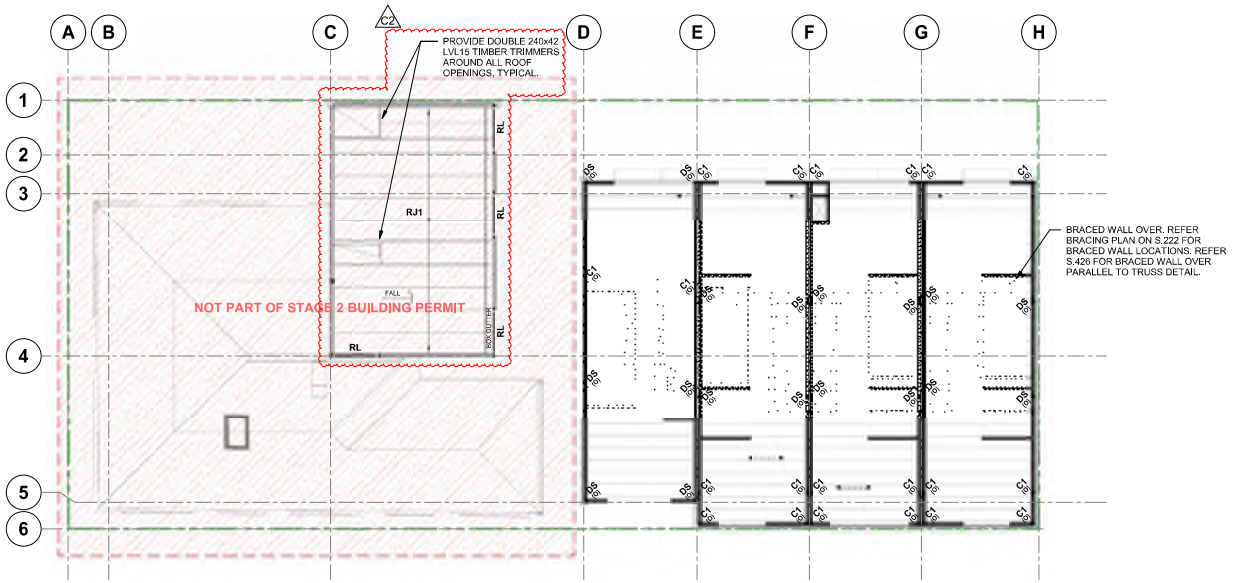
A1



LEVEL 02 - FRAMING OVER PLAN

SCALE: 1 : 100

STEEL COLUMN SCHEDULE		
MARK	SIZE	REMARKS
C1	89x6.0 SHS	STEEL COLUMN
C2	200x100x6.0RHS	STEEL COLUMN

ROOF FRAMING SCHEDULE		
MARK	SIZE	REMARKS
RJ1	240x42 LVL15 @ 600 MAX. CTS.	ROOF JOISTS
RT1	250 DEEP PRYDA LONGREACH ROOF TRUSS @ 900 CTS	ROOF TRUSS BY OTHERS
RT2	250 DEEP PRYDA LONGREACH PURLIN TRUSS @ 900 CTS	PURLIN TRUSS BY OTHERS

C2

LINTEL SCHEDULE (RL)	
SPAN (mm)	SECTION
0 - 1200	140x45 HYSPAN LVL
1201 - 1800	2/140x45 HYSPAN LVL
1801 - 2400	2/190x45 HYSPAN LVL
2401 - 3000	2/240x45 HYSPAN LVL

NOTE:

1. FOR LOAD BEARING ROOF LINTELS NOT NOMINATED ON PLAN.
2. FOR TILED ROOFS. MAXIMUM ROOF LOAD WIDTH OF 5m.
3. NOT SUITABLE FOR SUPPORT OF GIRDER TRUSSES OR POINT LOADS.
4. ALL LINTELS ARE TO BE SUPPORTED ON 2/90x45 F17 KDHW NAIL LAMINATED STUDS (DS). ALL DOUBLE STUDS TO BE LOCATED ON TOP OF EDGE BEAM, TYPICAL.

FLOOR FRAMING OVER - LEGEND

- DENOTES - LOAD BEARING ELEMENT UNDER
- DENOTES - BLOCKWALL OVER
- DENOTES - LOAD BEARING STUD WALL OVER REFER PLANS FOR SPECIFICATION.
- DS — DENOTES - DOUBLE STUD OVER
- TS — DENOTES - TRIPLE STUD OVER
- C1 — DENOTES - STEEL COLUMN OVER
- STEP — DENOTES - SLAB SETDOWN REFER TO ARCHITECTURAL DETAILS FOR LEVELS

LEVEL 02 - LOAD BEARING STUD WALL FRAMING:

GENERAL:

ALL STUD FRAMING, TYPE, FIXINGS AND BRACING ETC. TO BE IN ACCORDANCE WITH AS1684 AND ANY SUPPLEMENTS (LIGHT TIMBER FRAMING MANUAL) ADOPTING A WIND CLASSIFICATION OF **N3** FOR DETAILING PURPOSES.
REFER ALSO TO THE ARCHITECTS DRAWING AND SPECIFICATIONS FOR WALL TYPES AND FIRE RATING REQUIREMENTS.

STUDS:

UNLESS NOTED OTHERWISE ON PLAN OR SCHEDULED THE GROUND FLOOR STUDS ARE TO BE **90x45 MGP12 SPACED AT 450mm MAXIMUM CENTRES** WITH 2 ROWS OF NOGGINGS EQUALLY SPACED BETWEEN THE TOP AND BOTTOM PLATES. (3000mm MAX. HEIGHT.)

WALL BRACING:-

ALL WALL BRACING, TYPE, POSITION, FIXING AND WALL TIE DOWN DETAILS TO BE IN ACCORDANCE WITH AS1684. SECTION 8.3.6.

DOUBLE STUDS (U,N,O,):-

PROVIDE **2/90 x 45 MGP12 STUDS** LOCATED UNDER ENDS OF ALL FIRST FLOOR BEAMS AND LINTELS UNLESS NOTED OTHERWISE. MULTIPLE STUDS ARE TO BE NAIL LAMINATED TOGETHER TO FORM A SINGLE UNIT IN ACCORDANCE WITH AS. 1684.

TRIPLE STUDS STUDS (U,N,O,):-

PROVIDE **3/90x45 MGP12 STUDS** LOCATED UNDER ENDS OF FIRST FLOOR BEAMS AND LINTELS WHERE NOMINATED ON PLAN. MULTIPLE STUDS ARE TO BE NAIL LAMINATED TOGETHER TO FORM A SINGLE UNIT IN ACCORDANCE WITH AS. 1684.

COLUMNS:-

ALL INTERNAL STEEL COLUMNS ARE TO BE TIED TO THE ADJACENT STUD WALLS WITH TYPE 17 SCREW FASTENERS AT MAXIMUM 300 CENTRES TO INTERSECTING TIMBER STUDS, TYPICAL.

TEMPORARY WALL BRACING:-

THE BUILDER/CARPENTER IS TO PROVIDE ADEQUATE TEMPORARY BRACING TO PLUMB WALLS AT EACH LEVEL DURING CONSTRUCTION. TEMPORARY BRACING IS ADDITIONAL TO ANY BRACING SHOWN ON THESE DRAWINGS AND MUST REMAIN IN POSITION UNTIL STUD FRAMING, ALL PERMANENT WALL BRACING, STEELWORK AND THE PLATFORM FLOOR AND ROOF OVER HAS BEEN COMPLETED.

WALL BRACING:-

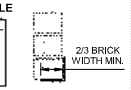
ALL WALL BRACING, TYPE, POSITION, FIXING AND WALL TIE DOWN DETAILS TO BE IN ACCORDANCE WITH AS1684. SECTION 8.3.6. ALL BRACING IS TO SATISFY STABILITY REQUIREMENTS ONLY AND MAY NOT SATISFY THE REQUIREMENTS OF AS1684. CONTACTOR TO INSTALL ADDITIONAL BRACING TO SUIT.

MASONRY NOTES

1. PROVIDE MASONRY TIES FROM STUD WALLS IN ACCORDANCE WITH AS3700 AND AS2699, AND INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.
2. REFER TO ARCHITECT FOR SPECIFICATION OF COMPRESSIBLE BACKING ROD AND JOINT SEALANT OR FIRE RATED FILLER AT CONTROL JOINTS.

M.S. ANGLE LINTEL SCHEDULE

MAX. SPAN	BRICKWORK LINTEL
1500	90 x 90 x 6 EA
2000	90 x 90 x 8 EA
2500	150 x 90 x 8 UA
3000	150 x 90 x 10 UA



1. PROVIDE 200mm MINIMUM BEARING EACH END
2. MINIMUM 2/3 BRICK BEARING ONTO LINTEL
3. LONG LEG OF ANGLE VERTICAL
4. ABOVE LINTEL SIZES ASSUME MASONRY ARCHING IS POSSIBLE, AND NO OTHER VERTICAL LOADS ON WALL EXCEPT FOR SELF WEIGHT.
5. LINTELS TO BE HOT DIP GALVANISED.

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C2	24.08.2021	CONSTRUCTION ISSUE
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

LEVEL 02 - FRAMING OVER PLAN

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 100	SIZE:	A1

Job No. 20501 | Drawing No. S.221 | Rev. C2

© BROGUE

A1

BRACING NOTES:

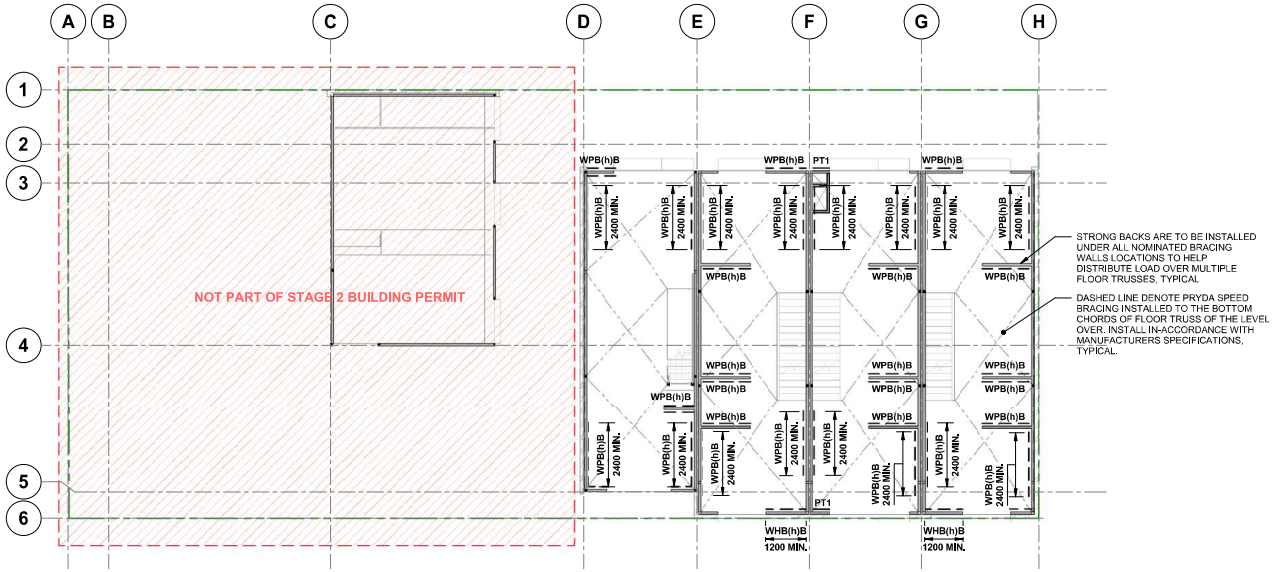
BRACING TO BE INSTALLED TO FULL WALL EXTENT SHOWN ON PLAN (U.N.O.).

REFER S.415 FOR STEEL AND S.425, S.426 FOR TIMBER BRACE DETAILS, TYPICAL.

YELLOW TONGUE SUB-FLOOR MUST BE FIXED TO FLOOR TRUSSES WITH HIGH GRADE CONSTRUCTION ADHESIVE AND TYPE 17 SCREWS MAX. 150CTS THROUGHOUT.

STRONG BACKS ARE TO BE INSTALLED UNDER ALL NOMINATED BRACING WALLS LOCATIONS TO HELP DISTRIBUTE LOAD OVER MULTIPLE FLOOR TRUSSES.

ALL NOMINATED PORTAL FRAMES ARE TO HAVE 6CFW WELDS ALL ROUND AND CONNECTIONS



LEVEL 02 - WALL BRACING PLAN

SCALE: 1 : 100

POWER TRUSS SCHEDULE	
TAG	**LOAD kN (ULS)**
PT1	10kN (ULS)
PT2	15kN (ULS)
PT3	20kN (ULS)
PT4	30kN (ULS)

NOTE:
POWER TRUSS BY OTHERS TO ACHIEVE AN ULTIMATE LATERAL LOAD (ULS) NOMINATED IN SCHEDULE.

brogue | CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

LEVEL 02 - WALL BRACING PLAN

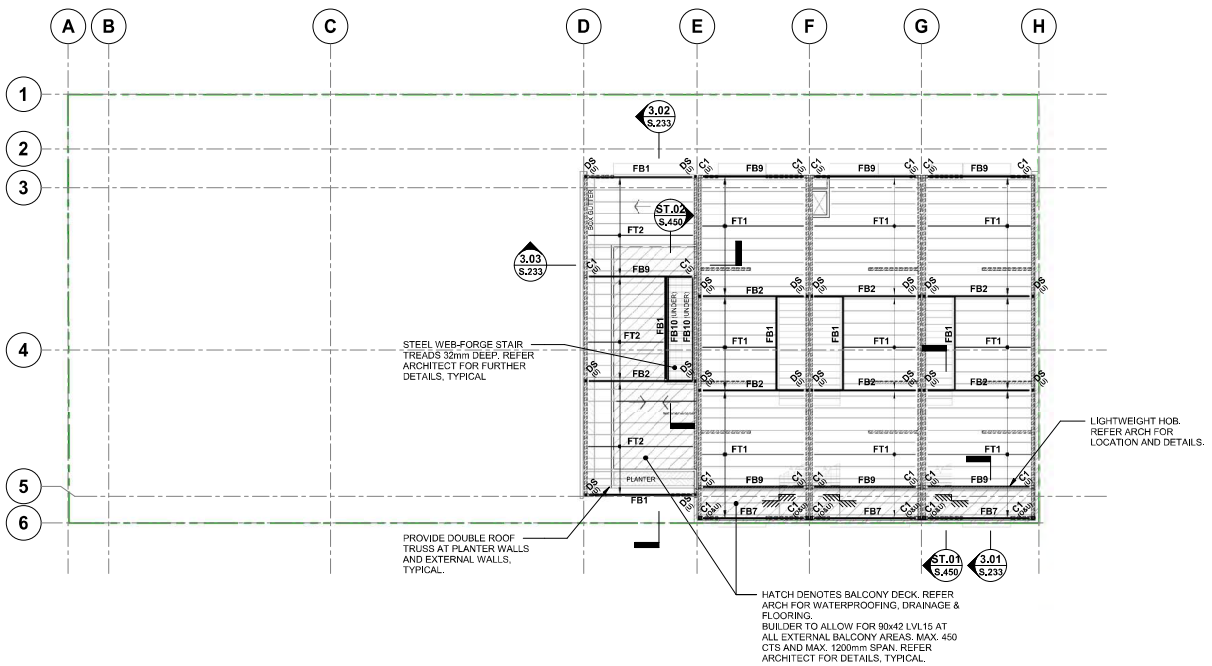
DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 100	SIZE:	A1

Job No. | Drawing No. | Rev.

