

## DRAWING REFERENCE NOTES - DEMOLITION

- 1 - EXISTING 15 USGPM VERTICAL TURBINE JOCKEY PUMP TO REMAIN.
- 2 - EXISTING 1500 USGPM VERTICAL TURBINE DIESEL FIRE PUMP, MOTOR AND CONTROLLER TO BE REMOVED.
- 3 - EXISTING 1500 USGPM VERTICAL TURBINE ELECTRIC FIRE PUMP TO BE REMOVED.
- 4 - EXISTING HOSE HEADER AND VALVES TO BE REMOVED.
- 5 - ENCLOSED WASTE CONE.
- 6 - RELIEF VALVE.
- 7 - EXISTING 200 USGPM VERTICAL TURBINE DOMESTIC PUMP TO REMAIN.
- 8 - EXISTING 200 USGPM VERTICAL TURBINE BACKWASH PUMP TO REMAIN.
- 9 - EXISTING TRIPLEX GREENSAND PRESSURE FILTER TO REMAIN.
- 10 - EXISTING FIRE ALARM CONTROL PANEL TO REMAIN.
- 11 - EXISTING FIRE PUMP CONTROL PANEL TO BE REMOVED.
- 12 - EXISTING PORTION OF INTERIOR BLOCK WALL TO BE REMOVED FOR NEW FUEL TANK INSTALLATION. REFER TO MANUFACTURER FOR DIMENSIONS.
- 13 - EXISTING 2366L ABOVE GROUND FUEL TANK (2004) TO BE REMOVED. EXISTING METAL PLATFORM TO REMAIN.
- 14 - EXISTING DIESEL FIRE PUMP EXHAUST SYSTEM TO BE REMOVED. DEMOLISH EXHAUST FROM FIRE PUMP MOTOR TO EXHAUST CAP AT ROOF. REMOVE ALL HANGING AND REDUNDANT SUPPORT DEVICES.
- 15 - EXISTING UNDERGROUND RESERVOIR.
- 16 - EXISTING UNDERGROUND SUPPLY AND RETURN FUEL PIPING TO REMAIN. DISCONNECT PIPING FROM EQUIPMENT BEING REMOVED.
- 17 - EXISTING SUPPLY AND RETURN BELOW GROUND FUEL PIPING TO REMAIN.
- 18 - EXISTING PIPE SUPPORTS TO REMAIN.
- 19 - EXISTING MANUAL HOIST FOR PUMP REMOVAL. EXACT LOCATION TO BE DETERMINE ON SITE.
- 20 - EXISTING METERING DEVICE
- 21 - EXISTING METERING DEVICE TO REMOVE

## DRAWING REFERENCE NOTES-DEMOLITION

SCALE : N.T.S.

