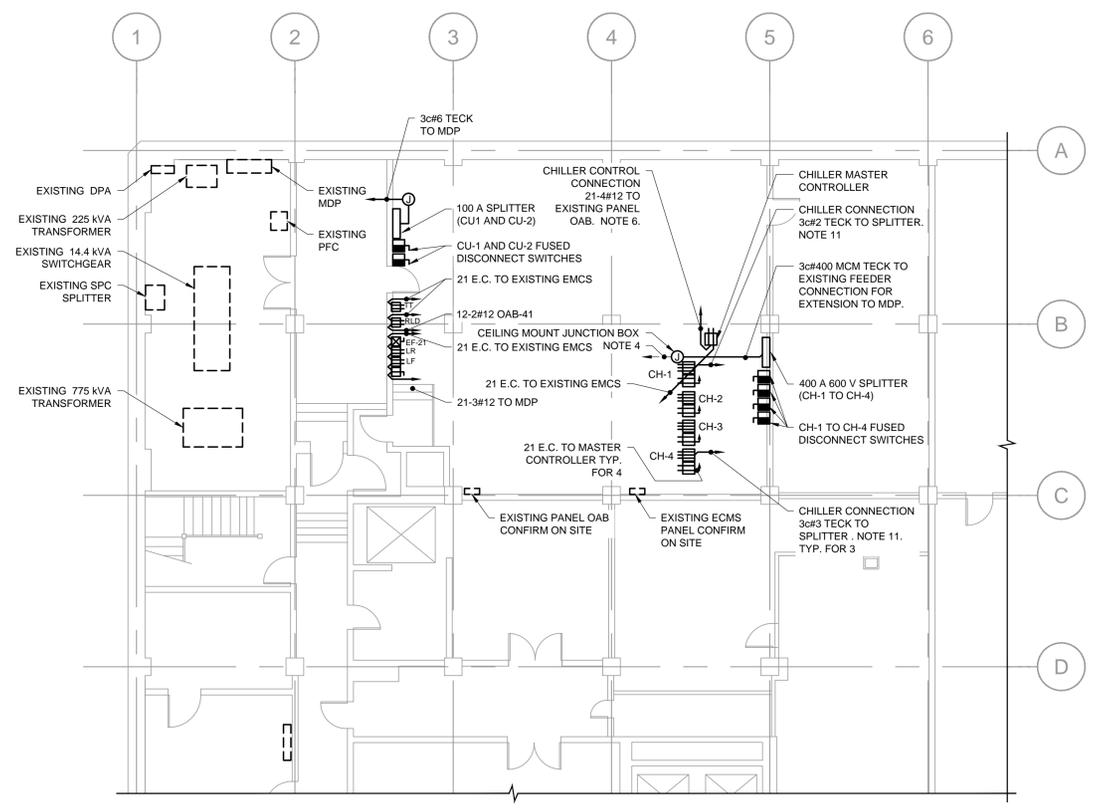
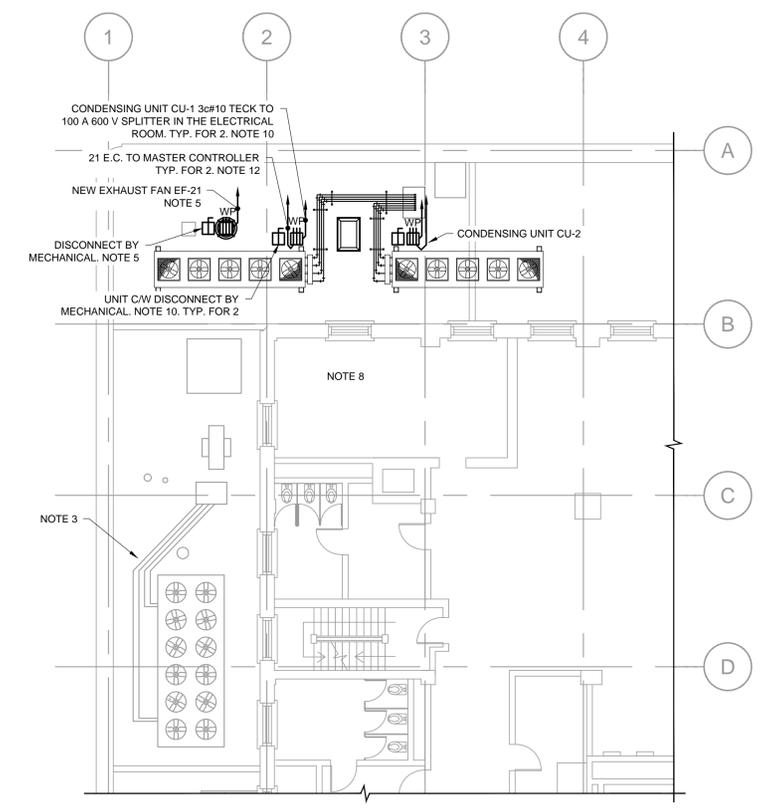




