Drawing Number
162906-CGE-WLS-DJP-DRG-ECV-000001 B01

GENERAL

1.ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

2.ALL LEVELS ARE IN METRES ABOVE ORDNANCE DATUM UNLESS NOTED OTHERWISE.

3.ALL DIMENSIONS AND LEVELS ARE TO BE CHECKED ON SITE PRIOR TO ANY WORKS BEING PUT IN HAND.

4. ALL BURIED, SURFACE AND OVERHEAD SERVICE INFORMATION CONTAINED WITHIN THESE DRAWINGS ARE SHOWN INDICATIVELY. THE SERVICES SHOWN MAY NOT REPRESENT THE ENTIRETY OF ALL SERVICES THAT MAT BE ENCOUNTERED. ALL SOURCE INFORMATION SHOULD BE REFERRED TO PRIOR TO UNDERTAKING WORKS ON SITE. CROUCH WATERFALL ACCEPT NO RESPONSIBILITY FOR OMISSIONS OR ERRORS IN THE POSITIONING OF THE SERVICES PRESENT ON SITE. REFER TO ALL RELATED ENGINEERING DRAWINGS, FORMS AND SPECIFICATIONS FOR FURTHER INFORMATION. REFER TO THE RESIDUAL DESIGNERS RISK ASSESSMENT FOR ACTIONS TO MINIMISE AND MITIGATE RISK ASSOCIATED WITH KNOWN AND UNKNOWN SERVICES ON SITE.

5.THE CONTRACTOR IS TO CHECK ALL SETTING OUT PRIOR TO COMMENCEMENT OF THE WORKS.

6.THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND RELEVANT STRUCTURAL SPECIFICATIONS.

7.ANY DISCREPANCIES BETWEEN THE INFORMATION GIVEN ARE TO BE BROUGHT TO THE ATTENTION OF THE ENGINEER AS SOON AS POSSIBLE.

8.ALL MATERIALS USED IN THE WORKS SHALL BE TO BRITISH STANDARDS OR OTHER APPLICABLE SPECIFICATIONS.

9.ALL BRIDGE INSTALLATION WORKS ARE TO BE UNDERTAKEN IN ACCORDANCE WITH SPECIFICATION SECTIONS 120 AND 122.

10.ALL PROPRIETARY MATERIALS USED IN THE WORKS ARE TO BE USED IN COMPLETE ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS.

11.ALL PRECAST ELEMENTS ARE TO BE MARKED CLEARLY WITH RELEVANT REFERENCE AND ABUTMENT SIDE (EAST OR WEST ABUTMENT), TO ENSURE CORRECT PLACEMENT.

SPECIFICATIONS

THE SCHEME IS TO BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING STANDARD NETWORK RAIL SPECIFICATIONS NR/L3/CIV/140:

010	GENERAL SPECIFICATION (INCL. APPENDICES)
023	STRUCTURAL REPAIR SURVEY
040	DEMOLITION AND SITE CLEARANCE
050-053	EARTH WORKS & EXCAVATION
100	BEARINGS
110-114	WATERPROOFING
120	GENERAL REQUIREMENTS FOR BRIDGE INSTALLATION METHODS AND TEMPORARY WORKS
130-134	INSPECTION WORKS
150-153	BRICKWORK, BLOCKWORK & MASONRY REPAIRS
170-175	PROTECTIVE TREATMENTS
176	PROTECTIVE TREATMENT TABLES
180-182	DRAINAGE
255	LINESIDE VEGETATION
300	GRP GRATING
1700	STRUCTURAL CONCRETE
1800	STRUCTURAL STEELWORK

