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**VOLUME 3 HIGHWAY  
CONSTRUCTION  
DETAILS**

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**HIGHWAY CONSTRUCTION DETAILS**

**AMENDMENT NOVEMBER 2008**

**SUMMARY**

This document contains the replacement pages and drawings for incorporation into the Highway Construction Details.

**INSTRUCTIONS FOR USE**

1. Insert the replacement pages and drawings listed on the Amendments sheet (Amendment - November 2008), remove the corresponding existing pages and drawings, which are superseded by this amendment, and archive as appropriate. (Advice on archiving is given in Standard SD 0/08)
2. Insert the latest Amendments sheet dated November 2008 at the front of the document.
3. Enter details of Amendment - November 2008 on the Registration of Amendments sheet, sign and date to confirm that the amendment has been incorporated.
4. Archive this sheet as appropriate.

Note: A quarterly index with a full set of Volume Contents Pages is available separately from The Stationery Office Ltd.

**MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS  
VOLUME 3 HIGHWAY CONSTRUCTION DETAILS**

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**MANUAL OF CONTRACT DOCUMENTS FOR HIGHWAY WORKS**

**A BRIEF DESCRIPTION OF NOVEMBER 2008 AMENDMENTS**

**VOLUME 3**

| DOCUMENT   | DESCRIPTION   |
|--|---|
| Volume 3   | Highway Construction Details (MCHW 3)   |
| General  | <p>The user's attention is drawn to the following note which has been abstracted from Implementing Standard SD 26/08:</p> <p>“Contracts for which tenders are to be invited after 1 May 2009 shall incorporate by reference the amendments implemented by this Standard, except where the preparation of a contract has reached a stage at which in the opinion of the Overseeing Organisation use of the amendments would result in significant additional expense or delay progress.”</p> <p>The user's attention is drawn to GD 03/08 (DMRB 0.2.2) Implementation and Use of the Standards Improvement System. This Standard superseded HD 34/03 which introduced the Standards Improvement System (SIS).</p> <p>SIS is a computerised database of reports generated from failures of specifications and design standards and other observations on these documents. The database records potential improvements using lists of components, symptoms, diagnoses and detailed descriptions. SIS is operated and maintained by the Highways Agency. Its prime objective is to improve the performance of the engineering standards and specifications published by the Highways Agency, both independently and jointly with other Overseeing Organisations.</p> <p><b>Feedback Arrangement</b></p> <p>To provide feedback on the Highways Agency's standards and specifications, please use this link: <a href="http://www.highways-net.co.uk/information/dmrbackcess.asp">http://www.highways-net.co.uk/information/dmrbackcess.asp</a></p> |
| Section 1<br>Series D Drawings<br>Carriageway<br>Markings for<br>Rural Motorways | <p>Drawing Nos. D1 Issue C, D2 Issue D, D5 Issue E and D6 Issue D:</p> <ol style="list-style-type: none"><li>1. White studs are amended from 'bidirectional' to 'unidirectional'.</li></ol>   |

## Manual of Contract Documents for Highway Works

### Amendment - November 2008 to Volume 3 - Highway Construction Details

Replace existing pages: i/ii and vii/viii with new pages i/ii and vii/viii

For Series D: remove existing pages D1 to D2 and D5 to D6 and replace with new pages D1 to D2 and D5 to D6

#### *Publisher's Note*

1. *The Specification for Highway Works and its Notes for Guidance to which the Highway Construction Details relate are published by The Stationery Office in Volumes 1 and 2 of the Manual of Contract Documents for Highway Works, and are for use in Highway Works Contracts.*
2. *The Method of Measurement for Highway Works and a Library of Standard Item Descriptions to which the Highway Construction Details relate are published by The Stationery Office in Volume 4 of the Manual of Contract Documents for Highway Works.*

## VOLUME 3 (with continuation binder 3a)

### HIGHWAY CONSTRUCTION DETAILS

#### Section 1 Carriageway and Other Details

Drawings dated December 1991, August 1993, August 1994 and March 1998

Series A drawings (Highway Cross Sections) have been superseded by TD 27/96 in DMRB Volume 6

Amendment dated March 1999 - revision B to drawing D5

Amendment dated May 2001 - revisions to Series C, D, F, H and K drawings

Amendment dated May 2002 - revisions to Series B, C, G, I and K drawings

Amendment dated February 2003 - revisions to Series G drawings

Amendment dated August 2003 - revisions to Series D drawings

Amendment dated November 2003 - revisions to Series F and G drawings

Amendment dated May 2004 - revisions to Series B, C, E, G, H, I and K drawings

Amendment dated November 2004 - revisions to Series B and F drawings

Amendment dated May 2005 - revisions to Series F drawings

Amendment dated November 2005 - revisions to Series G drawings

Amendment dated May 2006 - revisions to Series B, C and F drawings

Amendment dated November 2006 - revisions to Series E and H drawings

Amendment dated November 2008 - revisions to Series D drawings

#### Section 2 Not Used (05/04)

#### Section 3 National Motorway Communications System Installation Drawings

Amendment dated May 2002 - revised all the National Motorway Communications System Installation Drawings which were introduced in the Amendment dated May 2001.

Amendment dated February 2003 - revisions to the National Motorway Communications System Installation Drawings

Amendment dated August 2003 - revisions to the National Motorway Communications System Installation Drawings

Amendment dated November 2003 - revisions to the National Motorway Communications System Installation Drawings

Amendment dated May 2004 - revisions to the National Motorway Communications System Installation Drawings

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Amendment dated November 2004 - revisions to the National Motorway Communications System Installation Drawings

Amendment dated May 2005 - revisions to the National Motorway Communications System Installation Drawings

Amendment dated November 2005 - revisions to the National Motorway Communications System Installation Drawings

Amendment dated May 2006 - revisions to the National Motorway Communications System Installation Drawings

Amendment dated November 2006 - revisions to the National Motorway Communications System Installation Drawings

REGISTRATION OF AMENDMENTS

| Amendment No. | Page/Drg No. | Signature & Date of Incorporation of Amendment | Amendment No. | Page/Drg No. | Signature & Date of Incorporation of Amendment |
|---------------|--------------|--|---------------|--------------|--|
|               |              |  |               |              |  |

## SCHEDULE OF NUMBERED PAGES AND RELEVANT PUBLICATION DATES

|                    |           | Page Number        | Publication Date |
|--------------------|-----------|--------------------|------------------|
| Introduction       |           | 1                  | March 1998       |
| List of Drawings   | Section 1 | 2                  | March 1998       |
|                    |           | 3                  | May 2004         |
|                    |           | 4                  | May 2006         |
|                    |           | 5                  | May 2001         |
|                    |           | 6                  | May 2004         |
|                    |           | 7                  | May 2001         |
|                    |           | 8                  | November 2005    |
|                    |           | 9                  | May 2001         |
|                    |           | 10                 | May 2002         |
|                    |           | 11                 | December 1991    |
|                    |           | 12                 | May 2001         |
|                    |           |                    | Section 2        |
|                    | Section 3 | 15 to 18 inclusive | May 2006         |
| 19 to 20 inclusive |           | May 2004           |                  |
| 21                 |           | May 2006           |                  |
| 22 to 25 inclusive |           | May 2004           |                  |
| 26 to 27 inclusive |           | May 2006           |                  |
| 28                 |           | November 2005      |                  |

WITHDRAWN



## SCHEDULE OF DRAWINGS - SECTION 1 AND RELEVANT PUBLICATION DATES

| Series | Drawing Number       | Issue | Publication Date |
|--------|----------------------|-------|------------------|
| A      | Not Used             |       |                  |
| B      | B1                   | B     | May 2006         |
|        | B2                   | B     | August 1993      |
|        | B3                   | C     | May 2002         |
|        | B4 to B5 inclusive   | C     | May 2006         |
|        | B6 to B7             | C     | May 2002         |
|        | B8                   | B     | May 2002         |
|        | B9                   | C     | May 2006         |
|        | B10                  | F     | May 2006         |
|        | B11                  | C     | May 2002         |
|        | B12                  | D     | May 2002         |
|        | B13                  | C     | May 2006         |
|        | B14                  | E     | November 2004    |
|        | B15                  | B     | March 1998       |
|        | B16 to B17 inclusive | C     | May 2004         |
|        | B18                  | C     | May 2004         |
| C      | C1                   | E     | May 2006         |
|        | C2                   | C     | May 2006         |
|        | C3 to C4 inclusive   | E     | May 2006         |
|        | C5                   | C     | May 2006         |
|        | C6                   | B     | May 2001         |
|        | C7/1, C7/2, C7/3     | E     | May 2006         |
|        | C8/1, C8/2           | C     | May 2006         |
|        | C9                   | B     | May 2006         |
|        | C10/1, C10/2         | B     | May 2006         |
|        | C11                  | B     | March 1998       |
|        | C12 to C15 inclusive | C     | May 2006         |
|        | C16                  | B     | May 2006         |
|        | C17                  | C     | May 2006         |
|        | C18                  | E     | May 2002         |
|        | C19                  | C     | May 2006         |
|        | C20                  | E     | May 2006         |
|        | C21 to C22 inclusive | C     | May 2006         |
|        | C23                  | D     | May 2006         |
|        | C24                  | C     | May 2006         |
|        | C25                  | C     | May 2006         |
|        | C26                  | B     | May 2006         |
| D      | D1                   | C     | November 2008    |
|        | D2                   | D     | November 2008    |
|        | D3 to D4 inclusive   | C     | August 2003      |
|        | D5                   | E     | November 2008    |
|        | D6                   | D     | November 2008    |
|        | (D7 Not Used)        |       |                  |
| E      | E1                   | A     | December 1991    |
|        | E2                   | B     | November 2006    |
|        | E3                   | B     | August 1993      |
|        | E4 to E5 inclusive   | B     | May 2004         |

