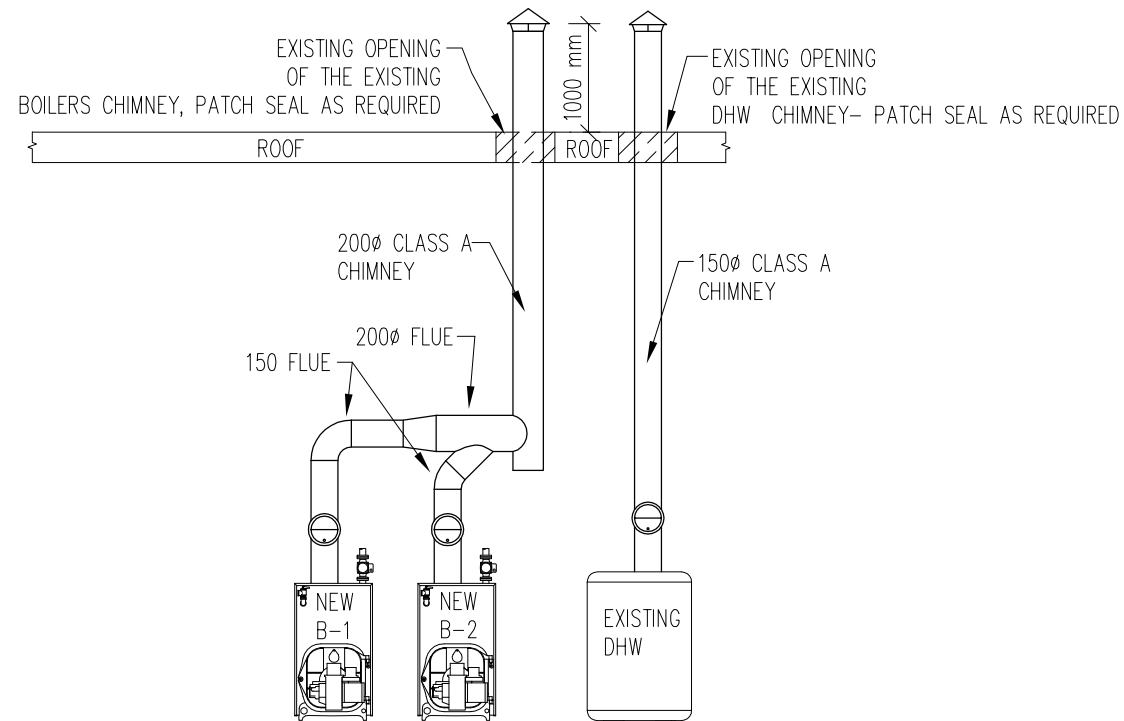
TAG	QTY	Item	LOCATION	INPUT	OUTPUT	ELEC INFO	MANUFACTURER	MODEL	DESCRIPTION
B-1&2	2	OIL FIRED BOILER	MECH ROOM	2.4 GPH	70.86 KW [242 MBH]	115/60/1, 1/8 HP	WEIL-MCLAIN	80 SERIES #340	OIL FIRED BOILER, C/W RIELLO BURNER AND INDOOR/OUTDOOR TEMPERATURE CONTROLLER.
CUH-1	1	CABINET UNIT HEATER	REAR ENTRANCE	0.07 L/S	4.4 KW	115/60/1, 30 W	TRANE	FF-B-B-020-1	2 ROW VERTICAL CABINET, FRONT BAR GRILL INLET, FRONT STAMPED LOUVER OUTLET

