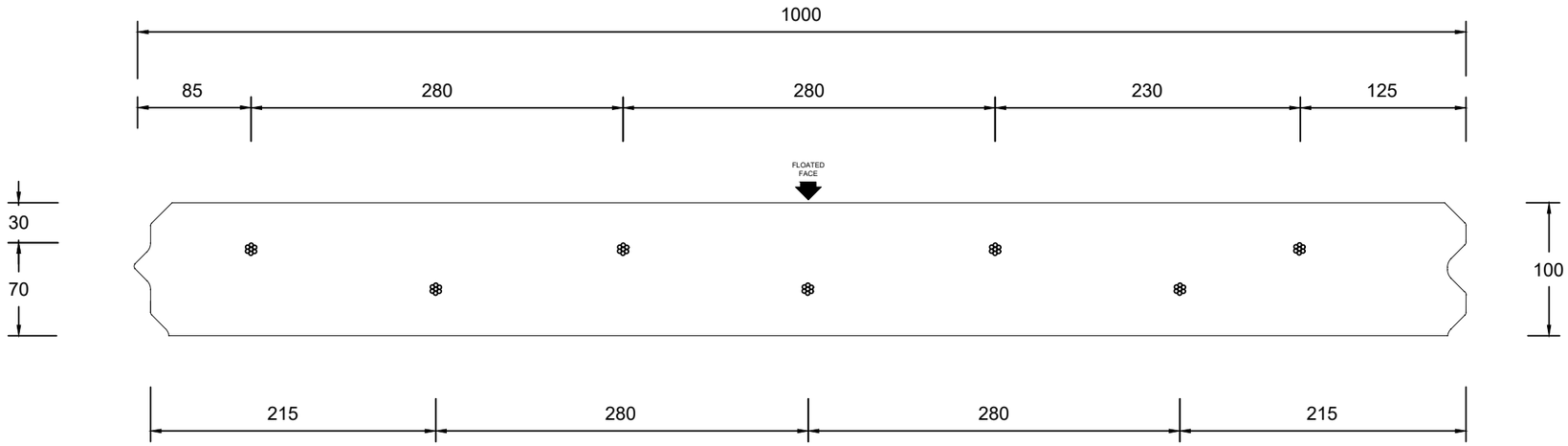
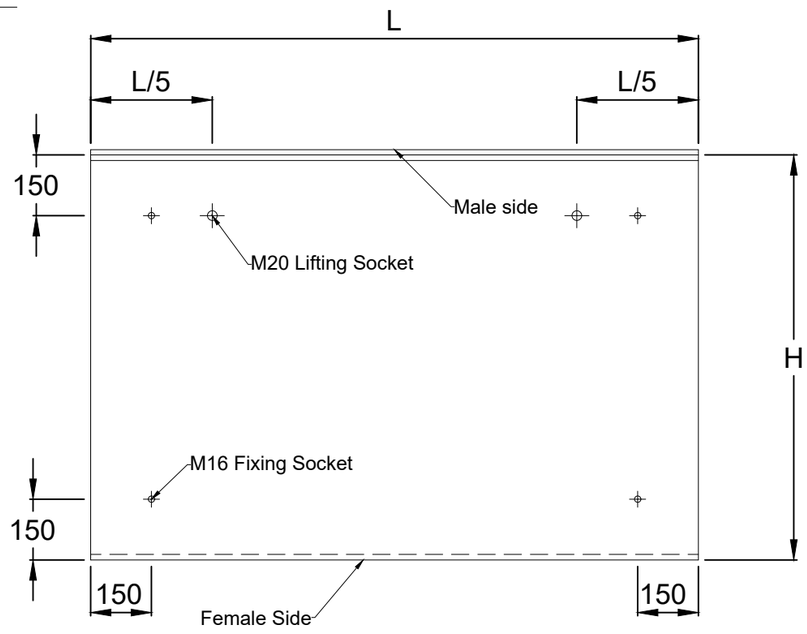
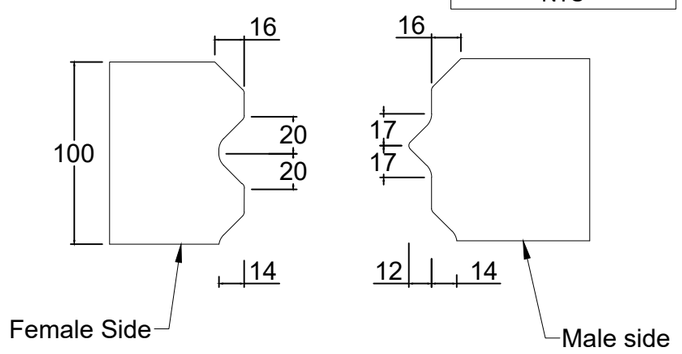
Section View
NTS



