



**BARNSON PTY LTD**

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# RESIDENTIAL FOOTING DESIGN TO AS2870-2011

Job No:  
45588

Client:  
RYAN JONES

Project Address:  
1318 HENRY LAWSON DRIVE  
ST FILLANS NSW 2850



## GENERAL

- THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH OTHER WORKING DRAWINGS AND SPECIFICATIONS RELEVANT TO THIS PROJECT. ANY DISCREPANCIES SHALL BE REFERRED TO BARNSON PTY LTD FOR A DECISION PRIOR TO PROCEEDING.
- DO NOT SCALE FROM THESE DRAWINGS
- MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH RELEVANT SAA CODES AND LOCAL AUTHORITY REGULATIONS.
- THE CONTRACTOR SHALL OBTAIN A COPY OF THE SITE GEOTECHNICAL REPORT PRIOR TO CONSTRUCTION, TO FAMILIARISE THEMSELV WITH THE EXPECTED NATURALLY OCCURRING FOUNDATION SOILS.
- IF SOIL IS ENCOUNTERED DURING CONSTRUCTION THAT IS DIFFERENT TO THAT REFERRED TO IN THE GEOTECHNICAL REPORT, BARNSON PTY LTD SHALL BE CONTACTED IMMEDIATELY PRIOR TO FURTHER WORK TAKING PLACE.
- DURING CONSTRUCTION, THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION, AND NO PART SHALL BE OVERSTRESSED.
- ALL CARE SHOULD BE TAKEN TO ENSURE THAT ADEQUATE SITE DRAINAGE IS PROVIDED TO ENSURE THAT WATER IS DIVERTED AWAY FROM THE BUILDING DURING AND AFTER CONSTRUCTION.
- ALL FORMWORK SHALL BE IN ACCORDANCE WITH AS3610-2018.
- PREPOUR INSPECTIONS FOR ALL FOOTINGS AND SLABS SHALL BE CARRIED OUT BY BARNSON PTY LTD OR THE CERTIFYING AUTHORITY. 24 HOURS NOTICE FOR INSPECTIONS IS REQUIRED. NO CONCRETE IS TO BE POURED WITHOUT ATTAINING APPROVAL.
- FOR SLAB ON GROUND, FINISHED SLAB HEIGHTS ABOVE EXTERNAL FINISHED SURFACES MUST NOT BE LESS THAN:
  - 150mm ABOVE FINISHED GROUND LEVEL
  - 100mm ABOVE SANDY, WELL DRAINED AREAS
  - 50mm ABOVE EXTERNAL SEALED AREAS THAT HAVE A SLOPE OF NOT LESS THAN 50mm OVER THE FIRST 1m FROM THE BUILDING
- SLABS & FOOTINGS HAVE BEEN DESIGNED BASED ON STANDARD DESIGNS CONTAINED IN SECTION 3 AND ENGINEERING PRINCIPALS CONTAINED IN SECTION 4 OF AS2870-2011, AND ENGINEERING PRINCIPALS FROM AS3600-2018

## GENERAL continued

- DIMENSIONS GIVEN FOR BEAMS AND STRIP FOOTINGS ARE THE MINIMUM REQUIRED AS PER DESIGN PRINCIPALS NOTED ABOVE. IF THERE ARE SITE SPECIFIC REQUIREMENTS TO WIDEN, OR DEEPEN BEAMS OR STRIP FOOTINGS, IT SHALL BE PERFORMED AS FOLLOWS:
  - WHERE BEAMS OR STRIP FOOTINGS ARE WIDER THAN THAT SPECIFIED, AN EXTRA BOTTOM BAR OR EQUIVALENT OF THE SAME BAR SIZE IS REQUIRED FOR EACH 100mm ADDITIONAL WIDTH.
  - WHERE BEAMS OR STRIP FOOTINGS ARE DEEPER THAN THAT SPECIFIED, THE BOTTOM REINFORCEMENT SPECIFIED IN AS2870 FOR THE GREATER BEAM OR STRIP FOOTING DEPTH IS TO BE USED.
- SITE MAINTENANCE IS THE RESPONSIBILITY OF THE OWNER. CSIRO'S - FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE: A HOMEOWNERS GUIDE - BUILDING TECHNOLOGY FILE 18, SHOULD BE REFERRED TO FOR ONGOING SITE MAINTENANCE REQUIREMENTS.

## BASE PREPARATION - FOUNDATIONS

- FOUNDATION MATERIAL, WHETHER NATURALLY OCCURRING OR FILL, SHALL HAVE A MINIMUM UNIFORM ALLOWABLE BEARING CAPACITY (Q<sub>a</sub>) OF 100 kPa
- ALL TESTING TO BE UNDERTAKEN BY A NATA REGISTERED LABORATORY.
- THE ATTACHED PROJECT SPECIFIC RESIDENTIAL FOOTING DESIGN, HAS BEEN PREPARED BASED ON A SITE CLASSIFICATION CARRIED OUT IN ACCORDANCE WITH AS2870-2011. REFER PROJECT SPECIFIC PLAN FOR METHOD USED.
- INTERNAL BEAMS/RIBS AND SLAB PANELS SHALL BE FOUNDED ON CONTROLLED OR ROLLED FILL.
- ALL EDGE BEAMS SHALL BE FOUNDED IN NATURAL SOIL OR CONTROLLED FILL, UNLESS SUPPORTED BY PIERS.

## BASE PREPARATION - FILL

- FILLING USED IN THE CONSTRUCTION OF A SLAB, EXCEPT WHERE THE SLAB IS SUSPENDED, SHALL CONSIST OF CONTROLLED FILL AS FOLLOWS:
 

CONTROLLED FILL:  
MINIMUM 100mm DEEP MAXIMUM 300mm DEEP UNDER PERIMETER FOOTINGS. IT SHALL BE WELL COMPACTED IN 150mm LAYERS BY A MECHANICAL ROLLER TO A MINIMUM 95% STANDARD COMPACTION FOR A SINGLE STORY DWELLING, AND 98% STANDARD COMPACTION FOR A DOUBLE STORY DWELLING. FILL SHALL BE OF LESS REACTIVITY THAN NATURAL SOIL.
- FILL WITH A GREATER DEPTH THAN THAT SPECIFIED ABOVE SHALL BE INSTALLED AND CERTIFIED BY A NATA ACCREDITED LABORATORY IN ACCORDANCE WITH AS3798-2007, LEVEL 2.
- FILL SHALL BE EXTENDED PAST THE EDGE OF THE RESIDENCE AND SHALL BE RETAINED OR BATTERED BY A SLOPE AS SPECIFIED ON DRAWING G1024. FOR FILLING REQUIREMENTS IN RELATION TO EDGE BEAMS, REFER DRAWING G1024.

## EXCAVATION

- TOPSOIL CONTAINING GRASS ROOTS OR VEGETATION SHALL BE REMOVED FROM THE FOUNDATION AREA. IT SHALL THEN BE PROOF ROLLED PRIOR TO FILLING.
- FOOTING EXCAVATIONS MUST BE FREE OF LOOSE EARTH, TREE ROOTS, MUD OR DEBRIS IMMEDIATELY BEFORE POURING CONCRETE.
- EXCAVATION FOR FOOTINGS, INCLUDING THICKENINGS FOR SLABS AND PADS MUST BE CLEAN CUT WITH VERTICAL SIDES, WHEREVER POSSIBLE.
- FOR EXCAVATION REQUIREMENTS ON SLOPING SITES WHERE STEPPED BEAMS OR STEPPED STRIP FOOTINGS ARE TO BE USED.
- BARNSON PTY LTD SHOULD BE CONSULTED BEFORE COMMENCING ANY EXCAVATIONS NEAR THE EDGE OF A BUILDING.
- WHERE PROPOSED FOOTINGS ARE NEAR EXISTING BUILDINGS OR SERVICES, BARNSON PTY LTD MUST BE CONTACTED AS DESIGN CHANGES MAY BE NECESSARY.
- FOR ALLOWABLE EMBANKMENTS, FILL & CUT TYPE EXCAVATIONS REFER SECTION 6 OF AS2870-2011, AND BCA VOLUME 2, PART 3.1.1.