PUMPS

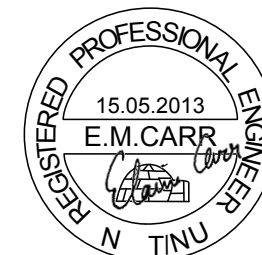
TAG	QTY	Item	LOCATION	FLOW RATE[LPS]	PRESSURE [KPA]	ELEC INFO	MANUFACTURER	MODEL	DESCRIPTION
P-1&2	2	PRIMARY HEATING PUMPS	MECH ROOM	48 GPM	90 KPA	208/3/60, 1000W	GRUNDFOS	UPS 40-240/2	3 SPEED CIRCULATION PUMPS, OPERATE AT SPEED 1
P-7&8	2	BOILERS 1&2 PUMPS	MECHANICAL ROOM	30 GPM	13 KPA	115/1/60, 100W	GRUNDFOS	UPS 32-40/4	BOILER SECONDARY PUMPS, OPERATE AT SEEPED 3

TANKS

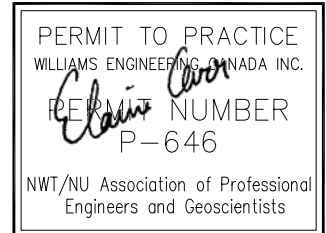
TAG	QTY	Item	LOCATION	TYPE	TOTAL CAPACITY	DIMENSIONS	MANUFACTURER	MODEL	DESCRIPTION
T-1	1	GLYCOL FEED TANK	MECH ROOM		208 L [55 GAL]	610X1245 DXH	AXIOM	SF100	HYDRONIC SYSTEM FEEDER C/W A PUMP (115/60/1, 0.7AMPS)
(T)	11	ELECTRIC THERMOSTAT	VARIOUS				HONEYWELL	RTH221B	SINGLE STAGE HEATING THERMOSTAT, DISPLAY MEASURED TEMPERATURE AT ALL TIMES. REUSE EXISTING PROTECTIVE COVERS IN CELLS AREA.



1 VENT SCHEMATIC
M7 SCALE: NTS

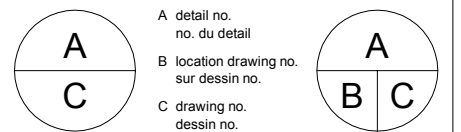


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Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

1	ISSUED FOR TENDER (STAMPED)	13/05/13
revisions	description	date



project HEATING AND CONTROLS UPGRADE projet

HEATING AND CONTROLS UPGRADE

FORT SIMPSON DETACHMENT, NT

drawing EQUIPMENT SCHEDULE AND DETAILS dessin

Designed By	MA/EC	Conçu par
Date	2013/03/14	(yyyy/mm/dd)
Drawn By	MA	Dessiné par
Date	2013/03/11	(yyyy/mm/dd)
Reviewed By	EC	Examiné par
Date	2013/03/14	(yyyy/mm/dd)
Approved By		Approuvé par
Date		(yyyy/mm/dd)
Tender		Soumission

Project Manager Administrateur de projets

Project no. No. du projet

7185508

Drawing no. No. du dessin

M-8

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1	ISSUED FOR TENDER (STAMPED)	13/05/13
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revisions	description	date
A	A detail no. no. du detail	A
B	B location drawing no. sur dessin no.	B
C	C drawing no. dessin no.	C

project projet

HEATING AND CONTROLS UPGRADE

FORT SIMPSON DETACHMENT, NT

drawing dessin

EXISTING MECHANICAL ROOM ELECTRICAL LAYOUT

Designed By MSM Conçu par

Date 2013/03/28 (yyyy/mm/dd)

Drawn By MSM Dessiné par

Date 2013/03/28 (yyyy/mm/dd)

Reviewed By MS/JB Examiné par

Date 2013/05/15 (yyyy/mm/dd)

Approved By JAB Approuvé par

Date 2013/03/28 (yyyy/mm/dd)

