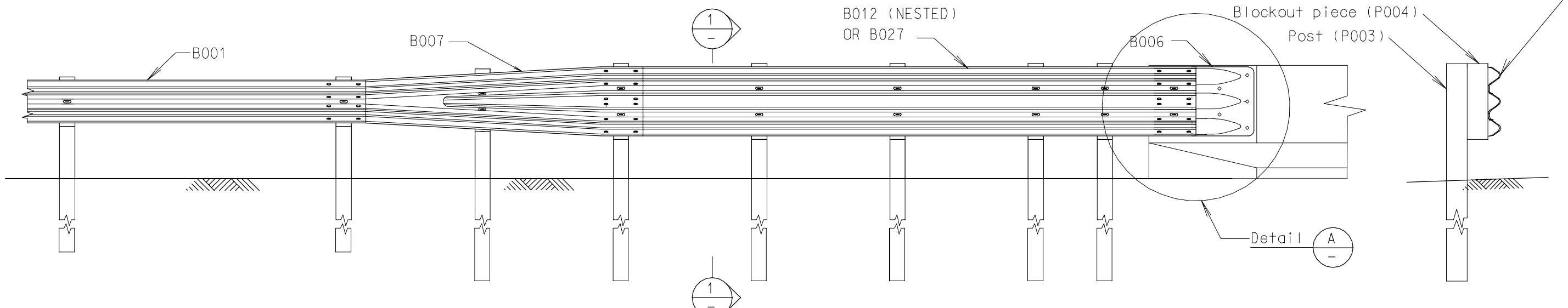
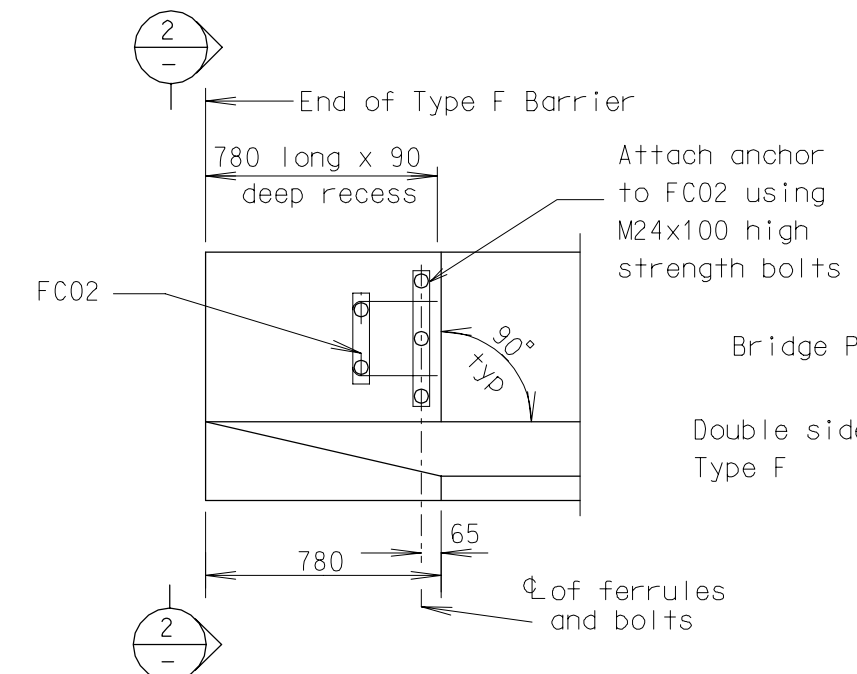


