PROPOSED STEEL SHED DEVELOPMENT AT:
52 BOUNDARY ROAD COLDSTREEM

GENERAL

1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS.

2. THESE ENGINEERING DRAWINGS HAVE BEEN PREPARED FROM INFORMATION AVAILABLE AT THE TIME, AS INFORMATION MAY BE SUBJECT TO CHANGE PRIOR TO OR DURING CONSTRUCTION, THE CONTRACTOR IS REQUESTED TO ADVISE THE ENGINEER WHERE DIFFERENCES OCCUR.

3. THESE DRAWINGS SHALL NOT BE USED FOR FINAL SET OUT OF THE PROJECT UNLESS SPECIFICALLY STATED.

   ALL WORKS SHALL COMPLY WITH THE CURRENT, RELEVANT SAA CODES AND THE BUILDING CODE OF AUSTRALIA. THE FOLLOWING RELEVANT STANDARDS SHALL BE READ AS PART OF THESE GENERAL NOTES AND COPIES SHALL BE KEPT ON SITE WITH THE CONTRACTUAL DOCUMENTS:

   AS 1554 - SAA WELDING CODE (ALL PARTS)
   AS 1684 - SAA NATIONAL TIMBER FRAMING CODE (ALL PARTS)
   AS 1720 - SAA TIMBER CODE (ALL PARTS)
   AS 2870 - SAA RESIDENTIAL SLABS AND FOOTINGS
   AS 3600 - SAA CONCRETE STRUCTURES CODE
   AS 3610 - SAA FORMWORK FOR CONCRETE CODE
   AS 3700 - SAA MASONRY STRUCTURES CODE
   AS 3798 - SAA GUIDELINES FOR EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS
   AS 4100 - SAA STEEL STRUCTURES CODE
   AS 4600 - SAA COLD-FORMED STEEL STRUCTURE
   NCC 2019 - NATIONAL CONSTRUCTION CODE

4. WHERE ADDITIONAL CONSTRUCTION LOADS SUCH AS MOBILE CRANES ETC. ARE TO BE IMPOSED ON THE STRUCTURE, THE CONTRACTOR SHALL PROVIDE FULL DETAILS OF THE PROPOSED TEMPORARY SUPPORTS TO THE ENGINEER FOR APPROVAL, A MINIMUM OF 7 DAYS PRIOR TO THE PROPOSED WORKS COMMENCING.

5. SPECIFICATIONS OR INSTRUCTIONS ON DRAWINGS TAKE PRECEDENCE OVER THESE NOTES.

6. DO NOT SCALE FROM DRAWINGS.

7. DESIGN PARAMETERS ADOPTED FOR THIS PROJECT ARE AS FOLLOWS:

WIND LOADS	
REGION	A5
TERRAIN CATEGORY	3
SHIELDING Ms	1
GUST WIND SPEED Vu	46m/s
TOPOGRAPHY Mt	1.0
IMPORTANCE MI	1.0

EARTHQUAKE LOADS (AS1170.2007)	
SITE SUB CLASS	Ce
HAZARD FACTOR Z	0.08
BCA IMPORTANCE LEVEL	2.0
PROBABILITY FACTOR, Kp	1.0
EDC	II

SUPERIMPOSED DEAD LOADS (kPa)	
RETAIL	2.0
OFFICE	2.0
RESIDENTIAL	0.5
ROOF	0.9
LOADING DOCK	0.5
TERRACES	2.0
CARPARK	0.5

LIVE LOADS (kPa)	
RETAIL	5.0
OFFICE	4.0
RESIDENTIAL	1.5
ROOF	0.25
LOADING DOCK	7.5
NON-TRAFFICABLE ROOF	0.25
TERRACES	4.0
CARPARK	2.5

8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND ADJACENT STRUCTURES IN A STABLE CONDITION. NO PART OF THESE STRUCTURES SHALL BE OVERSTRESSED UNDER CONSTRUCTION ACTIVITIES.

9. ALL PROPS AND FORMWORK FOR FLOOR BEAMS AND SLABS SHALL BE REMOVED BEFORE CONSTRUCTION OF ANY MASONRY WALLS OR PARTITIONS ON THE FLOOR.

10. ALL NON LOAD-BEARING WALLS SHALL BE KEPT 20mm CLEAR OF THE UNDERSIDE OF SLABS AND BEAMS UNLESS NOTED OTHERWISE.

11. NO PENETRATION, DRILLING OR CHASING IN STRUCTURAL ELEMENTS IS PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

12. ALL PROPRIETARY PRODUCTS SPECIFIED ON THESE DRAWINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. ALTERNATIVE EQUIVALENT PRODUCTS MAY ONLY BE USED WITH THE APPROVAL OF THE ENGINEER.

13. CONTRACTOR SHALL SUBMIT TO THIS OFFICE CONSTRUCTION METHODOLOGY, INCLUSIVE OF ALL TEMPORARY ERECTION STRUCTURE PRIOR TO THE COMMENCEMENT OF STEEL INSTALLATION.

14. IT IS A REQUIREMENT THAT ALL BUILDING MATERIALS USED AND INSTALLED ON THE PROJECT MUST BE COMPLIANT WITH THE NATIONAL CONSTRUCTION CODE, THE BUILDING CODE OF AUSTRALIA, THE AUSTRALIAN STANDARDS AND ANY OTHER APPLICABLE LAWS OR REGULATIONS.

15. THE APPROVAL OF ANY SUBSTITUTION BY THE ENGINEER IS NOT AN AUTHORIZATION FOR AN EXTRA. ANY EXTRAS INVOLVED MUST BE TAKEN UP WITH THE CLIENT AND/OR PROJECT MANAGER BEFORE WORK COMMENCES.

16. THE CONTRACTOR AND/OR SUB-CONTRACTORS ARE RESPONSIBLE FOR VERIFYING ALL DATUM POINTS, LEVELS AND DIMENSIONS INCLUDING SETOUT DIMENSIONS PRIOR TO COMMENCING EITHER ON SITE CONSTRUCTION OR OFF SITE FABRICATION. ALL SETOUT AND OVERALL DIMENSION SHALL BE OBTAINED FROM THE ARCHITECTURAL DRAWINGS. DO NOT SCALE THESE DRAWINGS

17. THE ROOF STRUCTURE HAS BEEN DESIGNED FOR THE ROOF LOADS AS STATED ABOVE ONLY AND NO ALLOWANCE HAS BEEN MADE FOR ANY ADDITIONAL LOADS SUCH AS HOISTS, MONORAILS AND MECHANICAL EQUIPMENT UNLESS SUCH ITEMS ARE SHOWN ON THE DRAWINGS.

18. THE EXTENT AND TYPE OF ALL WATERPROOFING OF STRUCTURAL ELEMENTS INCLUDING RETAINING WALLS ARE TO BE SPECIFIED BY THE ARCHITECT.

SITE FILL NOTE

1. FILLING OF THE BUILDING PLATFORM
   ALL MATERIAL PROPOSED TO BE USED AS FILL TO BE ASSESSED BY A QUALIFIED GEOTECHNICAL CONSULTANT WHO WILL ADVISE ON ITS ACCEPTABILITY AND APPROPRIATE COMPACTION METHOD.

2. PROPOSED FILL SHALL BE PLACED AS FOLLOWS:
   CONTROLLED FILL
   FILL UP TO 800mm DEEP FOR SAND AND UP TO 400MM DEEP FOR OTHER MATERIALS.

   1. ALL FILL SHALL BE ROLLED IN ACCORDANCE WITH CLAUSE 3.2.2.2A OF VOLUME 2 OF THE BUILDING CODE OF AUSTRALIA
   2. SAND FILL UP TO 800MM DEEP SHALL BE COMPACTED IN LAYERS NOT EXCEEDING 300mm BY REPEATED ROLLING OF A SUITABLE MECHANICAL EQUIPMENT
   3. FILL OTHER THAN SAND UP TO 400MM SHALL BE COMPACTED IN LAYERS NOT MORE THAN 150mm BY REPEATED ROLLING OF A SUITABLE MECHANICAL EQUIPMENT

   COMPACTED AND CERTIFIED FILL
   FILL GREATER THAN 800mm DEEP FOR SAND AND GREATER THAN 400mm DEEP FOR OTHER MATERIALS
   ALL FILL SHALL BE INSTALLED IN ACCORDANCE WITH CLAUSE 3.2.2.2B OF VOLUME 2 OF THE BUILDING CODE OF AUSTRALIA.
   PROVIDE A MINIMUM RELATIVE COMPACTION OF 95% DENSITY FOR STANDARD COMPACTION EFFORT IN ACCORDANCE WITH TABLE 5.1 OF AS 3798. DOCUMENTATION FROM A REGISTERED PROFESSIONAL ENGINEER OR LICENSED SOIL TESTER CERTIFYING THAT THE FILL MEETS THESE REQUIREMENTS MUST BE OBTAINED AND FORWARDED TO 3M STRUCTURAL SOLUTION PTY LTD PRIOR TO FOOTING INSPECTION.

   ALTERNATIVELY, SLAB CONSTRUCTED ON FILL MAY BE SUSPENDED IN ACCORDANCE WITH CLAUSE 3.2.2.2 OF VOLUME 2 OF THE BUILDING CODE OF AUSTRALIA

SLAB ON GROUND AND FOOTINGS

1.

SOIL CLASSIFICATION FOR THE SITE IS:	
STRIP AND PAD FOOTINGS	CLASS 'P'
SLAB ON GROUND	CLASS 'P'
SITE CLASSIFICATION TO AS2870 - 2011 RESIDENTIAL SLABS AND FOOTINGS TO BE CONFIRMED ON SITE BY THE BUILDER	
GEOTECHNICAL ENGINEER:	STATEWIDE GEOTECHNICAL
REPORT NUMBER:	29966-1
DATED:	04/08/2023

2.

FOUNDING MATERIAL AND DEPTH:	
FOUNDING MATERIAL FOR SHALLOW FOOTINGS	

THE MINIMUM FOUNDING DEPTHS ARE TO BE AS NOTED IN THE SOIL REPORT

3.

MINIMUM ALLOWABLE BEARING PRESSURE FOR FOOTINGS:	
SLAB RIBS	200 kPa
ISOLATED PAD FOOTINGS	200 kPa
CONTINUOUS STRIP FOOTINGS	200 kPa

4.

BORED PIERS ARE TO BE FOUND INTO THE SILTSTONE WITH: 250kPA END BEARING	
PIER FOOTING BEARING	-

THE MINIMUM FOUNDING DEPTHS ARE TO BE AS NOTED IN THE GEOTECHNICAL REPORT UNLESS NOTED OTHERWISE ON PLAN.

5. EXISTING ADJACENT FOOTINGS SHALL NOT BE UNDERMINED. NEW FOOTING DEPTH SHALL MATCH, BUT NOT EXCEED, ADJACENT FOOTING FOUNDING DEPTH. IN THE EVENT THAT UNDERPINNING IS REQUIRED, PLEASE CONTACT THIS OFFICE FOR MORE INFORMATION

6. ANY EXCAVATION WORKS FOR CONSTRUCTION OF FOOTINGS OR RETAINING WALLS SHALL NOT ENCROACH BEYOUND 45 DEGREE LINE OF INFLUENCE

7. UNLESS NOTED OTHERWISE, WHEREVERE A NEW FOOTING IS LOCATED CLOSE TO AN EXCAVATION, BATTER, EXISTING FOOTING, EXISTING SERVICE OF NEW SERVICE WHICH IS DEEPER THAN THE NEW FOOTING; THE EXCAVATION FOR THE NEW FOOTING SHALL BE DEEPENED AND BACKFILLED WITH BLINDING CONCRETE AS SPECIFIED. THE ENGINEER SHALL BE NOTIFIED IF IN DOUBT

8. THE STRUCTURAL DESIGN HAS BEEN UNDERTAKEN BASED ON THE FOOTING ALLOWABLE BEARING PRESSURE RECOMMENDED BY THE GEOTECHNICAL REPORT

RESIDENTIAL FOOTING SLABS

9. POLYTHENE MEMBRANE UNDER SLAB IS TO BE 0.2mm THICK BRANDED AS CONCRETE UNDERLAY, CONTINUOUS, LAPPED 200mm MINIMUM WHERE REQUIRED AND TAPED AT LAPS, PUNCTURES AND SERVICE AND PIPE

10. THE GROUND SURROUNDING THE SLAB SHALL HAVE ITS SURFACE AT LEAST 150mm BELOW THE SLAB SURFACE AND BE SLOPED AWAY FROM THE SLAB EDGE SO THAT SURFACE WATER WILL BE RUN VIA IMPERMEABLE SPOON DRAINS TO SUITABLE DRAINAGE POINTS.

11. ALL RELEVANT CODES AND REGULATIONS MUST BE COMPLIED WITH INCLUDING AS2870 AND AS3600.

12. ALL GRASS ROOTS, VEGETATION AND COMPRESSIBLE TOPSOIL MUST BE REMOVED FROM THE AREA OF THE SLAB.

13. HOT WATER HEATING PIPES MAY BE EMBEDDED IN THE SLAB IF THE THICKNESS IS INCREASED BY 25mm AND LAID ON SL52 MESH.

14. TERMITE PROTECTION SHALL BE PROVIDED AS REQUIRED BY THE LOCAL

15. OWNERS MUST RECOGNIZE THEIR RESPONSIBILITIES NOTED IN AS2870 AND IN MORE DETAIL IN THE C.S.I.R.O PUBLICATION "FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE : A HOMEOWNER'S GUIDE"

16. ROOT BARRIERS, DRAINAGE AND OTHER MEASURES RECOMMENDED IN THE GEOTECHNICAL REPORT ARE TO BE INCLUDED IN THE BUILDERS WORKS.

