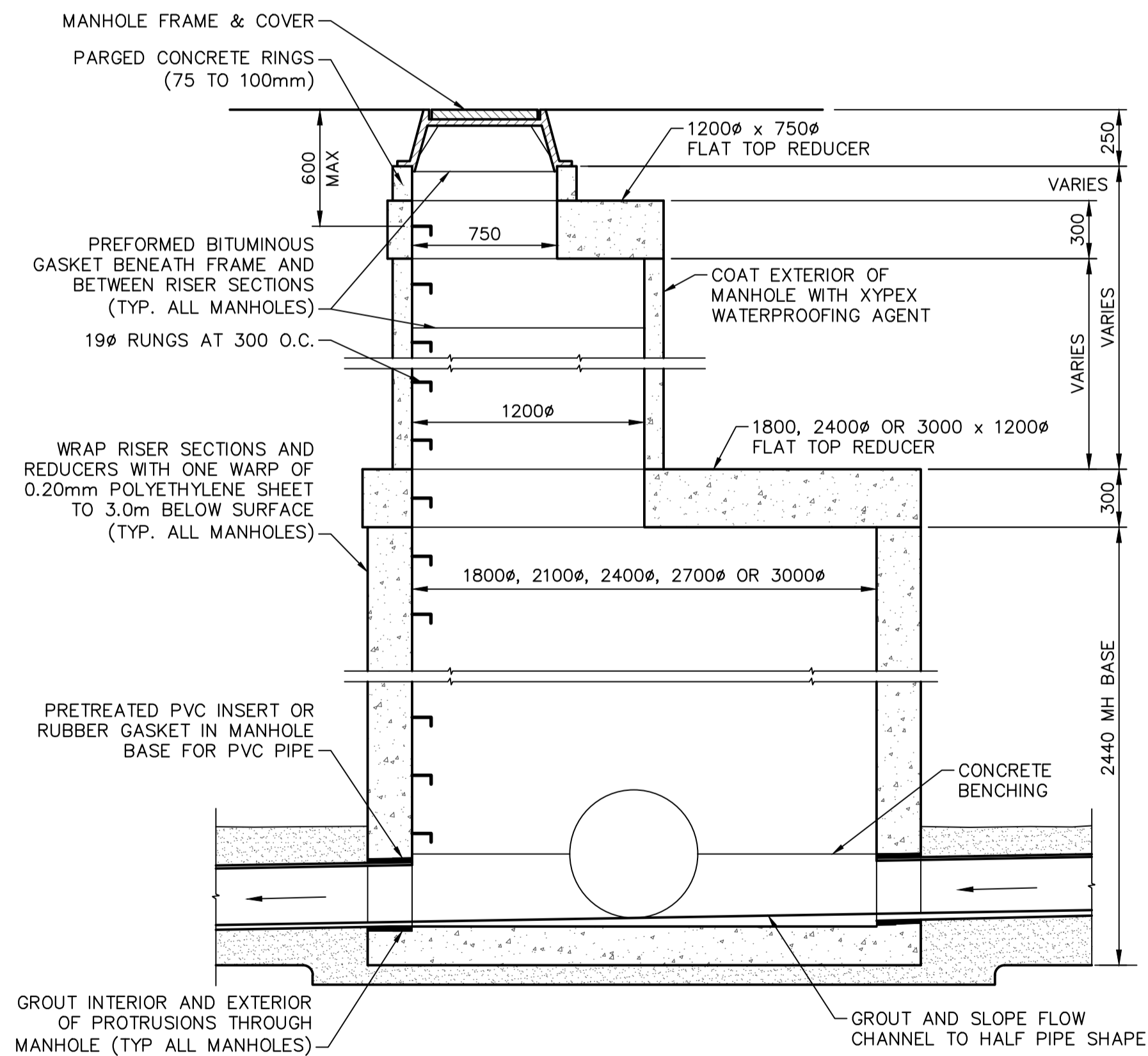
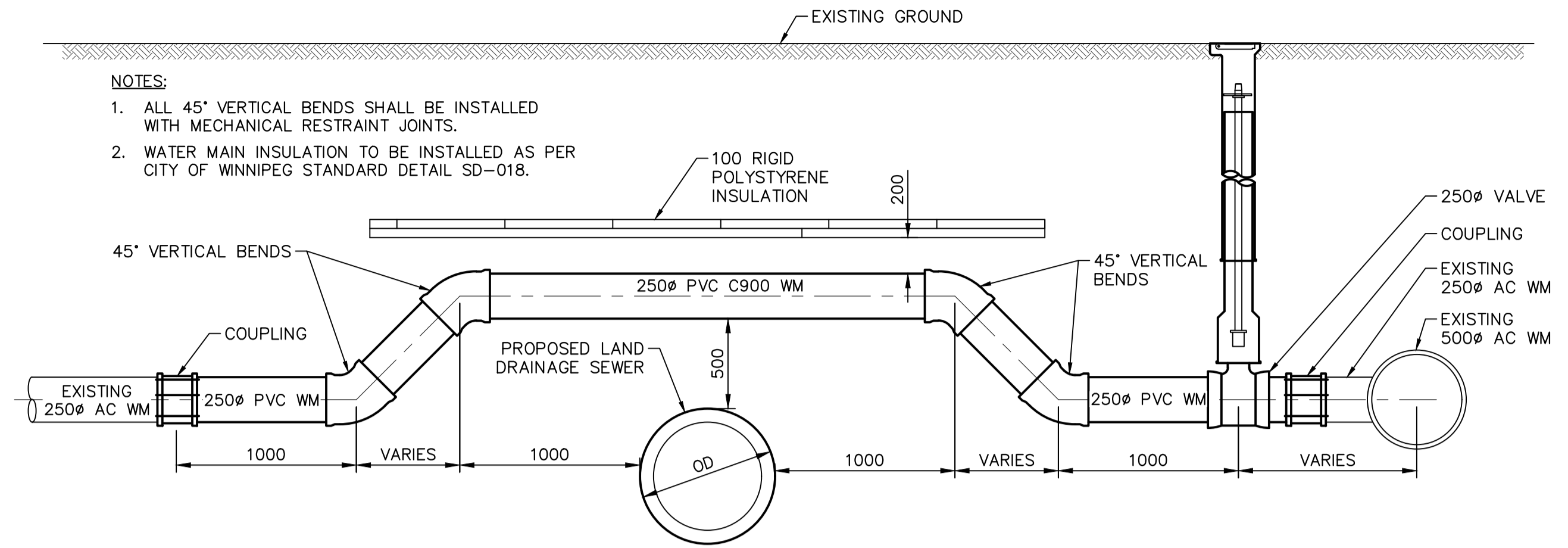


