

Proposed Residential Development - Land off Greenvale, Bamford (Within JPA 17 Allocation)

Transport Technical Note 3: Response to TfGM and Rochdale Metropolitan Borough Council Comments

Project Number:	784-B068938	Office:	Manchester
Date:	18/02/2026	Prepared by:	M Connolly
Status:	For Submission	Checked by:	M Thompson
Revision:	03	Approved by:	A Khan

List of Appendices

Appendix TTN3-1: Proposed Site Layout Drawing

Appendix TTN3-2: Site Access Drawings (General Arrangement, Visibility Splays and Tracking)

Appendix TTN3-3: TfGM Response

Appendix TTN3-4: Rochdale Metropolitan Borough Council Comments

Appendix TTN3-5: J6 Bury & Rochdale Old Road / Norden Road – Updated Modelling

Appendix TTN3-6: J8 Bury & Rochdale Old Road / Queens Park – Updated Modelling

1.0 Introduction

- 1.1 Tetra Tech (Tt) have been appointed by Wain Homes (North West) Ltd to provide transport planning advice in relation to a proposed development on Land off Greenvale, Bamford, Rochdale.
- 1.2 In June 2025, the application for 45 dwellings was submitted in detail to Rochdale Metropolitan Borough Council (RMBC), planning ref (25/00405/FUL).
- 1.3 A Transport Assessment (TA) and Travel Plan Framework (TPF) have been submitted alongside the planning application (both prepared by Tt and dated June 2025).
- 1.4 Since the submission, the proposed layout has been updated and the up-to-date layout is included as **Appendix TTN3-1**.
- 1.5 Given that the site layout has been updated, the site access/visibility splay drawing and tracking drawing have also been updated to include the up-to-date site layout, see **Appendix TTN3-2**. The access arrangement, visibility splays and tracking are identical to those shown in the TA, the only update to the drawing is to reflect the current site layout.

- 1.6 In August 2025, Rochdale Metropolitan Borough Council (RMBC) provided the applicant with a response, which confirmed that RMBC have no objections to the proposal subject to conditions.
- 1.7 In June 2025, Transport for Greater Manchester (TfGM) provided the applicant with a response, which sets out a number of comments related to the TA and TPF.
- 1.8 The responses provided by both TfGM and RMBC and are included in **Appendix TTN3-3** and **TTN3-4** respectively.
- 1.9 The TfGM document sets out comments related to the following headings:
 - 1) Sustainable Transport Accessibility
 - a. Public Transport
 - b. Active Travel
 - c. Travel Plan
 - 2) Development Impact
 - a. Trip Generation
 - b. Trip Distribution
 - c. Junction Modelling
 - d. Mitigation
 - e. Access Arrangements
 - f. Traffic Regulation Orders
 - g. Construction Traffic Management Plan
- 1.10 This Transport Technical Note 3 (TTN3) responds to the comments made in the TfGM review.

2.0 Responding to TfGM Comments on the TA/TPF

Public Transport

- 2.1 TfGM outline that the nearest bus stops are located on Norden Road / Bagslate Moor Road, around a 9-13 minute walk away and they suggest that a pedestrian connection to the Public Footpath in the south-eastern corner of the site is provided. It is also noted that this request is included in the Rochdale Highways comments. TfGM also request that a Greater Manchester Accessibility Level (GMAL) score should be provided for the site.
- 2.2 A pedestrian connection to the PRow is now proposed, see the proposed site layout drawing in **Appendix TTN3-1**.
- 2.3 The GMAL score was set out in the TA section 7.1. In summary the score scores Level 3. Active Travel
- 2.4 Within their response, TfGM recommend:
 1. Any footways less than 1.5m should be widened to 2m, and funded by the development;
 2. Any conflicts with LTN 1/20 design standards should be identified;
 3. The need for more pedestrian and cycle links within the site;
 4. The requirement for tactile paving presence and dropped kerbs at the proposed site access;
 5. A pedestrian crossing on Norden Road should be provided by the development;
 6. That the development should provide more direct pedestrian access routes to the existing bus; stops on Norden Road, or to fund a closer bus stop with shelter; and

7. Cycle parking should be provided within the site curtilage of the properties.

2.5 The above comments have been considered and are responded to as follows using the same numbering order:

1. The footways on the key walk route to Norden Road have been reviewed. Those are in excess of 1.5m. There are locations where existing properties have vegetation overhanging the footway, which is an issue for the LHA to resolve with the relevant land owners should they consider it to impact upon the operation of footway.
2. Greenvale and Norford Road are subject to low traffic speeds and low traffic volumes and are acceptable for cycling within the carriageway.
3. An additional pedestrian link to the PRoW is provided. The proposals also include a safeguarded connection to the wider JPA17 site so that the proposed development can be integrated into the wider allocations NMU links once the wider site comes forward.
4. The site access will include dropped kerbs and tactile paving as requested. The LHA have confirmed that the site access is acceptable.
5. There is an existing signalised crossing on Norden Road on the desire line to the Bamford Precinct, which is the main hub of facilities and amenities in the area. No further crossing points are justified.
6. The updated proposals include the requested pedestrian link to the PRoW to reduce the walk distance to the bus stops.
7. Cycle parking has been provided on the proposed site layout plan. Of the dwellings proposed, 20 will have a cycle store within the garden and 25 dwellings will have a garage which can be used to store bikes.

Travel Plan

2.6 TfGM recommends that a Full Travel Plan is produced for the development, including incentives such as discounted bus fares, discounted cycles and journey planning. A Framework Travel Plan has been submitted and a detailed Travel Plan can be conditioned to a planning approval.

Development Impact

2.7 TfGM have queried whether to LHA accept the trip rates. The LHA's response is contained in **Appendix TTN3-3** and that confirms that:

"The traffic generation associated with usage is low and will not be detectable against existing volumes of background traffic."

Trip Distribution

2.8 TfGM have requested the trip distribution gravity model in order to agree to the trip distribution assessment work.

2.9 The trip distribution gravity model in excel format has been provided to landuse@tfgm.com via email on the 17th November 2025.

Junction Modelling

- 2.10 TfGM UTC has reviewed the junction modelling within the TA and have provided comments regarding two of the junction assessments.
- 2.11 With regards to J8 – Bury & Rochdale Old Road / Queen’s Park Road signalised junction, TfGM comments are set out below:
- *“The ped minima do not reflect those running at the junction.*
 - *None of the phase delays are input into the model.”*
- 2.12 TfGM have updated the junction models accordingly. The updates to the junction model do not alter the conclusions presented within the Transport Assessment, see below
- 2.13 With regards to J6 – Bury & Rochdale Old Road / Norden Road signalised junction, TfGM comments are set out below:
- *Stage 3 and 4 are alternatives to each other. Stage 4 will only appear if a demand for phase I exists, and stage 3 is prevented if stage 4 is allowed. If Stage 3 is allowed because stage 4 is prevented, then it will only appear if a demand exists for phase C, D or F.*
 - *This means the junction should be modelled as a three-stage junction.*
 - *Also stage 2 is very quiet and rarely appears – for example yesterday in the hour 0800-0900 stage 2 appeared in four out of 35 cycles. The LINSIG modelling should be corrected to reflect the infrequent appearance of the stage. UTC do not want a ‘robust’ model, the modelling needs to reflect the operation of the junction as closely as possible.*
 - *The ped minima do not reflect those running at the junction – check against the supplied timing information.*
 - *None of the phase delays are input into the model – as above check against the supplied timing information.*
 - *In summary, all of the above means that the modelling results presented show the junction to be running with higher levels of congestion than in reality. However, this should be corrected to understand the true impact of the development trips.*
- 2.14 TfGM have updated the junction model accordingly. The updates to the junction model do not alter the conclusions presented within the Transport Assessment.
- 2.15 The updated model results for the above two junction assessments are presented in the Section 3 - Traffic Impact Assessment Update presented further in this report, and the model outputs are presented in **Appendix TTN3-5** and **TTN3-6**.

Mitigation

- 2.16 TfGM outline the high-level indicative transport mitigation necessary for a ‘single strategic worst - case scenario’, as developed through high level strategic modelling undertaken using Greater Manchester wide strategic trip rates during allocation of sites within the Places for Everyone Plan.
- 2.17 TfGM also advise that the TA should set out a transport vision for the total quantum of development proposed on the allocation site with associated modelling to identify mitigation requirements. This work has been carried out within the submitted TA.

Access Arrangements

- 2.18 TfGM advise that the site access junction should be designed to ensure the provision of tactile paving and dropped kerbs, with any redundant access points bordering the site to be reinstated. TfGM refer to the LHA to determine whether proposed access, car parking and servicing arrangements are considered acceptable.
- 2.19 The LHA have accepted the proposed access within their consultation response.

Traffic Regulation Orders

- 2.20 TfGM suggest a review is undertaken of the TROs within the vicinity of the development, with a view to introducing additional parking restrictions and ensuring adequate parking restrictions remain in place as appropriate. This will be considered at the detailed design stage in discussion with the LHA.

Construction Traffic Management Plan

- 2.21 TfGM advise that a Construction Traffic Management Plan should be employed as part of the development. A CTMP will be prepared and it can be conditioned to a planning approval.

3.0 Traffic Impact Assessment Update

- 3.1 Tt have updated the junction models for the following junctions, as advised by TfGM:
- J6 – Bury & Rochdale Old Road / Norden Road;
 - J8 – Bury & Rochdale Old Road / Queen's Park Road;
- 3.2 The following junction section presents the results from the updated modelling assessment of these two junctions. The junction modelling results outputs are presented in **Appendix TTN3-4** and **TTN3-5**.

J6 – Bury & Rochdale Old Road / Norden Road Junction

- 3.3 As per TfGM's comments, the junction model has revised with the following changes:
- Ped Minima updated as per the received signal specification;
 - Phase delays added as per the received signal specification;
 - Two additional stage sequences have been modelled. The changes have been made to reflect the infrequency of Stage 2 (zero traffic observed within the 2025 Traffic Counts in the morning and evening peak periods), and the operation of the signals with Stage 3 and Stage 4 as alternatives to each other.
 - To allow this, the maximum cycle time stated within the signal specification (104s) has been doubled, to represent a double cycle.
 - As such, the following additional stage sequences have been modelled;
 - a) 1,2,3,1,4; and
 - b) 1,3,1,4.
- 3.4 The results of the assessment are presented in **Tables 1** and **2**.

Table 1 – Bury & Rochdale Old Road / Norden Road Signalised Junction – Modelling Assessment Results (with Stage 2 every other cycle, and Stages 3 and 4 alternating)

Arm	AM Peak			PM Peak		
	DOS (%)	Delay (s)	MMQ (PCU)	DOS (%)	Delay (s)	MMQ (PCU)
2030 Without Development						
Bury & Rochdale Old Road S Left	28.0%	1	6.0	55.1%	10	12.3
Bury & Rochdale Old Road S Ahead Right	66.3%	5	14.9	64.1%	25	18.8
Norden Road Right Left Ahead	76.5%	6	16.9	64.3%	37	10.4
Bury & Rochdale Old Road N Ahead Left	76.3%	6	17.6	58.4%	10	15.6
Bury & Rochdale Old Road N Right	0.5%	0	0	2.8%	15	0.1
Residential Access Left Ahead Right	0%	0	0	0%	0	0
Junction Delay (s)	18			15		
2030 With JPA17						
Bury & Rochdale Old Road S Left	31.3%	14	7.1	61.3%	10	14.3
Bury & Rochdale Old Road S Ahead Right	71.8%	39	15.7	65.9%	27	20.5
Norden Road Right Left Ahead	83.3%	33	20.5	66.5%	37	11.0
Bury & Rochdale Old Road N Ahead Left	82.8%	47	19.1	60.1%	26	17.1
Bury & Rochdale Old Road N Right	0.6%	52	0	3.0%	42	0.2
Residential Access Left Ahead Right	0%	0	0	0%	0	0
Junction Delay (s)	21			16		

Table 2 – Bury & Rochdale Old Road / Norden Road Signalised Junction – Modelling Assessment Results (without Stage 2, and Stages 3 and 4 alternating)

Arm	AM Peak			PM Peak		
	DOS (%)	Delay (s)	MMQ (PCU)	DOS (%)	Delay (s)	MMQ (PCU)
2030 Without Development						
Bury & Rochdale Old Road S Left	24.6%	11	5.9	48.5%	7	11.2
Bury & Rochdale Old Road S Ahead Right	62.3%	31	14.0	60.2%	21	17.7
Norden Road Right Left Ahead	71.5%	26	16.0	60.1%	34	9.7
Bury & Rochdale Old Road N Ahead Left	70.8%	35	16.1	54.3%	20	14.4
Bury & Rochdale Old Road N Right	0.4%	42	0	2.5%	33	0.1
Residential Access Left Ahead Right	0%	0	0	0%	0	0
Junction Delay (s)	16			13		
2030 With JPA17						
Bury & Rochdale Old Road S Left	27.4%	12	6.9	54.7%	7	13.6
Bury & Rochdale Old Road S Ahead Right	68.1%	36	15.0	61.8%	23	18.7
Norden Road Right Left Ahead	77.5%	27	18.4	62.3%	33	10.6
Bury & Rochdale Old Road N Ahead Left	77.3%	41	17.5	55.7%	22	15.4
Bury & Rochdale Old Road N Right	0.5%	48	0	2.6%	35	0.1
Residential Access Left Ahead Right	0%	0	0	0%	0	0
Junction Delay (s)	18			14		

- 3.5 The modelling results show that the junction is expected to perform within capacity in the 2030 With JPA17 modelling scenario in both the morning and evening peak periods.
- 3.6 The results within the updated assessments show a betterment in comparison to results initially issued within the TA, for both alternative stage sequences modelled.

J8 – Bury & Rochdale Old Road / Queen’s Park Road Signalised Junction

- 3.7 As per TfGM’s comments, the junction model has revised with the following changes:

- Ped Minima updated as per the received signal specification; and
- Phase delays added as per the received signal specification;

- 3.8 The results of the assessment are presented in **Table 3**.

Table 3 - Bury & Rochdale Old Road / Queens Park Road Junction – Modelling Assessment Results

Arm	AM Peak			PM Peak		
	DOS (%)	Delay (s)	MMQ (PCU)	DOS (%)	Delay (s)	MMQ (PCU)
2030 Without Development - SCOOT suggested cycle time						
Bury & Rochdale Old Rd (West) Ahead Right	50.3%	16	9.4	97.9%	72	34.6
Bury & Rochdale Old Road (East) Ahead Left	82.3%	19	15.4	84.4%	28	15.6
Queen’s Park Road Left	16.1%	41	1.4	8.8%	28	1.0
Queen’s Park Road Right	81.1%	64	10.2	98.3%	95	26.4
Junction Delay (s)	15			41		
2030 With JPA17 - SCOOT suggested cycle time						
Bury & Rochdale Old Rd (West) Ahead Right	51.2%	16	9.8	104.3%	142	56.1
Bury & Rochdale Old Road (East) Ahead Left	87.9%	22	19.2	87.3%	30	16.9
Queen’s Park Road Left	16.9%	42	1.4	8.8%	28	1.0
Queen’s Park Road Right	88.0%	78	11.8	105.1%	173	41.2
Junction Delay (s)	18			75		
2030 Without Development - Surveyed Cycle Time						
Bury & Rochdale Old Rd (West) Ahead Right	45.3%	16	11.7	92.7%	55	35.4
Bury & Rochdale Old Road (East) Ahead Left	78.6%	17	21.3	82.8%	28	20.2
Queen’s Park Road Left	15.7%	57	2.0	8.2%	33	1.3
Queen’s Park Road Right	79.3%	81	13.9	91.7%	72	25.8
Junction Delay (s)	16			33		
2030 With JPA17 - Surveyed Cycle Time						
Bury & Rochdale Old Rd (West) Ahead Right	46.4%	16	12.2	98.7%	83	46.4
Bury & Rochdale Old Road (East) Ahead Left	84.4%	19	28.3	85.6%	30	22.7
Queen’s Park Road Left	16.2%	58	2.0	8.2%	33	1.3
Queen’s Park Road Right	84.6%	89	15.2	98.0%	100	33.0
Junction Delay (s)	18			48		

- 3.9 As per the original conclusion within the TA, looking at the average observed / surveyed cycle time during the peak hours, the results demonstrate that the Bury & Rochdale Old Road / Queen's Park Road junction is forecast to operate within capacity in the 2030 With JPA17 morning and evening peak hours.
- 3.10 The amendments made to the model make negligible differences to the results issued within the Transport Assessment.

4.0 Summary and Conclusions

- 4.1 This TTN3 has been prepared to respond to the TfGM comments on the detailed application for 45 dwellings which has been submitted to Rochdale Metropolitan Borough Council , planning ref (25-00405-FUL).
- 4.2 The Rochdale Highways comments have also been considered, and it is noted that those raise no objection subject to planning conditions.
- 4.3 This TTN3:
- Sets out how a pedestrian connection to the PRow will be provided to reduce the walk distances to the existing bus stops.
 - Responds to the TfGM comments on accessibility, trip generation, trip distribution and junction modelling.
 - Provides updated assessments for the two signalised junctions which were assessed with the TA, to address TfGM comments
- 4.4 With the proposed PRow connection in place, the site is suitably accessible in line with the NPPF.
- 4.5 The updated junction modelling makes negligible differences to the results issued within the Transport Assessment and the conclusion remains in that there are no significant impacts of the development. In fact, one of the amendments requested by TfGM provides a betterment in results.
- 4.6 The proposals accord with both the NPPF and local plan transport policies.
- 4.7 In view of the above positive findings, it is considered that the proposed development is acceptable in highway, traffic and transport terms.

Appendices

Appendix TTN3-1: Proposed Site Layout Drawing

Code	House Type	Bed & Type	Storey	Parking	Unit No.	Build Sq/Ft	Total Build Sq/Ft	Mix %
Affordable								
GOR	Gorsefield	3B-4P Mews	2	2P5	3	970	2910	7%
OAK	Oakrise	4B-5P Semi	2.5	2P5	3	1294	3882	7%
Sub-Total					6	2264	6792	13%
Open Market								
PAR	Parkland	3B-4P Semi	2	2P5	5	1012	5060	11%
MEA	Meadowvale	3B-4P Semi / Detached	2	2P5	9	1094	9846	20%
HIG	Hightstone	4B-7P Detached	2	2P5 + 5IG	7	1396	9772	16%
PEA	Peakridge	5B-8P Detached	2	2P5 + 5IG	6	1679	10074	13%
STA	Standish	5B-8P Detached	2	2P5 + 5IG	6	1907	11442	13%
CAP	Capstone	5B-8P Detached	2	2P5 + DDG	6	2240	13440	13%
Sub-Total					39	9328	59634	87%
TOTAL					45	11592	66426	100%
Gross Site Area			6.66	Acres				
Nett Site Area			4.23	Acres				
Net Density			11	Units / Acre				
SqFt / Net Developable Acre			15704	SqFt / Acre				



General notes:

- All information on this drawing is copyright ©
- All sizes to be verified on-site
- No dimensions to be scaled off this drawing
- All dimensions to drawing in metres unless otherwise stated
- This drawing is to be read in conjunction with all other project drawings

In locations where it is not possible to erect a boundary treatment on the line of the legal ownership, an additional line will be identified on the above plan to illustrate the approximate fence location. The boundary fence will, therefore, be erected as close to the title boundary as possible without causing damage to the existing features. This may be the result of the following items:

Existing hedgerows/trees and Woodland areas
Existing boundary fences and significant topographical features
Proposed and existing retaining structures and foundations.

The resident is responsible for maintaining all items within the plot boundary identified by the red edge boundary.

DRAWING TO BE PRINTED IN COLOUR.

KEY

- | | |
|---|---|
|  | Red Edge Application Boundary |
|  | Adopted Roads |
|  | Adopted footpaths |
|  | Shared Drives |
|  | Parking Bays |
|  | Private Paths |
|  | Private Gardens |
|  | Open Space |
|  | Grasscrete / Bodpave ground reinforcement |
|  | Pond / Attenuation Pond |
|  | Self binding hoggin path |
|  | Plot divisional boundaries |
|  | Knee Rail |
|  | Brick Pier Wall & Timber Infill |
|  | Screen Wall R4 |
|  | Railings |
|  | Service verge |
|  | Feature Plot with dual aspect elevations |
|  | Affordable Units |
|  | Feather Edge Fencing & gate |
|  | Denotes overhead line swing |
|  | 1.2M Estate Railing Gate (BT1201) |
|  | Indicative Tree Planting |
|  | Removed Trees / Hedges |
|  | Retained Trees / Hedges |

N	12/02/2026	Add 1m maintenance line for boundaries and re-located screening wall.	AT
N	12/02/2026	Updated location and boundary details for client's driveway.	AT
M	11/02/2026	Updated site 4/5 parking and station location. Updated plot 1's parking and added runline dots.	AT
L	22/01/2026	Added additional fallings following client location.	AT
K	21/01/2026	Amended boundary variations	AT
J	20/01/2026	Updated levels for boundary and boundary corner 1611026	AT
I	16/01/2026	Amended parking arrangement for plots 30-49s.	AT
H	14/01/2026	Moved plots 37-38 to 3m in order for a 2m gap between plot 35 & 37 for a Geowall RW.	AT
G	09/01/2026	Updated plots to be in with the new design work plan 38/2026 - Rev P1"	AT
F	27/11/2025	Plots 10 & 12 swapped. 13m - 17.3m moved towards overhead cables.	AT
E	26/11/2025	Added 1m maintenance line for boundaries and re-located screening wall.	AT
D	19/03/2025	Blocks updated to meet H01. Minor amendments following completion of planning pack.	ELC
C	04/03/2025	Overhead cable work updated. Poles along junction line added/adjusted. Inductive footway lights. SUGS 5 supply station added.	ELC
B	04/03/2025	Plot 2 changed to H01. Plot 22 & 24 changed to STA B. Paving respectively.	ELC
A	04/03/2025	Substation moved & access made for 12m. H01 amended to accommodate. Plot 1 swapped for H02. Plot 2 changed to H01. Plot 12 moved. 2.5m retained.	ELC

Wain
HOMES

Project Title:
GREENVALE
BAMFORD
ROCHDALE

Drawing Title:
PROPOSED SITE LAYOUT (JG Option 07)

PLANNING

Drawing No: WH-001-NW-A-401

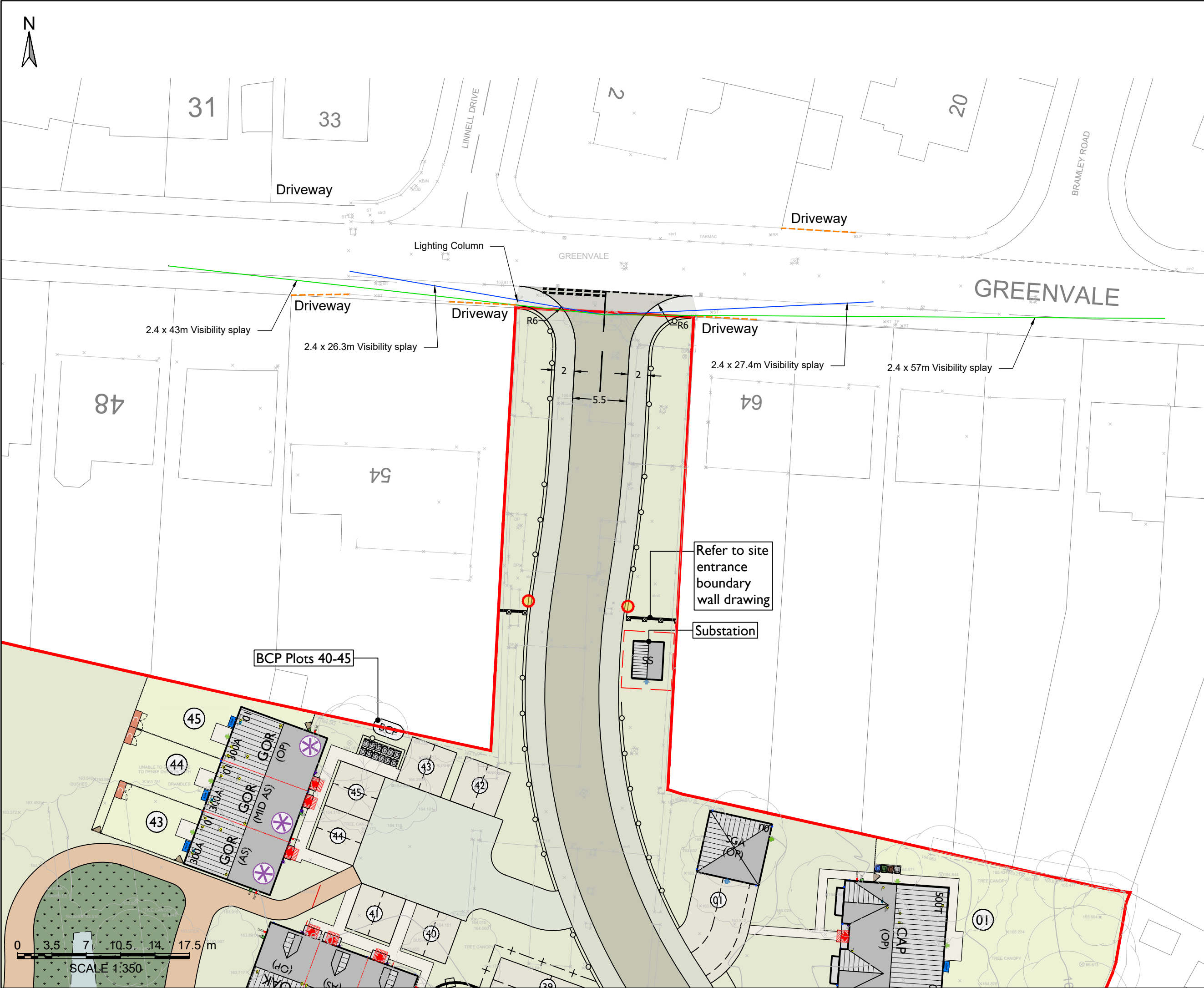
Scale: 1.500 @ 14	Date: 2-1-2025	Site Code: 001
-------------------	----------------	----------------

1:500@A1	Sep 2025	001
Drawn by:	Checked by:	Revised:

Drawn by, JSG	Checked by, XX	Examiner, O
-------------------------	--------------------------	-----------------------

Existing trees to the southern boundary and just around the south-eastern corner removed, replaced with a new native species hedgerow and a number of larger stock trees, that will be located outside the private garden boundaries, within a linear 2m wide strip of land that is to be maintained by the management company.

Appendix TTN3-2: Site Access Drawings (General Arrangement, Visibility Splays and Tracking)



- Notes:**
1. This drawing is based on MCK Associates Limited drawing no.23-025-401C Rev O. Tetra Tech does not take responsibility for any discrepancies.
 2. All measurements are in metres unless stated otherwise
 3. Visibility splays drawn to nearside side edge in line with MfS paragraph 10.5.3
 4. November 2024 Recorded 85th Percentile Speeds
Eastern ATC: Westbound Speed = 23.1mph
Western ATC: Eastbound speed = 22.5mph
 5. MfS suggested visibility splays based on recorded speeds:
Looking to the right = 2.4m x 27.4m
Looking to the left = 2.4m x 26.3m

- Key:**
- Approx site boundary
 - Visibility Splays based on recorded speeds
 - Achievable visibility splay
 - Driveway entrances

PRELIMINARY ISSUE

P04	REVISED SITE LAYOUT REV O INCLUDED	17.02.2026	JT	MT	MT
P03	REVISED SITE LAYOUT	02.04.2025	JT	MT	AK
P02	UPDATED VISIBILITY SPLAYS	18.03.2025	AB	MT	MT
P01	PRELIMINARY FIRST ISSUE	07.08.2024	AB	MT	MT
Rev	Specification	Date	Drawn	Checked	App

Issuing Office
Tetra Tech Manchester
11 York Street,
Manchester, M2 2AW
Tel: +44 (0)161 872 3223
www.tetratech-europe.com

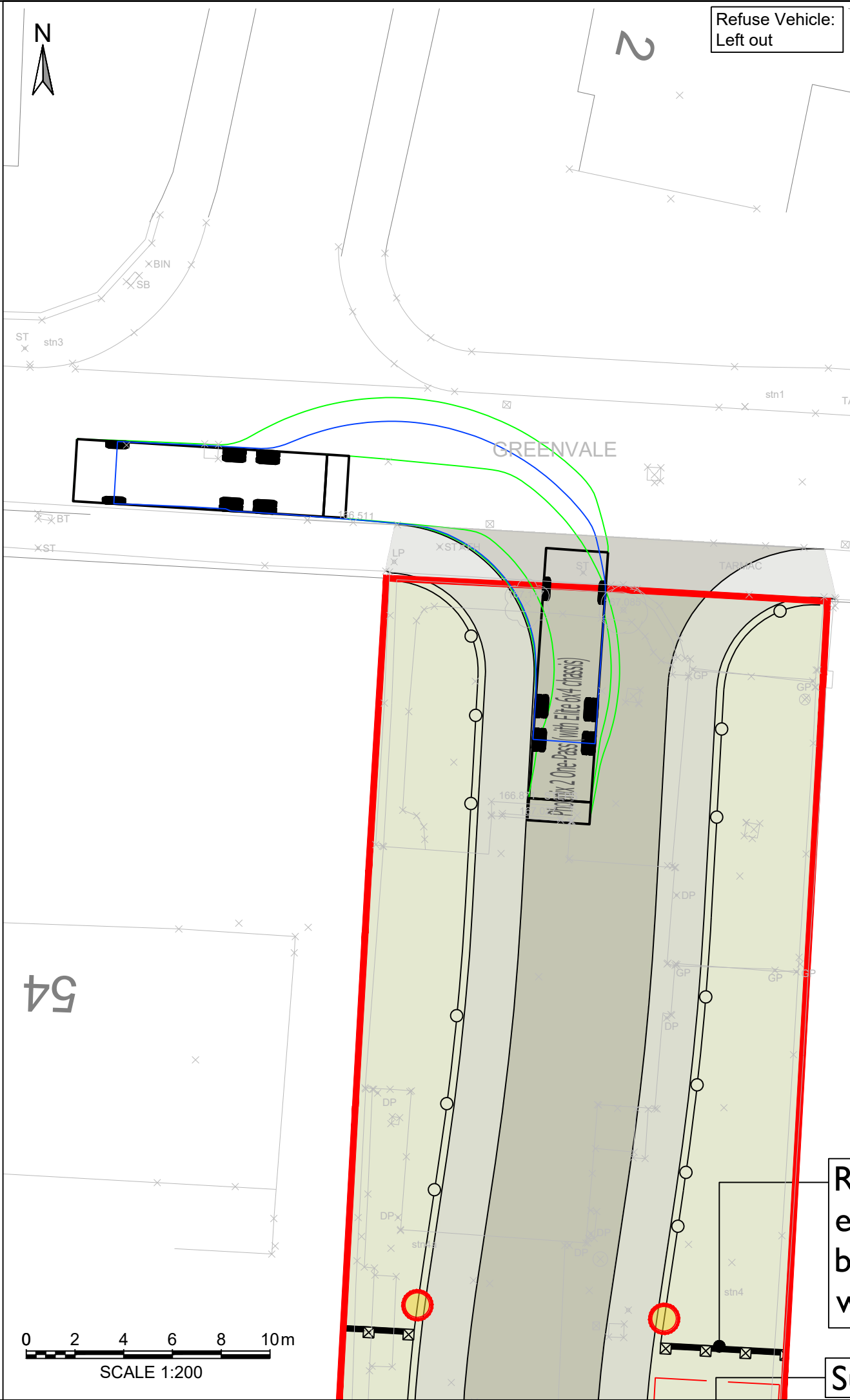
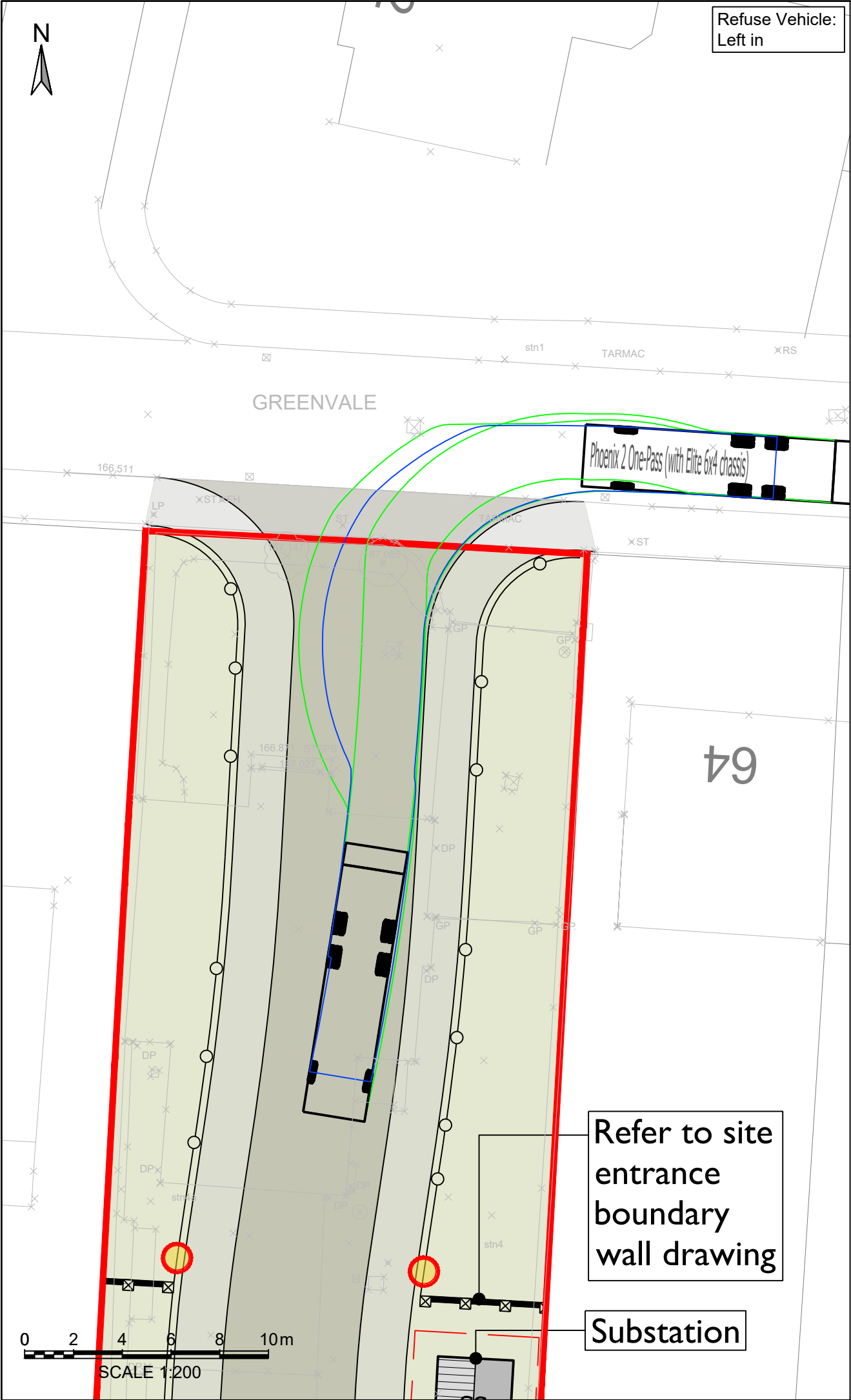


Client
Wain
11.11.11

Project Name
**Proposed Residential Development:
Land off Greenvale, Bamford, Rochdale**

Sheet Title
**Proposed Site Access: Visibility Splay
Assessment**

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Subsidiary
784-B068938	AB	Aug '24	MT	Aug '24	MT	Aug '24	As Shown	S0
Client Project Number	Originator	Volume/System Level/Location	Type/Code	Role	Number	Revision		
B068938	- TTE	- 00	- XX	- DR	- O	- 001		P04



Notes:

- All measurements are in metres unless stated otherwise.
- This drawing is based MCK Associates Limited Drawing no.23-025-401C Rev O. Tetra Tech does not take responsibility for any discrepancies.

Key:

- Red line site boundary
- Blue line wheel tracking
- Green line body tracking

Phoenix 2 One-Pass (with Elite 6x4 chassis)

Overall Length	11.180m
Overall Width	2.550m
Overall Body Height	3.760m
Min Body Ground Clearance	0.312m
Track Width	2.550m
Lock to lock time	4.00s
Kerb to Kerb Turning Radius	10.150m

PRELIMINARY ISSUE

Rev	Description	Date	By	MT	AK
P04	REVISED SITE LAYOUT REV O INCLUDED	17.02.2026	JT	MT	MT
P03	REVISED SITE LAYOUT REV D INCLUDED	02.04.2025	JT	MT	AK
P02	PROPOSED SITE LAYOUT REV C INCLUDED	14.03.2025	AB	MT	AK
P01	PRELIMINARY FIRST ISSUE	07.08.2024	AB	MT	MT

Document Control

Issuing Office

Tetra Tech Manchester
11 York Street,
Manchester, M2 2AW
Tel: +44 (0)161 872 3223
www.tetrattechurope.com

Client

Project Name

Proposed Residential Development:
Land off Greenvale, Bamford, Rochdale

Sheet Title

Proposed Site Access: Refuse Vehicle
Tracking

TTE Project Number	Drawn By	Date	Checked By	Date	Approved By	Date	Scale @ A3	Subsidiary
784-B068938	AB	Aug '24	MT	Aug '24	MT	Aug '24	As Shown	S0

Client Project Number Originator Volume/System Level/Location Type/Code Role Number Revision

B068938 - TTE - 00 - XX - TR - O - 002 P04

© Copyright Tetra Tech TTE_MT_v1

Appendix TTN3-3: TfGM Response

Your ref: 25/00405/FUL

Our ref: ROC/25/189

Rochdale Council, Economy Directorate
Planning and Development
Number One Riverside
Smith Street
Rochdale
OL16 1XU

26th June 2025

Location: **Land South of Greenvale, Bamford, Rochdale**

Development: **Demolition of existing dwelling and construction of a residential development for 43 no. dwellings with access and associated works**

Dear Sir / Madam

Thank you for consulting Transport for Greater Manchester (TfGM) on the above planning application. The following comments are offered as advice on transport issues for you to balance against other factors and are made in the context of TfGM's role in the planning process, as set out in the footnote below.

Background

The application seeks approval for a residential development comprising 43 dwelling houses, located on land to the south of Greenvale in Bamford.

The site is within an allocation in the Greater Manchester Plan, Places for Everyone and is covered by Policy JPA 17.

¹TfGM does not have any planning powers and is not a statutory consultee in the planning process. The purpose of the advice offered is to suggest the best way to improve land use / transport integration through the development proposals. Advice is based on the information provided by the applicant, and it is not TfGM's role to undertake detailed verification unless specifically commissioned to do so. ²TfGM control and manage the traffic signals in Greater Manchester, as such any schemes that alter signalised junctions need to be agreed with TfGM. Additionally, where developments impact on signalised junctions, TfGM have a duty of care to ensure that these impacts are satisfactorily mitigated as part of the planning process.



In accordance with Places for Everyone Policy JP Allocation 17: Bamford / Norden, development in this allocation will be required to:

- Deliver around 450 new homes including significant provision of larger (4, 5 and 6 bedroom) houses in spacious plots, to reflect the grain and density of the surrounding residential areas, or similar types of larger homes as agreed with the Local Planning Authority and affordable housing in accordance with relevant local plan requirements;
- Retain and significantly enhance the existing recreational facilities as part of an integrated green and blue infrastructure network on the site. The residential development on the site will provide contributions towards the improvement of the facilities which will create a high quality recreational and sports 'hub' serving the local area and the borough as a whole. The development should incorporate existing public rights of way along with new routes for active travel into a high quality integrated green infrastructure network that links to existing public rights of way in the countryside to the west and north west of the site;
- Achieve excellent design and sustainability through masterplanning and the use of design codes for the whole site to ensure comprehensive development This will include the need for an infrastructure phasing and delivery strategy in accordance with policy JP-D1;
- Provide access to the site from suitable points along Norden Road;
- Make provision for new and improved sustainable transport and highways infrastructure having regard to the indicative transport interventions set out in Appendix D in accordance with policy JP-C8

Policy JP-D1: Infrastructure Implementation

To ensure the effective development and implementation of the infrastructure needed to deliver the vision and objectives of the Plan, we will require applicants to prepare an infrastructure phasing and delivery strategy to be agreed by the local planning authority for sites where build out will be delivered by different developers or in phases. This strategy must outline what needs to be provided by when and who will fund and deliver it.

As part of the update to the National Planning Policy Framework (NPPF) in December 2024 there are now requirements in Paragraphs 115 to 118 to mitigate significant impacts on the transport network and highway safety through a vision-led approach.



Every journey. Every day.

Transport Assessment Analysis

Colleagues from within TfGM HFAS (Highways Forecasting Analytical Services), UTC (Urban Traffic Control), Strategy and Active Travel have reviewed the Transport Assessment (TA) issued in support of the proposed development and have provided comments in respect of the relevant sections.

It should be noted that all comments are for the submitted TA and do not consider the wider site and longer-term plans for the site. TfGM consider that the cumulative assessments should be provided for the whole allocation.

Vision-led principles should underpin the development of all transport strategies in support of new development, such that the design of highway infrastructure needed to mitigate significant development impacts is based on residual car use and ensuring safety and permeability for sustainable modes, following the application of the vision-led approach. The following sections therefore focus on sustainable transport accessibility first, with highway impacts covered following this.

Sustainable Transport Accessibility

I. Public Transport

The nearest bus stops to the site are located on Norden Road / Bagslate Moor Road, around a 9-13-minute walk away. These stops provide services to Bury and Rochdale at fairly regular intervals.

The GMAL score for the site should be provided.

700 metres to the nearest bus stop is too far to be considered convenient and an acceptable walking distance (400m is the Active Travel England recommended maximum distance). As such the application should either provide a more direct pedestrian access route to existing bus stops on Norden Road (e.g. connecting directly via the existing PROWs) or fund a closer bus stop with shelter etc. This cannot wait until the wider allocation comes forward as viable bus facilities need to be in place in order to establish travel patterns from first occupation of this development.

II. Active Travel

In order to encourage walking and cycling, it should be ensured that the pedestrian and cycling environment, within and around the site, is designed to be as safe, attractive

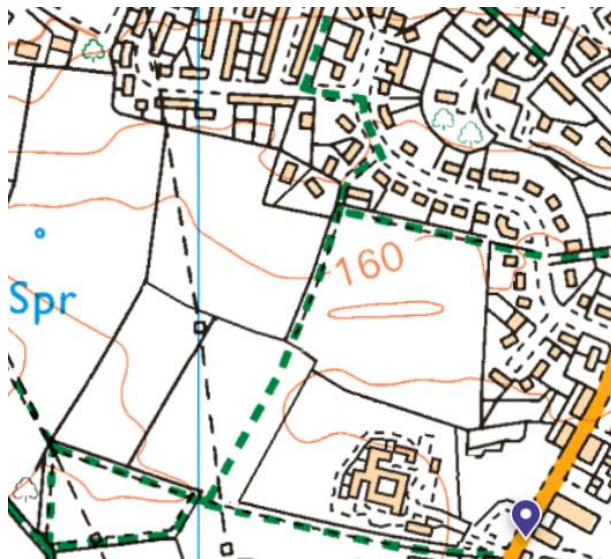


Every journey. Every day.

and convenient as possible, including natural surveillance where possible. This should provide sufficient links to the surrounding pedestrian and cycle networks.

To establish travel patterns at the beginning of occupation and encourage modal shift to sustainable modes of travel, it is important to ensure the facilities are in place to support sustainability. Therefore, improvements to the masterplan and local environment are required to help encourage the uptake of active travel modes by future residents, as follows:

- In respect of Section 7.3 of the TA, the pedestrian accessibility should be audited in more detail relating to footway widths, surface quality, dropped kerbs, and tactile paving. This should relate to highway and off-highway routes. It is noted that Greenvale and Norford Way, which form a key pedestrian access to and from the site, lack dropped kerbs and tactile paving at several junctions.



