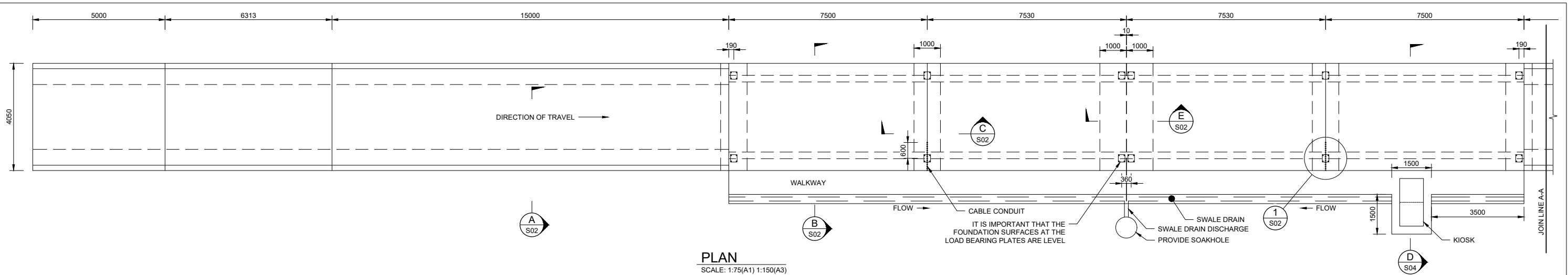




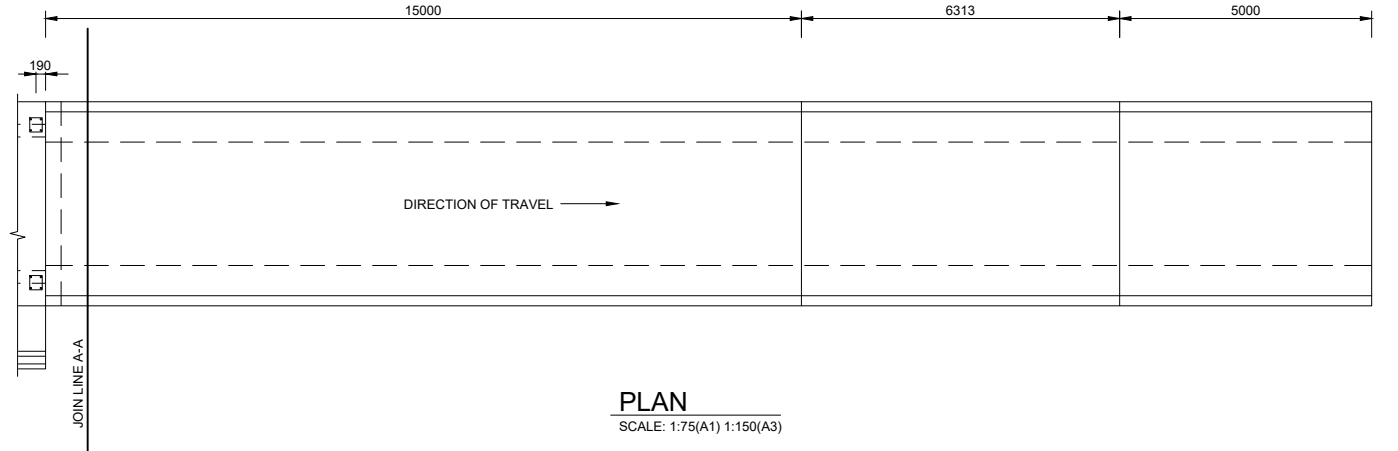
**TIMBERLANDS LTD
MURUPARA AND KAINGAROA
WEIGH BRIDGE FOUNDATIONS**

**STRUCTURAL
DRAFT FOR COMMENT**

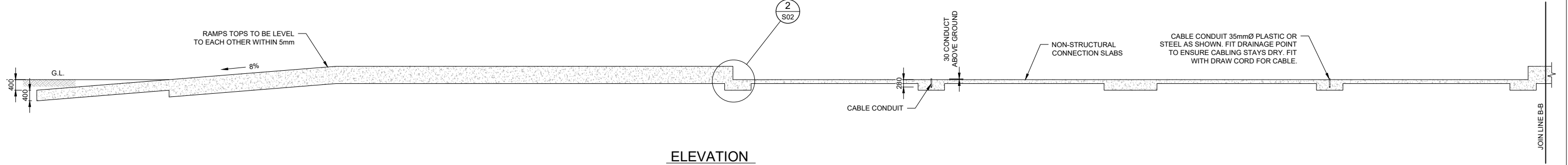
Project No: 2-63761.00
Date: 22/11/2019



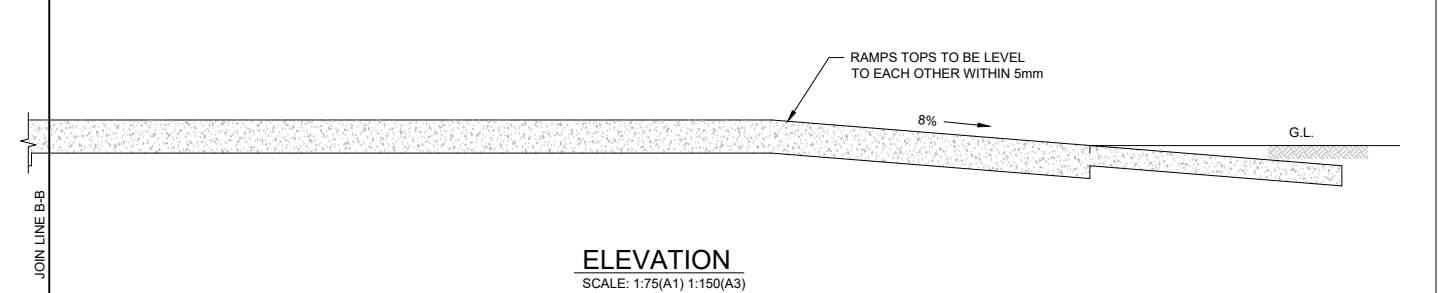
PLAN
SCALE: 1:75(A1) 1:150(A3)



PLAN
SCALE: 1:75(A1) 1:150(A3)



ELEVATION
SCALE: 1:75(A1) 1:150(A3)



ELEVATION
SCALE: 1:75(A1) 1:150(A3)

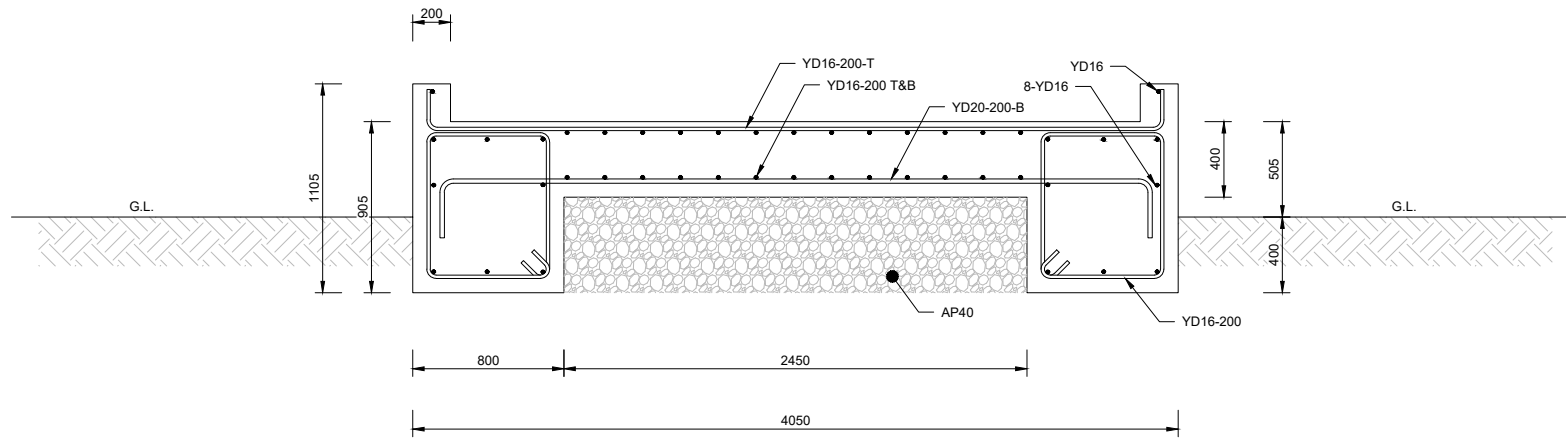
NOTES:

1. CONCRETE TO BE 30MPa
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3. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SHOWN
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8. CONNECT PFC 125x65 WITH FULL SIZE BUTT WELDS (FSBW) UNLESS OTHERWISE SHOWN
9. ALL STEEL WORK TO BE GALVANISED

Revision	Amendment	Approved	Revision Date
A	ISSUED FOR INFORMATION	S.L	22/11/2019