PLAN

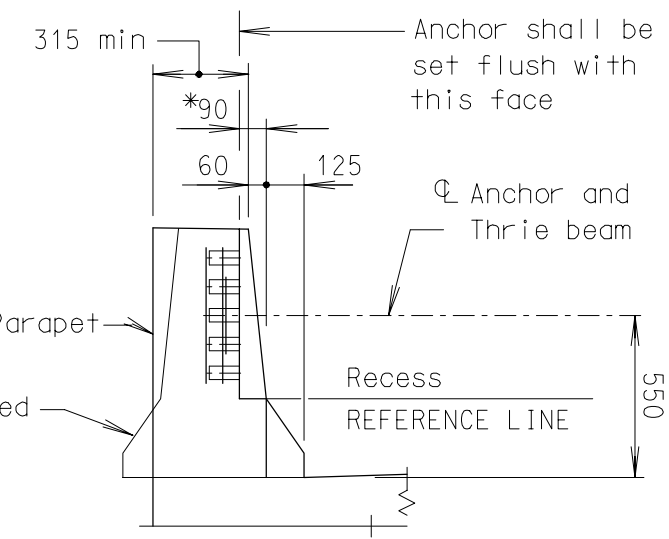


ELEVATION

SECTION 1



DETAIL A

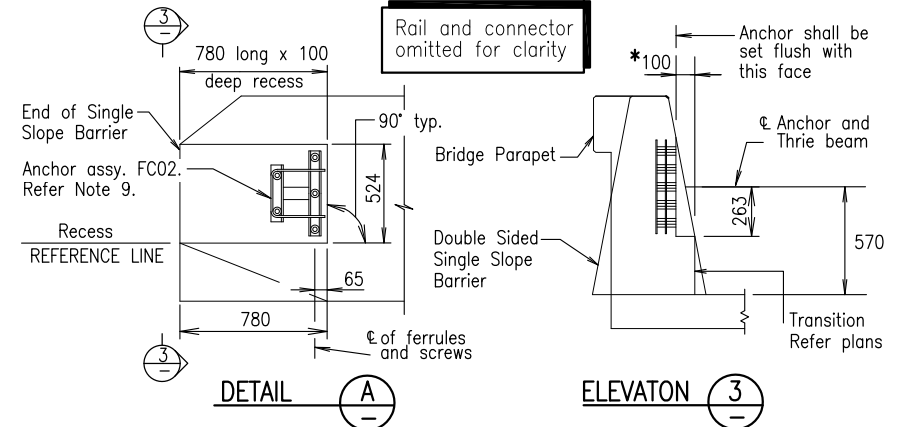
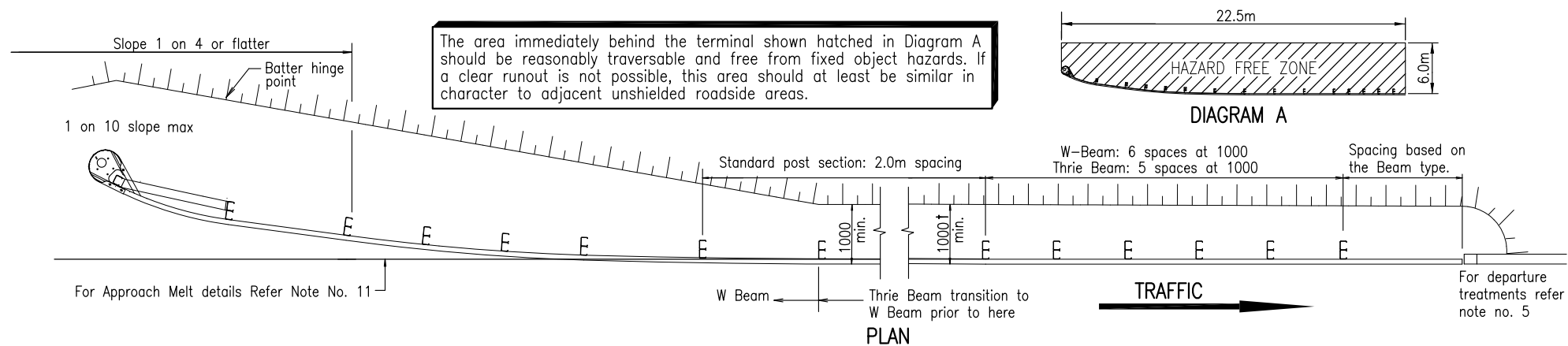


