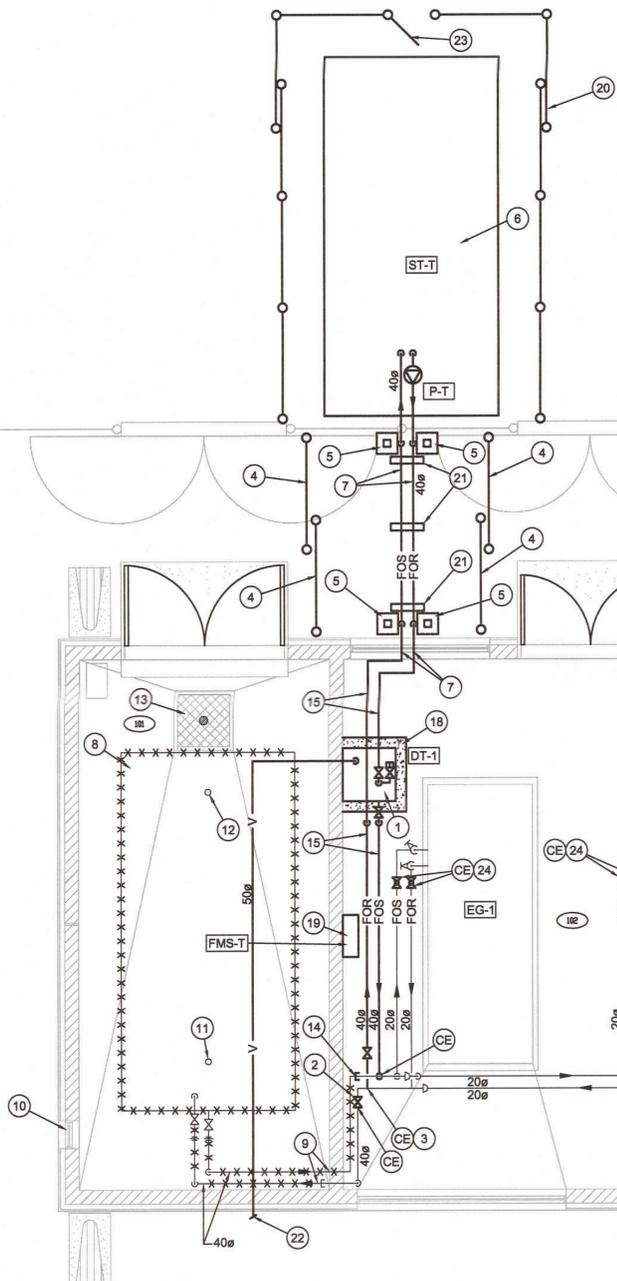
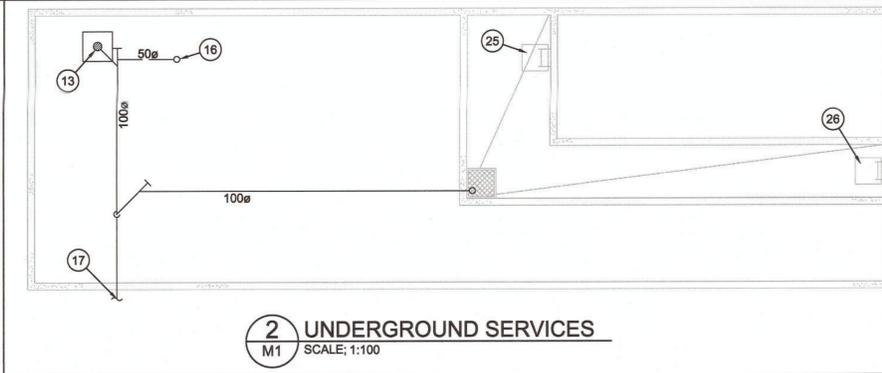


FMS-T CONNECTION REQUIREMENTS				
DEVICE	CONDUIT BY DIVISION	WIRING BY DIVISION	CONNECTION TO FMS-T BY DIVISION	CONNECTION TO DEVICE BY DIVISION
FIRE ALARM PANEL	26	26	23	26
POWER SUPPLY	26	26	26	26
PUMP P-T	26	26	23	26
OTHER FIELD DEVICES	23	23	23	23

NOTES:
 1 - COORDINATE WITH OTHER DIVISIONS TO ENSURE SYSTEM IS PROPERLY INSTALLED AND SEAMLESSLY INTEGRATED WITH EXISTING SYSTEMS.



