GENERAL

G1. GENERAL STRUCTURAL DRAWINGS TO BE READ IN CONJUNCTION WITH AUSTRALIAN BRIDGE DESIGN CODE AS5100-2004, RTA SPECIFICATIONS AND ALL OTHER CONSULTANT'S DRAWINGS.

G2. DO NOT SCALE DIMENSIONS SHOWN ON THE DRAWINGS.

G3. NOTIFY ENGINEER IMMEDIATELY IF DIMENSION DISCREPANCIES EXIST. FABRICATORS AND BUILDERS SHOULD NOT MAKE ANY ASSUMPTIONS WITHOUT THE DESIGN ENGINEER APPROVAL.

G4. MAINTAIN THE STRUCTURE IN A STABLE CONDITION DURING CONSTRUCTION AND ENSURE THAT NO PART IS OVER STRESSED.

G5. DESIGN WIND LOADS IN ACCORDANCE WITH AS/NZS1170.2:2002, TERRAIN CATAGORY 2 AND THE FOLLOWING:

	ULTIMATE LIMIT STATE		SERVICEABILITY LIMIT STATE
	STRUCTURES SPANNING OVER TRAFFIC	ALL OTHER STRUCTURES	
REGION	V_{1000} (m/s)	V_{200} (m/s)	V_{20} (m/s)
A	46	43	37
B	60	52	38

FOUNDATION AND FOOTINGS

F1. FOOTING DESIGNED FOR ALLOWABLE SOIL BEARING PRESSURE q_a =150 kPa

F2. A QUALIFIED GEOTECHNICAL ENGINEER SHALL VERIFY THE ASSUMED ALLOWABLE SOIL BEARING PRESSURE ON SITE PRIOR TO ANY PLACEMENT OF CONCRETE FOR THE FOOTING.

F3. UNLESS NOTED ON DRAWINGS, FOOTING DESIGN WAS CARRIED OUT ASSUMEING THAT THERE ARE NO SERVICES OR UTILITIES IN THE PROXIMITY OF THE FOOTINGS AND THAT THE SITE SLOPE IS NOT GREATER THAN 10 DEGREES. IF DIFFERENT SOIL CONDITIONS ARE ENCOUNTERED ON SITE, THE FOOTING SHALL BE REDESIGNED.

F4. ANY ALTERATION FROM THE ABOVE CRITERIA IS SUBJECT TO DESIGNER APPROVAL.

F5. DO NOT EXCAVATE BELOW THE LEVEL OF ANY EXISTING ADJOINING FOOTINGS WITHOUT THE PERMISSION OF THE ENGINEER.

F6. NO EXCAVATION SHALL BE MADE WITHIN 3 METERS OF THE EDGE OF PILE FOOTINGS WITHOUT FIRST SEEKING APPROVAL FROM A QUALIFIED DESIGN ENGINEER.

REINFORCEMENT

R1. REINFORCEMENT SYMBOLS
N HOT-ROLLED DEFORMED BAR, GRADE 500 TO AS/NZS4671
R PLAIN ROUND, GRADE 250 TO AS/NZS4671
SL HARD DRAWN REINFORCING FABRIC TO AS/NZS4671

R2. CONCRETE CURING AND STRIPPING SHALL BE IN ACCORDANCE WITH RELEVANT SAA CODES.

R3. ALL CONCRETE SHALL BE COMPACTED BY IMMERSION TYPE VIBRATORS.

R4. ALL REINFORCEMENT SHALL BE SUPPORTED ON APPROVED CHAIRS AT MAXIMUM 800mm CENTRES - 4 CHAIRS MIN PER FOOTING

R5. ALL UNSUPPORTED BARS SHALL BE TIED IN THE TRANSVERSE DIRECTION TO N12 AT 400 CENTRES.

R6. HOT BENDING OF REINFORCEMENT IS NOT PERMITTED.

CONCRETE

C1. CONCRETE PROPERTIES.

ELEMENT	AS3600 GRADE	SLUMP (mm)	MAX AGG SIZE (mm)	CEMENT TYPE
FOOTING	N32	80	20	A

C2. MINIMUM CLEAR COVER TO ANY REINFORCEMENT COMPLYING WITH AS3600 SHALL BE 75mm FOR FOOTINGS.

