

Project No.240483

ART GALLERY OF BALLARAT HVAC UPGRADE
40 LYDIARD STREET NORTH, BALLARAT CENTRAL



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DRAWING LIST - STRUCTURAL

S001	ROOF HVAC UPGRADE - GENERAL NOTES
S002	ROOF HVAC UPGRADE – ROOF FRAMING PLAN
S003	ROOF HVAC UPGRADE – ROOF DETAILS
S005	HVAC UPGRADE - TEMPORARY GENERATOR ENCLOSURE
S010	ROOF HVAC UPGRADE – DETAILS SHEET

B	TENDER ADDENDUM ISSUE	30/05/25
A	TENDER ISSUE	09/05/25
ISSUE	REVISION	DATE

GENERAL

G01. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS SHALL BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY ON THESE DRAWINGS MUST BE REFERRED TO THE ENGINEER. ADAMS CONSULTING ENGINEERS PTY LTD. FOR RESOLUTION PRIOR TO PROCEEDING WITH THE WORK.

G02. THESE DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNTIL ISSUED AS "ISSUED FOR CONSTRUCTION" BY THIS OFFICE.

G03. 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

G04. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE. ALL LEVELS ARE EXPRESSED IN METRES.

G05. DURING CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE STRUCTURE AND ALL EXCAVATIONS IN A STABLE CONDITION AND ENSURING NO PART IS OVER STRESSED BY CONSTRUCTION ACTIVITIES.

G06. WORKMANSHIP AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RELEVANT CURRENT NATIONAL CONSTRUCTION CODES, THE BUILDING CODE OF AUSTRALIA, OCCUPATIONAL HEALTH AND SAFETY REGULATIONS AND THE LOCAL STATUTORY AUTHORITIES REQUIREMENTS.

G07. 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.

G08. CONSTRUCTION ACTIVITY LOADING NOTE:
THE BUILDING IN ITS COMPLETE STATE HAS BEEN DESIGNED FOR THE LOADS NOMINATED ON THIS DRAWING. CONSTRUCTION ACTIVITIES AND TEMPORARY LOADS MUST NOT EXCEED THE LOADS NOMINATED ON THIS DRAWING.
ANY CONSTRUCTION ACTIVITY LOADING, INCLUDING TEMPORARY LOADING, THAT IS IN EXCESS OF THE LOADS NOMINATED ON THIS DRAWING OR PLACED ON A STRUCTURE THAT IS NOT IN ITS COMPLETED FINAL STRUCTURAL STATE MUST BE APPROVED BY THE TEMPORARY WORKS/ERECTION ENGINEER AND IS THE RESPONSIBILITY OF THE BUILDER/CONTRACTOR.
ANY PROPPING/TEMPORARY BRACING, AND THE LIKE, IS THE RESPONSIBILITY OF THE TEMPORARY WORKS/ ERECTION ENGINEER.
THE TEMPORARY WORKS/ERECTION ENGINEER SHALL BE ENGAGED BY AND PAID BY THE BUILDER/CONTRACTOR. ADAMS CONSULTING ENGINEERS HAVE NOT BEEN ENGAGED FOR TEMPORARY WORKS/ERECTION ENGINEER WORKS, INCLUDING CHECKING OF SUCH WORKS.
THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION REMAINS THE RESPONSIBILITY OF THE BUILDER/ CONTRACTOR.

G09. THE IMPORTANCE LEVEL OF THE STRUCTURE IN ACCORDANCE WITH NCC IS AS BELOW:

IMPORTANCE LEVEL	IL2
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G10. THE STRUCTURAL WORK ON THESE DRAWINGS HAS BEEN DESIGNED FOR THE FOLLOWING LOADS U.N.O

AREA	LIVE LOAD (kPa)	SELF WEIGHT SW (kPa)
ROOF	0.25	0.5
PLANT PLATFORM	2.5	0.8

THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING WIND LOAD PARAMETERS.		
ULTIMATE REGIONAL WIND SPEED V(R500)	45 m/s	
TERRAIN CATEGORY	3	

THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING:	
EARTHQUAKE DESIGN CATEGORY	EDC2

G13. 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.

G14. ALL WATERPROOFING SHALL BE CARRIED OUT IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE ARCHITECTURAL REQUIREMENTS FOR WATERPROOFING. OUR DRAWINGS AND SPECIFICATIONS SHOULD NOT BE RELIED UPON FOR WATERPROOFING DESIGN, DETAILING, INSTALLATION, OR WARRANTY.

G15. ALL COSTS INCURRED BY THE ENGINEER FOR ASSESSMENT OR APPROVAL OF SUBSTITUTION, ALTERATIONS OR ADDITIONAL WORKS SHALL BE BORNE BY THE CONTRACTOR.

G16. NO HOLES, RECESSES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.

G17. THE BUILDING STRUCTURE HAS BEEN DESIGNED TO SATISFY THE STRUCTURAL RELIABILITY AND ROBUSTNESS REQUIREMENTS OF SECTIONS B1V1 AND B1V2 OF THE NCC-2022, VIA COMPLIANCE WITH RELEVANT AUSTRALIAN STANDARDS TO SUIT A DEEMED TO SATISFY SOLUTION.

G18. SUB-FLOOR VENTILATION IS TO BE PROVIDED IN ACCORDANCE WITH THE CURRENT VERSION OF THE NATIONAL CONSTRUCTION CODE, TO SATISFY THE BUILDING SURVEYOR REQUIREMENTS.

G19. BUILDER TO PROVIDE TERMITE PROTECTION TO BUILDINGS, INCLUDING RELEVANT MINIMUM SUB-FLOOR CLEARANCE WHERE APPLICABLE, AS REQUIRED BY THE BUILDING SURVEYOR AND THE CURRENT VERSION OF THE NCC. TERMITE PROTECTION SYSTEMS ARE NOT SPECIFIED BY THIS OFFICE AND ARE TO BE SPECIFIED BY THE ARCHITECT, BUILDING SURVEYOR OR SUITABLE CONTRACTOR TO THE SATISFACTION OF THE BUILDING SURVEYOR.

G20. THE BUILDING STRUCTURE HAS NOT BEEN DESIGNED TO SUPPORT THE WEIGHT OF SOLAR PANELS ON THE ROOF UNLESS IT IS SPECIFICALLY NOTED ON OUR DRAWINGS. IF THE WEIGHT OF SOLAR PANELS IS ALLOWED FOR IN OUR DESIGN, THE SOLAR PANELS MUST BE INSTALLED ON A PLANE PARALLEL TO THE ROOF ONLY (NOT INCLINED TO THE ROOF) AND AT A DISTANCE SUCH THAT THE FACE OF THE SOLAR PANEL IS NOT FURTHER THAN 200mm FROM THE ROOF

STEELWORK

S01. ALL MATERIALS, WORKMANSHIP, INSPECTIONS, TESTING, PROTECTIVE COATINGS, FABRICATION AND ERECTION SHALL COMPLY WITH AS4100 STEEL STRUCTURES CODE AND ASINZS5131 WITH THE FOLLOWING CATEGORIES:

SERVICE CATEGORY	FABRICATION CATEGORY	CONSTRUCTION CATEGORY
SC1	FC1	CC2

MATERIAL IDENTIFICATION AND TRACEABILITY DOCUMENTATION AS STATED IN ASINZS5131 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 ASINZS3678 AND ASINZS3679.	
HOT ROLLED PLATES	GRADE 250
UB, UC, PFC, ANGLES, FLATS	GRADE 300 PLUS
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.

S02. ALL WELDING SHALL BE PERFORMED BY AN EXPERIENCED WELDER AND COMPLY WITH AS1553, AS1554 AND AS5131.

S03. ALL WELDS SHALL BE 6mm CONTINUOUS FILLET LAID DOWN WITH AN APPROVED, COVERED ELECTRODE UNLESS NOTED OTHERWISE.

S04. 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.

S05. 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 ASINZS 1554.1 AND AS5131.

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

S07. 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.

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.

S09. 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.

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 SHALL BE ADEQUATELY PROTECTED AGAINST CORROSION TO ACHIEVE A MEDIUM TERM LIFE BEFORE MAINTENANCE. EXTERNAL STEEL OR STEEL SUBJECT TO MOISTURE TO COMPLY WITH ASINZS 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 METER SPAN FOR ALL STEELWORK LONGER THAN 5.0m.

S19. STRUCTURAL STEELWORK TO BE CONCRETE ENCASED FOR FIRE PROTECTION SHALL BE ENCLOSED WITH SL41 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 (INCLUDING LINTELS) SHALL BE HOT-DIP GALVANIZED TO THE REQUIREMENTS NOTED IN AS2312.2 AND AS4680, SUITABLE TO THE CORROSIVITY CATEGORY FOR THE SITE.

S21. ANY DAMAGE TO GALVANIZING, INCLUDING SITE WELDING, SHALL BE REQUIRED TO BE REPAIRED IN ACCORDANCE WITH AS2312.2 AND AS4680.

S22. AFTER ERECTION, PAINT NUTS AND BOLT HEADS WITH ONE COAT OF APPROVED PRIMER.

S23. STEELWORK BEARING ON MASONRY OR CONCRETE SHALL BEAR A MINIMUM OF 150mm AND BE SUPPORTED ON 20mm OF GROUT.

S24. PROVIDE HOOK BOLTS FROM EVERY SECOND PURLIN TO ANY ROOF BRACING.

S25. PURLINS AND GIRTS TO BE INSTALLED WITH BRIDGING TO THE PURLINGIRT MANUFACTURER'S SPECIFICATIONS.

S26. SUPPLY PURLINS MINIMUM 2 SPANS CONTINUOUS U.N.O.

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 GALVANIZED.

S28. ALL OF THE STRUCTURAL STEEL MENTIONED IN THIS PROJECT HAS BEEN DESIGNED TO COMPLY WITH GOOD PRACTICE.

- 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.
- 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
- 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

MASONRY

M01. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF AS3700, SAA MASONRY CODE, APPROPRIATE FOR THE DURABILITY REQUIREMENTS GIVEN THE LOCATION OF THE SITE.

M02. LOAD BEARING BRICKS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH F_{uc} OF 30MPa.

M03. LOAD BEARING BLOCKS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH F_{uc} OF 15MPa

M04. MORTAR SHALL BE FRESHLY PREPARED AND UNIFORMLY MIXED IN THE FOLLOWING RATIOS UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWING.

M05. FOR REINFORCED WALLS - 1 PART CEMENT, 1 PART LIME AND 6 PARTS SAND AND HAVE AN AVERAGE 28 DAY COMPRESSIVE STRENGTH OF 11.0MPa.

