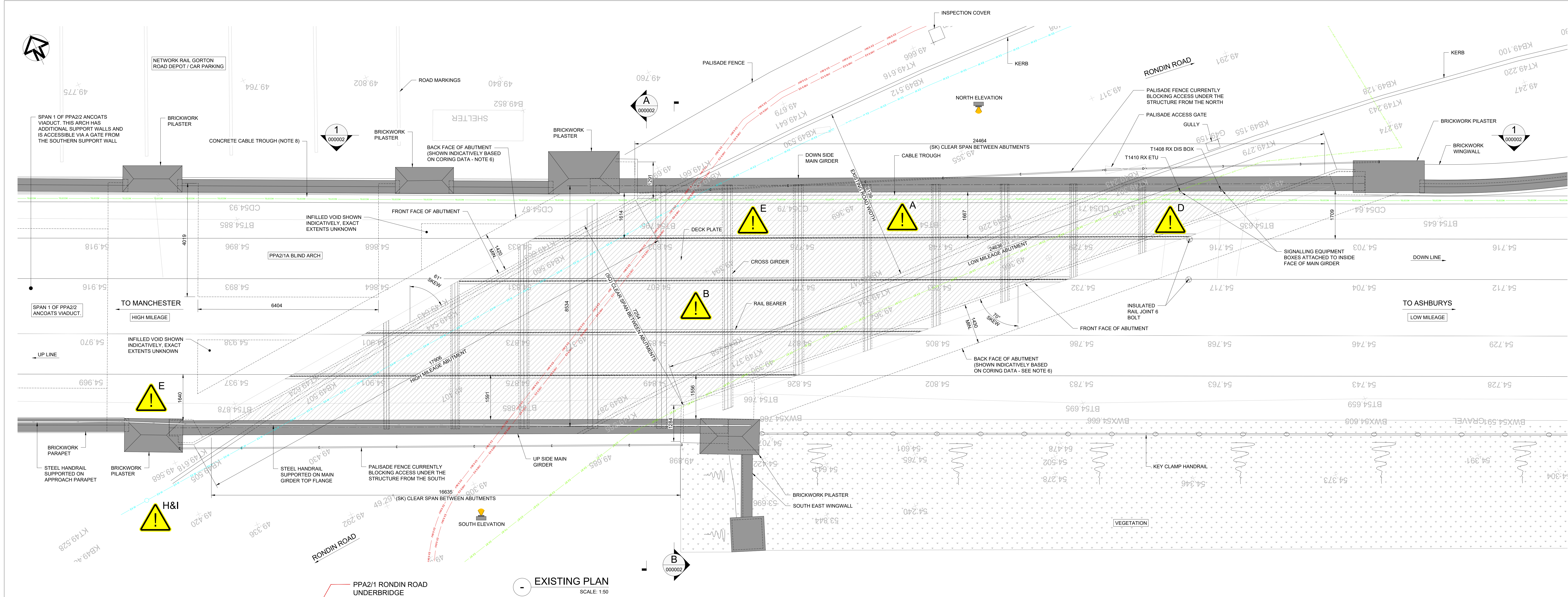


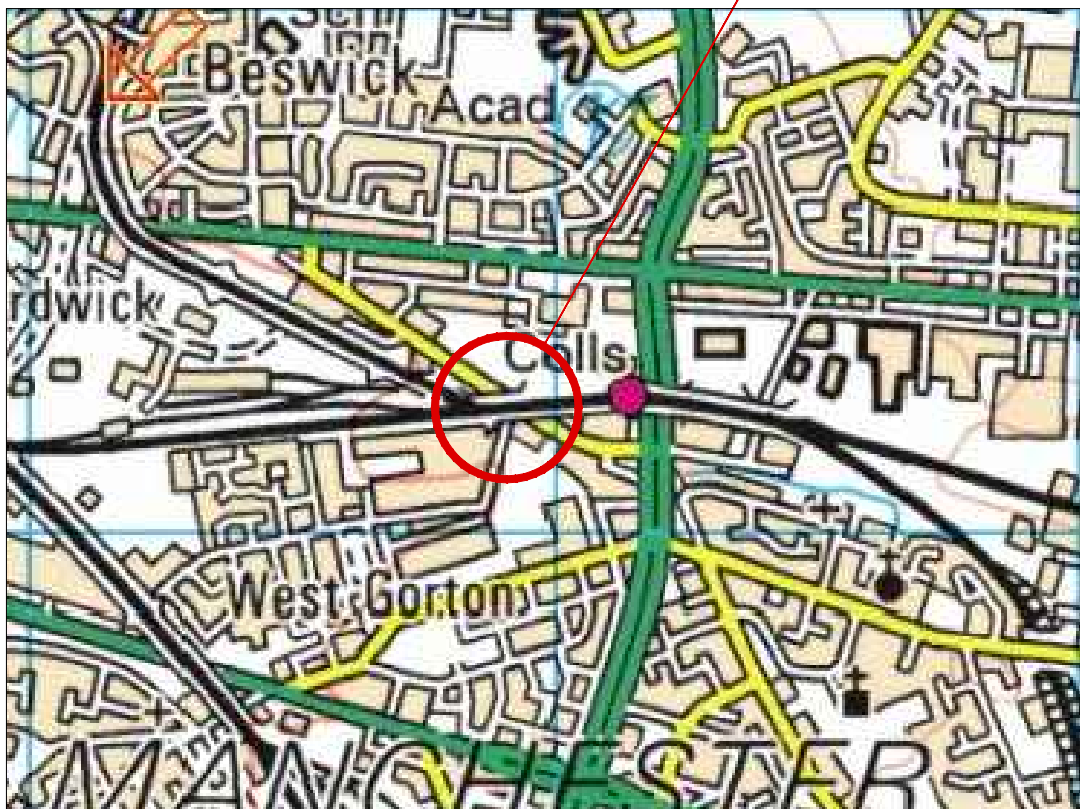


LEGEND:

SQ - SQUARE DIMENSION  
SK - SKEW DIMENSION

KEY TO BURIED SERVICES

— VODAFONE TELECOMS CABLE (LEASED)  
— ELECTRICITY NORTH WEST 6.6KV ELECTRIC CABLES  
— UNITED UTILITIES 225 DIA. WATER MAIN  
— OPENREACH BT CABLE



LOCATION PLAN  
SCALE: NTS  
(OS GRID REF: SJ 8652 9740)



NORTH ELEVATION  
(PHOTO AS TAKEN IN 2020)



SOUTH ELEVATION  
(PHOTO AS TAKEN IN 2020)

| EXISTING DECK WEIGHTS IN TONNES (APPROX.) |                               |           |                  |
|-------------------------------------------|-------------------------------|-----------|------------------|
|                                           | UNIT WEIGHT (T)               | NO. UNITS | TOTAL WEIGHT (T) |
| NORTH MAIN GIRDER                         | 16.1                          | 1         | 16.1             |
| SOUTH MAIN GIRDER                         | 9.8                           | 1         | 9.8              |
| CROSS GIRDER                              | VARIES (MIN. 0.25T, MAX. 3T)  | 12        | 15.1             |
| RAIL BEARER                               | VARIES (MIN. 1.2T, MAX. 1.5T) | 1         | 5.2              |
| DECK PLATE                                | 14.8                          | 1         | 14.8             |
| SIDL (BALLAST)                            | -                             | -         | 91.3             |
| TOTAL WEIGHT (INC. 10% STEEL CONNECTIONS) |                               |           | 158.4            |

| MINIMUM CONSTRUCTION DEPTH (m)        |        |
|---------------------------------------|--------|
| RAIL, STEEL SLEEPER (102mm) & BALLAST | 0.474m |
| CROSS GIRDER                          | 0.489m |
| TOTAL                                 | 0.963m |