DRAWING LIST

- 162906-CGE-WLS-DJP-DRG-ECV-000001 - GENERAL NOTES DRAWING
- 162906-CGE-WLS-DJP-DRG-ECV-000002 - TOPOGRAPHICAL SURVEY
- 162906-CGE-WLS-DJP-DRG-ECV-000003 - EXISTING G.A. PLAN & SECTIONS
- 162906-CGE-WLS-DJP-DRG-ECV-000004 - EXISTING G.A. SECTION & ELEVATION
- 162906-CGE-WLS-DJP-DRG-ECV-000005 - PROPOSED G.A. PLAN & ELEVATION OF ABUTMENT
- 162906-CGE-WLS-DJP-DRG-ECV-000006 - PROPOSED ELEVATION & SECTION OF ABUTMENT
- 162906-CGE-WLS-DJP-DRG-ECV-000007 - PROPOSED G.A. OF WEST (HM) PC CILL BEAM
- 162906-CGE-WLS-DJP-DRG-ECV-000008 - PROPOSED G.A. OF EAST (LM) PC CILL BEAM
- 162906-CGE-WLS-DJP-DRG-ECV-000009 - PROPOSED 'L'SHAPE BALLAST RETENTION UNITS
- 162906-CGE-WLS-DJP-DRG-ECV-000010 - PROPOSED DECK SETTING OUT
- 162906-CGE-WLS-DJP-DRG-ECV-000011 - DECK STEELWORK DETAILS
- 162906-CGE-WLS-DJP-DRG-ECV-000012 - PROPOSED 'L' SHAPE RETENTION UNITS (UPSIDE)
- 168523-CGE-WLS-DJP-DRG-ECV-000013 - PROPOSED BEARING SETTING OUT
- 168523-CGE-WLS-DJP-DRG-ECV-000014 - PROPOSED BEARING DETAILS
- 168523-CGE-WLS-DJP-DRG-ECV-000015 - PROPOSED WALKWAY SEELWORK DETAILS
- 168523-CGE-WLS-DJP-DRG-ECV-000016 - PROPOSED DRAINAGE & WATERPROOFING DETAILS
- ~~168523-CGE-WLS-DJP-DRG-ECV-000020 - WEST (HM) CILL BEAM~~ REINFORCEMENT DETAILS
- ~~168523-CGE-WLS-DJP-DRG-ECV-000021 - EAST (LM) CILL BEAM~~ REINFORCEMENT DETAILS
- ~~168523-CGE-WLS-DJP-DRG-ECV-000021 - BALLAST REENTION UNITS & RAMP~~ FOUNDATION REIFORCENT DETAILS

NOTE: DRAWINGS LINED THROUGH ARE TO BE DEVELOPED

FINISHES

1.ALL SURFACE FINISHES ARE TO BE AND IN ACCORDANCE WITH THE NETWORK RAIL SPECIFICATION SECTION 1700.

2.FORMED SURFACES:

F3 IN ACCORDANCE WITH THE NETWORK RAIL SPECIFICATION SECTION 1700.

3.WHEN THE CONCRETE IS SELF-SUPPORTING BUT STILL SUFFICIENTLY GREEN, THE FORMWORK SHALL BE REMOVED, AS NECESSARY TO EXPOSE THE CONSTRUCTION JOINT. THE CONCRETE SURFACE SHALL BE SPRAYED WITH A FINE SPRAY OF WATER OR BRUSHED WITH A STIFF BRUSH, JUST SUFFICIENTLY TO REMOVE THE OUTER MORTAR SKIN AND EXPOSE THE LARGER AGGREGATE WITHOUT DISTURBING IT. ALTERNATIVELY WHERE THIS PREPARATION PROVES IMPRACTICABLE THE HARDENED SURFACE SKIN AND LAITANCE SHALL BE REMOVED BY GRIT BLASTING OR A NEEDLE GUN.

4.HARDENED SURFACES SHALL NOT BE HACKED.

BRICK & MASONRY REPAIRS

NETWORK RAIL SPECIFICATION DRAWINGS:

NR/CIV/SD/101 - SPECIFICATION.
NR/CIV/SD/102 - STANDARD BRICKWORK BANDS
NR/CIV/SD/108 - STITCHING NORMAL CRACKS.
NR/CIV/SD/109 - STITCHING SHEAR CRACKS.
NR/CIV/SD/110 - STITCHING OF LONGITUDINAL CRACKS IN BRICKWORK.
NR/CIV/SD/111 - SPOT REPLACEMENT OF BRICKWORK.
NR/CIV/SD/112 - TEMPORARY WORKS ARRANGEMENTS.
NR/CIV/SD/114 - TEMPORARY WORKS ARRANGEMENTS USING SHORING FOR LIVE LOCAL CONDITIONS.
NR/CIV/SD/115 - MASONRY REFURBISHMENT.
NR/CIV/SD/116 - RE-CASING VERTICAL WALLS

