

GENERAL

1. TEMPORARY AND PERMANENT WORKS TO BE CLEAR OF THE VEHICLE (LSIG) ENVELOPE.
2. WHERE STRENGTHENING WORKS ARE PROPOSED AT THE AREA OF EXISTING REPAIR STEELWORK, THE REPAIR STEELWORK SHALL BE REMOVED PRIOR TO COMMENCEMENT OF STRENGTHENING WORKS.
3. THE STRENGTHENING WORKS TO SWING SPAN HAVE BEEN DESIGNED IN ACCORDANCE WITH THE LOADING REQUIREMENTS SPECIFIED IN CLAUSE 13 OF NR-L3-CIV-020.

EXISTING STEELWORK

1. MATERIALS AND WORKMANSHIP FOR METALWORK REPAIRS SHALL BE IN ACCORDANCE WITH THE NETWORK RAIL STEELWORK SPECIFICATION.
2. THE RIVET HOLES PERIPHERY SHALL BE DRESSED OR REAMED TO REMOVE IMPERFECTIONS. ANY CRACKING IS TO BE INVESTIGATED AND ADDRESSED IF NECESSARY.
3. PRIOR TO THE REMOVAL OF RIVETS, THE FIT-UP OF PLATES SHALL BE INVESTIGATED TO ENSURE THAT NEW HRC BOLTS DO NOT INDUCE CRACKS OR CAUSE LOCKED-IN STRESSES WHEN PLIES ARE PULLED TOGETHER.
4. METALLIC EPOXY FILLER MAY BE USED TO TAKE OUT DIFFERENCE IN LEVEL/PROFILE BETWEEN EXISTING AND PROPOSED MATING SURFACES. IT IS NOT TO BE USED AS A PACKING MATERIAL.
5. THE PRESENCE OF CRACKS SHALL BE DETERMINED BY EITHER MPI (TO BS EN ISO 9934-1) OR BY DYE PENETRATION TESTS (TO BS EN 571-1).
6. NEW HOLES SHALL BE FORMED BY DRILLING ONLY.
7. EXISTING POOR FATIGUE DETAILS SHALL BE REMOVED WHERE ITS REMOVAL IMPROVES THE STRUCTURE'S PERFORMANCE.
8. GRINDING SHALL BE UNDERTAKEN IN THE DIRECTION OF THE APPLIED STRESS.
9. COLD STRAIGHTENING OF BENT MEMBERS IS NOT PERMITTED.
10. EXISTING PLATES WHICH HAVE SUFFERED CORROSION AND ARE NOT TO BE REPAIRED TO BE GROUND BACK TO AT LEAST 3mm SO THAT PROTECTIVE TREATMENT CAN BE APPLIED.
11. WHERE NOTCHES ARE PRESENT IN PLATES THAT DO NOT REQUIRE STRENGTHENING THESE SHOULD BE REMOVED BY GRINDING BACK TO A DISTANCE THAT IS FIVE TIMES THE DEPTH OF THE NOTCH TO EITHER SIDE OF THE NOTCH.
12. ALL EDGES AND PERIPHERIES OF NEW TO EXISTING STEELWORK AND ALL BOLTS SHALL BE SEALED WITH APPROVED GUN GRADE SEALANT.
13. TEMPLATING - WHERE DIMENSIONS OF RIVETS ARE TO BE RECORDED FOR TEMPLATING, IT IS PREFERRED THAT DIMENSIONS ARE TAKEN TO EACH RIVET FROM ONE FIXED POINT RATHER THAN RECORDING THE INDIVIDUAL SPACING BETWEEN RIVETS SO THAT ACCUMULATIVE ERRORS IN MEASUREMENT ARE AVOIDED.

NEW STEELWORK

1. STEEL TO BE IN ACCORDANCE WITH BS EN 10025.
2. ALL BOLTS TO BE TENSION CONTROL BOLTS (TCB'S) CLASS HRC 10.9 TO BS EN 14399-10 UNLESS NOTED.
3. STEELWORK SHALL COMPLY WITH BS EN 1090-2 FOR EXECUTION CLASS EXC3 AND TOLERANCE CLASS 2.
4. ALL WELDS SHALL MEET THE REQUIREMENTS OF TABLES 8.1 TO 8.5 OF BS EN 1993-1-9 INCLUSIVE FOR THE MINIMUM DETAIL CATEGORY, AS AMENDED BY THE UK NATIONAL ANNEX NA BS EN 1993-1-9. WHERE A HIGHER DETAIL CATEGORY AND ADDITIONAL REQUIREMENTS ARE NECESSARY, THE REQUIRED DETAIL CATEGORY IS DENOTED THUS:

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- THE QUALITY OF WELD SHALL CONFORM TO THE STANDARDS APPROPRIATE TO THESE CLASSIFICATIONS AS DEFINED BY THE SPECIFICATION.
5. ALL TEMPORARY BOLTS SHALL NOT BE REUSED IN THE PERMANENT WORKS.
6. WHERE NON SPECIFIED PACK PLATES ARE REQUIRED THEY ARE TO BE MADE UP OF 10mm, 5mm, 2mm OR 1mm PLATES WITH NO MORE THAN FOUR INDIVIDUAL PLATES AT ANY ONE LOCATION.
7. RIVETS ARE NOT TO BE REMOVED, OTHER THAN THOSE INDICATED ON THE DRAWINGS - RIVETS ARE TO BE REMOVED BY APPROVED MECHANICAL TECHNIQUES WITHOUT DAMAGE TO THE EXISTING STRUCTURE.
8. ALL NEW STEELWORK TO BE S275 J2.

PROTECTIVE TREATMENT

1. MATERIALS AND WORKMANSHIP FOR PROTECTIVE TREATMENT SHALL BE IN ACCORDANCE WITH THE NETWORK RAIL PROTECTIVE TREATMENT SPECIFICATION.
2. THE PRIMARY PAINT SYSTEM FOR STRENGTHENING PLATES IS N4 UNLESS OTHERWISE AGREED WITH THE PROJECT SPONSOR IN ACCORDANCE WITH NR/L3/CIV/039.
3. THE PRIMARY PAINT SYSTEM FOR EXISTING METALWORK IS M20 UNLESS OTHERWISE AGREED WITH THE PROJECT SPONSOR IN ACCORDANCE WITH NR/L3/CIV/039.
4. THE REQUIREMENTS OF NETWORK RAIL SPECIFICATION NR/GN/CIV/002 SHALL BE COMPLIED WITH.
5. ALL FAYING SURFACES TO BOLTED CONNECTIONS TOGETHER WITH AN AREA EXTENDING 12mm BEYOND THE PERIPHERY THEREOF, SHALL BE MASKED WITH WATERPROOF TAPE TO PROTECT THEM FROM FURTHER COATINGS. THIS TAPE SHALL THEN BE REMOVED, AND THE FAYING SURFACES CLEANED WITH WHITE SPIRIT.
6. SOLUBLE SALTS ARE TO BE REMOVED FROM THE STEEL SURFACES FOLLOWING REMOVAL OF THE EXISTING PROTECTIVE SYSTEM.
7. AFTER ASSEMBLY OF BOLTED CONNECTIONS ON SITE ANY EXPOSED AREAS OF FAYING SURFACE ARE TO RECEIVE FULL PAINT SYSTEM AS SPECIFIED.
8. AFTER TIGHTENING BOLTS, CLEAN OFF ANY OIL WITH WHITE SPIRIT AND WIRE BRUSH AND DUST OFF PRIOR TO RECEIVING FULL PAINT SYSTEM.
9. EXPOSED PARTS OF FASTENERS TO RECEIVE THE FOLLOWING TREATMENTS:-

WHERE N4 IS SPECIFIED:-

A) APPLY THE FULL NUMBER OF COATS OF PAINT, INCLUDING AN ADDITIONAL COAT OF EPOXY PRIMER (NR/L3/CIV/039 ITEM 7.1.4) TO THE JOINT PERIPHERY AND A STRIPE COAT BUT EXCLUDING TOP COAT.

B) ALL DIRECT TENSION INDICATORS SHALL BE SEALED WITH A SEALANT COMPATIBLE WITH THE PROTECTIVE TREATMENT SYSTEM AND SUITABLE FOR THE SPECIFIC APPLICATION AND ENVIRONMENT.

C) APPLY FINAL COAT OF PAINT SYSTEM.
10. THE EDGES OF DAMAGED COATINGS SHALL BE FEATHERED FOR AT LEAST 50mm INTO THE ADJACENT SOUND COATING PRIOR TO RE-APPLICATION.
11. UPON COMPLETION OF SITE PAINTING A RECORD OF THE PROTECTIVE TREATMENT IS TO MADE, AND A TABLE PAINTED ON THE STRUCTURE WITH WHITE LETTERING PAINT 20mm HIGH X 12mm WIDE.