CONCRETE

1. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600 & AS1379. CONCRETE TESTING SHALL BE BY THE PROJECT ASSESSMENT METHOD.
2. COVER (MILLIMETERS) TO ALL REINFORCEMENT INCLUDING FITMENTS (MILLIMETERS FINISHES) SHALL BE AS FOLLOWS UNLESS OTHERWISE SHOWN.

ELEMENT	FORMED INTERNAL	FINISHED EXTERNAL	CAST AGAINST GROUND
FOOTINGS	-	50	75
BORED OR CAST PIERS	-	40	75
COLUMNS / PEDESTALS	30	40	50
WALLS	30(40)*	40	50
BEAMS	30	40	50
SLABS	20	40	30
STAIRS	20	40	30

3. SIZES OF CONCRETE MEMBERS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES.
4. DEPTHS OF BEAMS ARE GIVEN FIRST AND INCLUDE SLAB THICKNESS.
5. BEAMS AND SLAB SHALL BE POURED TOGETHER IN ONE OPERATION.
6. NO HOLES CHASES OR EMBEDMENT OF PIPES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE IN CONCRETE MEMBERS WITHOUT PRIOR APPROVAL OF THE ENGINEER.
7. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION. REINFORCEMENT IS DENOTED BY A SYMBOL IN ACCORDANCE WITH AS4671 FOR STEEL REINFORCING MATERIALS AND AS4672 FOR STEEL PRESTRESSING MATERIALS
8. SPLICES IN REINFORCEMENT SHALL BE MADE ONLY IN THE POSITION AS SHOWN OR AS OTHERWISE APPROVED BY THE ENGINEER. WHERE LAP LENGTH IS NOT SHOWN, IT SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT. LAPS TO FABRIC SHALL BE TWO TRANSVERSE WIRES PLUS 100mm.
9. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE APPROVAL OF THE ENGINEER.
10. ALL REINFORCEMENT SHALL BE SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS. FOR ALL EXTERNAL SURFACES, PROVIDE FULLY PLASTIC BAR CHAIRS, TIE WIRE SHALL NOT BE NAILED TO THE FORMS, REINFORCING BARS SHALL NOT BE USED TO KEEP FORMS APART AND A THROUGH TIE SYSTEM SHALL BE USED TO TIE FORMS.
11. DISTRIBUTION BARS SHALL BE PROVIDED IN SLABS AS FOLLOWS U.N.O:

SLABS UP TO 250mm THICKNESS	N12-300
SLABS 250 TO 300mm THICKNESS	N12-250
SLABS 300 TO 500 THICKNESS	N12-150

PROVIDE 2N16 x 1200 LONG DIAGONAL TRIMMING BARS IN EACH FACE OF SLAB AROUND OPENINGS

12. FORMWORK SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AS3610. FORMWORK SHALL REMAIN IN POSITION FOR A MINIMUM OF 28 DAYS AFTER POURING OF CONCRETE UNLESS WRITTEN APPROVAL BY THE ENGINEER STATING OTHERWISE IS OBTAINED.
13. UNLESS NOTED OTHERWISE, CONCRETE GRADES SHALL BE AS FOLLOWS.

ELEMENT	F'c (MPa)	SLUMP (mm)	AGGREGATE (mm)
FOOTINGS	40	75	20
PIERS/ PILES	40	75	20
COLUMNS	40 / 50	75	20
SLABS / BEAMS	40	75	20
STAIRS / INTERNAL	40	75	20
EXTERNAL SLAB/BEAM/STAIR			
-EXPOSED TO WEATHER	40	75	20
PRECAST WALLS	40	75	20
GROUND SLAB	40		
-OFFICE, RESIDENTIAL	40	65	20
-WAREHOUSE, FACTORY	40	50	20

EXTERNAL ELEMENTS ARE THOSE EXPOSED TO WEATHER RAIN & WATER PENETRATION AND ARE CLASSIFIED B1 UNLESS NOTED OTHERWISE. CONCRETE TO BE MINIMUM GRADE 40 FOR FOOTINGS AND MINIMUM GRADE 40 FOR ALL OTHER ELEMENTS.

14. GROUND SLABS, EXTERNAL CONCRETE ELEMENTS, GRADE S40 MINIMUM, SHALL MEET THE FOLLOWING REQUIREMENTS - MINIMUM PORTLAND CEMENT CONTENT 330kg/m³ (NO FLY-ASH TO BE USED) MAXIMUM WATER:CEMENT RATIO 0.5, SHRINKAGE LIMIT 600 MICRO-STRAIN AFTER 56 DAYS, AND CHLORIDE CONTENT TO BE RESTRICTED AS PER AS 3600, CLAUSE 4.9.
15. CONCRETE MUST BE CURED BY AN APPROVED METHOD FOR SEVEN DAYS AFTER POURING AND CURING MUST COMMENCE WITHIN 2 HOURS OF PLACEMENT.
16. ADDITIVES MUST NOT BE ADDED TO THE CONCRETE WITHOUT THE APPROVAL OF THE ENGINEER.
17. CONSTRUCTION JOINTS SHALL BE PROPERLY FORMED AND CONSTRUCTED ONLY WHERE SHOWN OR APPROVED BY THE ENGINEER.
18. ALL CONCRETE SHALL BE MECHANICALLY VIBRATED. THE VIBRATORS SHALL NOT BE USED TO VIBRATE THE FORMS NOR SHALL THEY BE USED TO SPREAD THE CONCRETE.
19. CONCRETE SHALL BE SEPARATED FROM SUPPORTING MASONRY BY TWO LAYERS OF MALTHOID (OR AN APPROVED EQUIVALENT). FOR SLABS ON GROUND AND PAVING, VERTICAL FACES OF SLABS, MASONRY WALLS AND COLUMNS ARE TO BE SEPARATED BY 10mm THICK BITUMINOUS CANITE OR SIMILAR.
20. PROVIDE A 20mm x 20mm CHAMFER TO ALL VISIBLE JUNCTIONS OF CONCRETE FACES, EXCEPT FOR PRECAST PANELS WHICH SHALL HAVE A 12mm X 12mm CHAMFER. - REFER TO ARCHITECTS DRAWINGS FOR FURTHER DETAILS.
21. ALL PROPS AND FORMWORK FOR BEAMS AND SLABS SHALL BE REMOVED BEFORE CONSTRUCTION OF ANY MASONRY WALLS OR PARTITIONS ON THE FLOOR.
22. ALL NON LOAD BEARING WALLS SHALL BE KEPT CLEAR OF THE UNDERSIDE OF SLABS AND BEAMS BY 20mm UNLESS OTHERWISE SHOWN.
23. UNLESS OTHERWISE SPECIFIED THE SURFACE FINISH TO CONCRETE ELEMENTS SHALL BE CLASS 2 IN ACCORDANCE WITH AS3610

REINFORCEMENT:

1. REINFORCEMENT IS TO BE MANUFACTURED IN ACCORDANCE WITH AS/NZS 4671 AND AS 1302 AND SHALL BE FIXED AS SHOWN ON REINFORCING PLAN.

2. MATERIAL IS INDICATED BY THE FOLLOWING SYMBOLS

R10	DENOTES 10mm DIAMETER HOT ROLLED PLAIN ROUND BAR
N12	DENOTES 12mm DIAMETER HOT ROLLED DEFORMED BAR
SL82	DENOTES SQUARE WELDED WIRE FABRIC
RL918	DENOTES RECTANGULAR WELDED WIRE FABRIC
4-L12TM	DENOTES 4 MAIN WIRES OF 12mm TRENCH MESH
N	DEFORMED BAR OF GRADE 500
R	ROUND BAR OF GRADE 250
L	LOW DUCTILITY BAR OF GRADE 500
SL	SQUARE WELDED WIRE OF GRADE 500
RL	RECTANGULAR WELDED WIRE MESH OF GRADE 500

3. THE BAR SIZE INDICATED BY A NUMBER AFTER THE ABOVE SYMBOL, WHICH INDICATES THE BAR DIAMETER IN MILLIMETERS. REFER TO NOTE 2 ABOVE FOR EXAMPLE.

4. GRADE 500 REINFORCEMENT TEST CERTIFICATES SHALL BE AVAILABLE FOR WEBBER DESIGN PTY. LTD. FOR APPROVAL PRIOR TO FIXING UPON REQUEST.

5. HOOKS AND COGS SHALL COMPLY WITH AS 3600 UNLESS OTHERWISE SHOWN. SLOPES OF CRANKS ARE NOT TO EXCEED 1 IN 6.

6. REINFORCE SLAB RE-ENTRANT CORNERS WITH 2N16 x 1500 BARS PLACED AT 45 DEGREES TIED TO THE INSIDE OF THE REINFORCEMENT.

7. MINIMUM LAPS FOR:
   MESH OVERLAP 2 OUTERMOST TRANSVERSE BARS
   N & R BARS 50 BAR DIAMETERS UNLESS NOTED OTHERWISE

8. REINFORCEMENT SHOWN DIAGRAMMATICALLY AND NOT NECESSARILY IN TRUE PROJECTION

9. ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING AT 800mm MAXIMUM WIDTH FOR BARS AND 600mm MAXIMUM WIDTHS FOR MESH.

10. MOVE AFFECTED REINFORCEMENT TO EITHER SIDE OF HOLES IN SLAB UNLESS NOTED OTHERWISE.

11. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED WITHOUT THE PRIOR APPROVAL OF THE ENGINEER. THE CONTRACTOR SHALL ESTABLISH A WELDING PROCEDURE SUBMITTED TO THE ENGINEER FOR APPROVAL. ALL WELDING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH AS 1554 PART 3.

12. ALL WELDING TO BE CARRIED OUT BY A QUALIFIED AUSTRALIAN SUPERVISOR, WELDING QUALIFICATION TO BE PRESENTED UPON REQUEST. MAXIMUM WELD SIZE TO BE 4 CFW EACH PASS, WITH E48XX ELECTRODE. THE CONTRACTOR SHALL ENGAGE A WELDING INSPECTOR TO INSPECT THE PROCEDURE AND SITE WELDS.

13. REINFORCEMENT IS NOT PERMITTED TO BE HEATED ABOVE 400 DEGREES

14. NO WELDS PERMITTED WITHIN 50mm OF BAR BENDS.

FORMWORK:

1. DESIGN OF FORMWORK AND SUPPORTING STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR IN ACCORDANCE WITH AS 3610.

2. REFER OTHER CONSULTANTS DOCUMENTATION FOR ADDITIONAL FIXING REQUIREMENTS.

3. MINIMUM STRIPPING TIMES:
   WALLS AND COLUMNS 7 DAYS
   GENERAL FLOOR 14 DAYS

4. FORMWORK SHALL BE DESIGNED, ERECTED, SUPPORTED, BRACED AND MAINTAINED TO SAFELY SUPPORT ALL VERTICAL AND LATERAL LOADS THAT WILL BE APPLIED UNTIL SUCH LOADS CAN BE SUPPORTED BY THE CONCRETE STRUCTURE.

5. BACK PROP SLABS AND BEAMS TO ENGINEERS APPROVAL FOR A MINIMUM OF 28 DAYS AFTER CASTING.

6. STRIPPING AND BACK PROPPING TIMES MAY BE REDUCED UPON RECEIPT OF STRENGTH TEST RESULTS AT THE DISCRETION OF THE ENGINEER.

7. PRE-CAMBER ALL FORMWORK:
   SLABS AND BEAMS SPAN / 600
   CANTILEVERS SPAN / 200

8. ENSURE DECK IS CLEANED OF ALL DEBRIS PRIOR TO CONCRETING.

9. CONTRACTOR SHALL MONITOR FORMWORK DURING CONCRETE PLACEMENT AND ADJUST FORMWORK IF REQUIRED.

10. CONTRACTOR TO VERIFY THAT ALL PROPRIETARY MANUFACTURED FORMWORK (PROPS, FRAMES, JACKS AND BRACING ETC.) TO BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

DRAWING LIST - STRUCTURAL...

