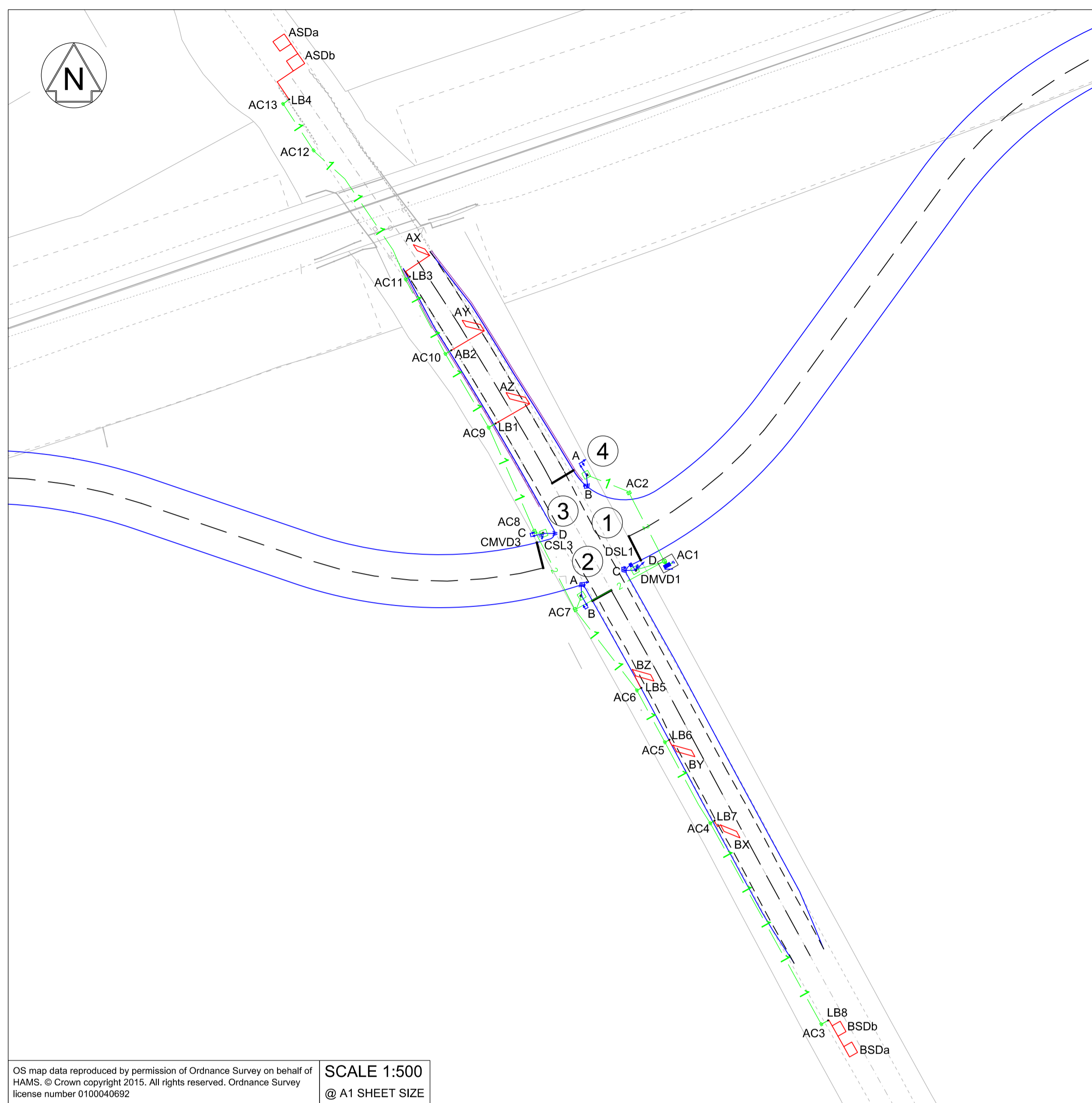


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 SCALE 1:200
 @ A1 SHEET SIZE