PANELS TO GIVE NAME AND ADDRESS OF:

A) STEELWORK FABRICATOR

B) PAINTING CONTRACTOR

C) PAINT SUPPLIER

D) PROTECTIVE TREATMENT APPLIED

E) COLOUR OR TOP COAT

F) DATE COMPLETED
12. AREAS OF EXISTING PAINTWORK TO RECEIVE OVERCOATING SHALL REQUIRE PAINT SAMPLING AND TESTING TO DETERMINE THE EXISTING PAINTS COMPATIBILITY WITH THE NEW APPLIED PROTECTIVE TREATMENTS.
13. CARE SHOULD BE TAKEN WHEN HANDLING NEW ELEMENTS TO MINIMISE DAMAGE TO THE PROTECTIVE PAINT SYSTEM. DAMAGED AREAS SHALL BE TOUCHED UP IN ACCORDANCE WITH THE APPROPRIATE SYSTEM.
12. SURFACE PREPARATION (E.G. BY DRY BLASTING) IS TO BE PROVIDED TO ACHIEVE A SURFACE CLEANLINESS OF SA2½ IN ACCORDANCE WITH BS EN ISO 8501-1 (AS A MINIMUM).
13. WHERE MECHANICAL CLEANING (E.G BY NEEDLE GUN) IS REQUIRED, IT SHALL ACHIEVE A MINIMUM OF ST3 SURFACE CLEANLINESS IN ACCORDANCE WITH BS EN ISO 8501-1 (AS A MINIMUM).

	HAZARD SUMMARY TABLE								
	SIGNIFICANT DESIGNER'S IDENTIFIED HAZARDS		LIFE SAVING RULES						
SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION									
THE FOLLOWING NOTES HIGHLIGHT SIGNIFICANT RESIDUAL HAZARD IDENTIFIED BY THE DESIGNER. TYPICAL HAZARDS THAT SHOULD BE IDENTIFIED BY A COMPETENT CONTRACTOR ARE NOT INCLUDED. THE CONTRACTOR SHALL CARRY OUT THE WORKS USING AN APPROVED SAFE SYSTEM OF WORK									
SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED DURING THE COURSE OF THE WORKS, THE CONTRACTOR SHALL NOTIFY ALL RELEVANT MEMBERS OF THE PROJECT TEAM									
	DRUGS/ ALCOHOL		TRAINING & COMPETENCY		NO MOBILE PHONES		CORRECT EQUIPMENT		OBEY WARNING RULES
	EARTHING		EXCLUSION ZONE		PLANS AND PERMITS		SAFETY HARNESS AT HEIGHT		ISOLATION
A	WORKING ON / ADJACENT TO LIVE RAILWAY								
B	DAMAGING TRACK SIDE INFRASTRUCTURE								
C	WORKING OVER A WATERCOURSE								
D	PRESENCE OF LEAD WITHIN EXISTING PAINTWORK								
E	TEMPORARY INSTABILITY OF STRUCTURE DURING THE WORKS								
F	TEMPORARY WORKS NEED TO CONSIDER GAUGING								
G	HANDLING HEAVY / LONG PLATES (MANUAL HANDLING LIMITATIONS)								
H	FAILURE OF TEMPORARY WORKS								
I	RISK OF STRIKING EXISTING SERVICES								
J	DAMAGE TO THE EXISTING STRUCTURE DURING RIVET REMOVAL OPERATIONS								
K	INJURY DUE TO LIMITED / CONSTRAINED ACCESS FOR BOLTING OPERATIONS								
• FOR MORE DETAILED INFORMATION PLEASE REFER TO THE PROJECT HAZARD RECORD LOG. DOCUMENT REF.: 152093-ARC-LOG-SSD-000001									

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRES AOD UNLESS NOTED OTHERWISE.

A01	24.04.2020	FOR FORM 001 REVIEW	K.S	B.K	J.L
Rev	Date	Description of Revisions	Drawn	Chkd	Appr
Status	FOR FORM 001 REVIEW				Suitability S3

NetworkRail

Contractor(s):

ARCADIS

Design & Consultancy
for natural and
built assets

Project:

RIVER NEATH SWING
BRIDGE GRIP 4

Drawing Title:

GENERAL NOTES

Designed	S. ALURU	Signed	S.A	Date	24.04.2020
Drawn	K. SRILEKHA	Signed	K.S	Date	24.04.2020
Checked	B. KING	Signed	B.K	Date	24.04.2020
Approved	J. LYNN	Signed	J.L	Date	24.04.2020
Scale(s)	ELR & Mileage				
AS SHOWN @ A1		SD11 207m 63ch			
Alternative Reference				Sheet	
152093				1 of 1	
Drawing Number				Revision	
152093-ARC-DRG-ECV-000023				A01	