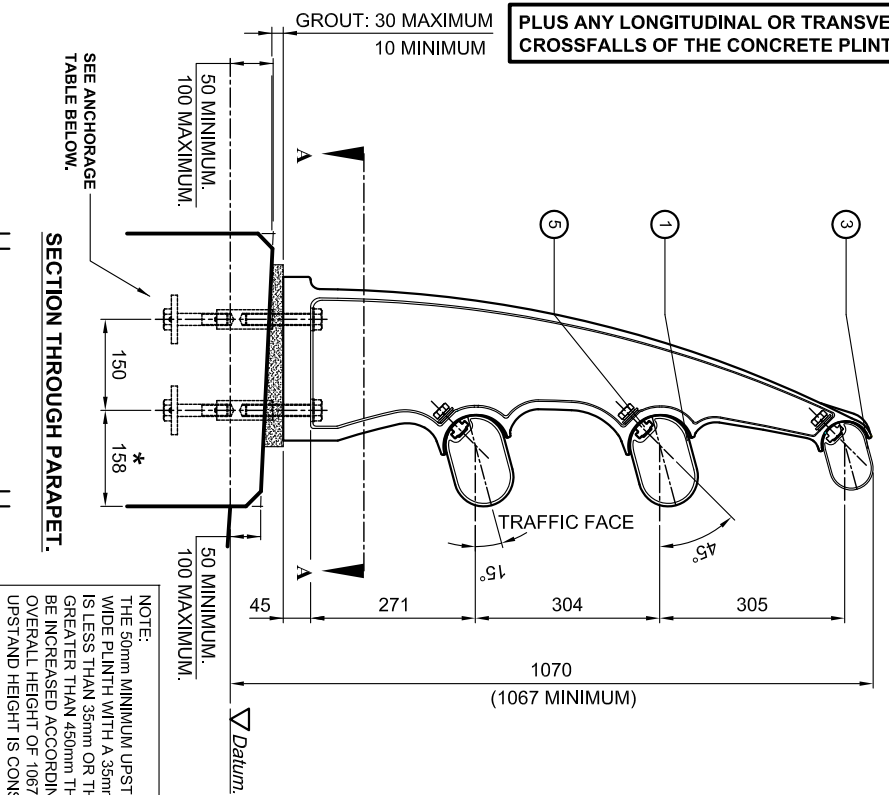
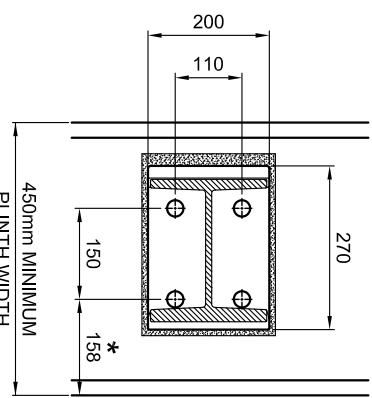


VGAN 301.

