

# SPECIFICATION-OF-INTENT

ISSUED FOR  
DEVELOPMENT APPROVAL  
COMPRISING OF  
PROVISIONAL DEVELOPMENT PLAN CONSENT  
PROVISIONAL BUILDING RULES CONSENT

**\*MISCION PTY LTD**

**STRUCTURAL DESIGN**

Maitland, South Australia

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\*also T/A Roy Harrison & Associates

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**Example No - 1748**

AUGUST 2005

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for  
**PROPOSED CANOPY**  
**ST AGNES**

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**EXAMPLE**

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9/03/2016

# DRAWING INDEX & DOCUMENT STATUS

SPECIFICATION—OF—INTENT

NOTES  
1) S/S = superseded document.

DRAWING NUMBER	TITLE	DOCUMENT REVISION ASSOCIATED WITH (RoV)															RECORD OF VARIANCE (RoV)	
		0																No.
1738/G00	GENERAL	A															0	Original Design Concept.
1738/G01	DRAWING INDEX	A																
1738/G02	GENERAL NOTES	A																
1738/G03	CONCRETE NOTES	A																
	STEEL NOTES	A																
1738/S01	STRUCTURAL	A																
1738/S02	SCHEDULE OF MATERIALS	A																
1738/S03	SITE PLAN	A																
1738/S04	FOOTING LAYOUT	A																
1738/S05	FRAMING PLAN	A																
	ELEVATIONS (1)	A																

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STRUCTURAL  
DRAWING INDEX

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SIZE	DRAWING NUMBER	REVISION
A4	1748/G00	A

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SPECIFICATION-OF-INTENT

1. This specification is written on the understanding that construction is carried out in South Australia (SA) and irrespective of the size of a building project the majority of building contractors and/or sub-contractors are or are expected to be familiar with the South Australian Housing Code (SAHC), and if not then the main builder shall ensure supervision by someone that is so familiar with the SAHC and the South Australian Development Act (SADA) and Regulations.
2. The Building Code of Australia (BCA) is adopted as the primary reference specification for objective, function and performance.
3. The South Australian Housing Code (SAHC) is adopted as a specification of acceptable product and process unless noted otherwise.
4. The project specific specification-of-intent comprises of the documents listed on drawing # 1748/G00
5. This project specification takes precedence over the BCA and the SAHC unless the BCA imposes higher levels of performance.
6. The scope of the SAHC is extended to the BCA class of the current building project subject to:
  - a) The SAHC shall not be used for the sizing of Structural members

GENERAL

1. All materials and workmanship shall be in accordance with the latest editions of the relevant Australian codes unless noted otherwise (uno).
2. The structural drawings shall be read in conjunction with these Construction Notes and associated drawings, and with such other written instructions as may be issued by the Engineer, during the course of construction.
3. The structure has been designed to meet the requirements of the Code or Standard relevant to the facility in its in-service condition. During construction and prior to hand-over the Contractor shall, at all time, ensure that the structure is protected from over-stressing and instability due to any causes whatsoever.
4. The Contractor shall verify setting out dimensions shown on the drawings by measurement on site.

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BASIS OF DESIGN

1. Structure Importance Level : 2 (Normal)
2. Design wind loading  
 Region = Region A  
 Terrain category = TC3  
 Annual probability of Design Wind Event being Exceeded : 1/500  
 Mean Return Period R = 500 years  
 Regional Wind Speed V[R,u] = 45 m/s
3. Design live loading  
 Roof = 0.25 kPa
4. A maximum allowable bearing pressure of 100kPa has been assumed. Confirm the foundation material with the Engineer prior to placing concrete. Refer any discrepancy to the Engineer for a decision before proceeding.
5. Footings shall be placed centrally under walls and columns uno.

