



- CONSTRUCTION NOTES**
- DESIGN STANDARD CAN/CSA S6-14 SUPPLEMENTARY: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORT FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS 2009
 - THE ENGINEERING SEAL ON THIS DRAWING RELATES TO THE DESIGN OF CONCRETE FOUNDATION ONLY AND IS BASED ON ASSUMED DESIGN LOADS AND DESIGN SOIL PARAMETERS AS THIS INFORMATION WAS UNAVAILABLE AT THE TIME OF DESIGN. FACTORED AND UNFACTORED LOADS AT THE BASE OF SIGNAL POLE SHALL BE SUBMITTED BY THE CONTRACTOR AT LEAST TWO WEEKS PRIOR TO THE PREPARATION OF REBAR CAGE SHOP DRAWING, SUCH THAT THE PILE FOUNDATION DESIGN CAN BE VERIFIED BY THE DESIGN ENGINEER. WSP GEOTECHNICAL ENGINEER WILL ALSO NEED TO VERIFY THE ACCEPTABILITY OF THE SOIL BASED ON THIS NEW INFORMATION.
 - ANCHOR BOLT DESIGN INCLUDES LOCATIONS, EMBEDMENT, SIZE, MATERIAL, AND QUANTITY TO BE AS PER POLE SUPPLIER REQUIREMENTS
 - REINFORCING TO BE GRADE 400R DEFORMED BARS AS PER CSA G30.18
 - CONCRETE TO BE TYPE HS CEMENT WITH 100±30 MM SLUMP AND MINIMUM COMPRESSIVE STRENGTH OF 35 MPA AT 28 DAYS.
 - MINIMUM CONCRETE STRENGTH PRIOR TO INSTALLING THE SIGN STRUCTURE ON THE FOUNDATION SHALL BE 28 MPa
 - TEMPORARY STEEL CASINGS WILL BE REQUIRED TO FACILITATE CONSTRUCTION WHERE THICK SAND LAYERS AND/OR SEEPAGE ZONES ARE ENCOUNTERED DURING PILE INSTALLATION TO CONTROL CAVING AND GROUNDWATER SEEPAGE SUCH THAT PILES ARE CAST IN CLEAN, DRY HOLES
 - VISUAL INSPECTION OF THE PILE BASE SHALL BE PERFORMED BY WSP GEOTECHNICAL ENGINEER TO CONFIRM THAT THE PILE BASE IS ACCEPTABLE BEFORE CONCRETE PLACEMENT
 - THIS DRAWING IS INTENDED TO BE USED ONLY FOR CROSSING SIGNALS SHOWN ON DRAWINGS R-200-EB AND R-201-WB. ANY OTHER USE SHALL BE VERIFIED WITH THE DESIGN ENGINEER
 - CONTRACTOR SHALL VERIFY EXISTING STRUCTURES AND UTILITIES PRIOR TO PREPARATION OF SHOP DRAWINGS, FABRICATION, AND EXCAVATION. ANY DISCREPANCY OR CONFLICTS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
 - SIGNAL POLE AND STRUCTURE, ANCHOR BOLTS AND PLATES SHALL BE HOT-DIP GALVANIZED PER ASTM 123M. NUTS AND WASHERS SHALL BE ZINC-PLATED AS PER ASTM B633.
 - ALL DIMENSIONS SHOWN ARE IN METRES AND/OR MILLIMETRES UNLESS OTHERWISE NOTED.

B.M. ELEV.						ENGINEER'S SEAL		 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT ENGINEERING DIVISION	
CONSTRUCTION COMPLETION DATE:									
				DESIGNED BY	HAA (WSP)	CHECKED BY	HOA (WSP)	THE GREATER WINNIPEG WATER DISTRICT RAILWAY PTH 1 HIGHWAY CROSSING WARNING SYSTEMS Mi.67.18 & Mi.67.28 GWWD CROSSING WARNING SYSTEM TYPICAL FOUNDATION	
				DRAWN BY	JM (WSP)	APPROVED BY	RY (WSP)		
				SCALE:	HORIZONTAL AS SHOWN		RELEASED FOR CONSTRUCTION	CITY DRAWING NUMBER	
					VERTICAL AS SHOWN		DATE		
0	ISSUED FOR TENDER	2020-01-09	JM	DATE	2019-12-20	CONSULTANT DRAWING NUMBER		1-0754R-S0001-001	
NO.	REVISIONS	DATE	BY	DATE	2019-12-20	S-100			