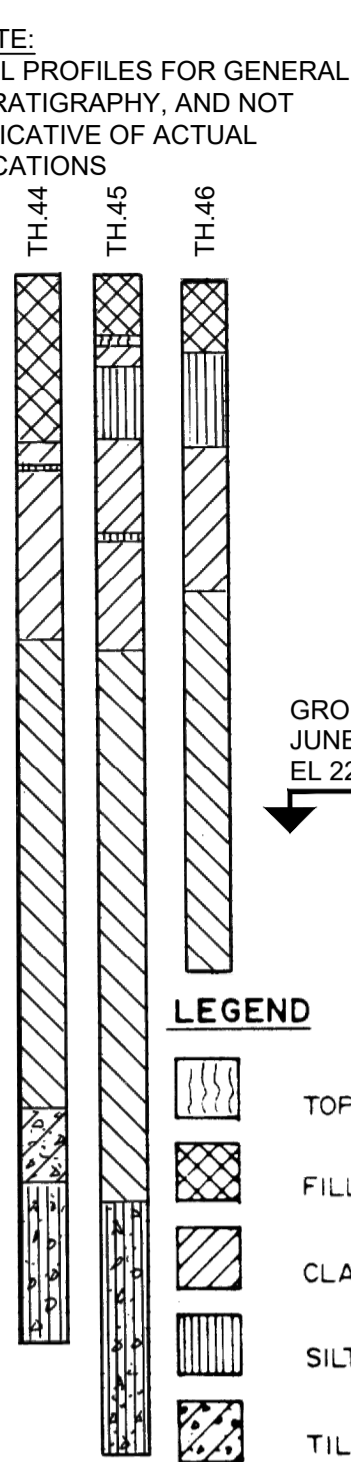


## **APPENDIX 'C'**

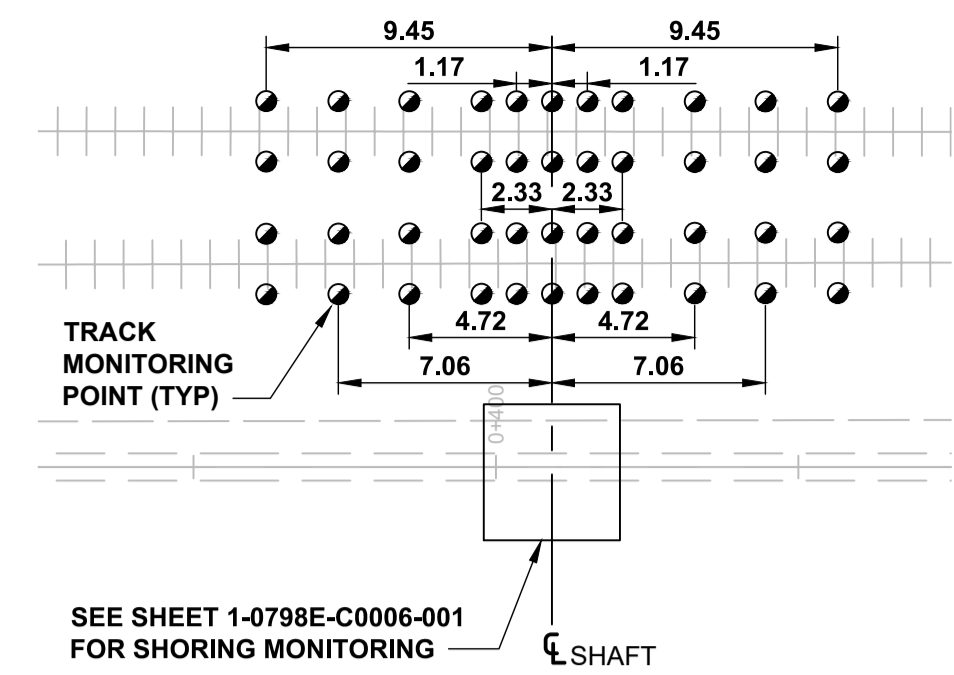
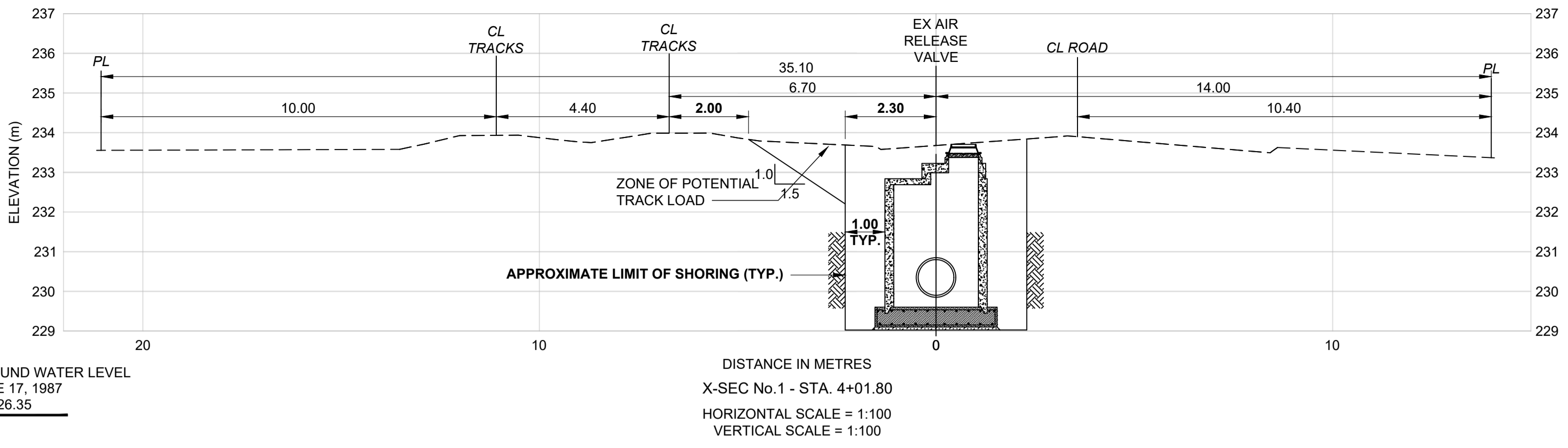
# **EXISTING AIR RELEASE VALVE AND NEW AIR RELEASE CHAMBER DETAILS**

