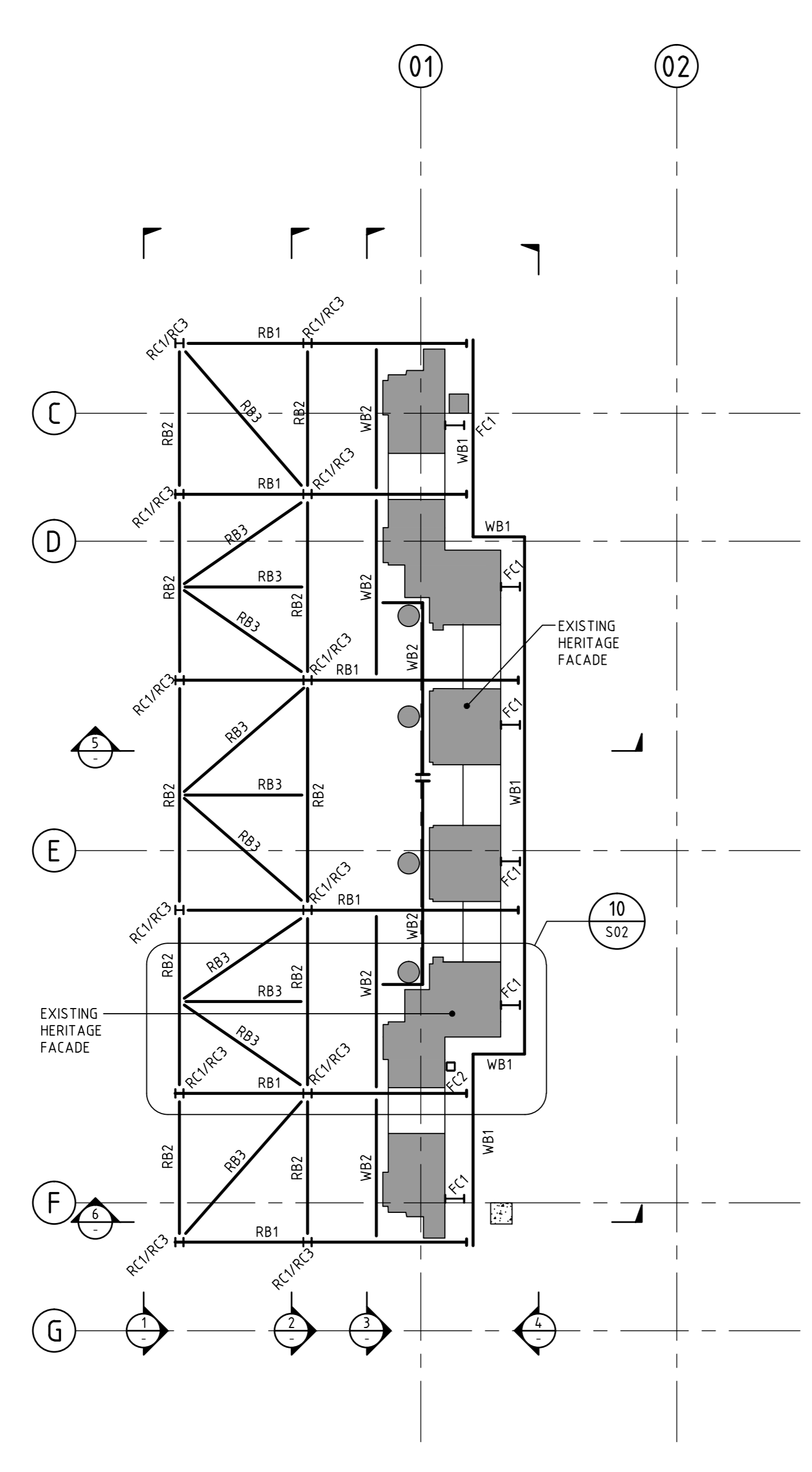


**FACADE RETENTION - GROUND FLOOR**  
SCALE 1:100

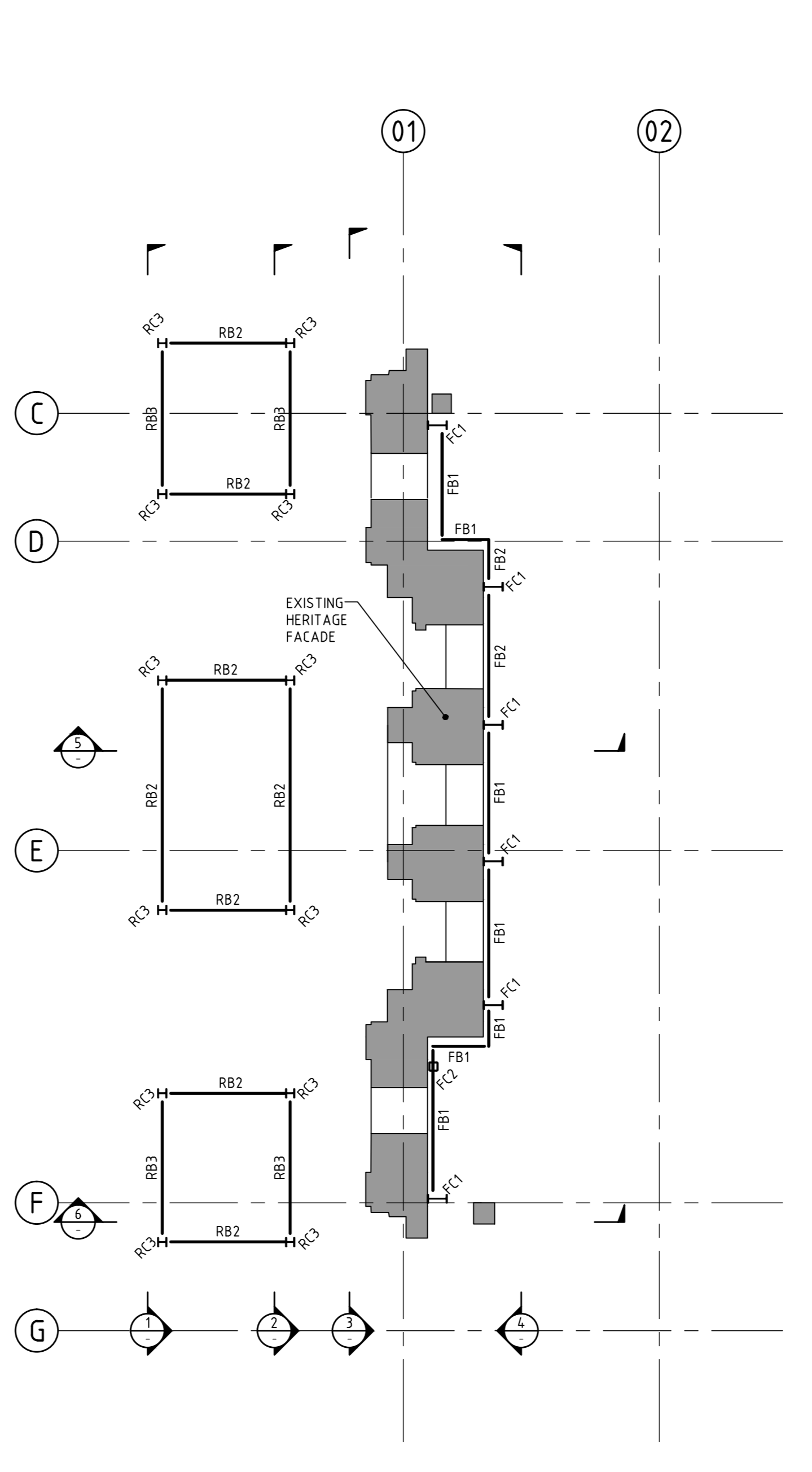
RAFT R1 - CONCRETE GRADE - N15  
POURED ON BIDIM A12 GEO FABRIC  
OVER EXISTING PAVERS

**NOTE:**  
EXISTING STONE MASONRY WALL  
SHOWN INDICATIVELY ONLY  
FABRICATOR TO CONFIRM DIMENSIONS  
REQUIRED TO SHOP DETAIL AND  
INSTALL STEELWORK