## SCHEDULE OF DRAWINGS - SECTION 1 AND RELEVANT PUBLICATION DATES (*continued*)

| Series | Drawing Number       | Issue | Publication Date |
|--------|----------------------|-------|------------------|
| F      | F1                   | A     | December 1991    |
|        | F2                   | C     | November 2003    |
|        | F3                   | E     | May 2006         |
|        | F4                   | E     | May 2006         |
|        | F5 to F6 inclusive   | F     | November 2004    |
|        | F7                   | E     | May 2006         |
|        | (F8 Not Used)        |       |                  |
|        | F9                   | B     | May 2001         |
|        | F10                  | C     | November 2003    |
|        | F11 to F12 inclusive | F     | May 2006         |
|        | F13 to F14 inclusive | E     | May 2006         |
|        | F15                  | C     | November 2004    |
|        | F16                  | B     | November 2004    |
|        | F17                  | A     | March 1998       |
|        | F18 to F21 inclusive | A     | December 1991    |
|        | F22 to F23 inclusive | B     | November 2003    |
|        | F24                  | C     | November 2004    |
|        | F25 to F26 inclusive | C     | May 2006         |
|        | F27                  | C     | November 2004    |
|        | F28                  | B     | November 2003    |
| G      | G1                   | E     | November 2005    |
|        | G2                   | D     | November 2005    |
|        | G3 to G4 inclusive   | E     | November 2005    |
|        | G5                   | D     | November 2005    |
|        | G6                   | C     | November 2005    |
|        | G7                   | G     | November 2005    |
|        | G8 to G12 inclusive  | E     | November 2005    |
|        | G13                  | F     | November 2005    |
|        | G14 to G15 inclusive | D     | November 2005    |
|        | G16                  | F     | November 2005    |
|        | G17                  | E     | November 2005    |
|        | G18 to G22 inclusive | D     | November 2005    |
|        | G23                  | E     | November 2005    |
|        | G24                  | D     | November 2005    |
|        | G25 to G28 inclusive | C     | November 2005    |
|        | G29 to G30 inclusive | D     | November 2005    |
|        | G31 to G32 inclusive | C     | November 2005    |

## SCHEDULE OF DRAWINGS - SECTION 1 AND RELEVANT PUBLICATION DATES (*continued*)

| Series | Drawing Number       | Issue | Publication Date |
|--------|----------------------|-------|------------------|
| H      | H1                   | C     | May 2004         |
|        | H2                   | B     | May 2004         |
|        | H3                   | D     | May 2004         |
|        | H4                   | C     | May 2004         |
|        | H5                   | D     | May 2004         |
|        | H6                   | C     | May 2004         |
|        | H7                   | A     | December 1991    |
|        | H8                   | B     | May 2001         |
|        | H9 to H10 inclusive  | A     | December 1991    |
|        | H11                  | D     | May 2004         |
|        | H12                  | B     | August 1993      |
|        | H13 to H14 inclusive | E     | May 2004         |
|        | H15                  | D     | May 2004         |
|        | H16                  | C     | May 2004         |
|        | H17 to H25 inclusive | B     | May 2004         |
|        | H26                  | B     | May 2001         |
|        | H27 to H33 inclusive | A     | December 1991    |
|        | H34 to H35 inclusive | C     | May 2004         |
|        | H36                  | B     | November 2006    |
|        | H37                  | A     | December 1991    |
|        | H38                  | B     | March 1998       |
|        | H39 to H48           | A     | May 2001         |
| I      | I1 to I2 inclusive   | B     | May 2004         |
|        | I3 to I5 inclusive   | A     | May 2002         |
| J      | J1                   | A     | December 1991    |
| K      | K1 to K3 inclusive   | A     | December 1991    |
|        | K4                   | C     | May 2004         |
|        | K5                   | A     | May 2001         |

**SECTION 2**  
**(Not Used)**

WITHDRAWN

### SCHEDULE OF DRAWINGS - SECTION 3 AND RELEVANT PUBLICATION DATES

| Series | Drawing Number   | Issue | Publication Date |
|--------|--|-------|------------------|
| MCX    | (MCX 0000 to MCX 0068 not used)  |       |                  |
|        | MCX 0069 Sheet 1   | H     | May 2006         |
|        | MCX 0069 Sheet 2 to Sheet 7 inclusive<br>(MCX 0070 to MCX 0130 not used) | F     | May 2006         |
|        | MCX 0131 Sheet 1   | N     | May 2006         |
|        | MCX 0131 Sheet 2 to Sheet 3 inclusive                                    | H     | May 2006         |
|        | MCX 0132 Sheet 1   | N     | May 2006         |
|        | MCX 0132 Sheet 2   | P     | May 2006         |
|        | MCX 0132 Sheet 3   | J     | May 2006         |
|        | MCX 0132 Sheet 4 to Sheet 5 inclusive                                    | K     | May 2006         |
|        | MCX 0132 Sheet 6   | F     | May 2006         |
|        | MCX 0132 Sheet 7 to Sheet 8 inclusive<br>(MCX 0133 not used)             | D     | May 2006         |
|        | MCX 0134 Sheet 1   | N     | May 2006         |
|        | MCX 0135 Sheet 1   | J     | May 2006         |
|        | MCX 0135 Sheet 2   | H     | May 2006         |
|        | MCX 0135 Sheet 3   | G     | May 2006         |
|        | MCX 0135 Sheet 4<br>(MCX 0136 not used)                                  | F     | May 2006         |
|        | MCX 0137 Sheet 1   | K     | May 2006         |
|        | MCX 0138 Sheet 1   | N     | November 2005    |
|        | MCX 0138 Sheet 2   | G     | May 2004         |
|        | MCX 0139 Sheet 1   | K     | May 2006         |
|        | MCX 0140 Sheet 1   | S     | November 2005    |
|        | MCX 0141 Sheet 1   | P     | February 2003    |
|        | MCX 0142 Sheet 1   | M     | May 2006         |
|        | MCX 0142 Sheet 2   | L     | May 2006         |
|        | MCX 0142 Sheet 3   | K     | May 2006         |
|        | MCX 0142 Sheet 4   | J     | May 2006         |
|        | MCX 0143 Sheet 1   | R     | November 2005    |
|        | MCX 0144 Sheet 1 to Sheet 2 inclusive                                    | J     | November 2003    |
|        | MCX 0144 Sheet 3   | F     | May 2004         |
|        | MCX 0144 Sheet 4   | E     | May 2004         |
|        | MCX 0145 Sheet 1   | S     | May 2006         |
|        | MCX 0145 Sheet 2   | L     | November 2003    |
|        | MCX 0145 Sheet 3   | G     | May 2002         |
|        | MCX 0145 Sheet 4   | L     | May 2006         |
|        | MCX 0145 Sheet 5   | F     | May 2006         |
|        | MCX 0146 Sheet 1   | L     | February 2003    |
|        | MCX 0147 Sheet 1   | N     | May 2006         |
|        | MCX 0147 Sheet 2<br>(MCX 0148 not used)                                  | K     | May 2006         |
|        | MCX 0149 Sheet 1   | H     | May 2006         |
|        | MCX 0149 Sheet 2   | G     | May 2006         |
|        | MCX 0150 Sheet 1   | H     | May 2006         |
|        | MCX 0151 Sheet 1   | L     | May 2006         |
|        | MCX 0151 Sheet 2   | K     | May 2006         |
|        | MCX 0151 Sheet 3   | L     | May 2006         |
|        | MCX 0151 Sheet 4 to Sheet 5 inclusive                                    | H     | May 2006         |
|        | MCX 0151 Sheet 6   | F     | May 2006         |
|        | MCX 0151 Sheet 7   | G     | May 2006         |
|        | MCX 0151 Sheet 8   | C     | May 2006         |

