



# Norwich - Northern Distributor Road

Major Scheme Business Case  
Sensitivity Tests for DfT

## Dependent Development

Volume 5 - Appendices  
(Appendix F Part 1)

December 2009  
Norfolk County Council



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Major Scheme Business Case  
Sensitivity Tests for DfT

## **Dependent Development**

Volume 5 - Appendices  
(Appendix F Part 1)

December 2009

Norfolk County Council





# Issue and revision record

Revision	Date	Originator	Checker	Approver	Description
01	03/12/2009	Mo Shahkarami	Brian Witten Chris White	Gerry Kelly	Final

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# Appendix A. List of Joint Core Strategy Housing and Business Developments and Their Location Maps

Please see Appendix Volume 2.

# Appendix B. Maps Showing Location of Dependent Housing & Business Development Rev A Model Zones

Please see Appendix Volume 2.

## Appendix C. Vehicle Queues, Link Cruise Time and Travel Time

Please see Appendix Volume 2.

## Appendix D. Trip Totals by User Class

Please see Appendix Volume 2.

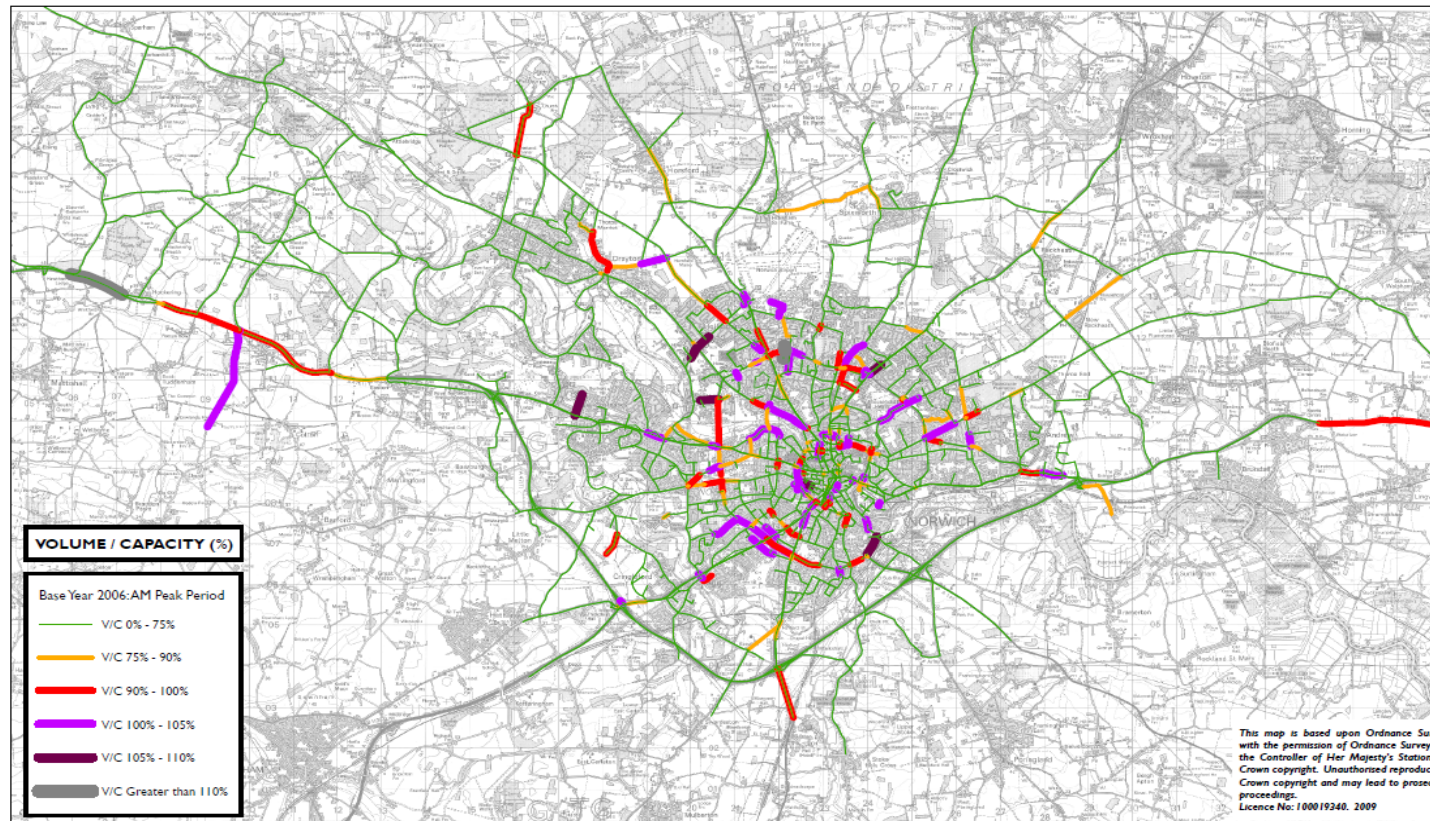
## Appendix E. Junction Delays

Please see Appendices Volumes 3 & 4.






## Appendix F. Vehicle over Capacity Ratio

Figure F.1: 2006 Base Year V/Cs – AM Peak



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**NNDR MSBC SENSITIVITY TESTS**  
 Volume / Capacity (%) Range Plots  
 Base Year 2006 - AM Peak

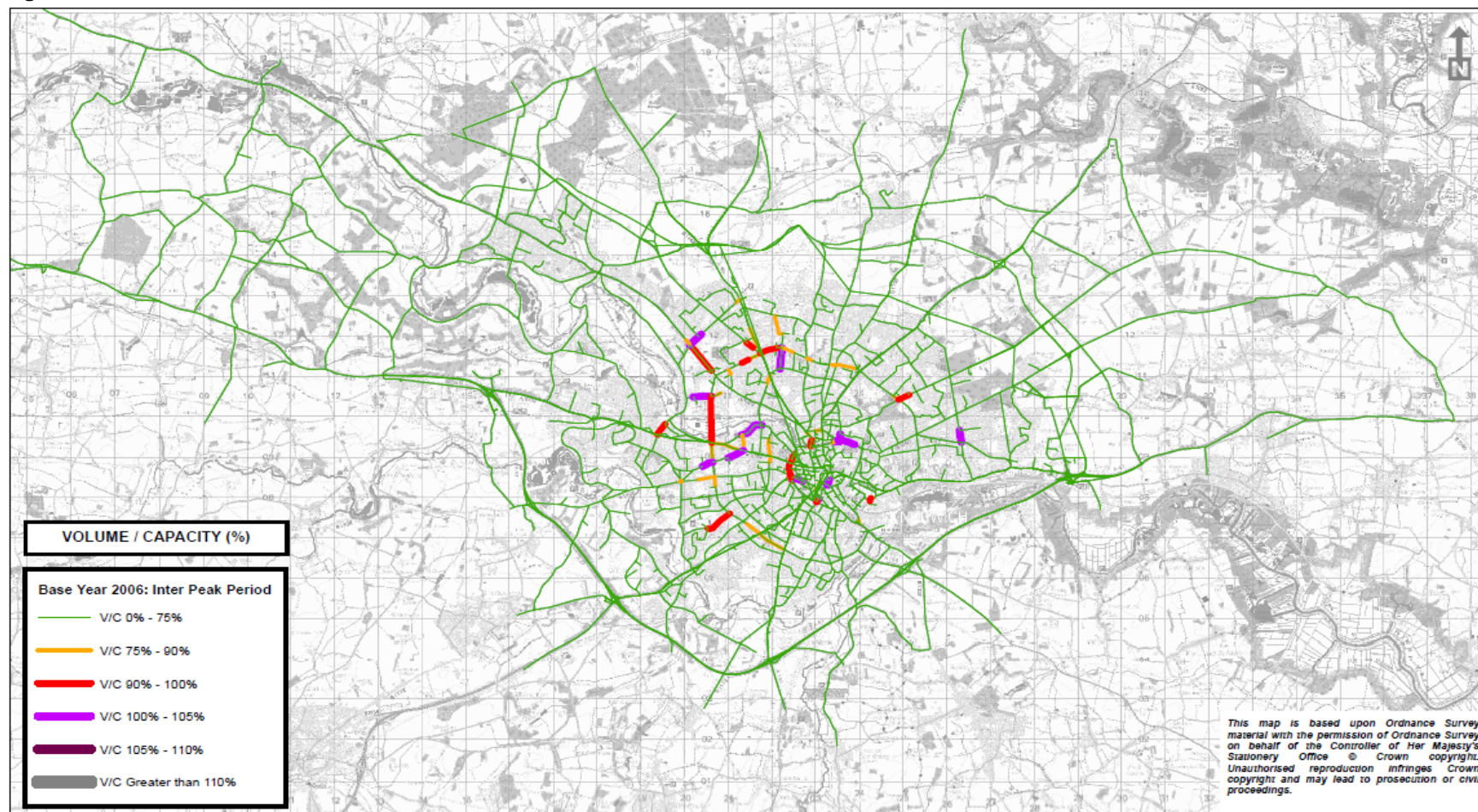
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PROJECT TITLE			
NNDR MSBC			

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Figure F.2: 2006 Base Year V/Cs - IP



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Volume / Capacity (%) Range Plots  
Base Year 2006 - Inter Peak

