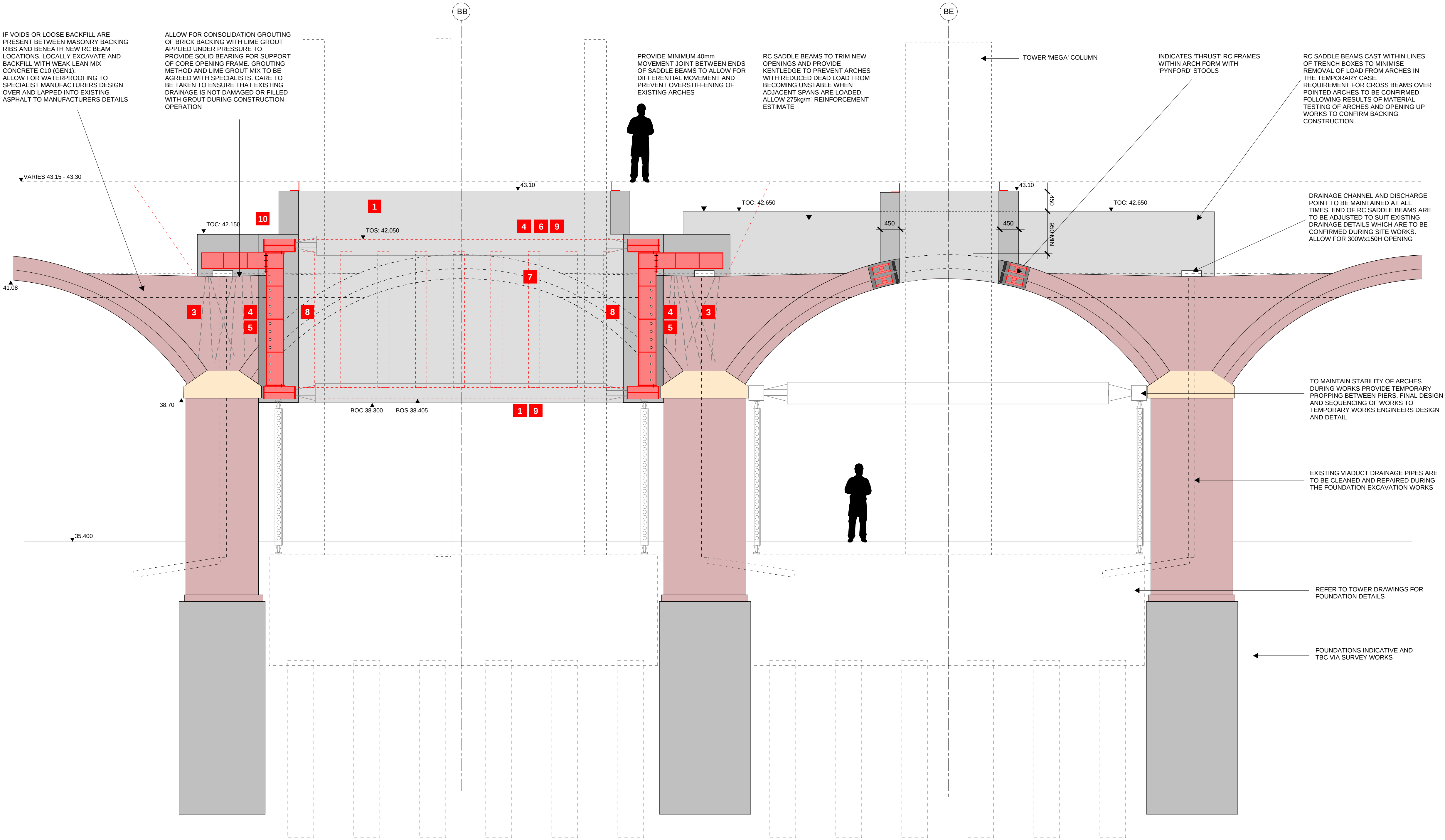




NOTES:

1. REFER TO DRAWINGS VIA-REN-A-XX-DR-S-00010 AND VIA-REN-A-ZZ-DR-S-02100 FOR NOTES.

RIBA STAGE 3
THE INFORMATION IS APPROPRIATE FOR RIBA STAGE 3 AND INTENDED TO COMMUNICATE THE STRUCTURAL PRINCIPLES OF THE PROPOSAL. THE DESIGN AND DETAILS WILL BE UPDATED AS FURTHER SURVEYS ARE UNDERTAKEN AND INITIAL STRUCTURAL ANALYSIS AND DESIGN CO-ORDINATION IS UNDERTAKEN WITH THE DESIGN TEAM DURING RIBA STAGES 4 AND 5.

SURVEYS
SURVEY WORKS ARE REQUIRED TO THE SERVICE YARD TO CONFIRM THE PROFILE TO THE TOP OF THE ARCHES, FORM OF BACKING CONSTRUCTION, AND FILL PROPERTIES. THIS WILL INFORM THE TECHNICAL DESIGN AND FINAL CONSTRUCTION DETAILS. UNTIL THE SURVEY WORKS HAVE BEEN COMPLETED AND REVIEWED THE DRAWINGS SHOULD BE INDICATIVE ONLY AND A SUITABLE RISK ALLOWANCE INCLUDED WITHIN THE TENDER.

