



J PGAD-R018

K PGAD-R019

L PGAD-R020

M PGAD-R021

N PGAD-R022

P PGAD-R023

Q PGAD-R024

A PGAD-R014
A1 PGAD-R014

B PGAD-R014
Cr

C PGAD-R015
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G PGAD-R017

H PGAD-R017 H1 PGAD-R017

J PGAD-R018

K PGAD-R019

L PGAD-R020

M PGAD-R021

N PGAD-R022

P PGAD-R023

Q PGAD-R024



NOTE:

- MINIMUM REQUIREMENTS FOR PIPING SUPPORTS DESIGN CONCEPT TO BE FOLLOWED BY CONTRACTOR:
 - AIR LOW PRESSURE (ALP):
 - METAL BELLOWS EXPANSION JOINTS WHERE SHOWN ON DRAWINGS
 - FIXED PIPE SUPPORT (ANCHOR) WHERE SHOWN ON DRAWINGS
 - ROLLER PIPE SUPPORTS WITH GUIDES ON STRAIGHT PIPES BETWEEN TWO FIXED PIPE SUPPORTS
 - SLIDING PIPE SUPPORT TO MAINTAIN 25 MM OF LATERAL MOVEMENT ON EACH SIDE OF PIPE ON ALL OTHER SUPPORTS
 - FLUSHING SERVICE WATER (FSW), INSTRUMENT AIR SUPPLY (IAS) AND FERRIC CHLORIDE (FC):
 - EXPANSION LOOPS AS SHOWN ON DRAWINGS
 - FIXED PIPE SUPPORT (ANCHOR) WHERE SHOWN ON DRAWINGS
 - SLIDING PIPE SUPPORT TO MAINTAIN 25 MM OF LATERAL MOVEMENT ON EACH SIDE OF PIPE ON ALL OTHER SUPPORTS

OVERALL ROOF PLAN

1:200



APEGM
Certificate of Authorization
CH2M HILL Canada Ltd.
No. 1441

NO.	REVISIONS	DATE	DESIGN	CHECK
03	ISSUED FOR ADDENDUM 3 - 976-2016	2017/06/21	B.C.	J.C.
02	ISSUED FOR CONSTRUCTION - 976-2016	2017/04/05	B.C.	J.C.
01	ISSUED FOR CONSTR - B.O. 899-2015	04/2016	B.C.	J.C.
00	ISSUED FOR TENDER - B.O. 899-2015	01/2016	B.C.	J.C.

CH2MHILL
SNC-LAVALIN

DESIGNED BY: F. ABSI
CHECKED BY: B. EDGAR

DRAWN BY: B. COOPER
APPROVED BY: H.T. FREIHAMMER

SCALE: 1:200
DATE: 2017/04/05

ISSUED FOR CONSTRUCTION
BY: J. SHUMKA
DATE: 2017/04/05

CONSULTANT NO.: 474248

ENGINEER'S SEAL

21 JUNE 2017

PROVINCE OF MANITOBA
REGISTERED PROFESSIONAL ENGINEER
F. J. ABSI
Member 38875

THE CITY OF WINNIPEG
Winnipeg WATER AND WASTE DEPARTMENT

SOUTH END WATER POLLUTION CONTROL CENTRE
SEWPC UPGRADING/EXPANSION PROJECT
PROCESS
BIOREACTORS/BLOWER BUILDING
OVERALL ROOF PLAN

CITY DRAWING NUMBER: 1-0102-PGAD-R009
SHEET: 001
REV.: 03
SIZE: A1

