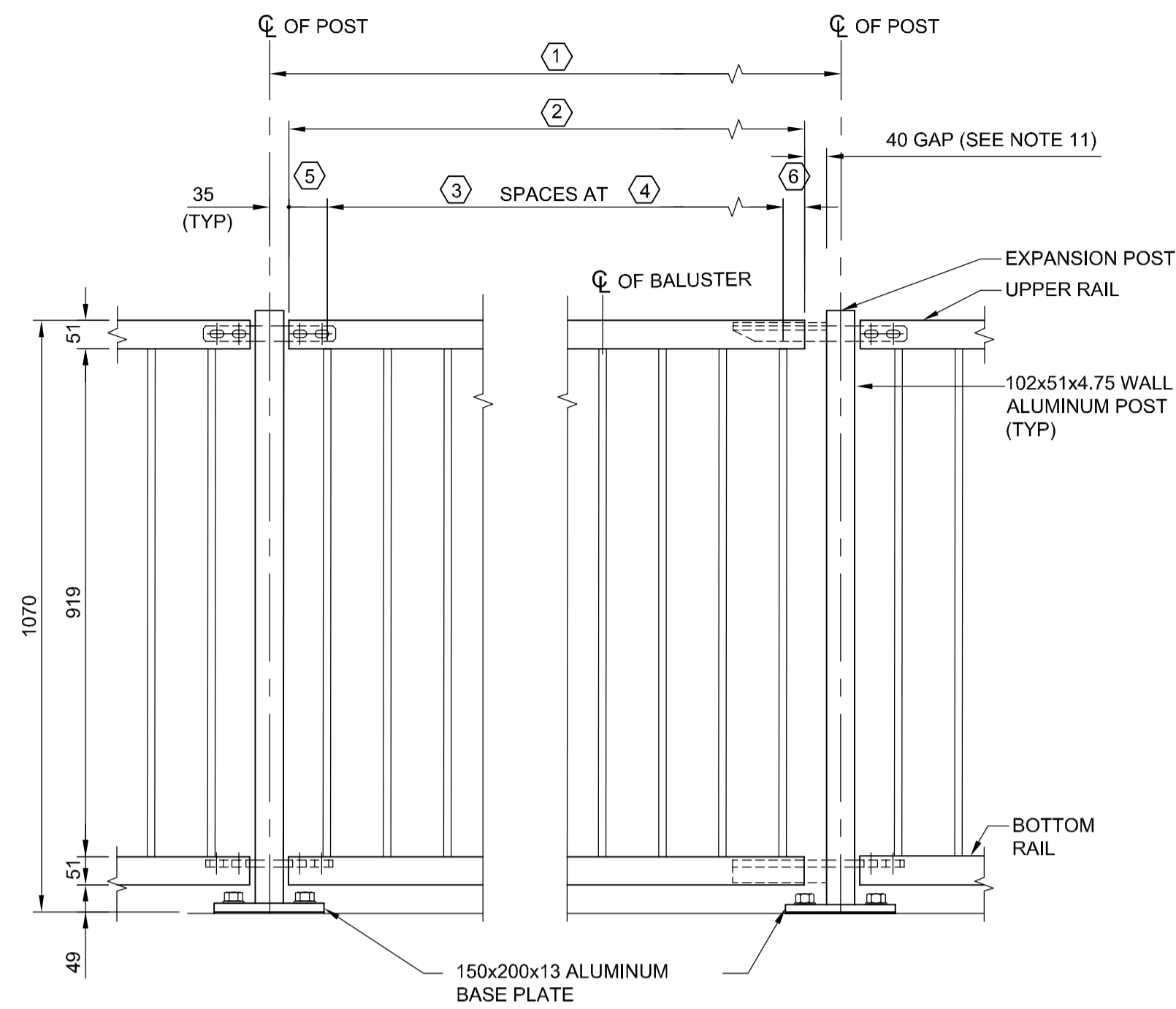


**PEDESTRIAN HANDRAIL (SIDEWALK)
ELEVATION FOR PANEL TYPES 'A', 'B'**

Scale 1:10