1  
FP-1

## DRAWING REFERENCE NOTES - NEW WORK

- 1 - SUPPLY AND INSTALL NEW 1500 USGPM ELECTRIC MOTOR VERTICAL TURBINE FIRE PUMP FP-1 ON EXISTING CONCRETE PAD. REFER TO INSTALLATION DETAIL 2/FP-2.
- 2 - SUPPLY AND INSTALL NEW 1500 USGPM DIESEL ENGINE VERTICAL TURBINE FIRE PUMP FP-2 ON EXISTING CONCRETE PAD. REFER TO INSTALLATION DETAILS 2/FP-2 & 4/FP-3.
- 3 - SUPPLY AND INSTALL NEW FIRE PUMP TEST HEADER C/W SWIVEL ADAPTOR, CAP AND CHAINS, AND (6) 65mm $\phi$  HYDRANT GATE VALVES. PROVIDE S.S WALL PLATE TO READ "PUMP TEST" MOUNTED ABOVE TEST HEADER. SEAL ALL EXTERIOR PENETRATIONS.
- 4 - SUPPLY AND INSTALL NEW 2840L (2400L min.) ABOVE GROUND DOUBLE WALL DIESEL FUEL TANK ON EXISTING STEEL PLATFORM, c/w WITH 2" PIPE LEG. FOR INSTALLATION DETAIL, REFER TO DETAIL 1/FP-2. TANK SHALL BE DESIGNED, FABRICATED AND TESTED IN ACCORDANCE WITH ULC-142 AND ULC-S601-07.
- 5 - SUPPLY AND INSTALL NEW ELECTRIC FIRE PUMP CONTROLLER AT EXISTING CONTROLLER LOCATION, WIRING BY DIVISION 26.
- 6 - SUPPLY AND INSTALL NEW DIESEL FIRE PUMP CONTROLLER c/w 24V DUAL BATTERY SYSTEM, AS PER MANUFACTURER INSTRUCTIONS. WIRING BY DIVISION 26.
- 7 - SUPPLY AND INSTALL NEW DIESEL FIRE PUMP EXHAUST SYSTEM c/w WITH THREAD FITTING. FOR INSTALLATION DETAIL REFER TO DETAIL 2/FP-2.
- 8 - SUPPLY AND INSTALL NEW MASONRY BLOCK INTERIOR INFILL AFTER COMMISSIONING/ACTIVATING NEW DIESEL FUEL TANK. MATCH EXISTING WALL CONSTRUCTION.
- 9 - SUPPLY AND RETURN FUEL PIPING TO NEW FUEL TANK AND DIESEL ENGINE FP-2 TO BE REPLACED.
- 10 - PULL EXISTING/NEW LINES THRU EXISTING SECONDARY CONTAINMENT PIPE. CONCRETE FLOOR SLAB DESTRUCTIVE DEMOLITION WILL NOT BE PERMITTED.
- 11 - THIS CONTRACTOR SHALL VERIFY LINES CAN BE REMOVED/REPLACED IN EXISTING SECONDARY CONDUIT. IF LINES PROVE IMPOSSIBLE TO REPLACE, THIS CONTRACTOR SHALL PROVIDE 24HR NON-DESTRUCTIVE PRESSURE TEST OF EXISTING FUEL LINES.
- 12 - EXISTING MANUAL HOIST TO BE USED FOR PUMP INSTALLATION.
- 13 - SUPPLY AND INSTALL GAUGES TO REPLACE EXISTING. COORDINATE ON-SITE FOR GAUGE LOCATIONS. ALL PIPE GAUGES ON SYSTEM TO BE REPLACED.
- 14 - FUEL LEVEL MONITORS AND CONTAINMENT SENSOR ALARM TO BAS PANEL (BY CONTROL CONTRACTOR). CONTROL WIRING TO BE RUN IN EMT CONDUIT TO LOCAL BAS CONTROL PANELS. CONTROL CONTRACTOR TO PROVIDE ALL REQUIRED DEVICES, PROGRAMMING AND GRAPHICS TO PROVIDE MONITORING BY EXISTING BUILDING AUTOMATION SYSTEM (BAS).
- 15 - THIS CONTRACTOR SHALL REPAIR ALL EXISTING CRACKS IN EXISTING CONTAINMENT ROOM INCLUDING FLOOR AND MASONRY BLOCK.
- 16 - EXISTING FIRE ALARM CONTROL PANEL TO REMAIN.
- 17 - PROVIDE NEW FT6 COMMUNICATIONS CABLE IN EMT CONDUIT. BETWEEN NEW POWER METER AND BUILDING AUTOMATION CONTROL PANEL TO READ PULSE OUTPUT FROM OWNER'S METER.
- 18 - PROVIDE LAMACOID SIGN ADJACENT TO PIPE INDICATING TANK FILL CAPACITY.
- 19 - NEW FLOW METER ALUMINUM BODY, 500PSI PRESSURE RATING

## DRAWING REFERENCE NOTES- NEW WORK

SCALE : N.T.S.