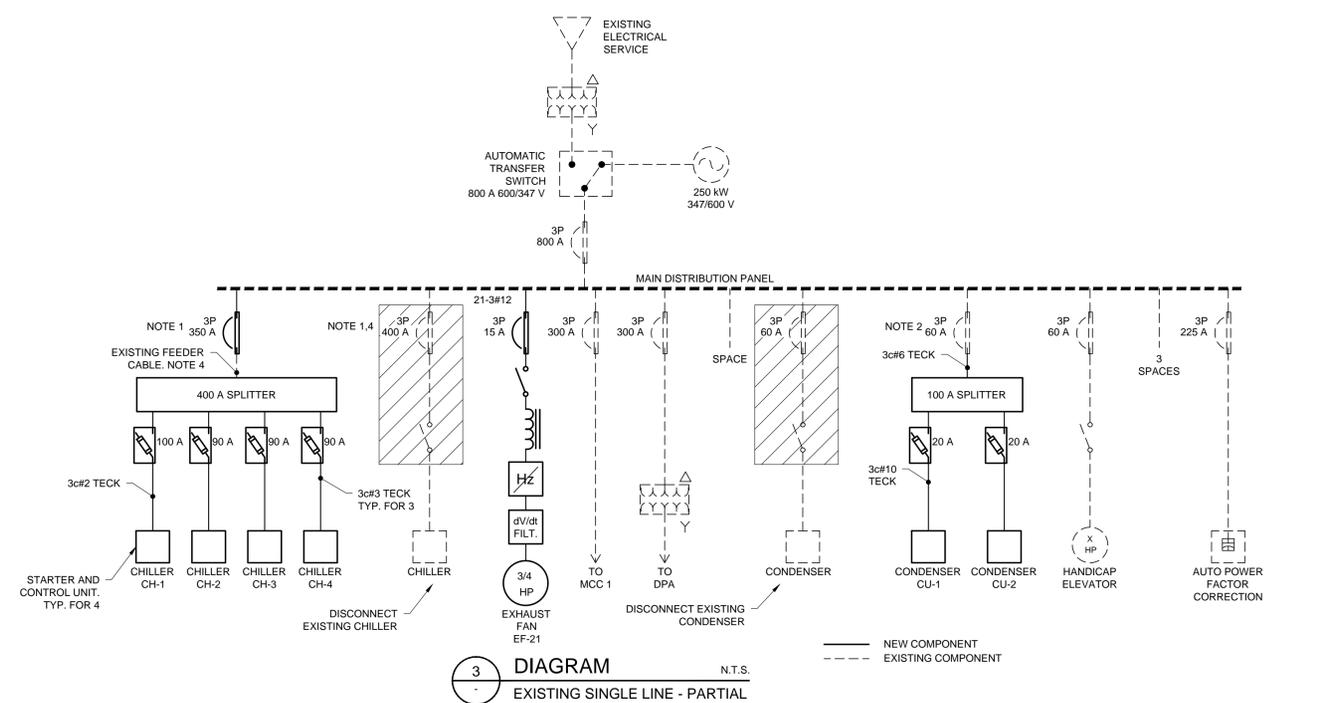
ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF SASKATCHEWAN
 CERTIFICATE OF AUTHORIZATION
 ASSOCIATED ENGINEERING (SASK.) LTD.
 NUMBER C116
 PERMISSION TO CONSULT HELD BY: M. AKISTER
 Originally Stamped & Signed
 ELECTRICAL 06705 E. KLASSEN



1 PLAN 1:100
 BOILER ROOM



2 PLAN 1:100
 ROOF



3 DIAGRAM N.T.S.
 EXISTING SINGLE LINE - PARTIAL

MOTOR CONTROL SCHEDULE														
DESIGN TAG & NO.	DESCRIPTION	LOCATION	hp	MCA	VOLTS	Ø	MOTOR CONTROL			DISC.	EQPT. STATUS	COMMENTS		
							CIRCUIT	STARTER	ACCESSORIES					
CU-1	CONDENSING UNIT	ROOF	14.7	600	3	SPLITTER / MDP	BY MANUFACTURER	20 A FUSED SWITCH	20 A	3c#10 TECK	BY MANUFACTURER	NEW	PROVIDE EMPTY CONDUIT TO EXISTING BMCS	
CU-2	CONDENSING UNIT	ROOF	14.7	600	3			20 A FUSED SWITCH	20 A	3c#10 TECK	BY MANUFACTURER	NEW	PROVIDE EMPTY CONDUIT TO EXISTING BMCS	
CH-1	CHILLER MODULE UNIT	BOILER ROOM	67.5	600	3	SPLITTER / MDP	BY MANUFACTURER	VFD BY MANUFACTURER	100 A FUSED SWITCH	100 A	3c#2 TECK	BY MANUFACTURER	NEW	PROVIDE EMPTY CONDUIT TO EXISTING BMCS
CH-2	CHILLER MODULE UNIT	BOILER ROOM	67.5	600	3			90 A FUSED SWITCH	90 A	3c#3 TECK	BY MANUFACTURER	NEW	PROVIDE EMPTY CONDUIT TO EXISTING BMCS	
CH-3	CHILLER MODULE UNIT	BOILER ROOM	67.5	600	3			90 A FUSED SWITCH	90 A	3c#3 TECK	BY MANUFACTURER	NEW	PROVIDE EMPTY CONDUIT TO EXISTING BMCS	
CH-4	CHILLER MODULE UNIT	BOILER ROOM	67.5	600	3			90 A FUSED SWITCH	90 A	3c#3 TECK	BY MANUFACTURER	NEW	PROVIDE EMPTY CONDUIT TO EXISTING BMCS	
EF-21	EXHAUST FAN	ROOF	3/4	600	3	MDP	VFD BY MANUFACTURER	15 A	21-3#12		BY MANUFACTURER	NEW	PROVIDE EMPTY CONDUIT FROM VFD TO EXISTING EMCS	