	Hamilton Office +64 7 838 9344	Private Bag 3057 Waikato Mail Centre Hamilton 3240	Project TIMBERLANDS LTD MURUPARA AND KAINGAROA WEIGH BRIDGE FOUNDATIONS
	Designed O.LANG	Approved S.LAWRENCE	Approved Date 22/11/2019
Drawn S.BOTHWELL	Scales AS SHOWN	Sheet WEIGH BRIDGE FOUNDATIONS PLAN AND ELEVATION	Project No. 2-63761.00
Original Sheet Size A1 [841x594]	Plot Date 2019-11-22 at 5:16:24 PM	Path G:\263000\63761.00 Timberlands Weigh Bridge Foundations\Drawings\Structural+AutoCAD\2-63761.00_S01-S03.dwg S01(A)	Sheet No. S01
			Revision A

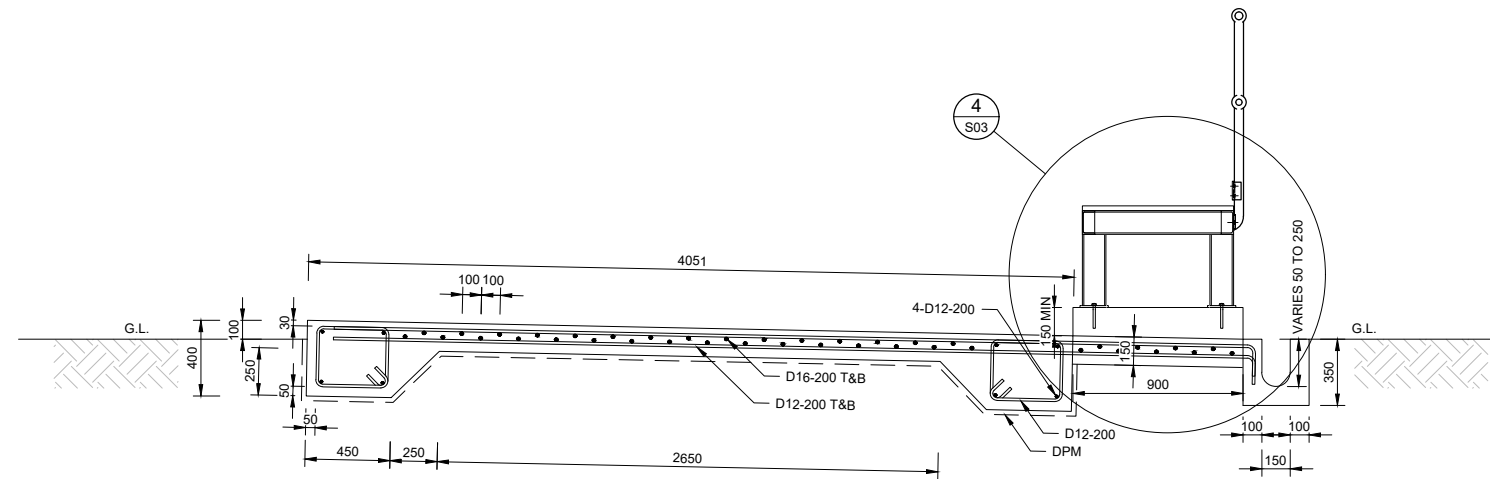
DRAFT FOR COMMENT



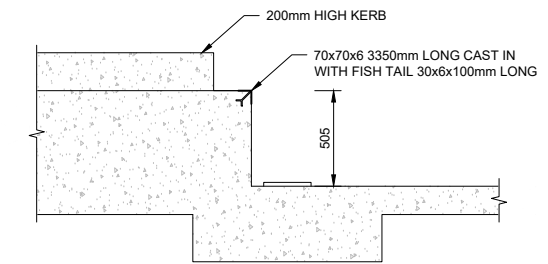
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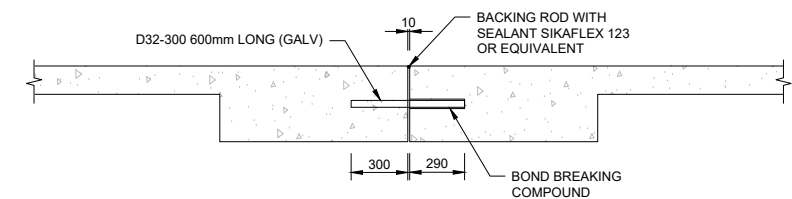
1 BEARING PLATE DETAIL RECESSED INTO SLOPE. FILL RECESS WITH NON SHRINK CEMENTITIOUS GROUT
S01 SCALE: 1:10(A1) 1:20(A3)



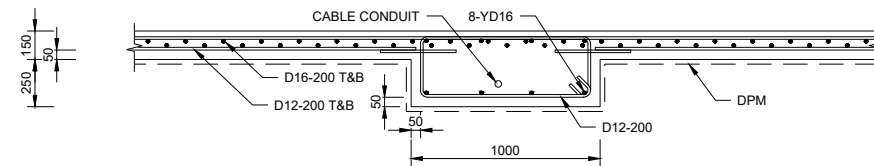
B SECTION
S01 SCALE: 1:20(A1) 1:40(A3)



2 DETAIL
S01 SCALE: 1:20(A1) 1:40(A3)



E SECTION
S01 SCALE: 1:20(A1) 1:40(A3)



C SECTION
S01 SCALE: 1:20(A1) 1:40(A3)

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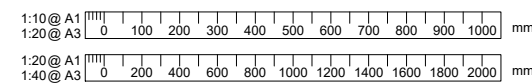
Designed	Approved	Approved Date
O.LANG	S.LAWRENCE	22/11/2019
Drawn	Scales	
S.BOTHWELL	AS SHOWN	

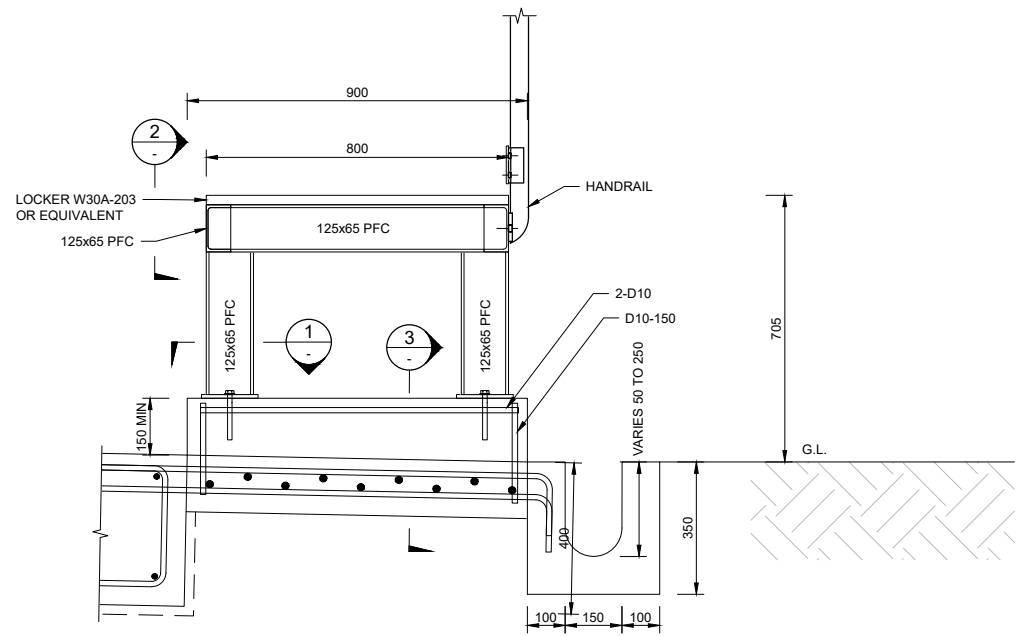
Project
TIMBERLANDS LTD
MURUPARA AND KAINGAROA
WEIGH BRIDGE FOUNDATIONS

Sheet
**WEIGH BRIDGE FOUNDATIONS
DETAILS**

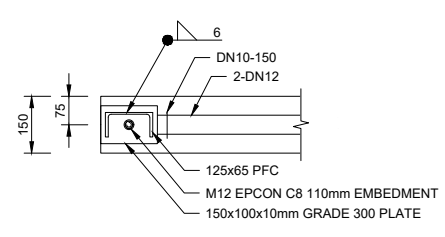
Project No.	Sheet No.	Revision
2-63761.00	S02	A

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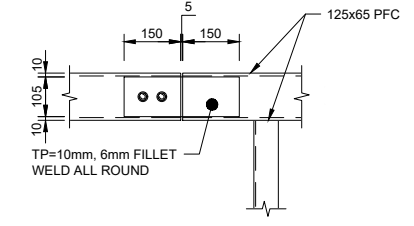




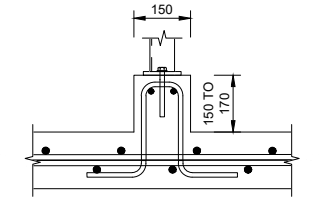
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S02 SCALE: 1:10(A1) 1:20(A3)