**SCHEDULE OF DRAWINGS - SECTION 3  
AND RELEVANT PUBLICATION DATES (*continued*)**

| Series | Drawing Number                         | Issue | Publication Date |
|--------|--|-------|------------------|
| MCX    | MCX 0152 Sheet 1                       | M     | May 2006         |
|        | MCX 0152 Sheet 2                       | H     | May 2006         |
|        | MCX 0153 Sheet 1                       | M     | November 2005    |
|        | MCX 0153 Sheet 2                       | F     | November 2005    |
|        | MCX 0154 Sheet 1                       | N     | May 2006         |
|        | (MCX 0155 not used)                    |       |                  |
|        | MCX 0156 Sheet 1                       | S     | May 2006         |
|        | MCX 0156 Sheet 2                       | P     | May 2006         |
|        | MCX 0156 Sheet 3                       | N     | May 2006         |
|        | MCX 0156 Sheet 4                       | Q     | May 2006         |
|        | MCX 0156 Sheet 5                       | K     | May 2006         |
|        | MCX 0157 Sheet 1                       | J     | May 2006         |
|        | MCX 0157 Sheet 2                       | H     | May 2006         |
|        | MCX 0157 Sheet 3                       | J     | May 2006         |
|        | MCX 0157 Sheet 4                       | H     | May 2006         |
|        | MCX 0157 Sheet 5                       | J     | May 2006         |
|        | MCX 0157 Sheet 6                       | G     | May 2006         |
|        | (MCX 0158 to MCX 0159 not used)        |       |                  |
|        | MCX 0160 Sheet 1                       | L     | May 2004         |
|        | (MCX 0161 to MCX 0162 not used)        |       |                  |
|        | MCX 0163 Sheet 1                       | J     | May 2006         |
|        | MCX 0164 Sheet 1                       | J     | May 2004         |
|        | MCX 0164 Sheet 2                       | L     | May 2006         |
|        | MCX 0164 Sheet 3                       | J     | May 2006         |
|        | MCX 0164 Sheet 4                       | A     | May 2004         |
|        | MCX 0165 Sheet 1                       | H     | May 2006         |
|        | MCX 0165 Sheet 2                       | K     | May 2006         |
|        | MCX 0165 Sheet 3                       | H     | May 2006         |
|        | MCX 0165 Sheet 4                       | D     | May 2006         |
|        | (MCX 0166 to MCX 0169 not used)        |       |                  |
|        | MCX 0170 Sheet 1                       | M     | May 2006         |
|        | MCX 0170 Sheet 2                       | N     | May 2006         |
|        | MCX 0170 Sheet 3                       | J     | May 2006         |
|        | MCX 0170 Sheet 4 to Sheet 5 inclusive  | E     | May 2006         |
|        | MCX 0170 Sheet 6                       | D     | May 2006         |
|        | MCX 0170 Sheet 7 to Sheet 8 inclusive  | E     | May 2006         |
|        | MCX 0170 Sheet 9                       | D     | May 2006         |
|        | MCX 0171 Sheet 1                       | J     | February 2003    |
|        | MCX 0171 Sheet 2                       | F     | May 2006         |
|        | (MCX 0172 to MCX 0305 not used)        |       |                  |
|        | MCX 0306 Sheet 1 to Sheet 2 inclusive  | J     | May 2006         |
|        | MCX 0306 Sheet 3                       | H     | May 2006         |
|        | (MCX 0307 to MCX 0336 not used)        |       |                  |
|        | MCX 0337 Sheet 1                       | S     | May 2006         |
|        | MCX 0337 Sheet 2                       | J     | May 2006         |
|        | MCX 0337 Sheet 3                       | G     | May 2006         |
|        | MCX 0337 Sheet 4                       | F     | May 2006         |
|        | MCX 0337 Sheet 5                       | K     | May 2006         |
|        | MCX 0337 Sheet 6                       | H     | May 2006         |
|        | MCX 0337 Sheet 7 to Sheet 8 inclusive  | F     | May 2006         |
|        | MCX 0337 Sheet 9 to Sheet 10 inclusive | D     | May 2006         |
|        | MCX 0037 Sheet 11                      | C     | May 2006         |

**SCHEDULE OF DRAWINGS - SECTION 3**  
**AND RELEVANT PUBLICATION DATES (*continued*)**

| Series | Drawing Number                          | Issue | Publication Date |
|--------|---|-------|------------------|
| MCX    | (MCX 0338 not used)                     |       |                  |
|        | MCX 0339 Sheet 1 to Sheet 2 inclusive   | K     | May 2006         |
|        | MCX 0339 Sheet 3                        | G     | May 2006         |
|        | MCX 0339 Sheet 4                        | F     | May 2006         |
|        | (MCX 0340 to MCX 0425 not used)         |       |                  |
|        | MCX 0426 Sheet 1 to Sheet 2 inclusive   | H     | May 2006         |
|        | (MCX 0427 to MCX 0485 not used)         |       |                  |
|        | MCX 0486 Sheet 1                        | H     | May 2006         |
|        | MCX 0486 Sheet 2                        | F     | May 2006         |
|        | (MCX 0487 to MCX 0488 not used)         |       |                  |
|        | MCX 0489 Sheet 1                        | G     | May 2006         |
|        | MCX 0489 Sheet 2                        | J     | May 2006         |
|        | MCX 0489 Sheet 3                        | H     | May 2006         |
|        | MCX 0489 Sheet 4                        | F     | May 2006         |
|        | MCX 0489 Sheet 5 to Sheet 6 inclusive   | J     | May 2006         |
|        | MCX 0489 Sheet 7                        | B     | May 2006         |
|        | MCX 0490 Sheet 1 to Sheet 2 inclusive   | J     | May 2004         |
|        | MCX 0490 Sheet 3                        | K     | November 2005    |
|        | MCX 0490 Sheet 4                        | N     | November 2005    |
|        | MCX 0490 Sheet 5                        | L     | May 2006         |
|        | (MCX 0491 to MCX 0508 not used)         |       |                  |
|        | MCX 0509 Sheet 1                        | D     | May 2006         |
|        | MCX 0509 Sheet 2                        | F     | May 2006         |
|        | (MCX 0510 to MCX 0514 not used)         |       |                  |
|        | MCX 0515 Sheet 1 to Sheet 3 inclusive   | E     | May 2006         |
|        | (MCX 0516 to MCX 0541 not used)         |       |                  |
|        | MCX 0542 Sheet 1 to Sheet 4 inclusive   | G     | May 2006         |
|        | MCX 0543 Sheet 1                        | G     | May 2006         |
|        | (MCX 0544 to MCX 0551 not used)         |       |                  |
|        | MCX 0552 Sheet 1 to Sheet 2 inclusive   | E     | May 2006         |
|        | (MCX 0553 to MCX 0559 not used)         |       |                  |
|        | MCX 0560 Sheet 1                        | F     | May 2006         |
|        | (MCX 0561 to MCX 0564 not used)         |       |                  |
|        | MCX 0565 Sheet 1                        | F     | May 2006         |
|        | MCX 0566 Sheet 1                        | F     | February 2003    |
|        | (MCX 0567 to MCX 0574 not used)         |       |                  |
|        | MCX 0575 Sheet 1                        | F     | November 2003    |
|        | (MCX 0576 to MCX 0581 not used)         |       |                  |
|        | MCX 0582 Sheet 1                        | K     | May 2005         |
|        | MCX 0582 Sheet 2                        | E     | May 2005         |
|        | MCX 0582 Sheet 3                        | D     | May 2004         |
|        | MCX 0583 Sheet 1                        | K     | February 2003    |
|        | MCX 0583 Sheet 2                        | J     | February 2003    |
|        | MCX 0583 Sheet 3 to Sheet 4 inclusive   | K     | May 2006         |
|        | MCX 0583 Sheet 5                        | E     | February 2003    |
|        | MCX 0583 Sheet 6 to Sheet 7 inclusive   | E     | May 2006         |
|        | MCX 0583 Sheet 8                        | G     | May 2006         |
|        | MCX 0583 Sheet 9                        | D     | May 2006         |
|        | MCX 0583 Sheet 10 to Sheet 11 inclusive | E     | May 2006         |
|        | MCX 0583 Sheet 12                       | B     | May 2006         |
|        | MCX 0584 Sheet 1                        | L     | May 2006         |
|        | MCX 0584 Sheet 2                        | K     | May 2006         |
|        | MCX 0584 Sheet 3 to Sheet 5 inclusive   | L     | November 2003    |
|        | MCX 0584 Sheet 6                        | J     | May 2006         |
|        | MCX 0584 Sheet 7                        | K     | May 2006         |



**SCHEDULE OF DRAWINGS - SECTION 3  
AND RELEVANT PUBLICATION DATES (*continued*)**

| Series | Drawing Number                        | Issue | Publication Date |
|--------|---------------------------------------|-------|------------------|
| MCX    | MCX 0584 Sheet 8                      | H     | February 2003    |
|        | MCX 0584 Sheet 9                      | H     | May 2006         |
|        | MCX 0584 Sheet 10                     | J     | May 2006         |
|        | (MCX 0585 to MCX 0586 not used)       |       |                  |
|        | MCX 0587 Sheet 1 to Sheet 3           | D     | May 2006         |
|        | MCX 0587 Sheet 4                      | C     | May 2006         |
|        | (MCX 0588 to MCX 0589 not used)       |       |                  |
|        | MCX 0590 Sheet 1                      | H     | May 2006         |
|        | MCX 0591 Sheet 1                      | H     | May 2006         |
|        | MCX 0592 Sheet 1                      | G     | May 2006         |
|        | MCX 0592 Sheet 2 to Sheet 4 inclusive | E     | November 2005    |
|        | (MCX 0593 not used)                   |       |                  |
|        | MCX 0594 Sheet 1 to Sheet 2 inclusive | G     | May 2006         |
|        | MCX 0594 Sheet 3                      | G     | November 2005    |
|        | MCX 0594 Sheet 4                      | C     | May 2006         |
|        | (MCX 0595 to MCX 0601 not used)       |       |                  |
|        | MCX 0602 Sheet 1 to Sheet 2 inclusive | E     | May 2006         |
|        | (MCX 0603 to MCX 0722 not used)       |       |                  |
|        | MCX 0723 Sheet 1                      | E     | November 2005    |
|        | MCX 0723 Sheet 2                      | D     | February 2003    |
|        | MCX 0723 Sheet 3                      | D     | May 2006         |
|        | (MCX 0724 to MCX 0799 not used)       |       |                  |
|        | MCX 0800 Sheet 1 to Sheet 2           | G     | November 2005    |
|        | MCX 0800 Sheet 3                      | E     | February 2003    |
|        | MCX 0801 Sheet 1 to Sheet 3 inclusive | H     | May 2006         |
|        | MCX 0801 Sheet 4                      | H     | November 2005    |
|        | MCX 0801 Sheet 5                      | H     | May 2006         |
|        | MCX 0802 Sheet 1                      | F     | May 2006         |
|        | (MCX 0803 to MCX 0809 not used)       |       |                  |
|        | MCX 0810 Sheet 1                      | F     | May 2004         |
|        | MCX 0810 Sheet 2                      | F     | February 2003    |
|        | MCX 0810 Sheet 3                      | D     | May 2006         |
|        | MCX 0811 Sheet 1                      | E     | May 2006         |
|        | MCX 0811 Sheet 2 to 3 inclusive       | G     | November 2005    |
|        | MCX 0811 Sheet 4                      | F     | May 2006         |
|        | MCX 0812 Sheet 1                      | F     | November 2005    |
|        | MCX 0812 Sheet 2                      | G     | November 2005    |
|        | MCX 0813 Sheet 1                      | G     | November 2003    |
|        | MCX 0814 Sheet 1 to Sheet 2 inclusive | F     | February 2003    |
|        | MCX 0814 Sheet 3                      | F     | May 2004         |
|        | MCX 0814 Sheet 4                      | F     | February 2003    |
|        | MCX 0814 Sheet 5                      | F     | May 2006         |
|        | MCX 0815 Sheet 1                      | H     | November 2004    |
|        | MCX 0815 Sheet 2                      | F     | February 2003    |
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|        | (MCX 0816 to MCX 0819 not used)       |       |                  |
|        | MCX 0820 Sheet 1                      | E     | May 2006         |
|        | MCX 0821 Sheet 1 to Sheet 3 inclusive | F     | May 2006         |
|        | MCX 0821 Sheet 4                      | F     | February 2003    |
|        | MCX 0822 Sheet 1                      | G     | May 2006         |
|        | MCX 0822 Sheet 2 to Sheet 4 inclusive | F     | May 2006         |
|        | MCX 0822 Sheet 5                      | H     | May 2006         |
|        | MCX 0822 Sheet 6                      | F     | May 2006         |