M06. FOR UNREINFORCED WALLS ABOVE GROUND LEVEL - 1 PART CEMENT, 1 PART HYDRATED LIME AND 6 PARTS OF WELL GRADED SAND COMPLYING WITH AS2758.

M07. FOR UNREINFORCED WALLS BELOW GROUND LEVEL - 1 PART CEMENT, 1/2 PART HYDRATED LIME AND 4.5 PARTS OF WELL GRADED SAND COMPLYING WITH AS 2758.

M08. ALL CAVITY FILL IS TO BE WITH GROUT COMPRISING - 1 PART CEMENT,2.5 PARTS SAND AND 1.5 PARTS 10mm AGGREGATE (POURED IN 1000mm MAXIMUM LIFTS). GROUT TO HAVE A CHARACTERISTIC COMPRESSIVE STRENGTH (F_{ck}) OF 20 MPa AND SHALL HAVE A SLUMP OF 230 PLUS OR MINUS 30mm AT THE TIME OF POURING.

M09. MASONRY SUPPORTING CONCRETE SHALL BE SMOOTH AND LEVEL WITH ALL DEPRESSIONS FILLED WITH MORTAR AND SHALL BE SEPARATED AT THE BEARING SURFACE BY TWO LAYERS OF BITUMINOUS BUILDING PAPER (MALTHOID OR EQUIVALENT).

M10. VERTICAL FACES BETWEEN MASONRY WALLS AND CONCRETE SHALL BE SEPARATED BY 10mm THICK ABELFLEX.

M11. ALL NON-LOAD BEARING MASONRY WALLS SHALL BE KEPT CLEAR OF THE UNDERSIDE OF SLABS, SHELF ANGLES OR BEAMS BY MINIMUM OF 20mm.

M12. NO MASONRY SUPPORTED BY CONCRETE SHALL BE ERECTED UNTIL SUPPORTING FORMWORK, ETC. HAS BEEN REMOVED.

M13. WHERE MASONRY WALLS ARE TO BE CONSTRUCTED ON SUSPENDED SLABS, THE MATERIALS TO BE USED IN THE WALL ARE TO BE STACKED AS NEAR AS POSSIBLE TO THE FINAL POSITION OF THE WALL.

M14. NO MATERIALS ARE TO BE STACKED ON CANTILEVERED SLABS. NO MATERIALS ARE TO BE STACKED ON SUSPENDED CONCRETE WORK UNTIL ALL PROPS HAVE BEEN REMOVED. STACKING LOADS SHALL NOT EXCEED THE DESIGN LIVE LOAD AS INDICATED IN THE GENERAL NOTES.

M15. PROVIDE FULL-HEIGHT, ARTICULATION JOINTS IN ACCORDANCE WITH CEMENT AND CONCRETE ASSOCIATION CONSTRUCTION NOTE TN61, AT 6.0m CENTERS UNLESS SHOWN OTHERWISE. JOINTS SHALL BE 15mm WIDE WITH 20mm DIAMETER CLOSED CELL POLYETHYLENE FOAM BACKING ROD AND POLYSULPHIDE BASED CAULKING SEALANT TO EXTERNAL FACE.

M16. CAVITY WALL TIES TO BE AS FOLLOWS:

- FOR MASONRY VENEER WALLS - AT 600mm VERTICAL CENTRES GENERALLY AND REDUCE TO 300mm CENTRES AROUND OPENINGS AND AT CONTROL JOINTS. HORIZONTAL SPACING TO BE AT AVERAGE 450mm CENTRES. MAX. 600mm
- FOR CAVITY WALLS - AT 600mm MAXIMUM CENTRES IN EACH DIRECTION. REDUCE VERTICAL TIE SPACINGS TO AVERAGE 300mm (MAX 400mm) AROUND OPENINGS OR AT CONTROL JOINTS.
- TIES BETWEEN LEAVES OF MASONRY FORMING SOLID WALLS OR ENGAGED PIERS SHALL BE AT 400mm MAXIMUM CENTRES IN EACH DIRECTION. TIES ARE TO BE MEDIUM DUTY FOR THE APPROPRIATE CAVITY WIDTH AND ARE TO BE GALVANIZED TO THE APPROPRIATE RATING IN ACCORDANCE WITH AS3700 TABLE 5.1 AND AS2699. USE 3.15mm DIAMETER GALVANIZED STEEL WIRE TIES FOR CAVITY WIDTHS LESS THAN 65mm. USE 6mm DIAMETER GALVANIZED STEEL WIRE TIES FOR CAVITY WIDTHS FROM 65mm TO 130mm. TYPICAL TIES AS REQUIRED ON DETAILS ABUTTING STEEL OR CONCRETE TO BE 6mm DIAMETER GALVANIZED STEEL WIRE AT 400 MAXIMUM CENTERS.

B	TENDER ADDENDUM ISSUE	01/07/25
A	TENDER ISSUE	09/05/25
ISSUE	REVISION	DATE

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CLIENT	CITY OF BALLARAT
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ARCHITECT	k20 Architecture design development
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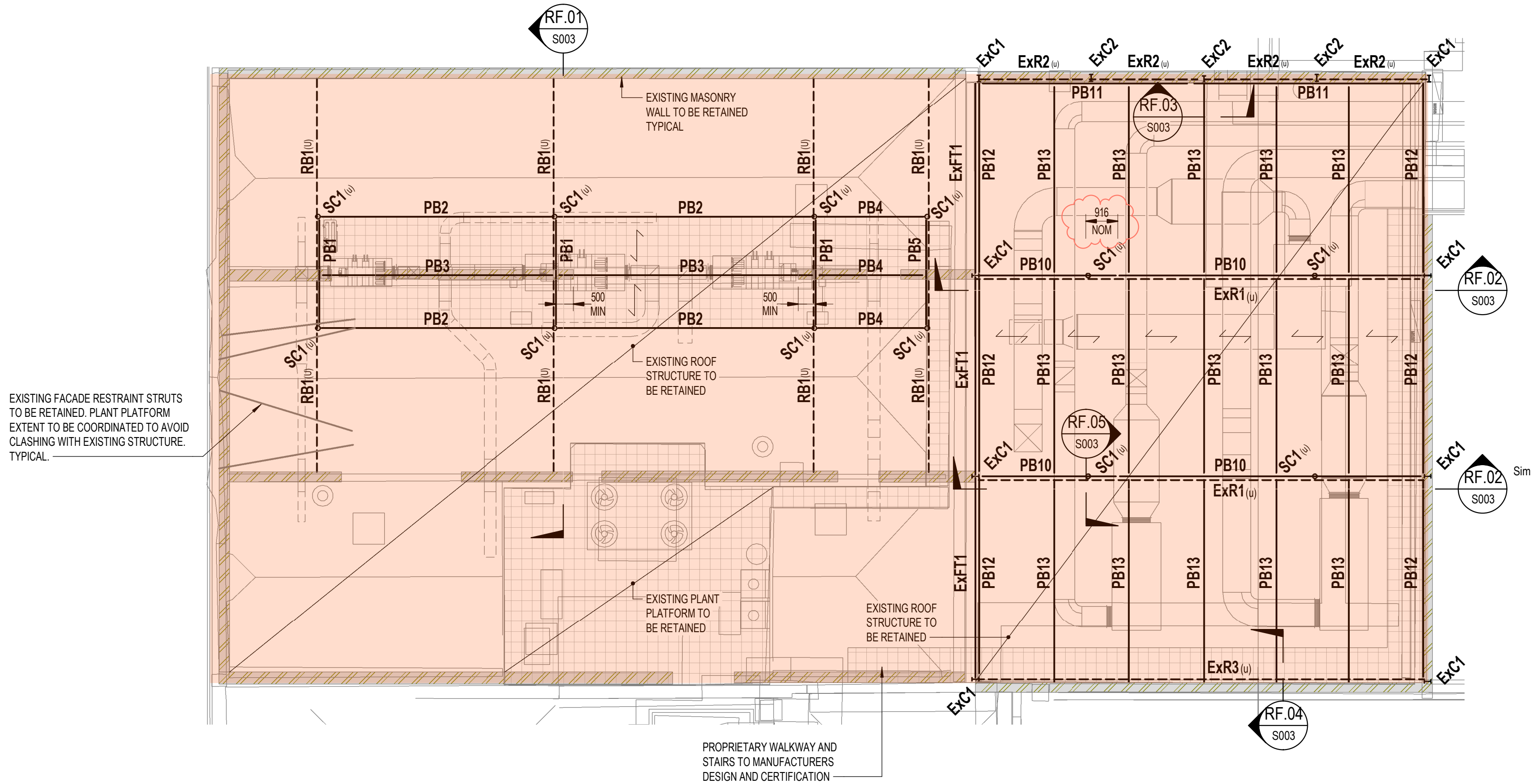
TITLE
ROOF HVAC UPGRADE - GENERAL
NOTES

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Project Leader	MA	Sheet Size	A1	
Project Director	GD	Certified	-	
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TENDER ISSUE
NOT FOR CONSTRUCTION OR PRICING

Project	Drawing	Revision
240483	S001	B

LEGEND
Fine Art Gallery (H0680)



ROOF FRAMING PLAN

SCALE 1:100

ROOF MEMBER SCHEDULE

MARK	SECTION	CONNECTION		REMARKS
		LEFT	RIGHT	
SC1	138.7x3.5 CHS	-	-	STUB COLUMN
PB1	310UB32.0	3	3	-
PB2	310UB32.0	2	2	-
PB3	310UB40.4	2	2	-
PB4	200UB18.2	2	2	-
PB5	200UB22.3	3	3	-
PB10	310UB32.0	3.4	4.3	-
PB11	200x75 PFC	-	-	DOUBLE SPAN. CONNECT TO EXISTING C1 COLUMN
PB12	200x100x6.0 RHS	2	2	-
PB13	200x100x6.0 RHS	2	2	-
PB14	610UB125	-	-	-
RB1	310UB40.4	WALL	WALL	REFER TYPICAL RB1 END CONENCTION DETAIL TO EX. WALL
S1	89x89x6.0 SHS	SECTION RF.05	SECTION RF.05	-
S2	75x75x10 EA	SECTION RF.05	SECTION RF.05	-

NOTE:

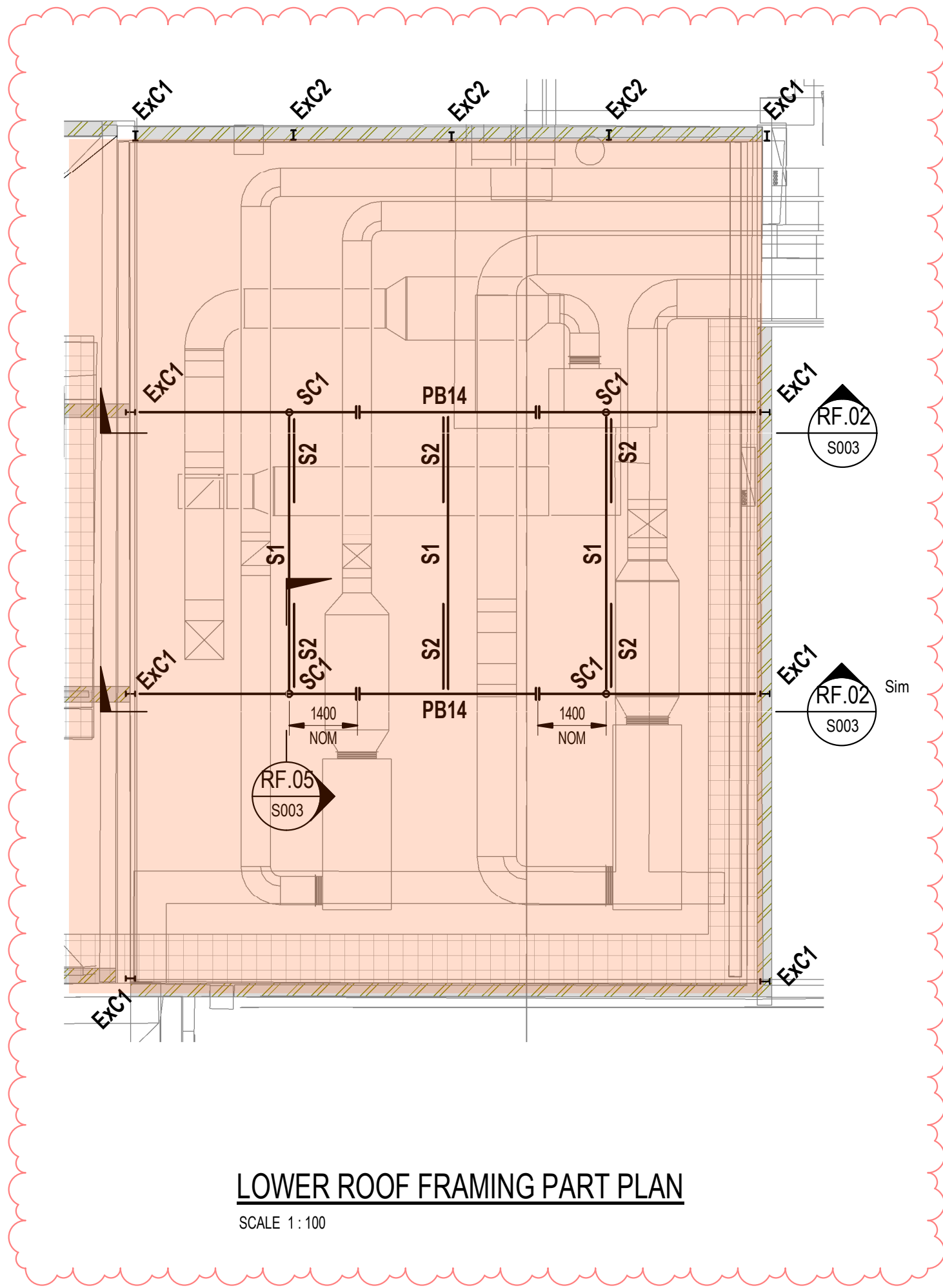
1. WATERPROOFING TO ARCHITECTS DETAILS.
2. ALL EXTERNAL OR EXPOSED STEELWORK TO BE HOT DIPPED GALVANIZED OR HAVE PROTECTIVE PAINT COATING TO ARCHITECTS DETAILS.
3. FIRE PROTECTION OF ALL STRUCTURAL STEELWORK TO BUILDING SURVEYORS REQUIREMENTS AND SPECIALIST CONTRACTORS DETAILS.

EXISTING ROOF MEMBER SCHEDULE

MARK	SIZE	REMARKS
ExC1	200UC46	EXISTING COLUMN
ExC2	200UC80	EXISTING COLUMN
ExFT1	TOP AND BOTTOM CHORDS: 200x75 RHS WEB MEMBERS: 200x75 RHS	EXISTING TRUSS
ExR1	310UB40	EXISTING BEAM
ExR2	150x75 PFC	EXISTING BEAM
ExR3	150x75 PFC	EXISTING BEAM

LEGENDS

↔ DENOTES SPAN DIRECTION OF WEBFORGE
A500MP METAL GRATING
2100 MAX SPAN



LOWER ROOF FRAMING PART PLAN

SCALE 1:100

ISSUE	REVISION	DATE
C	TENDER ADDENDUM ISSUE	01/07/25
B	TENDER ISSUE	24/06/25
A	TENDER ISSUE	09/05/25

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CLIENT	CITY OF BALLARAT
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ARCHITECT	k20 Architecture design development
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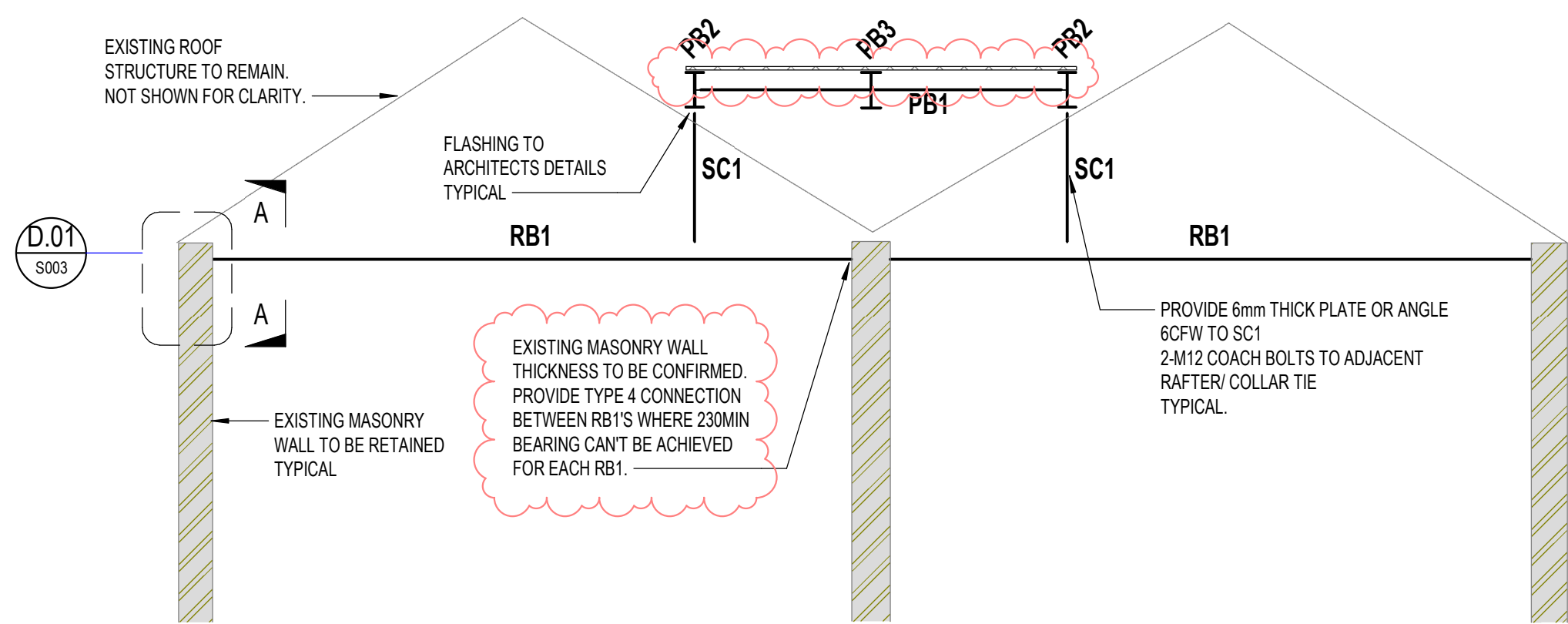
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Designed	SZ	Drawn	AM	North
Project Leader	MA	Sheet Size	A1	
Project Director	GD	Certified	-	
Printed 1/07/2025 11:03:28 AM	Version	22		
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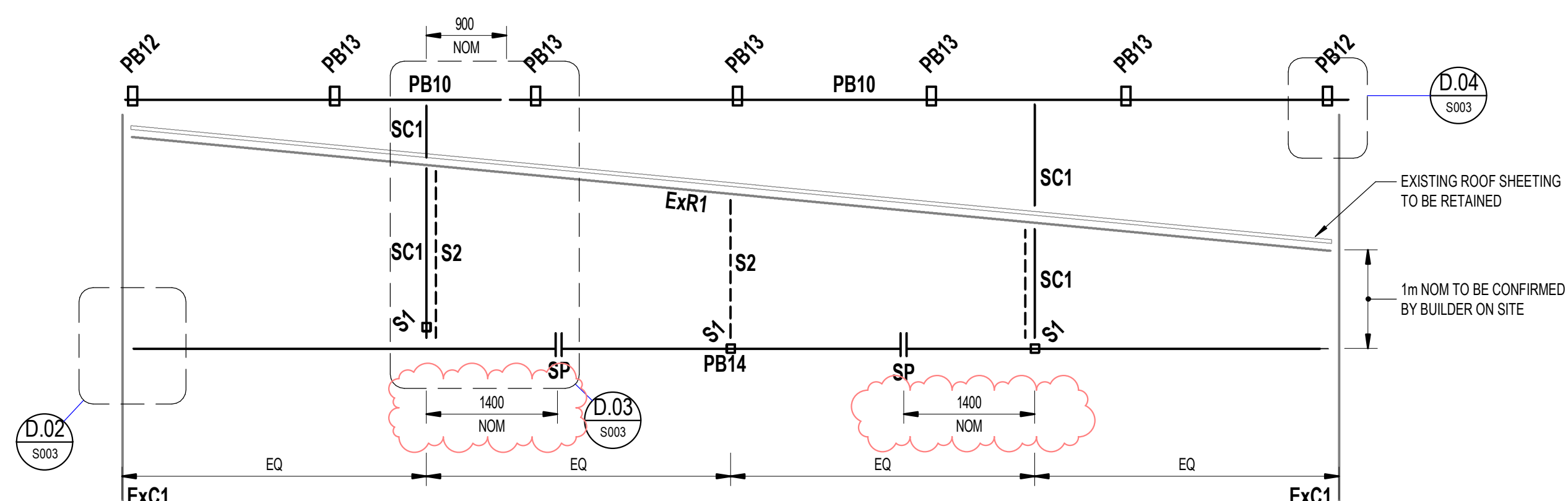
TENDER ISSUE
NOT FOR CONSTRUCTION OR PRICING

