

BOLT DETAILS.

1/ FOR ALUMINIUM PARAPETS:-

M20 HEX. HEAD STAINLESS STEEL SETPIN TO BS.EN.3506-1; 1998 GRADE A4-80. M20x37 o/dia. STAINLESS STEEL WASHERS SHALL BE MADE FROM S.S. STRIP GRADE 316S31 COMPLYING WITH BS. 1449; PART 2 AND SHALL COMPLY WITH BS 4320 FORM 'B'.

POLYPROPYLENE HMT TOP HAT SPACER TO BE PLACED BETWEEN UNDERSIDE OF WASHER AND BASEPLATE OR OTHER EQUAL APPROVED.

2/ FOR GALVANISED STEEL PARAPETS:-

M20 HEX. HEAD STAINLESS STEEL SETPIN TO BS.EN.3506-1; 1998 GRADE A4-80. 50 o/diax4mm THICK STEEL WASHERS HOT DIPPED GALVANISED.

POLYPROPYLENE HMT TOP HAT SPACER TO BE PLACED BETWEEN UNDERSIDE OF BOLT HEAD AND WASHER OR OTHER EQUAL APPROVED.

BOLT ENGAGEMENT:-

LENGTH OF TOP BOLT TO BE DETERMINED BY PARAPET INSTALLER TO SUIT SITE CONDITIONS TO ENSURE A MINIMUM THREAD ENGAGEMENT OF 25mm. STANDARD ANCHORAGES ARE SUPPLIED WITH TEMPORARY BOLTS. LENGTH OF PERMANENT HOLDING DOWN BOLTS TO SUIT SITE CONDITIONS.

PROTECTION:-

THREADS OF ANCHORAGE SOCKETS TO BE COATED WITH GREASE, HAVING A HIGH RESISTANCE TO CREEP, DURING MANUFACTURE. A FURTHER COAT, IF NECESSARY TO BE APPLIED DURING FINAL ERECTION ON SITE.

FINISHES:-

THE ANCHORAGE IS SELF COLOUR.

WELDING:-

ALL WELDS ARE TO BE ACCORDANCE WITH BS 7475.

METHODS OF DESPATCH:-

THE ANCHORAGES ARE SENT TO SITE WITH PLYWOOD BOLTED TO SOCKETS. THE PLYWOOD ENSURES THAT THE CROSS CENTRES OF THE SOCKETS ARE MAINTAINED DURING POURING. WHEN ANCHORAGES ARE SENT TO CONCRETE PRECASTERS ANCHORAGE CENTRES ARE SET AND THE SOCKETS FITTED WITH PLASTIC PLUGS.

SITE FIXING:-

THE PLYWOOD IS TO BE NAILED TO THE SHUTTERING BEFORE POURING. IF IT IS NECESSARY TO REMOVE THE PLYWOOD THIS SHOULD NOT BE DONE UNTIL THE CONCRETE IS SET SUFFICIENTLY TO PREVENT ANY DISTURBANCE OF THE ANCHORAGE, AND THE BOLTS MUST BE REPLACED IN THE SOCKETS, TO ENSURE THAT THEY ARE NOT LOST, AND THE SOCKET THREADS ARE KEPT CLEAN.

POST ERECTION:-

AFTER REMOVING THE BOLTS FROM THE SOCKET, THE POST IS FIXED WITH NOMINAL PACKING OF INERT MATERIAL PLACED OFF-CENTRE OF THE POST TO ACHIEVE THE GROUT PAD THICKNESS. IN PRACTICE TO ACHIEVE A SATISFACTORY LINE AND LEVEL TO THE RAILINGS, THIS HAS TO BE INCREASED OR REDUCED. THE BOLTS ARE TIGHTENED DOWN AGAINST THE PACKERS AND THE GROUT PAD IS FORMED. AFTER THE LINE AND LEVEL HAVE BEEN APPROVED BY THE RESIDENT ENGINEER.

THE DESIGN AND MANUFACTURE OF THE VARLEY AND GULLIVER ANCHORAGE COMPLETES WITH THE SPECIFICATION FOR HIGHWAY WORKS VOLUME 1 OF THE MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS AND BS 6779; PART 1; 1998.

THIS DESIGN OF ANCHORAGE IS FOR MANUFACTURE BY V & G ONLY AND SPECIFIERS SHOULD ENSURE THAT COPIES MADE BY UN-AUTHORISED MANUFACTURERS, WHO MAY NOT HAVE SATISFIED THE HAPAS APPROVAL TESTING PROCEDURE, ARE NOT ACCEPTED.