- Furthermore, any footways less than 1.5 metres that serve the site should be widened to 2.0 metres and this should be funded by the development.
- With reference to Section 7.4 of the TA, a more detailed assessment of the local cycling conditions should be provided. Any conflict with LTN 1/20 design standards should be identified and potential resolutions suggested to resolve any problems.
- The site masterplan only proposes one access point for cyclists and pedestrians. In order to create permeability through the site, more pedestrian and cycle links



Every journey. Every day.

should be provided within the site connecting to the surrounding environment. Providing access to the PROWs to the east and south of the site would provide improved connectivity to bus stops on Norden Road and to local amenities in Bamford.

- Ensure the provision of tactile paving and dropped kerbs across the access junction to the site and reinstate any redundant access points bordering the site.
- With reference to Section 7.2.1 of the TA, the pedestrian crossing across Norden Road should be provided as part of this development.
- To reiterate, 700 metres to the nearest bus stop is too far to be considered convenient and an acceptable walking distance (400m is the Active Travel England recommended maximum distance). As such the application should either provide a more direct pedestrian access route to existing bus stops on Norden Road (e.g. connecting directly via the existing PROWs) or fund a closer bus stop with shelter etc. This cannot wait until the wider allocation comes forward as viable bus facilities need to be in place in order to establish travel patterns from first occupation of this development.
- Cycle parking for the dwellings should be provided within the site curtilage of the properties.

III. Travel Plan

It is noted that a Framework Travel Plan has been submitted, which is welcomed.

TfGM recommends that a full Travel Plan is produced for the development, with the objective of reducing reliance on the private car, particularly single occupancy use. The Travel Plan should be designed to raise awareness of opportunities for reducing travel by car and should feature a range of measures and initiatives promoting a choice of transport mode, and a clear monitoring regime with agreed targets.

In order to encourage sustainable journeys to mitigate the traffic impact of the development, through the Travel Plan, incentives should be offered to encourage users of the site to use public transport and active travel modes through measures such as discounted bus fares, discounted cycles, journey planning etc.



Every journey. Every day.

Development Impact

I. Trip Generation

The TA confirms that vision led reductions have been applied to trip generation. It is queried if these reductions have been agreed with the Local Highway Authority (LHA).

The TRICS assessment demonstrates that the development is likely to generate a total of 20 two-way vehicle trips in the AM peak hour and 18 two-way vehicle trips in the PM peak hour.

II. Trip Distribution

Before TfGM can agreed the trip distribution assessment work contained within the TA, the trip distribution gravity model is required for validation purposes.

III. Junction Modelling

The modelling has been checked by UTC and there are errors. The modelling should be corrected and re-provided with the updated results. UTC are happy to check the modelling prior to re-submission.

- **Site 1619 – Bury and Rochdale Old Road – Queens Park Road**

The ped minima do not reflect those running at the junction – check against the supplied timing information.

None of the phase delays are input into the model – as above check against the supplied timing information.

- **Site 1620 – Bury and Rochdale Old Road – Norden Road**

The junction has been modelled as a four-stage junction when in reality:

Stage 3 and 4 are alternatives to each other. Stage 4 will only appear if a demand for phase I exists, and stage 3 is prevented if stage 4 is allowed. If Stage 3 is allowed because stage 4 is prevented, then it will only appear if a demand exists for phase C, D or F

This means the junction should be modelled as a three-stage junction.



Every journey. Every day.

Also stage 2 is very quiet and rarely appears – for example yesterday in the hour 0800-0900 stage 2 appeared in four out of 35 cycles. The LINSIG modelling should be corrected to reflect the infrequent appearance of the stage. UTC do not want a ‘robust’ model, the modelling needs to reflect the operation of the junction as closely as possible. A signal monitoring log is available FoC from UTC – email gmutc@tfgm.com.

The ped minima do not reflect those running at the junction – check against the supplied timing information.

None of the phase delays are input into the model – as above check against the supplied timing information.

In summary, all of the above means that the modelling results presented show the junction to be running with higher levels of congestion than in reality. However, this should be corrected to understand the true impact of the development trips.

IV. Mitigation

To determine if sites were suitable to be allocated in the Places for Everyone Plan from a transport perspective, high level strategic transport modelling was undertaken using GM wide strategic trip rates. This enabled the development of high-level indicative transport mitigation for a single strategic ‘worst-case’ scenario. These are contained in Appendix D of the plan and an extract is provided below:

Necessary:

- Norden Road / War Office Road – modifications to traffic circulation and local junction improvements.
- Norden Road – new pedestrian crossing.
- Bus stop upgrades at the Norden Road / War Office Road junction.
- Active travel improvements including Furbarn Road improvements and North-South Greenway corridor through the site.

For each PfE allocation, there is a need for more detailed transport assessment work to be undertaken as part of the Masterplan process, aligned with an Infrastructure Phasing and Delivery Strategy. This transport assessment work should set out a transport vision for the total quantum of development proposed on the allocation site and then test a set of detailed scenarios, underpinned by local traffic counts and appropriate site-specific trip rates for all modes, to determine the optimum design and transport infrastructure requirements to mitigate the impacts.



Every journey. Every day.

When developing effective detailed mitigation, sustainable interventions that support active travel and facilitate access to public transport should be considered in the first instance. Highway interventions should only be considered to mitigate the impact of development once the effectiveness of sustainable interventions is understood.

Until this Masterplan work is completed and an associated Transport Assessment and Infrastructure Phasing and Delivery Strategy have been produced, it is not possible to determine what infrastructure would be required to facilitate individual parcels of development, when they would be required and how they will be funded or what environmental impact they would have.

V. Access Arrangements

In terms of the proposed internal access arrangements, the TA confirms the following:

- The site will be served by a simple priority junction onto Greenvale.
- Visibility splays in line with standards contained within Manual for Streets are achievable from the site access.
- 2-metre-wide footways will be provided on both sides of the site access leading into the site.
- A large refuse vehicle can enter and exit the site in forward gear.
- Car parking provision will be provided in accordance with Rochdale Council's adopted Parking Standards.

The site access should be designed to ensure the provision of tactile paving and dropped kerbs. Any redundant access points bordering the site should be reinstated accordingly.

TfGM would refer to the LHA to determine whether the proposed access, car parking and servicing arrangements are considered acceptable.

VI. Traffic Regulation Orders

TfGM would suggest that a review is undertaken of the Traffic Regulation Orders in the vicinity of the development, with a view to introducing additional parking restrictions as appropriate, as well as ensuring adequate parking restrictions remain in place, and are refreshed accordingly. This will help to discourage pavement parking associated with the development and therefore assist in improving the quality of the surrounding public realm.



Every journey. Every day.

VII. Other

A robust Construction Traffic Management Plan should be employed as part of the development.

I hope you find these comments useful in the determination of this planning application. Should you wish to discuss any matter further please do not hesitate to contact the Landuse team via the details below.

Yours faithfully

Landuse Team
Highways Department
Transport for Greater Manchester
Email: landuse@tfgm.com



Every journey. Every day.

Appendix TTN3-4: Rochdale Metropolitan Borough Council Comments



Highways and Engineering Service

Economy and Environment

Consultation Response on behalf of Head of Highways and Engineering

Application: 25-00405-FUL

Date Received: 04 June 2025

Date of Response: 11 August 2025

PROPOSAL:

Demolition of existing dwelling and construction of a residential development for 43 no. dwellings with access and associated works.

CONSULTATION REPORT:

The application site is on greenspace land adjacent to a well established residential area to the north of the site. The nearest local centre at Bamford Precinct is a walk of around 750m and provides a limited range of amenities. The nearest bus stop is also a significant distance from this site. We do not consider this application site to be a highly sustainable location but do accept there is some opportunity for sustainable travel from this location. We would like to see improved PROW access to the site from the South Eastern corner of the site.

The traffic generation associated with usage is low and will not be detectable against existing volumes of background traffic.

The level of parking provided onsite meets the LA maximum standard and as such is acceptable.

The proposed site access meets the required standard with adequate width and visibility to operate safely. We do however have some concerns about damage to the existing highway during the construction period and will require a condition of planning to protect the existing highway.

No significant changes to the existing highways network are proposed as a result of this development. There is however proposed contributions towards improvements to sustainable transport infrastructure and

The highways as part of this development meet adoptable standards and are acceptable.

No PROW will be obstructed by this proposal.

We have no new road safety concerns as a result of these proposals.

Refuse collection and servicing from this location is possible. There is a need for refuse vehicles to cross on to the other side of the carriageway however this is a low number of vehicle movements and within acceptable volumes.

AMENDMENTS TO CONSULTATION RESPONSE:

No amendments to report

OFFICER RECOMMENDATION:

We have no objections to this proposal subject to the following conditions.

Prior to development commencing a dilapidation survey of the highways surrounding the site must be undertaken. Upon completion any damage apparent should be repaired at the expense of the developer.

The entire development should be subject to a self-enforcing 20 mph zone with a Traffic Regulation Order funded by the applicant.

Prior to completion a scheme for the improved PROW access to the site from the South Eastern Corner of the site shall be submitted to the LPA for approval and implemented on site.

HIGHWAYS SIGN OFF

Network Improvement 11-08-2025

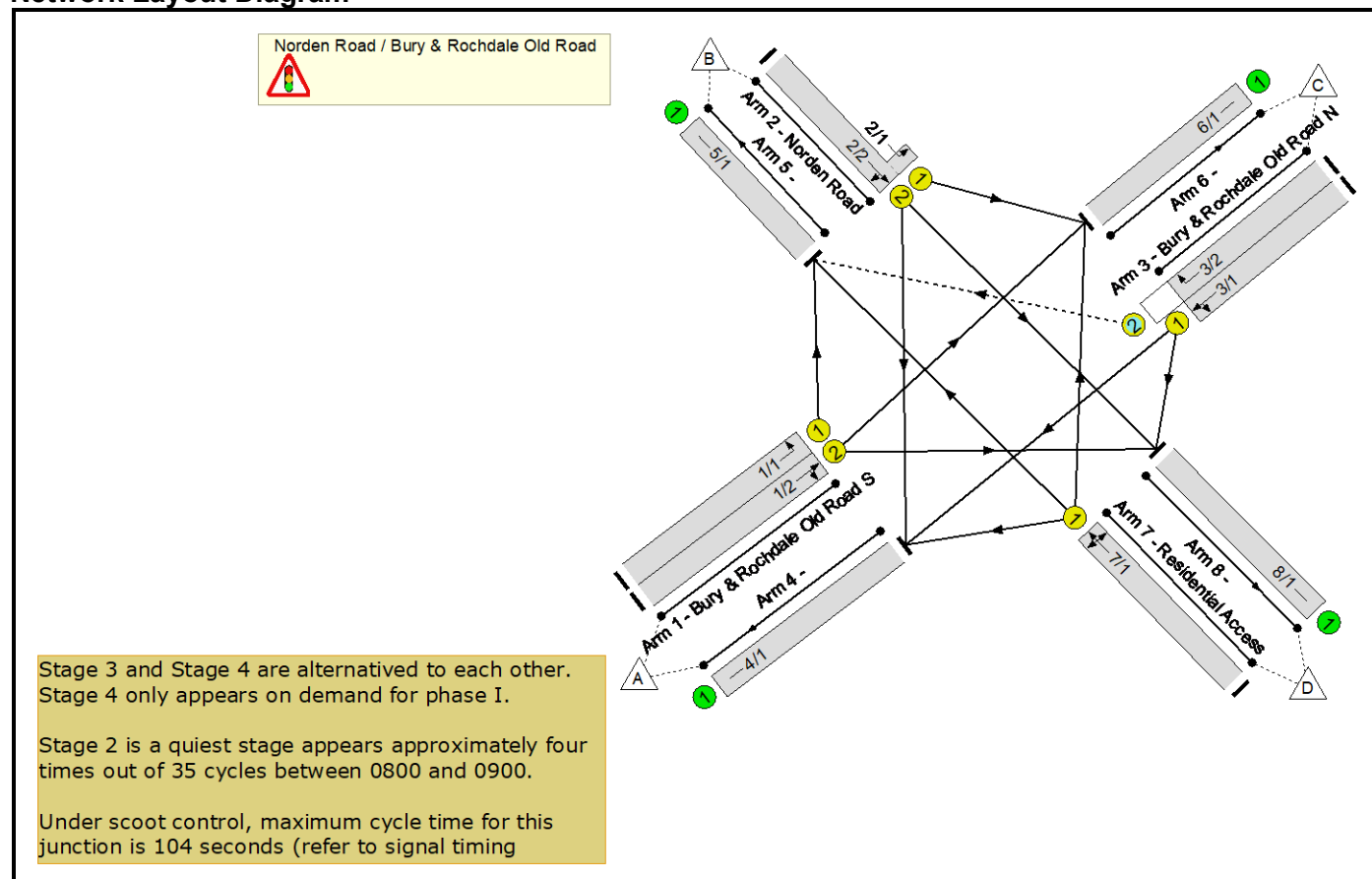
Appendix TTN3-5: J6 Bury & Rochdale Old Road / Norden Road – Updated Modelling

Full Input Data And Results

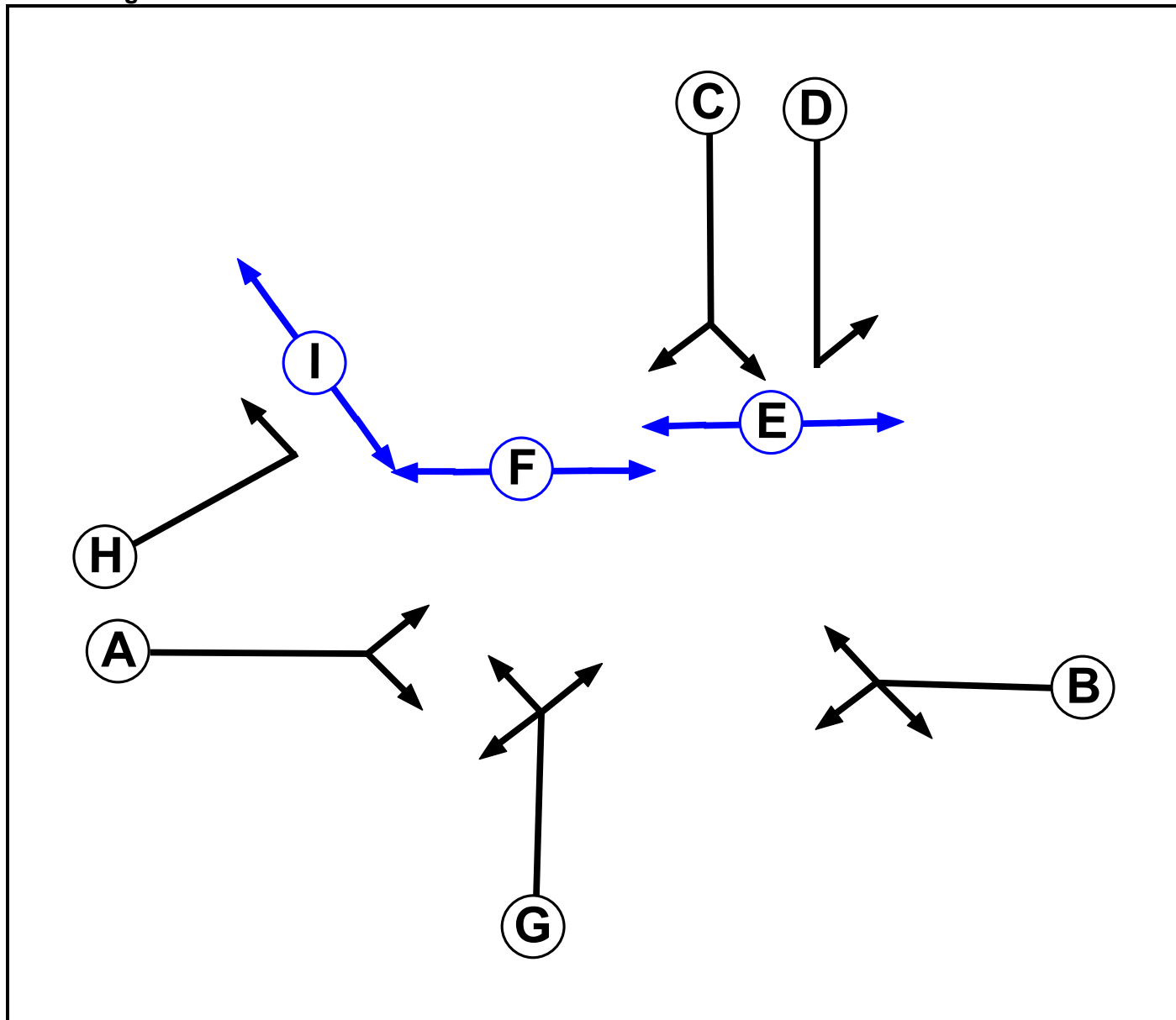
User and Project Details

Project:	784-B068938
Title:	Proposed Residential Development, Land off Greenvale, Bamford, Rochdale
Location:	
Client:	Wain Homes
Site Ref(s):	Norden Road / Bury & Rochdale Old Road Junction
Date Started:	14.03.2025
Model Purpose:	Traffic Impact Assessment
Checked By:	Matt Thompson
Additional detail:	
File name:	Bury & Rochdale Old Road - Norden Road Signalised - v02.lsg3x
Author:	Abdulrahman Benotman
Company:	Tetra Tech Ltd
Address:	11 York Street

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	5
D	Traffic		7	4
E	Pedestrian		6	6
F	Pedestrian		6	6
G	Traffic		7	7
H	Traffic		7	7
I	Pedestrian		6	6

Full Input Data And Results

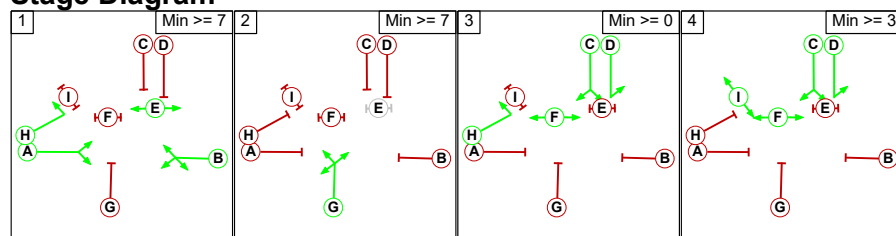
Phase Intergreens Matrix

Terminating Phase	Starting Phase									
		A	B	C	D	E	F	G	H	I
	A		-	5	6	-	5	5	-	-
	B	-		5	-	-	8	6	-	-
	C	6	6		-	5	-	5	-	-
	D	5	-	-		5	-	5	-	-
	E	-	-	5	5		-	-	-	-
	F	5	8	-	-	-		8	-	-
	G	6	5	5	7	-	8		6	8
	H	-	-	-	-	-	-	5		5
	I	-	-	-	-	-	-	8	5	

Phases in Stage

Stage No.	Phases in Stage
1	A B E H
2	G
3	C D F H
4	C D F I

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	A	Losing	1	1
3	1	C	Losing	2	2
3	1	D	Losing	3	3
3	2	C	Losing	3	3
3	2	D	Losing	3	3
4	1	C	Losing	2	2
4	1	D	Losing	3	3
4	1	I	Losing	3	3
4	2	C	Losing	3	3
4	2	D	Losing	3	3

Prohibited Stage Change

From Stage	To Stage				
		1	2	3	4
	1		6	8	8
	2	6		8	8
	3	8	8		5
	4	8	8	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Norden Road / Bury && Rochdale Old Road											
Lane	Movement	Max Flow when Giving Way (PCU/Hr)	Min Flow when Giving Way (PCU/Hr)	Opposing Lane	Opp. Lane Coeff.	Opp. Mvmnts.	Right Turn Storage (PCU)	Non-Blocking Storage (PCU)	RTF	Right Turn Move up (s)	Max Turns in Intergreen (PCU)
3/2 (Bury & Rochdale Old Road N)	5/1 (Right)	1439	0	1/2	1.09	All	2.00	-	0.50	2	2.00

Full Input Data And Results

Lane Input Data

Junction: Norden Road / Bury & Rochdale Old Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Bury & Rochdale Old Road S)	U	H	2	3	60.0	Geom	-	2.90	0.00	Y	Arm 5 Left	14.00
1/2 (Bury & Rochdale Old Road S)	U	A	2	3	60.0	Geom	-	2.80	0.00	N	Arm 6 Ahead	Inf
											Arm 8 Right	14.90
2/1 (Norden Road)	U	D	2	3	1.0	Geom	-	3.20	0.00	Y	Arm 6 Left	13.20
2/2 (Norden Road)	U	C	2	3	60.0	Geom	-	2.90	0.00	Y	Arm 4 Right	16.40
											Arm 8 Ahead	Inf
3/1 (Bury & Rochdale Old Road N)	U	B	2	3	60.0	Geom	-	3.25	0.00	Y	Arm 4 Ahead	Inf
											Arm 8 Left	4.30
3/2 (Bury & Rochdale Old Road N)	O	B	2	3	60.0	Geom	-	2.50	0.00	N	Arm 5 Right	5.10
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-
7/1 (Residential Access)	U	G	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	9.40
											Arm 5 Ahead	Inf
											Arm 6 Right	8.90
8/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Surveyed Flows - AM Peak'	07:45	08:45	01:00	
2: '2025 Surveyed Flows - PM Peak'	16:15	17:15	01:00	
3: '2030 Without Development - AM Peak'	07:45	08:45	01:00	
4: '2030 Without Development - PM Peak'	16:15	17:15	01:00	
5: '2030 With JPA 17 Full Allocation - AM Peak'	07:45	08:45	01:00	
6: '2030 With JPA 17 Full Allocation - PM Peak'	16:15	17:15	01:00	

Scenario 1: '2025 Surveyed Flows - AM Peak' (FG1: '2025 Surveyed Flows - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	296	497	0	793
	B	615	0	11	0	626
	C	539	1	0	0	540
	D	0	0	0	0	0
	Tot.	1154	297	508	0	1959

Traffic Lane Flows

Lane	Scenario 1: 2025 Surveyed Flows - AM Peak
Junction: Norden Road / Bury && Rochdale Old Road	
1/1	296
1/2	497
2/1 (short)	11
2/2 (with short)	626(In) 615(Out)
3/1	539
3/2	1
4/1	1154
5/1	297
6/1	508
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury && Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2025 Surveyed Flows - PM Peak' (FG2: '2025 Surveyed Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	686	661	0	1347
	B	359	0	7	0	366
	C	569	7	0	0	576
	D	0	0	0	0	0
	Tot.	928	693	668	0	2289

Traffic Lane Flows

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2030 Without Development - AM Peak' (FG3: '2030 Without Development - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	313	506	0	819
	B	632	0	11	0	643
	C	548	1	0	0	549
	D	0	0	0	0	0
	Tot.	1180	314	517	0	2011

Traffic Lane Flows

Lane	Scenario 3: 2030 Without Development - AM Peak
Junction: Norden Road / Bury && Rochdale Old Road	
1/1	313
1/2	506
2/1 (short)	11
2/2 (with short)	643(In) 632(Out)
3/1	548
3/2	1
4/1	1180
5/1	314
6/1	517
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2030 Without Development - PM Peak' (FG4: '2030 Without Development - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	702	671	0	1373
	B	377	0	7	0	384
	C	577	7	0	0	584
	D	0	0	0	0	0
	Tot.	954	709	678	0	2341

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2030 Without Development - PM Peak
Junction: Norden Road / Bury & Rochdale Old Road	
1/1	702
1/2	671
2/1 (short)	7
2/2 (with short)	384(In) 377(Out)
3/1	577
3/2	7
4/1	954
5/1	709
6/1	678
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2030 With JPA 17 Full Allocation - AM Peak' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	342	506	0	848
	B	731	0	11	0	742
	C	548	1	0	0	549
	D	0	0	0	0	0
	Tot.	1279	343	517	0	2139

Traffic Lane Flows

Lane	Scenario 5: 2030 With JPA 17 Full Allocation - AM Peak
Junction: Norden Road / Bury & Rochdale Old Road	
1/1	342
1/2	506
2/1 (short)	11
2/2 (with short)	742(In) 731(Out)
3/1	548
3/2	1
4/1	1279
5/1	343
6/1	517
7/1	0
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2030 With JPA 17 Full Allocation - PM Peak' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	796	671	0	1467
	B	407	0	7	0	414
	C	577	7	0	0	584
	D	0	0	0	0	0
	Tot.	984	803	678	0	2465

Traffic Lane Flows

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2025 Surveyed Flows - AM Peak - 208 CT' (FG1: '2025 Surveyed Flows - AM Peak', Plan 2: '208 CT -1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	296	497	0	793
	B	615	0	11	0	626
	C	539	1	0	0	540
	D	0	0	0	0	0
	Tot.	1154	297	508	0	1959

Traffic Lane Flows

Lane	Scenario 7: 2025 Surveyed Flows - AM Peak - 208 CT
Junction: Norden Road / Bury && Rochdale Old Road	
1/1	296
1/2	497
2/1 (short)	11
2/2 (with short)	626(In) 615(Out)
3/1	539
3/2	1
4/1	1154
5/1	297
6/1	508
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury && Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2025 Surveyed Flows - PM Peak - 208 CT' (FG2: '2025 Surveyed Flows - PM Peak', Plan 2: '208 CT -1')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	686	661	0	1347
	B	359	0	7	0	366
	C	569	7	0	0	576
	D	0	0	0	0	0
	Tot.	928	693	668	0	2289

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2025 Surveyed Flows - PM Peak - 208 CT
Junction: Norden Road / Bury & Rochdale Old Road	
1/1	686
1/2	661
2/1 (short)	7
2/2 (with short)	366(In) 359(Out)
3/1	569
3/2	7
4/1	928
5/1	693
6/1	668
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2030 Without Development - AM Peak - 208 CT' (FG3: '2030 Without Development - AM Peak', Plan 2: '208 CT -1 ')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	313	506	0	819
	B	632	0	11	0	643
	C	548	1	0	0	549
	D	0	0	0	0	0
	Tot.	1180	314	517	0	2011

Traffic Lane Flows

Lane	Scenario 9: 2030 Without Development - AM Peak - 208 CT
Junction: Norden Road / Bury && Rochdale Old Road	
1/1	313
1/2	506
2/1 (short)	11
2/2 (with short)	643(In) 632(Out)
3/1	548
3/2	1
4/1	1180
5/1	314
6/1	517
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2030 Without Development - PM Peak - 208 CT' (FG4: '2030 Without Development - PM Peak', Plan 2: '208 CT -1 ')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	702	671	0	1373
	B	377	0	7	0	384
	C	577	7	0	0	584
	D	0	0	0	0	0
	Tot.	954	709	678	0	2341

Traffic Lane Flows

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: '2030 With JPA 17 Full Allocation - AM Peak - 208 CT' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 2: '208 CT -1 ')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	342	506	0	848
	B	731	0	11	0	742
	C	548	1	0	0	549
	D	0	0	0	0	0
	Tot.	1279	343	517	0	2139

Traffic Lane Flows

Lane	Scenario 11: 2030 With JPA 17 Full Allocation - AM Peak - 208 CT
Junction: Norden Road / Bury & Rochdale Old Road	
1/1	342
1/2	506
2/1 (short)	11
2/2 (with short)	742(In) 731(Out)
3/1	548
3/2	1
4/1	1279
5/1	343
6/1	517
7/1	0
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2030 With JPA 17 Full Allocation - PM Peak - 208 CT' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 2: '208 CT -1 ')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	796	671	0	1467
	B	407	0	7	0	414
	C	577	7	0	0	584
	D	0	0	0	0	0
	Tot.	984	803	678	0	2465

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 12: 2030 With JPA 17 Full Allocation - PM Peak - 208 CT
Junction: Norden Road / Bury & Rochdale Old Road	
1/1	796
1/2	671
2/1 (short)	7
2/2 (with short)	414(In) 407(Out)
3/1	577
3/2	7
4/1	984
5/1	803
6/1	678
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead Arm 8 Right	Inf 14.90	100.0 % 0.0 %	2035	2035
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right Arm 8 Ahead	16.40 Inf	100.0 % 0.0 %	1745	1745
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead Arm 8 Left	Inf 4.30	100.0 % 0.0 %	1940	1940
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left Arm 5 Ahead Arm 6 Right	9.40 Inf 8.90	0.0 % 0.0 % 0.0 %	1915	1915
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 13: '2025 Surveyed Flows - AM Peak - 208 CT - 3' (FG1: '2025 Surveyed Flows - AM Peak', Plan 3: '208 CT - 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	296	497	0	793
	B	615	0	11	0	626
	C	539	1	0	0	540
	D	0	0	0	0	0
	Tot.	1154	297	508	0	1959

Traffic Lane Flows

Lane	Scenario 13: 2025 Surveyed Flows - AM Peak - 208 CT - 3
Junction: Norden Road / Bury && Rochdale Old Road	
1/1	296
1/2	497
2/1 (short)	11
2/2 (with short)	626(In) 615(Out)
3/1	539
3/2	1
4/1	1154
5/1	297
6/1	508
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury && Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 14: '2025 Surveyed Flows - PM Peak - 208 CT - 3' (FG2: '2025 Surveyed Flows - PM Peak', Plan 3: '208 CT - 2')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	686	661	0	1347
	B	359	0	7	0	366
	C	569	7	0	0	576
	D	0	0	0	0	0
	Tot.	928	693	668	0	2289

Traffic Lane Flows

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 15: '2030 Without Development - AM Peak - 208 CT - 3' (FG3: '2030 Without Development - AM Peak', Plan 3: '208 CT - 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	313	506	0	819
	B	632	0	11	0	643
	C	548	1	0	0	549
	D	0	0	0	0	0
	Tot.	1180	314	517	0	2011

Traffic Lane Flows

Lane	Scenario 15: 2030 Without Development - AM Peak - 208 CT - 3
Junction: Norden Road / Bury && Rochdale Old Road	
1/1	313
1/2	506
2/1 (short)	11
2/2 (with short)	643(In) 632(Out)
3/1	548
3/2	1
4/1	1180
5/1	314
6/1	517
7/1	0
8/1	0

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 16: '2030 Without Development - PM Peak - 208 CT - 3' (FG4: '2030 Without Development - PM Peak', Plan 3: '208 CT - 2')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	702	671	0	1373
	B	377	0	7	0	384
	C	577	7	0	0	584
	D	0	0	0	0	0
	Tot.	954	709	678	0	2341

Traffic Lane Flows

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 17: '2030 With JPA 17 Full Allocation - AM Peak - 208 CT - 3' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 3: '208 CT - 2')

Traffic Flows, Desired

Desired Flow :

Origin	Destination					
		A	B	C	D	Tot.
	A	0	342	506	0	848
	B	731	0	11	0	742
	C	548	1	0	0	549
	D	0	0	0	0	0
	Tot.	1279	343	517	0	2139

Traffic Lane Flows

Lane	Scenario 17: 2030 With JPA 17 Full Allocation - AM Peak - 208 CT - 3
Junction: Norden Road / Bury & Rochdale Old Road	
1/1	342
1/2	506
2/1 (short)	11
2/2 (with short)	742(In) 731(Out)
3/1	548
3/2	1
4/1	1279
5/1	343
6/1	517
7/1	0
8/1	0

Full Input Data And Results

Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead	Inf	100.0 %	2035	2035
				Arm 8 Right	14.90	0.0 %		
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right	16.40	100.0 %	1745	1745
				Arm 8 Ahead	Inf	0.0 %		
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead	Inf	100.0 %	1940	1940
				Arm 8 Left	4.30	0.0 %		
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left	9.40	0.0 %	1915	1915
				Arm 5 Ahead	Inf	0.0 %		
				Arm 6 Right	8.90	0.0 %		
8/1	Infinite Saturation Flow						Inf	Inf

Scenario 18: '2030 With JPA 17 Full Allocation - PM Peak - 208 CT - 3' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 3: '208 CT - 2')

Traffic Flows, Desired

Desired Flow :

	Destination					
		A	B	C	D	Tot.
Origin	A	0	796	671	0	1467
	B	407	0	7	0	414
	C	577	7	0	0	584
	D	0	0	0	0	0
	Tot.	984	803	678	0	2465

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 18: 2030 With JPA 17 Full Allocation - PM Peak - 208 CT - 3
Junction: Norden Road / Bury & Rochdale Old Road	
1/1	796
1/2	671
2/1 (short)	7
2/2 (with short)	414(In) 407(Out)
3/1	577
3/2	7
4/1	984
5/1	803
6/1	678
7/1	0
8/1	0

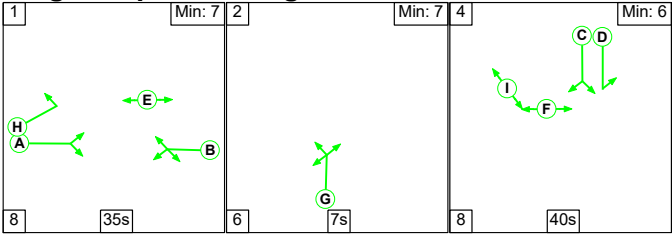
Lane Saturation Flows

Junction: Norden Road / Bury & Rochdale Old Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Road S)	2.90	0.00	Y	Arm 5 Left	14.00	100.0 %	1721	1721
1/2 (Bury & Rochdale Old Road S)	2.80	0.00	N	Arm 6 Ahead Arm 8 Right	Inf 14.90	100.0 % 0.0 %	2035	2035
2/1 (Norden Road)	3.20	0.00	Y	Arm 6 Left	13.20	100.0 %	1738	1738
2/2 (Norden Road)	2.90	0.00	Y	Arm 4 Right Arm 8 Ahead	16.40 Inf	100.0 % 0.0 %	1745	1745
3/1 (Bury & Rochdale Old Road N)	3.25	0.00	Y	Arm 4 Ahead Arm 8 Left	Inf 4.30	100.0 % 0.0 %	1940	1940
3/2 (Bury & Rochdale Old Road N)	2.50	0.00	N	Arm 5 Right	5.10	100.0 %	1549	1549
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf
7/1 (Residential Access)	3.00	0.00	Y	Arm 4 Left Arm 5 Ahead Arm 6 Right	9.40 Inf 8.90	0.0 % 0.0 % 0.0 %	1915	1915
8/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 1: '2025 Surveyed Flows - AM Peak' (FG1: '2025 Surveyed Flows - AM Peak', Plan 1: 'Network Control Plan 1')

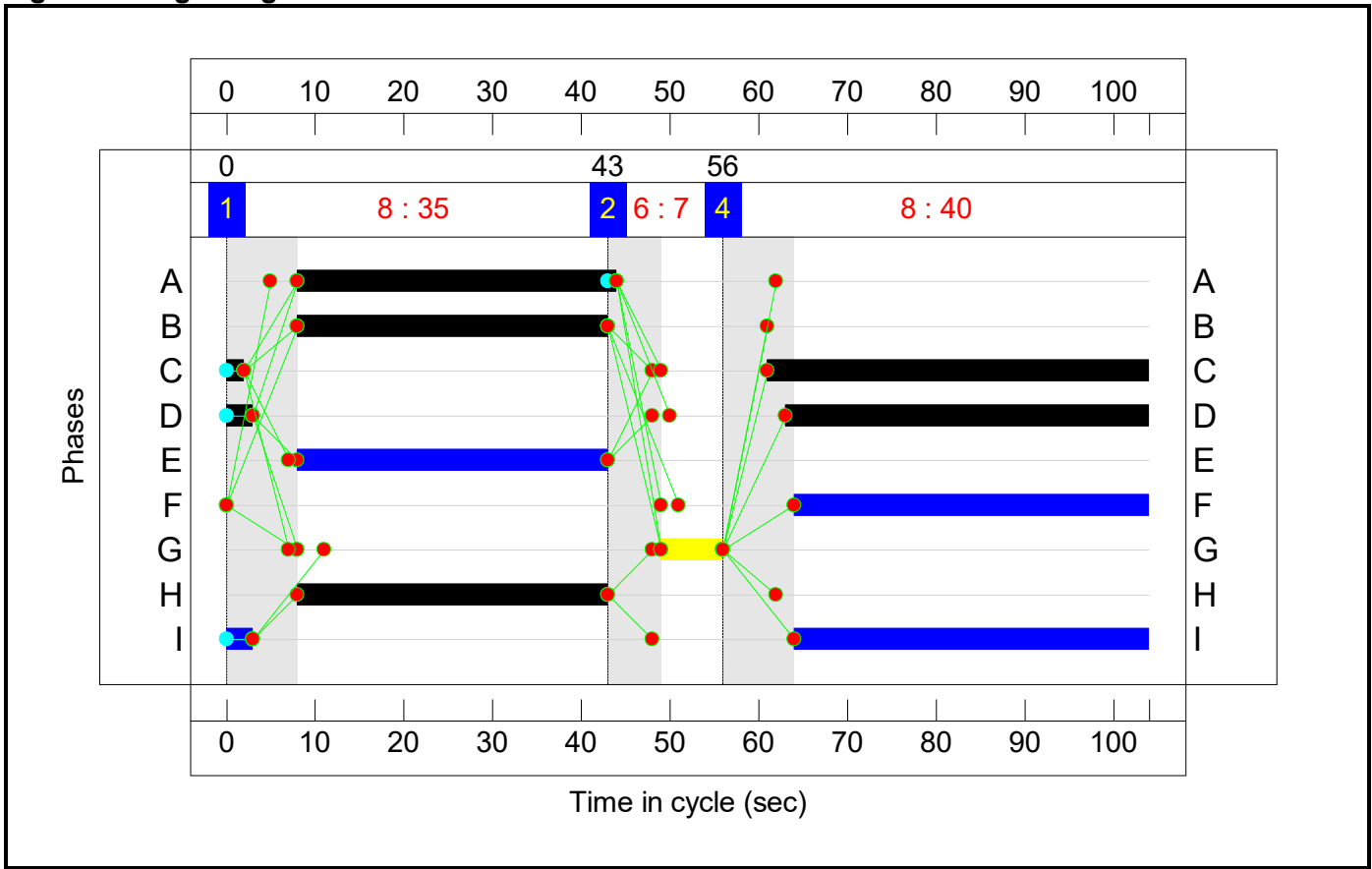
Stage Sequence Diagram



Stage Timings

Stage	1	2	4
Duration	35	7	40
Change Point	0	43	56

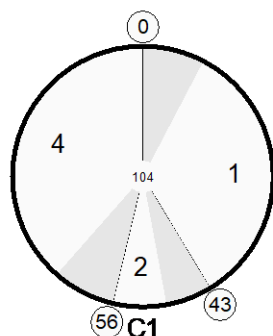
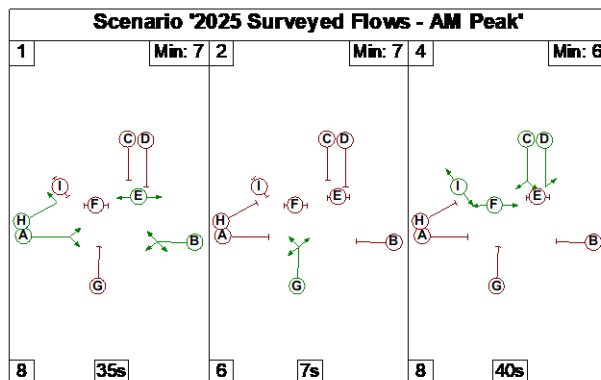
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

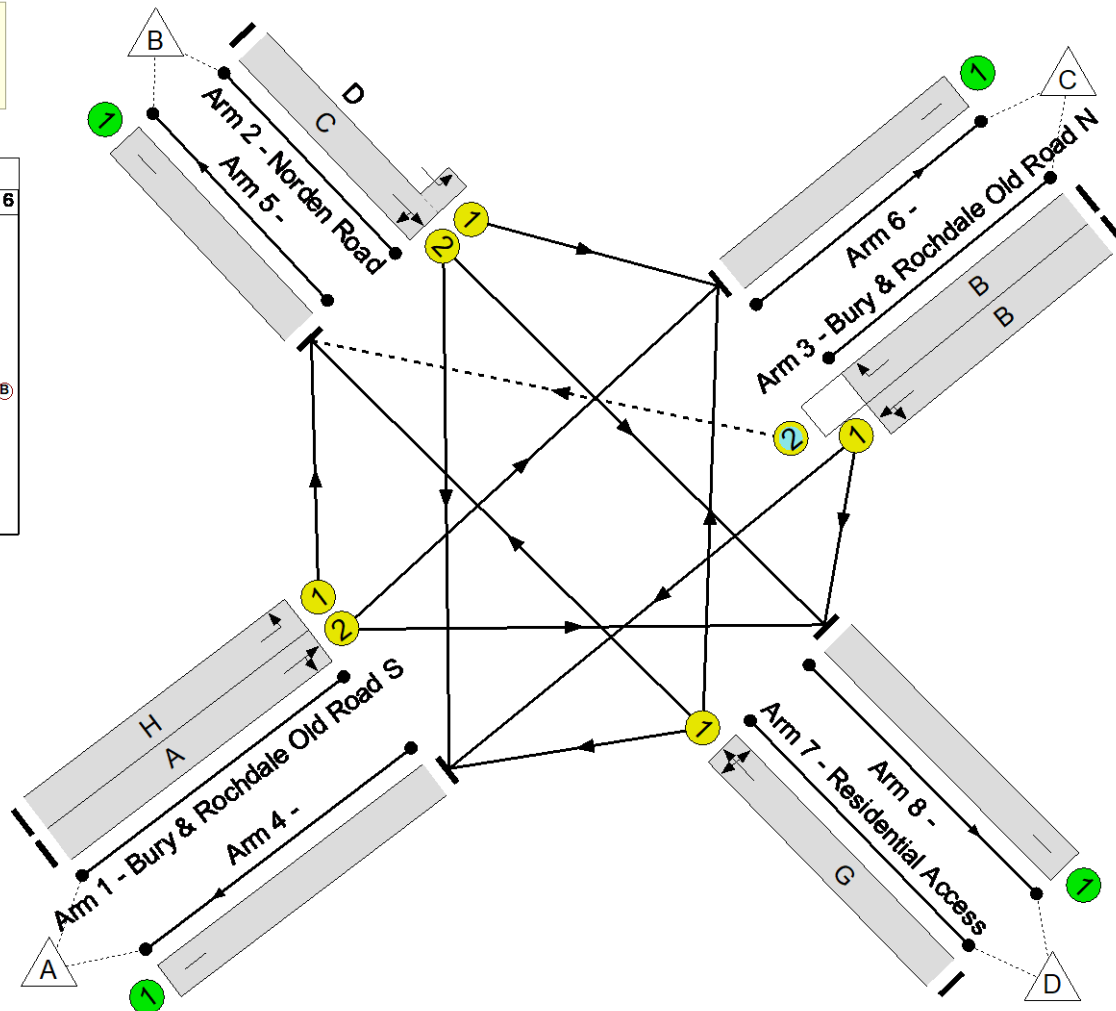
Norden Road / Bury & Rochdale Old Road
 PRC: 11.2 %
 Total Traffic Delay: 20.8 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

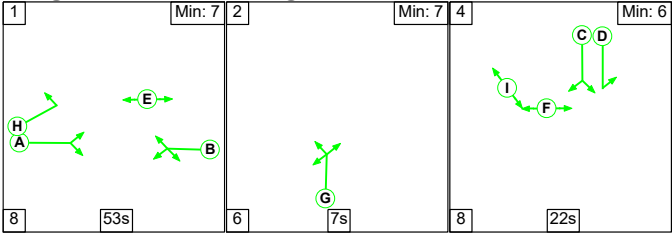
Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	80.9%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	80.9%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	35	-	296	1721	596	49.7%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		1	36	-	497	2035	724	68.6%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		1	45:44	-	626	1745:1738	760+14	80.9 : 80.9%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		1	35	-	539	1940	672	80.3%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		1	35	-	1	1549	173	0.6%
4/1		U	N/A	N/A	-		-	-	-	1154	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	147	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	1	0	0	15.1	5.6	0.0	20.8	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	1	0	0	15.1	5.6	0.0	20.8	-	-	-	-
1/1	296	296	-	-	-	2.2	0.5	-	2.7	32.8	6.7	0.5	7.2
1/2	497	497	-	-	-	3.9	1.1	-	5.0	36.4	12.1	1.1	13.2
2/2+2/1	626	626	-	-	-	4.4	2.1	-	6.4	37.0	15.6	2.1	17.7
3/1	539	539	-	-	-	4.6	2.0	-	6.6	44.0	14.1	2.0	16.0
3/2	1	1	1	0	0	0.0	0.0	0.0	0.0	49.9	0.0	0.0	0.0
4/1	1154	1154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 11.2 Total Delay for Signalled Lanes (pcuHr): 20.76 Cycle Time (s): 104 PRC Over All Lanes (%): 11.2 Total Delay Over All Lanes(pcuHr): 20.76													

