REFER TO DRAWING SERIES V2B-REN-AA-ZZ-S-01100 FOR BRIDGE REMOVAL WORKS

INDICATES ZONE OF FILL TO BE REMOVED TO RELIEVE ARCH LOAD DURING INSTALLATION OF COLUMN OPENING WORKS (TYPICAL FOR ALL OPENINGS). REFER TO COLUMN OPENING AT CA/C3 FOR TYPICAL LOADING RESTRICTIONS IN THE TEMPORARY CASE. POINTED AND SEGMENTAL ARCH BELOW TO BE FULLY PROPPED DURING ALL COLUMN OPENING WORKS. TYPICAL FOR ALL COLUMNS

INDICATES LOAD RESTRICTION ZONES DURING INSTALLATION OF COLUMN OPENINGS. ZONE RESTRICTIONS APPLY TO ALL COLUMN OPENING LOCATIONS. REFER TO KEY FOR LOAD RESTRICTIONS

AJ AH AG AF AE

10500

2350 4800 2350

350 2300 350

2000 4000 2000

CP01

TOC +42.600 m

ALLOW FOR CUTTING DOWN TOP OF EXISTING RC COLLARS FROM 42.900m TO 42.600m, SCABBLING TOP SURFACE, AND BRINGING UP TO TOC: 42.630m WITH PROPRIETARY NON-SHINK HIGH STRENGTH GROUT. WATERPROOFING TO BE REINSTATED PRIOR TO FORMING NEW VEHICLE RESTRAINT SLAB ABOVE

A2 A3 A4

INDICATES LOAD RESTRICTION ZONES DURING INSTALLATION OF CORE OPENING. NO VEHICLE LOADING PERMITTED. REFER TO KEY

REFER TO DRAWING V2B-REN-AA-ZZ-DR-C-03110 FOR DRAINAGE DROP PIPE PENETRATION DETAIL

FOR CORE OPENING REFER TO DRAWING SERIES V2B-REN-AA-ZZ-DR-S-02300

CP02

CP03

ALLOW FOR CUTTING DOWN TOP OF EXISTING RC COLLARS FROM 42.900m TO 42.600m, SCABBLING TOP SURFACE, AND BRINGING UP TO TOC: 42.630m WITH PROPRIETARY NON-SHINK HIGH STRENGTH GROUT. WATERPROOFING TO BE REINSTATED PRIOR TO FORMING NEW VEHICLE RESTRAINT SLAB ABOVE

INDICATES LOAD RESTRICTION ZONES DURING INSTALLATION OF CORE OPENINGS. ZONE RESTRICTIONS APPLY TO ALL COLUMN OPENING LOCATIONS. REFER TO KEY FOR LOAD RESTRICTIONS

NOTES:

1. REFER TO DRAWING V2B-REN-AA-XX-DR-S-00010 FOR GENERAL NOTES.
2. ALL STEELWORK TO BE FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF THE 'NATIONAL STRUCTURAL STEELWORK SPECIFICATION' AND RENAISSANCE PROJECT STEELWORK SPECIFICATION.
3. ALL STEELWORK TO BE S355 J2 U.N.O. FINAL SUBGRADE IS TO BE CONFIRMED DURING TECHNICAL DESIGN WITH INPUT FROM THE STEELWORK FABRICATOR ONCE THE CONNECTION DETAILS ARE KNOWN.
4. CONCRETE TO FOUNDATIONS AND ENCASEMENT TO STEELWORK TO BE RC35/45.
5. WHERE FEASIBLE EXISTING GOOD QUALITY MASONRY UNITS ARE TO BE SALVAGED AND CLEANED FOR REUSE WITHIN THE WORKS. THE GLAZED BRICKS TO GREAT BRIDGEWATER STREET ARE TO ALSO BE SALVAGED AND REUSED FOR REINSTATEMENT OF BRICKWORK AROUND THE NEW OPENINGS.
6. WHERE NEW BRICKS ARE REQUIRED THAT ARE NOT EXPOSED IN THE FINISHED WORKS THESE ARE TO BE SOLID CLASS B CLAY ENGINEERING BRICKS. ALL EXPOSED MASONRY TO BE SUITABLY SOURCED TO MATCH EXISTING.
7. NO CEMENT BASED MORTAR IS PERMITTED FOR USE WITHIN REINSTATEMENT WORKS OF MASONRY. ALLOW FOR NEW AND REPAIR WORKS UNDERTAKEN TO BE WITH A LIME MORTAR:
   HLM 3.5 - GENERAL MASONRY WORKS 150mm ABOVE GROUND LEVEL
   HLM 5.0 - WORKS BELOW GROUND
   FINAL MORTAR SPECIFICATION TO BE IN ACCORDANCE WITH THE HERITAGE ARCHITECTS SPECIFICATION AND SUBJECT TO AGREEMENT WITH THE ENGINEER.
8. PACKING WORKS BETWEEN STEELWORK AND EXISTING MASONRY TO BE UNDERTAKEN WITH NON-SHRINK PROPRIETARY GROUT INSTALLED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.

GENERAL ARCH MAINTENANCE & REPAIR WORKS
REFER TO RENAISSANCE 'VIADUCT STRUCTURAL REPORT' (VIA-REN-B-XX-RP-00010) FOR EXISTING SURVEY INFORMATION AND RECOMMENDATIONS FOR REMEDIAL AND REPAIR WORKS

BELOW GROUND DRAINAGE & SERVICE YARD PAVEMENT
BELOW GROUND DRAINAGE HAS BEEN OMITTED FOR CLARITY.
- FOR ALTERATIONS TO EXISTING DRAINAGE REFER TO DRAWING **V2B-REN-AA-01-DR-C-01105**
- FOR NEW DRAINAGE REFER TO DRAWING **V2B-REN-CC-01-DR-C-01105**
- FOR BLOCK A PAVEMENT BUILD-UPS REFER TO DRAWING **V2B-REN-AA-01-DR-C-01200&01400**

BLOCK C FOUNDATIONS & FLOOR SLABS
BLOCK C FOUNDATIONS AND FLOOR SLAB OMITTED FOR CLARITY.
- FOR BLOCK C FOUNDATIONS REFER TO DRAWING V2B-REN-CC-FN-DR-S-01095
- FOR BLOCK C FLOOR SLABS REFER TO DRAWING V2B-REN-CC-01-DR-S-01101

TEMPORARY LOAD RESTRICTION TO SERVICE YARD ADJACENT TO COLUMN AND CORE OPENING WORKS

TO PREVENT OVER-STRESSING OF THE ARCH IN THE TEMPORARY CASE THE FOLLOWING LOAD RESTRICTIONS ARE TO BE IMPLEMENTED AND MANAGED BY THE MAIN CONTRACTOR, SUB-CONTRACTOR AND TEMPORARY WORKS CO-ORDINATOR:

- DURING EXCAVATION AND INSTALLATION OF COLUMN AND CORE OPENINGS NO VEHICLE ACCESS PERMITTED
- DURING EXCAVATION AND INSTALLATION OF COLUMN AND CORE OPENINGS NO VEHICLE ACCESS EXCEEDING 7.5 TONNE PERMITTED

KEY:

CPXX INDICATES COLUMN OPENING TYPE. REFER TO THE FOLLOWING DRAWINGS FOR OPENING DETAILS:
CP01 - V2B-REN-AA-ZZ-DR-S-02200
CP02 - V2B-REN-AA-ZZ-DR-S-02210
CP03 - V2B-REN-AA-ZZ-DR-S-02220

HEALTH & SAFETY NOTES:
IN ADDITION TO THE HAZARDS AND RISKS NORMALLY ASSOCIATED WITH WORKS OF THIS NATURE, NOTE THE FOLLOWING ABNORMAL RISKS

1 **TEMPORARY PROPPING OF ARCHES:** TO MAINTAIN STABILITY OF THE ARCHES DURING THE CONSTRUCTION OF THE COLUMN OPENING TEMPORARY PROPPING TO THE UNDERSIDE OF THE ARCHES AND BETWEEN SKEWBACKS IS REQUIRED. DETAILS OF PROPPING AND FINAL SEQUENCING OF WORKS TO BE TO TEMPORARY WORKS ENGINEERS DESIGN AND DETAILS. MONITORING OF WORKS BY PRINCIPAL CONTRACTORS TEMPORARY WORKS CO-ORDINATOR.