SECTION 2

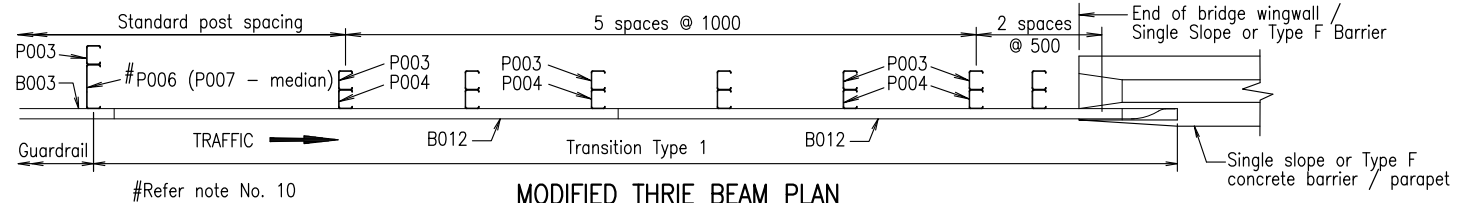
- NOTES
1. Detail of concrete parapet extracted from Bridge Branch Drawings RTAB031 (Aug 97).
 2. Bridge parapets / Type F barrier must be of adequate strength to accept full impact loading.
 3. Blockout piece P006/P007 not to be used in this transition
 4. * Denotes typical dimension for all cases. Where barriers are constructed on a grade this dimension shall be measured along reference line as shown on DETAIL A
 5. High strength steel bolts shall be Property Class 8.8 to AS/NZS 1252 (hot dip galvanised to AS 1214).

AMENDMENT DETAILS		DATE
Change dimension from 535 to 550		July 2001
Roads and Traffic Authority NSW		
W BEAM CONNECTION TO TYPE F BARRIER OR PARAPET ON CONCRETE BRIDGES		
SCALE	No. OF SHEETS	SHEET No.
N.T.S.	1	1
DRAWING NUMBER		
MD.R132.H01.B		

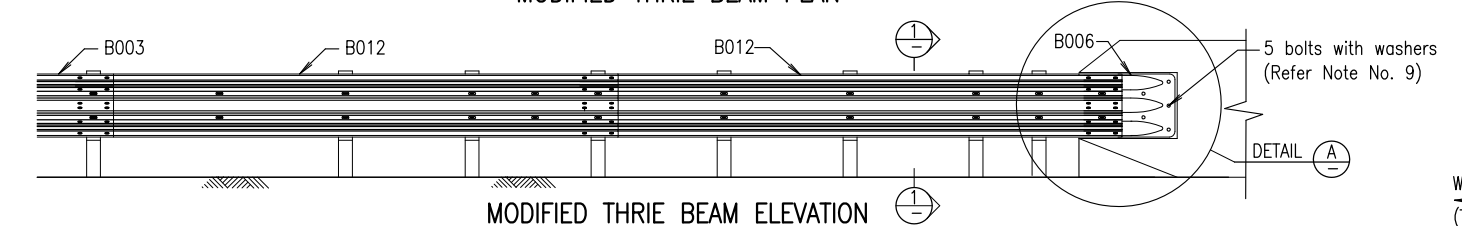
FIRST ISSUED : JULY 1996



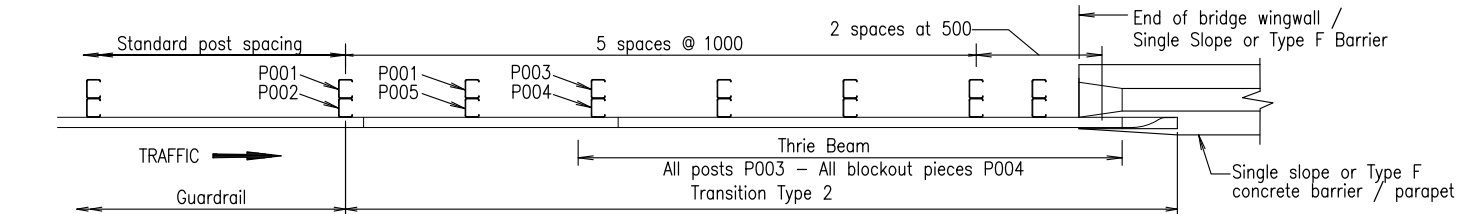
THRIE BEAM CONNECTION TO SINGLE SLOPE CONCRETE BARRIER OR CONCRETE BRIDGE PARAPET