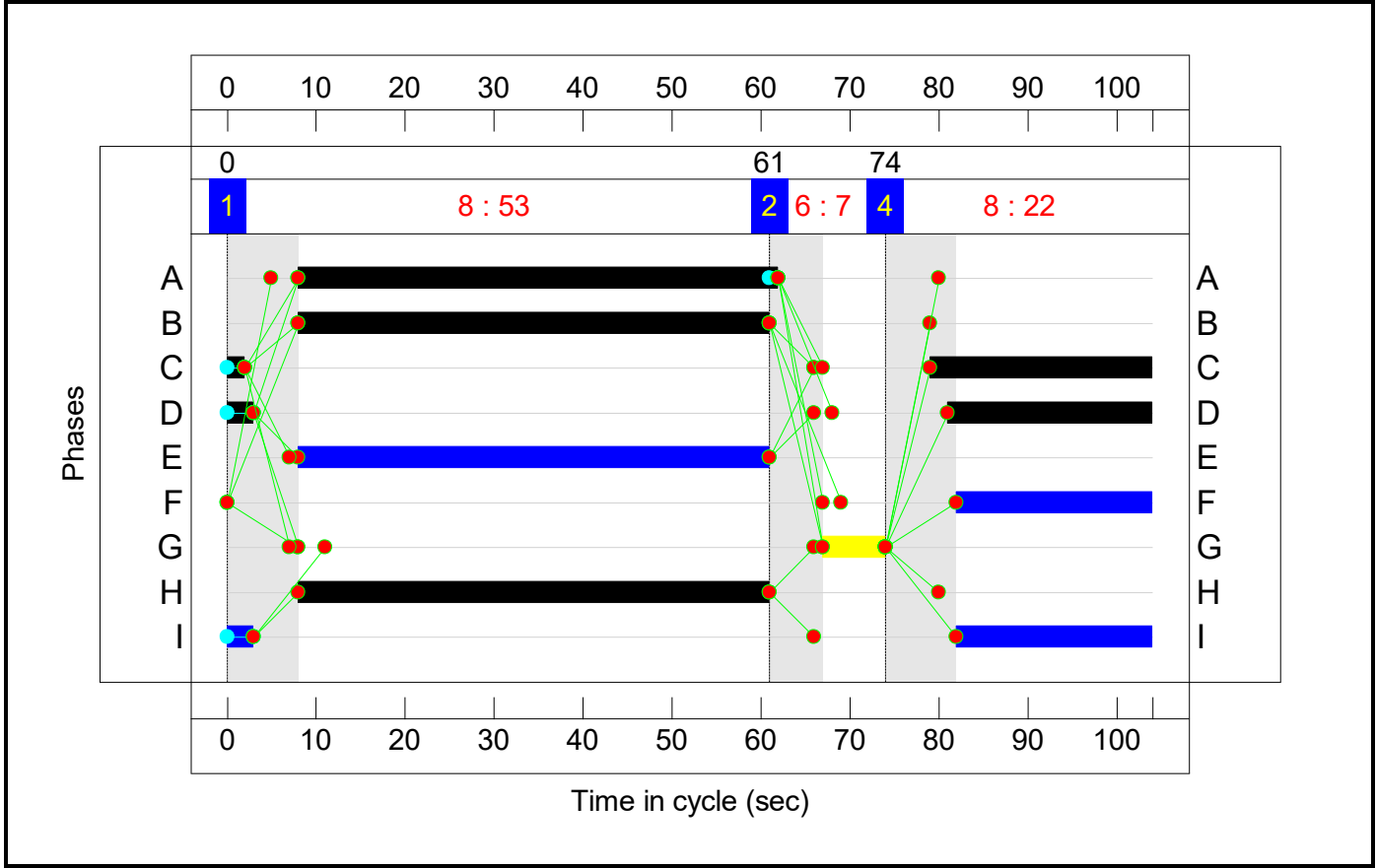
Stage Sequence Diagram



Stage Timings

Stage	1	2	4
Duration	53	7	22
Change Point	0	61	74

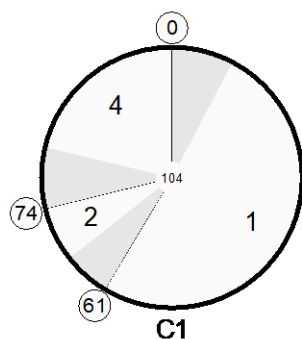
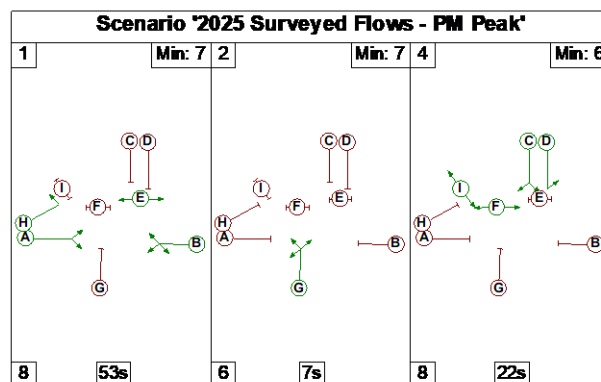
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

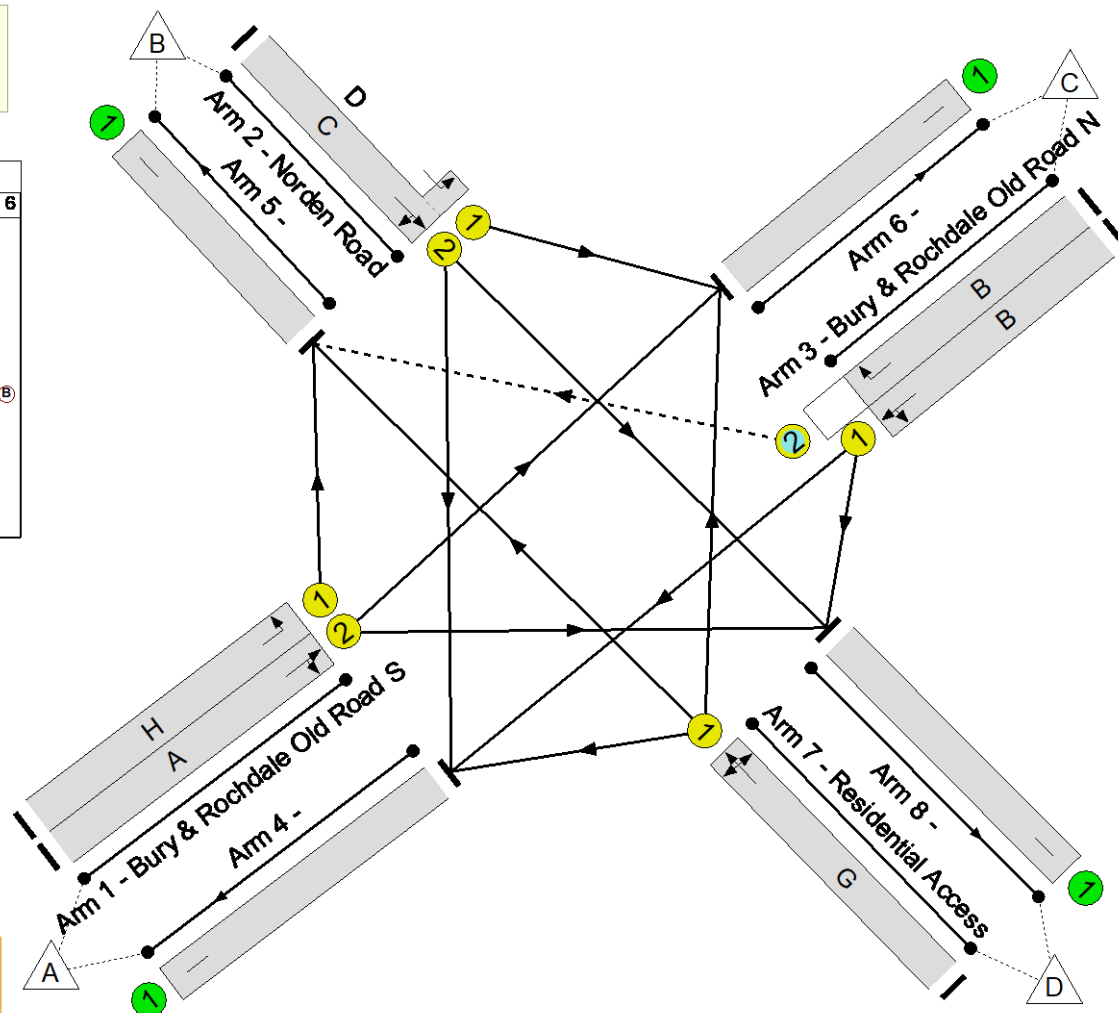
Norden Road / Bury & Rochdale Old Road
 PRC: 15.9 %
 Total Traffic Delay: 18.0 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

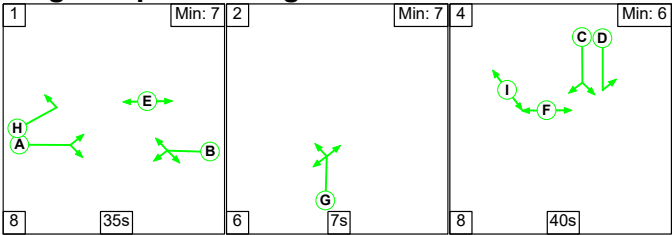
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	77.6%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	53	-	686	1721	894	76.8%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		1	54	-	661	2035	1076	61.4%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		1	27:26	-	366	1745:1738	462+9	77.6 : 77.6%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		1	53	-	569	1940	1007	56.5%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		1	53	-	7	1549	263	2.7%
4/1		U	N/A	N/A	-		-	-	-	928	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	147	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Full Input Data And Results
Scenario 3: '2030 Without Development - AM Peak' (FG3: '2030 Without Development - AM Peak', Plan 1: 'Network Control Plan 1')

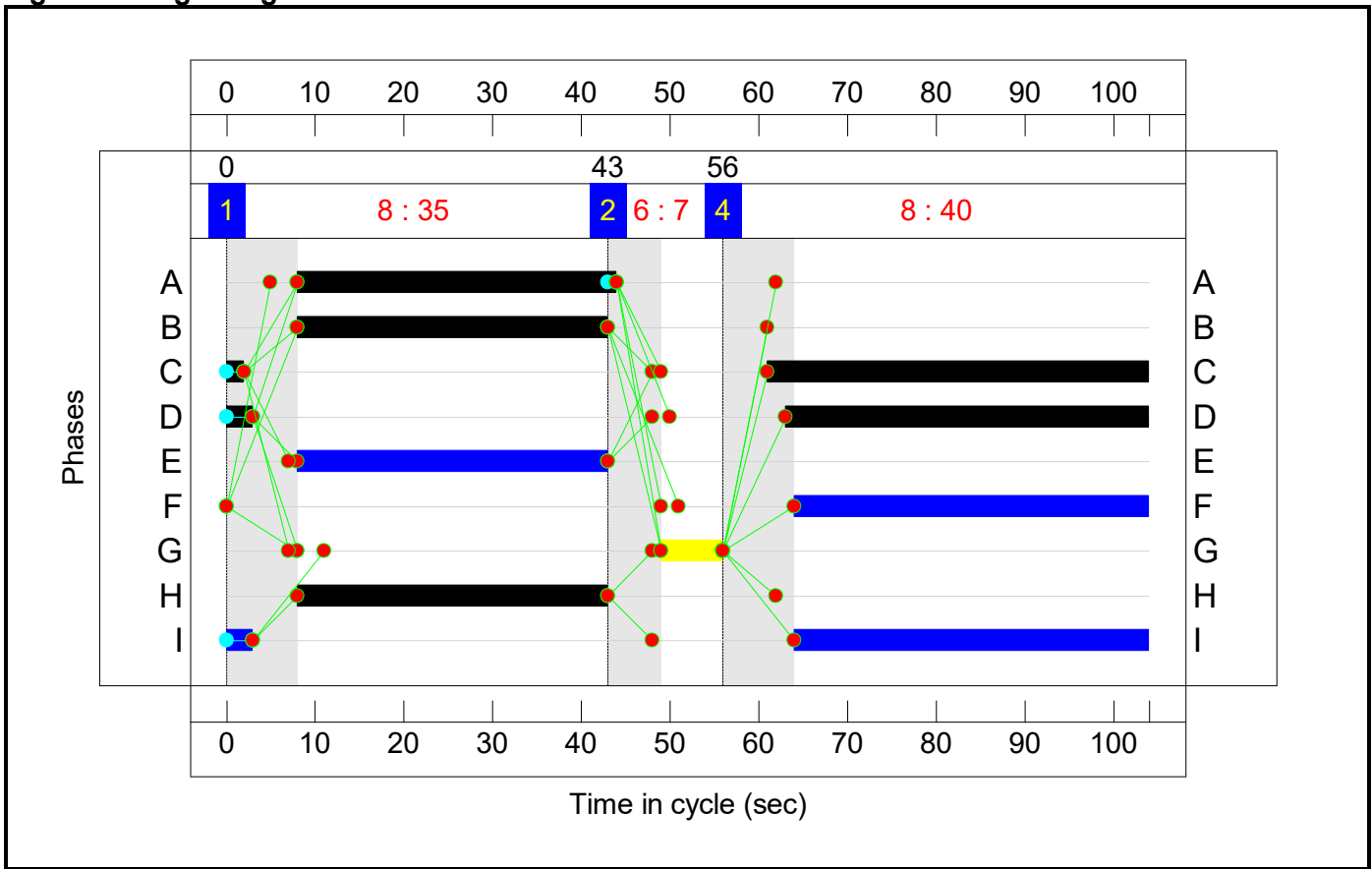
Stage Sequence Diagram



Stage Timings

Stage	1	2	4
Duration	35	7	40
Change Point	0	43	56

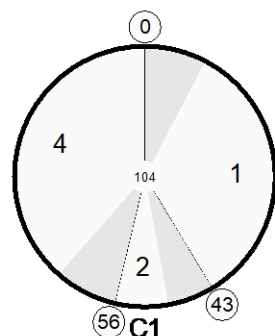
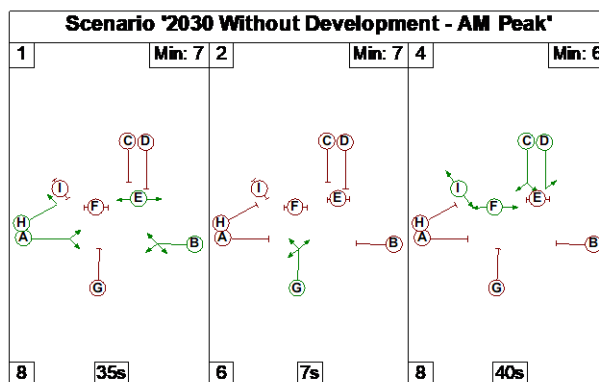
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

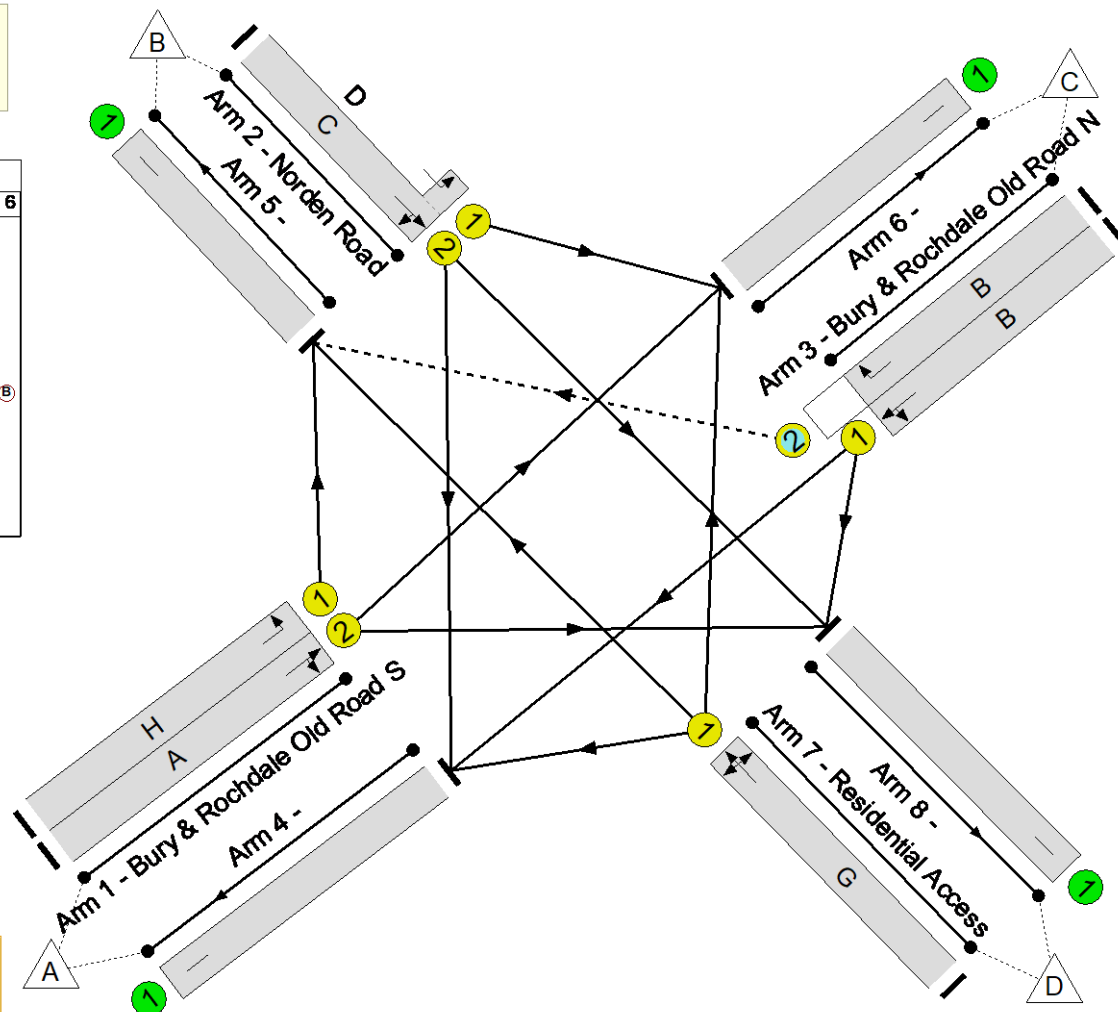
Norden Road / Bury & Rochdale Old Road
 PRC: 8.3 %
 Total Traffic Delay: 21.9 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

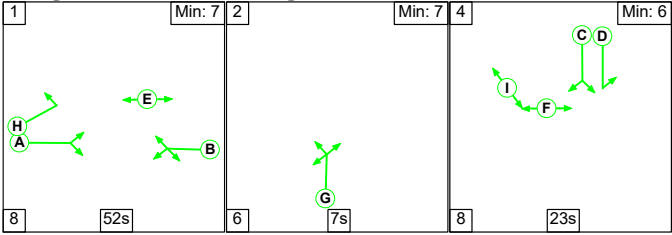
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	83.1%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	83.1%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	35	-	313	1721	596	52.5%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		1	36	-	506	2035	724	69.9%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		1	45:44	-	643	1745:1738	760+13	83.1 : 83.1%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		1	35	-	548	1940	672	81.6%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		1	35	-	1	1549	169	0.6%
4/1		U	N/A	N/A	-		-	-	-	1180	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	147	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Full Input Data And Results
Scenario 4: '2030 Without Development - PM Peak' (FG4: '2030 Without Development - PM Peak', Plan 1: 'Network Control Plan 1')

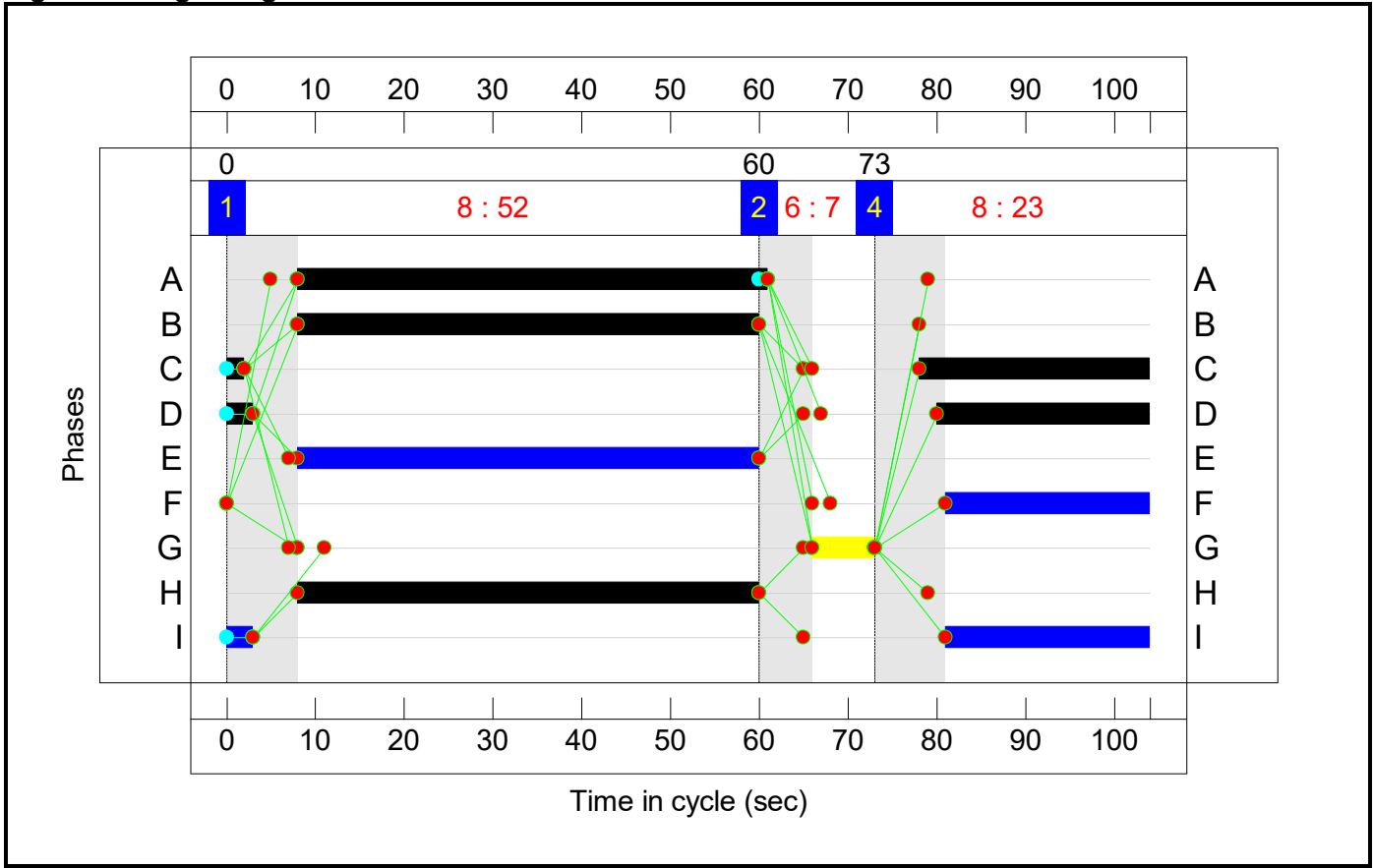
Stage Sequence Diagram



Stage Timings

Stage	1	2	4
Duration	52	7	23
Change Point	0	60	73

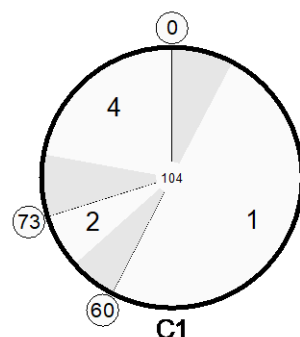
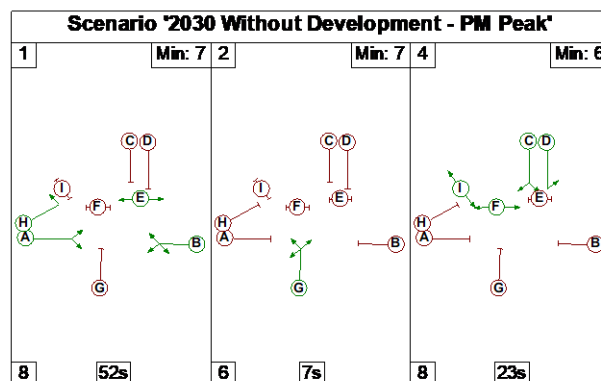
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

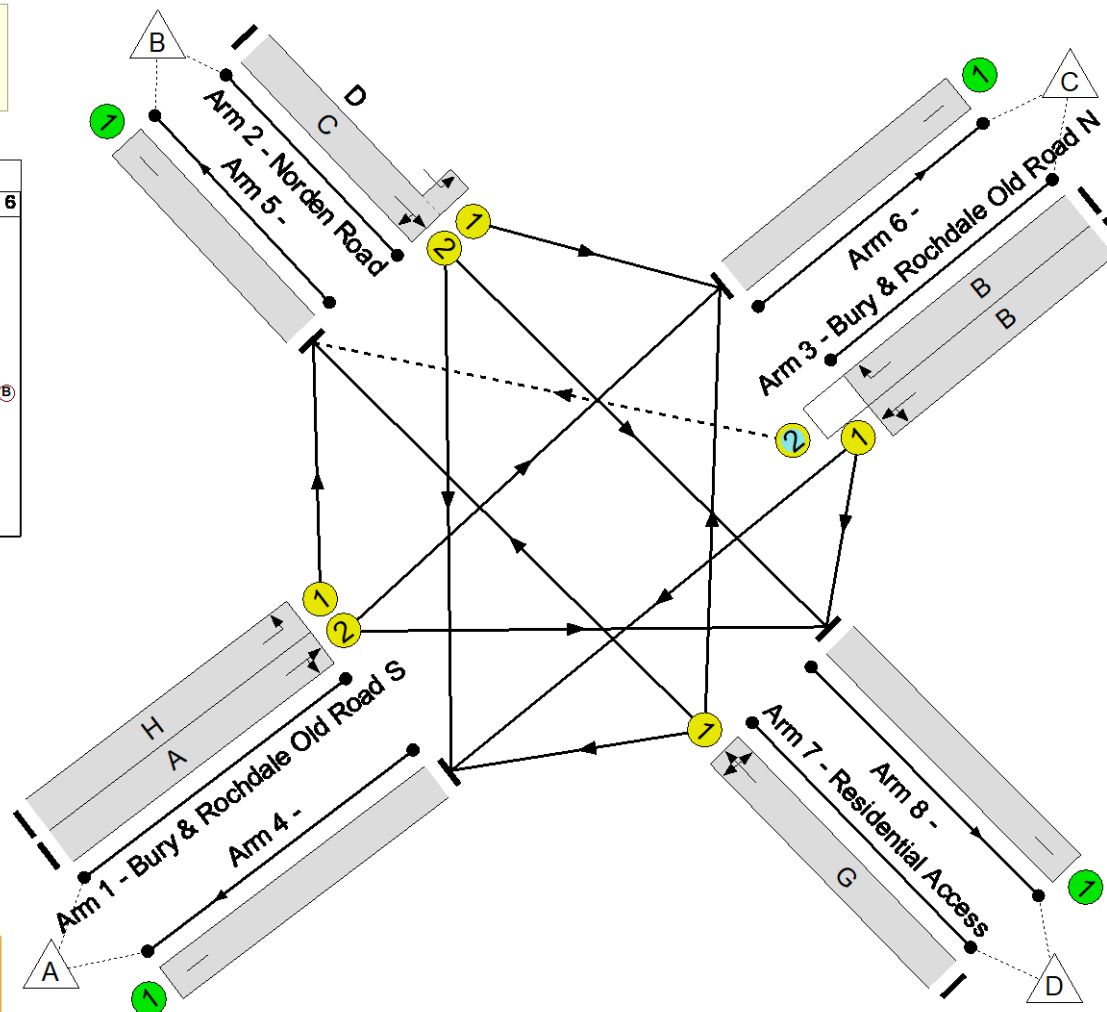
Norden Road / Bury & Rochdale Old Road
 PRC: 12.4 %
 Total Traffic Delay: 19.4 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	80.0%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	52	-	702	1721	877	80.0%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		1	53	-	671	2035	1057	63.5%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		1	28:27	-	384	1745:1738	479+9	78.6 : 78.6%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		1	52	-	577	1940	989	58.4%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		1	52	-	7	1549	246	2.8%
4/1		U	N/A	N/A	-		-	-	-	954	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	709	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	147	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

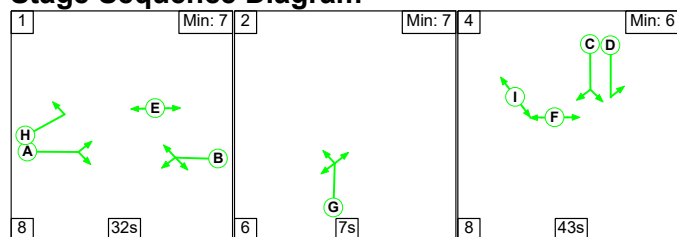
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	14.0	5.3	0.0	19.4	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	14.0	5.3	0.0	19.4	-	-	-	-
1/1	702	702	-	-	-	4.1	2.0	-	6.1	31.2	16.8	2.0	18.7
1/2	671	671	-	-	-	3.3	0.9	-	4.2	22.6	13.8	0.9	14.7
2/2+2/1	384	384	-	-	-	3.7	1.8	-	5.5	51.3	10.2	1.8	12.0
3/1	577	577	-	-	-	2.9	0.7	-	3.6	22.2	11.5	0.7	12.2
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	35.7	0.1	0.0	0.1
4/1	954	954	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	709	709	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 12.4 Total Delay for Signalled Lanes (pcuHr): 19.38 Cycle Time (s): 104 PRC Over All Lanes (%): 12.4 Total Delay Over All Lanes(pcuHr): 19.38													

Full Input Data And Results

Scenario 5: '2030 With JPA 17 Full Allocation - AM Peak' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 1: 'Network Control Plan 1')

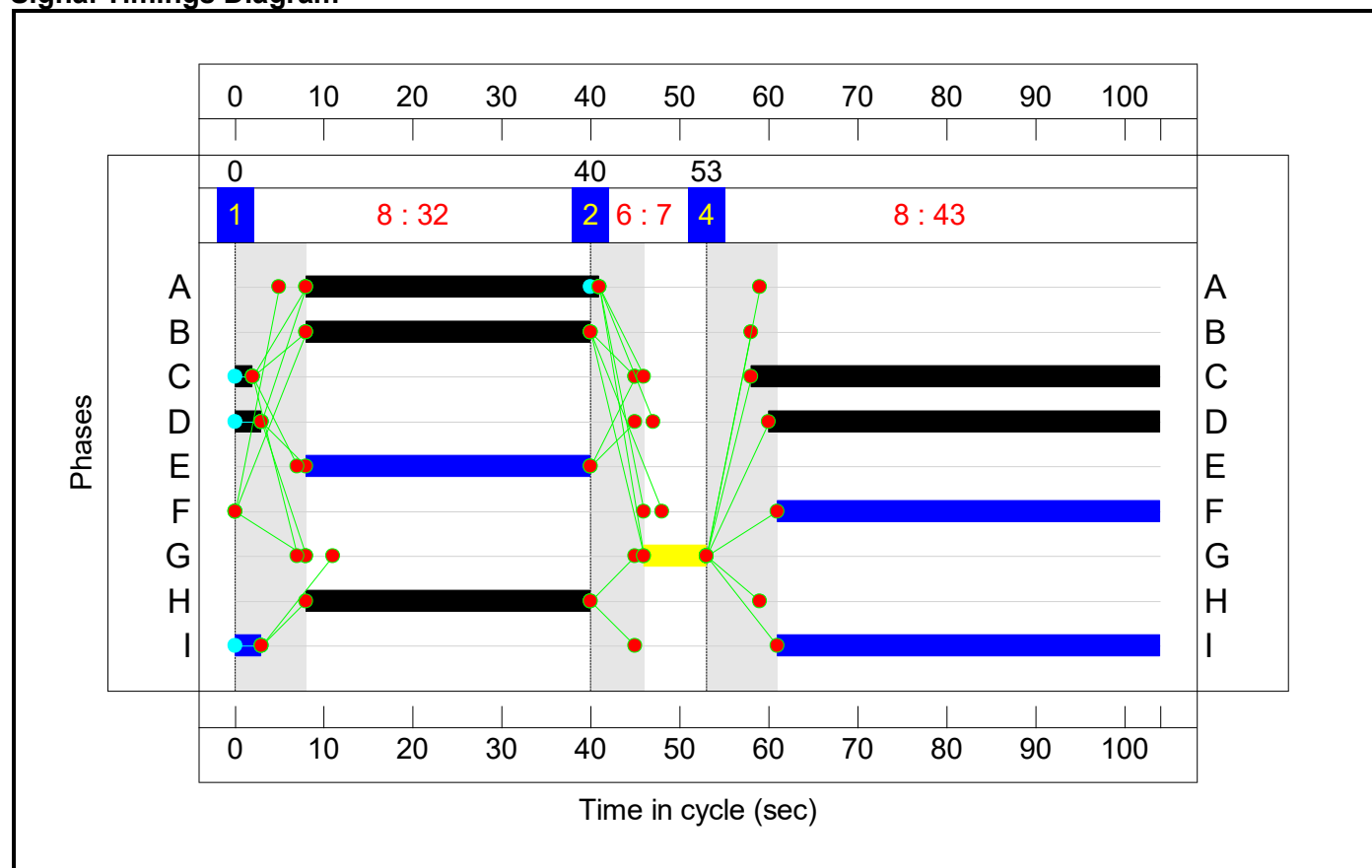
Stage Sequence Diagram



Stage Timings

Stage	1	2	4
Duration	32	7	43
Change Point	0	40	53

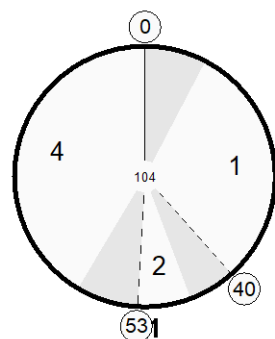
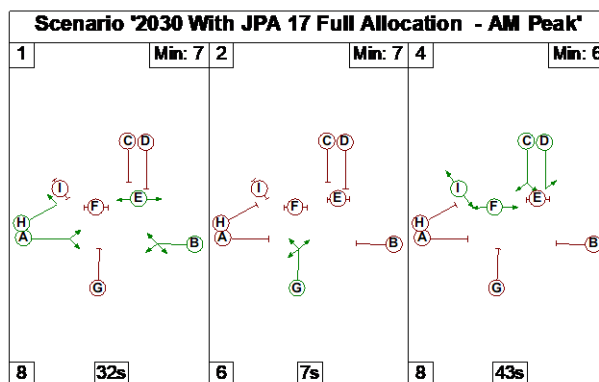
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

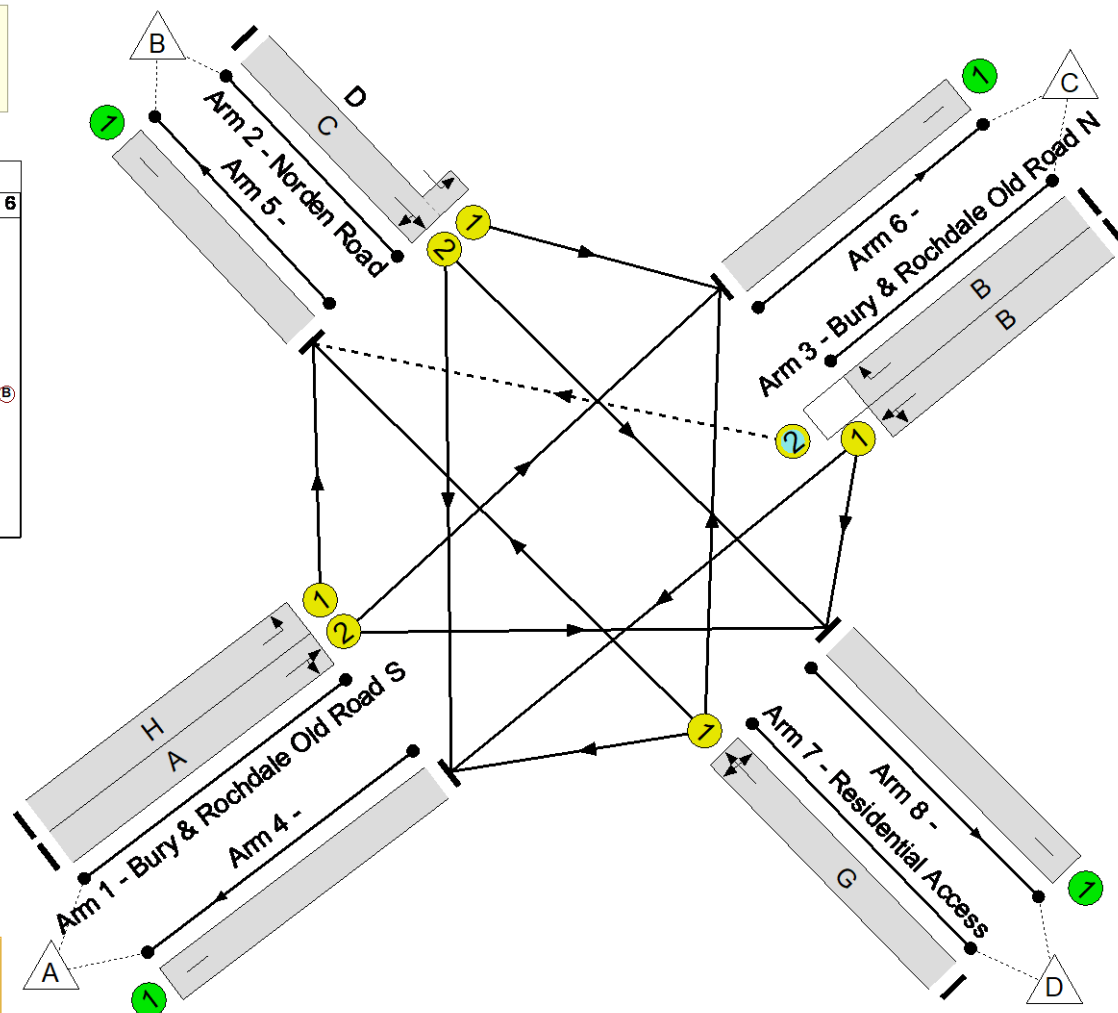
Norden Road / Bury & Rochdale Old Road
 PRC: -0.1 %
 Total Traffic Delay: 27.8 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	90.1%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	90.1%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	32	-	342	1721	546	62.6%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		1	33	-	506	2035	665	76.1%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		1	48:47	-	742	1745:1738	811+12	90.1 : 90.1%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		1	32	-	548	1940	616	89.0%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		1	32	-	1	1549	135	0.7%
4/1		U	N/A	N/A	-		-	-	-	1279	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	343	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	147	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

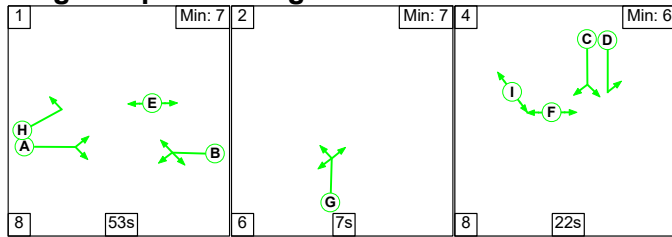
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	1	0	0	17.6	10.2	0.0	27.8	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	1	0	0	17.6	10.2	0.0	27.8	-	-	-	-
1/1	342	342	-	-	-	2.9	0.8	-	3.7	39.0	8.4	0.8	9.2
1/2	506	506	-	-	-	4.4	1.6	-	6.0	42.4	13.1	1.6	14.6
2/2+2/1	742	742	-	-	-	5.2	4.1	-	9.3	45.2	19.6	4.1	23.7
3/1	548	548	-	-	-	5.1	3.7	-	8.8	57.8	14.9	3.7	18.6
3/2	1	1	1	0	0	0.0	0.0	0.0	0.0	56.4	0.0	0.0	0.0
4/1	1279	1279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	343	343	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -0.1 Total Delay for Signalled Lanes (pcuHr): 27.81 Cycle Time (s): 104 PRC Over All Lanes (%): -0.1 Total Delay Over All Lanes(pcuHr): 27.81													

Full Input Data And Results

Scenario 6: '2030 With JPA 17 Full Allocation - PM Peak' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 1: 'Network Control Plan 1')

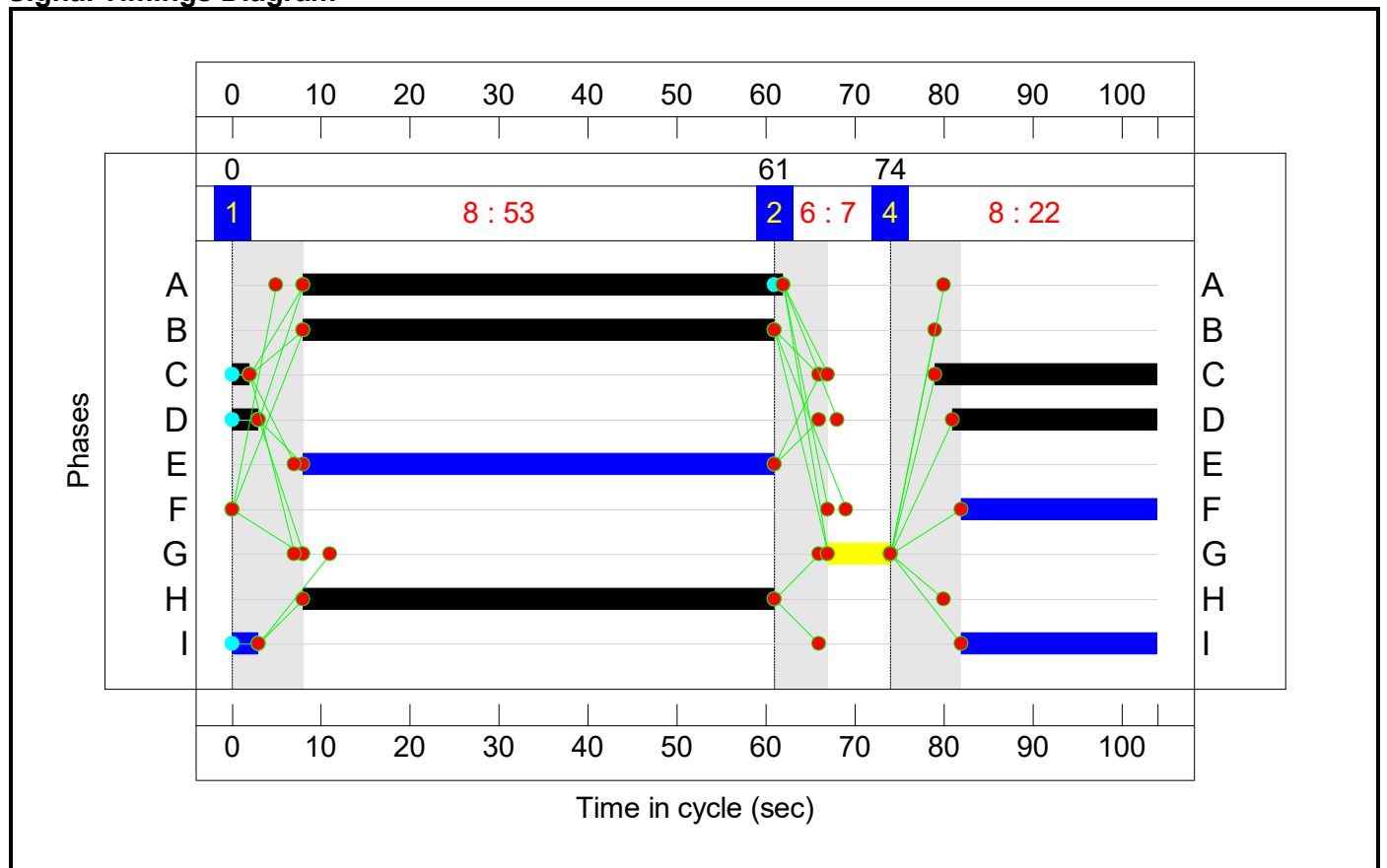
Stage Sequence Diagram



Stage Timings

Stage	1	2	4
Duration	53	7	22
Change Point	0	61	74

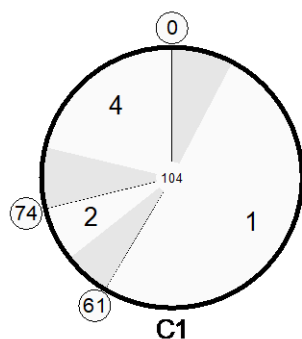
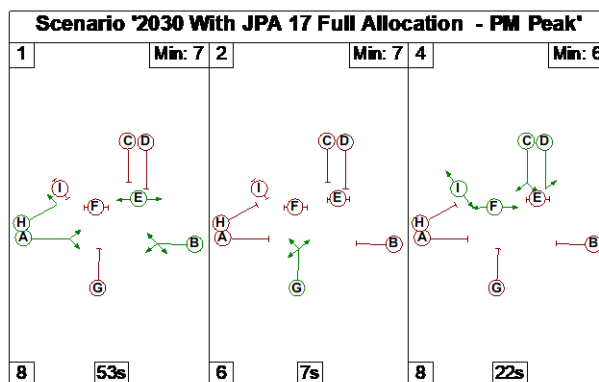
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