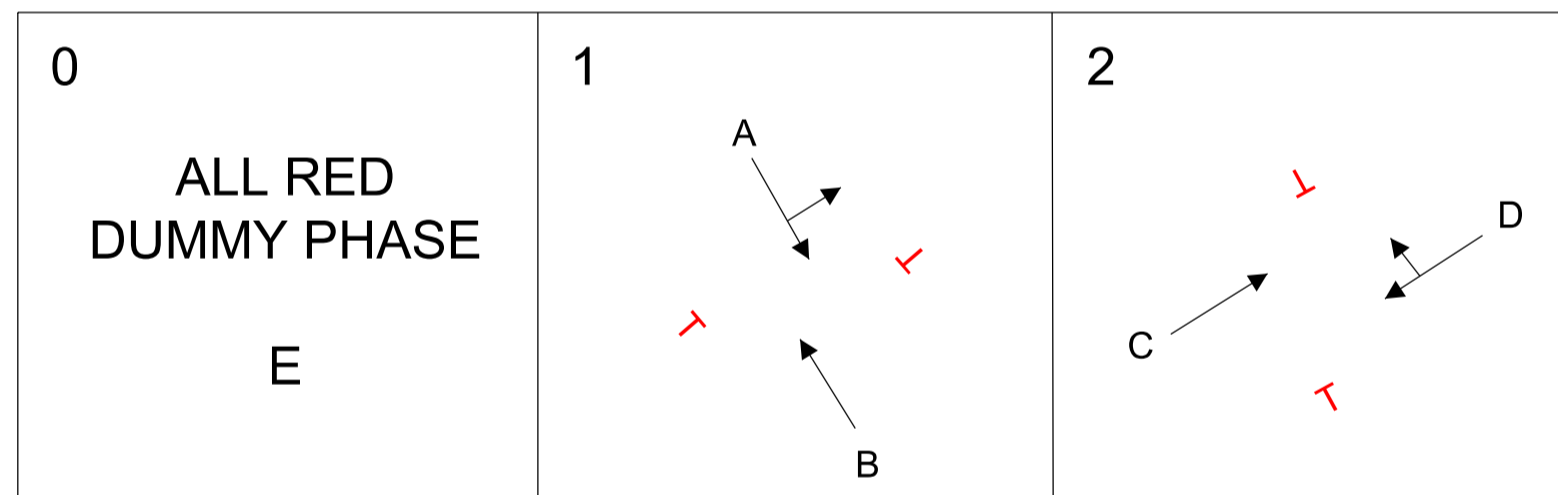
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 SCALE 1:500
 @ A1 SHEET SIZE

NETWORK RAIL (EAST WEST RAIL WESTERN SECTION PHASE 2)

- NOTES:**
1. ALL TRAFFIC SIGNAL EQUIPMENT TO BE ELV.
 2. ALL TRAFFIC SIGNAL ASPECTS TO BE CLS LED TYPE.
 3. SIGNAL DIMMING IS TO BE PROVIDED. THE SOLAR CELL TO BE INSTALLED ON THE POLE INDICATED ON THE DRAWING.
 4. RED LAMP MONITORING IS TO BE PROVIDED.
 5. SIGNAL POLES, CONTROLLER CABINET AND BASE, AND FEEDER PILLAR ARE TO BE GREY IN COLOUR AND IN ACCORDANCE WITH THE APPENDIX 12/5.
 6. SIGNAL POLE LOCATIONS TO BE AS SHOWN ON THIS SIGNAL DRAWING. POLE LOCATIONS ARE TO BE MARKED ON THE GROUND AND THE POSITION AGREED WITH THE SIGNAL DESIGN ENGINEER BEFORE INSTALLATION.
 7. ALL SIGNAL POLES ARE TO BE SECURED IN SIGNAL POLE RETENTION SOCKETS 'DUCK FOOT' TYPE. RETENTION SOCKETS ARE TO BE CONNECTED TO THE ASSOCIATED FOOTWAY ACCESS CHAMBER BY 1 X 100mm DIA SIGNAL DUCT.
 8. ALL 100mm SIGNAL DUCTS ARE TO BE PROVED AFTER INSTALLATION AND HAVE A DRAW CORD FITTED. THE DRAW CORD IS TO BE SECURED AT EACH END IN ALL ACCESS CHAMBERS.
 9. SIGNAL HEADS ON POLES ARE TO BE MOUNTED WITH A MINIMUM CLEARANCE OF 2.1m ABOVE THE FINISHED FOOTWAY SURFACE LEVEL AND A MINIMUM OF 2.4m ABOVE THE FINISHED CYCLEWAY SURFACE LEVEL FOR CYCLEWAYS.
 10. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE APPENDIX 12/5 TRAFFIC SIGNAL EQUIPMENT REQUIREMENTS AND APPENDIX 5/2 DUCTING REQUIREMENTS, CD 123 AND ANY OTHER DOCUMENTS ISSUED IN RELATION TO THESE WORKS.