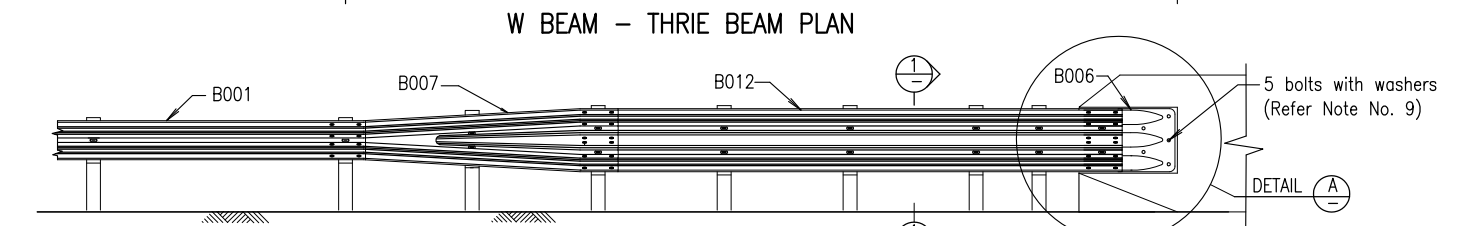
MODIFIED THRIE BEAM PLAN



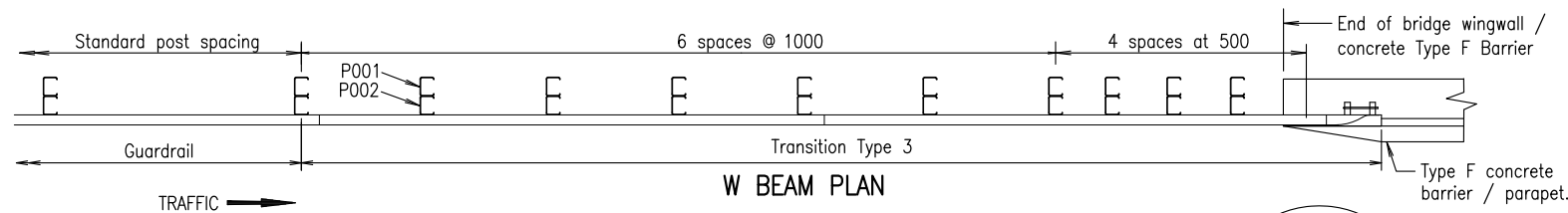
MODIFIED THRIE BEAM ELEVATION



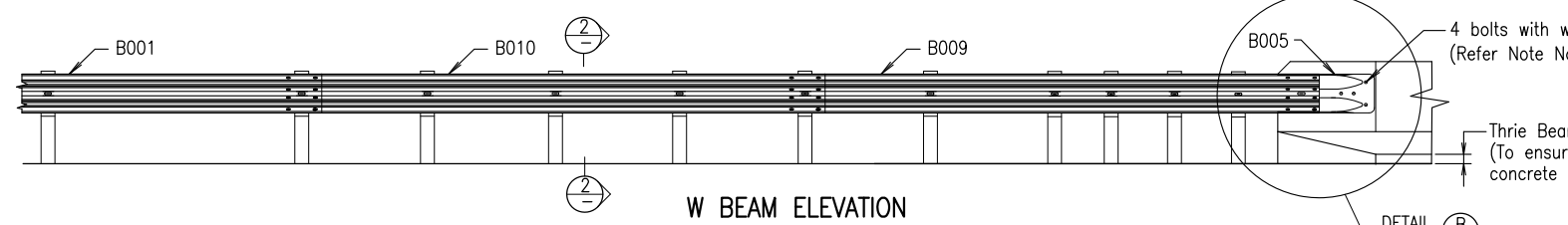
W BEAM - THRIE BEAM PLAN



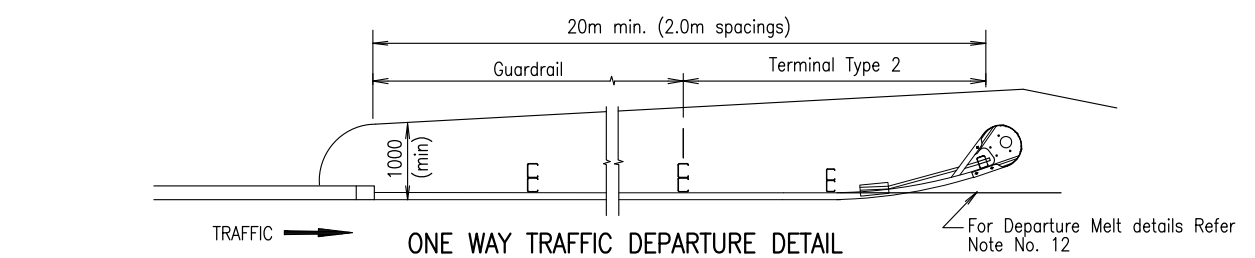
W BEAM - THRIE BEAM ELEVATION



W BEAM PLAN



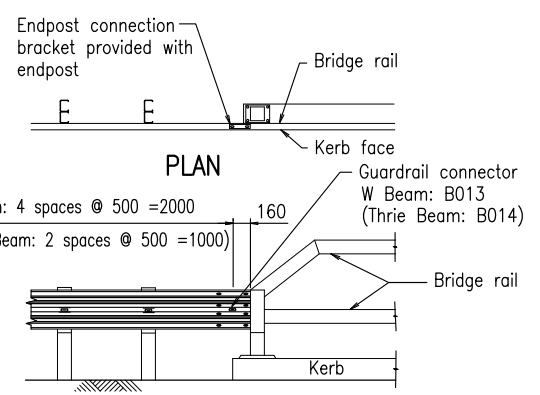
W BEAM ELEVATION



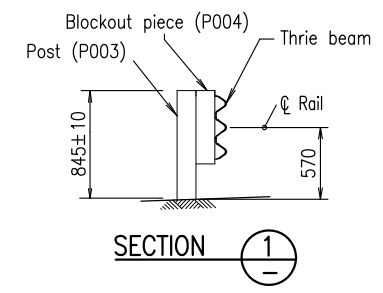
ONE WAY TRAFFIC DEPARTURE DETAIL

ONE WAY TRAFFIC DEPARTURE DETAILS are to be used only when there is no possibility of opposing traffic impacting them. They are not to be used within clear zone of opposing traffic.

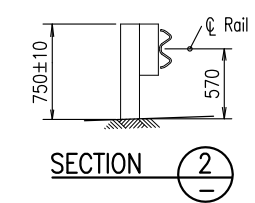
†1200 for Modified Thrie Beam
 * Denotes typical dimension for all cases. Where barriers are constructed on a grade this dimension shall be measured along reference line as shown.