2 **SERVICE YARD LOADING RESTRICTIONS FOR TEMPORARY WORKS:** AT THIS STAGE ASSUME THAT THE LOADING ON THE ARCH IS TO BE LIMITED TO A MAXIMUM UDL = 10kN/m² AND THAT GROSS VEHICLE WEIGHTS ARE LIMITED TO 20 TONNES, WITH A MAXIMUM AXLE LOAD OF 8 TONNES AND WHEEL LOAD OF 5 TONNES. THE ALLOWABLE LOADINGS ARE TO BE CONFIRMED BY THE TEMPORARY WORKS DESIGNERS ON A CASE BY CASE BASIS AND ARE SUBJECT TO DETAILED ANALYSIS TO DEMONSTRATE THAT THE ARCHES WILL NOT BE OVERSTRESSED. ALL EXCAVATED MATERIAL IS TO BE REMOVED FROM THE SERVICE YARD LEVEL IN THE TEMPORARY CASE AND STOCKPILING IS NOT PERMITTED. THE CONTRACTOR IS TO ALLOW FOR UNDERTAKING THE WORKS USING SUITABLE PLANT TO ENSURE THAT THE VIADUCT STRUCTURE IS NOT OVERLOADED.

3 **PROTECTION MEASURES TO GRADE II LISTED VIADUCT & APPROVALS:** THE CONTRACTOR IS TO PROVIDE PROTECTION MEASURES TO THE VIADUCT MASONRY STRUCTURE IN THE TEMPORARY CASE. ALL TEMPORARY WORKS ARE TO BE DESIGNED TO MINIMISE FIXING TO THE EXISTING LISTED STRUCTURE. WHERE INTRUSIVE CONNECTIONS OR ALTERATIONS ARE REQUIRED THESE ARE TO BE AGREED IN WRITING BY THE LISTED BUILDING OFFICER. THE PRINCIPAL CONTRACTOR'S TEMPORARY WORKS CO-ORDINATOR IS TO ALLOW SUFFICIENT TIME WITHIN THEIR PROGRAMME FOR OBTAINING LISTED BUILDING CONSENT IF REQUIRED.

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P03	RIBA STAGE 4 ISSUE - COLUMN PENETRATIONS	31.07.25	AMi	EM
P02	RIBA STAGE 2 UPDATE	04.03.25	AMi	PC
P01	RIBA STAGE 2 ISSUE	14.02.24	AMi	KAG

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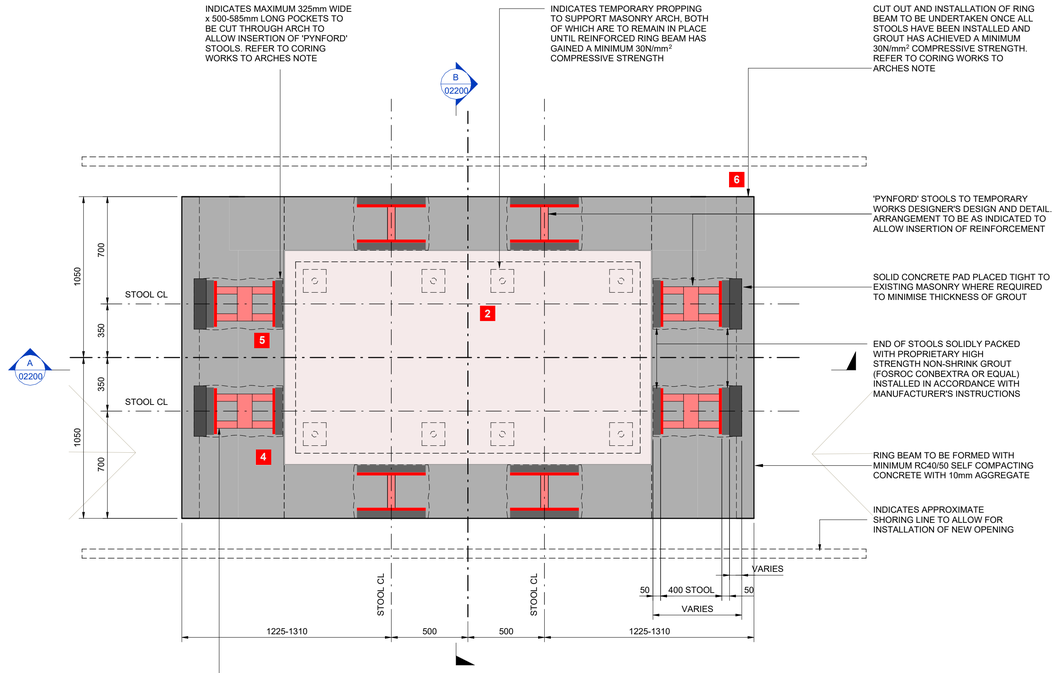
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Status:
STAGE 4

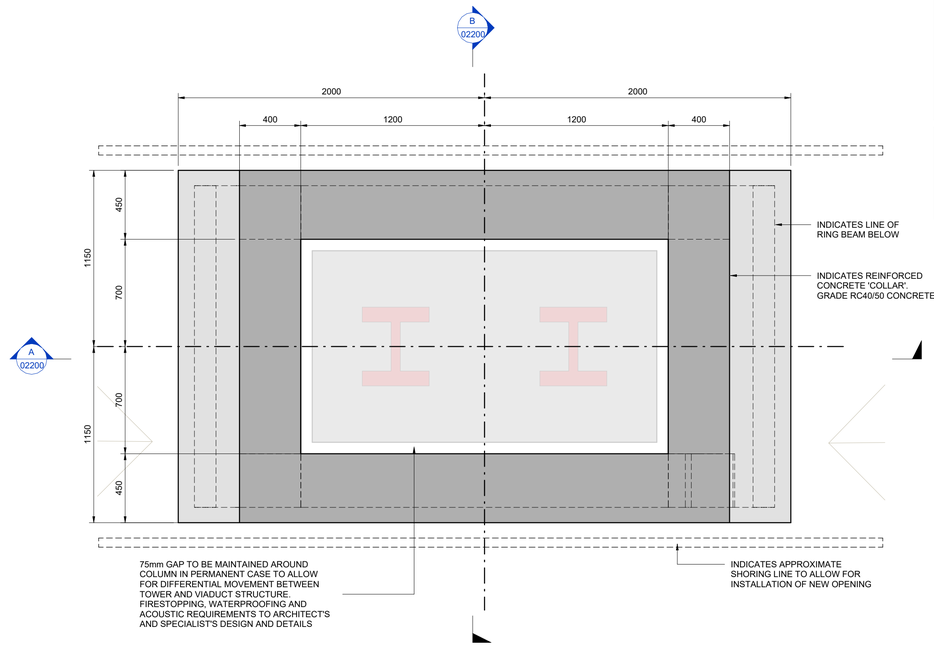
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A1	FEB 24	AMi		KAG

Scale: 1 : 125 Project No: 2209-01

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V2B - REN - AA - 01 - DR - S - 02100 - P03



TYPICAL CP01 COLUMN RC RING BEAM PLAN



TYPICAL CP01 COLUMN RC COLLAR PLAN

NOTES:

1. REFER TO DRAWING V2B-REN-AA-XX-DR-S-00010 FOR GENERAL NOTES.

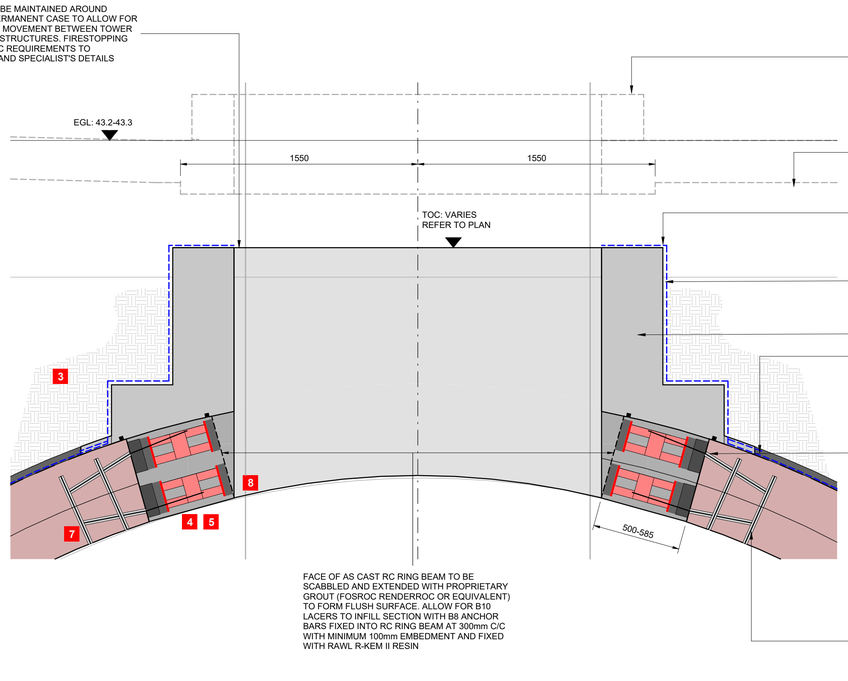
WATERPROOFING
THE NEW RC STRUCTURES ARE TO BE FULLY WATERPROOFED AND LAPPED INTO THE EXISTING WATERPROOFING SYSTEMS TO MAINTAIN CONTINUITY AND PREVENT WATER INGRESS THROUGH THE VIADUCT STRUCTURE AND BRIDGES. ALL WATERPROOFING, INCLUDING LAPPING TO THE EXISTING WATERPROOFING SYSTEMS IS TO THE SPECIALIST WATERPROOFING SUPPLIER'S DESIGN AND DETAIL.
THE CONTRACTOR IS TO APPOINT A WATERPROOFING SPECIALIST AT THE BEGINNING OF RIBA STAGE 4 TO DESIGN AND DETAIL THE WATERPROOFING STRATEGY AND SYSTEM AND TO ALLOW CO-ORDINATION WITH THE DESIGN TEAM.
ALL WATERPROOFING INDICATED ON THESE DRAWINGS IS INDICATIVE ONLY AND THE FINAL LOCATION AND DETAILS ARE TO BE TO THE ARCHITECT'S INTENT AND WATERPROOFING SPECIALIST'S DESIGN.

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. THE CONTRACTOR IS TO SEEK EARLY INPUT FROM CORING SPECIALISTS AND CONFIRM THAT THE PROPOSED INTERVENTION WORKS ARE FEASIBLE WITHIN THE ZONES SHOWN. METHOD STATEMENTS FOR THE CORING WORKS MAY ALSO BE REQUIRED FOR THE LISTED BUILDING CONSENT.

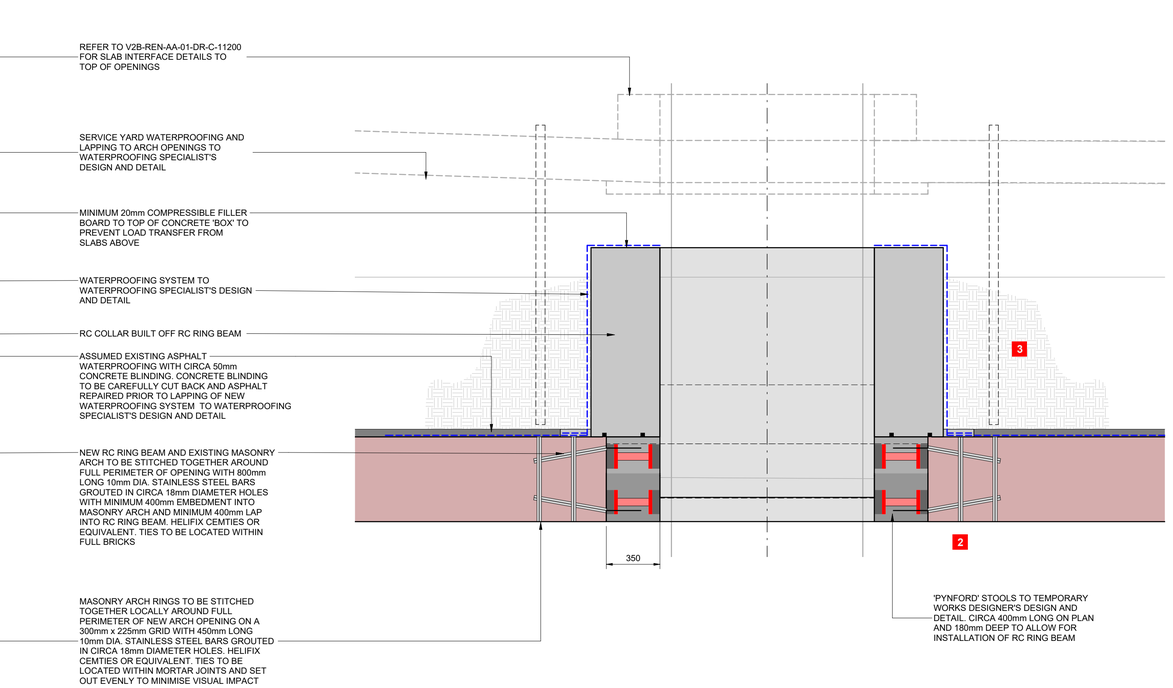
OUTLINE CONSTRUCTION METHODOLOGY
STAGE ACTIVITY

1. INSTALL MOVEMENT AND MONITORING EQUIPMENT WITHIN ARCHES TO SUIT REQUIREMENTS OF MOVEMENT AND MONITORING SPECIFICATION
2. INSTALL TEMPORARY PROPPING TO SUPPORT MASONRY ARCH BETWEEN PIERS AND BELOW SECTION TO BE REMOVED. TO REMAIN IN PLACE UNTIL WORKS ARE COMPLETE AND CONCRETE HAS GAINED SUFFICIENT STRENGTH
3. REMOVE FILL TO INDICATED ZONES. REFER TO DRAWING V2B-REN-AA-03-DR-S-02100 FOR EXTENT OF PERMITTED EXCAVATION. DO NOT OVER EXCAVATE
4. FORM POCKETS WITHIN THE ARCH TO ALLOW INSERTION OF PYNFORD STOOLS. END OF STOOLS TO BE SOLIDLY PACKED WITH PROPRIETARY HIGH STRENGTH NON-SHRINK GROUT
5. CUTTING OUT POCKET FOR SECOND ROW NOT TO COMMENCE UNTIL GROUT HAS GAINED A MINIMUM 30N/mm2 COMPRESSIVE STRENGTH
6. ONCE ALL PYNFORD STOOLS ARE INSTALLED WITH 30N/mm 2 GROUT, FORM THE OPENING TO ALLOW FOR INSTALLATION OF THE RC RING BEAM
7. INSTALL STAINLESS STEEL STITCHING BARS BETWEEN THE NEW RC RING BEAM AND EXISTING MASONRY ARCH FORM THE RING BEAM WITH A FLUSH FACE AS INDICATED
8. FORM THE RING BEAM WITH A FLUSH FACE AS INDICATED
9. FORM THE RC COLLAR. INSTALL ALL WATERPROOFING AS INDICATED AND BACKFILL USING HA TYPE 1 MATERIAL IN ACCORDANCE WITH HIGHWAYS SPECIFICATION

ALL PROPPING AND ASSOCIATED TEMPORARY WORKS IS TO BE TO THE TEMPORARY WORKS DESIGNER'S DESIGN AND DETAIL AND TO BE AGREED WITH THE PRINCIPAL CONTRACTOR'S TEMPORARY WORKS CO-ORDINATOR