**PEDESTRIAN HANDRAIL (SIDEWALK)
ELEVATION FOR PANEL TYPES 'C'**

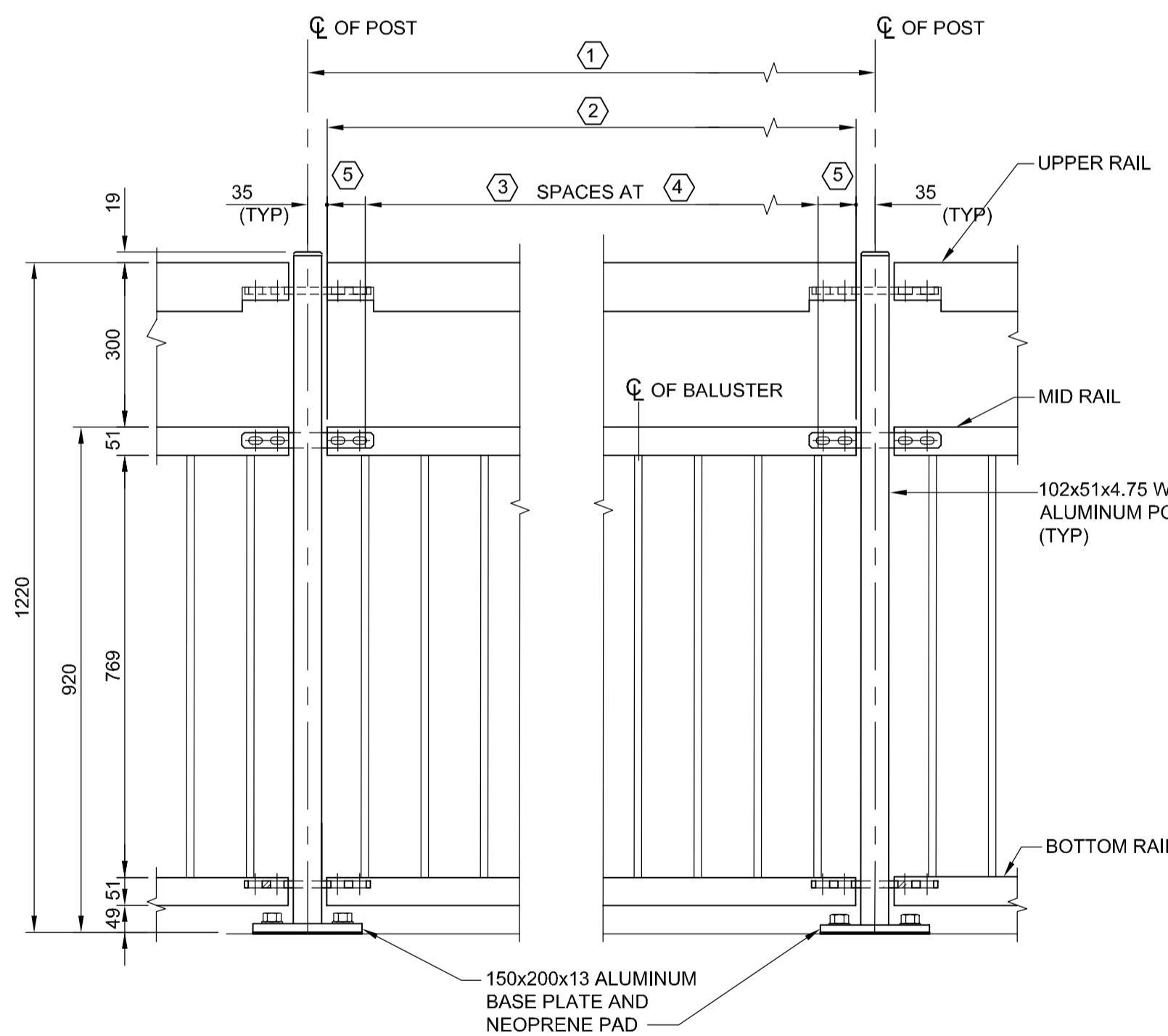
Scale 1:10

NOTES:

- THIS DRAWING TO BE READ IN CONJUNCTION WITH SHEET No. CS-0034, CS-0035 AND THE SPECIFICATIONS.
- ALUMINUM EXTRUSIONS SHALL CONFORM TO ASTM B221, ALLOY 6351-T6. ALUMINUM PLATES SHALL CONFORM TO ASTM B221, ALLOY 5083. STAINLESS STEEL HEXAGONAL HEAD CAP SCREWS SHALL MEET THE ASTM A276, TYPE 430 REQUIREMENTS.
- M.I.G. WELDING PROCESS SHALL BE USED.
- RAIL POST AND BALUSTERS SHALL BE SET VERTICAL.
- PRESET ANCHORS AND BASE PLATE FOR THE RAIL POSTS SHALL NOT INTERFERE WITH RETAINING WALL CAP JOINTS AND THE CURB JOINTS. ADJUST CAP JOINT LOCATIONS TO SUIT.
- ANTI-SEIZE COATING TO BE SUPPLIED AND APPLIED TO ALL THREADED COMPONENTS WHEN BEING ASSEMBLED, IE. LPS-3- MANUFACTURED BY HOLT-LLOYD (CANADA) LTD. MARKUM ONTARIO.
- SS DENOTES STAINLESS STEEL.
- ALL SLOTTED HOLES MUST BE FINISHED SMOOTH AND TRUE.
- PROVIDE TAMPER PROOF HARDWARE INCLUDING NYLON LOCKNUTS.
- PROVIDE A BITUMINOUS COATING IF ALUMINUM COMPONENTS ARE IN CONTACT WITH CONCRETE.
- GAP AT +15°C, CONTRACTOR TO ADJUST GAP FOR OTHER TEMPERATURE.