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AND RELEVANT PUBLICATION DATES (*continued*)**

| Series | Drawing Number                          | Issue | Publication Date |
|--------|---|-------|------------------|
| MCX    | MCX 0823 Sheet 1                        | E     | May 2006         |
|        | MCX 0823 Sheet 2                        | F     | February 2003    |
|        | MCX 0823 Sheet 3                        | H     | May 2006         |
|        | MCX 0823 Sheet 4                        | F     | May 2006         |
|        | MCX 0824 Sheet 1                        | E     | May 2006         |
|        | (MCX 0825 to MCX 0829 not used)         |       |                  |
|        | MCX 0830 Sheet 1                        | E     | February 2003    |
|        | MCX 0831 Sheet 1                        | F     | May 2006         |
|        | MCX 0832 Sheet 1                        | H     | May 2006         |
|        | MCX 0832 Sheet 2                        | E     | May 2006         |
|        | MCX 0833 Sheet 1                        | F     | February 2003    |
|        | MCX 0833 Sheet 2                        | E     | February 2003    |
|        | MCX 0834 Sheet 1 to Sheet 3 inclusive   | E     | May 2006         |
|        | MCX 0834 Sheet 4 to Sheet 6 inclusive   | E     | November 2005    |
|        | MCX 0834 Sheet 7 to Sheet 10 inclusive  | F     | May 2006         |
|        | (MCX 0835 to MCX 0850 not used)         |       |                  |
|        | MCX 0851 Sheet 1                        | E     | May 2006         |
|        | MCX 0851 Sheet 2                        | F     | May 2006         |
|        | MCX 0851 Sheet 3 to Sheet 4 inclusive   | E     | May 2006         |
|        | MCX 0852 Sheet 1                        | F     | May 2006         |
|        | MCX 0853 Sheet 1 to Sheet 3 inclusive   | E     | May 2006         |
|        | MCX 0854 Sheet 1 to Sheet 3 inclusive   | E     | May 2006         |
|        | (MCX 0855 to MCX 0860 not used)         |       |                  |
|        | MCX 0861 Sheet 1 to Sheet 3 inclusive   | E     | May 2006         |
|        | MCX 0862 Sheet 1 to Sheet 3 inclusive   | E     | May 2006         |
|        | MCX 0863 Sheet 1                        | F     | May 2006         |
|        | MCX 0864 Sheet 1                        | F     | May 2006         |
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|        | MCX 0864 Sheet 4                        | G     | May 2004         |
|        | MCX 0864 Sheet 5                        | E     | May 2004         |
|        | MCX 0864 Sheet 6                        | F     | May 2004         |
|        | MCX 0864 Sheet 7                        | G     | May 2006         |
|        | (MCX 0865 to MCX 0870 not used)         |       |                  |
|        | MCX 0871 Sheet 1                        | F     | May 2006         |
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|        | MCX 0872 Sheet 1                        | E     | May 2006         |
|        | MCX 0873 Sheet 1                        | F     | May 2006         |
|        | MCX 0873 Sheet 2                        | D     | May 2006         |
|        | (MCX 0874 to MCX 0898 not used)         |       |                  |
|        | MCX 0899 Sheet 1                        | F     | May 2006         |
|        | (MCX 0900 to MCX 1021 not used)         |       |                  |
|        | MCX 1022 Sheet 1 to Sheet 3             | B     | May 2006         |
|        | MCX 1022 Sheet 4                        | C     | May 2006         |
|        | MCX 1022 Sheet 5                        | B     | May 2006         |
|        | (MCX 1023 to MCX 1025 not used)         |       |                  |
|        | MCX 1026 Sheet 1                        | B     | November 2006    |
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|        | MCX 1030 Sheet 11 to Sheet 18 inclusive | A     | November 2005    |

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# HIGHWAY CONSTRUCTION DETAILS

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**Section 3: National Motorway Communications System**

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| Series MCX | Installation Drawings |
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## Introduction

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1. The Highway Construction Details (HCD) is published as Volume 3 of the Manual of Contract Documents for Highway Works and contains standard drawings for use in the construction, improvement and maintenance of trunk roads.
2. The numbers, titles and dates of the individual drawings, or parts of drawings, included in the Contract are listed in Appendix 0/4 to the Specification.
3. The following apply to each drawing unless otherwise stated thereon:
  - i. SHW means the Specification for Highway Works published by The Stationery Office as Volume 1 of the Manual of Contract Documents for Highway Works.
  - ii. Reference to a Clause is a reference to a Clause of the Specification for Highway Works.
  - iii. Reference to a Numbered Appendix (eg. Appendix 3/1) is a reference to a Numbered Appendix to the Specification.

The relevant publication date of each Clause is to be determined from the Schedule of Pages and Relevant Publication Dates in the Specification.

The relevant publication date of each British Standard (BS) and other reference document referred to in the HCD is to be determined in accordance with Clause 004 of the Specification.

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**SECTION 2**  
**NOT USED** (05/04)

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| MCX 0145 | 5         | Installation Drawing NMCS, Type VI Label for Target Boards  |
| MCX 0146 | 1         | Installation Drawing NMCS, Cabinet 609/620 Set in Standard Motorway Fence                                 |
| MCX 0147 | 1         | Installation Drawing NMCS, Labels for Cables & Telephone Housing  |
| MCX 0147 | 2         | Installation Drawing NMCS, Telephone Instruction For Use Label  |
| MCX 0148 |           | Not Used  |
| MCX 0149 | 1         | Installation Drawing NMCS 1 & 2, Cabinet 609 - Typical Siting to Allow for Extra Cable Length             |
| MCX 0149 | 2         | Installation Drawing NMCS 1 & 2, Standard Transverse Cabling Arrangements at Cabinet Locations            |
| MCX 0150 | 1         | Installation Drawing NMCS 1 & 2, Cabinet 609 - Typical Siting to Allow for Extra Fibre Optic Cable Length |
| MCX 0151 | 1         | Installation Drawing NMCS 1, Distributor 903B for Gantry Signals  |
| MCX 0151 | 2         | Installation Drawing NMCS 2, Data Link Connection Box Type 9903 for Gantry Signals                        |
| MCX 0151 | 3         | Installation Drawing NMCS 2, Data Link Connection Box Type 9904 for Gantry Signals                        |
| MCX 0151 | 4         | Installation Drawing NMCS 2, Data Link Connection Box Cable Pair Allocation                               |
| MCX 0151 | 5         | Installation Drawing NMCS 2, 20/30 to 2 Pair Quad Cable Gland Conversion Kit                              |
| MCX 0151 | 6         | Installation Drawing NMCS 2, Data Link Connection Box Type 9905 for Cantilever MS3 Signals                |
| MCX 0151 | 7         | Installation Drawing NMCS 2, Data Link Connection Box Type 9905 for Gantry Message Signs                  |
| MCX 0151 | 8         | Installation Drawing NMCS 2, Data Link Connection Box Type 9903 for Cantilever Mk3 Signals                |