DRAWING No.	DRAWING TITLE	REVISION
R01	GENERAL NOTE SHEET 1	A
R02	GENERAL NOTES SHEET 2	A
R03	GROUND LEVEL SLAB/FOOTING PLAN	A
R04	ROOF LEVEL FRAMING PLAN	A
R05	ROOF TYPICAL DETAILS - SHEET 1	A
R06	ROOF TYPIAL DETAILS - SHEET 2	A
R07	STEEL ELEVATION SHEET 1	A

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REVISION	DESCRIPTION	DATE
A	PRELIMINARY ISSUE	24-05-25

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PROJECT

52 BOUNDARY ROAD COLDSTREAM

ARCHITECT

ORIGIN SQUARE
PROPERTY CONSULTING PTY LTD

GENERAL NOTE SHEET 1

PRELIMINARY ISSUE
NOT FOR CONSTRUCTION OR PRICING

Project	Drawing	Revision
25ST191	R01	A

Designed	JW
Certified	JW
Drawn	JW
Sheet Size	A1

STEELWORK

S1. ALL MATERIALS, WORKMANSHIP, INSPECTIONS, TESTING, PROTECTIVE COATINGS, FABRICATION AND ERECTION SHALL COMPLY WITH AS4100 STEEL STRUCTURES CODE AND AS/NZS5131 WITH THE FOLLOWING CATEGORIES:

SERVICE CATEGORY	FABRICATION CATEGORY	CONSTRUCTION CATEGORY
SC1	FC1	CC2

MATERIAL IDENTIFICATION AND TRACEABILITY DOCUMENTATION AS STATED IN AS/NZS5131 SECTION 4.7 IS REQUIRED TO BE SUBMITTED FOR THE ABOVE CONSTRUCTION CATEGORY, WHERE:
CC1 - BASIC TRACEABILITY DOCUMENTATION
CC2 - PARTIAL TRACEABILITY DOCUMENTATION
CC3 AND CC4 - FULL TRACEABILITY DOCUMENTATION

UNLESS NOTED OTHERWISE, ALL STEELWORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
STRUCTURAL STEEL TO AS/NZS3678 AND AS/NZS3679.

HOT ROLLED PLATES	GRADE 250
UB, UC, PFC, ANGLES, FLATS	GRADE 300PLUS
WB, WC	GRADE 300
HOLLOW SECTIONS TO AS1163	
RHS, CHS	GRADE 350

ALL PLATES THICKER THAN 50mm SHALL BE THROUGH THICKNESS TESTED ULTRASONICALLY IN ACCORDANCE WITH AS1710 LEVEL 3.

S2. ALL WELDING SHALL BE PERFORMED BY AN EXPERIENCED WELDER AND COMPLY WITH AS1553, AS1554 AND AS5131.

S3. ALL WELDS SHALL BE 6mm CONTINUOUS FILLET LAID DOWN WITH AN APPROVED, COVERED ELECTRODE.

S4. ALL BUTT WELDS SHALL BE FULLY PREPARED, FULL PENETRATION, QUALIFIED WELDS AND SHALL DEVELOP THE FULL STRENGTH OF THE MEMBERS CONNECTED. BUTT WELDED JOINT DETAILS SHALL BE SHOWN ON THE SHOP DRAWINGS.

S5. ALL WELDS TO BE CARRIED OUT WITH E48XX CONSUMABLES.
- ALL WELDING MUST BE AS CATEGORY SP CLASSIFICATION AND IN ACCORDANCE WITH AS5131 AND AS1554.
- ALL SITE BUTT WELDS TO BE TESTED BY RADIOGRAPHY OR ULTRASONIC AS PER TABLE 7.4 OF AS/NZS 1554.1 AND AS5131.

S6.

BOLT DESIGNATION - M20 8.8/s	
M20	DENOTES BOLT DIAMETER
8.8	DENOTES STRENGTH GRADE
S	DENOTES METHOD OF INSTALLATION

S7. ALL BOLTS SHALL BE EITHER COMMERCIAL GRADE BOLTS TO AS1111 (STRENGTH GRADE 4.6) OR HIGH STRENGTH BOLTS TO AS1252 (STRENGTH GRADE 8.8) INSTALLED IN ACCORDANCE WITH AS4100 AND AS5131.

S8.

METHOD OF INSTALLATION	
4.6/S	TIGHTENED USING A STANDARD WRENCH TO A "SNUG TIGHT" CONDITION
8.8/S	TIGHTENED USING A STANDARD WRENCH TO A "SNUG TIGHT" CONDITION
8.8/TF	BOLTS IN A FRICTION TYPE JOINT, TIGHTENED BY THE PART TURN METHOD.
8.8/TB	BOLTS IN A BEARING TYPE JOINT, TIGHTENED BY THE PART TURN METHOD.

S9. PROVIDE SUFFICIENT BOLT LENGTH TO ENSURE THAT ONE FULL THREAD IS EXPOSED AFTER TIGHTENING.

S10. LOAD INDICATING WASHERS MUST BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

S11.

STRUCTURAL CONNECTIONS TO BE AS FOLLOWS UNO:	
CLEAT, STIFFENER & GUSSET PLATES	10mm
BOLTS	2M20 8.8/S BOLTS IN 22mm HOLES

S12. HOLDING DOWN BOLTS SHALL BE GRADE 4.6/S IN 6mm CLEARANCE HOLES. PROVIDE OVERSIZE WASHERS TO SUIT.

S13. PROVIDE A WASHER OF APPROPRIATELY LARGER SIZE BETWEEN BOLTS ANY OVERSIZED OR SLOTTED HOLES.

S14. THE CONTRACTOR SHALL PROVIDE AND LEAVE IN PLACE SUCH TEMPORARY BRACING AS IS NECESSARY TO STABILIZE THE STRUCTURE DURING ERECTION AND UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED.

S15. THE CONTRACTOR IS TO PROVIDE AN ELECTRONIC PDF COPY OR THREE COPIES OF ALL STEELWORK SHOP DRAWINGS TO THIS OFFICE FOR INSPECTION BEFORE COMMENCING FABRICATION. INSPECTION DOES NOT INCLUDE CHECKING OF DIMENSIONS OR LAYOUT, NOR PRECLUDE THE FABRICATOR FROM THE RESPONSIBILITY FOR THE CORRECTNESS OF THE WORK.

S16. STEELWORK IS TO BE ADEQUATELY PROTECTED AGAINST CORROSION TO ACHIEVE A MEDIUM TERM LIFE BEFORE MAINTENANCE. EXTERNAL STEEL OR STEEL SUBJECT TO MOISTURE TO COMPLY WITH AS/NZS 2312-2012. DETAILS OF PROTECTION SYSTEM TO BE SUBMITTED FOR APPROVAL WITH TENDER.

S17. ALL INTERNAL STEELWORK OR STEELWORK IN NON CORROSIVE ENVIRONMENTS, OTHER THAN THAT ENCASED BY CONCRETE OR MATING SURFACES OF FRICTION TYPE CONNECTIONS, SHALL BE THOROUGHLY BRUSHED TO REMOVE ALL RUST AND LOOSE MILL SCALE AND GIVEN ONE COAT OF ZINC RICH PRIMER TO AS4089. AFTER ERECTION, ANY DAMAGED PAINTWORK SHALL BE REPAIRED. PRIMER COLOUR AND FINAL PAINT COATS TO BE AS SPECIFIED BY ARCHITECT.

S18. PROVIDE A CAMBER OF 2mm PER METRE SPAN FOR ALL STEELWORK LONGER THAN 5.0m.

S19. STRUCTURAL STEELWORK TO BE CONCRETE ENCASED FOR FIRE PROTECTION SHALL BE ENCLOSED WITH F41 MESH PLACED 25mm CLEAR OF STEEL MEMBER. ENCASING TO PROVIDE 25mm MINIMUM COVER TO MESH ABOVE GROUND, 50mm MINIMUM COVER BELOW.

S20. ALL EXPOSED STEELWORK MEMBERS SHALL BE HOT DIPPED GALVANIZED.

S21. AFTER ERECTION, PAINT NUTS AND BOLT HEADS WITH ONE COAT OF APPROVED PRIMER.

S22. STEELWORK BEARING ON MASONRY OR CONCRETE SHALL BEAR A MINIMUM OF 150mm AND BE SUPPORTED ON 20mm OF GROUT.

S23. PROVIDE HOOK BOLTS FROM EVERY SECOND PURLIN TO ANY ROOF BRACING.

S24. PURLINS AND GIRTS TO BE INSTALLED WITH BRIDGING TO THE PURLIN/GIRT MANUFACTURER'S SPECIFICATIONS.

S25. SUPPLY PURLINS MINIMUM 2 SPANS CONTINUOUS U.N.O.

S26. ALL EXPOSED LINTELS TO BE HOT-DIP GALVANIZED.

S27. THE CONTRACTOR SHOULD PROVIDE ALL CLEATS AND DRILL ALL HOLES NECESSARY FOR FIXING STEEL TO STEEL AND TIMBER AND OTHER ELEMENTS TO STEEL WHETHER OR NOT DETAILED IN THE DRAWINGS.
NON-SHRINK GROUT SHALL BE USED TO FILL ALL SPACES BETWEEN CONCRETE OR MASONRY, AND STEEL BEARING PLATES. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 50MPa AT 28 DAYS.
PROVIDE SEAL PLATES TO ALL HOLLOW SECTIONS, WITH "BREATHER" HOLES IF MEMBER IS TO BE HOT DIP GALVANISED.

S28. ALL OF THE STRUCTURAL STEEL MENTIONED IN THIS PROJECT HAS BEEN DESIGNED TO COMPLY WITH GOOD PRACTICE.
(I) AS WE HAVE NOT VISITED THE SITE WE ARE UNCERTAIN AS TO WHETHER IT COMPLIES WITH EACH AND ALL CONDITIONS REQUIRED FOR SAFETY DURING ERECTION.
(II) WE HAVE NOT BEEN ENGAGED AS AN ERECTION ENGINEER, NOR HAVE WE BEEN ENGAGED TO CHECK ANY OBSERVATIONS OR REQUIREMENTS MADE BY THE ERECTION ENGINEER.
(III) IF APPROVAL OF STRUCTURAL DOCUMENTATION IS REQUIRED BY THE FABRICATOR OR SIMILAR, IT SHALL BE SUBMITTED TO THIS OFFICE WITH A PERIOD OF ONE WEEK'S GRACE AND A FEE WILL BE ARRANGED BEFORE PROCEEDING TO CHECK SAME. ANY GEOMETRIES THAT ARE DIFFICULT OR IMPOSSIBLE TO DOUBLE CHECK WILL BE REFERRED BACK TO THE FABRICATOR FOR CHECKING AND CORRECTION, AND THAT AT NO TIME SHALL A VISITATION TO THE SITE BE MADE TO TAKE OVER THE RESPONSIBILITY OF THE ERECTION ENGINEER UNLESS SUITABLE ARRANGEMENTS HAVE BEEN MADE.

TIMBER

T1. ALL TIMBER MATERIALS, WORKMANSHIP AND CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS OF AS1720.1 TIMBER STRUCTURES CODE AND AS1684 RESIDENTIAL TIMBER FRAMED CONSTRUCTION.

T2.

ALL STRUCTURAL TIMBER SHALL BE EITHER:	
DOUGLAS FIR (OREGON)	STRENGTH GROUP SD5
	STRENGTH GRADE F7
	MAXIMUM UNDERSIZE 3mm
SELECTED HARDWOOD (HW)	STRENGTH GROUP SD4
	STRENGTH GRADE F8
	MAXIMUM UNDERSIZE 4mm
M.G.P PINE (SW)	STRENGTH GROUP SD6
	STRENGTH GRADE MGP10
	MAXIMUM UNDERSIZE 0mm
RADIATA PINE (SW F7)	STRENGTH GROUP SD4
	STRENGTH GRADE F7
	MAXIMUM UNDERSIZE 0mm
SEASONED HARDWOOD (KDHW)	STRENGTH GROUP SD3
	STRENGTH GRADE F17
	MAXIMUM UNDERSIZE 0mm
LAMINATED VENEER LUMBER (LVL)	RADIATA PINE VENEER
	STRENGTH GRADE F16
	MAXIMUM UNDERSIZE 0mm
HYBEAM HJ	FLANGES - HYSPAN LVL
	WEBS - F14 STRUCTURAL PLYWOOD TO AS2269
	MAXIMUM UNDERSIZE 0mm
POSI STRUT	TO MITEK AUSTRALIA LTD. SPECIFICATION AND CERTIFICATION

T3. THE MOISTURE CONTENT OF ANY STRUCTURAL TIMBER SHALL NOT EXCEED 15%

T4. ALL STUD WALLS ARE TO BE CONSTRUCTED AND SECURELY CROSS BRACED AS SPECIFIED IN AS1684.

T5. UNLESS NOTED OTHERWISE ALL FRAMING IS TO BE TIED DOWN, NAILED AND ANCHORED IN ACCORDANCE WITH AS1720.1 AND AS1684. ALL TIMBER RAFTERS SUPPORTING METAL DECK ROOFS AND ALL TIMBER NAILING PLATES ARE TO BE SECURELY TIED DOWN USING APPROVED TRIP-L-GRIP CONNECTORS OR APPROVED EQUIVALENT.

T6. ALL BEAMS AND LINTELS SHALL HAVE A MINIMUM OF 100mm BEARING.

T7. ALL LOAD BEARING TIMBER POSTS SHALL HAVE A CONCRETE STUMP LOCATED DIRECTLY UNDER WITH A 450 x 450 x 200 DEEP MASS CONCRETE FOOTING UNLESS NOTED OTHERWISE

T8. WHERE TIMBER STRUCTURES HAVE BEEN DETAILED ON THESE DRAWINGS, THREE COPIES OF ALL TIMBER SHOP DRAWINGS MUST BE SUBMITTED TO THIS OFFICE FOR INSPECTION BEFORE COMMENCING FABRICATION. INSPECTION DOES NOT INCLUDE CHECKING DIMENSIONS OR LAYOUT, NOR PRECLUDE THE FABRICATOR FROM RESPONSIBILITY FOR THE CORRECTNESS OF THE WORK.