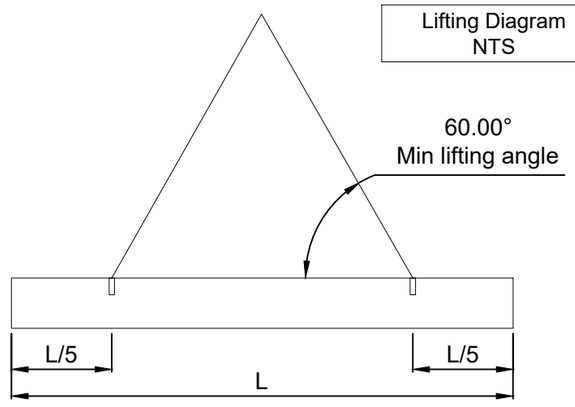
Side View
NTS



Male-female
Connection Details
NTS



Lifting Diagram
NTS



1. **Design**
   a) Concrete Beam design to BS EN 1992-1-1:2004;
   b) Permissible SLS characteristic bending moment = 12.4 kNm per 1000mm panel;
   c) ULS moment of resistance = 20.0 kNm per 1000mm panel;
   d) ULS shear resistance = 47.5 kN per 1000mm panel ;

   Note: JP Concrete have designed the concrete unit only, the stability of the support conditions should be checked by overall scheme designer.

2. **Concrete**
   a) Concrete strength at transfer = C32/40 ;
   b) Concrete strength at 28 days = C50/60 ;
   c) Other: CEM I, minimum Cement content: 360kg/m³ Max W/C = 0.50 ;

3. **Prestressing Strand**
   a) Strand Diameter = 9.3mm ;
   b) Strand designation = BS5896-Y1860S7-9.3-I (Strand Jacking Force: 64.4kN);

4. **Durability**
   a) Design Life: 50 years to BS8500;
   b) Fire Resistance: 60min (REI 60) BS EN 1992-1-2 Table 5.8 (One way Spanning);
   c) Cover to Strand & Exposure:

Min Cover	All
All Faces	30mm

Exposure			
All Faces	XC4	XA1	XF1

5. **Handling**
   a) Unit Volume / Weight

Unit Ref	Volume (m³/m)	Weight (T/m)	Weight + 5% (T/m)
100x1000 7no	0.098	0.26	0.27

Weight is based on 2.6 T/m³. *+5% is recommended for sizing lifting equipment.*

6. **Manufacture**
   a) Manufactured to BS 8110.

7. **Tolerances**
   a) Length -5mm to +10mm;
   b) Width -0mm to +6mm;
   c) Thickness -2mm to +6mm;
   d) Squareness 12mm difference between diagonals;
   e) Socket position ± 10mm;
   f) Lifter Position ± 100mm;
   g) Flatness ± 3mm in any 1.5m direction.

8. **Finish**

Please refer to the attached document regarding JP concrete's panel finishes and spec.