|                                                                                                                                                                       | 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 DRIVING RULES |
|                                                                                                                                                                       | EARTHING                                                   |  | EXCLUSION ZONE        |  | PLANS AND PERMITS                                                                     |  | SAFETY HARNESS AT HEIGHT                                                              |  | ISOLATION          |
| A                                                                                                                                                                                                                                                          | WORKING ADJACENT TO BURIED SERVICES AND S&T INFRASTRUCTURE |                                                                                       |                       |                                                                                       |  |  |  |  |                    |

|                                                                                                                        |                                                                                              |  |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|--|
| B                                                                                                                      | POTENTIAL TEMPORARY INSTABILITY OF ABUTMENTS DURING BRIDGE DEMOLITION AND INSTALLATION       |  |
| D                                                                                                                      | SIGNALLING EQUIPMENT ATTACHED TO THE INSIDE FACE OF THE NORTHERN MAIN GIRDER                 |  |
| E                                                                                                                      | WORKING IN AN AREA WITH LIMITED CLEARANCE                                                    |  |
| H                                                                                                                      | WORKING IN AREA WITH RESTRICTED ACCESS UNDER STRUCTURE / POTENTIAL FOR ANTI-SOCIAL BEHAVIOUR |  |
| I                                                                                                                      | WORKING IN AREA WITH HEALTH HAZARDS - PIGEON GUANO / SHARPS                                  |  |
| FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNERS H&S RISK ASSESSMENT REF.: 10037409-ARC-RO-UB-DR-CB-000001. |                                                                                              |  |

#### NOTES:

- DO NOT SCALE FROM DRAWING.
- ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS AND LEVELS AE TO BE CHECKED ON SITE PRIOR COMMENCING WORKS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL CONTRACTUAL DRAWINGS, SCHEDULES, DOCUMENTS AND DESIGN SPECIFICATIONS.
- EXISTING GENERAL ARRANGEMENT PRODUCED BASED ON PBH TOPOGRAPHICAL SURVEY COMPLETED IN OCTOBER AND DECEMBER 2020 (PBH-1702-001-DWG-SU-003 A01) AND EXISTING NR ARCHIVE INFORMATION. TOPOGRAPHICAL SURVEY COORDINATE SYSTEM IS TPEN16 SNAKEGRID.
- ABUTMENT THICKNESS AND FOUNDING LEVELS ARE TAKEN FROM BGA CORING REPORT (REPORT NO. 4096(1) DATED SEPTEMBER 2020).
- BURIED SERVICES SURVEY COMPLETED IN APRIL 2019 (REFERENCE LOCATION - GORTON ROAD, BESWICK).
- TRACKSIDE CABLE SURVEY BY MURPHYS COMPLETED IN AUGUST 2020. LOCATIONS OF FOLLOWING CABLES ON BRIDGE DECK TBC BY CONTRACTOR:
  - 6 NO. TRACK CABLES
  - 3 NO. SIGNAL CABLES
  - 1 NO. POWER CABLE
  - 2 NO. FIBRE OPTIC CABLES
  - 3 NO. TELECOM CABLES
  - 2 NO. RETURN CABLES
  - 1 NO. SPT CABLES
  - 7 NO. TELECOM CABLES (LOCATED IN CABLE TROUGH)
- OUTSTANDING INFORMATION TO BE CONFIRMED BY THE CONTRACTOR:
  - POSITION AND LOCATION OF TRACKSIDE CABLES (NOTE 8)
- EXISTING STRUCTURE DRAINAGE UNKNOWN.

| Rev | Date     | Description                  | Y.N | A.G | D.B |
|-----|----------|------------------------------|-----|-----|-----|
| A01 | 10.03.21 | F001 - APPROVAL IN PRINCIPLE |     |     |     |



PROJECT:

LNW FRAMEWORK CP6  
OP No. 164698

ARCADIS Design & Consultancy for natural and built assets

Registered office: Arcadis, 34 York Way, London N1 9AB

Coordinating office: 1st Floor, Artemis House, Eboracum Way, York YO31 7RE, Tel: +44 (0)1904 380 750

www.arcadis.com

TITLE:

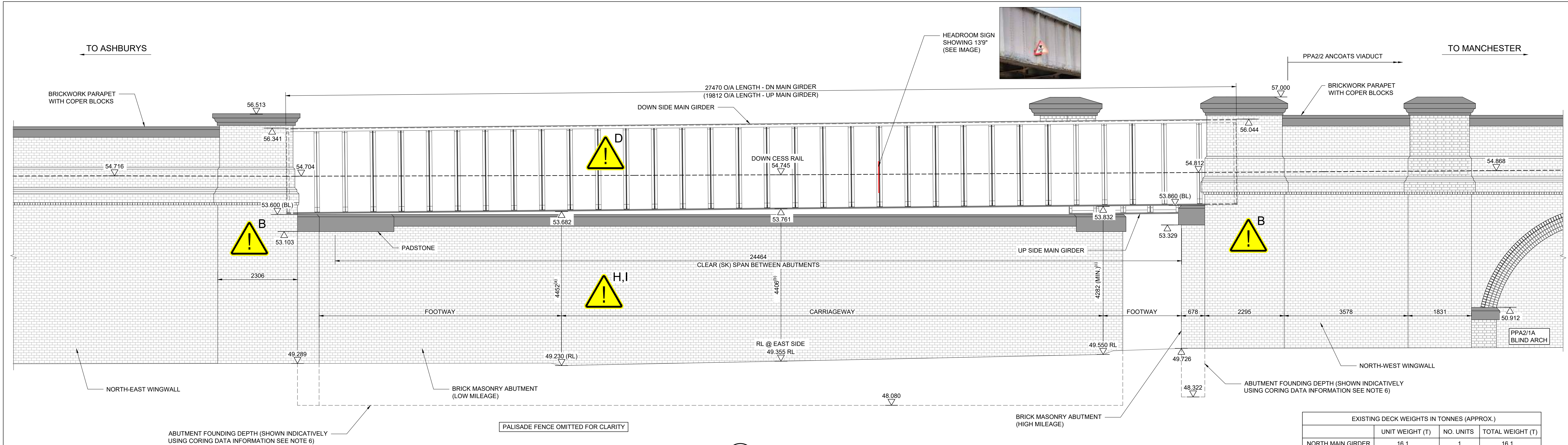
PPA2/1 RONDON ROAD UNDERBRIDGE RECONSTRUCTION EXISTING GENERAL ARRANGEMENT PLAN

|                   |              |                 |              |      |            |
|-------------------|--------------|-----------------|--------------|------|------------|
| Designed          | J. HERTERICH | Signed          |              | Date | 10.03.2021 |
| Drawn             | Y. NAYAK     | Signed          |              | Date | 10.03.2021 |
| Checked           | A. GODFREY   | Signed          |              | Date | 10.03.2021 |
| Approved          | D. BEEVER    | Signed          |              | Date | 10.03.2021 |
| Scale:            | As shown     | Datum:          | AOD          |      |            |
| Original Size:    | A1+2         | Grid:           | SJ 8652 9740 |      |            |
| ELR:              | PPA2         | Mileage:        | 0m 0430yds   |      |            |
| Suitability Code: | A1           | Project Number: | 10037409     |      |            |

Suitability Description:

F001 - APPROVAL IN PRINCIPLE

|                 |                                 |           |     |
|-----------------|---------------------------------|-----------|-----|
| Drawing Number: | 10037409-ARC-RO-UB-DR-CB-000001 | Revision: | A01 |
|-----------------|---------------------------------|-----------|-----|



- NOTES:**
- (a) HEADROOM AT EAST SIDE OF CARRIAGEWAY TO UNDERSIDE OF PROPOSED BRIDGE
- (b) HEADROOM AT C/L OF CARRIAGEWAY TO UNDERSIDE OF PROPOSED BRIDGE
- (c) HEADROOM AT WEST SIDE OF CARRIAGEWAY TO UNDERSIDE OF PROPOSED BRIDGE
- ★ HEADROOM TAKEN TO UNDERSIDE OF CROSS GIRDER (15mm RIVET HEAD ASSUMED)

