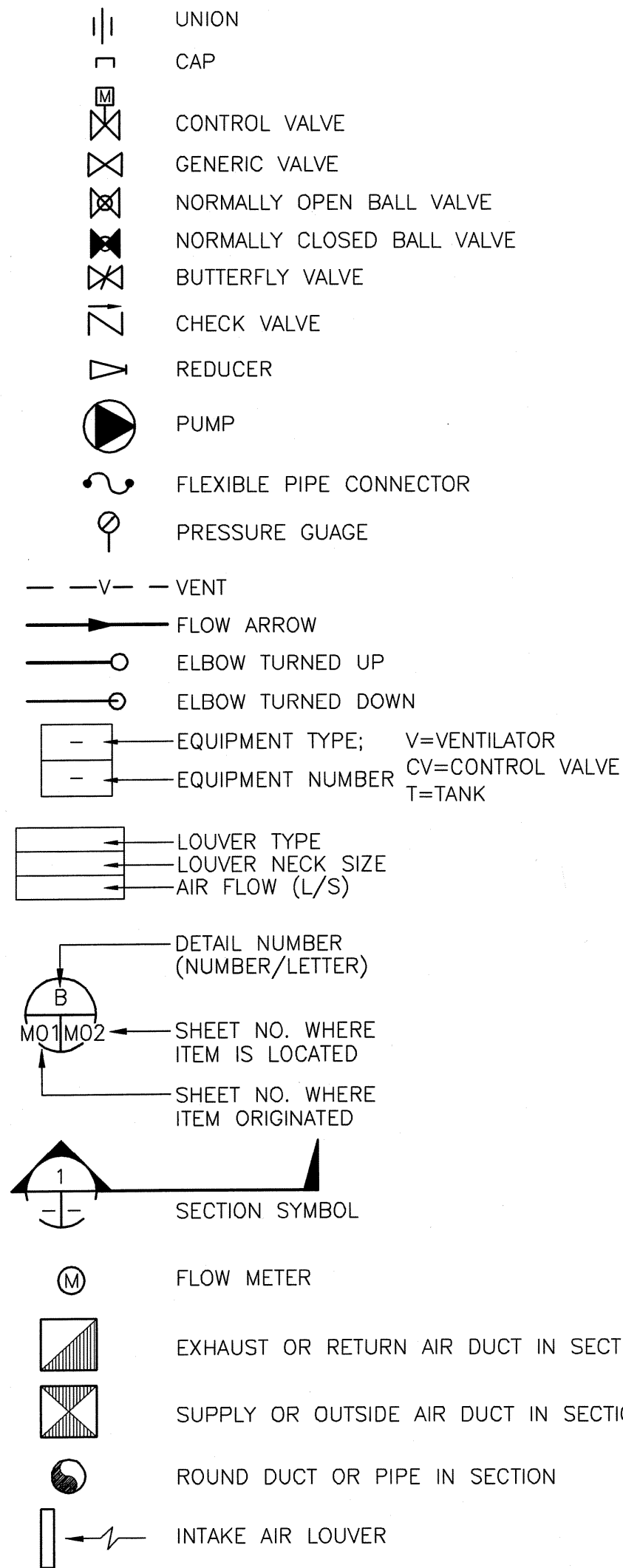


**LEGEND**



**GENERAL NOTES:**

- PROVIDE ALL MATERIALS, LABOUR, AND ASSOCIATED SERVICES TO COMPLETE AND MAKE ALL SYSTEMS FUNCTIONAL AND OPERATIONAL AND BE COMPLIANT WITH REQUIREMENTS LISTED IN ALL CODES, REGULATIONS, INDUSTRY STANDARDS, GUIDELINES, AND GOVERNING AUTHORITIES.
- ALL MATERIALS TO BE NEW AND FULLY WARRANTED FOR MINIMUM OF 1 YEAR, EXCEPT WHERE OTHER WISE NOTED.
- PERFORM ALL WORK IN COORDINATION WITH ALL OTHER TRADES AND CONTRACTORS ON THE OWNERS PROPERTY. COMPLETE WORK IN A TIMELY MANNER AND COMPLIANT WITH THE PROJECT REQUIREMENTS.
- USE SKILLED AND LICENSED LABOURERS AND JOURNEYMENT TO PERFORM ALL WORK.
- PATCH ALL OPENINGS REMAINING AFTER EQUIPMENT, OR PIPING INSTALLATIONS. PATCHING TO ACHIEVE COLOUR MATCHED FINISH OF LIKE MATERIALS TO THE SURROUNDING SURFACE MATERIALS.
- CUT ALL NEW OPENINGS REQUIRED FOR NEW INSTALLATIONS USING DUE CARE AND APPROPRIATE TOOLS AND METHODS TO MAINTAIN THE INTEGRITY OF THE STRUCTURE/ASSEMBLY IN WHICH THE OPENING IS BEING CUT.
- ALL NECESSARY PERMITS SHALL BE OBTAINED AND ALL FEES SHALL BE PAID TO CARRY OUT THE SPECIFIC WORK.
- DIMENSIONS SHOWN ON THE DRAWING ARE APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE TO VERIFY SYSTEM LOCATION AND DIMENSIONS ON SITE.
- PROVIDE FIRE STOP SYSTEMS TO CONDUITS AND PIPING AT THEIR PENETRATIONS OF FIRE SEPARATIONS.
- SEAL PIPE PENETRATIONS THROUGH WALLS.
- ELECTRICALLY ISOLATE ALL DISSIMILAR METALS.
- ALL SYSTEMS SHALL BE DESIGNED AND ALL MATERIALS SHALL BE SUITABLE FOR THE APPLICATIONS (SALT, SAND, AND LIQUID DE-ICER HANDLING).
- STAINLESS STEEL PIPE WELDING SHALL BE PASSIFIED.