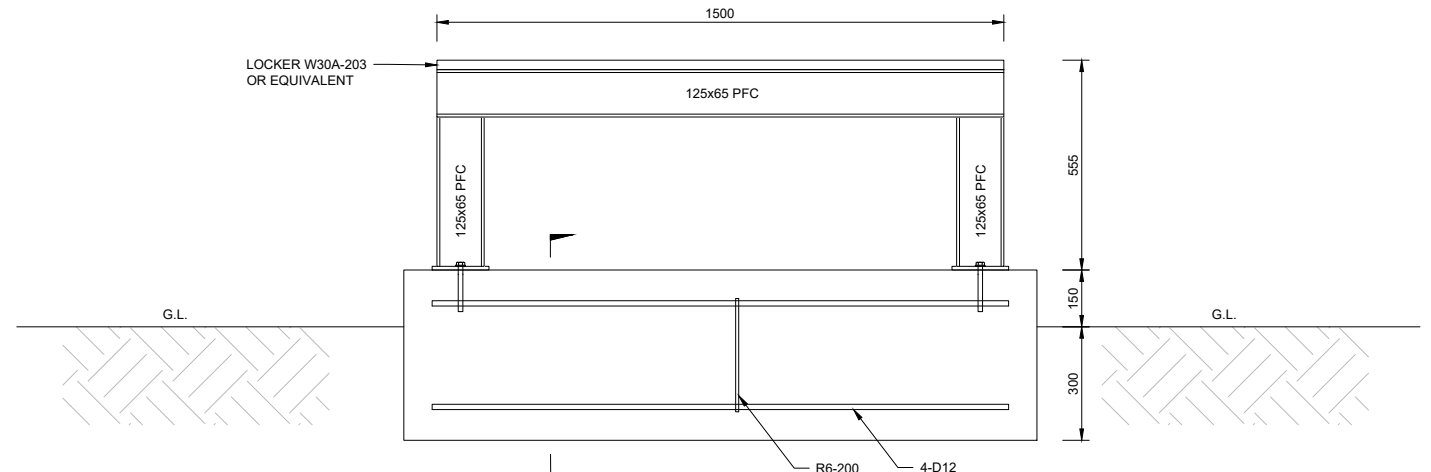
1 SECTION - BASE PLATE ON NIB
SCALE: 1:10(A1) 1:20(A3)



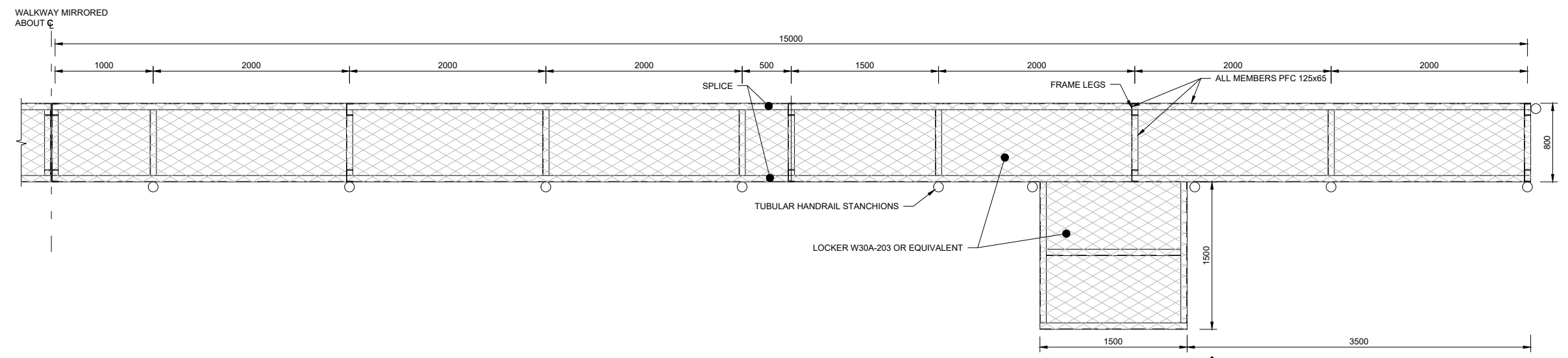
2 SECTION - AT SPLICE
SCALE: 1:10(A1) 1:20(A3)



3 SECTION - BASE PLATE ON NIB
SCALE: 1:10(A1) 1:20(A3)



5 SECTION
S03 SCALE: 1:10(A1) 1:20(A3)



PLAN - WALKWAY
SCALE: 1:25(A1) 1:50(A3)

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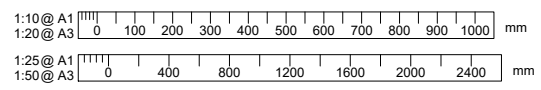
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Designed	Approved	Approved Date
O.LANG	S.LAWRENCE	22/11/2019
Drawn	Scales	
S.BOTHWELL	AS SHOWN	

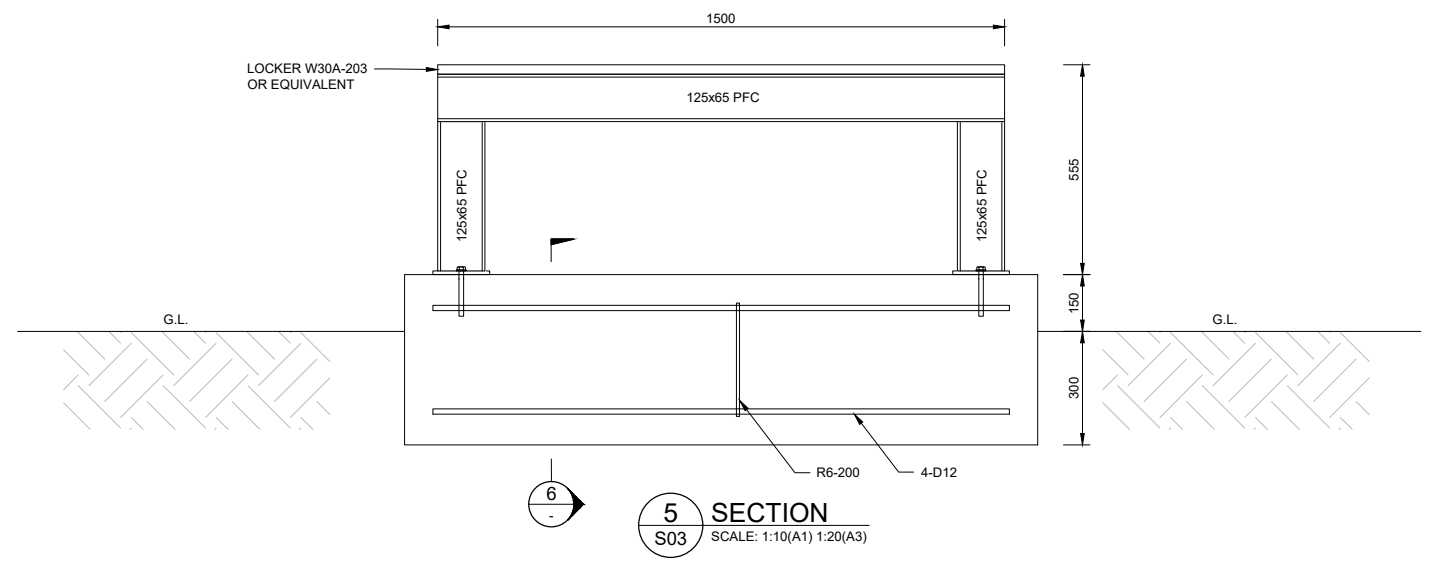
Project		TIMBERLANDS LTD MURUPARA AND KAINGAROA WEIGH BRIDGE FOUNDATIONS	
Sheet		WEIGH BRIDGE FOUNDATIONS WALKWAY DETAILS	
Project No.	Sheet No.	Revision	
2-63761.00	S03	A	

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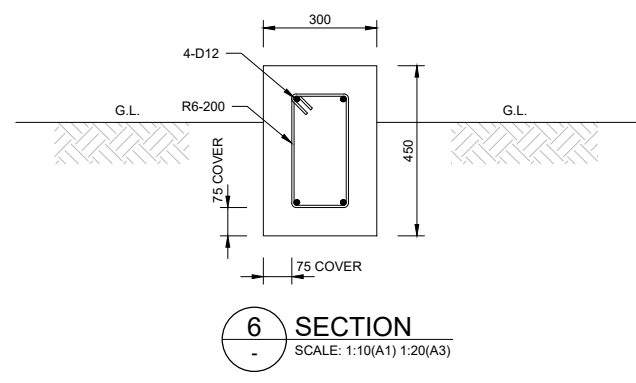
300 mm
200
100
50
0 10 mm