GROUND WORKS

1. Fill material to be inorganic, nonperishable material with a sulphur content NOT exceeding 0.5% within 500 mm of concrete structures or masonry unless such elements are protected by impermeable membranes or equivalent means, to be obtained from suitable sources.
2. General fill shall be well graded with a, - particle size 75 mm max. - plasticity index 55% max.
3. Select fill shall have a:
  - particle size 75 mm max.
  - 75 micron sieve: 15% max. (proportion passing)
  - plasticity index 6% max.
  - liquid limit 25% max.
4. The ground surface shall be prepared before placing fill, ground slabs or load bearing elements. All loose material, debris and organic matter shall be removed. The ground shall be compacted to achieve the required density.
5. The moisture content shall be adjusted to achieve the required density or moisture content of the fill before compaction.
6. Surfaces shall be finished to required level, grade and shape within the following tolerances:
  - below slabs and loadbearing elements: +0, -25 mm.
  - other ground surfaces: ±50 mm, (the area shall remain free draining and match abutting construction).
7. The finish shall be as smooth as normally achieved by a scraper blade.
8. Fill shall be placed in layers and compacted to the dimensions, levels, grades, and cross sections so that the surface is always self draining.
9. Fill shall be placed in layers of maximum layer thickness not exceeding 200mm (loose).
10. All external areas shall be graded to fall away from buildings with a minimum 1:100 fall.

SPECIFICATION-OF-INTENT

- NOTES
- 1) This document supersedes all previous versions.
  - 2) All dimensions in millimetres unless noted otherwise.
  - 3) Refer to index G00.
  - 4) Refer to project specific drawings for schedule of materials, incorporating both member schedule and connection schedule.
  - 5) Refer to schedule of materials for member sizes.
  - 6) Refer to connection schedule for size of connection components.

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**STRUCTURAL**  
**GENERAL NOTES**

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A4	1748/G01	A	

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CONCRETE

1. All workmanship and materials shall be in accordance with relevant codes.
2. Reinforcement grade symbols designation and yield stress:
  - (a) R/SL – Ductility Class L reinforcing mesh yield strength = 500 MPa
  - (b) N – Ductility Class N deformed bars to yield strength = 500 MPa
  - (c) L – Ductility Class L deformed bars yield strength = 500 MPa
  - (d) R – plain round bars to min yield stress = 230 MPa

The number immediately following the bar symbols L, N, and R represents the nominal bar diameter in mm. The number following the RL or SL symbol is the fabric size coding.
3. Fabric splices shall be staggered to ensure no more than three fabric thicknesses occur at any one point. Concrete cover shall be maintained where fabric splices occur.
4. Splices in reinforcement made in positions other than shown shall be approved. Where the lap length is not shown it shall be sufficient to develop the full strength of the reinforcement and shall be 40 bar diameters uno.
5. Slab reinforcement shall be firmly supported on plastic or concrete (of same grade as matrix) chairs. SL72 mesh may require additional support bars. Each beam ligature shall be secured to a bar in each corner of the ligature.
6. Sizes of concrete elements do not include thickness of applied finishes.
7. Construction joints where not shown shall be to the approval of the Engineer. All construction joints shall be scabbled and thoroughly cleaned of loose material before placing fresh concrete.
8. Where joints are to be saw cut, cutting shall take place within 24 hours of concrete placement.
9. Refer to service drawings, hydraulic, electrical and mechanical for cable and pipe penetrations. No holes or chases other than those shown on the structural drawings shall be made in concrete elements without the prior approval of the Engineer.
10. Curing shall commence as soon as the exposed surface of the concrete has hardened, to prevent damage, but in no case later than two hours after the finishing operation has been completed. The curing method shall be in accordance with relevant standards as approved. Curing compounds shall not be used without prior approval.
11. Bondek shall be installed in accordance with the manufacturer’s instructions. Sheets to have 50mm minimum bearing onto end supports and 100mm onto internal supports.
12. Bondek shall be propped at the frequency indicated on the drawings or in accordance with the manufacturer’s instructions so as to minimise permanent deflections developing during construction
13. Concrete quality shall be as tabulated and shall be verified by tests

Concrete Element	Exposure Class'n	Class/Grade	Slump mm	Aggregate Size mm	Cement Type
Footing Piers & Pads	A2	N20	80	20	GP
Footing Beams	by others	--	--	--	--
Floor Slabs	by others	--	--	--	--

14. Clear concrete cover:

Element	Cover (mm)
Floor Slabs	20mm Top, 30mm Bottom
Footing Beams	45mm Top 40mm Sides & Bottom (without Damp Proof Membrane) 30mm Sides & Bottom (with Damp Proof Membrane)

15. External concrete to sites within 1km of the sea shall be N40 grade concrete, or within 50kms N32 concrete, where the surfaces are exposed (eg verandahs, balconies, carports etc) or shall be protected with a suitable topping, sealer, tiles etc.

