METRIC A1 AEC

RO WATER STORAGE TANK
ACO CONTAINER MODEL SB–400
CAPACITY: 400 IMP. GAL. (17922 L)
TANK DIMENSIONS: 46"ø x 88"H
TANK PROVIDED C/W:
STEEL STAND (TOTAL SYSTEM HEIGHT 104"),
OPEN TOP, NPT CONNECTIONS, J403 LEVEL
SENSOR, VENT FILTER, OVERFLOW, 25mm
SB–12PRV VALVE.

RO SYSTEM SKID
MARCOR MODEL 4400B–12K
CAPACITY: 8.3 USGPM
ELECTRICS: 208/1/60, 5 HP
FEEDWATER PRESS: 30–60 PSIG
FEEDWATER DESIGN TEMP: 77°F
DESIGN RECOVERY RATE: 33%–50%
MAX RECOVERY RATE: 75%
DESIGN OPER. PRESS: 220 PSIG
OPER. PRESS RANGE: 165–250 PSIG
PERMEATE RATE: 8.3 GPM
PIPING CONN.: 38mm – INLET
19mm – PERMEATE
19mm – CONCENTRATE
SYSTEM PROVIDED C/W:
5 MICRON PRE–FILTER, AUTOMATIC INLET SHUT–OFF VALVE,
REMOTE ON/OFF CAPABILITY, PRESSURE GAUGE, FLOW CONTROL
CENTER, LOW INLET PRESSURE SWITCH, CONDUCTIVITY METER,
S/S PUMP, PERMEATE AND CONCENTRATE FLOW METERS.

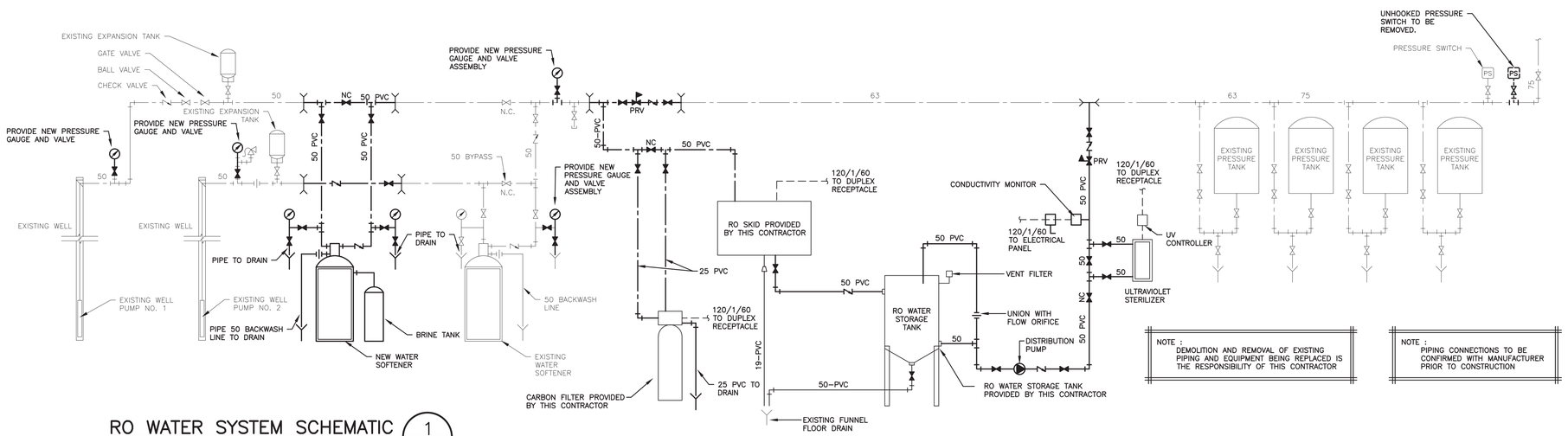
WATER SOFTENER
MARCOR MODEL TAFS–150m
C/W BRINE TANK
CAPACITY: 25 GPM CONTINUOUS FLOW
SIZE: 50mm
PROVIDE C/W FULLY AUTOMATIC
BACKWASH.

