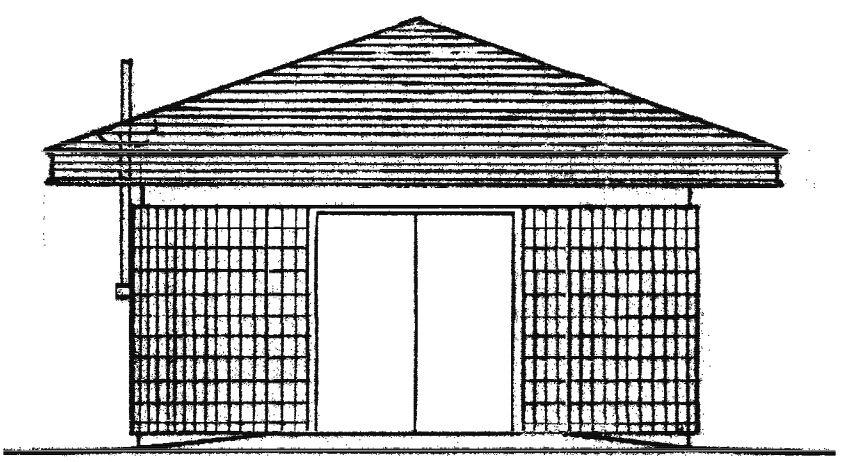
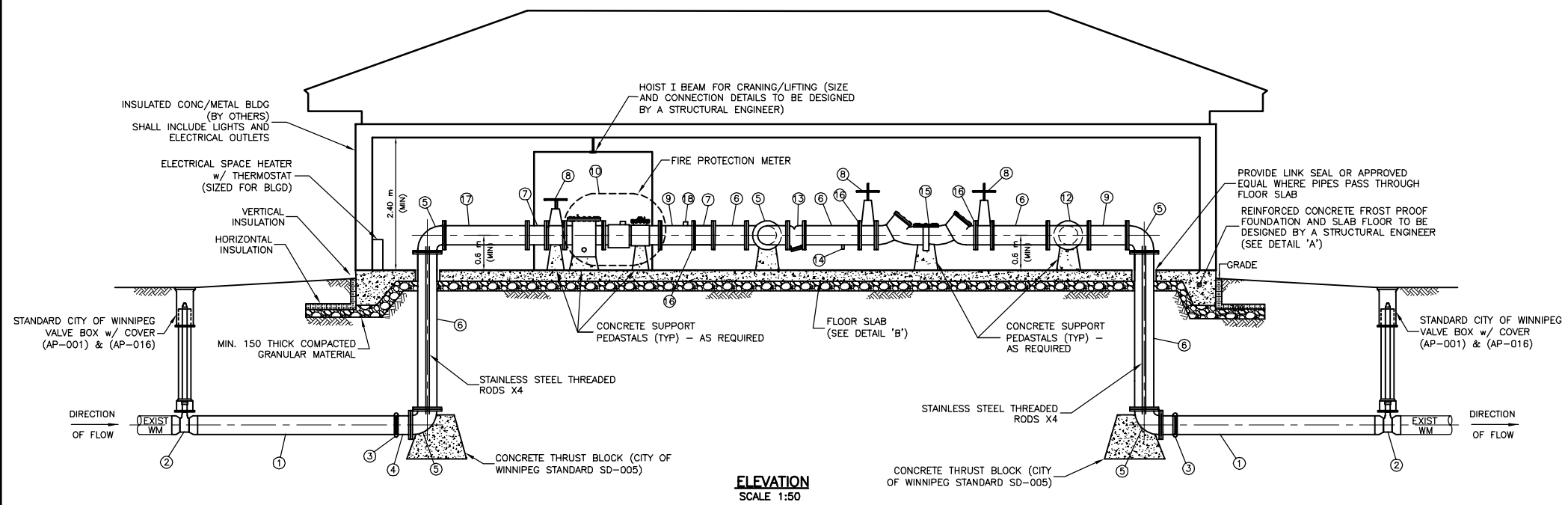