**LEGEND:**

SK - SKEW DIMENSION

BL - BEARING LEVEL

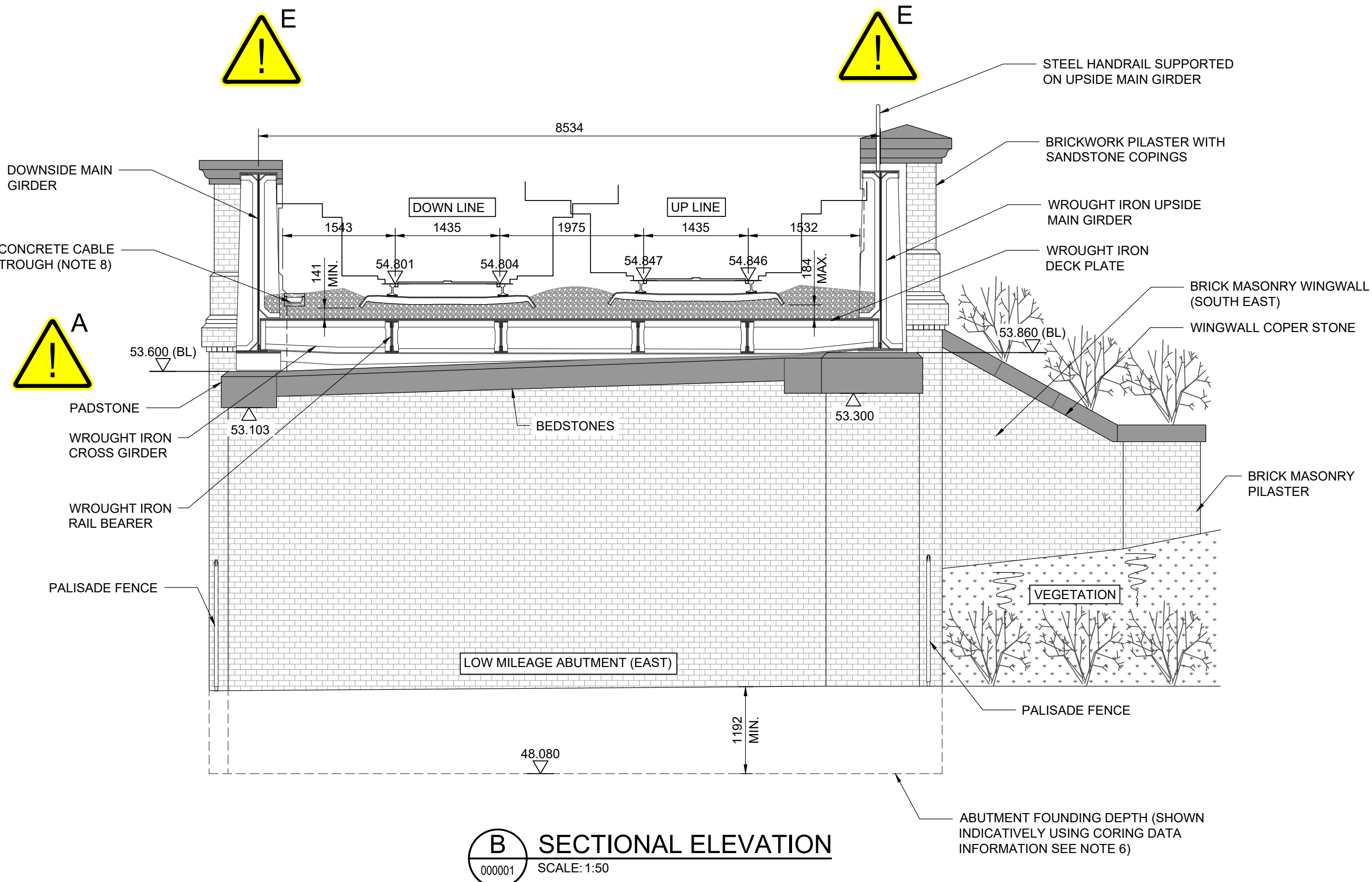
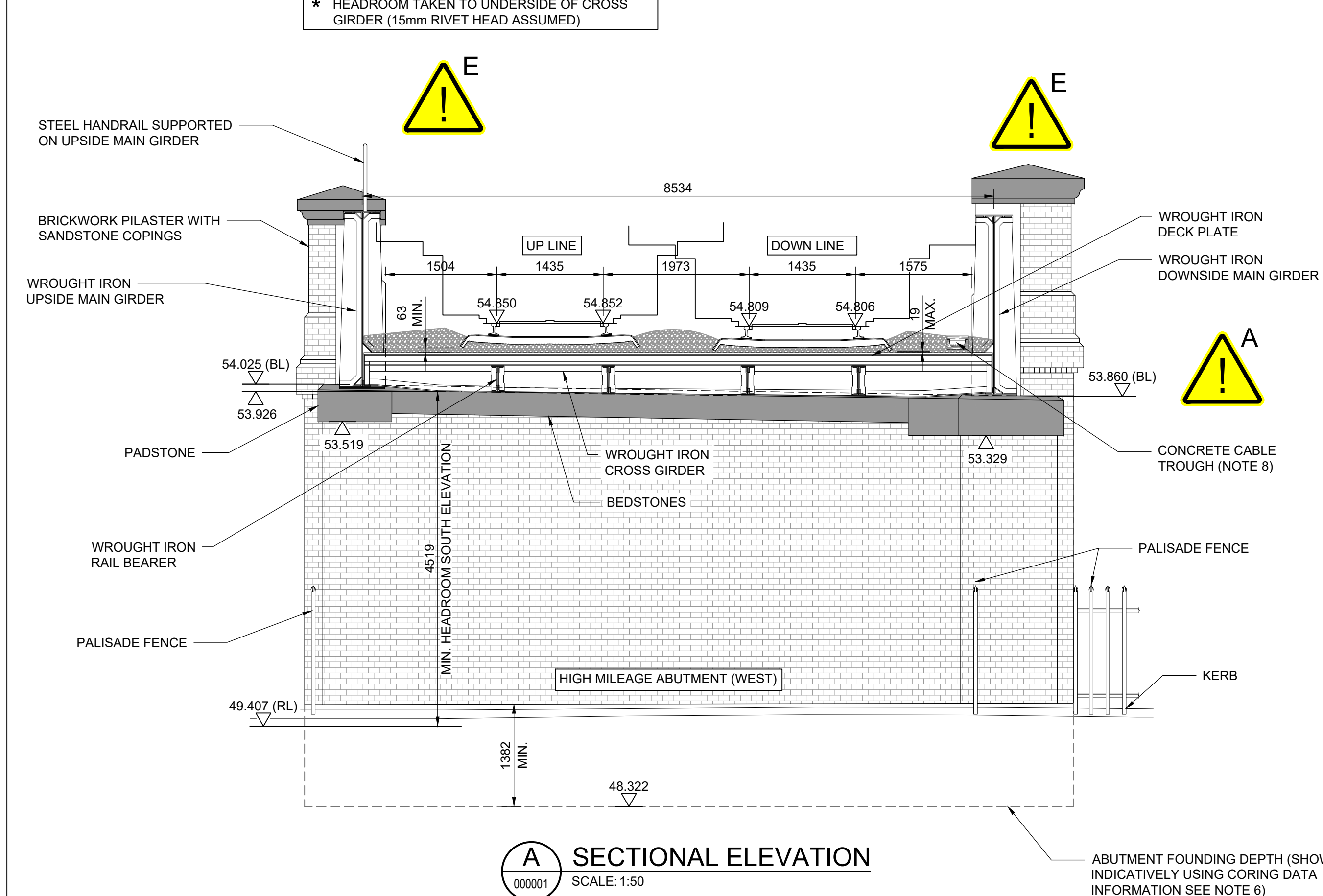
RL - ROAD LEVEL