20501 S.222 C1

© BROGUE

A1



LEVEL 03 - FRAMING UNDER PLAN

SCALE: 1 : 100

FLOOR FRAMING SCHEDULE		
MARK	**SIZE**	**REMARKS**
FB1	2/240x42 LVL15	FLOOR BEAM (NAIL LAMINATED) . IN ACCORDANCE WITH AS1684
FB2	2/290x42 LVL15	FLOOR BEAM (NAIL LAMINATED) . IN ACCORDANCE WITH AS1684
FB3	190x45 LVL15	FLOOR BEAM
FB4	180PFC	STEEL BEAM
FB6	200x100x9.0 RHS (G450) + 150x100x10 UA (GALVANISED)	STEEL BEAM
FB7	200PFC + (90x6.0 EA TO PICK UP BRICKWORK, AS REQUIRED)	STEEL BEAM
FB8	310UB40.4 (G450) (PORTALISED BEAM)	STEEL BEAM
FB9	200PFC	STEEL BEAM
FB10	200PFC	STAIR STRINGER
FB11	150PFC	STAIR BEAM
FJ1	90x42 LVL15 @ 450 CTS. MAX. SPAN 1200mm	ROOF DECK FLOOR JOISTS
FJ2	300x58 LVL15 @ 450 CTS. MAX. SPAN 6000mm (2 ROWS OF FULL DEPTH SOLID BLOCKING AT THIRD SPANS)	TIMBER FLOOR JOISTS
FT1	250 MIN. DEEP PRYDA LONGREACH FLOOR TRUSS @ 450 CTS	FLOOR TRUSS BY OTHERS
FT2	300 MIN. DEEP PRYDA LONGREACH FLOOR TRUSS @ 450 CTS	FLOOR TRUSS BY OTHERS

NOTE: FLOOR TRUSS MANUFACTURER TO ALLOW FOR SUPER IMPOSED DEAD LOAD OF 1kPa AND A LIVE LOAD OF 3kPa FOR ALL EXTERNAL ROOF TOP TERRACE AREAS. REFER ARCHITECTURAL DOCUMENTS FOR FURTHER INFORMATION, TYPICAL

STEEL COLUMN SCHEDULE		
MARK	**SIZE**	**REMARKS**
C1	89x6.0 SHS	STEEL COLUMN
C2	200x100x6.0RHS	STEEL COLUMN

FLOOR FRAMING UNDER - LEGEND

- DENOTES - LOAD BEARING ELEMENT UNDER
- FBx — DENOTES - FLOOR BEAM. REFER SCHEDULE FOR SIZE.
- DS — DENOTES - DOUBLE STUD UNDER
- STEP — DENOTES - SLAB SETDOWN. REFER TO ARCHITECTURAL DETAILS FOR LEVELS

TIMBER FLOOR TRUSS NOTES:

ALL FLOOR TRUSSES AND BRACING SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH AS1684:2010 AND AS1720.1 AND THE BUILDING CODE OF AUSTRALIA (BCA)

ALL TRUSSED FLOOR CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE TRUSS MANUFACTURERS DETAILS AND SPECIFICATIONS

THE FLOOR TRUSS LAYOUT SHOWN ON PLAN IS INDICITIVE ONLY. THE CONTRACTOR IS TO CONFIRM THEIR LOCATIONS PRIOR TO THE COMMENCEMENT OF WORKS.

REFER TO THE FLOOR TRUSS MANUFACTURER FOR:
- DESIGN CALCULATIONS FOR IN SERVICE AND ERECTION LOADS
- DETAILS OF ALL CONNECTIONS TO MAIN STRUCTURES INCLUDING ALL TIE DOWN AND FIXING DETAILS
- DESIGN AND DETAILS FOR BRACING AND IN-SERVICE AND ERECTION CONDITIONS
- LINTELS, BEAMS AND SUPPORTS AS REQUIRED BY THE TRUSS DESIGN
- CERTIFICATION AND CERTIFICATE OF DESIGN COMPLIANCE.

THE FLOOR TRUSS DESIGNER SHALL ALLOW FOR THE FOLLOWING APPLIED LOADINGS:
1. LIVE LOADS AS PER AS1170.1
2. SUPER IMPOSED DEAD LOAD OF MINIMUM 0.5kPa

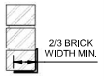
THE FLOOR TRUSS DESIGNER MUST PROVIDE CALCULATIONS, INCLUDING DEFLECTION CALCULATIONS FOR TO THIS OFFICE FOR REVIEW PRIOR TO FABRICATION. THE FLOOR TRUSS DESIGN IS TO BE INDEPENDENTLY CERTIFIED

MASONRY NOTES

1. PROVIDE MASONRY TIES FROM STUD WALLS IN ACCORDANCE WITH AS3700 AND AS2699, AND INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.
2. REFER TO ARCHITECT FOR SPECIFICATION OF COMPRESSIBLE BACKING ROD AND JOINT SEALANT OR FIRE RATED FILLER AT CONTROL JOINTS.

M.S. ANGLE LINTEL SCHEDULE

MAX. SPAN	BRICKWORK LINTEL
1500	90 x 90 x 6 EA
2000	90 x 90 x 8 EA
2500	150 x 90 x 8 UA
3000	150 x 90 x 10 UA



1. PROVIDE 200mm MINIMUM BEARING EACH END
2. MINIMUM 2/3 BRICK BEARING ONTO LINTEL
3. LONG LEG OF ANGLE VERTICAL
4. ABOVE LINTEL SIZES ASSUME MASONRY ARCHING IS POSSIBLE, AND NO OTHER VERTICAL LOADS ON WALL EXCEPT FOR SELF WEIGHT.
5. LINTELS TO BE HOT DIP GALVANISED.

EXPOSED STEEL FRAMING NOTE:

ALL EXPOSED STEELWORK IS TO BE HOT DIP GALVANISED (HDG) OR APPROVED EQUIVALENT FOR CORROSION PROTECTION TYPICAL U.N.O.
SERVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT/MECH/HYD ENGINEERS REQUIREMENTS.
WALL TIMBER WINDOW HEADER DETAILS TO AS1684 TYPICAL U.N.O.
FIRE RATING OF STEELWORK TO BUILDING SURVEYORS REQUIREMENTS. REFER ARCHITECT FOR DETAILS, TYPICAL.

EXPOSED TIMBER FRAMING NOTE:

ALL EXPOSED TIMBER ABOVE GROUND IS TO BE PROTECTED TO A HAZARD CLASS OF H3.
ALL EXPOSED TIMBER IN CONTACT OR IN GROUND IS TO BE PROTECTED TO A HAZARD CLASS OF H4. .
FIRE RATING OF TIMBER TO BUILDING SURVEYORS REQUIREMENTS. REFER ARCHITECT FOR DETAILS, TYPICAL.

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

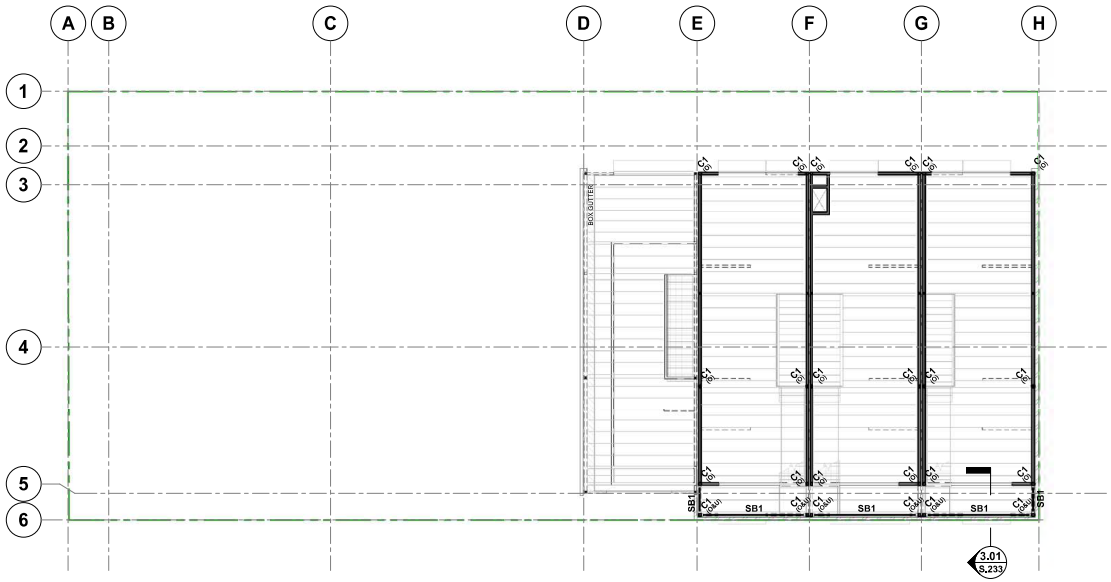
LEVEL 03 - FRAMING UNDER PLAN

DATE: OCT 2020 DESIGNED: SM
DRAWN: DH CHECKED: TF
SCALE: 1 : 100 SIZE: A1
Job No. Drawing No. Rev.

20501 S.230 C1

© BROGUE

A1



LEVEL 03 - FRAMING OVER PLAN

SCALE: 1 : 100

STEEL COLUMN SCHEDULE		
MARK	SIZE	REMARKS
C1	89x6.0 SHS	STEEL COLUMN
C2	200x100x6.0RHS	STEEL COLUMN

STEEL FRAMING SCHEDULE		
MARK	SIZE	REMARKS
SB1	89x5.0 SHS + 90x6.0 EA	STEEL BEAM

FLOOR FRAMING OVER - LEGEND

- DENOTES - LOAD BEARING ELEMENT UNDER
- DENOTES - BLOCKWALL OVER
- DENOTES - LOAD BEARING STUD WALL OVER REFER PLANS FOR SPECIFICATION.
- DS — DENOTES - DOUBLE STUD OVER
- TS — DENOTES - TRIPLE STUD OVER
- C1 — DENOTES - STEEL COLUMN OVER
- STEP — DENOTES - SLAB SETDOWN REFER TO ARCHITECTURAL DETAILS FOR LEVELS

LEVEL 03 - LOAD BEARING STUD WALL FRAMING:

GENERAL:

ALL STUD FRAMING, TYPE, FIXINGS AND BRACING ETC. TO BE IN ACCORDANCE WITH AS1684 AND ANY SUPPLEMENTS (LIGHT TIMBER FRAMING MANUAL) ADOPTING A WIND CLASSIFICATION OF **N3** FOR DETAILING PURPOSES.
REFER ALSO TO THE ARCHITECTS DRAWING AND SPECIFICATIONS FOR WALL TYPES AND FIRE RATING REQUIREMENTS.

STUDS:

UNLESS NOTED OTHERWISE ON PLAN OR SCHEDULED THE GROUND FLOOR STUDS ARE TO BE **90x45 MGP12 SPACED AT 450mm MAXIMUM CENTRES** WITH 2 ROWS OF NOGGINGS EQUALLY SPACED BETWEEN THE TOP AND BOTTOM PLATES. (3000mm MAX. HEIGHT.)

WALL BRACING:-

ALL WALL BRACING, TYPE, POSITION, FIXING AND WALL TIE DOWN DETAILS TO BE IN ACCORDANCE WITH AS1684. SECTION 8.3.6.

DOUBLE STUDS (U,N,O,):-

PROVIDE **2/90 x 45 MGP12 STUDS** LOCATED UNDER ENDS OF ALL FIRST FLOOR BEAMS AND LINTELS UNLESS NOTED OTHERWISE. MULTIPLE STUDS ARE TO BE NAIL LAMINATED TOGETHER TO FORM A SINGLE UNIT IN ACCORDANCE WITH AS. 1684.

TRIPLE STUDS STUDS (U,N,O,):-

PROVIDE **3/90x45 MGP12 STUDS** LOCATED UNDER ENDS OF FIRST FLOOR BEAMS AND LINTELS WHERE NOMINATED ON PLAN. MULTIPLE STUDS ARE TO BE NAIL LAMINATED TOGETHER TO FORM A SINGLE UNIT IN ACCORDANCE WITH AS. 1684.

COLUMNS:-

ALL INTERNAL STEEL COLUMNS ARE TO BE TIED TO THE ADJACENT STUD WALLS WITH TYPE 17 SCREW FASTENERS AT MAXIMUM 300 CENTRES TO INTERSECTING TIMBER STUDS, TYPICAL.

TEMPORARY WALL BRACING:-

THE BUILDER/CARPENTER IS TO PROVIDE ADEQUATE TEMPORARY BRACING TO PLUMB WALLS AT EACH LEVEL DURING CONSTRUCTION. TEMPORARY BRACING IS ADDITIONAL TO ANY BRACING SHOWN ON THESE DRAWINGS AND MUST REMAIN IN POSITION UNTIL STUD FRAMING, ALL PERMANENT WALL BRACING, STEELWORK AND THE PLATFORM FLOOR AND ROOF OVER HAS BEEN COMPLETED.

WALL BRACING:-

ALL WALL BRACING, TYPE, POSITION, FIXING AND WALL TIE DOWN DETAILS TO BE IN ACCORDANCE WITH AS1684. SECTION 8.3.6. ALL BRACING IS TO SATISFY STABILITY REQUIREMENTS ONLY AND MAY NOT SATISFY THE REQUIREMENTS OF AS1684. CONTACTOR TO INSTALL ADDITIONAL BRACING TO SUIT.

MASONRY NOTES

1. PROVIDE MASONRY TIES FROM STUD WALLS IN ACCORDANCE WITH AS3700 AND AS2699, AND INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.
2. REFER TO ARCHITECT FOR SPECIFICATION OF COMPRESSIBLE BACKING ROD AND JOINT SEALANT OR FIRE RATED FILLER AT CONTROL JOINTS.

M.S. ANGLE LINTEL SCHEDULE

MAX. SPAN	BRICKWORK LINTEL
1500	90 x 90 x 6 EA
2000	90 x 90 x 8 EA
2500	150 x 90 x 8 UA
3000	150 x 90 x 10 UA

2/3 BRICK WIDTH MIN.

1. PROVIDE 200mm MINIMUM BEARING EACH END
2. MINIMUM 2/3 BRICK BEARING ONTO LINTEL
3. LONG LEG OF ANGLE VERTICAL
4. ABOVE LINTEL SIZES ASSUME MASONRY ARCHING IS POSSIBLE, AND NO OTHER VERTICAL LOADS ON WALL EXCEPT FOR SELF WEIGHT.
5. LINTELS TO BE HOT DIP GALVANISED.

EXPOSED STEEL FRAMING NOTE:

ALL EXPOSED STEELWORK IS TO BE HOT DIP GALVANISED (HDG) OR APPROVED EQUIVALENT FOR CORROSION PROTECTION TYPICAL U.N.O.
SERVICE LOCATIONS TO BE COORDINATED WITH ARCHITECT/MECH/HYD ENGINEERS REQUIREMENTS.
WALL TIMBER WINDOW HEADER DETAILS TO AS1684 TYPICAL U.N.O.
FIRE RATING OF STEELWORK TO BUILDING SURVEYORS REQUIREMENTS. REFER ARCHITECT FOR DETAILS, TYPICAL.