SURVEY

1.DRAWINGS HAVE BEEN PRODUCED ON THE BASIS OF A TOPOGRAPHICAL SURVEY CARRIED OUT IN APRIL 2021 BY ANTHONY BROOKES SURVEYS LTD, DRAWING NO A321/11884/1

2.THE CONTRACTOR IS RESPONSIBLE FOR CHECKING THE ACCURACY OF THE SURVEY AND FOR ALL SETTING OUT ON SITE.

3.THE CONTRACTOR SHALL ENSURE THAT ALL BURIED SERVICES ARE FOUND AND IDENTIFIED PRIOR TO THE COMMENCEMENT OF ANY WORKS.

RIVER LEVELS

1. RIVER LEVELS ARE TO BE CHECKED DAILY AND CONSIDERATION SHOULD BE GIVEN AT THE BEGINING OF EACH WORKING SHIFT BY THE CONTRACTOR IN RELATION WITH THE TEMPORARY SCAFFOLD & PROPPING.

GRP

1. ALL GRP MEMBERS SHALL BE NETWORK RAIL APPROVED GRP SECTIONS.

2. GRP BOLTED CONNECTION MINIMUM CLEARANCES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

DRAINAGE

1. THIS DRAWING HAS BEEN PRODUCED ON THE BASIS OF A TOPOGRAPHICAL SURVEY CARRIED OUT IN APRIL 2021 BY ANTHONY BROOKES SURVEYS LTD
2. BEFORE STARTING WORKS INVERT LEVELS AND POSITIONS OF EXISTING DRAINS, SEWERS, INSPECTIONS CHAMBERS AND MANHOLES ARE TO BE CHECKED AGAINST THE INFORMATION SHOWN ON THIS DRAWING TO CHECK FOR ANY DISCREPANCIES.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATIONS AND THE SAFETY OF ANY EXISTING STRUCTURES DURING THE WORKS.
4. THE CONTRACTOR SHALL ENSURE THAT ALL BURIED SERVICES ARE FOUND AND IDENTIFIED PRIOR TO THE COMMENCEMENT OF ANY WORKS.
5. ALL PROPRIETARY MATERIALS USED IN THE WORKS ARE TO BE INSTALLED IN COMPLETE ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.
6. IN ANY CIRCUMSTANCES WHERE THE PIPES ARE BEDDED AND SURROUNDED IN CONCRETE, FLEXIBLE JOINTS SHOULD BE PROVIDED. COMPRESSIBLE BOARDS (FIBREBOARD OR POLYSTYRENE) SHALL BE PROVIDED AT A MAXIMUM OF 8m CENTRES (COINCIDING WITH THE PIPE JOINTS). THE BOARDS SHALL BE PRE-CUT TO THE PIPE DIAMETER AND TO A HEIGHT AND WIDTH EQUAL TO THE CONCRETE CROSS SECTION. A BOARD THICKNESS OF 18mm IS TO BE USED.
7. ALL BUILDING DRAINAGE SHALL BE CONSTRUCTED IN STRICT ACCORDANCE WITH BS EN 752.
8. ALL PIPES, BENDS AND JUNCTIONS SHALL BE PVC-U BY DRAINAGE OR EQUIVALENT, CONFORMING TO BS EN 1401-01 AND SHALL BE LAID IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION.
9. ALL MANHOLE COVERS SHOULD CONFORM TO BS EN 124
10. INSPECTION CHAMBERS TO BE BY STANTON BONNA OR SIMILAR APPROVED
11. ALL CONNECTIONS FROM TO MANHOLES TO BE MIN 1 IN 40 GRADIENT UNLESS OTHERWISE NOTED.
12. ALL DRAINAGE WORKS AND MATERIALS TO BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS SECTIONS 180 TO 182.
13. DRAINS ARE 150mm INSIDE DIA. PERFORATED TWIN WALL PIPE IN GRANULAR FILL WITH TERRAM 1000 SOCK SURROUND TO DISCHARGE IN SOAK AWAY.
14. ALTERNATIVE DRAINAGE COMPONENTS MAY BE USED SUBJECT TO SUBMISSION AND APPROVAL OF DETAILS BY THE DESIGNER.