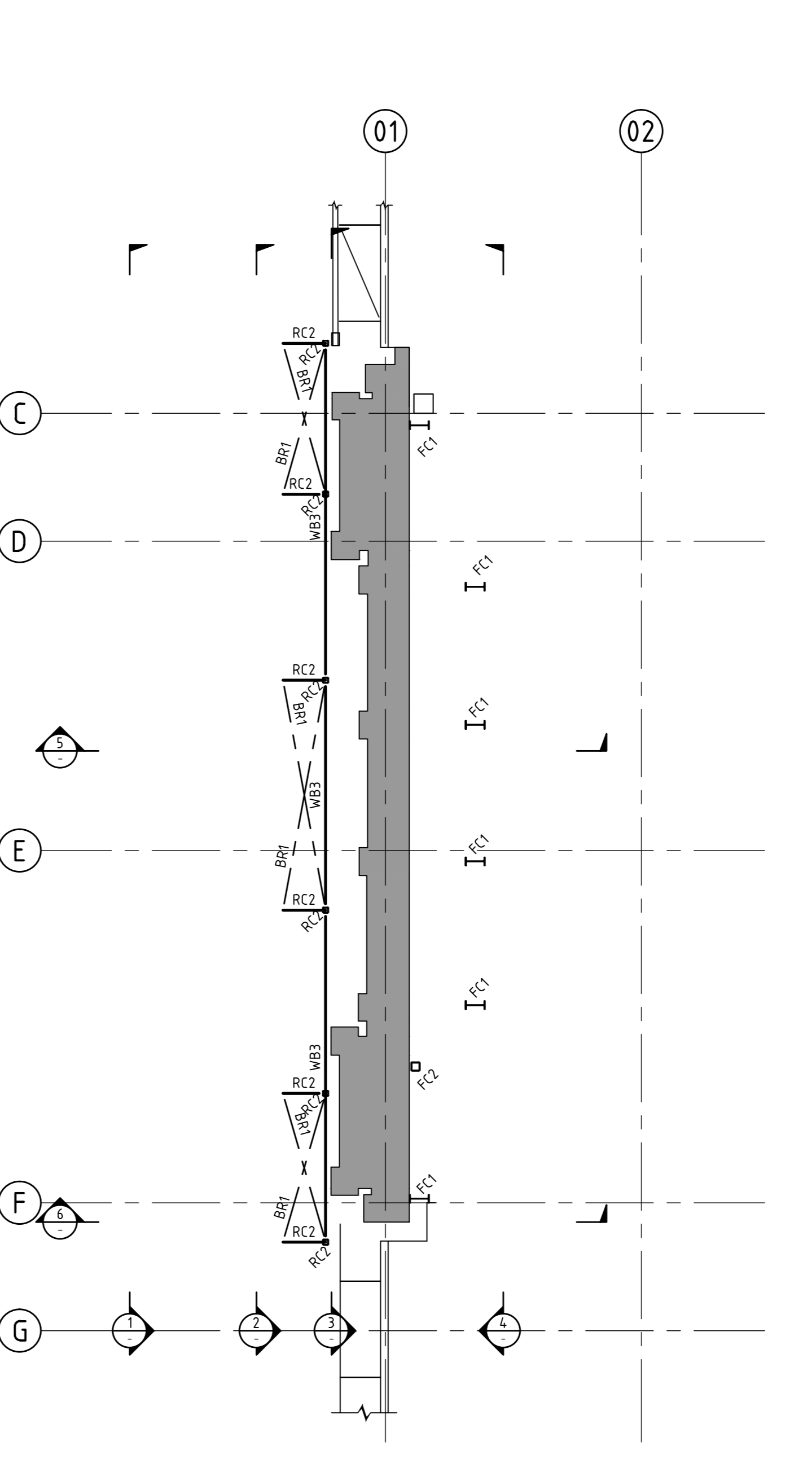
**FACADE RETENTION PLAN - RL 46.040**  
SCALE 1:100 (FACADE RETENTION PLAN - RL 54.660 SIMILAR)