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT
everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

LEVEL 03 - FRAMING OVER PLAN

DATE: OCT 2020 DESIGNED: SM
DRAWN: DH CHECKED: TF
SCALE: 1 : 100 SIZE: A1

Job No. Drawing No. Rev.
20501 S.231 C1

© BROGUE

A1

BRACING NOTES:

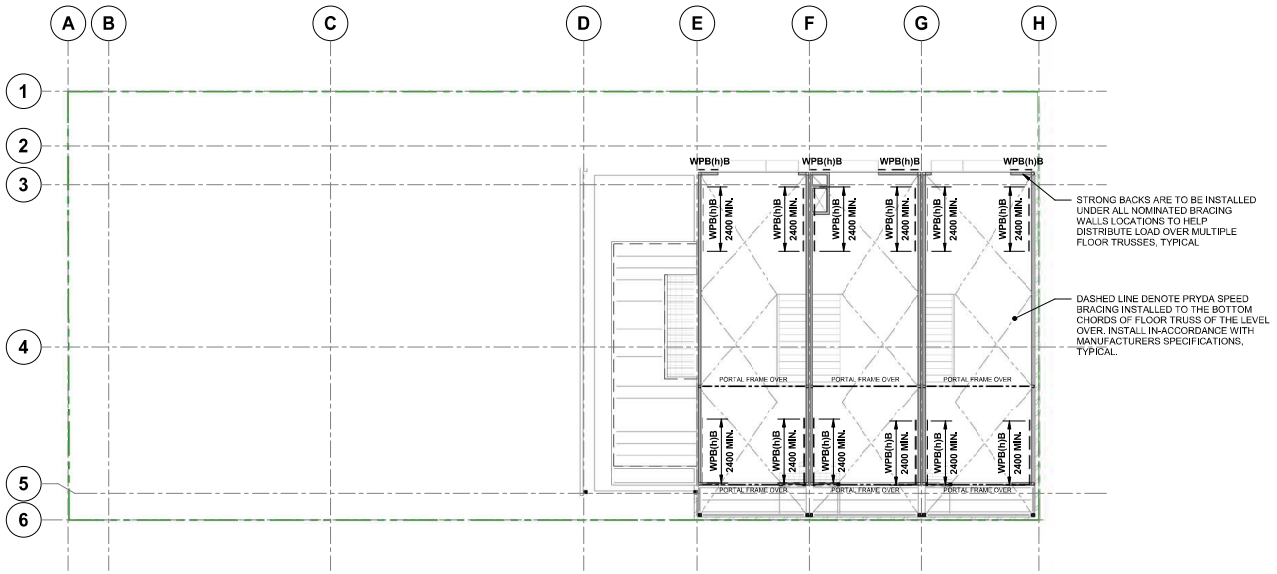
BRACING TO BE INSTALLED TO FULL WALL EXTENT SHOWN ON PLAN (U.N.O.).

REFER S.415 FOR STEEL AND S.425, S.426 FOR TIMBER BRACE DETAILS, TYPICAL.

YELLOW TONGUE SUB-FLOOR MUST BE FIXED TO FLOOR TRUSSES WITH HIGH GRADE CONSTRUCTION ADHESIVE AND TYPE 17 SCREWS MAX. 150CTS THROUGHOUT.

STRONG BACKS ARE TO BE INSTALLED UNDER ALL NOMINATED BRACING WALLS LOCATIONS TO HELP DISTRIBUTE LOAD OVER MULTIPLE FLOOR TRUSSES.

ALL NOMINATED PORTAL FRAMES ARE TO HAVE 6CFW WELDS ALL ROUND AND CONNECTIONS



LEVEL 03 - WALL BRACING PLAN

SCALE: 1 : 100

brogue | CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

LEVEL 03 - WALL BRACING PLAN

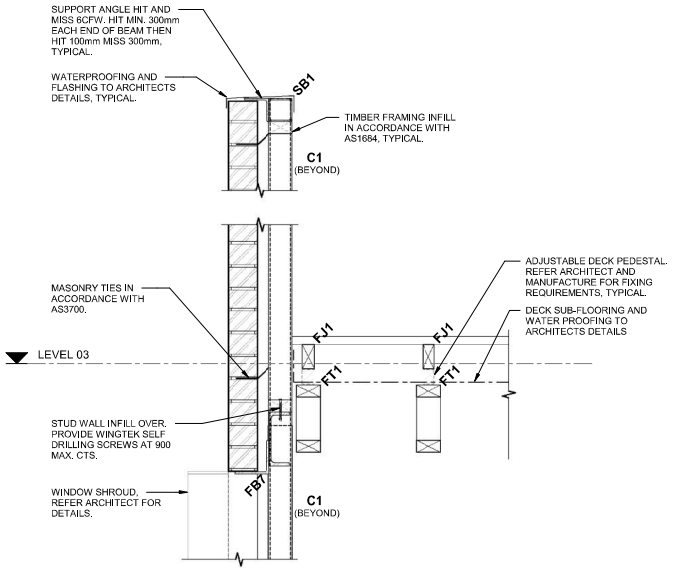
DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 100	SIZE:	A1

Job No. | Drawing No. | Rev.

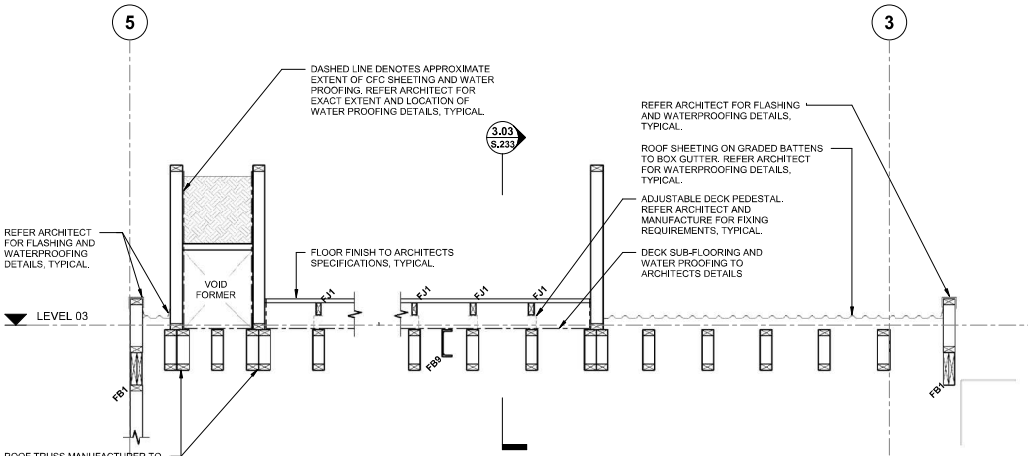
20501 S.232 C1

© BROGUE

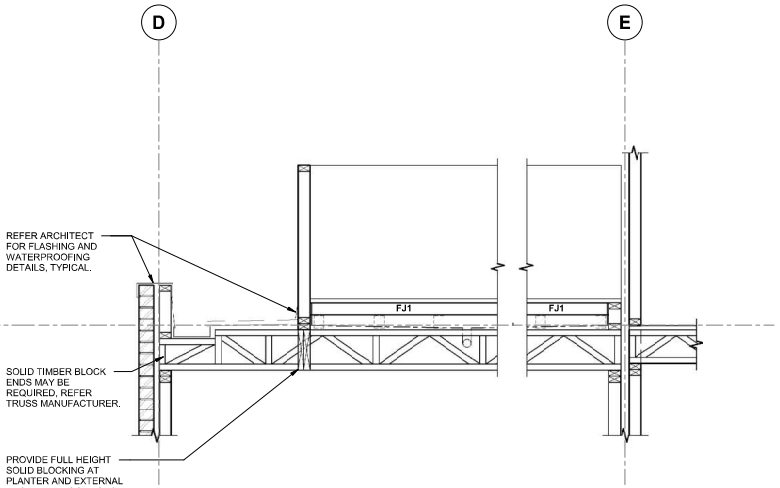
A1



SECTION 3.01 S.230
SCALE 1 : 10



SECTION 3.02 S.230
SCALE 1 : 20



SECTION 3.03 S.230
SCALE 1 : 20

brogue | CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT
everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

LEVEL 03 - SECTIONS AND DETAILS

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	As indicated	SIZE:	A1

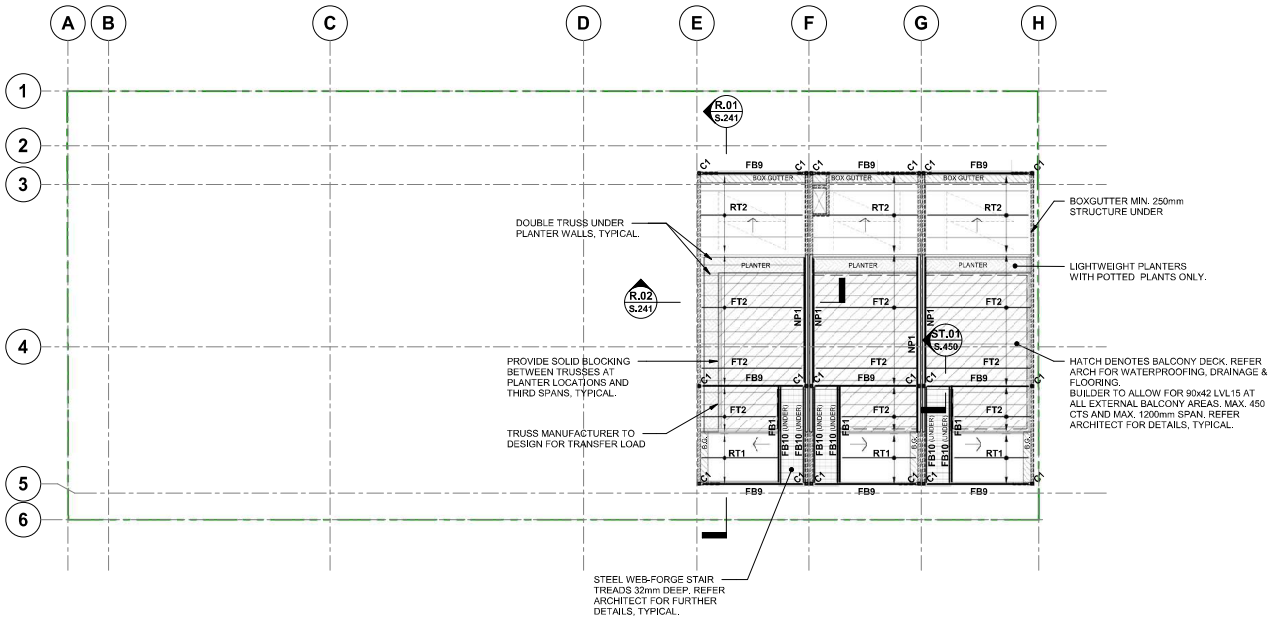
Job No. | Drawing No. | Rev.

20501 S.233 C1

© BROGUE

A1

NOTE:
TANKING TO ROOF TOP DECK REFER ARCHITECT FOR DETAILS.
ROOF DECK BALUSTRADE FRAMING TO ARCHITECTS DETAILS, TYPICAL.



ROOF - FRAMING PLAN

SCALE: 1 : 100

FLOOR FRAMING SCHEDULE

MARK	SIZE	REMARKS
FB1	2/240x42 LVL15	FLOOR BEAM (NAIL LAMINATED) . IN ACCORDANCE WITH AS1684
FB2	2/290x42 LVL15	FLOOR BEAM (NAIL LAMINATED) . IN ACCORDANCE WITH AS1684
FB3	190x45 LVL15	FLOOR BEAM
FB4	180PFC	STEEL BEAM
FB6	200x100x9.0 RHS (G450) + 150x100x10 UA (GALVANISED)	STEEL BEAM
FB7	200PFC + (90x6.0 EA TO PICK UP BRICKWORK, AS REQUIRED)	STEEL BEAM
FB8	310UB40.4 (G450) (PORTALISED BEAM)	STEEL BEAM
FB9	200PFC	STEEL BEAM
FB10	200PFC	STAIR STRINGER
FB11	150PFC	STAIR BEAM
FJ1	90x42 LVL15 @ 450 CTS. MAX. SPAN 1200mm	ROOF DECK FLOOR JOISTS
FJ2	300x58 LVL15 @ 450 CTS. MAX. SPAN 6000mm (2 ROWS OF FULL DEPTH SOLID BLOCKING AT THIRD SPANS)	TIMBER FLOOR JOISTS
~~FT1~~	~~250 MIN. DEEP PRYDA LONGREACH FLOOR TRUSS @ 450 CTS~~	~~FLOOR TRUSS BY OTHERS~~
FT2	300 MIN. DEEP PRYDA LONGREACH FLOOR TRUSS @ 450 CTS	FLOOR TRUSS BY OTHERS

NOTE:
FLOOR TRUSS MANUFACTURER TO ALLOW FOR SUPER IMPOSED DEAD LOAD OF 1kPa AND A LIVE LOAD OF 3kPa FOR ALL EXTERNAL ROOF TOP TERRACE AREAS. REFER ARCHITECTURAL DOCUMENTS FOR FURTHER INFORMATION, TYPICAL

ROOF FRAMING SCHEDULE

MARK	SIZE	REMARKS
RJ1	240x42 LVL15 @ 600 MAX. CTS.	ROOF JOISTS
RT1	250 DEEP PRYDA LONGREACH ROOF TRUSS @ 900 CTS	ROOF TRUSS BY OTHERS
RT2	250 DEEP PRYDA LONGREACH PURLIN TRUSS @ 900 CTS	PURLIN TRUSS BY OTHERS

TIMBER ROOF TRUSS NOTES:

ALL ROOF TRUSSES ARE TO BE DESIGNED FOR A WIND TERRAIN CATEGORY OF 3 IN ACCORDANCE WITH AS1170.2.

ALL ROOF TRUSSES AND BRACING (ROOF AND WALL) SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH AS1684:2010 AND AS1720.1 AND THE BUILDING CODE OF AUSTRALIA (BCA)

ALL TRUSSED ROOF CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE TRUSS MANUFACTURERS DETAILS AND SPECIFICATIONS

THE ROOF TRUSS LAYOUT SHOWN ON PLAN IS INDICATIVE ONLY. THE CONTRACTOR IS TO CONFIRM THEIR LOCATIONS PRIOR TO THE COMMENCEMENT OF WORKS.

THE TRUSS MANUFACTURER IS TO DESIGN AND DETAIL ALL TIMBER BATTENS TO AS1684:2010. BATTENS ARE TO BE SPACED AT MAXIMUM 450MM CENTRES FOR TRUSS SPACINGS GREATER THAN 600MM, OR ELSE 900MM MAX.

REFER TO THE ROOF TRUSS MANUFACTURER FOR:
- DESIGN CALCULATIONS FOR IN SERVICE AND ERECTION LOADS
- DETAILS OF ALL CONNECTIONS TO MAIN STRUCTURES INCLUDING ALL TIE DOWN AND FIXING DETAILS
- DESIGN AND DETAILS FOR BRACING AND IN-SERVICE AND ERECTION CONDITIONS
- LINTELS, BEAMS AND SUPPORTS AS REQUIRED BY THE TRUSS DESIGN
- CERTIFICATION AND CERTIFICATE OF DESIGN COMPLIANCE.

THE ROOF TRUSS DESIGNER SHALL ALLOW FOR THE FOLLOWING APPLIED LOADINGS:
1. LIVE LOADS AS PER AS1170.1
2. FALL ARREST PROTECTION LOADS (TO BE PROVIDED BY THE BUILDER) AS PER THE ARCHITECTURAL LOCATIONS
3. MECHANICAL UNIT WEIGHTS - REFER TO THE MECHANICAL AND ARCHITECTURAL DOCUMENTATION FOR WEIGHTS AND LOCATIONS

THE ROOF TRUSS DESIGNER MUST PROVIDE CALCULATIONS, INCLUDING DEFLECTION CALCULATIONS FOR TO THIS OFFICE FOR REVIEW PRIOR TO FABRICATION. THE ROOF TRUSS DESIGN IS TO BE INDEPENDENTLY CERTIFIED

NOTE:

BUILDER TO COORDINATE LOCATIONS OF MECHANICAL PLANT AND OTHER SERVICES LOCATED IN THE ROOF SPACE WITH TIMBER ROOF TRUSSES AND TRUSS WEB MEMBERS. ROOF TRUSSES AND BRACING TO SPECIALIST MANUFACTURERS DESIGN AND SPECIFICATION.