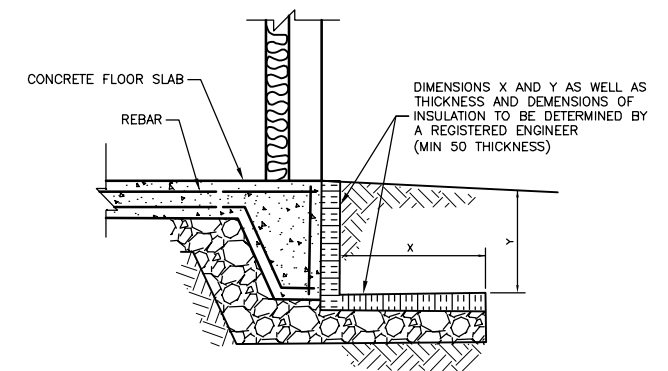
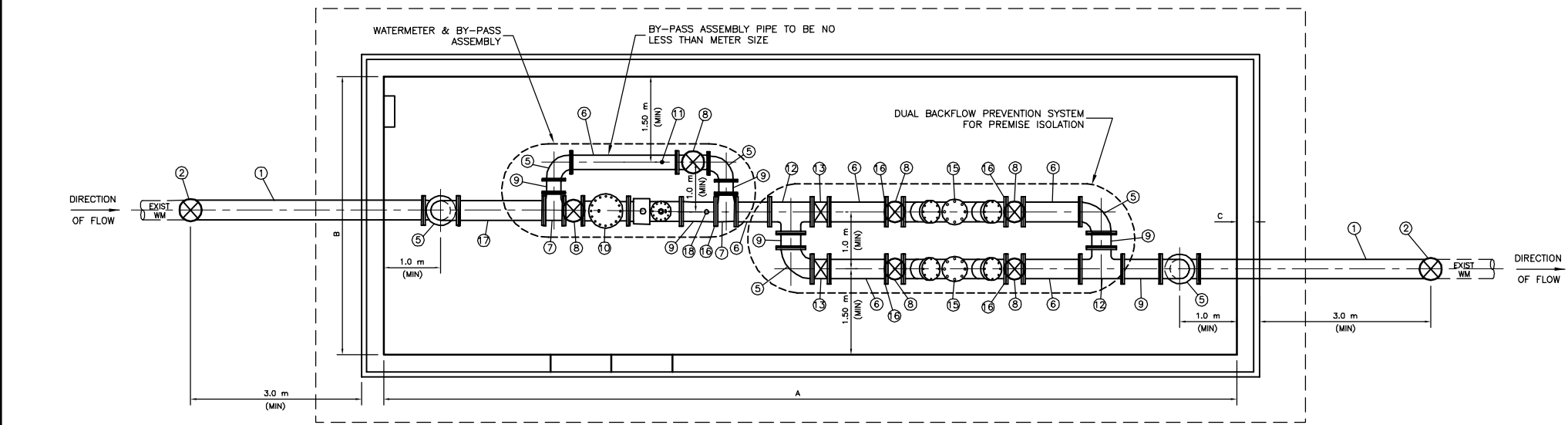