**1 ELEVATION**

000001 SCALE: 1:50

| EXISTING DECK WEIGHTS IN TONNES (APPROX.) |                                  |           |                  |
|-------------------------------------------|----------------------------------|-----------|------------------|
|                                           | UNIT WEIGHT (T)                  | NO. UNITS | TOTAL WEIGHT (T) |
| NORTH MAIN GIRDER                         | 16.1                             | 1         | 16.1             |
| SOUTH MAIN GIRDER                         | 9.8                              | 1         | 9.8              |
| CROSS GIRDER                              | VARIABLES (MIN. 0.25T, MAX. 3T)  | 12        | 15.1             |
| RAIL BEARER                               | VARIABLES (MIN. 1.2T, MAX. 1.5T) | 1         | 5.2              |
| DECK PLATE                                | 14.8                             | 1         | 14.8             |
| SIDL (BALLAST)                            | -                                | -         | 91.3             |
| TOTAL WEIGHT (INC. 10% STEEL CONNECTIONS) |                                  |           | 158.4            |

| MINIMUM CONSTRUCTION DEPTH (m)        |        |
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| RAIL, STEEL SLEEPER (102mm) & BALLAST | 0.474m |
| CROSS GIRDER                          | 0.489m |
| TOTAL                                 | 0.963m |



| HAZARD SUMMARY TABLE                                                                                                                                                                                                                                                                         |                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| ! SIGNIFICANT DESIGNER'S IDENTIFIED HAZARDS                                                                                                                                                                                                                                                  | LIFE SAVING RULES                                                                            |
| <b>SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION</b>                                                                                                                                                                                                                                          |                                                                                              |
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| <div><div>DRUGS / ALCOHOL</div><div>TRAINING &amp; COMPETENCY</div><div>NO MOBILE PHONES</div><div>CORRECT EQUIPMENT</div><div>OBEY DRIVING RULES</div><div>EARTHING</div><div>EXCLUSION ZONE</div><div>PLANS AND PERMITS</div><div>SAFETY HARNESS AT HEIGHT</div><div>ISOLATION</div></div> |                                                                                              |
| A                                                                                                                                                                                                                                                                                            | WORKING ADJACENT TO BURIED SERVICES AND S&T INFRASTRUCTURE                                   |
| B                                                                                                                                                                                                                                                                                            | POTENTIAL TEMPORARY INSTABILITY OF ABUTMENTS DURING BRIDGE DEMOLITION AND INSTALLATION       |
| D                                                                                                                                                                                                                                                                                            | SIGNALLING EQUIPMENT ATTACHED TO THE INSIDE FACE OF THE NORTHERN MAIN GIRDER                 |
| E                                                                                                                                                                                                                                                                                            | WORKING IN AN AREA WITH LIMITED CLEARANCE                                                    |
| H                                                                                                                                                                                                                                                                                            | WORKING IN AREA WITH RESTRICTED ACCESS UNDER STRUCTURE / POTENTIAL FOR ANTI-SOCIAL BEHAVIOUR |
| I                                                                                                                                                                                                                                                                                            | WORKING IN AREA WITH HEALTH HAZARDS - PIGEON GUANO / SHARPS                                  |
| FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNERS H&S RISK ASSESSMENT REF.: 10037409-ARC-RO-UB-RA-CB-000001.                                                                                                                                                                       |                                                                                              |

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  - OUTSTANDING INFORMATION TO BE CONFIRMED BY THE CONTRACTOR.
    - POSITION AND LOCATION OF TRACKSIDE CABLES (NOTE 8)

| Rev | Date     | Description                  | Drawn | Check | Approv |
|-----|----------|------------------------------|-------|-------|--------|
| A01 | 10.03.21 | F001 - APPROVAL IN PRINCIPLE | Y.N.  | A.G.  | D.B.   |

**NetworkRail**

**MURPHY**

WORLD-CLASS INFRASTRUCTURE

**PROJECT:**

LNW FRAMEWORK CP6

OP No. 164698

**ARCADIS**

Registered office: Arcadis  
34 York Way  
London  
N1 9AB

Coordinating office: 1st Floor, Artemis House  
Elaborum Way  
York YO31 7RE  
Tel: +44 (0)1904 380 750

www.arcadis.com

**TITLE:**

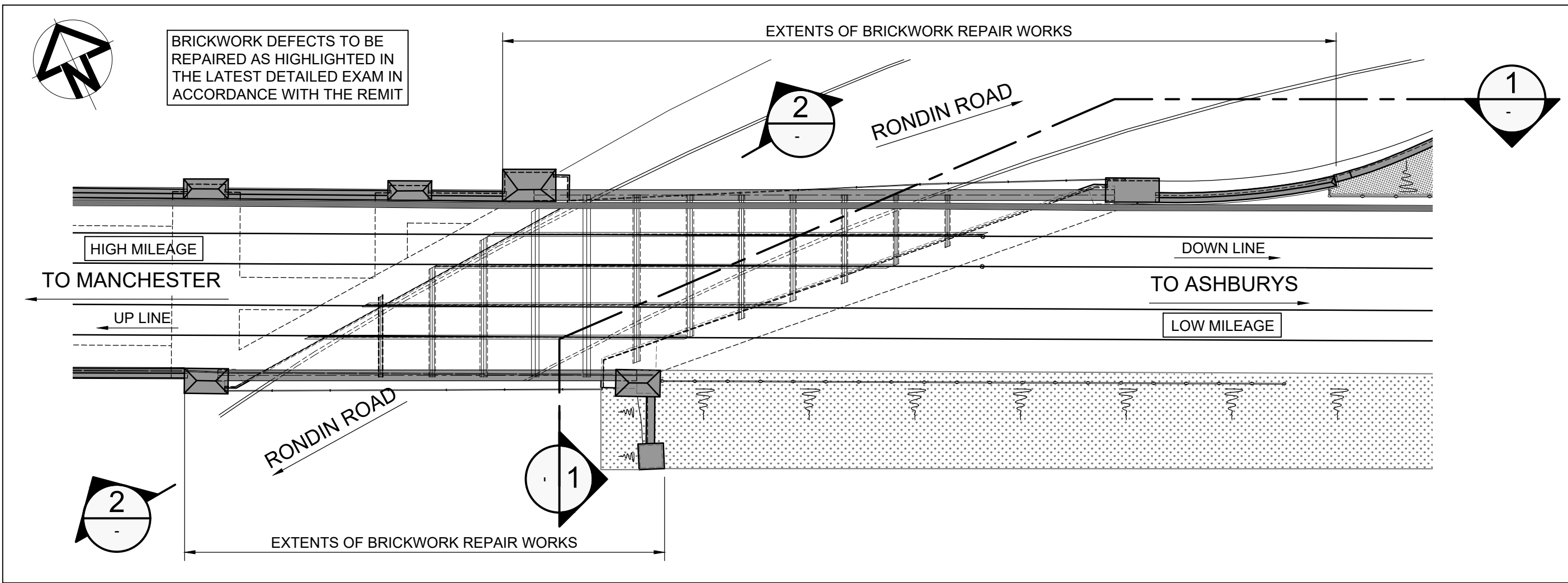
PPA2/1 RONDIN ROAD UNDERBRIDGE RECONSTRUCTION EXISTING GENERAL ARRANGEMENT ELEVATION AND SECTIONS

|                   |              |                 |              |
|-------------------|--------------|-----------------|--------------|
| Designed          | J. HERTERICH | Signd           | 10.03.2021   |
| Drawn             | Y. NAYAK     | Signd           | 10.03.2021   |
| Checked           | A. GODFREY   | Signd           | 10.03.2021   |
| Approved          | D. BEEVER    | Signd           | 10.03.2021   |
| Scale:            | As shown     | Datum:          | AOD          |
| Original Size:    | A1+1         | Grid:           | SJ 8652 9740 |
| ELR:              | PPA2         | Mileage:        | 0m 0430yds   |
| Suitability Code: | A1           | Project Number: | 10037409     |