**DESIGN CONDITIONS**

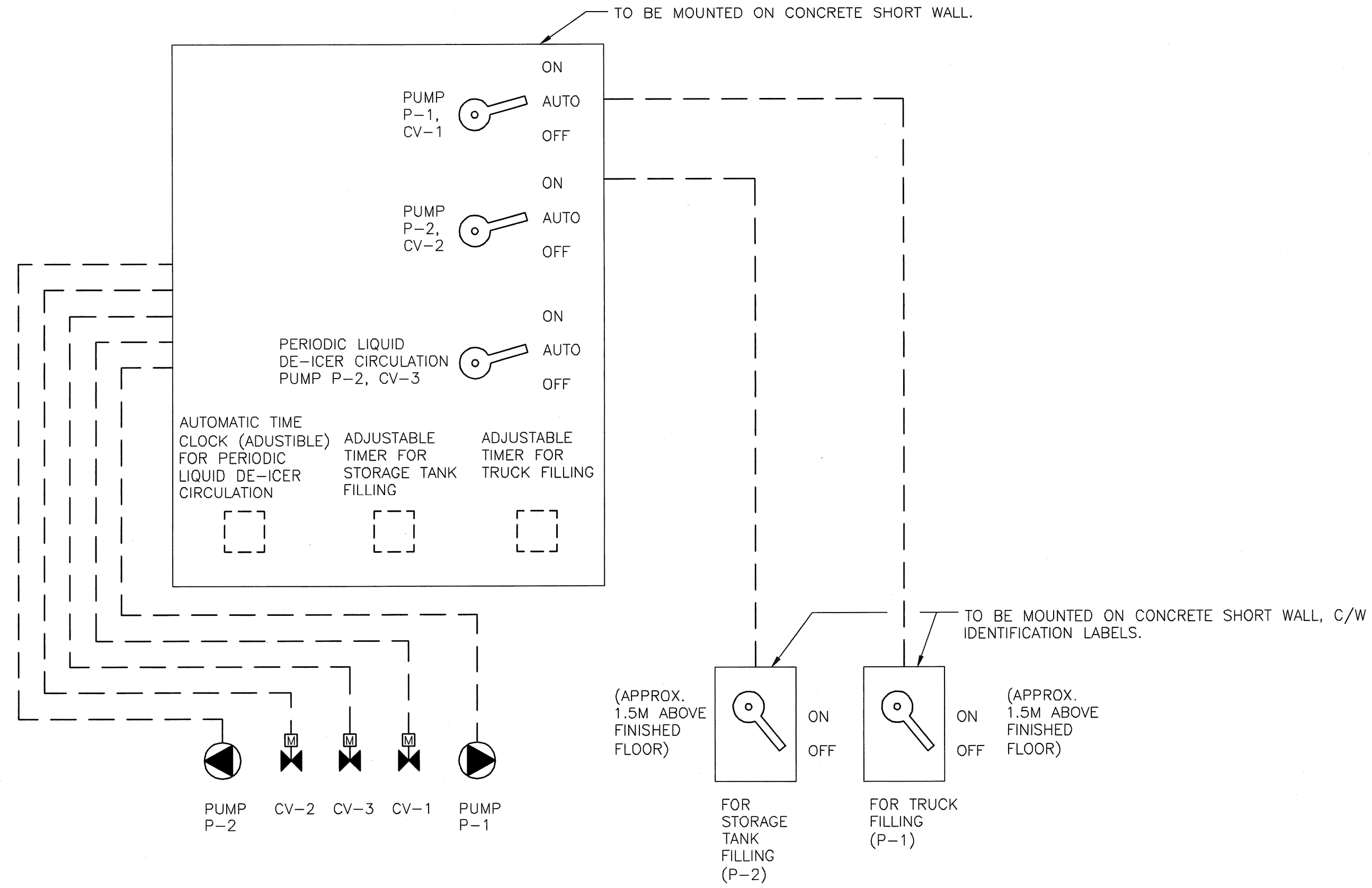
- OUTDOOR AMBIENT (NBC 1995):  
WINTER (1%): -35°C  
SUMMER (2.5%): 30°C DRY BULB  
23°C WET BULB
- INDOOR AMBIENT:  
SAME AS OUTDOOR AMBIENT.
- VENTILATION:  
BY NATURAL VENTILATION. NET OPENING AREA OF THE VENTILATION SYSTEM SHALL BE MINIMUM OF 4% OF THE NET OCCUPIABLE FLOOR AREA AS PER ASHRAE STANDARD 62. NET OCCUPIABLE AREA DOES NOT INCLUDE MATERIAL PILE UP AREAS.