TIMBER FLOOR TRUSS NOTES:

ALL FLOOR TRUSSES AND BRACING SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH AS1684:2010 AND AS1720.1 AND THE BUILDING CODE OF AUSTRALIA (BCA)

ALL TRUSSED FLOOR CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE TRUSS MANUFACTURERS DETAILS AND SPECIFICATIONS

THE FLOOR TRUSS LAYOUT SHOWN ON PLAN IS INDICITIVE ONLY. THE CONTRACTOR IS TO CONFIRM THEIR LOCATIONS PRIOR TO THE COMMENCEMENT OF WORKS.

REFER TO THE FLOOR TRUSS MANUFACTURER FOR:
- DESIGN CALCULATIONS FOR IN SERVICE AND ERECTION LOADS
- DETAILS OF ALL CONNECTIONS TO MAIN STRUCTURES INCLUDING ALL TIE DOWN AND FIXING DETAILS
- DESIGN AND DETAILS FOR BRACING AND IN-SERVICE AND ERECTION CONDITIONS
- LINTELS, BEAMS AND SUPPORTS AS REQUIRED BY THE TRUSS DESIGN
- CERTIFICATION AND CERTIFICATE OF DESIGN COMPLIANCE.

THE FLOOR TRUSS DESIGNER SHALL ALLOW FOR THE FOLLOWING APPLIED LOADINGS:
1. LIVE LOADS AS PER AS1170.1
2. SUPER IMPOSED DEAD LOAD OF MINIMUM 0.5kPa

THE FLOOR TRUSS DESIGNER MUST PROVIDE CALCULATIONS, INCLUDING DEFLECTION CALCULATIONS FOR TO THIS OFFICE FOR REVIEW PRIOR TO FABRICATION. THE FLOOR TRUSS DESIGN IS TO BE INDEPENDENTLY CERTIFIED

MASONRY NOTES

1. PROVIDE MASONRY TIES FROM STUD WALLS IN ACCORDANCE WITH AS3700 AND AS2699, AND INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATION.
2. REFER TO ARCHITECT FOR SPECIFICATION OF COMPRESSIBLE BACKING ROD AND JOINT SEALANT OR FIRE RATED FILLER AT CONTROL JOINTS.

M.S. ANGLE LINTEL SCHEDULE

MAX. SPAN	BRICKWORK LINTEL
1500	90 x 90 x 6 EA
2000	90 x 90 x 8 EA
2500	150 x 90 x 8 UA
3000	150 x 90 x 10 UA

1. PROVIDE 200mm MINIMUM BEARING EACH END
2. MINIMUM 2/3 BRICK BEARING ONTO LINTEL
3. LONG LEG OF ANGLE VERTICAL
4. ABOVE LINTEL SIZES ASSUME MASONRY ARCHING IS POSSIBLE, AND NO OTHER VERTICAL LOADS ON WALL EXCEPT FOR SELF WEIGHT.
5. LINTELS TO BE HOT DIP GALVANISED.

brogue | CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT
everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

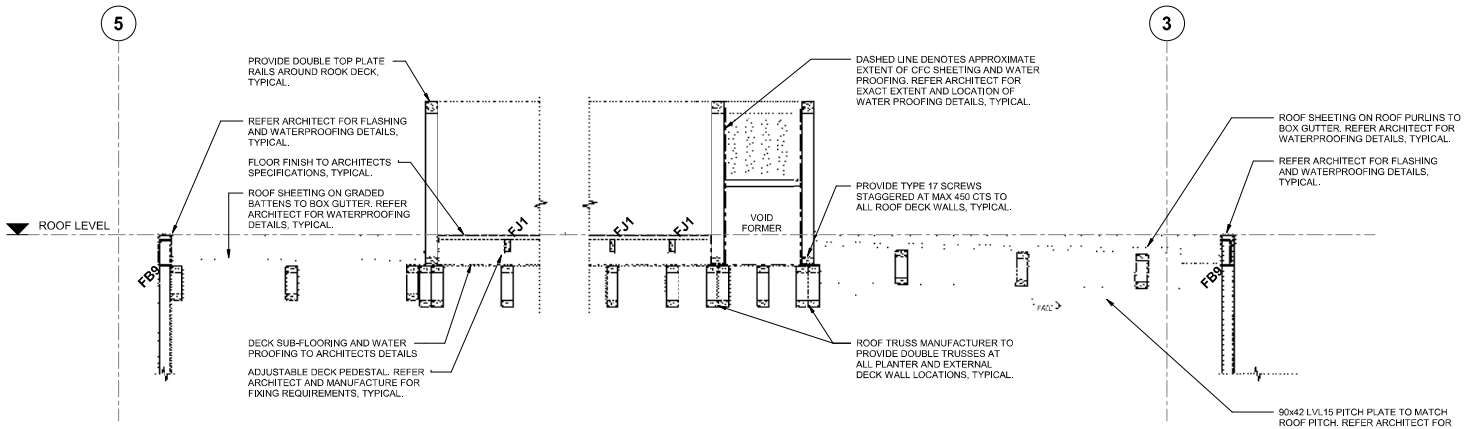
ROOF - FRAMING PLAN

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 100	SIZE:	A1

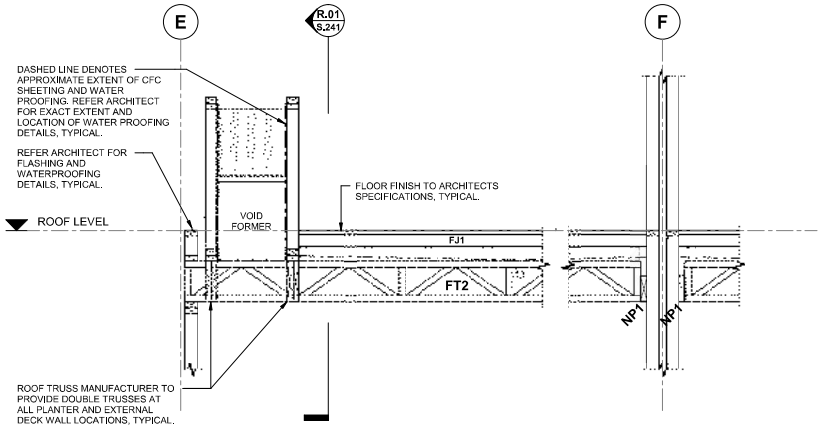
Job No. 20501 | Drawing No. S.240 | Rev. C1

© BROGUE

A1



SECTION R.01 / S.240
SCALE 1 : 20



SECTION R.02 / S.240
SCALE 1 : 20

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT
everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

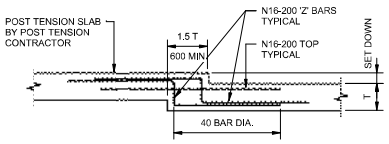
ROOF - SECTIONS AND DETAILS

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 20	SIZE:	A1

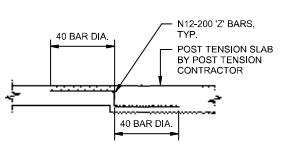
Job No. 20501 | Drawing No. S.241 | Rev. C1

© BROGUE

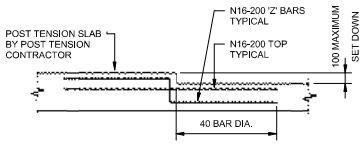
A1



SETDOWN GREATER THAN 50 AND LESS THAN OR EQUAL TO 200mm



SLAB SOFFIT STEP DETAIL



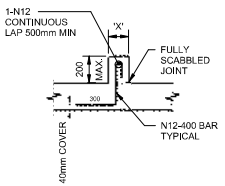
SLAB STEP WITH CONTINUOUS SOFFIT DETAIL

TYPICAL SUSPENDED SLAB STEP DETAILS

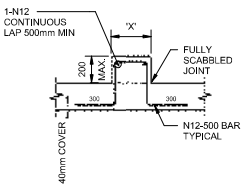
SCALE NTS

NOTE:

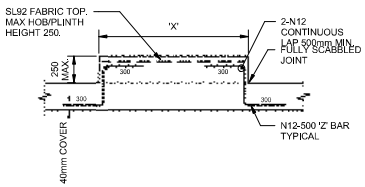
1. REFER ALSO TO PROJECT NOTES.
2. DETAILS APPLY UNLESS OTHERWISE SHOWN.
3. SUSPENDED FLOOR STEP DETAILS MUST BE CONFIRMED AND DOCUMENTED BY POST TENSION CONTRACTOR.



WHERE 'X' = 100 TO 150



WHERE 'X' = 150 < 700



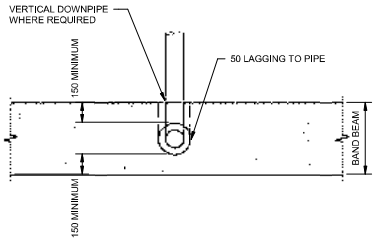
WHERE 'X' > 700

TYPICAL HOB/PLINTH DETAILS

SCALE NTS

NOTE:

PROVIDE 12mm CHAMFER TO ALL TOP EDGES OF KERB/PLINTH

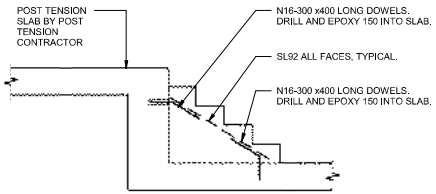


PENETRATION THROUGH SUSPENDED BEAM

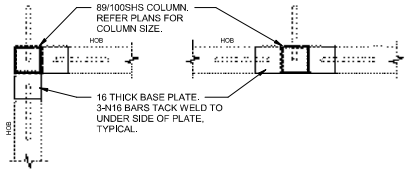
SCALE NTS

NOTE:

BUILDER AND P/T CONTRACTOR TO CO-ORDINATE WITH THE SERVICES ENGINEER FOR LOCATION OF ALL CAST IN SERVICES. NO RESPONSIBILITY SHALL BE TAKEN BY THE STRUCTURAL ENGINEER, IF THE SERVICES ARE OVER SEEN.

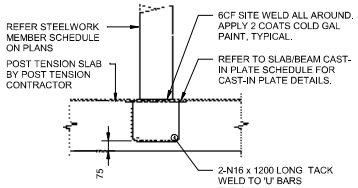


MASS CONCRETE STAIR DETAIL

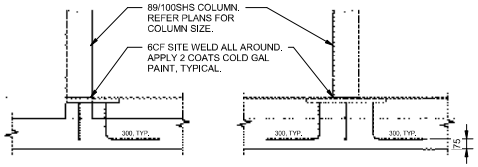


CORNER CONDITION
PLAN VIEW

CONTINUOUS CONDITION
PLAN VIEW



TOP OF HOB
SLAB LEVEL



CORNER CONDITION
ELEVATION

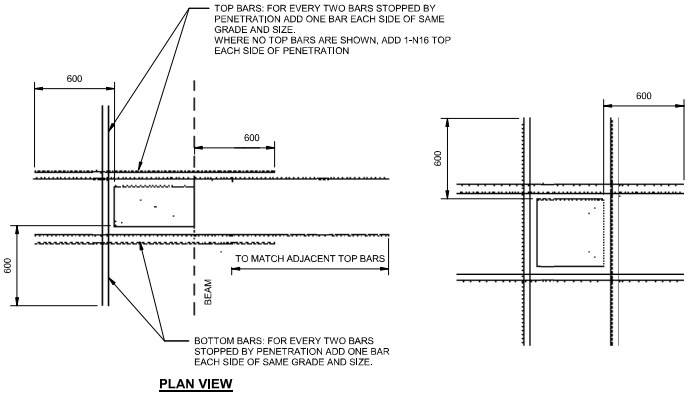
CONTINUOUS CONDITION
ELEVATION

TYPICAL COLUMN BASE PLATE DETAIL CAST INTO SUSPENDED SLAB (U.N.O.)

NTS

TYPICAL 89/100SHS COLUMN BASE PLATE DETAIL CAST INTO HOB (U.N.O.)

SCALE NTS



PLAN VIEW

PENETRATIONS IN SLABS - STANDARD DETAIL

SCALE NTS

NOTE:

1. FOR PENETRATIONS LESS THAN 300 x 300mm, BARS TO BE REARRANGED AROUND PENETRATION.
2. FOR PENETRATIONS GREATER THAN 300 x 300mm, BUT LESS THAN 1000 x 1000mm, USE ABOVE DETAILS.
3. FOR PENETRATIONS GREATER THAN 1000 x 1000mm, REFER TO ENGINEERS PLANS.
4. LOCATIONS OF PENETRATIONS TO BE TO THE APPROVAL OF THE ENGINEER.
5. REFER ALSO TO STANDARD NOTES.

SLAB / BEAM CAST - IN PLATE SCHEDULE

BEAM SIZE	CAST-IN PLATE SIZE			NO. OF N16 'U' BARS EQUALLY SPACED F.S.B.W.
	THICKNESS (mm)	WIDTH (mm)	LENGTH (mm)	
200 UB - 200 PFC - 200 SHS - 200 RHS	16	200	250	2
180 UB - 180 PFC	16	200	200	2
150 UB - 150 PFC - 89 SHS - 150 SHS	16	200	200	2

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

TYPICAL SUSPENDED SLAB DETAILS

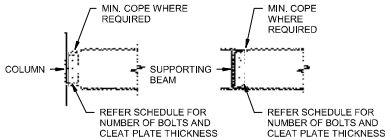
DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 20	SIZE:	A1

Job No. | Drawing No. | Rev.

20501 S.400 C1

© BROGUE

A1



BEAM TO COLUMN CONNECTION UNLESS DETAILED OTHERWISE

BEAM TO SUPPORT BEAM CONNECTION UNLESS DETAILED OTHERWISE

WEB SIDE PLATES

(REFER SCHEDULE BELOW FOR CLEAT PLATE AND BOLT DETAILS)

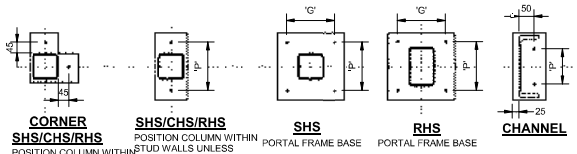
BEAM SIZE	CLEAT PLATE	No. BOLTS
360 UB	10mm	3
310 UB	10mm	3
250 UB	10mm	2
200 UB	10mm	2
180 UB	10mm	2
150 UB	10mm	2

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

TYPICAL BEAM / RAFTER / COLUMN CONNECTION DETAIL

SCALE NTS

NOTE:
1. ALL STEEL WORK GRADE 300+.
2. ALL EXTERNAL STEEL WORK TO BE HOT DIP GALVANISED.
3. ALL CLEAT PLATES GRADE 250 U.N.O.
4. ALL BOLTS M20 8.8/S U.N.O.
5. ALL WELDS (SP) 6mm CONTINUOUS FILLET (CFW) U.N.O.