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STRUCTURAL STEELWORK

1. All workmanship and materials shall be in accordance with relevant codes.
2. Details of component parts of each structure are typical only. Where items are not detailed the contractor or fabricator shall use similar methods to those shown on the drawings.
3. Steel beams shall be fabricated with natural camber up.
4. All shop and field welds shall be continuous fillet uno. The size shall be the lesser of: – 6mm or the thickness of the thinner element joined.
5. Fillet welds shall be of General–Purpose (GP) classification uno, 25% shall be visually examined as nominated, in accordance with relevant codes.
6. Butt welds shall be complete penetration type and shall be Special Purpose (SP) classification. Testing of butt welds shall be carried out by an approved method in accordance with relevant codes.
7. Bolt designation:
  - (a) 4.6/S refer to commercial bolts grade 4.6, tightened using a standard wrench to a snug–tight condition.
  - (b) 8.8/S refer to high strength structural bolts of grade 8.8 tightened using a standard wrench to a snug–tight condition.
  - (c) 8.8/TB refer to HSSB or 8.8 fully tensioned as specified
8. All bolts shall be 8.8/S uno.
9. A minimum of 2–M16 8.8/S bolts and an 8mm thick cleat shall be used at each connection uno.
10. Bolts to purlins and girts shall be 2–M12 8.8/S uno.
11. Bolts in slotted holes shall be "finger tight" and supplied with lock nuts.
12. The contractor shall provide all cleats and holes for fixing to steel, timber and other components as required by the engineering and architectural drawings whether or not shown.
13. Seal weld a 3mm plate to the ends of all hollow sections uno.
14. All damage to protective coatings as a result of transport, welding or other building operations shall be repaired in accordance with relevant codes as approved.
15. Grout under base plates, and fill to pockets shall be approved prior to placing and shall be to the thickness shown on the drawings.
16. Cold–formed steel purlins shall have a minimum coating mass of 350 gm/sq.mtr ( Z350 ).
17. Purlins, girts, studwork, etc shall be manufactured from continuously galvanised steel strip, and shall be supplied complete with all fittings. They shall be erected in accordance with the manufacturer’s printed instructions and as indicated on the drawings.
18. Welds to cold–formed sections shall be continuous fillet M.I.G. welds of a size equal to the thinnest section of the material joined, wire brushed and coated with zinc silicate paint.

19. Surface treatment and coating:

Element	Surface Treatment	Treatment or Coating
All steel fitments including Hold Down Bolts, Nuts & Washers, Cast–in steel items, external steelwork walkways & Hand–railing	. . Chemical Treatment . .	. . Hot Dip Galvanising . .
All other steelwork . .	Grit blast to near white metal finish . .	Inorganic Zinc Silicate with average thickness 85 microns . .

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STEEL NOTES

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SIZE DRAWING NUMBER REVISION