T9. ROOF TRUSS DESIGN AND LAYOUT BY OTHERS. SHOP DRAWINGS TO BE SUBMITTED AS NOTED IN T8 ABOVE.

T10. ALL EXPOSED TIMBER TO BE PAINTED OR OTHERWISE PROTECTED FROM WEATHER.

FRAMING MEMBERS	
STUDS (UNO):	
UPPER STOREY:	90x35 MGP10 PINE AT 450 MAX CTRS
	NOTCHED 20mm FOR BRACING
	(MAX HEIGHT 2700mm)
	90x45 MGP10 PINE AT 450 MAX CTRS
	(HEIGHT 2700-3000mm)
LOWER STOREY:	90x35 MGP10 PINE AT 450 MAX CTRS
	NOTCHED 20mm FOR BRACING
	(MAX HEIGHT 2700mm)
	90x45MGP10 PINE AT 450 MAX CTRS
	(HEIGHT 2700-3000mm)
DOUBLE STUDS	
	2 No. 90x45 MGP10 PINE STUDS
	FIX END STUD WALL TO MASONRY WALLS WITH M10 DYNABOLT AT TOP AND BOTTOM AT 1500mm MAX CTRS. TYPICAL.
WALL PLATES:	
UPPER STOREY:	TOP PLATE - 45x90 MGP10 NOT TRENCHED
	BOTTOM PLATE - 45x90 MGP10 NOT TRENCHED
LOWER STOREY:	TOP PLATE - 45x90 MGP10 NOT TRENCHED
	BOTTOM PLATE - 45x90 MGP10 NOT TRENCHED
	FIXED TO SLAB WITH M10 DYNABOLTS AT 900mm MAX CTRS
STUDS AT SIDES OF OPENINGS	
OPENING WIDTH:	STUDS:
UP TO 1200mm	1No. 90x35 MGP10 PINE
1200mm TO 1800mm	2No. 90x45 MGP10 PINE
1800mm TO 2400mm	2No. 90x45 MGP10 PINE
WALL BRACING:	
BRACING OF ALL STUD WALLS TO BE IN ACCORDANCE WITH AS1684 RESIDENTIAL TIMBER FRAMED CONSTRUCTION	
FIXING REQUIREMENTS:	
REFER TO AS1684 RESIDENTIAL TIMBER FRAMED CONSTRUCTION FOR FIXING REQUIREMENTS	
MIN. JOINT REQUIREMENTS FOR SHEET ROOF STRUCTURES:	
JOINT OR MEMBER:	MINIMUM FIXING DETAILS
RAFTERS AND PURLINS	METAL STRAPS, APPROVED FRAMING ANCHORS OR EQUIVALENT SHALL BE USED TO TIE RAFTERS TO TOP WALL PLATES AND TOP WALL PLATES TO STUDS (OR RAFTERS DIRECTLY TO STUDS) WITH A MINIMUM OF THREE 30mm x 3.15mm DIAMETER NAILS OR CLOUTS INTO THE SIDE GRAIN OF EACH MEMBER. MAXIMUM SPACINGS OF FASTENERS SHALL BE 1800mm OR THREE STUD SPACINGS, WHICHEVER IS THE LESSER.
LARGE SPAN ROOF MEMBERS (SUCH AS TRUSSES OR ROOF BEAMS OF SPAN 6000mm OR GREATER)	AS FOR RAFTERS AND PURLINS. SPACING OF FASTENERS SHALL NOT EXCEED THE SPACING OF THE ROOF MEMBERS.
FIXING FOR STRUCTURES IN AREAS OF RELATIVELY HIGH WINDS:	
REFER TO AS1684 RESIDENTIAL TIMBER FRAMED CONSTRUCTION FOR ADDITIONAL FIXING REQUIREMENTS.	
NOGGINGS	
STUDS IN EACH PANEL OF WALLING SHALL BE STIFFENED BY MEANS OF CLOSELY FITTED SOLID TIMBER NOGGINGS AT VERTICAL SPACING OF NO MORE THAN 1350mm CTRS. CLOSER SPACINGS SHALL BE EMPLOYED WHERE NECESSARY FOR THE SUPPORT OR FIXING OF CLADDING OR LINING. NOGGINGS SHALL BE NO LESS THAN 25mm THICK, OR 38mm THICK WHERE NAIL FIXED SHEET MATERIAL IS TO BE BUTT JOINTED, AND SHALL NOT BE OFFSET BY MORE THAN THEIR OWN THICKNESS FROM THE STRAIGHT LINE. NOGGING DEPTH SHALL NOT BE LESS THAN THE DEPTH OF THE STUD MINUS 25mm.	

MASONRY

M1 THE SOFFITS OF CONCRETE BEAMS AND SLABS SHALL BE SEPARATED FROM SUPPORTING MASONRY BY TWO LAYERS OF A SUITABLE BOND BREAKER (EG. MALTHOID OR SIMILAR) PLACED OVER A SMOOTH AND REGULAR SURFACE. FILL ANY DEPRESSIONS OR IRREGULARITIES WITH MORTAR.

M2 THE TYPE AND THICKNESS OF BRICKWORK AND BLOCKWORK SHALL BE AS SHOWN ON THE ENGINEERING AND ARCHITECTURAL DRAWINGS.

M3 THE QUALITY OF BRICKS SHALL BE AS FOLLOWS:
MINIMUM COMPRESSIVE STRENGTH TO AS 3700 TO BE 40 MPa.
MAXIMUM UNRESTRAINED 5 YEAR EXPANSION TO NATA REGISTERED TEST No801 SHALL BE 0.7mm/m.

M4 THE QUALITY OF BLOCKS SHALL BE AS FOLLOWS :
MINIMUM COMPRESSIVE STRENGTH TO AS 3700 TO BE 15 MPa.
MAXIMUM UNRESTRAINED 5 YEAR EXPANSION TO NATA REGISTERED TEST No801 SHALL BE 0.7mm/m.

M5 MORTAR SHALL BE 1:1:6
PORTLAND CEMENT : HYDRATED LIME OR LIME PUTTY : SAND, ALL BY VOLUME.
PLASTICISERS OR OTHER ADMIXTURES SHALL NOT BE USED UNLESS APPROVED BY THE ENGINEER.

M6 GROUT USED TO FILL CAVITIES AND CORE HOLES IN BRICKWORK AND BLOCKWORK SHALL BE: 1 PART PORTLAND CEMENT : 3 PARTS 7mm MINUS AGGREGATE : 2 PARTS SAND AND 1/10 PART LIME.
SLUMP RANGE 230mm. MIN 28 DAY STRENGTH 25 MPa.
THE WALL SHALL BE GROUTED IN MAX 1000mm LIFTS. PLASTICISERS MAY BE USED TO ACHIEVE WORKABLE SLUMPS. OTHER ADMIXTURES SHALL NOT BE USED UNLESS APPROVED BY ENGINEER.

M7 PROVIDE FULL HEIGHT VERTICAL CONTROL JOINTS IN MASONRY AT THE FOLLOWING MAXIMUM CENTRES:
A) CLAY MASONRY - 7.0m CENTRES (BRICK VENEER)
- 5.5m CENTRES (FULL MASONRY)
B) CONCRETE MASONRY - 8.0m CENTRES
C) AUTOCLAVED CONCRETE MASONRY - 8.0m CENTRES
OR AT OTHER LOCATIONS AS SHOWN ON THE DRAWINGS. THE ABSENCE OF CONTROL JOINTS ON THE ARCHITECTURAL DRAWINGS SHALL INDICATE JOINTS TO BE INSTALLED AS SCHEDULED ABOVE.

M8 ARTICULATED JOINTS ARE REQUIRED IN MASONRY WALLS TO ACCOMMODATE MINOR FOOTING MOVEMENTS. JOINTS SHALL COMPLY WITH THE DETAILS GIVEN IN THE CEMENT AND CONCRETE ASSOCIATION OF AUSTRALIA - TECHNICAL NOTE 61 "ARTICULATED WALLING".
ARTICULATION JOINTS SHOULD BE PLACED APPROXIMATELY 3m FROM MAJOR CORNERS AND SHOULD ALIGN WITH WINDOW AND DOOR OPENINGS IF THEY OCCUR WITHIN 2m TO 4m OF THE CORNER. ARTICULATION SHOULD ALSO BE PROVIDED BETWEEN DIFFERENT FORMS OF BUILDING MATERIALS, BETWEEN NEW AND EXISTING CONSTRUCTIONS AND ABOVE THE INTERFACE OF DIFFERENT FOOTING TYPES.

M9 MASONRY TIES FOR CAVITY WALLS SHALL BE GALVANISED AND SPACED AT NOT MORE THAN 600mm CENTRES IN EACH DIRECTION. ADDITIONAL TIES SHALL BE PLACED ADJACENT TO SUPPORTS AND CONTROL JOINTS AND AROUND OPENINGS AT A SPACING OF NOT MORE THAN 300mm AND LOCATED NOT MORE THAN 300mm FROM THE LINE OF SUPPORT, CONTROL JOINT OR PERIMETER OF OPENING.

M10 NEW MASONRY SHALL BE TIED TO EXISTING MASONRY USING HEAVY DUTY MASONRY TIES AT MAXIMUM 400mm VERTICAL CENTRES ALONG ALL VERTICAL EDGES AND AT NOT MORE THAN 600mm HORIZONTAL SPACING UNO.

M11 ALL MASONRY SHALL COMPLY WITH AS3700 - SAA MASONRY CODE..

M12 LOAD BEARING MASONRY SHALL HAVE FULL BED JOINTS, UNO.

M13 MASONRY SHALL BE TIED TO COLUMNS AT 400mm MAXIMUM VERTICAL CENTRES.

M14 ALL CAVITIES BELOW GROUND LEVEL SHALL BE MORTAR OR GROUT FILLED.

M15 NON LOAD BEARING WALLS SHALL BE KEPT 20mm CLEAR OF THE UNDERSIDE OF FLOORS AND SHELF ANGLES.

M16 OMITTED

M17 WHERE WALLS ABUT THE UNDERSIDE OF HORIZONTAL OR RAKING MEMBERS (SLABS, STEEL OR CONCRETE BEAMS) PROVIDE MASONRY FLEXIBLE ANCHORS TYPE MFA 4 EVERY THIRD PERPEND AND FIXED TO THE STRUCTURAL MEMBER WITH RAMSET 6mm DIA HEAD DRIVE PINS OR SIMILAR. PROVIDE 10mm CLOSED CELL POLYETHYLENE FOAM BACKING ROD BETWEEN WALL AND MEMBER.

M18 WHERE MASONRY WALLS INTERSECT STRUCTURAL MEMBERS (STEEL OR CONCRETE) PROVIDE MASONRY FLEXIBLE ANCHORS MFA 7 AT 600mm CENTRES EMBEDED IN THE MASONRY WALL AND FIXED TO MEMBER WITH RAMSET 6mm DIA HEAD DRIVE PINS. MFA 7 TIES SHALL BE 200mm LONG x 50mm TURNDOWN. TIES TO OUTER SKIN SHALL INCORPORATE A DRIP GROOVE.

M19 FOR WALLS WITH A CAVITY GREATER THAN 80mm, PROVIDE MASONRY FLEXIBLE ANCHORS 'ANCHOR-TIES' AT 430mm VERTICAL AND 600mm HORIZONTAL CENTRES.

M20 CONCRETE BEAMS AND SLABS SHALL BE SEPARATED FROM SUPPORTING BRICKWORK BY 2 LAYERS OF MALTHOID OR SIMILAR APPROVED MEMBRANE ON TOP OF MORTAR LEVELLING SCREED.

M21 BUILDER SHALL PROVIDE DETAILS AND PROCEDURES OF NEEDLE AND PROPPING TO OPENINGS IN MASONRY WALLS FOR APPROVAL BEFORE WORK COMMENCES.

REINFORCED MASONRY

RM1 ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3700.

RM2 MASONRY UNITS SHALL BE SOLID OR HOLLOW AS DETAILED AND HAVE A CHARACTERISTIC UNCONFINED COMPRESSIVE STRENGTH OF:
(A) 30 MPa FOR BRICKS.
(B) 25 MPa FOR CONCRETE BLOCKS.

RM3 MORTAR SHALL CONSIST OF 1 CEMENT, 1 HYDRATED LIME, 6 WELL GRADED SAND. CAVITY GROUT SHALL CONSIST OF 1 CEMENT, 2 SAND, 3 10mm AGGREGATE (250 SLUMP).

RM4 THERE SHALL BE A MINIMUM OF 15mm COVER OF GROUT AROUND ALL REINFORCEMENT.

RM5 MASONRY SHALL BE LAID WITH FULL HEAD AND BED MORTAR JOINTS. MORTAR FINS SHALL NOT PROTRUDE INTO CAVITY GROUT SPACE.

RM6 THE TWO SKINS OF MASONRY SHALL BE BONDED TOGETHER WITH HEAVY DUTY MASONRY TIES AT MAXIMUM 600mm CENTRES BOTH WAYS.