1 DIESEL TANK REPLACEMENT PHASE 1 - GROUND FLOOR
 M1 SCALE: 1:50



00	ISSUED FOR TENDER	2014/201
0A	ISSUED FOR 90% REVIEW	2014/029
Revision	Description	Date
Client		client

CORRECTIONAL SERVICE CANADA
BOWDEN INSTITUTION
 INNISFAIL, ALBERTA

Project title: **ELECTRICAL SUBSTATION SECONDARY TANK COMPLIANCE**

Designed by: C. McGEE / Conçu par: C. McGEE
 Drawn by: C. McGEE / Dessiné par: C. McGEE
 Approved by: G. LYNCH / Approuvé par: G. LYNCH
 PWGSC Project Manager: S. PLYPERS / Administrateur de Projets TPSGC

Drawing title: **MECHANICAL EXISTING TANK DEMOLITION & TEMPORARY WORK**

Project no./No. du projet: **R.072042.001**
 Drawing no./No. du dessin: **M1**
 Revision no.: **00**

DRAWING NOTES

- NEW 225 L DIESEL DAY TANK (DT-1), C/W SECONDARY CONTAINMENT. SUPPLY PIPING TO DAY TANK IS TO HAVE TEE WITH TWO BRANCHES, EACH WITH ITS OWN ISOLATING VALVE. ONE BRANCH IS TO BE CONNECTED TO TEMPORARY SUPPLY TANK INSTALLED OUTSIDE. THE OTHER BRANCH IS TO BE CONNECTED TO THE NEW SUPPLY TANK TO BE INSTALLED IN ROOM 101. REFER TO PIPING SCHEMATIC ON DRAWING M3.
- NEW ISOLATING VALVE INSTALLED ON RETURN PIPING FROM GENERATORS. VALVE TO BE CLOSED AND LOCKED WHEN TEMPORARY TANK ST-T IS IN USE. VALVE TO BE OPEN WHEN NEW SUPPLY TANK ST-1 IS IN USE.
- NEW TEE ON RETURN PIPING FROM GENERATORS.
- TEMPORARY FENCING TO BE INSTALLED TO PREVENT MOVEMENT NEAR TEMPORARY FUEL-OIL PIPING. FENCING TO BE REMOVED UPON COMPLETION OF PERMANENT INSTALLATION AND SUBSEQUENT REMOVAL OF TEMPORARY TANK AND PIPING.
- TEMPORARY FUEL OIL PIPING RISER SUPPORTS. REFER TO DETAIL 2 ON DRAWING M4 FOR INSTALLATION REQUIREMENTS.
- TEMPORARY 17,200 L DIESEL FUEL TANK (ST-T) TO BE INSTALLED ON-SITE ON PAVED AREA OUTSIDE ELECTRICAL SUBSTATION FENCE. TEMPORARY TANK IS TO BE BROUGHT ON-SITE ON SKID AND LOCATED SO AS NOT TO OBSTRUCT THE PERIMETER ROAD FOR THE PENITENTIARY OR PERMANENT TANK INSTALLATION WORK. ST-T IS TO BE EQUIPPED WITH A SUPPLY PUMP P-T AND CONNECTED TO THE TEMPORARY FUEL MANAGEMENT SYSTEM FMS-T. REFER TO PIPING SCHEMATIC ON DRAWING M3 FOR OPERATIONAL REQUIREMENTS.

