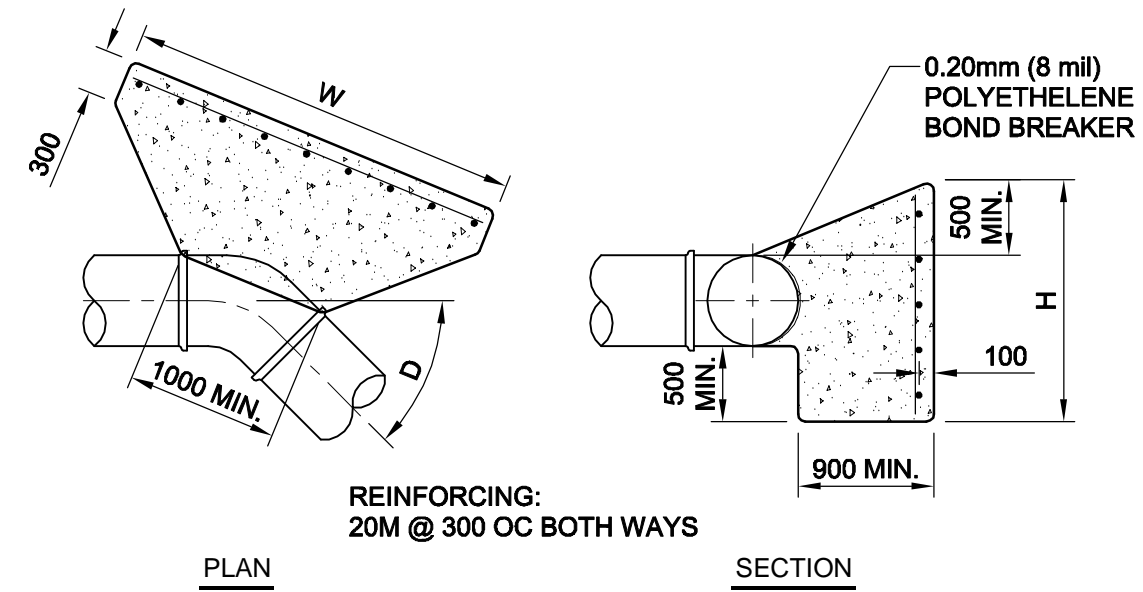


THRUST BLOCK DATA TABLE

BEARING AREA A (m ²)	H (m)	W (m)	DEFLECTION ANGLE D
3.52	1.6	2.2	45°-52°

DESIGN CRITERIA

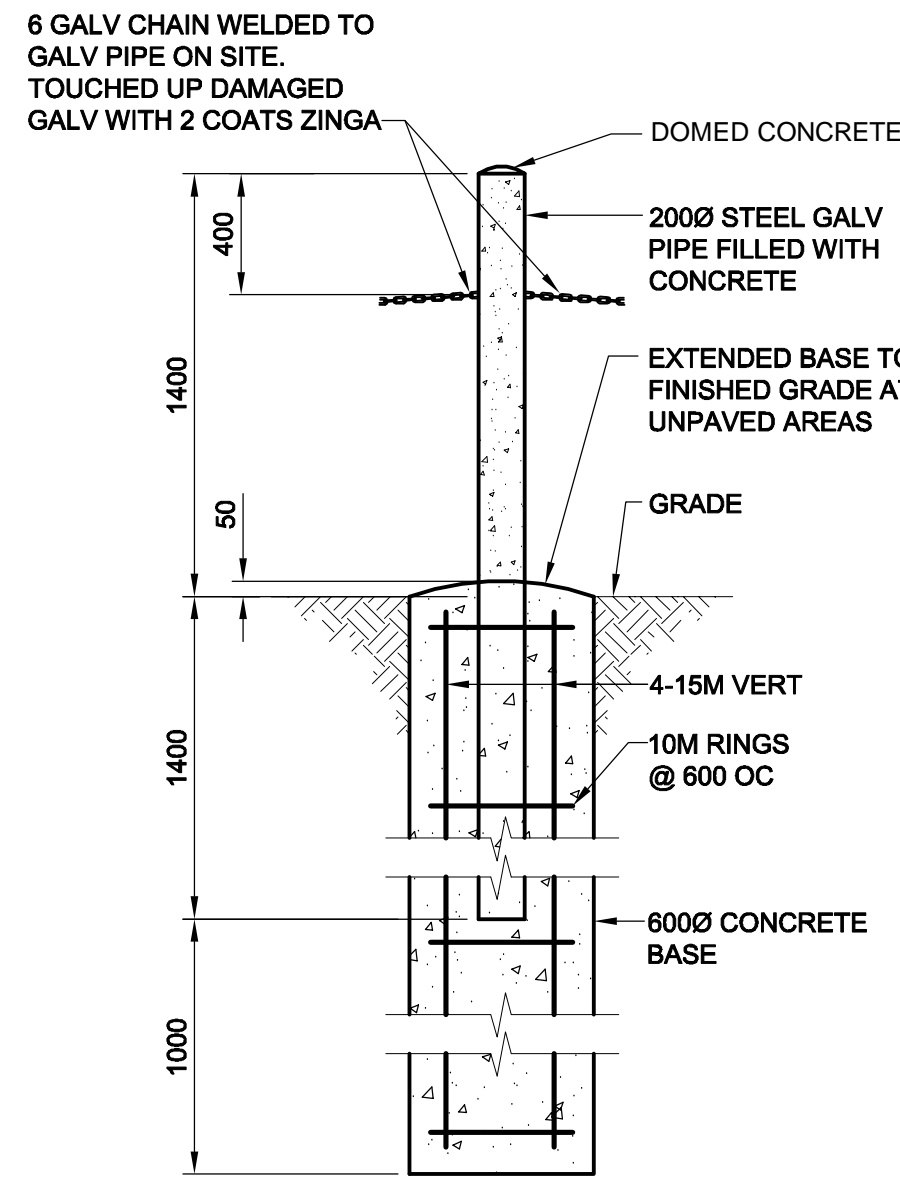
	PRESSURE	SOIL BEARING
LONG TERM	700 kPa	50 kPa