9. **Disclaimer**

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Revision/Description	Drawn	Checked	Date
First Issue	JM	FM	30/09/2020

Title, Supplementary title

Prestressed Panels
100 x 1000 7 no 9.3 diametre

Identification number	Created by
100x1000_7no9.3mm	JM
Document type	**Technical reference**
Information use	FM
Document Status	**Approved by**
Released	TM

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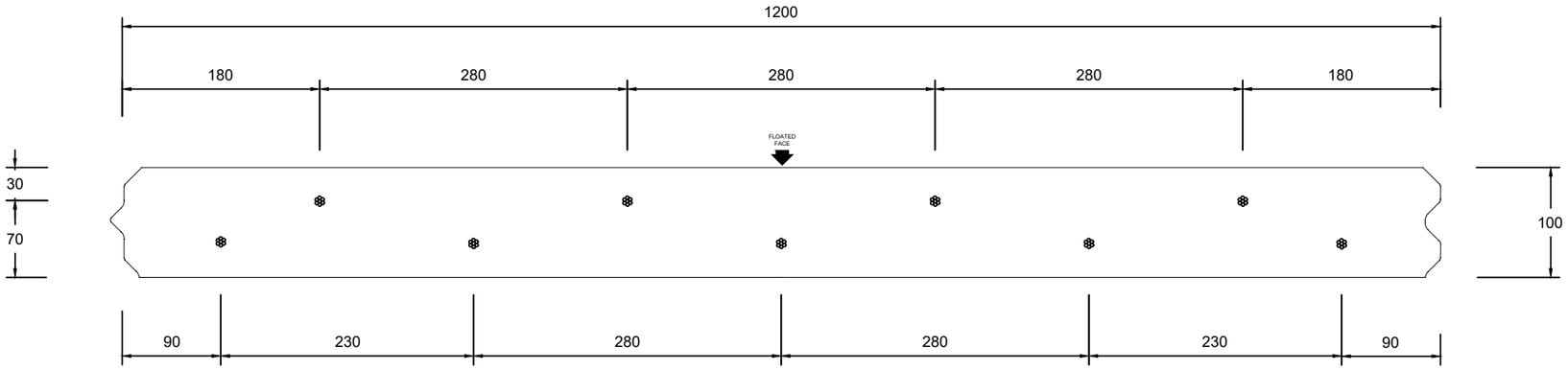
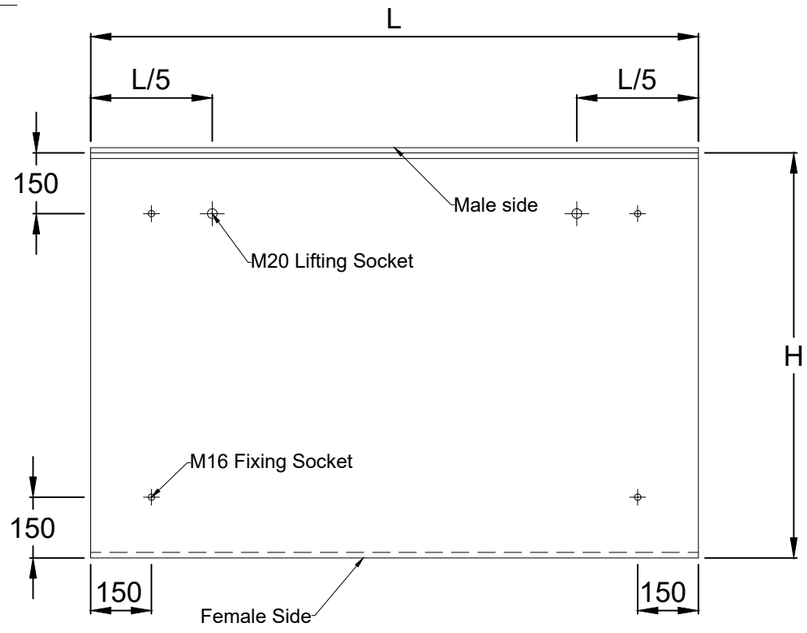
Plot Date	Paper size	Revision	Sheet
16/12/2020	A3	P01	1/1