KEY:

| | |
|--|--|
| | HIGHWAY BOUNDARY |
| | EXISTING ROAD EDGE |
| | PROPOSED ROAD EDGE |
| | PROPOSED WHITE ROAD MARKING |
| | 600 x 450 ACCESS CHAMBER |
| | 450 x 300 ACCESS CHAMBER |
| | 50mm TRAFFIC SIGNAL DUCT |
| | 100mm TRAFFIC SIGNAL DUCT |
| | TRAFFIC SIGNAL CONTROL CABINET |
| | TRAFFIC SIGNAL 'MINI' FEEDER PILLAR |
| | TRAFFIC SIGNAL POLE 115mm DIA WITH 1m x 1m CONCRETE FOUNDATION |
| | SIGNAL HEAD RAG |
| | SIGNAL HEAD RAGa (AHEAD ONLY) |
| | SIGNAL HEAD RAGa (AHEAD/LEFT) |
| | MICRO-WAVE VEHICLE DETECTOR (MVD) |
| | STOPLINE DETECTOR |
| | PHOTO ELECTRIC CONTROL UNIT (PE CELL) |
| | SIGNAL POLE RETENTION SOCKET |
| | CARRIAGEWAY LOOP BOX |
| | DETECTOR LOOPS |



| POLE NUMBER | POLE TYPE | SIGNAL HEAD | HOOD TYPE | SIGNAL DETECTION | OTHER EQUIPMENT |
|-------------|-----------|---|----------------------|-------------------------|-----------------|
| 1 | 4m | 1 x RAG 1 x RAGa (AHEAD) | PRIMARY SECONDARY | 1 x MVD 1 x STOPLINE | 1 x PECU |
| 2 | 4m | 1 x RAGa (AHEAD) 1 x RAGa (AHEAD/LEFT) | PRIMARY SECONDARY | - | - |
| 3 | 4m | 1 x RAGa (AHEAD) 1 x RAG | PRIMARY SECONDARY | 1 x MVD 1 x STOPLINE | - |
| 4 | 4m | 1 x RAGa (AHEAD/LEFT) 1 x RAGa (AHEAD) | PRIMARY SECONDARY | - | - |

| DETECTOR NUMBER | DETECTOR NAME | DISTANCE FROM SPOTLINE (m) | PHASE(S) DEMANDED | PHASE(S) EXTENDED | DETECTOR TYPE |
|-----------------|---------------|----------------------------|-------------------|-------------------|---------------|
| 1 | AX | 39 | A | A | LOOP |
| 2 | AY | 25 | - | A | LOOP |
| 3 | AZ | 12 | - | A | LOOP |
| 4 | ASD | 79 | - | - | LOOP |
| 5 | BX | 39 | B | B | LOOP |
| 6 | BY | 25 | - | B | LOOP |
| 7 | BZ | 12 | - | B | LOOP |
| 8 | BSD | 79 | - | - | LOOP |
| 7 | CSL3 | POLE 3 | C | C | RADAR |
| 8 | CMVD3 | POLE 3 | C | C | RADAR |
| 9 | DSL1 | POLE 1 | D | D | RADAR |
| 10 | DMVD1 | POLE 1 | D | D | RADAR |