CARBON FILTER
MARCOR MODEL TAFC 1665
ELECTRICS: 120/1/60 WITH CORD
MAX. FLOW RATE: 5 USGPM
CARBON VOLUME: 4 CUBIC FOOT
DIMENSIONS: 8"ø x 48"H
CONSTRUCTION: FIBERGLASS
HEAD: POLYETHYLENE
INTERNALS: POLYETHYLENE/PVC
FITTINGS: QUICK CONNECT
MEDIA: ACID WASHED CARBON,
12x40 MESH, IODINE #1000.

UV STERILIZER
TROJAN PRO–UV20
C/W FLOW METER, UV SENSORS,
COOL TOUCH FANS AND POWER
CONTROL UNIT WITH POWER CORD.
ELECTRICS: 160W, 120/1/60

DISTRIBUTION PUMPS
GRUNDFOS CME SERIES
CAPACITY: 15 USGPM @ 27 FT HEAD
ELECTRICS: 120/1/60, 380 W

CONDUCTIVITY MONITOR
MYRON L COMPANY MODEL 7580I–4A
DIGITAL CONDUCTIVITY MONITOR/CONTROLLER
C/W 4–20m A MODULE FOR FUTURE USE
AND CONDUCTIVITY SENSOR.
ELECTRICS: 120/1/60




NOTE :
DEMOLITION AND REMOVAL OF EXISTING PIPING AND EQUIPMENT BEING REPLACED IS THE RESPONSIBILITY OF THIS CONTRACTOR

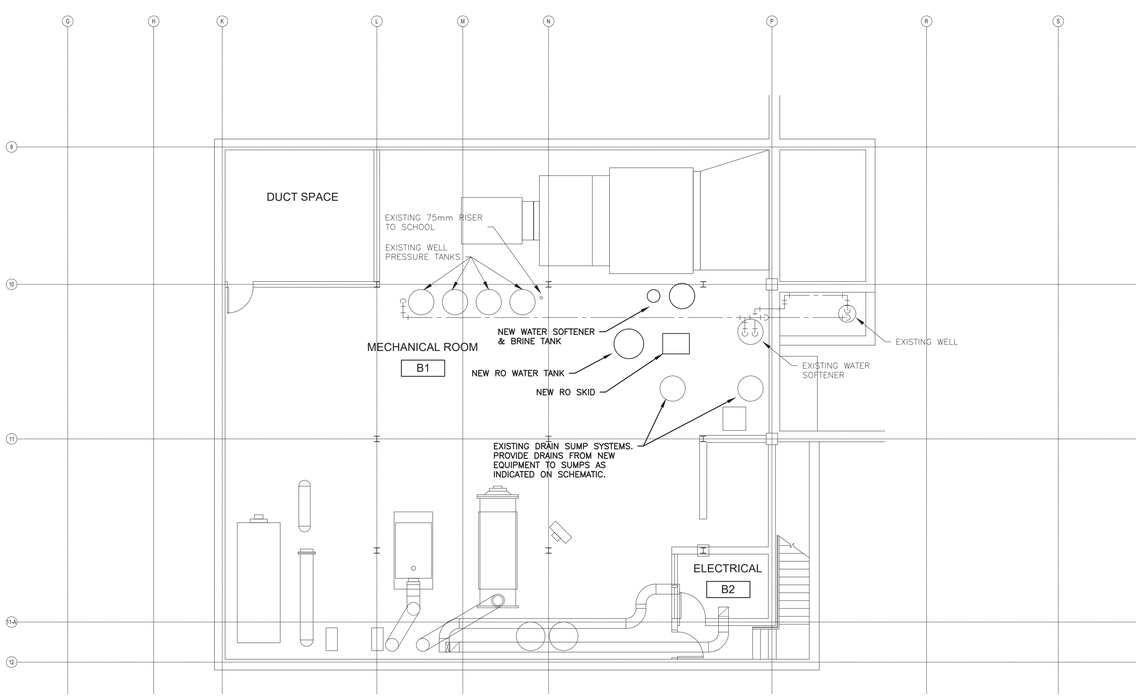
NOTE :
PIPING CONNECTIONS TO BE CONFIRMED WITH MANUFACTURER PRIOR TO CONSTRUCTION

## RO WATER SYSTEM SCHEMATIC (1 / M1 M1)

SCALE/ECHELLE: N.T.S.

