

GENERAL

- All work and materials shall be in accordance with the drawings, the specification and the current relevant Australian Standards, the National Construction Code and other statutory requirements.
- These drawings are to be read in conjunction with the other consultants drawings, the specification and all other written instructions that are issued during the course of the works.
- The builder shall confirm all relevant dimensions before commencing construction and fabrication.
- All discrepancies shall be referred to the Engineer for clarification before proceeding. Notify the Engineer of all variations arising from the clarification of the discrepancy before proceeding with the works.
- Refer to client drawings for dimensions not noted on the engineering drawings.
- Do not scale drawings.
- All dimensions are in millimetres or metres u.n.o.
- No substitutions, alterations or the like shall be made without the written approval of the engineer.
- The builder shall maintain the works in a safe, stable condition and ensure that no part is over-stressed during construction.
- The engineer accepts no responsibility for works unless the works are inspected and approved by the engineer during construction. Fees apply for this service.
- A minimum of 48 hours notice is required for all engineering inspections u.n.o.
- The structural works have been designed for the following live loads:

AREA	LIVE LOAD (kPa)
PEDESTRIAN BRIDGE	3.0

FOUNDATIONS AND FOOTINGS

- Work and materials must comply with AS2870 & AS3798.
- All excavations shall be inspected on site and the engineer notified immediately if conditions other than those described in the soil report are encountered.
- Footings shall be founded in materials and at the depths shown on the drawings, or when not on the drawings, as shown in the site geotechnical report. Fees apply for all engineering inspections.
- The site has been classified as class "M" in accordance with AS2870.
- Strip footings are to be founded in original undisturbed ground with an allowable bearing pressure of 100 kPa.
- Pad footings are to be founded in original undisturbed ground with an allowable bearing pressure of 100 kPa.
- Foundation material shall be inspected and approved before laying membranes, fixing reinforcement or ordering concrete.
- Plumbing penetrations through beams or strip footings shall be avoided where practicable, but where necessary, shall allow for movement. All plumbing penetrations (except where vertical) shall be sleeved or lagged with closed-cell polyethylene to equivalent of 20mm thick around pipe for reactive sites up to H1 classification and 40mm for sites more reactive than H1, as specified in AS2870.
- Drains (stormwater and sewer) attached to or emerging from underneath the building shall incorporate flexible joints immediately outside and within 1m of the footing.

CONCRETE

- All work and materials shall be in accordance with AS3600.
 - Concrete shall have a characteristic compressive strength as follows u.n.o.:
- | ITEM | f'c (MPa) |
|-------------|-----------|
| BORED PIERS | 20 |
- Concrete shall be cured by an approved method for at least seven days after placement.
 - Concrete shall be compacted using mechanical vibration.
 - Vibration of forms is not acceptable and concrete shall not be spread by vibrating.
 - Concrete sections shown are minimum sizes and do not include finishes. Sizes shall not be reduced in any way or holes formed or made in any member without the approval of the engineer.
 - Depths of beams are given first and include slab thickness.
 - Slab and beams are to be poured together u.n.o.
 - Minimum cover to all reinforcement including filaments shall be as follows:
- | Element | Internal | External | Below Ground |
|--------------------------|----------|----------|--------------|
| in situ column/pedestals | 20 | 45 | 30 |
| footings | — | 50 | — |
| piers | — | 50 | 50 |
- Reinforcement is shown diagrammatically and not in true projection.
 - Symbols on the drawing for reinforcement are as follows:
 N Grade 500 "Normal Ductility" deformed reinf. bars to AS/NZS 4671.
 R Grade 250 plain reinforcing bars to AS1302.
 TM Welded wire trench mesh grade 500 to AS/NZS 4671.
 RN/SN/RL/SL Welded wire mesh grade 500 fabric to AS/NZS 4671.

- All reinforcement and inserts shall be supported and held in the design location by approved chairs, spacers or ties. Bar chairs shall be placed at 1000 crs. in two directions u.n.o.
- Welding and threading of reinforcement is not permitted without approval of engineer.
- Reinforcement shall be evenly distributed over widths shown u.n.o.
- Provide 3-N12 x 2000 diagonally across re-entrant corners of slabs, tied under top fabric.
- All slab edges, including construction and other joints, at least one reinforcing bar of fabric wire shall be located parallel to and within 75mm of the slab edge.
- Construction joints shall be properly formed and used only where approved or permitted by the engineer.
- Sawn joints shall be made at a time appropriate to the concrete mix and the climatic conditions, generally within 10 and 20 hours of placing the concrete.
- Stripping of forms and removal of formwork shall take place in accordance with a procedure agreed with by the engineer.
- Splices in reinforcement shall be made in positions shown on the drawings or as otherwise approved by the engineer.
- Holding down bolts shall be supplied to the concrete for casting into the concrete and shall be installed in accordance with the steel holding down bolt plan.