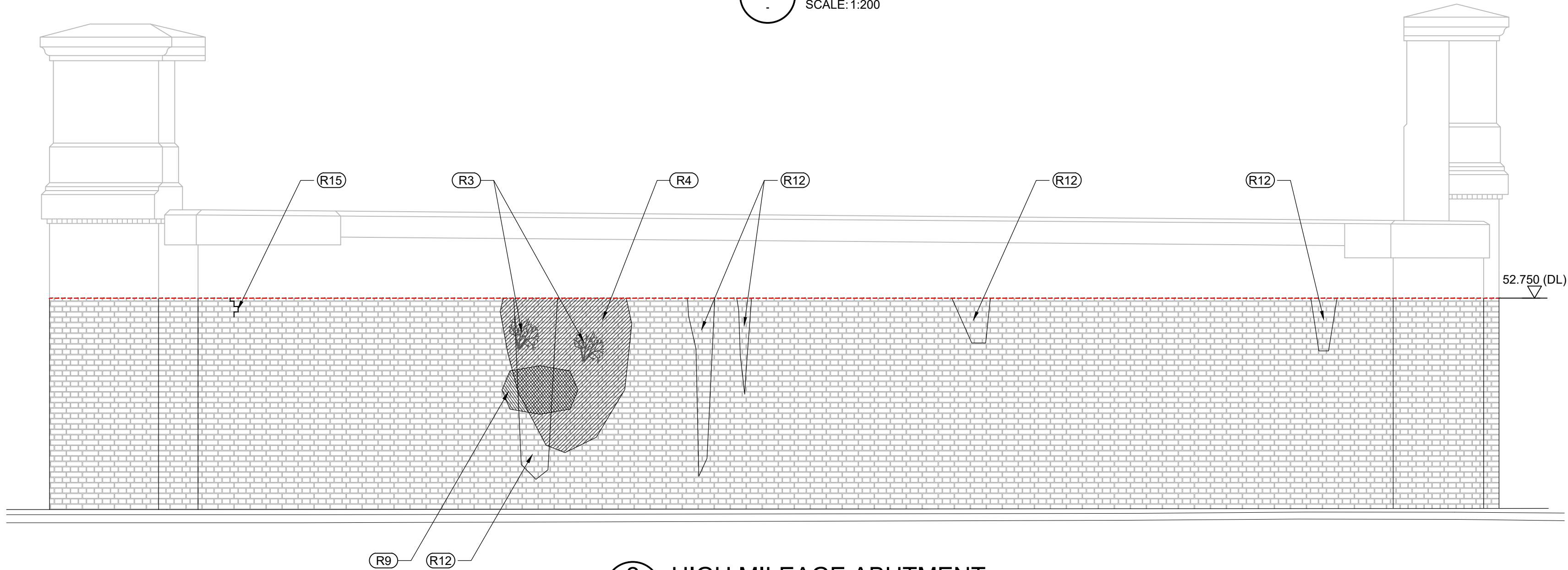
Suitability Description:

**F001 - APPROVAL IN PRINCIPLE**

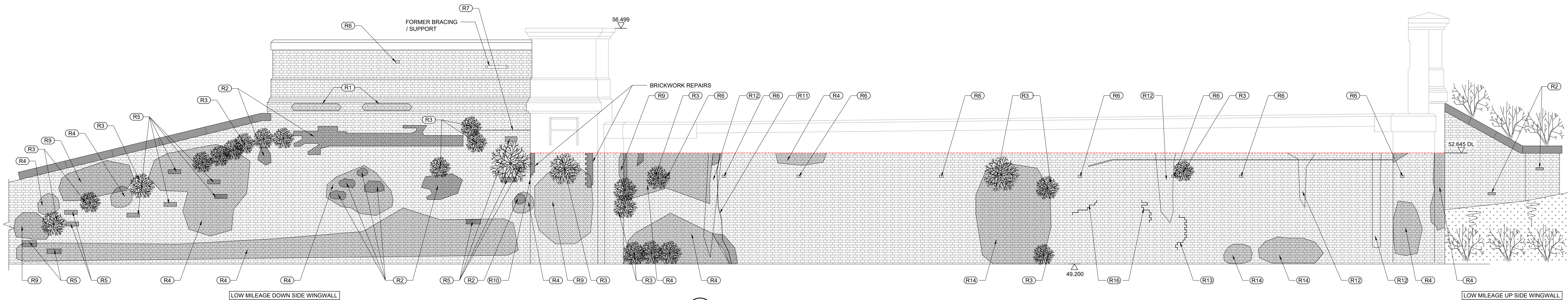
|                 |                                 |           |     |
|-----------------|---------------------------------|-----------|-----|
| Drawing Number: | 10037409-ARC-RO-UB-DR-CB-000002 | Revision: | A01 |
|-----------------|---------------------------------|-----------|-----|