## EXCAVATION NOTES

- ANY PERMANENT VERTICAL OR NEAR VERTICAL EXCAVATION WITHIN 2m OF A BUILDING, AND DEEPER THAN 600mm SHALL BE BATTERED OR RETAINED.
- THE GRADIENT OF UNPROTECTED EMBANKMENT FOR EXCAVATION INCLUDING BOTH CUT AND FILL SHALL BE ASCERTAINED FROM THE "UNPROTECTED EMBANKMENTS" TABLE.
- EXCAVATION ADJACENT EXISTING BUILDINGS:
  - EXCAVATION WORK FOR FOOTINGS, DRAINAGE TRENCHES OR OTHER SIMILAR WORKS ARE TEMPORARY.
  - ELEMENTS REQUIRED SHOULD BE INSTALLED & CONSTRUCTED AS SOON AS PRACTICABLE AFTER EXPOSING THE EXISTING BUILDING FOOTING.
  - THE EXISTING FOOTING SHOULD NOT REMAIN EXPOSED AFTER THE COMPLETION OF WORKS.
- RETAINING WALLS OR OTHER TYPES OF SOIL RETAINING METHODS MUST BE INSTALLED WHERE:
  - THE GRADIENT RATIO IS GREATER THAN THAT DESCRIBED IN THE "UNPROTECTED EMBANKMENTS" TABLE.
  - SITE SOIL CLASSIFICATION OR DESCRIPTION IS NOT DESCRIBED IN THE "UNPROTECTED EMBANKMENTS" TABLE.
- FILL SHALL BE PLACED AS FOLLOWS:
  - THE GRADIENT RATIO OF FILL DETAILS SHALL BE ASCERTAINED FROM THE "UNPROTECTED EMBANKMENTS" TABLE.
  - GENERAL FILL SHALL BE PLACED AND COMPACTED IN LAYERS WITH A VIBRATING PLATE OR SIMILAR COMPACTION EQUIPMENT TO ATTAIN STABILITY.
- EMBANKMENTS THAT ARE TO BE LEFT EXPOSED AT THE END OF CONSTRUCTION WORKS MUST BE STABILISED BY VEGETATION OR SIMILAR WORKS TO PREVENT SOIL EROSION.

UNPROTECTED EMBANKMENTS		
SITE CLASSIFICATION OR NATURAL SOIL MATERIAL DESCRIPTION	COMPACTED FILL V:H GRADIENT RATIO	CUT V:H GRADIENT RATION
CLASS "A"- STABLE ROCK	2 : 3	8 : 1
CLASS "A"- SAND	1 : 2	1 : 2
CLASS "S", "M", "M-D" - FIRM CLAY	1 : 2	1 : 1
CLASS "S", "M", "M-D"- SOFT CLAY	NOT SUITABLE	2 : 3
CLASS "H1", "H1-D", "H2", "H2-D", "P"- SOFT SOILS	NOT SUITABLE	NOT SUITABLE
CLASS "P"- SILT	1 : 4	1 : 4

ISSUED FOR CONSTRUCTION

### BARNSON PTY LTD

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THIS DRAWING IS TO BE READ IN CONJUNCTION WITH GENERAL BUILDING DRAWINGS, SPECIFICATIONS & OTHER CONSULTANTS DRAWINGS APPLICABLE TO THIS PROJECT. ALL DIMENSIONS IN MILLIMETRES. DO NOT SCALE. DIMENSIONS TO BE CHECKED ON SITE BEFORE COMMENCEMENT OF WORK. REPORT DISCREPANCIES TO BARNSON PTY LTD. NO PART OF THIS DRAWING MAY BE REPRODUCED IN ANY WAY WITHOUT THE WRITTEN PERMISSION OF BARNSON PTY LTD.

Rev Date Description  
0 07.10.2024 ISSUED FOR CONSTRUCTION

Project  
RESIDENTIAL FOOTING DESIGN

Site Address  
1318 HENRY LAWSON DRIVE  
ST FILLANS NSW 2850  
Client  
RYAN JONES

Drawing Title  
SLAB AND FOOTING NOTES 1

Design JB Original Sheet Size A3  
Drawn JB  
Check LM Revision 0

Certification  
Pr [REDACTED] 45588  
Drawing No S01

## REINFORCEMENT

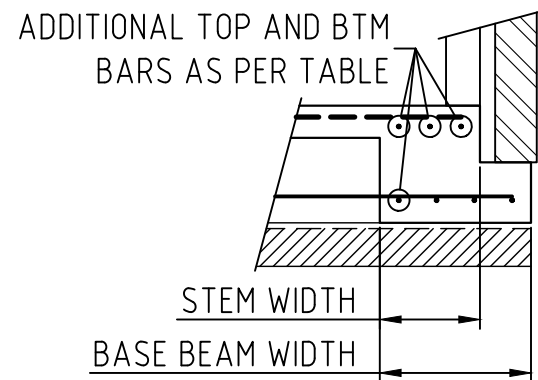
- ALL REINFORCEMENT SHALL BE IN ACCORDANCE WITH AS/NZS 4671-2019.
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY, AND IS NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- REINFORCEMENT DESIGNATIONS AS FOLLOWS:
  - N - GRADE 500N HS DEFORMED BAR
  - R - GRADE 250R HOT ROLLED BAR
  - SL - GRADE 500L SQUARE MESH
  - TM - GRADE 500L TRENCH MESH
- FOR LAPPING OF SLAB FABRIC, REFER DRAWING G1002 FOR DETAILS.
- TRENCH MESH SHALL BE SPLICED WHERE NECESSARY BY A LAP OF 500mm.
- REINFORCEMENT BARS TO BE LAPPED AS FOLLOWS:
  - MESH-2 OUTER BARS OVERLAPPED WITH 2 OUTERBARS+20mm
  - N12 BARS = 500mm MIN
  - N16 BARS = 700mm MIN
- ALL REINFORCEMENT IS TO BE ADEQUATELY SUPPORTED IN ITS REQUIRED POSITION. SUPPORT CHAIRS ARE TO BE AT 800mm MAX CENTRES, BOTH DIRECTIONS.
- SERVICE PENETRATIONS SHALL BE APPROVED BY BARNSON PTY LTD PRIOR TO POURING. ALL SERVICES THAT PENETRATE CONCRETE MEMBERS SHALL BE LAGGED OR SLEEVED. REFER DRAWING G1023 FOR DETAILS.
- NO CHASES OR HOLES ARE TO BE MADE IN CONCRETE MEMBERS U.N.O. WITHOUT THE APPROVAL OF BARNSON PTY LTD.
- REFER DRAWING G1022 FOR REINFORCEMENT REQUIREMENTS ON SLOPING SITES WHERE STEPPED BEAMS OR STEPPED STRIP FOOTINGS ARE TO BE USED, AND FOR WHERE "L" AND "T" INTERSECTIONS OF BEAMS OCCUR.
- WHERE THERE ARE SITE SPECIFIC REQUIREMENTS TO WIDEN SLAB BEAMS OR STEM WIDTHS, ADDITIONAL REINFORCEMENT TO THAT SHOWN IN THE DETAILS SHALL BE PROVIDED TOP AND BTM, ACCORDING TO THE ADDITIONAL REINFORCEMENT TABLE AND DIAGRAM. BAR SIZE IS TO MATCH THE EXISTING SPECIFIED TOP & BTM BAR SIZE SHOWN IN THE DETAILS.

## LOADING NOTES

- ALL LOADS ARE ACCORDING TO AS1170.1-2002
- LIVE LOADS: 1.5 kPa RESIDENTIAL

## CONCRETE

- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH AS3600-2018, FORMWORK TO AS3610-2018
- CONCRETE SHALL NOT BE POURED WHEN THE AIR TEMPERATURE IS GREATER THAN 38° CELCIUS, OR LESS THAN 5° CELSIUS WITHOUT APPROVAL FROM BARNSON PTY LTD.
- CONCRETE SHALL BE GRADE N20 (20MPa STRENGTH AT 28 DAYS), HAVE A 20mm NOMINAL AGGREGATE SIZE, AND HAVE A NOMINAL 100mm SLUMP.
- NO ON SITE WATER IS TO BE ADDED TO THE CONCRETE WITHOUT PERMISSION OF BARNSON PTY LTD.
- ALL CONCRETE IS TO BE VIBRATED
- CONCRETE IS TO BE CURED A MIN OF 7 DAYS
- COVER TO REINFORCEMENT SHALL BE AS FOLLOWS:
  - WAFFLE POD SLAB PANELS = 20mm (TOP)
  - RAFT SLAB PANELS = 30mm (TOP)
  - WAFFLE POD RIBS = 30mm (SIDE)
  - WAFFLE AND RAFT SLAB BEAMS = 50mm (BOTTOM & SIDE)
  - STRIP & PAD FOOTINGS = 50mm (ALL SIDES)