NOTE:  
SOIL PROFILES FOR GENERAL STRATIGRAPHY, AND NOT INDICATIVE OF ACTUAL LOCATIONS

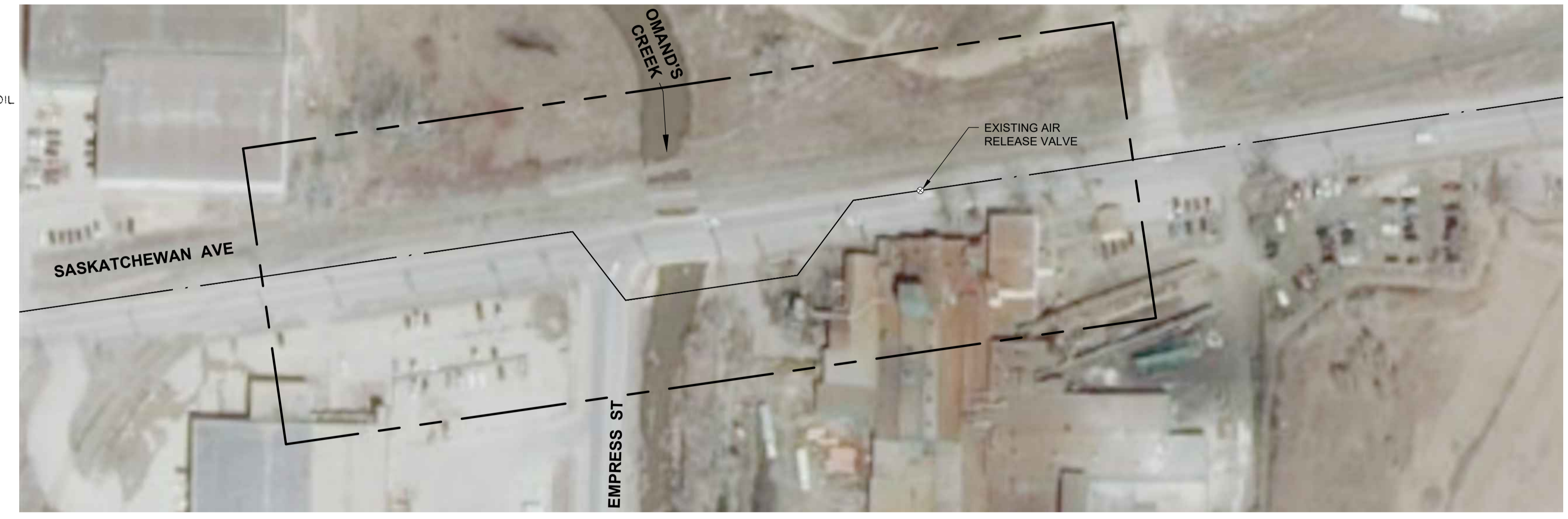


LEGEND

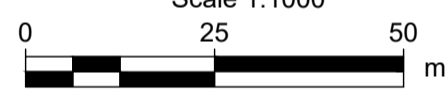
- TOPSOIL
- FILL
- CLAY
- SILT
- TILL



**TRACK MONITORING PLAN**  
Scale 1:250



**SITE PLAN**  
Scale 1:1000



**RAIL CROSSING NOTES:**

RAIL MILEAGE AND SUBDIVISION: MILE 0.35 SASKATCHEWAN AVE. LEAD, OFF MILE 0.91 LA RIVIERE SUBDIVISION

MUNICIPAL DESCRIPTION OF ADJACENT PROPERTIES: SASKATCHEWAN AVE. 70m EAST OF EMPRESS STREET

NAME OF PIPELINE OWNER: CITY OF WINNIPEG, WATER AND WASTE DEPARTMENT

CONTENTS TO BE HANDLED: POTABLE WATER

MAXIMUM OPERATING PRESSURE: 550 KPa

MAXIMUM OPERATING TEMPERATURE: 20°C

MINIMUM OPERATING TEMPERATURE: 4°C

PIPING MATERIALS: CARRIER

NOMINAL DIAMETER: 900mm

OUTSIDE DIAMETER: 1080mm

MATERIAL: PRESTRESSED CONCRETE CYLINDER PIPE

SPECIFICATION AND GRADE: AWWA C301 (L) CLASS 14

WALL THICKNESS: 85mm

TYPE OF JOINT: RUBBER GASKET/BELL AND SPIGOT

COATING: NA

BURY:

BASE OF RAIL TO TOP OF PIPE	3.02m
NOT BENEATH TRACKS	NA
ROADWAY DITCHES	NA
JACKING/RECEIVING PITS	5.0m

EXTENT OF CASING MEASURED PERPENDICULAR TO CENTERLINE OF TRACK: NA

CENTERLINE OF TRACK TO FACE OF JACKING/RECEIVING PITS: 4.4m

TYPE, SIZE AND SPACING OF INSULATORS OR SUPPORTS: NA

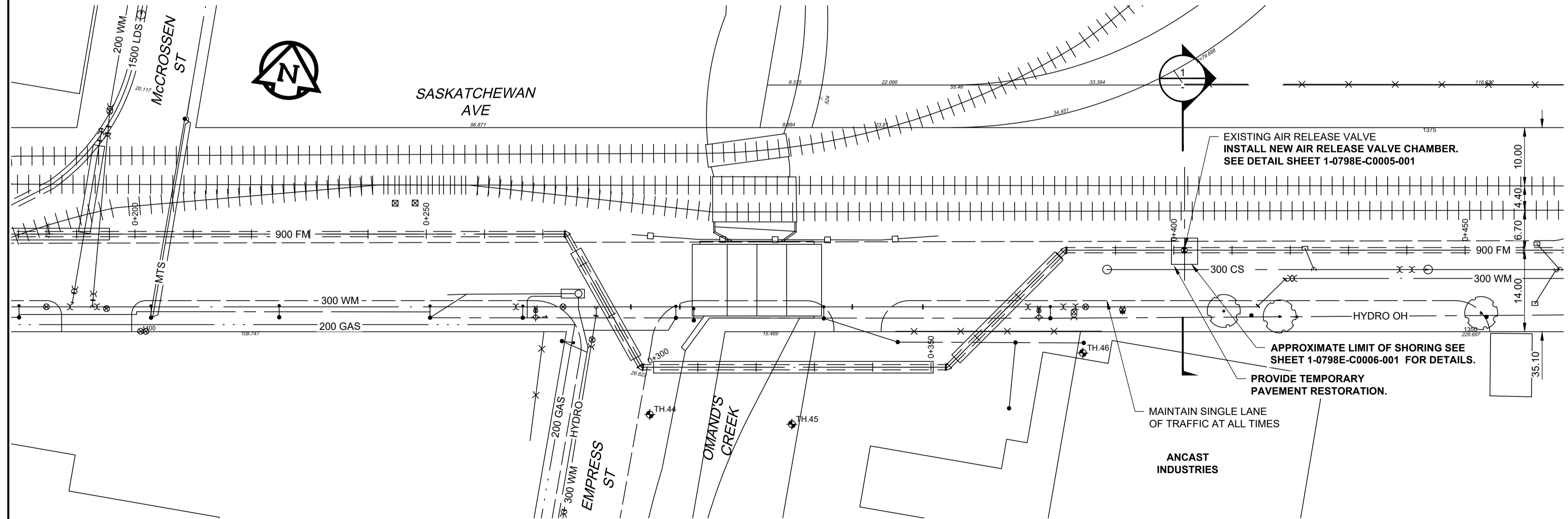
CATHODIC PROTECTION: NA

GEOTECHNICAL BOREHOLES: NA

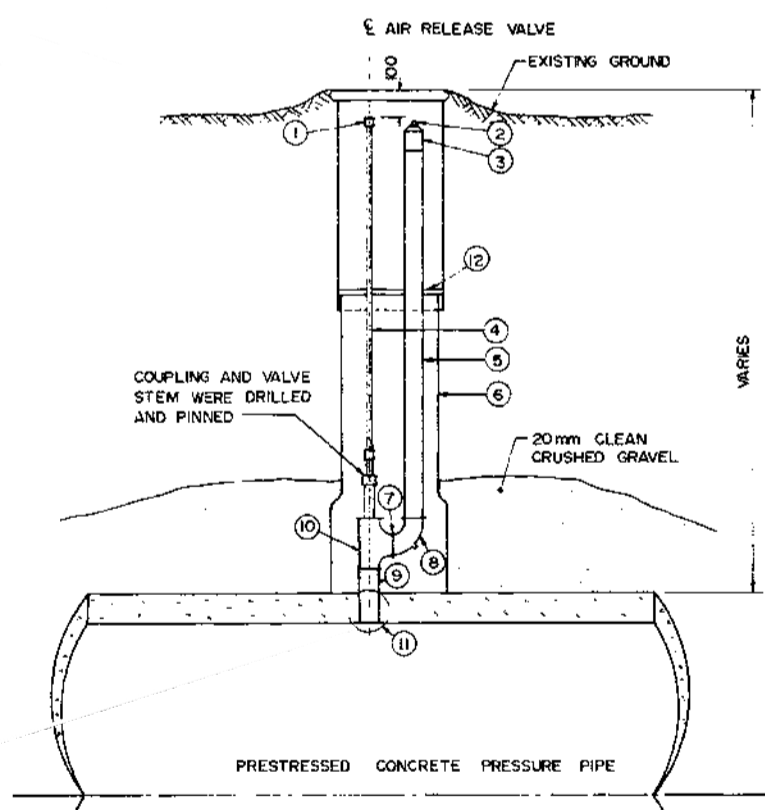
SOIL TYPE: NA

BASE OF RAIL TO GROUNDWATER: NA

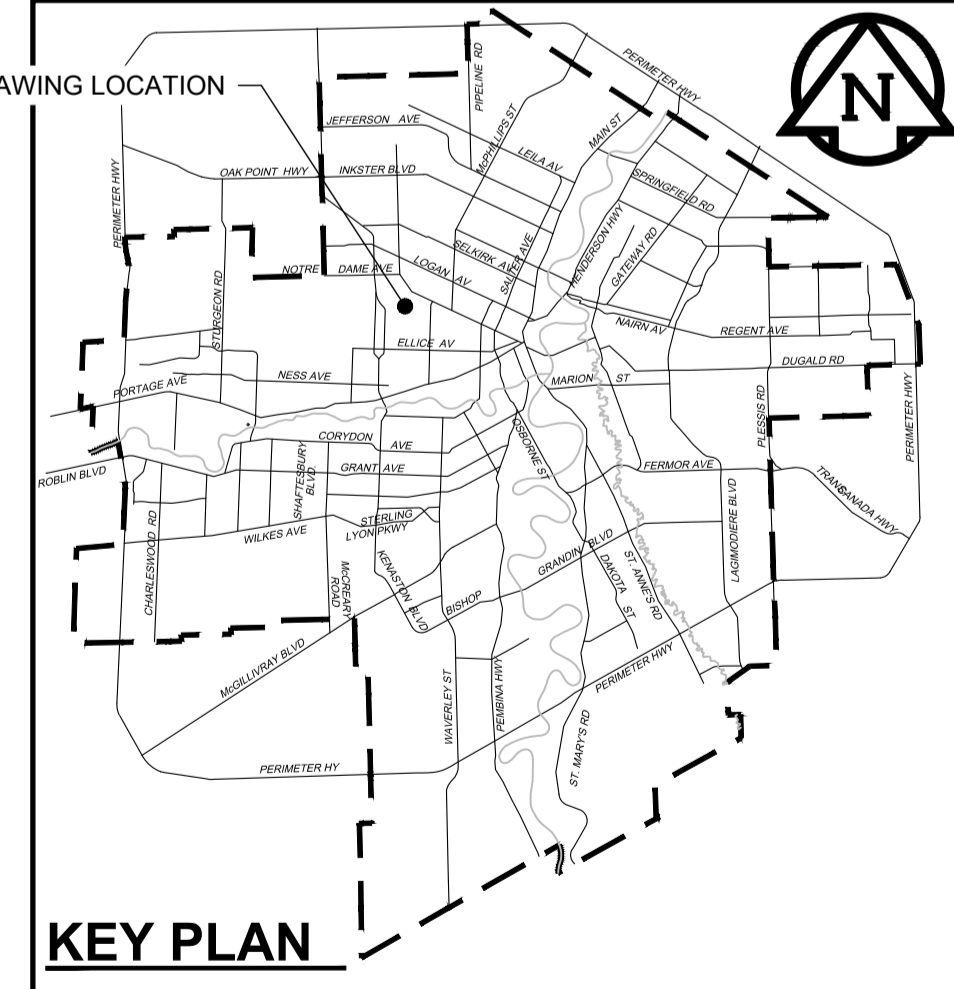
TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH TRANSPORT CANADA TC-E10



**PLAN**  
Scale 1:500



**EXISTING AIR RELEASE VALVE**  
REFERENCED FROM CITY DWG NUMBER D-1627 Scale N.T.S.



**KEY PLAN**

- GENERAL NOTES**
- IT IS PROPOSED TO CONSTRUCT TEMPORARY SHORING TO FACILITATE CONSTRUCTION OF AIR RELEASE VALVE CHAMBER
  - ALL DIMENSIONS TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR THROUGH SURVEY TO CONFIRM THE LOCATION OF THE EXISTING AND THE NEW STRUCTURE PRIOR TO START OF WORK
  - HYDRO EXCAVATE TO CONFIRM ELEVATION AND LOCATION OF SIDES OF EXISTING PIPE
  - RESOLVE WITH CONTRACT ADMINISTRATOR ALL DISCREPANCIES PRIOR TO START OF CONSTRUCTION
  - ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED; ELEVATIONS AND STATIONS ARE IN METERS

**WARNING**

IF POWER EQUIPMENT OR EXPLOSIVES ARE TO BE USED FOR EXCAVATION ON THIS PROJECT THE CONTRACTOR MUST:

- NOTIFY THE GAS COMPANY OF THE PROPOSED LOCATION OF EXCAVATION.
- TAKE PRECAUTION TO AVOID DAMAGE TO GAS COMPANY INSTALLATIONS.