C3. NO HOLES OR CHASES OR EMBED PIPES IN CONCRETE MEMBERS UNLESS SHOWN ON THE STRUCTURAL DRAWINGS OR APPROVED BY THE ENGINEER.

C4. REINFORCEMENT IS SHOWN DIAGRAMATICAL, IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.

C5. SPLICES OF REINFORCEMENT SHALL ONLY BE MADE IN POSITIONS SHOWN.

C6. WRITTEN APPROVAL OF THE ENGINEER SHALL BE OBTAINED FOR ANY OTHER SPLICES.

C7. WHERE LAP LENGTHS ARE NOT SHOWN THEY SHALL SATISFY THE REQUIREMENTS OF AS3600.

C8. DO NOT WELD REINFORCEMENT UNLESS SHOWN ON THE DRAWINGS.

C9. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600.

C10. SIZES OF CONCRETE ELEMENTS DO NOT INCLUDE THICKNESS OF ANY APPLIED FINISHES.

STEEL

S1. ALL STEELWORK SHALL CONFORM WITH THE FOLLOWING AUSTRALIAN STANDARDS: AS1163, AS4671, AS1450, AS1594, AS3678, AS3679 AND AS4100, AND OTHER AUSTRALIAN STANDARDS AS APPROPRIATE.

S2. ALL WELDING OF STEEL SHALL BE IN ACCORDANCE WITH AS1554.1. PREHEATING REQUIREMENTS AND INTER-RUN CONTROL SHALL CONFORM WITH AS1554.1-CLAUSE 5.3.

S3. WELD QUALITY SHALL BE OF "SP" CATEGORY USING PRE QUALIFIED WELDING CONSUMABLES AS INDICATED IN TABLE SHOWN, EXCEPT FOR ANCHOR BOLTS AND RHS CAPPING PLATES AND ANY SOCKETS THAT MAY BE "GP" CATEGORY WELDS.

S4. NOTICE SHOULD BE GIVEN BY THE FABRICATOR TO THE PRINCIPLE AFTER WELD PREPARATION AND SET UP, BUT PRIOR TO WELDING, FOR INSPECTION OF SETUP AND WELD PROCEDURE.

S5. ALL STEEL COMPONENTS SHALL CONFORM TO THE FOLLOWING TABLE UNO.

SECTIONS/ COMPONENTS	AUSTRALIAN STANDARD	GRADE
PLATES	AS3678	350 (UNO)
HOT ROLLED SECTIONS	AS3679.1	300
CHS	AS1163	350 (UNO)
RHS	AS1163	350
SHS	AS1163	350
FLAT BARS, RODS	AS3679.1	250

S6. REMOVE ALL BURRS AND SHARP EDGES AFTER FABRICATION.

S7. ALL STEELWORK TO BE FREE FROM PITTING AND CLEANED OF LOOSE MILL SCALE, LOOSE RUST AND FOREIGN PARTICLES EITHER BY BLAST CLEANING OF OTHER EFFECTIVE METHOD THEN HOT DIPPED GALVANISED TO AS4680 TABLE 1.

S8. FASTENERS TO CONFORM WITH RELEVANT AUSTRALIAN STANDARDS AS1111, AS1112, AS1237 AND HOT DIPPED GALVANISED TO AS1214.

S9. WRITE IN WELD DRAWING NUMBER ON POST 1000mm ABOVE BASE PLATE OR AS DIRECTED.

S10. WHEN USING SHORT LENGTHS THE FIRST BUTT WELD CONNECTION MUST NOT OCCUR WITHIN 1500mm FROM BASE PLATE IN ACCORDANCE WITH AS1554.1:2004 TABLE E4, JOIN IDENTIFICATION H-C 2b.

S11. WELD RHS - FLANGE PLATE CONNECTION IN ACCORDANCE WITH AS1554.1:2004 TABLE E1, JOIN IDENTIFICATION T-C 4b

S12. ALL TAPPED HOLES IN END PLATE OF POST AND ARMS TO RECEIVE A COATING OF "KOPR-KOTE" OR EQUIVALENT ON APPLICATION OF BOLT AFTER GALVANISING.

S13. WHERE FIELD TREATMENT IS REQUIRED, APPLICATION OF 2 COATES OF INORGANIC ZINC PRIMER CONFORMING TO AS 2105 Type 4 AND GPC-C-29/8A WITH A MINIMUM DRY THICKNESS OF 75 MICRONS EACH.

