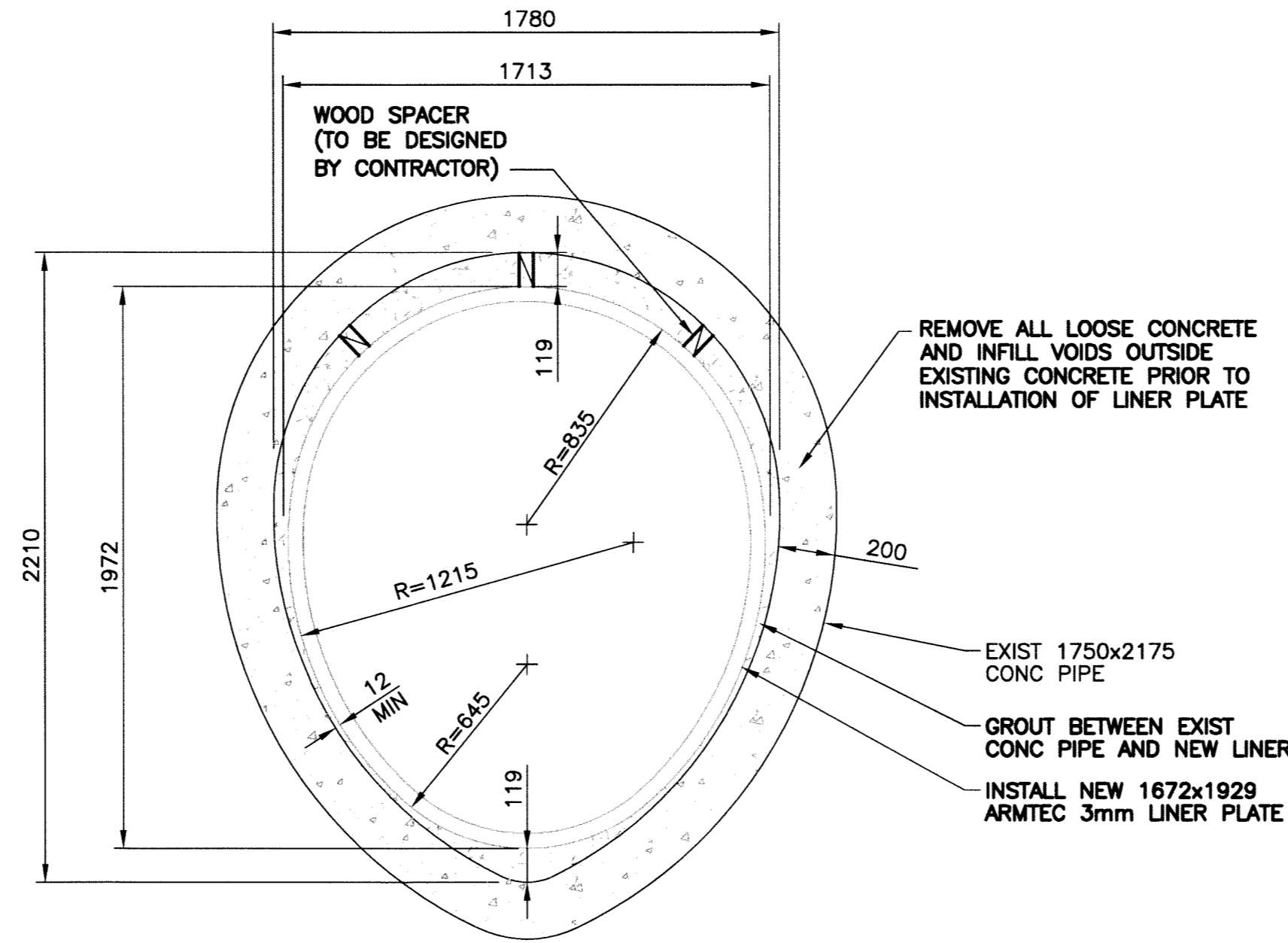


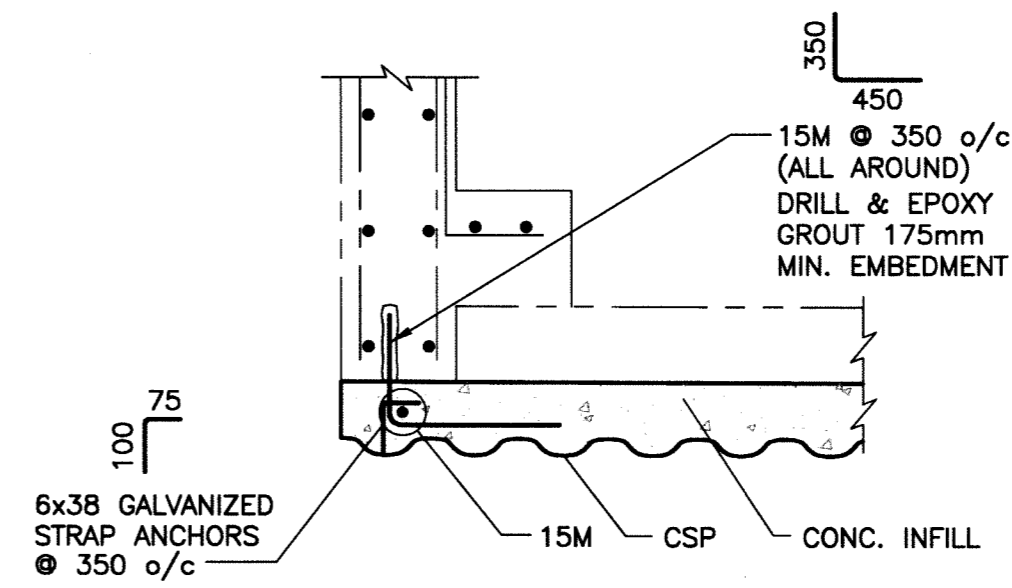
PLAN

PUMPING STATION CONSTRUCTION ACCESS DETAIL
SCALE: 1:20

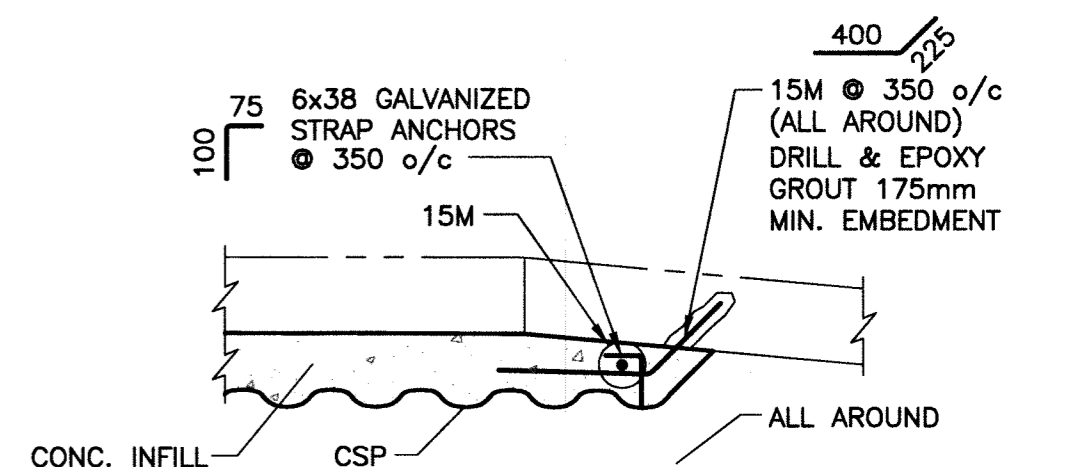


- NOTE:
- CONTRACTOR TO FIELD CONFIRM EXISTING 2175 CONCRETE PIPE CROSS SECTION MEASUREMENTS AND PIPE LENGTH BEFORE ORDERING LINER PLATES.
 - INSTALLATION OF LINER PLATES REQUIRES SPACERS TO INSURE THE DESIGN POSITION OF THE LINER PLATES. (SPACERS TO BE DESIGNED BY THE CONTRACTOR.)