WATERPROOFING

1.WATERPROOFING DETAILS ARE TO BE AS ON DRAWING 168523-CGE-ECV-000016.

2.PROTECTION TO WATERPROOFING TO REAR OF DECK TO BE GEOTEXTILE PROTECTIVE MATTING - STIRLING LLOYD HYTEC SHEET WATERPROOFING OR SIMILAR APPROVED.

3.ALL SEALANTS ARE TO BE CONTINUOUS AS SHOWN AND ALL COMPONENTS TO BE COMPATIBLE AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

CILL BEAM & BEDDING

1.ALL DIMENSIONS RELATIVE TO THE EXISTING MASONRY ABUTMENT SAW CUT LEVELS OF 3.724m AND 3.750m.

2.THE EXISTING MASONRY ABUTMENTS BELOW THE CILL BEAM ARE TO BE CHECKED TO ENSURE THEY ARE SOUND AND WELL BONDED - ANY LOOSE MATERIAL IS TO BE REMOVED PRIOR TO PLACING OF NEW CILL BEAMS.

3.SAND/CEMENT BED, 50mm THICK FOR SMOOTH FINISH TO TOP OF ABUTMENT TO CONSIST OF MIX PROPORTIONS = 1:3-4/CEMENT:SAND TO PROVIDE LEVEL BEDDING SURFACE.

4.BACKFILL TO THE ABUTMENT EXCAVATION BELOW TRACK BED TO BE 6N FILL INSTALLED TO SHW SERIES 600. PIPE SURROUND TO BE FILLED WITH 10mm NOMINAL SINGLE SIZED AGGREGATE TO BS12620 AS FILTER MATERIAL FROM NR/L3/CIV/005/2E, TABLE 2E. SURROUNDING PIPE WITH A MINIMUM ENCASEMENT OF 100mm.

5. ALL DOWELL BARS TO BE STAINLESS STEEL AND FIXED WITH A RAPID HARDENING, HIGH STRENGTH CEMENTITIOUS GROUT.

STEELWORK

1. THE STEEL FABRICATOR IS TO CONFIRM ALL DIMENSIONS ON SITE PRIOR TO FABRICATION.

2. CONTRACTOR TO PROVIDE PACKING SHIMS OF 1mm, 2mm, 5mm AND 10mm.

3. ALL STRUCTURAL STEELWORK IN ACCORDANCE WITH THE NETWORK RAIL SPECIFICATION SECTION 1800

4.THE WHOLE OF THE STRUCTURAL STEELWORK IS TO COMPLY WITH THE RELEVANT CLAUSES OF BS 5950-1 & 2 (&/OR) BS EN 1993-1, AND THE NATIONAL STRUCTURAL STEELWORK SPECIFICATION (5th EDITION)

5.ALL MATERIALS SHALL BE IN ACCORDANCE WITH SECTION 2 OF THE NSSS (5th EDITION)

6.STEELWORK GRADES ARE TO BE AS FOLLOWS:

·UB, UC, PFC & ANGLE SECTIONS TO BE GRADE S355 J2 (+N) TO BS EN 10025 2004.
·PLATES TO BE GRADE S355 J2 (+N) TO BS EN 10025 2004.

7.ALL WELDS TO BE TO BS EN ISO 15607:2003 & BS EN ISO 15609:2004 UNLESS NOTED OTHERWISE. (VENT HOLES ARE TO BE PROVIDED WHEN WELDING CLOSED HOLLOW SECTIONS, HOLE POSITIONS TO BE AGREED WITH ENGINEER PRIOR TO FABRICATION)

8.WORKMANSHIP SHALL BE IN ACCORDANCE WITH SECTIONS 4 TO 9 OF THE NSSS (5th EDITION) UNLESS NOTED OTHERWISE.

GALVANISED BOLTS

1.ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANISED TO BS EN ISO 14612009 (NOT SHERADISED OR ZINC PLATED).