KEY PLAN  
SCALE: 1:200



2 HIGH MILEAGE ABUTMENT  
SCALE: 1:50  
(SUPERSTRUCTURE AND PALISADE FENCE OMITTED FOR CLARITY)



1 LOW MILEAGE ABUTMENT  
SCALE: 1:50  
(SUPERSTRUCTURE AND PALISADE FENCE OMITTED FOR CLARITY)

DEFECTS SHOWN FOR AREA OF  
ABUTMENT BELOW THE PROPOSED  
DEMOLITION LINE ONLY

| SUBSTRUCTURAE DEFECTS/REPAIRS |                                                                                                                       |                                                                        |                    |                 |                                                                                                                                                                                                                                                     |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| REF                           | DEFECT DESCRIPTION                                                                                                    | LOCATION                                                               | QUANTITY (APPROX.) | PRIORITY RATING | REMEDIAL ACTION                                                                                                                                                                                                                                     |
| GENERAL                       | ALL BRICKWORK IS WEATHERED 2-5mm DEEP THROUGHOUT                                                                      |                                                                        |                    | -               | -                                                                                                                                                                                                                                                   |
| GENERAL                       | WIDESPREAD SEEPAGE NOTED TO THE ABUTMENT OVER APPROX. 25m²                                                            |                                                                        |                    | -               | -                                                                                                                                                                                                                                                   |
| GENERAL                       | WIDESPREAD GRAFFITI NOTED TO THE ABUTMENT OVER APPROX. 15m²                                                           |                                                                        |                    | P3              | WASHOUT AND CLEAN                                                                                                                                                                                                                                   |
| R1                            | SPALLING BRICKWORK TO STRING COURSE 10-20mm DEEP                                                                      | LOW MILEAGE DOWNSIDE WINGWALL                                          | 1m²                | P3              | SPALLED AREAS TO BE REPLACED WITH NEW BRICKS TO MATCH EXISTING AS PER NR/CIV/SD/111                                                                                                                                                                 |
| R2                            | SPALLING BRICKWORK AND OPEN JOINTS TYPICAL DEPTH 5-25mm WITH ISOLATED AREAS UP TO 40mm DEEP                           | LOW MILEAGE DOWNSIDE / UPSIDE WINGWALL                                 | 5m²                | P3              | SPALLED AREAS TO BE REPLACED WITH NEW BRICKS TO MATCH EXISTING AS PER NR/CIV/SD/111. SURROUNDING BRICKWORK TO BE RAKED OUT TO MIN. 25mm AND LOOSE MORTAR TO MAX. 5mm DETHGOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED.                |
| R3                            | VEGETATION GROWTH THROUGH MORTAR JOINTS                                                                               | LOW MILEAGE DOWNSIDE WINGWALL                                          | -                  | P3              | SURFACES WITH MOSS AND ALGAE TO BE WASHED OUT, CLEANED AND REINSPECTED FOR FURTHER DEFECTS. TREES ON OR WITHIN 3m OF THE STRUCTURE TO BE REMOVED. STUMPS TO BE TREATED WITH NON-TOXIC HERBICIDE TREATMENT TO PREVENT REGROWTH                       |
| R4                            | OPEN JOINTS TYPICAL DEPTH 10-20mm UP TO MAX. 40mm                                                                     | LOW MILEAGE DOWNSIDE/UPSIDE WINGWALL AND LOW/HIGH MILEAGE ABUTMENT     | 9m²                | P3              | MORTAR TO BE RAKED OUT TO MIN. 25mm AND LOOSE MORTAR TO MAX. 75mm DEPTH/GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED                                                                                                                  |
| R5                            | SPALLING IN ISOLATED LOCATION                                                                                         | LOW MILEAGE DOWNSIDE WINGWALL                                          | 16 NO.             | P3              | SPALLED AREAS TO BE REPLACED WITH NEW BRICKS TO MATCH EXISTING AS PER NR/CIV/SD/111                                                                                                                                                                 |
| R6                            | ISOLATED MISSING BRICK                                                                                                | LOW MILEAGE DOWNSIDE WINGWALL                                          | 10 NO.             | P3              | BRICKS TO BE REPLENISHED                                                                                                                                                                                                                            |
| R7                            | BED JOINT FRACTURE, 1.8m LONG, OPEN 1mm                                                                               | LOW MILEAGE DOWNSIDE WINGWALL                                          | 1.8m               | P2              | FRACTURE TO BE STITCHED TO NR/CIV/SD/109 WITH A MINIMUM OF 1NO. BAR EVERY 250-500mm. SURROUNDING BRICKWORK TO BE RAKED OUT TO MIN. 25mm GOOD CEMENT AND LOOSE MORTAR TO MAX. 75mm DEPTH /GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED |
| R8                            | VERTICAL STEPPED FRACTURE, 1.2m LONG OPEN 1mm                                                                         | LOW MILEAGE DOWNSIDE WINGWALL                                          | 1.2m               | P2              |                                                                                                                                                                                                                                                     |
| R9                            | HOLLOW SOUNDING BRICKWORK                                                                                             | LOW MILEAGE DOWNSIDE / UPSIDE WINGWALL AND LOW / HIGH MILEAGE ABUTMENT | 8m²                | P3              | MORTAR TO BE RAKED OUT TO MIN. 25mm AND LOOSE MORTAR TO MAX. 75mm DEPTH/GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED                                                                                                                  |
| R10                           | VERTICAL STEPPED FRACTURE ON PILASTER RETURN OPEN 2mm x 4m LENGTH WITH + 10mm DISPLACEMENT TO THE TOP OF THE FRACTURE | LOW MILEAGE DOWNSIDE PILASTER RETURN                                   | 4m                 | P2              | FRACTURE TO BE STITCHED TO NR/CIV/SD/109 WITH A MINIMUM OF 1NO. BAR EVERY 250-500mm. SURROUNDING BRICKWORK TO BE RAKED OUT TO MIN. 25mm GOOD CEMENT AND LOOSE MORTAR TO MAX. 75mm DEPTH /GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED |
| R11                           | VERTICAL FRACTURE UP TO 20mm OPENING                                                                                  | LOW MILEAGE ABUTMENT                                                   | 3.5m               | P2              |                                                                                                                                                                                                                                                     |
| R12                           | WATER STAINING / ALGAE                                                                                                | LOW / HIGH MILEAGE ABUTMENT                                            | 5m²                | P2              | DAMP/WET SURFACES WITH MOSS AND ALGAE TO BE WASHED OUT, CLEANED AND REINSPECTED FOR FURTHER DEFECTS                                                                                                                                                 |
| R13                           | FRACTURE 2-5mm, 1050mm                                                                                                | LOW MILEAGE ABUTMENT                                                   | 1.050m             | P2              | FRACTURE TO BE STITCHED TO NR/CIV/SD/109 WITH A MINIMUM OF 1NO. BAR EVERY 250-500mm. SURROUNDING BRICKWORK TO BE RAKED OUT TO MIN. 25mm GOOD CEMENT AND LOOSE MORTAR TO MAX. 75mm DEPTH /GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED |
| R14                           | OPEN JOINTS TYPICAL DEPTH 2-5mm                                                                                       | LOW / HIGH MILEAGE ABUTMENT                                            | 9.5m²              | P3              | MORTAR TO BE RAKED OUT TO MIN. 25mm AND LOOSE MORTAR TO MAX. 75mm DEPTH/GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED                                                                                                                  |
| R15                           | STEPPED FRACTURE, 400mm                                                                                               | HIGH MILEAGE ABUTMENT                                                  | 0.4m               | P2              | FRACTURE TO BE STITCHED TO NR/CIV/SD/109 WITH A MINIMUM OF 1NO. BAR EVERY 250-500mm. SURROUNDING BRICKWORK TO BE RAKED OUT TO MIN. 25mm GOOD CEMENT AND LOOSE MORTAR TO MAX. 75mm DEPTH /GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED |
| R16                           | HAIRLINE FRACTURE OPEN UP TO MAX. 5mm                                                                                 | LOW MILEAGE ABUTMENT                                                   | 2m                 | P2              | FRACTURE TO BE STITCHED TO NR/CIV/SD/109 WITH A MINIMUM OF 1NO. BAR EVERY 250-500mm. SURROUNDING BRICKWORK TO BE RAKED OUT TO MIN. 25mm GOOD CEMENT AND LOOSE MORTAR TO MAX. 75mm DEPTH /GOOD CEMENT AND REPOINTED TO NR/CIV/SD/TUM/101 AS REQUIRED |

| LEGEND: |                        |
|---------|------------------------|
|         | OPEN JOINTS            |
|         | HOLLOW SOUND           |
|         | WATER STAINING / ALGAE |
|         | WATER PERCOLATION      |
|         | VEGETATION             |
|         | SPALLING               |
|         | GRAFFITI               |
|         | VOID                   |
|         | FRACTURES              |
|         | DEMOLITION LINE        |

| KEY TO SYSTEM OF PRIORITIES |                                                                                                                                                                                                   |                                      |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| P1                          | DEFECT CONSIDERED TO PRESENT A SIGNIFICANT EXISTING RISK TO PUBLIC OR PERSONNEL SAFETY AND/OR STRUCTURAL INTEGRITY OR STABILITY.                                                                  | REQUIRED                             |
| P2                          | DEFECT PRESENTS AN EXISTING RISK AND THE POTENTIAL FOR DEVELOPMENT OF A SIGNIFICANT RISK TO PUBLIC OR PERSONNEL AND/OR STRUCTURAL INTEGRITY OR STABILITY BEFORE PROGRAMMED MAINTENANCE PERIOD.    | REQUIRED                             |
| P3                          | DEFECT IS CONSIDERED TO PRESENT A MINOR SAFETY AND IT IS NOT ENVISAGED THAT THE DETERIORATION WITHIN STANDARD MAINTENANCE OR ASSESSMENT PERIODS SHALL CAUSE A SIGNIFICANT SAFETY RISK TO DEVELOP. | NOT REQUIRED UNLESS INSTRUCTED BY NR |
| N/A                         | NO REMEDIAL ACTION PROPOSED. DEFECT IS CONSIDERED TO BE COSMETIC ONLY AND IS NOTED FOR MONITORING PURPOSES.                                                                                       | NOT REQUIRED                         |

#### NOTES:

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- ALL DIMENSIONS AND LEVELS AE TO BE CHECKED ON SITE PRIOR COMMENCING WORKS.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL CONTRACTUAL DRAWINGS, SCHEDULES, DOCUMENTS AND DESIGN SPECIFICATIONS.
- PROPOSED GENERAL ARRANGEMENT PRODUCED BASED ON FBH TOPOGRAPHICAL SURVEY COMPLETED IN OCTOBER AND DECEMBER 2020 (PBH-1702-001-DWG-SU-003 A01) AND EXISTING NR ARCHIVE INFORMATION. TOPOGRAPHICAL SURVEY COORDINATE SYSTEM IS IPEN16 SNAKEGRID.
- ABUTMENT THICKNESS AND FOUNDING LEVELS ARE TAKEN FROM BGA CORING REPORT (REPORT NO. 4096/1) DATED SEPTEMBER 2020.