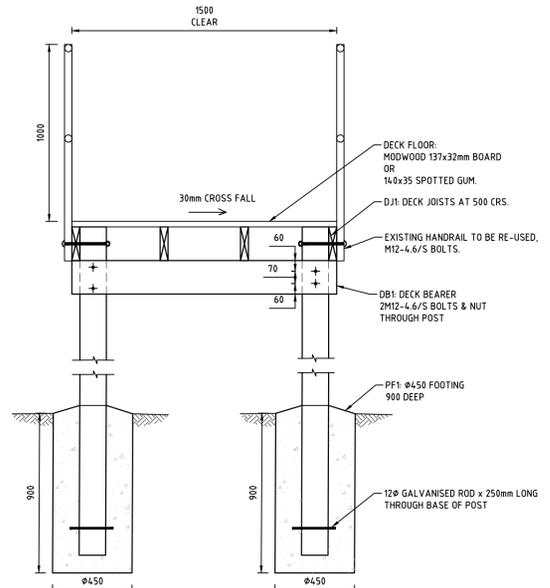
TIMBER

- All work and materials shall be in accordance with AS1720 and AS1684.
 - All bolted connections shall use washers under bolt head and nut. All external bolts, nuts and washers shall be hot dip galvanised. No knots or defects shall occur within 150mm of bolt group or connections. Where possible, re-tighten bolts after 6 weeks and again at 12 months.
 - Minimum required size of washer as follows:
- | Bolt | Thickness | Washer size, Min | Minimum diameter for round washers | Minimum side length for square washers |
|------|-----------|------------------|------------------------------------|--|
| M6 | 1.6 | 30 | 30 | 25 |
| M8 | 2.0 | 36 | 36 | 32 |
| M10 | 2.5 | 45 | 45 | 40 |
| M12 | 3.0 | 55 | 55 | 50 |
| M16 | 4.0 | 75 | 75 | 65 |
| M20 | 5.0 | 95 | 95 | 85 |
- Make good preservative treatment where checkouts, holes and cuts expose untreated timber.
 - All external timbers shall be durable, suitable for external use and comply with the appropriate hazard level for specific service conditions.
 - Metal fixings shall be compatible with timber glued and preservative treatments.
 - No penetrations or chases other than those shown on the structural drawing shall be made in timber members without prior approval of engineer. Fees apply if any redesign work is required.

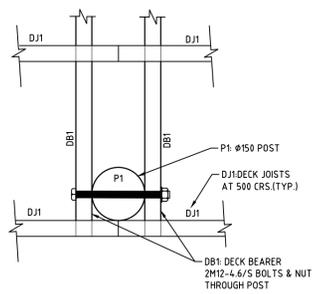
MEMBER SCHEDULE

MARK	MEMBER	DESCRIPTION	GRADE	MAX SPAN	REMARKS
DB1	DECK BEARER	2/190x45 PINUS	MGP10	1500	REFER DETAIL
DJ1	DECK JOIST	190x45 PINUS	MGP10	3000	REFER DETAIL. NAIL LAMINATED AT 300 CRS
P1	POST	Ø150 PINE POST	HS TREATED	-	REFER DETAIL