CORNER SHS/CHS/RHS — POSITION COLUMN WITHIN STUD WALLS UNLESS DETAILED OTHERWISE

SHS/CHS/RHS — POSITION COLUMN WITHIN STUD WALLS UNLESS DETAILED OTHERWISE

SHS — PORTAL FRAME BASE

RHS — PORTAL FRAME BASE

CHANNEL

COLUMN BASE PLATE SCHEDULE

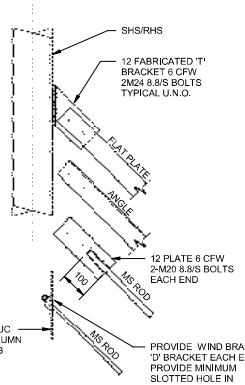
UNLESS DETAILED OTHERWISE

COLUMN SIZE	P	G	BOLT NO	BOLT DIA.	PLATE THICKNESS	GROUT	MIN. EDGE DISTANCE UNO
200x100 RHS	290	190	4	20	20	25mm	200
150x100 RHS	240	190	4	20	20	25mm	200
125x75 RHS	220	190	4	16	16	25mm	200
125x50 RHS	220	190	4	16	16	25mm	200
100x75 RHS	190	165	4	16	10	25mm	200
100x50 RHS	190	140	4	16	10	25mm	200
150 SHS	240	240	4	20	20	25mm	200
125 SHS	240	240	4	16	16	25mm	200
100 SHS	190	240	4	16	16	25mm	200
89 SHS	180	180	4	16	16	25mm	150
250 PFC	100	-	2	20	20	25mm	200
230 PFC	100	-	2	20	16	25mm	200
200 PFC	100	-	2	20	16	25mm	200
180 PFC	70	-	2	16	12	25mm	200
150 PFC	70	-	2	16	12	25mm	200

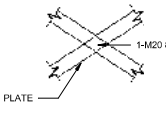
NOTE:
1. ALL WELDS TO BE 6mm E48 CONTINUOUS UNLESS DETAILED OTHERWISE.
2. COLUMN SHAFTS WITH COLD-SAWN ENDS PROVIDE FULL STRENGTH BUTT WELD.
3. ALL DIMENSIONS ARE IN MILLIMETRES.
4. REFER TYPICAL HOLD DOWN BOLT DETAIL FOR BOLT CAST-IN REQUIREMENTS.

TYPICAL COLUMN BASE PLATE DETAILS

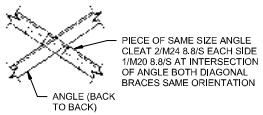
SCALE NTS UNLESS DETAILED OTHERWISE



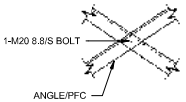
INTERSECTION DETAIL FLAT PLATE BRACING



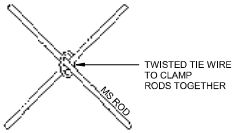
INTERSECTION DETAIL ANGLE BRACING



INTERSECTION DETAIL BACK TO BACK ANGLE BRACING

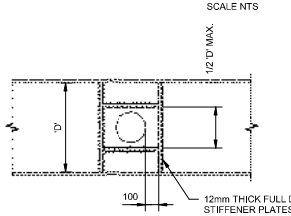


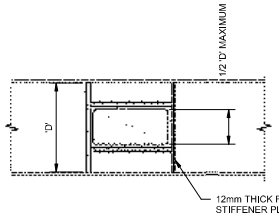
INTERSECTION DETAIL ROD BRACING



TYPICAL BRACING DETAILS

SCALE NTS





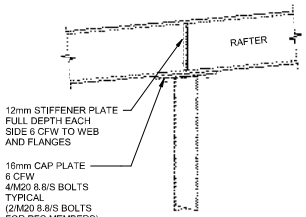
REFER SERVICES DRAWINGS FOR LOCATIONS SERVICE PIPE PENETRATIONS

REFER SERVICES DRAWINGS FOR LOCATIONS A/C DUCTS PENETRATION

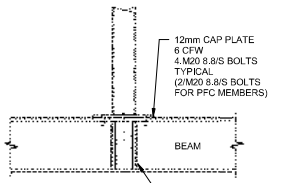
NOTE:
WHERE BEAM SIZE RESTRICTS SPACE BETWEEN UNDERSIDE OF BEAM AND TOP OF SUSPENDED CEILING GRID FRAMEWORK.

TYPICAL STEEL BEAM PENETRATION DETAILS

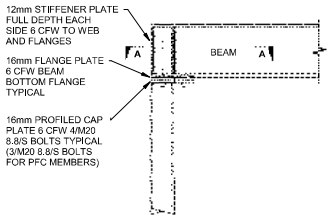
SCALE NTS

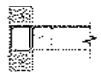


TYPE 1



TYPE 3





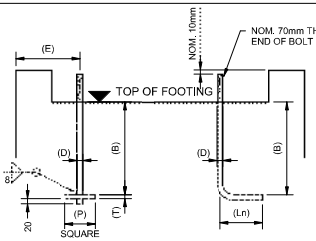
SECTION A

TYPE 2

TYPICAL BEAM/RAFTER TO STEEL COLUMN DETAILS U.N.O.

SCALE NTS

NOTE:
FOR ALL NOMINATED PORTAL FRAMES. 6CFW SITE ALL ROUND BETWEEN BEAM AND COLUMN



ANCHOR BOLT **COGGED BOLT**

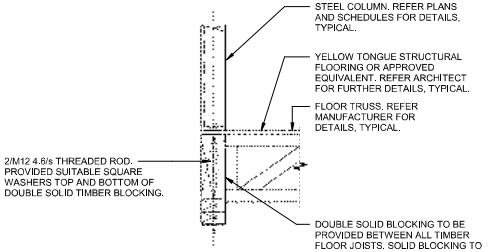
NOTE:
1. BOLT GRADE 4.6/S U.N.O.
2. CAGE BOLTS USING R10-200 LIGS TO HOLD BOLTS INTO POSITIONS TACK WELD

H.D. BOLT SCHEDULE

BOLT DIA. (D) mm	MINIMUM EMBEDMENT (B) mm	MINIMUM U.N.O. EDGE DISTANCE (E) mm	ANCHOR PLATE DETAILS (P)	ANCHOR PLATE DETAILS (T)	COG LENGTH (Ln) mm
12	200	150	50	6	160
16	300	225	70	10	225
20	500	300	90	12	280

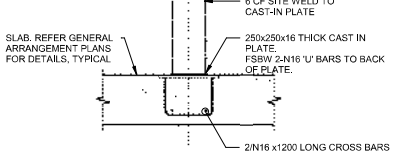
TYPICAL H.D. BOLTS DETAILS

SCALE NTS



TYPICAL STEEL COLUMN TO SOLID TIMBER BLOCKING DETAIL

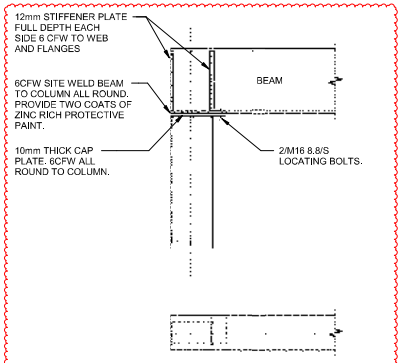
SCALE NTS



ALTERNATIVE COLUMN BASE PLATE CAST INTO SLAB DETAIL

SCALE NTS

C2



PLAN

PORTAL FRAME CONNECTION

SCALE NTS

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C2	24.08.2021	CONSTRUCTION ISSUE
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST, BRUNSWICK

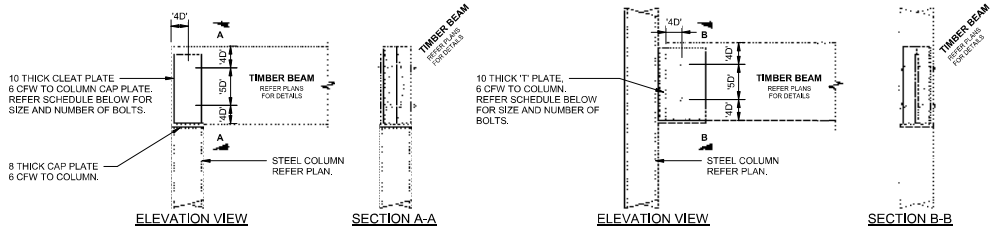
TYPICAL STEELWORK DETAILS

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	As indicated	SIZE:	A1
Job No.		Drawing No.	Rev.

20501 S.415 C2

© BROGUE

A1

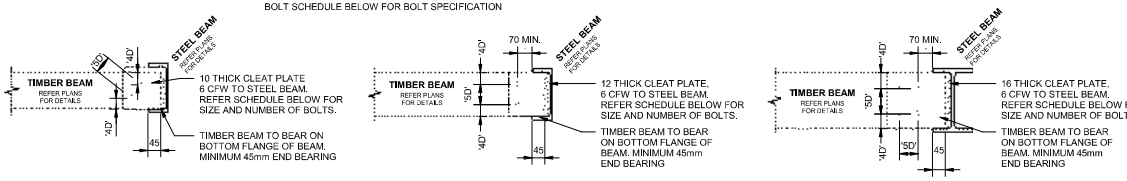


ELEVATION VIEW SECTION A-A ELEVATION VIEW SECTION B-B

TYPICAL TIMBER BEAM TO STEEL COLUMN CONNECTION U.N.O.

SCALE NTS

1. 'D' DENOTES BOLT DIAMETER. REFER TIMBER BEAM BOLT SCHEDULE BELOW FOR BOLT SPECIFICATION



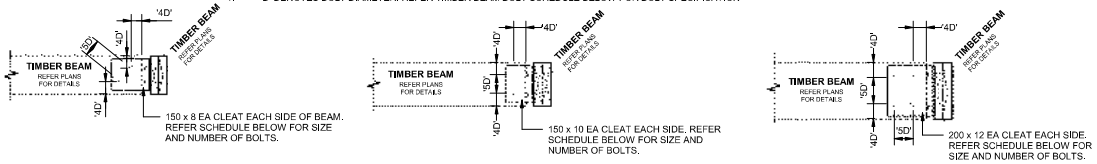
FOR ≤120mm DEEP TIMBER BEAM **FOR >120mm, ≤240 DEEP TIMBER BEAM** **FOR >240mm, ≤290 DEEP TIMBER BEAM**

TYPICAL TIMBER BEAM TO STEEL BEAM CONNECTION U.N.O.

SCALE NTS

NOTE:

1. 'D' DENOTES BOLT DIAMETER. REFER TIMBER BEAM BOLT SCHEDULE BELOW FOR BOLT SPECIFICATION



FOR ≤120mm DEEP TIMBER BEAM **FOR >120mm, ≤240 DEEP TIMBER BEAM** **FOR >240mm, ≤290 DEEP TIMBER BEAM**

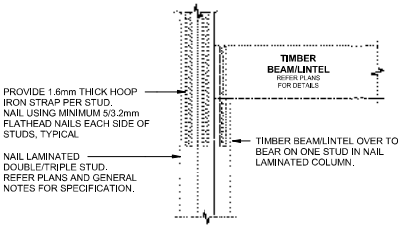
TYPICAL TIMBER BEAM TO TIMBER BEAM CONNECTION U.N.O.

SCALE NTS

NOTE:

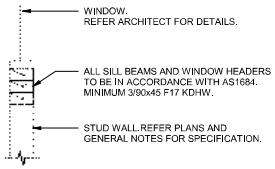
1. 'D' DENOTES BOLT DIAMETER. REFER TIMBER BEAM BOLT SCHEDULE BELOW FOR BOLT SPECIFICATION

TIMBER BEAM BOLT SCHEDULE	
BEAM DEPTH (mm)	BOLT SPECIFICATION
≤120	2/M10 4.6/S (STAGGERED)
>120, ≤140	2/M10 4.6/S
>140, ≤190	2/M12 4.6/S
>190, ≤240	2/M16 4.6/S
>240, ≤290	4/M16 4.6/S



TYPICAL TIMBER BEAM/LINTEL TO DOUBLE/TRIPLE STUD CONNECTION

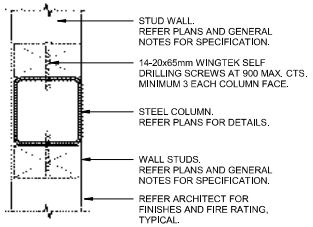
SCALE NTS



TYPICAL SILL BEAM DETAIL

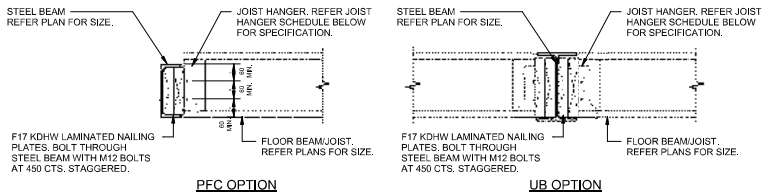
SCALE NTS

NOTE: MAX SILL BEAM SPAN 3.3m.



TYPICAL STUD DETAIL AT STEEL COLUMN

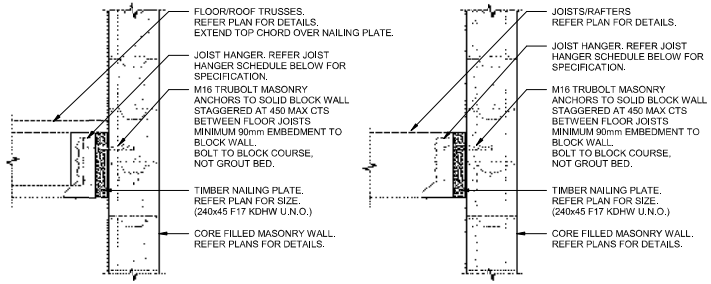
SCALE NTS



PFC OPTION UB OPTION

TYPICAL TIMBER TRUSS/JOISTS TO STEEL BEAM CONNECTION U.N.O.

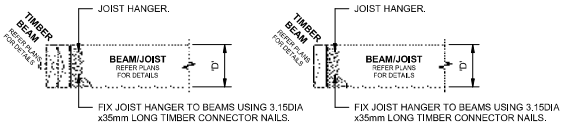
SCALE NTS



TRUSSES TO MASONRY WALL BEAMS/JOISTS/RAFTERS TO MASONRY WALL

NAILING PLATE TO MASONRY WALL DETAIL

SCALE NTS



JOIST HANGER SCHEDULE	
BEAM/JOIST DEPTH 'D' (mm)	JOIST HANGER TYPE
90	FB'w'90
120	FB'w'120
140	FB'w'140
190	FB'w'190
220-290	FB'w'220

NOTE:

1. 'w' DENOTES WIDTH OF MEMBER. REFER PLANS FOR MEMBER SCHEDULES.
2. REFER MANUFACTURER FOR NUMBER OF NAILS PER SIDE AND TAB.
3. ADOPT GALVANISED HANGERS AND NAILS FOR MEMBERS EXPOSED TO EXTERNAL CONDITIONS.

TYPICAL JOIST HANGER CONNECTION DETAIL (U.N.O.)