SECTION A-A CP01



SECTION B-B CP01

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P03	RIBA STAGE 4 ISSUE - COLUMN PENETRATIONS	31.07.25	AMi	EM
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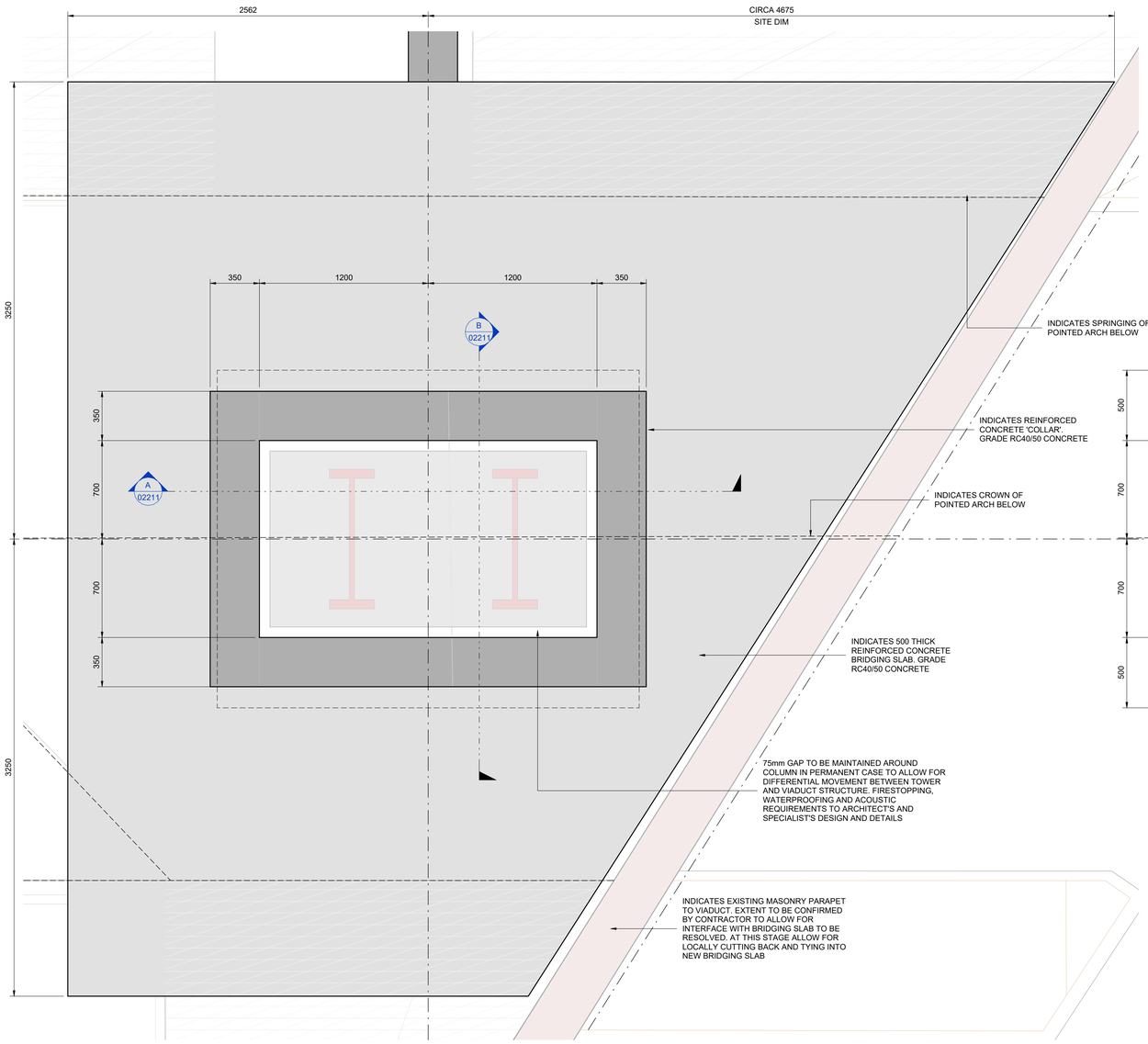
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Status:
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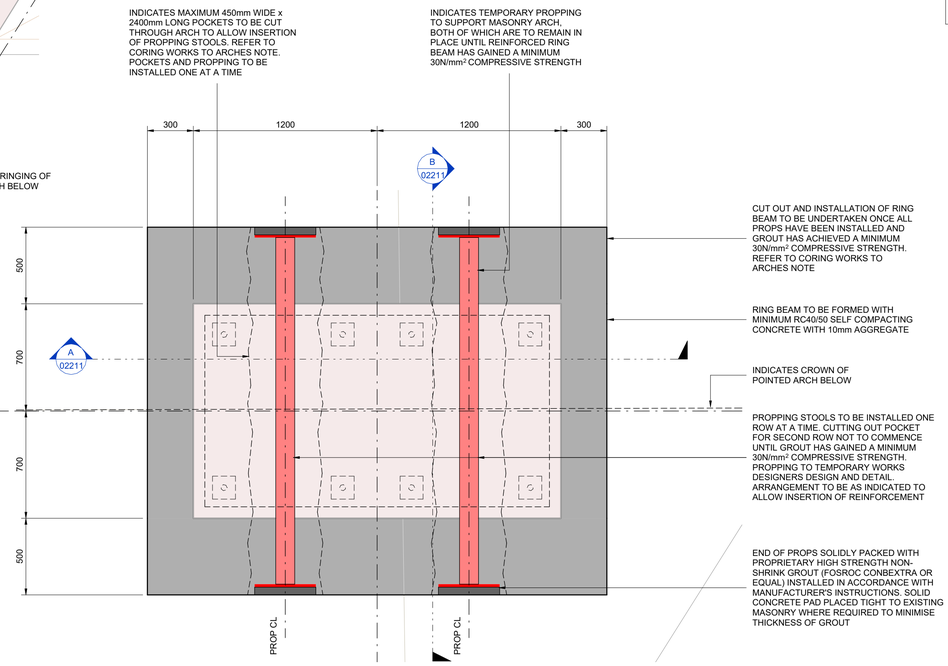
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Scale: 1 : 20 | Project No: 2209-01

Project Code: Originator: Volume: Level: Type: Role: Category / Number: Rev:
V2B - REN - AA - ZZ - DR - S - 02200 - P03



TYPICAL CP02 COLUMN RC COLLAR PLAN



TYPICAL CP02 COLUMN RC RING BEAM PLAN

NOTES:

1. REFER TO DRAWING V2B-REN-AA-XX-DR-S-00010 FOR GENERAL NOTES.

WATERPROOFING
THE NEW RC STRUCTURES ARE TO BE FULLY WATERPROOFED AND LAPPED INTO THE EXISTING WATERPROOFING SYSTEMS TO MAINTAIN CONTINUITY AND PREVENT WATER INGRESS THROUGH THE VIADUCT STRUCTURE AND BRIDGES. ALL WATERPROOFING, INCLUDING LAPPING TO THE EXISTING WATERPROOFING SYSTEMS IS TO THE SPECIALIST WATERPROOFING SUPPLIER'S DESIGN AND DETAIL.
THE CONTRACTOR IS TO APPOINT A WATERPROOFING SPECIALIST AT THE BEGINNING OF RIBA STAGE 4 TO DESIGN AND DETAIL THE WATERPROOFING STRATEGY AND SYSTEM AND TO ALLOW CO-ORDINATION WITH THE DESIGN TEAM.
ALL WATERPROOFING INDICATED ON THESE DRAWINGS IS INDICATIVE ONLY AND THE FINAL LOCATION AND DETAILS ARE TO BE TO THE ARCHITECT'S INTENT AND WATERPROOFING SPECIALIST'S DESIGN.

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. THE CONTRACTOR IS TO SEEK EARLY INPUT FROM CORING SPECIALISTS AND CONFIRM THAT THE PROPOSED INTERVENTION WORKS ARE FEASIBLE WITHIN THE ZONES SHOWN. METHOD STATEMENTS FOR THE CORING WORKS MAY ALSO BE REQUIRED FOR THE LISTED BUILDING CONSENT.