S14. WELD TO BE CATEGORY SP CLASS E48XX OR W50X UNO.

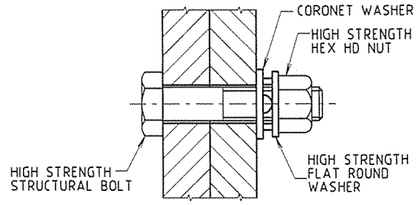
S15. ALL FILLET WELDS TO BE CONTINUOUS (UNO)

S16. BOLT DESIGNATION

4.6S COMMERCIAL BOLTS OF GRADE 4.6 TO AS1111 SNUG TIGHTENED.
8.8S HIGH STRENGTH STRUCTURAL BOLTS, NUTS & WASHERS OF GRADE 8.8 TO AS1252 SNUG TIGHTENED.
8.8TB HIGH STRENGTH STRUCTURAL BOLTS, NUTS & WASHERS OF GRADE 8.8 TO AS1252 FULLY TENSIONED TO AS4100 AS A BEARING JOINT.
8.8TF HIGH STRENGTH STRUCTURAL BOLTS, NUTS & WASHERS OF GRADE 8.8 TO AS1252 FULLY TENSIONED TO AS4100 AS A FRICTION JOINT.

GROUTING

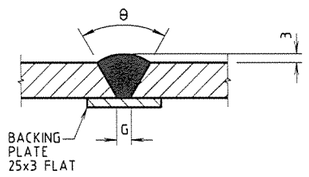
M1. GROUTING SHALL BE NON SHRINK, FLOWABLE PREPARED AND APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTION (f'c = 50MPa)
M2. GROUTING SHALL FILL THE ENTIRE SPACE BETWEEN PLATE AND CONCRETE SUPPORT/FOOTING.



CORONET LOAD INDICATOR WASHER ASSEMBLY DETAIL

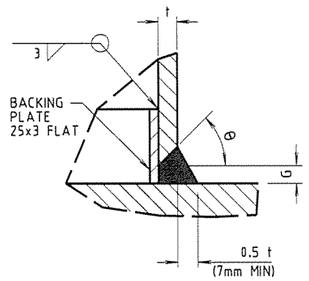
PREQUALIFIED WELDING CONSUMABLES

STEEL GRADE IN AS1163 / AS3678 / AS3679	WELD METAL CLASSIFICATION		
	MANUAL METAL-ARC AS1553.1		SUBMERGED ARC - AS1858.1 FLUX CORED - AS2203 GAS METAL ARC - AS2717
	CLASSIFICATION	GRADE	
250, C250, 300	E48XX	0 AND 1	W50X
250LO, C250LO, 300LO	E48XX	2	W502
250L15, 300L15	E48XX	3	W503
350, C350, WR350	E48XX	0 AND 1	W50X
400, C400			
350LO, C350LO, WR350LO	E48XX	2	W502
400LO, C450LO			
350L15, 400L15,	E48XX	3	W503
WR350L15	E48XX	3	W503



BUTT WELD CONNECTION

SEE NOTE No. S10



RHS-FLANGE PLATE CONNECTION

SEE NOTE No. S11

ISSUE	ZONE	REVISION	BY	CHKD	AUTH	DATE

ROADS AND TRAFFIC AUTHORITY OF NSW

BASEPLATE ADAPTOR TO SUIT TYPE 10 MAST ARM FOOTING AND TYPE 9 POST CONSTRUCTION NOTES

PREPARED BY
MECHANICAL ENGINEERING UNIT
99 PHILLIP STREET
PARRAMATTA NSW 2150
PHONE (02) 8837-0864
FACSIMILE (02) 8837-0058