REINFORCING:
20M @ 300 OC BOTH WAYS

BENDS

SCALE: N.T.S.
THRUST BLOCK INFORMATION

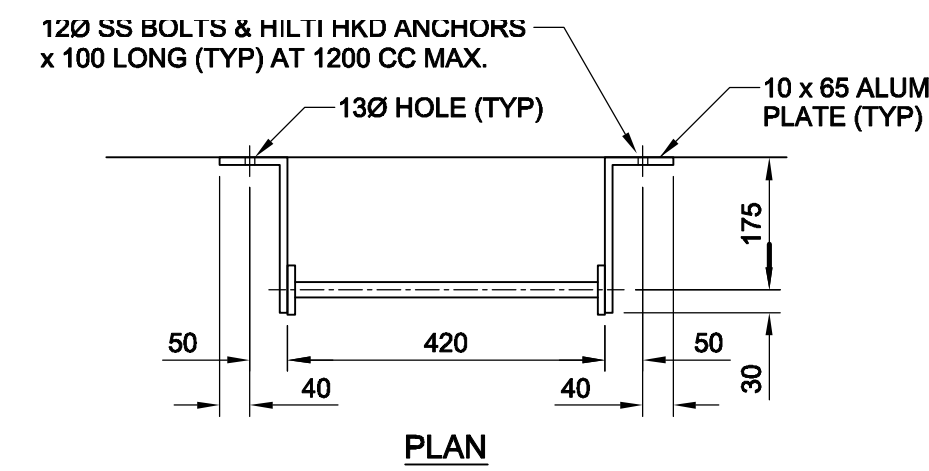