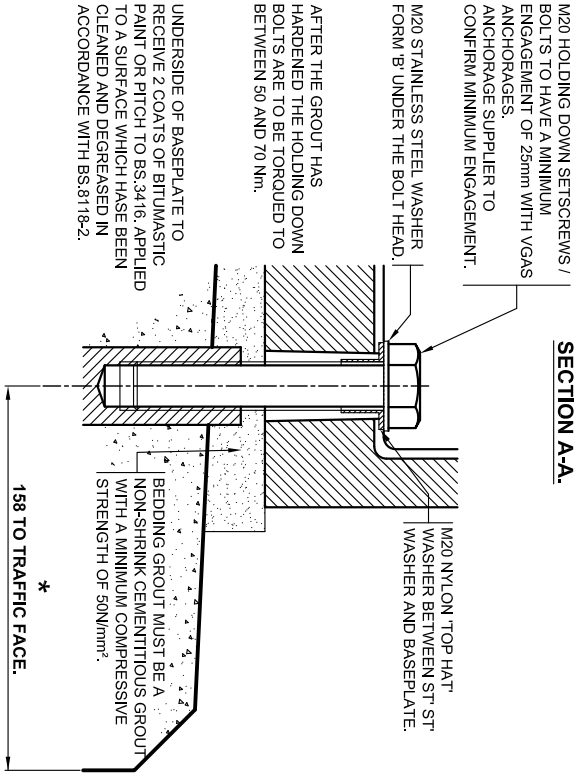


PLUS ANY LONGITUDINAL OR TRANSVERSE CROSSFALLS OF THE CONCRETE PLINTH.

NOTE: THE 50mm MINIMUM UPSTAND HEIGHT IS BASED ON A 450mm WIDE PLINTH WITH A 35mm CROSSFALL. IF THE CROSSFALL IS LESS THAN 35mm OR THE WIDTH OF THE PLINTH IS GREATER THAN 450mm THE MINIMUM UPSTAND HEIGHT IS TO BE INCREASED ACCORDINGLY TO ACHIEVE A MINIMUM UPSTAND HEIGHT OF 1067mm. THE 100mm MAXIMUM UPSTAND HEIGHT IS CONSTANT IN ALL SITUATIONS.



SECTION A-A.



UNDERSIDE OF BASEPLATE TO RECEIVE 2 COATS OF BITUMASTIC PAINT OR PITCH TO BS.3416. APPLIED TO A SURFACE WHICH HAS BEEN CLEANED AND DEGREASED IN ACCORDANCE WITH BS.8118-2.

AFTER THE GROUT HAS HARDENED THE HOLDING DOWN BOLTS ARE TO BE TORQUED TO BETWEEN 50 AND 70 Nm.

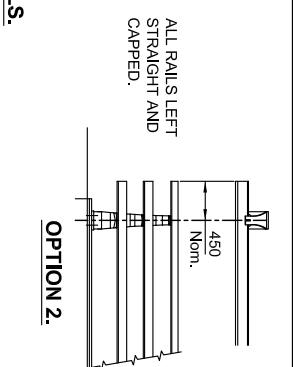
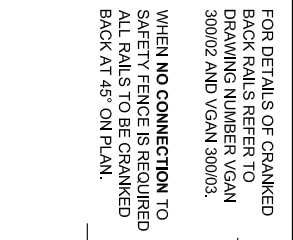
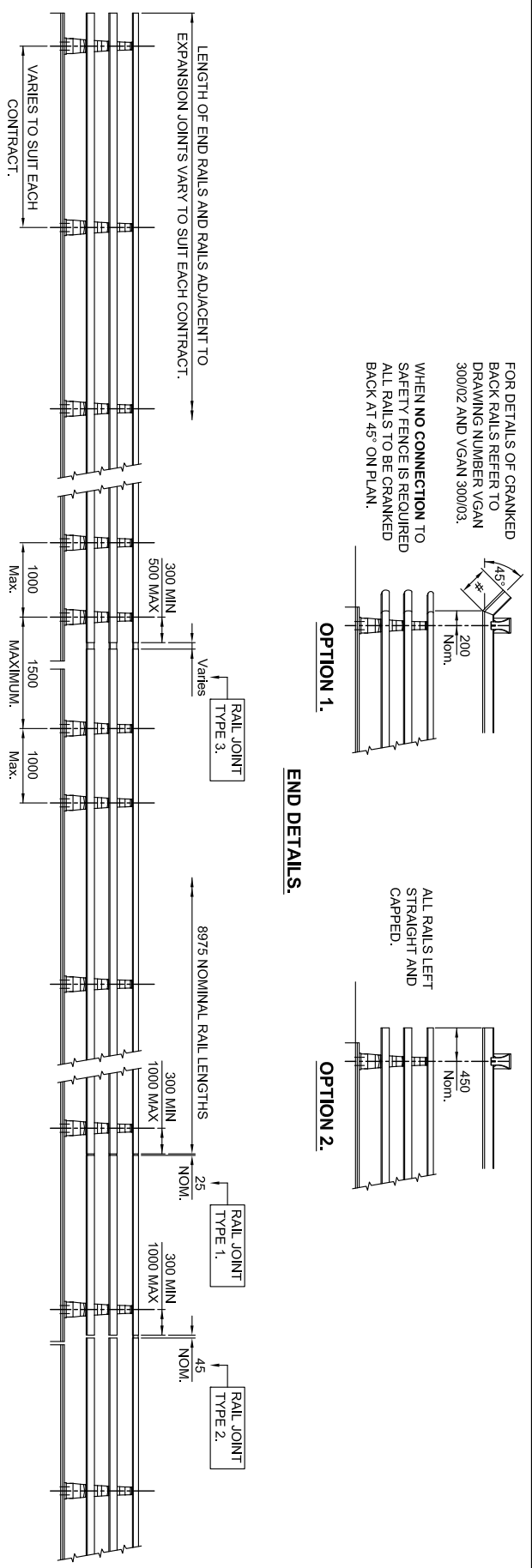
M20 HOLDING DOWN SETSCREWS / BOLTS TO HAVE A MINIMUM ENGAGEMENT OF 25mm WITH VGAS ANCHORAGES. ANCHORAGE SUPPLIER TO CONFIRM MINIMUM ENGAGEMENT.

