

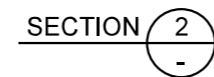
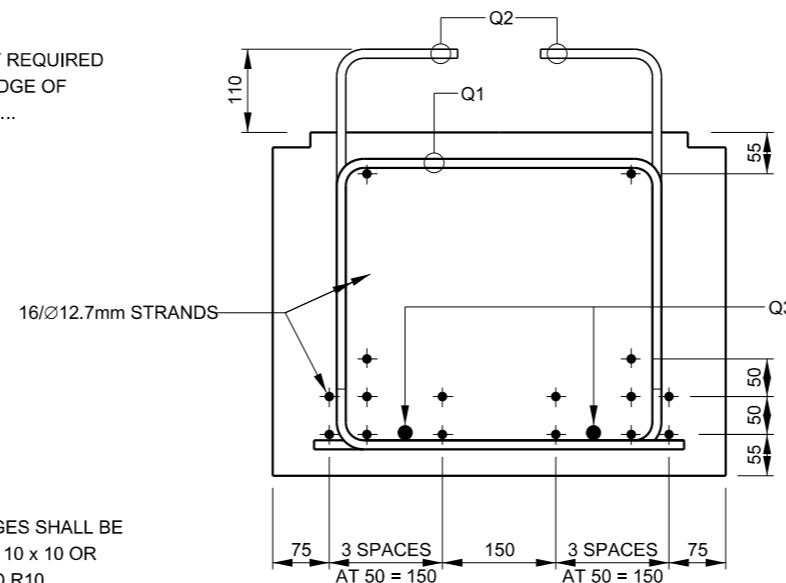
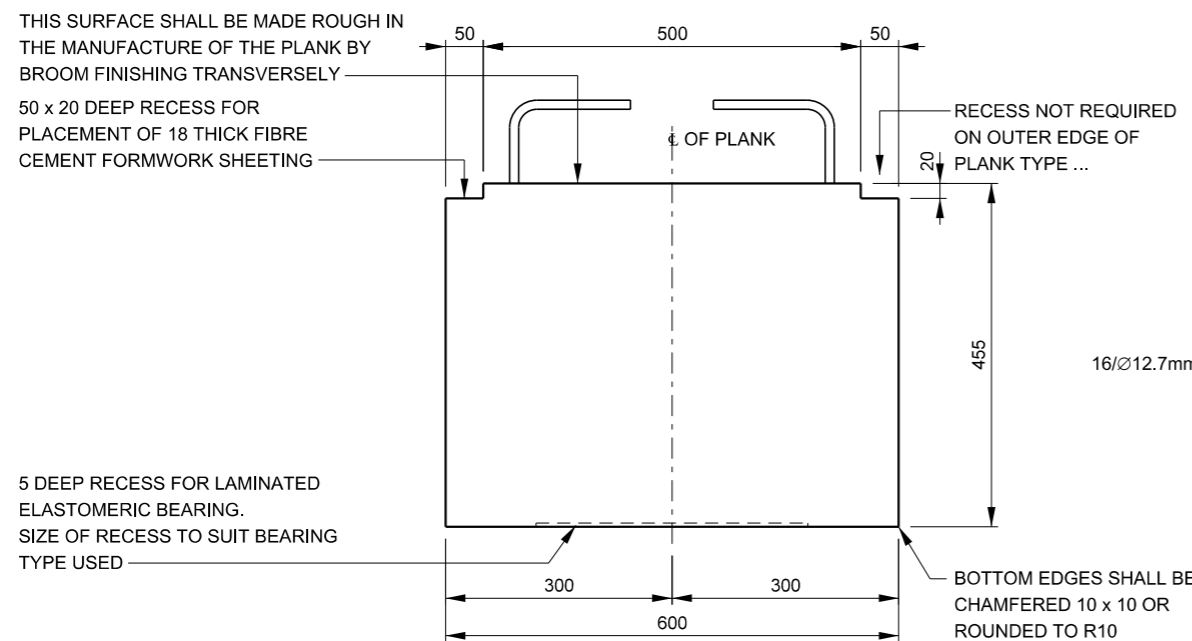
GENERAL NOTES

SCALE 0 100 200 300mm OR AS SHOWN
100 50

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 9mm AND IS 17mm 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 7.6 TONNES.
DURING STORAGE, TRANSPORT AND HANDLING, PLANK SHALL BE IN AN UPRIGHT POSITION AND SUPPORTED AT NOT MORE THAN 600mm FROM EACH END.

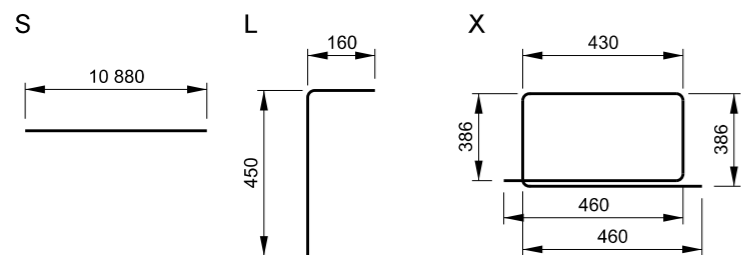
DESIGN ASSUMPTIONS

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

STANDARD BAR SHAPES DIAGRAM



DIMENSIONS SHOWN ON BAR SHAPES DIAGRAM ARE MEASURED FROM THE OUTSIDE FACES OF THE BARS AND ARE IN MILLIMETRES.
BAR SIZE IS THE NOMINAL DIAMETER IN MILLIMETRES.
BARS SHALL BE GRADE D500N TO AS/NZS 4671.
THE INCLUDED ANGLE OF ANY BEND SHALL BE A RIGHT ANGLE.
ALL BENDS SHALL BE FITMENT BENDS IN ACCORDANCE WITH AS 5100.5.13.

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R.RAVINDRA A/PRINCIPAL ENGINEER BRIDGES 17/03/2017 DATE		PSC PLANK GIRDER 11m SPAN	ISSUED ISSUE DATE MARCH 2017 REVISION ISSUE 1 STANDARD DRAWING No B0307