Project	Drawing	Revision
240483	S002	C

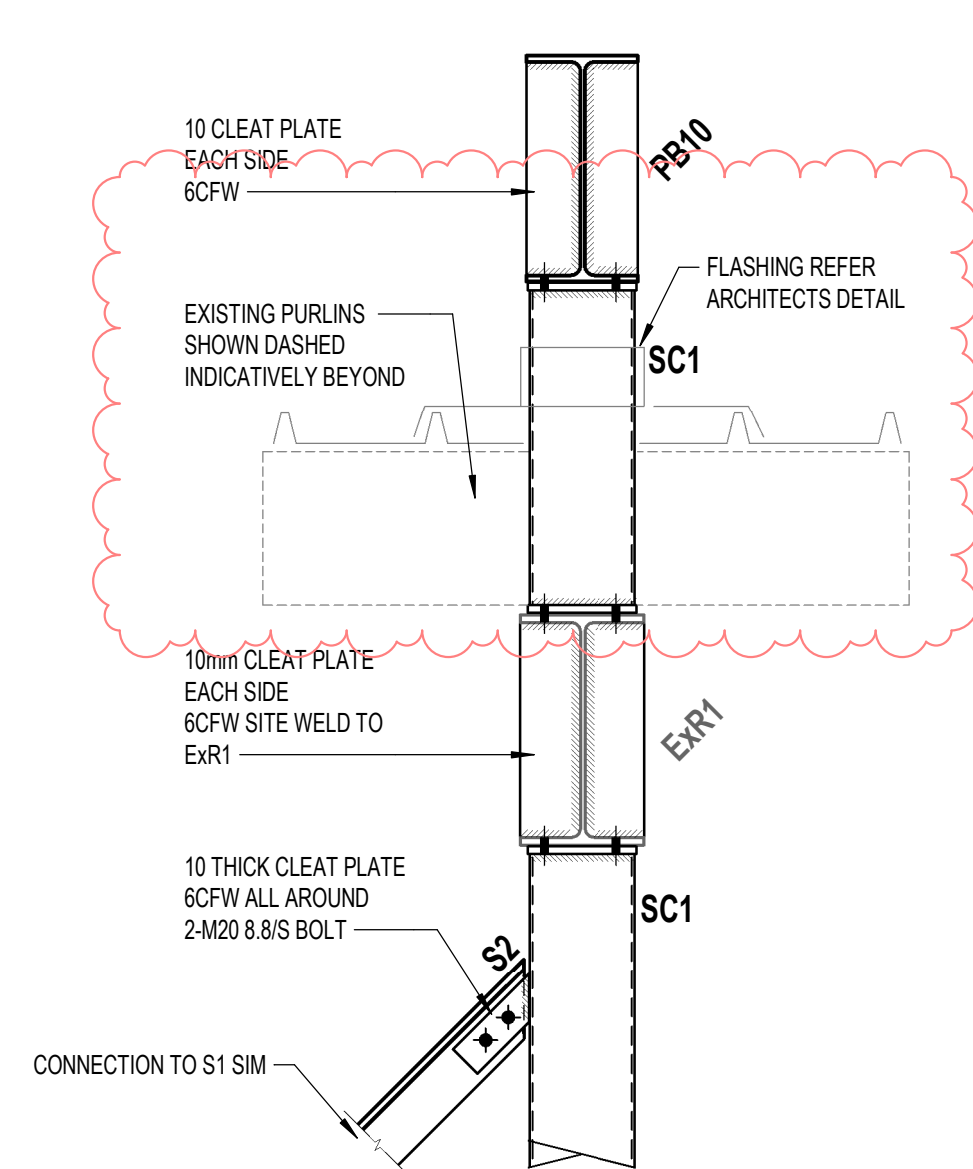
ART GALLERY OF BALLARAT HVAC UPGRADE, 40 LYDIARD STREET NORTH, BALLARAT CENTRAL, VIC



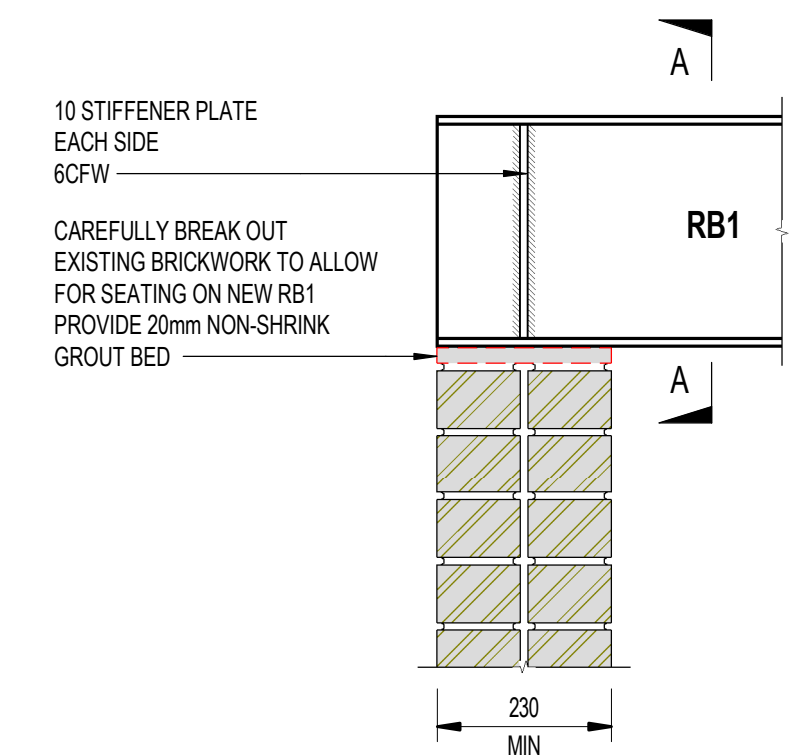
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S002



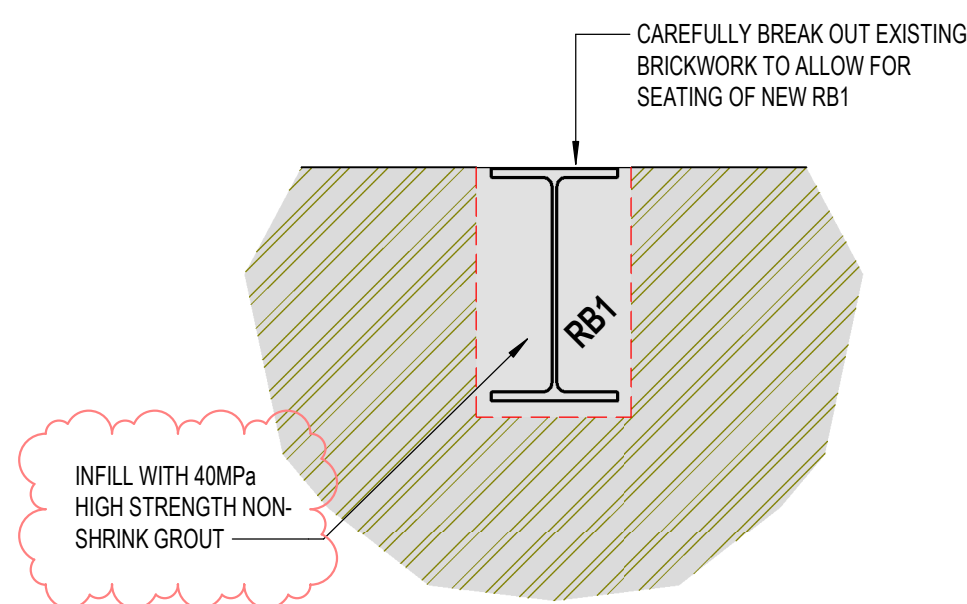
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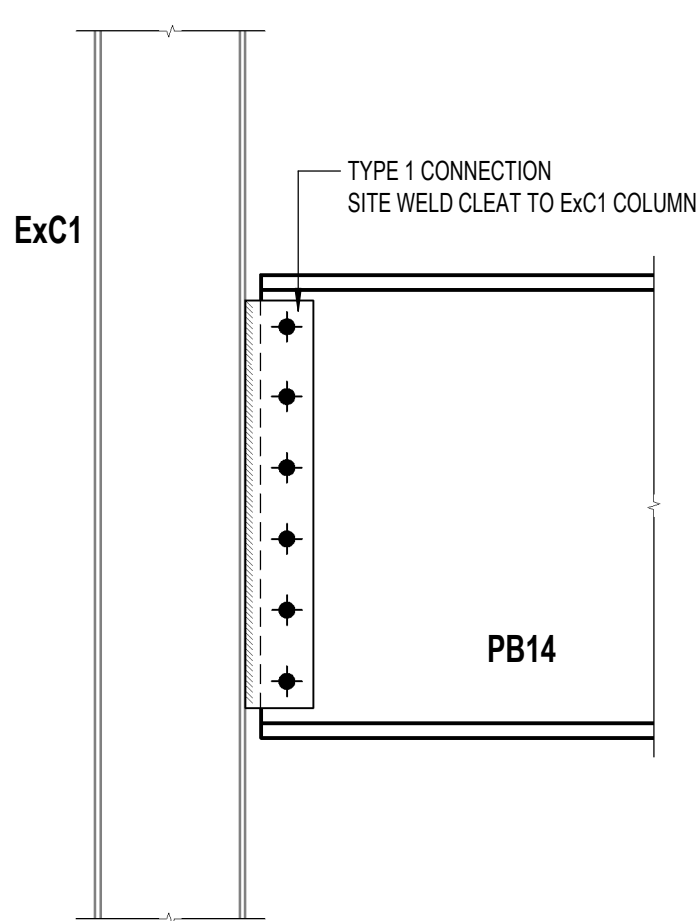
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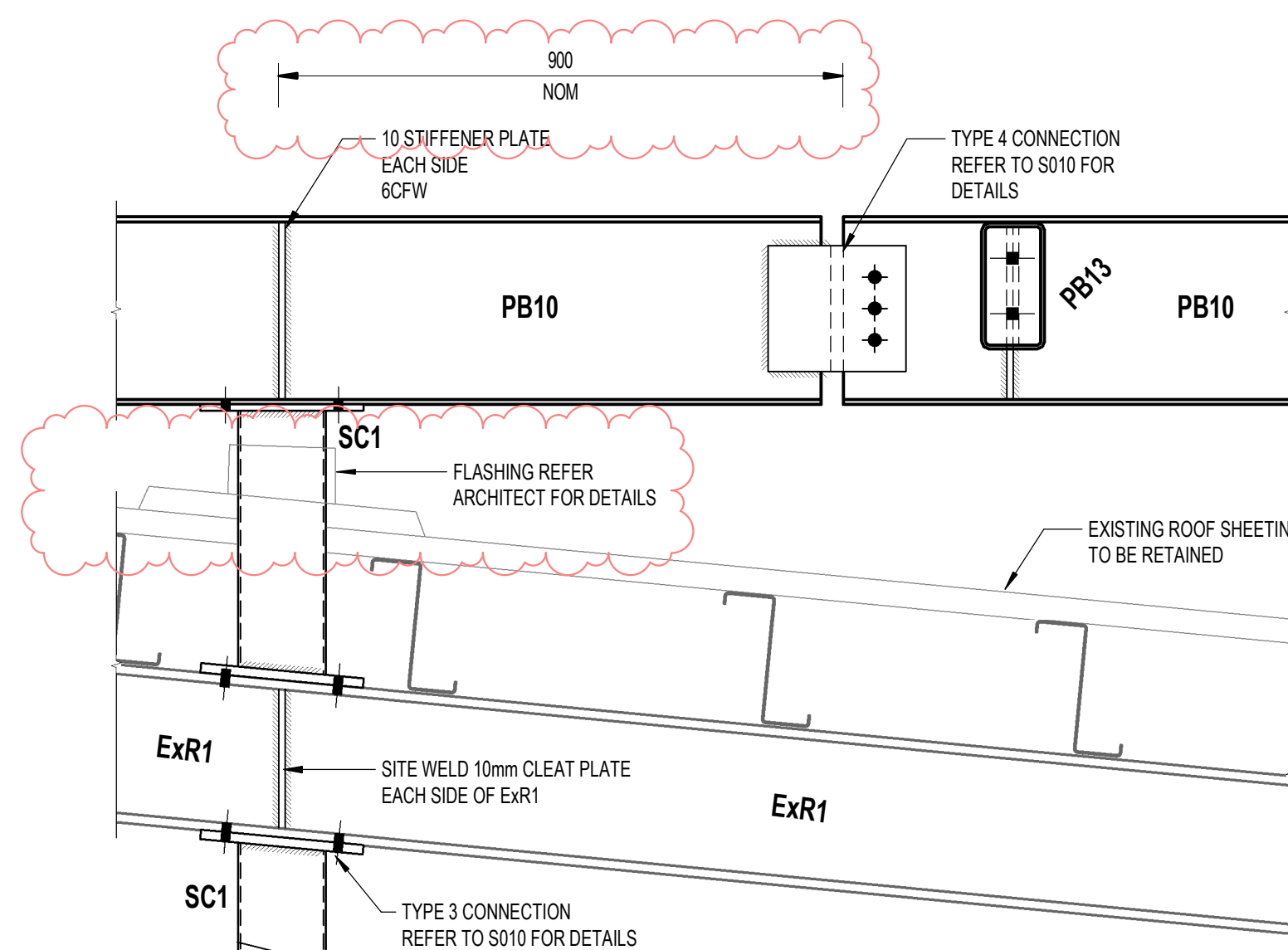
TYPICAL RB1 END CONNECTION DETAIL