TYPICAL BOLLARD DETAIL

SCALE 1:25

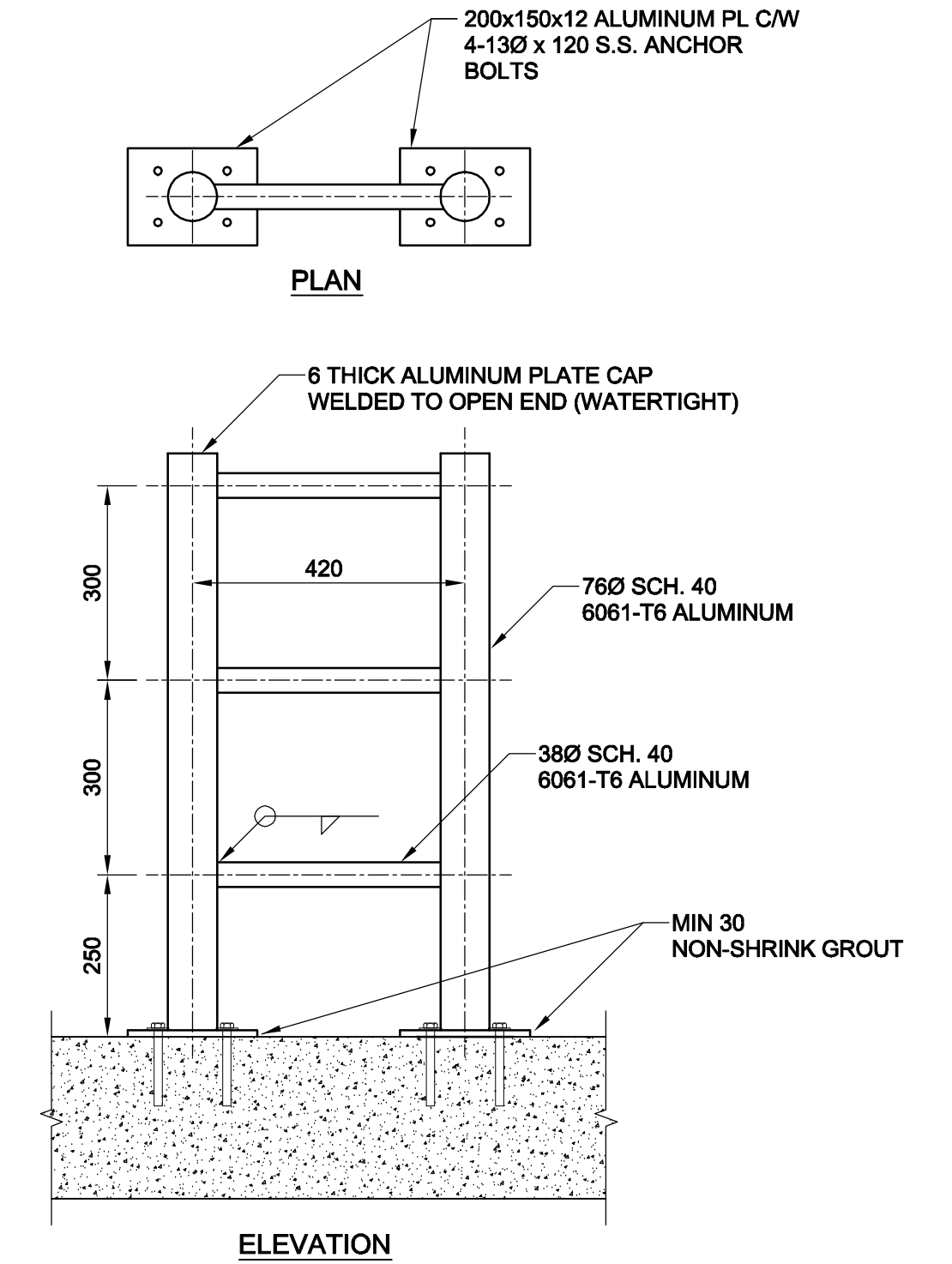
UTILITY STRUCTURE DELINEATOR

SCALE 1:10