PUMP SCHEDULE									
EQUIPMENT TAG NO.	LOCATION	FLUID	TYPE	FLOW RATE (L/S)	DESIGN HEAD (M)	PUMP (RPM)	MOTOR (kw)	MANUFACTURER AND MODEL NO.	VOLTAGE
P-1, P-2	BUILDING	30% ± CALCIUM CHLORIDE	SELF PRIMING	2.3	9.1	3450	0.56	MONARCH BSEF - S75	230/1

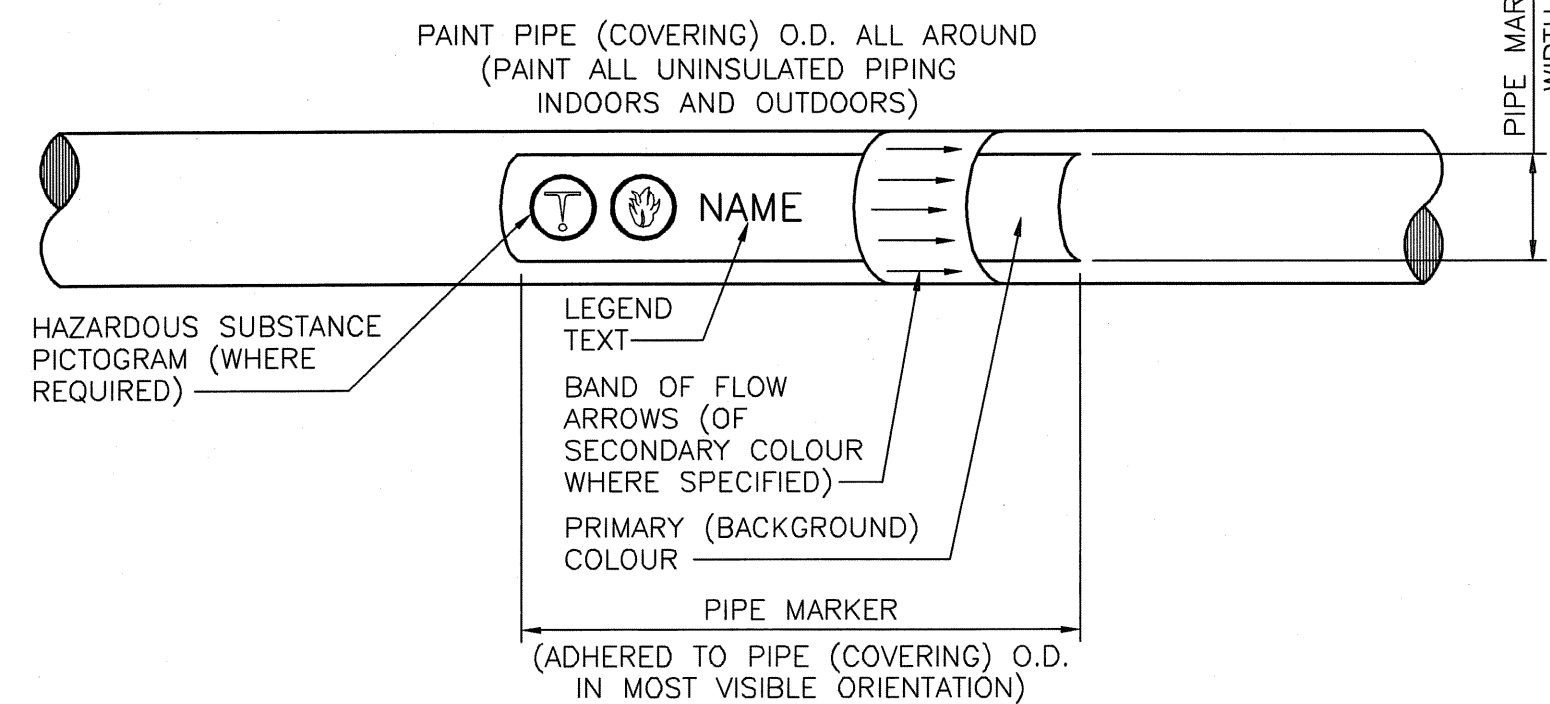
LOUVER SCHEDULE - PROVIDED BY BUILDING SUPPLIER		
TYPE	MANUFACTURER MODEL/No.	DESCRIPTION
L	PRICE AIROLITE 609B4X	STAINLESS STEEL INTAKE AIR LOUVER C/W BIRD SCREEN. AMCA CERTIFIED

