

**(A) PL-2 CONCRETE BARRIER OVER MSE WALL**  
 1:15  
 NOTE:  
 \* 2 - 15M BUNDLED AT 200 WITHIN 1000 mm OF CONTROL JOINTS.

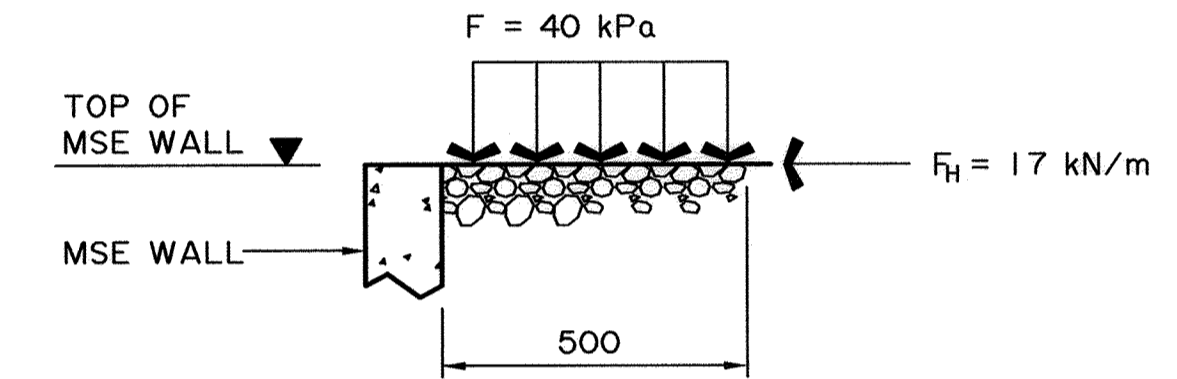
**(A) PL-2 DOUBLE TUBE BARRIER OVER MSE WALL**  
 1:15  
 NOTE:  
 \* PLACE ADDITIONAL 15M AT EACH SIDE OF POST ANCHOR BOLT ASSEMBLY.

NOTE:  
 FOR DOUBLE TUBE BARRIER END DETAILS INCLUDING CURB, SEE DWGS S-1642 AND S-1643

**PL-2 BARRIER ELEVATION**  
 (CONCRETE BARRIER SHOWN) 1:200  
 (DOUBLE TUBE BARRIER SIMILAR)

**GENERAL NOTES**

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
2. MSE WALL VEHICLE IMPACT LOADING DIAGRAM DUE TO UNFACTORED PL-2 VEHICLE IMPACT ONLY:



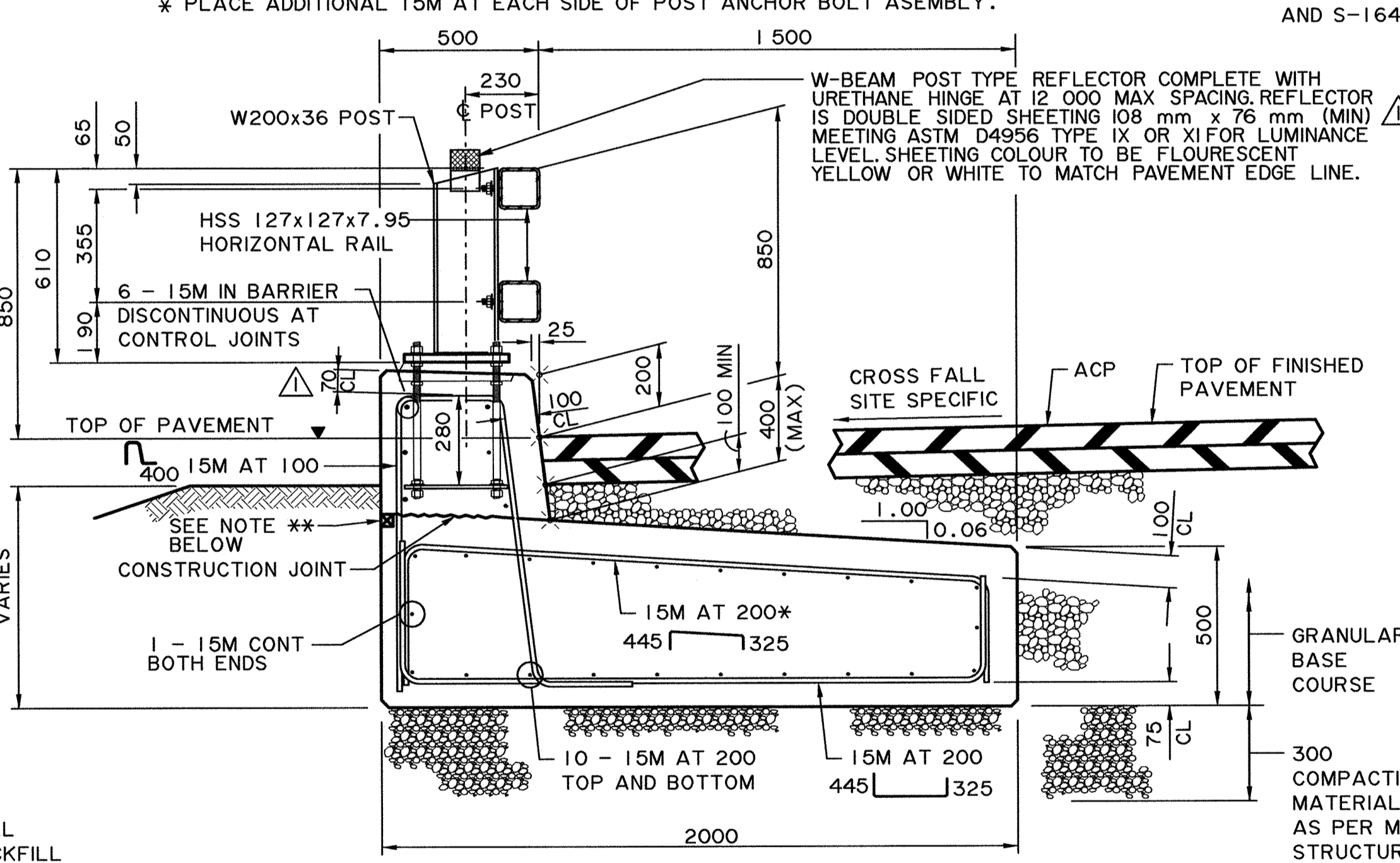
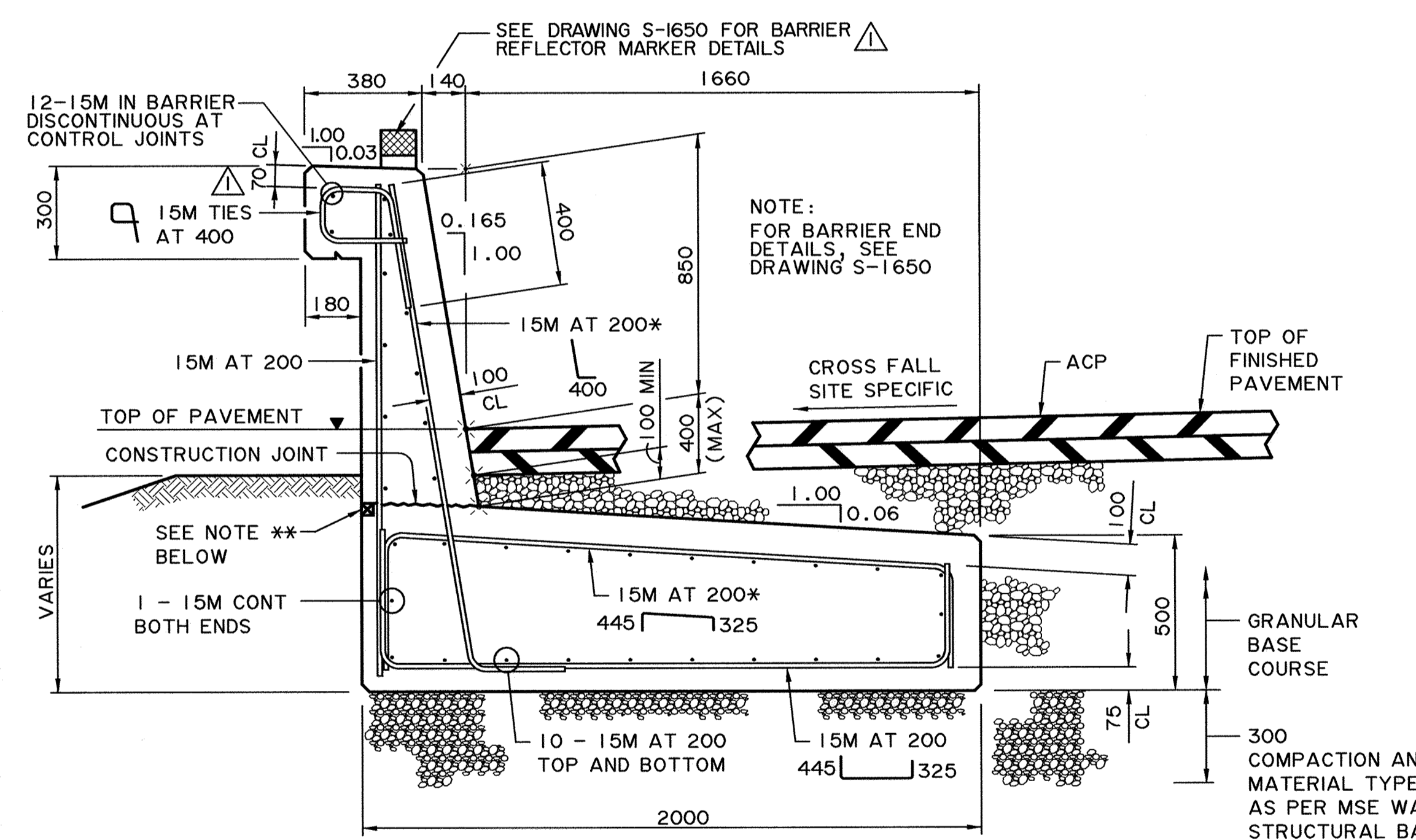
MSE WALLS SHALL ALSO BE DESIGNED FOR SURCHARGE LOADING DUE TO OVERBURDEN SOILS, BARRIER AND FOOTING SELF-WEIGHT, AND FROM TRAFFIC LOADING, IN ADDITION TO THE VEHICLE IMPACT LOADING SHOWN ABOVE.