RM7 CLEAN OUT PORTS SHALL BE PROVIDED FOR EACH POUR BY LEAVING OUT TWO UNITS AT THE BOTTOM OF EACH SECTION TO BE GROUTED. DURING WORK, MORTAR FINS AND ANY OTHER MATERIAL SHALL BE REMOVED FROM THE CAVITY GROUT SPACE. THE PORTS SHALL BE SEALED WITH SIMILAR MASONRY UNITS AFTER INSPECTION AND BEFORE GROUTING.

RM8 THE REINFORCED CAVITY SHALL BE NOT LESS THAN 70mm IN WIDTH.

RM9 MORTAR SHALL CURE FOR AT LEAST FOUR DAYS BEFORE POURING CAVITY GROUT.

RM10 CAVITY GROUT SHALL BE PLACED BY PUMPING OR OTHER APPROVED METHOD AND SHALL BE PLACED BEFORE INITIAL SET OCCURS, AND IN NO CASE MORE THAN 12 HOURS AFTER WATER IS ADDED.

RM11 CAVITY GROUTING SHALL BE DONE IN LIFTS NOT EXCEEDING 1000mm PER 12 HOUR PERIOD AND RODDED INTO POSITION.

RM12 MORTAR TO REINFORCED BLOCKWORK SHALL BE M3 (1:5).

RM13 REINFORCING BARS SHALL BE PLACED BEFORE OR DURING THE BLOCK LAYING.

RM14 PROVIDE FULL HEIGHT VERTICAL CONTROL JOINTS IN WALL AT MAXIMUM 8m CTS.

RM15 REINFORCEMENT, INCLUDING STARTER BARS AND WALL TIES, SHALL BE HOT DIPPED GALVANIZED, UNO.

ABBREVIATIONS LEGEND

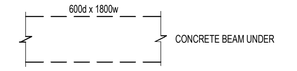
ABBREVIATION	DESCRIPTION
B	BOTTOM FACE
B/S	BOTH SIDES
CENT	CENTRALLY PLACED
CFW	CONTINUOUS FILLET WELD
CL	CENTRE LINE
CTS	CENTRES
d	DEPTH/DEEP
DL	SUPERIMPOSED DEAD LOAD
DWG	DRAWING
EF	EACH FACE
EW	EACH WAY
EQ	EQUAL
FF	FAR FACE
F/S	FAR SIDE
FSBW	FULL STRENGTH BUTT WELD
H	HORIZONTAL
h	HEIGHT/HIGH
HDG	HOT DIP GALVANIZED
LG	LONG/LENGTH
LL	LIVE LOAD
NF	NEAR FACE
NGL	NATURAL GROUND LINE
NLB	NON-LOADBEARING
NOM	NOMINAL
N/S	NEAR SIDE
NTS	NOT TO SCALE
OPP	OPPOSITE
PL	PLATE
PT	POST TENSION
SIM	SIMILAR
T	TOP FACE
T&B	TOP AND BOTTOM
TBC	TO BE CONFIRMED
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
U/S	UNDERSIDE
V	VERTICAL
w	WIDTH/WIDE

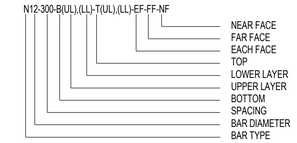
LEGEND

LEGEND APPLIES TO ALL STRUCTURAL DRAWINGS UNLESS NOTED OTHERWISE

XX* PROPOSED SLAB THICKNESS.
STEP IN SLAB. REFER ARCHITECTS DRAWINGS
STUD WORK OVER
LOADBEARING WALL UNDER
LOADBEARING WALL UNDER & OVER
BLOCKWORK OVER
BRICKWORK OVER
CONCRETE WALL OVER
PRECAST WALL OVER
EXISTING WALL TO BE DEMOLISHED
1B3 STEEL BEAM (FIRST FLOOR SUPPORT BEAM No B3)
1L2 LINTEL (LINTEL TO FIRST FLOOR OPENING No 2)
1FJ1 FLOOR JOIST (FIRST FLOOR JOIST No FJ1)
Cx (U) CONCRETE COLUMN UNDER ONLY.
Cx CONCRETE COLUMN UNDER & OVER
Cx (O) CONCRETE COLUMN OVER ONLY
DENOTES SHOWER SETDOWN
PB PLY BRACE
WB WALL BRACE

NOTE:
ALL BRACING SHOWN ON PLANS TO BE CONSTRUCTED ON WALLS BELOW LEVEL DRAWN





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REVISION	DESCRIPTION	DATE
A	PRELIMINARY ISSUE	24-05-25

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PROJECT

52 BOUNDARY ROAD COLDSTREAM

ARCHITECT

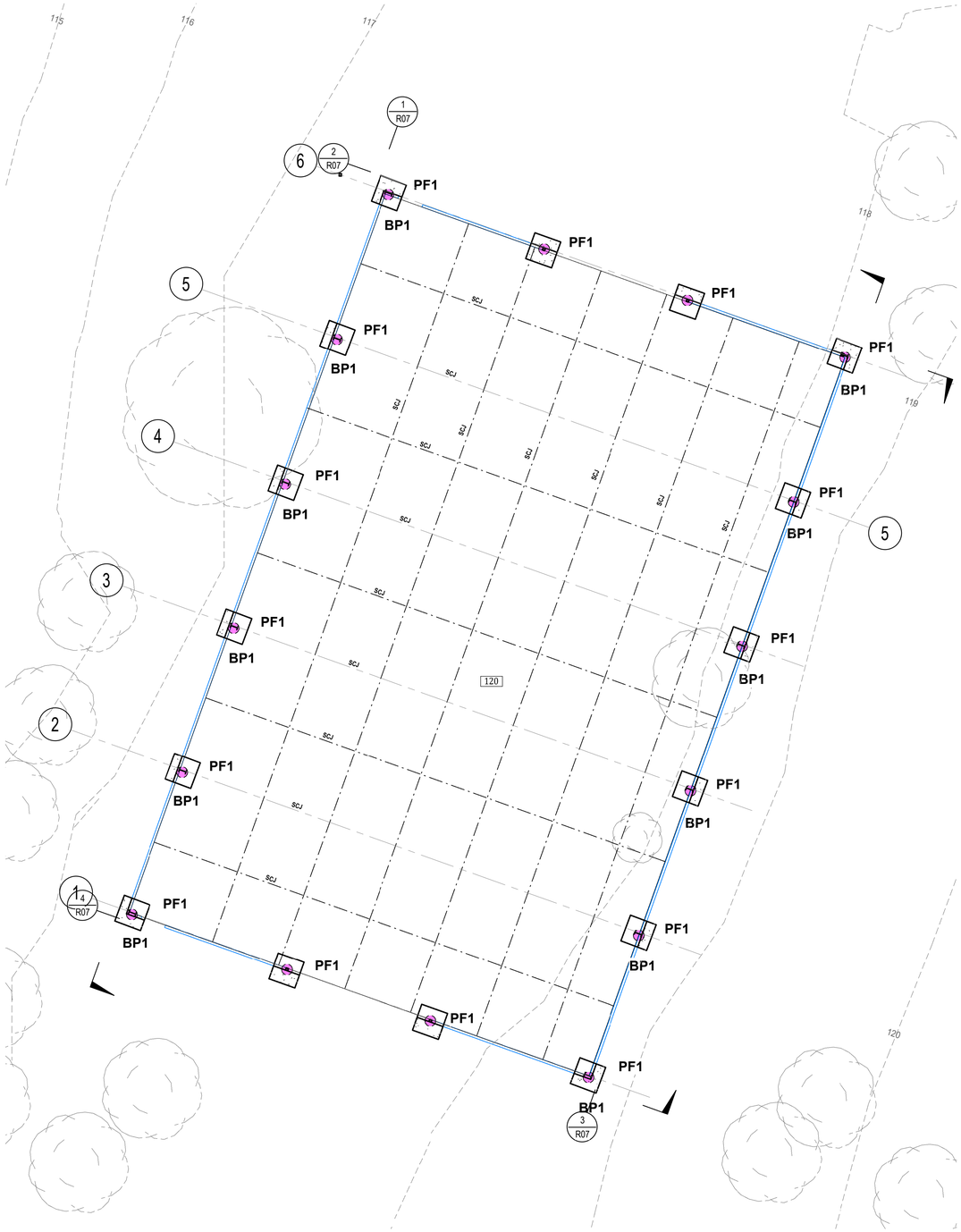
ORIGIN SQUARE PROPERTY CONSULTING PTY LTD

GENERAL NOTES SHEET 2

PRELIMINARY ISSUE
NOT FOR CONSTRUCTION OR PRICING

Project	Drawing	Revision
25ST191	R02	A

Designed	JW
Certified	JW
Drawn	JW
Sheet Size	A1



GROUND LEVEL SLAB/FOOTING PLAN

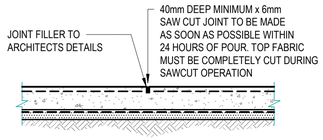
SCALE 1 : 100

SLAB /FOOTING LEGEND

120 THICK REINFORCED CONCTRETE SLAB ON GROUND, SL92 TOP AND BOTTOM (30 COVER) 0.2mm POLYTHENE (LAPPED 200 AND TAPED AT JOINTS) ON 50mm COMPACTED SAND. fc = 25 MPa
REFER TO GENERAL NOTES AND GEOTECHNICAL REPORT FOR FILLING COMPACTION (50KPA MIN.)
98% COMPACTION OF ENGINEERING FILL IS RECOMMENDED

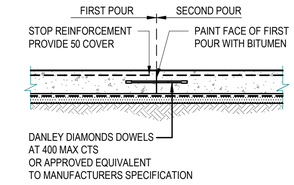
S.C.J DENOTES SAWCUT JOINT. REFER TO DRAWING R03 FOR DETAILS.

PF1 DENOTES 1000x1000 PADFOOTING 400mm MIN. DEEP SUSPENDED ON SCREWPILE. SL92 TOP AND BOTTOM. fc = 40 MPa



SAWCUT DETAIL

SCJ



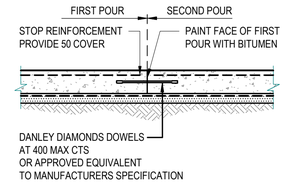
CONSTRUCTION JOINT DETAIL - OPTION 1

NOTE : GALVANISED DOWELS TO EXTERNALLY PAVED AREAS

DANLEY DIAMOND DOWEL

CJ

PIER/PILE SCHEDULE		
MARK	**DESCROPTION**	**FOUNDING DEPTH**
BP1	STEEL SCREWPILE	SWL 90kN, DESIGN AND SPECIFICATION TO SCREW PILE CONTRACTOR DETAIL

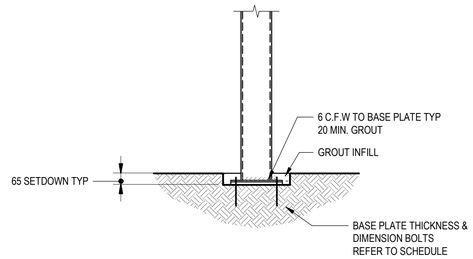


CONSTRUCTION JOINT DETAIL - OPTION 1

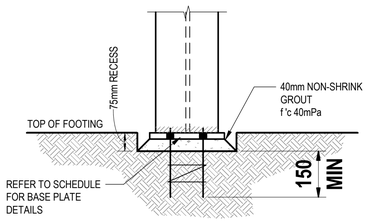
NOTE : GALVANISED DOWELS TO EXTERNALLY PAVED AREAS

DANLEY DIAMOND DOWEL

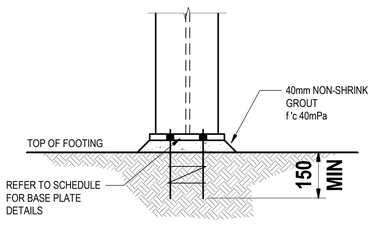
CJ



TYPICAL BASE DETAIL



TYPICAL COLUMN (C1) BASE PLATE RECESS CONNECTION



TYPICAL COLUMN (C1) BASE PLATE CONNECTION

SCALE 1:10

COLUMN BASE PLATE CONNECTION SCHEDULE

COLUMN	BASE PL THICKNESS (mm)	DIMENSIONS	BOLTS (8.8/S)	WELD E48xx SP FULL PERIMETER
C1 - 250 UB 25.7	25mm	240 x 240	4No. M20 RAMSET CHEMSET MAXIMA (OR SIMILAR APPROVED) 150mm MIN. EMBEDMENT	6mm C.F.W

ARCHITECTURAL DRAWING	
ARCHITECT JOB NO:	N/A
DATE:	

SOIL REPORT	STATEWIDE GEOTECHNICAL
SOIL REPORT NO.	29966-1
REPORT ISSUE DATE	04/08/2023
SOIL CLASSIFICATION	M (20 mm<Ys< 40 mm)
SITE CLASSIFICATION	CLASS P

SLAB/FOOTING NOTES:

1- FOOTING TO BE LOCALLY WIDENED AT ALL BRICK PIERS LOCATION TYPICAL U.N.O

2- BUILDER IS TO DETERMINE EXACT LOCATIONS OF EXISTING UNDERGROUND SERVICE PERIOR TO ANY CONSTRUCTION ON SITE.