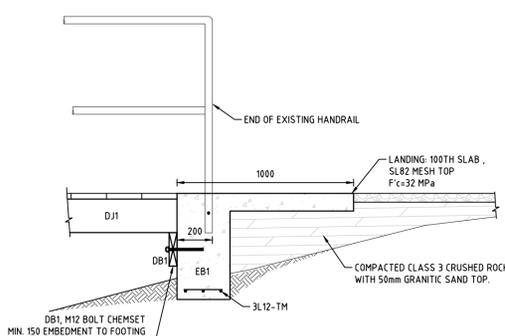
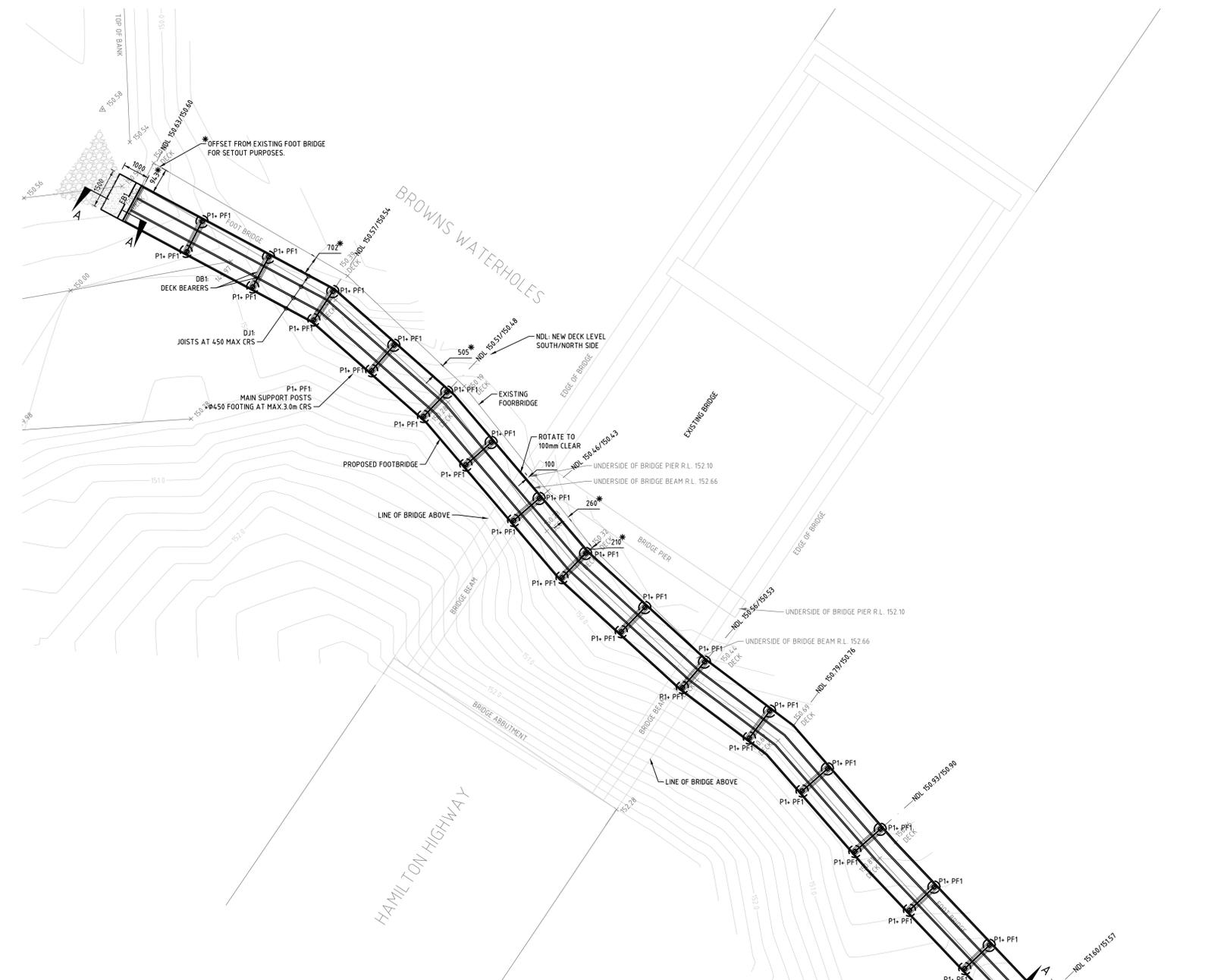
- NOTES:**
- ALL TIMBER TO NATURAL DURABILITY CLASS 1 OR TO BE TREATED TO THE EQUIVALENT
 - ALL ABOVE GROUND TIMBER (eg. DECKING, BALUSTRADES) TO BE TREATED TO AT LEAST HAZARD CLASS 4 OR HAVE EQUIVALENT NATURAL RESISTANCE.
 - ALL TIMBER IN CONTACT WITH THE GROUND (eg. POSTS, SLEEPERS) TO BE TREATED TO AT LEAST HAZARD CLASS 5 OR HAVE EQUIVALENT NATURAL RESISTANCE.



DETAIL AT SUPPORT POSTS
SCALE 1:20



PLAN: POST-BEARER DETAIL
SCALE 1:10



DETAIL AT LANDING: SECTION A-A
SCALE 1:20

REV.	DESCRIPTION	DATE
A	FIRST ISSUE	12.12.2023

APPROVED FOR STRUCTURAL ADEQUACY
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SCALE	AS SHOWN
DATE	DEC 2023

PROJECT TITLE
 PROPOSE FOOTBRIDGE
 BROWNS WATERHOLE
 LISMORE - CORANGAMITE SHIRE.
DRAWING TITLE
 STRUCTURAL NOTES, LAYOUT PLAN, DETAILS

NORTH
 PROJECT No. **2023.088**
 SHEET **S1 OF 2** REV. **A**