Appendix D – General Requirements for Water Service Meter Structures



TYPICAL FRONT ELEVATION
SCALE 1:40



NOTE:
FROST PROOF SLAB STRUCTURE TO BE DESIGNED BY A STRUCTURAL ENGINEER

NOTE:
DIMENSIONS A, B & C TO FACILITATE SPACE FOR ALL PIPES & FITTINGS FOR REQUIRED SERVICE DIAMETER.

* METER BUILDING TO BE FROST PROTECTED SLAB ON GRADE CONSTRUCTED OF ADEQUATE SIZE TO ACCOMMODATE ALL PIPES & FITTINGS. ALL BUILDING DESIGNS TO BE CERTIFIED BY AND STAMPED BY A REGISTERED ENGINEER.

NOTES:

- METERS SHALL BE FIRE SERVICE TYPE IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C703.
- THE METER ASSEMBLY C/W REMOTE READ OUT WILL BE SUPPLIED AND INSTALLED BY THE CITY. FLANGES ARE TO BE ANSI B16.1 125 lb DRILLED
- PROVIDE MINIMUM OF 5 DIAMETER LENGTHS OF STRAIGHT PIPE UPSTREAM & DOWNSTREAM OF INLET CONTROL VALVE FOR WATER METER, OR MIN. NUMBER OF DIAMETERS AS INDICATED BY THE MANUFACTURER.
- PROVIDE AN ELECTRICAL CONDUIT C/W COLOR CODED STRANDED COPPER WIRE AND POST TO ACCOMMODATE A REMOTE READ OUT FROM THE METER TO THE CITY - SIZE AND LOCATION TO BE DETERMINED BY A REGISTERED ENGINEER.
- ANCHOR PIPE TO BUILDING FLOOR AND PROVIDE THRUST BLOCKS FOR TEES & ELBOWS.
- PROVIDE LIFTING LUGS OVER METER, STRAINER AND BACKFLOW PREVENTION DEVICE(S).
- FLOOR TO CENTRELINE OF PIPE DIMENSION TO BE 600 mm.
- PROVIDE ADEQUATE PIPE SUPPORT INSIDE BUILDING.
- VALVES INSIDE METER BUILDING SHALL BE RESILIENT SEATED RISING SPINDLE (OS & Y) FLANGED GATE VALVES, CSA APPROVED.
- MINIMUM BY-PASS PIPING SIZE SHALL BE NOT LESS THAN METER SIZE.
- BURIED GATE VALVES SHALL BE IN ACCORDANCE WITH CITY OF WINNIPEG SPECIFICATIONS NO. AT-4.1.1.80 AND CONFORMANCE WITH AWWA 509.
- BACKFLOW PREVENTION DEVICES SHALL BE WATTS, CONBRACO, WILKINS ZURIN, AMES, FEBCO OR AN APPROVED EQUAL.
- BACKFLOW DEVICES USED IN CONJUNCTION WITH FIRE PROTECTION SYSTEMS MUST BE UL, ULC OR FM APPROVED DEVICES.
- DOUBLE CHECK VALVE ASSEMBLY BACKFLOW DEVICES ARE FOR MODERATE HAZARD APPLICATIONS. REDUCED PRESSURE BACKFLOW DEVICES ARE FOR HIGH HAZARD APPLICATIONS. CONSULT THE CITY'S WATER AND WASTE DEPARTMENT FOR DETERMINING WHAT TYPE OF HAZARD CLASSIFICATION.
- REDUCED PRESSURE BACKFLOW DEVICES REQUIRE DRAIN VALVES THAT ARE SIZED TO FACILITATE PROPER AIR GAP FITTING DRAINAGE AS PER THE MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE ELECTRIC POWER SUPPLY (BY OTHERS) TO ADEQUATELY RUN ALL LIGHTS, HEAT AND OTHER COMPONENTS.
- ALL METER AND BACKFLOW PREVENTION DESIGNS SUBJECT TO APPROVAL BY THE CITY PRIOR TO CONSTRUCTION.
- INCLUDE A 75 mm TEST PORT A MINIMUM OF 5 PIPE DIAMETERS DOWNSTREAM OF METER FLANGE.
- FLOOR DRAINS REQUIRED TO BE INSTALLED IN BUILDING AND MUST BE CONNECTED TO A WASTEWATER SEWER.

MATERIALS LIST

ITEM	DESCRIPTION
1	AWWA C900 PVC PIPE
2	GATE VALVE (SLIP-ON) - APPROVED PRODUCT FOR USE BY THE CITY OF WINNIPEG
3	MECHANICAL COUPLING - APPROVED PRODUCT FOR USE BY THE CITY OF WINNIPEG
4	SPOOL PIECE (FLANGE X PLAN END) AWWA C900 PVC OR C.I.
5	90° C.I. BEND (FLANGED)
6	C.I. PIPE (FLANGED)
7	C.I. TEE (FLANGED)
8	C.I. GATE VALVE (FLANGED) - RISING STEM O, S & Y
9	C.I. SPOOL PIECE (FLANGED)
10	WATER METER - FIRE PROTECTION RATED (FLANGED) - AS APPROVED BY CITY OF WINNIPEG
11	AIR RELEASE VALVE
12	C.I. TEE (FLANGED)
13	STRAINER (OPTIONAL) - CHECK WITH THE CROSS CONNECTION AND BACKFLOW INSPECTOR
14	DRAIN VALVE - SIZE DETERMINED BY REGISTERED ENGINEER
15	BACK FLOW PREVENTION DEVICE (FLANGED) - AS APPROVED BY CITY OF WINNIPEG
16	REMOVABLE FLANGE OR UNI-FLANGE
17	C.I. SPOOL PIECE (FLANGED)
18	75mm TEST PORT

DETAIL 'A'
SCALE 1:20

METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

FOR INFORMATION ONLY
NOT FOR CONSTRUCTION

WARNING
IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:
1) NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
2) TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.
SEE PROVINCIAL REGULATION 210/72 FOR DETAILS

B.M. ELEV.	FIELD BOOK #:	CITY OF WINNIPEG WATER AND WASTE ENGINEERING DIVISION		THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	
POSTED TO LBIS				DESIGNED BY: DB	CHECKED BY: TW
		DRAWN BY: WKT/CJH	APPROVED BY: KW	SHEET 1 OF 1	
		HOR. SCALE: AS SHOWN	RELEASED FOR CONSTRUCTION:	CITY DRAWING NUMBER	
NO. REVISIONS	DATE	DATE: 2008 03 13	DATE:	D-11318	