3- REFER TO ARCHITECTURAL PLAN FOR ALL FINISH FLOOR LEVELS (FFLs) STEP DOWN LOCATION AND DEPTH AND LOCATION OF LOWERED REBATES PRIOR TO ANY WORK.

4- EASEMENT INFORMATION WAS NOT PROVIDED AT THE TIME OF THIS DESIGN. THIS OFFICE MUST BE CONTACTED WHENE EASEMENT INFORMATION IS AVILABLE FOR FORTHER ADVICE.

5- CARE SHALL BE TAKEN WHEN EXCAVATED NEAR EXISTING FOOTING.THIS OFFICE TO BE CONTACTED FOR ADVICE IN CASE OF ANY POTENTIONAL UNDERMINING.

6- FOOTING DESIGN IS BASED ON ARTICULATED MASONRY VENEER, BRICKLAYER TO CONSIDER ARTICULATION JOINTS TO BRICK VENEER WALLS AS PER RECOMMENDATIONS IN TN61 OR AS PER AS3700 GUIDELINES. FOR ACC CLADDING PANEL, ARTICULATION JOINTS MUST BE IN ACCORDANCE WITH MANUFACTURER DESIGN AND SPEC.

7- THIS OFFIC MUST BE CONTACTED IF THE FOOTING IS IN FLOOD PRONE AREA FOR FURTHER ADVICE.

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REVISION	DESCRIPTION	DATE
A	PRELIMINARY ISSUE	24-05-25

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PROJECT

52 BOUNDARY ROAD COLDSTREAM

ARCHITECT

ORIGIN SQUARE
PROPERTY CONSULTING PTY LTD

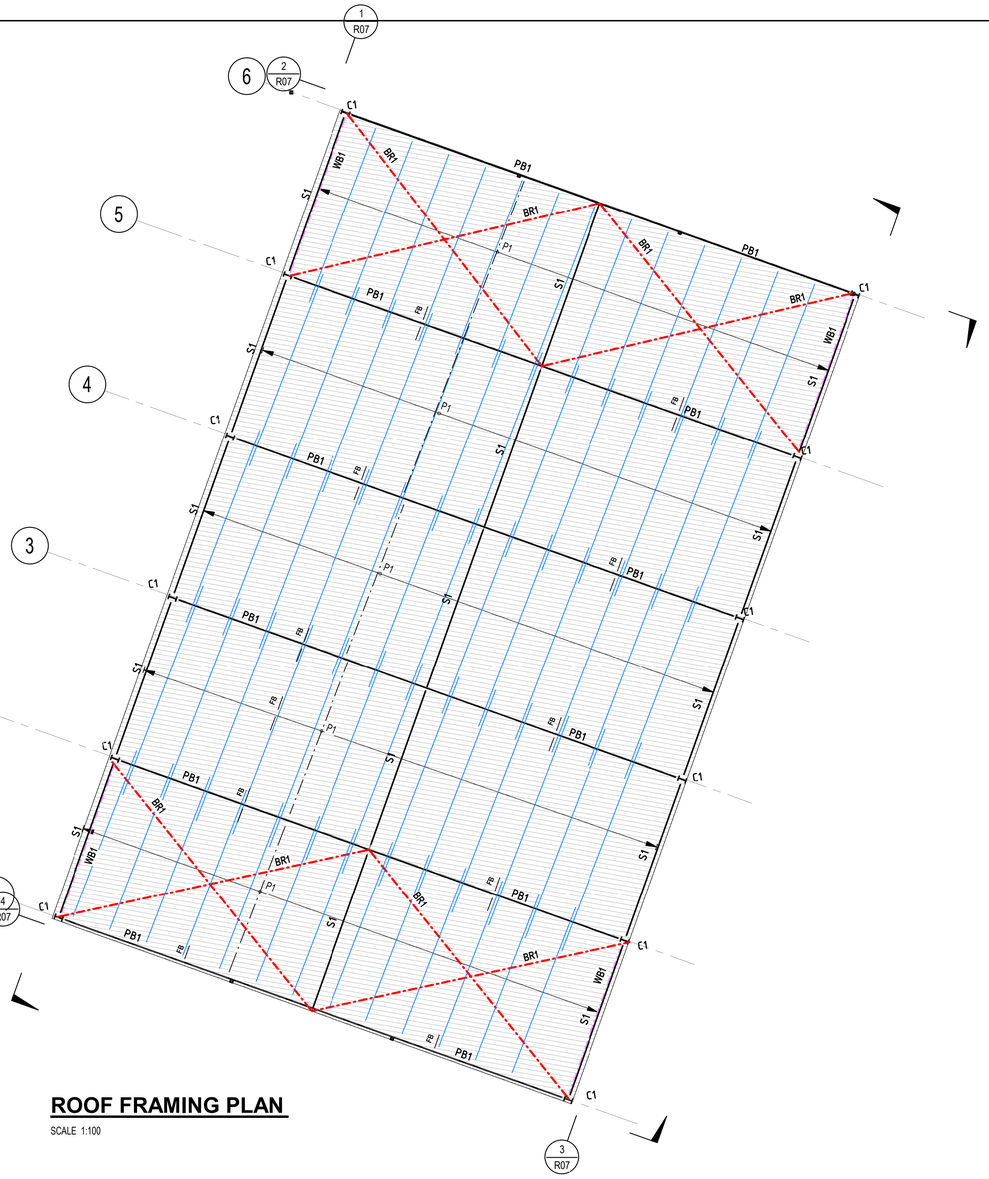
GROUND LEVEL SLAB/FOOTING PLAN

PRELIMINARY ISSUE
NOT FOR CONSTRUCTION OR PRICING

Project	Drawing	Revision
25ST191	R03	A

Designed	JW
Certified	JW
Drawn	JW
Sheet Size	A1

North



ROOF FRAMING PLAN

SCALE 1:100

MEMBER SCHEDULE

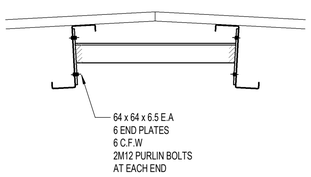
MARK	SIZE	TYPE	COMMENTS
PB1	250UB 37	PORTAL RAFTER	
S1	100x3.0 SHS	STRUT BEAM	
C1	250UB 37	STEEL STRUT BEAM	REFER TO S033 FOR CONNECTION DETAIL
P1	Z20015 ROOF PERLIN	ROOF PURLIN	AT 1200 CTS LAPPED 900mm MIN. 1 ROW OF BRIDGING
WB1	20 DIA. ROD BRACING	WALL BRACING	
BR1	M20 DIA. ROD BRACING	ROOF BRACING	
FB	FLY BRACE	REFER TYPICAL DETAIL	
C2	89 x 6.0 SHS	REFER ELEVATION	

STRUCTURAL FRAMING NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS AND AS1684 - RESIDENTIAL TIMBER FRAMED CONSTRUCTION FOR SIZES OF COMMON FRAMING MEMBERS NOT SPECIFIED BY DESIGN ENGINEER.
2. LINTELS UNLESS OTHERWISE SPECIFIED TO BE IN ACCORDANCE WITH AS1684 - RESIDENTIAL TIMBER FRAMED CONSTRUCTION.
3. PROVIDE WALL AND ROOF BRACING AND TIE DOWNS IN ACCORDANCE WITH AS1684 - RESIDENTIAL TIMBER FRAMED CONSTRUCTION.
4. ALL EXPOSED STEELWORK IS TO BE HOT DIPPED GALVANISED.
5. OPEN WEB FLOOR JOISTS ARE TO BE BRACED AND STRONGBACKED IN ACCORDANCE WITH THE JOIST MANUFACTURERS SPECIFICATION.
6. ALL TIMBER TO TIMBER CONNECTIONS ARE TO BE WITH PRYDA PRODUCTS OR APPROVED EQUIVALENT TO THE MANUFACTURERS SPECIFICATION UNLESS OTHERWISE DETAILED.
7. THIS OFFICE MUST BE NOTIFIED IMMEDIATELY , IF THE ASSUMED LOCATION OF GRIDER TRUSSES ARE FOUND TO BE DIFFERENT BY THE TRUSS MANUFACTURER.
8. ALL EXPOSED ANGEL BEAMS AND POSTS TO BE TREATED TO H3 (U.N.O)
9. REFER TO ANGLE LINTEL SCHEDULE FOR BRICK LINTELS U.N.O
10. WHERE APPLICABLE , TIE BRICK PIER / DOUBLE BRICK WALL TO STUD WALL WITH M10@450mm MAX.CTS.
11. ALL BLOCKWORK LINTELS/BEAMS TO HAVE 150 MIN. END BEARING U.N.O.
12. WATERPROOFING TO ARCHITECTS DETAILS.
13. SOLID BLOCKING TO BE 45-WIDE x D-25 DEEP SECURELY NAILED TO JOISTS/RAFTERS (D=DEPTH OF JOIST/RAFTER) LOCATED AT 1800 MAX. CENTRES.
14. ALL LINTELS/BEAMS TO BE SUPPORTED ON 2/90x45 MGP10 STUDS EACH END U.N.O.
15. FIX END JOISTS, RAFTERS, STUDS TO WALLS WITH M12 TRUBOLTS OR M10 COACH SCREWS AT 600 CENTRES U.N.O.
16. PROVIDE 2 / 90 x 45 MGP10 STUDS LOCATED UNDER ENDS OF ALL LINTELS, FLOOR AND ROOF BEAMS, GIRDER TRUSSES, AND AT SIDES OF WINDOW OPENING .
17. PROVIDE 2 / 90 x 45 MGP10 STUDS LOCATED UNDER ENDS OF ALL LINTELS, FLOOR AND ROOF BEAMS, GIRDER TRUSSES, AND AT SIDES OF WINDOW OPENING.
18. ALL EXTERNAL TIMBERS THAT ARE NOT PRE-TREATED , TO BE TREATED WITH CABOTS BAR D.K OR APROVED EQUIVALENT PRIOR TO INSTALLATION.
19. REFER TO ARCHITECTS DRAWINGS / SPECS FOR ROOF AND WALL CLADDING DETAILS AND ANY CAPPING & FLASHING ETC. FOR ALL GUTTERS , ROOFING FLASHING AND BRACKETS , REFER TO ARCHITECTURAL DRAWING.

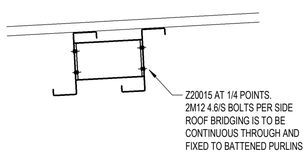
PURLIN & GIRT SETOUT NOTES:

- THE PURLIN & GIRT LAYOUT SHOWN ON THE STRUCTURAL DRAWINGS IS DIAGRAMMATIC ONLY.
- THE PURLIN / GIRT CENTRES NOMINATED ON THE STRUCTURAL DRAWINGS ARE MAXIMUM AND MAY NEED TO BE REDUCED TO COMPLY WITH SUPPORT SPACING REQUIRED BY ROOF SHEET MANUFACTURER AND or ARCHITECTURAL FINISHES ETC.
- REFER TO ARCHITECTURAL DOCUMENTATION FOR TYPE AND THICKNESS OF ROOF SHEETING & FINISHES.
- THE FABRICATOR SHALL DETERMINE TOTAL NUMBER OF PURLIN / GIRT RUNS REQUIRED. THE TOTAL NUMBER OF PURLIN or PURLIN / GIRT RUNS REQUIRED SHALL BE BASED ON THE WRITTEN INFORMATION CONTAINED ON THE STRUCTURAL AND ARCHITECTURAL DOCUMENTATION, THE BUILDING AND SETOUT DIMENSIONS SHALL BE OBTAINED FROM THE ARCHITECTURAL DRG'S.
- THE FABRICATOR SHALL PROVIDE ALL TRIMMING ANGLES REQUIRED FOR THE SUPPORT OF BOX GUTTERS, FLASHINGS ETC, THE EDGE, END SUPPORT OF ROOF AND WALL SHEETING.
- PURLINS TO BE EVENLY SPACED BETWEEN THE RIDGE AND EAVES PURLIN LOCATIONS. (U.N.O)
- PROVIDE 1000mm MAXIMUM END SPAN FOR ROOF SHEETING AT RIDGE, ROOF SHEETING EXPANSION JOINTS AND EAVES LOCATIONS.
- GIRTS ARE TO BE EVENLY SPACED BETWEEN TOP & BOTTOM GIRT LOCATIONS.
- BRIDGING LOCATIONS ARE TO BE AS SHOWN ON PLAN.
- PURLIN & GIRT BRIDGING IS TO BE FIXED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.