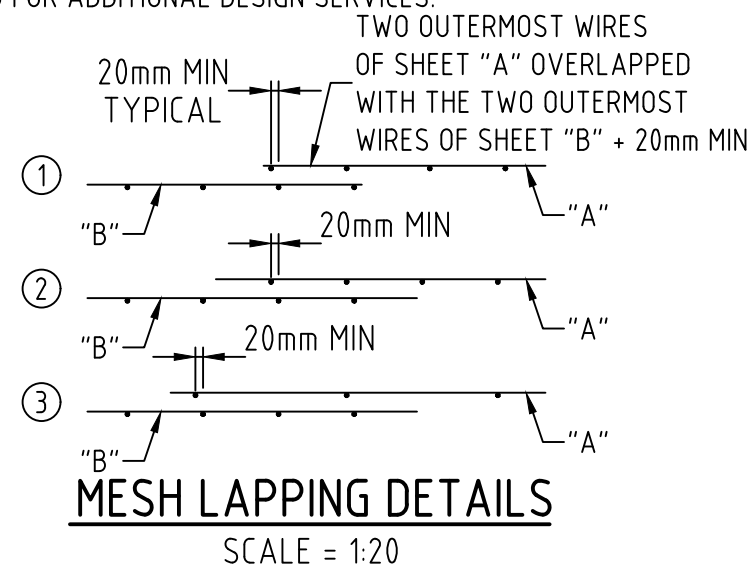
STEM WIDTH OR BASE BEAM WIDTH (mm)	QTY TOP REINFORCEMENT BARS FOR STEM WIDTH	QTY BTM REINFORCEMENT BARS FOR BASE BEAM WIDTH
110 - 150	0 STD, 1 OVER PIERS	1
151 - 220	1	2
221 - 330	2	3
331 - 440	3	4

## WAFFLE POD SLAB PIERING REQUIREMENTS

- PIERS TO BE UTILISED IN THE FOLLOWING SITUATIONS:
  - EDGE BEAMS & LOAD BEARING INTERNAL WALLS ARE FOUNDED ON UNCONTROLLED FILL.
  - ANY INTERNAL BEAMS/RIBS ARE LOCATED ON GREATER THAN 300mm OF UNCONTROLLED FILL.
  - WHEN THE FOUNDATION MATERIAL HAS AN ALLOWABLE BEARING CAPACITY  $Q_a$ : OF LESS THAN THAT SPECIFIED IN GEOTECHNICAL NOTES.
  - WHEN PART OF AN EDGE OR INTERNAL BEAM IS FOUNDED ON ROCK, THEN THE REMAINDER OF THE BEAM/S ARE TO BE SUPPORTED ON BEARING PIERS FOUNDED ON SIMILAR MATERIAL.
  - WHEN PART OF AN EDGE BEAM IS FOUNDED ADJACENT EXISTING FIXED SERVICES OR AN EASEMENT.
- PIERS TO BE POSITIONED FROM UNDERSIDE OF BEAM/RIB TO BELOW NATURAL GROUND LEVEL.
- PIERS TO BE  $\phi 400$  MASS CONCRETE UP TO 1500mm DEEP. DEEPER PIERS SHALL BE  $\phi 400$  REINFORCED WITH 4-N12 BARS VERTICAL, WITH R6 LIGS HORIZONTAL AT 300 MAX CRS.
- PIER POSITIONING SHALL BE AS PER THE MINIMUM SHOWN ON DRAWINGS, OR AS PER THE FOLLOWING MINIMUM SPACING REQUIREMENTS:
  - # EDGE BEAM: 2400mm MAX CRS
  - # INTERNAL RIBS: 3600mm MAX CRS
- ADDITIONAL STEEL REINFORCEMENT IS REQUIRED TO THE TOP OF INTERNAL RIBS WHEN LOCATED ABOVE BEARING PIERS. REFER REINFORCEMENT REQUIREMENTS TABLE FOR DETAILS.

## DEEPENED EDGE BEAM NOTES

- DEEPENED EDGE BEAMS ACCORDING TO THE METHOD OF CONSTRUCTION DEPICTED MAY BE UTILISED IN LIEU OF ANY STANDARD EDGE BEAM DETAILS PROVIDED WITHIN THE PROJECT SPECIFIC DRAWING SET, TO SUIT SITE REQUIREMENTS.
- FOR PROJECTS REQUIRING DESIGN BEYOND THE PARAMETERS PROVIDED, PLEASE REFER BACK TO BARNSON PTY LTD FOR ADDITIONAL DESIGN SERVICES.



## SERVICE PENETRATION NOTES

- HORIZONTAL SERVICE PENETRATIONS AS DEPICTED ARE DESIGNED TO SUIT PIPES UP TO A MAXIMUM DIAMETER OF ONE THIRD OF THE DESIGN BEAM DEPTH. i.e. D/3.
- ALL HORIZONTAL PIPE PENETRATIONS THROUGH SLAB BEAMS OR RIBS ARE TO BE WRAPPED IN CLOSED CELL POLYETHYLENE LAGGING TO SUIT THE SITE CLASSIFICATION. NO LAGGING IS REQUIRED FOR SITE CLASSIFICATIONS A AND S. LAGGING SHALL BE A MINIMUM 20mm THICK ON CLASS M, M-D, H1 AND H1-D SITES. LAGGING SHALL BE A MINIMUM 40mm THICK ON CLASS H2, H2-D AND E SITES. OR ALTERNATIVELY PROVIDE SLEEVE WITH SIMILAR ALLOWABLE MOVEMENT.
- LAGGING NOT REQUIRED FOR VERTICAL SERVICE PANEL PENETRATIONS
- WAFFLE POD SLAB TOP AND BOTTOM REINFORCEMENT REQUIRED SHALL BE ASCERTAINED FROM THE REINFORCEMENT REQUIREMENTS TABLE ON DRAWING G1021

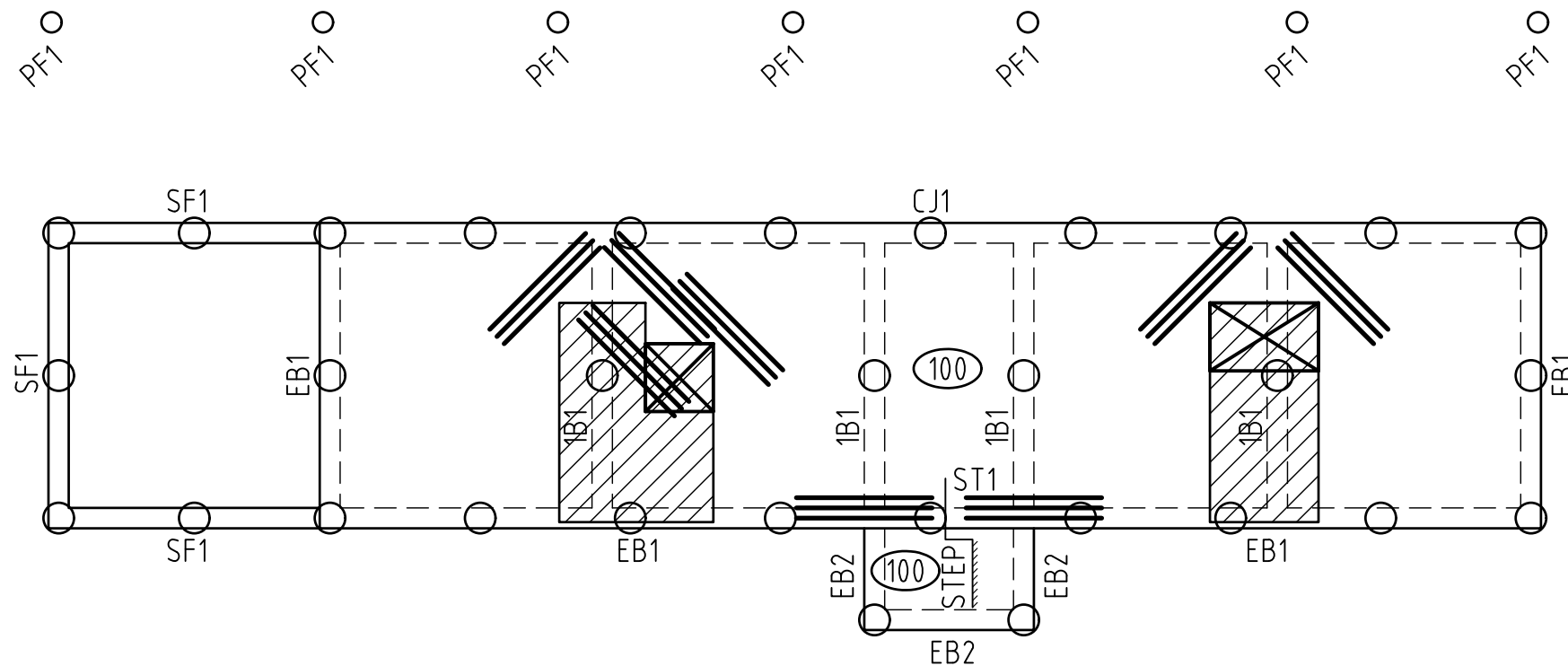
## MASONRY

- ALL WORKMANSHIP AND MATERIALS TO BE IN ACCORDANCE WITH AS3700-2018.
- MASONRY SHALL NOT BE CONSTRUCTED ON CONCRETE ELEMENTS WITHIN 14 DAYS OF CASTING WITHOUT THE APPROVAL OF BARNSON PTY LTD.
- ARTICULATION OF MASONRY SHALL BE IN ACCORDANCE WITH TECHNICAL NOTE 61 BY THE CEMENT, CONCRETE & AGGREGATES AUSTRALIA. [www.ccaa.com.au](http://www.ccaa.com.au)