NOTE: WB1 - CONTINUOUS MEMBER ALL JOINTS TO BE FSW

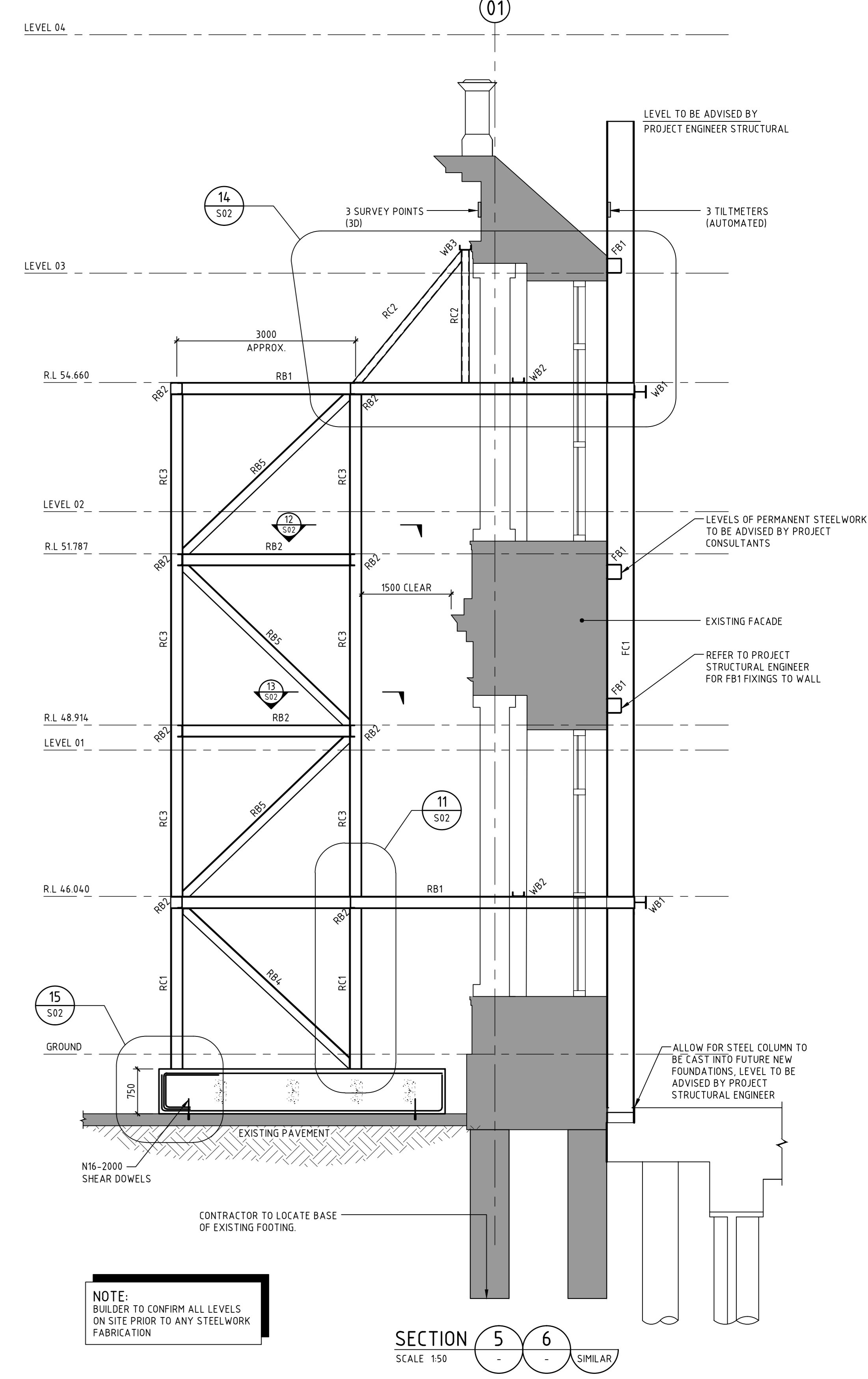


**FACADE RETENTION PLAN - RL 48.914**  
SCALE 1:100 (FACADE RETENTION PLAN - RL 51.787 SIMILAR)

NOTE: WB1 - CONTINUOUS MEMBER ALL JOINTS TO BE FSW

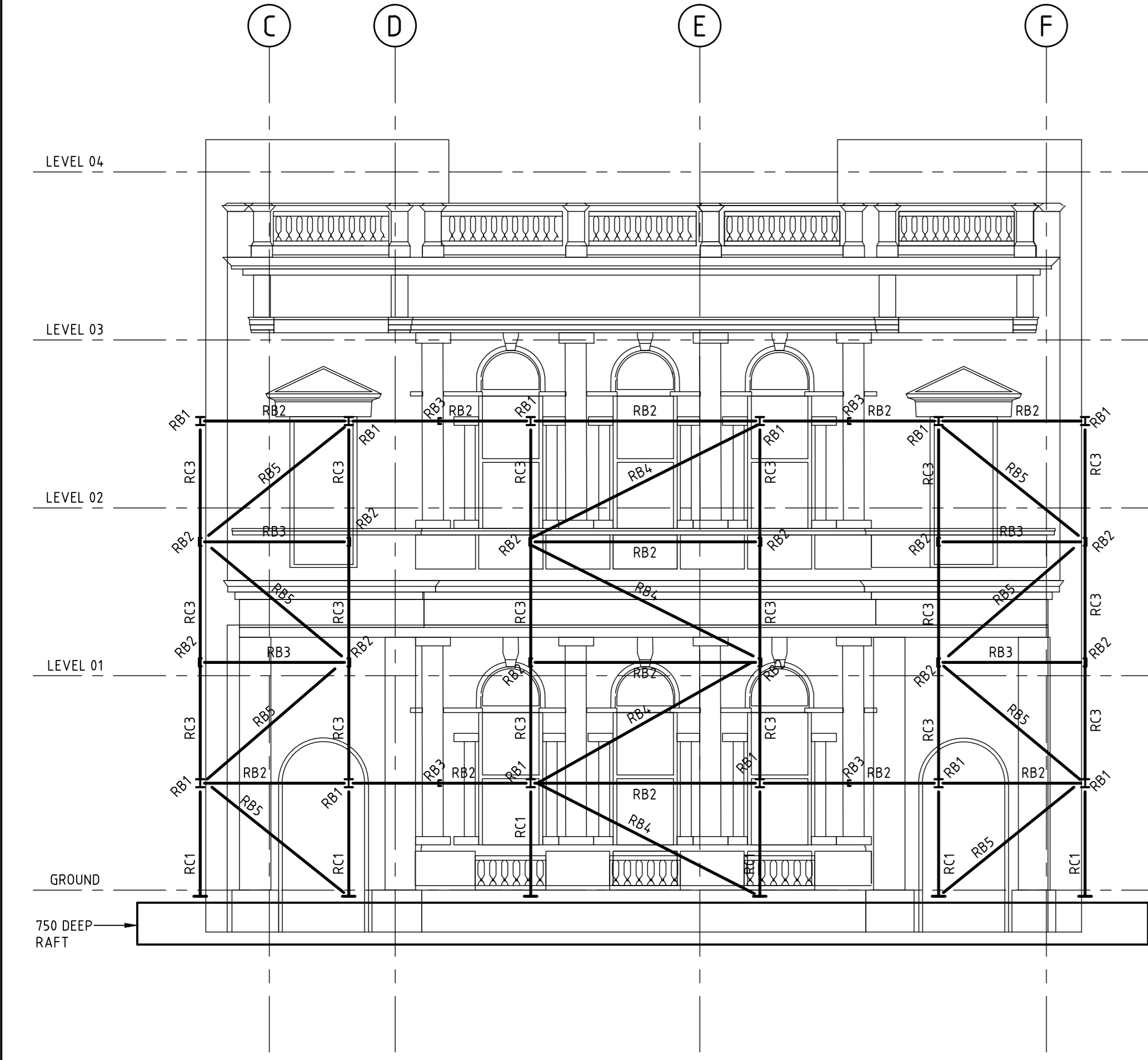


**FACADE RETENTION PLAN - LEVEL 4**  
SCALE 1:100

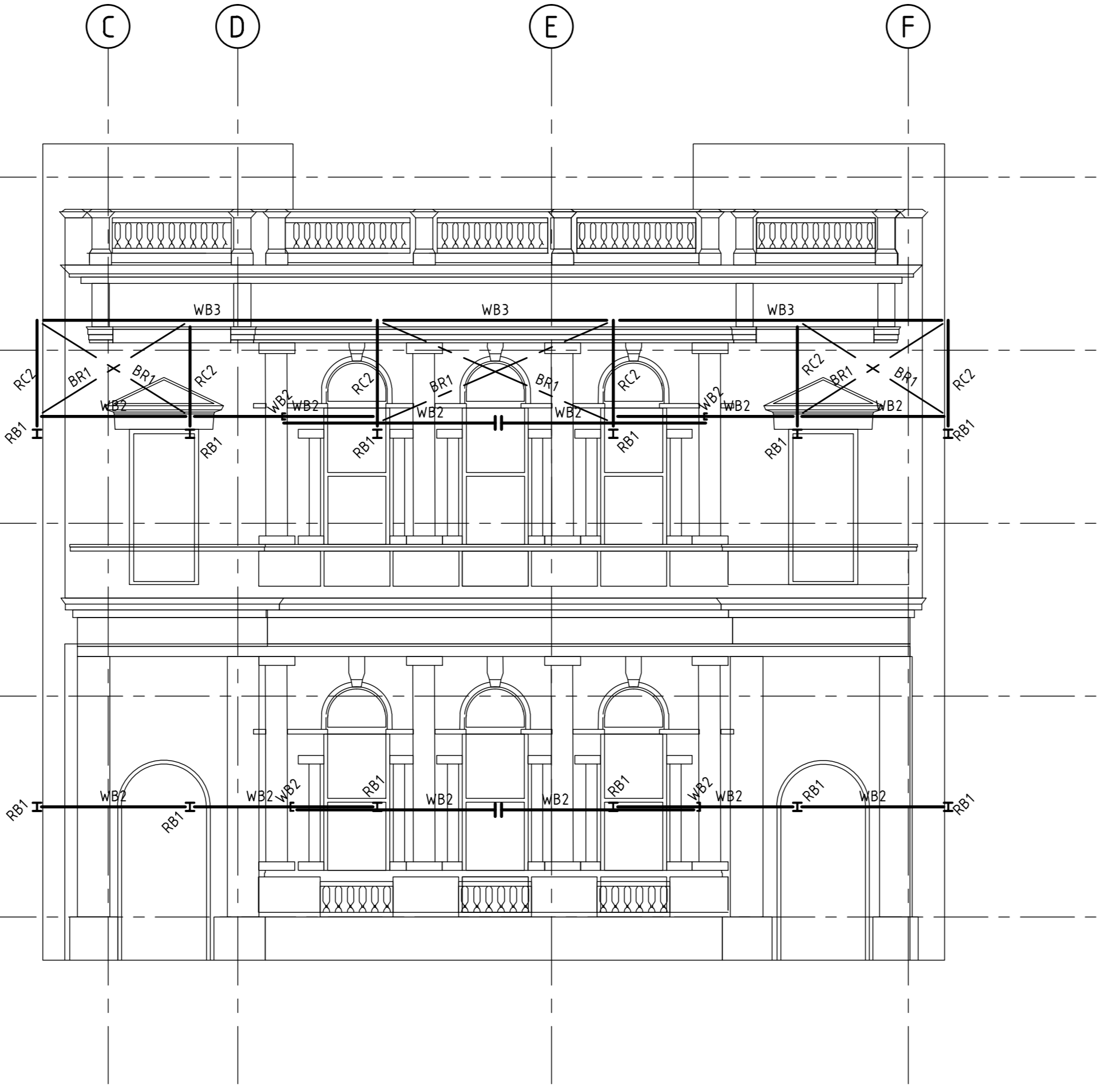


**NOTE:**  
BUILDER TO CONFIRM ALL LEVELS  
ON SITE PRIOR TO ANY STEELWORK  
FABRICATION

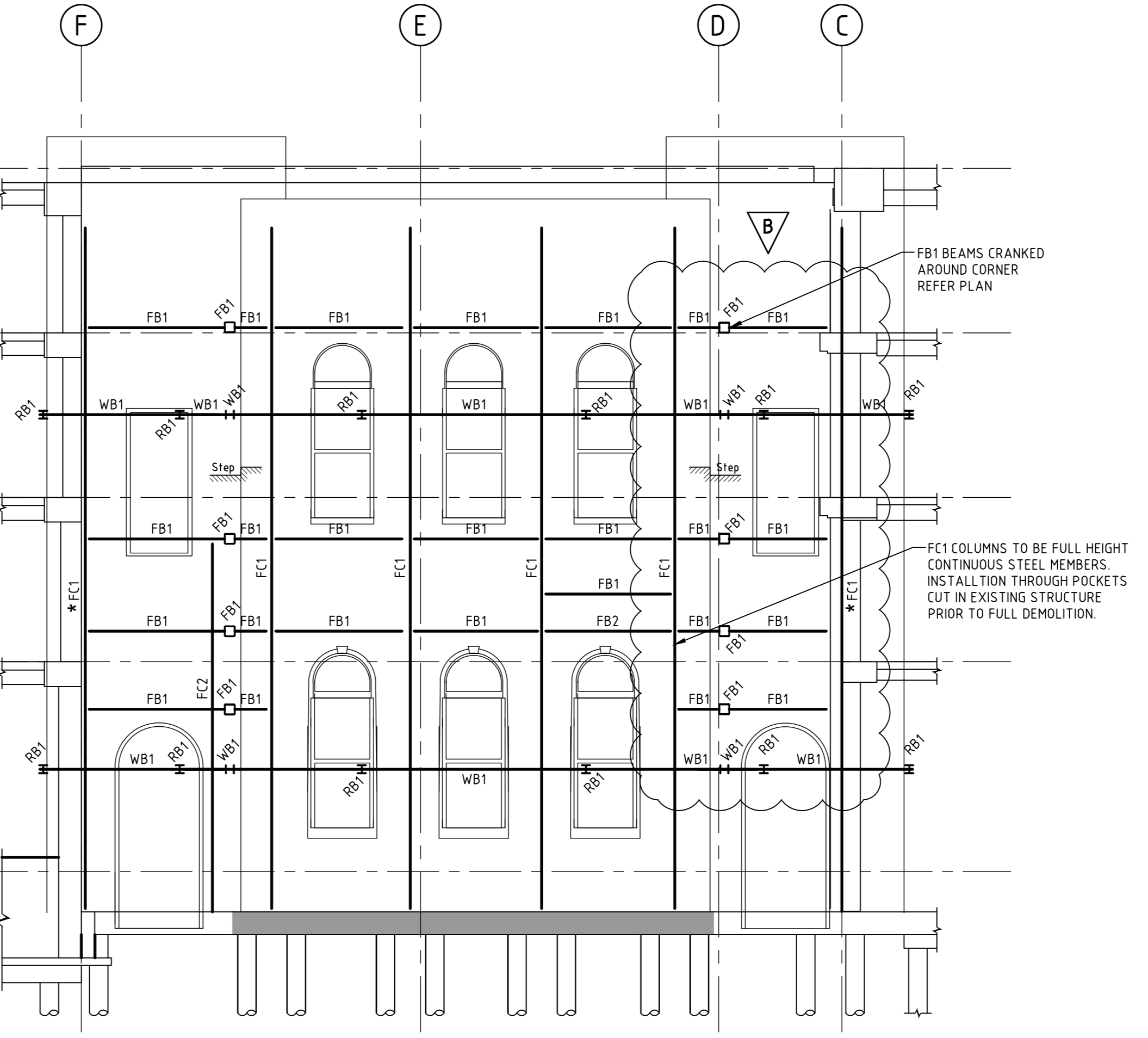
**SECTION 5-6**  
SCALE 1:50 (SIMILAR)



**SECTION 1-2**  
SCALE 1:100 (SIMILAR)



**SECTION 3**  
SCALE 1:100



**SECTION 4**  
SCALE 1:100

\*FC1 DENOTES MEMBERS TO BE MODIFIED AND  
REMOVED DURING FUTURE BUILDING WORKS.

**NOTE:**  
REFER TO PROJECT CONSULTANTS FOR PERMANENT  
STEELWORK MEMBER ARRANGEMENT AND DETAILS

**FACADE RETENTION INSTALLATION SEQUENCE:**

- SURVEY AND LOCATE THE REQUIRED POSITIONS FOR HOLES THROUGH ALL FLOOR LEVELS TO PERMIT THE VERTICAL INSTALLATION OF THE PERMANENT FC1 COLUMNS. THE POSITIONS OF THE EXISTING CONCRETE FLOOR BEAMS SHALL BE SURVEYED. ANY CLASHES BETWEEN THE FC1 AND THE EXISTING BEAM SHALL BE IDENTIFIED AND THE FC1 OFFSET TO THE NEAREST SIDE OF THE BEAM. NEW LOCATIONS TO BE REPORTED TO THE PROJECT MANAGER FOR APPROVAL PRIOR TO THE COLUMN INSTALLATION.
- INSTALL FC1 COLUMNS TO PROJECT ENGINEERS FIXING DETAILS.
- SITE MEASURE FOR PERMANENT STEEL BEAMS. FABRICATE AND INSTALL PERMANENT FB1, FB2 AND FC2 MEMBERS TO THE DETAILS AND SET-OUT PROVIDED BY THE PROJECT ENGINEER.
- CONSTRUCT RAFT FOOTING TO THE GANTRY. SEAL GRAATED PITS BENEATH THE RAFT WITH FORM PLY BEFORE LAYING BIDIM A12 GEOTEXTILE OVER EXISTING PAVERS AS BOND-BREAKER. PROVIDE FORM PLY OR POLYSTYRENE SEPARATION BETWEEN THE RAFT AND ANY STONE FACADE. PROVIDE PROTECTIVE PLASTIC SHEETING AS PROTECTION FROM CONCRETE SPLATTER.