#### LEGEND:

DL - DEMOLITION LEVEL

| Rev | Date     | Description                  | Drawn | Check | Approv |
|-----|----------|------------------------------|-------|-------|--------|
| A01 | 10.03.21 | F001 - APPROVAL IN PRINCIPLE | Y.N.  | A.G.  | D.B.   |



#### PROJECT:

LNW FRAMEWORK CP6  
OP No. 164698



Registered office: Arcadis, 34 York Way, London N1 9AB  
Coordinating office: 1st Floor, Arlams House, Eboracum Way, York YO31 7RE, Tel: +44 (0)1904 380 750

www.arcadis.com

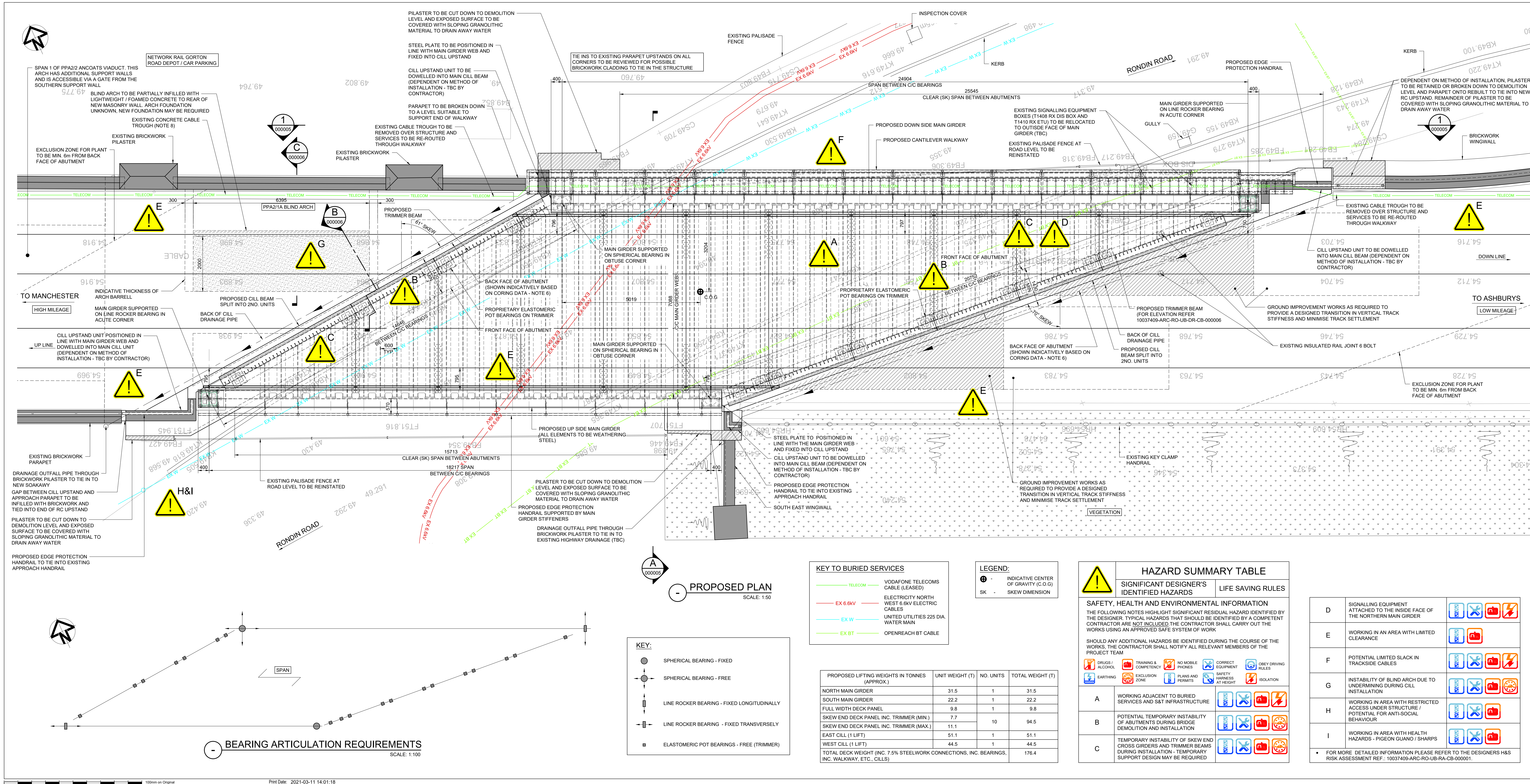
#### TITLE:

PPA2/1 RONDON ROAD  
UNDERBRIDGE RECONSTRUCTION  
EXISTING DEFECTS  
AND REPAIR WORKS

|                   |              |                 |              |      |            |
|-------------------|--------------|-----------------|--------------|------|------------|
| Designed          | J. HERTERICH | Signed          | [Signature]  | Date | 10.03.2021 |
| Drawn             | Y. NAYAK     | Signed          | [Signature]  | Date | 10.03.2021 |
| Checked           | A. GODFREY   | Signed          | [Signature]  | Date | 10.03.2021 |
| Approved          | D. BEEVER    | Signed          | [Signature]  | Date | 10.03.2021 |
| Scale:            | As shown     | Datum:          | AOD          |      |            |
| Original Size:    | A1+2         | Grid:           | SJ 8652 9740 |      |            |
| ELR:              | PPA2         | Mileage:        | 0m 0430yds   |      |            |
| Suitability Code: | A1           | Project Number: | 10037409     |      |            |

Suitability Description:  
F001 - APPROVAL IN PRINCIPLE

|                 |                                 |           |     |
|-----------------|---------------------------------|-----------|-----|
| Drawing Number: | 10037409-ARC-RO-UB-DR-CB-000003 | Revision: | A01 |
|-----------------|---------------------------------|-----------|-----|



**NOTES:**

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- PROPOSED GENERAL ARRANGEMENT PRODUCED BASED ON FBH TOPOGRAPHICAL SURVEY COMPLETED IN OCTOBER AND DECEMBER 2020 (PBH-1702-001-DWG-SU-003 A01) AND EXISTING NR ARCHIVE INFORMATION. TOPOGRAPHICAL SURVEY COORDINATE SYSTEM IS ITN16 SNAKEGRID.
- ABUTMENT THICKNESS AND FOUNDLING LEVELS ARE TAKEN FROM BGA CORING REPORT (REPORT NO. 4096/1) DATED SEPTEMBER 2020.
- BURIED SERVICES SURVEY COMPLETED IN APRIL 2019 (REFERENCE LOCATION - GORTON ROAD, BESWICK).
- TRACKSIDE CABLE SURVEY BY MURPHYS COMPLETED IN AUGUST 2020. LOCATIONS OF FOLLOWING CABLES ON BRIDGE DECK TBC BY CONTRACTOR:
  - 6 NO. TRACK CABLES
  - 3 NO. SIGNAL CABLES
  - 1 NO. POWER CABLE
  - 2 NO. FIBRE OPTIC CABLES
  - 3 NO. TELECOM CABLES
  - 2 NO. RETURN CABLES
  - 7 NO. SPT CABLES
  - 7 NO. TELECOM CABLES (LOCATED IN CABLE TROUGH)
- OUTSTANDING INFORMATION TO BE CONFIRMED BY THE CONTRACTOR:
  - POSITION AND LOCATION OF TRACKSIDE CABLES (NOTE 8)
  - INSTALLATION METHODOLOGY
  - RELOCATION OF SIGNALLING EQUIPMENT TO INSIDE FACE OF NORTHERN MAIN GIRDER (TBC BY SIGNALLING CRE / NR)
- STEEL GRADE FOR ALL STRUCTURAL STEELWORK TO BE WEATHERING STEEL S355 J2W