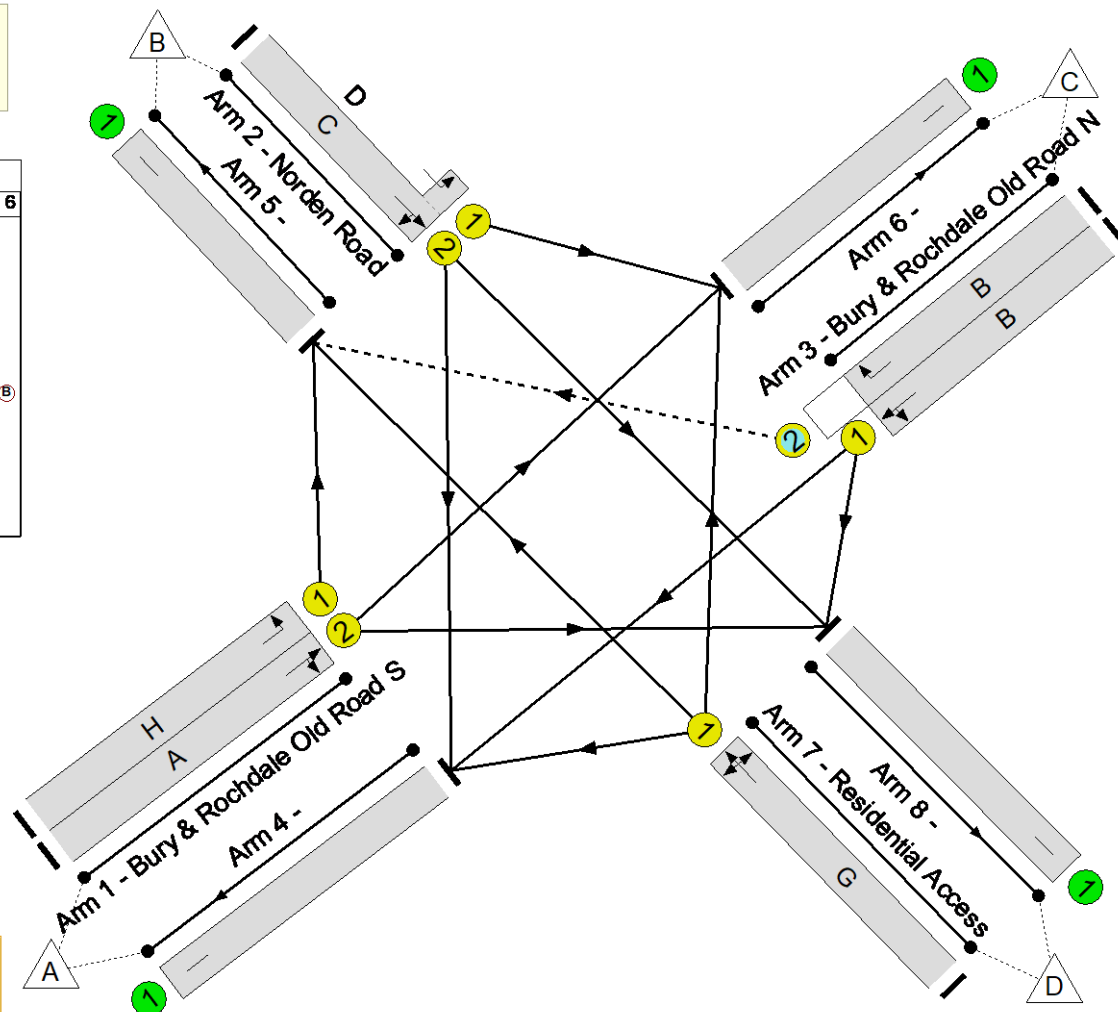
Norden Road / Bury & Rochdale Old Road
 PRC: 1.0 %
 Total Traffic Delay: 23.7 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	89.1%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	89.1%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	53	-	796	1721	894	89.1%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		1	54	-	671	2035	1076	62.3%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		1	27:26	-	414	1745:1738	463+8	87.8 : 87.8%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		1	53	-	577	1940	1007	57.3%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		1	53	-	7	1549	258	2.7%
4/1		U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	803	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	147	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

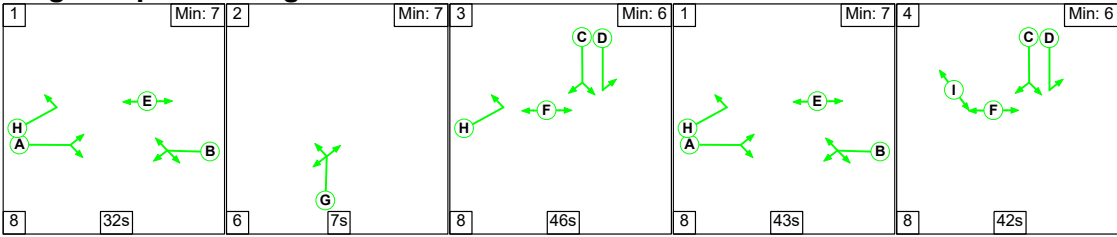
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	15.1	8.5	0.0	23.7	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	15.1	8.5	0.0	23.7	-	-	-	-
1/1	796	796	-	-	-	4.9	3.8	-	8.7	39.5	20.6	3.8	24.3
1/2	671	671	-	-	-	3.2	0.8	-	4.0	21.6	13.6	0.8	14.4
2/2+2/1	414	414	-	-	-	4.2	3.2	-	7.4	64.5	11.4	3.2	14.6
3/1	577	577	-	-	-	2.7	0.7	-	3.4	21.3	11.4	0.7	12.0
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	33.8	0.1	0.0	0.1
4/1	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	803	803	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 1.0 Total Delay for Signalled Lanes (pcuHr): 23.66 Cycle Time (s): 104 PRC Over All Lanes (%): 1.0 Total Delay Over All Lanes(pcuHr): 23.66													

Full Input Data And Results

Scenario 7: '2025 Surveyed Flows - AM Peak - 208 CT' (FG1: '2025 Surveyed Flows - AM Peak', Plan 2: '208 CT -1')

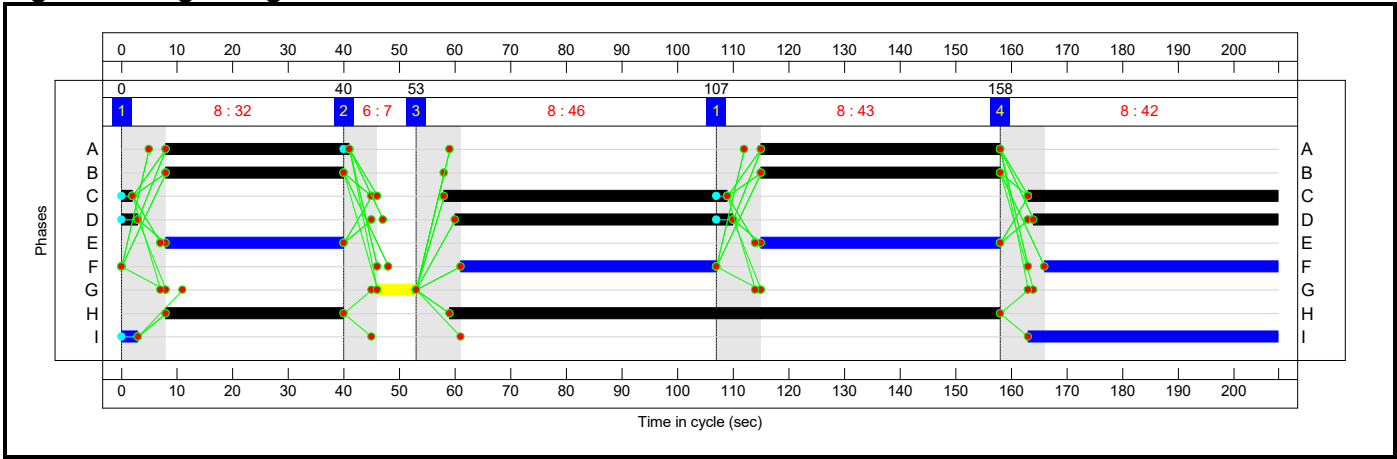
Stage Sequence Diagram



Stage Timings

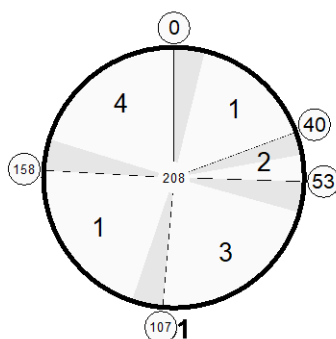
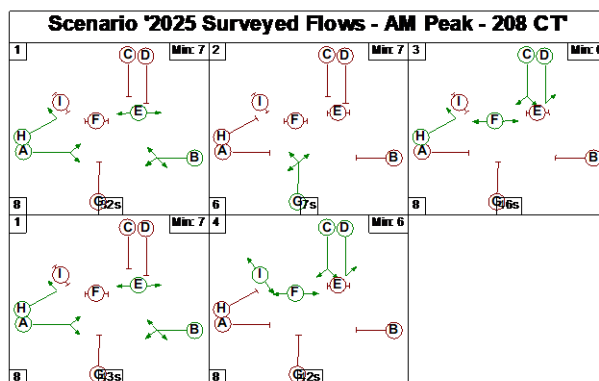
Stage	1	2	3	1	4
Duration	32	7	46	43	42
Change Point	0	40	53	107	158

Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

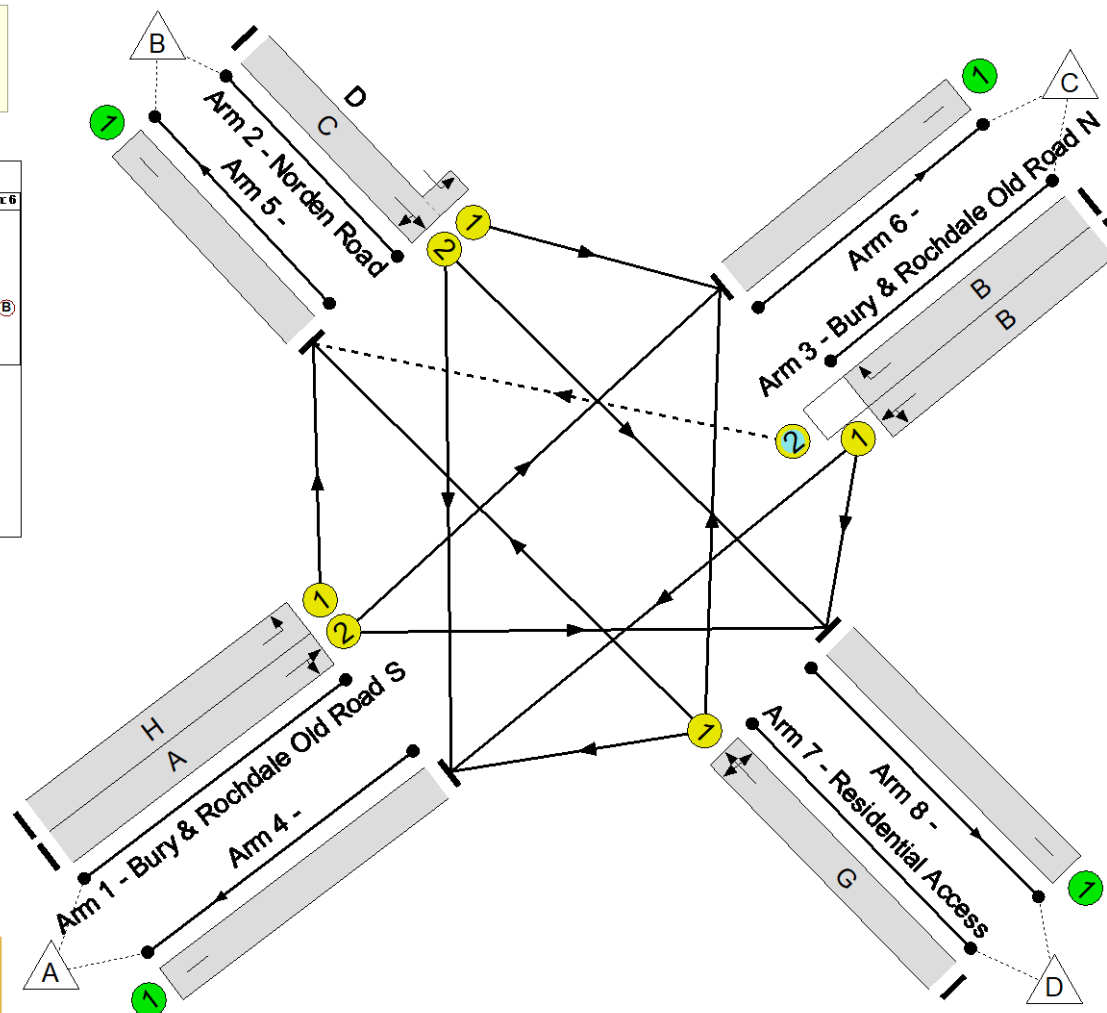
Norden Road / Bury & Rochdale Old Road
PRC: 19.9 %
Total Traffic Delay: 16.8 pcuHr



Stage 3 and Stage 4 are alternated to each other.
Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	75.1%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		2	131	-	296	1721	1100	26.9%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	76	-	497	2035	763	65.1%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	98:97	-	626	1745:1738	826+15	74.5 : 74.5%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	75	-	539	1940	718	75.1%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	75	-	1	1549	200	0.5%
4/1		U	N/A	N/A	-		-	-	-	1154	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	74	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

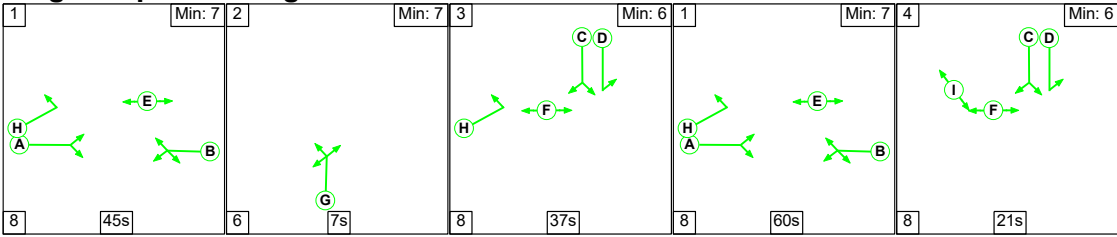
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	1	0	0	12.8	4.0	0.0	16.8	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	1	0	0	12.8	4.0	0.0	16.8	-	-	-	-
1/1	296	296	-	-	-	0.9	0.2	-	1.0	12.6	5.6	0.2	5.8
1/2	497	497	-	-	-	3.8	0.9	-	4.7	34.0	13.3	0.9	14.2
2/2+2/1	626	626	-	-	-	3.8	1.4	-	5.2	30.1	14.8	1.4	16.2
3/1	539	539	-	-	-	4.3	1.5	-	5.8	38.9	15.3	1.5	16.8
3/2	1	1	1	0	0	0.0	0.0	0.0	0.0	46.1	0.0	0.0	0.0
4/1	1154	1154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 19.9 Total Delay for Signalled Lanes (pcuHr): 16.80 Cycle Time (s): 208 PRC Over All Lanes (%): 19.9 Total Delay Over All Lanes(pcuHr): 16.80													

Full Input Data And Results

Scenario 8: '2025 Surveyed Flows - PM Peak - 208 CT' (FG2: '2025 Surveyed Flows - PM Peak', Plan 2: '208 CT -1')

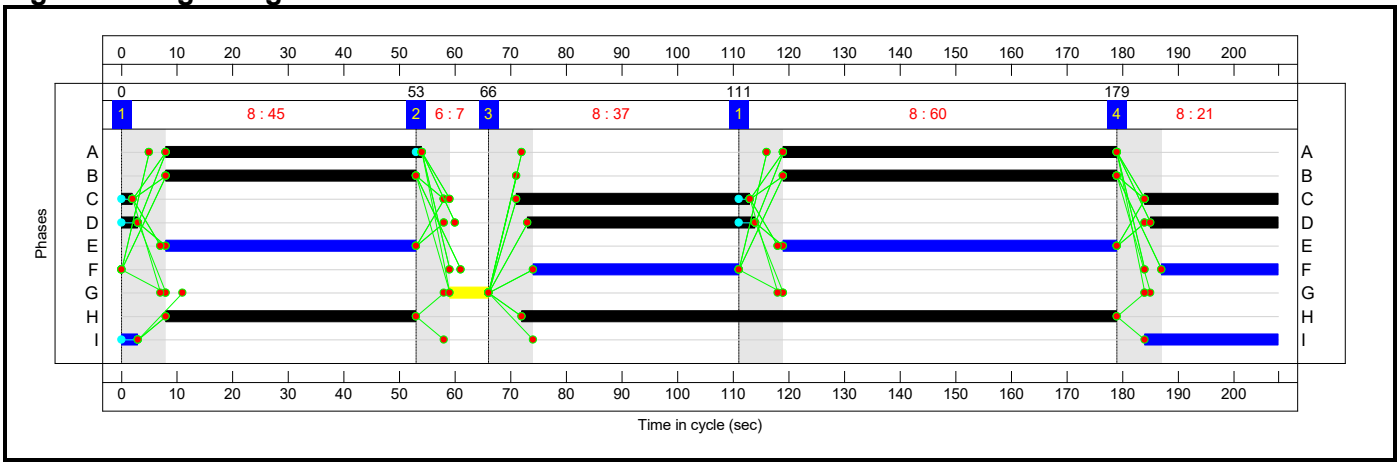
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	4
Duration	45	7	37	60	21
Change Point	0	53	66	111	179

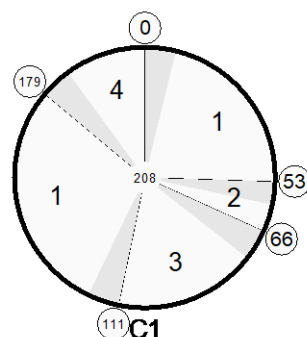
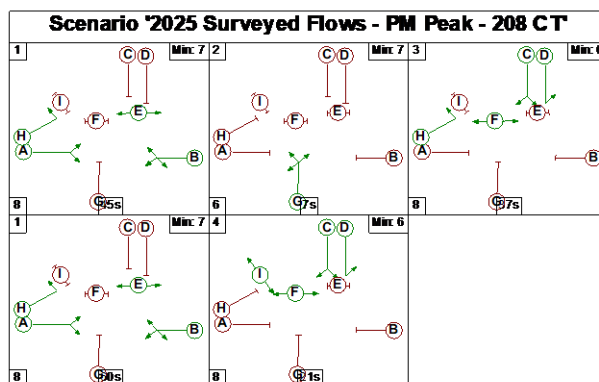
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

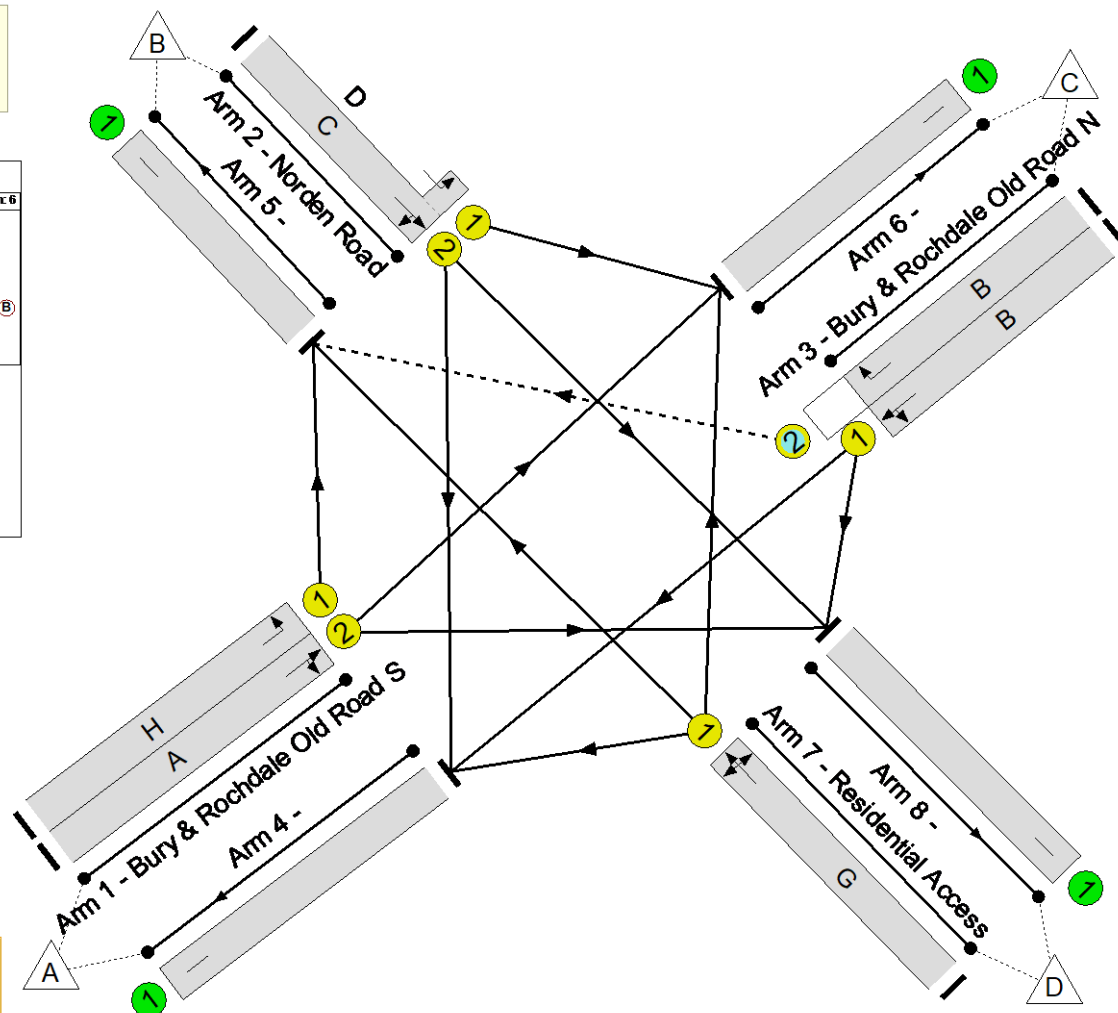
Norden Road / Bury & Rochdale Old Road
 PRC: 43.9 %
 Total Traffic Delay: 13.6 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	62.6%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	62.6%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		2	152	-	686	1721	1274	53.8%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	106	-	661	2035	1057	62.6%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	68:67	-	366	1745:1738	578+11	62.1 : 62.1%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	105	-	569	1940	998	57.0%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	105	-	7	1549	257	2.7%
4/1		U	N/A	N/A	-		-	-	-	928	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	74	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

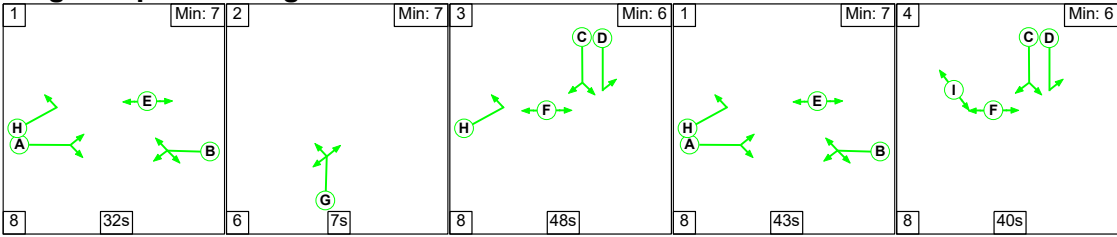
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	10.7	2.9	0.0	13.6	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	10.7	2.9	0.0	13.6	-	-	-	-
1/1	686	686	-	-	-	1.2	0.6	-	1.8	9.5	11.2	0.6	11.8
1/2	661	661	-	-	-	3.5	0.8	-	4.4	23.7	17.3	0.8	18.1
2/2+2/1	366	366	-	-	-	2.9	0.8	-	3.8	36.9	8.9	0.8	9.7
3/1	569	569	-	-	-	3.0	0.7	-	3.6	23.0	14.4	0.7	15.0
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	36.6	0.1	0.0	0.1
4/1	928	928	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 43.9 Total Delay for Signalled Lanes (pcuHr): 13.63 Cycle Time (s): 208 PRC Over All Lanes (%): 43.9 Total Delay Over All Lanes(pcuHr): 13.63													

Full Input Data And Results

Scenario 9: '2030 Without Development - AM Peak - 208 CT' (FG3: '2030 Without Development - AM Peak', Plan 2: '208 CT -1 ')

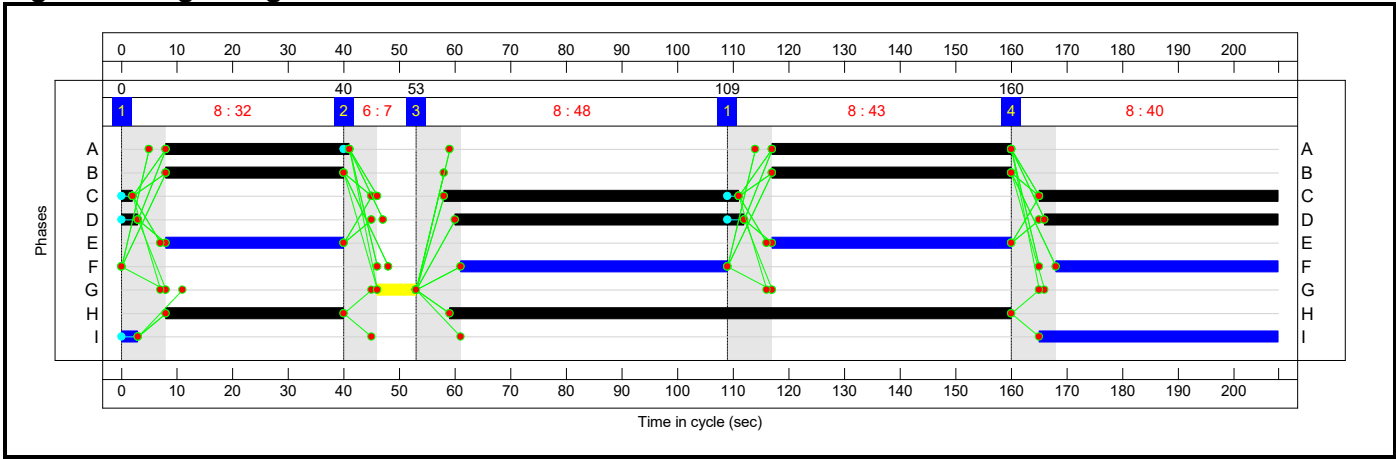
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	4
Duration	32	7	48	43	40
Change Point	0	40	53	109	160

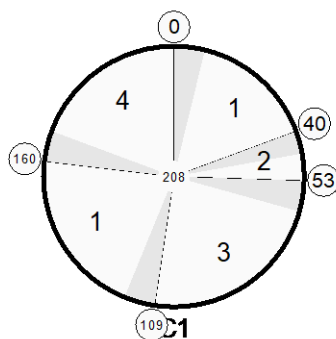
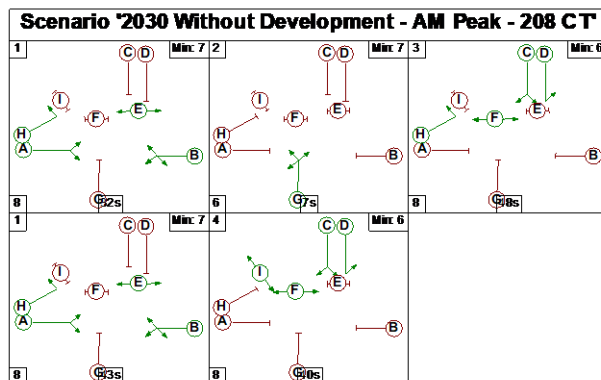
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

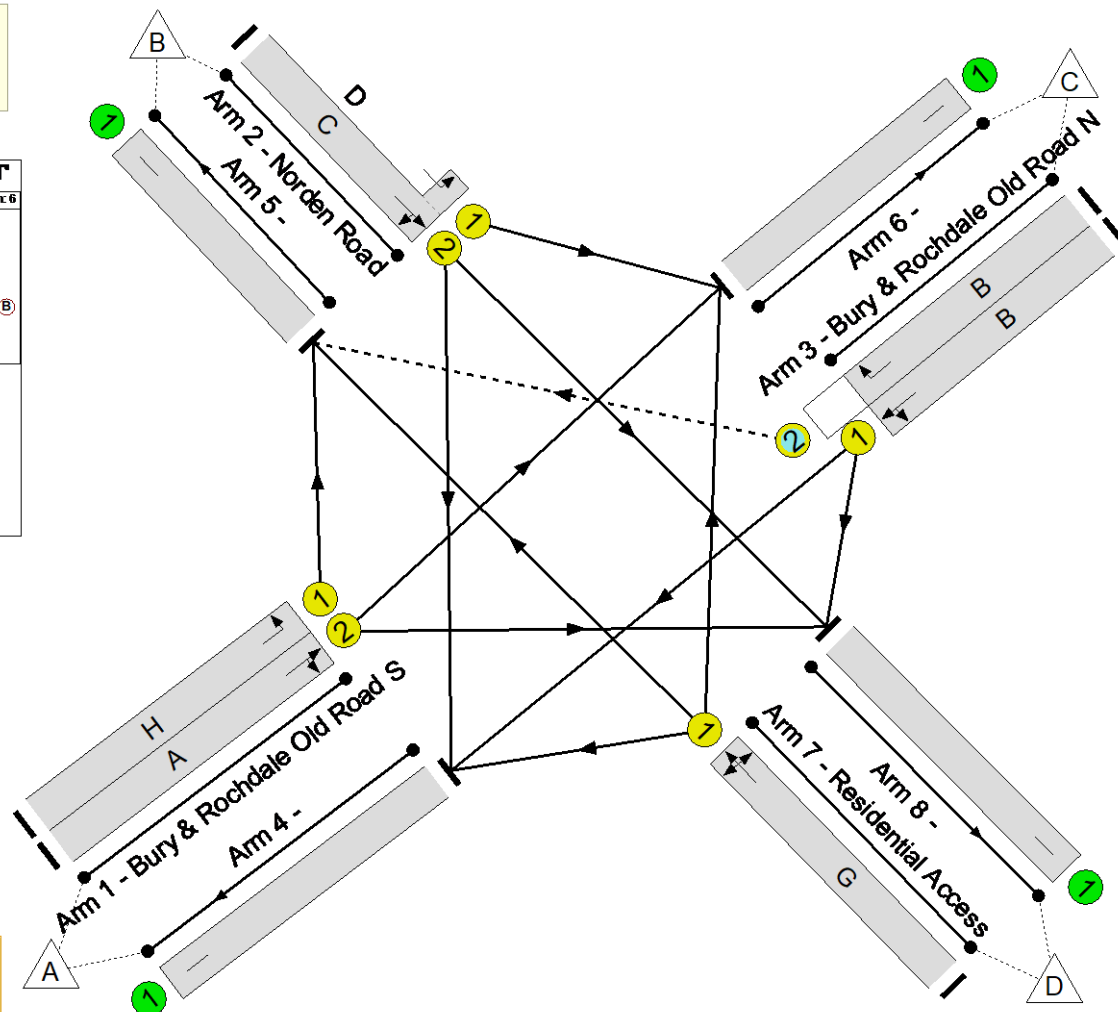
Norden Road / Bury & Rochdale Old Road
 PRC: 17.7 %
 Total Traffic Delay: 17.6 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

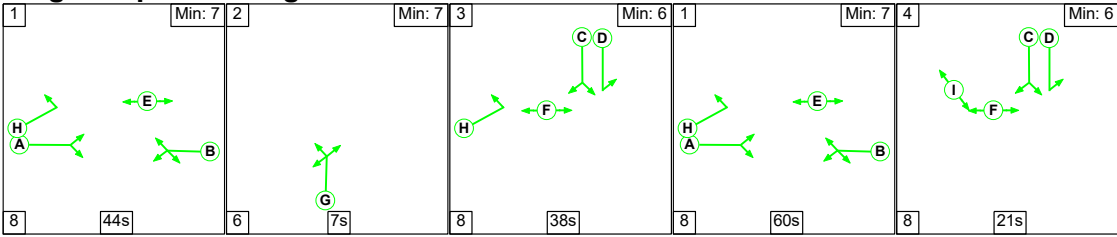
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	76.5%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	76.5%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		2	133	-	313	1721	1117	28.0%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	76	-	506	2035	763	66.3%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	98:97	-	643	1745:1738	826+14	76.5 : 76.5%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	75	-	548	1940	718	76.3%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	75	-	1	1549	196	0.5%
4/1		U	N/A	N/A	-		-	-	-	1180	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	74	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Full Input Data And Results
Scenario 10: '2030 Without Development - PM Peak - 208 CT' (FG4: '2030 Without Development - PM Peak', Plan 2: '208 CT -1 ')

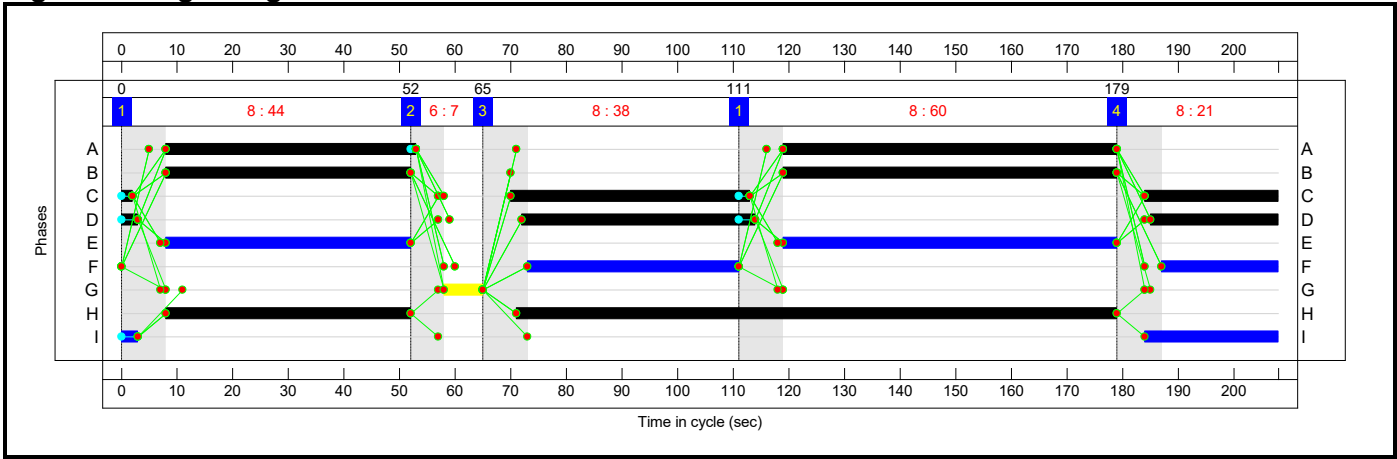
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	4
Duration	44	7	38	60	21
Change Point	0	52	65	111	179

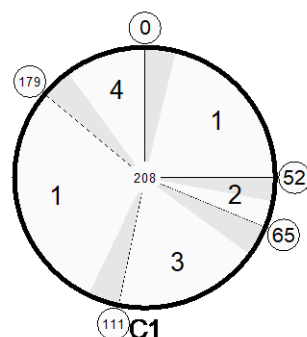
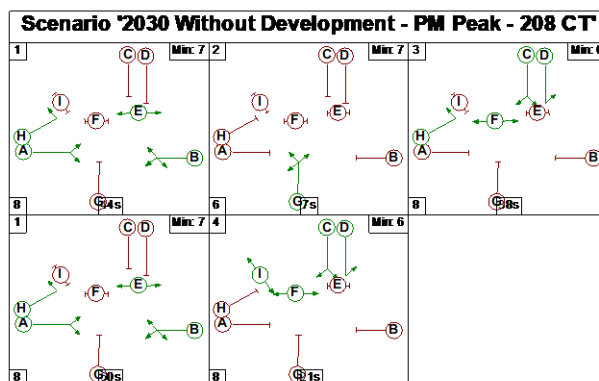
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

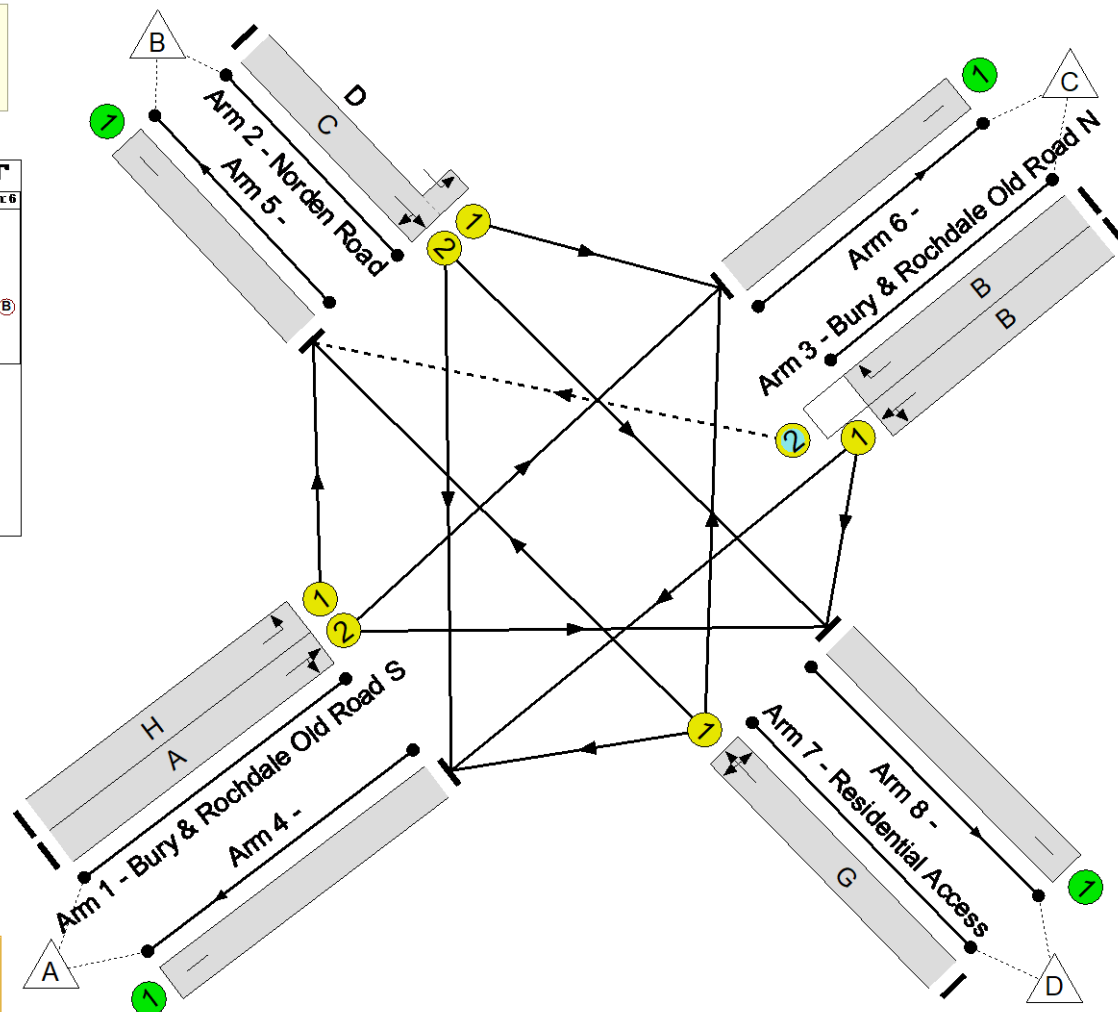
Norden Road / Bury & Rochdale Old Road
 PRC: 40.0 %
 Total Traffic Delay: 14.3 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	64.3%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	64.3%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		2	152	-	702	1721	1274	55.1%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	105	-	671	2035	1047	64.1%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	69:68	-	384	1745:1738	586+11	64.3 : 64.3%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	104	-	577	1940	989	58.4%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	104	-	7	1549	246	2.8%
4/1		U	N/A	N/A	-		-	-	-	954	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	709	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	74	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

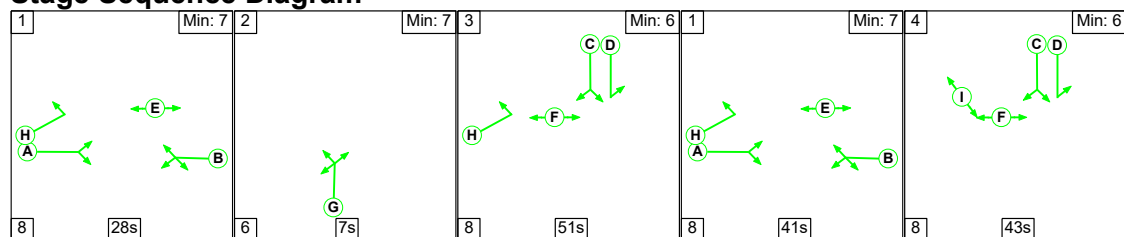
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	11.2	3.1	0.0	14.3	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	11.2	3.1	0.0	14.3	-	-	-	-
1/1	702	702	-	-	-	1.3	0.6	-	1.9	9.7	11.7	0.6	12.3
1/2	671	671	-	-	-	3.7	0.9	-	4.6	24.6	17.9	0.9	18.8
2/2+2/1	384	384	-	-	-	3.1	0.9	-	4.0	37.2	9.5	0.9	10.4
3/1	577	577	-	-	-	3.1	0.7	-	3.8	23.7	14.9	0.7	15.6
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	38.0	0.1	0.0	0.1
4/1	954	954	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	709	709	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 40.0 Total Delay for Signalled Lanes (pcuHr): 14.32 Cycle Time (s): 208 PRC Over All Lanes (%): 40.0 Total Delay Over All Lanes(pcuHr): 14.32													

Full Input Data And Results

Scenario 11: '2030 With JPA 17 Full Allocation - AM Peak - 208 CT' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 2: '208 CT -1 ')

