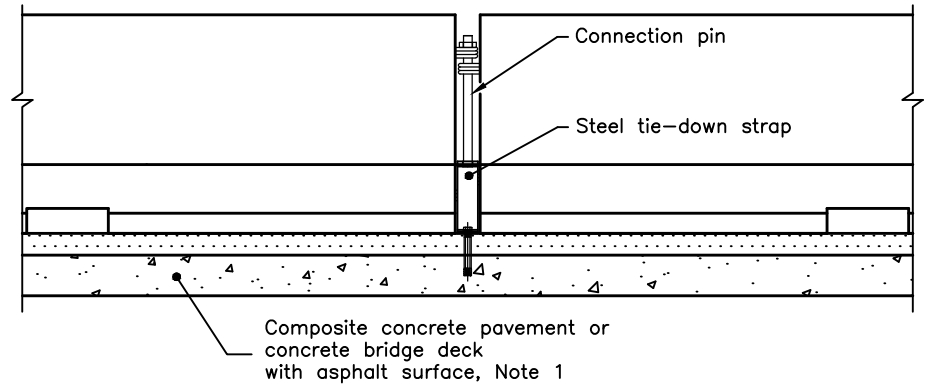
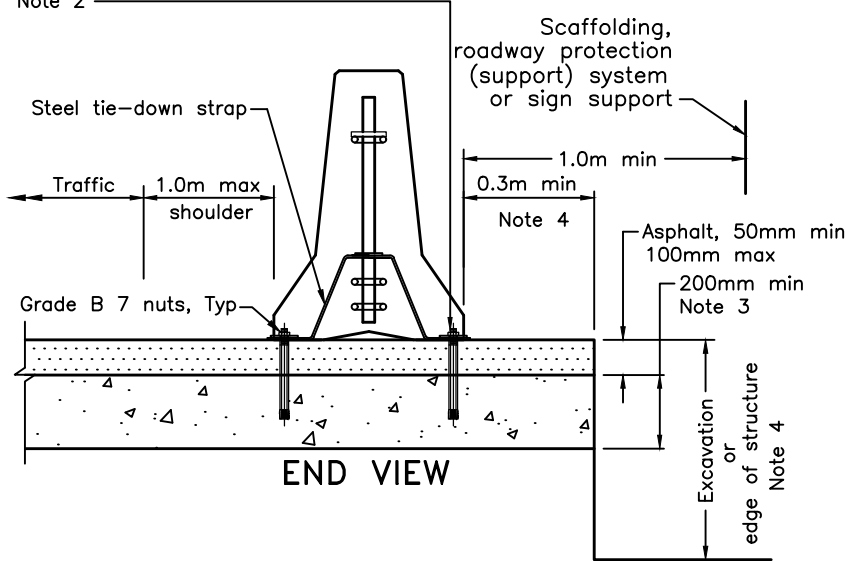
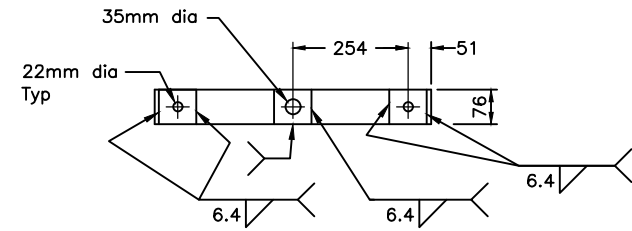


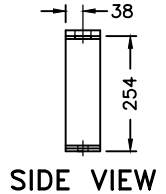
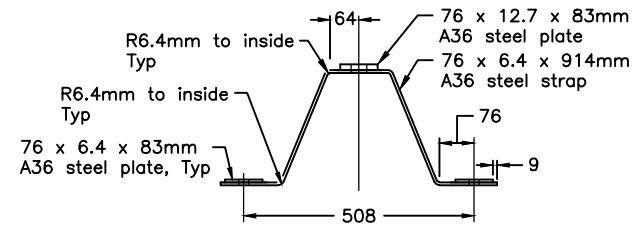
Two 3/4" dia x 4" Hilti HAS Super Rods fully threaded into Hilti 3/4" x 8-1/4" HIS-N inserts and HIT-RE 500 V3 epoxy anchoring system with minimum 120mm embedment into concrete. Top of inserts and epoxy flush with top of pavement. Nuts shall not be torqued until epoxy is cured.
 Note 2



ELEVATION



PLAN



ELEVATION

STEEL TIE-DOWN STRAP

NOTES:

- 1 This OPSD shall not be used on bridge superstructures that contain post tensioned tendons within the concrete deck or bridge superstructures with longitudinally prestressed, transversally post tensioned, solid or voided concrete slab units.
 - 2 Anchors shall be installed according to manufacturer's specifications by an installer certified by the manufacturer's direct representative. The 1-1/4" diameter holes for anchors shall be diamond core drilled.
 - 3 Minimum concrete strength shall be 27MPa.
 - 4 When the level area between the back of the barrier and the upper edge of an excavation is less than one metre, use of this standard requires the Owner to have a signed and sealed memorandum from an Engineer for each installation used during construction according to Ontario Regulation 213/91.
- A This OPSD shall be read in conjunction with OPSD 911.160 and 911.171.
 B System configuration is equivalent to OPSD 911.163, which meets NCHRP Report 350 TL-3.
 C Barriers shall be pulled tight during installation to remove slack.
 D Welds shall be according to CSA W59.
 E All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING		Nov 2021	Rev	1
GUIDE RAIL SYSTEM, CONCRETE BARRIER TYPE M CONNECTION		-----		
INSTALLATION - TEMPORARY RESTRAINT SYSTEM STRAPPED TO CONCRETE WITH ASPHALT SURFACE		-----		
		OPSD 911.164		