M20 STAINLESS STEEL WASHER FORM 'B' UNDER THE BOLT HEAD.

M20 NYLON TOP HAT WASHER BETWEEN ST ST WASHER AND BASEPLATE.

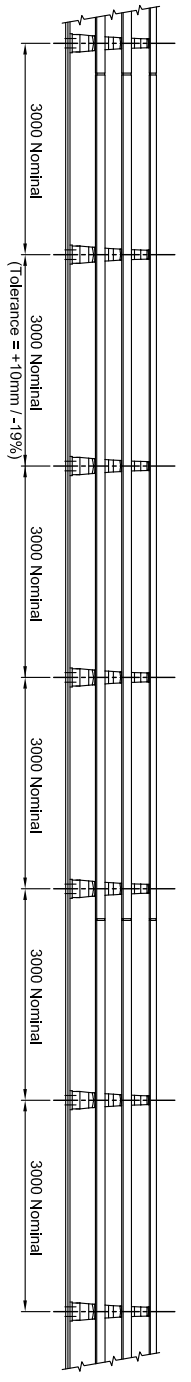
BEDDING GROUT MUST BE A NON-SHRINK CEMENTITIOUS GROUT WITH A MINIMUM COMPRESSIVE STRENGTH OF 50N/mm².

ENLARGED VIEW ON HOLDING DOWN BOLT.



END DETAILS.

VGAN 300 SERIES PARAPET IS A MODULAR SYSTEM BASED ON 3,000mm POST CENTRES. REDUCTION IN POST CENTRES DOWN TO 2,220mm CENTRES CAN OCCUR ADJACENT TO NO-TENSION RAIL JOINTS TYPE 3 AND END OF PARAPET RUN. CLOSER POST CENTRES MAY BE USED FOR SINGLE BAYS WHERE THIS CANNOT BE AVOIDED AT MOVEMENT JOINTS AND END OF PARAPET RUNS.



VGAN 301 PARAPET.