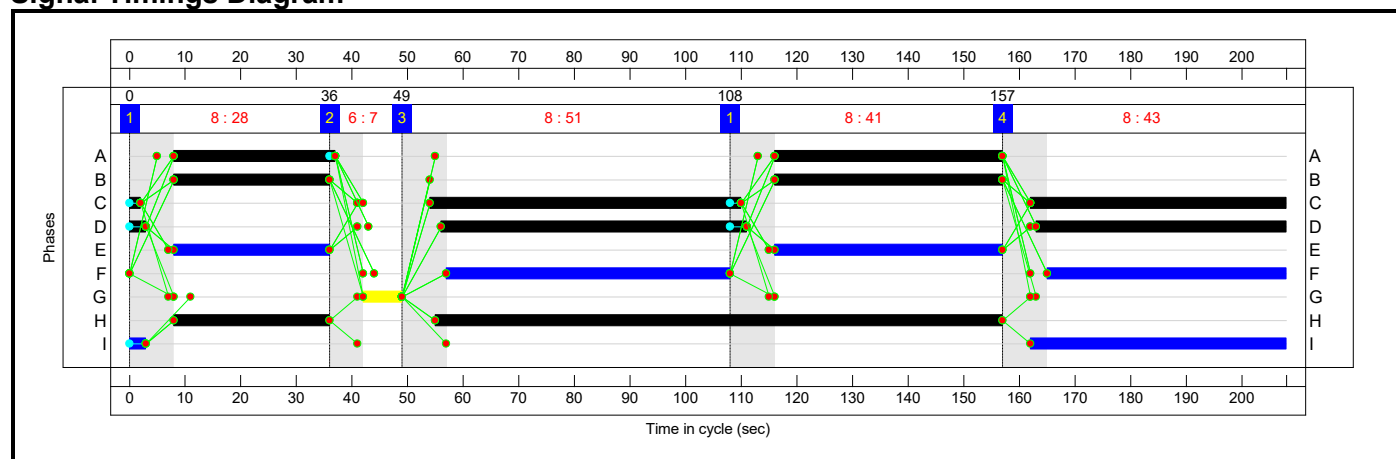
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	4
Duration	28	7	51	41	43
Change Point	0	36	49	108	157

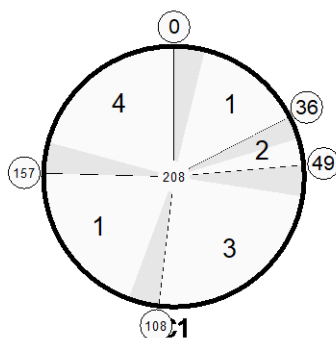
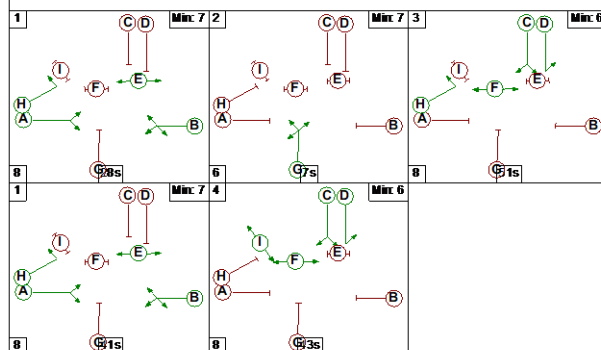
Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

Norden Road / Bury & Rochdale Old Road
PRC: 8.0 %
Total Traffic Delay: 20.9 pcuHr

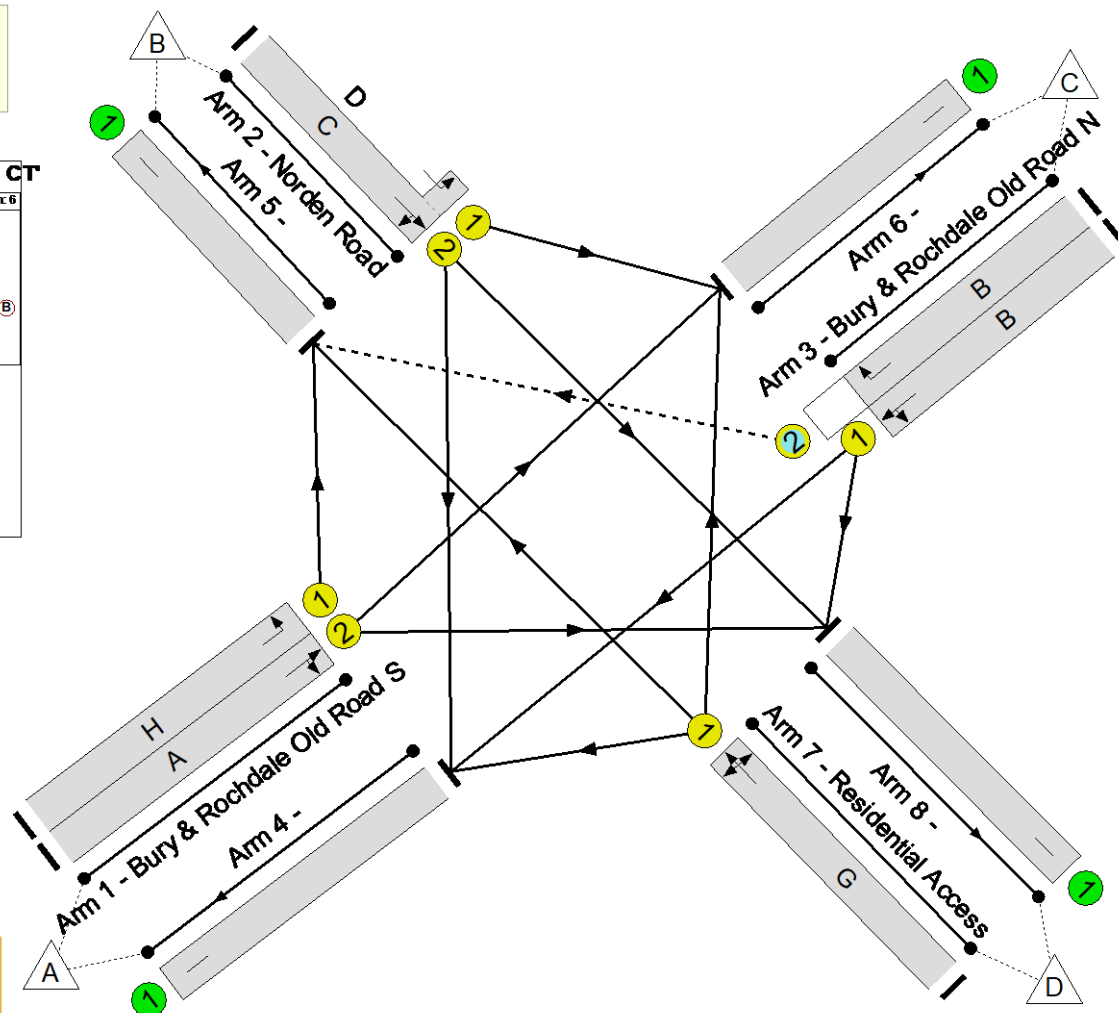
Scenario '2030 With JPA 17 Full Allocation - AM Peak - 208 CT'



Stage 3 and Stage 4 are alternated to each other.
Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	83.3%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	83.3%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		2	130	-	342	1721	1092	31.3%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	70	-	506	2035	704	71.8%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	104:103	-	742	1745:1738	878+13	83.3 : 83.3%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	69	-	548	1940	662	82.8%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	69	-	1	1549	162	0.6%
4/1		U	N/A	N/A	-		-	-	-	1279	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	343	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	74	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

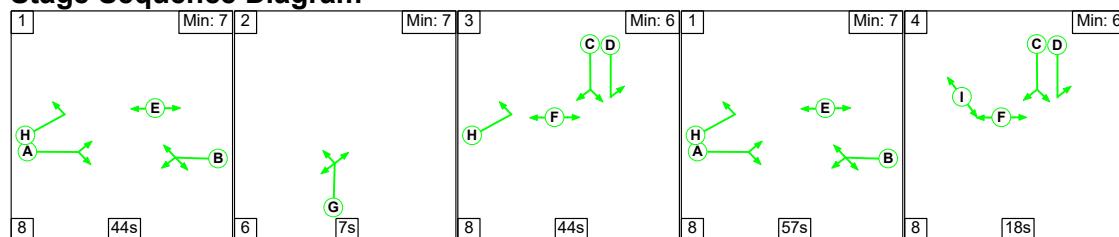
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	1	0	0	14.7	6.2	0.0	20.9	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	1	0	0	14.7	6.2	0.0	20.9	-	-	-	-
1/1	342	342	-	-	-	1.1	0.2	-	1.3	13.5	6.8	0.2	7.1
1/2	506	506	-	-	-	4.2	1.3	-	5.5	39.2	14.5	1.3	15.7
2/2+2/1	742	742	-	-	-	4.5	2.4	-	6.9	33.4	18.1	2.4	20.5
3/1	548	548	-	-	-	4.9	2.3	-	7.2	47.3	16.7	2.3	19.1
3/2	1	1	1	0	0	0.0	0.0	0.0	0.0	52.4	0.0	0.0	0.0
4/1	1279	1279	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	343	343	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 8.0 Total Delay for Signalled Lanes (pcuHr): 20.89 Cycle Time (s): 208 PRC Over All Lanes (%): 8.0 Total Delay Over All Lanes(pcuHr): 20.89													

Full Input Data And Results

Scenario 12: '2030 With JPA 17 Full Allocation - PM Peak - 208 CT' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 2: '208 CT -1 ')

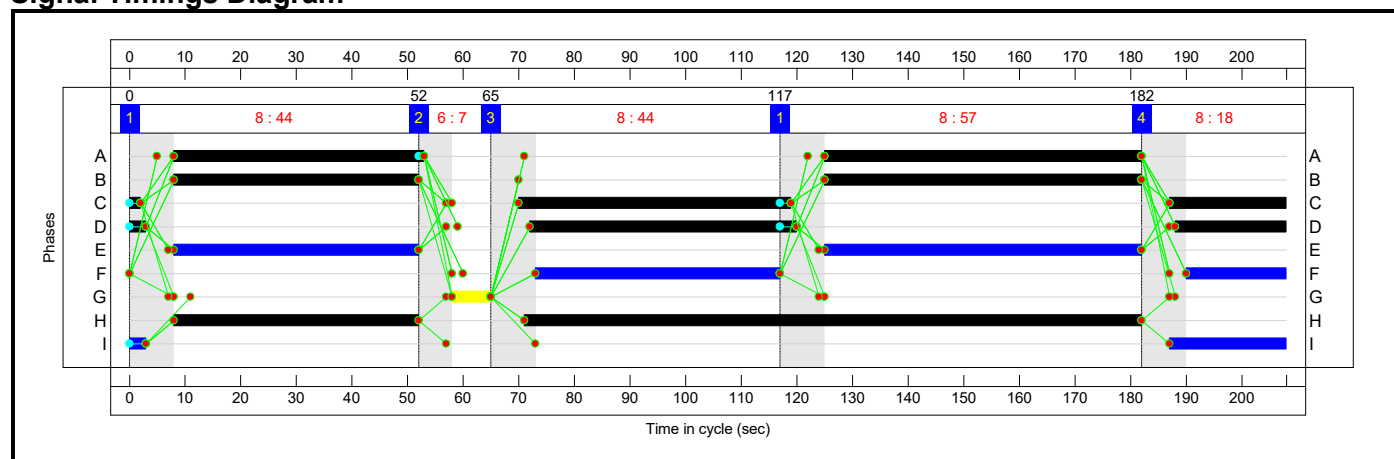
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	1	4
Duration	44	7	44	57	18
Change Point	0	52	65	117	182

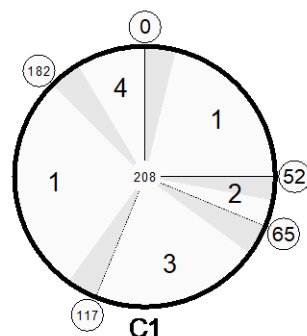
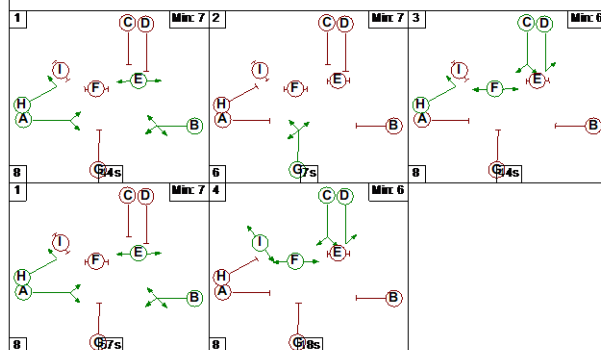
Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

Norden Road / Bury & Rochdale Old Road
PRC: 35.3 %
Total Traffic Delay: 15.7 pcuHr

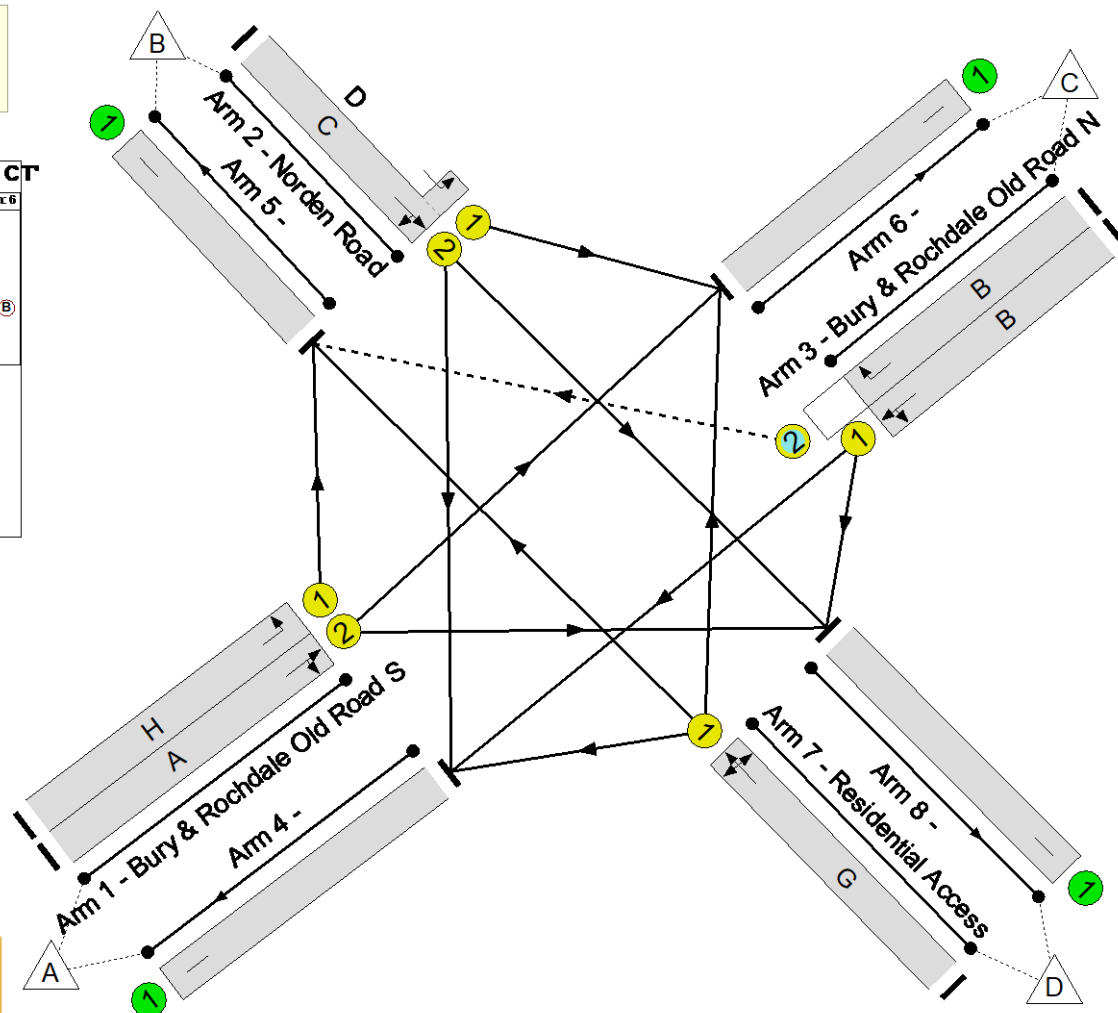
Scenario '2030 With JPA 17 Full Allocation - PM Peak - 208 CT'



Stage 3 and Stage 4 are alternated to each other.
Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

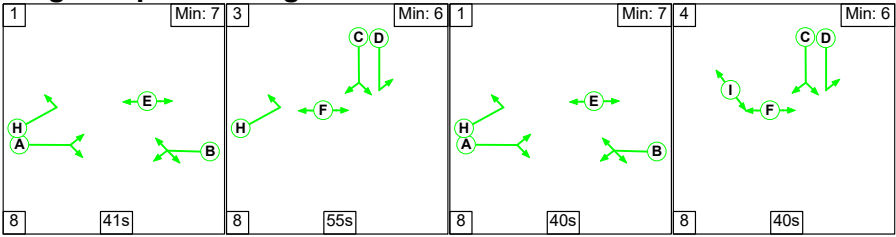
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	66.5%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	66.5%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		2	155	-	796	1721	1299	61.3%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	102	-	671	2035	1018	65.9%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	72:71	-	414	1745:1738	612+11	66.5 : 66.5%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	101	-	577	1940	961	60.1%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	101	-	7	1549	231	3.0%
4/1		U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	803	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		1	7	-	0	1915	74	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	12.2	3.5	0.0	15.7	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	12.2	3.5	0.0	15.7	-	-	-	-
1/1	796	796	-	-	-	1.4	0.8	-	2.2	9.9	13.5	0.8	14.3
1/2	671	671	-	-	-	4.1	1.0	-	5.1	27.2	19.6	1.0	20.5
2/2+2/1	414	414	-	-	-	3.2	1.0	-	4.2	36.8	10.0	1.0	11.0
3/1	577	577	-	-	-	3.4	0.7	-	4.2	26.1	16.3	0.7	17.1
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	41.7	0.1	0.0	0.2
4/1	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	803	803	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 35.3 Total Delay for Signalled Lanes (pcuHr): 15.75 Cycle Time (s): 208 PRC Over All Lanes (%): 35.3 Total Delay Over All Lanes(pcuHr): 15.75													

Full Input Data And Results
Scenario 13: '2025 Surveyed Flows - AM Peak - 208 CT - 3' (FG1: '2025 Surveyed Flows - AM Peak', Plan 3: '208 CT - 2')

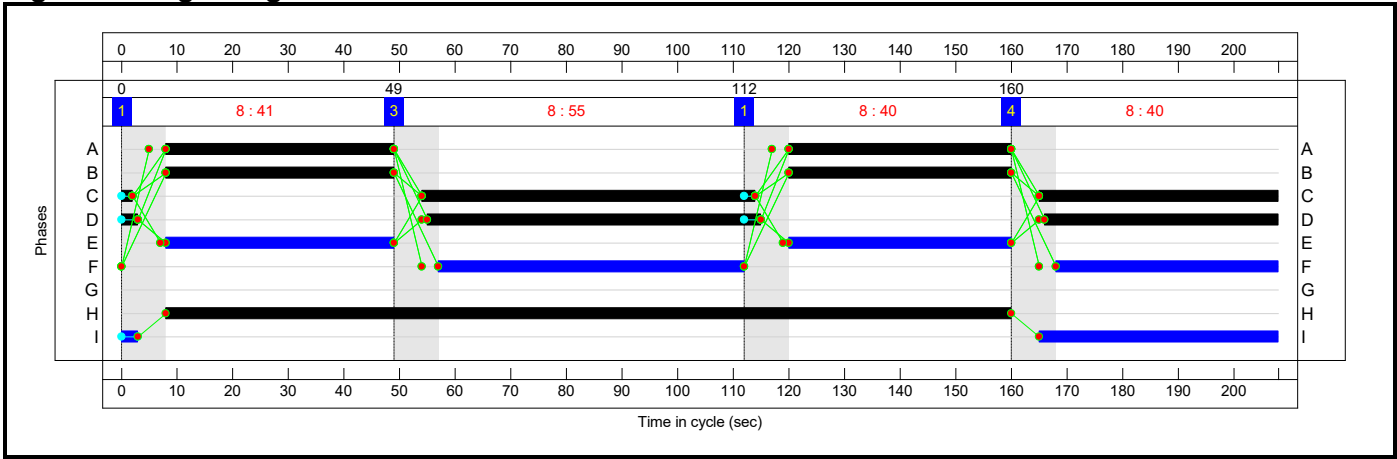
Stage Sequence Diagram



Stage Timings

Stage	1	3	1	4
Duration	41	55	40	40
Change Point	0	49	112	160

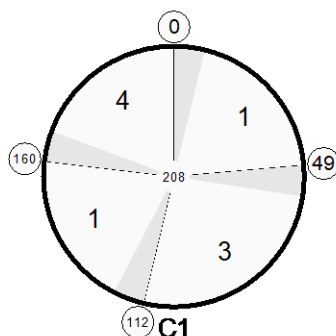
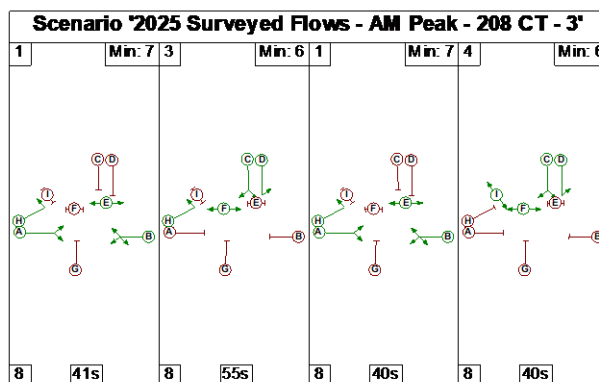
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

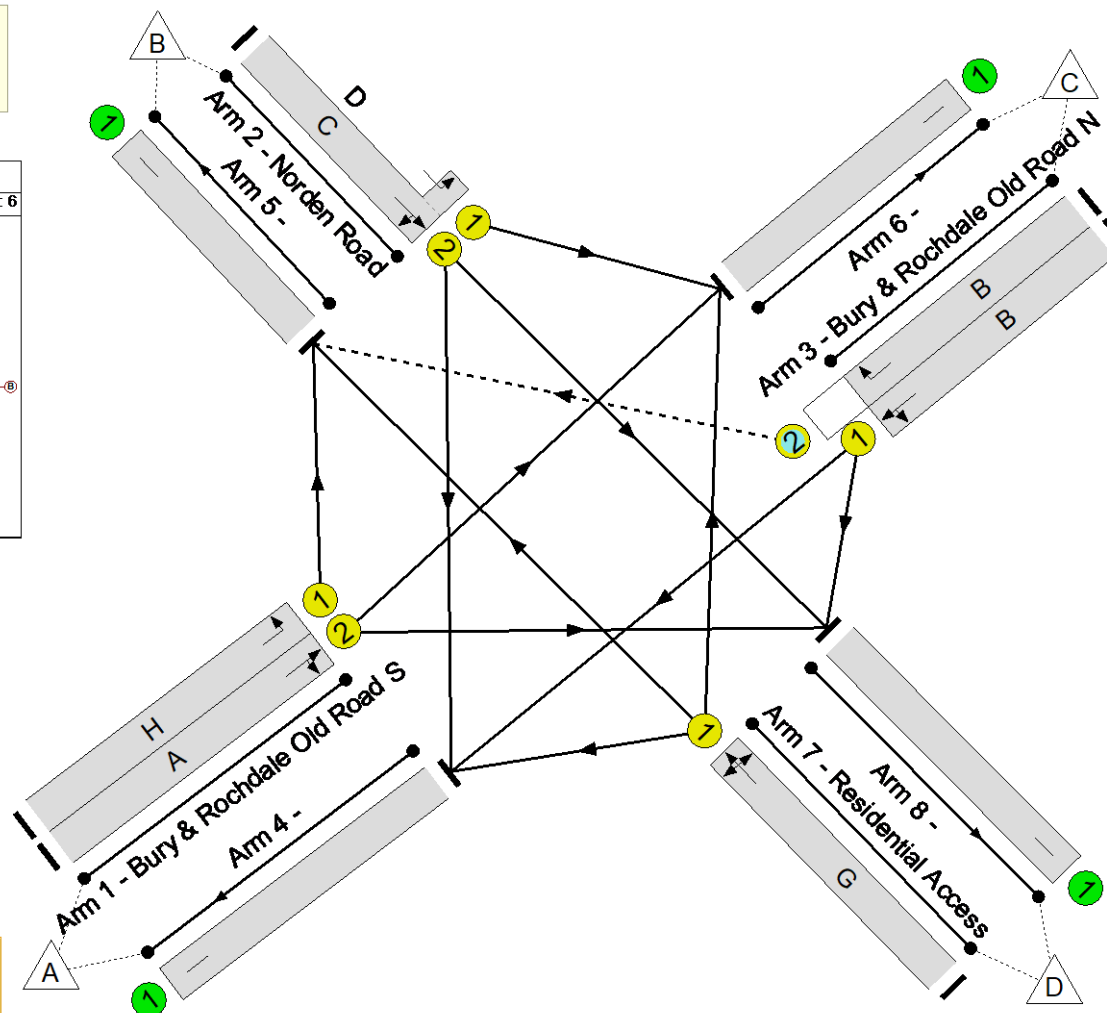
Norden Road / Bury & Rochdale Old Road
 PRC: 29.3 %
 Total Traffic Delay: 14.7 pcuHr



Stage 3 and Stage 4 are alternated to each other.
 Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

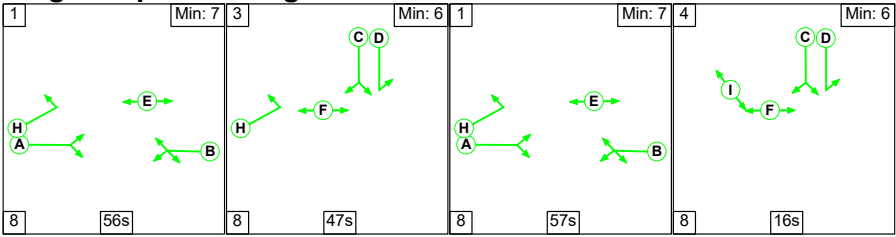
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	69.6%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	69.6%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	152	-	296	1721	1266	23.4%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	81	-	497	2035	812	61.2%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	105	-	626	1745:1738	883+16	69.6 : 69.6%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	81	-	539	1940	774	69.6%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	81	-	1	1549	233	0.4%
4/1		U	N/A	N/A	-		-	-	-	1154	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	297	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	508	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		0	0	-	0	1915	0	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	1	0	0	11.5	3.2	0.0	14.7	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	1	0	0	11.5	3.2	0.0	14.7	-	-	-	-
1/1	296	296	-	-	-	0.7	0.2	-	0.9	10.6	5.4	0.2	5.6
1/2	497	497	-	-	-	3.5	0.8	-	4.3	30.9	12.7	0.8	13.5
2/2+2/1	626	626	-	-	-	3.3	1.1	-	4.4	25.6	13.7	1.1	14.9
3/1	539	539	-	-	-	3.9	1.1	-	5.1	34.0	14.4	1.1	15.5
3/2	1	1	1	0	0	0.0	0.0	0.0	0.0	41.8	0.0	0.0	0.0
4/1	1154	1154	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	297	297	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	508	508	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 29.3 Total Delay for Signalled Lanes (pcuHr): 14.68 Cycle Time (s): 208 PRC Over All Lanes (%): 29.3 Total Delay Over All Lanes(pcuHr): 14.68													

Full Input Data And Results
Scenario 14: '2025 Surveyed Flows - PM Peak - 208 CT - 3' (FG2: '2025 Surveyed Flows - PM Peak', Plan 3: '208 CT - 2')

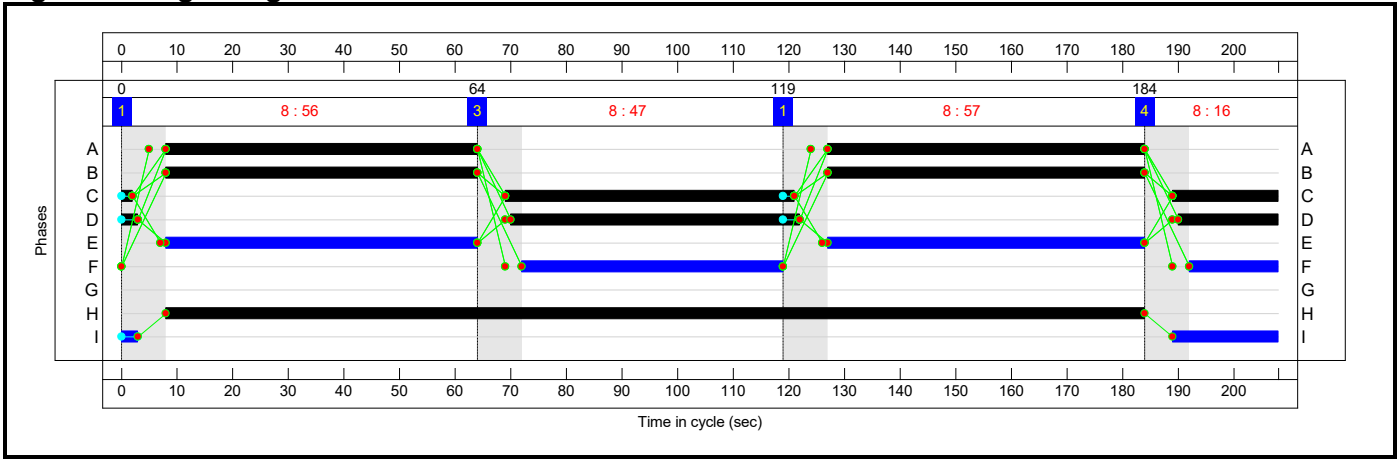
Stage Sequence Diagram



Stage Timings

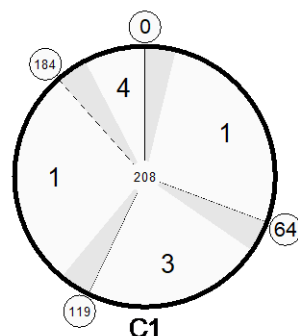
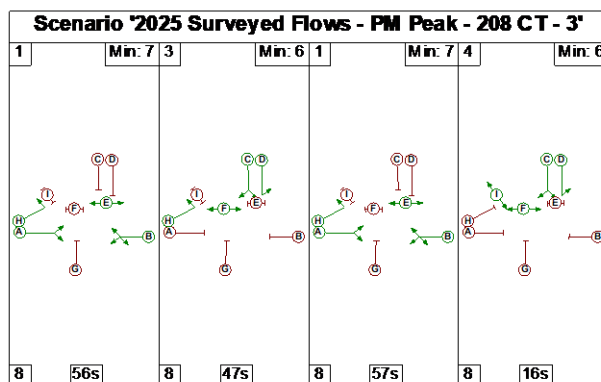
Stage	1	3	1	4
Duration	56	47	57	16
Change Point	0	64	119	184

Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

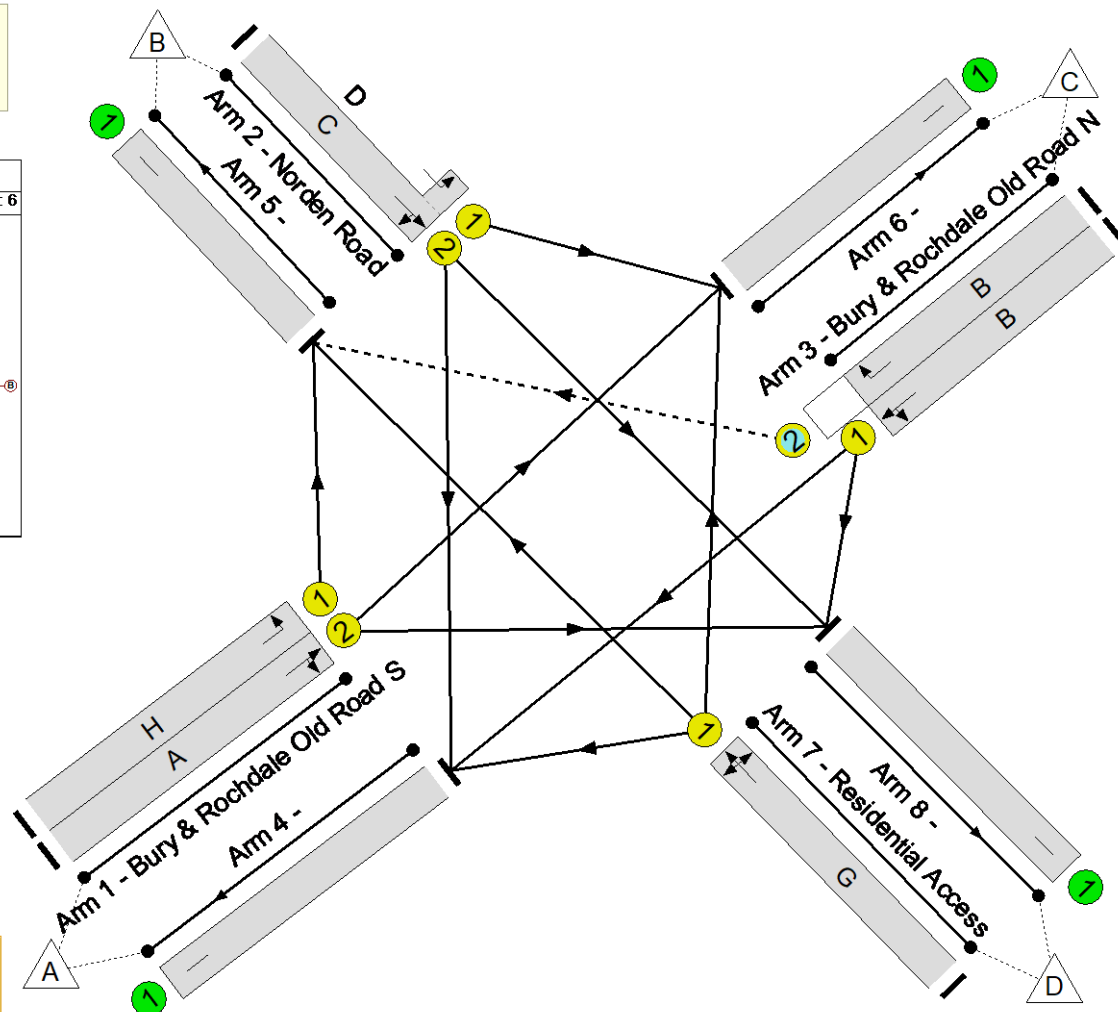
Norden Road / Bury & Rochdale Old Road
PRC: 53.2 %
Total Traffic Delay: 11.6 pcuHr



Stage 3 and Stage 4 are alternated to each other.
Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

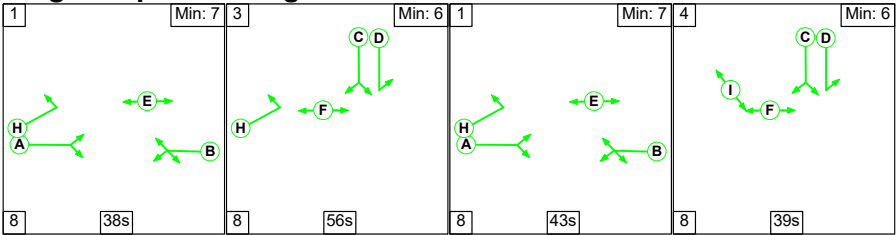
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	58.7%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	58.7%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	176	-	686	1721	1465	46.8%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	113	-	661	2035	1125	58.7%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	73	-	366	1745:1738	619+12	58.0 : 58.0%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	113	-	569	1940	1073	53.0%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	113	-	7	1549	297	2.4%
4/1		U	N/A	N/A	-		-	-	-	928	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	693	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		0	0	-	0	1915	0	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	9.2	2.4	0.0	11.6	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	9.2	2.4	0.0	11.6	-	-	-	-
1/1	686	686	-	-	-	0.7	0.4	-	1.2	6.2	9.7	0.4	10.2
1/2	661	661	-	-	-	3.1	0.7	-	3.9	21.0	16.7	0.7	17.4
2/2+2/1	366	366	-	-	-	2.7	0.7	-	3.4	33.6	8.5	0.7	9.2
3/1	569	569	-	-	-	2.6	0.6	-	3.1	19.9	13.8	0.6	14.3
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	32.0	0.1	0.0	0.1
4/1	928	928	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	693	693	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 53.2 Total Delay for Signalled Lanes (pcuHr): 11.65 Cycle Time (s): 208 PRC Over All Lanes (%): 53.2 Total Delay Over All Lanes(pcuHr): 11.65													

Full Input Data And Results
Scenario 15: '2030 Without Development - AM Peak - 208 CT - 3' (FG3: '2030 Without Development - AM Peak',
Plan 3: '208 CT - 2')

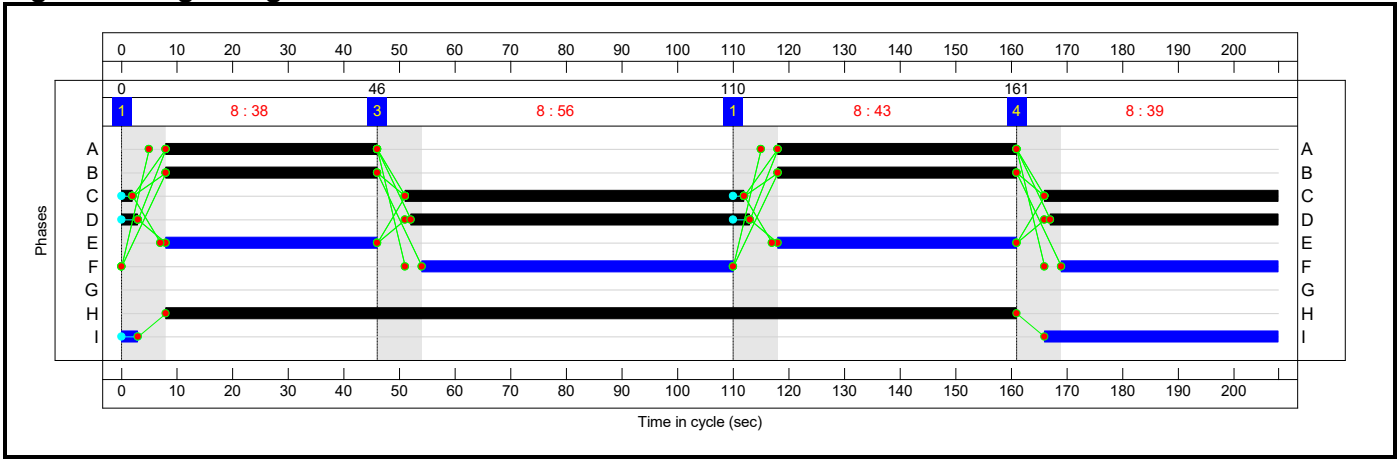
Stage Sequence Diagram



Stage Timings

Stage	1	3	1	4
Duration	38	56	43	39
Change Point	0	46	110	161

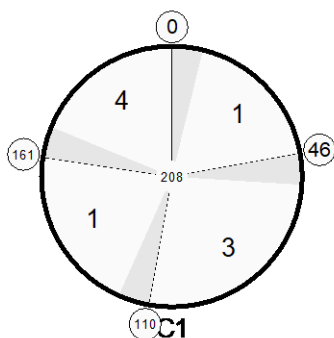
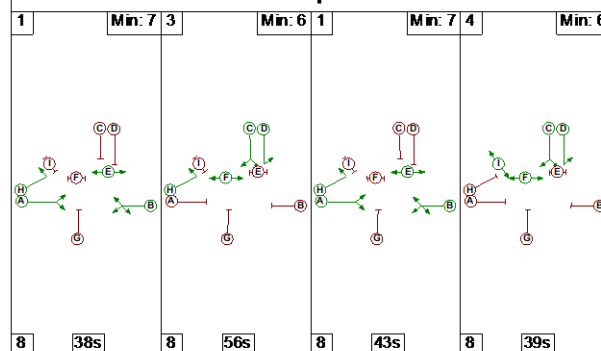
Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

Norden Road / Bury & Rochdale Old Road
PRC: 25.9 %
Total Traffic Delay: 15.3 pcuHr

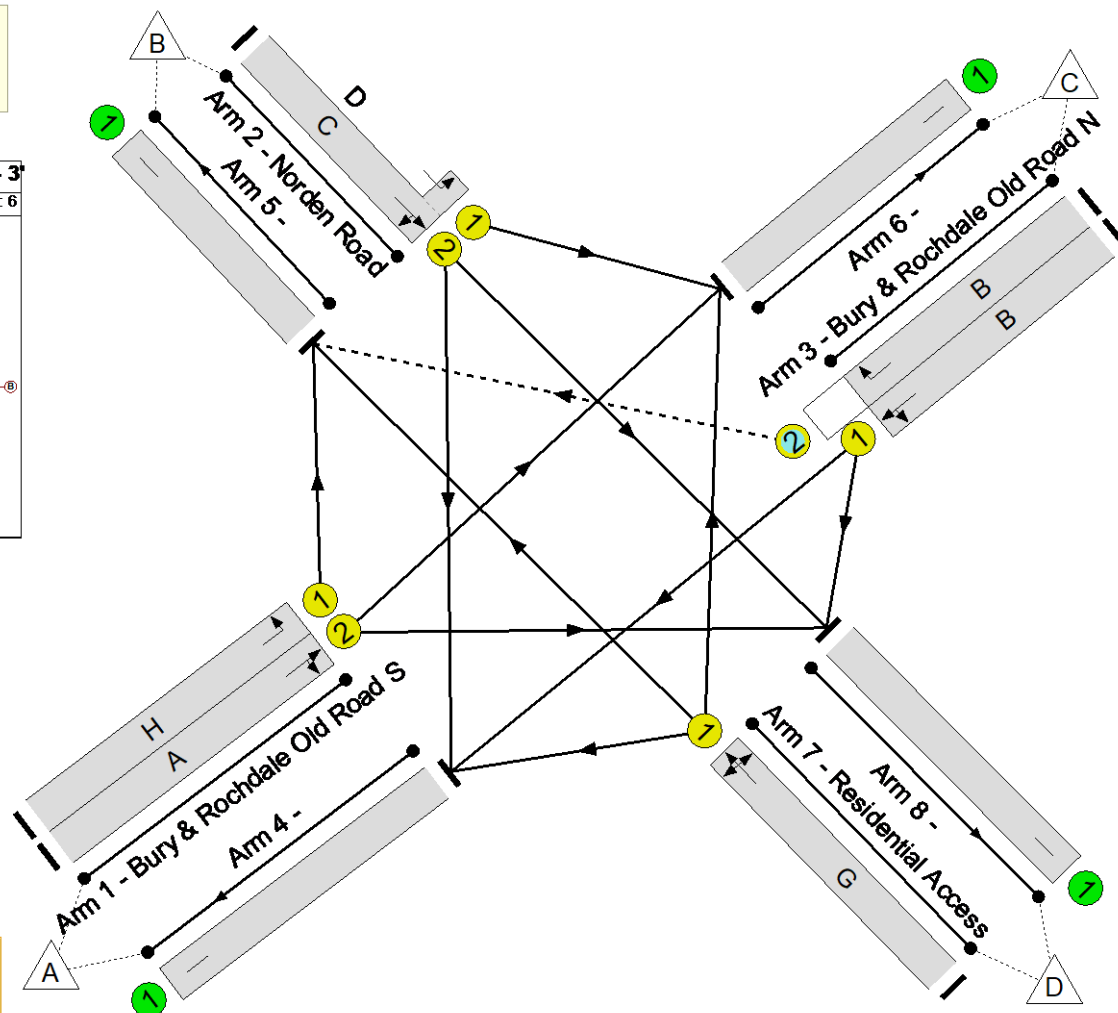
Scenario '2030 Without Development - AM Peak - 208 CT - 3'



Stage 3 and Stage 4 are alternated to each other.
Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	71.5%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	153	-	313	1721	1274	24.6%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	81	-	506	2035	812	62.3%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	105	-	643	1745:1738	884+15	71.5 : 71.5%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	81	-	548	1940	774	70.8%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	81	-	1	1549	227	0.4%
4/1		U	N/A	N/A	-		-	-	-	1180	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	314	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		0	0	-	0	1915	0	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