2.ANY CONNECTIONS BETWEEN STAINLESS / GALVANISED AND MILD STEEL ARE TO HAVE NEOPRENE ISOLATION WASHERS / MEMBRANES TO PREVENT BI-METALLIC CORROSION.

3. ALL FAYING SURFACES TO ACHIVE A MINIMUM SLIP FACTOR OF 0.5.

4. MINIMUM EDGE DISTANCE FOR BOLTS (UNLESS NOTED OTHERWISE) ARE LISTED BELOW.

5. M20 BOLT EDGE DISTANCE 26mm (MIN). EXISTING RIVET HOLES MAY BE OVER REAMED TO INCREASE BOLT CLEARANCES TO 2mm OR AS PER DESIGNER REQUIREMENTS. THE RIVET HOLES PERIPHERY SHALL BE DRESSED OR REAMED TO REMOVED IMPERECTIONS, ANY CRACKING IS TO BE INVESTIGATED AND ADDRESSED IF NECESSARY.

WELDING

1. ALL WELDING SHALL BE IN ACCORDANCE WITH : BS EN 1011-1:1998 AND AMENDMENT No. 1:2002 BS EN 1011:2, BSEN729 AND THE SPECIFICATION. ALL WELDERS SHALL E APPROVED TO BS EN 87 PART 1 AND BS EN 1418.

2. WELDS TO BE FILLET WITH A MINIMUM LEG LENGTH OF 12mm.

3. WELD IS TO BE APPLIED TO UNPAINTED EDGE OF MAIN PLATES.

4. WELDS TO E EXECUTION CLASS EX2.

REINFORCED CONCRETE

1.CONCRETE MIXES IN ACORDANCE WITH BS 8500-2 & BS EN 06-1:

PRECAST CILL BEAMS	:C40/50
PRECAST 'L' SHAPED RETENTION UNITS	:C35/45
WALKWAY FOUNDATIONS	:C35/45

2.ALL CONCRETE AND CONCRETE WORKS ARE TO BE ACCORDANCE WITH STANDARD SPECIFICATION SECTIONS 085 AND 1700.

3.CONCRETE TO BE CURED BY APPROVED METHOD FOR A MINIMUM OF 7 DAYS. FOR GUIDANCE REFER TO 'CONCRETE ADVICE DOCUMENT No. 20' BY 'THE CONCRETE SOCIETY'.

4.CARE IS TO BE TAKEN TO PROTECT CONCRETE FROM ADVERSE WEATHER. FOR GUIDANCE REFER TO 'CONCRETE ADVICE DOCUMENT No. 20' BY 'THE CONCRETE SOCIETY '.

5.SAMPLING AND TESTING OF CONCRETE IS TO BE CARRIED OUT IN ACCORDANCE WITH BS EN 12350-1 & 2. FOR GUIDANCE REFER TO 'CONCRETE ADVICE DOCUMENT No. 30' BY 'THE CONCRETE SOCIETY.

6.REINFORCEMENT NOTATION:

10 B 12 - 05 - 200 - B1

- NUMBER OF BARS
- REINFORCEMENT TYPE
- BAR DIAMETER
- BAR MARK
- BAR SPACING
- LOCATION OF REINFORCEMENT

7.REINFORCEMENT IS TO BE CUT AND BENT IN ACCORDANCE WITH BS 8666

8.REINFORCEMENT IS TO BE TYPE B - GRADE 500 IN ACCORDANCE WITH BS4449

9.SCHEDULING OF REINFORCEMENT IS TO BS 8666:2005.

10.TYING WIRES FOR REINFORCEMENT IS TO BE 1.2mm DIA STAINLESS STEEL (INSITU ONLY).

11.COUPLERS TO BE BARTEC TYPE A AND TYPE B OR SIMILAR APPROVED.

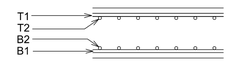
12.REINFORCEMENT BARS THAT CLASH WITH BOLTS/ANCHORS MAY BE LOCALLY DISPLACED AROUND THE BOLTS/ANCHORS.

13.BAR SCHEDULES ARE TO BE CHECKED BY THE CONTRACTOR BEFORE ANY STEEL IS ORDERED.