# LIST OF DRAWINGS

## SECTION 3

### NATIONAL MOTORWAY COMMUNICATIONS SYSTEM

#### INSTALLATION DRAWINGS (*continued*)

| Drg No.              | Sheet No. | Title   |
|----------------------|-----------|---|
| MCX 0152             | 1         | Installation Drawing NMCS 1, Distributor 902E & B (MK2) for Post Signals  |
| MCX 0152             | 2         | Installation Drawing NMCS 2, Data Link Connection Box Type 9902   |
| MCX 0153             | 1         | Installation Drawing, Layout of Communications Cabinets, Posts, Ducts & Hardstanding  |
| MCX 0153             | 2         | Installation Drawing NMCS 1 & 2, Communications Cable Trough Detail   |
| MCX 0154             | 1         | Installation Drawing NMCS, Typical Communications Cable Layout in Cabinet 609 (Plan View)   |
| MCX 0155             |           | Not Used  |
| MCX 0156             | 1         | Installation Drawing NMCS, Cabinet 600  |
| MCX 0156             | 2         | Installation Drawing NMCS, Cabinet 600, Cable Securing and Earthing Detail  |
| MCX 0156             | 3         | Installation Drawing NMCS 1, Cabinet 600, Wiring Details for Plessey TBU  |
| MCX 0156             | 4         | Installation Drawing NMCS 2, Cabinet 600 - Power Supply to PDU and Extended Mains Supply  |
| MCX 0156             | 5         | Installation Drawing NMCS 2, Cabinet 600 - Power Supply to PDU and Extended Mains Supply Alternative Arrangement for MS3              |
| MCX 0157             | 1         | Installation Drawing NMCS 2, Motorway Signals Interconnections of Equipment on Gantries (Config. P) (Type Numbers of Equipment Shown) |
| MCX 0157             | 2         | Installation Drawing NMCS 2, Motorway Signals Interconnections of Equipment on Gantries (Config. P) (Type Numbers of Equipment Shown) |
| MCX 0157             | 3         | Installation Drawing NMCS 2, Motorway Signals Interconnections of Equipment on Gantries (Config. F) (Type Numbers of Equipment Shown) |
| MCX 0157             | 4         | Installation Drawing NMCS 2, Motorway Signals Interconnections of Equipment on Gantries (Config. F) (Type Numbers of Equipment Shown) |
| MCX 0157             | 5         | Installation Drawing NMCS 2, Signals Interconnections of Equipment on Rural Sites (Config. P & F) (Type Numbers of Equipment Shown)   |
| MCX 0157             | 6         | Installation Drawing NMCS 2, Gantry Data Link Connection Boxes, Standard and Extension Arrangements                                   |
| MCX 0158 to MCX 0159 |           | Not Used  |
| MCX 0160             | 1         | Installation Drawing NMCS, Safety Barrier Protection of Cabinets - Guide  |
| MCX 0161 to MCX 0162 |           | Not Used  |
| MCX 0163             | 1         | Installation Drawing NMCS 1 & 2, Box Type 615B  |
| MCX 0164             | 1         | Installation Drawing NMCS 1 & 2, ESC Interface Cabinet, Layout for Non Transmission Station Locations                                 |
| MCX 0164             | 2         | Installation Drawing NMCS 1 & 2, ESC Interface Cabinet, Notes   |
| MCX 0164             | 3         | Installation Drawing NMCS 1 & 2, ESC Interface Cabinet, Parts List  |
| MCX 0164             | 4         | Installation Drawing NMCS 1 & 2, ESC Interface Cabinet, Layout for Transmission Station Locations                                     |
| MCX 0165             | 1         | Installation Drawing NMCS 1 & 2, Rural Power Cabinet, Typical Layout  |
| MCX 0165             | 2         | Installation Drawing NMCS 1 & 2, Rural Power Cabinet, Notes   |
| MCX 0165             | 3         | Installation Drawing NMCS 1 & 2, Rural Power Cabinet, Parts List  |
| MCX 0165             | 4         | Installation Drawing NMCS 1 & 2, Rural Power Cabinet, Rural Signal Interface  |
| MCX 0166 to MCX 0169 |           | Not Used  |
| MCX 0170             | 1         | Installation Drawing NMCS, Gantry Power Cabinet, Notes  |
| MCX 0170             | 2         | Installation Drawing NMCS, Gantry Power Cabinet, Circuit Diagrams   |
| MCX 0170             | 3         | Installation Drawing NMCS, Gantry Power Cabinet, Circuit Diagrams   |

# **LIST OF DRAWINGS** **SECTION 3** **NATIONAL MOTORWAY COMMUNICATIONS SYSTEM** **INSTALLATION DRAWINGS (*continued*)**

| Drg No.                 | Sheet No. | Title   |
|-------------------------|-----------|---|
| MCX 0170                | 4         | Installation Drawing NMCS, Gantry Power Cabinet, Standard Situation   |
| MCX 0170                | 5         | Installation Drawing NMCS, Cantilever Power Cabinet, Two Way Consumer Unit Arrangement                                  |
| MCX 0170                | 6         | Installation Drawing NMCS, Gantry Power Cabinet, Gantry with Auxiliary Supply   |
| MCX 0170                | 7         | Installation Drawing NMCS, Gantry Power Cabinet, Double Gantry (ESC Supply Side)  |
| MCX 0170                | 8         | Installation Drawing NMCS, Gantry Power Cabinet, Double Gantry  |
| MCX 0170                | 9         | Installation Drawing NMCS, Gantry Power Cabinet, Parts List   |
| MCX 0171                | 1         | Installation Drawing NMCS, Labels For Use on Electrical Switchgear Enclosures   |
| MCX 0171                | 2         | Installation Drawing NMCS, Parts  |
| MCX 0172 to<br>MCX 0305 |           | Not Used  |
| MCX 0306                | 1         | Installation Drawing NMCS 1 & 2, Cabinet 617 Audio Transmission Stations  |
| MCX 0306                | 2         | Installation Drawing NMCS 1 & 2, Cabinet 617 Mini-Carrier Transmission Stations   |
| MCX 0306                | 3         | Installation Drawing NMCS 1 & 2, Cabinet 617 Labelling for Transmission Station   |
| MCX 0307 to<br>MCX 0336 |           | Not Used  |
| MCX 0337                | 1         | Installation Drawing NMCS 1 & 2, Cabinet 600 Wiring   |
| MCX 0337                | 2         | Installation Drawing NMCS 1 & 2, Cabinet 600 Wiring for Interface Unit Type 2456  |
| MCX 0337                | 3         | Installation Drawing NMCS 1, Cabinet 600 (Pre 1974 only) Wiring for Interface Unit Type 2456                            |
| MCX 0337                | 4         | Installation Drawing NMCS 1 & 2, Cabinet 600 Wiring for Interface Unit Type 9334  |
| MCX 0337                | 5         | Installation Drawing NMCS 2, MS3/Message Signs 600 Cabinet Termination NMCS 2 Control - Cantilever Sites                |
| MCX 0337                | 6         | Installation Drawing NMCS 2, MS3/Message Signs 600 Cabinet Termination NMCS 2 and Standalone Control - Cantilever Sites |
| MCX 0337                | 7         | Installation Drawing NMCS 2, Message Signs 600 Cabinet Termination NMCS 2 Control - Gantry Sites                        |
| MCX 0337                | 8         | Installation Drawing NMCS 2, Message Signs 600 Cabinet Termination Standalone Control Gantry Sites                      |
| MCX 0337                | 9         | Installation Drawing NMCS, Parts  |
| MCX 0337                | 10        | Installation Drawing NMCS 1 & 2, TS Marshalling Cabinet 600 - 30 Pr Installation Notes                                  |
| MCX 0337                | 11        | Installation Drawing NMCS 1 & 2, TS Marshalling Cabinet 600 - 30 Pr Installation of Rear Frame                          |
| MCX 0338                |           | Not Used  |
| MCX 0339                | 1         | Installation Drawing NMCS 2, MS3/Message Signs and Midas Box 615B Local Termination Arrangements                        |
| MCX 0339                | 2         | Installation Drawing NMCS 2, MS3/Message Signs and Midas Box 615B Local Termination Arrangements                        |
| MCX 0339                | 3         | Installation Drawing NMCS 2, MS3/Message Signs and Midas Box 615B Local Termination Arrangements                        |
| MCX 0339                | 4         | Installation Drawing NMCS 2, MS3/Message Signs and Midas Box 615B Local Termination Arrangements                        |
| MCX 0340 to<br>MCX 0425 |           | Not Used  |



# LIST OF DRAWINGS

## SECTION 3

### NATIONAL MOTORWAY COMMUNICATIONS SYSTEM

#### INSTALLATION DRAWINGS (*continued*)

| Drg No.              | Sheet No. | Title   |
|----------------------|-----------|---|
| MCX 0426             | 1         | Installation Drawing, Transmission Wiring for Sector Switch and TLC (NMCS 2 Transmission Cabinet)                                       |
| MCX 0426             | 2         | Installation Drawing, Transmission Wiring for Sector Switch and TLC (NMCS 2 Transmission Cabinet)                                       |
| MCX 0427 to MCX 0485 |           | Not Used  |
| MCX 0486             | 1         | Installation Drawing NMCS 2, Cable Glands - Gland Types   |
| MCX 0486             | 2         | Installation Drawing NMCS, Cable Glands - Parts   |
| MCX 0487 to MCX 0488 |           | Not Used  |
| MCX 0489             | 1         | Installation Drawing, Cassette Termination Arrangement for Fibre Optic Communications Cables within Cabinet 609                         |
| MCX 0489             | 2         | Installation Drawing, Cassette Termination Arrangement for Fibre Optic Communications Cables within Cabinet 609                         |
| MCX 0489             | 3         | Installation Drawing, Cassette Termination Arrangement for Fibre Optic Communications Cables within Cabinet 609                         |
| MCX 0489             | 4         | Installation Drawing, Cassette Termination Arrangement for Fibre Optic Communications Cables within Cabinet 609                         |
| MCX 0489             | 5         | Installation Drawing, Cassette Termination Arrangement for Fibre Optic Communications Cables within Cabinet 609 Through and Local Sides |
| MCX 0489             | 6         | Installation Drawing, Cassette Termination Arrangement for Fibre Optic Communications Cables within Cabinet 609                         |
| MCX 0489             | 7         | Installation Drawing, Cassette Termination Arrangement for Fibre Optic Communications Cables 12 Fibre Armoured - 24 Fibre Unarmoured    |
| MCX 0490             | 1         | Installation Drawing, Termination Arrangement for Fibre Optic Cables Within Tx Stations and Control Office Buildings                    |
| MCX 0490             | 2         | Installation Drawing, Termination Arrangement for Fibre Optic Communications Cables at Sites Without Computer Flooring                  |
| MCX 0490             | 3         | Installation Drawing, Termination Arrangement for Fibre Optic Cables Within Tx Stations Control Office Buildings                        |
| MCX 0490             | 4         | Installation Drawing, Termination Arrangement for Fibre Optic Communications Cables Within Tx Stations and Control Office Buildings     |
| MCX 0490             | 5         | Installation Drawing, Termination Arrangement for Fibre Optic Cables Within Tx Stations and Control Office Buildings                    |
| MCX 0491 to MCX 0508 |           | Not Used  |
| MCX 0509             | 1         | Installation Drawing, Gantry Earthing and Bonding   |
| MCX 0509             | 2         | Installation Drawing NMCS 2, Typical Earth Bonding System for Gantry and Cantilever Structures  |
| MCX 0510 to MCX 0514 |           | Not Used  |
| MCX 0515             | 1         | Installation Drawing NMCS 2, Motorway VMS - Interconnection of Equipment on Gantries  |
| MCX 0515             | 2         | Installation Drawing NMCS 2, Motorway VMS - Interconnection of Equipment on 6 Lane Gantry & Single Sign                                 |
| MCX 0515             | 3         | Installation Drawing NMCS 2, Motorway VMS - Interconnection of Equipment on Posts   |