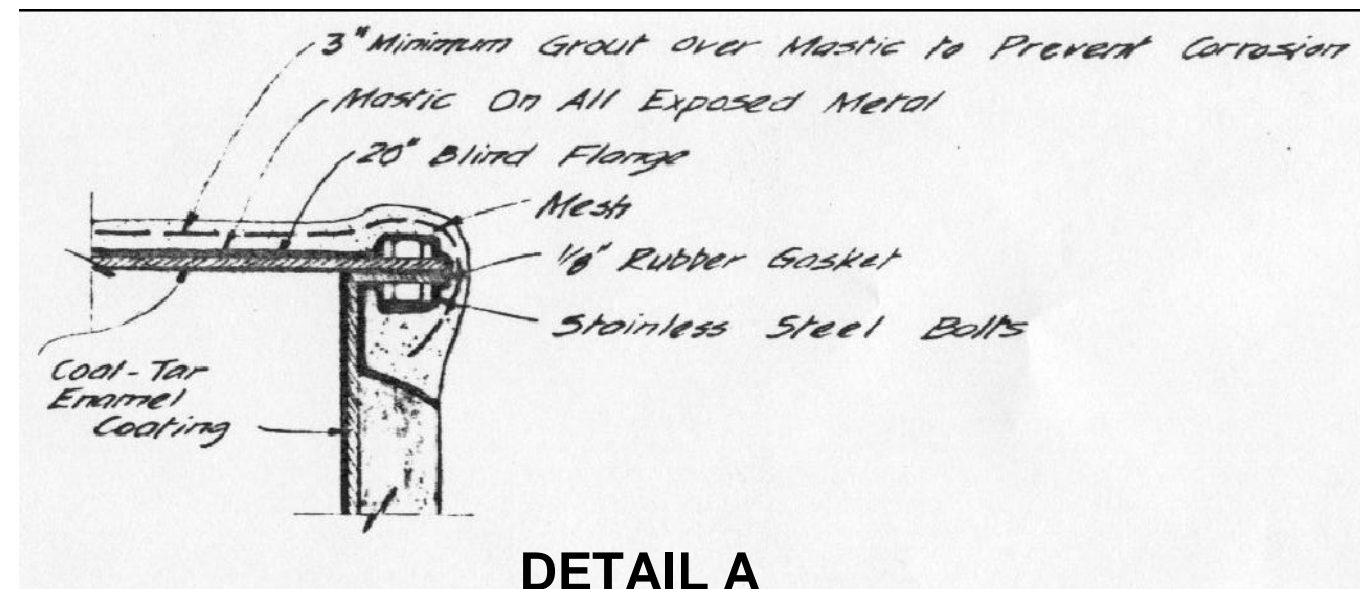
LADDER DETAIL

SCALE 1:10



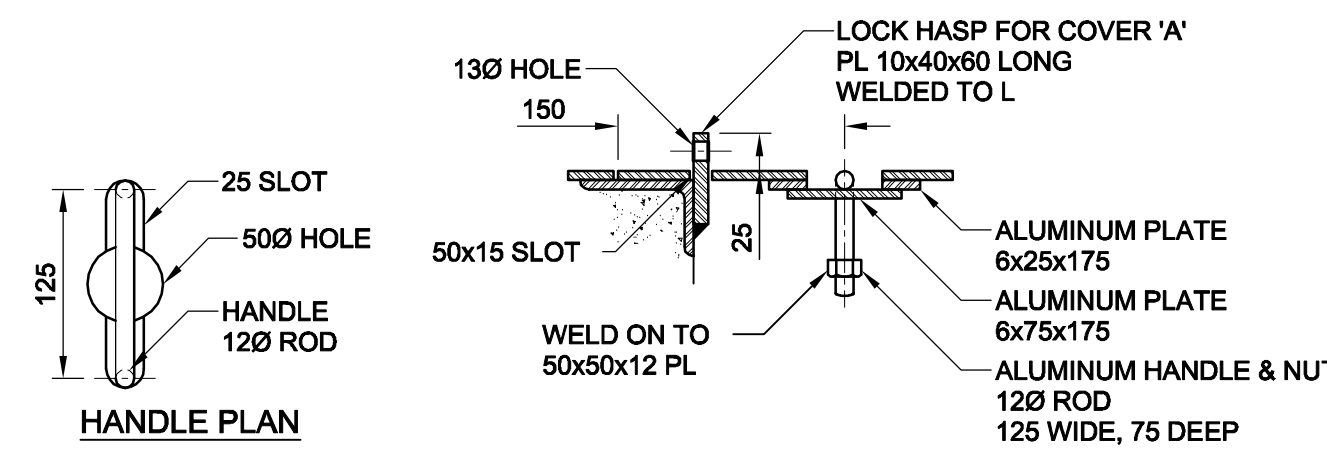
HAND HOLD DETAIL