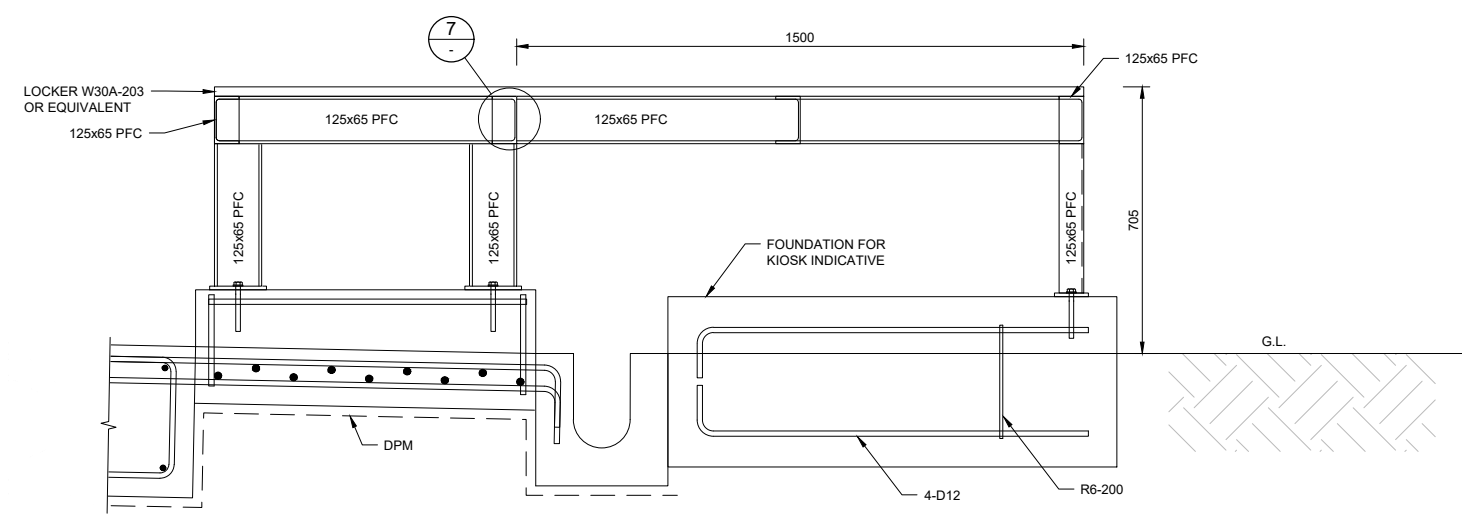
300 mm
200
100
50
0 10 mm



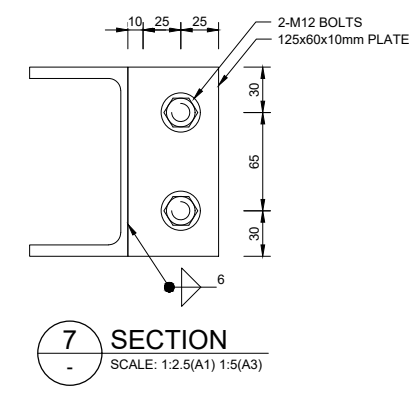
5 SECTION
S03 SCALE: 1:10(A1) 1:20(A3)



6 SECTION
SCALE: 1:10(A1) 1:20(A3)



D SECTION
S02 SCALE: 1:10(A1) 1:20(A3)



7 SECTION
SCALE: 1:2.5(A1) 1:5(A3)

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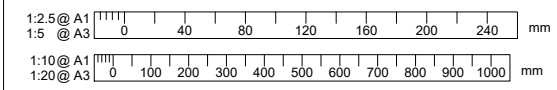


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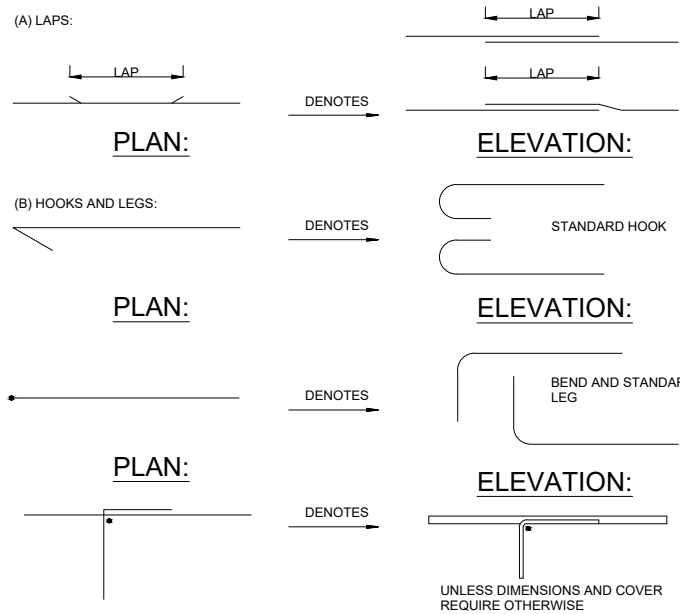
Project			Sheet	
TIMBERLANDS LTD MURUPARA AND KAINGAROA WEIGH BRIDGE FOUNDATIONS			WEIGH BRIDGE FOUNDATIONS KIOSK DETAILS	
Designed	Approved	Approved Date	Project No.	Sheet No.
O.LANG	S.LAWRENCE	22/11/2019	2-63761.00	S04
Drawn	Scales			Revision
S.BOTHWELL	AS SHOWN			A

DRAFT FOR COMMENT



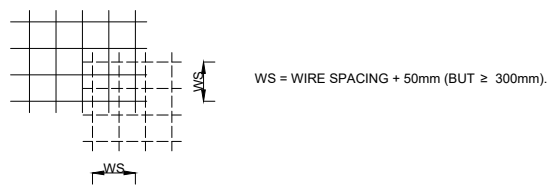
GENERAL NOTES:

- CHECK AND VERIFY SETOUT DIMENSIONS AND LEVELS ON-SITE BEFORE COMMENCING CONSTRUCTION.
- WHERE ALTERNATIVES ARE SHOWN ON THIS DRAWING, ELECT ONE AND APPLY THROUGHOUT THE WORK.
- METRIC DIMENSIONING :
THROUGHOUT THIS SET OF DRAWINGS THE FOLLOWING SET OF RULES APPLY.
A. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
B. DESCRIPTIONS WITH SINGLE MEASUREMENTS HAVE mm SYMBOLS. e.g. 25mm CENTRES.
C. DESCRIPTIONS WITH TWO OR MORE MEASUREMENTS HAVE NO mm SYMBOLS e.g. 900 x 300 BEAM.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS (e.g. ARCHITECTURAL, STRUCTURAL, BUILDING SERVICES, CIVIL etc.) AND THE SPECIFICATION.
- DETAILS ON THIS SHEET APPLY TO GRADE 300E AND 500E REINFORCING BARS TO AS/NZS 4671.
- ALL GRADE 500E REINFORCEMENT SHALL COMPLY WITH AS/NZS 4671 AND BE MANUFACTURED USING THE MICRO ALLOY PROCESS. QUENCH AND TEMPERED STEEL SHALL NOT BE USED ON THIS PROJECT.
- REPRESENTATION OF REINFORCING BARS ON DRAWINGS:

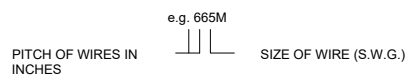


- REINFORCING BAR NOTATIONS:
D12-250 DENOTES 12mm DIA. GRADE 300E DEFORMED BARS AT 250mm CENTRES.
R12-250 DENOTES 12mm DIA. GRADE 300E PLAIN ROUND BARS AT 250mm CRS.
YD12-250 DENOTES 12mm DIA. GRADE 500E DEFORMED BARS AT 250mm CENTRES.
YR12-250 DENOTES 12mm DIA. GRADE 500E PLAIN BARS AT 250mm CENTRES.
RB12-200 DENOTES 12mm DIA. GRADE 500E 'REIDBARS' AT 200mm CENTRES

- WELDED SMOOTH WIRE MESH REINFORCEMENT TO BE LAPPED AS SHOWN BELOW:



- MESH REINFORCEMENT IS DESIGNATED ON THE DRAWINGS BY THE PITCHES OF THE WIRE IN INCHES FOLLOWED BY THE RESPECTIVE SIZE OF WIRE.



- LAPS: WHERE LAPS ARE NOT SHOWN ON THE DRAWINGS REINFORCEMENT IN WALLS AND SLABS ONLY MAY BE LAPPED AT RANDOM. CONFIRM LAP SPLICE REQUIREMENTS FOR ALL OTHER REINFORCED CONCRETE ELEMENTS.