SECTION A-A
SCALE 1:10

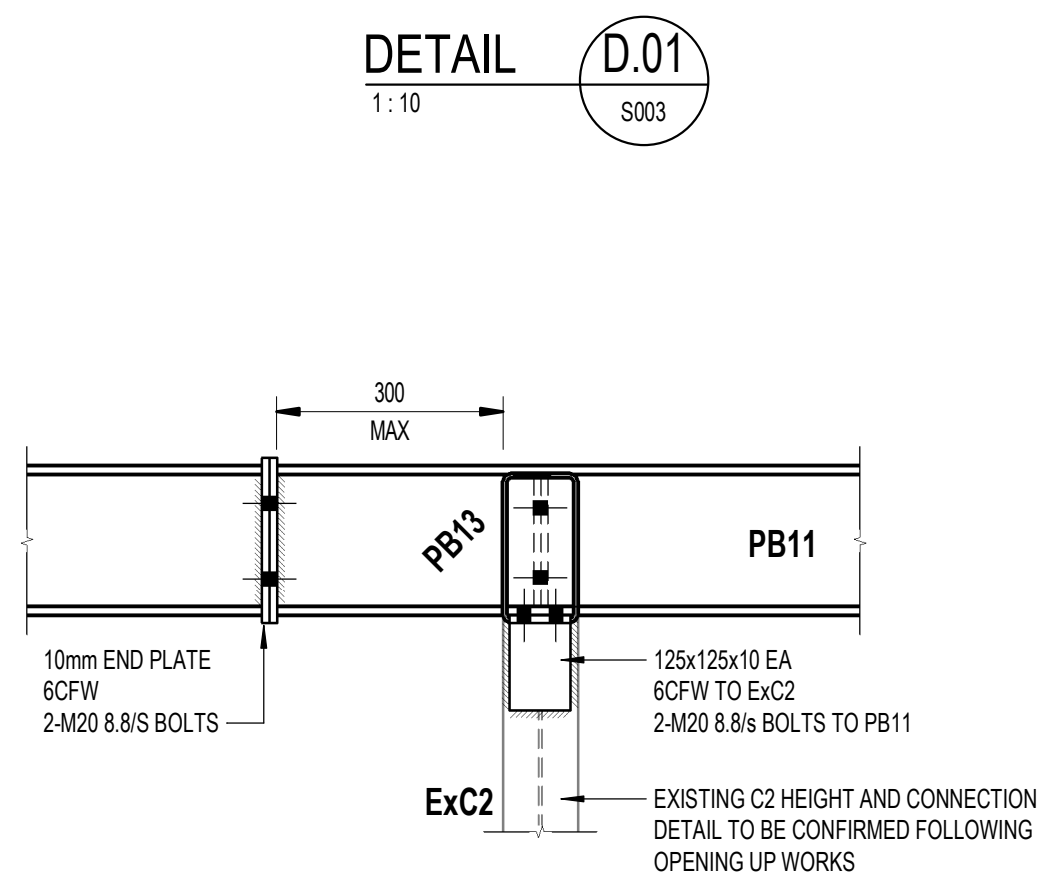


DETAIL D.02
1:10
S003

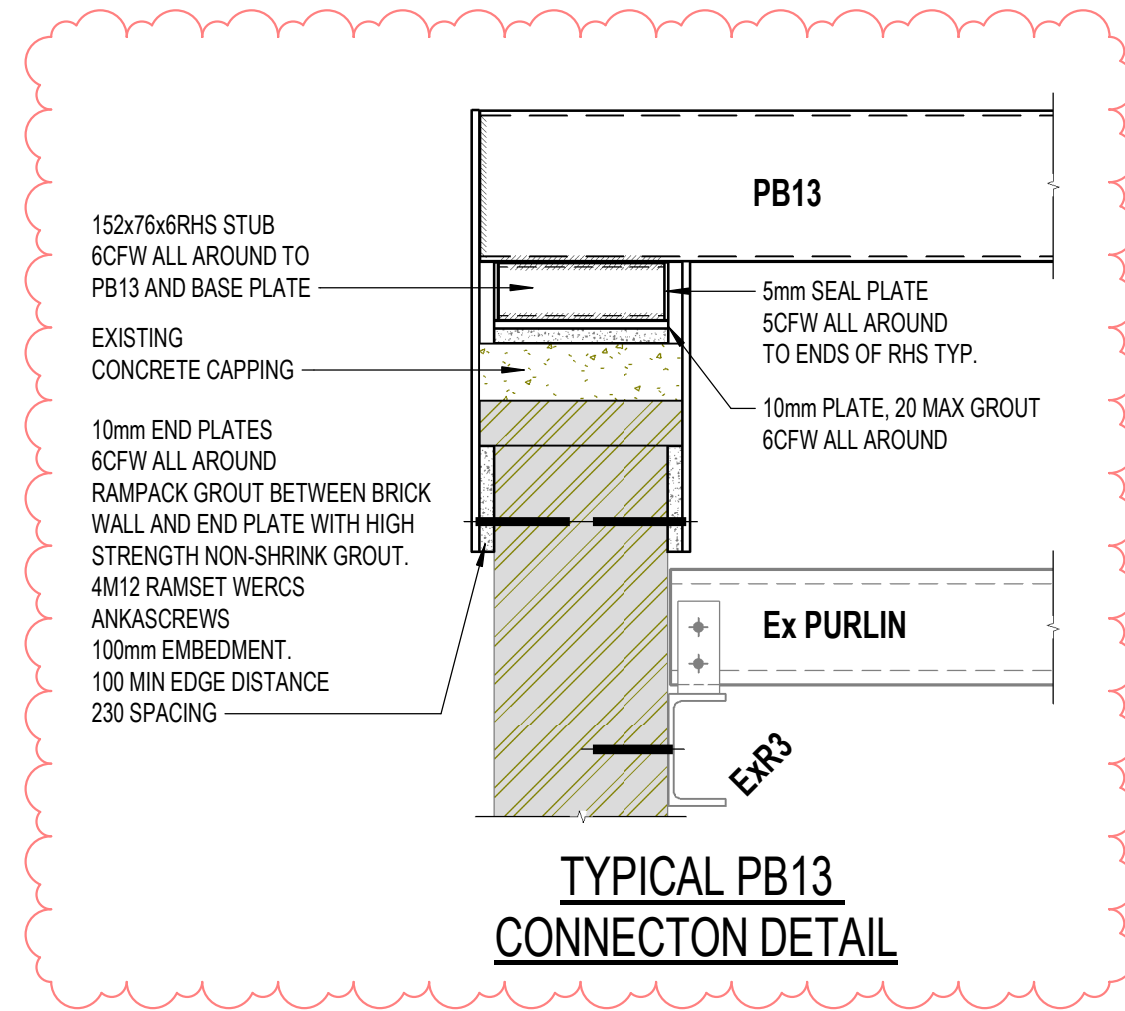


DETAIL 2
TYPICAL PB14 SPLICE CONNECTION

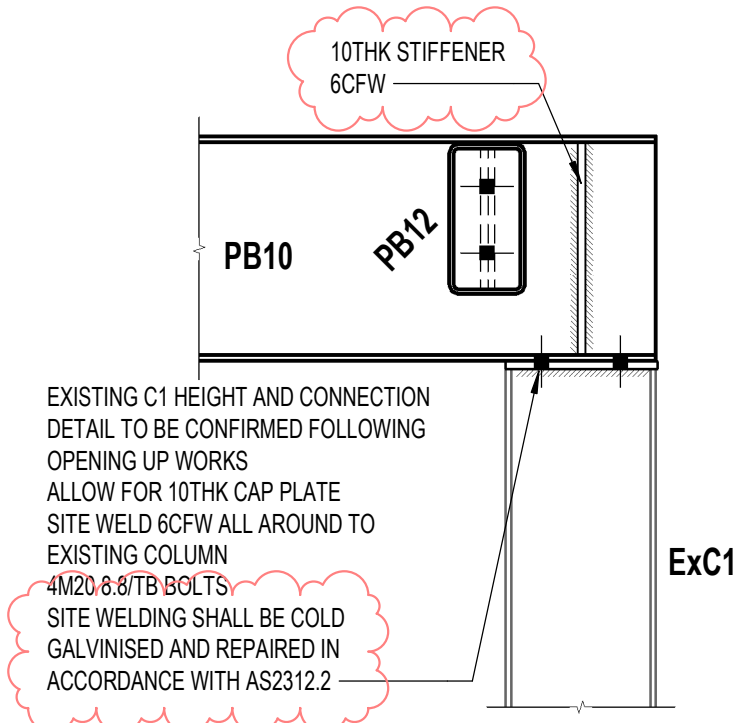
DETAIL D.03
1:10
S003



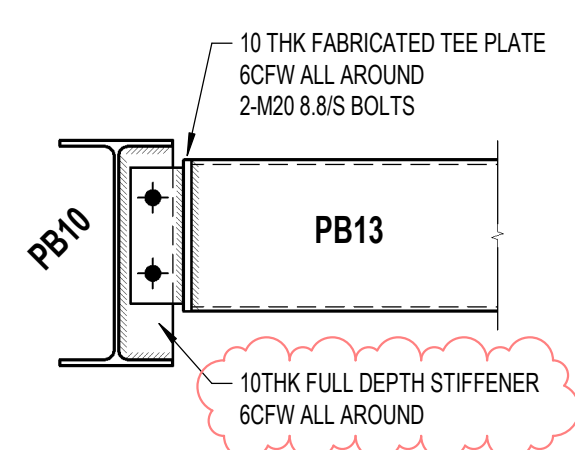
SECTION RF.03
SCALE 1:10
S002



SECTION RF.04
SCALE 1:10
S002



SECTION D.04
SCALE 1:10
S003



TYPICAL PB13 CONNECTION DETAIL

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ISSUE	REVISION	DATE
C	TENDER ADDENDUM ISSUE	01/07/25
B	TENDER ISSUE	24/06/25
A	TENDER ISSUE	09/05/25

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CLIENT	CITY OF BALLARAT
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ARCHITECT	k20 Architecture design development
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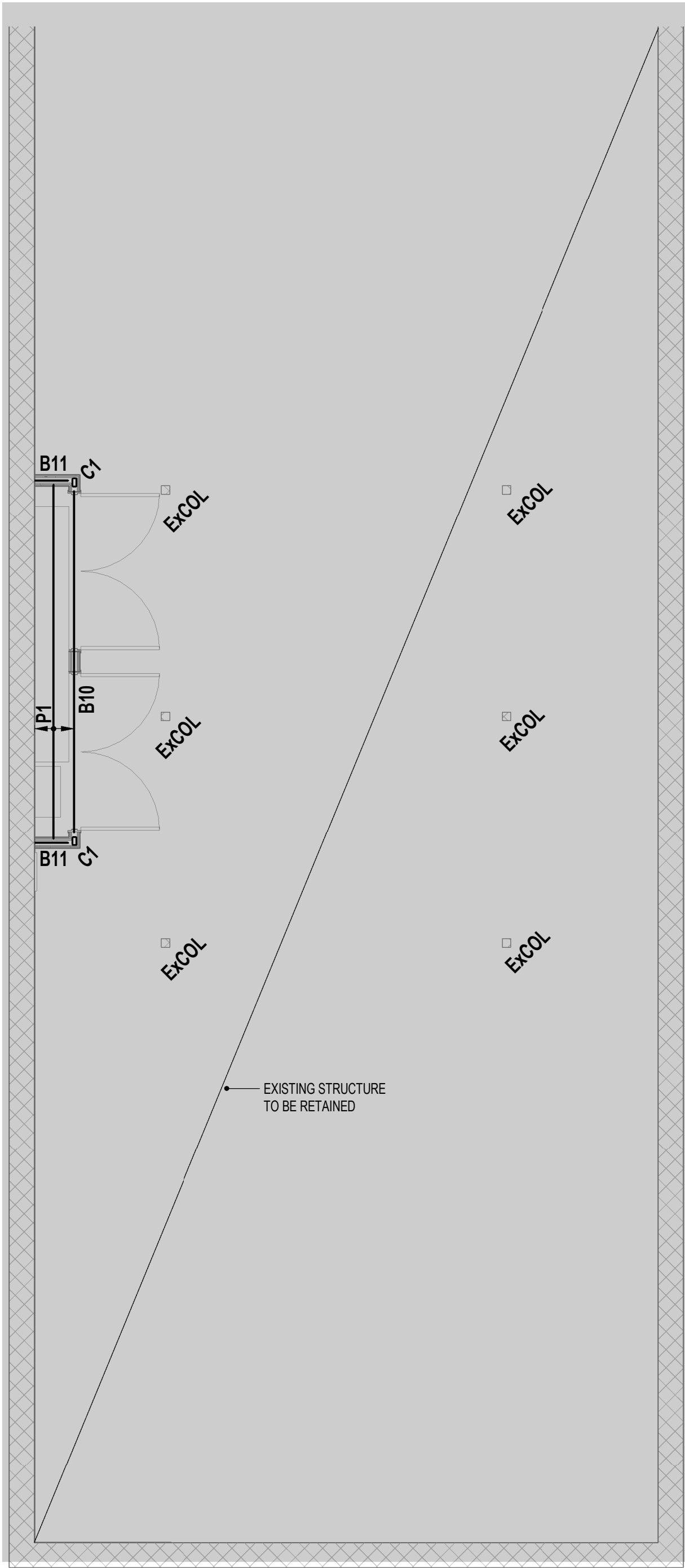
TITLE
ROOF HVAC UPGRADE – ROOF DETAILS

Designed	SZ	Drawn	AM	North
Project Leader	MA	Sheet Size	A1	
Project Director	GD	Certified	-	
Printed 1/07/2025 11:03:25 AM	Version	22		
C:\Users\ANDRES\Documents\240483_22_andresmartinez\BIM\2025.rvt				

TENDER ISSUE