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P03	RIBA STAGE 4 ISSUE - COLUMN PENETRATIONS	31.07.25	AMi	EM
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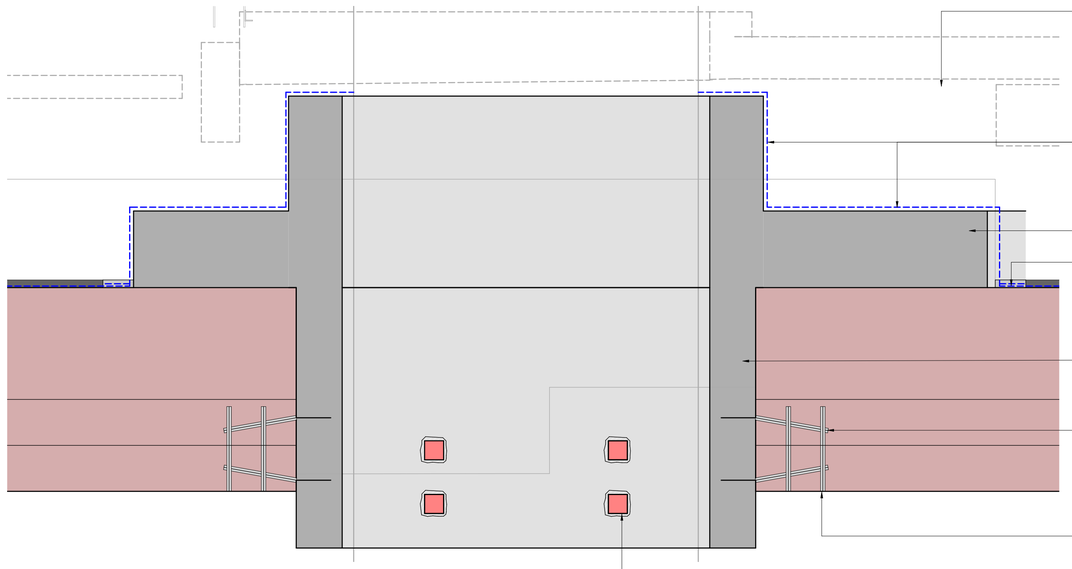
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COLUMN PENETRATION DETAIL
TYPE CP02

Status:
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Size:	Date:	Drawn By:	Designed By:	Checked By:
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Scale: 1 : 20 | Project No: 2209-01

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V2B - REN - AA - ZZ - DR - S - 02210 - P03



SERVICE YARD WATERPROOFING AND LAPPING TO ARCH OPENINGS TO WATERPROOFING SPECIALIST'S DESIGN AND DETAIL

WATERPROOFING SYSTEM, INCLUDING WATER RESISTING CONCRETE, TO WATERPROOFING SPECIALIST'S DESIGN AND DETAIL

RC COLLAR AND BRIDGING SLAB

ASSUMED EXISTING ASPHALT WATERPROOFING WITH CIRCA 50mm CONCRETE BLINDING. CONCRETE BLINDING TO BE CAREFULLY CUT BACK AND ASPHALT REPAIRED PRIOR TO LAPPING OF NEW WATERPROOFING SYSTEM TO WATERPROOFING SPECIALIST'S DESIGN AND DETAIL

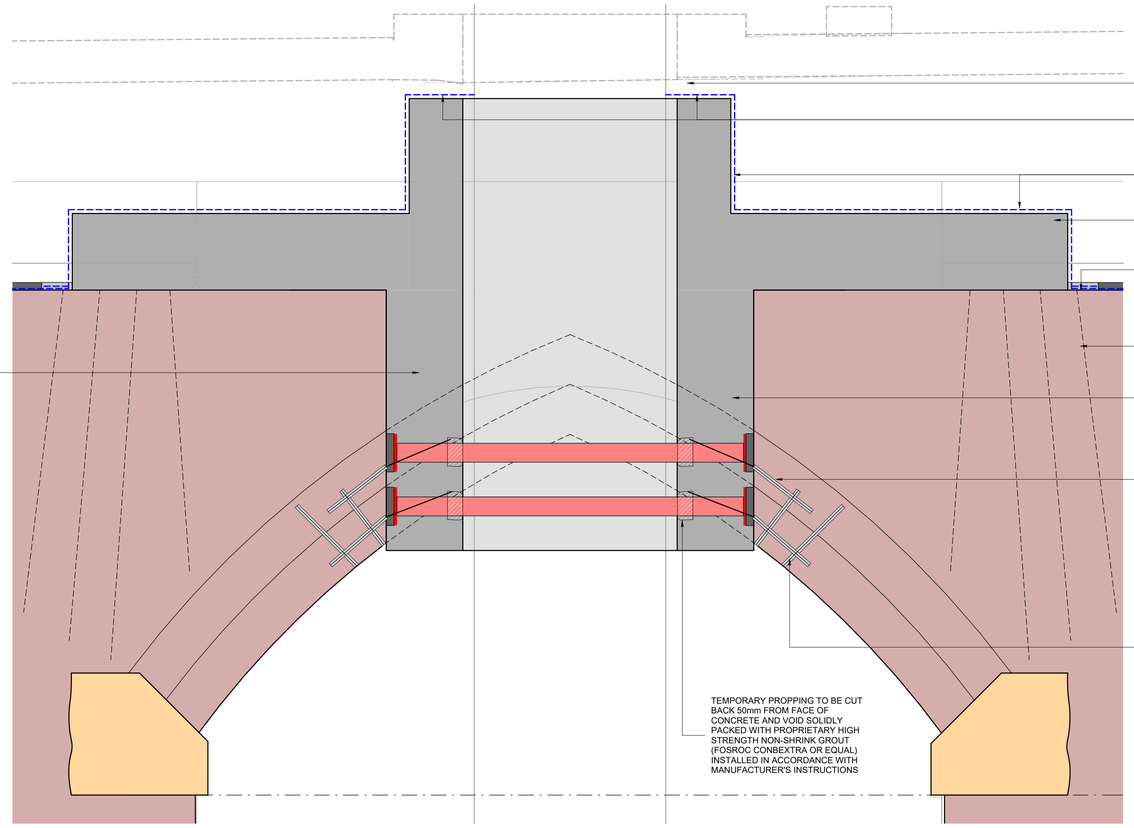
NEW RC RING BEAM

NEW RC RING BEAM AND EXISTING MASONRY ARCH TO BE STITCHED TOGETHER AROUND FULL PERIMETER OF OPENING WITH 800mm LONG 10mm DIA. STAINLESS STEEL BARS GROUTED IN CIRCA 18mm DIAMETER HOLES WITH MINIMUM 400mm EMBEDMENT INTO MASONRY ARCH AND MINIMUM 400mm LAP INTO RC RING BEAM. HELIFIX CEMTIES OR EQUIVALENT. TIES TO BE LOCATED WITHIN FULL BRICKS

MASONRY ARCH TO BE STITCHED TOGETHER LOCALLY AROUND FULL PERIMETER OF NEW ARCH OPENING ON A 300m x 225mm GRID WITH 450mm LONG 10mm DIA. STAINLESS STEEL BARS GROUTED IN CIRCA 18mm DIAMETER HOLES. HELIFIX CEMTIES OR EQUIVALENT. TIES TO BE LOCATED WITHIN FULL BRICKS AND SET OUT EVENLY TO MINIMISE VISUAL IMPACT

TEMPORARY PROPPING TO BE CUT BACK 50mm FROM FACE OF CONCRETE AND VOID SOLIDLY PACKED WITH PROPRIETARY HIGH STRENGTH NON-SHRINK GROUT (FOSROC CONBEXTRA OR EQUAL) INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS

SECTION A-A



SERVICE YARD WATERPROOFING AND LAPPING TO ARCH OPENINGS TO WATERPROOFING SPECIALISTS DESIGN AND DETAIL

MINIMUM 20mm COMPRESSIBLE FILLER BOARD TO TOP OF CONCRETE 'COLLAR' TO PREVENT LOAD TRANSFER FROM SLAB ABOVE

WATERPROOFING SYSTEM, INCLUDING WATER RESISTING CONCRETE, TO WATERPROOFING SPECIALISTS DESIGN AND DETAIL

RC COLLAR AND BRIDGING SLAB

ASSUMED EXISTING ASPHALT WATERPROOFING WITH CIRCA 50mm CONCRETE BLINDING. CONCRETE BLINDING TO BE CAREFULLY CUT BACK AND ASPHALT REPAIRED PRIOR TO LAPPING OF NEW WATERPROOFING SYSTEM TO WATERPROOFING SPECIALISTS DESIGN AND DETAIL