**CONSTRUCTION**

1. BARRIER CONFIGURATIONS ARE BASED ON BARRIER CONFIGURATIONS THAT HAVE BEEN CRASHED TESTED AND MEET THE REQUIREMENTS OF PERFORMANCE LEVEL 2 OF THE AASHTO GUIDE SPECIFICATIONS FOR BRIDGE RAILING, 1989. RAILING, (EQUIVALENT TO NCHRP 350, TEST LEVEL 4).
2. FOOTING TO BE POURED IN MAXIMUM 12m SEGMENTS. REINFORCING SHALL BE CONTINUOUS ACROSS KEYED CONSTRUCTION JOINTS.
3. BARRIER FOOTING CONSTRUCTION JOINTS SHALL BE LOCATED AT BARRIER CONTROL JOINTS.
4. ALL CONCRETE SHALL BE CLASS HPC ( $f_c = 45 \text{ MPa}$ ).
5. ALL CORNERS SHALL HAVE A 20 mm CHAMFER OR FILLET UNLESS NOTED OTHERWISE.
6. ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 400 MPa UNLESS NOTED OTHERWISE AND MEET THE REQUIREMENTS OF THE SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 5.
7. ALL REINFORCING STEEL SHALL HAVE A MINIMUM 50 mm CLEAR COVER UNLESS NOTED OTHERWISE.
8. VOID FORM SHALL BE A COMPRESSIBLE EXPANDED POLYSTYRENE PRODUCT WITH A MAXIMUM COMPRESSIVE STRENGTH OF 50kPa AT 50% DEFORMATION SUCH AS GEOSPAN FROM PLASTIFAB OR APPROVED EQUIVALENT.