SCALE NTS

brogue | CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION		
ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

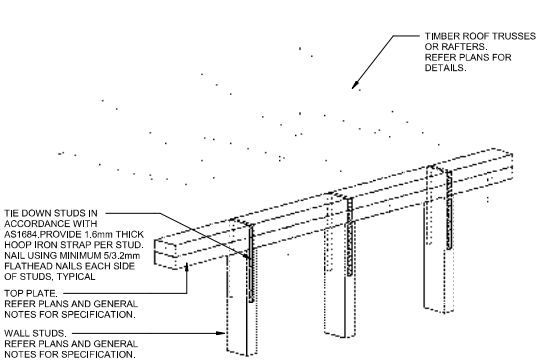
TYPICAL TIMBER FRAMING DETAILS - SHEET 1

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	As indicated	SIZE:	A1

Job No. 20501 Drawing No. S.420 Rev. C1

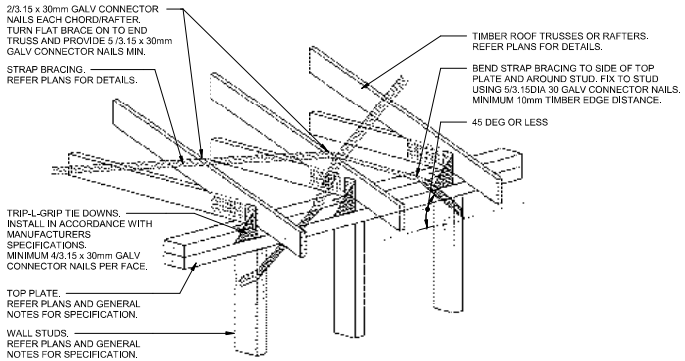
© BROGUE

A1



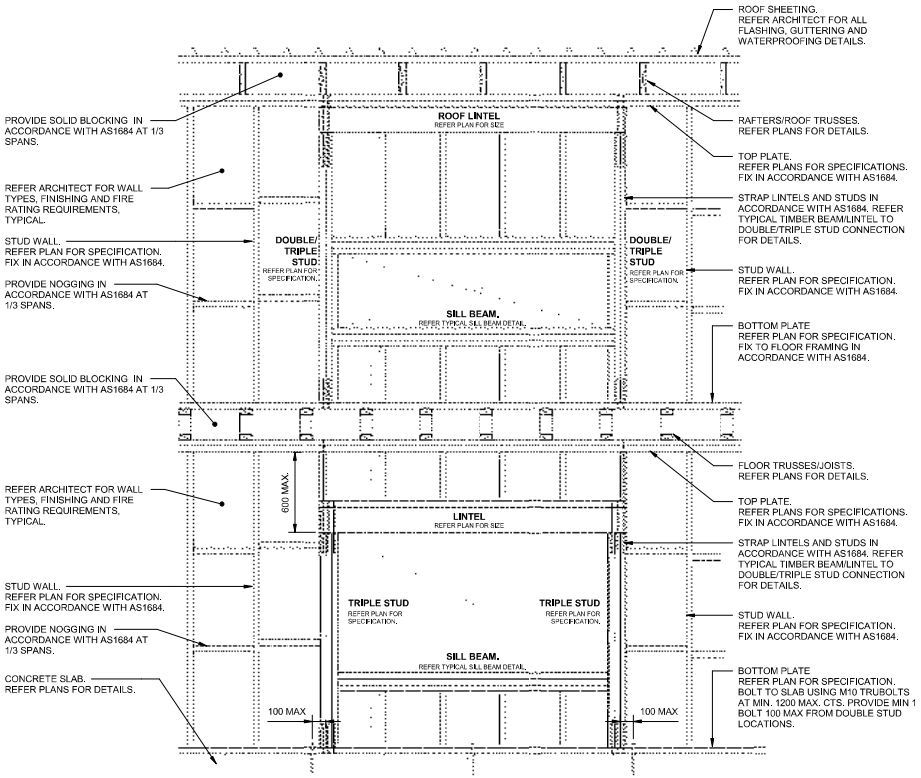
TYPICAL TOP PLATE TIE DOWN DETAIL

SCALE NTS



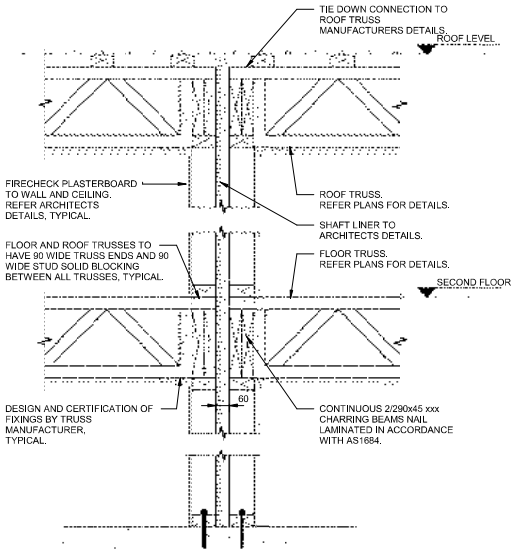
TYPICAL ROOF FRAMING TO STUD WALL DETAIL

SCALE NTS



TYPICAL EXTERNAL LOAD-BEARING STUD WALL DETAIL

SCALE NTS



TYPICAL DOUBLE STUD PARTITION WALL DETAIL

SCALE NTS

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

TYPICAL TIMBER FRAMING DETAILS - SHEET 2 (MULTI-STOREY)

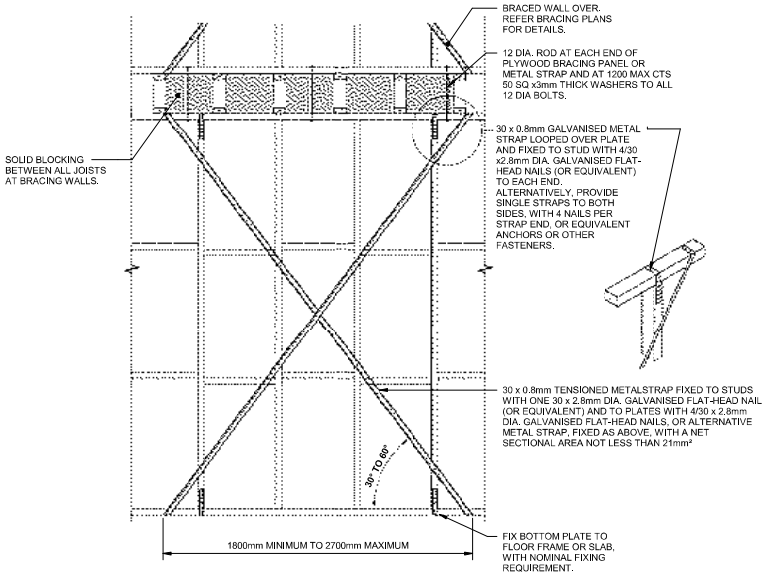
DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	As indicated	SIZE:	A1

Job No. | Drawing No. | Rev.

20501 S.421 C1

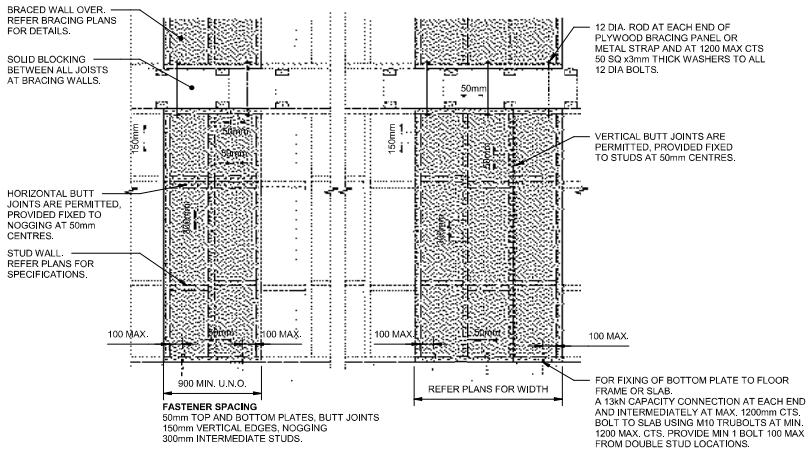
© BROGUE

A1



WALL BRACING TYPE - WSB(d)

TENSIONED METAL STRAPS - WITH STUD STRAPS
AS1684.2-2010 TABLE 8.18(d)



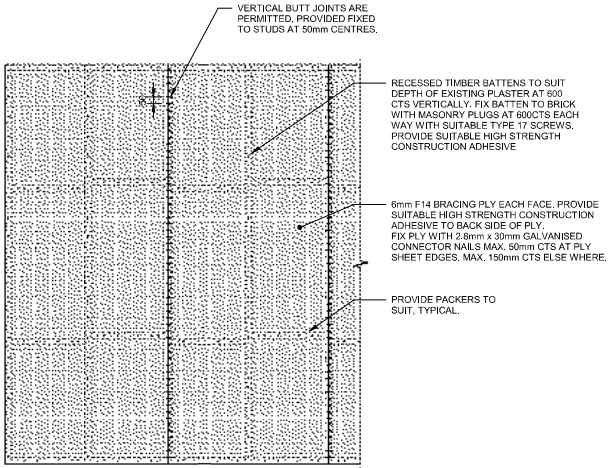
FASTENER SPACING
50mm TOP AND BOTTOM PLATES, BUTT JOINTS
150mm VERTICAL EDGES, NOGGING
300mm INTERMEDIATE STUDS.

WALL BRACING TYPE - WPB(h)B

PLYBRACE AS1684.2-2010
TABLE 8.18(h) - METHOD B

MINIMUM PLYWOOD THICKNESS (mm)			BRACING CAPACITY (kN/m)
STRESS GRADE	STUD SPACING (mm) 450	600	
F8	7	9	
F11	6	7	6.0
F14	4	6	
F27	4	4.5	

C2



EXISTING SINGLE BRICK WALL PLY BRACING DETAIL

NOTE:
PLY BRACING IS TO BE APPLIED TO EACH FACE OF EXISTING SINGLE SKIN BRICK WORK WALL NOMINATED ON PLAN.

WALL BRACING DETAILS

N.T.S.

NOTES:
1. REFER WALL BRACING PLANS FOR LOCATION, EXTENT AND TYPE OF BRACING.
2. FOR PLYWOOD FIXED TO BOTH SIDES OF THE WALL, NUMBER OF BOTTOM PLATE ANCHORS IS TO BE DOUBLED.
3. PLYWOOD SHALL BE NAILED TO FRAME USING 30 x 2.8mm DIA GALVANIZED FLAT-HEAD NAILS OR EQUIVALENT.

brogue | CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT
everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C2	24.08.2021	CONSTRUCTION ISSUE
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

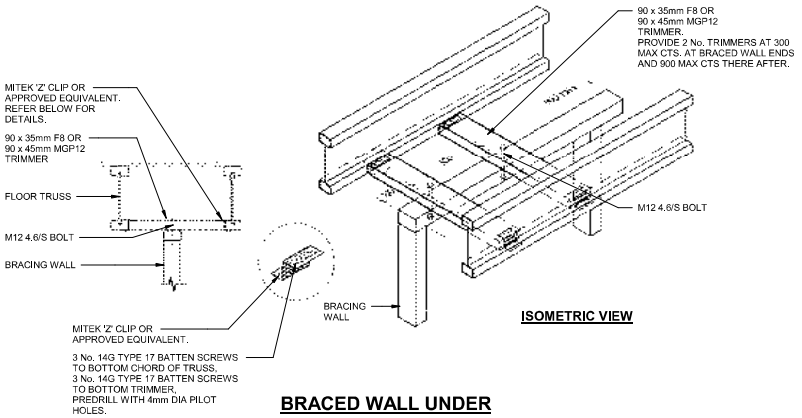
TYPICAL WALL BRACING DETAILS - SHEET 1 - MULTI-STOREY

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 20	SIZE:	A1

Job No. 20501 | Drawing No. S.425 | Rev. C2

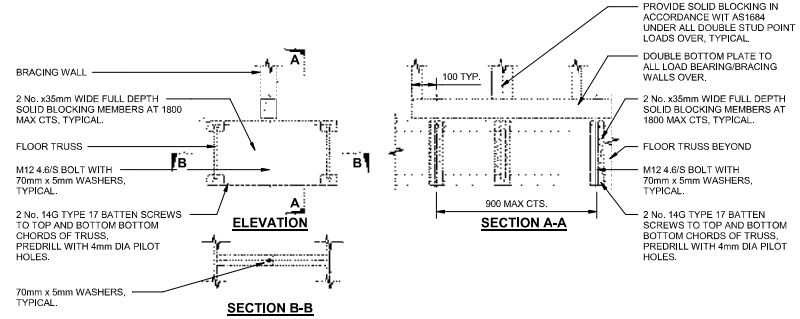
© BROGUE

A1



ISOMETRIC VIEW

BRACED WALL UNDER PARALLEL TO TRUSS

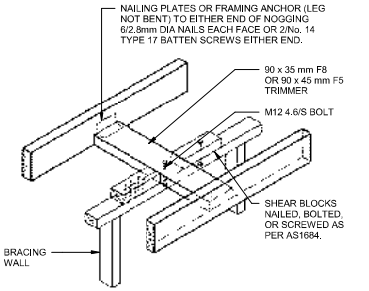


ELEVATION

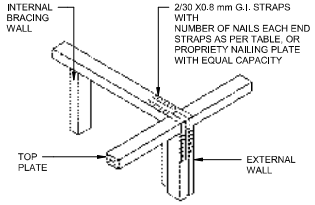
SECTION A-A

SECTION B-B

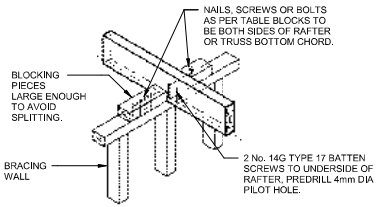
BRACED WALL OVER PARALLEL TO TRUSS



PARALLEL TO TRUSS



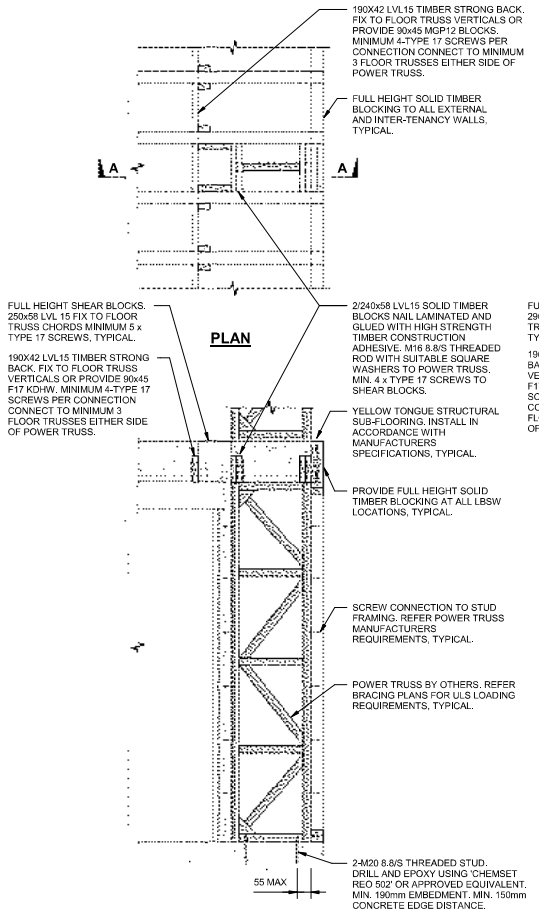
LOAD BEARING WALL JUNCTION



PERPENDICULAR TO TRUSS

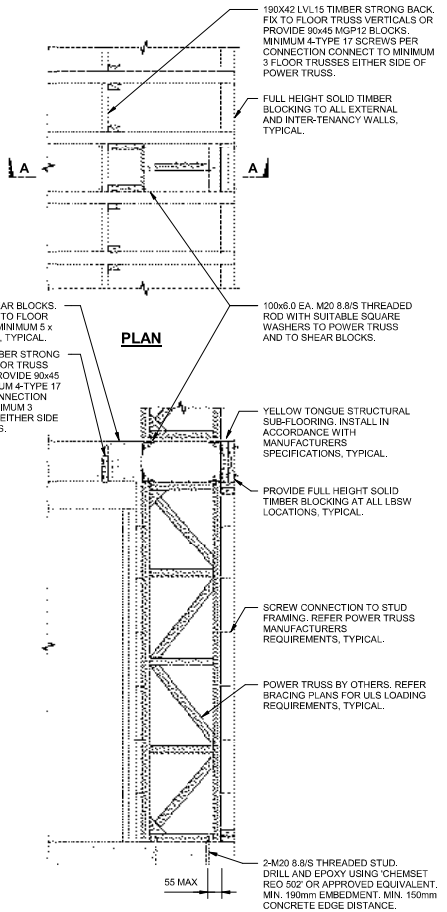
LOAD BEARING STUD WALL TO TRUSS DETAILS

NTS
REFER AS1684 FOR ADDITIONAL DETAILS



SECTION A

PT1 - PT3



SECTION A

PT4

POWER TRUSS WALL BRACING DETAILS

N.T.S.