Tender Soumission

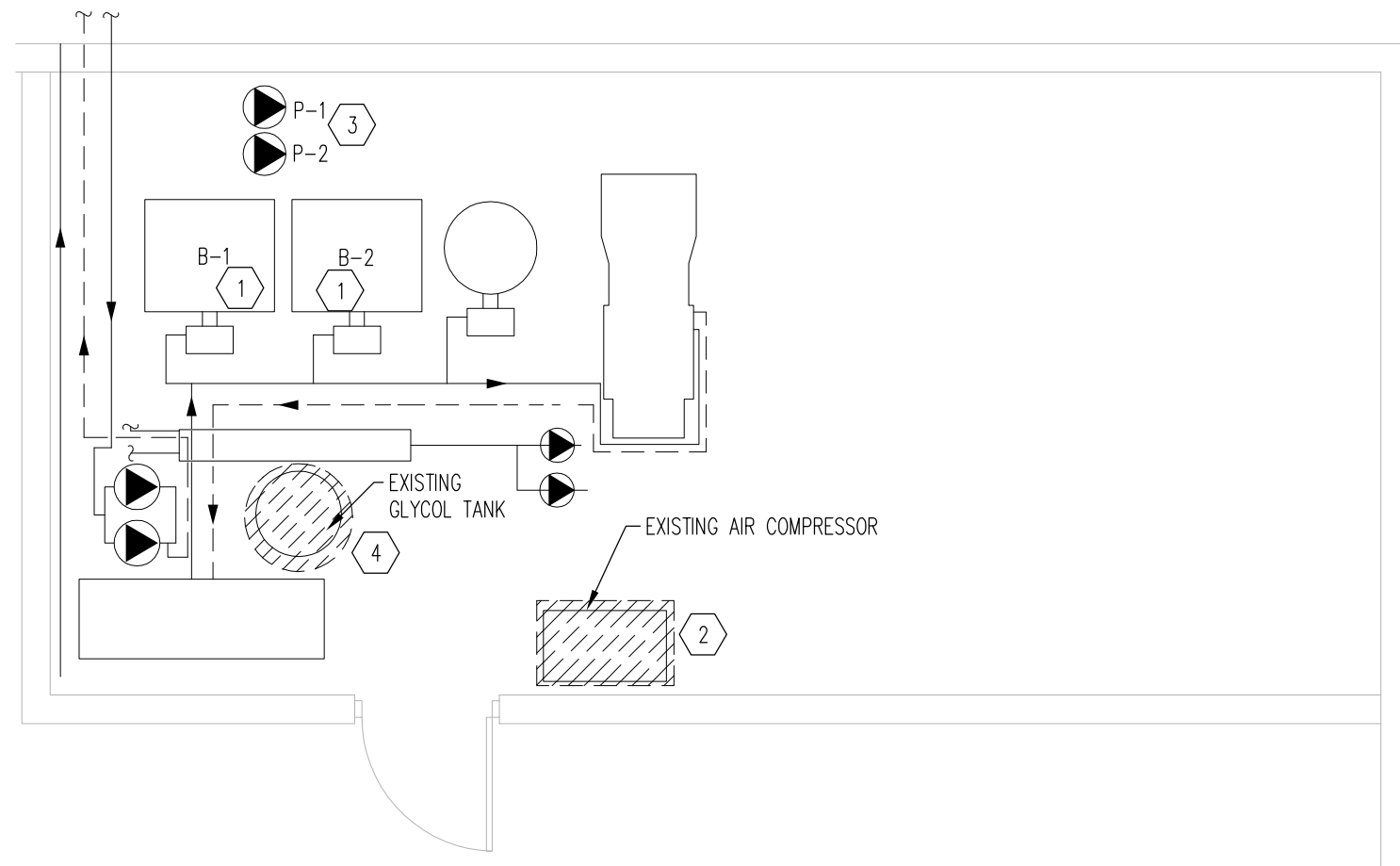
Project Manager Administrateur de projets