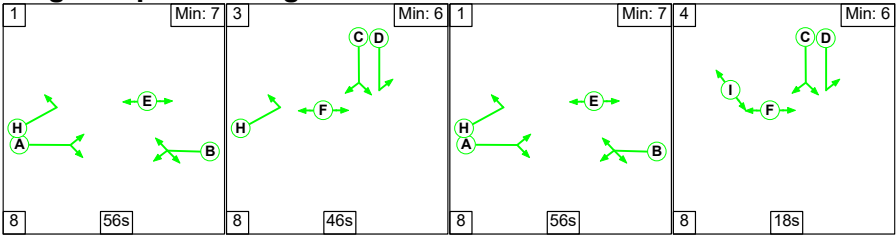
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 16: '2030 Without Development - PM Peak - 208 CT - 3' (FG4: '2030 Without Development - PM Peak', Plan 3: '208 CT - 2')

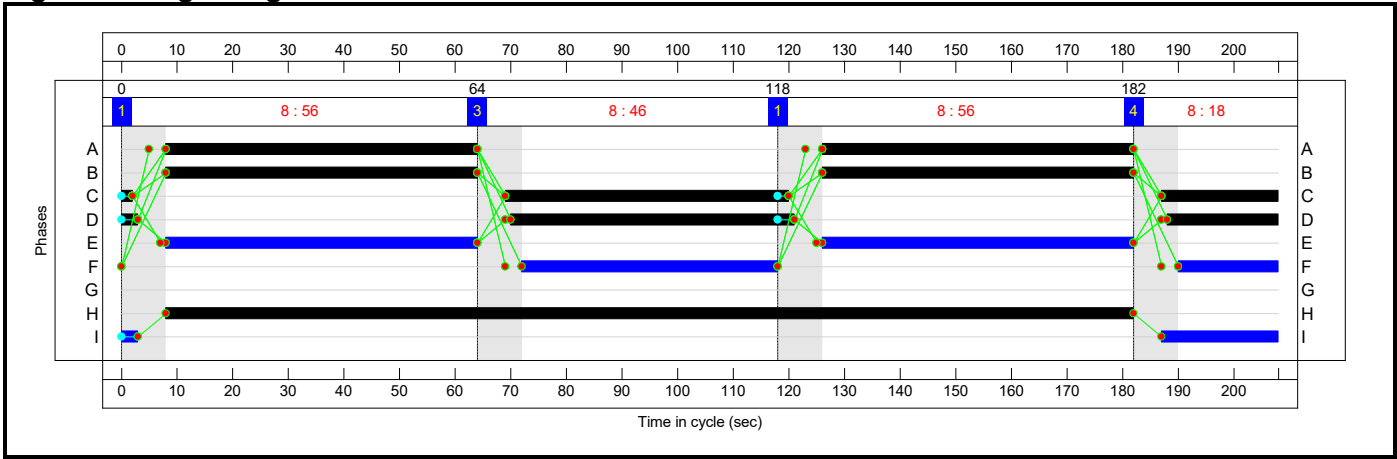
Stage Sequence Diagram



Stage Timings

Stage	1	3	1	4
Duration	56	46	56	18
Change Point	0	64	118	182

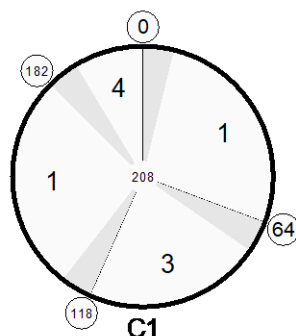
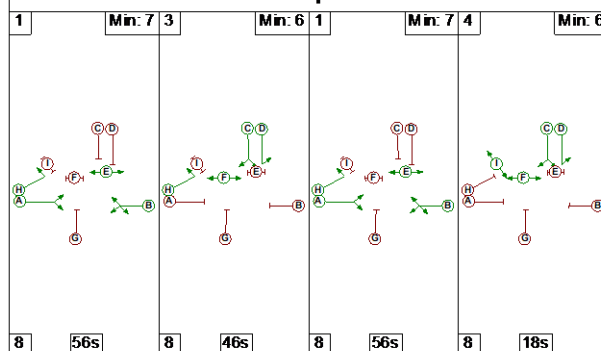
Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

Norden Road / Bury & Rochdale Old Road
PRC: 49.6 %
Total Traffic Delay: 12.2 pcuHr

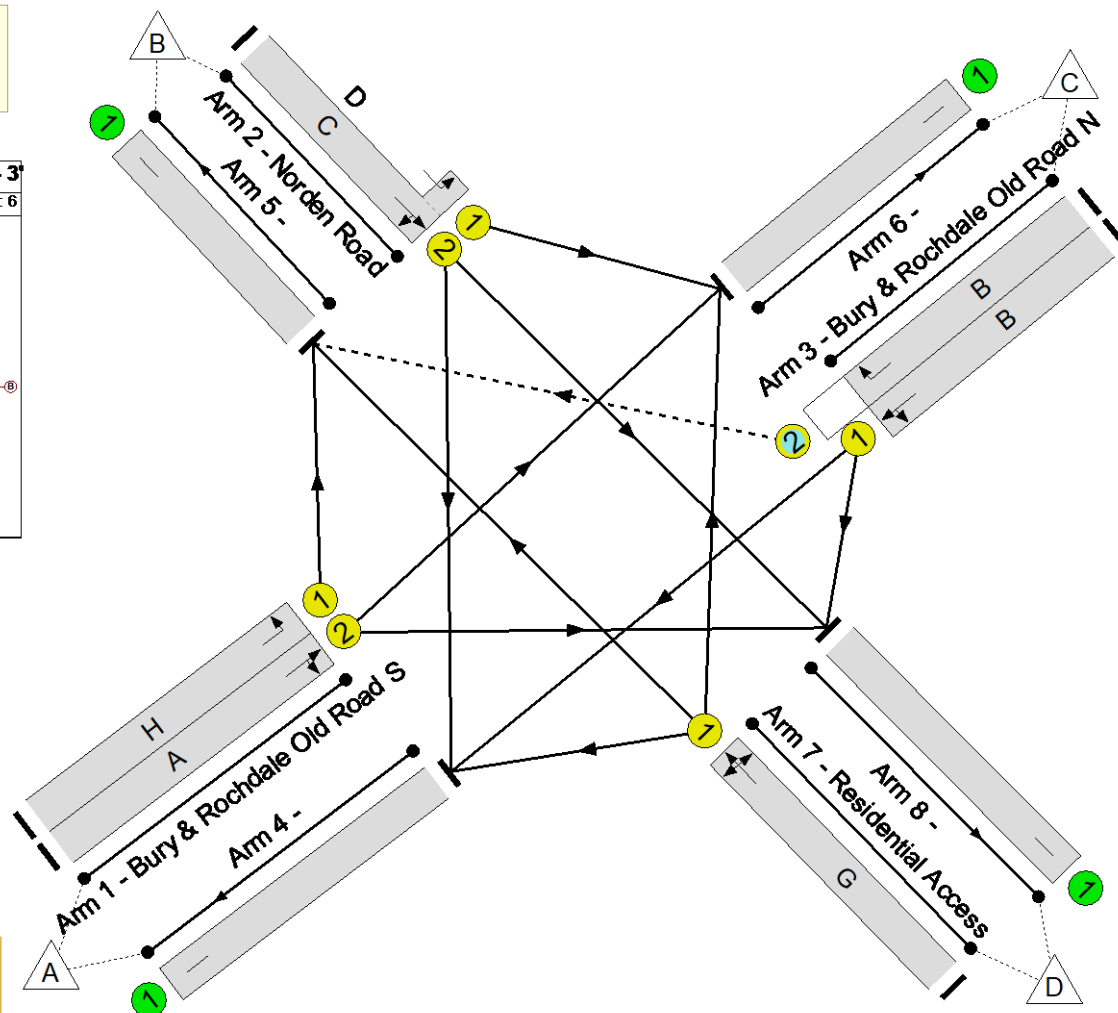
Scenario '2030 Without Development - PM Peak - 208 CT - 3'



Stage 3 and Stage 4 are alternated to each other.
Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

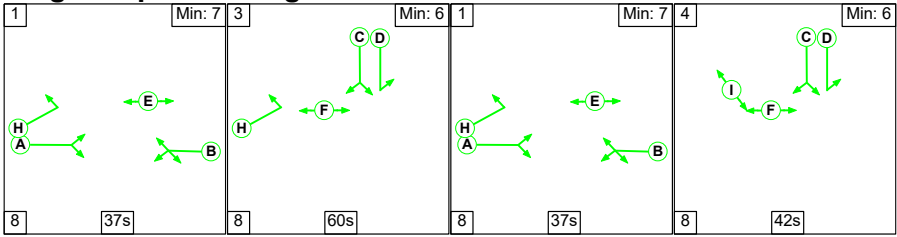
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	60.2%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	60.2%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	174	-	702	1721	1448	48.5%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	112	-	671	2035	1115	60.2%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	74	-	384	1745:1738	628+12	60.1 : 60.1%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	112	-	577	1940	1063	54.3%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	112	-	7	1549	285	2.5%
4/1		U	N/A	N/A	-		-	-	-	954	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	709	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		0	0	-	0	1915	0	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	9.6	2.6	0.0	12.2	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	9.6	2.6	0.0	12.2	-	-	-	-
1/1	702	702	-	-	-	0.9	0.5	-	1.3	6.8	10.7	0.5	11.2
1/2	671	671	-	-	-	3.2	0.8	-	4.0	21.3	17.0	0.8	17.7
2/2+2/1	384	384	-	-	-	2.9	0.7	-	3.6	33.8	8.9	0.7	9.7
3/1	577	577	-	-	-	2.6	0.6	-	3.2	20.2	13.8	0.6	14.4
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	32.5	0.1	0.0	0.1
4/1	954	954	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	709	709	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 49.6 Total Delay for Signalled Lanes (pcuHr): 12.20 Cycle Time (s): 208 PRC Over All Lanes (%): 49.6 Total Delay Over All Lanes(pcuHr): 12.20													

Full Input Data And Results
Scenario 17: '2030 With JPA 17 Full Allocation - AM Peak - 208 CT - 3' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 3: '208 CT - 2')

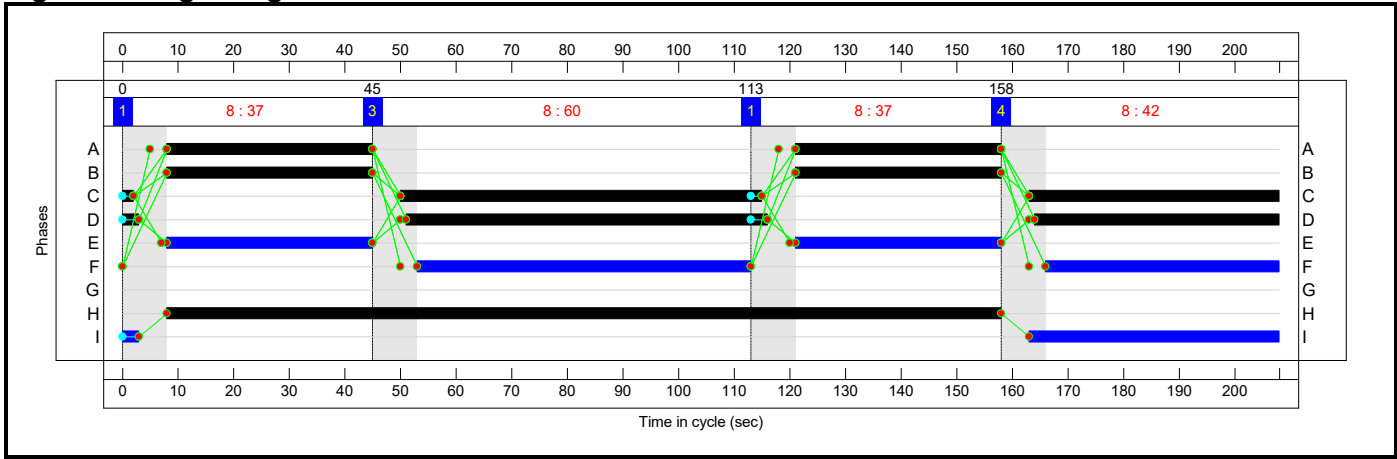
Stage Sequence Diagram



Stage Timings

Stage	1	3	1	4
Duration	37	60	37	42
Change Point	0	45	113	158

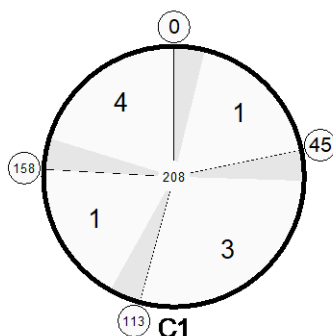
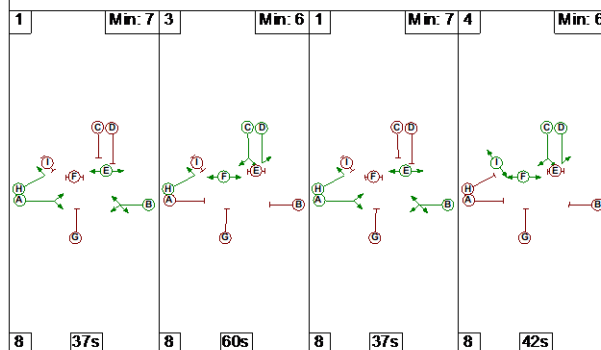
Signal Timings Diagram



Full Input Data And Results Network Layout Diagram

Norden Road / Bury & Rochdale Old Road
PRC: 16.2 %
Total Traffic Delay: 17.9 pcuHr

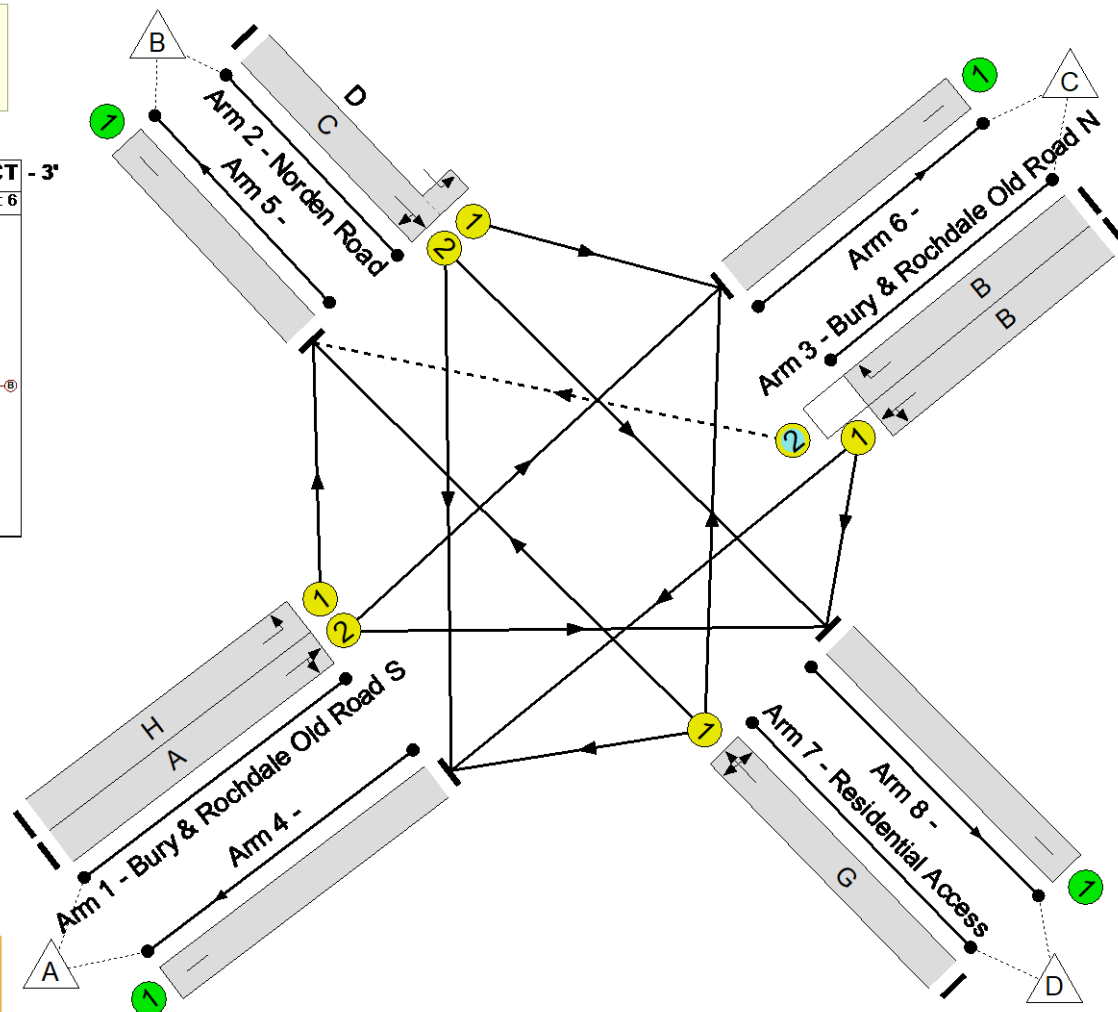
Scenario '2030 With JPA 17 Full Allocation - AM Peak - 208 CT - 3'



Stage 3 and Stage 4 are alternated to each other.
Stage 4 only appears on demand for phase I.

Stage 2 is a quietest stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

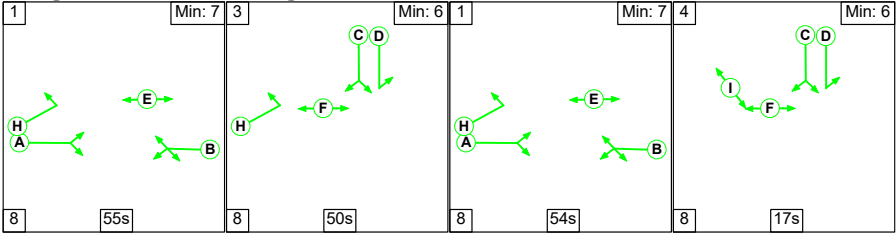
Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	77.5%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	150	-	342	1721	1249	27.4%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	74	-	506	2035	744	68.1%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	112	-	742	1745:1738	944+14	77.5 : 77.5%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	74	-	548	1940	709	77.3%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	74	-	1	1549	189	0.5%
4/1		U	N/A	N/A	-		-	-	-	1279	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	343	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		0	0	-	0	1915	0	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

[illegible]

Full Input Data And Results
Scenario 18: '2030 With JPA 17 Full Allocation - PM Peak - 208 CT - 3' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 3: '208 CT - 2')

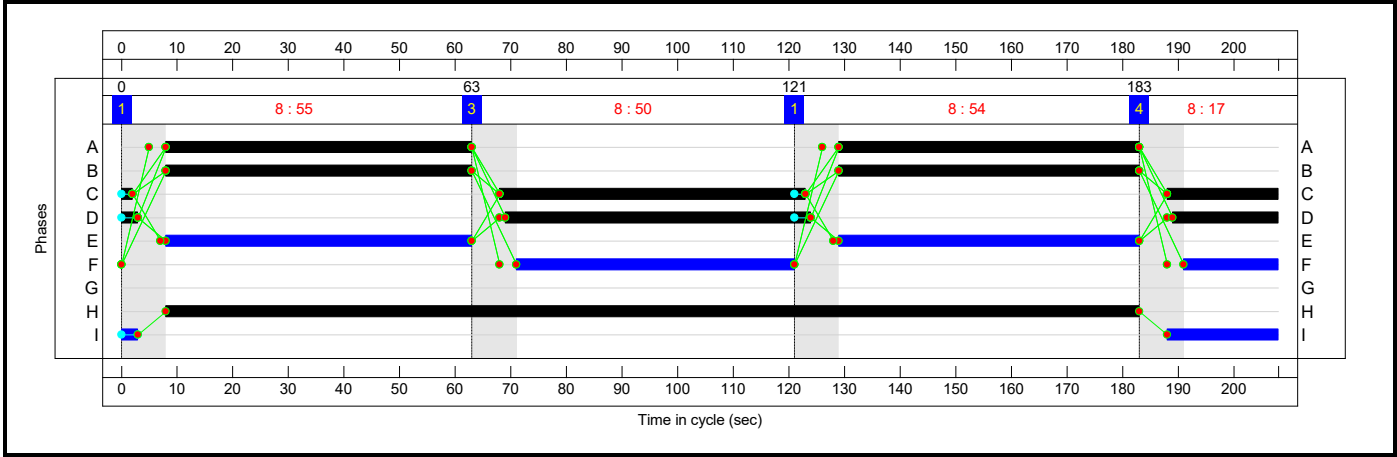
Stage Sequence Diagram



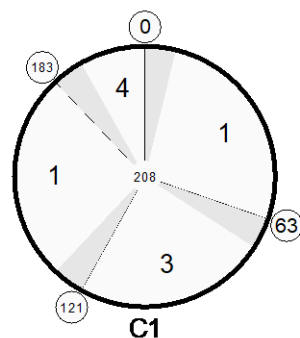
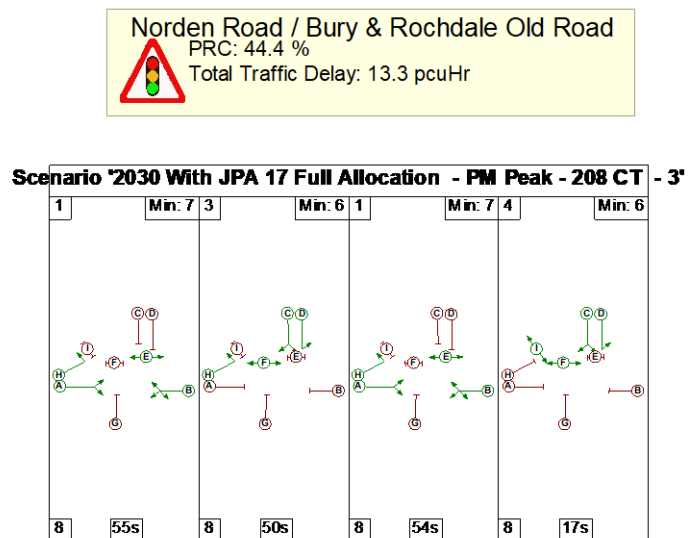
Stage Timings

Stage	1	3	1	4
Duration	55	50	54	17
Change Point	0	63	121	183

Signal Timings Diagram



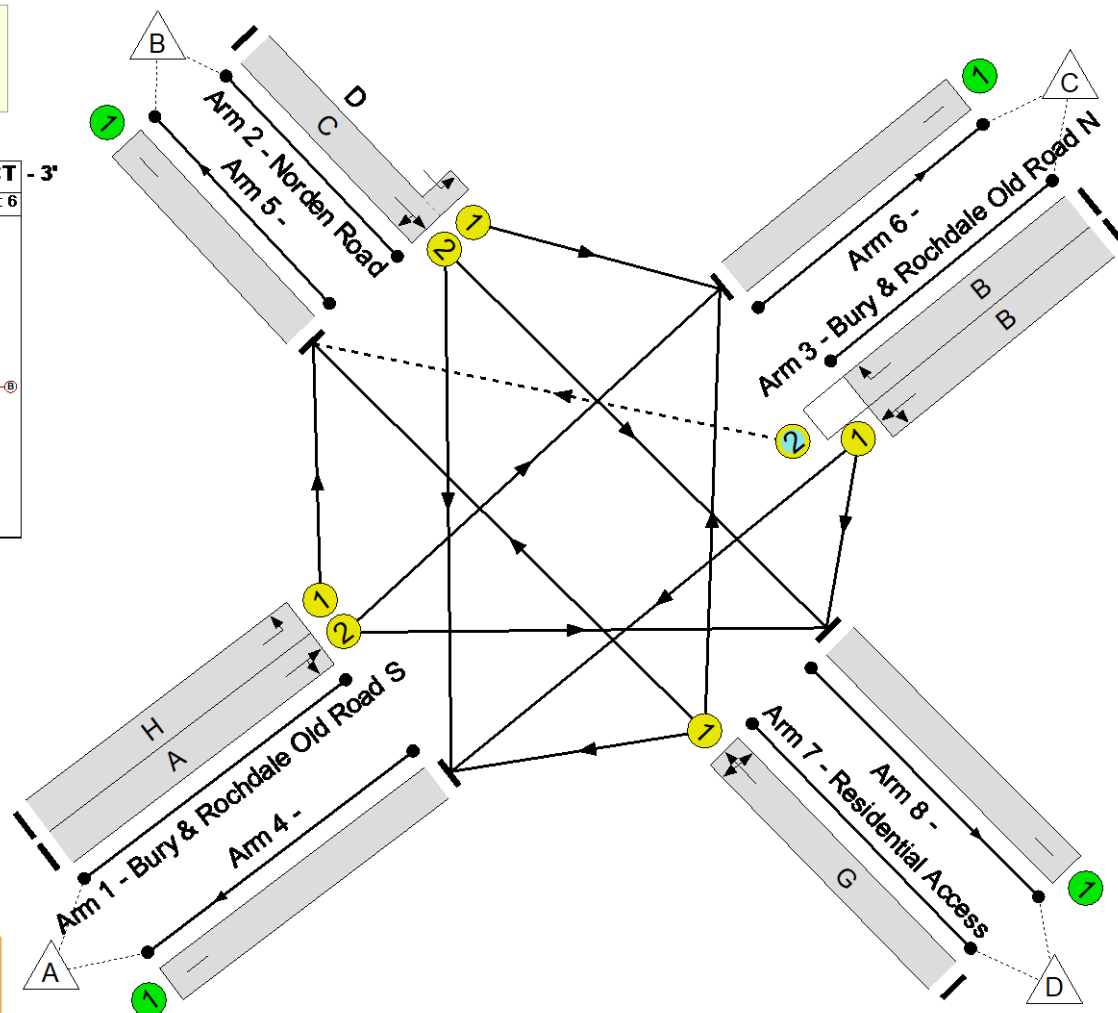
Network Layout Diagram



Stage 3 and Stage 4 are alternative to each other. Stage 4 only appears on demand for phase I.

Stage 2 is a quiet stage appears approximately four times out of 35 cycles between 0800 and 0900.

Under scoot control, maximum cycle time for this junction is 104 seconds (refer to signal timing



Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	62.3%
Norden Road / Bury & Rochdale Old Road	-	-	N/A	-	-		-	-	-	-	-	-	62.3%
1/1	Bury & Rochdale Old Road S Left	U	N/A	N/A	H		1	175	-	796	1721	1456	54.7%
1/2	Bury & Rochdale Old Road S Ahead Right	U	N/A	N/A	A		2	109	-	671	2035	1086	61.8%
2/2+2/1	Norden Road Right Left Ahead	U	N/A	N/A	C D		2	77	-	414	1745:1738	653+11	62.3 : 62.3%
3/1	Bury & Rochdale Old Road N Ahead Left	U	N/A	N/A	B		2	109	-	577	1940	1035	55.7%
3/2	Bury & Rochdale Old Road N Right	O	N/A	N/A	B		2	109	-	7	1549	270	2.6%
4/1		U	N/A	N/A	-		-	-	-	984	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	803	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	678	Inf	Inf	0.0%
7/1	Residential Access Left Ahead Right	U	N/A	N/A	G		0	0	-	0	1915	0	0.0%
8/1		U	N/A	N/A	-		-	-	-	0	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	7	0	0	10.4	2.9	0.0	13.3	-	-	-	-
Norden Road / Bury && Rochdale Old Road	-	-	7	0	0	10.4	2.9	0.0	13.3	-	-	-	-
1/1	796	796	-	-	-	1.0	0.6	-	1.6	7.3	13.0	0.6	13.6
1/2	671	671	-	-	-	3.5	0.8	-	4.3	23.1	17.9	0.8	18.7
2/2+2/1	414	414	-	-	-	3.0	0.8	-	3.8	33.3	9.8	0.8	10.6
3/1	577	577	-	-	-	2.9	0.6	-	3.5	21.9	14.7	0.6	15.4
3/2	7	7	7	0	0	0.0	0.0	0.0	0.1	35.4	0.1	0.0	0.1
4/1	984	984	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	803	803	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	678	678	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	0	0	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 44.4 Total Delay for Signalled Lanes (pcuHr): 13.33 Cycle Time (s): 208 PRC Over All Lanes (%): 44.4 Total Delay Over All Lanes(pcuHr): 13.33													

Appendix TTN3-6: J8 Bury & Rochdale Old Road / Queens Park – Updated Modelling

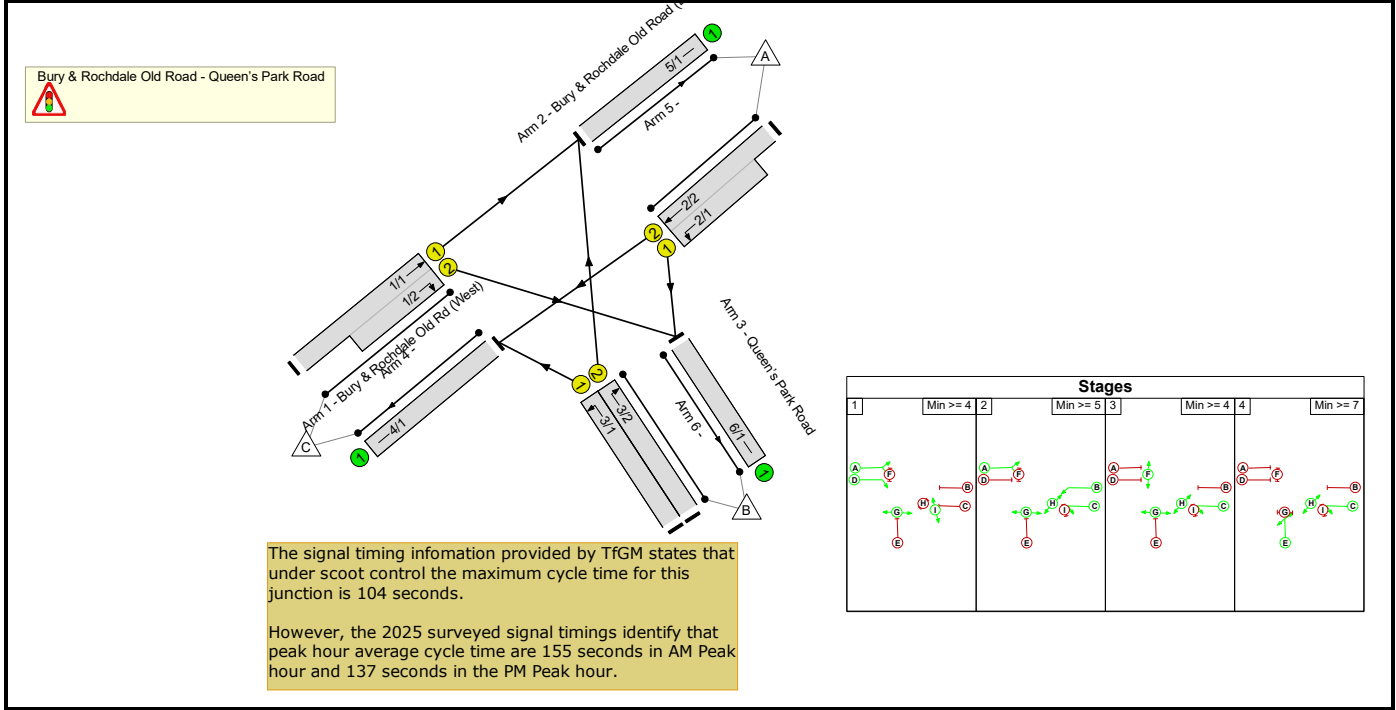
Full Input Data And Results

Full Input Data And Results

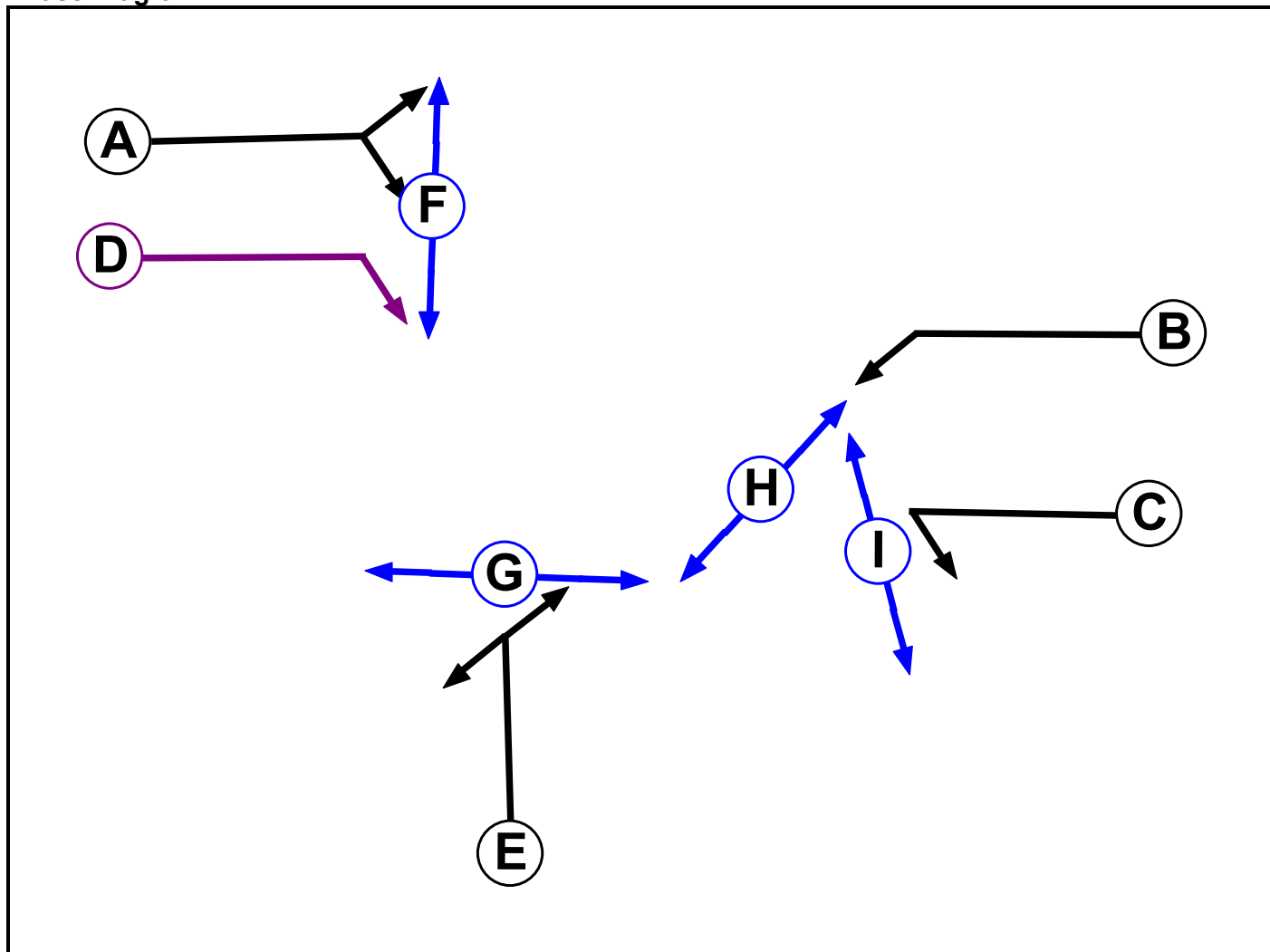
User and Project Details

Project:	784-B068938
Title:	Proposed Residential Development, Land off Greenvale, Bamford, Rochdale
Location:	
Client:	Wain Homes
Site Ref(s):	Bury & Rochdale Old Road Junction / Queen's Park Road
Date Started:	18.03.2025
Model Purpose:	Traffic Impact Assessment
Checked By:	Matt Thompson
Additional detail:	
File name:	J8 - Bury & Rochdale Old Road - Queen's Park Road - Signalised.lsg3x
Author:	Abdulrahman Benotman
Company:	Tetra Tech Ltd
Address:	11 York Street

Network Layout Diagram



Phase Diagram



Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	5
D	Ind. Arrow	A	4	4
E	Traffic		10	10
F	Pedestrian		7	7
G	Pedestrian		5	5
H	Pedestrian		6	6
I	Pedestrian		6	4

Full Input Data And Results

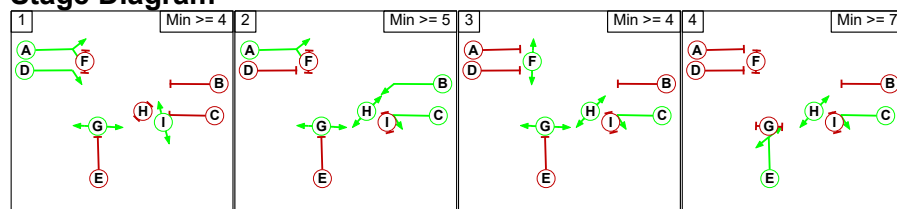
Phase Intergreens Matrix

Terminating Phase	Starting Phase									
		A	B	C	D	E	F	G	H	I
	A		-	-	-	5	5	-	-	-
	B	-		-	5	5	7	-	-	-
	C	-	-		3	-	-	-	-	4
	D	-	6	7		5	5	-	8	-
	E	7	6	-	7		6	5	-	-
	F	7	5	-	6	5		-	-	-
	G	-	-	-	-	7	-		-	-
	H	-	-	-	5	-	-	-		-
	I	-	-	5	-	-	-	-	-	

Phases in Stage

Stage No.	Phases in Stage
1	A D G I
2	A B C G H
3	C F G H
4	C E H

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
1	2	I	Losing	2	2
1	3	I	Losing	2	2
1	4	A	Losing	2	2
1	4	I	Losing	2	2
2	1	C	Losing	2	2
2	3	A	Losing	2	2
2	4	A	Losing	2	2
2	4	B	Losing	2	2
3	1	C	Losing	3	3
3	1	H	Losing	1	1
3	4	F	Losing	2	2
4	1	C	Losing	3	3
4	1	H	Losing	2	2

Prohibited Stage Change

From Stage	To Stage				
		1	2	3	4
	1		8	8	10
	2	6		7	7
	3	x	7		7
	4	7	7	6	

Full Input Data And Results

Give-Way Lane Input Data

Junction: Bury && Rochdale Old Road - Queen's Park Road
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: Bury && Rochdale Old Road - Queen's Park Road												
Lane	Lane Type	Phases	Start Disp.	End Disp.	Physical Length (PCU)	Sat Flow Type	Def User Saturation Flow (PCU/Hr)	Lane Width (m)	Gradient	Nearside Lane	Turns	Turning Radius (m)
1/1 (Bury & Rochdale Old Rd (West))	U	A	2	3	7.8	Geom	-	3.00	0.00	Y	Arm 5 Ahead	Inf
1/2 (Bury & Rochdale Old Rd (West))	U	A D	2	3	7.8	Geom	-	3.00	0.00	N	Arm 6 Right	13.00
2/1 (Bury & Rochdale Old Road (East))	U	C	2	3	13.9	Geom	-	5.00	0.00	Y	Arm 6 Left	77.00
2/2 (Bury & Rochdale Old Road (East))	U	B	2	3	60.0	Geom	-	3.45	0.00	N	Arm 4 Ahead	Inf
3/1 (Queen's Park Road)	U	E	2	3	60.0	Geom	-	3.00	0.00	Y	Arm 4 Left	10.00
3/2 (Queen's Park Road)	U	E	2	3	60.0	Geom	-	3.00	0.00	N	Arm 5 Right	11.00
4/1	U		2	3	60.0	Inf	-	-	-	-	-	-
5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
6/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2025 Surveyed Flows - AM Peak'	07:45	08:45	01:00	
2: '2025 Surveyed Flows - PM Peak'	16:15	17:15	01:00	
3: '2030 Without Development - AM Peak'	07:45	08:45	01:00	
4: '2030 Without Development - PM Peak'	16:15	17:15	01:00	
5: '2030 With JPA 17 Full Allocation - AM Peak'	07:45	08:45	01:00	
6: '2030 With JPA 17 Full Allocation - PM Peak'	16:15	17:15	01:00	

Scenario 1: '2025 Surveyed Flows - AM Peak - SCOOT suggested cycle time' (FG1: '2025 Surveyed Flows - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	564	588	1152
	B	279	0	54	333
	C	515	39	0	554
	Tot.	794	603	642	2039

Traffic Lane Flows

Lane	Scenario 1: 2025 Surveyed Flows - AM Peak - SCOOT suggested cycle time
Junction: Bury && Rochdale Old Road - Queen's Park Road	
1/1 (with short)	554(In) 515(Out)
1/2 (short)	39
2/1 (short)	564
2/2 (with short)	1152(In) 588(Out)
3/1	54
3/2	279
4/1	642
5/1	794
6/1	603

Lane Saturation Flows

Junction: Bury && Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2025 Surveyed Flows - PM Peak - SCOOT suggested cycle time' (FG2: '2025 Surveyed Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	412	502	914
	B	568	0	47	615
	C	773	86	0	859
	Tot.	1341	498	549	2388

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2025 Surveyed Flows - PM Peak - SCOOT suggested cycle time
Junction: Bury && Rochdale Old Road - Queen's Park Road	
1/1 (with short)	859(In) 773(Out)
1/2 (short)	86
2/1 (short)	412
2/2 (with short)	914(In) 502(Out)
3/1	47
3/2	568
4/1	549
5/1	1341
6/1	498

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 3: '2030 Without Development - AM Peak - SCOOT suggested cycle time' (FG3: '2030 Without Development - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	580	599	1179
	B	296	0	54	350
	C	524	40	0	564
	Tot.	820	620	653	2093

Traffic Lane Flows

Lane	Scenario 3: 2030 Without Development - AM Peak - SCOOT suggested cycle time
Junction: Bury && Rochdale Old Road - Queen's Park Road	
1/1 (with short)	564(In) 524(Out)
1/2 (short)	40
2/1 (short)	580
2/2 (with short)	1179(In) 599(Out)
3/1	54
3/2	296
4/1	653
5/1	820
6/1	620

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 4: '2030 Without Development - PM Peak - SCOOT suggested cycle time' (FG4: '2030 Without Development - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	430	509	939
	B	581	0	48	629
	C	785	87	0	872
	Tot.	1366	517	557	2440

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 4: 2030 Without Development - PM Peak - SCOOT suggested cycle time
Junction: Bury & Rochdale Old Road - Queen's Park Road	
1/1 (with short)	872(In) 785(Out)
1/2 (short)	87
2/1 (short)	430
2/2 (with short)	939(In) 509(Out)
3/1	48
3/2	581
4/1	557
5/1	1366
6/1	517

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 5: '2030 With JPA 17 Full Allocation - AM Peak - SCOOT suggested cycle time' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	628	649	1277
	B	306	0	54	360
	C	543	40	0	583
	Tot.	849	668	703	2220

Traffic Lane Flows

Lane	Scenario 5: 2030 With JPA 17 Full Allocation - AM Peak - SCOOT suggested cycle time
Junction: Bury && Rochdale Old Road - Queen's Park Road	
1/1 (with short)	583(In) 543(Out)
1/2 (short)	40
2/1 (short)	628
2/2 (with short)	1277(In) 649(Out)
3/1	54
3/2	306
4/1	703
5/1	849
6/1	668

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 6: '2030 With JPA 17 Full Allocation - PM Peak - SCOOT suggested cycle time' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
		A	B	C	Tot.
Origin	A	0	444	526	970
	B	621	0	48	669
	C	840	87	0	927
	Tot.	1461	531	574	2566

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 6: 2030 With JPA 17 Full Allocation - PM Peak - SCOOT suggested cycle time
Junction: Bury & Rochdale Old Road - Queen's Park Road	
1/1 (with short)	927(In) 840(Out)
1/2 (short)	87
2/1 (short)	444
2/2 (with short)	970(In) 526(Out)
3/1	48
3/2	621
4/1	574
5/1	1461
6/1	531

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 7: '2025 Surveyed Flows - AM Peak - Surveyed cycle time' (FG1: '2025 Surveyed Flows - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	564	588	1152
	B	279	0	54	333
	C	515	39	0	554
	Tot.	794	603	642	2039