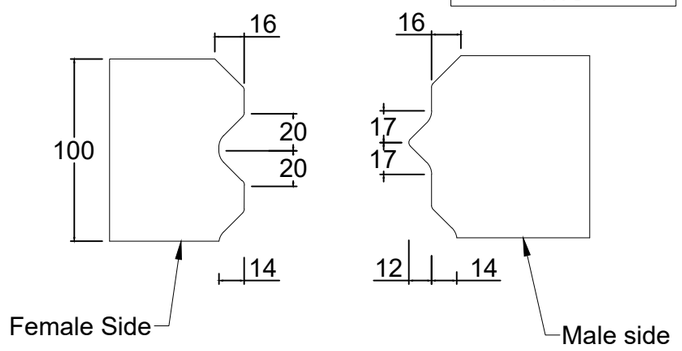
Section View
NTS



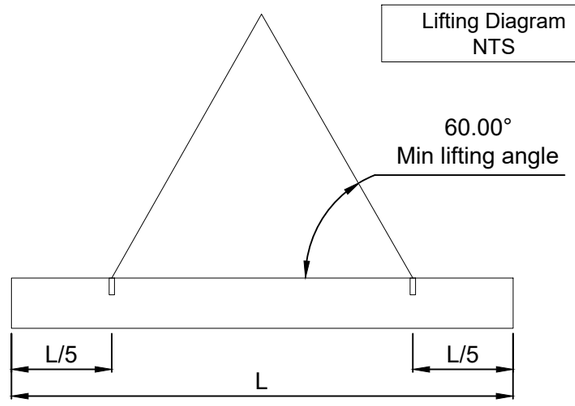
Side View
NTS



Male-female
Connection Details
NTS



Lifting Diagram
NTS



1. **Design**
   a) Concrete Beam design to BS EN 1992-1-1:2004;
   b) Permissible SLS characteristic bending moment = 15.6 kNm per 1200mm panel;
   c) ULS moment of resistance = 25.6 kNm per 1200mm panel;
   d) ULS shear resistance = 58.9 kN per 1200mm panel ;

   Note: JP Concrete have designed the concrete unit only, the stability of the support conditions should be checked by overall scheme designer.

2. **Concrete**
   a) Concrete strength at transfer = C32/40 ;
   b) Concrete strength at 28 days = C50/60 ;
   c) Other: CEM I, minimum Cement content: 360kg/m³ Max W/C = 0.50 ;

3. **Prestressing Strand**
   a) Strand Diameter = 9.3mm ;
   b) Strand designation = BS5896-Y1860S7-9.3-I (Strand Jacking Force: 64.4kN);

4. **Durability**
   a) Design Life: 50 years to BS8500;
   b) Fire Resistance: 60min (REI 60) BS EN 1992-1-2 Table 5.8 (One way Spanning);
   c) Cover to Strand & Exposure:

Min Cover	All
All Faces	30mm

Exposure			
All Faces	XC4	XA1	XF1

5. **Handling**
   a) Unit Volume / Weight

Unit Ref	Volume (m³/m)	Weight (T/m)	Weight + 5% (T/m)
100x1200 9no	0.12	0.312	0.33

Weight is based on 2.6 T/m³. *+5% is recommended for sizing lifting equipment.*

6. **Manufacture**
   a) Manufactured to BS 8110.

7. **Tolerances**
   a) Length -5mm to +10mm;
   b) Width -0mm to +6mm;
   c) Thickness -2mm to +6mm;
   d) Squareness 12mm difference between diagonals;
   e) Socket position ± 10mm;
   f) Lifter Position ± 100mm;
   g) Flatness ± 3mm in any 1.5m direction.

7. **Finish**

Please refer to the attached document regarding JP concrete's panel finishes and spec.