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Project	Drawing	Revision
240483	S003	C

ART GALLERY OF BALLARAT HVAC UPGRADE, 40 LYDIARD STREET NORTH, BALLARAT CENTRAL, VIC



LEGEND
Former Police Station Ballarat (H1544) - not part of this application

HVAC UPGRADE - TEMPORARY GENERATOR ENCLOSURE

SCALE 1 : 50

LEGENDS

 DENOTES EXISTING WALL TO BE RETAINED

MEMBER SCHEDULE				
MARK	SECTION	CONNECTION		REMARKS
		LEFT	RIGHT	
C1	100x50x4.0 RHS	-	-	COLUMN. REFER BASE PLATE DETAIL ON DRAWING S010
B10	100x50 PFC	TYPE 1A	TYPE 1A	8CFW SITE WELD CLEAT PLATE FOLLOWING BOLTING
B11	100x50 PFC	WALL	TYPE 1A	-
P1	C10012	-	-	PURLIN AT 500 MAX CTS

- NOTE:
- WATERPROOFING TO ARCHITECTS DETAILS.
 - ALL EXTERNAL OR EXPOSED STEELWORK TO BE HOT DIPPED GALVANIZED OR HAVE PROTECTIVE PAINT COATING TO ARCHITECTS DETAILS.
 - FIRE PROTECTION OF ALL STRUCTURAL STEELWORK TO BUILDING SURVEYORS REQUIREMENTS AND SPECIALIST CONTRACTORS DETAILS.

A	TENDER ADDENDUM ISSUE	30/05/25
ISSUE	REVISION	DATE

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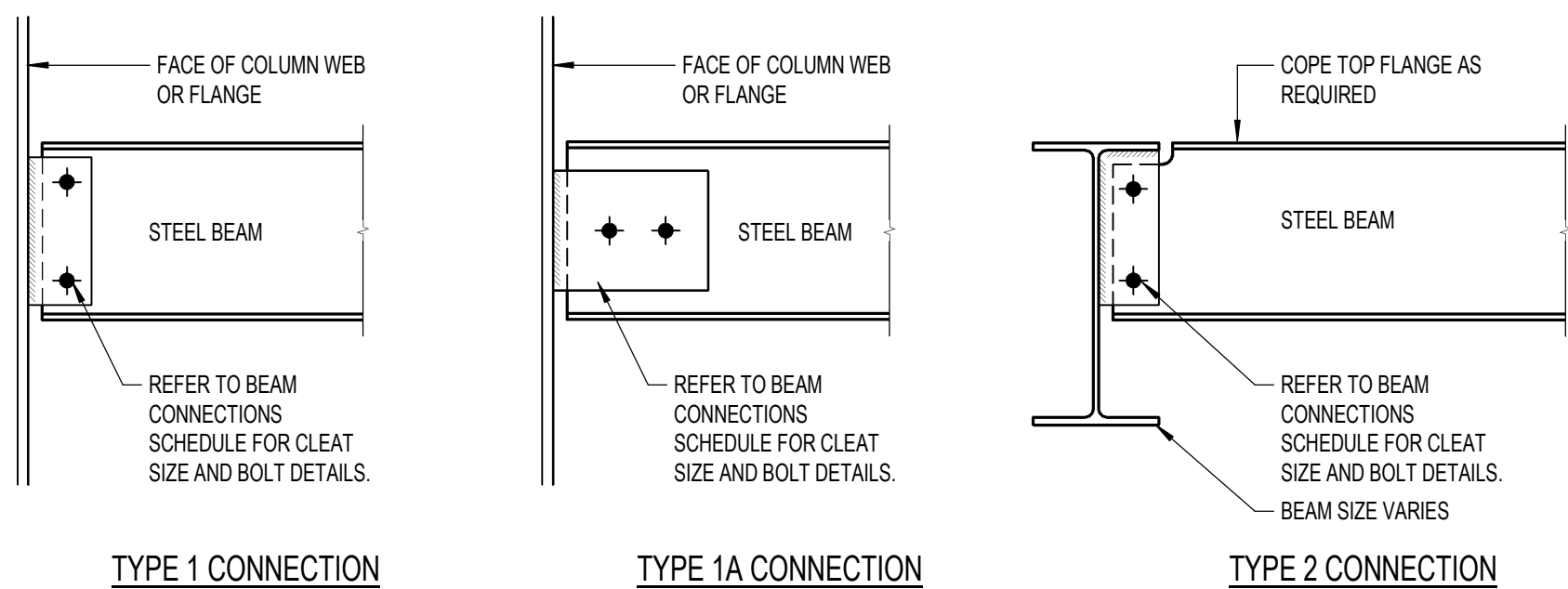
TITLE
HVAC UPGRADE - TEMPORARY
GENERATOR ENCLOSURE