- NOTES:
- REPLACE EXISTING 400 A BREAKER IN MDP WITH NEW 350 A AND DESIGNATE FOR CHILLERS CH-1 TO CH-4 SPLITTER
 - UTILIZE EXISTING 3P-60 A BREAKER FOR NEW CONDENSING UNITS CU-1 AND CU-2
 - REMOVE FEEDER FROM EXISTING CONDENSING UNIT BACK TO EXISTING MDP
 - DISCONNECT EXISTING CHILLER. UTILIZE EXISTING 400 MCM FEEDER FOR NEW CHILLER UNITS. VERIFY FEEDER CONDITION AND CODE COMPLIANCE PRIOR TO CONNECTION
 - PROVIDE 3P-15 A CIRCUIT BREAKER IN EXISTING PANEL MDP AND DESIGNATE TO NEW EXHAUST FAN EF-21. CONNECT DRIVE AND DRIVE ACCESSORIES SUPPLIED BY MECHANICAL. PROVIDE 21 mm EMPTY CONDUIT FROM FAN STARTER TO EXISTING EMCS AND FROM FAN STARTER TO 24 V EXHAUST AND SUPPLY DAMPERS.
 - UTILIZE EXISTING SPARE CIRCUIT BREAKER OAB-39 AND DESIGNATE TO CH-1 TO CH-4 MASTER CONTROL PANEL
 - UTILIZE EXISTING SPARE CIRCUIT BREAKER OAB-41 AND DESIGNATE TO REFRIGERANT LEAK DETECTION
 - ALL ELECTRICAL EQUIPMENT AND COMPONENTS SHOWN ARE NEW UNLESS NOTED OTHERWISE
 - PROVIDE JUNCTION BOXES, CONDUIT AND WIRE AS REQUIRED TO ACCOMMODATE NEW EQUIPMENT CONNECTIONS
 - ROUTE CONDUCTORS FROM ROOF MOUNTED CONDENSING UNITS TO BOILER ROOM IN PARALLEL WITH REFRIGERANT PIPING USING COMMON SUPPORTS. COORDINATE WITH MECHANICAL. CONNECT TO UNIT CONTROL CABINET WITH INTEGRAL DISCONNECT.
 - CHILLERS ARE COMPLETE WITH INTEGRAL DISCONNECTS AND MOTOR STARTERS. PROVIDE 21 mm EMPTY CONDUIT BETWEEN MASTER CONTROLLER AND CHILLER.
 - CONDENSING UNITS ARE COMPLETE WITH INTEGRAL DISCONNECTS AND STARTERS. PROVIDE 21 mm EMPTY CONDUIT BETWEEN MASTER CONTROLLER AND CONDENSING UNITS.

SYMBOL LEGEND

- EQUIPMENT CONNECTION 1Ø
- EQUIPMENT CONNECTION 3Ø
- TEMPERATURE TRANSMITTER
- REFRIGERANT LEAK DETECTOR
- LINE REACTOR
- LOAD FILTER
- EMPTY CONDUIT
- WEATHER PROOF
- MOTOR
- MOTOR DISCONNECT
- FUSED DISCONNECT
- COMB MAGNETIC STARTER
- CONDUIT ABOVE GROUND
- CONDUIT BELOW GROUND
- CONDUIT SIZE (mm)
- CONDUCTOR SIZE (AWG)
- NO. OF CONDUCTORS

SCHEMATIC SYMBOL LEGEND

- CIRCUIT BREAKER
- FUSED DISCONNECT SWITCH
- DISCONNECT SWITCH
- METER
- NORMALLY OPEN CONTACT
- MOTOR OVERLOAD

REVISIONS	DESCRIPTION	DATE
0	ISSUED FOR TENDER	14/JUN/2013

project title: CHILLER REPLACEMENT
 GOC BUILDING

planning title: PLANS AND DETAILS

designed by: K. TUMA	conçu par: K. TUMA
drawn by: K. TUMA	dessiné par: K. TUMA
approved by: M. AKISTER	approuvé par: M. AKISTER
PWSC Project Manager: DAVE CHERKEWICH	Administrateur de Projets TPSC: DAVE CHERKEWICH
scale: AS NOTED	échelle: AS NOTED
project no. R.058058.001	proj. no. R.058058.001
date: 14/JUN/2013	date: 14/JUN/2013
	sheet 7 OF 7