SCALE 1:10

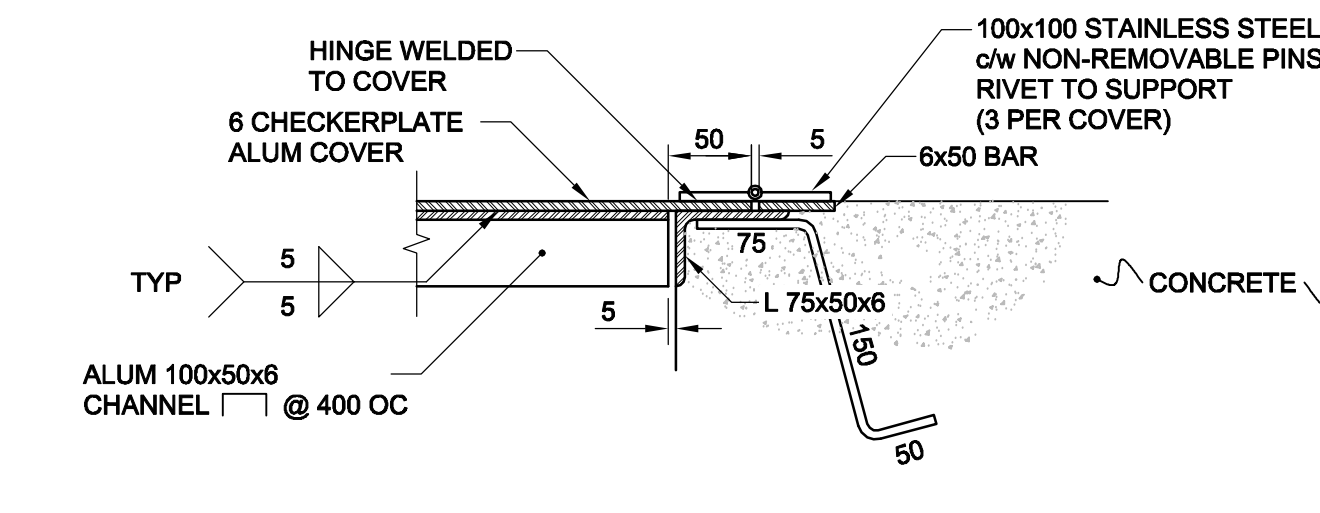


DETAIL A

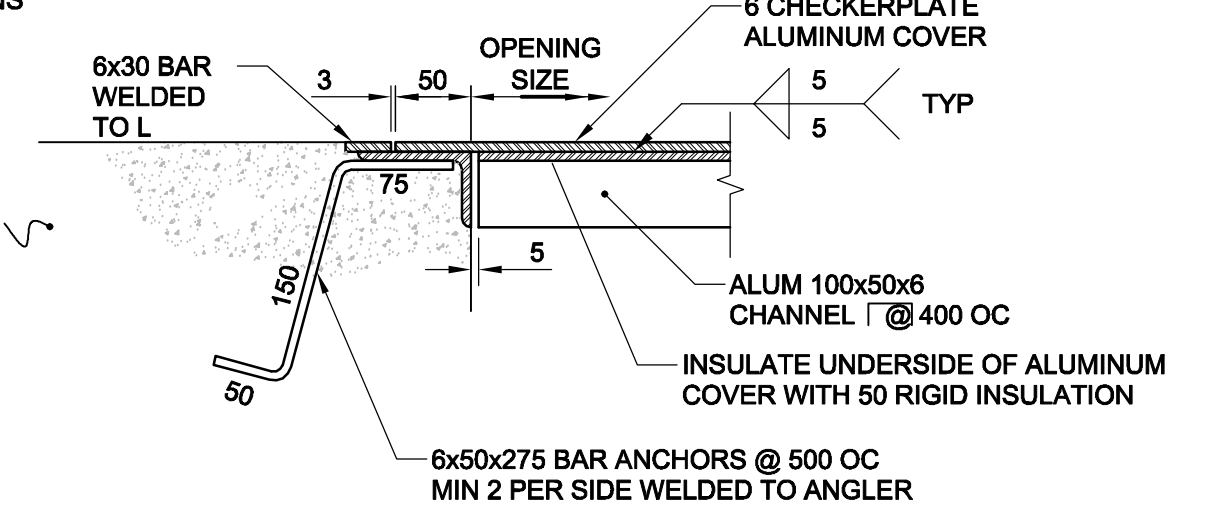
SCALE: N.T.S.