## SITES WITH SALINE AND SULFATE SOILS

- IN AREAS ADVISED BY THE LOCAL AUTHORITY TO HAVE AGGRESSIVE SOILS THE FOLLOWING MINIMUM REQUIREMENTS ARE TO TAKE PRECEDENCE OVER ANY NOTATION WITHIN THE DRAWING SET:
  - THE DAMP-PROOFING MEMBRANE SHALL CONSIST OF A SUITABLE 0.5mm THICK DAMP-PROOFING MATERIAL COMPLYING WITH AS/NZS 2904 AND LAPPED A MINIMUM OF 75mm VERTICALLY OR HORIZONTALLY. DAMP-PROOFING MEMBRANE IS TO BE INSTALLED AND TERMINATED AT FINISHED GROUND OR PAVING LEVEL.
  - CONCRETE IS TO BE MINIMUM GRADE N32 (32 MPa STRENGTH AT 28 DAYS AGE). ACTUAL CONCRETE GRADE TO BE UTILISED ON SITE IS TO BE IN ACCORDANCE WITH TABLE 5.3 OF AS2870-2011. TABLE 5.3 IS TO BE READ IN CONJUNCTION WITH TABLES 5.1 AND 5.2 OF AS2870-2011 FOR SITE EXPOSURE CLASS FOR SALINE OR SULFATE SOILS.

ISSUED FOR CONSTRUCTION



**SLAB AND FOOTINGS PLAN**  
SCALE = 1:100

- DENOTES 3-N12 BARS x 2000 LONG OR 3-L11TM x 2000 LONG TIED TO UNDERSIDE OF MESH
- DENOTES SHOWER RECESS.
- DENOTES THICKNESS OF SLAB PIER THROUGH FILL. REFER TO DETAIL
- DENOTES SET DOWN AREA

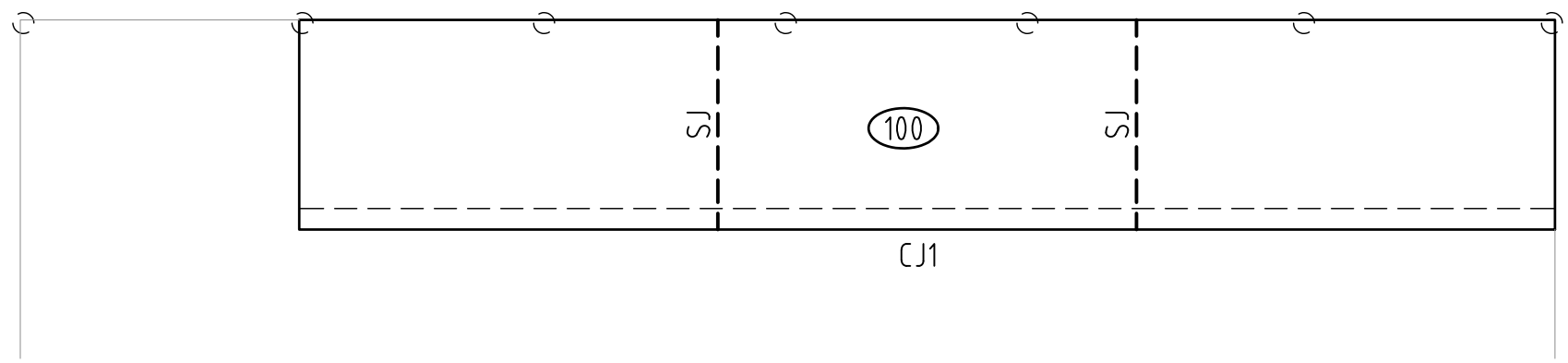
**GEOTECHNICAL NOTES**

1. THESE SLABS AND FOOTINGS HAVE BEEN DESIGNED FOR A CLASS "P" SITE WITH SOIL REACTIVITY CLASS "M-D" AS DEFINED BY AS2870-2011, BASED UPON GEOTECHNICAL REPORT BY BARNSON PTY LTD, REFERENCE 45588-GR01\_A DATED 13TH SEPTEMBER 2024.

**RAFT SLAB NOTES**

- A) SLAB DESIGN BASED UPON CLAD FRAME
- 1. CONCRETE EXPOSURE CLASSIFICATION = A1 TO AS3600-2009
- 2. 100mm THICK SLAB REINFORCED WITH ONE LAYER  
SL82 MESH TOP WITH 30mm COVER,  
BEAM BTM REINFORCEMENT AS SPECIFIED WITH 50mm COVER.
- 3. CONCRETE IS TO BE GRADE N25 (25 MPa STRENGTH AT 28 DAYS)
- B) THIS PLAN SHALL BE READ IN CONJUNCTION WITH PLANS BY ON POINT BUILDING DESIGN, REFERENCE 1471, REVISION A, DATED 18/09/24

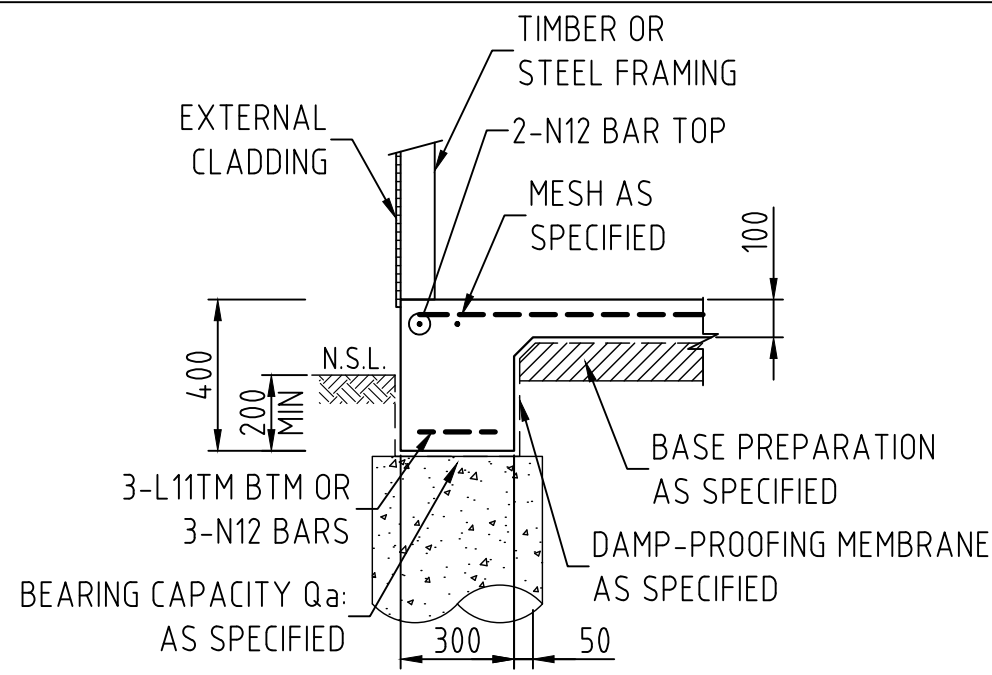
ANY FALL OR STEP WITHIN SLAB SURFACE TO ARCHITECTS SPECIFICATION



**VERANDAH SLAB PLAN**  
SCALE = 1:100

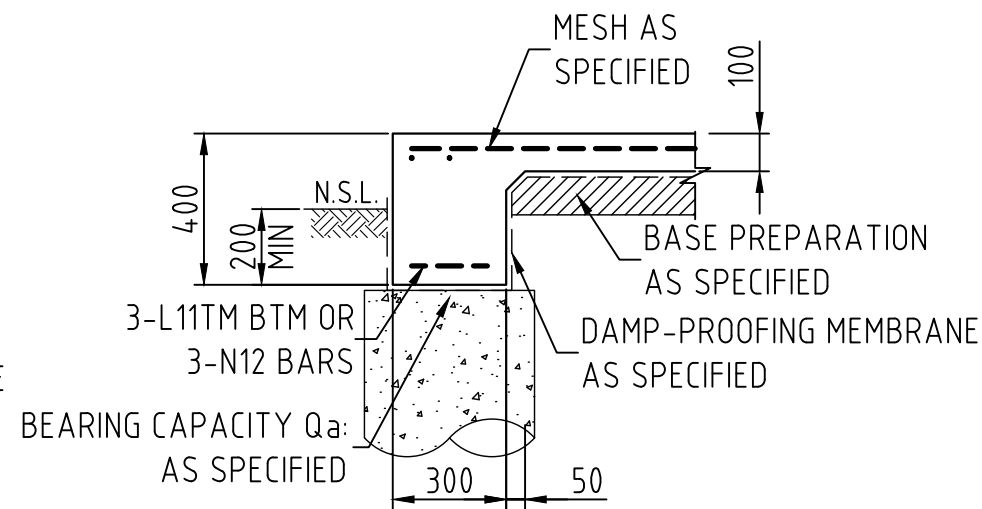
- DENOTES THICKNESS OF SLAB
- DENOTES TOOL JOINT OR SAW CUT REFER PROJECT SPECIFIC DETAIL