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

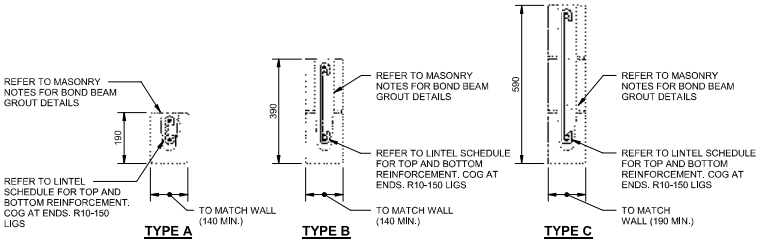
TYPICAL WALL BRACING DETAILS - SHEET 2 - MULTI-STOREY

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 20	SIZE:	A1

Job No.	Drawing No.	Rev.
20501	S.426	C1

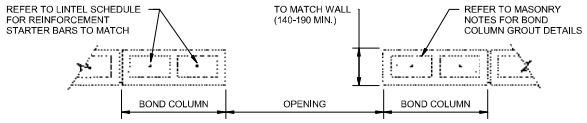
© BROGUE

A1



BOND BEAM LINTELS

SCALE NTS



BOND COLUMN

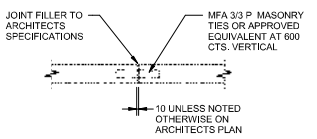
SCALE NTS

BOND BEAM LINTEL SCHEDULE

CLEAR SPAN (m)	LINTEL SIZE		BOND COLUMN ONE BLOCK EACH SIDE OF OPENING. GROUT FILL BOTH CORES
	TYPE	REINFORCEMENT	REINFORCEMENT
0 - 0.8	A	1-N12 TOP & BTM	-
0.8 - 1.20	B	2-N16 TOP & BTM	-
1.20 - 1.80	B	2-N16 TOP & BTM	-
1.80 - 2.40	C	2-N20 TOP & BTM	-
2.40 - 3.00	C	2-N16 TOP & BTM	2-N16

NOTE:

1. 200mm MIN. END BEARING FOR LINTELS. TYPICAL.
2. TABLE BASED ON LINTELS SUPPORTING MASONRY ONLY AND FULL ARCHING OF MASONRY.
3. REFER TO ARCHITECTS DRAWINGS FOR LINTEL LOCATIONS.



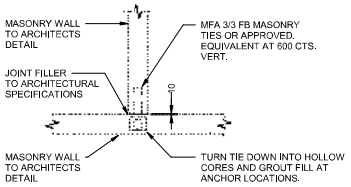
PLAN VIEW

VERTICAL CONTROL JOINT

SCALE NTS

NOTE:

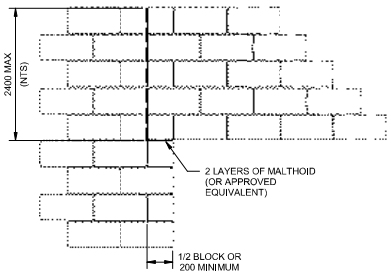
1. WALL REINFORCEMENT SHALL NOT BE CONTINUOUS THROUGH JOINT.
2. PROVIDE CONTROL JOINTS AT 6000mm MAXIMUM CTS. U.N.O.



PLAN VIEW

TYPICAL CONTROL JOINT AT WALL INTERSECTION

SCALE NTS



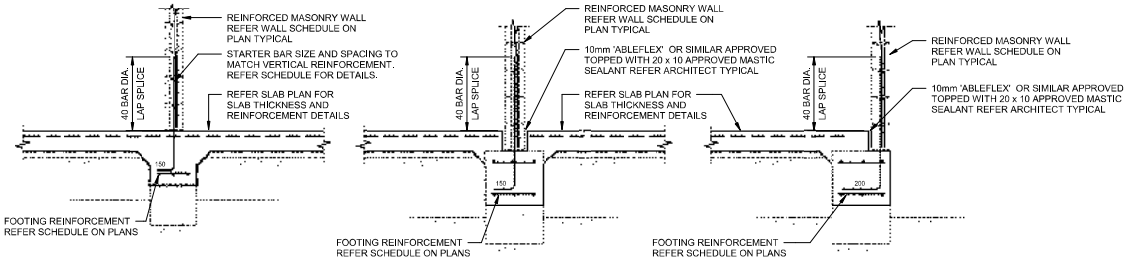
ELEVATION

MASONRY CONTROL JOINT AT DOOR/WINDOW HEADER

SCALE NTS

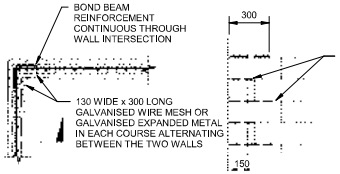
NOTE:

1. WHERE NO VERTICAL CONTROL JOINT HAS BEEN SPECIFIED AT DOOR OR WINDOW HEAD, THEN USE TWO LAYERS OF BED JOINT REINFORCEMENT. ONE LAYER IN EACH JOINT ABOVE THE LINTEL. EXTEND 1000 PAST EACH DOOR/WINDOW JAMB.
2. MAXIMUM CENTRES FOR VERTICAL CONTROL JOINTS SHALL BE 6000 UNLESS NOTED OTHERWISE ON PLANS.



REINFORCED BLOCKWORK WALL TO FOOTING DETAILS

SCALE NTS



PLAN AT CORNER

SECTION A

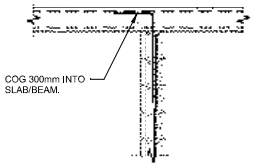
SCALE NTS

REINFORCED BLOCKWORK DETAILS AT WALL INTERSECTION

SCALE NTS

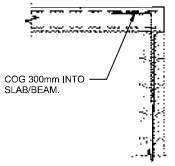
MASONRY NOTES:

1. ALL MASONRY TIES SHALL BE SUPPLIED BY "BRUNSWICK SALES" OR AN APPROVED EQUIVALENT AND FIXED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
2. (xxxxxx) - DENOTES MASONRY WALL: CLAY BRICK OR CONCRETE BLOCKWORK, AS SPECIFIED BY THE ARCHITECT.
3. REFER TO ARCHITECT FOR SPECIFICATION OF COMPRESSIBLE BACKING ROD AND JOINT SEALANT OR FIRE RATED FILLER AT CONTROL JOINTS.
4. WHERE MASONRY ANCHORS ABRIDGE HOLLOW CORES, THE HOLLOW CORES IMMEDIATELY ABOVE AND BELOW THE ANCHOR SHALL BE GROUT FILLED.



REINFORCED LOAD BEARING MASONRY WALL DETAIL

SCALE NTS



REINFORCED LOAD BEARING MASONRY WALL DETAIL

SCALE NTS

M.S. ANGLE LINTEL SCHEDULE, U.N.O.

UP TO SPAN (mm)	90 HOLLOW BLOCKWORK	BRICKWORK
1500	75 x 75 x 6 EA	90 x 90 x 6 EA
2000	90 x 90 x 8 EA	90 x 90 x 8 EA
2500	150 x 90 x 8 EA	150 x 90 x 8 UA
3000	150 x 90 x 10 UA	150 x 90 x 10 UA

LINTEL NOTES:

1. PROVIDE 200mm MINIMUM BEARING EACH END
2. LONG LEG OF ANGLE VERTICAL
3. ABOVE LINTEL SIZES ASSUME MASONRY ARCHING IS POSSIBLE, AND NO OTHER VERTICAL LOADS ON WALL EXCEPT FOR SELF WEIGHT.
4. LINTELS EXCEPT FOR INTERNAL WALLS TO BE HOT DIP GALVANISED.

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

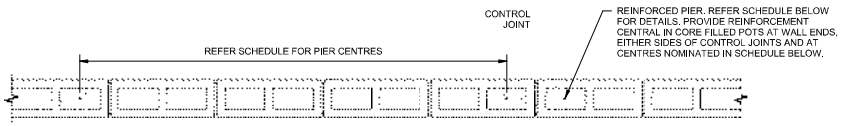
TYPICAL MASONRY DETAILS - LOAD BEARING

DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 20	SIZE:	A1

Job No. 20501 | Drawing No. S.430 | Rev. C1

© BROGUE

A1



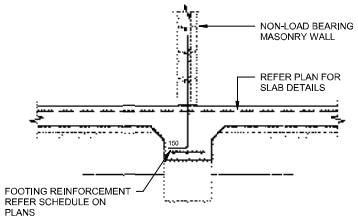
TYPICAL NON-LOAD BEARING WALL DETAIL

INTERNAL NON-LOAD BEARING BLOCK WALL SCHEDULE

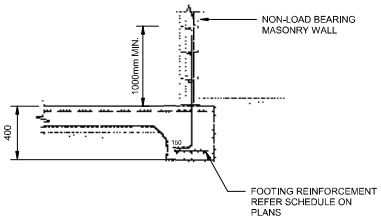
MAX HEIGHT	BLOCK SIZE	DETAILS
0-2400	140 THICK BLOCK	UNREINFORCED, NO CORES FILLED
2400-3100	140 THICK BLOCK	REINFORCED PIERS (N16 VERT. WITH STARTER BARS) AT ENDS OF WALL, EITHER SIDE OF CONTROL JOINTS AND 1600mm MAX CTS (EVERY 8th CORE)
0-3350	190 THICK BLOCK	UNREINFORCED, NO CORES FILLED
3350-4300	140 THICK BLOCK	REINFORCED PIERS (N16 VERT. WITH STARTER BARS) AT ENDS OF WALL, EITHER SIDE OF CONTROL JOINTS AND 1600mm MAX CTS (EVERY 8th CORE)

NOTE:

1. WHERE NOMINATED, CORE FILL POTS USING 20MPa CONCRETE, 10mm MAX. AGGREGATE.
2. REFER BELOW FOR STARTER BAR AND SLAB THICKENING REQUIREMENTS FOR NON-LOAD BEARING BLOCK WALLS.
3. MAXIMUM HEIGHTS NOMINATED IN TABLE ABOVE ARE FOR "ASH GREY BORAL BLOCKWORK" ONLY.
4. REFER ARCHITECTS DOCUMENTATION FOR ALL NON-LOAD BEARING BLOCKWORK LOCATIONS AND SPECIFICATIONS.
5. FIRE RATING AND ACOUSTIC REQUIREMENTS TO ARCHITECT AND BUILDING SURVEYORS REQUIREMENTS.
6. REFER BORAL MANUAL FOR ALL SPECIFICATIONS AND INSTALLATION REQUIREMENTS, TYPICAL.



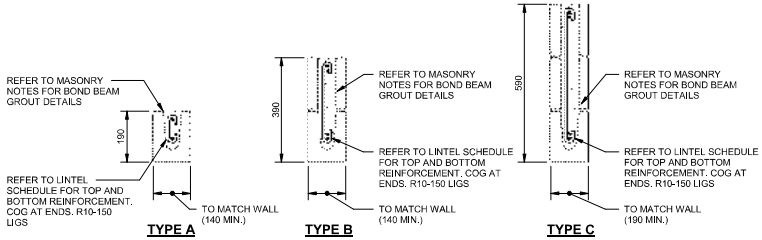
RAFT SLAB INTERNAL BEAM DETAIL



CAR PARK REINFORCEMENT DETAIL

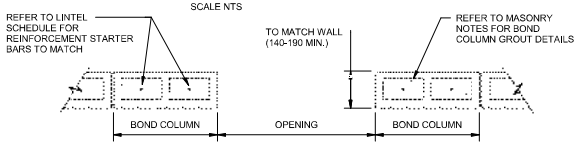
INTERNAL NON LOAD BEARING BLOCKWALL TO FOOTING DETAILS

SCALE NTS



BOND BEAM LINTELS

SCALE NTS



BOND COLUMN

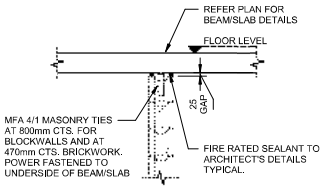
SCALE NTS

BOND BEAM LINTEL SCHEDULE

CLEAR SPAN (m)	LINTEL SIZE		BOND COLUMN ONE BLOCK EACH SIDE OF OPENING. GROUT FILL BOTH CORES
	TYPE	REINFORCEMENT	REINFORCEMENT
0 - 0.8	A	1-N12 TOP & BTM	-
0.8 - 1.20	B	2-N16 TOP & BTM	-
1.20 - 1.80	B	2-N16 TOP & BTM	-
1.80 - 2.40	C	2-N20 TOP & BTM	-
2.40 - 3.00	C	2-N16 TOP & BTM	2-N16

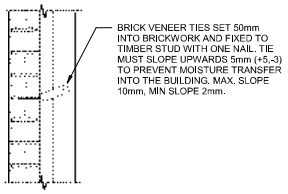
NOTE:

1. 200mm MIN. END BEARING FOR LINTELS, TYPICAL.
2. TABLE BASED ON LINTELS SUPPORTING MASONRY ONLY AND FULL ARCHING OF MASONRY.
3. REFER TO ARCHITECTS DRAWINGS FOR LINTEL LOCATIONS.

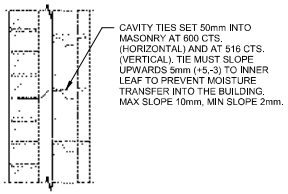


NON-LOAD BEARING MASONRY WALL TO UNDERSIDE OF CONCRETE BEAM/SLAB

SCALE NTS



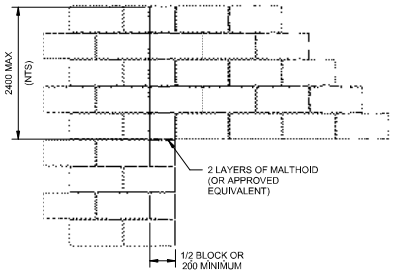
VENEER TIES



VENEER TIES

TYPICAL MASONRY TIE DETAIL

SCALE NTS



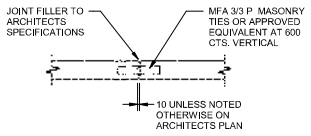
ELEVATION

MASONRY CONTROL JOINT AT DOOR/WINDOW HEADER

SCALE NTS

NOTE:

1. WHERE NO VERTICAL CONTROL JOINT HAS BEEN SPECIFIED AT DOOR OR WINDOW HEAD, THEN USE TWO LAYERS OF BED JOINT REINFORCEMENT. ONE LAYER IN EACH JOINT ABOVE THE LINTEL. EXTEND 1000 PAST EACH DOOR/WINDOW JAMB.
2. MAXIMUM CENTRES FOR VERTICAL CONTROL JOINTS SHALL BE 6000 UNLESS NOTED OTHERWISE ON PLANS.



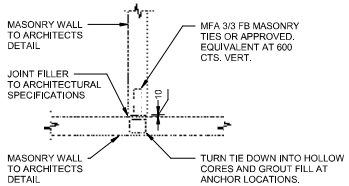
PLAN VIEW

VERTICAL CONTROL JOINT

SCALE NTS

NOTE:

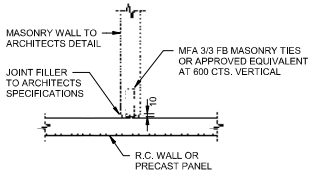
1. WALL REINFORCEMENT SHALL NOT BE CONTINUOUS THROUGH JOINT.
2. PROVIDE CONTROL JOINTS AT 6000mm MAX. CTS. U.N.O.