SEE PROVINCIAL REGULATION 210/72 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 SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

B.M. 84R505 N.W. Cor. Saskatchewan Ave. & Midland St., Tbt. on top of 0.05 m dia. x 1.2 m iron pipe 10.2 m S. of N.L. of Saskatchewan Ave. & 5.6 m E. of W.L. of Midland St.

CONSTRUCTION COMPLETION DATE: YYYY MM DD

NO.	ISSUED FOR TENDER	DATE	BY
0	ISSUED FOR TENDER	22/06/15	ADL

**AECOM**

WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

DESIGNED BY	TJB	CHECKED BY	MGM
DRAWN BY	ADL	APPROVED BY	KWF
SCALE:	HORIZONTAL AS NOTED	RELEASED FOR CONSTRUCTION	Paul Bortoluzzi
DATE	2022 06 21	DATE	Jun 21/22

ENGINEER'S SEAL

ORIGINAL SIGNED BY J. Thompson  
June 21, 2022

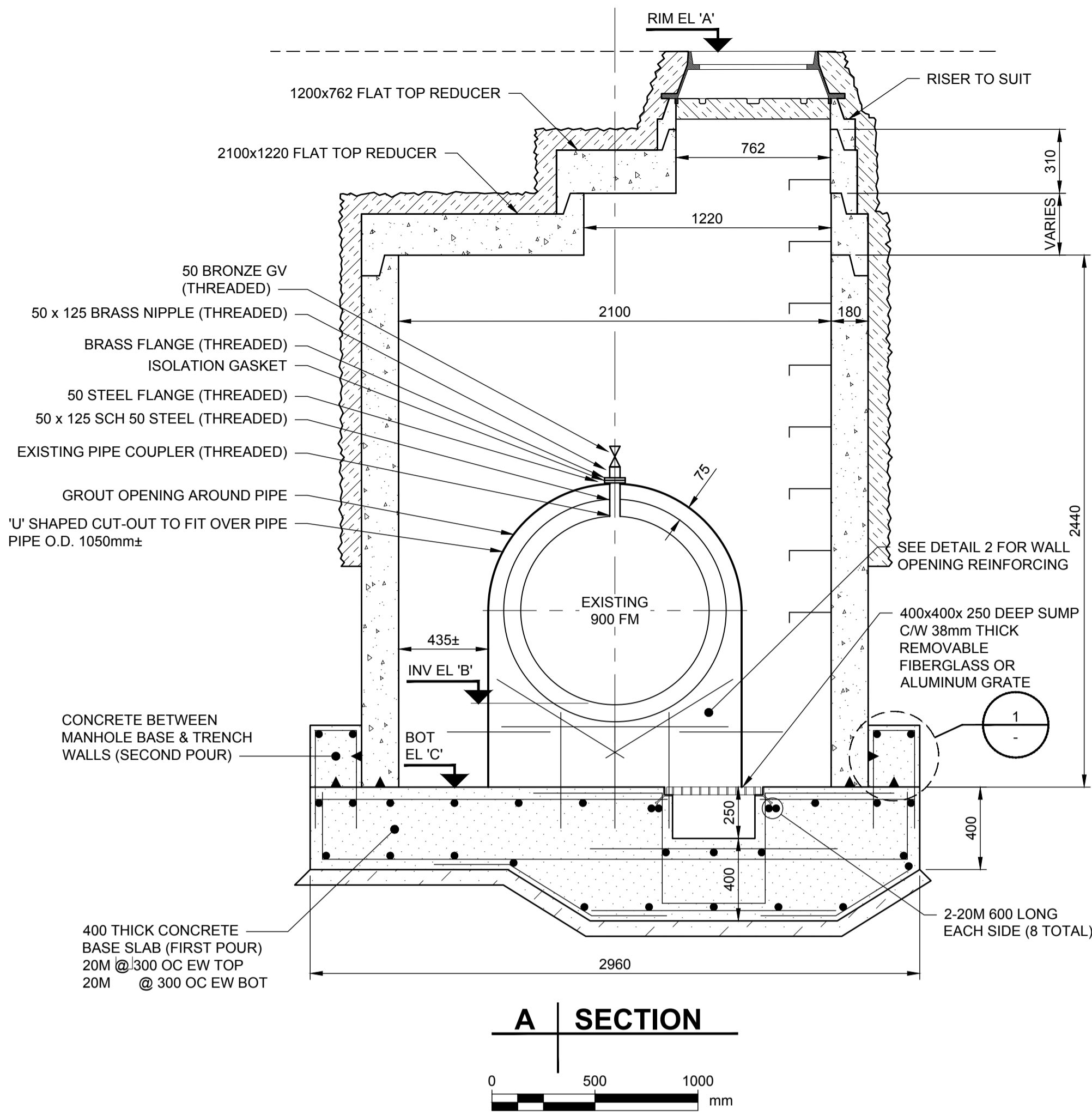
CONSULTANT DRAWING NUMBER C-1006

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
ENGINEERING DIVISION

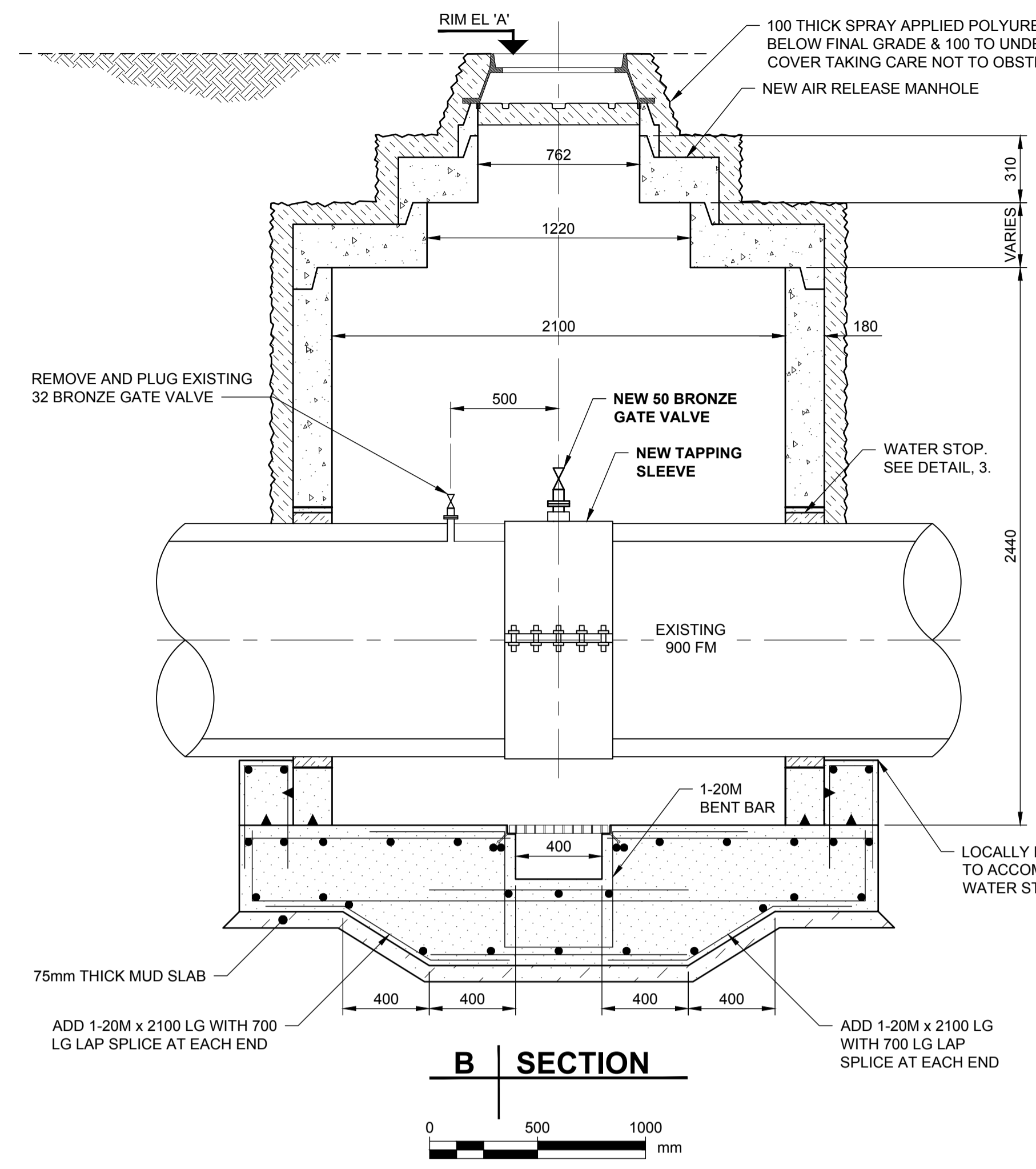
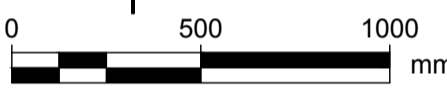
PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE

**SITE 8**  
WEST END FEEDERMAIN  
(at OMAND'S CREEK)

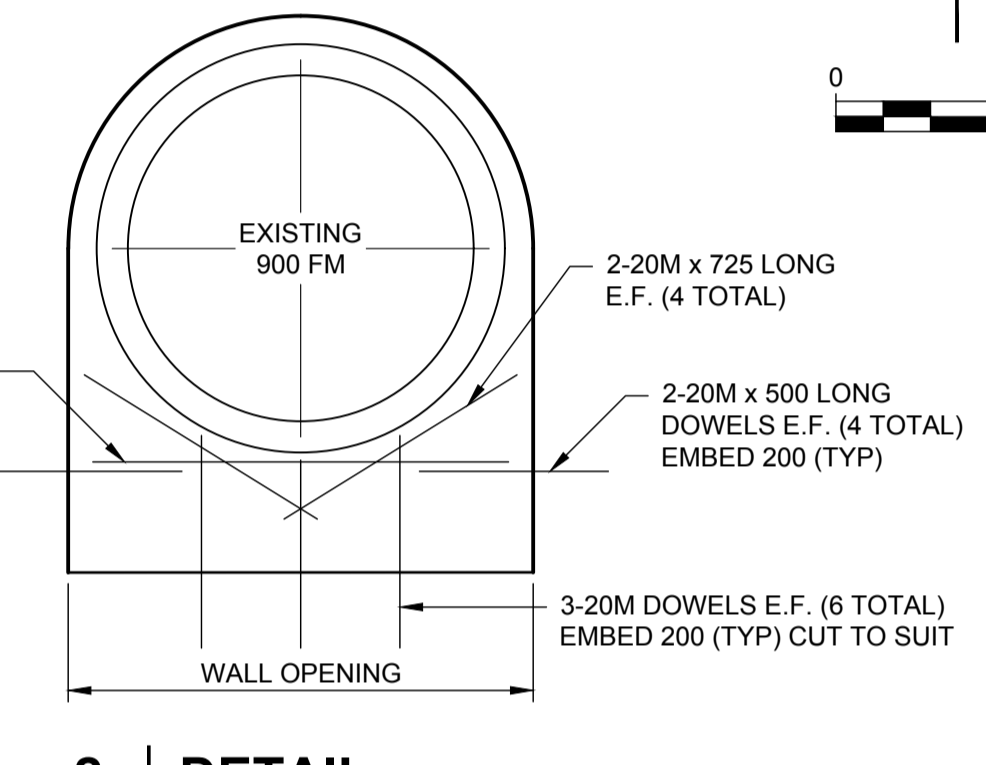
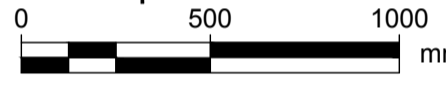
SHEET 07 OF 11  
CITY DRAWING NUMBER 1-0798E-C0003-001