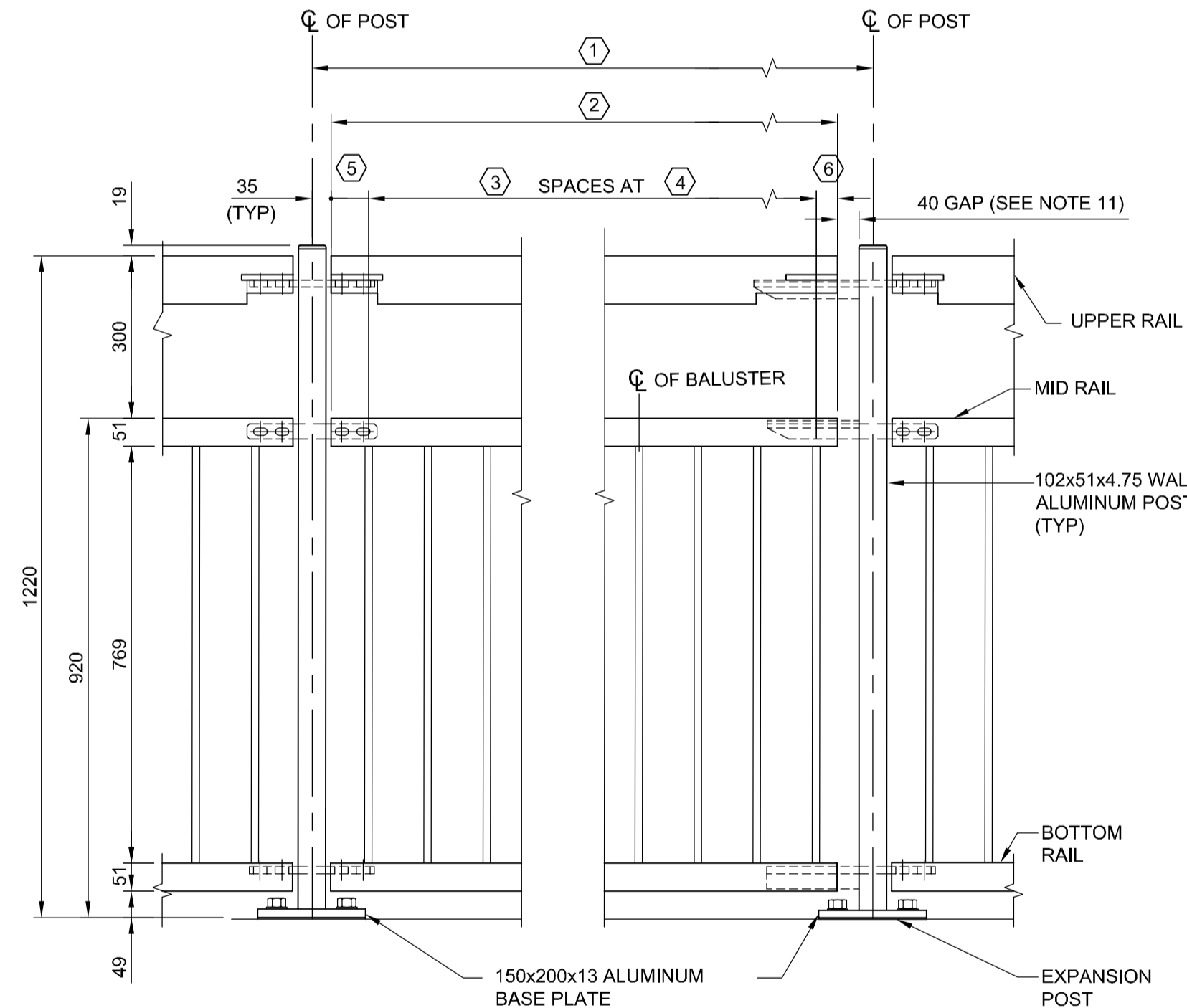
PANEL DATA - PLEISSIS UNDERPASS

PANEL TYPE	NO. REQ'D		①	②	③	④	⑤	⑥
	N.B.L.	S.B.L.						
'A'		95	2440	2370	22	100	85	-
'B'		2	1738	1668	15	100	84	-
'C'		7	2440	2340	22	100	85	55
'D'	57		2440	2370	22	100	85	-
'E'	2		1490	1420	13	100	60	-
'F'	4		2440	2340	22	100	85	55



**BICYCLE HANDRAIL (ATP)
ELEVATION FOR PANEL TYPES 'D', 'E'**

Scale 1:10



**BICYCLE HANDRAIL (ATP)
ELEVATION FOR PANEL TYPES 'F'**

Scale 1:10

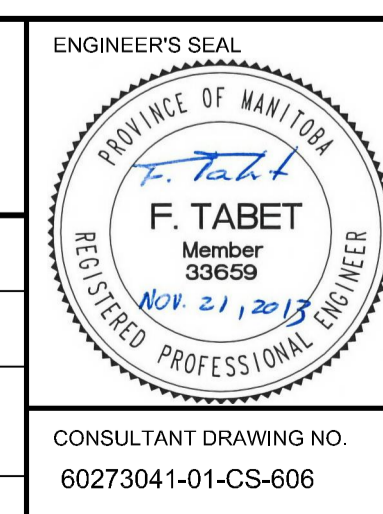
METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

BID OPPORTUNITY NO. 712-2013



LOCATION APPROVED UNDERGROUND STRUCTURES		B.M. ELEV.	
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.			
0	ISSUED FOR TENDER	2013/11/21	KC
NO.	REVISIONS	DATE	BY

AECOM		DESIGNED BY	FT	CHECKED BY	EBL
		DRAWN BY	KC	APPROVED BY	EBL
HOR. SCALE:		AS NOTED		RELEASED FOR CONSTRUCTION BY:	
VERTICAL:		AS NOTED		DATE	
DATE		2013-06-04		DATE	



THE CITY OF WINNIPEG PUBLIC WORKS DEPARTMENT		CITY DRAWING NUMBER U238-2014-2035
PLESSIS ROAD TWINNING AND GRADE SEPARATION AT CN REDDITT SUBDIVISION CONTRACT 3		SHEET 35 OF 37
PEDESTRIAN AND BICYCLE HANDRAIL DETAILS SHEET 1		CS-0035