PIPE LINER DETAIL
SCALE: 1:20



A DETAIL
SCALE: 1:10



B DETAIL
SCALE: 1:10

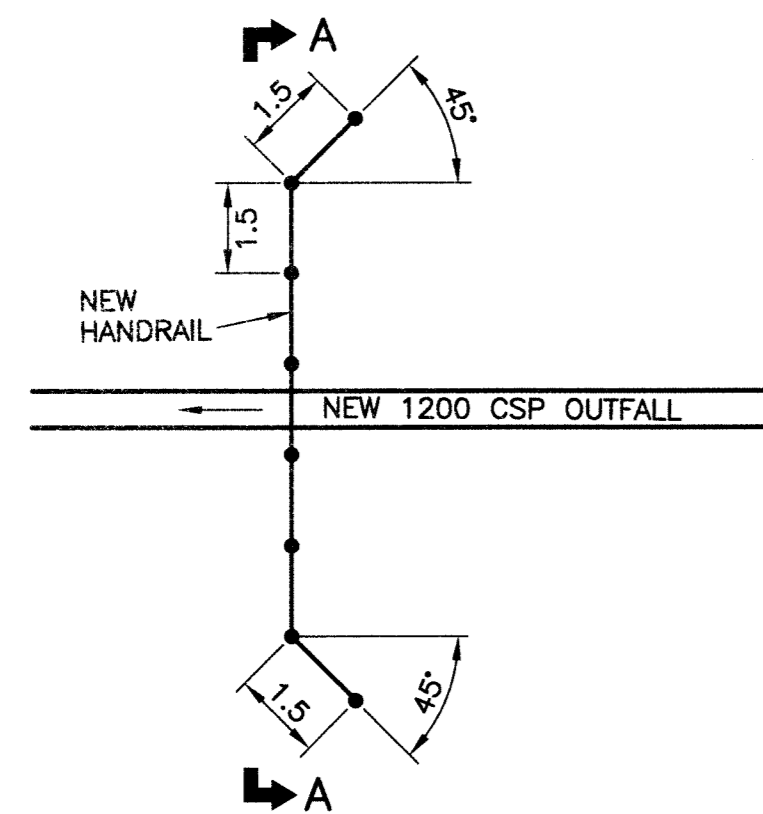
NOTES:

GENERAL CONCRETE NOTES:

- CONCRETE MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH CAN/CSA-A23.1/A23.2 (LATEST). SEE SPECIFICATIONS FOR MIX REQUIREMENTS.
- CONCRETE MATERIALS, FORMING, PLACING, FORM REMOVAL, REINFORCING, ETC. TO ACI RECOMMENDATIONS AND ACCEPTABLE PRACTICE.
- MIX WATER SHALL BE POTABLE. CALCIUM CHLORIDE SHALL NOT BE USED.
- PROVIDE ADEQUATE PROTECTION FOR CONCRETE DURING CURING PERIOD.