ALLOW FOR INSPECTION AND CONSOLIDATION GROUTING TO EXISTING BRICK BACKING BENEATH ENDS OF RC SADDLE BEAM ABOVE PIERS

NEW RC RING BEAM

NEW RC RING BEAM AND EXISTING MASONRY ARCH TO BE STITCHED TOGETHER AROUND FULL PERIMETER OF OPENING WITH 800mm LONG 10mm DIA. STAINLESS STEEL BARS GROUTED IN CIRCA 18mm DIAMETER HOLES WITH MINIMUM 400mm EMBEDMENT INTO MASONRY ARCH AND MINIMUM 400mm LAP INTO RC RING BEAM. HELIFIX CEMTIES OR EQUIVALENT. TIES TO BE LOCATED WITHIN FULL BRICKS

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TEMPORARY PROPPING TO BE CUT BACK 50mm FROM FACE OF CONCRETE AND VOID SOLIDLY PACKED WITH PROPRIETARY HIGH STRENGTH NON-SHRINK GROUT (FOSROC CONBEXTRA OR EQUAL) INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS

FACE OF AS CAST RC RING BEAM TO BE SCABBLED AND EXTENDED WITH PROPRIETARY GROUT (FOSROC RENDERROC OR EQUIVALENT) TO FORM FLUSH SURFACE. ALLOW FOR B10 LACERS TO INFILL SECTION WITH B8 ANCHOR BARS FIXED INTO RC RING BEAM AT 300mm C/C WITH MINIMUM 100mm EMBEDMENT AND FIXED WITH RAWL R-KEM II RESIN

SECTION B-B

NOTES:

1. REFER TO DRAWING V2B-REN-AA-XX-DR-S-00010 FOR GENERAL NOTES.

WATERPROOFING
THE NEW RC STRUCTURES ARE TO BE FULLY WATERPROOFED AND LAPPED INTO THE EXISTING WATERPROOFING SYSTEMS TO MAINTAIN CONTINUITY AND PREVENT WATER INGRESS THROUGH THE VIADUCT STRUCTURE AND BRIDGES. ALL WATERPROOFING, INCLUDING LAPPING TO THE EXISTING WATERPROOFING SYSTEMS IS TO THE SPECIALIST WATERPROOFING SUPPLIER'S DESIGN AND DETAIL.
THE CONTRACTOR IS TO APPOINT A WATERPROOFING SPECIALIST AT THE BEGINNING OF RIBA STAGE 4 TO DESIGN AND DETAIL THE WATERPROOFING STRATEGY AND SYSTEM AND TO ALLOW CO-ORDINATION WITH THE DESIGN TEAM.
ALL WATERPROOFING INDICATED ON THESE DRAWINGS IS INDICATIVE ONLY AND THE FINAL LOCATION AND DETAILS ARE TO BE TO THE ARCHITECT'S INTENT AND WATERPROOFING SPECIALIST'S DESIGN.

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. THE CONTRACTOR IS TO SEEK EARLY INPUT FROM CORING SPECIALISTS AND CONFIRM THAT THE PROPOSED INTERVENTION WORKS ARE FEASIBLE WITHIN THE ZONES SHOWN. METHOD STATEMENTS FOR THE CORING WORKS MAY ALSO BE REQUIRED FOR THE LISTED BUILDING CONSENT.

OUTLINE CONSTRUCTION METHODOLOGY
STAGE ACTIVITY

1. INSTALL MOVEMENT AND MONITORING EQUIPMENT WITHIN ARCHES TO SUIT REQUIREMENTS OF MOVEMENT AND MONITORING SPECIFICATION
2. INSTALL TEMPORARY PROPPING TO SUPPORT MASONRY ARCH BETWEEN PIERS AND BELOW SECTION TO BE REMOVED. TO REMAIN IN PLACE UNTIL WORKS ARE COMPLETE AND CONCRETE HAS GAINED SUFFICIENT STRENGTH
3. REMOVE FILL TO INDICATED ZONES. REFER TO DRAWING V2B-REN-AA-03-DR-S-02100 FOR EXTENT OF PERMITTED EXCAVATION. DO NOT OVER EXCAVATE
4. FORM LONG POCKETS WITHIN THE ARCH TO ALLOW INSERTION OF TEMPORARY STEEL PROPPING STOOLS. POCKETS AND PROPS TO BE INSTALLED ONE AT A TIME. ENDS OF PROPS TO BE SOLIDLY PACKED WITH PROPRIETARY HIGH STRENGTH NON-SHRINK GROUT.
5. CUTTING OUT POCKET FOR SECOND ROW NOT TO COMMENCE UNTIL GROUT HAS GAINED A MINIMUM 30N/mm2 COMPRESSIVE STRENGTH
6. ONCE ALL PROPS ARE INSTALLED WITH 30N/mm 2 GROUT, FORM THE OPENING TO ALLOW FOR INSTALLATION OF THE RC RING BEAM
7. INSTALL STAINLESS STEEL STITCHING BARS BETWEEN THE NEW RC RING BEAM AND EXISTING MASONRY ARCH FORM THE RING BEAM WITH A FLUSH FACE AS INDICATED
8. FORM THE RING BEAM WITH A FLUSH FACE AS INDICATED
9. FORM THE RC COLLAR, INSTALL ALL WATERPROOFING AS INDICATED AND BACKFILL USING HA TYPE 1 MATERIAL IN ACCORDANCE WITH HIGHWAYS SPECIFICATION

ALL PROPPING AND ASSOCIATED TEMPORARY WORKS IS TO BE TO THE TEMPORARY WORKS DESIGNER'S DESIGN AND DETAIL AND TO BE AGREED WITH THE PRINCIPAL CONTRACTOR'S TEMPORARY WORKS CO-ORDINATOR

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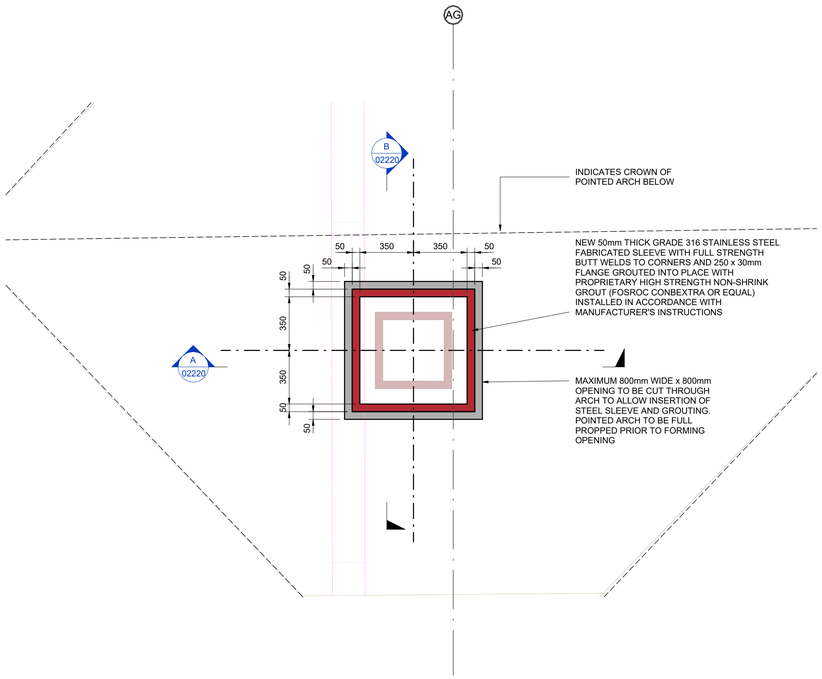
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BLOCK A
COLUMN PENETRATION DETAIL
TYPE CP02