# LIST OF DRAWINGS

## SECTION 3

### NATIONAL MOTORWAY COMMUNICATIONS SYSTEM

#### INSTALLATION DRAWINGS (*continued*)

| Drg No.                 | Sheet No. | Title   |
|-------------------------|-----------|---|
| MCX 0516 to<br>MCX 0541 |           | Not Used  |
| MCX 0542                | 1         | Installation Drawing, Cabinet 2303 - Terminations and Wiring (Transmission Station)   |
| MCX 0542                | 2         | Installation Drawing, Cabinet 2303 - Terminations and Wiring (Transmission Station)<br>- Notes                              |
| MCX 0542                | 3         | Installation Drawing, Cabinet 2303 - Terminations and Wiring (Control Office)   |
| MCX 0542                | 4         | Installation Drawing, Cabinet 2303 - Terminations and Wiring (Control Office) - Notes                                       |
| MCX 0543                | 1         | Installation Drawing, Cabinet 2304 - Cable Terminations   |
| MCX 0544 to<br>MCX 0551 |           | Not Used  |
| MCX 0552                | 1         | Installation Drawing, Co-axial Cable Termination  |
| MCX 0552                | 2         | Installation Drawing, Co-axial Termination Component List   |
| MCX 0553 to<br>MCX 0559 |           | Not Used  |
| MCX 0560                | 1         | Installation Drawing NMCS, Cabling Arrangement at Transmission Station<br>Building Site                                     |
| MCX 0561 to<br>MCX 0564 |           | Not Used  |
| MCX 0565                | 1         | Installation Drawing, Typical Layout for installing NMCS 2 Signal and<br>Telephone Equipment within a Cabinet Type 600      |
| MCX 0566                | 1         | Installation Drawing NMCS 2, Showing Details of Providing Power from a<br>Motorway Site to an All-Purpose Road Installation |
| MCX 0567 to<br>MCX 0574 |           | Not Used  |
| MCX 0575                | 1         | Installation Drawing, Typical 15 Metre and 10 Metre CCTV Mast and Cabinet Base<br>with Paved Area                           |
| MCX 0576 to<br>MCX 0581 |           | Not Used  |
| MCX 0582                | 1         | Installation Drawing NMCS 2, Message Signs and Motorway Signals Mk3<br>Preferred Outstation Layout                          |
| MCX 0582                | 2         | Installation Drawing NMCS 2, Message Signs and Motorway Signals Mk3<br>Preferred Highload Route Outstation Layout           |
| MCX 0582                | 3         | Installation Drawing NMCS 2, Message Signs and Motorway Signals Mk3<br>Preferred Outstation Layout for Restricted Space     |
| MCX 0583                | 1         | Installation Drawing NMCS 2, Motorway Signals Mk3 Cantilever Structures - Notes   |
| MCX 0583                | 2         | Installation Drawing NMCS 2, Motorway Signals Mk3 (3x18)<br>Structures - Cantilever Elevation                               |
| MCX 0583                | 3         | Installation Drawing NMCS 2, Motorway Signals Mk3 (3x18)<br>Cantilever Structures - Sectional Plan at Walkway Level         |
| MCX 0583                | 4         | Installation Drawing NMCS 2, Motorway Signals Mk3 (3x18)<br>Cantilever Structures - Typical Cross Section Through Walkway   |
| MCX 0583                | 5         | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16)<br>Cantilever Structures - Cantilever Elevation                    |
| MCX 0583                | 6         | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16)<br>Cantilever Structures - Sectional Plan at Walkway Level         |



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### NATIONAL MOTORWAY COMMUNICATIONS SYSTEM

#### INSTALLATION DRAWINGS (*continued*)

| Drg No.                 | Sheet No. | Title  |
|-------------------------|-----------|--|
| MCX 0583                | 7         | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16)<br>Cantilever Structures - Typical Cross Section Through Walkway  |
| MCX 0583                | 8         | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16 & 3x18)<br>Cantilever Structures - HD Arrangements   |
| MCX 0583                | 9         | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16 & 3x18)<br>Cantilever Coupling - Casting Template  |
| MCX 0583                | 10        | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16 & 3x18)<br>Cantilever Structures - HD Arrangement  |
| MCX 0583                | 11        | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16 & 3x18)<br>Cantilever Structures - Standard Column   |
| MCX 0583                | 12        | Installation Drawing NMCS 2, Motorway Signals Mk3 (2x16 & 3x18)<br>Holding Down Arrangement Coupler Detail   |
| MCX 0584                | 1         | Installation Drawing NMCS 2, Message Signs on Portal Gantries<br>General Conceptual Metalwork  |
| MCX 0584                | 2         | Installation Drawing NMCS 2, Message Signs on Portal Gantries<br>(Structure/Sign Interface)  |
| MCX 0584                | 3         | Installation Drawing NMCS 2, Message Signs - Alterations to HA Standard,<br>Portal Gantries of 19 to 21m Span, Steelwork at Left Hand End                        |
| MCX 0584                | 4         | Installation Drawing NMCS 2, Message Signs - Alterations to HA and SERO<br>Standard, Portal Gantries of 23 to 35m Span, Steelwork at Left Hand End               |
| MCX 0584                | 5         | Installation Drawing NMCS 2, Message Signs - Alterations to HA and SERO<br>Standard, Portal Gantries of 23 to 35m Span, Steelwork in Mid Span                    |
| MCX 0584                | 6         | Installation Drawing NMCS 2, Message Signs - Standard Details Page 1 of 2  |
| MCX 0584                | 7         | Installation Drawing NMCS 2, Message Signs - Standard Details Page 2 of 2  |
| MCX 0584                | 8         | Installation Drawing NMCS 2, Message Signs - Alterations to HA Standard,<br>Portal Gantries of 19 to 35m Span, Alterations to Sign Support Steelwork Page 1 of 2 |
| MCX 0584                | 9         | Installation Drawing NMCS 2, Message Signs - Alterations to HA Standard,<br>Portal Gantries of 19 to 35m Span, Alterations to Sign Support Steelwork Page 2 of 2 |
| MCX 0584                | 10        | Installation Drawing NMCS 2, Message Signs - General Notes   |
| MCX 0585 to<br>MCX 0586 |           | Not Used   |
| MCX 0587                | 1         | Installation Drawing, PW Interface Cabinet - Typical Arrangement for PSTN<br>Connection Only, Non Armoured Cable   |
| MCX 0587                | 2         | Installation Drawing, PW Interface Cabinet - Typical Arrangement for PSTN<br>Connection Only, Armoured Cable   |
| MCX 0587                | 3         | Installation Drawing, PW Interface Cabinet - Typical Arrangement for<br>Private Wire Rented Circuit  |
| MCX 0587                | 4         | Installation Drawing, PW Interface Cabinet - Typical Arrangement for<br>2Mbt/s Private Rented Circuit  |
| MCX 0588 to<br>MCX 0589 |           | Not Used   |
| MCX 0590                | 1         | Installation Drawing NMCS 2, Motorway Signal Mk3, Cantilever Site - Typical<br>Arrangement   |
| MCX 0591                | 1         | Installation Drawing NMCS 2, Message Signs Portal Gantry Site with Lane<br>Signalling - Typical Arrangement  |
| MCX 0592                | 1         | Installation Drawing NMCS 2, Midas Loops - Feeder Cable Joint  |
| MCX 0592                | 2         | Installation Drawing NMCS 2, Midas Outstation - Typical Arrangement  |