14.REINFORCEMENT AND FORMWORK ARE TO BE THOROUGHLY CHECKED BEFORE CONCRETING.

15.THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY REINFORCEMENT, SUCH AS CHAIRS, THAT MIGHT BE REQUIRED.

16.ABBREVIATIONS:
- T1/T2- TOP FACE (T1=OUTER LAYER, T2=INNER)
- B1/B2- BOTTOM FACE (B1=OUTER LAYER, B2=INNER)
- NF1/NF2- NEAR FACE (NF1=OUTER LAYER, F2=INNER)
- FF1/FF2- FAR FACE (FF1=OUTER LAYER, FF2=INNER)
- EF- EACH FACE
- SF- SIDE FACE
- ES- EQUALLY SPACED
- AP- ALTERNATELY PLACED
- AB- ALTERNATE BARS
- ABS- ALTERNATE BARS STAGGERED
- STG- BARS STAGGERED
- ABR- ALTERNATE BARS REVERSED
- LB- 'L' BAR
- UB- 'U' BAR



17.LAP LENGTHS UNLESS NOTED OTHERWISE ARE TO BE A MINIMUM OF 40x BAR DIAMETER.
- B10 = 400
- B12 = 480
- B16 = 640
- B20= 800
- B25 = 1000
- B32 = 1280

MASS CONCRETE

1. CONCRETE MIXES IN ACCORDANCE WITH BS 8500-2 AND BS EN 206-1

2. BLINDING TO BE 50mm THICK BENEATH ALL AREAS OF INSITU CONCRETE.

3. CONCRETE TO BE CURED BY APPROVED METHOD FOR A MINIMUM OF 7 DAYS. FOR GUIDANCE REFER TO 'CONCRETE ADVICE DOCUMENT No. 20' BY 'THE CONCRETE SOCIETY '

4. CARE IS TO BE TAKEN TO PROTECT CONCRETE FROM ADVERSE WEATHER. FOR GUIDANCE REFER TO 'CONCRETE ADVICE DOCUMENT No. 20' BY 'THE CONCRETE SOCIETY '.

5. SAMPLING AND TESTING OF CONCRETE IS TO BE CARRIED OUT IN ACCORDANCE WITH BS EN 12350-1 & 2. FOR GUIDANCE REFER TO 'CONCRETE ADVICE DOCUMENT No. 30' BY 'THE CONCRETE SOCIETY.

PAINT SPECIFICATION

1. STEELWORK PAINT SYSTEMS ARE TO BE IN ACCORDANCE WITH THE NETWORK RAIL STANDARDS NR/L3/CIV/039, NR/L3/CIV/040 & NR/GN/CIV/002 AND ARE AS FOLLOWS;

a. ALL NEW SURFACE PREPAIRED IN FABRICATION SHOP TO BE TREATED TO N2/N4

b. MAINTENANCE FREE PERIOD FOR Sa2.5 AREAS IS 25 YEARS.

c. THE FINAL PAINT COLOUR OF ALL STEELWORK TO BE ANTHRACITE GREY (RAL 7016).

d. FOR DRY FIM THICKNESS SEE MAUFACTUERS SPECIFICATION. JOTUN X92/M34 TO BE APPLIED AS AROTECTIVE TREATMENT FOR SURFACES GRIT BLAST TO Sa2.5 AND St3.

TEMPORARY WORKS

1. LINE BLOCKAGES / POSSESSIONS WILL BE REQUIRED DURING THE WORKS.

2. TEMPORARY WORKS ARE REQUIRED TO CARRY OUT THESE WORKS.

3. TEMPORARY WORKS TO FORM PART OF SEPARATE SUBMISSION IN ACCORDANCE WITH NR/L2/CIV/003 REQUIREMENTS.

4. TEMPORARY WORKS TO INCLUDE BUT NOT LIMITED TO:

a. DETAILED DEMOLITION SEQUENCE (SEPARATE SUBMISSION).
b. EXISTING ABUTMENTS STABILITY AFTER REMOVING SUPERSTRUCTURE.
c. CRANE WORKING PLATFORM DESIGN.
d. NETWORK RAIL ASSETS AND THIRD-PARTY TELECOMS & TRACK PROTECTION.
e. TEMPORARY SUPPORT FOR S&T AND HV SERVICE CABLES.
f. TEMPORARY STAGING, DEPENDING ON CONTRACTORS DEMOLITION METHODOLOGY.
g. ROAD DIVERSIONS.
h. EXCAVATION SUPPORT.
i. BURIED SERVICES PROTECTION.