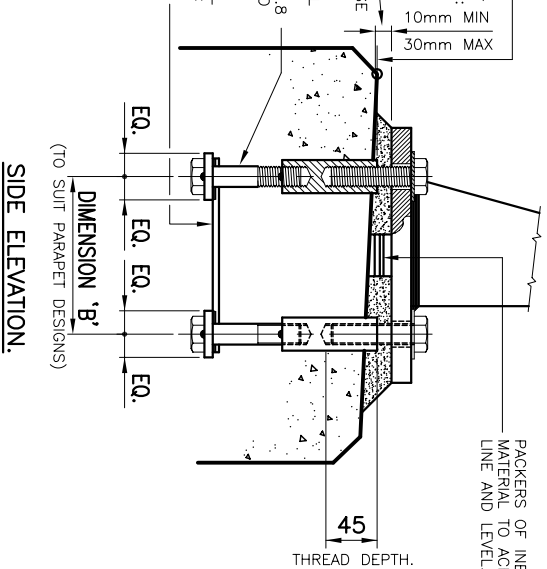
NOTE:-

TOPS OF ANCHORAGE SOCKETS TO BE SET LEVEL WITH HIGH POINT OF CONCRETE UPSTAND. TOLERANCE + 0

GROUT PAD TO BE IN ACCORDANCE WITH BS.6779; Part 1 CLAUSE 6.6.6.

M20x100mm LONG STEEL LOWER BOLT TO BS.EN. 24014; 1992, GRADE 8.8 TO BE TACK WELDED TO STRAPS AND SOCKETS.

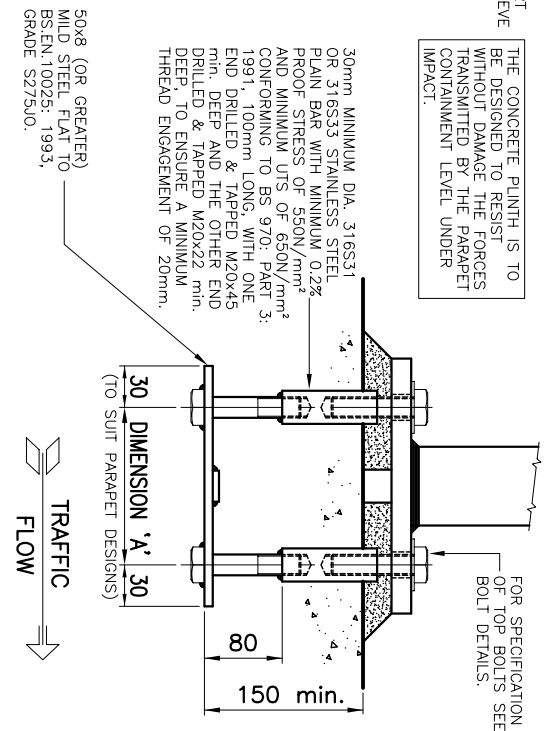
30x6 (OR GREATER) STEEL STRAP TO BS.EN.10025; 1993, GRADE S275/0. 3mm FILLET WELDS ON TOP, CHIPPED & LEFT AS LAID.



THE CONCRETE FINISH IS TO BE DESIGNED TO RESIST WITHOUT DAMAGE THE FORCES TRANSMITTED BY THE PARAPET CONTAINMENT LEVEL UNDER IMPACT.

30mm MINIMUM DIA. 316S31 OR 316S33 STAINLESS STEEL PLAIN BAR WITH MINIMUM 0.2% PROOF STRESS OF 550N/mm² AND MINIMUM UTS OF 650N/mm² CONFORMING TO BS 970: PART 3: 1991, 100mm LONG, WITH ONE END DRILLED & TAPPED M20x45 min. DEEP AND THE OTHER END DRILLED & TAPPED M20x22 min. DEEP, TO ENSURE A MINIMUM THREAD ENGAGEMENT OF 20mm.

50x8 (OR GREATER) MILD STEEL FLAT TO BS.EN.10025; 1993, GRADE S275/0.



NOTE: SOCKETS MUST HAVE 80mm MINIMUM CAST INTO CONCRETE.

N.B. THIS DRAWING SUPERSEDES DRAWING NUMBER SM/15D.

THIS ANCHORAGE IS SUITABLE FOR ALL PARAPET DESIGNS LISTED IN BS 6779; PART 1; 1998, REQUIRING M20 BOLTS.

DIMENSION 'A' & DIMENSION 'B' TO SUIT SPECIFIC DESIGNS.

TOLERANCES

TITLE

ALL DIMENSIONS ARE ±1mm
NOTE: ACCUMULATIVE TOLERANCES ARE TO BE KEPT WITHIN THE OVERALL TOLERANCE.

V&G M20 ANCHORAGE
TYPE 3.

DRAWING NUMBER

VGAS/3.

THIS DRAWING TO BE USED ONLY WITH W/NO.

DRAWING TO BE RETURNED TO DRAWING OFFICE ON COMPLETION OF WORK

THE COMPANY RESERVE THE RIGHT TO MAKE ANY AMENDMENTS CONSISTANT WITH APPROVAL WITHOUT PRIOR NOTICE.

6/12	DECEMBER 2000.	D.Y.C	A.E.
DATE	ISSUED	DRAWN	CHECKED
REVISIONS			

FRONT ELEVATION.

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