PLAN VIEW

TYPICAL CONTROL JOINT AT WALL INTERSECTION

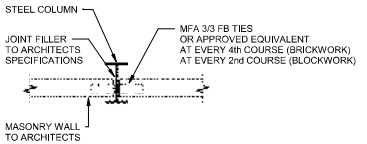
SCALE NTS



PLAN VIEW

MASONRY WALL TO CONCRETE / PRECAST WALL

SCALE NTS



PLAN VIEW

MASONRY WALL TO COLUMN

SCALE NTS

MASONRY NOTES:

1. ALL MASONRY TIES SHALL BE SUPPLIED BY "BRUNSWICK SALES" OR AN APPROVED EQUIVALENT AND FIXED IN STRICT ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.
2. ▭▭▭ - DENOTES MASONRY WALL: CLAY BRICK, OR CONCRETE BLOCKWORK, AS SPECIFIED BY THE ARCHITECT.
3. REFER TO ARCHITECT FOR SPECIFICATION OF COMPRESSIBLE BACKING ROD AND JOINT SEALANT OR FIRE RATED FILLER AT CONTROL JOINTS.
4. WHERE MASONRY ANCHORS ABRIDGE HOLLOW CORES, THE HOLLOW CORES IMMEDIATELY ABOVE AND BELOW THE ANCHOR SHALL BE GROUT FILLED.

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

TYPICAL MASONRY DETAILS (NLB)

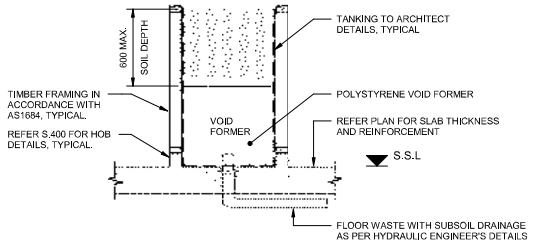
DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	As indicated	SIZE:	A1
Job No.		Drawing No.	Rev.

20501 S.431 C1

© BROGUE

A1

DESIGN LOADING
4 KPa



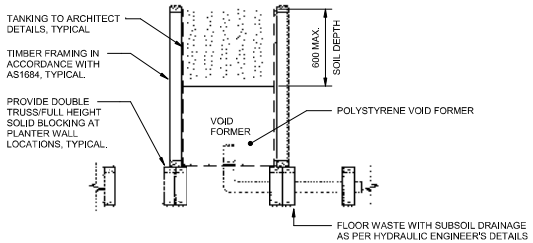
REFER ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATION.

TYPICAL PLANTER BOX DETAIL

SUSPENDED SLAB

SCALE NTS

DESIGN LOADING
4 KPa



REFER ARCHITECT'S DRAWINGS FOR EXTENT AND LOCATION.

TYPICAL PLANTER BOX DETAIL

ON FLOOR TRUSS

SCALE NTS

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

TYPICAL PLANTER BOX DETAILS

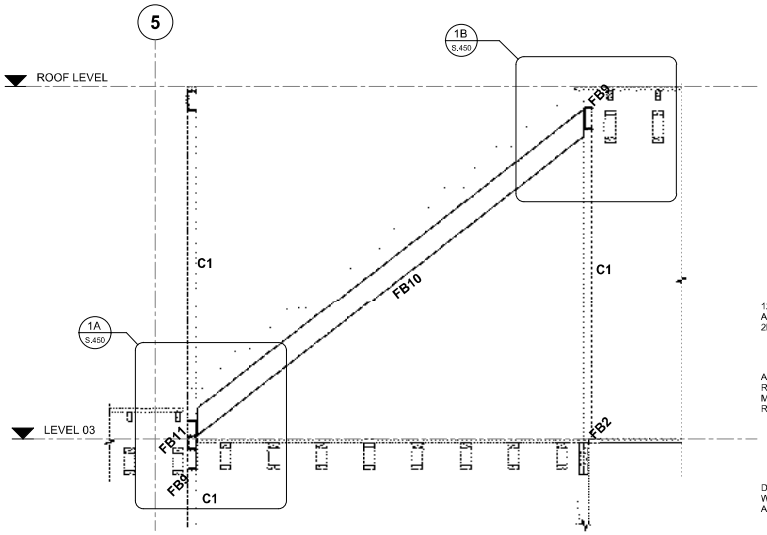
DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	1 : 20	SIZE:	A1

Job No. | Drawing No. | Rev.

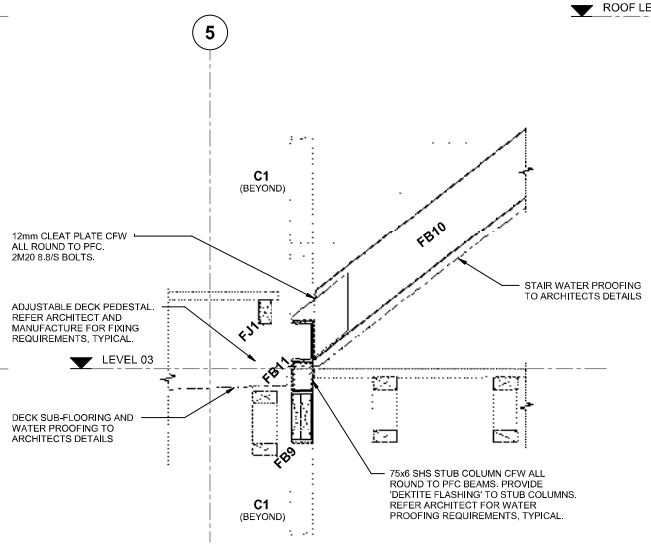
20501 S.440 C1

© BROGUE

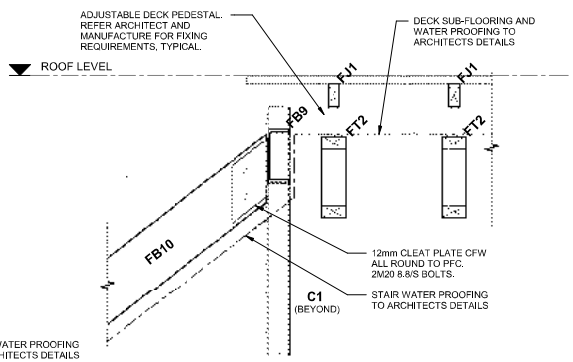
A1



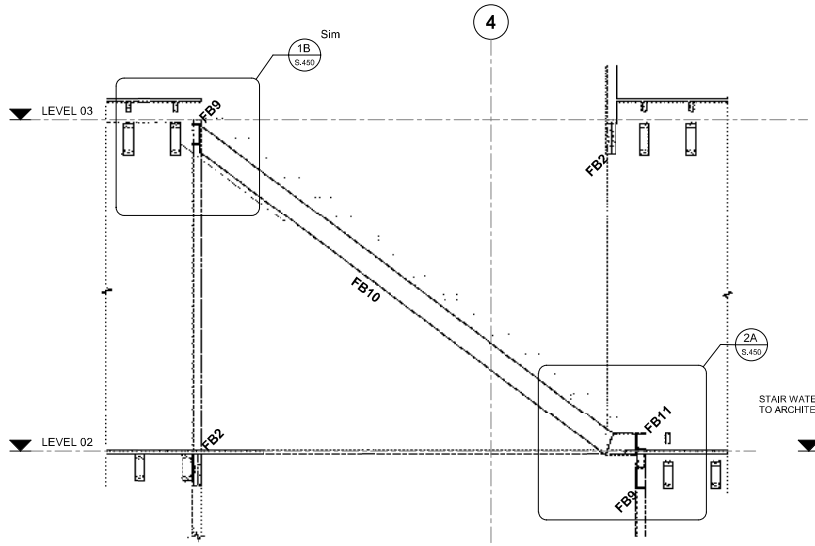
SECTION ST.01 (S.230)
SCALE 1 : 25



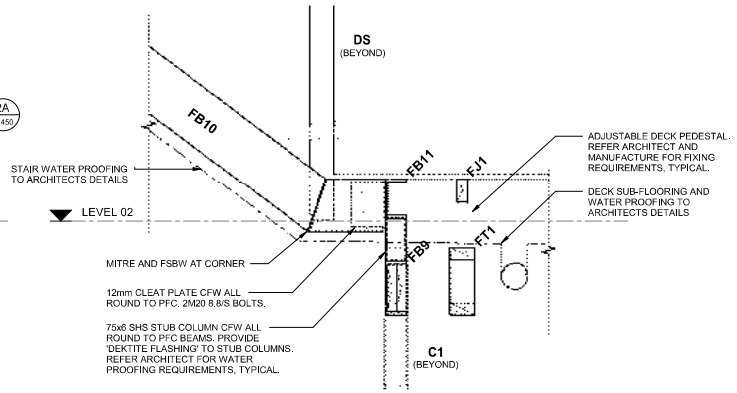
DETAIL 1A / S.450
SCALE 1 : 10



DETAIL 1B / S.450
SCALE 1 : 10



SECTION ST.02 (S.220)
SCALE 1 : 25



DETAIL 2A / S.450
SCALE 1 : 10

brogue CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT
everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

EXTERNAL STAIR SECTIONS AND DETAILS

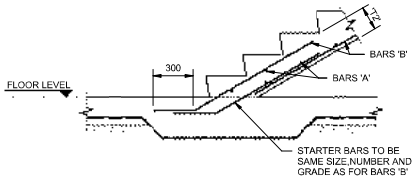
DATE:	OCT 2020	DESIGNED:	SM
DRAWN:	DH	CHECKED:	TF
SCALE:	As indicated	SIZE:	A1

Job No. | Drawing No. | Rev.

20501 S.450 C1

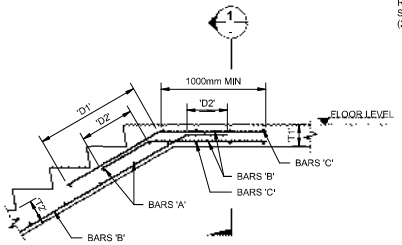
© BROGUE

A1



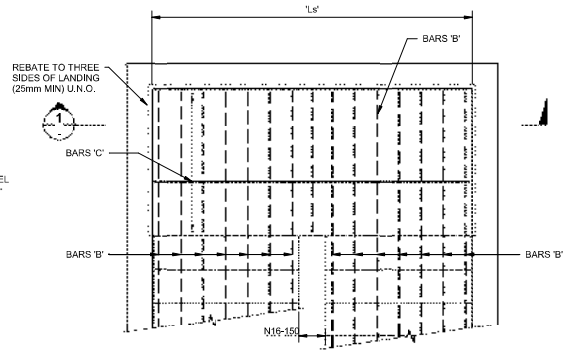
TYPICAL BOTTOM STAIR FLIGHT TO SLAB ON GROUND DETAIL

SCALE NTS



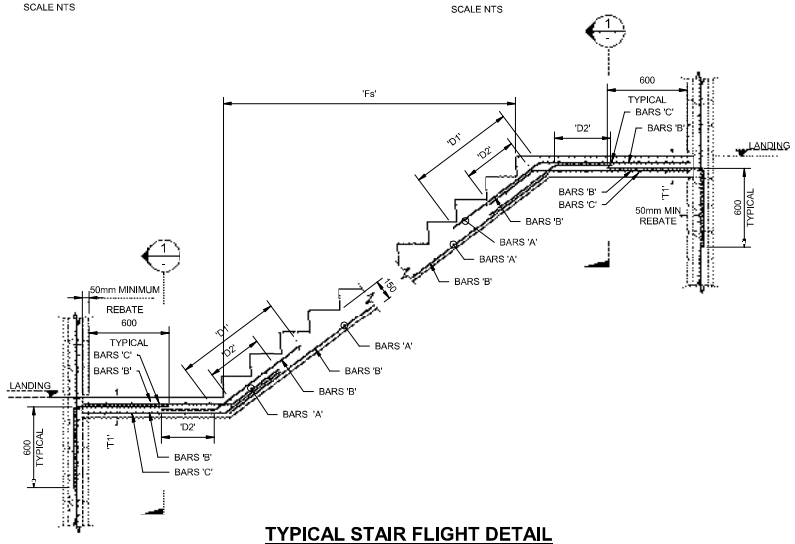
TYPICAL TOP STAIR FLIGHT TO SUSPENDED FLOOR DETAIL

SCALE NTS



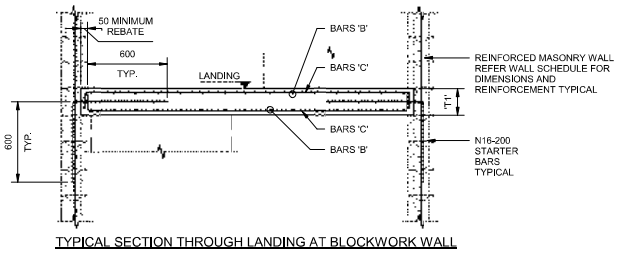
TYPICAL STAIR LANDING PLAN

NTS

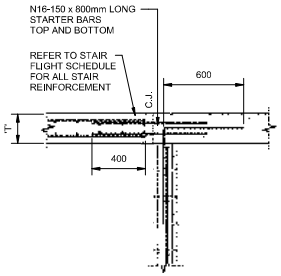


TYPICAL STAIR FLIGHT DETAIL

SCALE NTS



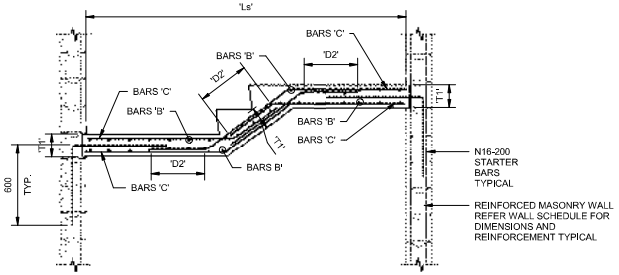
TYPICAL SECTION THROUGH LANDING AT BLOCKWORK WALL



STAIR LANDING AT DOOR

SCALE NTS

FLOOR SLAB CONSTRUCTED FIRST



TYPICAL SECTION THROUGH STEPPED LANDING AT BLOCKWORK WALL

STAIR FLIGHT/LANDING SCHEDULE

LANDING SPAN (mm) 'LS' (MAX)	STAIR FLIGHT (mm) 'FS' (MAX)	LANDING THICKNESS 'T1'	THROAT THICKNESS 'T2'	REINFORCEMENT			DIMENSIONS WHERE APPLICABLE		REMARKS
				BARS 'A'	BARS 'B'	BARS 'C'	'D1'	'D2'	
2400	4500	180	180	N12-300	N16-150	N16-150	0.4 X 'FS'	600	-
3200	4500	180	180	N12-300	N16-150	N16-150	0.4 X 'FS'	600	-
4000	4500	220	180	N12-300	N16-125	N16-125	0.4 X 'FS'	600	-
-	-	-	-	-	-	-	-	-	-

NOTE:

1. BARS 'B' MINIMUM 7-N16.
2. MINIMUM STAIR FLIGHT THROAT THICKNESS 180mm U.N.O.
3. 3. BAR LAP 'D1' MINIMUM 1000mm U.N.O.

brogue | CONSULTING ENGINEERS
brogue.com.au
(03) 9416 2092

CLIENT

everly

ARCHITECT

PROJECT NORTH

REVISION

ISSUE	DATE	DESCRIPTION
C1	05.03.2021	CONSTRUCTION ISSUE
P2	01.12.2020	PRICING ISSUE
P1	16.10.2020	PRELIMINARY ISSUE

CONSTRUCTION

PROPOSED DEVELOPMENT
1 & 1A STEWART ST,
BRUNSWICK

CONCRETE STAIR (INTO BLOCKWORK) DETAILS

DATE: OCT 2020 DESIGNED: SM
DRAWN: DH CHECKED: TF
SCALE: 1 : 20 SIZE: A1

Job No. Drawing No. Rev.

20501 S.451 C1

© BROGUE