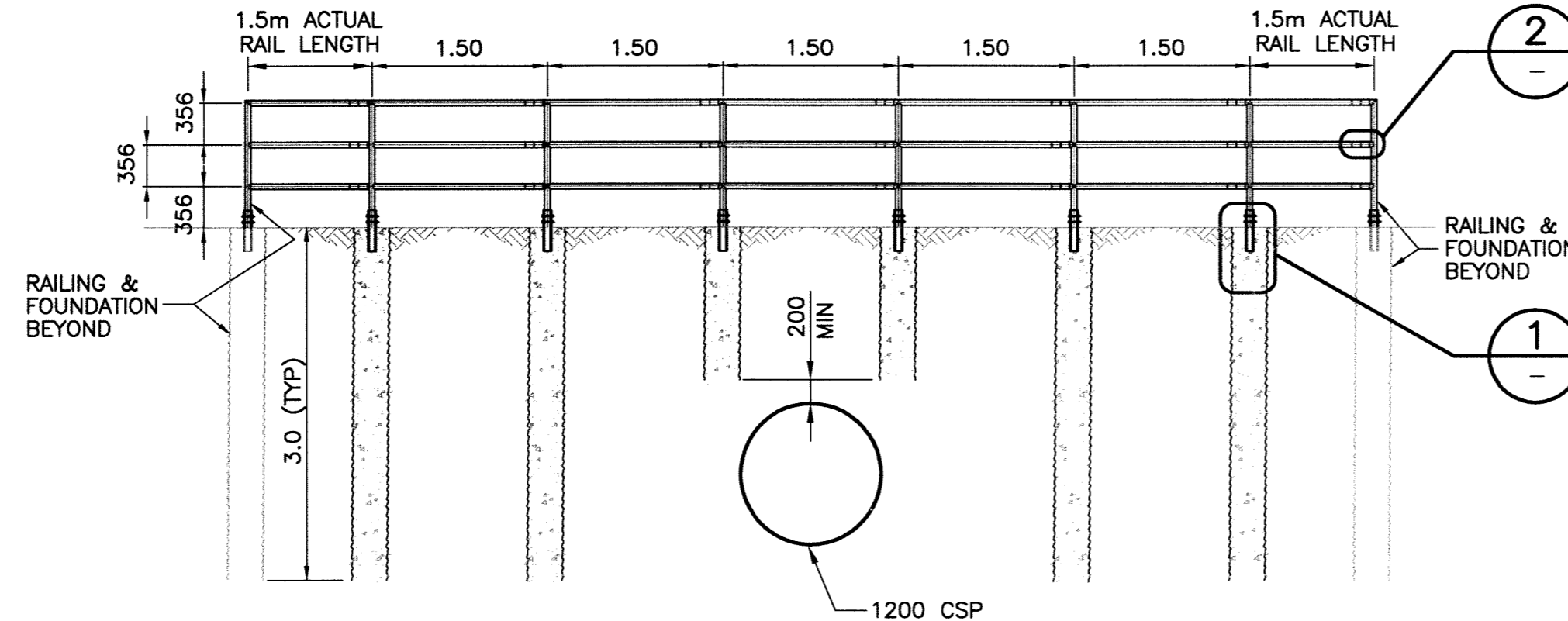
REINFORCING STEEL

- REINFORCING STEEL TO BE NEW DEFORMED BILLET STEEL BARS CONFORMING TO CAN/CSA G30.18-M92. GRADES TO BE: 400 MPa FOR 15M BARS AND LARGER; 300 MPa FOR 10M BARS.
- REINFORCING STEEL SHALL BE CLEAN, FREE OF RUST, DIRT, LOOSE SCALE, OIL, GREASE OR ANY OTHER MATERIAL WHICH WOULD REDUCE BOND WITH CONCRETE.
- PROVIDE MINIMUM CONCRETE COVER FOR REINFORCING AS SHOWN ON DRAWINGS.

