GENERAL

1. These drawings shall be read in conjunction with all architectural drawings and other consultants' drawings and specifications. All discrepancies shall be referred to the architect and/or engineer prior to proceeding with any work.
2. Dimensions shall not be obtained by scaling these drawings. All dimensions shown on these drawings are in millimetres unless noted otherwise. All levels shown are in metres.
3. All workmanship and materials shall be in accordance with the current SAA codes and by laws, ordinances or other requirements of the relevant building authorities.
4. Unless noted otherwise, waterproofing of all elements is the responsibility of the architect and to be in accordance with the architect's and manufacturer's specification.
5. During the course of construction the contractor shall be responsible for maintaining the structure in a stable condition and for ensuring that no part of the structure is over-stressed.
6. Temporary bracing and shoring shall be provided by the contractor to ensure that the structure and excavations are stable at all times. For all temporary excavation batters, the contractor is to obtain geotechnical advice.
7. No penetrations, holes or chases shall be made through the structural elements without the written approval from the engineer.
8. Design live loads in accordance with AS 1170.1 as follows:

Area Type	Live Load kPa
General	1.5
Roof	0.25

9. The following abbreviations denote:

ARCH - Architect
BEL - Bulk Excavation Level
BL - Boundary Line
CL - Centre Line
COS - Confirm on Site
DPM - Damp Proof Membrane
EF - Each Face
EW - Each Way
EX - Existing
FGL - Finished Ground Level
FSL - Finished Surface Level
INV - Invert
NGL - Natural Ground Level
SW - Stormwater
TBA - To Be Advised
U.N.O - Unless Noted Otherwise
WPM - Water Proof Membrane

10. Council and/or PCA Approval for all Works contained in the following drawings is to be obtained prior to commencement of construction.

FOOTING

1. The footings have been designed for a maximum allowable bearing capacity of 100kPa to SAND. Assumed Class A in accordance with AS2870. The soil conditions and bearing capacity of the foundations are to be confirmed by a geotechnical engineer prior to works commencing on site.
2. N/A.
3. All loose material, debris and water shall be removed from the base of the footing prior to the casting of concrete.
4. In all locations where excavated surfaces become softened by exposure to the weather or by ground water seepage, the footing shall be further excavated to reach a bearing capacity as specified in 1 and as approved by the geotechnical engineer.
5. All top soil and soil containing organic matter shall be removed from the area of proposed slab on ground and a minimum 30mm layer of compacted sand is to be provided under a waterproof membrane.

CONCRETE

1. All materials and workmanship is to be in accordance with AS 3600.
2. Concrete quality shall be as shown below unless otherwise noted on the drawings:

Element	Max. Slump (mm)	Aggregate Size (mm)	Concrete Grade (MPa)
Footings	80	20	25

3. Clear concrete cover to reinforcement shall be as follows, unless noted otherwise:

Element	Interior	Exterior	Cast against ground
Strip Footing	N/A	N/A	50
Pad Footing	N/A	N/A	50
Pier	N/A	N/A	50
Column	40	45	N/A
Wall	25	45	N/A
Beam	25	45	N/A
Slab	25	45	50

4. The concrete shall be tested for compliance in accordance with AS 3600. Test results are to be submitted to the engineer for review and approval.
5. The sizes of concrete elements do not include the thickness of finishes.
6. Construction joints other than those specified on the drawings shall not be made without approval from the engineer.
7. Beam depths are written first and include the slab thickness, if any.
8. Cover to all reinforcement, as specified in 3 or otherwise shown on the drawings, shall be provided and maintained during the concrete pour by the use of bar chairs. The bar chairs are to be at a maximum of 750mm centres in both directions. Bar chairs are to be either plastic or plastic tipped steel chairs.
9. Curing of the concrete shall be carried out by keeping surfaces continuously wet for a period of 7 days. The use of a plastic sheeting and/or hessian placed over the concrete surface and held down firmly is recommended for aid in curing concrete surfaces where no floor finishes are proposed.
10. All conduits in slabs shall not be placed within the zone of the clear concrete cover to the steel reinforcement. Conduits shall be placed above the bottom reinforcement and below the top reinforcement. Any conduits larger than 25 mm in diameter shall not be placed in the concrete element without the prior approval from the engineer.
11. Stripping of formwork and back propping of soffits shall not take place until concrete has reached 75% of the specified 28 day characteristic compressive strength.
12. 'N' denotes deformed bars, grade D500N
'S' denotes deformed bars, grade 250S
'R' denotes round bars, grade 250R
'SL' denotes square mesh, grade 500L
13. All reinforcement shall be in accordance with AS 4671.
14. N12-200 — SPACING (mm) / BAR SIZE (mm) / REINFORCEMENT GRADE
4N24 — BAR SIZE (mm) / REINFORCEMENT GRADE / NUMBER OF BARS
15. Reinforcement shown on the drawings is represented diagrammatically, and is not necessarily shown in its true projection.
16. Welding of reinforcement shall not be permitted unless shown on the drawings.
17. Splices in the reinforcement shall only be made in locations as shown on the drawings.
18. All cogs to be standard cogs unless noted otherwise.
19. All reinforcement laps to be as follows unless noted otherwise:

Reinforcement Bar	N12	N16	N20	N24	N28	N32	N36
Lap Length (mm)	500	650	800	1000	1150	1300	1450

20. Fabric reinforcement is to be lapped 300mm at ends and sides unless noted otherwise.

STRUCTURAL STEEL

1. All structural steel work is to be in accordance with AS 4100.
2. All welding is to be in accordance with AS/NZS 1554
3. All hot rolled structural steel sections are to be grade 300PLUS and in accordance with AS/NZS 3679.
4. All rectangular hollow sections (RHS) are to be grade C350L0 in accordance with AS 1163.
5. All square hollow sections (SHS) are to be grade C350L0 in accordance with AS 1163.
6. All circular hollow sections (CHS) are to grade C250L0 and grade C350L0 as applicable to their size in accordance with AS1163.
7. All bolts shall be high strength structural bolts, grade 8.8 unless noted otherwise.
8. All bolts are to be M16 and a minimum of two (2) bolts per connection unless noted otherwise.
9. All bolt holes are to have a minimum of 2mm clearance unless noted otherwise.
10. All bolts, nuts and washers are to be hot dip galvanised in accordance with AS/NZS 4680 unless noted otherwise.
11. The ends of all hollow steel members are to be sealed with 5mm thick end plates welded all around unless noted otherwise.
12. All gusset, fin and end plates are to be 10mm thick welded all around unless noted otherwise.
13. Fillet welds shall be full length continuous welds, denoted CFW on the drawings. The size of the fillet weld refers to the leg size of the weld. All fillet welds are to be 6mm unless noted otherwise.
14. Butt welds shall be complete penetration full length continuous welds denoted CPBW on the drawings.
15. Prior to the fabrication of structural steel work, two (2) copies of shop drawings shall be submitted to the engineer for review and approval. Fabrication shall not commence without written approval from the engineer.
16. All structural steel work to be encased in concrete is to be hot dip galvanised in accordance with AS/NZS 4680 unless noted otherwise.
17. Protective coatings and surface treatments shall be as follows:

Element location	Surface Preparation in accordance with AS 1627	Protective Coating or Treatment
Internal	Hand or power tool cleaned to minimum Class 2	Two coats (2) of inorganic zinc silicate primer DFT 70 microns
External -not requiring painting and more than 3km from sea water	Blast clean to minimum Class 2.5	Hot dip galvanised in accordance with AS/NZS 4680
External - requiring painting and/ or less than 3km from sea water	-	Refer to architect and paint manufacturer for specifications.

18. All paint specifications listed in 17 are to be applied in strict accordance with the manufacturers' recommendations and specifications.
19. Hot dip galvanised steel work that is site welded or sustains any other type of damage is to be prepared to a Class 3 standard and painted with two (2) coats of zinc rich paint.