**PROJECT:**

LNW FRAMEWORK CP6  
OP No. 164698

**ARCADIS**  
Registered office: Arcadis, 34 York Way, London N1 9AB  
Coordinating office: 1st Floor, Aramis House, Eboracum Way, York YO31 7RE, Tel: +44 (0)1904 380 750  
www.arcadis.com

**TITLE:**

PPA2/1 RONDIN ROAD UNDERBRIDGE RECONSTRUCTION  
PROPOSED GENERAL ARRANGEMENT PLAN

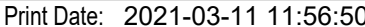
**Designed:** J. HERTERICH  
**Drawn:** Y. NAYAK  
**Checked:** A. GODFREY  
**Approved:** D. BEEVER  
**Scale:** As shown  
**Original Size:** A1+2  
**ELR:** PPA2  
**Suitability Code:** A1

**Date:** 10.03.2021  
**Date:** 10.03.2021  
**Date:** 10.03.2021  
**Date:** 10.03.2021  
**Datum:** AOD  
**Grid:** SJ 8652 9740  
**Mileage:** 0m 0430yds  
**Project Number:** 10037409

**F001 - APPROVAL IN PRINCIPLE**

**FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNERS H&S RISK ASSESSMENT REF.: 10037409-ARC-RO-UB-RA-CB-000001.**

**Revision:** A01



| PROPOSED LIFTING WEIGHTS IN TONNES (APPROX.)                                                  | UNIT WEIGHT (T) | NO. UNITS | TOTAL WEIGHT (T) |
|-----------------------------------------------------------------------------------------------|-----------------|-----------|------------------|
| NORTH MAIN GIRDER                                                                             | 31.5            | 1         | 31.5             |
| SOUTH MAIN GIRDER                                                                             | 22.2            | 1         | 22.2             |
| FULL WIDTH DECK PANEL                                                                         | 9.8             | 1         | 9.8              |
| SKEW END DECK PANEL INC. TRIMMER (MIN.)                                                       | 7.7             | 10        | 94.5             |
| SKEW END DECK PANEL INC. TRIMMER (MAX.)                                                       | 11.1            |           |                  |
| EAST CILL (1 LIFT)                                                                            | 51.1            | 1         | 51.1             |
| WEST CILL (1 LIFT)                                                                            | 44.5            | 1         | 44.5             |
| TOTAL DECK WEIGHT (INC. 7.5% STEELWORK CONNECTIONS, INC. BEARINGS, INC. WALKWAY, ETC., CILLS) |                 |           | 176.4            |

**LEGEND:**

|                                                                                     |   |                                |
|-------------------------------------------------------------------------------------|---|--------------------------------|
| FL                                                                                  | - | FOUNDATION LEVEL               |
| SK                                                                                  | - | SKEW DIMENSION                 |
| BL                                                                                  | - | BEARING LEVEL                  |
| DL                                                                                  | - | DEMOLITION LEVEL               |
| RL                                                                                  | - | ROAD LEVEL                     |
|  |   | EXISTING PARAPET TO BE REBUILT |
|  | - | DEMOLITION LEVEL               |

| HAZARD SUMMARY TABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SIGNIFICANT DESIGNER'S IDENTIFIED HAZARDS                                                                                                                                                                                                                                                                                                                                                                                                                                            | LIFE SAVING RULES                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p><b>SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION</b></p> <p>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</p> <p>SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED DURING THE COURSE OF THE WORKS, THE CONTRACTOR SHALL NOTIFY ALL RELEVANT MEMBERS OF THE PROJECT TEAM</p> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|  DRUGS / ALCOHOL<br> EARTHING                                                                                                                                                                                                                                                                              |  TRAINING & COMPETENCY<br> EXCLUSION ZONE                                                                                                                                                                                                                                                                         |
|  NO MOBILE PHONES<br> PLANS AND PERMITS                                                                                                                                                                                                                                                                    |  CORRECT EQUIPMENT<br> SAFETY HARNESS AT HEIGHT                                                                                                                                                                                                                                                                   |
|  OBEY DRIVING RULES<br> ISOLATION                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WORKING ADJACENT TO BURIED SERVICES AND S&T INFRASTRUCTURE<br>                                                                          |
| B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | POTENTIAL TEMPORARY INSTABILITY OF ABUTMENTS DURING BRIDGE DEMOLITION AND INSTALLATION<br>                                              |
| C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | TEMPORARY INSTABILITY OF SKEW END CROSS GIRDERS AND TRIMMER BEAMS DURING INSTALLATION - TEMPORARY SUPPORT DESIGN MAY BE REQUIRED<br>    |
| D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | SIGNALLING EQUIPMENT ATTACHED TO THE INSIDE FACE OF THE NORTHERN MAIN GIRDER<br>                                                        |
| E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WORKING IN AN AREA WITH LIMITED CLEARANCE<br>                                                                                                                                                                                                                                                                     |
| G                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | INSTABILITY OF BLIND ARCH DUE TO UNDERMINING DURING CILL INSTALLATION<br>                                                               |
| H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WORKING IN AREA WITH RESTRICTED ACCESS UNDER STRUCTURE / POTENTIAL FOR ANTI-SOCIAL BEHAVIOUR<br>                                                                                                                             |
| I                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | WORKING IN AREA WITH HEALTH HAZARDS - PIGEON GUANO / SHARPS<br>                                                                                                                                                              |
| • FOR MORE DETAILED INFORMATION PLEASE REFER TO THE DESIGNERS 3HS RISK ASSESSMENT REF.: 10037409-ARC-RO-UB-RA-CB-000001.                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

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10037409-ARC-RH-UB-FA-TR-000001.
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|     |          |                              |       |       |        |
|-----|----------|------------------------------|-------|-------|--------|
|     |          |                              |       |       |        |
| A01 | 10.03.21 | F001 - APPROVAL IN PRINCIPLE | Y.N   | A.G   | C.D    |
| Rev | Date     | Description                  | Drawn | Check | Approv |



**PROJECT:**

LNW FRAMEWORK CP6  
OP No. 164698



Registered office: Arcadis  
34 York Way  
London  
N1 9AB

Coordinating office:  
1st Floor, Artemis House  
Eboracum Way  
York YO31 7RE  
Tel: +44 (0)1904 380 750

[www.arcadis.com](http://www.arcadis.com)

TITLE:  
PPA2/1 RONDIN ROAD  
UNDERBRIDGE RECONSTRUCTION  
PROPOSED GENERAL  
ELEVATION AND SECTION

|                   |              |                                                                                              |                    |
|-------------------|--------------|----------------------------------------------------------------------------------------------|--------------------|
| Designed          | J. HERTERICH | Signed  | Date<br>10.03.2021 |
| Drawn             | Y. NAYAK     | Signed  | Date<br>10.03.2021 |
| Checked           | A. GODFREY   | Signed  | Date<br>10.03.2021 |
| Approved          | C. DOYLE     | Signed  | Date<br>10.03.2021 |
| Scale:            | As shown     | Datum:                                                                                       | AOD                |
| Original Size:    | A1+1         | Grid:                                                                                        | SJ 8652 9740       |
| ELR:              | PPA2         | Mileage:                                                                                     | 0m 0430yds         |
| Suitability Code: | A1           | Project Number:                                                                              | 10037409           |

Suitability Description:  
F001 - APPROVAL IN PRINCIPLE

|                                                    |                  |
|----------------------------------------------------|------------------|
| Drawing Number:<br>10037409-ARC-RO-UB-DR-CB-000005 | Revision:<br>A01 |
|----------------------------------------------------|------------------|