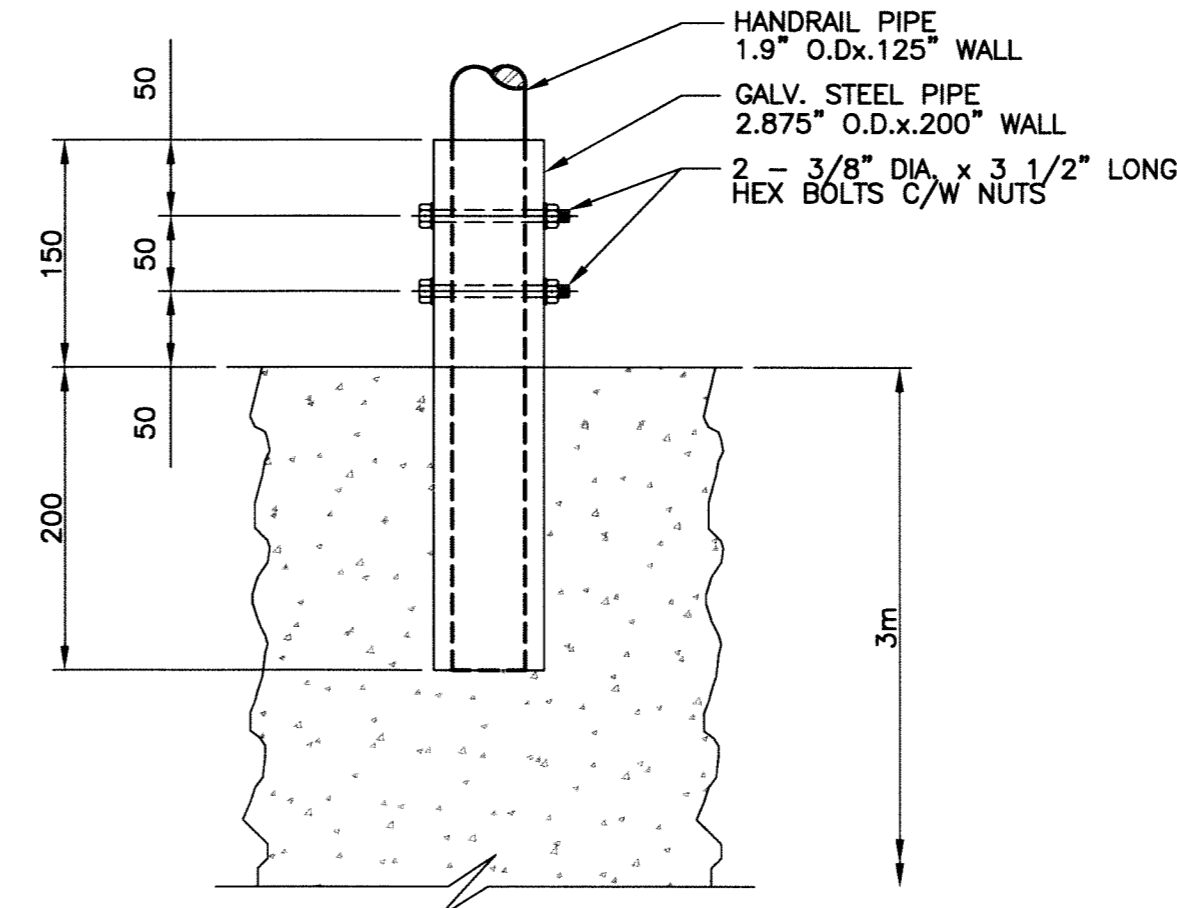


PLAN

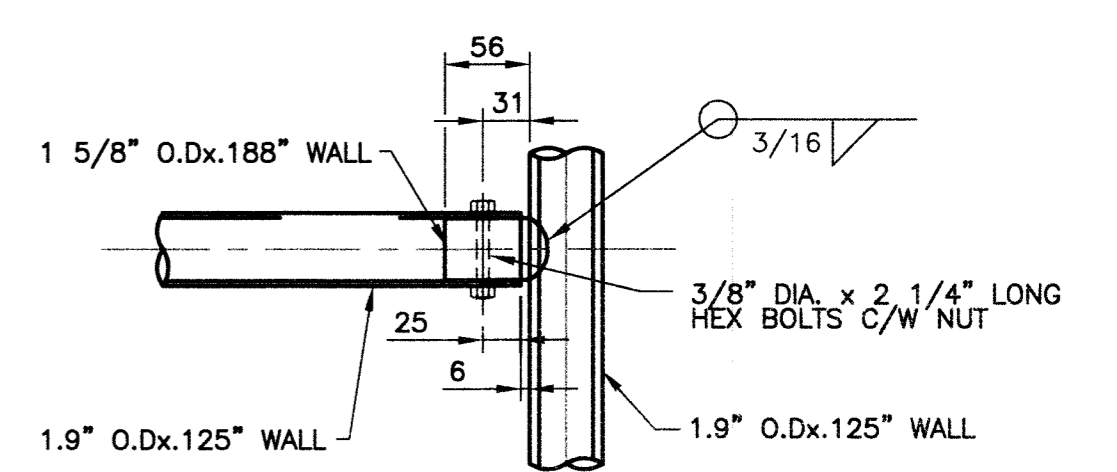
HANDRAIL DETAIL
SCALE: 1:250



SECTION A-A
SCALE: 1:50



1 DETAIL
SCALE: 1:5



2 DETAIL
SCALE: 1:5

300mm x 3.0m LONG
CSP FILLED WITH CONCRETE

METRIC

WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES



Certificate of Authorization
KGS Group

No. 245 Date: Dec 6, 2010

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES DATE COMMITTEE

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. ELEV.	
NO.	REVISIONS
DATE	BY
10/12/08	KSP
10/10/01	

DESIGNED BY RBO		CHECKED BY R.B.	
DRAWN BY DMW		APPROVED BY	
HOR. SCALE: 1:250		RELEASED FOR CONSTRUCTION:	
VERTICAL: 1:50		DATE	
DATE 10/10/01		DATE	

ENGINEER'S SEAL
PROVINCE OF MANITOBA REGISTERED PROFESSIONAL ENGINEER R.B. OFFMAN Member 27101
CONSULTANT DRAWING NO. 10-0107-18_05

THE CITY OF WINNIPEG
WATER & WASTE DEPARTMENT

2010 OUTFALL REPAIRS

POLSON AVENUE LINING SECTIONS
AND MISCELLANEOUS DETAILS

SHEET 04 OF 05
CAD FILE DRAWING NUMBER POLSON RR-83
CITY DRAWING NUMBER LD-5585