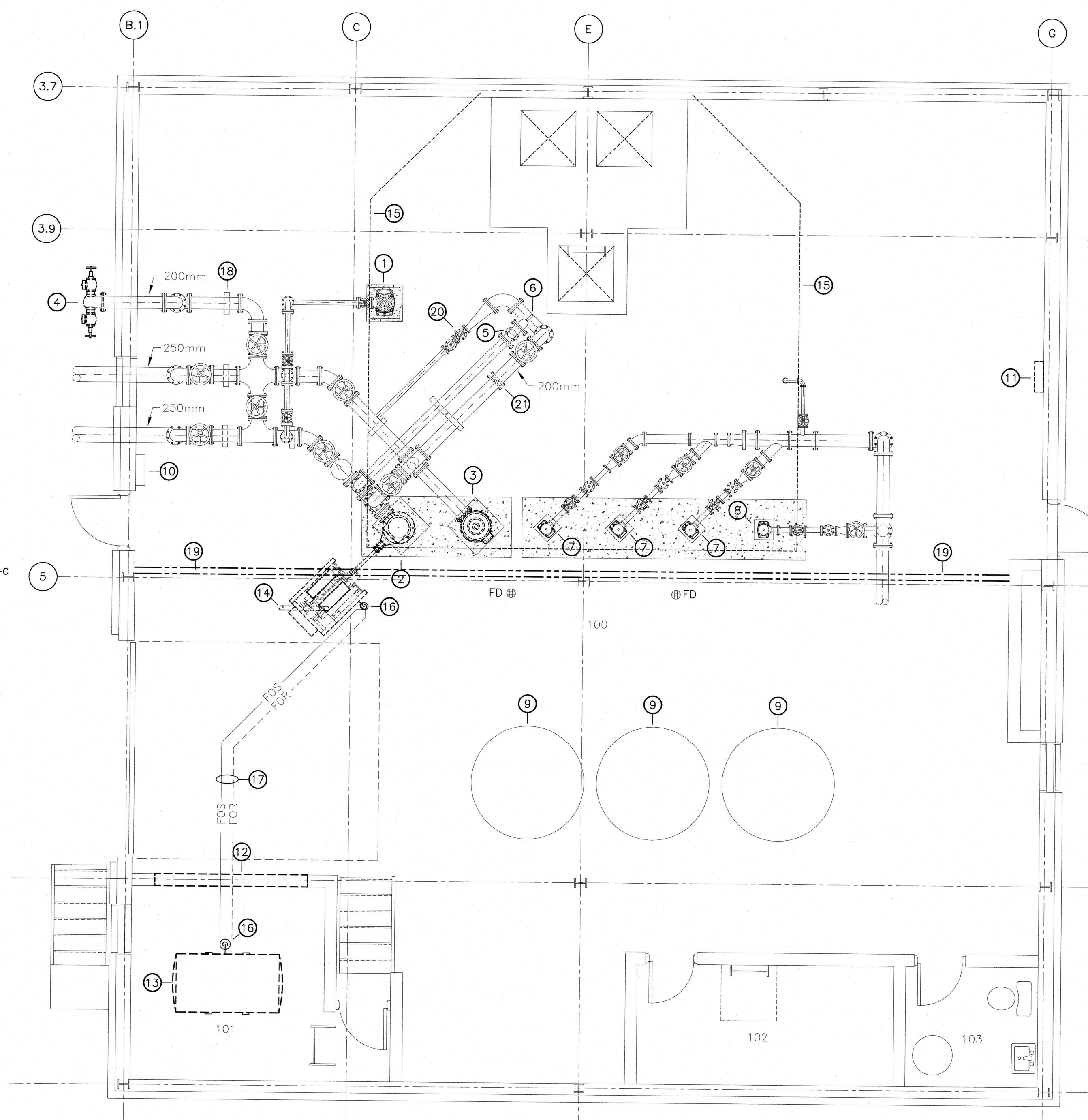
2  
FP-1

## SYMBOL LEGEND

- EXISTING PIPING TO REMAIN
- EXISTING CONCRETE PIPE SUPPORTS TO REMAIN
- EXISTING FLANGED DROP TO REMAIN
- EXISTING FLANGED 90 DEGREE ELBOW TO REMAIN
- EXISTING FLANGED "Y" FITTING TO REMAIN
- EXISTING FLANGED REDUCER TO REMAIN
- EXISTING FLANGED 45 DEGREE ELBOW TO REMAIN
- EXISTING FLANGED GATE VALVE TO REMAIN
- EXISTING COMBINATION PRESSURE SUSTAINING AND CHECK VALVE TO REMAIN
- EXISTING AIR AND VACUUM VALVE c/w DISCHARGE PIPING BACK TO PUMP TO REMAIN
- EXISTING CHECK VALVE TO REMAIN
- FDS - EXISTING FUEL SUPPLY LINE TO REMAIN
- FOR - EXISTING FUEL RETURN LINE TO REMAIN
- FDS - NEW FUEL SUPPLY LINE
- FOR - NEW FUEL RETURN LINE