**ISSUED FOR CONSTRUCTION**



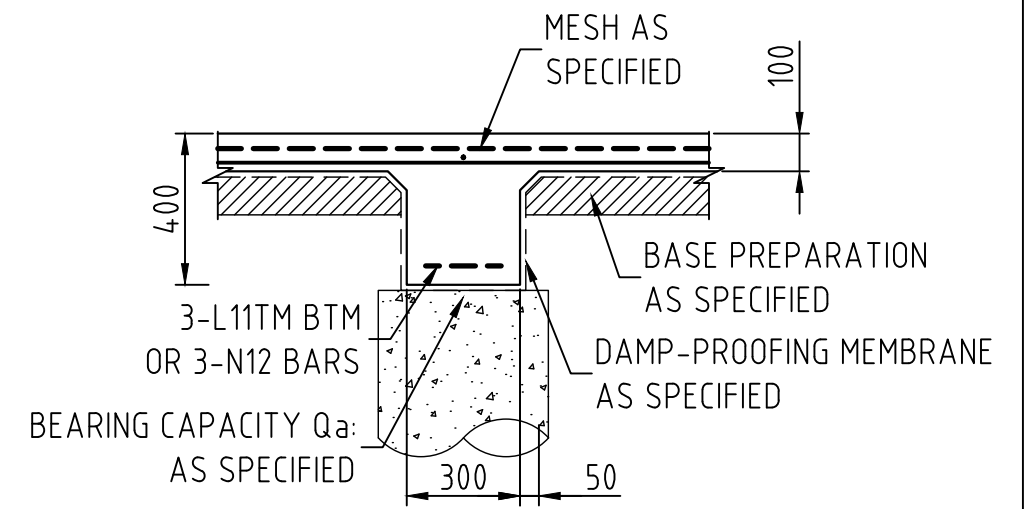
**EB1 - EDGE BEAM DETAIL**

SCALE = 1:20



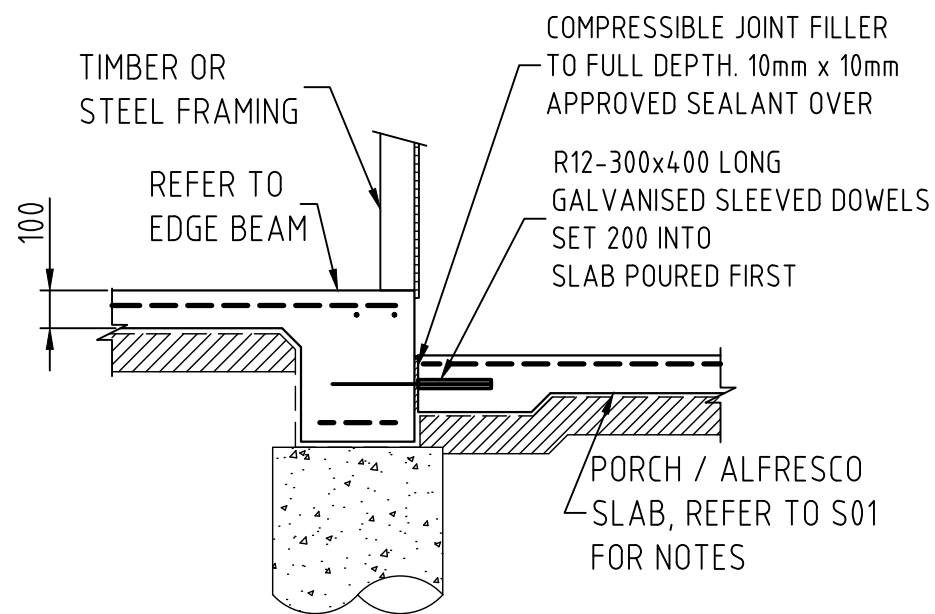
**EB2 - EDGE BEAM DETAIL**

SCALE = 1:20



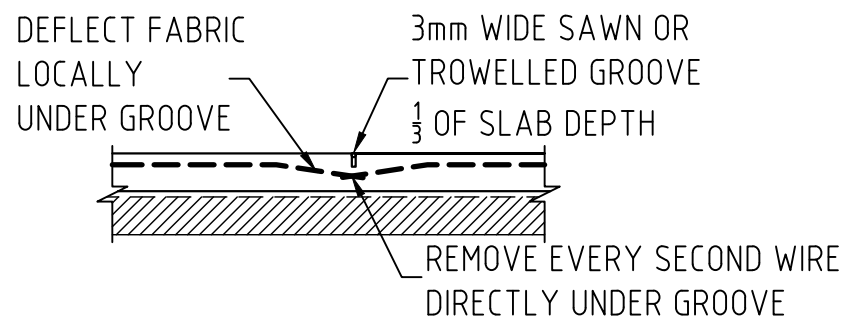