Designed	MA	Drawn	AM	North
Project Leader	MA	Sheet Size	A1	
Project Director	GD	Certified	-	
Printed 30/05/2025 2:11:25 PM		Version	22	
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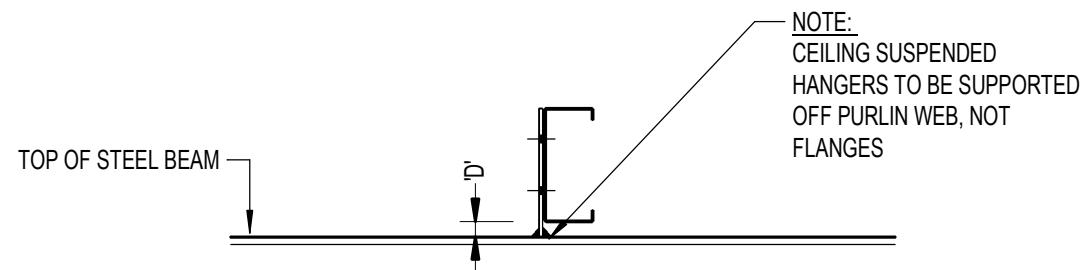
Project	Drawing	Revision
240483	S005	A

ART GALLERY OF BALLARAT HVAC UPGRADE, 40 LYDIARD STREET NORTH, BALLARAT CENTRAL, VIC



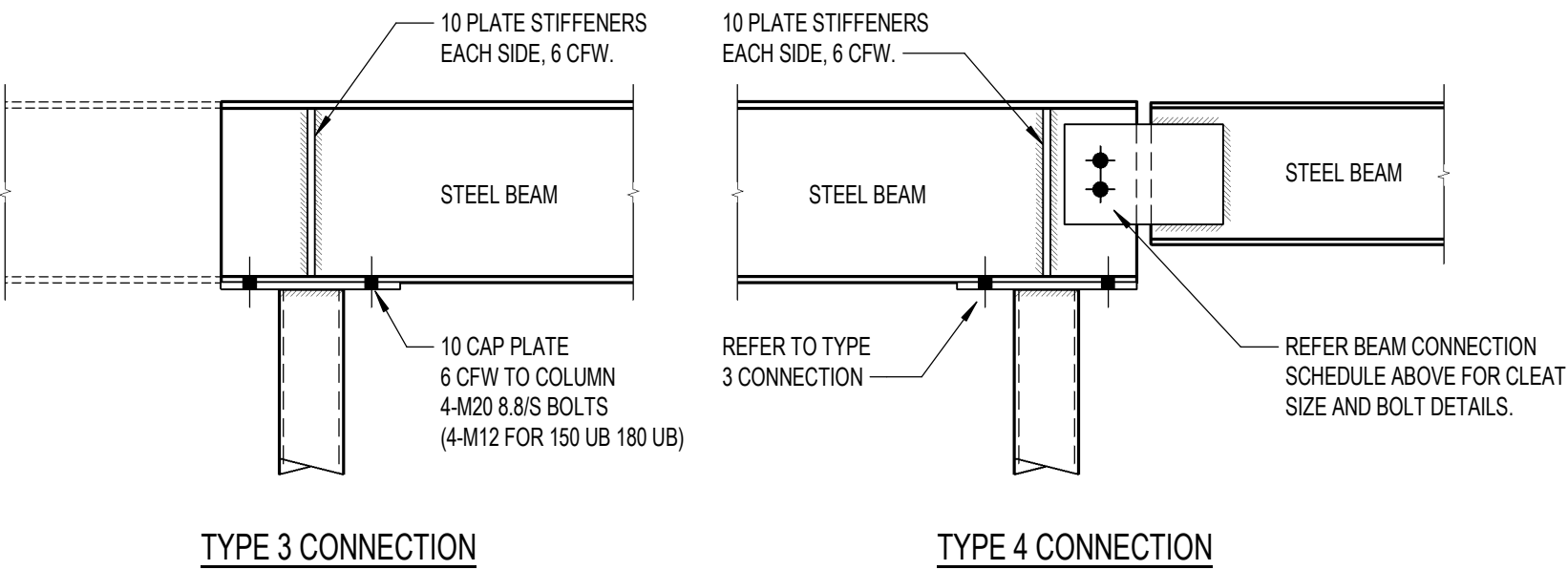
BEAM CONNECTION SCHEDULE		
BEAM SIZE	CLEAT PLATE	BOLTS
100 PFC	10mm	2-M20 8.8/S
150, 180, 200, 230 PFC	10mm	2-M20 8.8/S
200 UB & UC	10mm	2-M20 8.8/S
250 UB & UC	10mm	2-M20 8.8/S
250 PFC	10mm	2-M20 8.8/S
310 UB & UC	10mm	3-M20 8.8/S
300 PFC	10mm	3-M20 8.8/S
360 UB	10mm	3-M20 8.8/S
380 PFC	10mm	4-M20 8.8/S
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

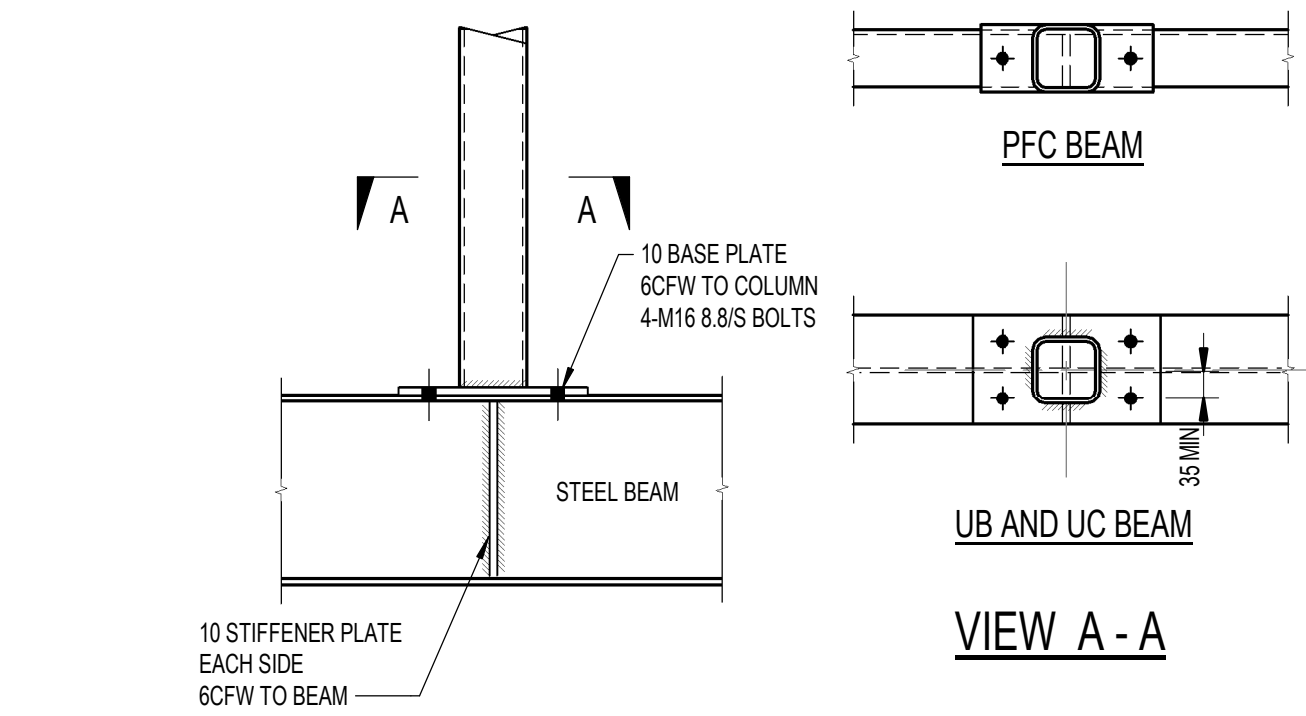


PURLIN SUPPORT SCHEDULE		
DISTANCE 'D'	CLEAT PLATE	BOLTS
<20	8	2-M12 4.6/S BOLTS
20-60	10	2-M12 4.6/S BOLTS
60-300	75x75x5EA	2-M12 4.6/S BOLTS
300-500	150x75PFC	2-M12 4.6/S BOLTS