W BEAM CONNECTION TO BRIDGE RAIL
 Thrie beam connection similar



SECTION 1

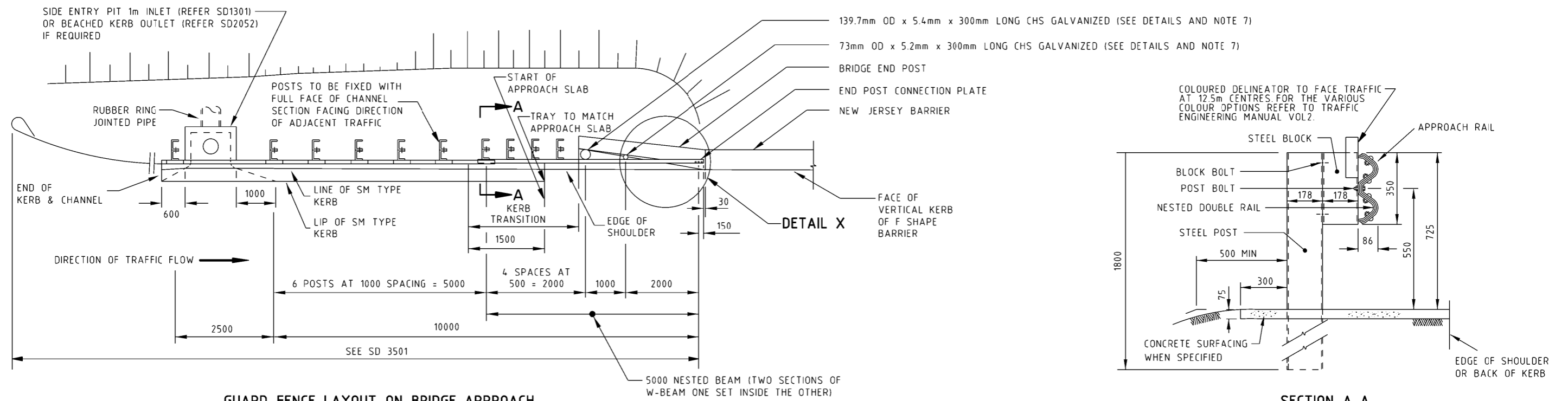


SECTION 2

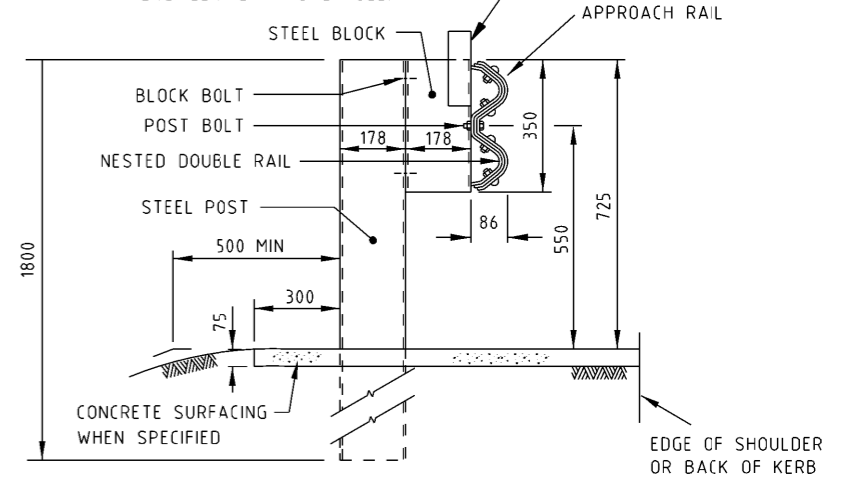
- NOTES:
- RAIL LAP, post and blockout orientation in relation to traffic direction as shown is essential.
 - FASTENERS for blockout to post and rail to rail connections not shown on this drawing.
 - STIFFENER PLATES shall be used at posts without rail lap except in the MELT.
 - BLOCKOUT PIECE P006/P007 not to be used in thrie beam transition.
 - DEPARTURE TREATMENTS:
 - Two way traffic and within opposing traffic clear zone:- Same as for approach treatment.
 - Outside of opposing traffic clear zone:- Refer "One Way Traffic Departure Detail" on this drawing.
 - MELT and one way traffic departure end treatment setout as shown on Std Dwg 1474.
 - THE MINIMUM installed length of guardrail is:
 - 20 metres including transition, plus the length of a Terminal Type 1 or proprietary system.
 - 20 metres for one way traffic departure including a Terminal Type 2
 - W AND THRIE BEAM CONNECTION to Parapet/Barrier refer to Bridge/Barrier drawings for details.