VENTILATION SCHEDULE - PROVIDED BY BUILDING SUPPLIER		
ITEM	MANUFACTURER MODEL/No.	DESCRIPTION
V-1	VENTILATION MAXIMUM CA-2012	STATIC VENTILATOR COMPLETE WITH EPOXY COATING ON ALL SURFACES (INSIDE AND OUTSIDE). COLOUR: GREY SIZE: 300mm x 300mm; RATED FOR 197L/s EXTRACTED AIR FLOW RATE AT APPROACH WIND VELOCITY OF 6.4km/hr VENTILATOR SHALL BE BUILT IN ONE PIECE

TANK SCHEDULE		
ITEM	MANUFACTURER MODEL/No.	DESCRIPTION
T-1, T-2	POLYWEST 24600L CAPTOR TANKS	DOUBLE WALL TANKS C/W FLANGED CONNECTION FITTINGS FOR PIPING, VENTING SYSTEM, ACCESS MANWAY, CONNECTION FITTINGS SUITABLE FOR LEVEL SENSOR. LIQUID: CALCIUM CHLORIDE



**B** CONTROLS SCHEMATIC  
N.T.S.



HEIGHT OF LEGEND LETTERS AND NUMBERS	
OUTSIDE DIAMETER OF PIPE OR COVERING	HEIGHT OF LETTERS AND NUMBERS
mm	mm
19 TO 32	13
38 TO 51	19
64 TO 150	32
200 TO 250	64
OVER 250	89

**A** DETAIL  
N.T.S.

**NOTE:**  
1. SYSTEM LAYOUTS SHOWN IN THE TENDER DRAWINGS ARE FOR REFERENCE PURPOSE. THE CONTRACTOR IS RESPONSIBLE FOR DESIGN AND PROVIDE CODE COMPLIANT, FULLY FUNCTIONAL SYSTEMS TO SUIT APPLICATION. SYSTEMS SHALL MEET OR EXCEED ALL REQUIREMENTS DESCRIBED IN THE CONTRACT DOCUMENT. THE CONTRACTOR IS RESPONSIBLE FOR ALL DOCUMENT SUBMISSION TO OBTAIN APPROVAL FROM THE CITY.  
2. ALL MATERIALS SHALL BE SUITABLE FOR SALT, SAND, AND DE-ICING LIQUID HANDLING ENVIRONMENT (CORROSIVE).

BID OPPORTUNITY No. 9-2005

**METRIC**  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

**APEGN**  
Certificate of Authorization  
UMA Engineering Ltd.  
No. 256 Expiry: April 30, 2005

**THE CITY OF WINNIPEG**  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION

SAND/SALT STORAGE FACILITY  
PUBLIC WORKS YARD  
1539 WAVERLEY STREET

CITY DRAWING NUMBER 03  
SHEET 3 OF 11  
REV 2

MECHANICAL  
LEGEND, GENERAL NOTES, SCHEDULES

CONSULTANT DRAWING NO. 41-09-0265-366-00

**UMA Engineering Ltd.**  
• Consulting • Engineering • Construction • Management Services

DESIGNED BY WY  
DRAWN BY ALG  
CHECKED BY [Signature]  
APPROVED BY [Signature]

HOR. SCALE: AS SHOWN  
VERTICAL: N/A  
RELEASED FOR CONSTRUCTION DATE

PROVINCE OF MANITOBA  
REGISTERED PROFESSIONAL ENGINEER  
YUEN  
05/02/01

NO. REVISIONS DATE BY

2	RE-ISSUED FOR BID	05Feb01	DML
1	ISSUED FOR BID	04May25	CGC
0	ISSUED FOR REVIEW	04May04	CGC

Y/M/D: 04/02/12