- ERECT GANTRY STEEL WORK UP TO LEVEL 48.040. RB1 BEAMS TO BE CAREFULLY INSTALLED THROUGH WINDOW AND DOOR OPENINGS. WALKER BEAM WB1 TO BE INSTALLED AND CONNECTED TO THE FC1 COLUMNS. WALKER BEAMS WB2 TO BE CAREFULLY INSTALLED TO THE OUTSIDE OF THE FACADE. PROVIDE 20 MM THICK HIGH DENSITY PLASTIC BEARING PACKERS WITH ADDITIONAL SOLID STEEL SPACERS AS REQUIRED TO EFFECTIVELY CLAMP THE WALL SNUG TIGHT BETWEEN THE INNER PERMANENT STEELWORK AND THE EXTERNAL WALKER BEAMS. SITE WELD THE WB2 TO THE RB1 BEAMS.
- ERECT GANTRY STEEL WORK UP TO LEVEL 54.660 AND REPEAT AS FOR STEP 5. ERECT HIGH LEVEL WALKER WB3 AND SUPPORTS.
- INSTALL SURVEY MONITORING TARGETS AND CONDUCT CONTROL SURVEY.
- COMMENCE BUILDING DEMOLITION.

**ALLOWABLE MOVEMENTS - WALL MOVEMENT / TILT METER LIMITS - ACTIONS:**

- GREEN** - LATERAL DEFLECTION LESS THAN HEIGHT/750
  - NO ACTION REQUIRED.
- AMBER** - LATERAL DEFLECTION MORE THAN HEIGHT/750 LESS THAN HEIGHT/300
  - INFORM PROJECT MANAGER, ARCHITECT AND STRUCTURAL ENGINEER.
  - INVESTIGATE CAUSE OF MOVEMENT
  - PREPARE PLAN FOR REMEDIAL ACTION TO BE TAKEN IF MOVEMENT EXCEEDS RED LIMIT.
- RED** - LATERAL DEFLECTION MORE THAN HEIGHT/300
  - STOP ALL WORK DESTABILISING THE WALL.
  - IMPLEMENT REMEDIAL ACTION PLAN.
  - INFORM PROJECT MANAGER, ARCHITECT AND STRUCTURAL ENGINEER.

**TEMPORARY FACADE RETENTION FOOTING BEAM SCHEDULE**

MARK	MEMBER	REMARKS
R1	750 DEEP RAFT	RAFT FOOTING

**PERMANENT FACADE STEELWORK SCHEDULE**

MARK	MEMBER	REMARKS
FC1	440 UB 82	STEEL COLUMN
FC2	200 x 200 x 6.0 SHS	STEEL COLUMN
FB1	250x250x6.0 SHS	PERMANENT FLOOR BEAM
FB2	250x150x6.0 RHS	PERMANENT FLOOR BEAM

REFER TO PROJECT CONSULTANTS FOR DETAILS U.N.O.