5. A BASELIE SURVEY TO BE CARRIED OUT BY NWR 3 WEEKS PRIOR TO COMENCING WORKS O SITE TO CONFIRM NO INPACT ON THE TRACK FOLLOWING WORKS.

6. NETWORK RAIL TO ENSURE THAT THE IP CRITICAL RAIL TEMPERATUE MANAGEMENT PLAN TRK/CON/00001/VERSION 04 IS ADHRED TO VER HE FULL EXTENT O ANYLOCALISED TRACK EXCAVATION.

7. AL TRACK MONITORINGTO BE PROPOSED, INSTALLED AND MONITORED BY NWR. AND NOT PARTOF CGR WORKS

8. POSITION OF TEMPORARY WORK INDICATED ON DRAWINGS WITH A SYMBOL: TW

CONSTUCTION SQUENCE

BASED ON POSSESSION AVAILABILITY, THE WORKS ARE ENVISAGED TO BE UNDERTAKEN AS FOLLOWS:

PRE-DISRUPTIVE POSSESSIONS WORKS
- SET UP SITE COMPOUND CONSIDER USING NEARBY PADDY'S YARD AT DJP 81M 43CH.
- INSTALL TEMPORARY WORKS WHERE NECESSARY (SCAFFOLD, PROPPING TO ABUTMENT, CRANE PADS, TEMPORARY SERVICE BRIDGE FOR CABLES AND DIVERSION OF CABLES).

DISRUPTIVE POSSESSIONS WORKS
- TRACK MONITORING AND CRITICAL RAIL TEMPERATURE MONITORING TO BE IMPLEMENTED AND UNDERTAKEN FOR DURATION OF WORKS. THIS IS TO BE COMPLETED BY NETWORK RAIL WORKS DELIVERY.
- REMOVE TRACK AND BALLAST FROM BRIDGE DECK AND APPROACH
- EXCAVATE BEHIND EACH ABUTMENT.
- REMOVE EXISTING SUPERSTRUCTURE
- CUT DOWN ABUTMENTS AND PREPARE SURFACE WITH MORTAR BED TO SITE CILL BEAMS.
- INSTALL PRECAST CONCRETE CILL BEAMS AND BALLAST RETENTION WALL ON PREPARED ABUTMENTS.
- DRILL HOLES FOR DOWELS INTO ABUTMENTS USING THE PRECAST CILL BEAMS HOLES FOR SETTING OUT.
- INSTALL STAINLESS STEEL DOWELS AND GROUT/ RESIN IN PLACE.
- BEARINGS FITTED TO MAIN GIRDER.
- LIFT PROPOSED STRUCTURE INTO PLACE.
- INSTALL BACK OF ABUTMENT DRAINAGE SYSTEM AND OUTLET/ OUTFALL DETAIL IN EXISTING EMBANKMENT.
- INSTALL WATERPROOFING SYSTEM AT DECK ENDS, TO TIE IN WITH DECK WATERPROOFING.
- BACKFILL AND COMPACT FILL BEHIND ABUTMENTS.
- INSTALL GEOGRID TO ABUTMENT APPROACHES BY NETWORK RAIL WORKS DELIVERY.
- INSTALL BALLAST RETENTION UNITS.
- INSTALLATION AND COMPACTION OF THE FIRST LAYER OF BALLAST (BOTTOM BALLAST) UP TO THE UNDERSIDE OF SLEEPER LEVEL BY CENTREGREAT.
- REINSTATE TRACK (INSTALLATION OF SLEEPERS AND REMAINING BALLAST) BY NETWORK RAIL WORKS DELIVERY.