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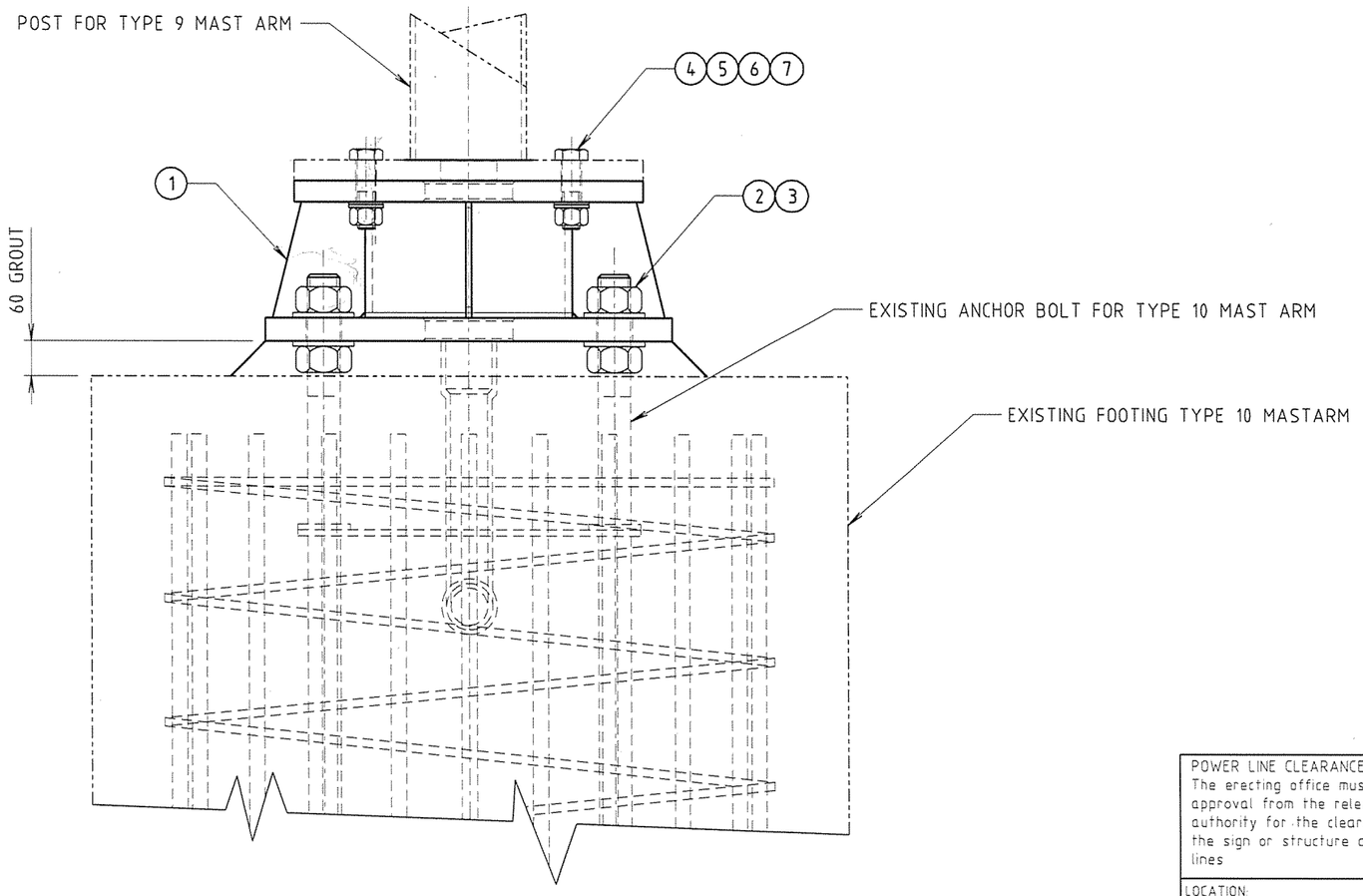
ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE STATED

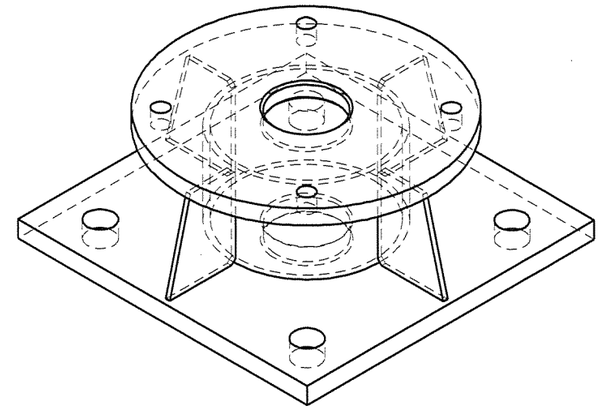
A3

PREPARED		CHECKED	DRAWING NUMBER	ISSUE
DESIGN	JW	HA	ME16113	ORIG
DRAWING	JE	HA		
APPROVED	HA	DATE 24.6.09	SCALE NTS	SHEET 1 OF 3