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Revision/Description	Drawn	Checked	Date
First Issue	JM	FM	30/09/2020

Title, Supplementary title

Prestressed Panels
100 x 1200 9 no 9.3 diametre

Identification number	Created by
100x1200_9no9.3mm	JM
Document type	**Technical reference**
Information use	FM
Document Status	**Approved by**
Released	TM

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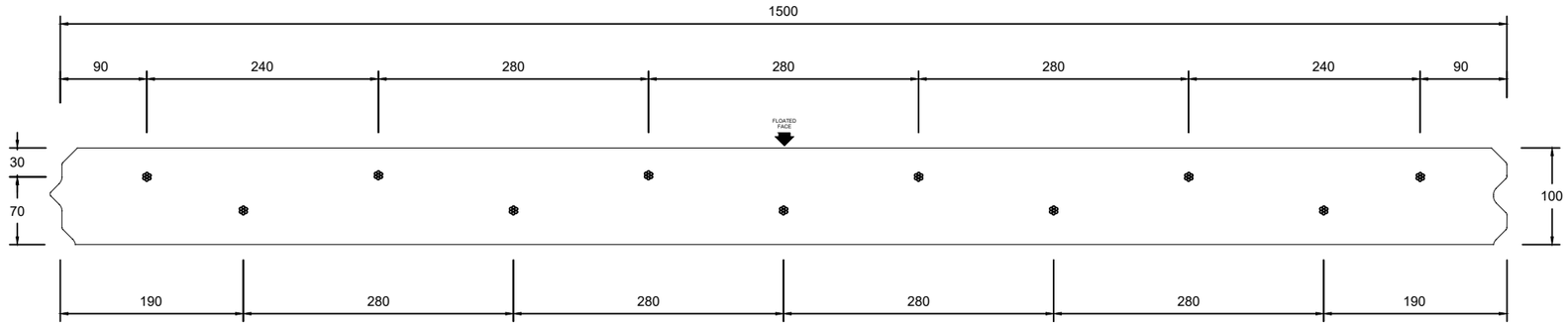
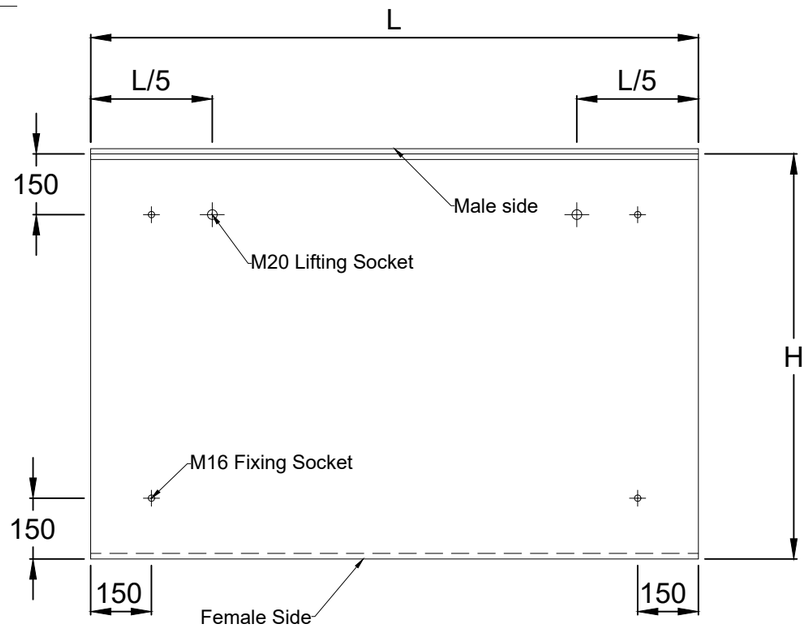
Plot Date	Paper size	Revision	Sheet
16/12/2020	A3	P01	1/1