DRAWING NOTES

- TEMPORARY FUEL PIPING FROM TEMPORARY TANK TO SUBSTATION BUILDING. PIPING TO BE ROUTED OVER EXISTING SUBSTATION BUILDING FENCE, AND THEN DROPPED TO GROUND BETWEEN FENCE AND SUBSTATION BUILDING. PIPING TO BE ROUTED ALONG AT GROUND LEVEL BETWEEN FENCE AND SUBSTATION BUILDING, AND SUPPORTED WITH WOOD SLEEPERS. REFER TO DETAILS 1 AND 2 ON DRAWING M4 FOR SUPPORTS. PIPING IS ROUTED INTO ROOM 102 THROUGH EXISTING LOUVER. UPON COMPLETION OF WORK, TEMPORARY PIPING IS TO BE DISCONNECTED AND DEMOLISHED. REFER TO DRAWING M2 FOR EXTENT OF DEMOLITION.
- EXISTING 22,000 L DIESEL FUEL TANK TO BE DEMOLISHED. TANK IS TO BE DISMANTLED WITHIN TANK ROOM AND REMOVED FROM SITE IN PIECES. REFER TO SPECIFICATION SECTION 02 65 00 FOR SAFE DISMANTLING PROCEDURE. ANY FUEL IN TANK IS TO BE RECOVERED BY CONTRACTOR AND TRANSFERRED TO TEMPORARY FUEL TANK THAT IS TO BE INSTALLED ON-SITE FOR DURATION OF PROJECT.
- EXISTING DIESEL FUEL TANK SUPPLY AND RETURN PIPING TO BE DEMOLISHED AS SHOWN, INCLUDING ALL ACCESSORIES AND SUPPORTS. WALL PENETRATION THROUGH TO ROOM 102 IS TO BE SEALED AND FIRESTOPPED FOR 3 HR FIRE RATING. REMAINING PIPING TO BE CAPPED. REFER TO SPECIFICATION SECTION 07 84 00 FOR FIRE STOPPING.
- EXISTING 400x300mm WALL LOUVER C/W BIRDSCREEN 400mm ABOVE FLOOR TO BE DEMOLISHED. BOTTOM OF NEW 400x300mm WALL LOUVER C/W BIRDSCREEN TO BE INSTALLED NO HIGHER THAN 300mm ABOVE FINISHED FLOOR. CONTRACTOR IS TO REPAIR WALL TO MATCH EXISTING UPON COMPLETION OF WORK.

DRAWING NOTES

- EXISTING 500 VENT THROUGH ROOF TO BE DEMOLISHED UP TO ROOF PENETRATION. CAP REMAINING PIPING AT BOTH ENDS AND ABANDON PIPING THROUGH ROOF AND ABOVE.
- EXISTING FILL POINT.
- EXISTING 750x750x750mm PIT WITH FLOOR DRAIN IN BOTTOM TO BE DEMOLISHED. EXISTING FLOOR DRAIN TO BE REMOVED AND CAPPED PRIOR TO INFILL TO PREVENT CONCRETE FROM ENTERING DRAIN LINE AND BLOCKING PIPING. CHIP AROUND FLOOR DRAIN, REMOVE, AND CAP REMAINING PIPING. PIT TO BE FILLED IN WITH REINFORCED CONCRETE AFTER FLOOR DRAIN IS FULLY CAPPED AND SEALED. WORK IS TO BE DONE BEFORE REMOVAL OF EXISTING SUPPLY TANK.
- EXISTING PIPING TO BE CAPPED.
- NEW FUEL OIL PIPING TO BE WALL-MOUNTED. REFER TO DETAIL 5 ON DRAWING M4 FOR MOUNTING REQUIREMENTS.
- EXISTING 500 VENT TO REMAIN. CONTRACTOR IS TO PROTECT DRAINAGE SYSTEM SUCH THAT VENT REMAINS OPERATIONAL FOR DRAINAGE PIPING AFTER FLOOR DRAIN REMOVAL AND DRAIN PIT INFILL.
- EXISTING 1000 DRAIN LINE OUT TO UNDERGROUND STORAGE TANK.
- NEW 150mm HOUSEKEEPING PAD FOR DT-1. PAD IS TO BE 150mm WIDER THAN DT-1 FOOTPRINT IN ALL DIMENSIONS NOT AGAINST WALL, AND 150mm THICK. REFER TO DETAIL 5 ON DRAWING S1 FOR PAD REINFORCING DETAIL.