- GENERAL NOTES.**
- 1/ ALL ALUMINIUM WELDING, IF APPLICABLE, TO BE IN ACCORDANCE WITH BS.EN.1011-4.
 - 2/ WELDERS AND WELDING PROCEDURES ARE IN ACCORDANCE WITH BS.EN.287-2 AND BS.EN.288-4 RESPECTIVELY.
 - 3/ MAIN RAILS CAN BE RADUSED TO SUIT ON SITE DOWN TO MINIMUM RADIUS OF 150 metres. TIGHTER RADIUS CAN BE SUPPLIED PERFORMED BY SPECIAL ARRANGEMENT.
 - 4/ DIMENSIONS RELATIVE TO HEIGHT DATUM ASSUME THERE IS NO LONGITUDINAL FALL ON THE PLINTH. ADDITIONAL TOLERANCES TO TAKE ACCOUNT OF THESE FALLS ARE PERMISSIBLE.
 - 5/ FABRICATION TO BE IN ACCORDANCE WITH BS.8118-2.
 - 6/ AN EASILY LEGIBLE IDENTIFICATION PLATE SHALL BE APPLIED AND LOCATED NEAR TO THE TOP OF THE FIRST POST AT EACH APPROACH END IN AN EASILY VISIBLE POSITION.

MATERIAL SPECIFICATION.		APPROVED ANCHORAGE UNITS	
ITEM	SPECIFICATION	ITEM	SPECIFICATION
MAIN RAIL.	ALL EXTRUSIONS ARE TO BE ALUMINIUM ALLOY EN AW6082 T6 IN ACCORDANCE WITH BS.EN.573-1, BS.EN.573-3, BS.EN.573-4, BS.EN.755-1, BS.EN.755-2, BS.EN.755-5, BS.EN.755-7 AND BS.EN.755-9.	BOLTS.	ALL BOLTS / SETPIES TO CONFORM TO BS.3692 AND BE STAINLESS STEEL TO BS.EN.ISO.3506-1 GRADE A4-80.
PEDESTRIAN RAIL.	BS.EN.573-1, BS.EN.573-3, BS.EN.573-4, BS.EN.755-1, BS.EN.755-2, BS.EN.755-5, BS.EN.755-7 AND BS.EN.755-9.	SPRING WASHERS.	ALL SPRING WASHERS TO CONFORM TO BS.4464 TYPE 'B' AND BE STAINLESS STEEL TO BS.EN.ISO.3506-2 GRADE A4 OR A2.
RAIL CLAMP NUT.	POST SECTION TO BE ALUMINIUM ALLOY A444.0 T4 TO ASTM B 108.	PLAIN WASHERS.	WASHERS TO BE M20 FORM 'B' AND M16 FORM 'C' CONFORMING TO BS.4320 AND BE STAINLESS STEEL TO BS.EN.ISO.3506 GRADE A4 OR A2.

DRAWING NUMBER	TITLE
VGAN 300 / 02.	MAIN RAIL CONNECTION DETAILS.
VGAN 300 / 03.	PEDESTRIAN RAIL CONNECTION DETAILS.
VGAN 300 / 04.	MESH INFILL DETAILS (OPTIONAL).

VGAN 300 SERIES PARAPET PERFORMANCE.	
DESIGNED IN ACCORDANCE WITH AASHTO 17th EDITION.	10 kNps.
HIGHWAY DESIGN LOADING.	50 lbs/ft.
PEDESTRIAN RAIL LOADING.	CRASH TESTED TO NCHRP 350.
Test Designation 4-10 and 4-11.	TL 3.
Test Designation 4-12.	TL 4.

LIST OF ADDITIONAL REFERENCE DRAWING FOR THE VGAN 300 PARAPETS	
DRAWING NUMBER	TITLE
VGAN 300 / 02.	MAIN RAIL CONNECTION DETAILS.
VGAN 300 / 03.	PEDESTRIAN RAIL CONNECTION DETAILS.
VGAN 300 / 04.	MESH INFILL DETAILS (OPTIONAL).

SECTION SCHEDULE	
1	MAIN RAIL SECTION 110931
2	RAIL JOINT SECTION 110932
3	PEDESTRIAN RAIL SECTION 110934
4	PEDESTRIAN RAIL JOINT SECTION 110935
5	RAIL CONNECTION NUT SECTION 110933

DRAWING NUMBER	
VGAN 300 - 01.C.	