**IB1 - INTERNAL RIB DETAIL**

SCALE = 1:20



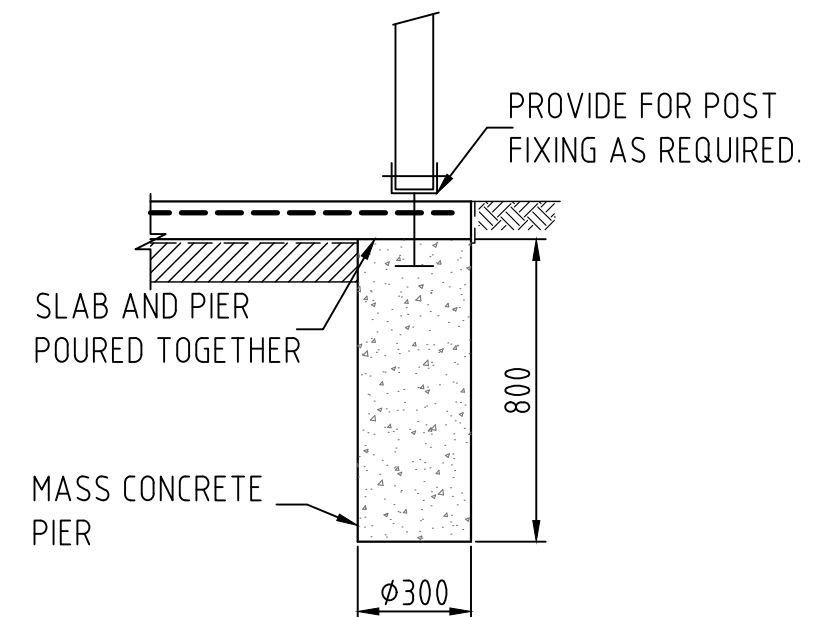
**CJ1 - CONSTRUCTION JOINT DETAIL**

SCALE = 1:20



**SJ - SAWN CONTROL JOINT**

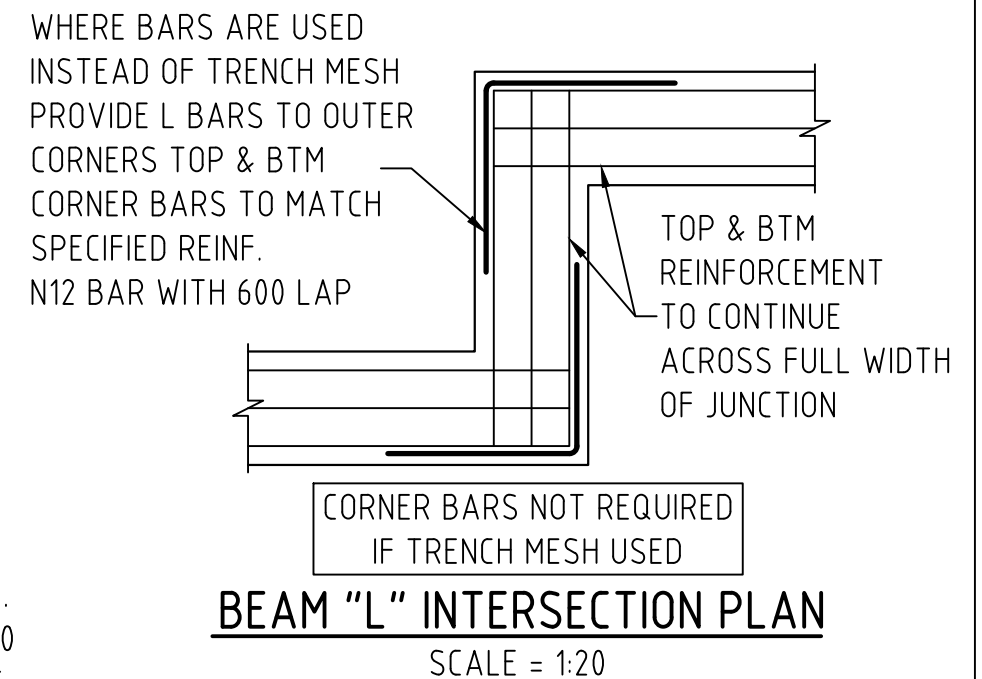
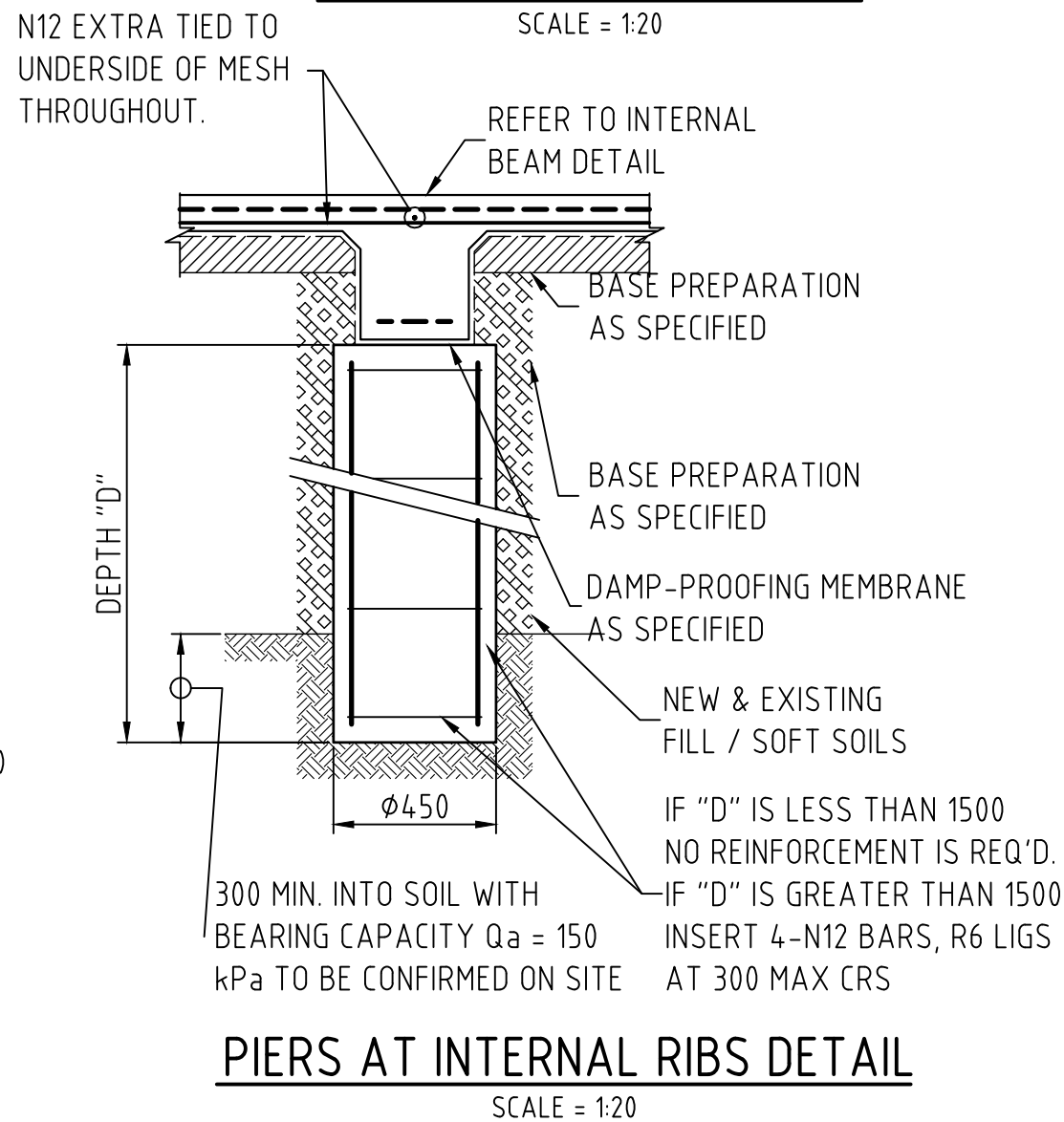