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D						

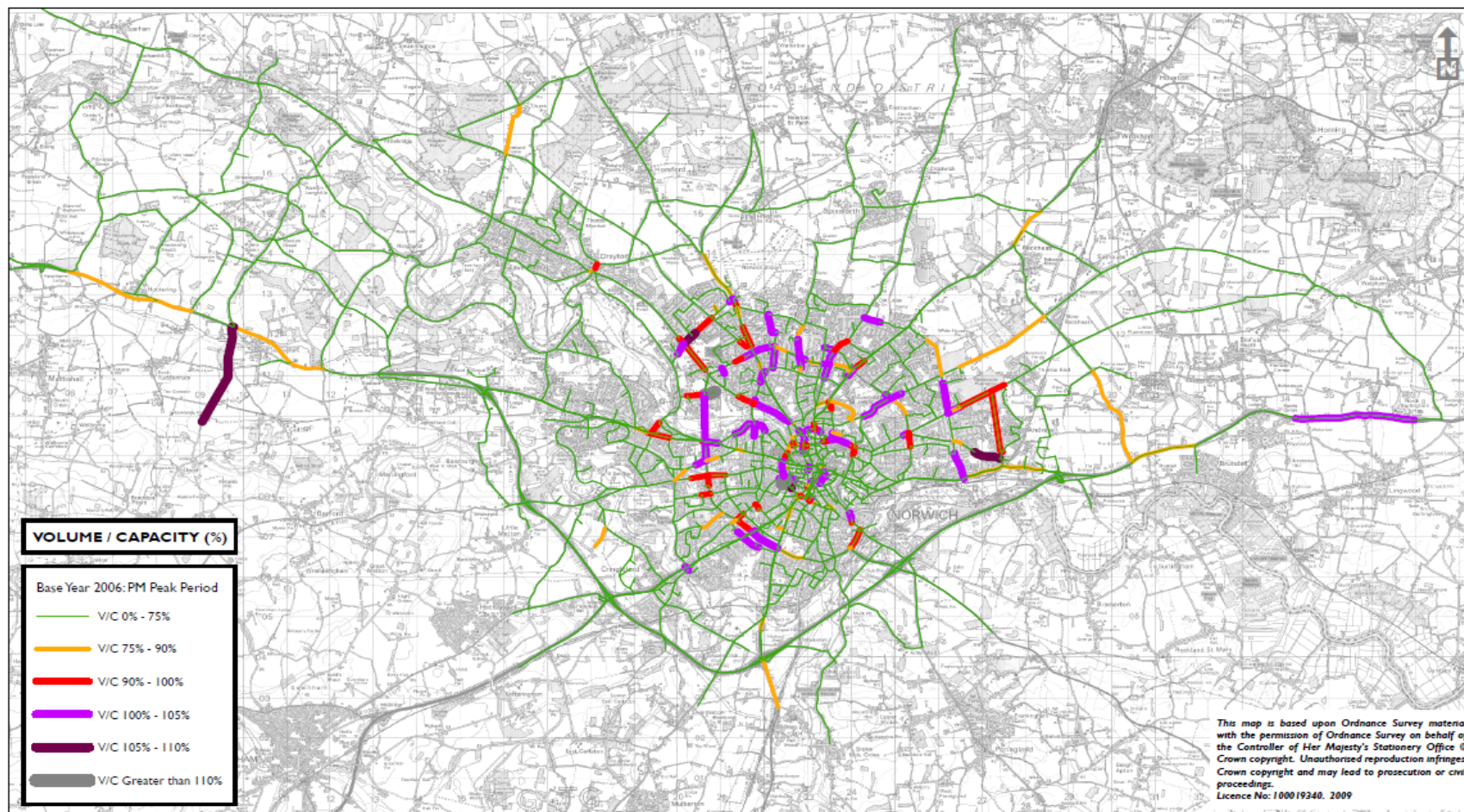
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NNDR MSBC				

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Figure F.3: 2006 Base Year V/Cs – PM Peak



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Volume / Capacity (%) Range Plots  
Base Year 2006 - PM Peak

REV.	DESCRIPTION	CH'K'D	DATE
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NNDR MSBC			

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Figure F.4: 2012 Do Minimum TEMPRO 5.4 V/Cs – AM Peak



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Volume / Capacity (%) Range Plots  
**TEMPRO 5.4**  
Do Minimum 2012 - AM Peak

REV.	DESCRIPTION	CH'K'D	DATE
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NNDR MSBC			

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Figure F.5: 2012 Do Minimum TEMPRO 5.4 V/Cs - IP



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Volume / Capacity (%) Range Plots

TEMPRO 5.4

Do Minimum 2012 - Inter-Peak

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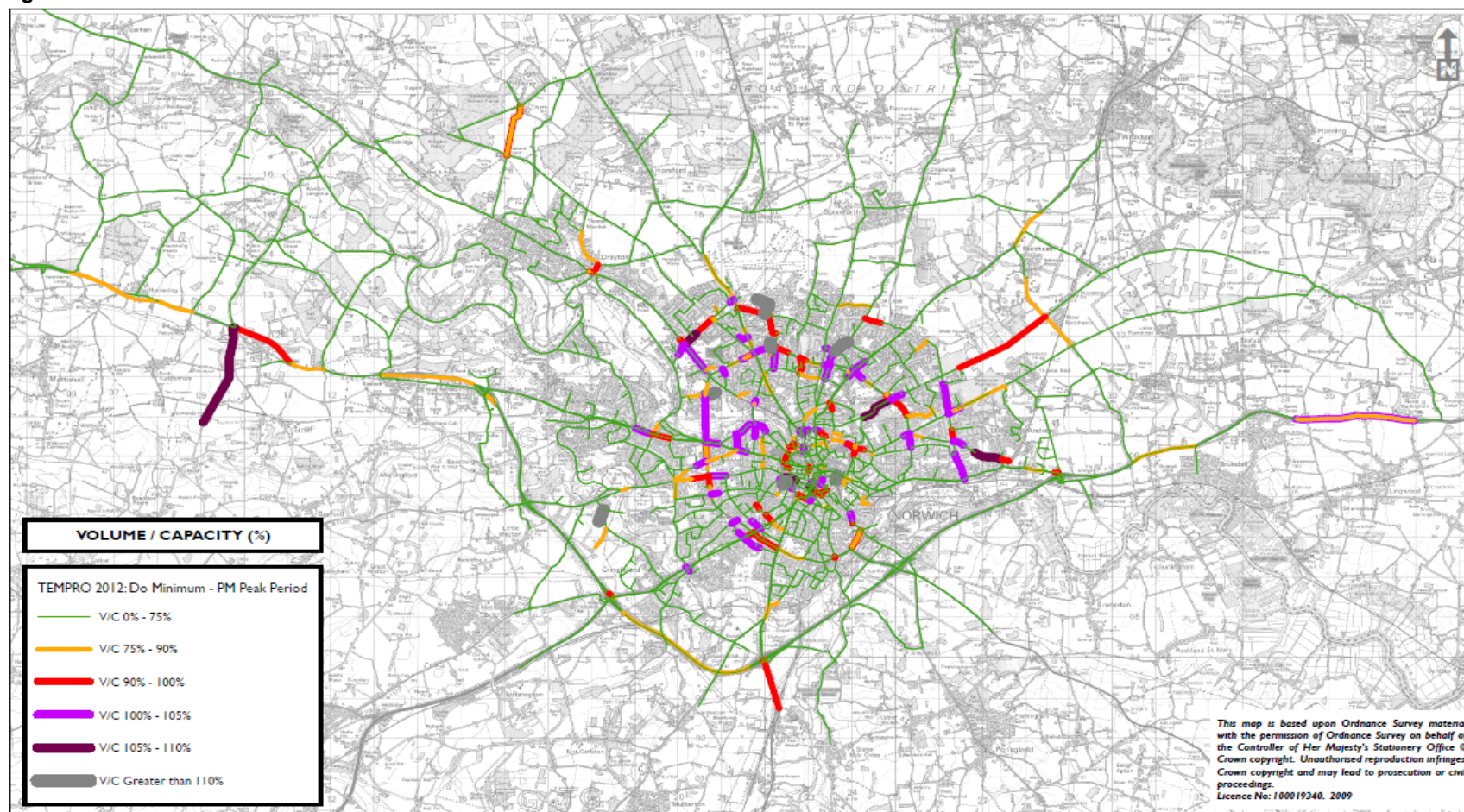
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Figure F.6: 2012 Do Minimum TEMPRO 5.4 V/Cs – PM Peak



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Volume / Capacity (%) Range Plots  
**TEMPRO 5.4**  
Do Minimum 2012 - PM Peak