**TEMPORARY FACADE RETENTION STEELWORK SCHEDULE**

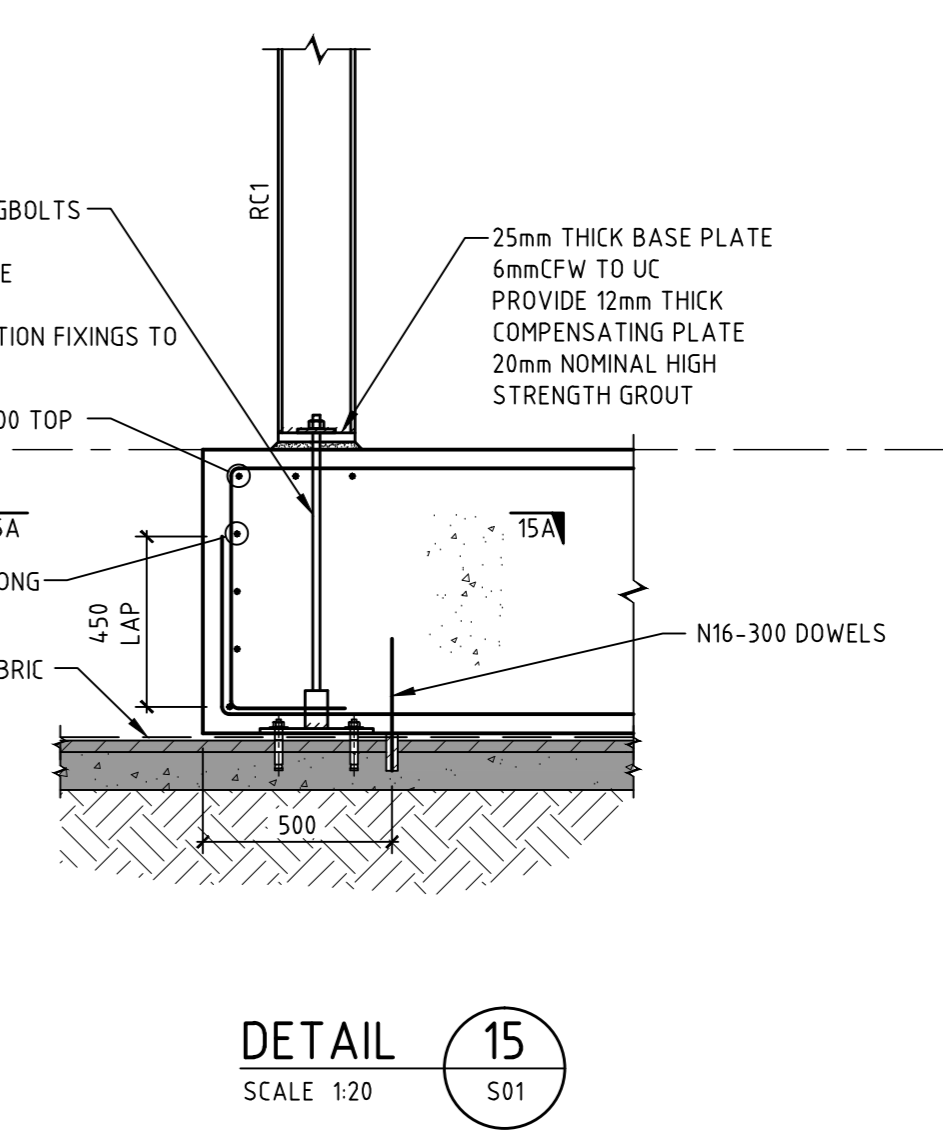
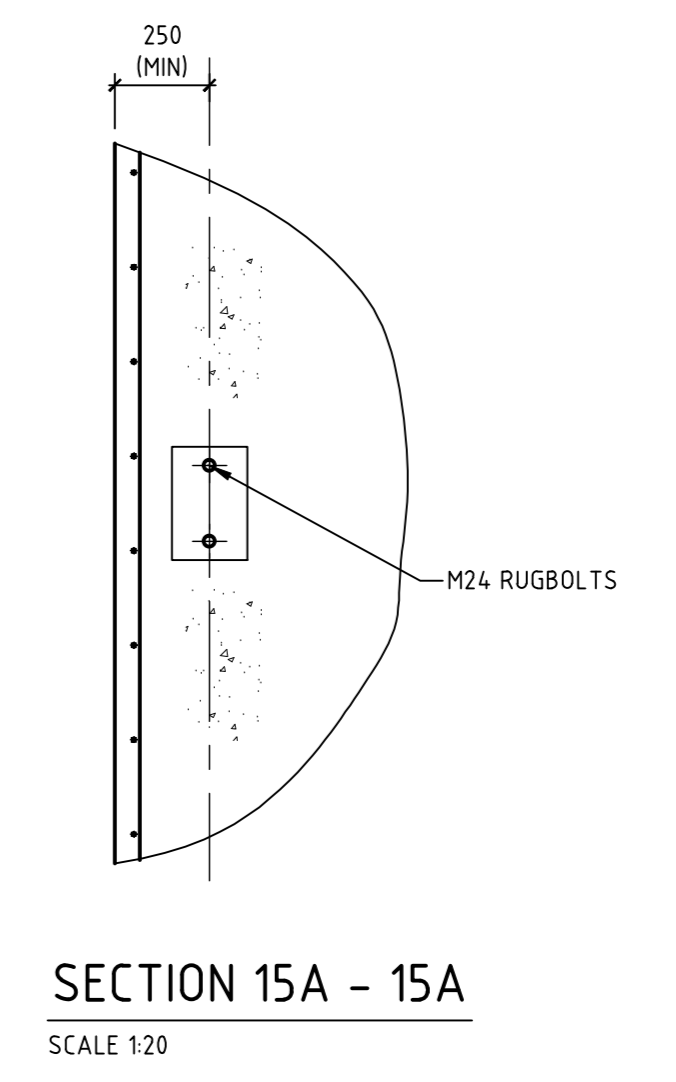
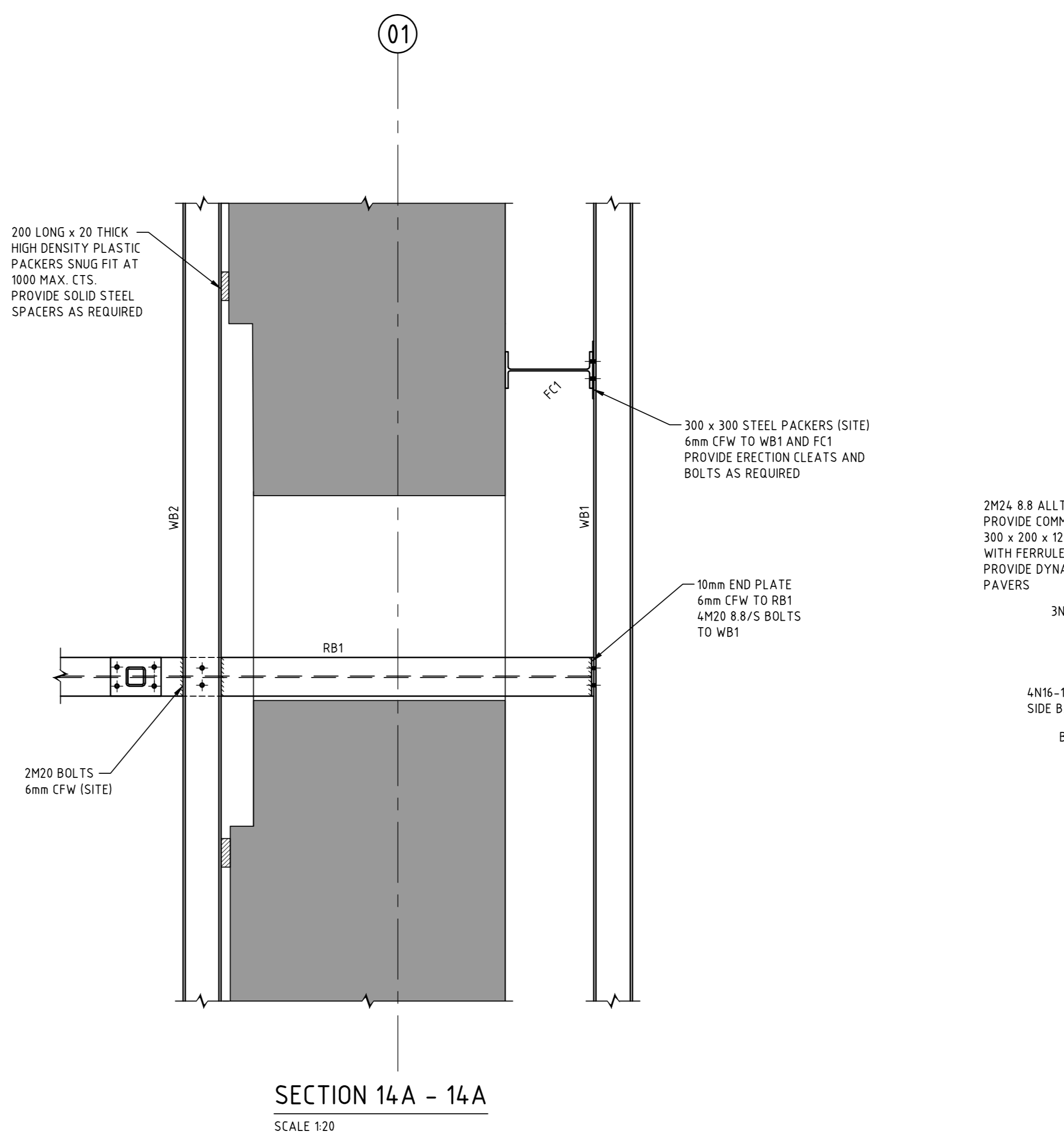
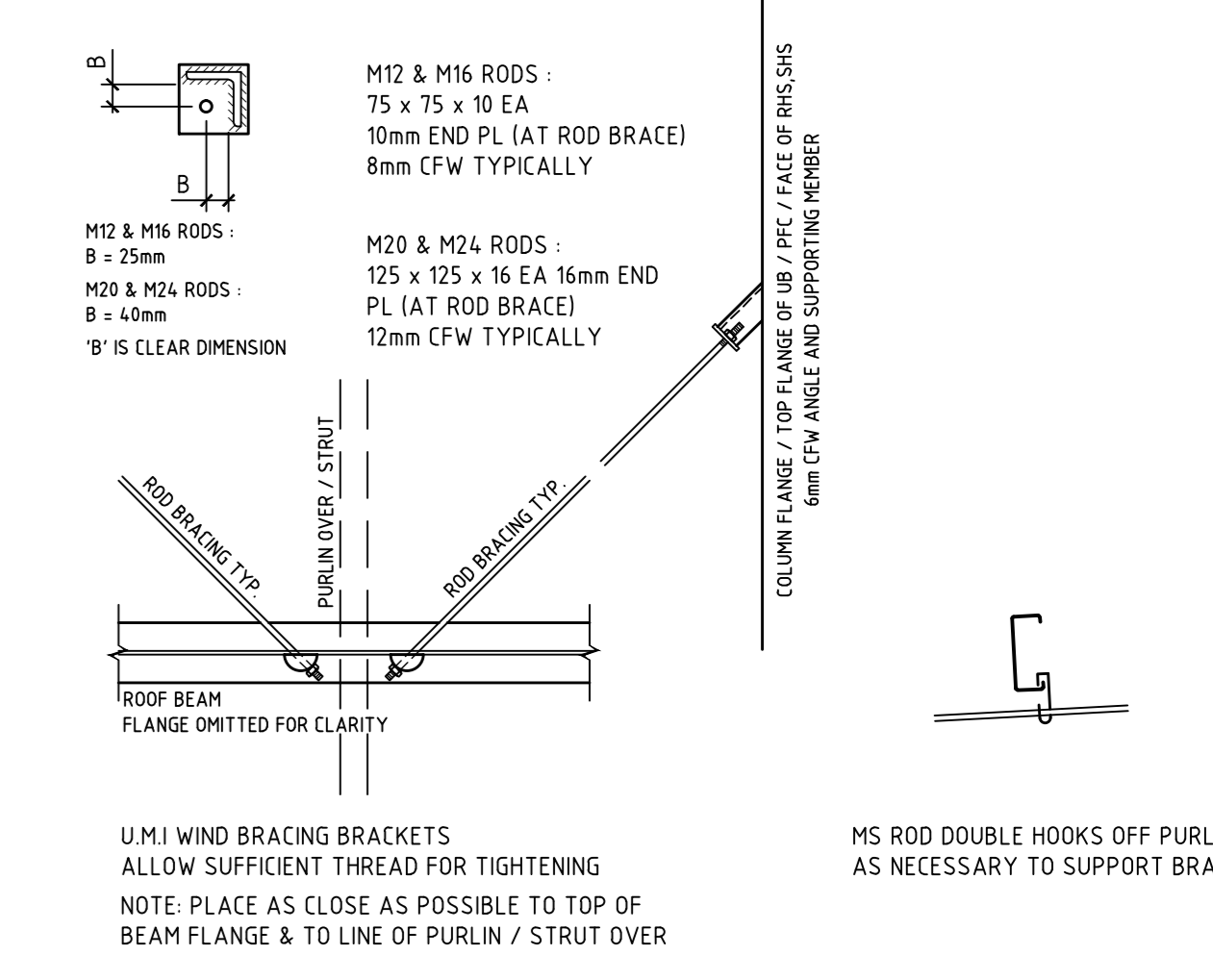
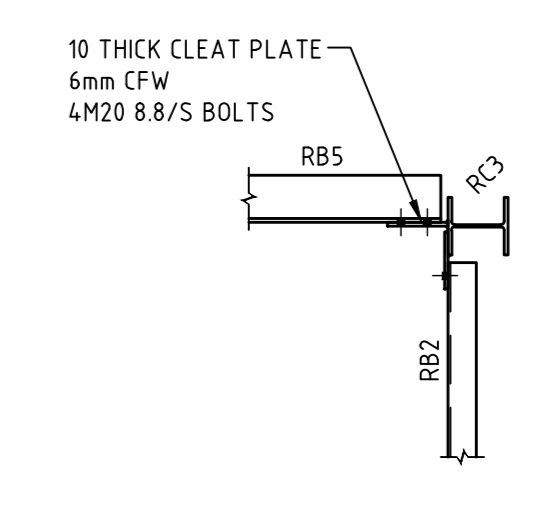