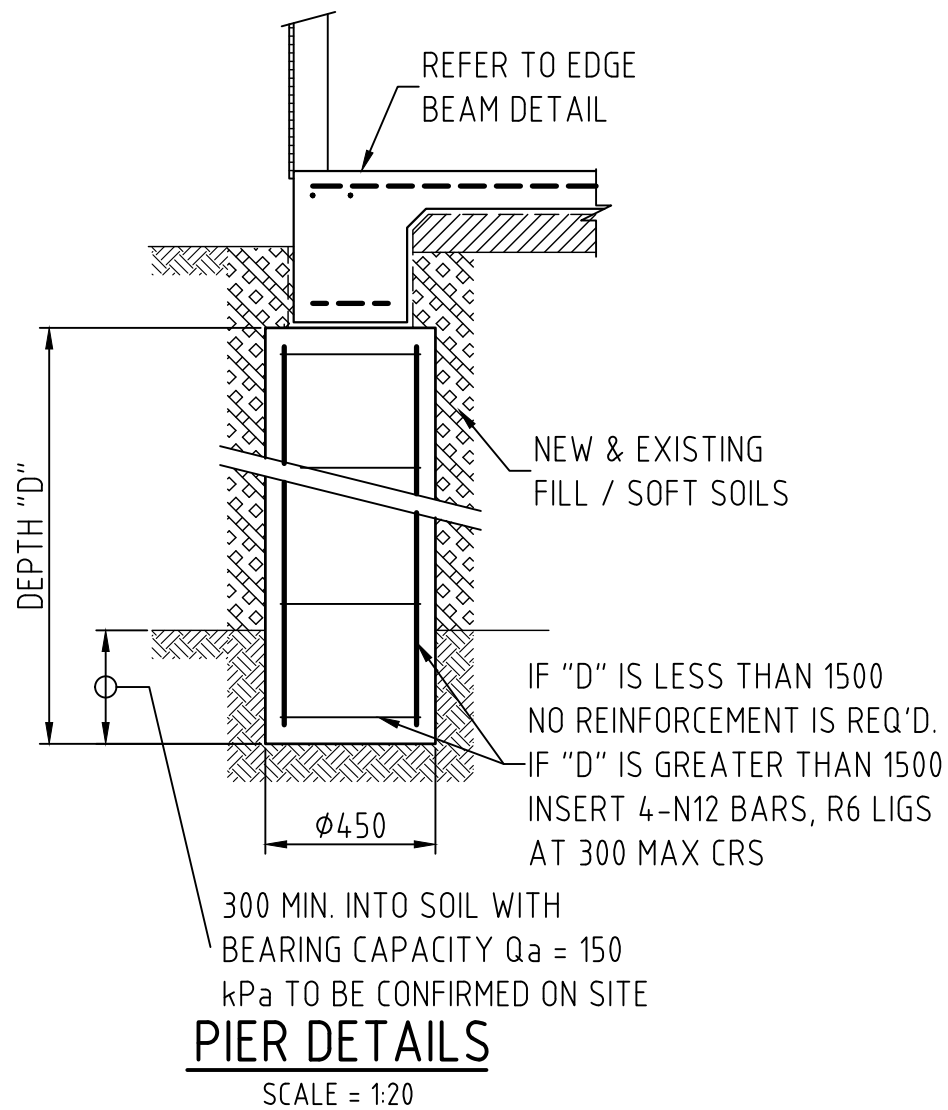
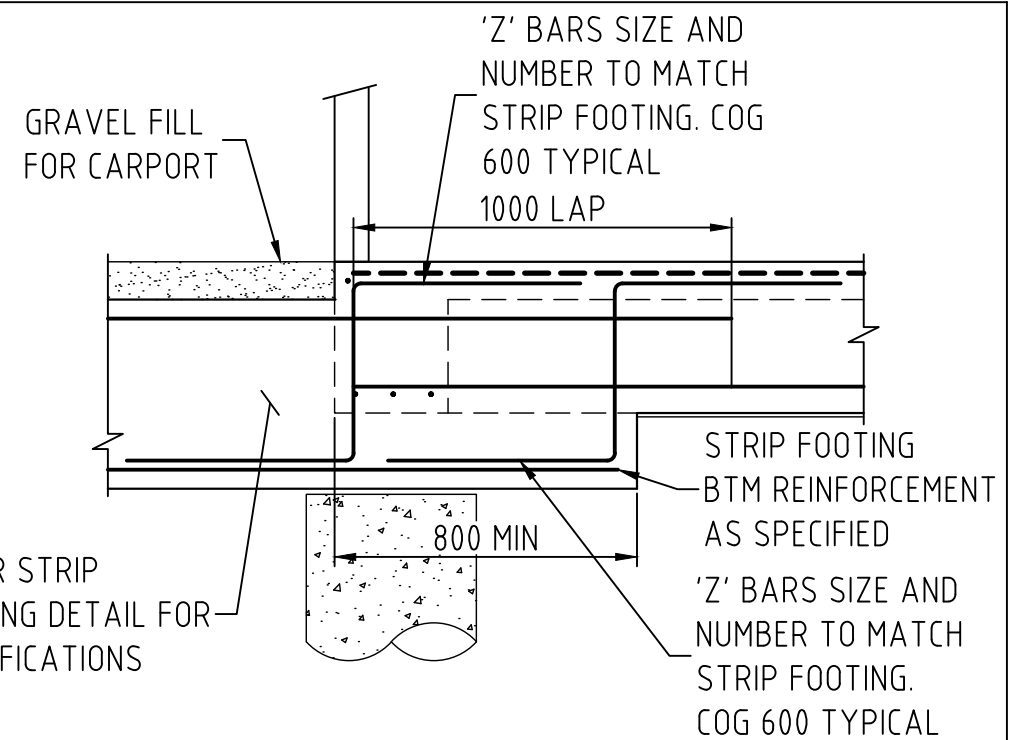
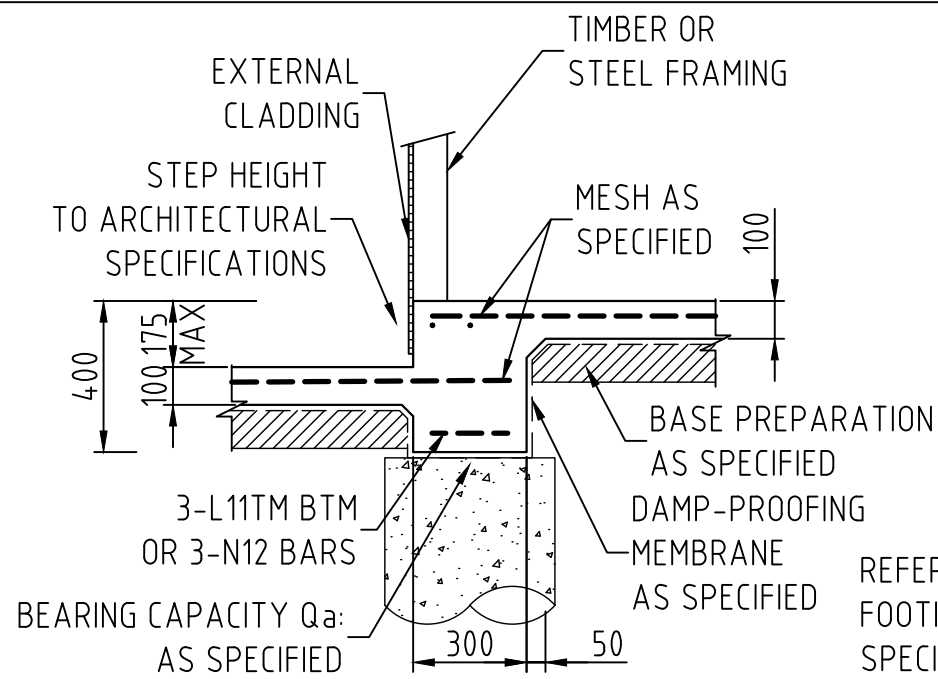
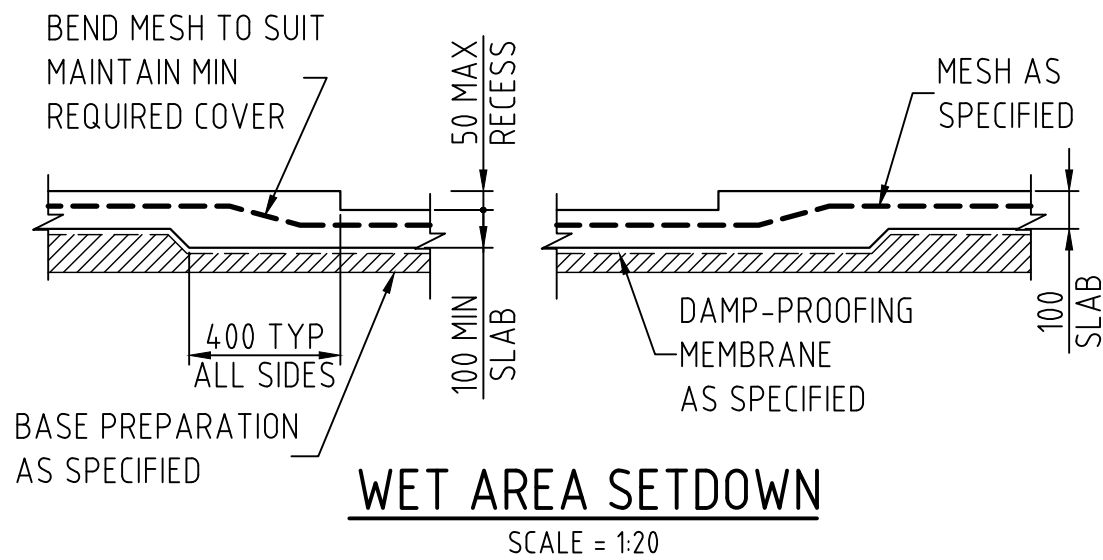
NOTE: SAWCUT TO BE MADE 16 HOURS MAX. AFTER SLAB IS Poured