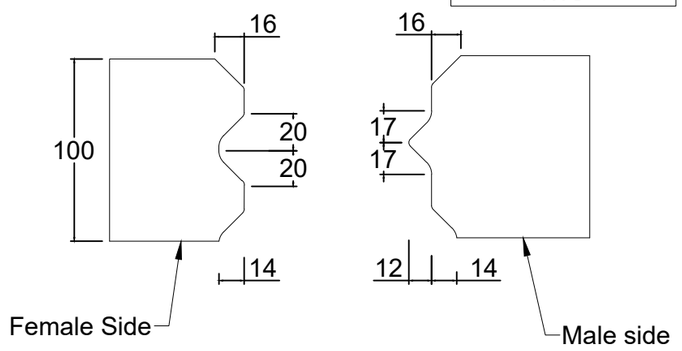
Section View
NTS



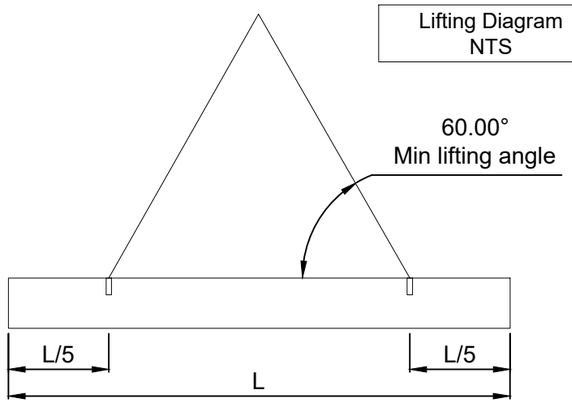
Side View
NTS



Male-female
Connection Details
NTS



Lifting Diagram
NTS



1. **Design**
   a) Concrete Beam design to BS EN 1992-1-1:2004;
   b) Permissible SLS characteristic bending moment = 19.5 kNm per 1500mm panel;
   c) ULS moment of resistance = 31.7 kNm per 1500mm panel;
   d) ULS shear resistance = 72.9 kN per 1500mm panel ;

   Note: JP Concrete have designed the concrete unit only, the stability of the support conditions should be checked by overall scheme designer.

2. **Concrete**
   a) Concrete strength at transfer = C32/40 ;
   b) Concrete strength at 28 days = C50/60 ;
   c) Other: CEM I, minimum Cement content: 360kg/m³ Max W/C = 0.50 ;

3. **Prestressing Strand**
   a) Strand Diameter = 9.3mm ;
   b) Strand designation = BS5896-Y1860S7-9.3-I (Strand Jacking Force: 64.4kN);

4. **Durability**
   a) Design Life: 50 years to BS8500;
   b) Fire Resistance: 60min (REI 60) BS EN 1992-1-2 Table 5.8 (One way Spanning);
   c) Cover to Strand & Exposure:

Min Cover	All
All Faces	30mm

Exposure			
All Faces	XC4	XA1	XF1

5. **Handling**
   a) Unit Volume / Weight

Unit Ref	Volume (m³/m)	Weight (T/m)	Weight + 5% (T/m)
100x1500 11no	0.15	0.39	0.41

Weight is based on 2.6 T/m³. *+5% is recommended for sizing lifting equipment.*

6. **Manufacture**
   a) Manufactured to BS 8110.

7. **Tolerances**
   a) Length -5mm to +10mm;
   b) Width -0mm to +6mm;
   c) Thickness -2mm to +6mm;
   d) Squareness 12mm difference between diagonals;
   e) Socket position ± 10mm;
   f) Lifter Position ± 100mm;
   g) Flatness ± 3mm in any 1.5m direction.

7. **Finish**

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Title, Supplementary title

Prestressed Panels
100 x 1500 11 no 9.3 diametre

Identification number	Created by
100x1500_11no9.3mm	JM
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Plot Date	Paper size	Revision	Sheet
16/12/2020	A3	P01	1/1