



Transverse beam
- 1/2" thick web plate

Bearing stiffener
- 6" x 3" x 1/2" Tee
each side of web



Lattice girder
bottom chord

Corrosion typically where
transverse beam extends
beyond weathering
protection of deck plate



Remedial stiffeners installed
during Ph1, to transverse
beam (TB) ends as follows:
- TB 25 - north and south
- TB 27 - north and south
- TB 29 - north
- TB 35 - north
- TB 36 - north
- TB 37 - north
- TB 38 - north
- TB 39 - north
- TB 40 - north
(11No. total)



Air gap between stiffener
and web plate
- not as per 2022 detail
which showed contact
required)

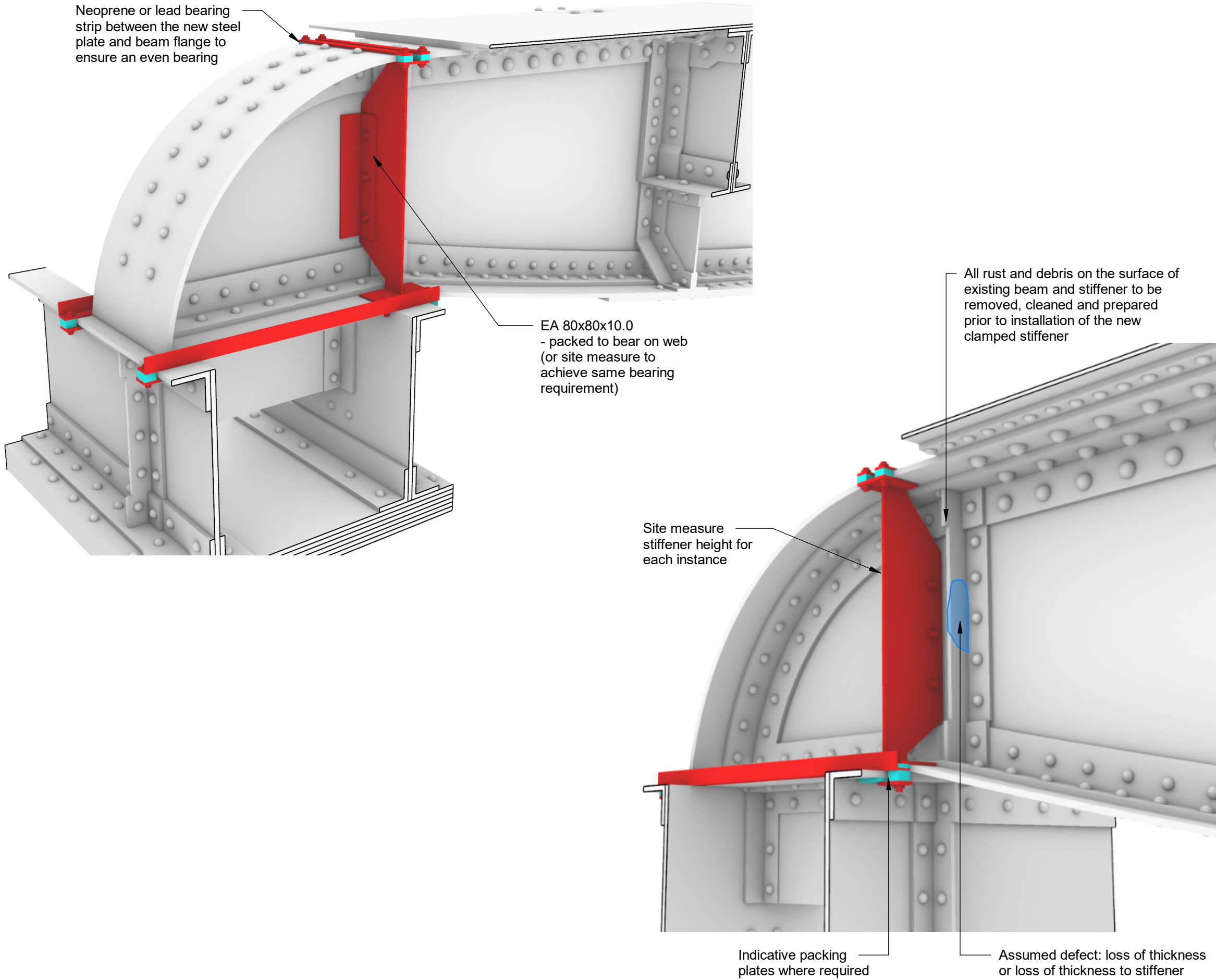


Washers as packers
across top flange of
bottom chord

DEFECT EXAMPLES

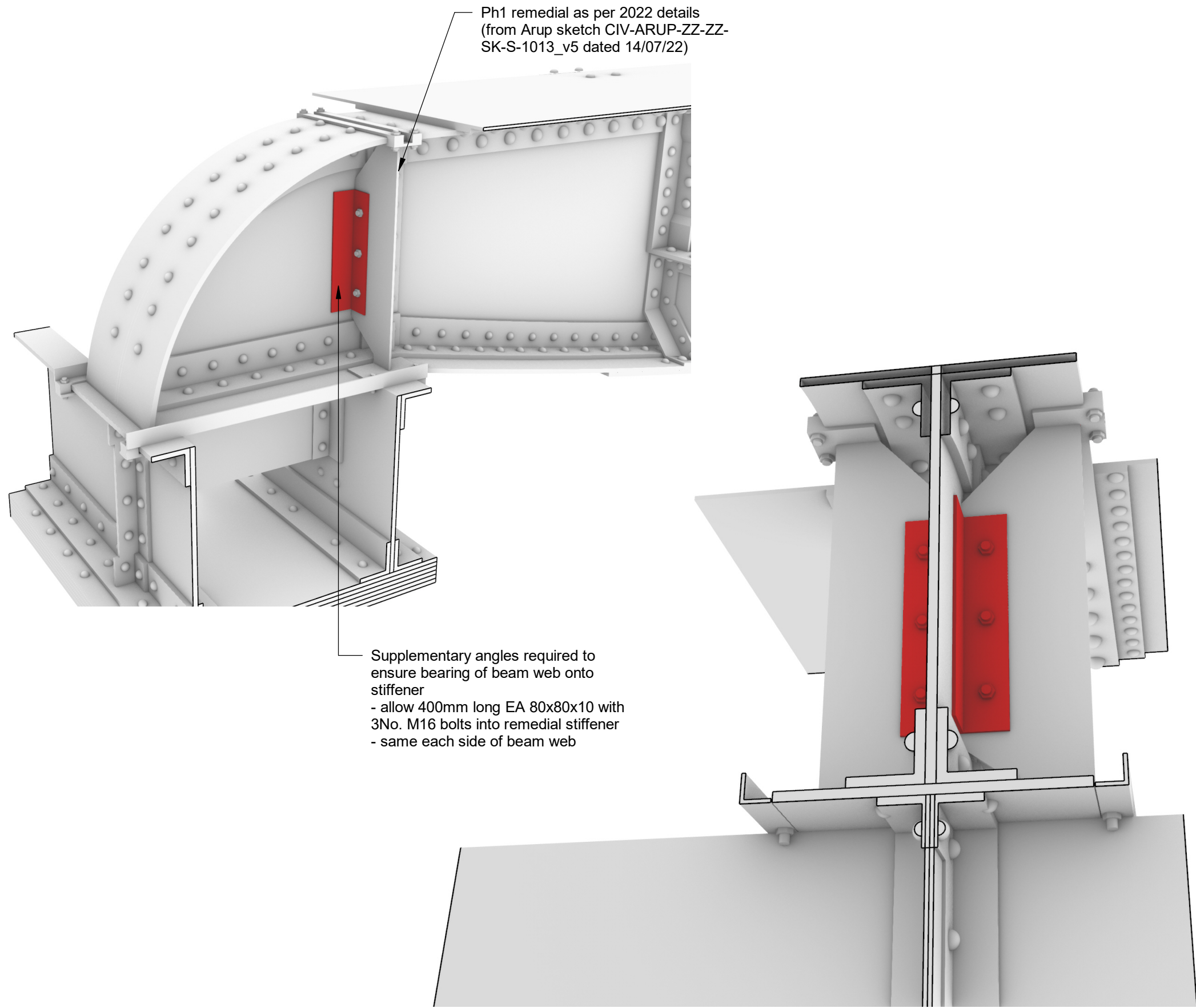
NTS

NOTE: Defect examples taken from Arup 2024 MEWP survey (covering spans 2-4 inclusive) and Balfour 2020 survey (covering spans 2-8 inclusive). Each represents a discrete defect for a unique beam. Defect locations to be identified by re-survey.



REMEDIAL DETAIL A - RETROFIT TO PH1 REMEDIALS

NTS



REMEDIAL DETAIL B - RETROFIT TO PH1 REMEDIALS