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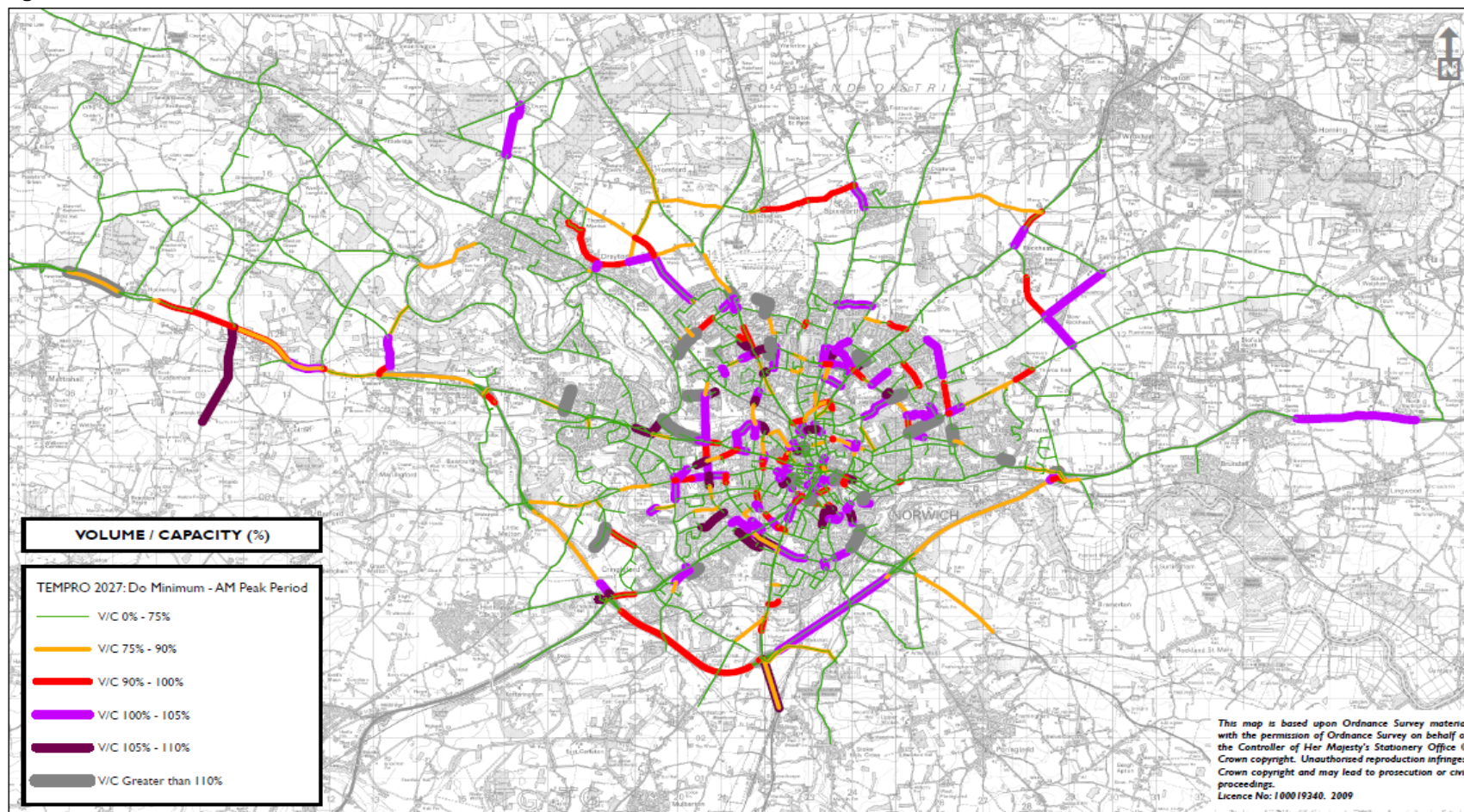
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NNDR MSBC			

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Figure F.7: 2027 Do Minimum TEMPRO 5.4 V/Cs – AM Peak



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Volume / Capacity (%) Range Plots  
**TEMPRO 5.4**  
Do Minimum 2027 - AM Peak

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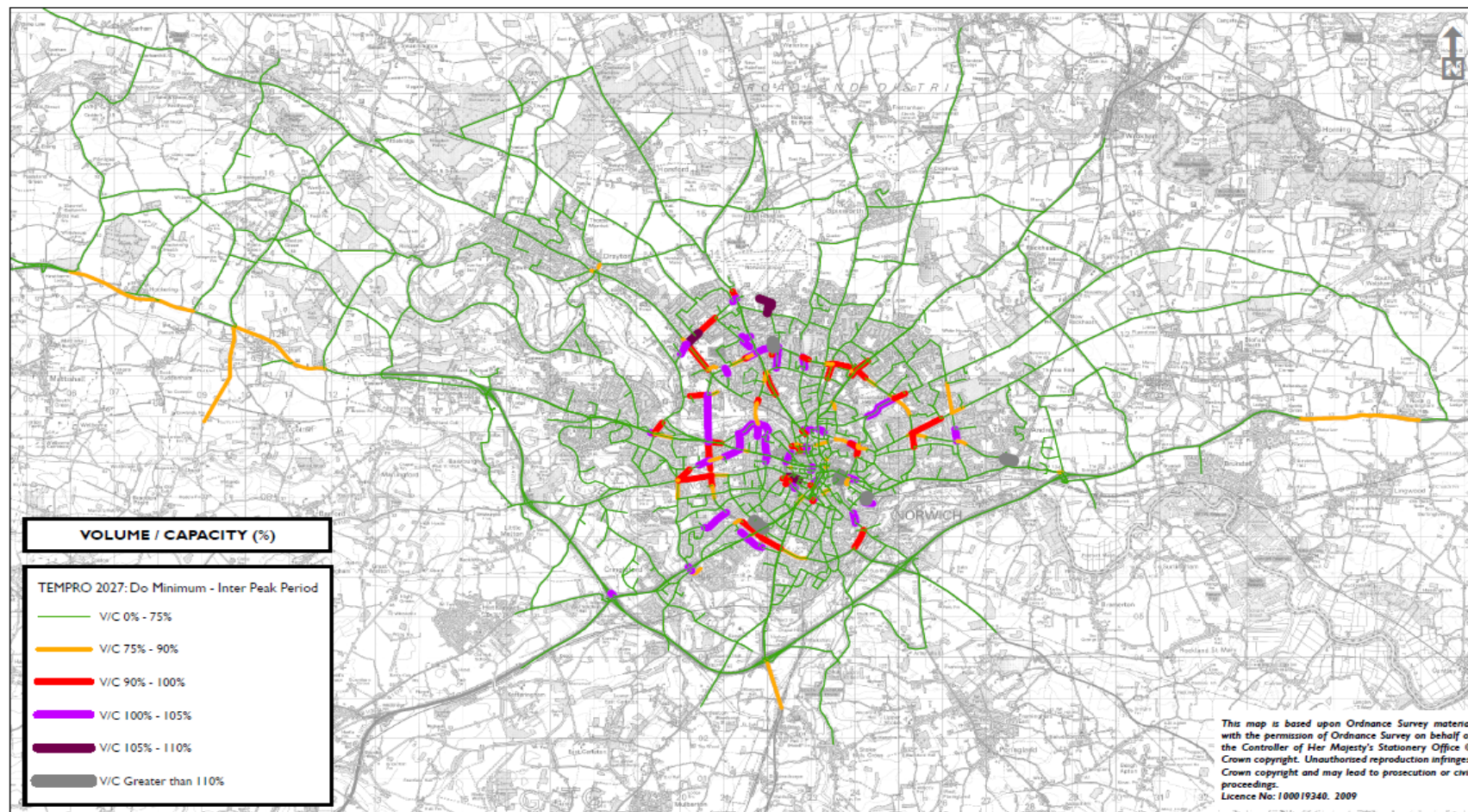
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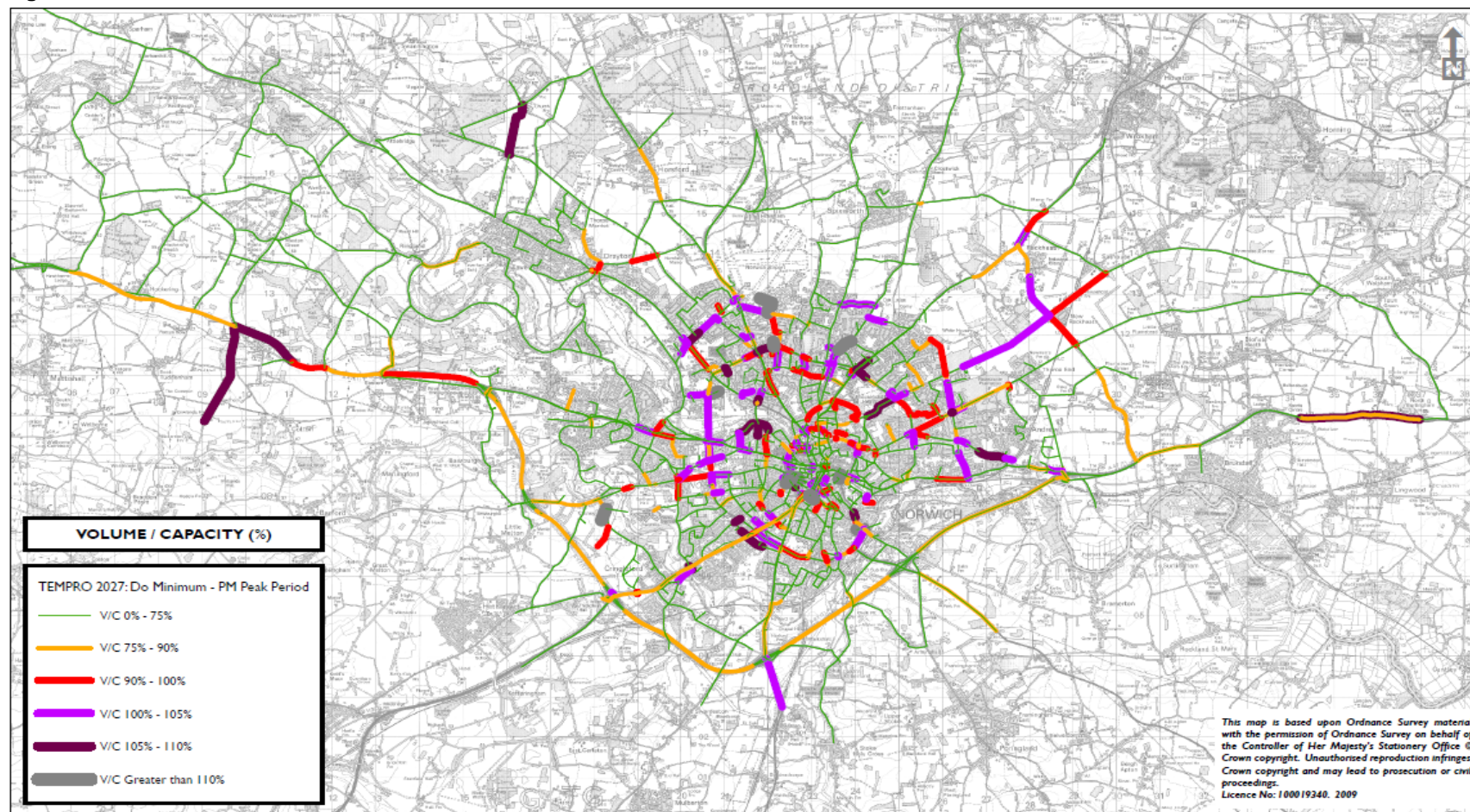
Figure F.8: 2027 Do Minimum TEMPRO 5.4 V/Cs - IP