A4 1748/G03 A

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# SCHEDULE OF MATERIALS

SPECIFICATION - OF - INTENT

MEMBER SCHEDULE									CONNECTION SCHEDULE					
MEMBER	MARK	SIZE	MATERIAL (grades)	LENGTH	WEIGHT	QTY	DWG	REFERENCE	CONNECTION END 1			CONNECTION END 2		
									MARK	LOCATION	REFERENCE	MARK	LOCATION	REFERENCE
POSTS	PS	90 x 90	MGP 10	--	--	--	--	--	JNT1	BASE	PM05/1	JNT2	TOP	PM04/2
RAFTERS LONG	R1	140 X 45	MGP 10	--	--	--	--	--	JNT3	FASCIA	PM07/3	JNT5	RIDGE	PM04/5
RAFTERS SHORT	R2	140 X 45	MGP 10	--	--	--	--	--	JNT3	FASCIA	PM07/3	JNT5	RIDGE	PM04/5
COLLAR TIE	CT	2/ 90 x 45	MGP 10	--	--	--	--	--	JNT4	LEFT	PM04/4	JNT4	RIGHT	PM04/4
FASCIA BEAM	FB	190 x 45	MGP 10	--	--	--	--	--	--	POST	Refer Post	--	RAFTER	Refer Rafter
RIDGE BEAM	RB	190 x 45	MGP 10	--	--	--	--	--	--	RAFTER	Refer Rafter	--	--	--
PURLINS	PU	45 x 70	MGP 10	--	--	--	--	--	JNT6	supports	PM04	--	--	--
STIFFENER PLATE	ST	90 x 45	MGP 10	--	--	--	--	--	--	RAFTER	PM06/6	--	--	--
TIE-DOWN	TD	30 x 0.8 STEEL STRAP	G300	--	--	--	--	--	--	TOP	S05/7	--	BOTTOM	S05/7

CONNECTION SCHEDULE			
MARK	FITMENT/S	FASTENER	DWG
JNT1	--	CAST INTO PIER	PM05
JNT2	--	2 M10-4.6/S BOLTS + WASHERS	PM04
JNT3	--	2 No. 14 TYPE 17 Screws 90mm Long	PM07
JNT4	--	1 M10-4.6/S BOLTS + WASHERS	PM04
JNT5A	--	2 No. 14 TYPE 17	PM04
JNT5B	--	1 M10-4.6/S BOLTS + WASHERS	PM04
JNT6	--	No. 14 BUGLE SCREW 95mm Long	PM04

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FITTINGS & FITMENTS SCHEDULE				
FITTING/FITMENT	MARK	ITEM	MATERIAL	DWG
GUTTERS	--	125x125		
DOWNPIPES	DP	150x50		
ROOF CLADDING	--	CORRUGATED PROFILE	POLYCARB	

NB: This is only a partial summary and description of material requirements. To assimilate full specification of requirements all drawings and written specifications should be consulted.

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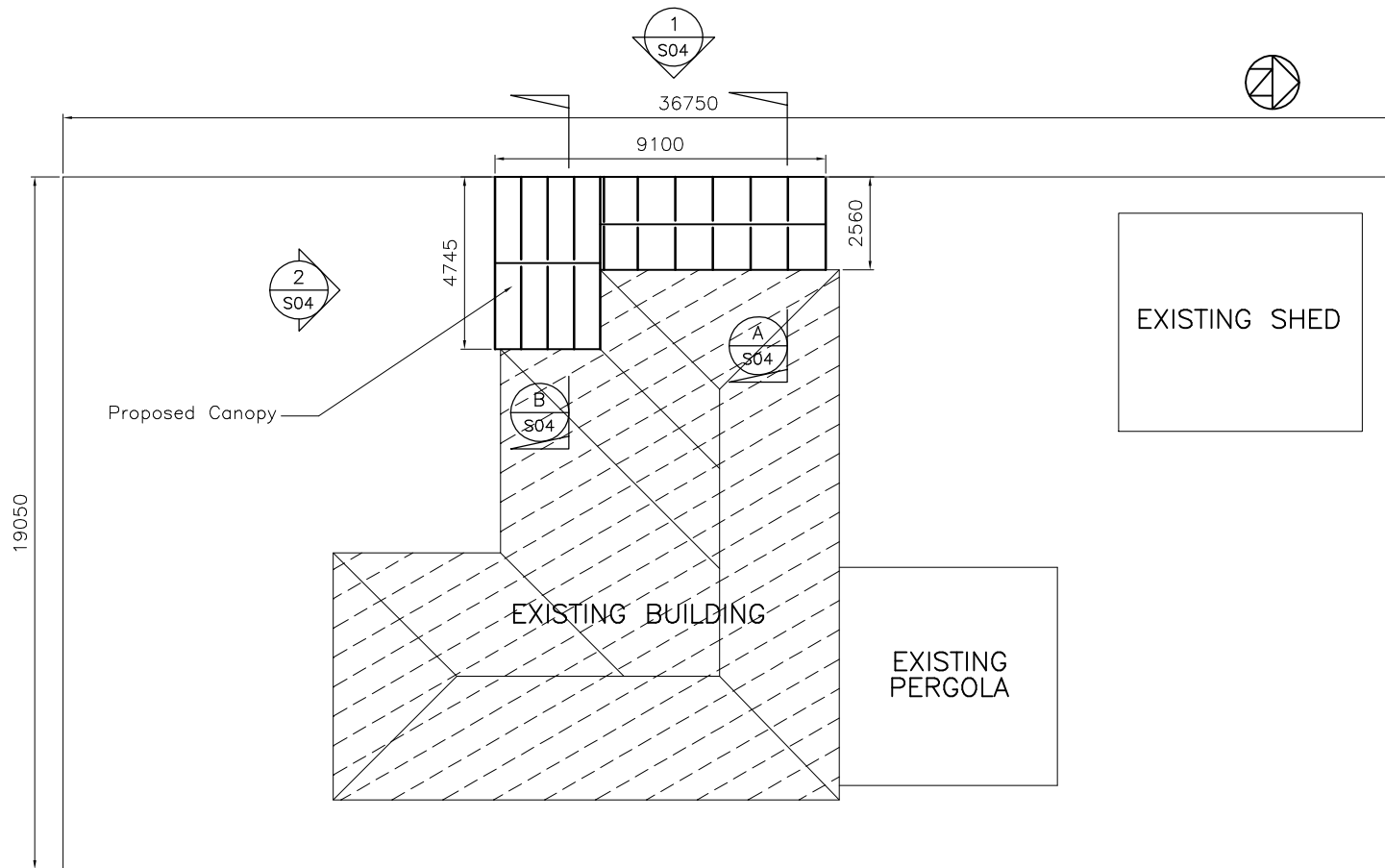
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**STRUCTURAL**  
**MATERIAL SCHEDULE**

