

1
GROUND FLOOR
EXISTING + NEW
M201 SCALE: 1:50

DRAWING NOTES

- 1 EXISTING THERMAL FLUID EXPANSION LOOP FOR THE MAIN FLUID BOILER #1 TO REMAIN.
- 2 EXISTING THERMAL FLUID BOILER #1 AND ASSOCIATED SUPPORTS, PIPING, AND ACCOUTREMENTS TO REMAIN. EXISTING BOILER INFORMATION:

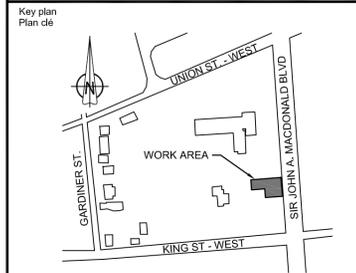
 BURNER:
 MANUFACTURER: VOLCANO
 CAT. #: V 2 13
 MAX FIRING RATE: 13 MBTUH
 FUEL: NATURAL GAS / #2 OIL (NO LONGER USED)
 GAS SUPPLY PRESSURE: 5 PSIG
 MAX GAS PRESSURE AT BURNER MANIFOLD: 2 PSIG
 MIN GAS PRESSURE AT BURNER MANIFOLD: 0.02 PSIG
 ELECTRICAL: 550/3/60 AT 5 AMPS

 BOILER:
 MANUFACTURER: VOLCANO
 MODEL: TJH. C12.5
 SERIAL #: L233
 ORDER #: C-82110
 MAX W. PRESSURE: 2068 kPa
 YEAR: 1982
 CRN: B-8837.5
 CAPACITY: 2.93 MW
 PRESSURE DROP: 59.25 kPa
 HEATING SURFACE RADIATION: 24.06 M²
 CONVECTION: 78.4 M²
- 3 EXISTING THERMAL FLUID LOOP #1 PUMP AND ASSOCIATED SUPPORTS, PIPING, AND ACCOUTREMENTS TO REMAIN.
- 4 EXISTING STEAM GENERATOR #1 AND ASSOCIATED SUPPORTS, PIPING, AND ACCOUTREMENTS TO REMAIN.
- 5 NEW LOW WATER VOLUME BOILER TO BE INSTALLED ON EXISTING HOUSEKEEPING PAD FORMERLY OCCUPIED BY BOILER #3. CONTROL PANEL IS TO FACE OFFICE C14-106. ALL ALARMS TO BE CONNECTED TO EXISTING PAGER SYSTEM IN CONTROL ROOM.
- 6 NEW NPS 5 STEAM VENT CONNECTED TO NEW BOILER SAFETY RELIEF VENT AND TIED INTO EXISTING VENT PIPING FORMERLY SERVING STEAM GENERATOR #2. SAFETY RELIEF VALVE DRIP PAN ELBOW TO HAVE A DRAIN LINE PIPED TO NEAREST FLOOR DRAIN.
- 7 NEW NPS 4 862 KPA STEAM SUPPLY PIPE FROM NEW BOILER TO BE TIED INTO EXISTING STEAM HEADER WHERE INDICATED.
- 8 NEW STEAM FLOWMETER.
- 9 NEW NPS 1 SAFETY RELIEF VENT FROM ECONOMIZER UP THROUGH ROOF. ROOF TO BE MADE GOOD UPON COMPLETION OF INSTALLATION AND WEATHERPROOFED. VENT LINE IS TO BE INSTALLED TO ACCOMMODATE 3965 KPA RELIEF PRESSURE.
- 10 CONTRACTOR TO SUPPLY AND INSTALL NEW STANDALONE CONTROL PANEL FOR EXISTING THERMAL FLUID BOILER #1. NEW PANEL TO BE CONFIGURED FOR SEQUENCE OF OPERATIONS SHOWN ON DRAWING M500 AND PROVIDED IN SPECIFICATION SECTION 23 52 00. ALL CONNECTIONS FROM NEW CONTROL PANEL TO THERMAL BOILER #1 AND OTHER EQUIPMENT TO BE DONE BY DIVISION 23. POWER TO CONTROL PANEL FROM MCC TO BE DONE BY DIVISION 26. ALL ALARMS TO BE CONNECTED TO EXISTING PAGER SYSTEM IN CONTROL ROOM.
- 11 NEW WALL MOUNTED CONTROLLER FOR TEMPERATURE SENSOR INSTALLED IN STEAM TUNNEL TO KINGSTON PENITENTIARY. REFER TO DRAWING M203 FOR LOCATION AND SCOPE OF INSTALLATION. TIE NEW READOUT PANEL INTO EXISTING PAGER SYSTEM LOCATED ADJACENT TO NEW INSTALL LOCATION FOR CONTROLLER.
- 12 EXISTING PAGER SYSTEM.
- 13 CONNECT EXISTING CHEMICAL TREATMENT TANK #2 TO NEW BOILER. ADJUST CHEMICALS FOR NEW BOILER AS REQUIRED.

GENERAL NOTES

- 1 DESIGN DOCUMENTS ARE BASED ON PIPING AND CONNECTION REQUIREMENTS FOR A SPECIFIC BOILER MODEL. CONTRACTOR IS RESPONSIBLE FOR ACCOMMODATING ALL REQUIRED PIPING CONNECTIONS AND OTHER NECESSITIES FOR PROPER INSTALLATION OF NEW STEAM BOILER THAT IS PROVIDED, SHOULD THE PROVIDED BOILER DEVIATE FROM THE REQUIREMENTS IDENTIFIED IN THESE DESIGN DOCUMENTS.
- 2 CONTRACTOR IS RESPONSIBLE FOR ENSURING BOILER PLANT MEETS OPERATIONAL REQUIREMENTS OF PWGSC BY OCTOBER 15, 2014. CONTRACTOR IS TO PROVIDE AND INSTALL TEMPORARY BOILERS TO MEET DEMAND IF PLANT IS DEEMED BY PWGSC TO NOT MEET OPERATIONAL REQUIREMENTS ON THIS DATE.
- 3 REFER TO DRAWINGS M300, M301, AND M302 FOR SCHEMATICS.

Public Works and Government Services Canada
 Architectural and Engineering Services
 Ontario Region
 Travaux publics et Services gouvernementaux Canada
 Services d'architecture et de génie
 Région de l'Ontario



revision	description	date
01	ISSUED FOR ADDENDUM 3	2014/08/26
00	ISSUED FOR TENDER	2014/07/24
0A	ISSUED FOR 99% REVIEW	2014/05/22

Do not scale drawings.
 Verify all dimensions and conditions on site and immediately notify the engineer of all discrepancies.

	A	B	C
Detail No. No. du détail			
drawing no. - where detail required dessin no. - où détail exigé			
drawing no. - where detailed dessin no. - où détaillé			

project title
titre du projet
OTTAWA ONTARIO
 CLIENT
 560 KING STREET,
 KINGSTON, K7L 4V7
**KINGSTON PENITENTIARY
 HEATING PLANT UPGRADE**

drawing title
titre du dessin
**GROUND FLOOR
PIPING
NEW**

drawn by
dessiné par
PATRICK BOURGEOIS

designed by
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approved by
approuvé par
CARY MCGEE, P.ENG

tender
soumission
DUNCAN PARKER, P.ENG. project manager
administrateur de projets

project date
date du projet
2014/04/07

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