MASONRY

1. All masonry work is to be in accordance with AS 3700.
2. All bricks to have a minimum compressive strength of 20MPa.
3. All concrete blocks to have a minimum compressive strength of 15MPa.
4. Masonry shall not be constructed on suspended concrete slabs and beams until all formwork and back propping is removed.
5. Vertical expansion and/or articulation joints shall be provided in all brickwork and block work walls in accordance with AS 3700.
6. Non load bearing walls are to be kept 20mm clear of the soffit of the slab and beams. The 20mm gap is to be filled with approved compressible filler and sealant. The filler and sealant are to provide the appropriate fire rating if required.
7. The tops of non load bearing masonry walls are to be supported by appropriate ties which allow vertical movement but do not allow lateral movement. The ties shall be placed at a maximum of 800mm centres.
8. Masonry wall ties shall be provided in accordance with AS 3700.
9. Dry pressed masonry only to be used for retaining walls, not extruded.
10. Two layers of approved graphite greased metal based slip joint material is to be provided between load bearing brick walls and the underside of concrete slabs and beams. The slip joint is to be placed on smooth brickwork or a smooth trowelled mortar finish.
11. The cores of all concrete block work are to be filled with 32MPa concrete U.N.O., of 10mm aggregate and 230mm slump. The concrete is to be compacted and mechanically vibrated during placement.
12. Clean out holes are to be provided at the base of all cores. Care shall be taken to ensure that the internal cores and clean out holes are clean and free from any mortar prior to grouting.
13. The vertical reinforcement is to be accurately placed and tied to the starter bars at the clean out holes. The vertical reinforcement is to be placed and tied off to the horizontal reinforcement as courses are laid to ensure that the location of the vertical reinforcement is maintained during grouting.
14. The minimum cover to all reinforcement from the internal face of the concrete block shall be 20mm unless noted otherwise.
15. The maximum pour height for unrestrained block work is to be 2000mm.
16. All concrete blocks used are to be of the Double U type.
17. Waterproofing and drainage to the back of retaining walls is to be provided in accordance with the architect and other consultants' specifications.
18. Reinforced concrete block work retaining walls shall not be backfilled until 14 days after the wall has been grouted, or if applicable, until after the slab over the retaining wall has been poured and cured for 7 days.

TIMBER

1. All workmanship and materials are to be in accordance with AS 1684, AS 1720 and AS 3959.
2. All members are to be H2 or T2 treated unless noted otherwise.
3. All external above ground members are to be H3 treated unless noted otherwise.
4. All external and in ground member are to be H5 treated unless noted otherwise.
5. All holes for bolts to be a snug fit. Washers are to be provided under all bolts and nuts and to be a minimum of 2.5 times the diameter of the bolt unless noted otherwise.
6. All bolted connections to be 2M16 bolts unless noted otherwise.
7. All bolts, nails, clouts and screws are to be hot dip galvanised in accordance with AS 4680.
8. All cut ends of members are to be treated to achieve the required hazard protection level.
9. All hold downs to roof, wall and floor framing to be in accordance with AS 1684.

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DRAWING SCHEDULE

STRUCTURAL DRAWINGS

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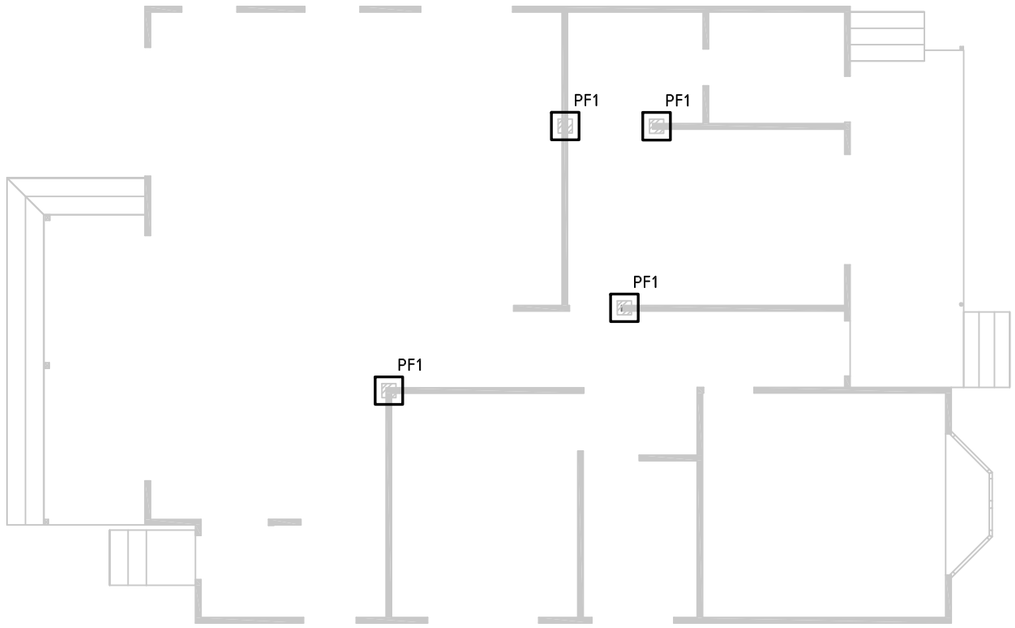
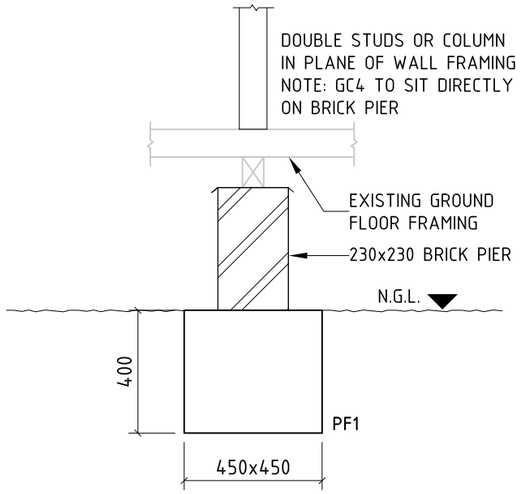
REV.	DATE	REVISION DESCRIPTION	BY
A	07.07.14	ISSUE FOR CDC SUBMISSION	DI
1	03.07.14	ISSUE FOR REVIEW ONLY	DI