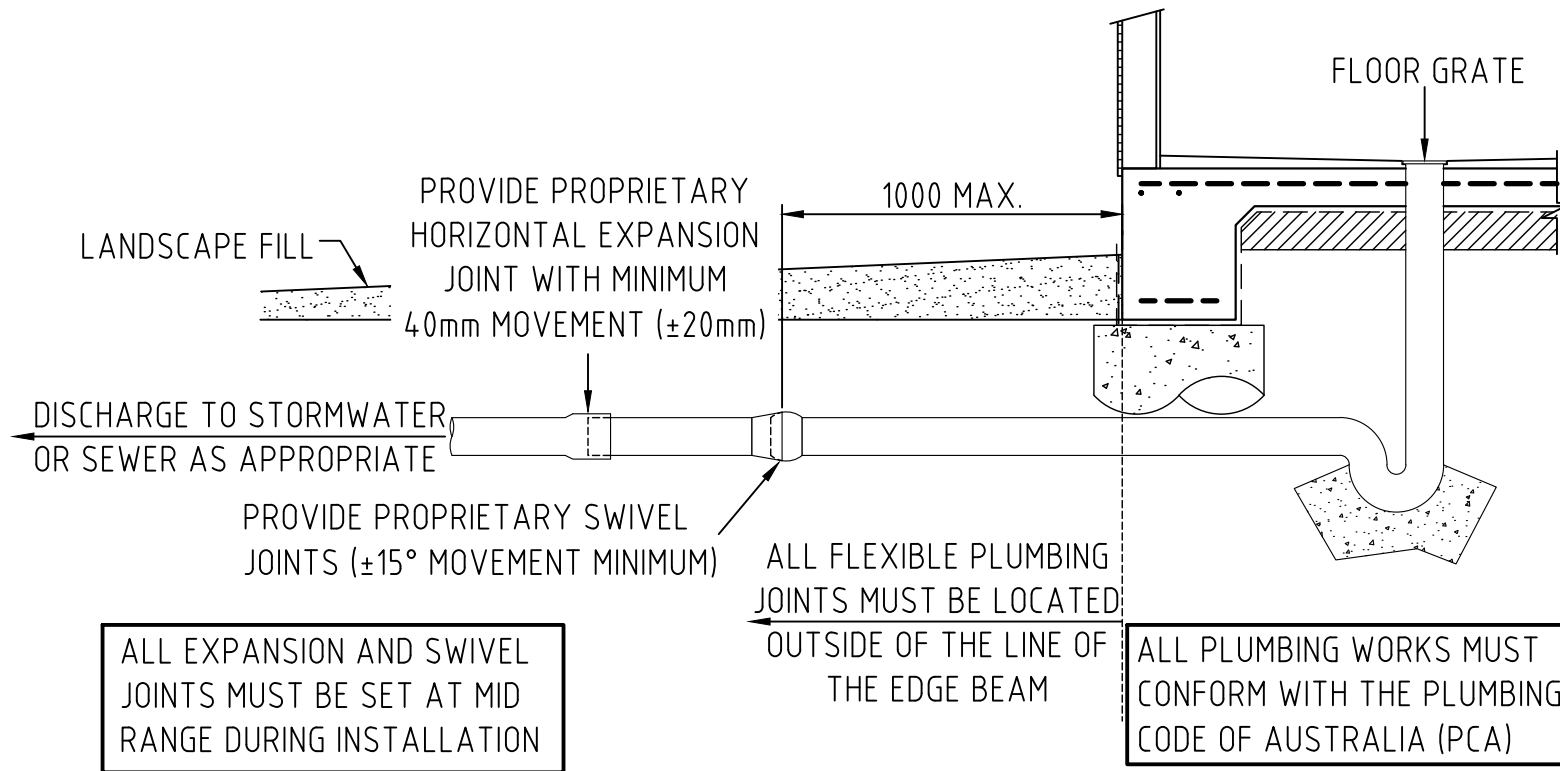
**PF1 - PAD FOOTING DETAIL**

SCALE = 1:20

ISSUED FOR CONSTRUCTION



ISSUED FOR CONSTRUCTION



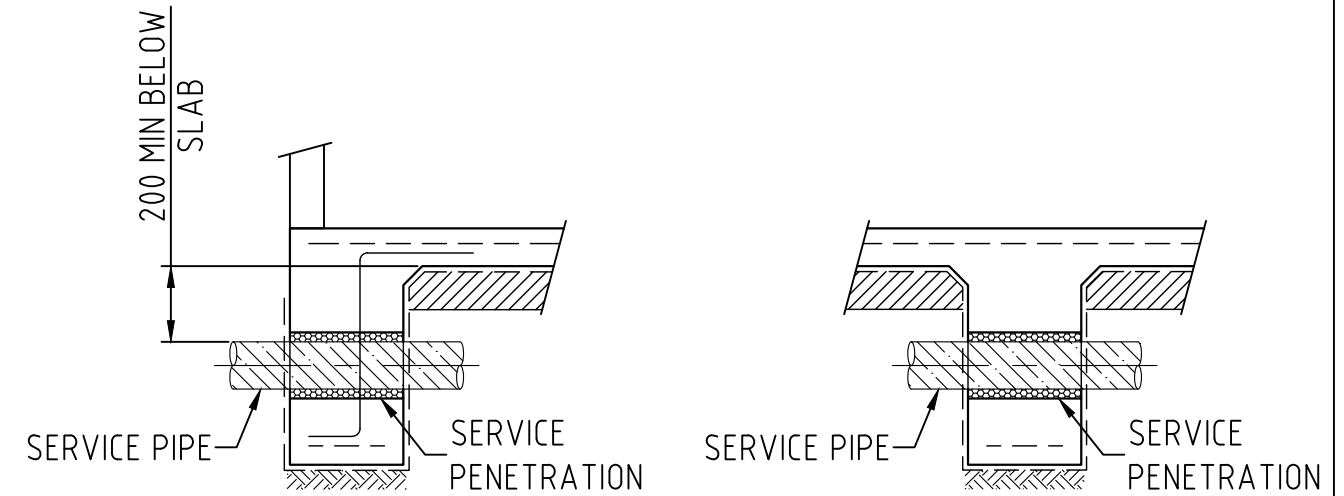
ALL EXPANSION AND SWIVEL JOINTS MUST BE SET AT MID RANGE DURING INSTALLATION

ALL FLEXIBLE PLUMBING JOINTS MUST BE LOCATED OUTSIDE OF THE LINE OF THE EDGE BEAM

ALL PLUMBING WORKS MUST CONFORM WITH THE PLUMBING CODE OF AUSTRALIA (PCA)

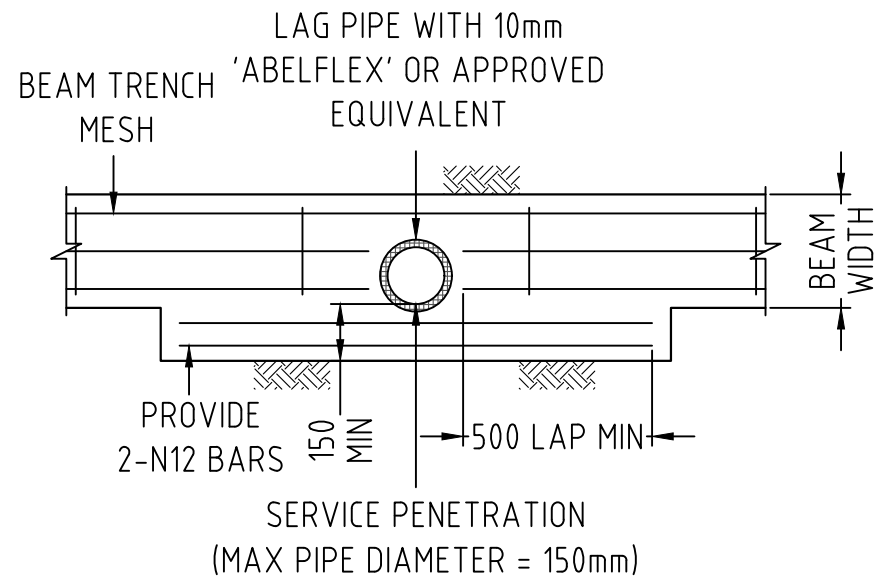
### FLEXIBLE PLUMBING REQUIREMENTS

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### SERVICE PIPE PENETRATION TYPICAL SECTIONS THROUGH BEAMS

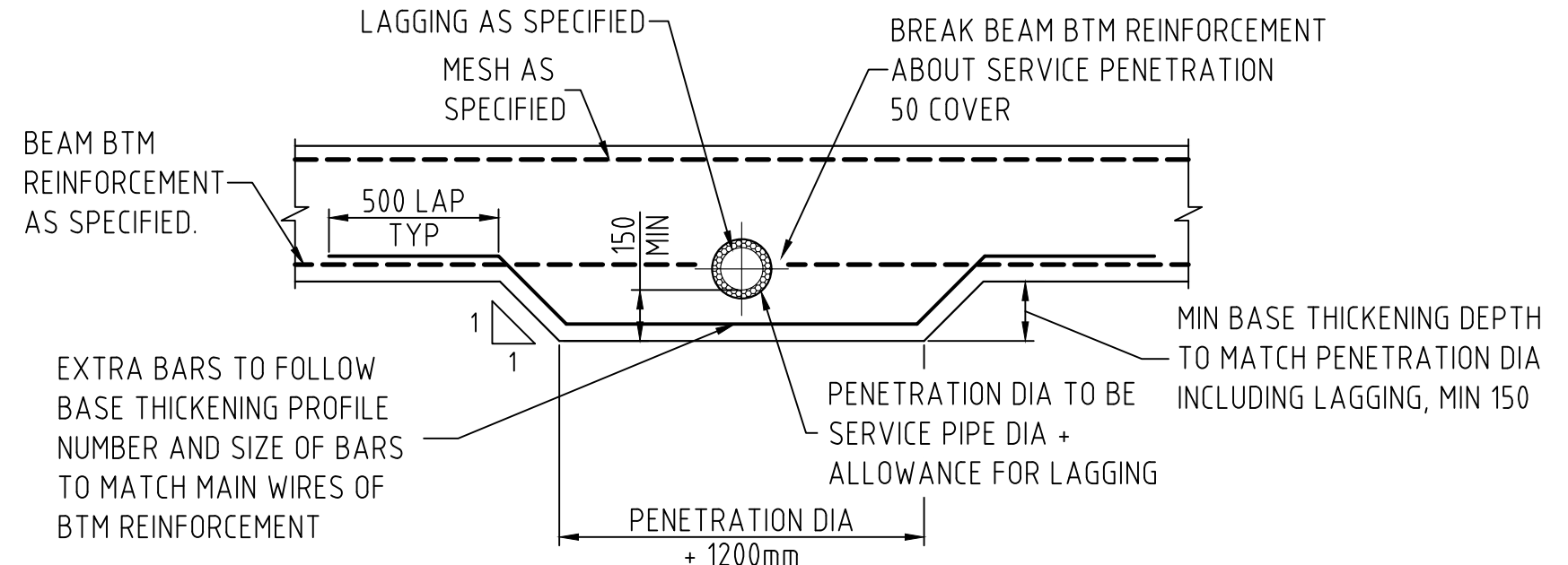
SCALE = 1:20



### VERTICAL PIPE

SCALE = 1:20

NOTE: PLAN VIEW



### HORIZONTAL SERVICE PIPE PENETRATION THROUGH LOWER REGION OF BEAM

SCALE = 1:20

ISSUED FOR CONSTRUCTION