 - ANCHOR ASSEMBLIES (including bolts) are detailed on Std. Dwg. No. 1467.
 - NOTCHED BLOCKOUTS P006 and P007 are used for modified thrie beam guardrail as detailed on Std. Dwg. No. 1483.
 - APPROACH MELT details as shown on standard drawing 1474.
 - DEPARTURE MELT details as shown on standard drawing 1474.
 - ALL DIMENSIONS are in millimetres unless otherwise shown.

- ASSOCIATED DOCUMENTS:
 Main Roads Standard Drawings Roads Manual
 Main Roads Specifications and Technical Standards Manual
- REFERENCED DOCUMENTS:
 Standard Drawings:
 1467 Concrete Barrier/Bridge Parapet-Cast-in Anchor Assembly for W and Thrie Beam Guardrail Connection.
 1474 Steel Beam Guardrail - Installation and Setout
 1483 Steel Beam Guardrail - Thrie Beam Layouts
- Standard Specifications:
 MRTS14A Road Furniture (Steel Work)
 Australian Standards:
 AS/NZS 3845 Road Safety Barrier Systems

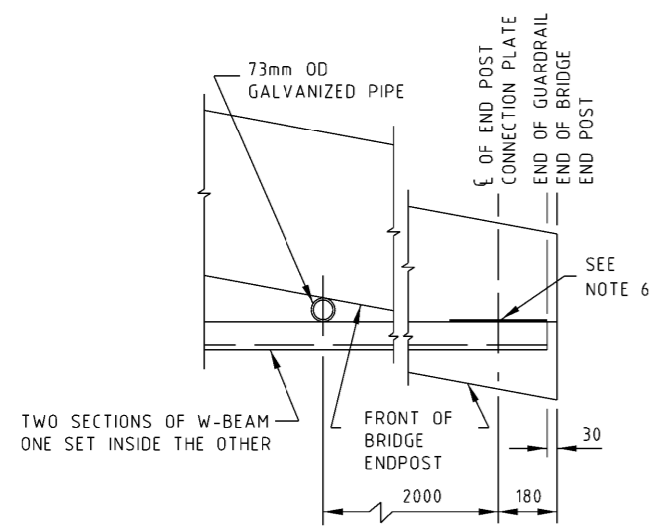
STEEL BEAM GUARDRAIL		Queensland Government Department of Transport and Main Roads	
INSTALLATION ON BRIDGE AND BARRIER APPROACHES		A3	Standard Drawing No
		Not to Scale	1475
		Date	1/11
A	B	C	D