ITEM	SHEET	DESCRIPTION	QTY	MATL	REMARKS
1	3	BASEPLATE ADAPTOR	1	STL	GALV
2	ND	NUT HEX M56	8	STL	GALV
3	ND	WASHER FLAT Ø56	8	STL	GALV
4	ND	BOLT M30x120 LG	4	STL	GALV 8.8
5	ND	NUT HEX M30	4	STL	GALV 8.8
6	ND	WASHER HIGH STRENGTH STRUCTURAL FLAT Ø30	4	STL	GALV 8.8
7	ND	WASHER CORONET Ø30	4	STL	GALV



GENERAL ARRANGEMENT



ISOMETRIC VIEW OF ITEM 1

POWER LINE CLEARANCE
The erecting office must obtain approval from the relevant electrical authority for the clearance between the sign or structure and any power lines

LOCATION:

DESIGN JOB No. MEP0576
MASS OF ADAPTOR 233 kg

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ISSUE	ZONE	REVISION	BY	CHKD	AUTH	DATE

ROADS AND TRAFFIC AUTHORITY OF NSW

BASEPLATE ADAPTOR TO SUIT TYPE 10 MAST ARM FOOTING AND TYPE 9 POST GENERAL ARRANGEMENT

RTA
PREPARED BY
MECHANICAL ENGINEERING UNIT
99 PHILLIP STREET
PARRAMATTA NSW 2150
PHONE (02) 8837-0884
FACSIMILE (02) 8837-0058

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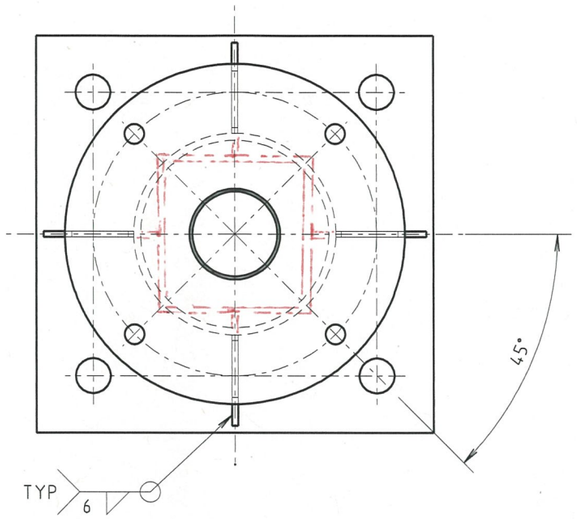
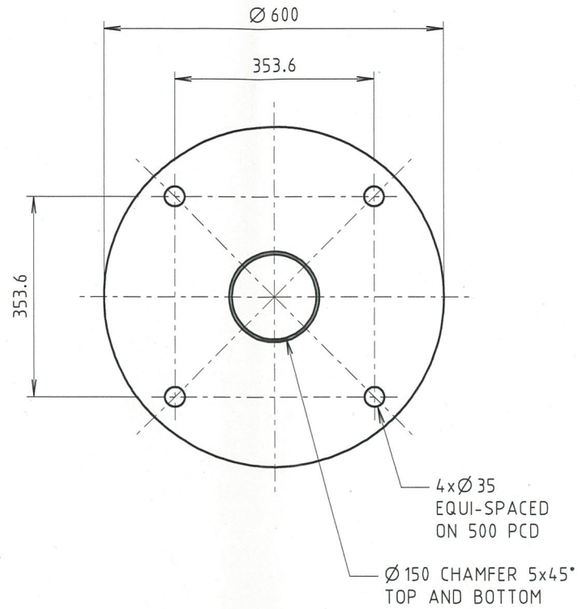
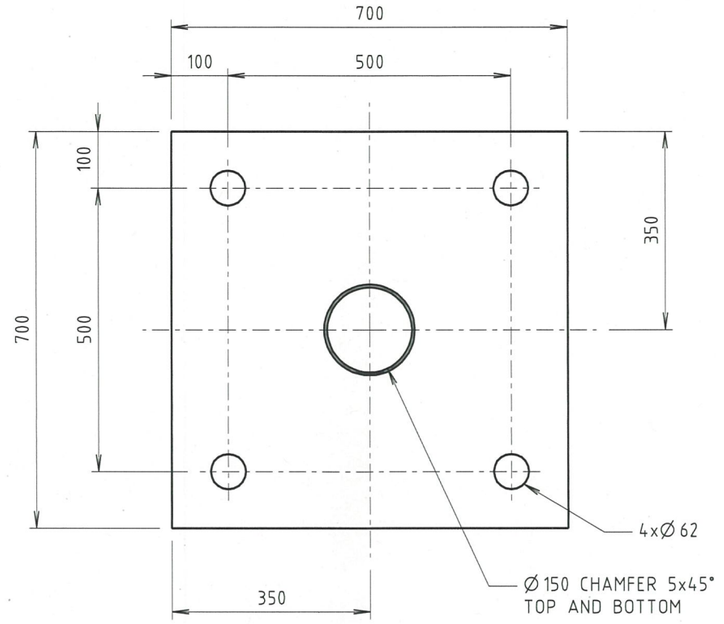
A3