ARCHITECT: NVISAGE PTY LTD
CLIENT: TIM & BRITA GOLSBY-SMITH
STATUS: ISSUE FOR CDC SUBMISSION
DATE: JUNE 2014
PROJECT: 11 DARIUS AVENUE, NORTH NARRABEEN
DRAWING: GENERAL NOTES
DESIGNED: JD
SCALE: N/A
DRAWN: JD
PAGE SIZE: A3
CHECKED: DI
REVISION: A
PROJECT NUMBER: 140617
DRAWING NUMBER: S01



FOOTING PLAN
1:100



PF1 DETAIL-1
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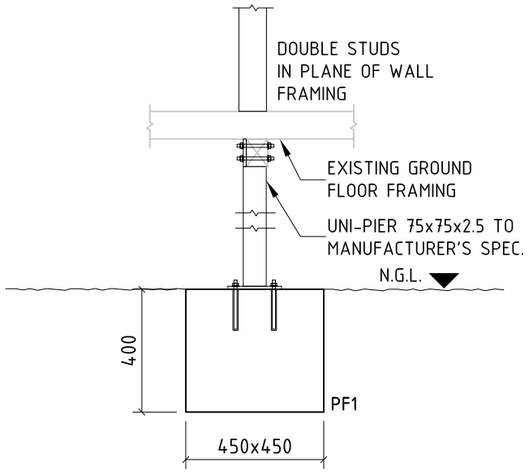

PF1 DETAIL-2
1:20

DENOTES EXISTING WALLS

PF1	450x450x400 DEEP MASS CONCRETE PAD FOOTING.