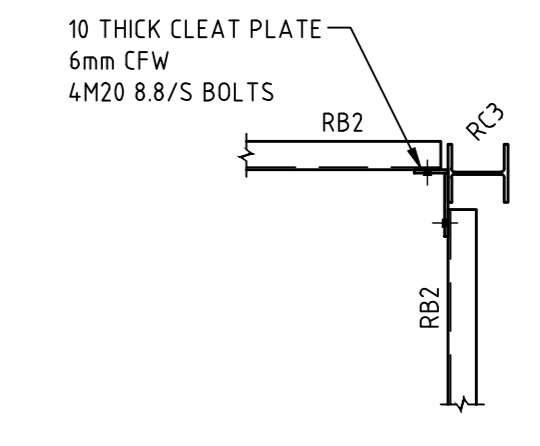
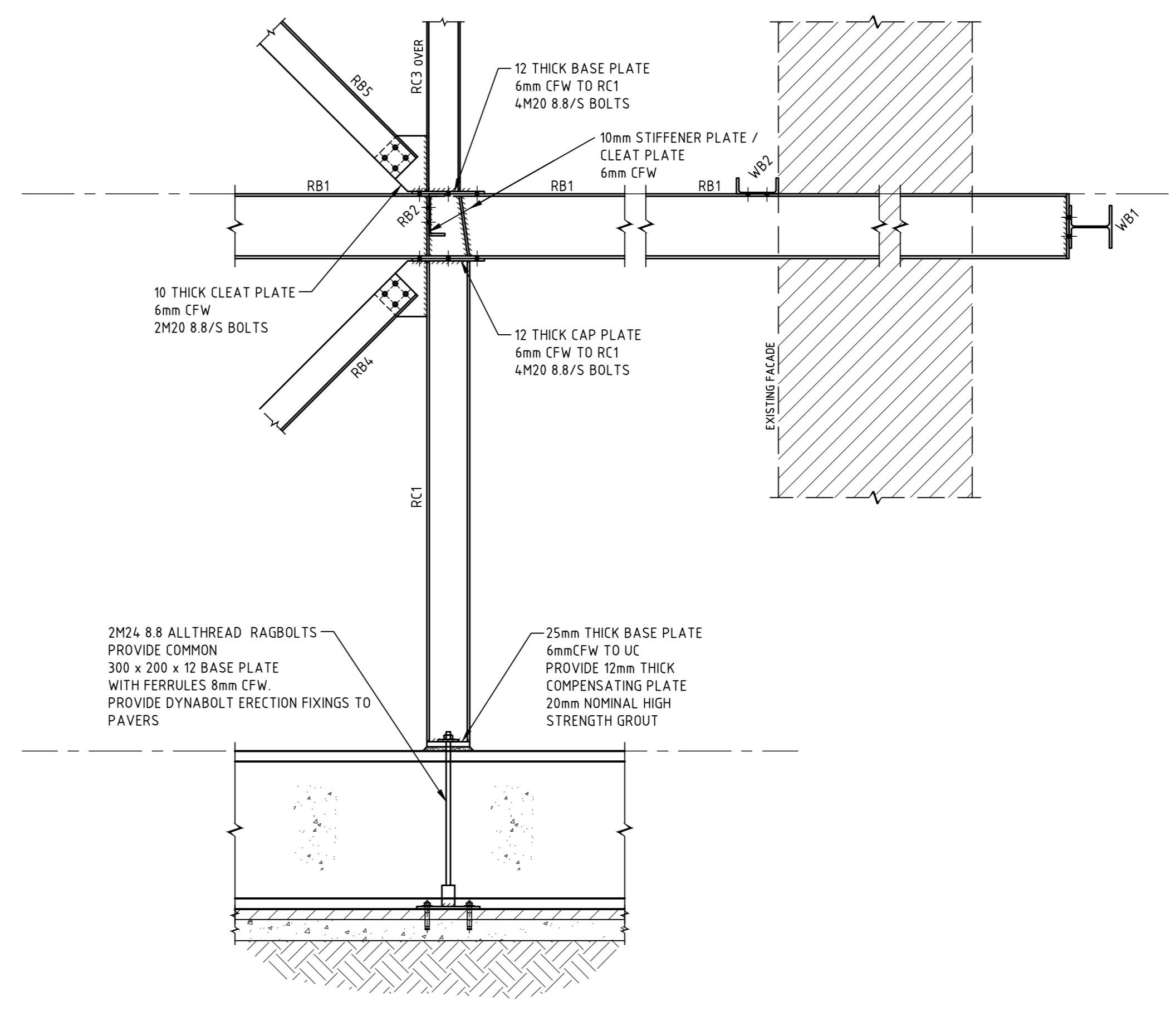
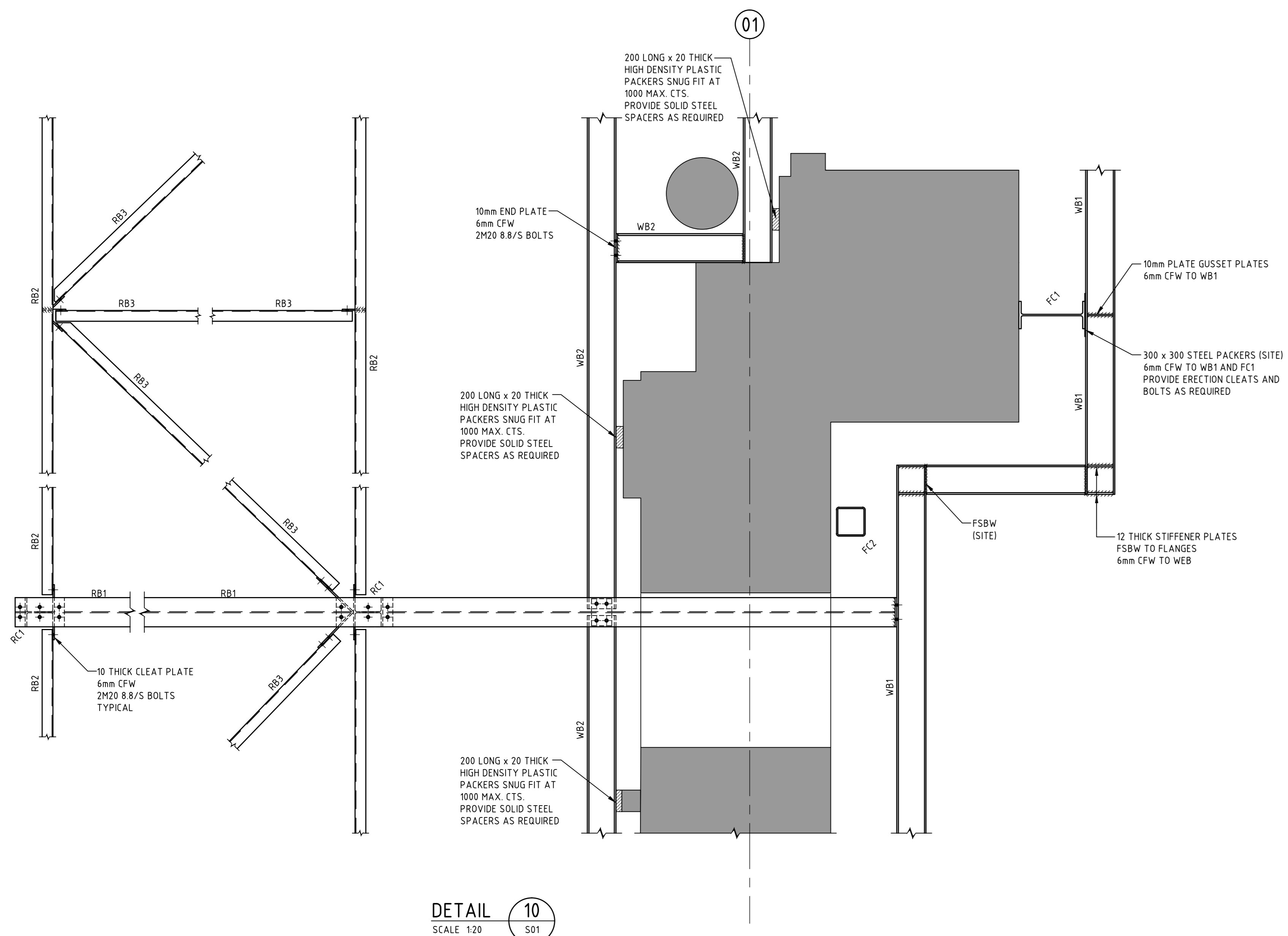
MARK	MEMBER	REMARKS
RC1	200UC46	TEMPORARY RETENTION STEEL COLUMN
RC2	125 x 125 x 5 SHS	TEMPORARY RETENTION STEEL COLUMN
RC3	150 UC 30	TEMPORARY RETENTION STEEL COLUMN
RB1	200UC46	TEMPORARY STEEL BEAM
RB2	200PFC	TEMPORARY STEEL BEAM
RB3	150PFC	TEMPORARY STEEL BEAM
RB4	150x150x12 EA	TEMPORARY STEEL BEAM
RB5	125 x 125 x 10 EA	TEMPORARY STEEL BEAM
WB1	200UC46	WALKER BEAM
WB2	200 PFC	WALKER BEAM
WB3	150 PFC	WALKER BEAM
BR1	M20 4.6/S ROD	ROD BRACING