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Figure F.9: 2027 Do Minimum TEMPRO 5.4 V/Cs – PM Peak

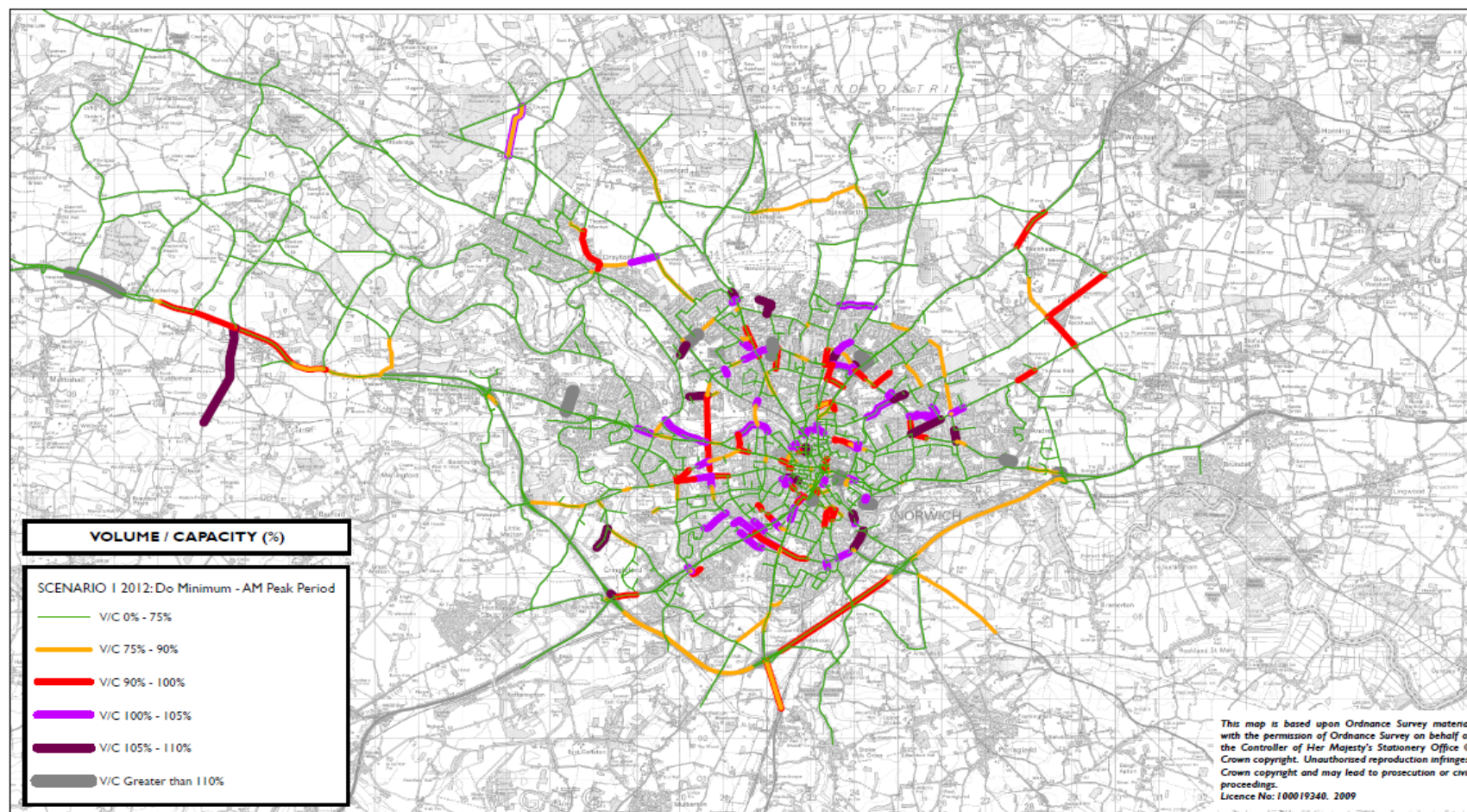


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Figure F.10: 2012 Do Minimum Scenario 1 V/Cs – AM Peak



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Volume / Capacity (%) Range Plots  
SCENARIO 1 (exc. Dependent Development A)  
Do Minimum 2012 - AM Peak

REV.	DESCRIPTION	CH'K'D	DATE
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CHECKED BY	BW	18/10/09	File No.
PROJECT TITLE			
NNDR MSBC			

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Figure F.11: 2012 Do Minimum Scenario 1 V/Cs - IP



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Volume / Capacity (%) Range Plots  
**SCENARIO 1 (exc. Dependent Development A)**  
Do Minimum 2012 - Inter Peak

REV.	DESCRIPTION	CHK'D	DATE	INIT.	DATE	REF: NNDR, MSBC, TempresDS
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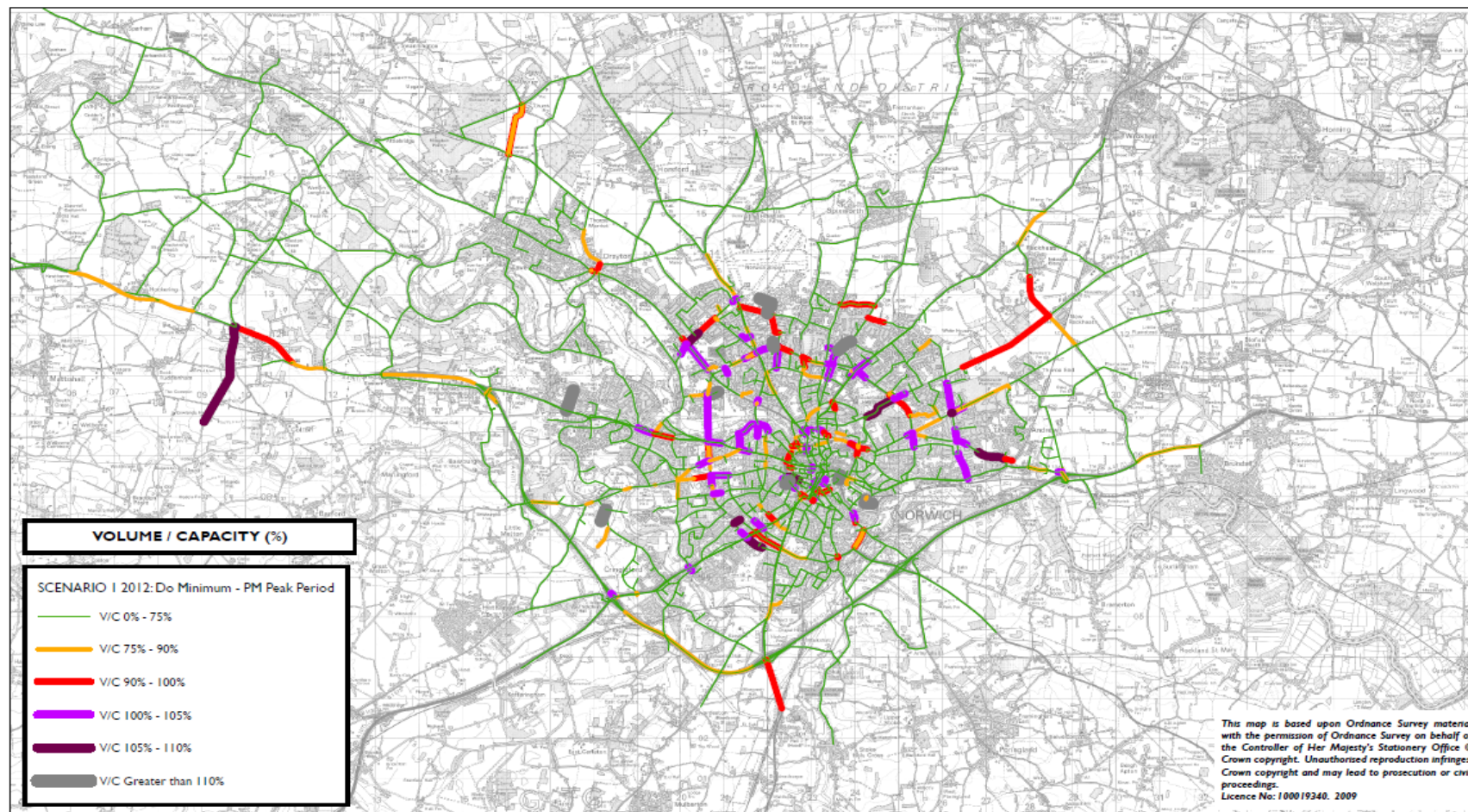
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Figure F.12: 2012 Do Minimum Scenario 1 V/Cs – PM Peak



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Volume / Capacity (%) Range Plots  
SCENARIO 1 (exc. Dependent Development A)  
Do Minimum 2012 - PM Peak