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FP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
WP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
FP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56



SITE PLAN  
1:200

Area of proposed canopy:  
29.63m<sup>2</sup>

NB: Site dimensions are approximate only. Fabricator and builder shall confirm all dimensions before commencing work.

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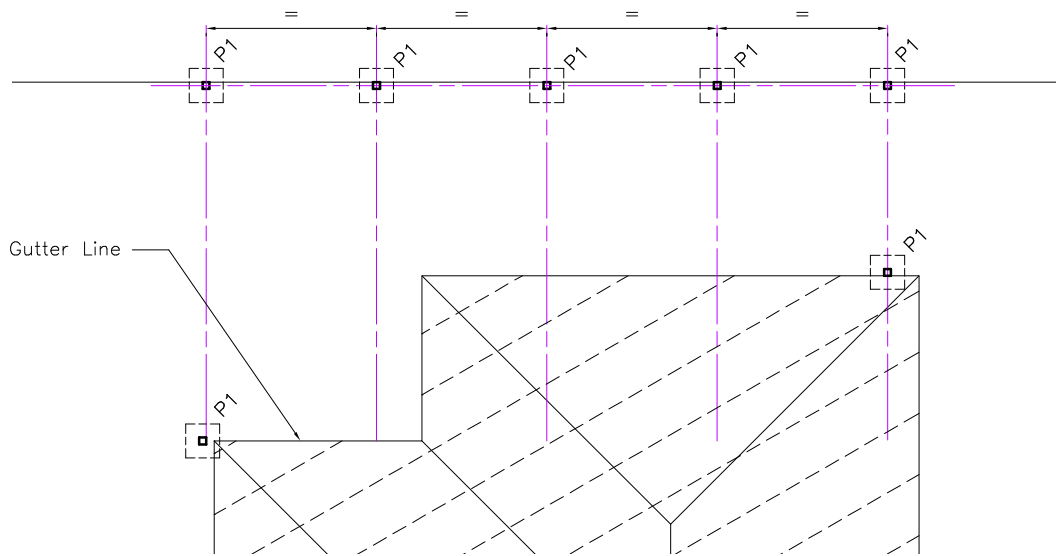
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STRUCTURAL  
SITE PLAN

DRAWN		LJS/SCH	
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A4	1748/S02	A	