POST DISRUPTIVE POSSESSION WORKS
- CARRY OUT 'FOLLOW ON' TAMPING OF TRACK AND CONTINUE TO MONITOR BY NETWORK RAIL WORKS DELIVERY.
- REMOVE TEMPORARY WORKS.
- COMPLETE HEADWALL AND SOAK-AWAY INSTALLATION.
- COMPLETE ABUTMENT AND WING WALL REPAIRS AND POINTING.
- DEMOBILISE FROM SITE.
- RE-OPEN PROW TO THE PUBLIC.

Legend/Notes

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

NOTES BELOW ARE ADDITIONAL TO HAZARDS/RISK NORNALLY ASSOCIATED WITH THIS TYPE OF WORK

CONSTRUCTION
CI. STEEL DECK & CILL BEAMS LIFTING DURING CONSTRUCTION WORKS
CII. ABUTMENT INSTABILITY DUE TO REFURBISHMENT WORKS ON THE ABUTMENT/WING WALLS
CIII. EXCAVATION/SLOPE COLLAPSE
CIV. UNDERMINING EXISTING ABUTMENT FOUNDATION
CV. STABILITY OF THE 'L' SHAPE RETENTION UNITS
CVI. UNFORESEEN GROUND CONDITIONS

OPERATIONAL & MAINTENANCE
OI. DISTURBING THE TRACK DURING WORKS
OII. WORKING AT HEIGHT, RISK OF PERSONNEL FALLING
OIII. PERSONAL INJURY TO WORKERS DUE TO CONTACT WITH TRAINS
OIV. SLIP/TRIP/FALLS DUE TO UNEVEN OR STEEP GROUND
OV. DISTURBANCE TO LOCAL AREA AND ENVIRONMENT
OVI. CONTAMINATION TO ENVIRONMENT AND SPECIES
OVII. INJURY OR INFECTION DUE TO CONTACT TO HAZARDOUS MATERIAL
OVIII. DAMAGE TO SERVICE CABLES LAID ALONG THE BALLAST
OIX. PERSONAL INJURY DUE TO WORKING NEAR/ABOVE WATER
OX. BRIDGE/SCAFFOLD IMPACTED BY LARGE OBJECT DURING FLOODING EVENTS
OXI. ABUTMENT INSTABILITY DURING CONSTRUCTION WORKS
OXII. STABILITY FAILURE OF THE 'L' SHAPE RETENTION UNITS

DISMANTLING/DEMOLITION
DI. OVERTURNING OF ABUTMENT AFTER EXISTING DECK HAS BEEN REMOVED

THESE NOTES ARE BASED ON THE USE OF EXPERIENCED AND COMPETENT CONTRACTORS CARRYING OUT THE WORK USING AN APPROVED SAFE METHOD OF WORKING, A RESIDUAL RISK AND HAZARD DOCUMENT HAS BEEN CREAT FOR A MORE DETAILED ASSESSMENT.

Rev	Date	Description of Revisions	Drawn	Chkd	Appr
B01	19/05/21	First Issue	MM	MG	SAG
P01.1	14/05/21	First Issue	MM	MG	SAG

Status: Fit for Internal Review & Comment
Suitability: S3

NetworkRail

Authorised | Signed | Date

Contractor(s): CENTREGREAT RAIL

Location: ABERDOVEY, WALES, LL35 ORG
Type: CAD Drawing | Sub-type:
Role: Civil Engineer | Sub-Role: Structures and Buildings
Zone: Wales Region
Phasing: | Grip Stage: 5

Region: Western and Wales

Contract No.: 162906

Contract Title: Pant Eidal Bridge

Drawing Title: GENERAL NOTES

Designed	M. GOPAL	Signed Electronically Signed	Date 29/03/21
Drawn	M. MITCHELL	Signed Electronically Signed	Date 29/03/21
Checked	M. GOPAL	Signed	Date 15/05/21
Approved	S. ALARCON GENER	Signed	Date 15/05/21

Scale(s): As Shown
ELR & Mileage: 81m 31.75ch to 0

Alternative Reference: 162906-CGE-DRG-ECV-000001
Sheet of

Drawing Number: 162906-CGE-WLS-DJP-DRG-ECV-000001
Revision: B01

Sheet Size A1 594 x 841