## SYMBOL LEGEND

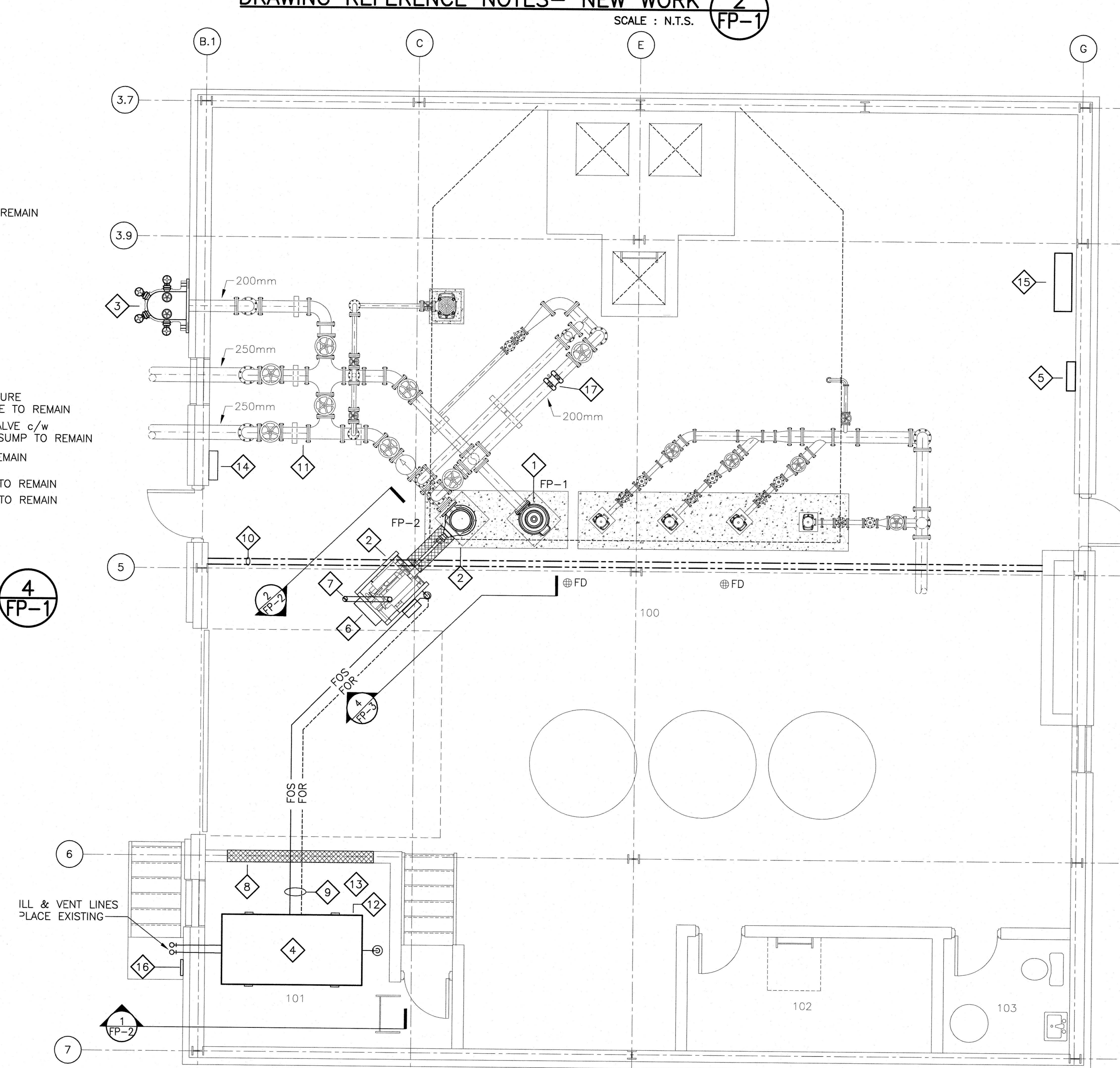
SCALE : N.T.S.

4  
FP-1

## PUMP HOUSE FLOOR PLAN - DEMOLITION

SCALE : 1:50

0m 1m 2m 3m 4m 5m

3  
FP-1

## PUMP HOUSE FLOOR PLAN - NEW WORK

SCALE : 1:50

0m 1m 2m 3m 4m 5m

5  
FP-1

## FIRE PUMP SCHEDULE

TAG	DESCRIPTION	TYPE	SIZE	FLOW	RPM	HEAD	MOTOR SIZE	FRAME SIZE	TOTAL WEIGHT	POWER SUPPLY			REMARKS
										V	PH	HZ	
FP-1	VERTICAL TURBINE FIRE PUMP	ELECTRIC	8x12H VTF	1500 USGPM	1700 RPM	110 PSI	125 HP	H444TP	3042 LBS	575	3	60	3,4
FP-2	VERTICAL TURBINE FIRE PUMP	DIESEL	8x12H VTF	1500 USGPM	1770 RPM	110 PSI	160 HP	-	3908 LBS	120	1	60	1,2,3,4

## NOTES:

1. ENGINE INCLUDED BASE PLATE.
2. O/W BATTERY RACK, 8V DRY BATTERIES AND BATTERY CABLE. NOTE: BATTERIES TO MATCH EXISTING MAKE/MODEL/ARRANGEMENT CURRENTLY USED AT INSTITUTION FOR STOCK CONTINUITY.
3. 1.5" AIR RELEASE VALVE (0-600 PSI BRONZE) AND DISCHARGE GAUGE c/w GAUGE COCK
4. ULC LISTED AND FM APPROVED

## FIRE PUMP SCHEDULE

SCALE : N.T.S.

6  
FP-1

1	ISSUED FOR TENDER	03/08 2019
revisions		date
project		project

RENOUS DIESEL AND  
ELECTRIC FIRE PUMP  
REPLACEMENT

drawing design

PUMP HOUSE (100)  
FLOOR PLAN  
AND SCHEMATIC

designed H.C. conçu

date FEB 28, 2018

drawn J.M. dessiné

date FEB 28, 2018

approved S.M. approuvé

date SEPT 28, 2018

Tender Submission

PWSC Project Manager Administrateur de Projets PWSC

project number no. du projet

R.089981.001

drawing no. no. du dessin

FP-1