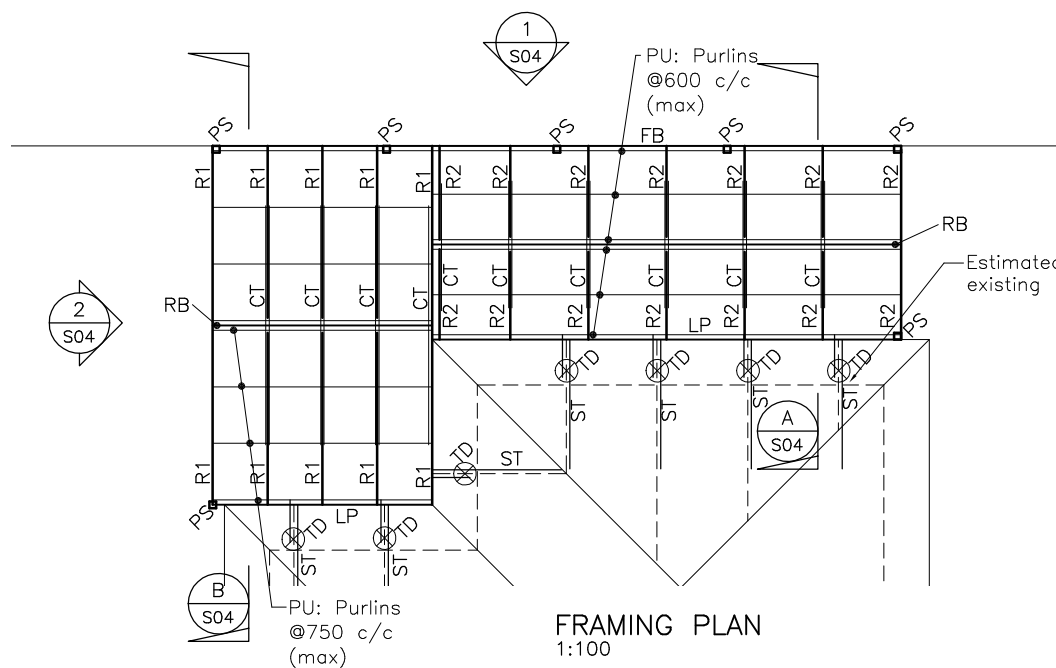
### FOOTING SCHEDULE

P1 (450x450x600 DEEP  
CONCRETE PIER)



FOOTING LAYOUT  
1:100

NB: TIE DOWN EVERY  
RAFTER. OPENINGS  
SHOULD NOT CONSUME  
MORE THAN 30% OF WALL  
AREA.



FRAMING PLAN  
1:100

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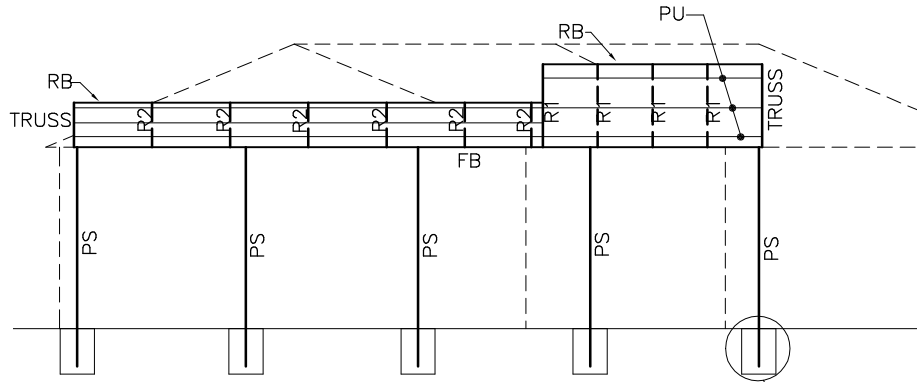
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STRUCTURAL  
FOOTING LAYOUT