BATTENED RIDGE PURLIN DETAIL

SCALE 1:10



BATTENED PURLIN DETAIL

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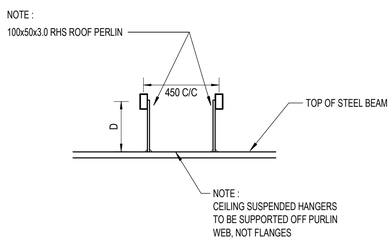

PURLIN SUPPORT SCHEDULE

DISTANCE 'D'	CLEAT	WELD
⩽ 20	8mm CLEAT PL.	6CFW
20 TO 60	10mm CLEAT PL.	6CFW
⩾ 60	75 x 75 x 5 EA	6CFW
LESS THAN 300		

TYPICAL PURLIN CLEAT DETAIL

SCALE 1:20

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PROJECT

52 BOUNDARY ROAD COLDSTREAM

ARCHITECT

ORIGIN SQUARE
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ROOF LEVEL FRAMING PLAN

PRELIMINARY ISSUE
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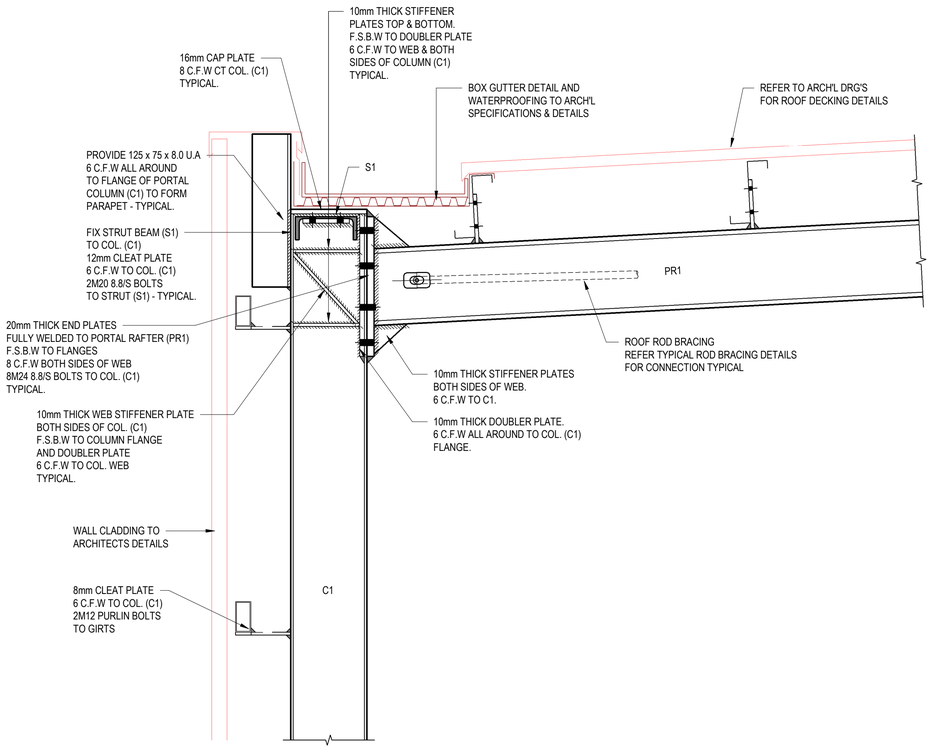
Project	Drawing	Revision
25ST191	R04	A

Designed	JW
Certified	JW
Drawn	JW
Sheet Size	A1

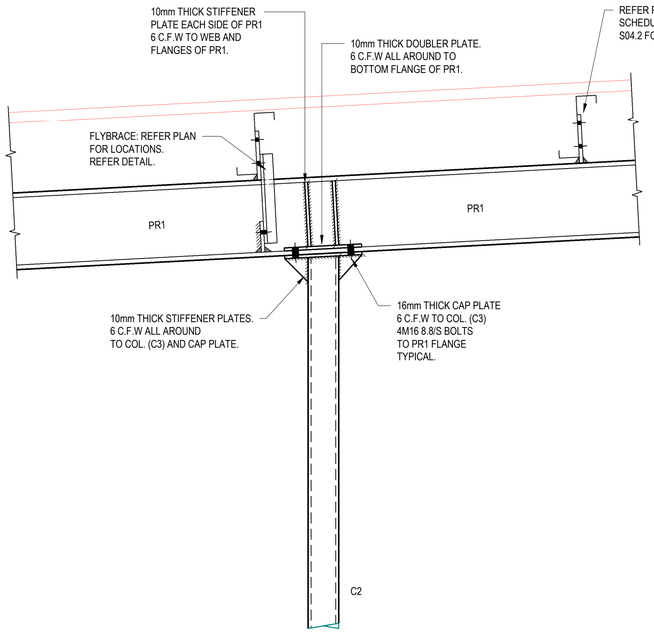
North

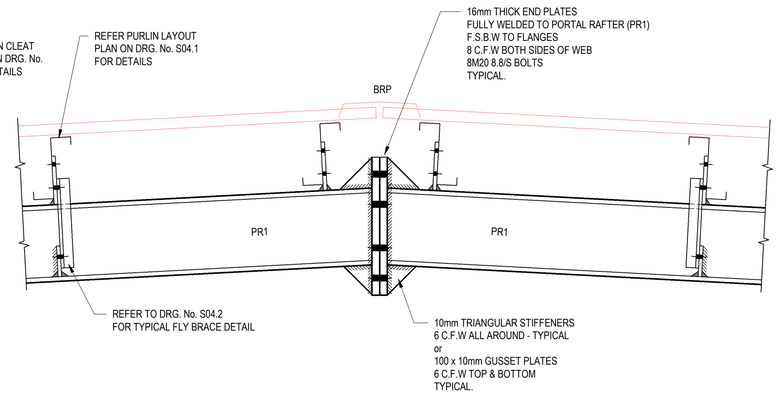


TYPICAL PORTAL FRAME RAFTER (PR1) TO PORTAL FRAME DETAIL

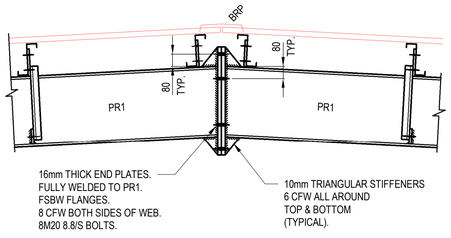
PORTAL COLUMN DETAIL UPDATED

SCALE 1 : 10

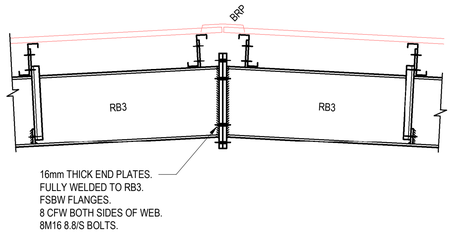




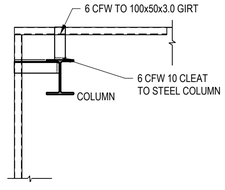
Cont. TYPICAL PORTAL FRAME RAFTER (PR1) TO PORTAL FRAME DETAIL



TYPICAL PORTAL RAFTER (PR1) RIDGE SPLICE CONNECTION DETAIL

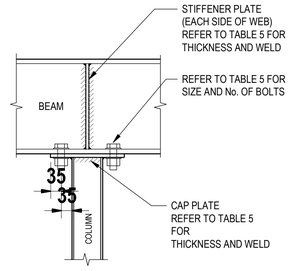


TYPICAL ROOF BEAM (RB3) RIDGE SPLICE CONNECTION DETAIL

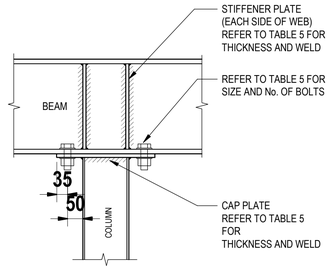


TYPICAL GIRT DETAIL (CORNERS)

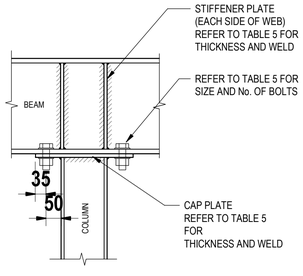
SCALE 1:20



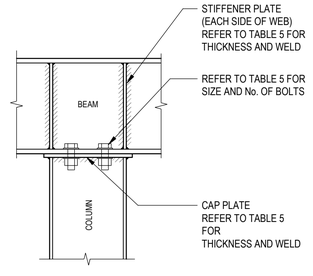
SHS-CHS COLUMN-TYPE 1



SHS-CHS COLUMN-TYPE 2



UC-UB COLUMN - TYPE 1



UC-UB COLUMN - TYPE 2

COLUMN CAP PLATE DETAILS - (NON PORTAL FRAMES)

SCALE 1:10

TABLE 5 : WEB SIDE PLATE DETAILS U.N.O

COLUMN SIZE	CAP PLATE THICKNESS	STIFFENER PLATE THICKNESS	WELD [E48XX]	CONNECTION TYPE	BOLTS FOR UB-UC BEAM	BOLTS FOR PFC BEAM
UP TO 125 SHS/CHS	10mm	10mm	6 CFW	TYPE 1	4M20 8.8/S	2M20 8.8/S
UP TO 200 SHS/CHS	12mm	10mm	6 CFW	TYPE 2	4M24 8.8/S	2M24 8.8/S
OVER 200 SHS/CHS	16mm	12mm	8 CFW	TYPE 2	4M24 8.8/S	2M24 8.8/S
UP TO 150 UC/UB	10mm	10mm	6 CFW	TYPE 1	4M20 8.8/S	2M20 8.8/S
UP TO 310 UC/UB	10mm	10mm	6 CFW	TYPE 2	4M20 8.8/S	2M20 8.8/S
UP TO 460 UB	12mm	10mm	8 CFW	TYPE 2	6M24 8.8/S	3M24 8.8/S
UP TO 610 UB	16mm	12mm	8 CFW	TYPE 2	8M24 8.8/S	N/A

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REVISION	DESCRIPTION	DATE
A	PRELIMINARY ISSUE	24-05-25

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PROJECT

52 BOUNDARY ROAD COLDSTREAM

ARCHITECT

ORIGIN SQUARE PROPERTY CONSULTING PTY LTD

ROOF TYPICAL DETAILS - SHEET 1

PRELIMINARY ISSUE
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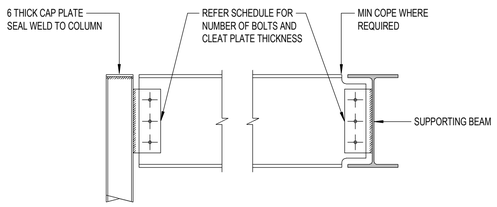
Project	Drawing	Revision
25ST191	R05	A

Designed	Designer
Certified	Designer
Drawn	Designer
Sheet Size	



BEAM TO COLUMN CONNECTION
(UNLESS DETAILED OTHERWISE)

BEAM SIZE	CLEAT PLATE	BOLTS (No.)
800 WB	16mm	9
700 WB	16mm	8
610 UB	16mm	7
530 UB	12mm	6
460 UB	12mm	5
410 UB	12mm	4
360 UB	10mm	3
310 UB	10mm	3

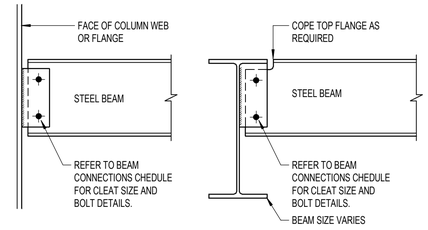
BEAM TO SUPPORT BEAM CONNECTION
(UNLESS DETAILED OTHERWISE)

BEAM SIZE	CLEAT PLATE	BOLTS (No.)
250 UB	10mm	3
200 UB	10mm	2
180 UB	10mm	2
150 UB	10mm	2
310 UC	12mm	3
250 UC	10mm	3
200 UC	10mm	2
150 UC	10mm	2

BEAM SIZE	CLEAT PLATE	BOLTS (No.)
100 UC	10mm	2
380 PFC	10mm	4
300 PFC	10mm	3
250 PFC	10mm	3
230 PFC	10mm	2
200 PFC	10mm	2
180 PFC	10mm	2
150 PFC	10mm	2

CLEATED CONNECTION DETAIL

NOTE
1. ALL STEELWORK GRADE 300 PLUS
2. ALL EXTERNAL STEELWORK TO BE HOT DIPPED GALVANISED
3. ALL CLEAT PLATES GRADE 250 UNO
4. ALL BOLTS M20 8.8/S UNO
5. ALL WELDS (SP) 6mm CONTINUOUS FILLET (CFW) UNO

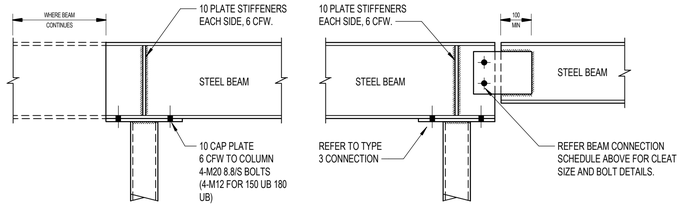


TYPE 1 CONNECTION

TYPE 2 CONNECTION

BEAM CONNECTION SCHEDULE		
BEAM SIZE	CLEAT PLATE	BOLTS
150,180, 200 , 230 PFC	10mm	2-M20 8.8/S
200 UB & UC	10mm	2-M20 8.8/S
250 UB & UC	10mm	2-M20 8.8/S
250 PFC	10mm	2-M20 8.8/S
310 UB & UC	10mm	3-M20 8.8/S
300 PFC	10mm	3-M20 8.8/S
360 UB	10mm	3-M20 8.8/S
380 PFC	10mm	4-M20 8.8/S
410 UB	12mm	4-M20 8.8/S
460 UB	12mm	5-M20 8.8/S
530 UB	12mm	6-M20 8.8/S
610 UB	16mm	7-M20 8.8/S

NOTE:
FOR BEAM CONNECTION TO FACE OF RHS COLUMNS PROVIDE CLEAT AS TEE SECTION WELDED DOWN EACH SIDE OF RHS

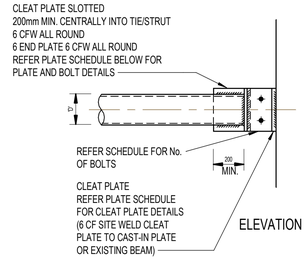


TYPE 3 CONNECTION

TYPE 4 CONNECTION

TYPICAL STEEL BEAM CONNECTION DETAILS

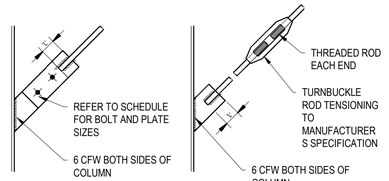
NTS



STRUT SIZE (D)			PLATES	BOLTS
75 SHS	75 RHS	76 CHS	10 PLATES	2-M20 8.8/S
90 SHS	100 RHS	89 CHS	10 PLATES	2-M20 8.8/S
100 SHS	125RHS	102/114 CHS	10 PLATES	2-M20 8.8/S
125 SHS	127 RHS	127/139 CHS	10 PLATES	2-M20 8.8/S
150 SHS	150 RHS	152/165 CHS	16 PLATES	3-M24 8.8/S
200/250 SHS	200 RHS	168/219 CHS	16 PLATES	3-M24 8.8/S

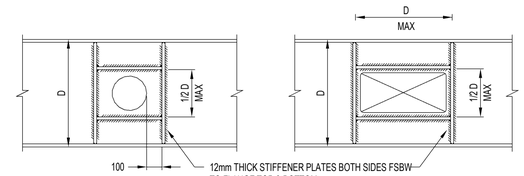
TYPICAL STRUT/TIE DETAILS U.N.O.