Project no. No. du projet

7185508

Drawing no. No. du dessin

E-1



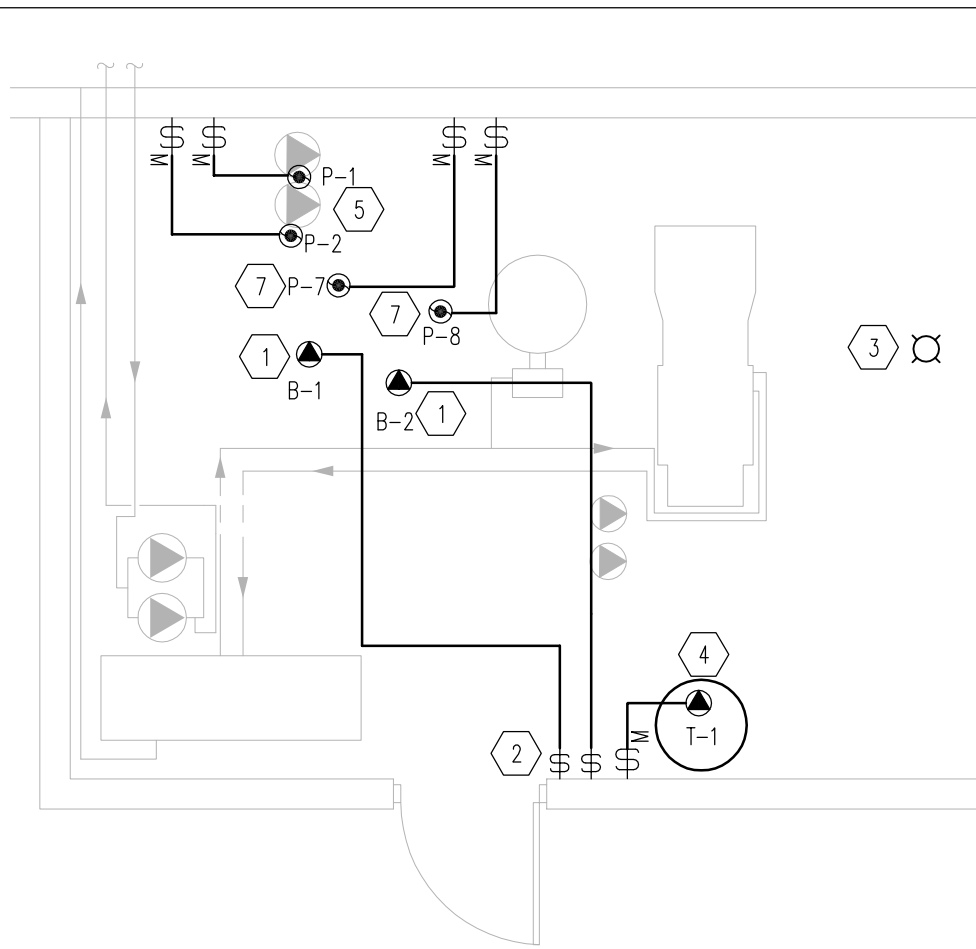
1 EXISTING MECHANICAL ROOM LAYOUT
 E-1 SCALE: 1:50

KEYNOTES:

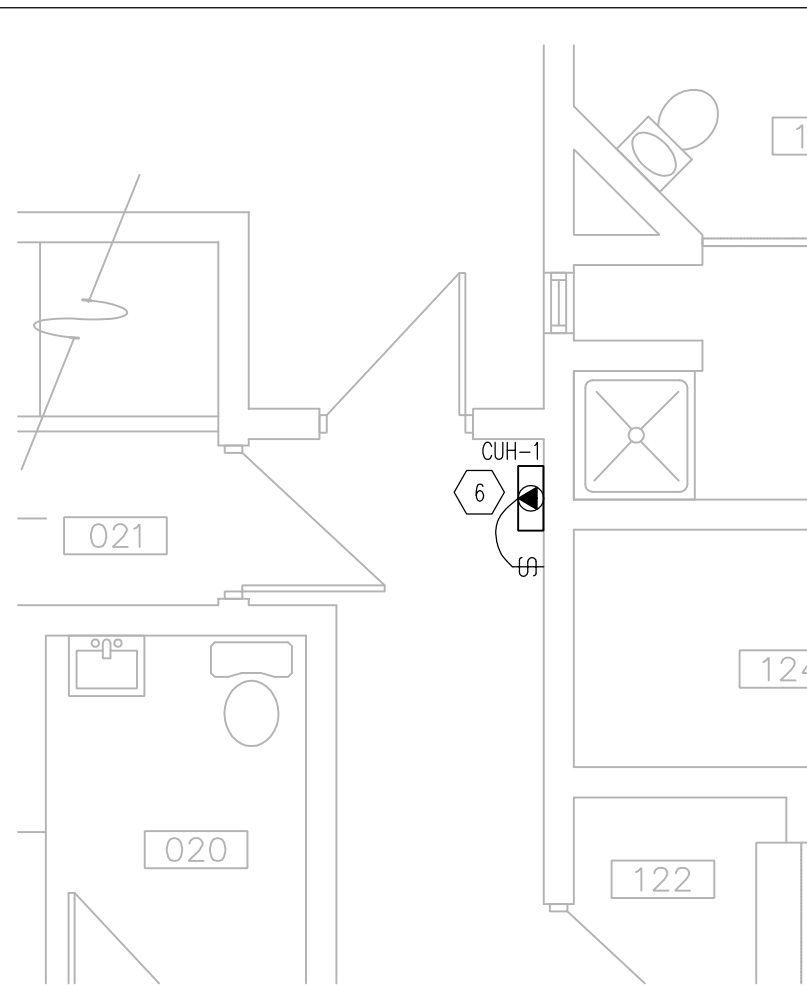
- 1 REMOVE EXISTING BOILER CONNECTION, DISCONNECT SWITCH AND WIRING BACK TO NEAREST ACCESSIBLE JUNCTION BOX.
- 2 REMOVE EXISTING AIR COMPRESSOR CONNECTION, DISCONNECT SWITCH AND WIRING BACK TO NEAREST ACCESSIBLE JUNCTION BOX.
- 3 EXISTING PUMPS (P-1 & P-2) ARE TO BE REMOVED AND REPLACED WITH NEW PUMPS AS INDICATED IN DRAWING E-2.
- 4 REMOVE EXISTING GLYCOL TANK PUMP CONNECTION, DISCONNECT SWITCH AND WIRING BACK TO NEAREST ACCESSIBLE JUNCTION BOX.



ELECTRICAL SYMBOL LEGEND	
	LUMINAIRE; INCANDESCENT SURFACE MOUNT
	SWITCH, SINGLE-POLE:
	SPECIAL CONNECTION
	MOTOR CONNECTION
	MOTOR STARTER - MANUAL



1 NEW MECHANICAL ROOM LAYOUT
E-2 SCALE: 1:50



2 REAR ENTRANCE
E-2 SCALE: 1:50

KEYNOTES:

- 1 PROVIDE NEW BOILER CONNECTION AND DISCONNECT SWITCH AS INDICATED. COORDINATE WITH MECHANICAL.
- 2 PROVIDE DISCONNECT SWITCHES COLORED RED FOR BOILERS NEXT TO DOOR. PROVIDE PERMANENT LABELS.
- 3 PROVIDE NEW LIGHT FIXTURE TO MATCH THE EXISTING, TO BE CONNECTED TO THE EXISTING LIGHTING CIRCUIT AND CONTROL SWITCH. CONTRACTOR TO CONFIRM THE EXACT LOCATION WITH THE OWNER AT SITE.
- 4 PROVIDE NEW GLYCOL TANK PUMP CONNECTION AND DISCONNECT SWITCH AS INDICATED. COORDINATE WITH MECHANICAL.
- 5 PROVIDE NEW PUMPS (P-1 & P-2) WIRING AND CONTROL AS REQUIRED BY THE LATEST C.E.C.
- 6 REMOVE CABINET UNIT HEATER CONNECTION AND DISCONNECT SWITCH AND WIRING BACK TO NEAREST ACCESSIBLE JUNCTION BOX. PROVIDE NEW CABINET UNIT HEATER WIRING AND DISCONNECT SWITCH AS NEEDED. TO BE CONNECTED TO THE EXISTING CIRCUIT AS INDICATED IN MECHANICAL EQUIPMENT SCHEDULE. COORDINATE WITH MECHANICAL.
- 7 PROVIDE NEW PUMPS (P-7 & P-8) WIRING AND CONTROL AS REQUIRED BY C.E.C-2012 AND AS INDICATED IN MECHANICAL EQUIPMENT SCHEDULE. COORDINATE WITH MECHANICAL.