Rev	Description	Date	By	App
1	ISSUED FOR CONSTRUCTION	22/11/22	S.P.	R.S.
2	PRELIMINARY	19/11/22	S.P.	R.S.
3	PRELIMINARY	19/11/22	S.P.	R.S.

**BONACCI**  
BONACCI GROUP PTY LTD  
10/1100 332 344  
Consulting Engineers, Structural Civil Infrastructure  
201 Wright Street, Abbotsford, Victoria 3067 Australia  
Tel: +61 3 9360 6000 Fax: +61 3 9418 4061  
melbourne@bonaccigroup.com  
www.bonaccigroup.com

Project Name: **FACULTY OF ARCHITECTURE BUILDING AND PLANNING UNIVERSITY OF MELBOURNE-PARKVILLE CAMPUS**  
Drawing Title: **HERITAGE FACADE RETENTION DETAILS SHEET 1**

Designed: R.S. / S.P.A.Y.N.E. / Date: 23/11/22  
Drawn: S.B. / Date: 23/11/22  
Scale: A5 NOTED  
Project Ref: 301139001  
Drawing No: S01  
Rev: B



**AT BEAM AT PURLINS**

**ROOF DIAGONAL BRACING DETAILS**  
SCALE 1:20

NOTE:  
ALL RODS TO BE GRADE 6.6/S  
ALL WELDS TO BE E48xx

- STEELWORK** SHALL COMPLY TO AS 4100, AS/NZS 4680 AND AS/NZS 3688
- THE FABRICATOR SHALL BE RESPONSIBLE FOR SUBMITTING SHOP DRAWINGS WHICH SHALL COMPLY WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS. FOR REVIEW BEFORE FABRICATION. STARTED REVIEW DOES NOT INCLUDE CHECKING DIMENSIONS, NOR TAKE RESPONSIBILITY FOR CONTRACTORS OBLIGATIONS. ALLOW 3 WORKING DAYS MINIMUM FOR REVIEW.
  - WHERE CONNECTION FORCES (IN KILONEWTONS) ARE SHOWN ON THE DRAWINGS, CONNECTIONS SHALL BE PROVIDED TO TRANSMIT THESE FORCES. CONNECTIONS SHALL PROVIDE FOR A MINIMUM FORCE OF 480kN.
  - ALL BOLTS, WASHERS, ETC. WHICH ARE SPECIFICALLY SHOWN SHALL BE IN ACCORDANCE WITH AS DESIGN CAPACITY TABLES FOR STRUCTURAL STEEL AND AS STANDARDIZED STRUCTURAL CONNECTIONS.
  - UNLESS OTHERWISE NOTED, WELDS SHALL CONFORM TO AS/NZS 1554 AND ELECTRODES TO AS/NZS 1554. GASKET PLATES TO BE 8mm THICK BOLTS TO BE M24 8.8/S IN 20mm DIAMETER HOLES. PROVIDE A MINIMUM OF TWO BOLTS PER CONNECTION.
  - FABRICATOR SHALL PROVIDE ALL FORMS FOR ARCHITECTURAL ELEMENTS ETC. WITHOUT WEARING STRUCTURAL MEMBER IN ANY WAY.
  - CAMBR SHALL BE PROVIDED TO ALL ROOF BEAMS, TRUSSES, AND PORTALS ETC. AT 1% OF 200% OF SPAN UNLESS OTHERWISE NOTED FOR ALL MEMBERS SPANNING IN PLACES OF 6m OR MORE SHALL BE PROVIDED WITH RELATIVE CAMBERS. UNLESS SPECIALLY NOTED FOR CONCRETE SLABS ON TOP OF STEELWORK DEPTHS SHALL BE USED TO SUPPORT THE SLAB THICKNESS.
  - ALL STEELWORK BELOW GROUND SHALL BE ENCASED BY CONCRETE WITH MIN. COVER OF 75mm. CONCRETE ENCASED STRUCTURAL STEEL TO BE WRAPPED WITH PRE-GALVANIZED GALVALUMES MESH PLACED 25mm CLEAR OF STEEL. PROVIDE 60mm MINIMUM COVER.
  - ALL STEELWORK NOT TO BE ENCASED IN CONCRETE OR GALVANIZED SHALL BE GIVEN A SHOP COAT OF AN APPROVED PRIMER UNLESS OTHERWISE NOTED. FACES OF FRETION GRIP CONNECTIONS SHALL NOT BE PAINTED.
  - THE BOLTING PROCEDURE TO BE OBSERVED AS FOLLOWS:
    - 4.6/S REFERS TO COMMERCIAL BOLTS OF STRENGTH GRADE 4.6 TO AS/NZS 1911 TIGHTENING TO A STANDARD WRENCH TO A 5/8 TIGHT CONDITION
    - 8.8/S REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO AS/NZS 1912 TIGHTENING TO A STANDARD WRENCH TO A 5/8 TIGHT CONDITION
    - 8.8/S REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO AS/NZS 1912 FULLY TIGHTENED TO 4.5% DEFORMATION AS A BEARING TYPE BOLT
    - 8.8/S REFERS TO HIGH STRENGTH BOLTS OF STRENGTH GRADE 8.8 TO AS/NZS 1912 FULLY TIGHTENED TO 4.5% DEFORMATION AS A BEARING TYPE BOLT
  - LOAD INDICATING WASHERS SHALL BE USED TO VERIFY TIGHTENING OF BOLTS IN TF AND TC CONNECTIONS. A HARDENING WASHER SHALL BE USED UNDER THE HEAD OR NUT, UNLESS OTHERWISE FULLY TIGHTENED BOLTS SHALL NOT BE RE-USED. WELDING CAPTIVE NUTS TO STEELWORK SHALL BE GRADE 4.6 CLASS 5 NUTS. THE ELECTRODES USED SHALL BE COMPATIBLE WITH THE CHEMISTRY OF THE STEEL. WELDED MEMBER CONNECTIONS COMPROMISED BY ALL SORTS WELDS SHALL HAVE 100% VISUAL INSPECTION. GRADE 4.6 BOLTS TO BE USED. ALL BOLTS SHALL BE OF SUCH LENGTH THAT AT LEAST ONE FULL THREAD IS EXPOSED BEYOND THE NUT AFTER THE NUT HAS BEEN TIGHTENED.
  - MINIMUM ONE WASHER SHALL BE USED UNDER THE NUT IN ALL SITUATIONS IF TIGHTENING IS CARRIED OUT AT THE HEAD. AN ADDITIONAL WASHER SHALL BE USED UNDER THE HEAD FOR PORTALS. SHORTER THAN THE LENGTH OF 13 TIMES THE BOLT LENGTH FOR BEAM TO BRACE. SHORTER THAN THE LENGTH OF 13 TIMES THE BOLT LENGTH FOR BRACE TO BRACE. SHORTER THAN THE LENGTH OF 13 TIMES DIAMETER PLUS 2mm. USE DASHED WASHER UNDER THE NUT AND HEAD.
  - UNLESS NOTED OTHERWISE, ALL WELDS TO BE MADE TO THE FOLLOWING:
    - GRADE 240 MILLER PLATES, PLATES, ANGLES, 90 x 90 ANGLE OR 125 x 75 ANGLE AND SMALLER.
    - GRADE 300 L.S. PLATE, PLATES, ANGLES, 90 x 90 ANGLE OR 125 x 75 ANGLE AND SMALLER.
    - GRADE 240 RIS, RIS.
    - NET SPACES VARYING SHALL BE IN ACCORDANCE WITH AS 4680 MINIMUM COATING THICKNESS OF 85 MICRONS. PROVIDE MEMBERS TO BE GALVANIZED WITH VENT AND DRAINAGE HOLES IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATIONS AND THE ACCEPTANCE OF THE ENGINEER.
    - THE USE OF TIEBACK MEMBERS SHALL BE CALLED OUT BY NORMAL THICKNESS PLATES AND CONTINUOUS FILED WELDED UNLESS NOTED OTHERWISE.
    - WHERE MEMBERS SHOWN THE STRUCTURAL OR ARCHITECTURAL BEAMS ARE REQUIRED TO BE LAPPED, BENT OR ROLLED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE METHODS REQUIRED TO ACHIEVE THE REQUIRED SHAPES WITHOUT LOCALIZED DISTORTION OF THE MEMBERS.
    - THE CONTRACTOR SHALL PROVIDE AND LEAVE IN PLACE, UNTIL PERMANENT BRACING ELEMENTS ARE CONSTRUCTED, SUCH TEMPORARY BRACING AS IS NECESSARY TO STABILIZE THE STRUCTURE DURING ERECTION. REFER TO NOTES 64 AND 65.
    - SUBMIT DETAILS OF THE MANUFACTURER, MATERIAL AND SECTION PROPERTIES OF THE PURLINS AND GIRTS TO BE USED FOR APPROVAL. PURLINS AND GIRTS BOLTS AND BRACING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S DETAILS UNLESS SHOWN OTHERWISE.
    - TIGHTENING MEMBERS FOR MECHANICAL/PNEUMATIC PENETRATION, DRAINAGE OUTLETS, SIPS ETC. ARE NOT NECESSARY. SHOW SUPPORT OF HEAVY PIPES AND DUCTS TO BE APPROVED BY THE ENGINEER. SERVICES SHALL BE MADE FROM THE WEB OF PURLINS NOT LAPPED.
    - THE SECOND QUALITY AND INSTALLATION OF SECONDARY STEELWORK REQUIRED TO SUPPORT CONCRETE IN PLACE TO BRACE STRUCTURE IS THE RESPONSIBILITY OF THE CONTRACTOR.
    - CERTIFICATE OF ARCHITECTURAL FINISHING/BRACING OF STEEL AND NON-STRUCTURAL WALLS TO THE BASE STRUCTURE IS THE RESPONSIBILITY OF THE CONTRACTOR. FORWARD TO THE MEMBER ACCEPTANCE OF SUPPLY WITH THE SUPPLIER FOR THE ARCHITECTURAL FINISHING/PANELS/DRY-WALL TO RESIST THE PRESSURES DESIGNATED IN THE DESIGN DOCUMENTS.

COPYRIGHT		All rights reserved																					
These drawings, plans and specifications and the copyright therein are the property of the Bonacci Group and shall not be used, reproduced or copied, whole or in part without the written permission of the Bonacci Group.																							
<table border="1"> <tr> <th>Rev</th> <th>Description</th> <th>Date</th> <th>By</th> <th>App</th> </tr> <tr> <td>A</td> <td>ISSUED FOR CONSTRUCTION</td> <td>23/11/20</td> <td>S.A.</td> <td>R.S.</td> </tr> <tr> <td>B</td> <td>PRELIMINARY</td> <td>19/11/20</td> <td>S.A.</td> <td>-</td> </tr> <tr> <td>C</td> <td>PRELIMINARY</td> <td>19/11/20</td> <td>S.A.</td> <td>-</td> </tr> </table>				Rev	Description	Date	By	App	A	ISSUED FOR CONSTRUCTION	23/11/20	S.A.	R.S.	B	PRELIMINARY	19/11/20	S.A.	-	C	PRELIMINARY	19/11/20	S.A.	-
Rev	Description	Date	By	App																			
A	ISSUED FOR CONSTRUCTION	23/11/20	S.A.	R.S.																			
B	PRELIMINARY	19/11/20	S.A.	-																			
C	PRELIMINARY	19/11/20	S.A.	-																			

**BONACCI**  
Bonacci Group Pty Ltd  
4006 41 000 332 404  
Consulting Engineers, Structural Civil Infrastructure  
70 Windsor Street, Abbotsford, Victoria 3067 Australia  
Tel: +61 3 9418 8000 Fax: +61 3 9418 4001  
melbourne@bonaccigroup.com  
www.bonaccigroup.com

Project Name: **FACULTY OF ARCHITECTURE BUILDING AND PLANNING UNIVERSITY OF MELBOURNE-PARKVILLE CAMPUS**

Project Director Approval: **S.P.A.Y.E.** Date: **23/11/20**

Drawn: **R.S.** Scale: **1:20 UNO**

Checked: **S.A.** Project Ref: **30 11390 01** Drawing No: **S02**

Date: **NOV 20/20** Sheet: **A0 @ P/5**