Traffic Lane Flows

Lane	Scenario 7: 2025 Surveyed Flows - AM Peak - Surveyed cycle time
Junction: Bury & Rochdale Old Road - Queen's Park Road	
1/1 (with short)	554(In) 515(Out)
1/2 (short)	39
2/1 (short)	564
2/2 (with short)	1152(In) 588(Out)
3/1	54
3/2	279
4/1	642
5/1	794
6/1	603

Lane Saturation Flows

Junction: Bury && Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 8: '2025 Surveyed Flows - PM Peak - Surveyed cycle time' (FG2: '2025 Surveyed Flows - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

	Destination				
Origin		A	B	C	Tot.
	A	0	412	502	914
	B	568	0	47	615
	C	773	86	0	859
	Tot.	1341	498	549	2388

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 8: 2025 Surveyed Flows - PM Peak - Surveyed cycle time
Junction: Bury & Rochdale Old Road - Queen's Park Road	
1/1 (with short)	859(In) 773(Out)
1/2 (short)	86
2/1 (short)	412
2/2 (with short)	914(In) 502(Out)
3/1	47
3/2	568
4/1	549
5/1	1341
6/1	498

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 9: '2030 Without Development - AM Peak - Surveyed cycle time' (FG3: '2030 Without Development - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	580	599	1179
	B	296	0	54	350
	C	524	40	0	564
	Tot.	820	620	653	2093

Traffic Lane Flows

Lane	Scenario 9: 2030 Without Development - AM Peak - Surveyed cycle time
Junction: Bury && Rochdale Old Road - Queen's Park Road	
1/1 (with short)	564(In) 524(Out)
1/2 (short)	40
2/1 (short)	580
2/2 (with short)	1179(In) 599(Out)
3/1	54
3/2	296
4/1	653
5/1	820
6/1	620

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 10: '2030 Without Development - PM Peak - Surveyed cycle time' (FG4: '2030 Without Development - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination				
		A	B	C	Tot.
Origin	A	0	430	509	939
	B	581	0	48	629
	C	785	87	0	872
	Tot.	1366	517	557	2440

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

Scenario 11: '2030 With JPA 17 Full Allocation - AM Peak - Surveyed cycle time' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired

Desired Flow :

Origin	Destination				
		A	B	C	Tot.
	A	0	628	649	1277
	B	306	0	54	360
	C	543	40	0	583
	Tot.	849	668	703	2220

Traffic Lane Flows

Lane	Scenario 11: 2030 With JPA 17 Full Allocation - AM Peak - Surveyed cycle time
Junction: Bury & Rochdale Old Road - Queen's Park Road	
1/1 (with short)	583(In) 543(Out)
1/2 (short)	40
2/1 (short)	628
2/2 (with short)	1277(In) 649(Out)
3/1	54
3/2	306
4/1	703
5/1	849
6/1	668

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

Scenario 12: '2030 With JPA 17 Full Allocation - PM Peak -Surveyed cycle time' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 1: 'Network Control Plan 1')

Traffic Flows, Desired**Desired Flow :**

	Destination				
		A	B	C	Tot.
Origin	A	0	444	526	970
	B	621	0	48	669
	C	840	87	0	927
	Tot.	1461	531	574	2566

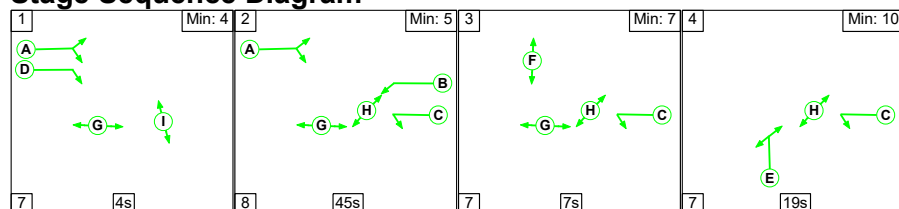
Traffic Lane Flows

Lane	Scenario 12: 2030 With JPA 17 Full Allocation - PM Peak -Surveyed cycle time
Junction: Bury & Rochdale Old Road - Queen's Park Road	
1/1 (with short)	927(In) 840(Out)
1/2 (short)	87
2/1 (short)	444
2/2 (with short)	970(In) 526(Out)
3/1	48
3/2	621
4/1	574
5/1	1461
6/1	531

Lane Saturation Flows

Junction: Bury & Rochdale Old Road - Queen's Park Road								
Lane	Lane Width (m)	Gradient	Nearside Lane	Allowed Turns	Turning Radius (m)	Turning Prop.	Sat Flow (PCU/Hr)	Flared Sat Flow (PCU/Hr)
1/1 (Bury & Rochdale Old Rd (West))	3.00	0.00	Y	Arm 5 Ahead	Inf	100.0 %	1915	1915
1/2 (Bury & Rochdale Old Rd (West))	3.00	0.00	N	Arm 6 Right	13.00	100.0 %	1842	1842
2/1 (Bury & Rochdale Old Road (East))	5.00	0.00	Y	Arm 6 Left	77.00	100.0 %	2075	2075
2/2 (Bury & Rochdale Old Road (East))	3.45	0.00	N	Arm 4 Ahead	Inf	100.0 %	2100	2100
3/1 (Queen's Park Road)	3.00	0.00	Y	Arm 4 Left	10.00	100.0 %	1665	1665
3/2 (Queen's Park Road)	3.00	0.00	N	Arm 5 Right	11.00	100.0 %	1808	1808
4/1	Infinite Saturation Flow						Inf	Inf
5/1	Infinite Saturation Flow						Inf	Inf
6/1	Infinite Saturation Flow						Inf	Inf

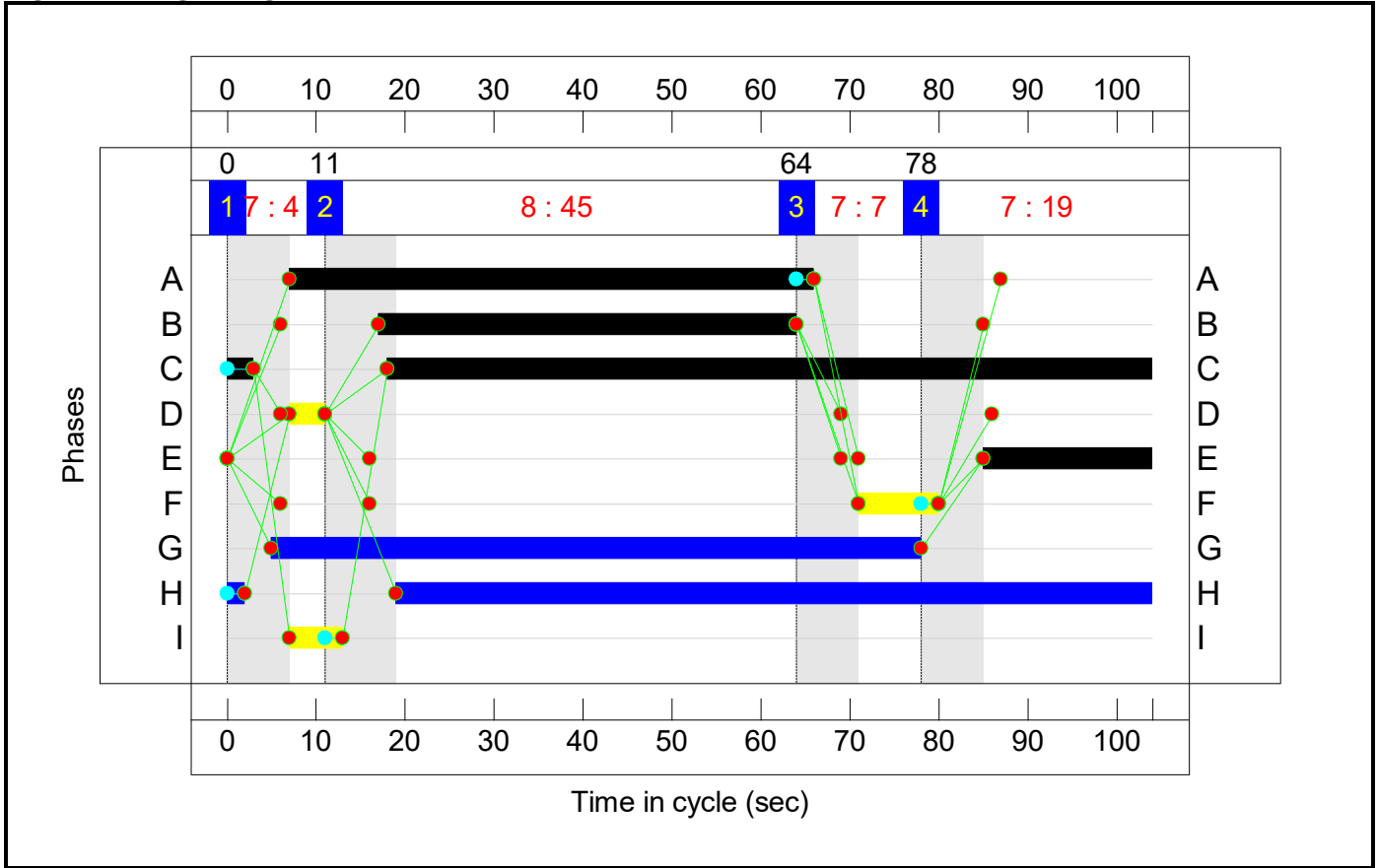
Scenario 1: '2025 Surveyed Flows - AM Peak - SCOOT suggested cycle time' (FG1: '2025 Surveyed Flows - AM Peak', Plan 1: 'Network Control Plan 1')

Stage Sequence Diagram

Stage Timings

Stage	1	2	3	4
Duration	4	45	7	19
Change Point	0	11	64	78

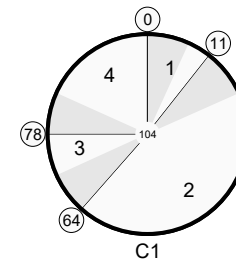
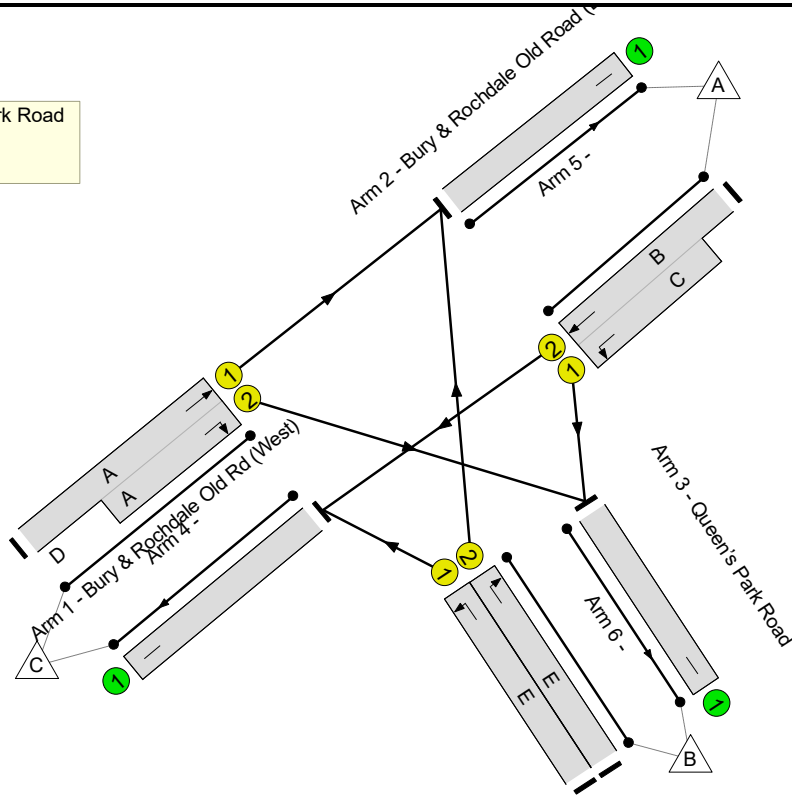
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: 12.2 %
Total Traffic Delay: 13.6 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	80.2%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	80.2%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	59	4	554	1915:1842	1059+80	48.6 : 48.6%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	47:89	-	1152	2100:2075	739+709	79.6 : 79.6%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	19	-	54	1665	320	16.9%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	19	-	279	1808	348	80.2%
4/1		U	N/A	N/A	-		-	-	-	642	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	794	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%

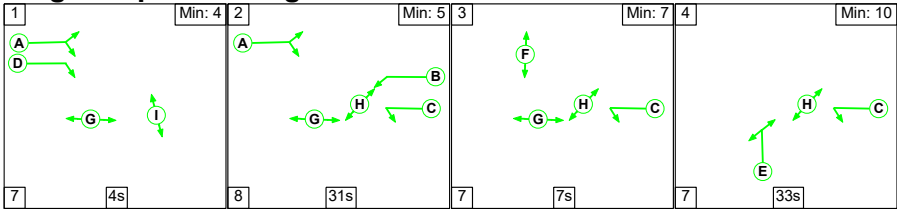
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	9.2	4.4	0.0	13.6	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	9.2	4.4	0.0	13.6	-	-	-	-
1/1+1/2	554	554	-	-	-	1.9	0.5	-	2.4	15.6	8.6	0.5	9.1
2/2+2/1	1152	1152	-	-	-	3.6	1.9	-	5.5	17.3	12.6	1.9	14.5
3/1	54	54	-	-	-	0.5	0.1	-	0.6	41.8	1.3	0.1	1.4
3/2	279	279	-	-	-	3.1	1.9	-	5.0	64.9	7.7	1.9	9.6
4/1	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	794	794	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 12.2 Total Delay for Signalled Lanes (pcuHr): 13.60 Cycle Time (s): 104 PRC Over All Lanes (%): 12.2 Total Delay Over All Lanes(pcuHr): 13.60													

Full Input Data And Results

Scenario 2: '2025 Surveyed Flows - PM Peak - SCOOT suggested cycle time' (FG2: '2025 Surveyed Flows - PM Peak', Plan 1: 'Network Control Plan 1')

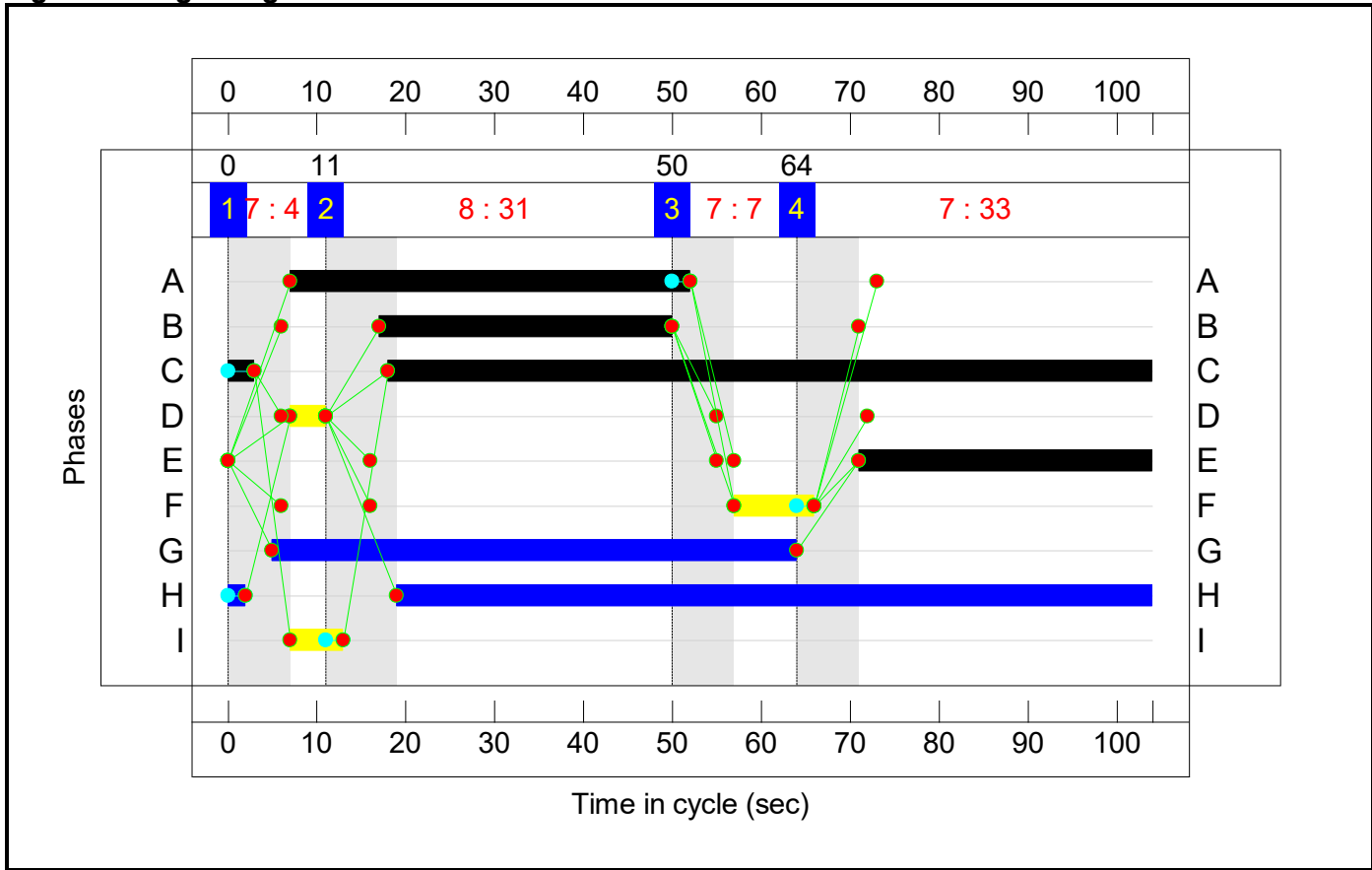
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	31	7	33
Change Point	0	11	50	64

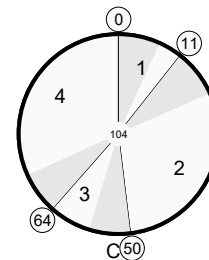
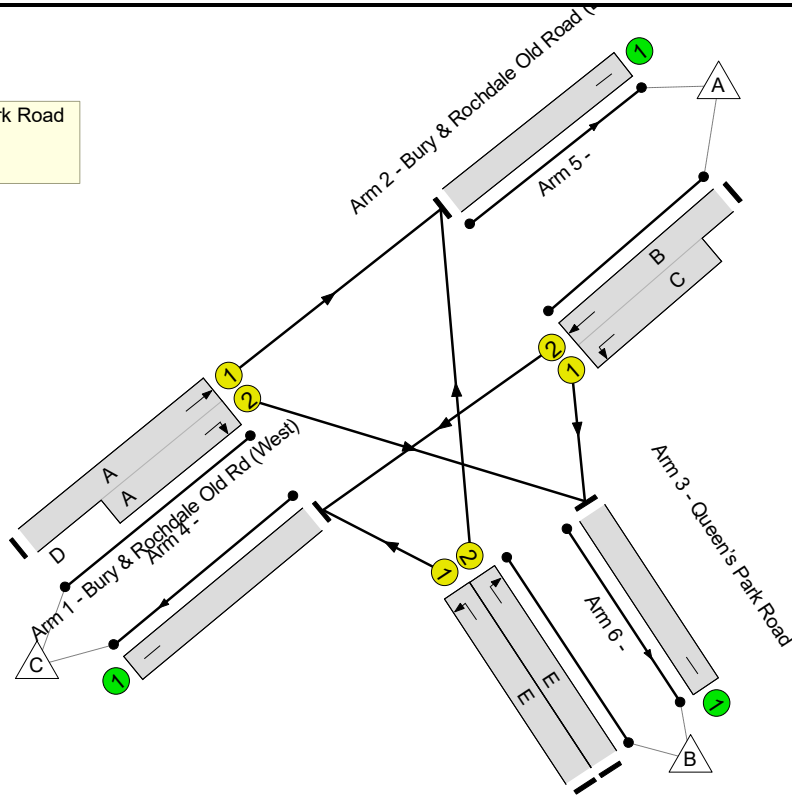
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: -7.1 %
Total Traffic Delay: 35.3 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages			
1	Min >= 4	2	Min >= 5
3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	96.4%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	96.4%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	45	4	859	1915:1842	802+89	96.4 : 96.4%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	33:89	-	914	2100:2075	604+496	83.1 : 83.1%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	33	-	47	1665	544	8.6%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	33	-	568	1808	591	96.1%
4/1		U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1341	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%

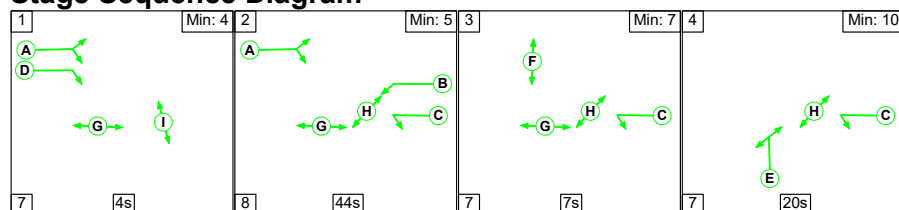
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	16.7	18.6	0.0	35.3	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	16.7	18.6	0.0	35.3	-	-	-	-
1/1+1/2	859	859	-	-	-	6.5	8.7	-	15.2	63.8	23.0	8.7	31.7
2/2+2/1	914	914	-	-	-	4.5	2.4	-	6.8	27.0	12.7	2.4	15.1
3/1	47	47	-	-	-	0.3	0.0	-	0.4	27.9	0.9	0.0	1.0
3/2	568	568	-	-	-	5.4	7.5	-	12.9	81.7	16.1	7.5	23.6
4/1	549	549	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1341	1341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -7.1 Total Delay for Signalled Lanes (pcuHr): 35.32 Cycle Time (s): 104 PRC Over All Lanes (%): -7.1 Total Delay Over All Lanes(pcuHr): 35.32													

Full Input Data And Results

Scenario 3: '2030 Without Development - AM Peak - SCOOT suggested cycle time' (FG3: '2030 Without Development - AM Peak', Plan 1: 'Network Control Plan 1')

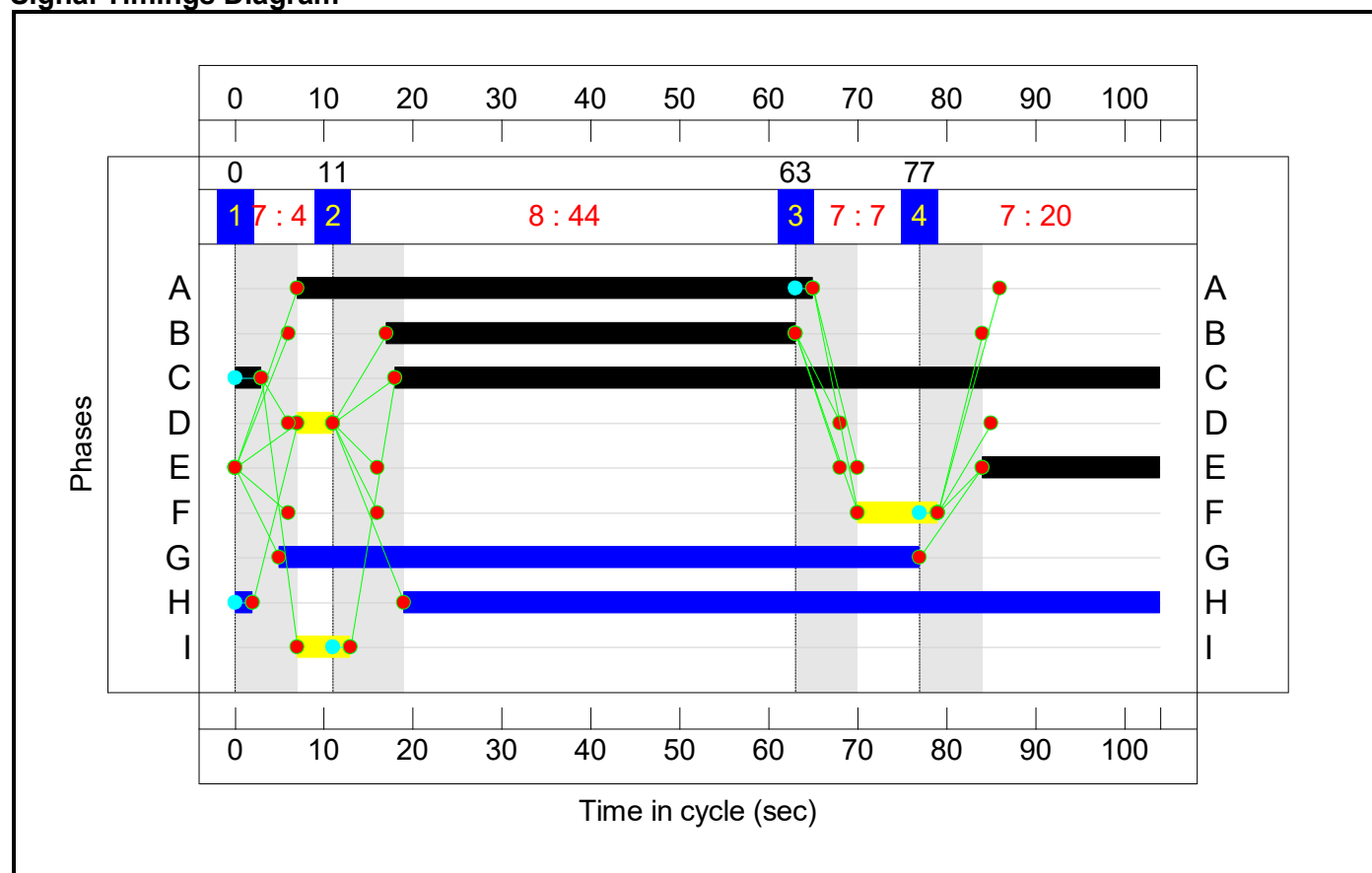
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	44	7	20
Change Point	0	11	63	77

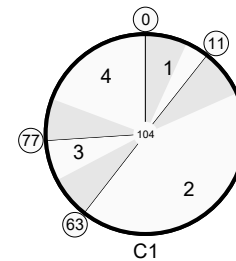
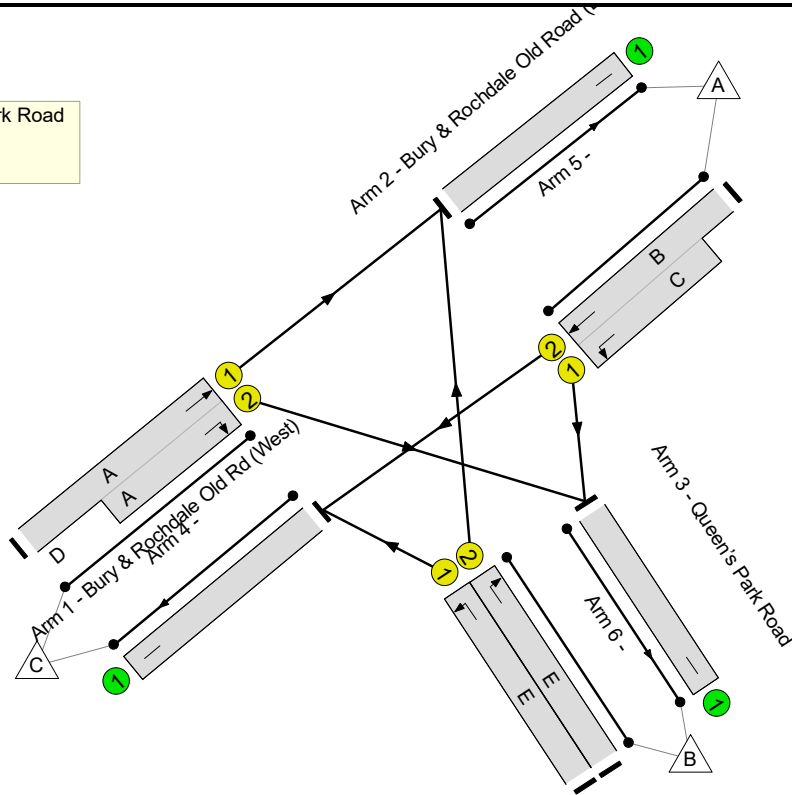
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: 9.3 %
Total Traffic Delay: 14.6 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	82.3%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	82.3%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	58	4	564	1915:1842	1041+79	50.3 : 50.3%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	46:89	-	1179	2100:2075	728+705	82.3 : 82.3%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	20	-	54	1665	336	16.1%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	20	-	296	1808	365	81.1%
4/1		U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	620	Inf	Inf	0.0%

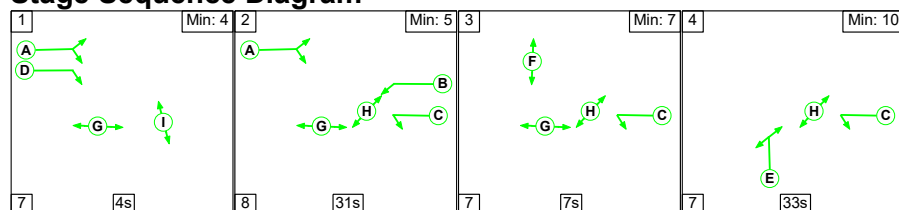
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	9.7	4.9	0.0	14.6	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	9.7	4.9	0.0	14.6	-	-	-	-
1/1+1/2	564	564	-	-	-	2.1	0.5	-	2.6	16.4	8.9	0.5	9.4
2/2+2/1	1179	1179	-	-	-	3.8	2.3	-	6.1	18.7	13.1	2.3	15.4
3/1	54	54	-	-	-	0.5	0.1	-	0.6	40.6	1.3	0.1	1.4
3/2	296	296	-	-	-	3.3	2.0	-	5.3	64.2	8.1	2.0	10.2
4/1	653	653	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	820	820	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	620	620	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 9.3 Total Delay for Signalled Lanes (pcuHr): 14.59 Cycle Time (s): 104 PRC Over All Lanes (%): 9.3 Total Delay Over All Lanes(pcuHr): 14.59													

Full Input Data And Results

Scenario 4: '2030 Without Development - PM Peak - SCOOT suggested cycle time' (FG4: '2030 Without Development - PM Peak', Plan 1: 'Network Control Plan 1')

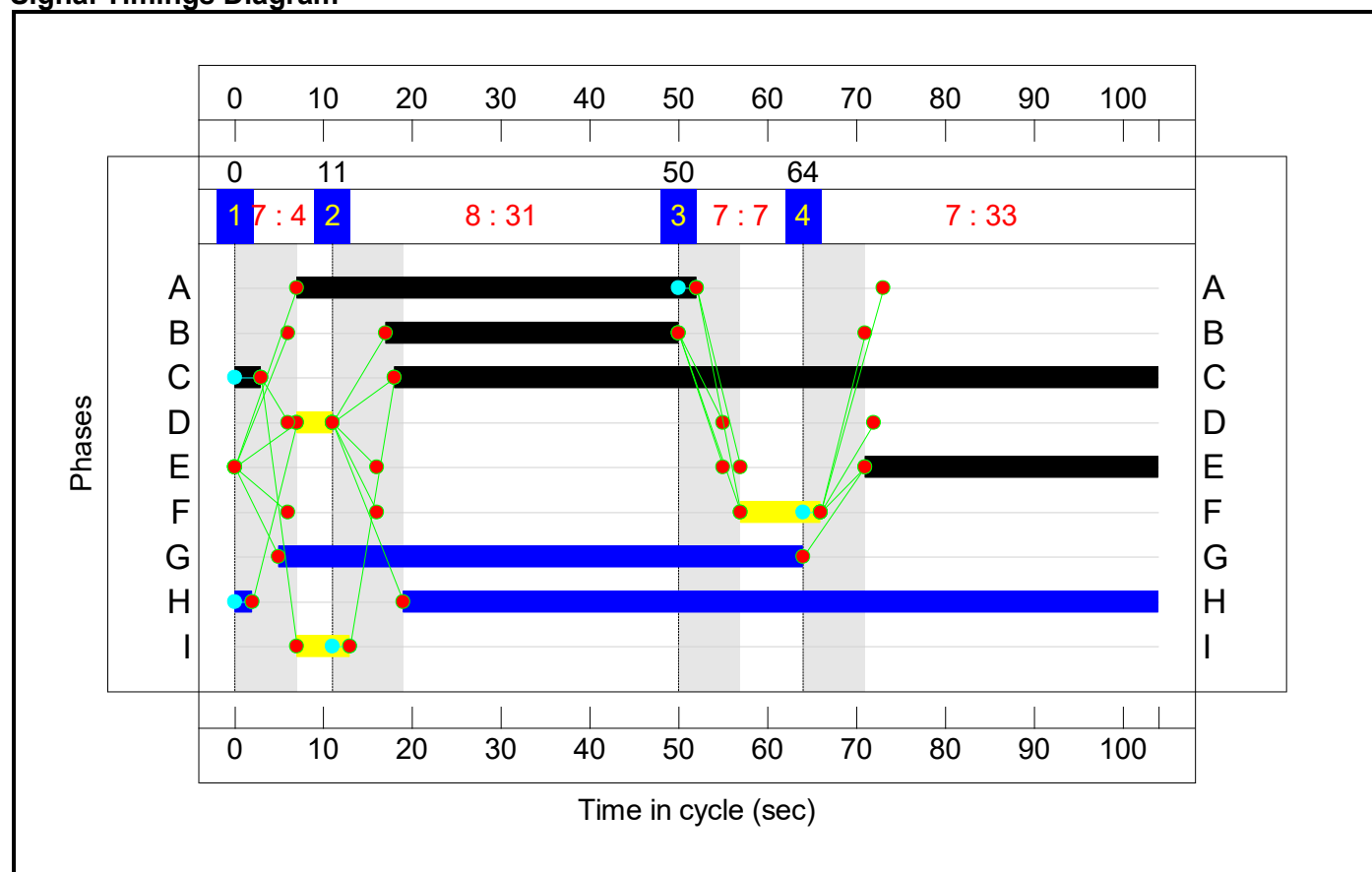
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	31	7	33
Change Point	0	11	50	64

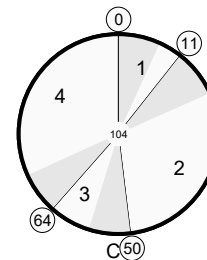
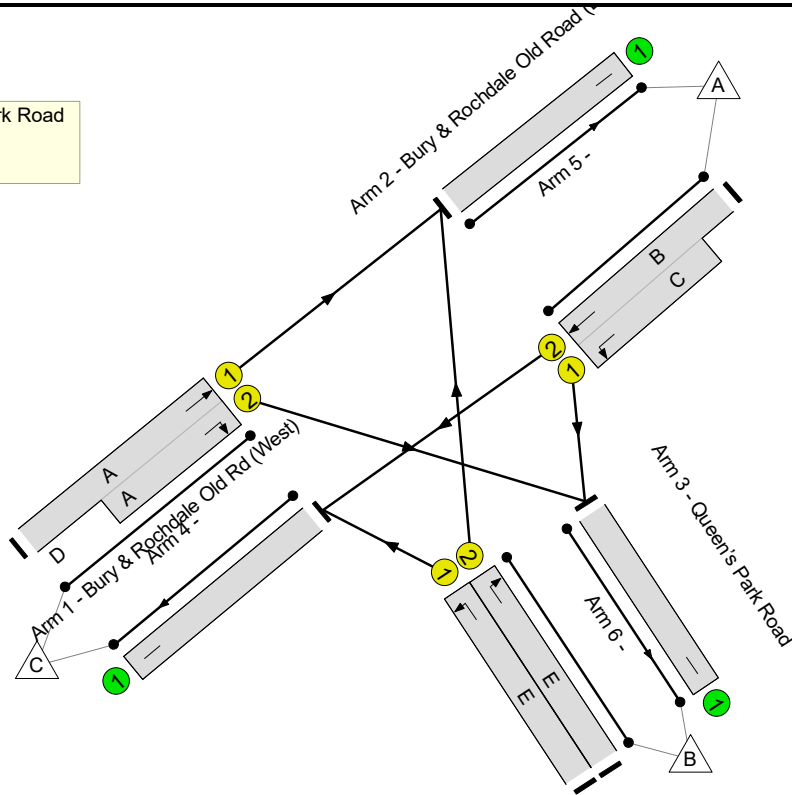
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: -9.2 %
Total Traffic Delay: 40.4 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	98.3%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	98.3%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	45	4	872	1915:1842	802+89	97.9 : 97.9%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	33:89	-	939	2100:2075	603+509	84.4 : 84.4%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	33	-	48	1665	544	8.8%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	33	-	581	1808	591	98.3%
4/1		U	N/A	N/A	-		-	-	-	557	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1366	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%

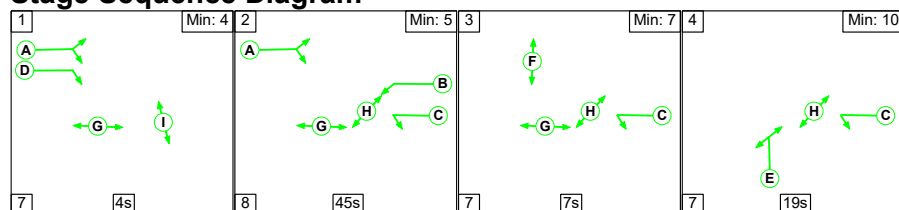
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	17.2	23.3	0.0	40.4	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	17.2	23.3	0.0	40.4	-	-	-	-
1/1+1/2	872	872	-	-	-	6.7	10.8	-	17.5	72.2	23.8	10.8	34.6
2/2+2/1	939	939	-	-	-	4.5	2.6	-	7.2	27.5	13.0	2.6	15.6
3/1	48	48	-	-	-	0.3	0.0	-	0.4	27.9	1.0	0.0	1.0
3/2	581	581	-	-	-	5.6	9.8	-	15.4	95.4	16.6	9.8	26.4
4/1	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1366	1366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -9.2 Total Delay for Signalled Lanes (pcuHr): 40.43 Cycle Time (s): 104 PRC Over All Lanes (%): -9.2 Total Delay Over All Lanes(pcuHr): 40.43													

Full Input Data And Results

Scenario 5: '2030 With JPA 17 Full Allocation - AM Peak - SCOOT suggested cycle time' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 1: 'Network Control Plan 1')

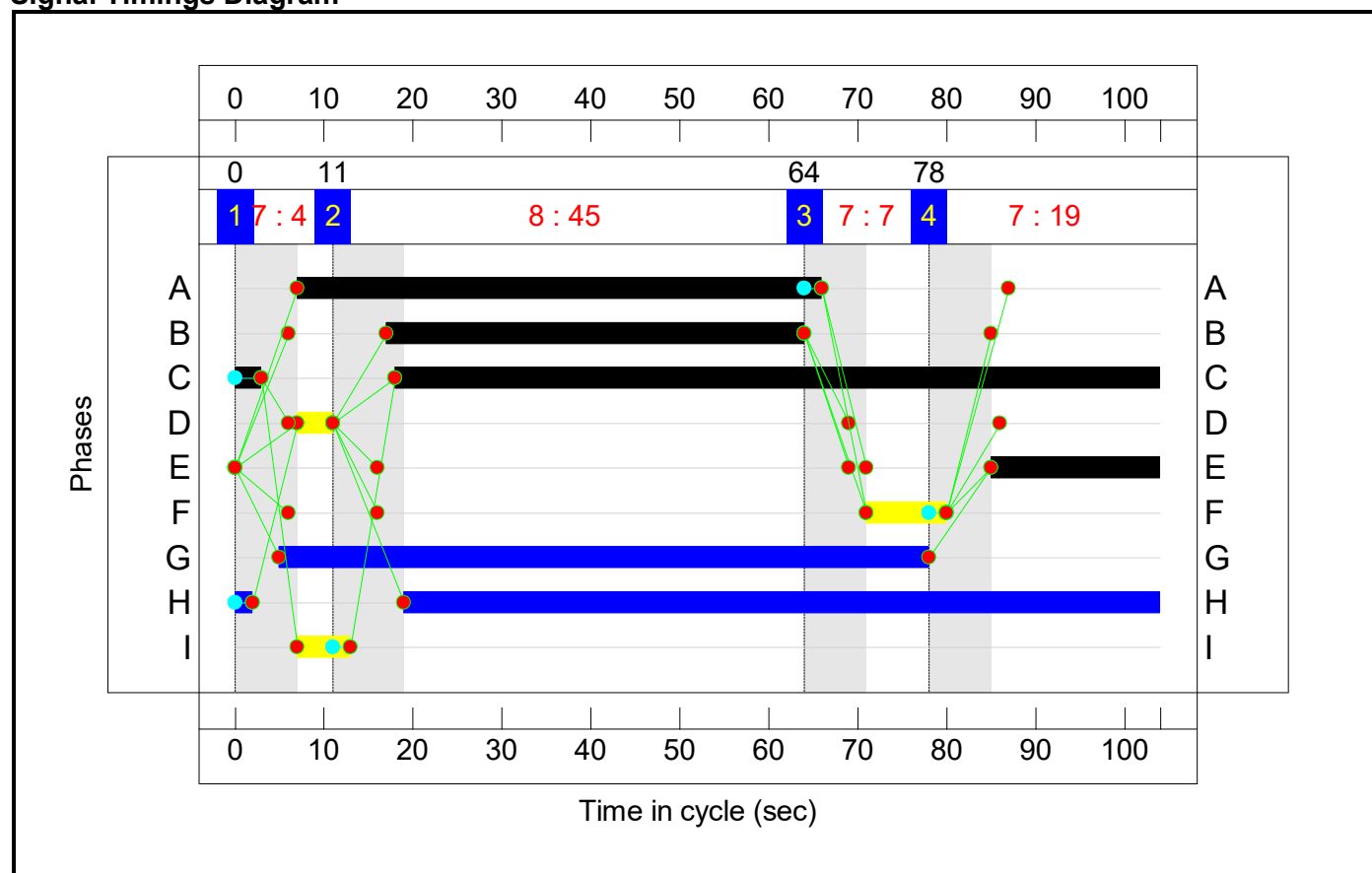
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	45	7	19
Change Point	0	11	64	78

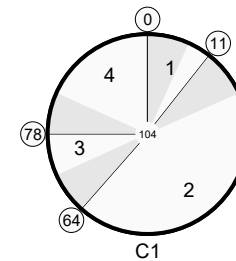
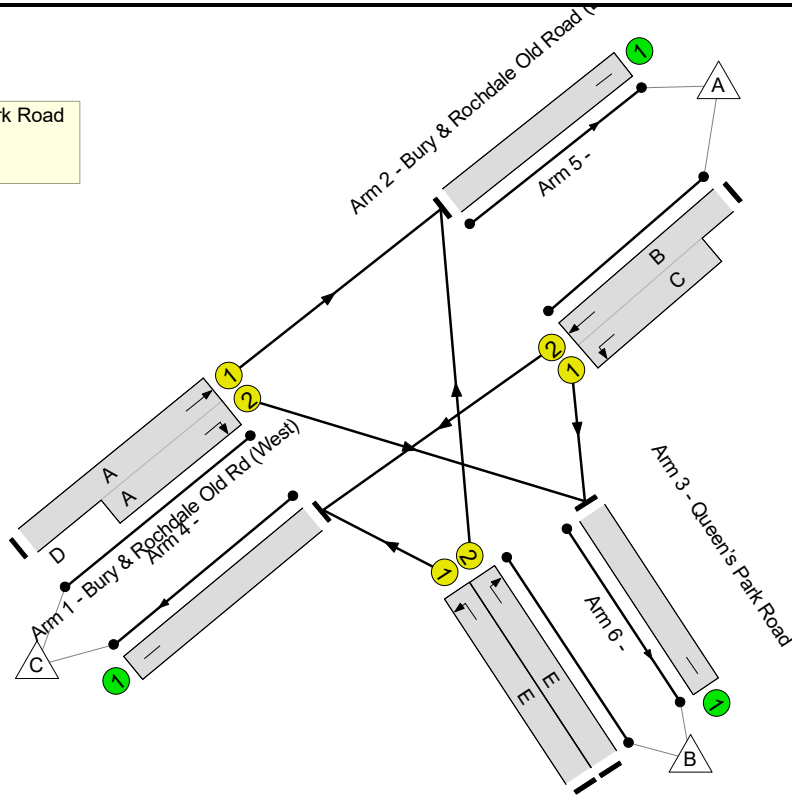
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: 2.3 %
Total Traffic Delay: 17.6 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	88.0%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	59	4	583	1915:1842	1060+78	51.2 : 51.2%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	47:89	-	1277	2100:2075	738+714	87.9 : 87.9%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	19	-	54	1665	320	16.9%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	19	-	306	1808	348	88.0%
4/1		U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	849	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%