PREPARED	CHECKED	DRAWING NUMBER	ISSUE
DESIGN JW	HA	ME16113	ORIG
DRAWING JE	HA		
APPROVED HA	DATE 24.6.09	SCALE 1:10	SHEET 2 OF 3

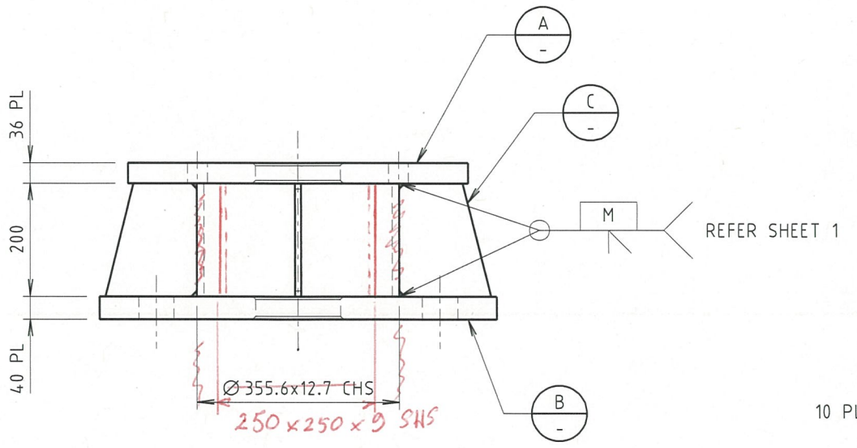




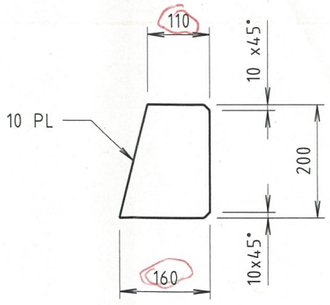
DETAIL A



DETAIL B



ITEM 1 - BASEPLATE ADAPTOR
1 REQD - MATL STL GALV



DETAIL C

ISSUE	ZONE	REVISION	BY	CHKD	AUTH	DATE

ROADS AND TRAFFIC AUTHORITY OF NSW

BASEPLATE ADAPTOR TO SUIT TYPE 10 MAST ARM FOOTING AND TYPE 9 POST DETAILS

PREPARED BY
MECHANICAL ENGINEERING UNIT
99 PHILLIP STREET
PARRAMATTA NSW 2150
PHONE (02) 8837-0884
FACSIMILE (02) 8837-0058

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A3

PREPARED	CHECKED	DRAWING NUMBER	ISSUE
DESIGN JW DRAWING JE	HA HA	ME16113	ORIG
APPROVED HA	DATE 24.6.09	SCALE 1:10	SHEET 3 OF 3

Brian,

Hayman has had to manufacture a T10 to a T9 adaptor.
Drawing No. ME 16113

They had to buy a full length of the 355.6 x 12.7 CHS (the spacer tube between the T10 plate and the T9 plate) to use 200mm of it, the customer paid for the full length as they don't use it.

Do you think that it would be more practical and convenient to use 200mm of the T10 RHS instead of the tube for the spacer as they would have in stock lengths of this.

Regards,

Trevor

Hi Trevor.
The square section could be set at 90° to provide more clearance for screws washers except for the gussets. The type 9 square section is 250□ so it would be better still.

Brian

Brian,

Re-drawn as per your request

Can we get ME to update?