NTS

Notes:

- These drawings shall be read in conjunction with all relevant Engineer's and Architect's drawings and with all relevant specifications
- Existing condition drawn with dimensions from original archive drawings. All existing dimensions to be verified by the Contractor prior to fabrication or construction.
- Drawing to be read in colour.
- Do not scale from this drawing
- For structural nomenclature refer to drawing CIV-ARUP-ZZ-ZZ-DR-S-1055. For structural notation of spans/beams/piers refer to drawing CIV-ARUP-ZZ-ZZ-DR-S-1056

H&S / CDM Risks:

- Specific risks highlighted thus:
- existing paintwork contains lead
 - limited structural capacity of viaduct deck plates
 - existing ballast contaminated with lead and hydrocarbons
 - working at height above water and public areas
- Refer to Arup risk register for further details.

Legend:

- Existing structure
- unchanged unless noted otherwise
- Proposed remedial
- Indicative extent of defect
 - typical loss of section or thickness due to corrosion
- Indicative packing plates
 - where required

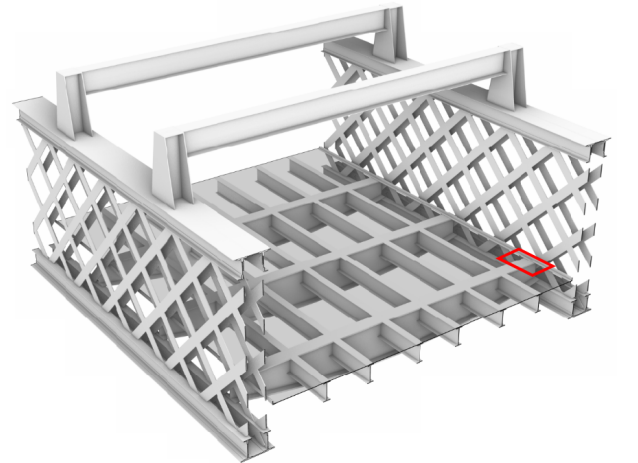
NOTE:

The remedial details shown consider the most likely corrective intervention based on the expected type/extent of defect. Extent of defect to be confirmed pending future brush down, removal of debris, and subsequent tactile surveys. Further defect types and consequent remedials may also be identified.

LOCATION / NUMBER OF REMEDIALS REQUIRED:

- Detail A - TBC
- Detail B - 11No. required, at the locations stated on this drawing
- Refer to general notes drawing CIV-ARUP-ZZ-XX-DR-S-0001 for background context for proposed remedials

KEY PLAN:



T1	14/08/24	RR	GH	Preliminary Issue
Rev	Date	Chkd	Appd	Issue Notes

ARUP

6th Floor, 3 Piccadilly Place
Manchester, M1 3BN
Tel +44(0)161 228 2331 Fax +44(0)161 228 6879
www.arup.com

Client

The National Trust

Project Title

Castlefield Viaduct
Phase 2

Drawing Title

Remedials
Transverse Beams
Bearing Stiffeners

Scale at A1	1 : 100	Drawn By	Author
Role	Structural		
Status	S2 - For Information		
Arup Job No	282210	Rev	T1
ID	CIV-ARUP-ZZ-ZZ-DR-S-4001		