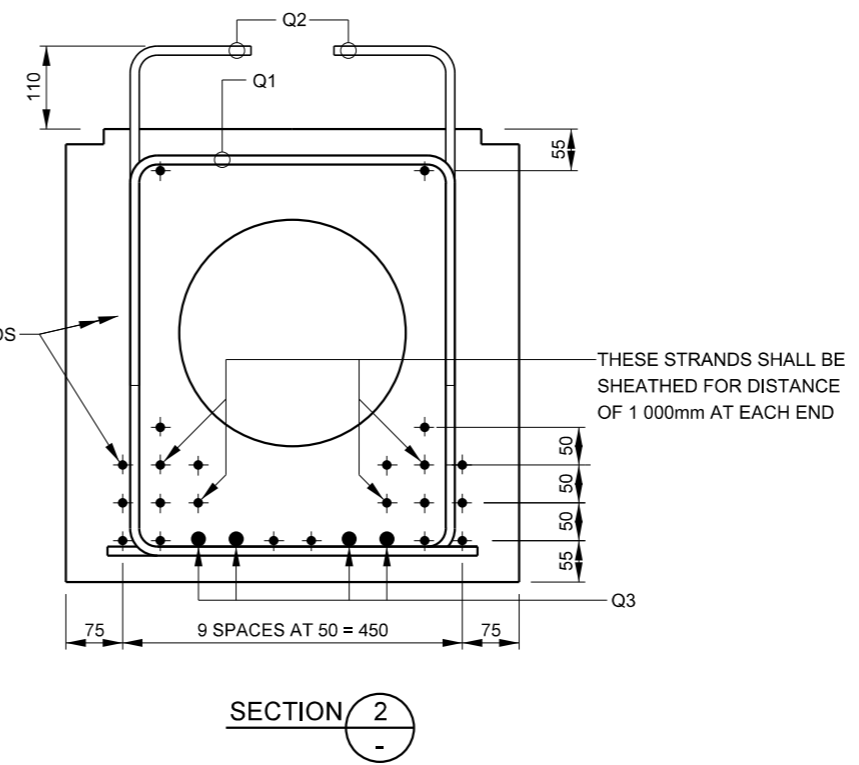
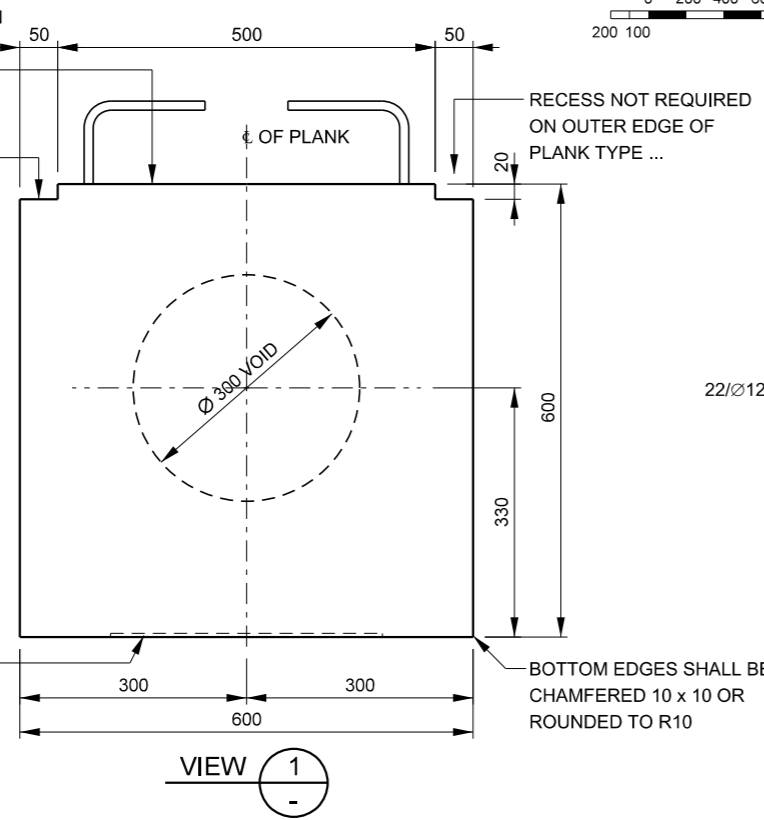


THIS SURFACE SHALL BE MADE ROUGH IN THE MANUFACTURE OF THE PLANK BY BROOM FINISHING TRANSVERSELY

50 x 20 DEEP RECESS FOR PLACEMENT OF 18 THICK FIBRE CEMENT FORMWORK SHEETING



GENERAL NOTES

SCALE 0 100 200 300mm OR AS SHOWN

CONCRETE EXPOSURE CLASSIFICATION: ...

MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 50 MPa.

MINIMUM COMPRESSIVE STRENGTH OF CONCRETE AT TRANSFER OF PRESTRESS SHALL BE 35 MPa.

NOMINAL COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 35mm UNLESS SPECIFIED OTHERWISE.

THE COVER SPECIFIED IS BASED ON THE PLANK BEING CAST IN A RIGID STEELFORMWORK MOULD WITH INTENSE COMPACTION USING A VIBRATING TABLE OR FORM VIBRATORS.

STRANDS SHALL BE 7-WIRE, ORDINARY, DIAMETER 12.7mm, TENSILE STRENGTH 1870 MPa, RELAX 2, TO AS/NZS 4672.1 WITH MINIMUM BREAKING FORCE OF 184 kN.

THE FORCE IN EACH 12.7mm DIA STRAND AT THE MID-SPAN OF THE PLANK IMMEDIATELY AFTER THE RELEASE OF THE TENSIONING JACK SHALL BE 138 kN.

AFTER TRANSFER OF PRESTRESS, STRANDS SHALL BE CUT FLUSH WITH THE END OF PLANK AND EXPOSED STRANDS SEALED AGAINST CORROSION BY THE APPLICATION OF EPOXY RESIN.

CALCULATED HOG OF PLANK AT TRANSFER IS 15mm AND IS 23mm AT 28 DAYS, ASSUMING:

- DENSITY = 2550 kg/cu m
- ELASTIC MODULUS AT TRANSFER = 32 800 MPa
- STEAM CURING AT 70 deg C FOR 8 HOURS AFTER CASTING
- STORAGE IN OPEN AIR, AFTER STEAM CURING, AT 20 deg C AVERAGE TEMPERATURE AND RELATIVE HUMIDITY IN RANGE 50% - 75%
- NO LOADS EXCEPT PLANK SELF WEIGHT

MASS OF PLANK IS APPROXIMATELY 11.8 TONNES.

DURING STORAGE, TRANSPORT AND HANDLING, PLANK SHALL BE IN AN UPRIGHT POSITION AND SUPPORTED AT NOT MORE THAN 600mm FROM EACH END.

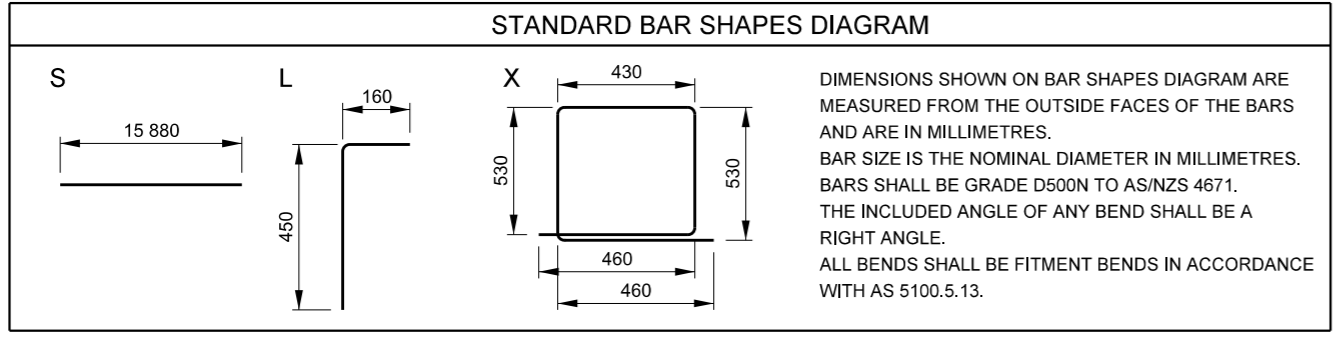
DESIGN ASSUMPTIONS

THE NOMINAL THICKNESS OF CAST-IN-PLACE REINFORCED CONCRETE DECK: 180mm.

THE MAXIMUM GAP BETWEEN PSC PLANKS: 320mm.

DESIGN LOADING: SM1600.

ALL STRANDS SHALL BE STRAIGHT



APPROVED FOR USE	Transport Roads & Maritime Services	STANDARD DRAWING	STATUS
R.RAVINDRA PRINCIPAL ENGINEER BRIDGES		PSC PLANK GIRDER 16m SPAN	ISSUED
17/03/2017 DATE	SEND FEEDBACK ON THIS STANDARD DRAWING TO: technologystandards@mns.nsw.gov.au		MARCH 2017 REVISION ISSUE 1 STANDARD DRAWING No B0312
EDMS No DS2017/000897			