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SCALE	as shown DO NOT SCALE
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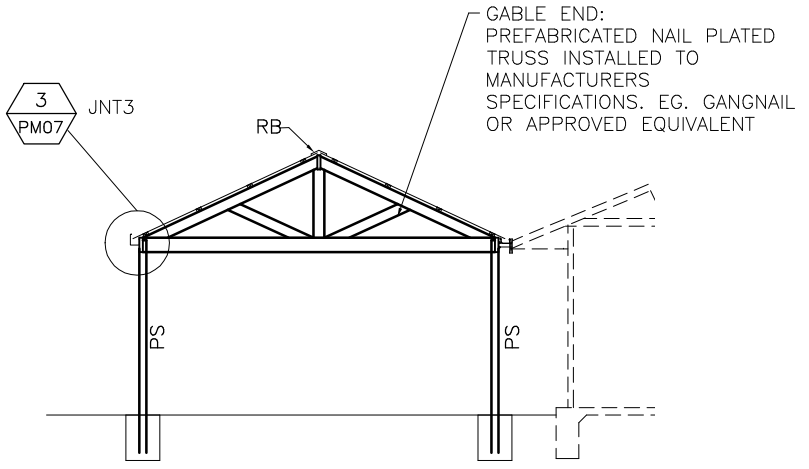
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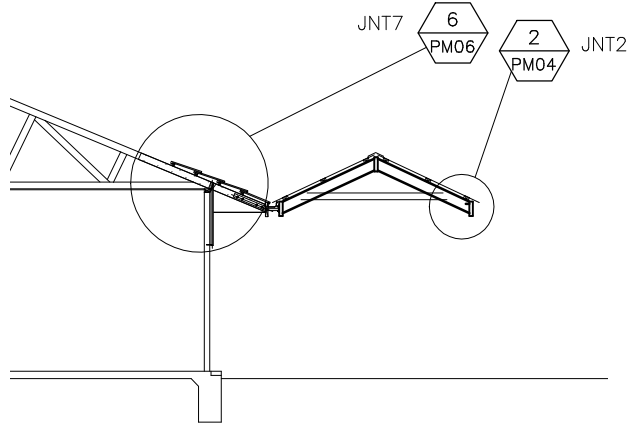
ELEVATION  $\frac{1}{S02}$   $\frac{1}{S03}$   
1:100

1 JNT1  
PM05



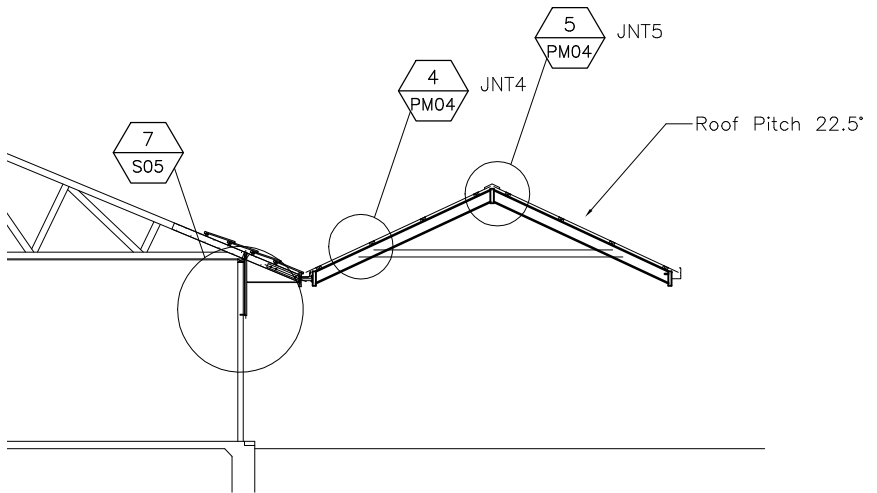
ELEVATION  $\frac{2}{S02}$   $\frac{2}{S03}$   
1:100

GABLE END:  
PREFABRICATED NAIL PLATED  
TRUSS INSTALLED TO  
MANUFACTURERS  
SPECIFICATIONS. EG. GANGNAIL  
OR APPROVED EQUIVALENT