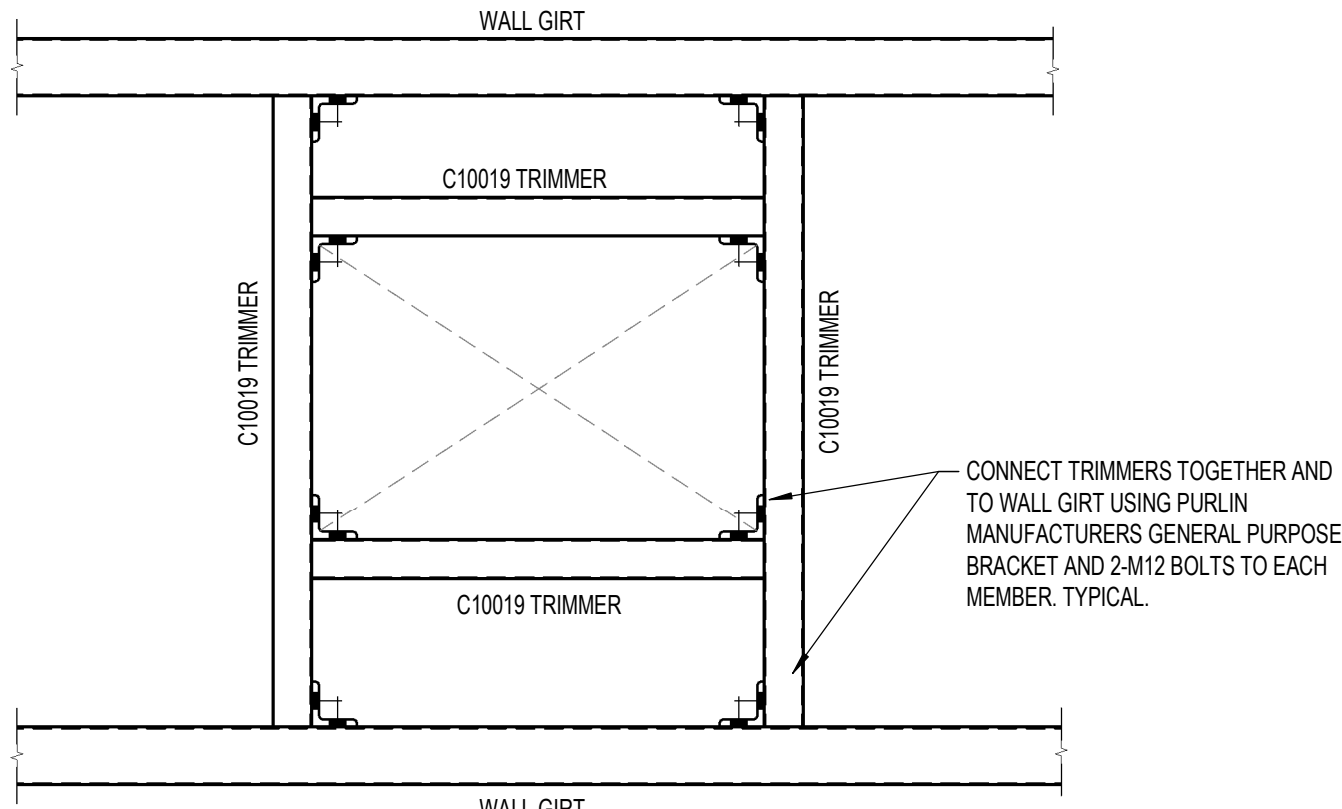
TYPICAL PURLIN CLEAT DETAIL
NTS



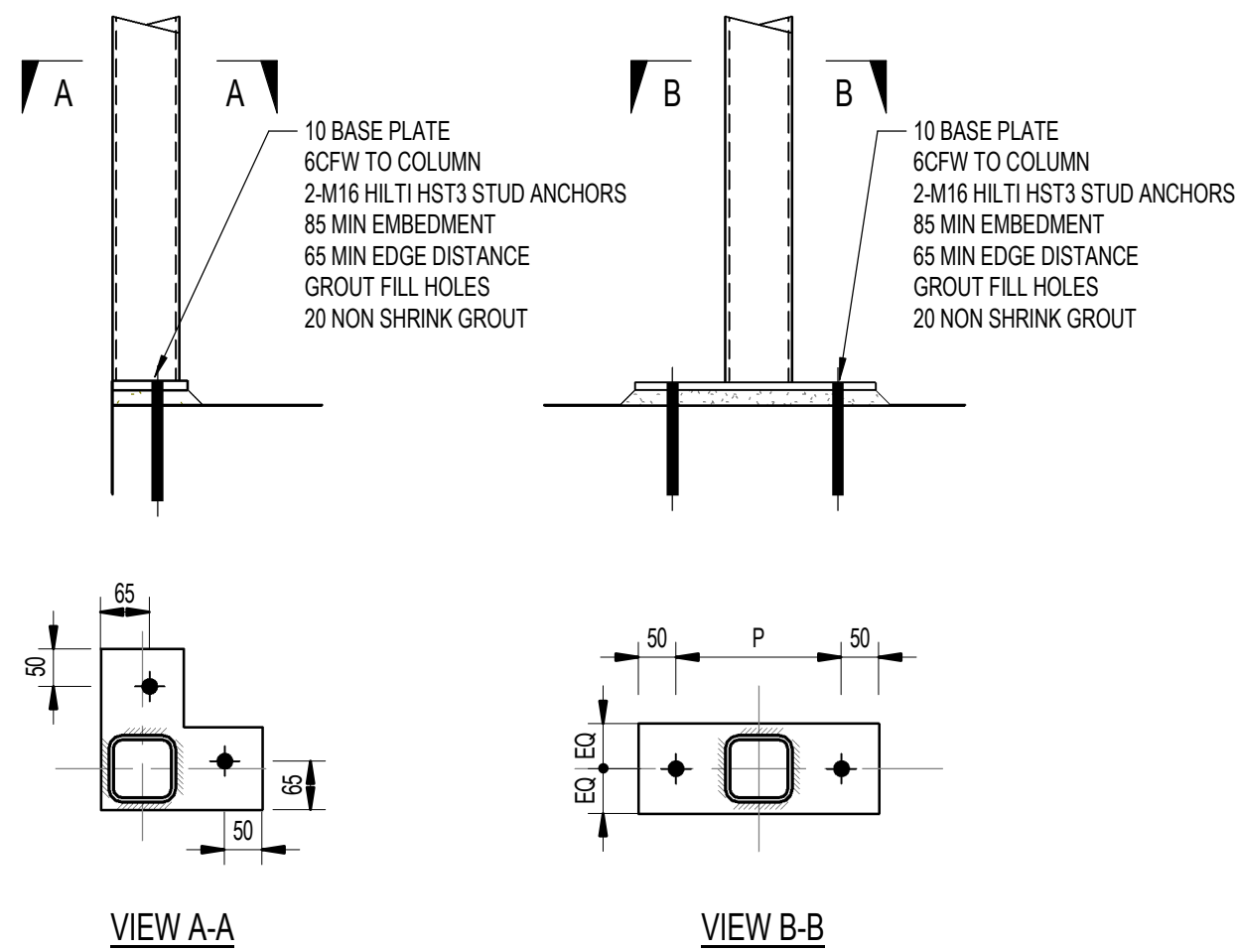
TYPICAL STEEL BEAM CONNECTION DETAILS
NTS



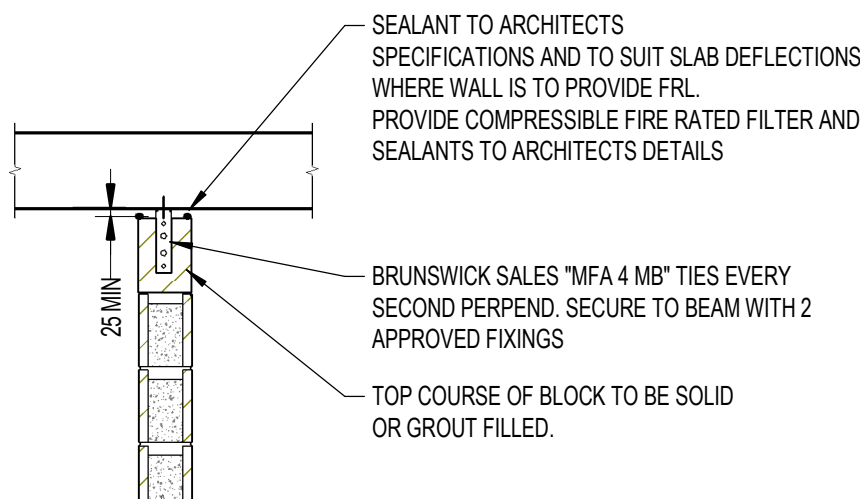
TYPICAL STUB COLUMN TO STEEL BEAM CONNECTION
SCALE 1:10



TYPICAL WALL PENETRATION TRIMMER DETAIL
NTS

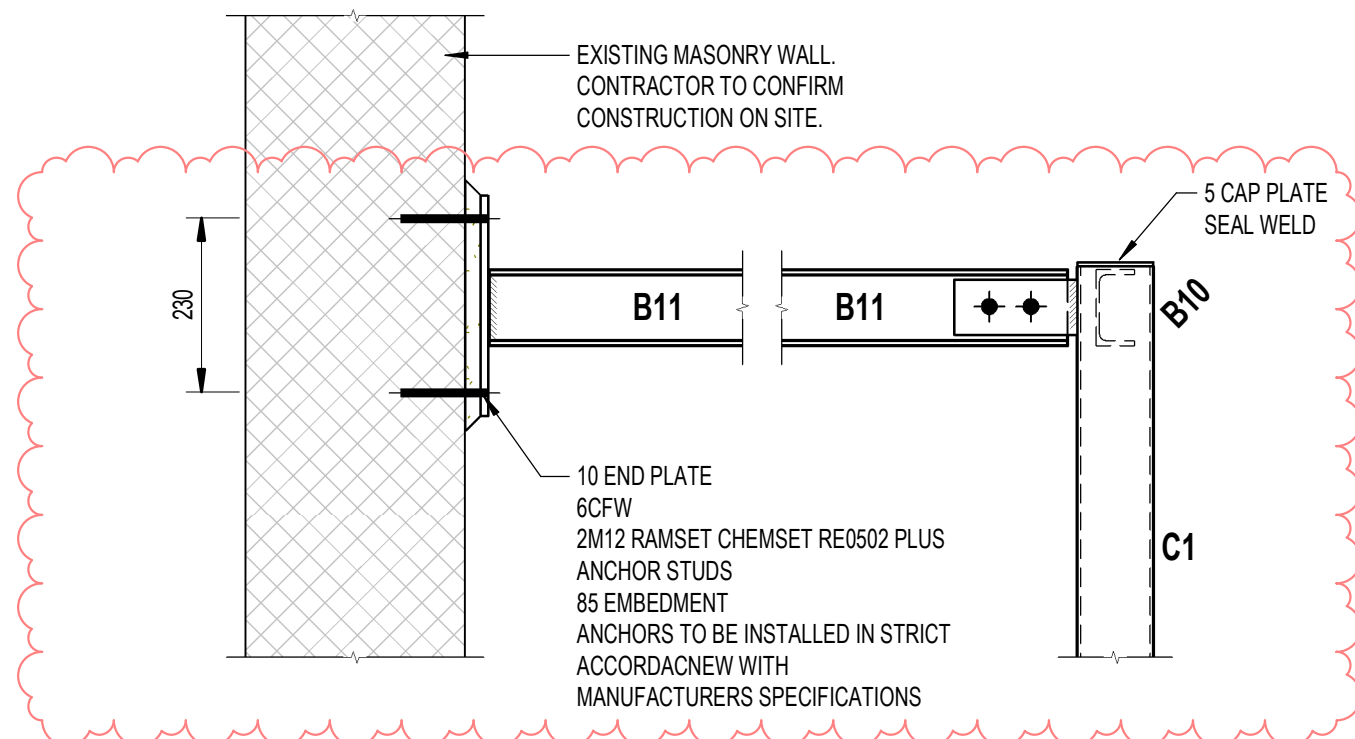


TYPICAL SHS/RHS COLUMN BASE PLATE DETAILS
SCALE 1:10



TYPICAL NON-LOADBEARING UNREINFORCED MASONRY WALL TO SOFFIT OF CONCRETE SLAB

NOTE:
1. CORE FILLED BLOCKWORK INFILL WALL THICKNESS TO MATCH EXISTING. REFER TO ARCHITECT FOR EXTENT AND LOCATION
2. DETAIL TO BE ADOPTED FOR BASEMENT INFILL WALL. REFER TO ARCHITECT FOR EXTENT AND LOCATION.



TYPICAL B11 END PLATE CONNECTION DETAIL
SCALE 1:10

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CLIENT	CITY OF BALLARAT
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ARCHITECT	k20 Architecture
	design development

TITLE	ROOF HVAC UPGRADE – DETAILS SHEET
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Designed	SZ	Drawn	AM	North
Project Leader	MA	Sheet Size	A1	
Project Director	GD	Certified	-	
Printed 1/07/2025 11:03:22 AM	Version	22		

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Project	Drawing	Revision
240483	S010	C

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