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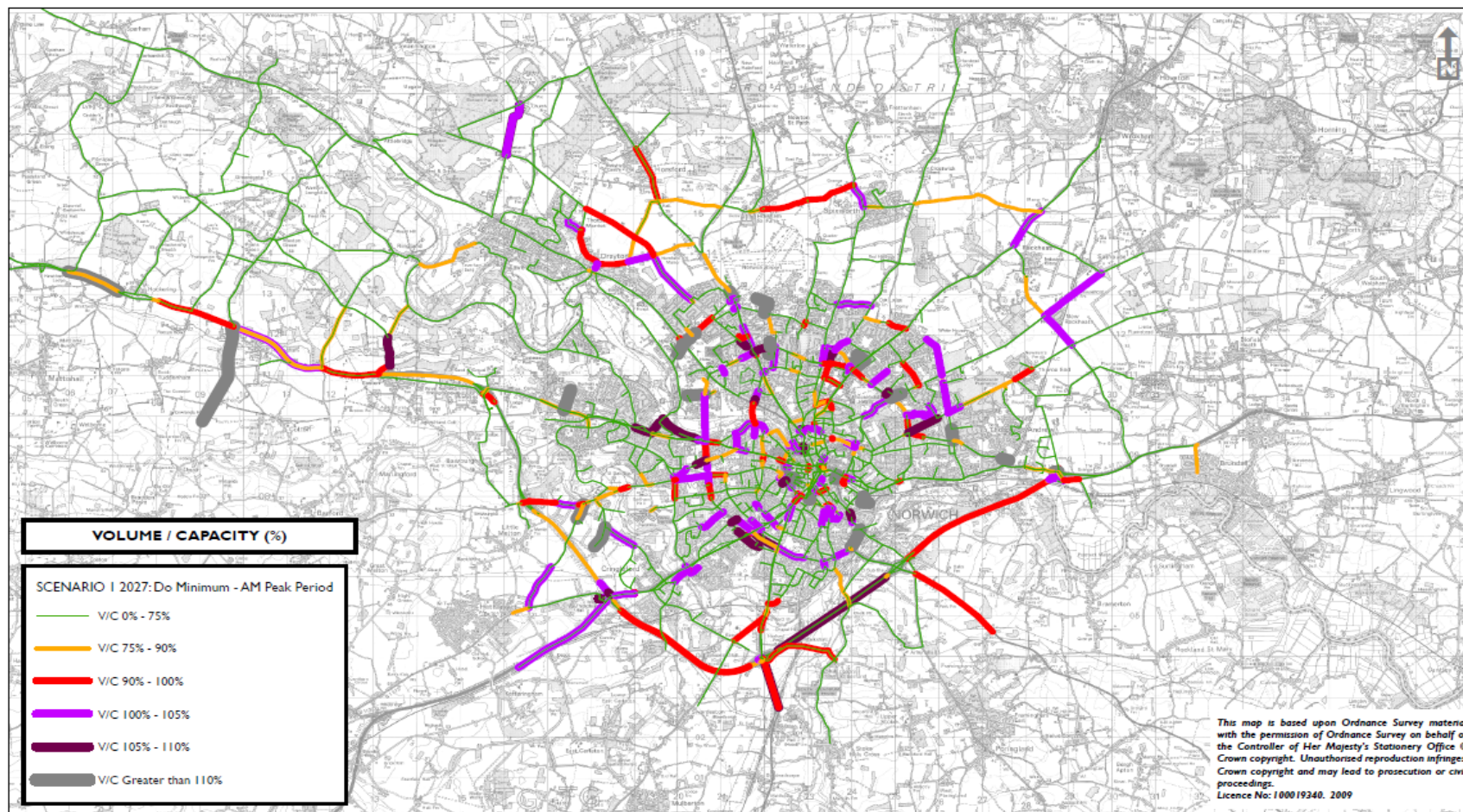
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Figure F.13: 2027 Do Minimum Scenario 1 V/Cs – AM Peak



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Volume / Capacity (%) Range Plots  
**SCENARIO 1 (exc. Dependent Development A)**  
Do Minimum 2027 - AM Peak

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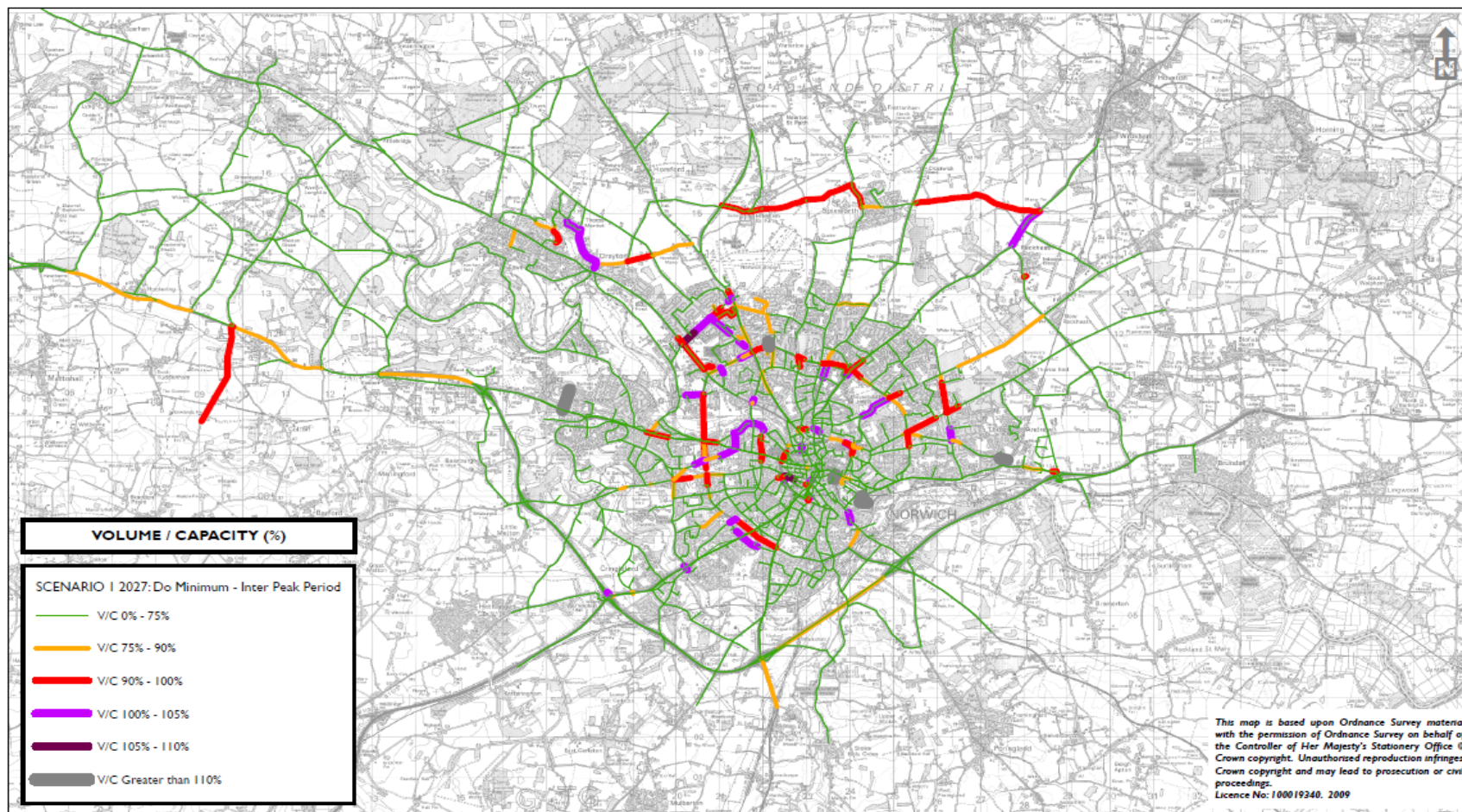
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Figure F.14: 2027 Do Minimum Scenario 1 V/Cs - IP



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Volume / Capacity (%) Range Plots  
SCENARIO 1 (exc. Dependent Development A)  
Do Minimum 2027 - Inter Peak

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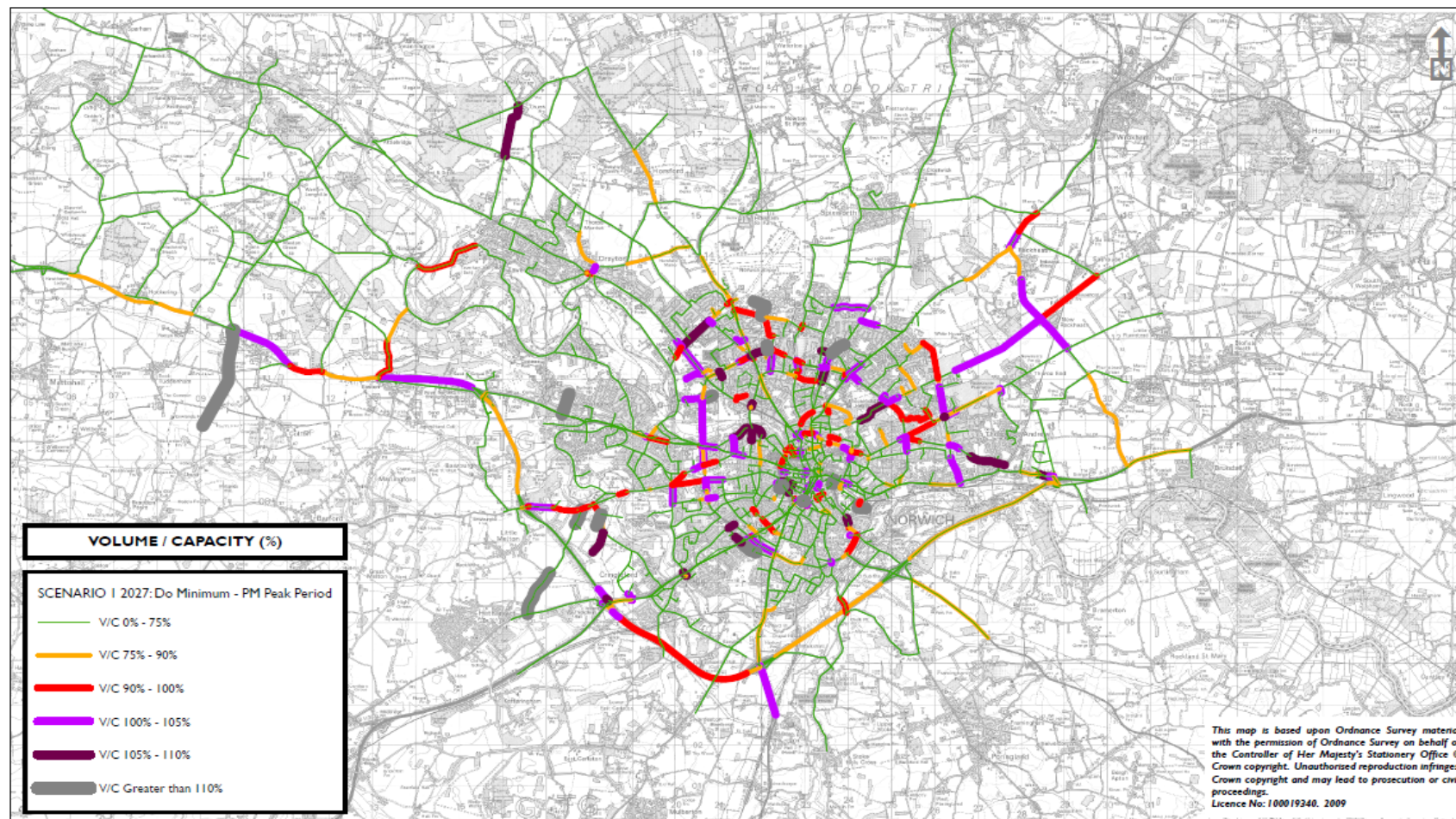
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NNDR MSBC			