**A SECTION**

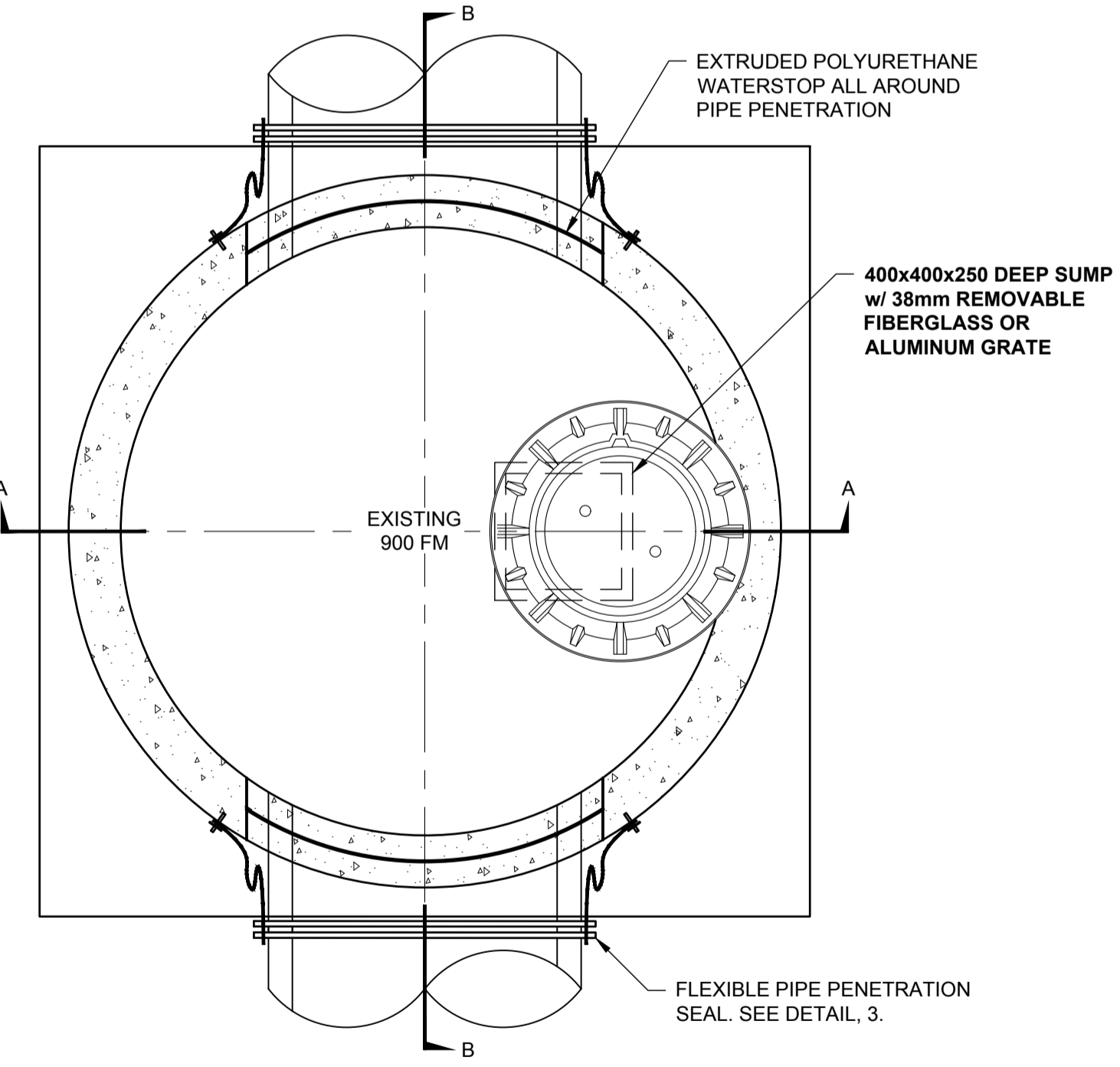


**B SECTION**



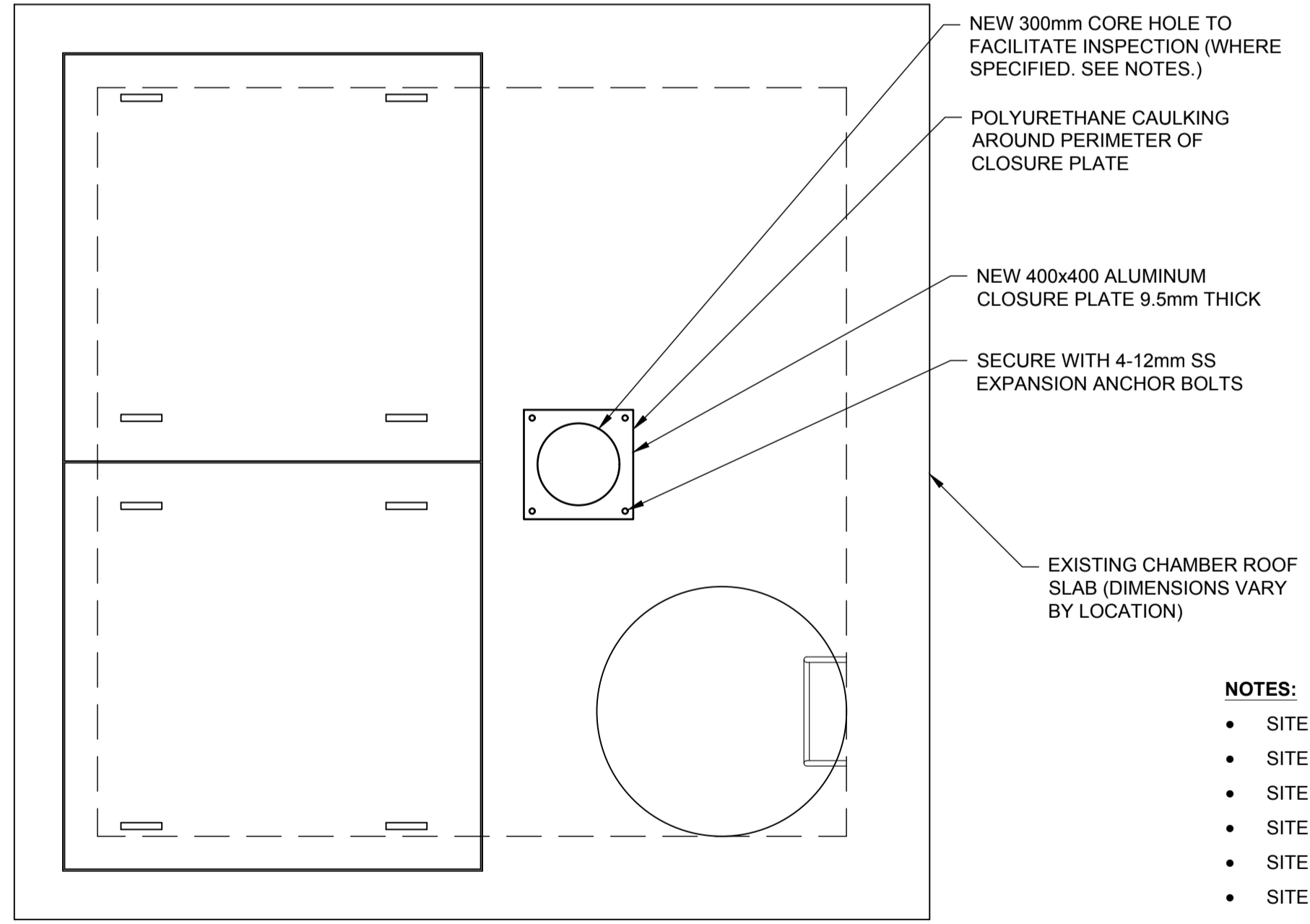
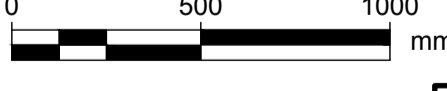
**DETAIL 2**