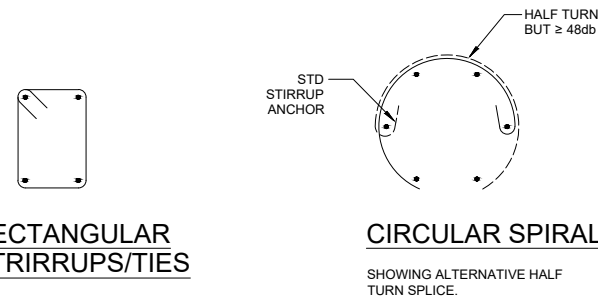
STANDARD ABBREVIATIONS

ALT.	ALTERNATIVE
BLKWK.	BLOCKWORK
B.	BOTTOM (REINF. ONLY)
BTM.	BOTTOM (NOT REINF.)
C.	CENTRAL
C.O.S.	CONFIRM ON SITE
C.J.	CONSTRUCTION JOINT
CVR.	COVER
db	NOM. BAR DIA. IN mm
D.	DEFORMED BARS (GRADE 300E)
DIM.	DIMENSION
D.P.C.	DAMP PROOF COURSE
D.P.M.	DAMP PROOF MEMBRANE
E.F.	EACH FACE
E.W.	EACH WAY
EXTG.	EXISTING
FF.	FAR FACE
FFL.	FINISHED FLOOR LEVEL
FL.	FLOOR
FDN.	FOUNDATION
INT.	INTERNAL
LAR.	LAPPED AT RANDOM
LEV.	LEVEL
MIN.	MINIMUM
N.F.	NEAR FACE
N.L.	NO LAPS
OPP.	OPPOSITE
R.	PLAIN ROUND BARS (GRADE 300E)
RB.	REIDBARS (GRADE 500E)
REINF.	REINFORCING
R.L.	REDUCED LEVEL
S.F.L.	STRUCTURAL FLOOR LEVEL
S.L.	STRUCTURAL LEVEL
STA.	STARTER
STD.	STANDARD
T.	TOP
THK.	THICK
THRU.	THROUGH
TRM.	TRIMMER
YD.	DEFORMED BARS (GRADE 500E)
YR.	ROUND BARS (GRADE 500E)
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U/S.	UNDERSIDE
V.L.	VARYING LENGTHS
XCRS.	CROSS CENTRES
≥	GREATER OR EQUAL
≤	LESS OR EQUAL

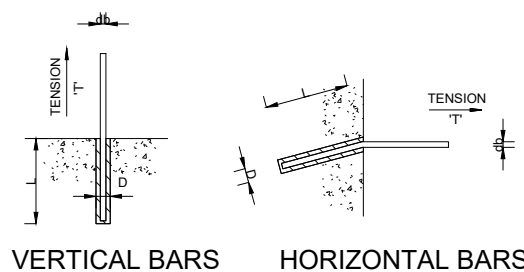
STIRRUPS/TIES FOR BEAMS AND COLUMNS

NOTES:

- FIRST BEAM TIE POSITION FLUSH WITH COLUMN FACE.
- ALL TIES TO BE PLAIN ROUND BARS UNLESS SPECIFICALLY NOTED.
- ALL NON WELDED BEAM TIES TO CLOSE IN TOP OF BEAMS UNLESS SPECIFICALLY NOTED.



RESIN BONDED DEFORMED REBAR

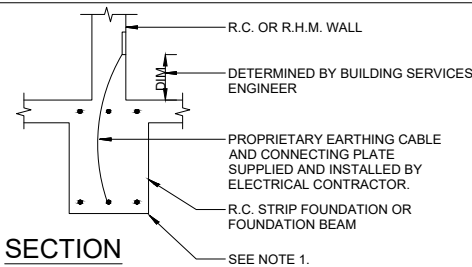


DEFORMED REINFORCEMENT ONLY					
db (DEFORMED BAR DIA. mm)	10	12	16	20	25
L (MIN. mm) FOR 500E	180	290	385	565	680
L (MIN. mm) FOR 300E	120	180	230	340	450
D (HOLE DIA. mm)	14	16	20	25	30

BASED ON MINIMUM CONCRETE STRENGTH OF 30MPa
BASED ON USE OF 'RAMSET' REO S02

HOLE DRILLED USING A PERCUSSION ROTARY DRILL. (IF DIAMOND DRILL IS USED, THE HOLE SHOULD BE SCABBLED. IF THE HOLE CANNOT BE SCABBLED THEN THE VALUES OF 'L' MUST BE REDUCED BY 50%) HOLE MUST BE THOROUGHLY CLEANED WITH COMPRESSED AIR IMMEDIATELY PRIOR TO GROUTING. PARTIALLY FILL HOLE WITH EPOXY RESIN, PLACE ROD AND TOP UP WITH RESIN IF NECESSARY.

ELECTRICAL EARTH



SECTION

NOTES:

- WHERE REINFORCEMENT IN FOUNDATION IS GRADE 300E, WELD TO ONE LOW LEVEL MAIN LONGITUDINAL REINFORCING BAR (CENTRAL WHERE POSSIBLE). MAIN LONGITUDINAL FOUNDATION BARS TO BE WELDED AT LAPS AND OTHER FOUNDATION JUNCTIONS TO FORM A CONTINUOUS ELECTRICAL LOOP. LENGTH OF LOOP TO BE DETERMINED BY THE BUILDING SERVICES ENGINEER REFER TO THE ELECTRICAL SPECIFICATION FOR FURTHER INFORMATION.
- WHERE REINFORCEMENT IN THE FOUNDATION IS GRADE 500E PROVIDE AN ADDITIONAL BAR FOR ELECTRICAL EARTH. DO NOT WELD ANY STRUCTURAL GRADE 500E REINFORCEMENT.

CONCRETE COVERS TO NZS 3101 : PART 1 : 2006

	INSITU	PRECAST
NOT EXPOSED TO WEATHER	35mm	25mm
EXPOSED TO WEATHER	45mm	40mm
SLAB, WALLS OR ROOF INTERIOR OR EXTERIOR	50mm	40mm
CAST AGAINST GROUND	75mm	-

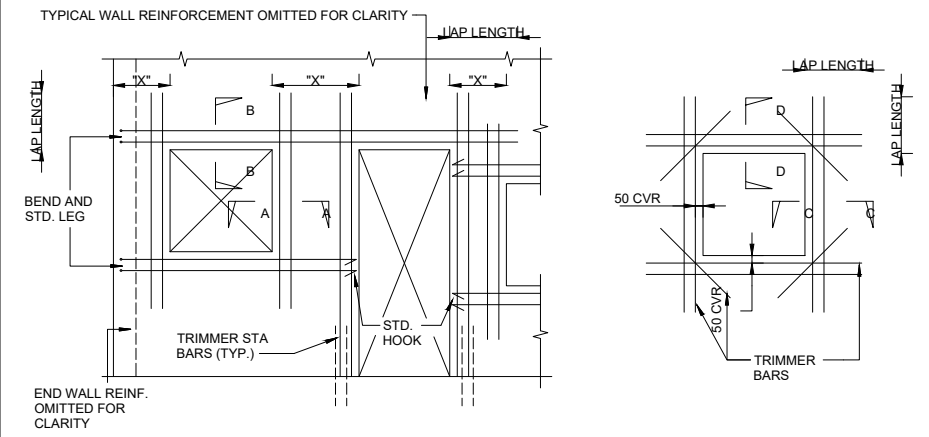
NOTE: REMAINDER OF COVERS TO CONFORM TO NZS 3101 : PART 1 : 2006.

REINFORCING LAP LENGTHS

BAR SIZE (db mm)	LAP (mm)	BAR SIZE (db mm)	LAP (mm)
YD10	650	D10	450
YD12	800	D12	500
YD16	1050	D16	650
YD20	1300	D20	800
YD25	1650	D25	1000
YD32	2100	-	-

- THESE TABLES ARE FOR DEFORMED BARS ONLY.
- THESE TABLES ARE BASED ON 25MPa CONCRETE WITH αa=1.3, αb=1.0, αc=1.0 AND αd=1.0.
- WHERE THERE IS LESS THAN 300mm OF CONCRETE BENEATH THE BARS, THE TABLED LAP LENGTH MAY BE REDUCED BY 1.3.

WALL OPENING TRIMMING REINFORCEMENT

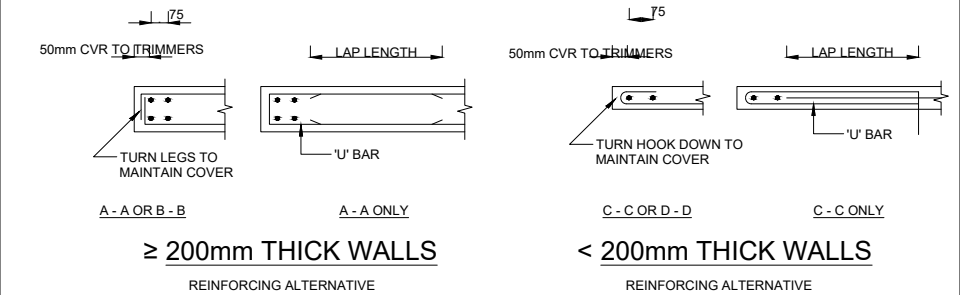


ELEVATION

REINFORCING DETAIL VARIATION FOR CLOSE-SPACED OPENINGS AND PERPENDICULAR END-WALLS

ELEVATION

ISOLATED OPENINGS



NOTES:

- ALL TRIMMING BARS TO BE YD16 BARS.
- PROVIDE 1 LAYER OF TRIMMING BARS FOR EACH LAYER OF WALL STEEL.
- DIAGONAL YD16 TRIMMING BARS ONLY REQUIRED WHEN WALL THICKNESS IS LESS THAN 200mm AND GREATER THAN 150mm.
- WHERE DIM. 'X' IS LESS THAN 1.5m. EXTEND AND TERMINATE BOTH HEAD AND SILL TRIMMERS AS SHOWN.
- TRIMMERS NOT REQUIRED FOR ISOLATED OPENINGS WHERE THE OPENING DIMENSIONS ARE LESS THAN THE WALL REINFORCEMENT SPACING.
- WHERE OPENING DIMENSION EXCEEDS 1m, REFER TO ENGINEER FOR CONFIRMATION OF TRIMMING REQUIREMENTS.