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Figure F.15: 2027 Do Minimum Scenario 1 V/Cs – PM Peak





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Volume / Capacity (%) Range Plots

**SCENARIO 1 (exc. Dependent Development A)**

Do Minimum 2027 - PM Peak

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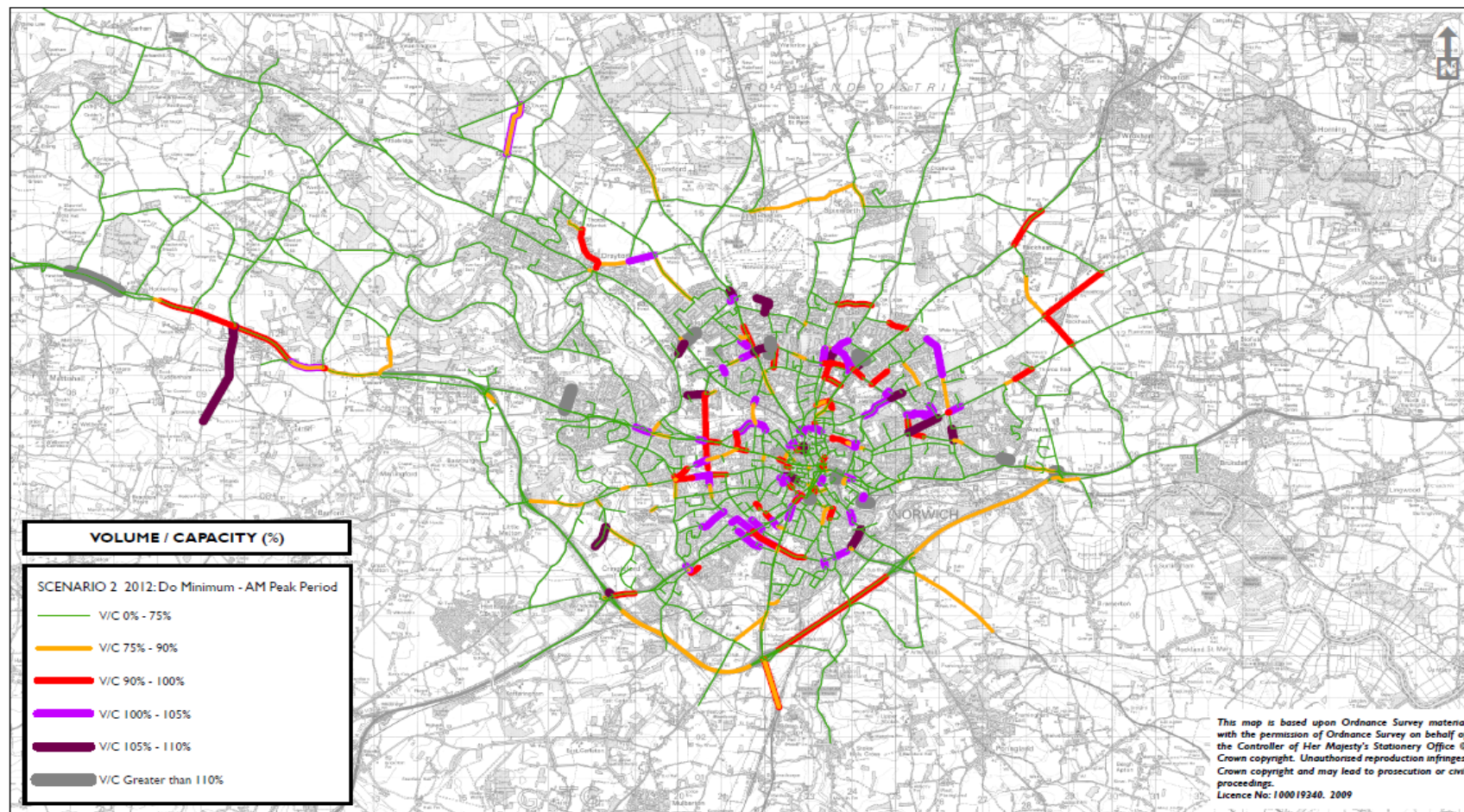
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NNDR MSBC					

233906/BSE/NOR/10/01 03 December 2009

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Figure F.16: 2012 Do Minimum Scenario 2 V/Cs – AM Peak



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Volume / Capacity (%) Range Plots  
SCENARIO 2 (all JCS Development)  
Do Minimum 2012 - AM Peak

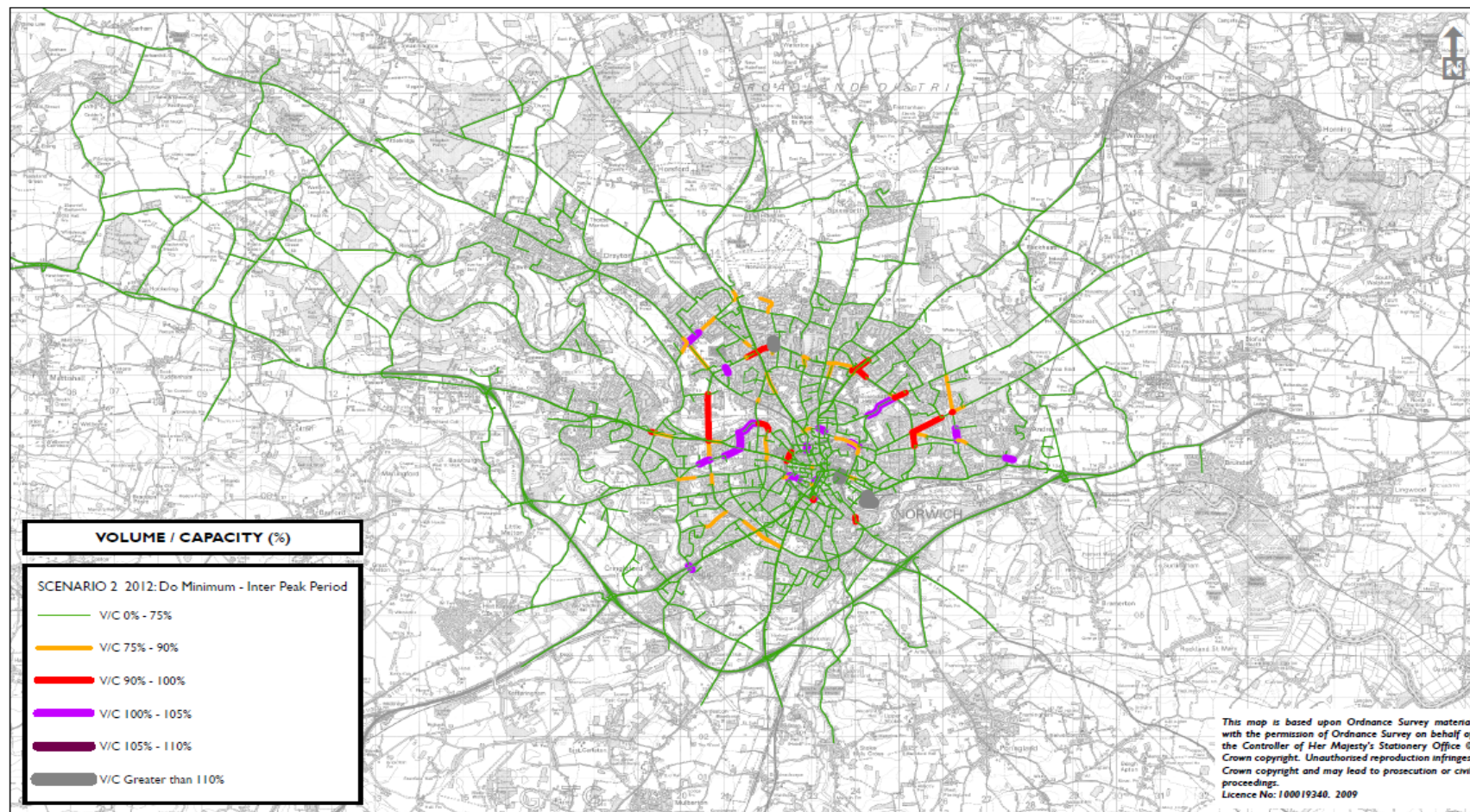
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A	DRAFT	GW	18/10/09	DRAWN BY	SWC	18/10/09
B	---	---	---	CHECKED BY	BW	18/10/09
C	---	---	---	PROJECT TITLE	NNDR_MSBC	
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				FILE No.	---	