SECTION  $\frac{A}{S02}$   $\frac{A}{S03}$   
1:100

posts behind not shown for clarity



SECTION  $\frac{B}{S02}$   $\frac{B}{S03}$   
1:100

posts behind not shown for clarity

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FRAMING PLAN

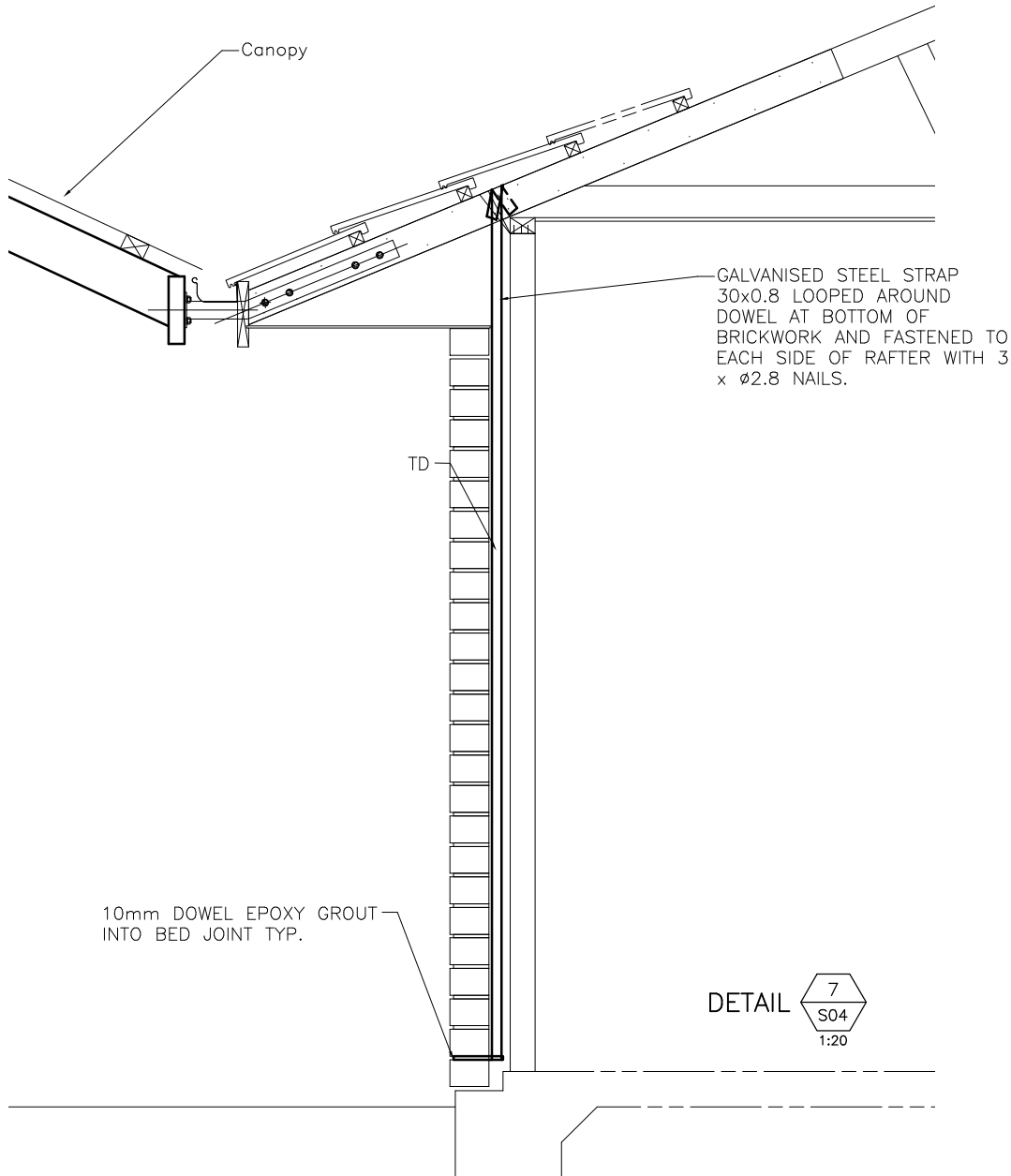
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NB: For rafter strengthening and ledger plate connection refer to PM/06. For Tie Down refer to this drawing 1748/S05.

DETAIL 7  
S04  
1:20

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ELEVATIONS (1)

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