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DESIGNED: JD
SCALE: REFER DWG
DRAWN: JD
PAGE SIZE: A3
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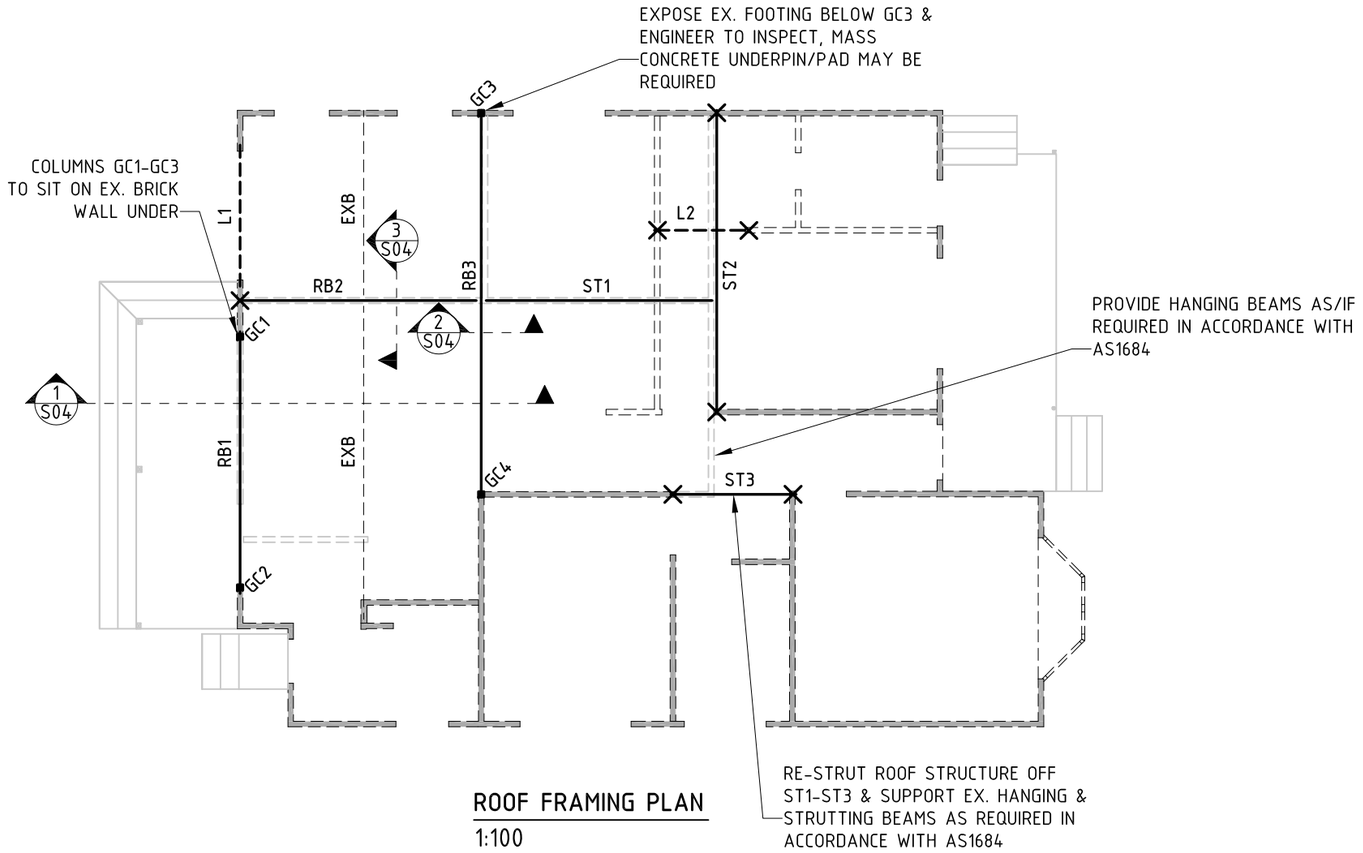
REVISION: A
PROJECT NUMBER: 140617
DRAWING NUMBER: S02



ROOF FRAMING PLAN
1:100

DENOTES LOAD BEARING WALLS UNDER

DENOTES EXISTING WALL TO BE DEMOLISHED

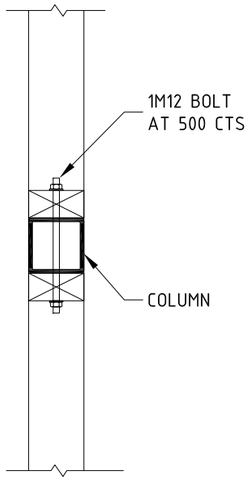
DENOTES PROPOSED NON LOAD BEARING WALLS UNDER

NOTE:

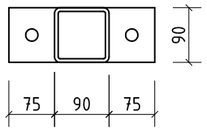
- ALL BEAMS & LINTELS TO BEAR ON DOUBLE STUDS WHERE WALL IS TIMBER FRAMED U.N.O.

- ALL TIMBER BEAM TO TIMBER BEAM CONNECTIONS TO BE WITH PRYDA SPLIT JOIST HANGERS U.N.O.

MEMBER SCHEDULE		
MARK	SIZE	TYPE
RB1	180UB16	ROOF BEAM
RB2	2/240x45 HYSPAN LVL	ROOF BEAM, NAIL & GLUE LAMINATED
RB3	250UB25	ROOF BEAM
ST1	240x63 HYSPAN LVL	STRUTTING BEAM
ST2	240x45 HYSPAN LVL	STRUTTING BEAM CONTINUOUS
ST3	200x45 HYSPAN LVL	STRUTTING BEAM
L1	2/90x45 MGP10	LINTEL, NAIL & GLUE LAMINATED
L2	2/140x45 MGP10	LINTEL, NAIL & GLUE LAMINATED
EXB	EXISTING BEAM	ROOF BEAM
GC1	89x89x5 SHS	COLUMN GALV.
GC2	89x89x5 SHS	COLUMN GALV.
GC3	89x89x5 SHS	COLUMN GALV.
GC4	89x89x5 SHS	COLUMN GALV.
×	LOAD CONCENTRATION POINT - DOUBLE STUDS IN PLANE OF WALL FRAME	