Status:
STAGE 4

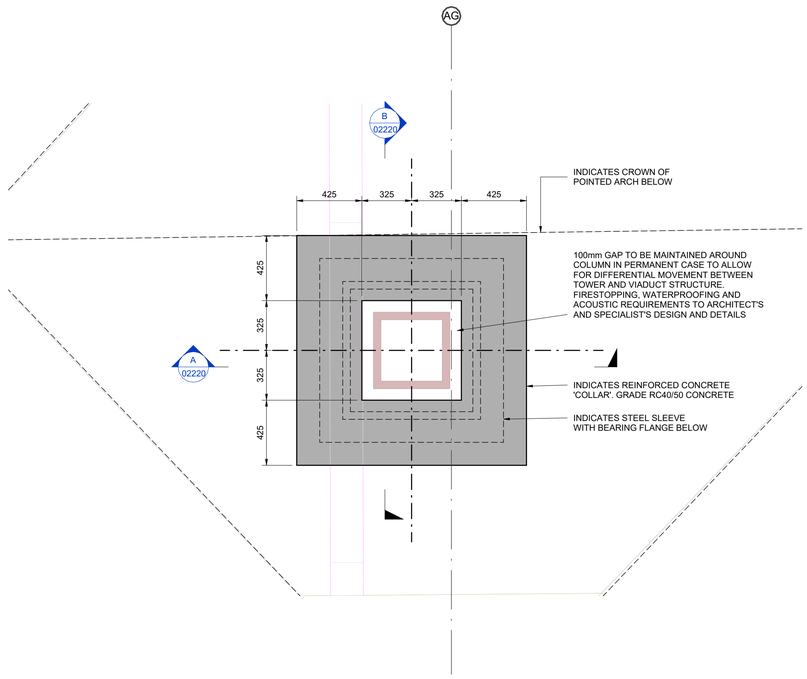
Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	FEB 24	AMi	-	KAG

Scale: 1 : 20 | Project No: 2209-01

Project Code: Originator: Volume: Level: Type: Role: Category / Number: Rev:
V2B - REN - AA - ZZ - DR - S - 02211 - P03



TYPICAL CP03 COLUMN RC RING BEAM PLAN



TYPICAL CP03 COLUMN RC COLLAR PLAN

NOTES:

1. REFER TO DRAWING V2B-REN-AA-XX-DR-S-00010 FOR GENERAL NOTES.

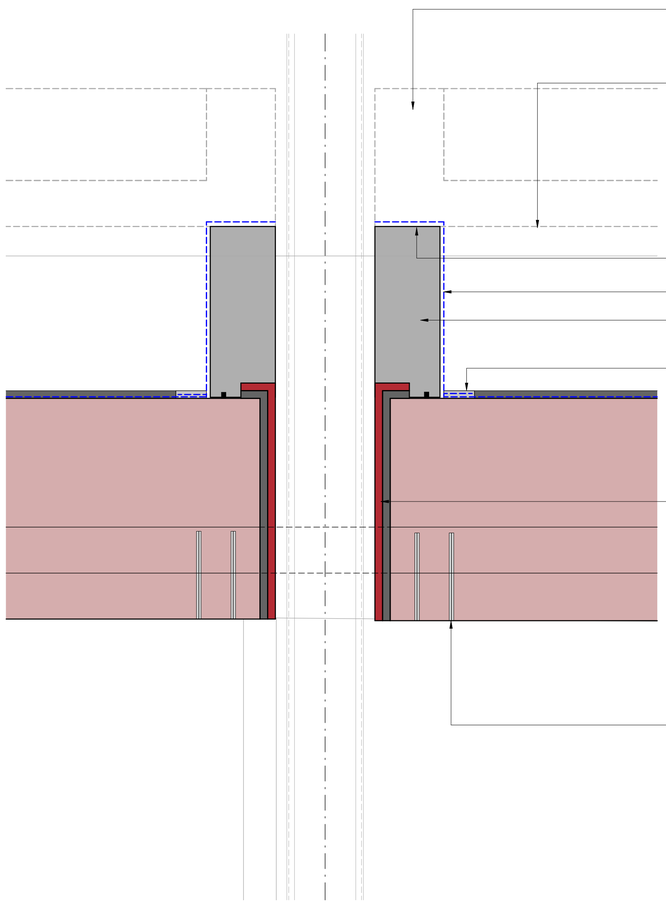
WATERPROOFING
THE NEW RC STRUCTURES ARE TO BE FULLY WATERPROOFED AND LAPPED INTO THE EXISTING WATERPROOFING SYSTEMS TO MAINTAIN CONTINUITY AND PREVENT WATER INGRESS THROUGH THE VIADUCT STRUCTURE AND BRIDGES. ALL WATERPROOFING, INCLUDING LAPPING TO THE EXISTING WATERPROOFING SYSTEMS IS TO THE SPECIALIST WATERPROOFING SUPPLIER'S DESIGN AND DETAIL.
THE CONTRACTOR IS TO APPOINT A WATERPROOFING SPECIALIST AT THE BEGINNING OF RIBA STAGE 4 TO DESIGN AND DETAIL THE WATERPROOFING STRATEGY AND SYSTEM AND TO ALLOW CO-ORDINATION WITH THE DESIGN TEAM.
ALL WATERPROOFING INDICATED ON THESE DRAWINGS IS INDICATIVE ONLY AND THE FINAL LOCATION AND DETAILS ARE TO BE TO THE ARCHITECT'S INTENT AND WATERPROOFING SPECIALIST'S DESIGN.

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. THE CONTRACTOR IS TO SEEK EARLY INPUT FROM CORING SPECIALISTS AND CONFIRM THAT THE PROPOSED INTERVENTION WORKS ARE FEASIBLE WITHIN THE ZONES SHOWN. METHOD STATEMENTS FOR THE CORING WORKS MAY ALSO BE REQUIRED FOR THE LISTED BUILDING CONSENT.