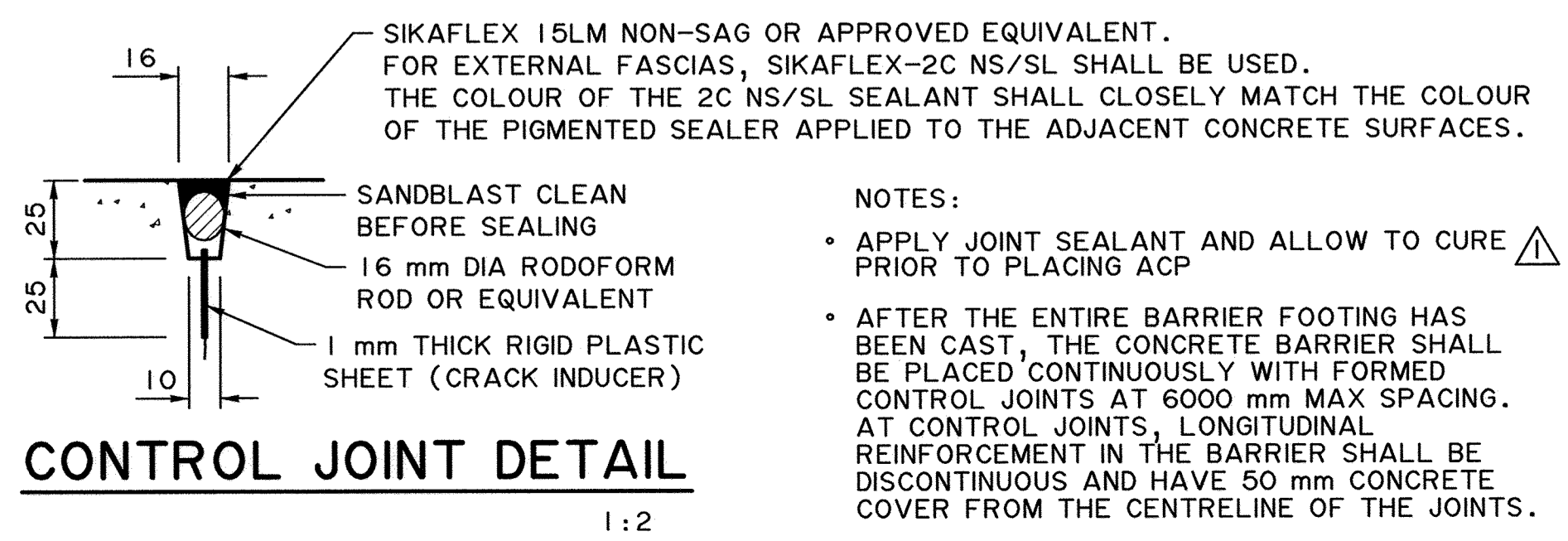
**ERECTION**

1. LINE AND ELEVATION OF BARRIER SHALL BE SET BY INSTRUMENT AFTER BARRIER FOOTING IS CAST.
2. SLIP FORMING IS NOT PERMITTED WITHOUT APPROVAL FROM THE DEPARTMENT.



**(B) PL-2 CONCRETE BARRIER END TREATMENT BEYOND MSE WALL**  
 1:15  
 NOTES:  
 \* 2 - 15M BUNDLED AT 200 WITHIN 1000 mm OF CONTROL JOINTS OR END OF BARRIER.  
 \*\* 38x38 TEMPORARY POUR STRIP SET PARALLEL TO FINISHED ROADWAY.

**(B) PL-2 DOUBLE TUBE BARRIER END TREATMENT BEYOND MSE WALL**  
 1:15  
 NOTES:  
 \* PLACE 1 ADDITIONAL 15M AT EACH SIDE OF POST ANCHOR BOLT ASSEMBLY.  
 \*\* 38x38 TEMPORARY POUR STRIP SET PARALLEL TO FINISHED ROADWAY.



**CONTROL JOINT DETAIL**  
 1:2

- NOTES:
- APPLY JOINT SEALANT AND ALLOW TO CURE PRIOR TO PLACING ACP
  - AFTER THE ENTIRE BARRIER FOOTING HAS BEEN CAST, THE CONCRETE BARRIER SHALL BE PLACED CONTINUOUSLY WITH FORMED CONTROL JOINTS AT 6000 mm MAX SPACING. AT CONTROL JOINTS, LONGITUDINAL REINFORCEMENT IN THE BARRIER SHALL BE DISCONTINUOUS AND HAVE 50 mm CONCRETE COVER FROM THE CENTRELINE OF THE JOINTS.

<b>AECOM</b>	DESIGNER PERMIT TO PRACTICE UMA ENGINEERING LTD. PERMIT NUMBER P 5778 ORIGINAL SIGNED AND STAMPED BY: <b>BOB RAMSAY</b> ON: <b>JULY 9, 2009</b> <small>The Association of Professional Engineers, Geologists and Geophysicists of Alberta</small>	CHECKER ORIGINAL STAMPED AND SIGNED BY: <b>A.W. STEWART</b> ON: <b>JULY 9, 2009</b>	ORIGINAL STAMPED AND SIGNED BY: <b>R.J. RAMSAY</b> ON: <b>JULY 9, 2009</b>	RECOMMENDED DIRECTOR BRIDGE ENGINEERING LLOYD ATKIN	APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH MOH LALI	AL BAR CODE DATE SHEET DRAWING
	REFLECTORS ADDED, REBAR COVER AND NOTES 2012-01-18	REVISIONS	DATE 2009-07-15	DATE 2009-05-04	SHEET 1 OF 1	DRAWING <b>S-1798-09</b>