ACCESS HATCH HANDLE SECTION



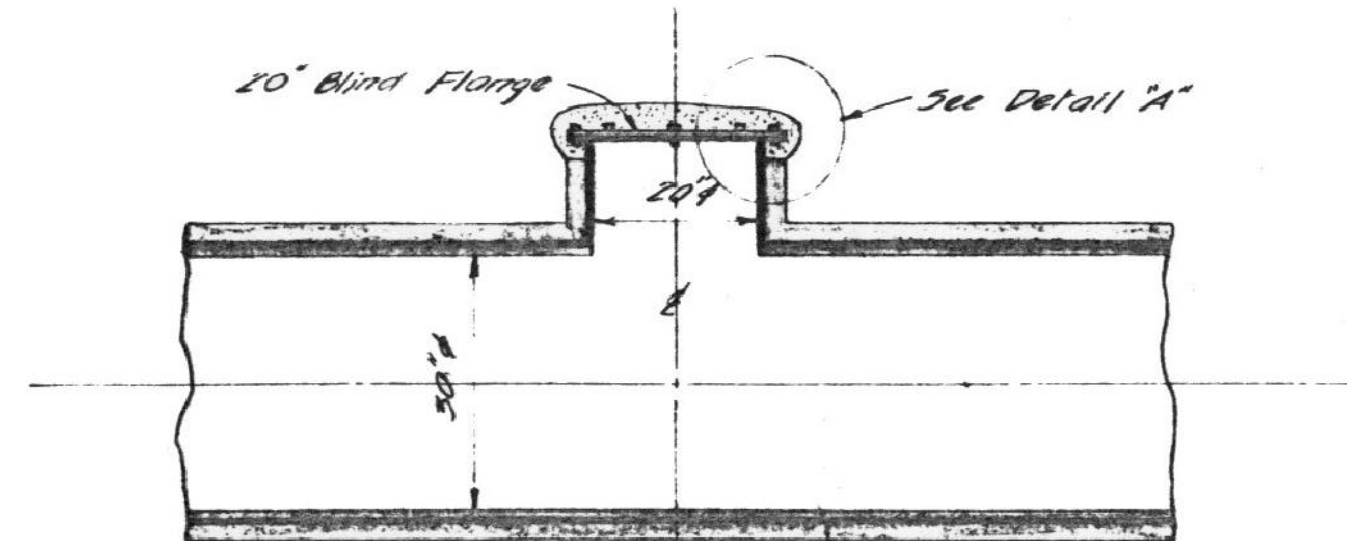
ACCESS HATCH HINGE SECTION



ACCESS HATCH FRAME SECTION

ACCESS HATCH METAL FABRICATION DETAILS

SCALE 1:5



TYPICAL INSPECTION MANHOLE

SCALE: N.T.S.

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPR. 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.

NO.	ISSUED FOR CONSTRUCTION	DATE	BY
0	ISSUED FOR CONSTRUCTION	07/07/06	KMB
	REVISIONS	YYMMDD	BY

DESIGNED BY		CHECKED BY	
EDT	SBB / MGM		
DRAWN BY		APPROVED BY	
ADL	CCM		
HOR. SCALE		VERT. SCALE	
AS NOTED	N/A		
DATE		DATE	
2007/07/06	July 6/07		

PROFESSIONAL'S SEAL
ORIGINAL SEALED BY:
E.D.J. TOUPIN
July 6, 2007
CONSULTANT DRAWING NO. 07
D265-202-01



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

BID OPPORTUNITY NO. 481-2007

THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT

PERIMETER ROAD PUMPING STATION UPGRADES CONTRACT A

FORCEMAIN TWINNING

MISCELLANEOUS DETAILS 3

SHEET 8 OF 8
CITY DRAWING NUMBER
06088
REV 0