TYPICAL COLUMN TO FRAMED WALL CONNECTION
NOT TO SCALE



GC1, GC2, GC3, GC4

- ALL PLATES 10mm THICK
- M16 CHEMSET INJECTION 101 ANCHORS

TYPICAL COLUMN BASEPLATE DETAILS U.N.O.
1:10

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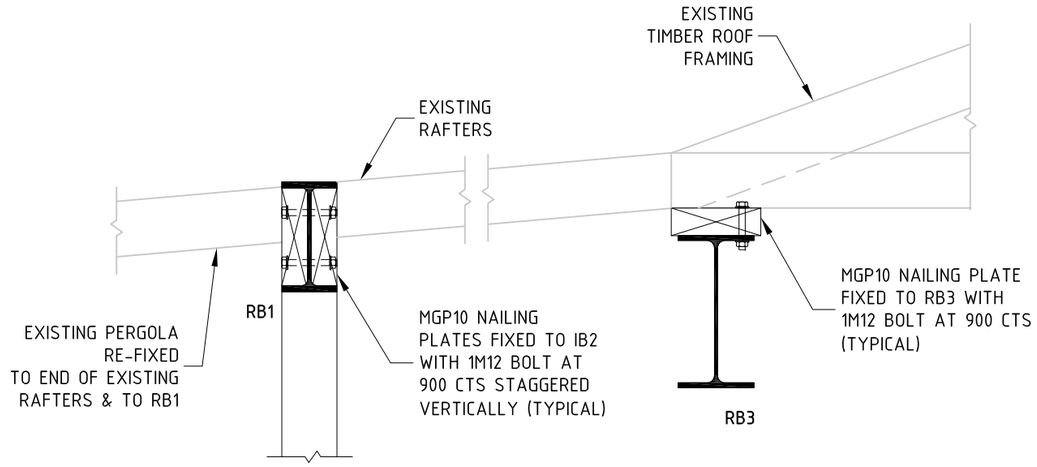

SECTION 1 / S03
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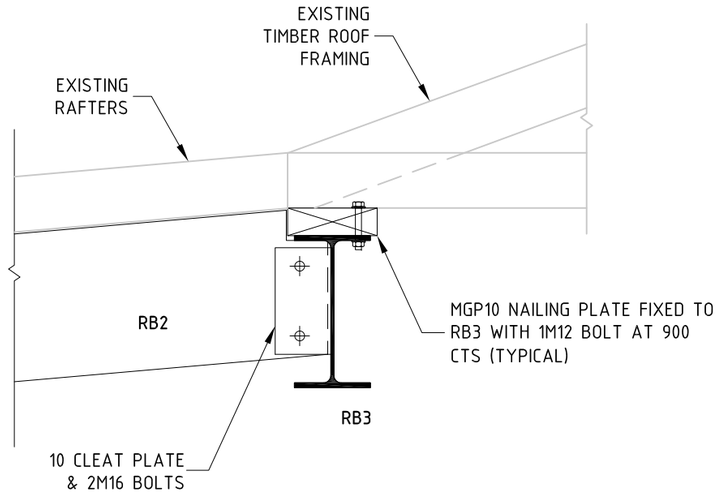

SECTION 2 / S03
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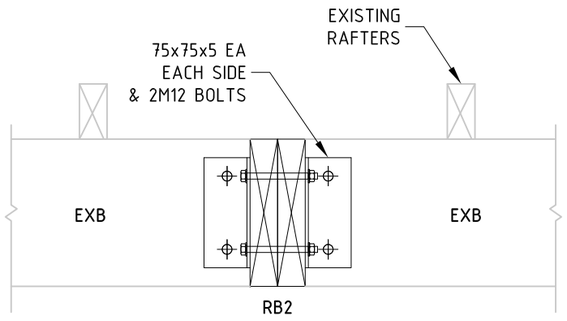

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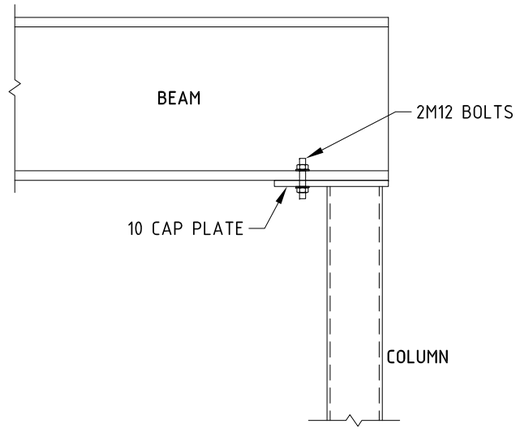

STEEL BEAM TO COLUMN CONNECTION DETAIL
1:10

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