WALL OPENING REINFORCING



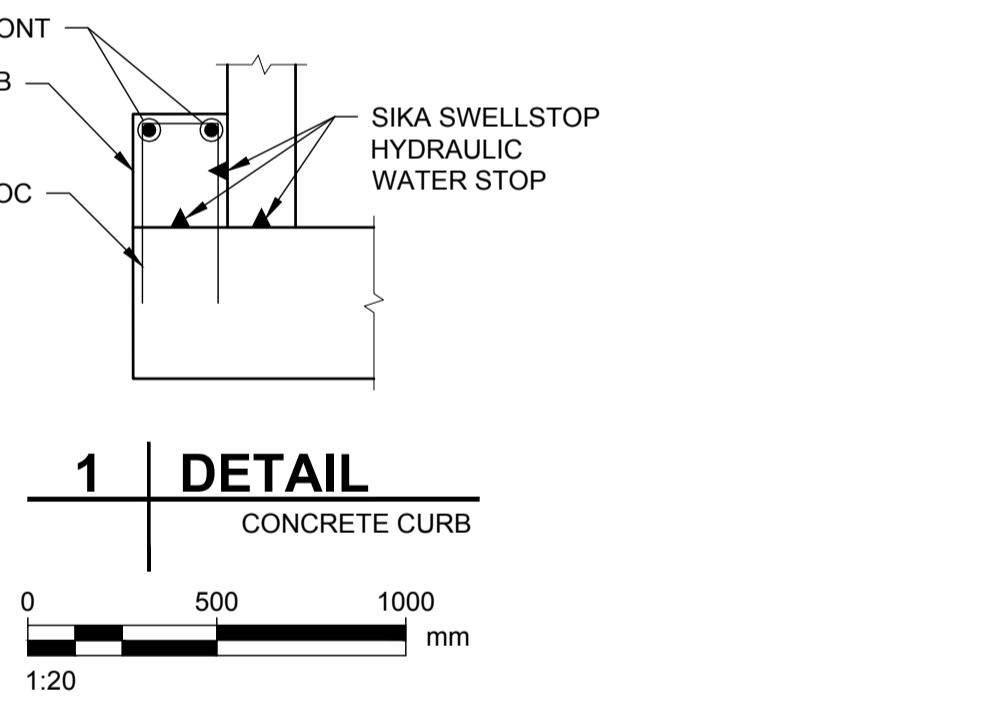
**PLAN**

SITE 8 & SITE 9 NEW AIR RELEASE MANHOLE



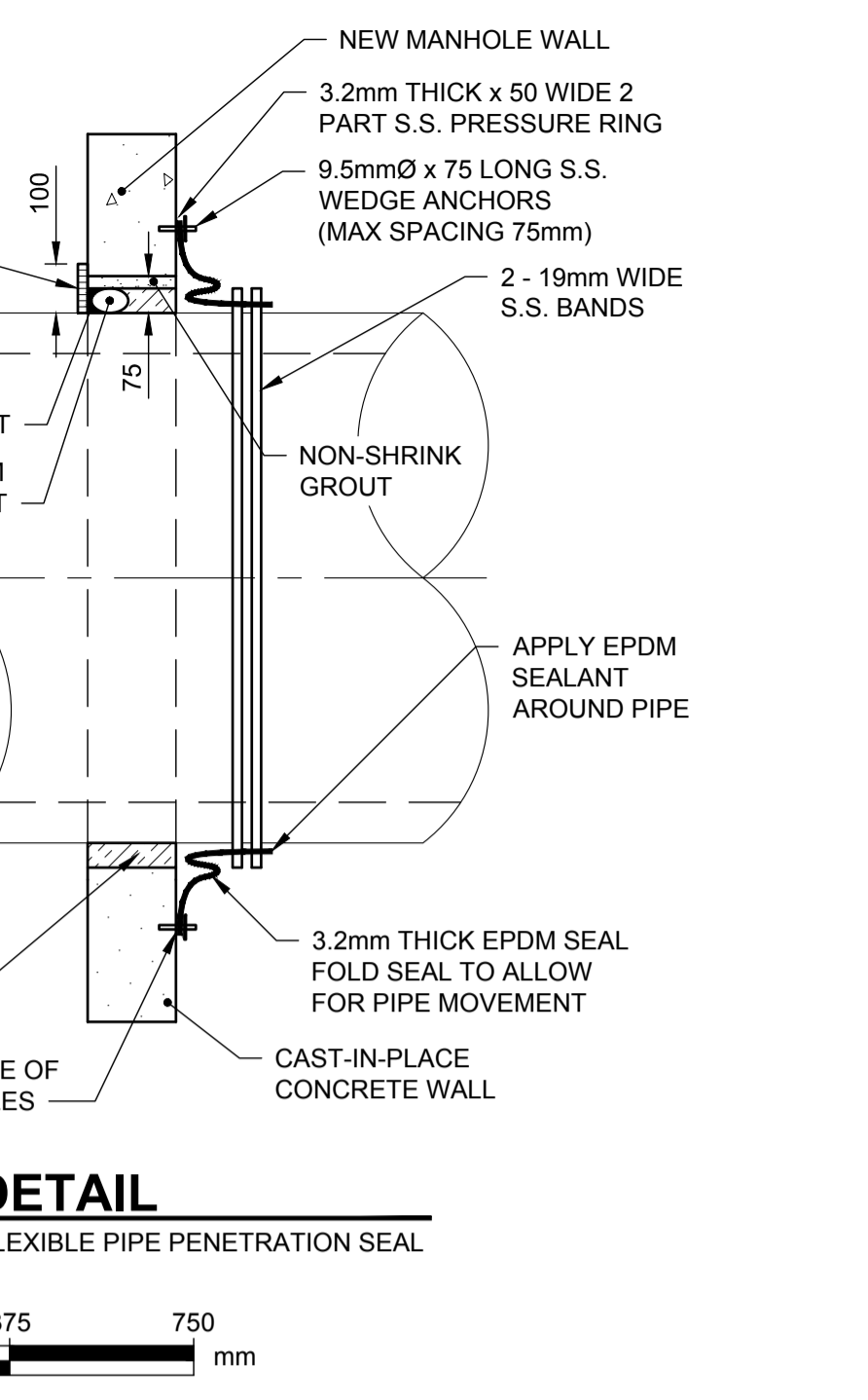
**DETAIL**

CHAMBER ROOF SLAB CORE HOLE CLOSURES



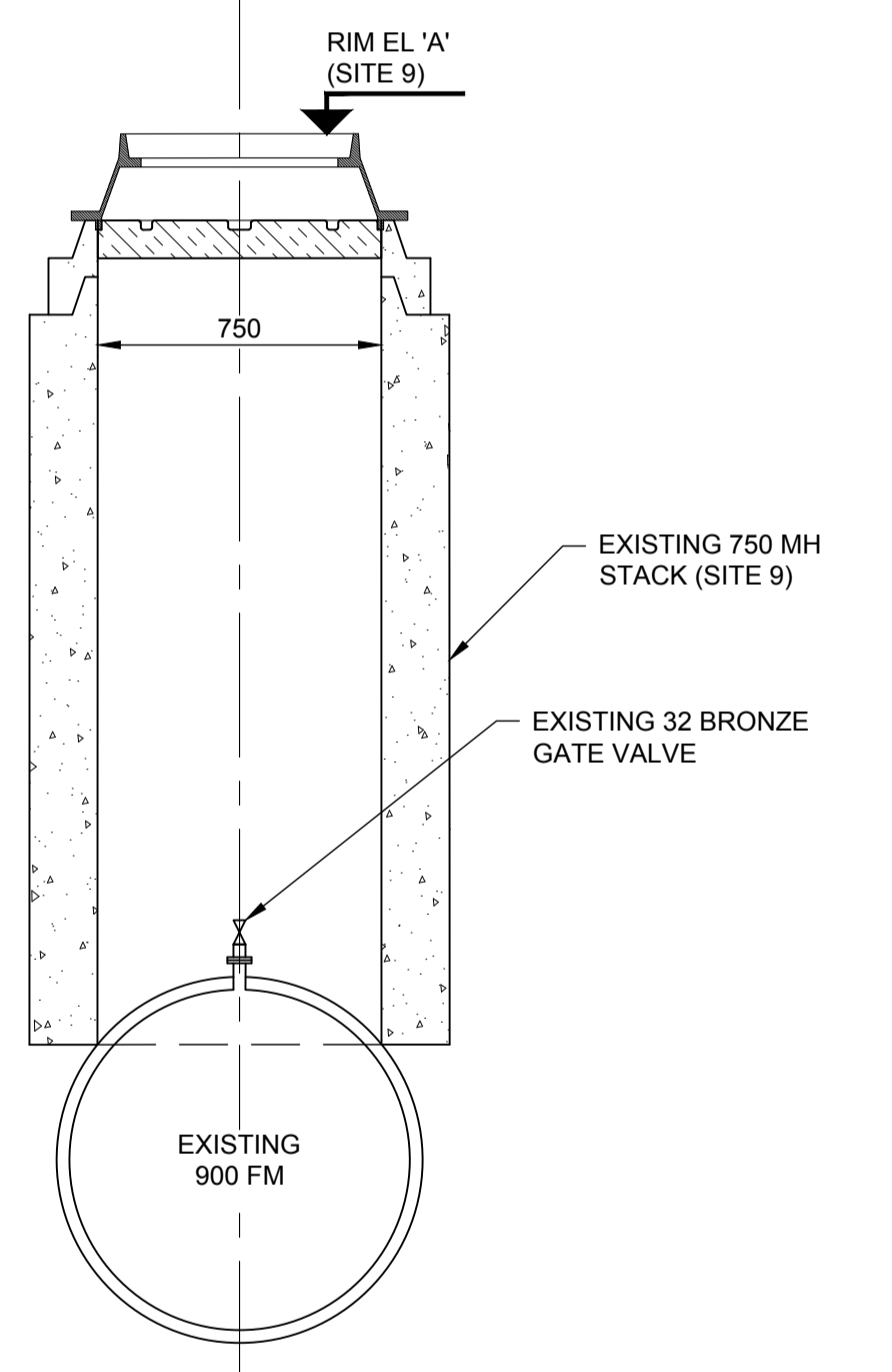
**DETAIL 1**

CONCRETE CURB



**DETAIL 3**

FLEXIBLE PIPE PENETRATION SEAL



**SECTION**

SITE 9 EXISTING AIR VALVE IN 750 MANHOLE



- NOTES:**
- SITE 6 DAKOTA FEEDER MAIN: UTILIZE EXISTING CORE HOLE.
  - SITE 7 ROUGE ROAD FEEDER MAIN: NEW CORE HOLE REQUIRED.
  - SITE 8 WEST END FEEDER MAIN (OMAND'S CREEK): CORE HOLE NOT REQUIRED.
  - SITE 9 WEST END FEEDER MAIN (TRURO CREEK): CORE HOLE NOT REQUIRED.
  - SITE 10 HANEY-MORAY FEEDER MAIN: UTILIZE EXISTING CORE HOLE.
  - SITE 11 MURRAY AVENUE FEEDER MAIN: NEW CORE HOLE REQUIRED.

**ENGINEERS GEOSCIENTISTS MANITOBA**  
Certificate of Authorization  
AECOM Canada Ltd.  
No. 4671 Date: June 21, 2022

METRIC  
WHOLE NUMBERS INDICATE MILLIMETRES  
DECIMALIZED NUMBERS INDICATE METRES

AIR RELEASE VALVE MANHOLE ELEVATIONS (m)