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Figure F.17: 2012 Do Minimum Scenario 2 V/Cs - IP

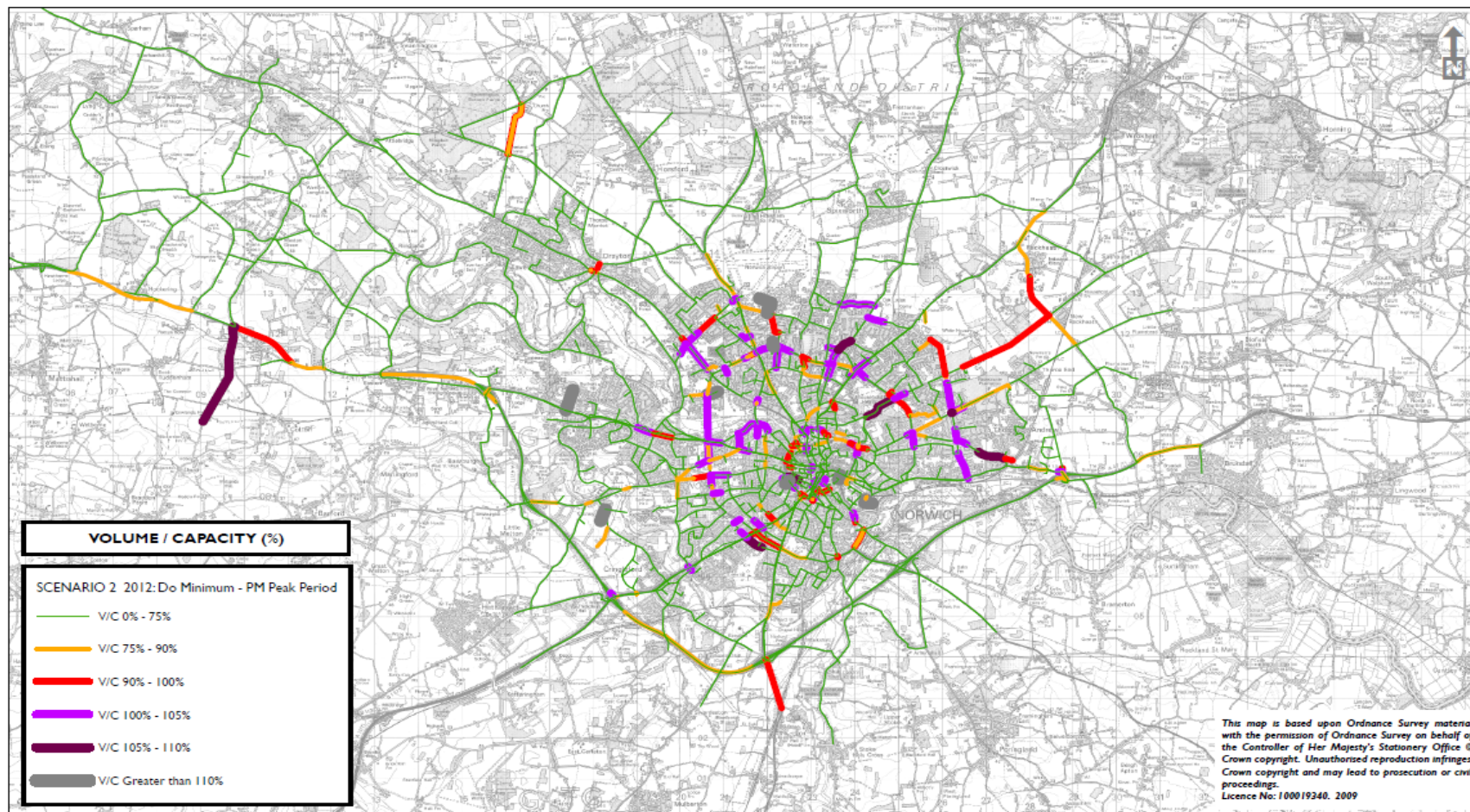


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A	DRAFT	GW	18/10/09	DRAWN BY	DWC	18/10/09
B	---	---	---	CHECKED BY	BW	18/10/09
C	---	---	---	PROJECT TITLE	NNDR MSBC	
D	---	---	---	SCALE	File No.	---



Figure F.18: 2012 Do Minimum Scenario 2 V/Cs – PM Peak



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NNDR MSBC SENSITIVITY TESTS  
Volume / Capacity (%) Range Plots  
SCENARIO 2 (all JCS Development)  
Do Minimum 2012 - PM Peak

REV.	DESCRIPTION	CH'K'D	DATE
A	DRAFT	GW	18/10/09
B	---	---	---
C	---	---	---
D	---	---	---

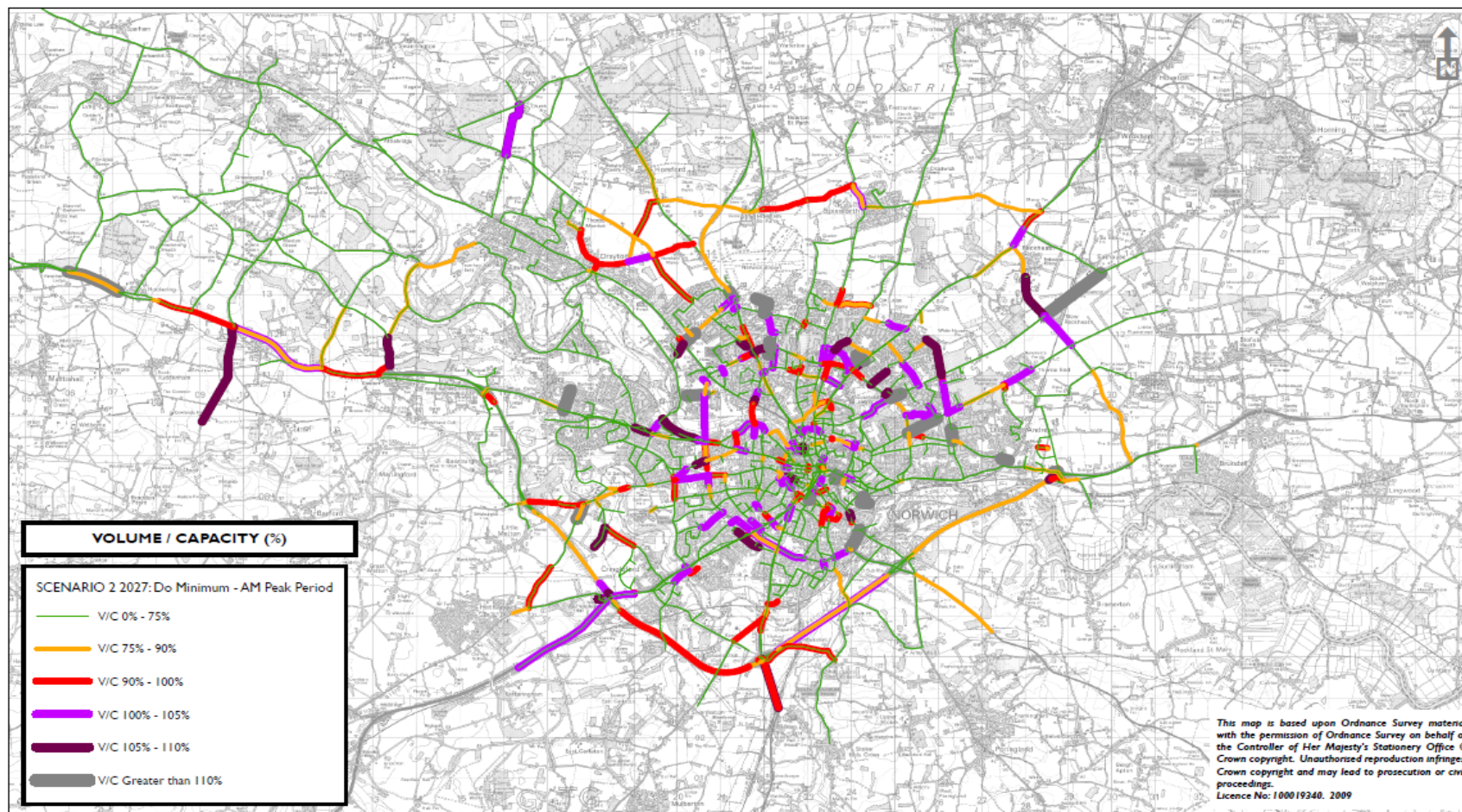
INIT.	DATE	REF: NNDR_MSBC_TempProDS
DRAWN BY	SWC	18/10/09
CHECKED BY	BW	18/10/09
PROJECT TITLE	Non To Scale	---
PROJECT TITLE	---	---

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Figure F.19: 2027 Do Minimum Scenario 2 V/Cs – AM Peak



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#### NNDR MSBC SENSITIVITY TESTS

Volume / Capacity (%) Range Plots  
SCENARIO 2 (all JCS Developments)  
Do Minimum 2027 - AM Peak

REV.	DESCRIPTION	CHK'D	DATE
A	DRAFT	GW	18/10/09
B	---	---	---
C	---	---	---
D	---	---	---

INIT.	DATE	REF: NNDR_MSBC_TempDS
DRAWN BY	DWC	18/10/09
CHECKED BY	BW	18/10/09
PROJECT TITLE	NNDR MSBC	

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Figure F.20: 2027 Do Minimum Scenario 2 V/Cs - IP