NTS



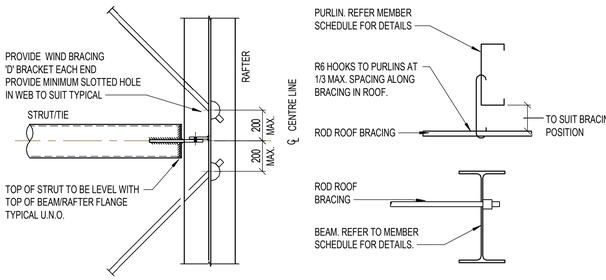
ROD SIZE	BOLTS	CLEATS (MIN)	MINIMUM WELD 'L'
16 DIA	2-M16 8.8/S	75x10 PLATE	50
20 DIA	2-M16 8.8/S	75x10 PLATE	80
24 DIA	2-M16 8.8/S	75x10 PLATE	100
30 DIA	2-M16 8.8/S	100x10 PLATE	130

TYPICAL ROD BRACE IN WALL DETAIL



NOTE: WHERE BEAM SIZE RESTRICTS SPACE BETWEEN UNDERSIDE OF BEAM AND TOP OF SUSPENDED CEILING GRID FRAMEWORK

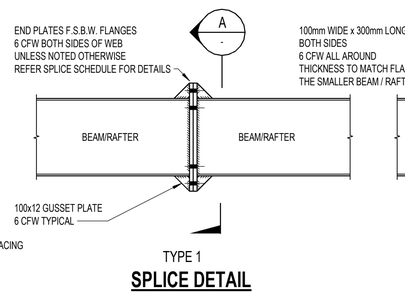
TYPICAL STEEL BEAM PENETRATION DETAILS



PLAN SECTION

TYPICAL ROD ROOF BRACING DETAILS

NOTE:
1. BRACING TO BE TIGHT, STRAIGHT AND CONTINUOUS
2. ROOF BRACING TO BE WIRED TOGETHER AT CROSS INTERSECTION



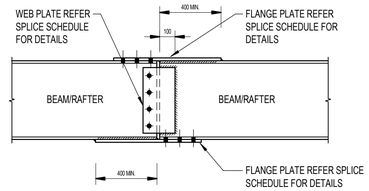
TYPE 1

SPLICE DETAIL

NTS

RAFTER/BEAM SPLICE TYPE 1 & 2 SCHEDULE				
BEAM SIZE	END PLATE	No.OF BOLTS	BOLT SIZE	WEB WELD SIZE (mm)
800 WB	32mm	10	M30 8.8/TF	8
700 WB	32mm	10	M30 8.8/TF	8
610 UB	32mm	10	M30 8.8/TF	8
530 UB	25mm	8	M24 8.8/TF	8
460 UB	25mm	8	M24 8.8/TF	6
410 UB	25mm	8	M24 8.8/TF	6
360 UB	25mm	8	M24 8.8/TF	6
310 UB	25mm	8	M20 8.8/TF	6
250 UB	20mm	8	M20 8.8/TF	6
200 UB	20mm	8	M20 8.8/TF	6
180 UB	20mm	8	M20 8.8/TF	6
150 UB	20mm	8	M20 8.8/TF	6

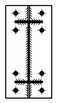
NOTE:
1. ALL PLATE GRADES 300 PLUS
2. ALL WELDS (SP) 6mm CONTINUOUS FILLET CFW) U.N.O.



TYPE 2

SPLICE DETAIL

NTS



SECTION A
NTS

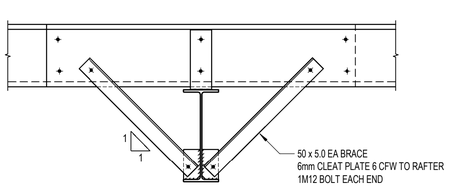
TYPE 3

SPLICE DETAIL

NTS

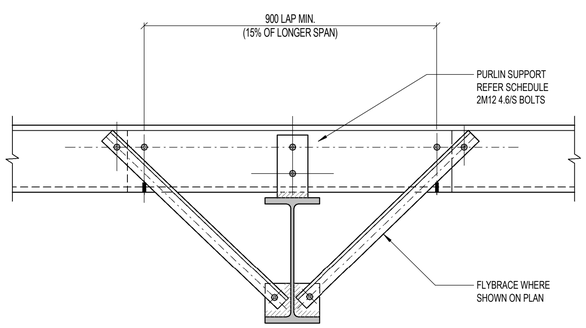
RAFTER/BEAM SPLICE TYPE 3 SCHEDULE						
BEAM SIZE	WEB CLEAT PLATE	FLANGE PLATE TOP AND BTM.	WEB BOLTS	FLANGE BOLTS	BOLT SIZE	WELD SIZE (mm)
800 WB	16mm	25mm	9	8	M24 8.8/TF	8
700 WB	16mm	25mm	8	8	M24 8.8/TF	8
610 UB	16mm	25mm	7	6	M24 8.8/TF	8
530 UB	12mm	25mm	6	6	M24 8.8/TF	8
460 UB	12mm	25mm	5	6	M20 8.8/TF	6
410 UB	12mm	25mm	4	6	M20 8.8/TF	6
360 UB	10mm	20mm	3	4	M20 8.8/TF	6
310 UB	10mm	20mm	3	4	M20 8.8/TF	6
250 UB	10mm	20mm	2	4	M20 8.8/TF	6
200 UB	10mm	20mm	2	4	M20 8.8/TF	6

NOTE:
1. ALL PLATE GRADES 300 PLUS
2. ALL WELDS (SP) 6mm CONTINUOUS FILLET CFW) U.N.O.



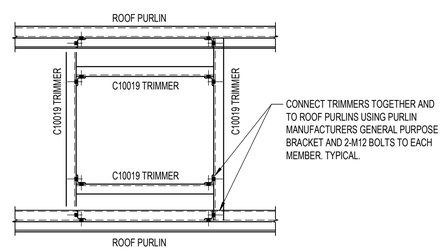
TYPICAL FLY BRACE DETAIL (FB)

'Z' PURLIN CONNECTION



LAPPED PURLIN DETAIL

SCALE 1:10



TYPICAL ROOF PENETRATION TRIMMER DETAIL.

NTS

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REVISION	DESCRIPTION	DATE
A	PRELIMINARY ISSUE	24-05-25

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PROJECT

52 BOUNDARY ROAD COLDSTREAM

ARCHITECT

ORIGIN SQUARE
PROPERTY CONSULTING PTY LTD

ROOF TYPIAL DETAILS - SHEET 2

PRELIMINARY ISSUE
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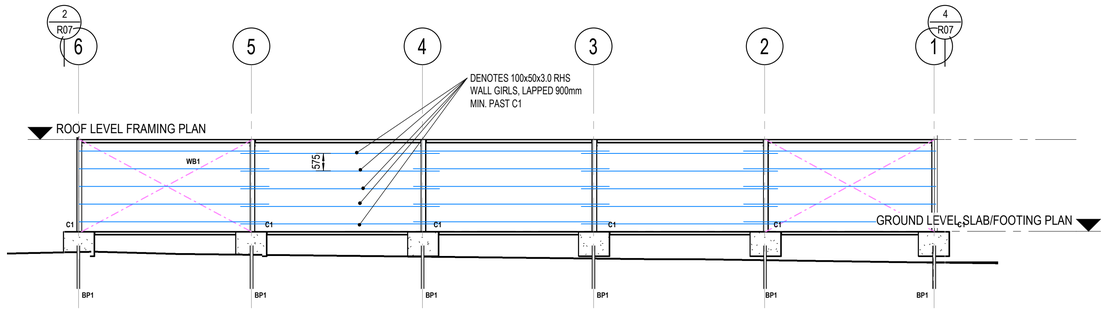
Project	Drawing	Revision
25ST191	R06	A

Designed Designer
Certified Designer
Drawn Designer
Sheet Size



Section 3

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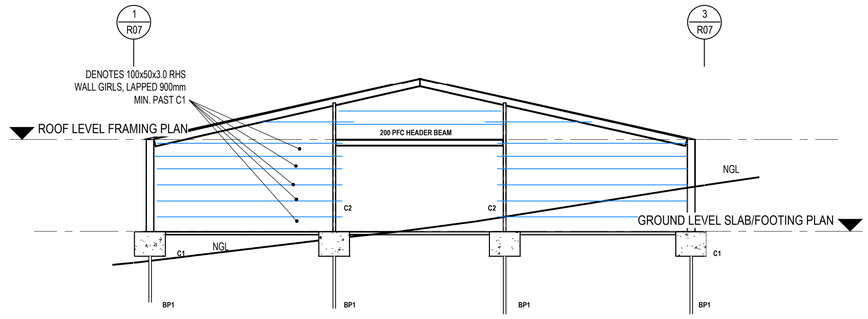

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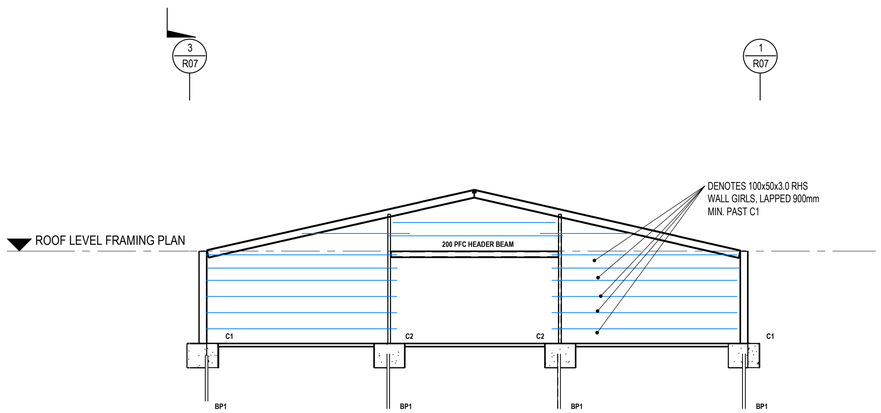

Section 4

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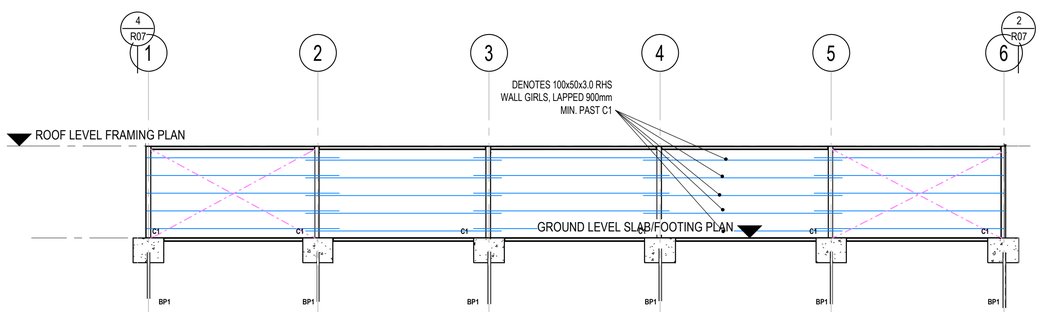

Section 5

SCALE 1 : 100

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REVISION	DESCRIPTION	DATE
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ARCHITECT

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STEEL ELEVATION SHEET 1

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Project	Drawing	Revision
25ST191	R07	A

Designed Designer
Certified Designer
Drawn Designer
Sheet Size