NOTE: UNLESS OTHERWISE SPECIFIED OR DETAILED ON THE DRAWINGS, THESE STANDARD DETAILS AND NOTES SHALL APPLY. INCLUSION OF THIS SHEET DOES NOT IMPLY THAT ALL THE DETAILS OCCUR IN THIS CONTRACT.

DRAFT FOR COMMENT

Revision	Amendment	Approved	Revision Date
A	ISSUED FOR INFORMATION	S.L.	22/11/2019



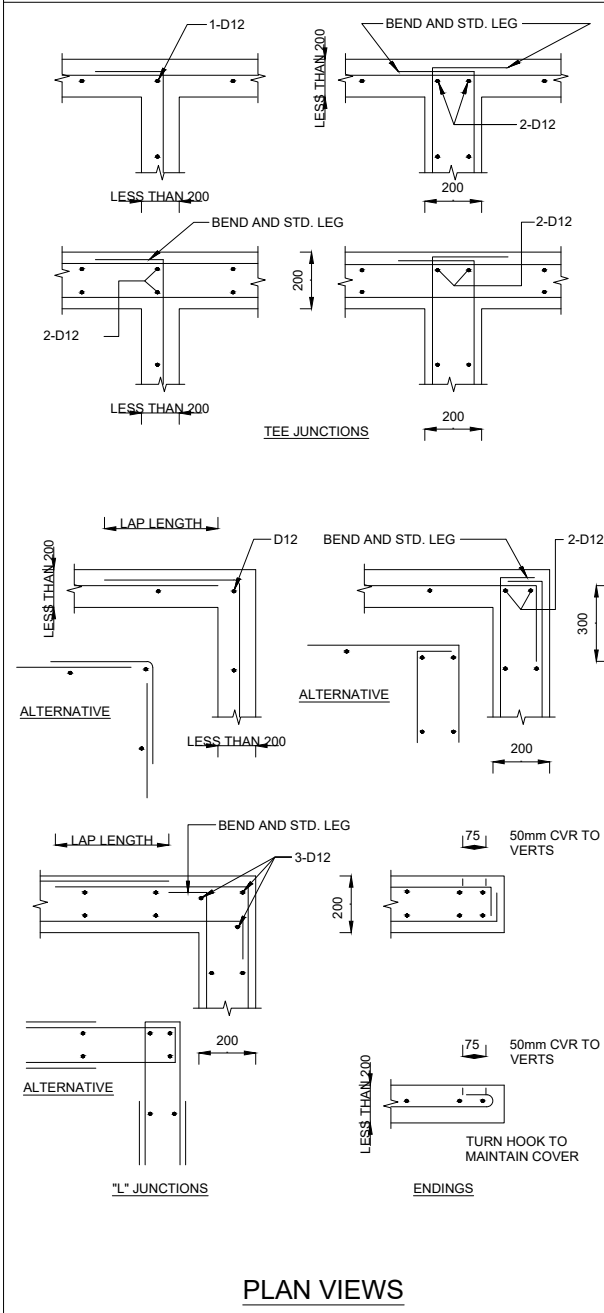
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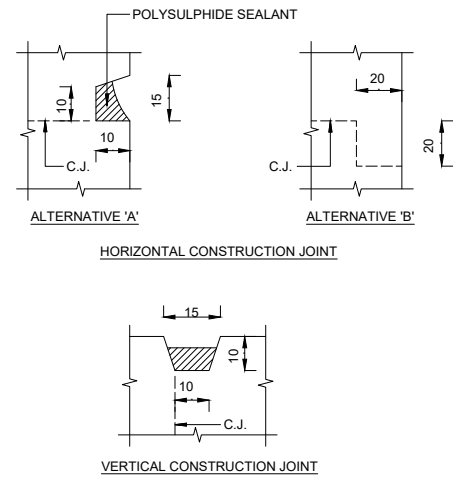
Designed	Approved	Approved Date
O.LANG	S.LAWRENCE	22/11/2019
Drawn	Scales	
S.BOTHWELL	AS SHOWN	

Project		
TIMBERLANDS LTD MURUPARA AND KAINGAROA WEIGH BRIDGE FOUNDATIONS		
Sheet		
WEIGH BRIDGE FOUNDATIONS TYPICAL DETAILS - REINFORCED CONCRETE - SHEET 1		
Project No.	Sheet No.	Revision
2-63761.00	S06	A

**WALL JUNCTIONS AND ENDINGS:
WALLS ≤ 200mm WITH MIN. REINFORCEMENT**



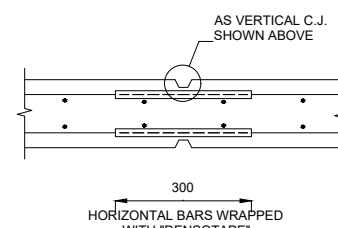
WALL CONSTRUCTION JOINTS



NOTE:

1. ALL CONSTRUCTION JOINTS (CJ) TO BE TYPE 'B' AS PER NZS 3109 U.N.O.
2. REFER TO JOB STRUCTURAL DRAWINGS FOR CJ LOCATIONS. WHERE NOT INDICATED, REFER TO SPECIFICATION.

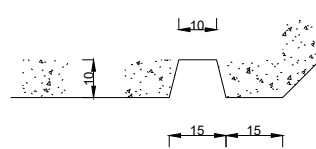
WALL SHRINKAGE JOINT



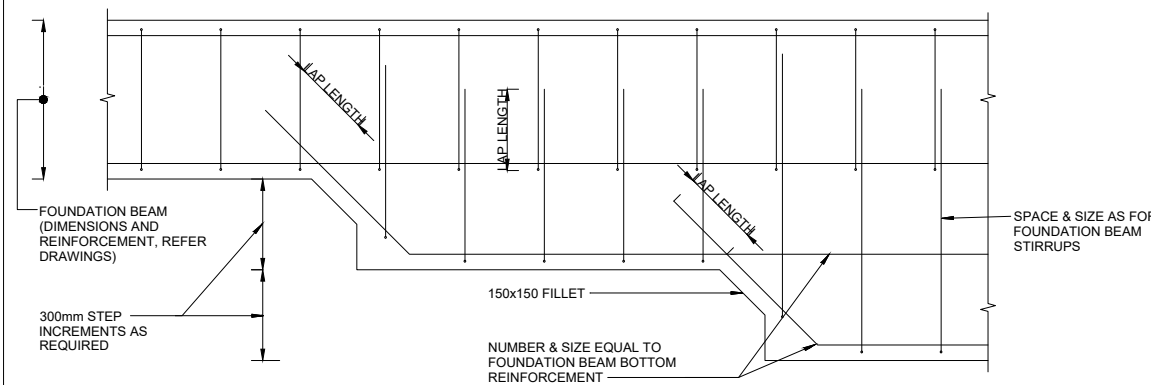
NOTE:

1. WHERE REQUIRED SHRINKAGE CONTROLS WILL BE SPECIFICALLY INDICATED ON THE DRAWINGS.

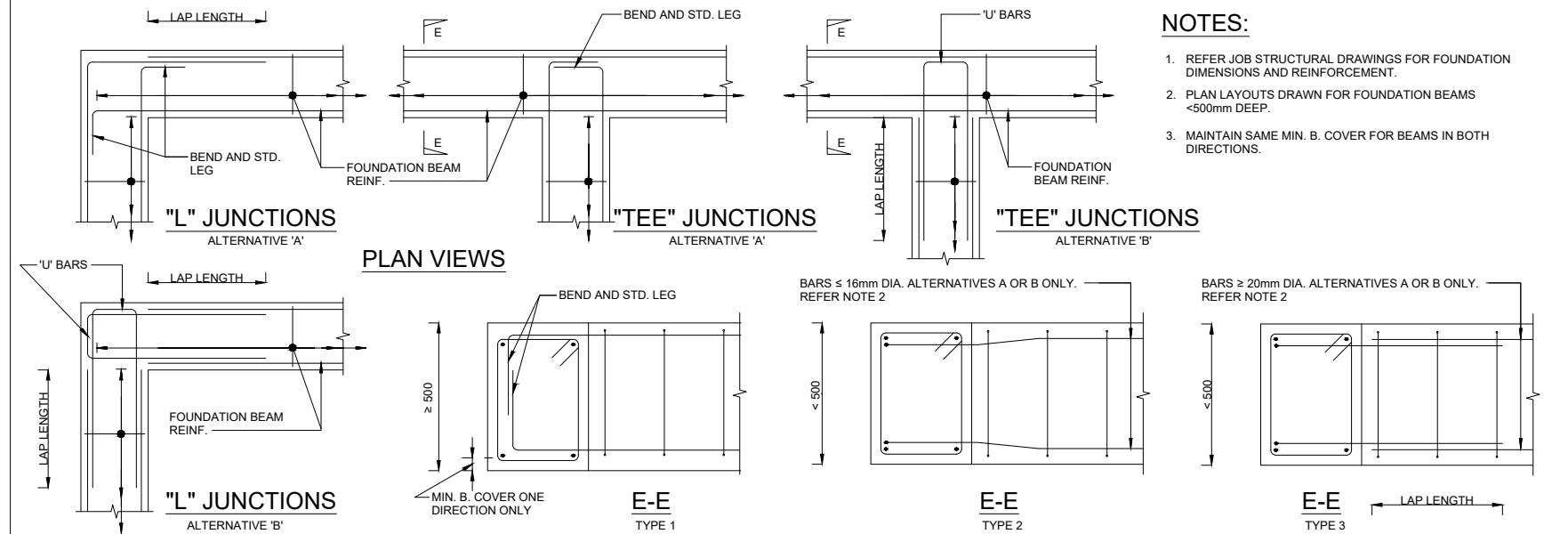
DRIP DETAIL



FOUNDATION BEAM: STEP DETAILS



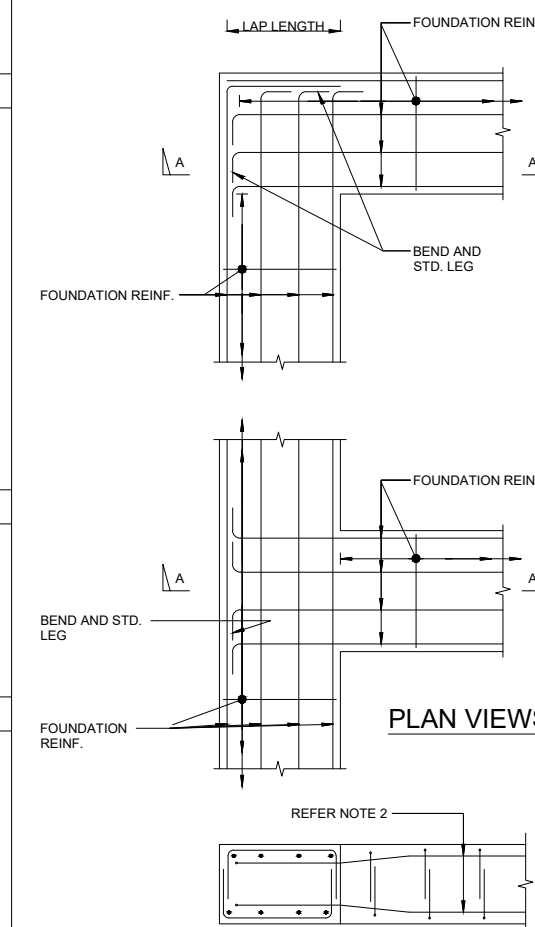
FOUNDATION BEAMS: JUNCTIONS



NOTES:

1. REFER JOB STRUCTURAL DRAWINGS FOR FOUNDATION DIMENSIONS AND REINFORCEMENT.
2. PLAN LAYOUTS DRAWN FOR FOUNDATION BEAMS <500mm DEEP.
3. MAINTAIN SAME MIN. B. COVER FOR BEAMS IN BOTH DIRECTIONS.

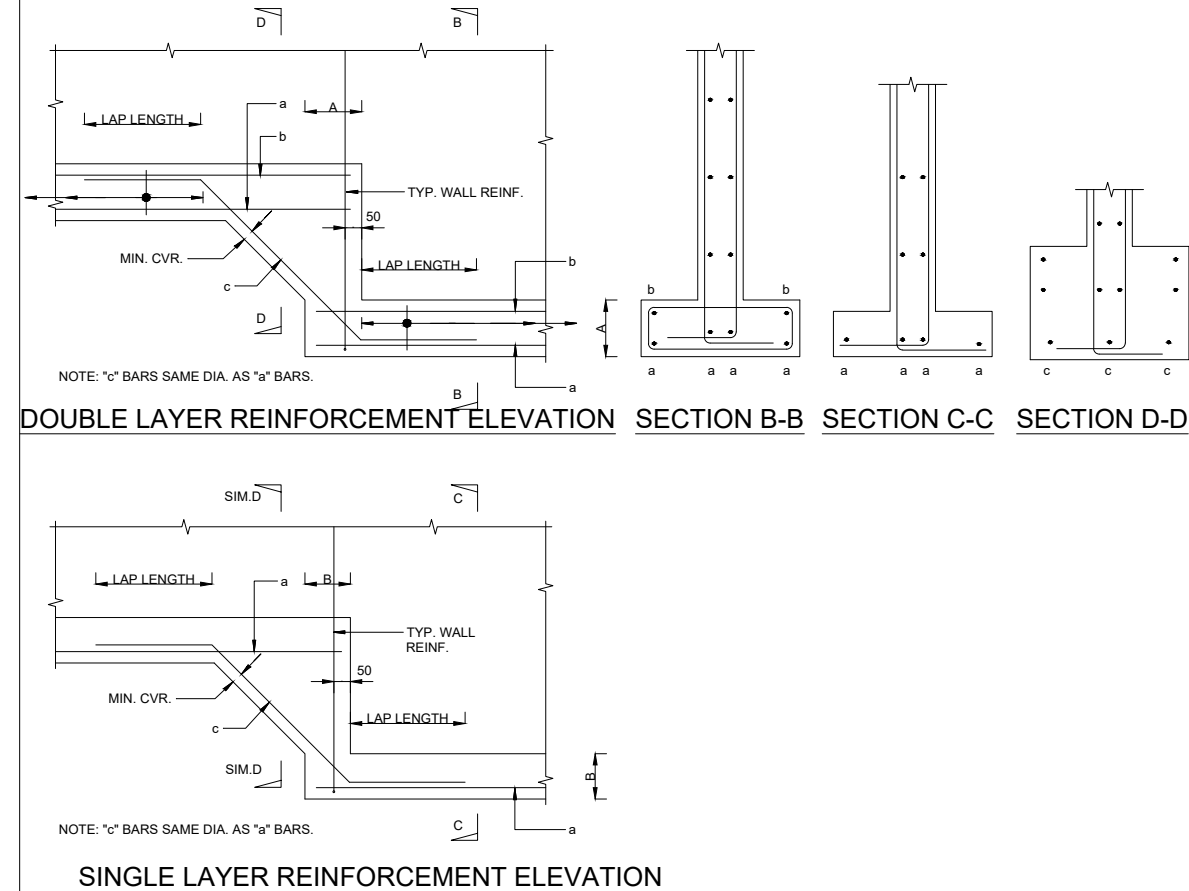
STRIP FOUNDATIONS: JUNCTIONS



NOTE:

1. REFER JOB STRUCTURAL DRAWINGS FOR FOUNDATION DIMENSIONS AND REINFORCEMENT.
2. SPACE OUT LONGITUDINAL REINF., AWAY FROM INTERSECTION, TO RE-ESTABLISH DESIGNATED MINIMUM T & B COVER.
3. FOUNDATION JUNCTIONS OTHER THAN RIGHT ANGLES, SIMILAR TO ABOVE.

STRIP FOUNDATIONS: STEP DETAILS



NOTE: UNLESS OTHERWISE SPECIFIED OR DETAILED ON THE DRAWINGS, THESE STANDARD NOTES SHALL APPLY. INCLUSION OF THIS SHEET DOES NOT IMPLY THAT ALL DETAILS OCCUR IN THIS CONTRACT

DRAFT FOR COMMENT

Revision	Amendment	Approved	Revision Date
A	ISSUED FOR INFORMATION	S.L.	22/11/2019



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Designed	Approved	Approved Date
O.LANG	S.LAWRENCE	22/11/2019
Drawn	Scales	Project No.
S.BOTHWELL	AS SHOWN	2-63761.00

Project		
TIMBERLANDS LTD MURUPARA AND KAINGAROA WEIGH BRIDGE FOUNDATIONS		
Sheet		
WEIGH BRIDGE FOUNDATIONS TYPICAL DETAILS - REINFORCED CONCRETE - SHEET 2		
Sheet No.	Revision	Project No.
S07	A	2-63761.00