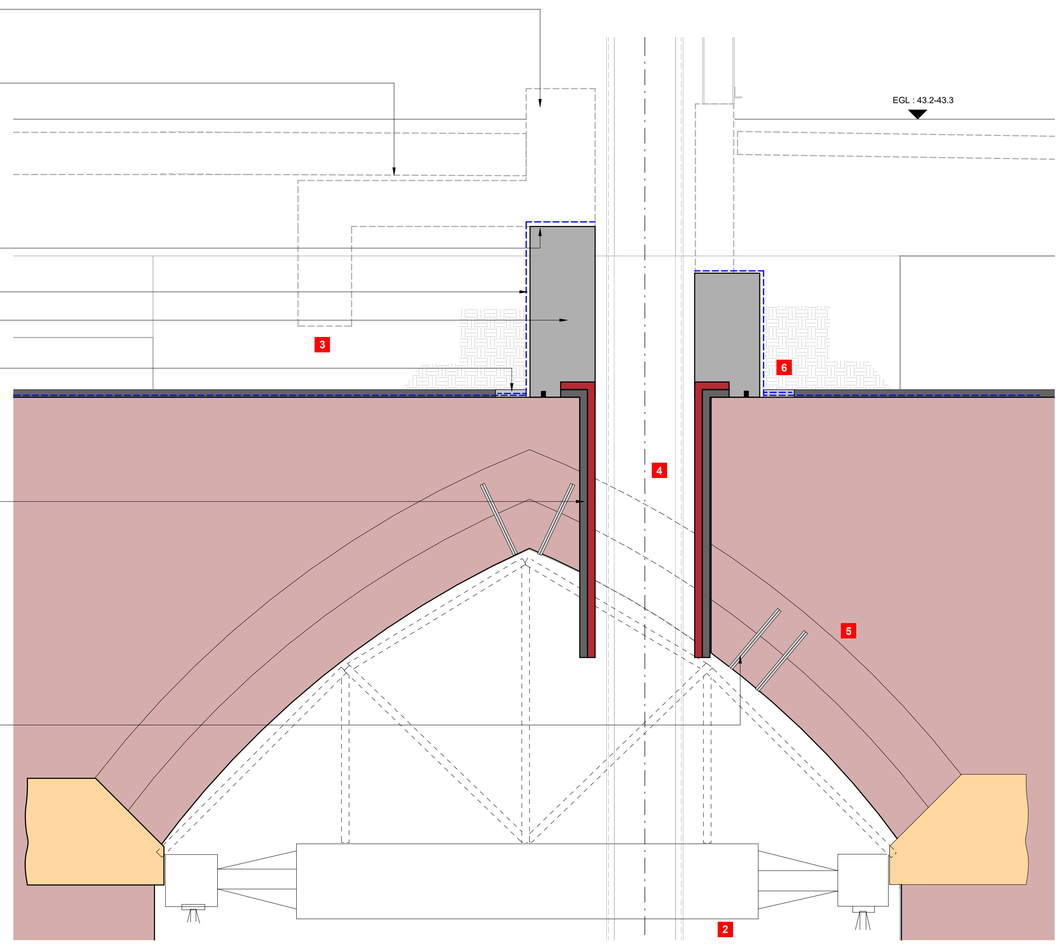
OUTLINE CONSTRUCTION METHODOLOGY
STAGE ACTIVITY

1. INSTALL MOVEMENT AND MONITORING EQUIPMENT WITHIN ARCHES TO SUIT REQUIREMENTS OF MOVEMENT AND MONITORING SPECIFICATION
2. INSTALL TEMPORARY PROPPING TO SUPPORT MASONRY ARCH BETWEEN PIERS AND BELOW SECTION TO BE REMOVED. TO REMAIN IN PLACE UNTIL WORKS ARE COMPLETE AND CONCRETE HAS GAINED SUFFICIENT STRENGTH
3. REMOVE FILL TO INDICATED ZONES. REFER TO DRAWING V2B-REN-AA-03-DR-S-02100 FOR EXTENT OF PERMITTED EXCAVATION. DO NOT OVER EXCAVATE
4. FORM LOCALISED OPENING WITHIN THE ARCH TO ALLOW INSERTION OF STAINLESS STEEL FABRICATED SLEEVE. SLEEVES TO BE PACKED WITH PROPRIETARY HIGH STRENGTH NON-SHRINK GROUT
5. INSTALL STAINLESS STEEL STITCHING BARS BETWEEN THE NEW RC RING BEAM AND EXISTING MASONRY ARCH AS INDICATED
6. FORM THE RC COLLAR, INSTALL ALL WATERPROOFING AS INDICATED AND BACKFILL USING HA TYPE 1 MATERIAL IN ACCORDANCE WITH HIGHWAYS SPECIFICATION

ALL PROPPING AND ASSOCIATED TEMPORARY WORKS IS TO BE TO THE TEMPORARY WORKS DESIGNER'S DESIGN AND DETAIL AND TO BE AGREED WITH THE PRINCIPAL CONTRACTOR'S TEMPORARY WORKS CO-ORDINATOR



SECTION A-A



SECTION B-B

Rev:	Description:	Date:	By:	Chkd:
P03	RIBA STAGE 4 ISSUE - COLUMN PENETRATIONS	31.07.25	AMi	EM
P02	RIBA STAGE 2 UPDATE	24.01.25	GM	PC
P01	RIBA STAGE 2 ISSUE	14.02.24	AMi	KAG

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Project:
VIADUX 2B,
MANCHESTER

Drawing Title:
BLOCK A
COLUMN PENETRATION DETAIL
TYPE CP03

Status:
STAGE 4

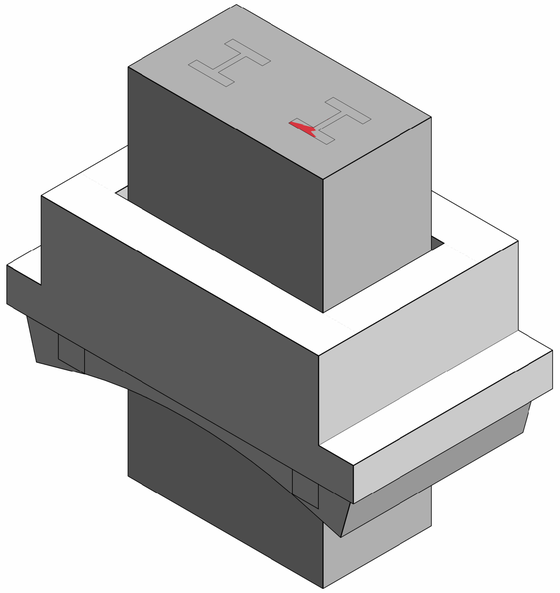
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A1	FEB 24	AMi	-	KAG

Scale: 1 : 20 | Project No: 2209-01

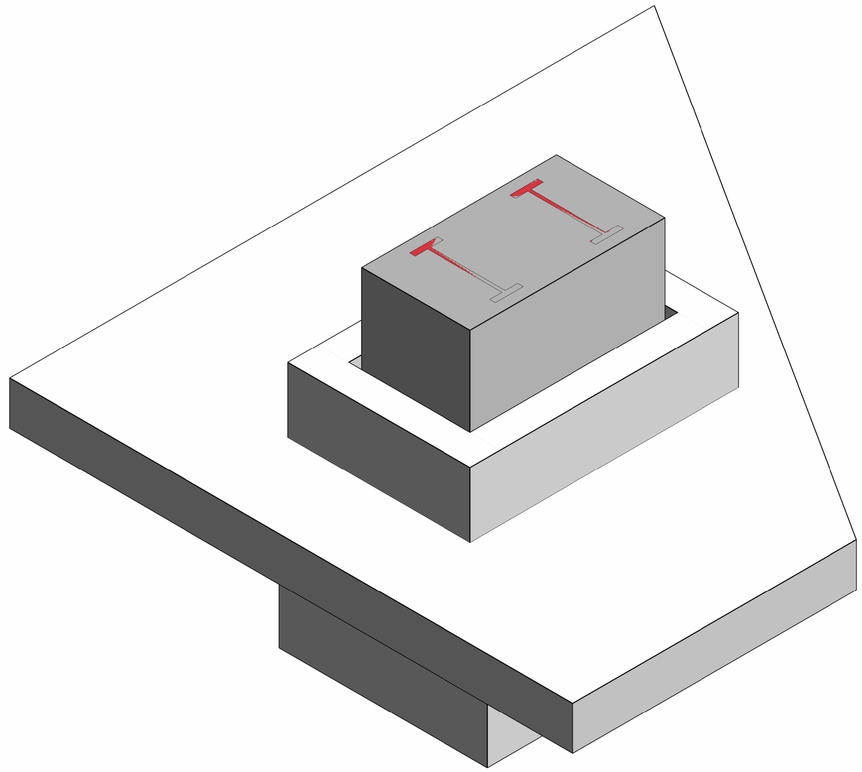
Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
V2B -	REN -	AA -	ZZ -	DR -	S -	02220 -	P03

NOTES:

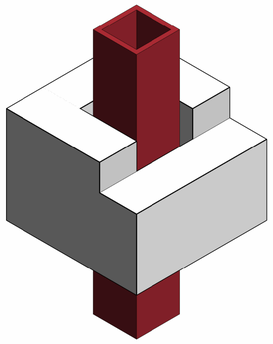
1. REFER TO DRAWING V2B-REN-AA-XX-DR-S-00010 FOR GENERAL NOTES.



3D VIEW COLUMN PENETRATION CP01



3D VIEW COLUMN PENETRATION CP02



3D VIEW COLUMN PENETRATION CP03

Rev:	Description:	Date:	By:	Chkd:
P03	RIBA STAGE 4 ISSUE - COLUMN PENETRATIONS	31.07.25	AMi	EM
P02	RIBA STAGE 2 UPDATE	24.01.25	GM	PC
P01	RIBA STAGE 2 ISSUE	14.02.24	AMi	KAG

renaissance

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Project:

VIADUX 2B,
MANCHESTER

Drawing Title:

BLOCK A
COLUMN TYPES ISOMETRICS

Status:

STAGE 4

Size:	Date:	Drawn By:	Designed By:	Checked By:
A1	FEB 24	AMi	-	KAG

Scale: | Project No: 2209-01

Project Code:	Originator:	Volume:	Level:	Type:	Role:	Category / Number:	Rev:
V2B -	REN -	AA -	ZZ -	DR -	S -	02250 -	P03