| CHAMBER NUMBER | CHAMBER SIZE (mm) | | LOOP BOX |
|----------------|-------------------|-----------|----------|
| | 600 x 450 | 600 x 300 | |
| AC1 | 1 | - | - |
| AC2 | 1 | - | - |
| AC3 | - | 1 | LB8 |
| AC4 | - | 1 | LB7 |
| AC5 | - | 1 | LB6 |
| AC6 | - | 1 | LB5 |
| AC6 | 1 | - | - |
| AC7 | 1 | - | - |
| AC8 | - | 1 | LB1 |
| AC9 | - | 1 | LB2 |
| AC10 | - | 1 | LB3 |
| AC11 | - | 1 | - |
| AC12 | - | 1 | LB4 |

| POLE / SOCKET NUMBER | DISTANCE FROM SPOTLINE (m) | DISTANCE FROM KERBFACE (m) |
|----------------------|----------------------------|----------------------------|
| 1 | 1.5 | 1 |
| 2 | 1.5 | 1 |
| 3 | 1.5 | 1 |
| 4 | 1.5 | 1 |

ALL DISTANCE ARE TO THE CENTRE OF THE POLE RETENTION SOCKET POLE HOUSING

| FROM | TO | DUCT X No | DUCT DIA (mm) | DISTANCE (mm)* |
|----------|------------|-----------|---------------|----------------|
| AC1 | CONTROLLER | 3 | 100 | 1 |
| F/PILLAR | CONTROLLER | 1 | 50 | 1 |
| AC1 | AC2 | 2 | 100 | 12 |
| AC2 | POLE 4 | 1 | 100 | 7 |
| AC1 | POLE 1 | 1 | 100 | 4 |
| AC1 | AC7 | 2 | 100 | 15 |
| AC7 | POLE 2 | 1 | 100 | 2 |
| AC7 | AC6 | 1 | 100 | 15 |
| AC6 | LB5 | 1 | 50 | 1 |
| AC6 | AC5 | 1 | 100 | 9 |
| AC5 | LB6 | 1 | 50 | 1 |
| AC5 | AC4 | 1 | 100 | 14 |
| AC4 | LB7 | 1 | 50 | 1 |
| AC4 | AC3 | 1 | 100 | 34 |
| AC3 | LB8 | 1 | 50 | 1 |
| AC7 | AC8 | 2 | 100 | 13 |
| AC8 | POLE 3 | 1 | 100 | 1 |
| AC8 | AC9 | 1 | 100 | 17 |
| AC9 | LB1 | 1 | 50 | 1 |
| AC9 | AC10 | 1 | 100 | 13 |
| AC10 | LB2 | 1 | 50 | 1 |
| AC10 | AC11 | 1 | 100 | 13 |
| AC11 | LB3 | 1 | 50 | 1 |
| AC11 | AC12 | 1 | 100 | 24 |
| AC12 | AC13 | 1 | 100 | 8 |
| AC13 | LB4 | 1 | 50 | 1 |

*ALL DISTANCE SHOWN ARE INDICATIVE

| | | | | | |
|--------|--------------------------|--------------------------|------|------|------|
| B01 | 09/12/19 | FOR INFORMATION | R.K. | L.T. | S.A. |
| Rev | Date | Description of Revisions | Dsmd | Chkd | Appr |
| Status | SHARED - for Information | | | | S2 |



East West Rail (Western Section) Phase 2

HAUL ROAD CROSSING HRC_3 TRAFFIC SIGNAL LAYOUT

| | | | | | |
|----------|--------------|--------|-----------|------|----------|
| Designed | Ravikumar KN | Signed | R. KN | Date | 28/11/19 |
| Drawn | Ravikumar KN | Signed | R. KN | Date | 17/10/19 |
| Checked | Lisa Taylor | Signed | L. Taylor | Date | 28/11/19 |
| Approved | Stephen Abe | Signed | S. Abe | Date | 28/11/19 |

| | |
|------------------------------------|--------------------------------------|
| Scale(s) | ELR - Project Chainage (Miles Yards) |
| AS SHOWN | OXD - |
| Design Package Risk Classification | Normal |
| Alternative Reference | |
| Drawing Number | 133735_2A-EWR-OXD-HRC_3-DR-CH-010010 |