GENERAL NOTES:

- 1. CONTRACTOR TO ENSURE WIRING AND CONDUITS TO BE RE-USED ARE TO BE VERIFIED FOR THEIR CONDITION, OTHERWISE PROVIDE NEW.
- 2. CONTRACTOR TO ENSURE MAXIMUM LOADING FOR LIGHTING TO BE 1200 WATTS PER 15 AMP CIRCUIT.
- 3. PROVIDE GROUNDING AND BONDING CONDUCTORS BE PROVIDED AS PER THE LATEST C.E.C.

MECHANICAL EQUIPMENT SCHEDULE

EQUIP. No.	DESCRIPTION	LOCATION	W (HP)	VOLT/ PHASE	STARTER AND ACCESSORIES					REMOTE CONTROL	MCC KEY or CCT. No.	FUSE/ BREAKER SIZE	FEEDER	REMARKS
					SIZE	MAN.	MAG.	ON/OFF	P.L.					
B-1	OIL FIRED BOILER 1	MECHANICAL ROOM	95 W(1/8)	120V / 1Ø				X			X-26	1P-15A	16C-2#12	NOTE 1
B-2	OIL FIRED BOILER 2	MECHANICAL ROOM	95 W(1/8)	120V / 1Ø				X			X-28	1P-15A	16C-2#12	NOTE 1
P-1	PRIMARY HEATING PUMPS	MECHANICAL ROOM	1000 W	208V / 3Ø		X			X	X	X-2,4,6	3P-15A	16C-2#12	NOTE 1
P-2	PRIMARY HEATING PUMPS	MECHANICAL ROOM	1000 W	208V / 3Ø		X			X	X	X-8,10,12	3P-15A	16C-2#12	NOTE 1
P-7	BOILER PUMPS	MECHANICAL ROOM	100 W	120V / 1Ø				X		X	X-38	1P-15A	16C-2#12	NOTE 1
P-8	BOILER PUMPS	MECHANICAL ROOM	100 W	120V / 1Ø				X		X	X-40	1P-15A	16C-2#12	NOTE 1
CUH-1	CABINET UNIT HEATER	REAR ENTRANCE	FRAC.	120V / 1Ø				X			A-12	1P-15A	16C-2#12	NOTE 1
T-1	GLYCOL TANK FEED PUMP	MECHANICAL ROOM	84 W	120V / 1Ø		X			X	X	X-36	1P-15A	16C-2#12	NOTE 1



NOTES: 1. PROVIDE DISCONNECTION SWITCH AND CONTROL WIRING AS PER THE LATEST C.E.C; CONTROLS BY MECHANICAL

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revisions	description	date
1	ISSUED FOR TENDER (STAMPED)	13/05/13

A detail no. no. du detail
 B location drawing no. sur dessin no.
 C drawing no. dessin no.

project **HEATING AND CONTROLS UPGRADE** projet
 FORT SIMPSON DETACHMENT, NT

drawing **NEW MECHANICAL ROOM & BASEMENT ELECTRICAL LAYOUT** dessin

Designed By MSM Conçu par
 Date 2013/03/28 (yyyy/mm/dd)

Drawn By MSM Dessiné par
 Date 2013/03/28 (yyyy/mm/dd)

Reviewed By MS/JB Examiné par
 Date 2013/05/15 (yyyy/mm/dd)

Approved By JAB Approuvé par
 Date 2013/03/28 (yyyy/mm/dd)

Tender Soumission

Project Manager Administrateur de projets
 Project no. No. du projet
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Drawing no. No. du dessin
E-2