TYPICAL 1200Ø - 1500Ø MANHOLE DETAIL
SCALE 1:25

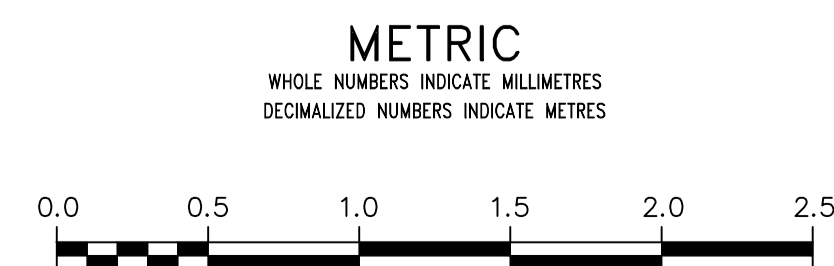


TYPICAL LARGE DIAMETER MANHOLE DETAIL
SCALE 1:25



250Ø WATER MAIN CROSSING DETAIL
SCALE 1:25

- NOTES:**
1. ALL 45° VERTICAL BENDS SHALL BE INSTALLED WITH MECHANICAL RESTRAINT JOINTS.
 2. WATER MAIN INSULATION TO BE INSTALLED AS PER CITY OF WINNIPEG STANDARD DETAIL SD-018.



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 21072 FOR DETAILS

LOCATION APPROVED
UNDERGROUND STRUCTURES
SUPV. U/G STRUCTURES COMMITTEE DATE
NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL UTILITIES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. ELEV.	NO.	ISSUED FOR CONSTRUCTION	DATE	BY
	0	ISSUED FOR CONSTRUCTION	2019/04/17	
		REVISIONS	DATE	BY

KGS GROUP CONSULTING ENGINEERS	
DESIGNED BY: MID	CHECKED BY:
DRAWN BY: GEL	APPROVED BY:
SCALE: HORIZONTAL 1:250 VERTICAL 1:50	RELEASED FOR CONSTRUCTION DATE:
DATE: 2019 04 17	DATE:

ENGINEERS GEOSCIENTISTS MANITOBA
Certificate of Authorization
KGS Group
No. 245

ENGINEER'S SEAL
M.A. HANKOVA-DEDOVA
Member
31615
REGISTERED PROFESSIONAL ENGINEER

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION
COCKBURN & CALROSSIE SEWER RELIEF WORKS
CONTRACT 12
MISCELLANEOUS DETAILS
SHEET 12 OF 12
CITY DRAWING NUMBER
LD-8954