## LIST OF DRAWINGS

### SECTION 3

### NATIONAL MOTORWAY COMMUNICATIONS SYSTEM

### INSTALLATION DRAWINGS (*continued*)

| Drg No.                 | Sheet No. | Title  |
|-------------------------|-----------|--|
| MCX 0592                | 3         | Installation Drawing NMCS 2, Midas Outstation - Typical Arrangement where more than 20 Loops per Site Exist                        |
| MCX 0592                | 4         | Installation Drawing NMCS 2, Midas Outstation - Typical Arrangement where more than 20 Loops per Site Exist with MIDAS Transponder |
| MCX 0593                |           | Not Used   |
| MCX 0594                | 1         | Installation Drawing NMCS 2, Midas Outstation, 600 Cabinet Arrangement   |
| MCX 0594                | 2         | Installation Drawing NMCS 2, Midas Transponder and Outstation 600 Cabinet Arrangement  |
| MCX 0594                | 3         | Installation Drawing NMCS 2, Midas System 600 Cabinet Feeder Cable Termination Examples  |
| MCX 0594                | 4         | Installation Drawing NMCS 2, Midas Transponder and Outstation Lightning Protection Unit Positioning                                |
| MCX 0595 to<br>MCX 0601 |           | Not Used   |
| MCX 0602                | 1         | Installation Drawing NMCS 2, Security Strap for Cabinet 600  |
| MCX 0602                | 2         | Installation Drawing NMCS 2, Security Strap for Cabinet 609  |
| MCX 0603 to<br>MCX 0722 |           | Not Used   |
| MCX 0723                | 1         | Installation Drawing, Camera Site - Cabinet Layout   |
| MCX 0723                | 2         | Installation Drawing, Camera Site - Duct Arrangement   |
| MCX 0723                | 3         | Installation Drawing, Camera Site - Earthing Arrangement   |
| MCX 0724 to<br>MCX 0799 |           | Not Used   |
| MCX 0800                | 1         | Installation Drawing NMCS (Ducted Cable), Network Design Typical Outstation Layout (Post Signals)                                  |
| MCX 0800                | 2         | Installation Drawing NMCS (Ducted Cable), Network Design Typical Outstation Layout (Gantry Signal)                                 |
| MCX 0800                | 3         | Installation Drawing NMCS (Ducted Cable), Network Design MCX 0800 Series Drawings  |
| MCX 0801                | 1         | Installation Drawing NMCS (Ducted Cable), Schematic Layout Emergency Telephone Sites   |
| MCX 0801                | 2         | Installation Drawing NMCS (Ducted Cable), Schematic Layout Post Mounted Signal Sites   |
| MCX 0801                | 3         | Installation Drawing NMCS (Ducted Cable), Schematic Layout Gantry and Cantilever Sites   |
| MCX 0801                | 4         | Installation Drawing NMCS (Ducted Cable), Schematic Layout, MIDAS Sites  |
| MCX 0801                | 5         | Installation Drawing NMCS (Ducted Cable), Schematic Layout, CCTV Sites   |
| MCX 0802                | 1         | Installation Drawing NMCS (Ducted Cable), Interface with Non Ducted Network, General Arrangement                                   |
| MCX 0803 to<br>MCX 0809 |           | Not Used   |
| MCX 0810                | 1         | Installation Drawing NMCS (Ducted Cable), Network Ducts, Sections  |
| MCX 0810                | 2         | Installation Drawing NMCS (Ducted Cable), Network Ducts, Plan View   |
| MCX 0810                | 3         | Installation Drawing NMCS (Ducted Cable), Network Ducts, Deep Traverse Ducts   |
| MCX 0811                | 1         | Installation Drawing NMCS (Ducted Cable), Local Ducts To Cabinet Sites   |
| MCX 0811                | 2         | Installation Drawing NMCS (Ducted Cable), Local Ducts, Connections to Post Signals   |
| MCX 0811                | 3         | Installation Drawing NMCS (Ducted Cable), Local Ducts, Connection to Telephones  |

# **LIST OF DRAWINGS** **SECTION 3** **NATIONAL MOTORWAY COMMUNICATIONS SYSTEM** **INSTALLATION DRAWINGS (*continued*)**

| Drg No.                 | Sheet No. | Title   |
|-------------------------|-----------|---|
| MCX 0811                | 4         | Installation Drawing NMCS (Ducted Cable), Local Ducts, Connection to Gantries and Cantilevers                 |
| MCX 0812                | 1         | Installation Drawing NMCS (Ducted Cable), Cabinet Arrangements, General Layout                                |
| MCX 0812                | 2         | Installation Drawing NMCS (Ducted Cable), Cabinet Arrangements, Plinth Details                                |
| MCX 0813                | 1         | Installation Drawing NMCS (Ducted Cable), Transmission Stations, Chamber and Cabinet Arrangements             |
| MCX 0814                | 1         | Installation Drawing NMCS (Ducted Cable), Duct Installation, Longitudinal Ducts                               |
| MCX 0814                | 2         | Installation Drawing NMCS (Ducted Cable), Duct Installation, Local Ducts                                      |
| MCX 0814                | 3         | Installation Drawing NMCS (Ducted Cable), Duct Installation, Transverse Ducts                                 |
| MCX 0814                | 4         | Installation Drawing NMCS (Ducted Cable), Duct Installation, Spacer and Strapping                             |
| MCX 0814                | 5         | Installation Drawing NMCS (Ducted Cable), Duct Installation, Mechanical Duct Plug                             |
| MCX 0815                | 1         | Installation Drawing NMCS (Ducted Cable), Chambers, Type A  |
| MCX 0815                | 2         | Installation Drawing NMCS (Ducted Cable), Chambers, Cable Supports for Type A                                 |
| MCX 0815                | 3         | Installation Drawing NMCS (Ducted Cable), Chambers, Type B  |
| MCX 0815                | 4         | Installation Drawing NMCS (Ducted Cable), Chambers, Type C  |
| MCX 0816 to<br>MCX 0819 |           | Not Used  |
| MCX 0820                | 1         | Installation Drawing NMCS (Ducted Cable), Cable Joint Enclosure (CJE) -General Details                        |
| MCX 0821                | 1         | Installation Drawing NMCS (Ducted Cable), Cable Joint Enclosure (CJE) - Layout Longitudinal Cable Joint       |
| MCX 0821                | 2         | Installation Drawing NMCS (Ducted Cable), Cable Joint Enclosure (CJE) - Layout Local Cable Joint              |
| MCX 0821                | 3         | Installation Drawing NMCS (Ducted Cable), Cable Joint Enclosure (CJE) - Layout Cable Joints RSI, HFC and T    |
| MCX 0821                | 4         | Installation Drawing NMCS (Ducted Cable), Cable Joint Enclosure (CJE) - Layout Fibre Optic Cable Joint        |
| MCX 0822                | 1         | Installation Drawing NMCS (Ducted Cable), CJE Internal Wiring Schematic Type 15-1 Unloaded Longitudinal Cable |
| MCX 0822                | 2         | Installation Drawing NMCS (Ducted Cable), CJE Internal Wiring Schematic Type 15-2 Longitudinal Cable          |
| MCX 0822                | 3         | Installation Drawing NMCS (Ducted Cable), CJE Internal Wiring Schematic Type 15-3 Longitudinal Cable          |
| MCX 0822                | 4         | Installation Drawing NMCS (Ducted Cable), CJE Internal Wiring Schematic Type 15-4 Longitudinal Cable          |
| MCX 0822                | 5         | Installation Drawing NMCS (Ducted Cable), CJE Internal Wiring Schematic Local Cable Joint                     |
| MCX 0822                | 6         | Installation Drawing NMCS (Ducted Cable), CJE Internal Wiring Schematic RSI, HFC, T                           |
| MCX 0823                | 1         | Installation Drawing NMCS (Ducted Cable), CJE External Wiring Longitudinal Cable Joint                        |
| MCX 0823                | 2         | Installation Drawing NMCS (Ducted Cable), CJE External Wiring Local Cable Joint                               |
| MCX 0823                | 3         | Installation Drawing NMCS (Ducted Cable), CJE External Wiring Multipurpose Cable Joint - RSI and T            |
| MCX 0823                | 4         | Installation Drawing NMCS (Ducted Cable), CJE External Wiring Multipurpose Cable Joint - HFC                  |

# LIST OF DRAWINGS

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### NATIONAL MOTORWAY COMMUNICATIONS SYSTEM

#### INSTALLATION DRAWINGS (*continued*)

| Drg No.                 | Sheet No. | Title   |
|-------------------------|-----------|---|
| MCX 0824                | 1         | Installation Drawing NMCS (Ducted Cable), Cable Joint Enclosure (CJE)<br>Cable Pair Allocation                                  |
| MCX 0825 to<br>MCX 0829 |           | Not Used  |
| MCX 0830                | 1         | Installation Drawing NMCS (Ducted Cable), 600/609/620 Cabinets<br>General Installation Details                                  |
| MCX 0831                | 1         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet<br>Fitting Out Details, Termination Frame                                 |
| MCX 0832                | 1         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet - Internal Wiring Details   |
| MCX 0832                | 2         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet - Internal Wiring Schedule  |
| MCX 0833                | 1         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet - External Wiring<br>IDC Terminations                                     |
| MCX 0833                | 2         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet - External Wiring<br>MIDAS Loop Feeder Cable Terminations                 |
| MCX 0834                | 1         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, Transponder (Signals Only)                    |
| MCX 0834                | 2         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, Responder Only                                |
| MCX 0834                | 3         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, Transponder and Responder                     |
| MCX 0834                | 4         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, MIDAS Detector                                |
| MCX 0834                | 5         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, MIDAS Transponder and Detector                |
| MCX 0834                | 6         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, MIDAS Detector and Transponder (Signals Only) |
| MCX 0834                | 7         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, Gantry - NMCS 2 Control                       |
| MCX 0834                | 8         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, Gantry - Standalone Control                   |
| MCX 0834                | 9         | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, MS3 Cantilever - NMCS 2 Control               |
| MCX 0834                | 10        | Installation Drawing NMCS (Ducted Cable), 600 Cabinet Equipment<br>Configuration, MS3 Cantilever - Standalone Control           |
| MCX 0835 to<br>MCX 0850 |           | Not Used  |
| MCX 0851                | 1         | Installation Drawing NMCS (Ducted Cable), 40 Pair to 30 Pair Interface, Notes   |
| MCX 0851                | 2         | Installation Drawing NMCS (Ducted Cable), 40 Pair to 30 Pair Interface<br>Internal Wiring Schematic                             |
| MCX 0851                | 3         | Installation Drawing NMCS (Ducted Cable), 40 Pair to 30 Pair Interface<br>External Cabling 40 Pair                              |
| MCX 0851                | 4         | Installation Drawing NMCS (Ducted Cable), 40 Pair to 30 Pair Interface<br>External Cabling 30 Pair                              |
| MCX 0852                | 1         | Installation Drawing NMCS (Ducted Cable) Interface Arrangements, Fibre Interface  |
| MCX 0853                | 1         | Installation Drawing NMCS (Ducted Cable), Marshalling Cabinet - TS Building, Notes  |
| MCX 0853                | 2         | Installation Drawing NMCS (Ducted Cable), Marshalling Cabinet - TS Building<br>Cabinet 600/620 Rear                             |