DRAWING NOTES

- NEW TEMPORARY FUEL MANAGEMENT SYSTEM FMS-T FOR TEMPORARY INSTALLATION. FMS-T TO BE WALL-MOUNTED AT 1200mm ABOVE FINISHED FLOOR. REFER TO TABLE ON DRAWING M1 FOR DIVISION RESPONSIBILITIES FOR CONNECTIONS TO DEVICES. CONTRACTOR IS TO ENSURE A MINIMUM CLEARANCE OF 1m IN FRONT OF PANEL.
- TEMPORARY FENCING TO BE INSTALLED AROUND ST-T TO PREVENT MOVEMENT NEAR SUPPLY TANK. FENCING IS TO BE MOUNTED WITH TEMPORARY CONCRETE FEET TO DETER VEHICLE COLLISIONS WITH ST-T. FENCING IS TO PROVIDE 600mm CLEARANCE BETWEEN FENCE AND TANK ON ALL SIDES. CONTRACTOR TO PROVIDE FOR MEANS OF REFILLING ST-T.
- TEMPORARY FUEL OIL PIPING GROUND SUPPORTS. REFER TO DETAIL 1 ON DRAWING M4 FOR INSTALLATION REQUIREMENTS.
- NEW 500 VENT PIPE FOR DT-1. ROUTED THROUGH ROOM 101 AND TERMINATING THROUGH REAR WALL OF ROOM 101. REFER TO DETAIL 4 ON DRAWING M4 FOR INSTALLATION REQUIREMENTS.
- ACCESS GATE INTO FENCED AREA SURROUNDING ST-T. GATE TO BE LOCKABLE WHEN CLOSED.
- NEW FUSOMATIC GATE VALVE INSTALLED ON EXISTING FUEL-OIL PIPING.
- FLOOR ACCESS TO UNDERGROUND SERVICES.
- FLOOR ACCESS TO UNDERGROUND SERVICES.

PHASING

- INSTALL DT-1 IN ROOM 102.
- CONNECT FUEL-OIL PIPING FROM DT-1 TO EXISTING GENERATOR PIPING.
- INSTALL ST-T, FMS-T, AND P-T, ALONG WITH ALL ASSOCIATED PIPING, SUPPORTS, AND ACCOUTREMENTS.
- DEMOLISH EXISTING SUMP PIT AND IN-FILL AS PER DRAWING NOTE 13 ON DRAWING M1.
- DEMOLISH EXISTING FUEL TANK ALONG WITH ALL ASSOCIATED PIPING, SUPPORTS, AND ACCOUTREMENTS. ALL REMAINING FUEL IN EXISTING FUEL TANK IS TO BE TRANSFERRED TO ST-T PRIOR TO DEMOLITION.
- INSTALL ST-1, P-1, P-2, FMS-1, ALONG WITH ALL ASSOCIATED PIPING, SUPPORTS, AND ACCOUTREMENTS. REFER TO DRAWING M2 FOR LOCATION OF EQUIPMENT.
- CONNECT NEW DIESEL FUEL PIPING TO EXISTING GENERATOR PIPING, AND COMMISSION NEW SYSTEM.
- DEMOLISH ST-T, FMS-T, AND P-T, ALONG WITH ALL ASSOCIATED PIPING, SUPPORTS, AND ACCOUTREMENTS. ALL FUEL REMAINING IN ST-T IS TO BE TRANSFERRED TO ST-1 PRIOR TO DEMOLITION.

GENERAL NOTES

- ALL WALL PENETRATIONS BETWEEN ROOMS 101 AND 102 ARE TO BE FIRESTOPPED FOR A 3 HR FIRE RATING. REFER TO SPECIFICATION SECTION 07 84 00 FOR FIRESTOPPING REQUIREMENTS.
- ALL EQUIPMENT DEMOLITION TO BE DONE IN AN ENVIRONMENTALLY SAFE MANNER. REFER TO SPECIFICATION SECTIONS 01 35 43 AND 02 65 00 FOR REQUIREMENTS.
- TEMPORARY TANK SYSTEM MUST BE REGISTERED WITH ENVIRONMENT CANADA BY THE OWNER PRIOR TO THE DELIVERY OF FUEL. THE CONTRACTOR IS TO COORDINATE WITH THE DEPARTMENTAL REPRESENTATIVE ONCE THE TEMPORARY SYSTEM IS INSTALLED ON-SITE AND PROVIDE THE REQUIRED INFORMATION FOR REGISTRATION WITH ENVIRONMENT CANADA BEFORE FILLING THE TANK AND PROCEEDING WITH THE EXISTING TANK DEMOLITION.