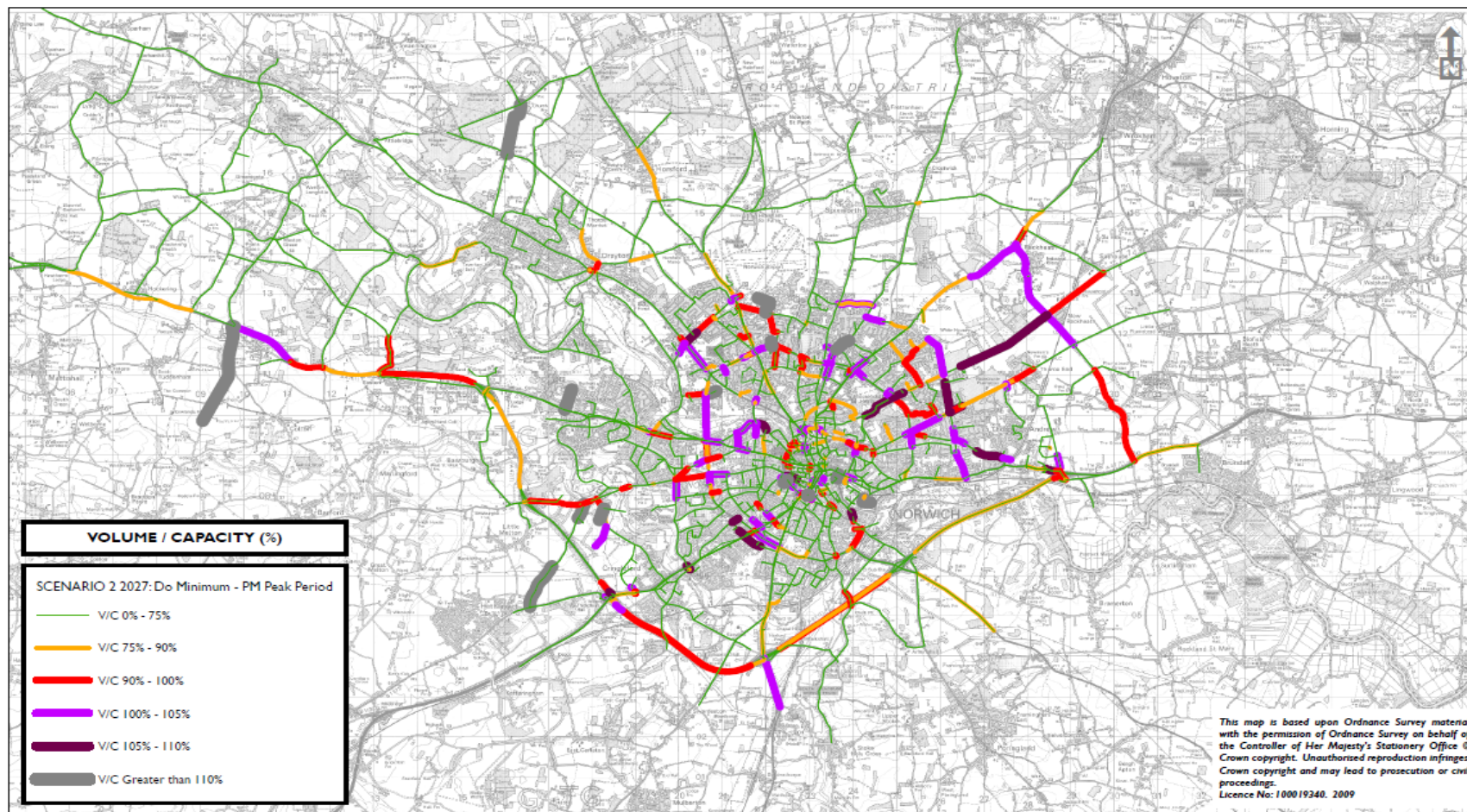
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REV.	DESCRIPTION	CH'K'D	DATE	INIT.	DATE	REF: NNDR, MSBC, TempresDS
A	DRAFT	GW	18/10/09			
B						
C						
D						

DRAWN BY	DWC	18/10/09	SCALE	FILE No.
CHECKED BY	BW	18/10/09	Not To Scale	
PROJECT TITLE				
NNDR MSBC				



Figure F.21: 2027 Do Minimum Scenario 2 V/Cs – PM Peak



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NNDR MSBC SENSITIVITY TESTS  
Volume / Capacity (%) Range Plots  
SCENARIO 2 (all JCS Developments)  
Do Minimum 2027 - PM Peak

REV.	DESCRIPTION	CH'K'D	DATE
A	DRAFT	GW	18/10/09
B	---	---	---
C	---	---	---
D	---	---	---

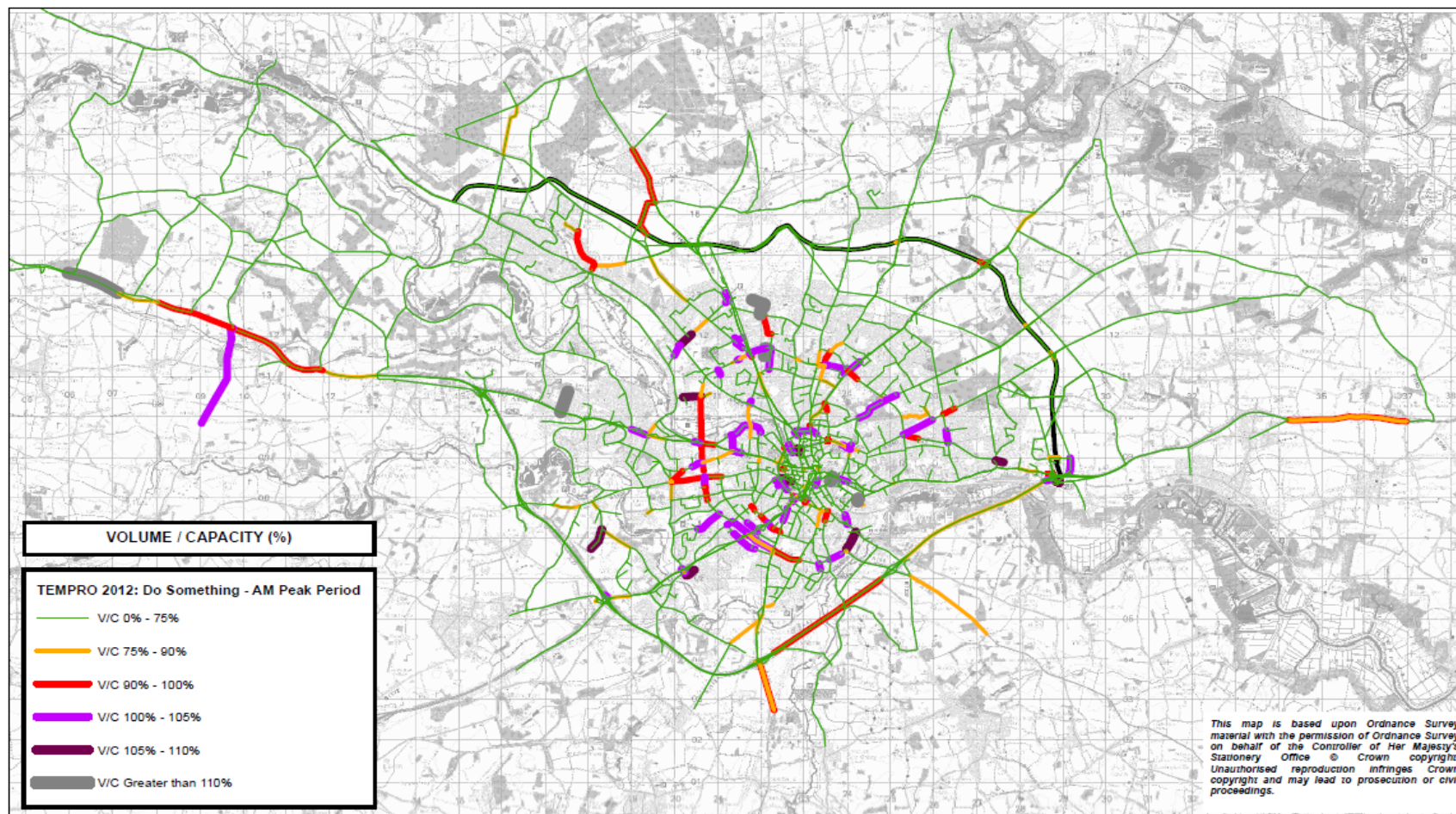
INIT.	DATE	REF:	INIT.	DATE	REF:
DRAWN BY	DWC	18/10/09	SCALE	FILE No.	---
CHECKED BY	BW	18/10/09	Next To Scale	---	---
PROJECT TITLE					
NNDR MSBC					

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Figure F.22: 2012 Do Something TEMPPO 5.4 V/Cs – AM Peak



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Volume / Capacity (%) Range Plots  
**TEMPRO 5.4**  
Do Something 2012 - AM Peak

REV.	DESCRIPTION	CH'KD	DATE
A	DRAFT	GW	27/10/09
B	.....	.....	.....
C	.....	.....	.....
D	.....	.....	.....

INIT.	DATE	REF	SCALE	FILE No.
DRAWN BY	SK	27/10/09	Not To Scale	.....
CHECKED BY	BW	27/10/09		
<b>PROJECT TITLE</b>				
NNDR MSBC				

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For Figures F.23 to Figures F.44, please see Appendix Volume 6.

## Appendix G. Traffic Flows (PCUs)

Please see Appendix Volume 2.



## Appendix H. Trip Totals (PCUs)

Please see Appendix Volume 2.

# Appendix I. PCU Kilometres

Please see Appendix Volume 2.