AIR RELEASE VALVE MANHOLE LOCATION	SITE 8 - WEST END FM @ OMAND'S CREEK	SITE 9 - WEST END FM @ TRURO CREEK
'A' - RIM ELEVATION	233.700	234.712
'B' - EX 900 FEEDER MAIN INVERT	229.900	231.100
'C' - BOTTOM ELEVATION	229.500	230.700

**WARNING**

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SEE PROVINCIAL REGULATION 21072 FOR DETAILS

**LOCATION APPROVED UNDERGROUND STRUCTURES**

SUPV. U/G STRUCTURES COMMITTEE DATE

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0	ISSUED FOR TENDER	22/06/15	ADL

**AECOM**

DESIGNED BY	TJB	CHECKED BY	MGM
DRAWN BY	ADL	APPROVED BY	KWF
SCALE:	HORIZONTAL AS NOTED	RELEASED FOR CONSTRUCTION	Paul Bortoluzzi
DATE	2022 06 21	DATE	Jun 21/22

PLOT DATE: 2022 06 21

ENGINEER'S SEAL

ORIGINAL SIGNED BY J. Thompson  
June 21, 2022

CONSULTANT DRAWING NUMBER C-4002

**THE CITY OF WINNIPEG**  
WATER AND WASTE DEPARTMENT  
ENGINEERING DIVISION

PROVISION OF PIPELINE ACCESS MODIFICATIONS, CLEANING AND SUPPORT SERVICES FOR RIVER CROSSING INSPECTIONS - PHASE THREE MISCELLANEOUS DETAILS WATER SITES

SHEET 10 OF 11  
CITY DRAWING NUMBER 1-0798E-C0005-001