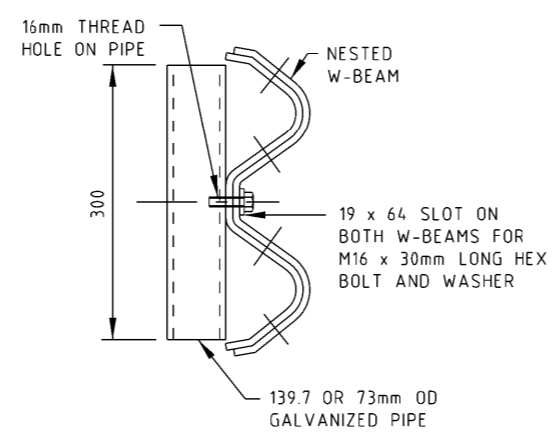
GUARD FENCE LAYOUT ON BRIDGE APPROACH



SECTION A-A



DETAIL X



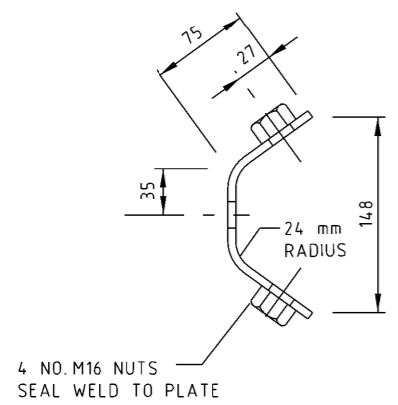
GALVANIZED PIPE CONNECTION

BOLT SCHEDULE FOR GALVANISED PIPE CONNECTION

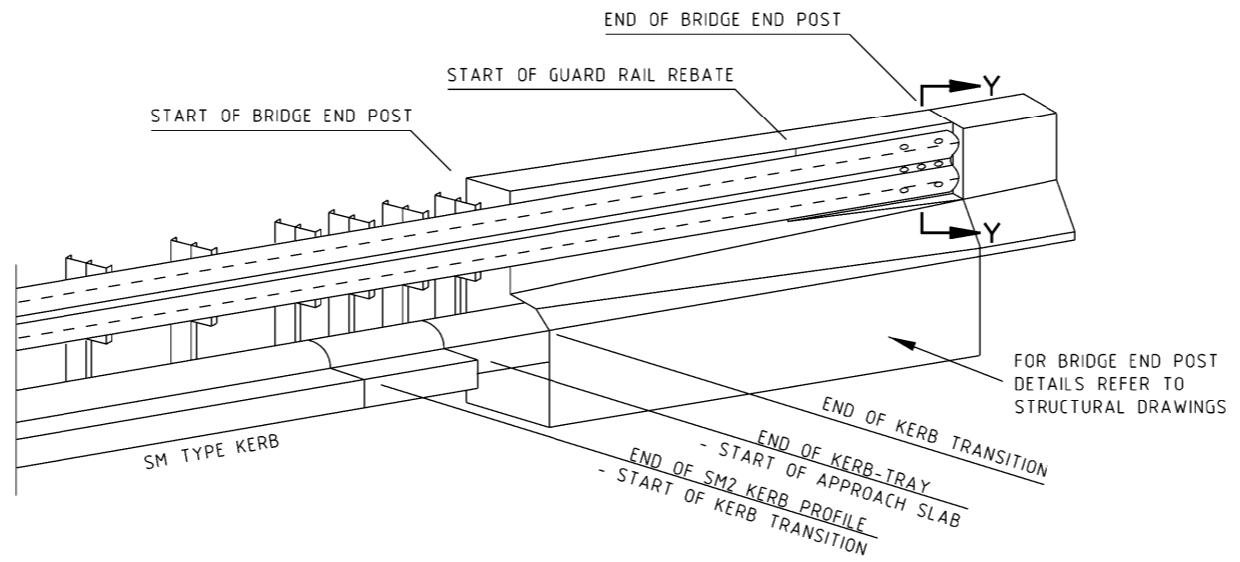
1	M16 x 30mm LONG HEX HEAD POST BOLT
1	M16 WASHER