WATERPROOFING
ALLOW FOR ALL THE NEW RC STRUCTURE TO BE FULLY WATERPROOFED AND LAPPED INTO THE EXISTING TO MAINTAIN CONTINUITY OF THE EXISTING ASPHALT WATERPROOFING OVER THE ARCHES. ALL WATERPROOFING, INCLUDING LAPPING TO EXISTING ASPHALT IS TO BE TO SPECIALIST MANUFACTURERS DESIGN AND DETAILS. IT IS RECOMMENDED THAT A WATERPROOFING SPECIALIST IS APPOINTED AT THE BEGINNING OF RIBA STAGE 4 TO ALLOW CO-ORDINATION OF THE WATERPROOFING WITH THE PROPOSED STRUCTURAL WORKS.

CORING WORKS TO ARCHES
ALL CORING AND SAWING WORKS TO FORM POCKETS AND OPENINGS WITHIN THE ARCHES ARE TO USE NON-PERCUSSIVE TECHNIQUES TO MINIMISE DISTURBANCE TO THE GRADE II LISTED STRUCTURE. IT IS RECOMMENDED THAT THE CONTRACTOR SEEK EARLY INPUT FROM CORING SPECIALISTS TO ALLOW THE CORING TECHNIQUES TO BE AGREED AND REQUIREMENTS ON OPENING SIZES TO BE INCORPORATED INTO THE STAGE 4 TECHNICAL DESIGN. METHOD STATEMENTS FOR THE CORING WORKS MAY ALSO REQUIRE LISTED BUILDING CONSENT AND THE CONTRACTOR SHOULD PROGRAMME FOR ANY NECESSARY APPROVALS.

DETAIL 101
TYPICAL SADDLE BEAM ELEVATION
1:50

OUTLINE CONSTRUCTION METHODOLOGY

- | STAGE | ACTIVITY |
|-------|---|
| 1 | INSTALL LOW LEVEL RING BEAM AND MOVEMENT MONITORING AUTOMATED HYDRAULIC PROPPING BETWEEN SKEWBACKS. ALSO INSTALL TEMPORARY CENTERING PROPPING TO UNDERSIDE OF ARCH BENEATH PROPOSED CORE OPENING LOCATION. |
| 2 | EXCAVATE FILL TO EXPOSE TOP OF ARCHES. EDGE OF EXCAVATION TO HAVE TEMPORARY SUPPORT. EXCAVATION TO BE UNDERTAKEN IN 400mm INCREMENTS FOR FULL EXTENT OF EXCAVATION TO PREVENT UNEVEN LOADING ON THE ARCH. |
| 3 | DRILL AND CONSOLIDATE GROUT BACKING UNDER PRESSURE WITH NHL 5.0 HYDRAULIC LIME GROUT. |
| 4 | CAREFULLY CORE OUT POCKETS AND INSTALL VERTICAL STEEL NEEDLES, TOP RING BEAM AND CANTILEVER STUBS. FULLY TIGHTEN ASSEMBLY. ALL VERTICAL NEEDLES TO BE PUSHED TOWARDS CORE PRIOR TO BOLTING TO REDUCE POTENTIAL SLIPPAGE AT CONNECTIONS. |
| 5 | SHUTTER FLANGES OF VERTICAL NEEDLES AND SOLIDLY GROUT BETWEEN EXISTING BRICKWORK AND FLANGE TO ENSURE LOAD TRANSFER. DO NOT PROGRESS TO NEXT STAGE UNTIL THE GROUT ACHIEVES A MINIMUM 30N/mm² COMPRESSIVE STRENGTH. |
| 6 | INSTALL HIGH LEVEL MOVEMENT MONITORING AUTOMATED HYDRAULIC PROPPING BETWEEN TOP RING BEAM. |
| 7 | CAREFULLY CUT OUT AND REMOVE BRICKWORK TO CORE OPENING. |