GENERAL NOTES:	SECTION - BACK MARKS AND GAUGE				DESIGNATION OF STEELWORK SECTIONS			ABBREVIATIONS																																																														
<p>1. CHECK AND VERIFY SETOUT DIMENSIONS AND LEVELS ON-SITE BEFORE COMMENCING CONSTRUCTION.</p> <p>2. UNLESS SHOWN OTHERWISE, ALL BASE PLATES SHALL BEAR DIRECTLY ON 20 ± 5mm NON SHRINK GROUT.</p> <p>3. WASHERS : SPECIFIED WASHERS, TAPERED WHERE NECESSARY, ARE TO BE USED UNDER NUTS AND/OR TURNING BOLT HEADS.</p> <p>4. UNLESS SHOWN OTHERWISE, ALL FILLET WELDS ARE TO BE 6mm. MINIMUM S.P. CONTINUOUS AROUND THE CONNECTED PIECES.</p> <p>5. ALL HOLLOW SECTION MEMBERS ARE TO BE CAPPED AND ALL JOINTS SEALED.</p> <p>6. THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS (e.g. ARCHITECTURAL, STRUCTURAL, BUILDING SERVICES, CIVIL etc.) AND THE SPECIFICATION.</p>			<table border="1"> <thead> <tr> <th rowspan="2">FLANGE WIDTH mm</th> <th colspan="2">XCRS. OR GAUGE</th> <th rowspan="2">FLANGE WIDTH mm</th> </tr> <tr> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>228 TO 320</td> <td>140</td> <td>55</td> <td>100</td> </tr> <tr> <td>165 TO 209</td> <td>90</td> <td>55</td> <td>90</td> </tr> <tr> <td>135 TO 150</td> <td>70</td> <td>45</td> <td>75</td> </tr> <tr> <td>-</td> <td>-</td> <td>35</td> <td>65</td> </tr> </tbody> </table>		FLANGE WIDTH mm	XCRS. OR GAUGE		FLANGE WIDTH mm	A	B	228 TO 320	140	55	100	165 TO 209	90	55	90	135 TO 150	70	45	75	-	-	35	65	<table border="1"> <thead> <tr> <th>SYMBOL OR ABBREVN.</th> <th>DESCRIPTION</th> <th>EXAMPLE</th> </tr> </thead> <tbody> <tr> <td></td> <td>U.B. UNIVERSAL BEAM</td> <td>200UB30</td> </tr> <tr> <td></td> <td>U.C. UNIVERSAL COLUMN</td> <td>200UC46</td> </tr> <tr> <td></td> <td>TFB. TAPER FLANGE BEAM</td> <td>125 TFB.</td> </tr> <tr> <td></td> <td>TFC. TAPER FLANGE CHANNEL</td> <td>100 TFC.</td> </tr> <tr> <td></td> <td>PFC. PARALLEL FLANGE CHANNEL</td> <td>180 PFC.</td> </tr> <tr> <td></td> <td>E.A. EQUAL ANGLE</td> <td>80x10 EA</td> </tr> <tr> <td></td> <td>U.A. UNEQUAL ANGLE</td> <td>100x75x6UA</td> </tr> <tr> <td></td> <td>RECT. HOLLOW SECTION</td> <td>75x50x5 RHS.</td> </tr> <tr> <td></td> <td>SQUARE HOLLOW SECTION</td> <td>75x75x5 SHS. or 75x5 SHS.</td> </tr> <tr> <td></td> <td>CIRCULAR HOLLOW SECTION</td> <td>76 O.D. x 4 CHS</td> </tr> <tr> <td></td> <td>PLATE</td> <td>375x185x10 PL.</td> </tr> <tr> <td></td> <td>FLAT</td> <td>80x10 FL.</td> </tr> </tbody> </table>			SYMBOL OR ABBREVN.	DESCRIPTION	EXAMPLE		U.B. UNIVERSAL BEAM	200UB30		U.C. UNIVERSAL COLUMN	200UC46		TFB. TAPER FLANGE BEAM	125 TFB.		TFC. TAPER FLANGE CHANNEL	100 TFC.		PFC. PARALLEL FLANGE CHANNEL	180 PFC.		E.A. EQUAL ANGLE	80x10 EA		U.A. UNEQUAL ANGLE	100x75x6UA		RECT. HOLLOW SECTION	75x50x5 RHS.		SQUARE HOLLOW SECTION	75x75x5 SHS. or 75x5 SHS.		CIRCULAR HOLLOW SECTION	76 O.D. x 4 CHS		PLATE	375x185x10 PL.		FLAT	80x10 FL.	<p>CENTRE TO CENTRE CROSS CENTRES COUNTERSUNK CONFIRM ON SITE DIAMETER DIA. (M.S. ROD ONLY) EXISTING GENERAL PURPOSE HOT DIPPED GALVANISED HEXAGON HOLDING DOWN (BOLTS) INSIDE DIAMETER LEVEL MILD STEEL M.S. NUMBER OUTSIDE DIAMETER OVERALL PITCH CIRCLE DIAMETER PROJECTION RADIUS SETTING OUT POINT SPECIAL PURPOSE STAINLESS STEEL THICK UNDERSIDE UNLESS NOTED OTHERWISE</p> <p>C/C XCRS. CSK. C.O.S. DIA. Ø EXTG. G.P. H.D. GALV. HEX. H.D. I.D. LEV. M.S. No. O.D. O/A P.C.D. PROJN. RAD. S.O.P. S.P. S.S. THK. U/S U.N.O.</p>	
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<p>1. ALL WELD SYMBOLS SHOWN ON THIS SHEET AND ON THE STRUCTURAL DWGS. ARE IN ACCORDANCE WITH AS 1101.3:2005</p> <p>2. ALL WELDS TO BE CLASS SP UNLESS NOTED OTHERWISE.</p> <p>3. ALL WELDING SHALL COMPLY WITH AS 1554.</p>																																																																						

WELDING NOTES:

THE 'ALL ROUND' SYMBOL TAKES PRECEDENCE AND REQUIRES THAT THE WELD IS CONTINUOUS AROUND THE CONNECTED COMPONENTS.

COMMON WELD SYMBOLS

	FILLET WELD ARROW SIDE		BEVEL BUTT WELD ARROW SIDE
	FILLET WELD OTHER SIDE		BEVEL BUTT WELD OTHER SIDE
	FILLET WELD BOTH SIDES		BEVEL BUTT WELD BOTH SIDES
	VEE BUTT WELD ARROW SIDE		VEE BUTT WELD BOTH SIDES
	VEE BUTT WELD OTHER SIDE		
	F.S.B.W. FULL STRENGTH BUTT WELD : COMPLETE PENETRATION BUTT WELD WITH SEALING RUN OR BACKING STRIP IF SEALING RUN IS NOT POSSIBLE.		

COMMON SUPPLEMENTARY WELD SYMBOLS

WELD ALL ROUND
WELD SIZE
WELD LENGTHS
GAP LENGTH BETWEEN WELDS
GRIND WELD FLUSH

BOLT MIN. EDGE DISTANCES & PITCHES

MINIMUM EDGE DISTANCE FOR BOLTS:
(WHERE - D = BOLT DIA. AND EDGE DISTANCE IS MEASURED FROM 1/4 OF BOLT HOLE.)

END EDGE DISTANCE = 2D

SIDE EDGE DISTANCE = 1.25D FOR ROLLED EDGE
= 1.5D FOR PLATE, MACHINED FLAME CUT, SAWN OR PLANED EDGE
= 1.75D FOR SHEARED OR HAND FLAME CUT EDGE

BOLT PITCH: STANDARD = 70mm

HOLES:

FOR BOLTED JOINTS = 2mm DIA. GREATER THAN THE BOLT DIA.

FOR H.D. BOLTS = 1.22D WHEN STANDARD WASHERS ARE USED OR 1.33D WHEN SPECIAL FABRICATED WASHERS ARE USED

SLOTTED HOLES = 2D + 2mm (MINIMUM LENGTH)

HOLE AND BOLT SYMBOLS

D = BOLT DIAMETER IN mm

HOLES	PLAN	COUNTERSUNK NEAR SIDE	COUNTERSUNK FAR SIDE
BOLTS	SECTION		
SLOTTED HOLES	PLAN		$-2D + 2mm$ U.N.O.

PORTAL FRAME - WELDED KNEE JOINTS

NOTE: ALL PORTAL FRAME KNEE JOINT WELDS SHOWN ARE TO BE CLASS G.P

REFER TO DETAIL SHEETS FOR SIZES OF FLANGES AND STIFFENER PLATES.

HOLLOW SECTION - SLEEVED HOLE DETAIL

STEEL TUBE
SET TUBE IN CSK. HOLE AND WELD ALL ROUND. WELD TO BE GROUND FLUSH
RHS

TYPICAL PURLIN CLEATS AND BRACING SYSTEM

6mm PLATE MIN.
R.H.S.

NOTES:

- REFER TO DETAIL DRAWINGS FOR PURLIN AND BRACING SIZE, SPACING AND BRACING SYSTEM LAYOUT.
- PURLIN CLEATS TO MANUFACTURERS DATA FROM 8mm M. S. PLATE, UNLESS DETAILED OTHERWISE.
- FILLET WELD CLEATS TO RAFTER. FIX PURLINS WITH M16 GRADE 4.6 BOLTS UNLESS NOTED OTHERWISE.

PORTAL FRAME - WELDED APEX JOINT

WELD ACROSS FULL THICKNESS OF PLATE
SPLAY TO SUIT 30° MAX.
FULL STRENGTH BUTT WELD
STIFFENER PLATE EACH SIDE
3 SIDES
UB OR UC
FULL STRENGTH BUTT WELD

NOTE: ALL PORTAL FRAME APEX JOINT WELDS SHOWN ARE TO BE CLASS S.P.

NOTE: UNLESS OTHERWISE SPECIFIED OR DETAILED ON THE DRAWINGS, THESE STANDARD DETAILS AND NOTES SHALL APPLY. INCLUSION OF THIS SHEET DOES NOT IMPLY THAT ALL THE DETAILS OCCUR IN THIS CONTRACT.

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