NOTES:

- FOR DETAILS OF STEEL POSTS, BLOCKS, BOLTS AND CONCRETE PAVING, REFER SD 3661.
- GALVANIZED PIPES SHALL BE CONNECTED ONLY TO THE NESTED W-BEAMS AS SHOWN. BOLTS TO BE SNUG TIGHTENED TO AS 4100.
- BACKING RAIL, 300 LONG, WITH GUARD RAIL PROFILE, SHALL BE PROVIDED AT ALL INTERMEDIATE POSTS FOR SINGLE W-BEAMS. NO BACKING RAIL IS REQUIRED FOR NESTED W-BEAMS.
- FOR THE GEOMETRY OF THE GUARD FENCE APPROACHES REFER SD 4071 AND CONSTRUCTION DRAWINGS.
- KERB AND CHANNEL PIT AND FOOTWAY REQUIREMENTS MAY DIFFER FROM THOSE SHOWN. FOR DETAILS REFER TO CONSTRUCTION DRAWINGS.
- BRIDGE END POST ASSEMBLY: INCLUDES CONNECTION PLATE AND 3 THREADED M16 FERRULES FOR BRIDGES WITH F SHAPE BARRIER. TO BE ERECTED BY BRIDGE CONTRACTOR. FOR DETAILS OF GUARD FENCE CONNECTION PLATE REFER TO BRIDGE DRAWING 181347.
- DIAMETER OF GALVANIZED PIPE MAY VARY TO SUIT THE PARTICULAR SITE.
- WHERE THE FACE OF GUARD FENCE IS ERECTED WITHIN 0 TO 1m BEHIND THE BACK OF KERB, THE MOUNTING HEIGHT SHALL BE MEASURED FROM THE ADJACENT ROAD PAVEMENT SURFACE.
- WASHERS ARE NOT TO BE PROVIDED AT POST BOLTS. WASHER TO BE PROVIDED UNDER PIPE CONNECTION BOLT.



**SECTION Y-Y
(GUARD FENCE CONNECTION PLATE ONLY)**



ISOMETRIC VIEW OF KERB TRANSITION TO BRIDGE ENDPOST

ISSUE	APP'D	DATE	AMENDMENT
G	D.C.	5/3/12	BOLT SCHEDULE AMENDED, DELINEATOR NOTE AMENDED ON SECTION A-A, SECTION Y-Y ADDED
F	R.F.	23/12/10	DETAIL Y ADDED
E	J.B.	1/8/02	DIMENSION FROM GROUND TO TOP OF BOLT & POST HAS BEEN AMENDED, CONCRETE SURFACING NO LONGER OPTIONAL, POST ORIENTATION NOTE ADDED, NOTE 9 & 10 ADDED
D	J.C.	1/3/97	KERB TRANSITION DETAILS ADDED, DRAWING TITLE CHANGED.
C	J.C.	1/7/95	CROSS REFERENCE TO SD 3501, GUARD RAIL OFFSET TO BACK OF KERB, NOTE 8 ADDED
B	J.C.	9/94	SET OUT POINT OF PIT REMOVED, PIT COVER, NOTE 7
A	R.G.	18/10/93	REDRAWN ON SD 4081 & SD 4082

- GENERAL NOTES / CROSS REFERENCES**
- GUARD FENCE - LAYOUTS FOR BRIDGE APPROACHES SD 4071
 - SIDE ENTRY PIT - CONCRETE COVER - ONE METRE INLET SD 1301
 - GUARD FENCE (TYPE B) - STEEL POST SD 3661
 - ALL DIMENSIONS ARE IN MILLIMETRES UNLESS SHOWN OTHERWISE.

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DESIGNED: PRINCIPAL ROAD DESIGN ENGINEER
 APPROVED: *Ross Gordon* 18-10-93
 CAT: PRED
 PROJ: sddgnew
 FILE: sd-4081g.dgn

vicroads

SCALE OF METRES
 NOT TO SCALE

STANDARD DRAWING
**GUARD FENCE
 BRIDGE APPROACHES (LONG END POST)**

FILE NO.	CONTRACT NO.	SHEET NO.	DRAWING NO. SD 4081	ISSUE G
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