# **LIST OF DRAWINGS** **SECTION 3** **NATIONAL MOTORWAY COMMUNICATIONS SYSTEM** **INSTALLATION DRAWINGS (*continued*)**

| Drg No.                 | Sheet No. | Title   |
|-------------------------|-----------|---|
| MCX 0853                | 3         | Installation Drawing NMCS (Ducted Cable), Marshalling Cabinet - TS Building Cabinet 620 Front                       |
| MCX 0854                | 1         | Installation Drawing NMCS (Ducted Cable), Marshalling Cabinet 617 Site, Notes                                       |
| MCX 0854                | 2         | Installation Drawing NMCS (Ducted Cable), Marshalling Cabinet 617 Site, Cabinet 600/620 Rear                        |
| MCX 0854                | 3         | Installation Drawing NMCS (Ducted Cable), Marshalling Cabinet 617 Site, Cabinet 600/620 External Cabling            |
| MCX 0855 to<br>MCX 0860 |           | Not Used  |
| MCX 0861                | 1         | Installation Drawing NMCS (Ducted Cable), Transmission Station Cabinet 2303 Notes (1 of 2)                          |
| MCX 0861                | 2         | Installation Drawing NMCS (Ducted Cable), Transmission Station Cabinet 2303 Notes (2 of 2)                          |
| MCX 0861                | 3         | Installation Drawing NMCS (Ducted Cable), Transmission Station Cabinet 2303 Terminations & Wiring                   |
| MCX 0862                | 1         | Installation Drawing NMCS (Ducted Cable), Control Office Cabinet 2303 Notes (1 of 2)                                |
| MCX 0862                | 2         | Installation Drawing NMCS (Ducted Cable), Control Office Cabinet 2303 Notes (2 of 2)                                |
| MCX 0862                | 3         | Installation Drawing NMCS (Ducted Cable), Control Office Cabinet 2303 Terminations and Wiring                       |
| MCX 0863                | 1         | Installation Drawing NMCS (Ducted Cable), Control Office Cabinet 2304 Terminations and Wiring                       |
| MCX 0864                | 1         | Installation Drawing NMCS (Ducted Cable), Fibre Optic Distribution Rack (ODF) Notes                                 |
| MCX 0864                | 2         | Installation Drawing NMCS (Ducted Cable), Fibre Optic Distribution Rack (ODF) Suspended Floor (Non Armoured Cable)  |
| MCX 0864                | 3         | Installation Drawing NMCS (Ducted Cable), Fibre Optic Distribution Rack (ODF) Solid Floor (Non Armoured Cable)      |
| MCX 0864                | 4         | Installation Drawing NMCS (Ducted Cable), Fibre Optic Distribution Rack (ODF) Armoured and Non Armoured Cable       |
| MCX 0864                | 5         | Installation Drawing NMCS (Ducted Cable), Fibre Optic Distribution Rack (ODF) Carrier and Coaxial Termination Frame |
| MCX 0864                | 6         | Installation Drawing NMCS (Ducted Cable), Fibre Optic Distribution Rack (ODF) Fibre Optic Distribution Tray         |
| MCX 0864                | 7         | Installation Drawing NMCS (Ducted Cable), Fibre Optic Distribution Rack (ODF) Parts List                            |
| MCX 0865 to<br>MCX 0870 |           | Not Used  |
| MCX 0871                | 1         | Installation Drawing NMCS (Ducted Cable), Cable Termination and Continuity Kit                                      |
| MCX 0871                | 2         | Installation Drawing NMCS (Ducted Cable), Cable Termination and Continuity Kit                                      |
| MCX 0871                | 3         | Installation Drawing NMCS (Ducted Cable), Cable Termination and Continuity Kit                                      |
| MCX 0872                | 1         | Installation Drawing NMCS (Ducted Cable), Cable Installation, Cable Marking   |
| MCX 0873                | 1         | Installation Drawing NMCS (Ducted Cable), Cable Management, Joint Chamber   |
| MCX 0873                | 2         | Installation Drawing NMCS (Ducted Cable), Cable Management, Details   |
| MCX 0874 to<br>MCX 0898 |           | Not Used  |

## LIST OF DRAWINGS

### SECTION 3

### NATIONAL MOTORWAY COMMUNICATIONS SYSTEM

### INSTALLATION DRAWINGS (*continued*)

| Drg No.                 | Sheet No. | Title  |
|-------------------------|-----------|--|
| MCX 0899                | 1         | Installation Drawing NMCS (Ducted Cable), Modification To Termination Frame, 600 Cabinet   |
| MCX 0900 to<br>MCX 1021 |           | Not Used   |
| MCX 1022                | 1         | Installation Drawing NMCS2 Indicator Type 94XX Matrix Indicator (Including Signal Driver) Gantry D.L.C.B Standard & Extension Arrangements   |
| MCX 1022                | 2         | Installation Drawing NMCS2 Type 94XX Matrix Indicator (Including Signal Driver) Motorway Signals Interconnections of Equipment on Gantries   |
| MCX 1022                | 3         | Installation Drawing - NMCS2 Type 94XX Matrix Indicator (Including Signal Driver) Motorway Signals Interconnections of Equipment on Gantries |
| MCX 1022                | 4         | Installation Drawing NMCS2 Type 94XX Matrix Indicator (Including Signal Driver) Motorway Signal Interconnections of Equipment on Rural Sites |
| MCX 1022                | 5         | Installation Drawing NMCS2 Type 94XX Matrix Indicator (Including Signal Driver) Aspects  |
| MCX 1023 to<br>MCX 1025 |           | Not Used   |
| MCX 1026                | 1         | Installation Drawing NMCS2 NOMAD Additional Asset Data NOMAD Duct Barcode Label Mounting Plate   |
| MCX 1026                | 2         | Installation Drawing NMCS2 NOMAD Additional Asset Data NOMAD Communications Asset Barcode Labels   |
| MCX 1026                | 3         | Installation Drawing NMCS2 NOMAD Additional Asset Data NOMAD Labels Placement in Typical Joint Chamber                                       |
| MCX 1026                | 4         | Installation Drawing NMCS2 NOMAD Additional Asset Data NOMAD Labels Placement in Typical Box 615   |
| MCX 1027 to<br>MCX 1029 |           | Not Used   |
| MCX 1030                | 1         | Installation Drawing Unarmoured Copper Above Ground Cable Joint - General Notes and Cable Pair Allocation                                    |
| MCX 1030                | 2         | Installation Drawing: Unarmoured Copper Above Ground Cable Joint - Telephone Sites - Schematic Layout  |
| MCX 1030                | 3         | Installation Drawing: Unarmoured Copper Above Ground Cable Joint - Signal Post Sites - Schematic Layout                                      |
| MCX 1030                | 4         | Installation Drawing: Unarmoured Copper Above Ground Cable Joint - Central Reserve and Entry Slip Signal Sites - Schematic Layout            |
| MCX 1030                | 5         | Installation Drawing: Unarmoured Copper Above Ground Cable Joint - Portal and Cantilever Sites - Schematic Layout                            |
| MCX 1030                | 6         | Installation Drawing: Unarmoured Copper Above Ground Cable Joint - MIDAS Sites - Schematic Layout  |
| MCX 1030                | 7         | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - CCTV Sites- Schematic Layout                                    |
| MCX 1030                | 8         | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Dual Cabinet Sites Layout                                       |
| MCX 1030                | 9         | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Multiple Cabinet Sites Layout                                   |
| MCX 1030                | 10        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Verges of Less Than 3.5 m - Multiple Cabinet Sites              |
| MCX 1030                | 11        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 and AGCJ            |

**LIST OF DRAWINGS**  
**SECTION 3**  
**NATIONAL MOTORWAY COMMUNICATIONS SYSTEM**  
**INSTALLATION DRAWINGS (*continued*)**

| Drg No.  | Sheet No. | Title   |
|----------|-----------|---|
| MCX 1030 | 12        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 ST and AGCJ        |
| MCX 1030 | 13        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 TR and AGCJ        |
| MCX 1030 | 14        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 ST and TR and AGCJ |
| MCX 1030 | 15        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 MD and AGCJ        |
| MCX 1030 | 16        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 MT/MD and AGCJ     |
| MCX 1030 | 17        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 ST/MD and AGCJ     |
| MCX 1030 | 18        | Installation Drawing: Unarmoured Copper and Fibre Above Ground Cable Joint - Interconnection details between cabinet 600 MS and AGCJ        |