## LEGEND

- COLD WATER PIPING
- EXISTING PIPING
- PIPING TO BE REMOVED
- RO WATER PIPING
- BALL OR GATE VALVE
- EXISTING BALL OR GATE VALVE
- CHECK VALVE
- PRESSURE REGULATING VALVE
- VALVE (NORMALLY CLOSED)
- CIRCULATING PUMP
- PRESSURE GAUGE
- UNION
- RELIEF VALVE




NOTES :

.1 MECHANICAL PLAN IS GENERAL ARRANGEMENT ONLY. CONTRACTOR TO REFER TO SCHEMATIC AND COORDINATE FINAL LOCATION OF ALL EQUIPMENT ON SITE WITH ENGINEER.

.2 EXISTING PIPING IS GENERAL ONLY. CONTRACTOR TO CONFIRM LOCATION OF TIE–INS ON SITE.

## FLOOR PLAN – MECHANICAL – GENERAL ARRANGEMENT (2 / M1 M1)

SCALE/ECHELLE: 1:100

PIPING SPECIFICATIONS

.1 BUILDING WATER PIPING:
- .1 PIPE: – TYPE "L" COPPER TO ASTM B88.
- .2 FITTINGS: – WROUGHT COPPER OR CAST BRASS.
- .3 JOINTS: – 95/5 LEAD–FREE SOLDER. UNIONS AT FIXTURES.

.2 BUILDING WATER AND PURIFIED WATER PIPING AT RO SKID:
- .1 PIPE: – PVC SCH. 80 PRESSURE PIPE TO CSA B137.3.
- .2 FITTINGS: – SOLVENT WELD PVC SCH. 80 FITTINGS.
- .3 JOINTS: – SOLVENT WELD.

INSULATION SPECIFICATIONS

.1 DEFINITIONS:
UNLESS OTHERWISE SPECIFIED, TERMS "EXPOSED PIPE" OR "EXPOSED DUCTWORK" AS USED IN THIS SECTION SHALL REFER TO PIPE OR DUCTWORK IN FINISHED SPACES AND SHALL INCLUDE ALL AREAS EXCEPT: FURRED SPACES, PIPE AND DUCT SHAFTS, SPACES ABVE FURRED CEILINGS, SPACES OVER EXCAVATED AREAS, AND CRAWL SPACES. THESE LATTER AREAS WILL BE REFERRED TO AS "CONCEALED SPACES". WORKING CHASES OR CORES SHALL BE CONSIDERED AS FINISHED SPACES.

.2 FIRE RATING:
ALL INSULATION TO HAVE MAXIMUM FLAME SPREAD RATING 25. MAXIMUM SMOKE DEVELOPED RATING 50.

.3 PIPING:
PROVIDE PREFORMED GLASS FIBER PIPE INSULATION WITH A NOMINAL DENSITY OF 88 KG/M³, GLASS FIBER REINFORCED KRAFT FOIL LAMINATE JACKET AND CONTINUOUS VAPOUR BARRIER ON ALL:
.1 DOMESTIC WATER
INSULATION THICKNESS TO BE 1" UP TO 1.5" PIPE SIZE, AND 1.5" FOR SIZES 2" THRU 4". PROVIDE PVC JACKET WITH PREFORMED FITTING COVERS ON ALL EXPOSED PIPING.

REGISTERED PROFESSIONAL ENGINEER
J. DOUGLAS MATHESON
No. 380
PROVINCE OF PRINCE EDWARD ISLAND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A = Detail #
BB = Sheet # ( Where Detail Required )
CC = Sheet # ( Where Detailed )

Project Title :
M.E. CALLAGHAN INTERMEDIATE SCHOOL

Drawing Title :
RO SYSTEM SCHEMATIC & SPECIFICATIONS

| | |
|---|---|
| Scale : As Noted | Design By : JDM |
| Drawn By : LJDJ | Date : JULY 12, 2018 |
| Project No.: 350 -17086 | Drawing # : M-1 of 1 |

839.9mm x 593.4mm 2.755' x 1.946'

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