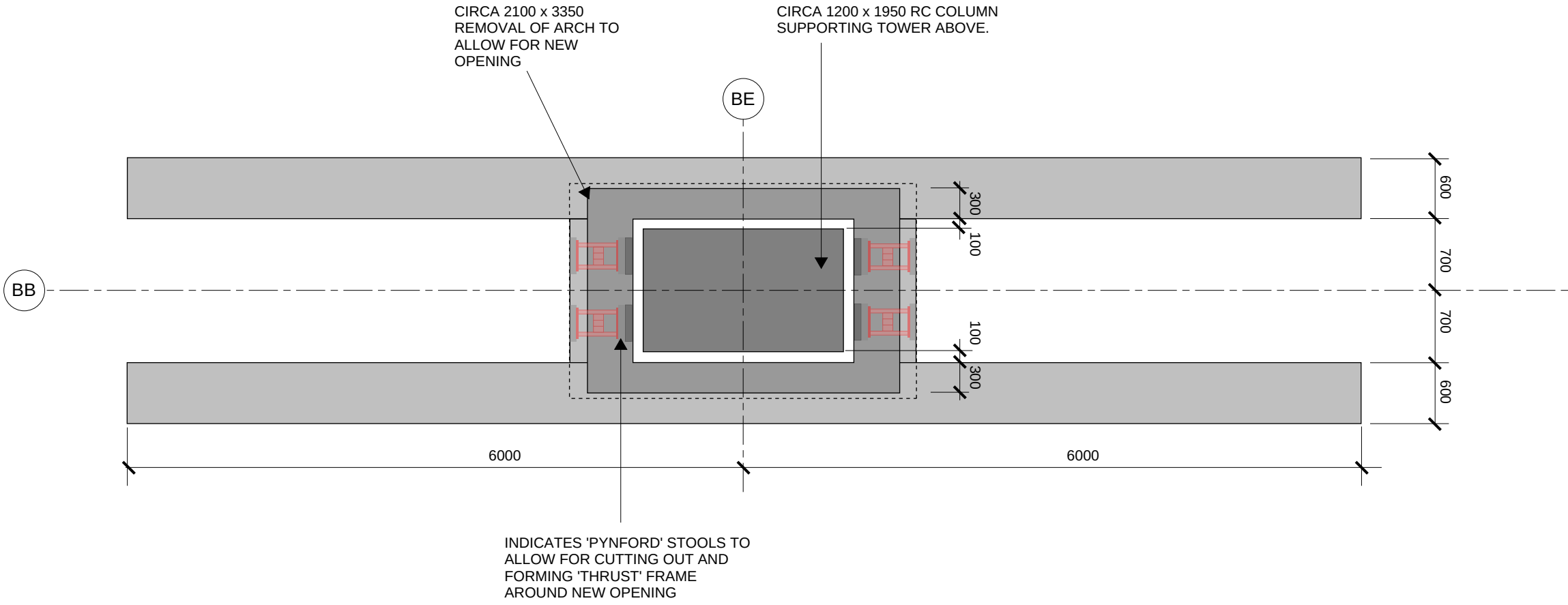
- | | |
|----|--|
| 8 | INSTALL REINFORCEMENT AROUND STEEL PROPPING ASSEMBLY AND CAST CONCRETE WALLS. DO NOT PROGRESS TO NEXT STAGE UNTIL THE REINFORCED CONCRETE RING BEAM ACHIEVES A MINIMUM 30N/mm² COMPRESSIVE STRENGTH. |
| 9 | REMOVE HIGH AND LOW LEVEL PROPPING RELEASING PROPPING LOADS INCREMENTALLY TO ALLOW EVEN TRANSFER OF LOADS INTO PROPPING STEEL AND RC FRAME. CONCRETE PATCH REPAIR WHERE PROPS REMOVED. |
| 10 | APPLY WATERPROOFING AND BACKFILL. LEVELS TO BE BROUGHT UP IN MAXIMUM 400mm AND COMPACTED WITH A NON-PERCUSSIVE TECHNIQUE. |

THE ABOVE METHODOLOGY IS TO BE READ IN CONJUNCTION WITH DRAWING SERIES VIA-REN-0-ZZ-DR-S-90020.

THE ABOVE OUTLINE METHODOLOGY IS TO BE DEVELOPED BY THE PRINCIPAL CONTRACTOR AND ASSOCIATED SUB-CONTRACTORS TO SUIT THEIR PREFERRED DETAILED METHOD OF UNDERTAKING THE WORKS.

THE CONTRACTOR IS TO SATISFY THEMSELVES THAT THE OUTLINE METHODOLOGY IS ACCEPTABLE AND TO NOTIFY THE TEMPORARY WORKS CO-ORDINATOR OF ANY AMENDMENTS REQUIRED TO SUIT SITE CONSTRAINTS OR INSTALLATION.

ALL PROPPING AND ASSOCIATED TEMPORARY WORKS IS TO BE TO THE TEMPORARY WORKS DESIGNERS DESIGN AND DETAIL AND TO BE AGREED WITH THE PRINCIPAL CONTRACTORS TEMPORARY WORKS CO-ORDINATOR.



LARGE COLUMN SADDLE BEAM PLAN
1:50

P02	RIBA STAGE 3 ISSUE	01.06.20	RW	PC
P01	FOR COMMENT	07.02.20	PC	KG
Rev:	Description:	Date:	By:	Chkd:



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VIADUCT
MANCHESTER

Drawing Title:
VIADUCT CORE AND
1200x1950 COLUMN
PENETRATION SECTION

Status:
RIBA STAGE 3

Size:	A1	Date:	01.06.20	Drawn by:	PC	Designed by:	-	Checked by:	KG
Scale:	1:50 @ A1	Project No:	1910-12						
Project:	Originator:	Volume:	Level:	Type:	Role:	Category/Number:	Rev:		

VIA-REN-A-ZZ-DR-S-02251-P02