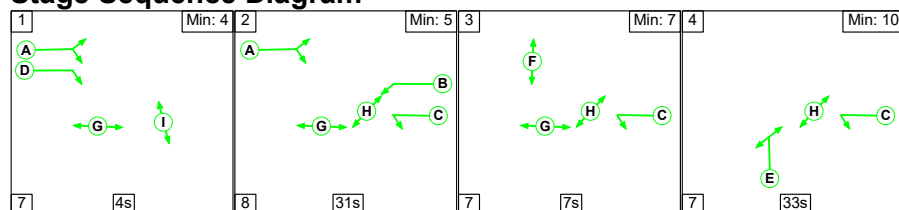
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	10.2	7.3	0.0	17.6	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	10.2	7.3	0.0	17.6	-	-	-	-
1/1+1/2	583	583	-	-	-	2.1	0.5	-	2.6	16.0	9.3	0.5	9.8
2/2+2/1	1277	1277	-	-	-	4.2	3.5	-	7.7	21.7	15.7	3.5	19.2
3/1	54	54	-	-	-	0.5	0.1	-	0.6	41.8	1.3	0.1	1.4
3/2	306	306	-	-	-	3.5	3.2	-	6.7	78.3	8.6	3.2	11.8
4/1	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 2.3 Total Delay for Signalled Lanes (pcuHr): 17.56 Cycle Time (s): 104 PRC Over All Lanes (%): 2.3 Total Delay Over All Lanes(pcuHr): 17.56													

Full Input Data And Results

Scenario 6: '2030 With JPA 17 Full Allocation - PM Peak - SCOOT suggested cycle time' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 1: 'Network Control Plan 1')

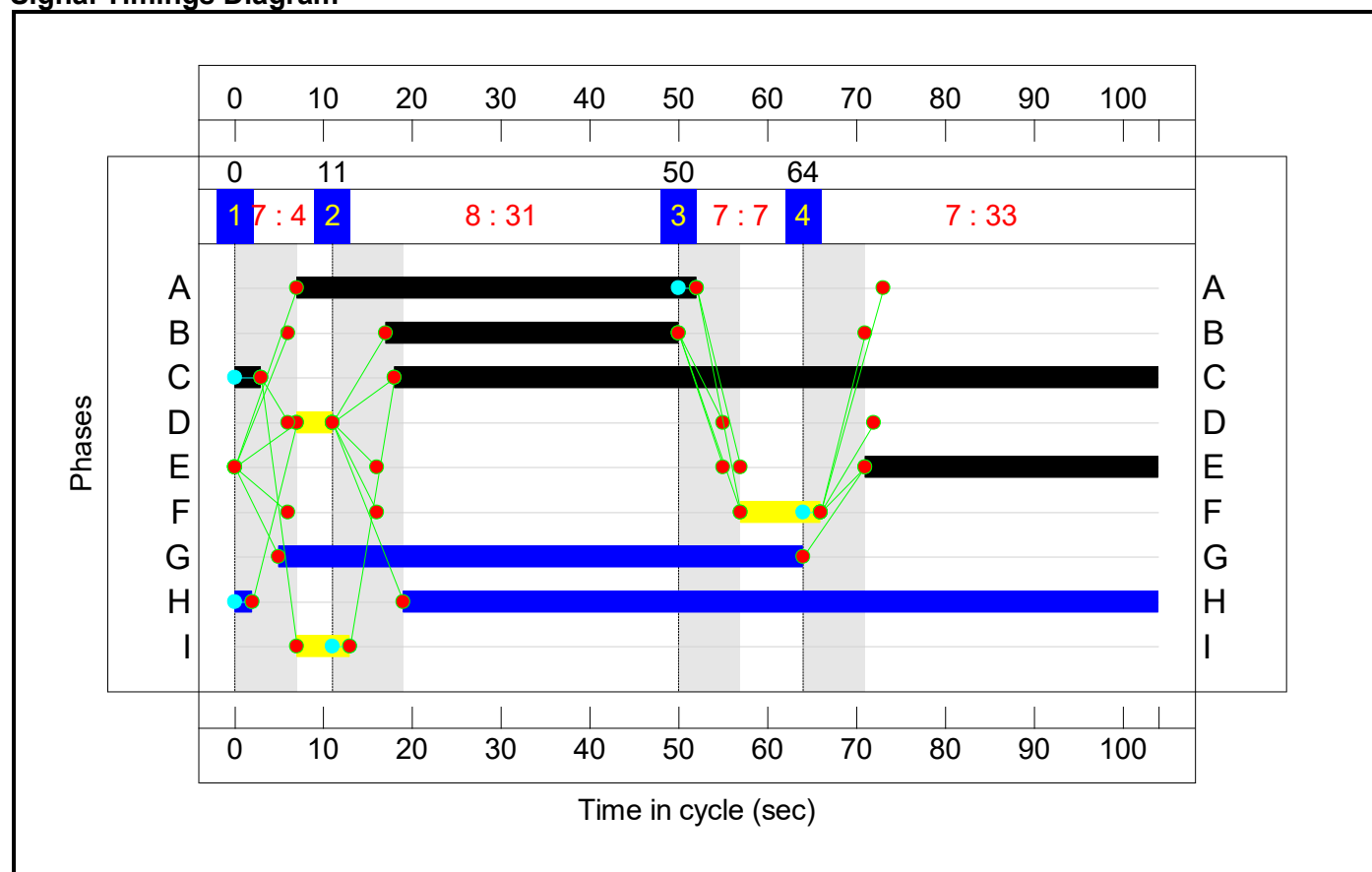
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	31	7	33
Change Point	0	11	50	64

Signal Timings Diagram



Full Input Data And Results

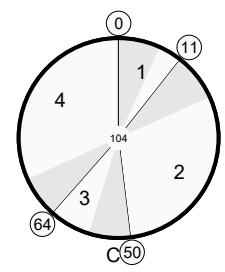
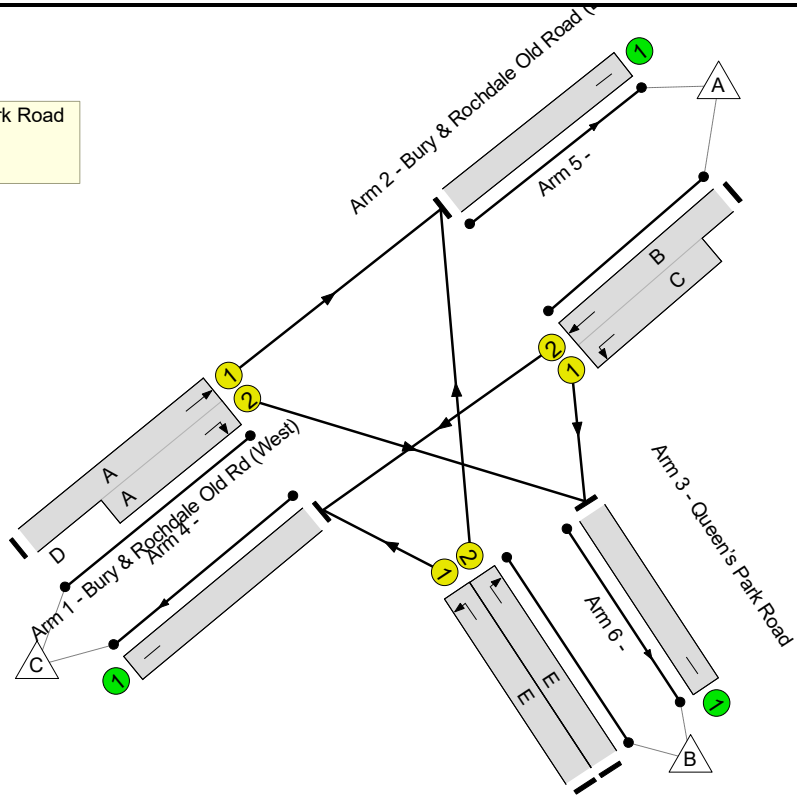
Network Layout Diagram



Bury & Rochdale Old Road - Queen's Park Road

PRC: -16.7 %

Total Traffic Delay: 74.9 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	105.1%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	105.1%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	45	4	927	1915:1842	806+83	104.3 : 104.3%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	33:89	-	970	2100:2075	603+509	87.3 : 87.3%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	33	-	48	1665	544	8.8%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	33	-	621	1808	591	105.1%
4/1		U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1461	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%

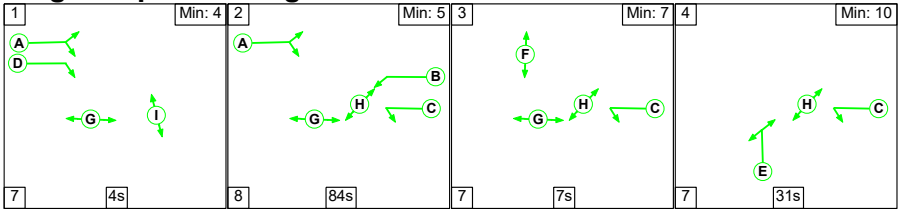
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	22.1	52.8	0.0	74.9	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	22.1	52.8	0.0	74.9	-	-	-	-
1/1+1/2	927	889	-	-	-	9.2	27.4	-	36.6	142.1	28.6	27.4	56.1
2/2+2/1	970	970	-	-	-	4.7	3.3	-	8.0	29.7	13.6	3.3	16.9
3/1	48	48	-	-	-	0.3	0.0	-	0.4	27.9	1.0	0.0	1.0
3/2	621	591	-	-	-	7.9	22.0	-	29.9	173.3	19.2	22.0	41.2
4/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1397	1397	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	527	527	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -16.7 Total Delay for Signalled Lanes (pcuHr): 74.89 Cycle Time (s): 104 PRC Over All Lanes (%): -16.7 Total Delay Over All Lanes(pcuHr): 74.89													

Full Input Data And Results

Scenario 7: '2025 Surveyed Flows - AM Peak - Surveyed cycle time' (FG1: '2025 Surveyed Flows - AM Peak', Plan 1: 'Network Control Plan 1')

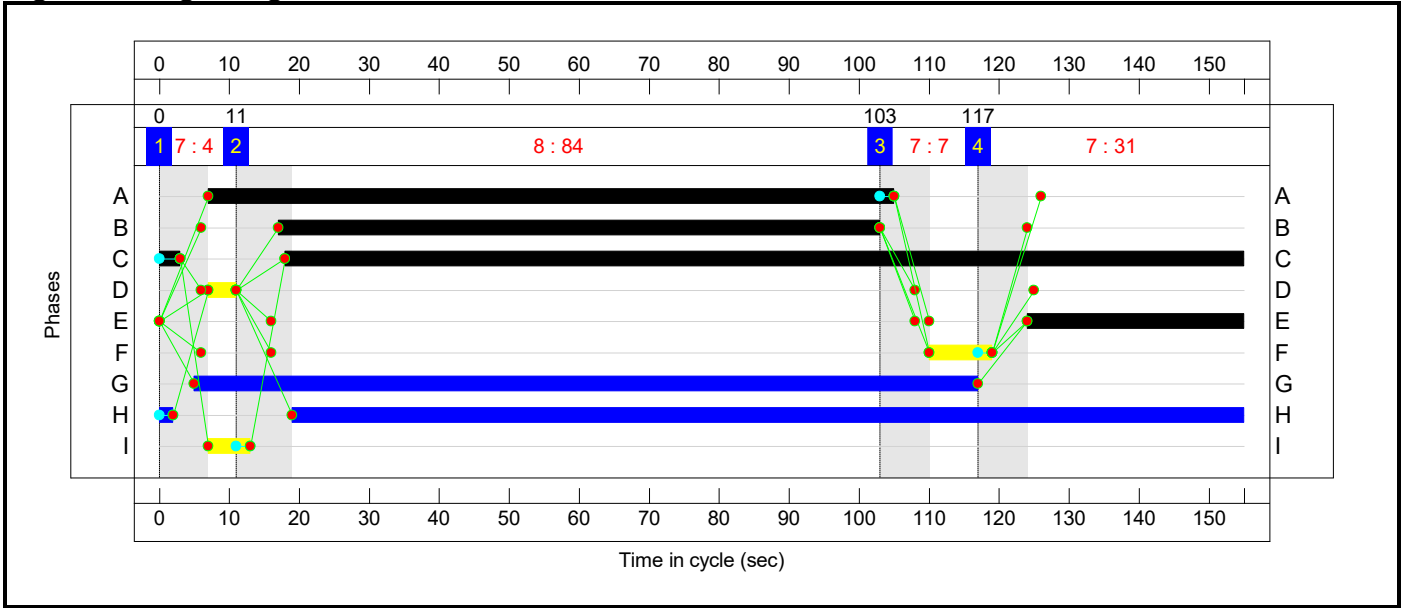
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	84	7	31
Change Point	0	11	103	117

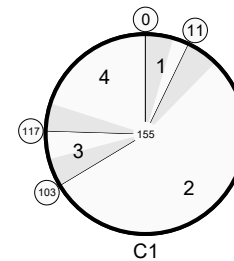
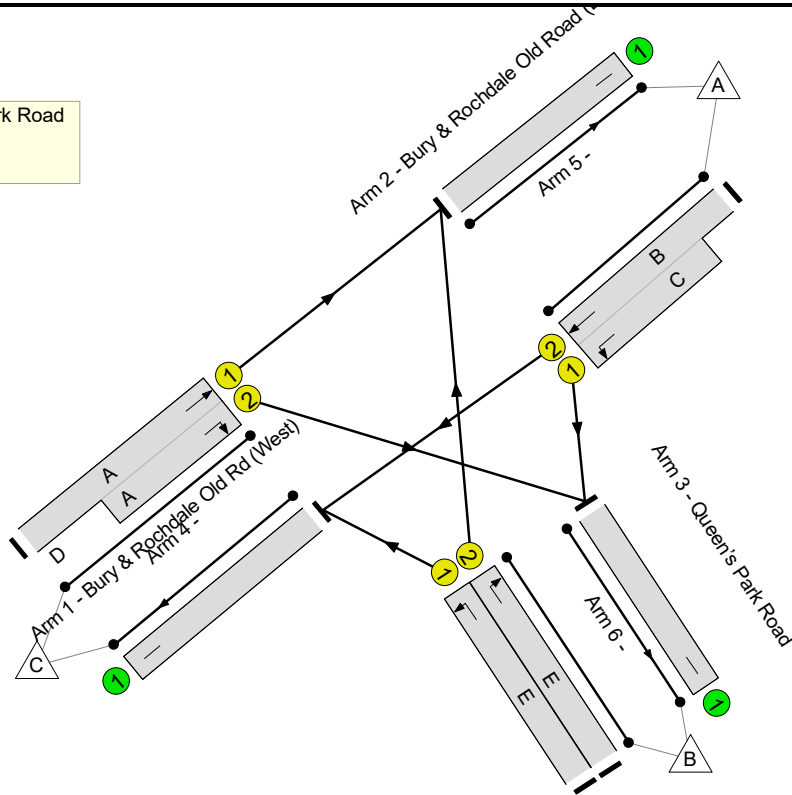
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: 16.9 %
Total Traffic Delay: 14.5 pcuHr



Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	77.0%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	98	4	554	1915:1842	1157+88	44.5 : 44.5%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	86:140	-	1152	2100:2075	764+733	77.0 : 77.0%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	31	-	54	1665	344	15.7%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	31	-	279	1808	373	74.7%
4/1		U	N/A	N/A	-		-	-	-	642	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	794	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	603	Inf	Inf	0.0%

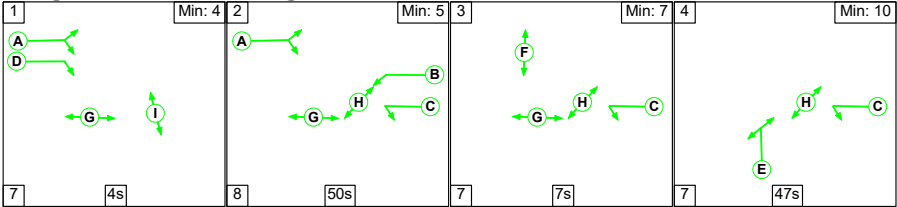
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	10.9	3.6	0.0	14.5	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	10.9	3.6	0.0	14.5	-	-	-	-
1/1+1/2	554	554	-	-	-	2.1	0.4	-	2.5	16.3	11.1	0.4	11.5
2/2+2/1	1152	1152	-	-	-	3.6	1.7	-	5.2	16.3	18.1	1.7	19.7
3/1	54	54	-	-	-	0.8	0.1	-	0.8	56.7	1.9	0.1	2.0
3/2	279	279	-	-	-	4.5	1.4	-	5.9	76.2	11.2	1.4	12.7
4/1	642	642	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	794	794	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	603	603	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1	PRC for Signalised Lanes (%):		16.9	Total Delay for Signalised Lanes (pcuHr):				14.48	Cycle Time (s): 155				
	PRC Over All Lanes (%):		16.9	Total Delay Over All Lanes(pcuHr):				14.48					

Full Input Data And Results

Scenario 8: '2025 Surveyed Flows - PM Peak - Surveyed cycle time' (FG2: '2025 Surveyed Flows - PM Peak', Plan 1: 'Network Control Plan 1')

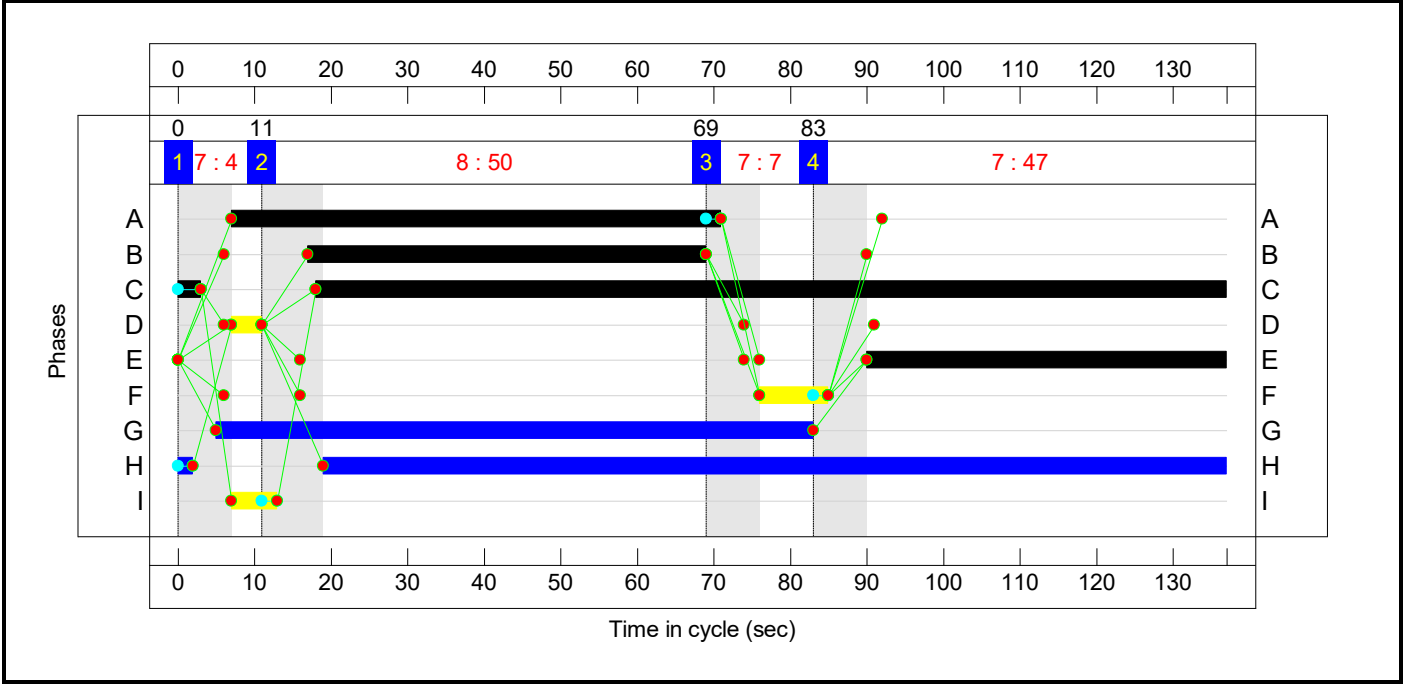
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	50	7	47
Change Point	0	11	69	83

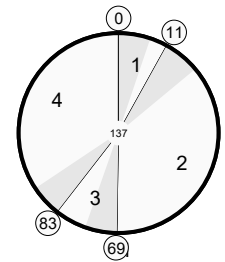
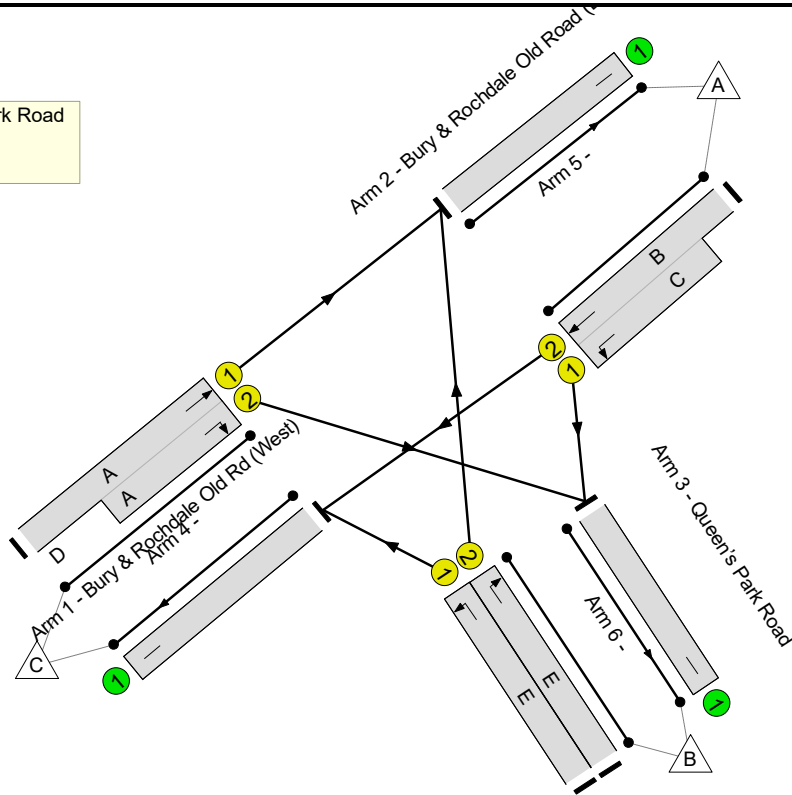
Signal Timings Diagram



Full Input Data And Results

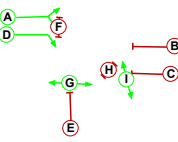
Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: -1.4 %
Total Traffic Delay: 30.4 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7
							

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	91.3%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	64	4	859	1915:1842	847+94	91.3 : 91.3%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	52:122	-	914	2100:2075	618+507	81.2 : 81.2%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	47	-	47	1665	583	8.1%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	47	-	568	1808	633	89.7%
4/1		U	N/A	N/A	-		-	-	-	549	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1341	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%

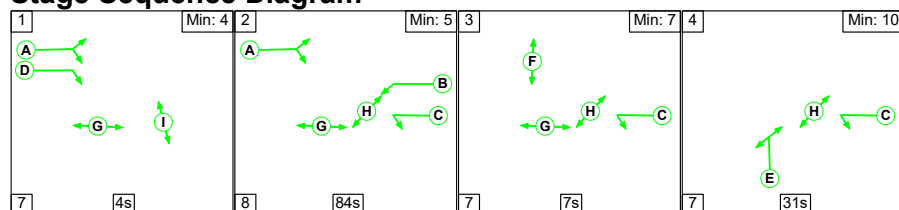
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	19.6	10.8	0.0	30.4	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	19.6	10.8	0.0	30.4	-	-	-	-
1/1+1/2	859	859	-	-	-	7.7	4.7	-	12.4	52.1	29.2	4.7	33.9
2/2+2/1	914	914	-	-	-	4.9	2.1	-	7.0	27.5	17.2	2.1	19.3
3/1	47	47	-	-	-	0.4	0.0	-	0.4	33.1	1.2	0.0	1.2
3/2	568	568	-	-	-	6.7	3.9	-	10.5	66.7	20.4	3.9	24.2
4/1	549	549	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1341	1341	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -1.4 Total Delay for Signalled Lanes (pcuHr): 30.38 Cycle Time (s): 137 PRC Over All Lanes (%): -1.4 Total Delay Over All Lanes(pcuHr): 30.38													

Full Input Data And Results

Scenario 9: '2030 Without Development - AM Peak - Surveyed cycle time' (FG3: '2030 Without Development - AM Peak', Plan 1: 'Network Control Plan 1')

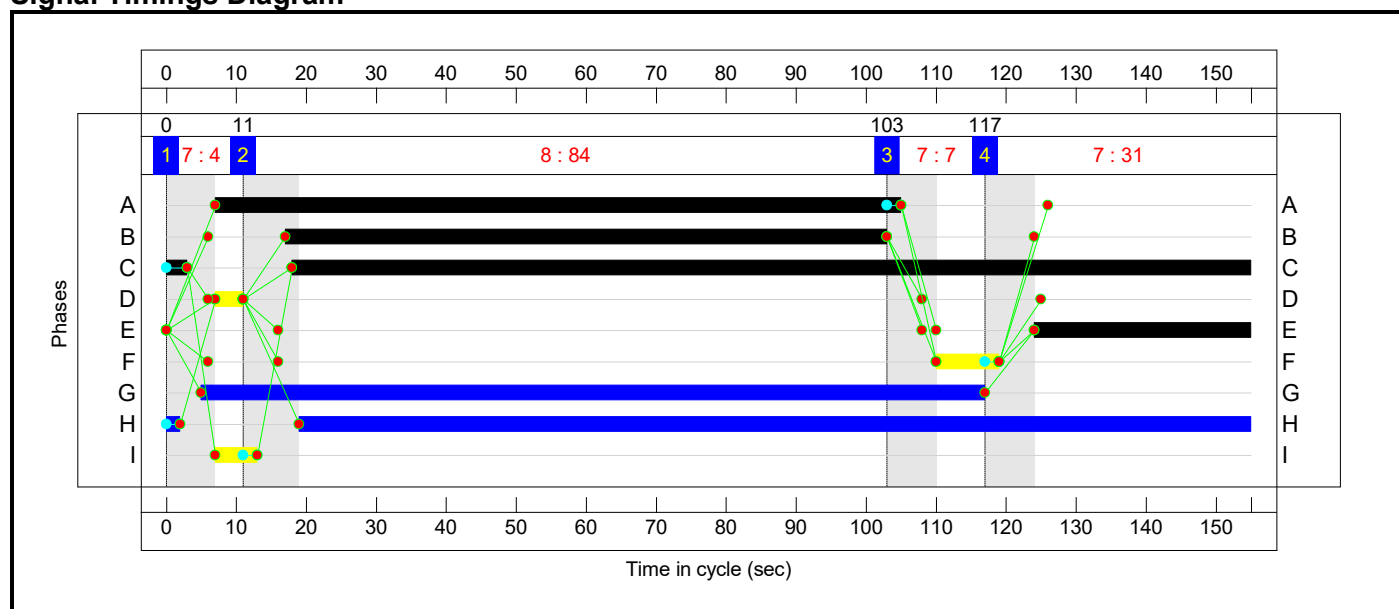
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	84	7	31
Change Point	0	11	103	117

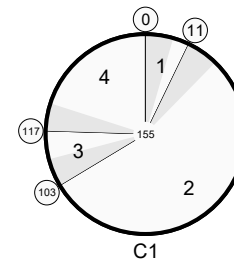
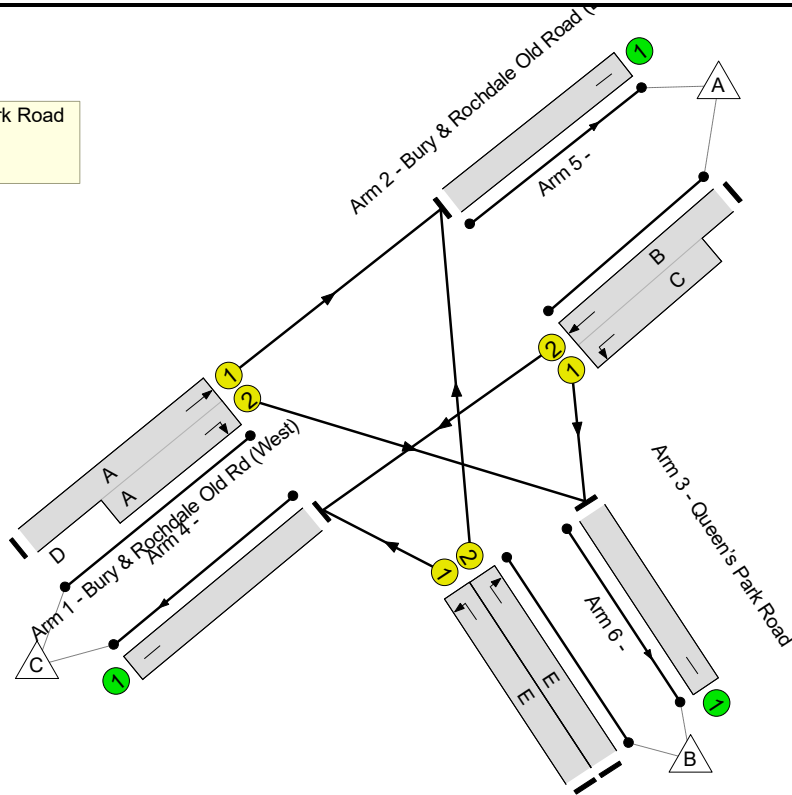
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: 13.5 %
Total Traffic Delay: 15.6 pcuHr



Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	79.3%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	79.3%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	98	4	564	1915:1842	1157+88	45.3 : 45.3%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	86:140	-	1179	2100:2075	762+738	78.6 : 78.6%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	31	-	54	1665	344	15.7%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	31	-	296	1808	373	79.3%
4/1		U	N/A	N/A	-		-	-	-	653	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	820	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	620	Inf	Inf	0.0%

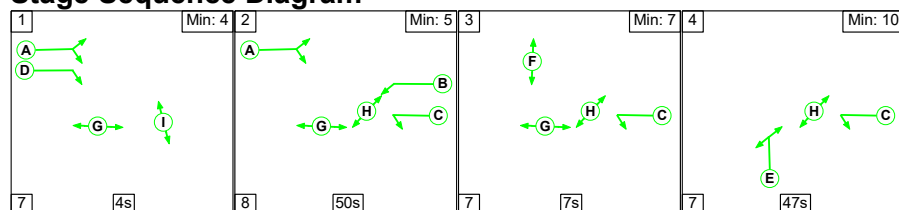
Full Input Data And Results

[illegible]

Full Input Data And Results

Scenario 10: '2030 Without Development - PM Peak - Surveyed cycle time' (FG4: '2030 Without Development - PM Peak', Plan 1: 'Network Control Plan 1')

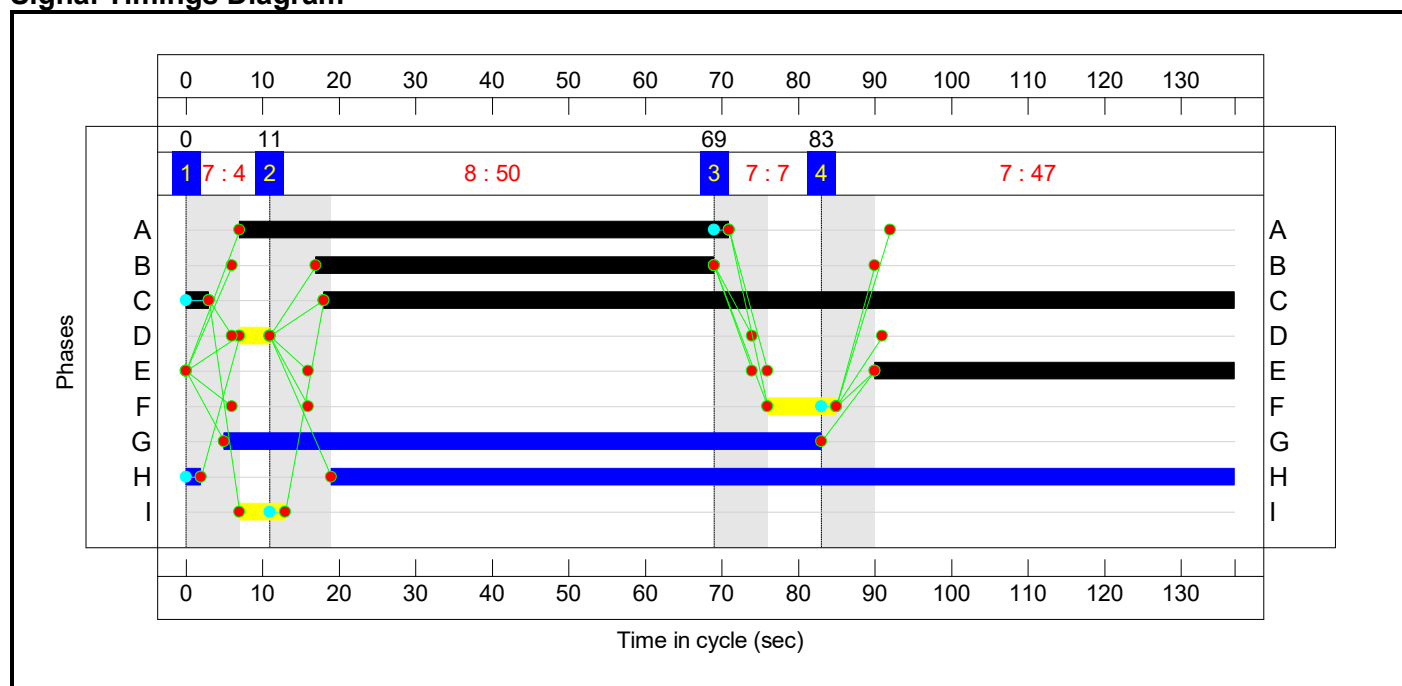
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	50	7	47
Change Point	0	11	69	83

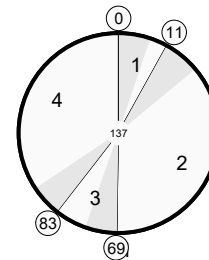
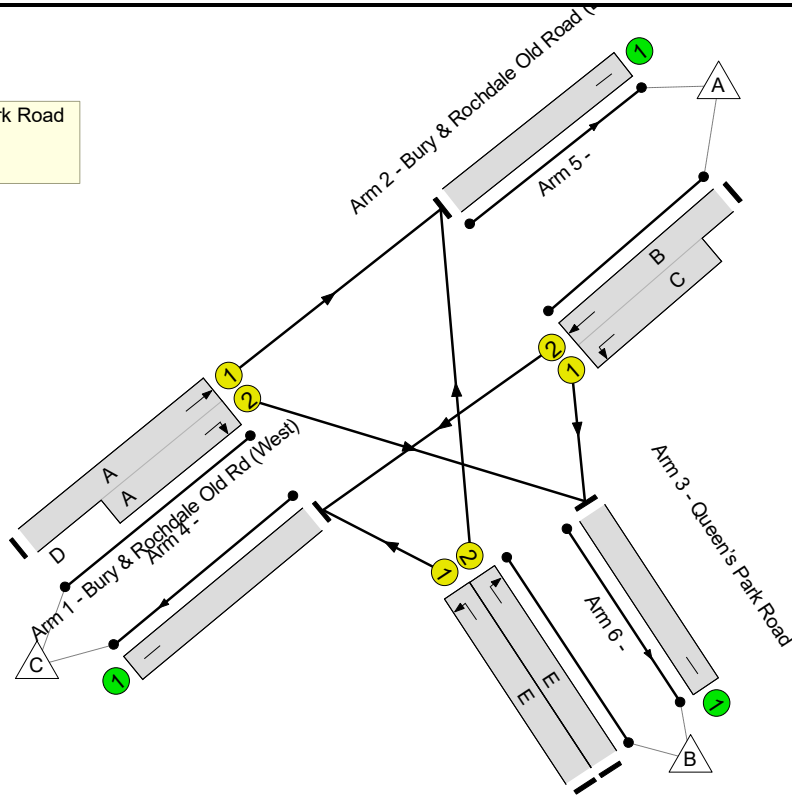
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: -3.0 %
Total Traffic Delay: 32.8 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	92.7%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	92.7%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	64	4	872	1915:1842	847+94	92.7 : 92.7%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	52:122	-	939	2100:2075	615+519	82.8 : 82.8%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	47	-	48	1665	583	8.2%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	47	-	581	1808	633	91.7%
4/1		U	N/A	N/A	-		-	-	-	557	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1366	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	517	Inf	Inf	0.0%

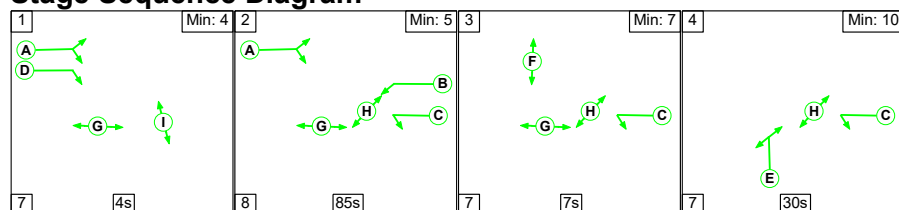
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	20.2	12.6	0.0	32.8	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	20.2	12.6	0.0	32.8	-	-	-	-
1/1+1/2	872	872	-	-	-	7.9	5.5	-	13.4	55.4	29.9	5.5	35.4
2/2+2/1	939	939	-	-	-	5.0	2.4	-	7.3	28.1	17.8	2.4	20.2
3/1	48	48	-	-	-	0.4	0.0	-	0.4	33.2	1.2	0.0	1.3
3/2	581	581	-	-	-	6.9	4.7	-	11.6	71.7	21.1	4.7	25.8
4/1	557	557	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1366	1366	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	517	517	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -3.0 Total Delay for Signalled Lanes (pcuHr): 32.75 Cycle Time (s): 137 PRC Over All Lanes (%): -3.0 Total Delay Over All Lanes(pcuHr): 32.75													

Full Input Data And Results

Scenario 11: '2030 With JPA 17 Full Allocation - AM Peak - Surveyed cycle time' (FG5: '2030 With JPA 17 Full Allocation - AM Peak', Plan 1: 'Network Control Plan 1')

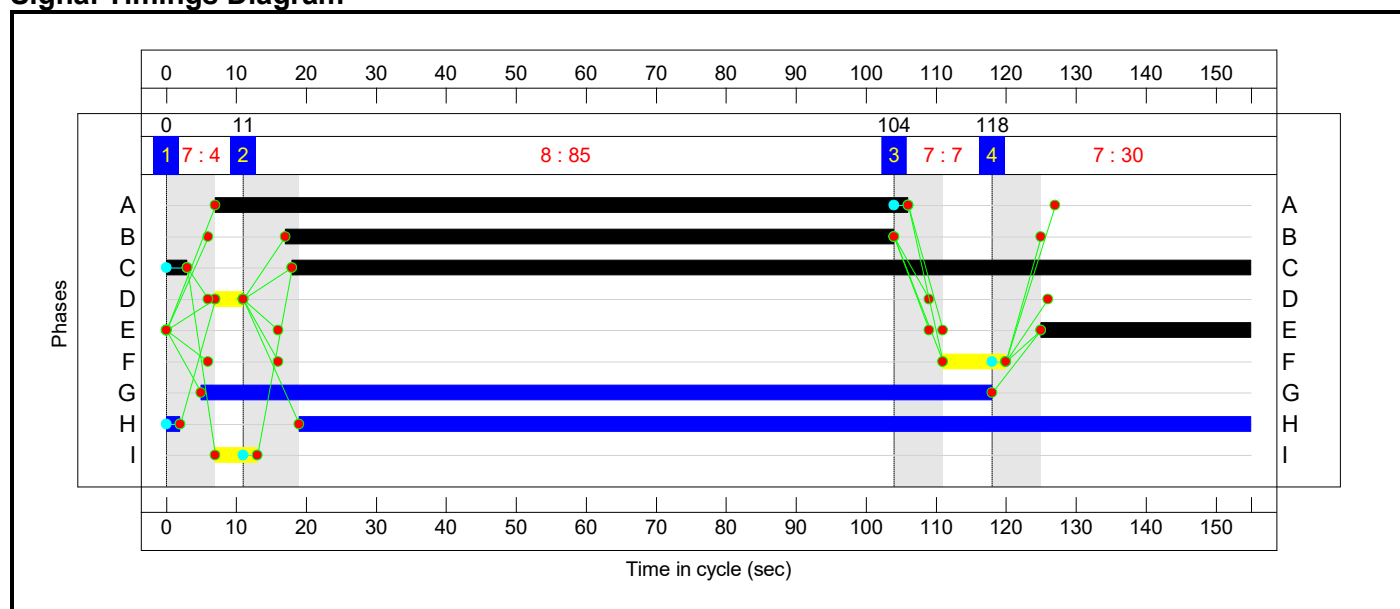
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	85	7	30
Change Point	0	11	104	118

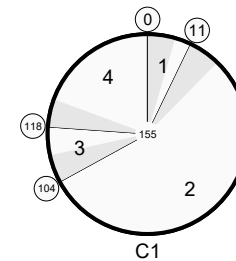
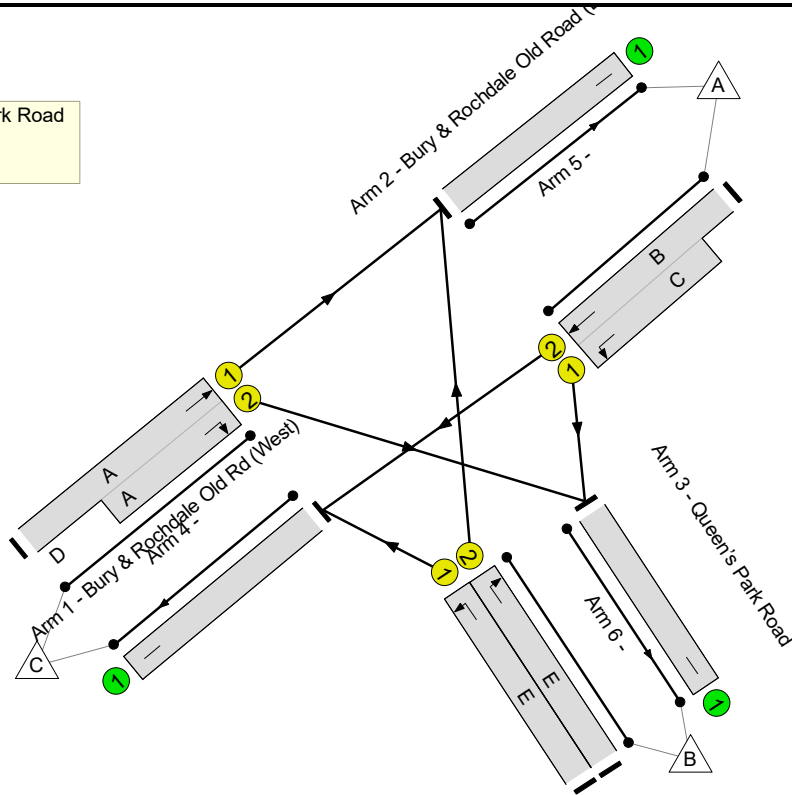
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: 6.4 %
Total Traffic Delay: 18.0 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages					
1	Min >= 4	2	Min >= 5	3	Min >= 4

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	84.6%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	84.6%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	99	4	583	1915:1842	1171+86	46.4 : 46.4%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	87:140	-	1277	2100:2075	769+744	84.4 : 84.4%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	30	-	54	1665	333	16.2%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	30	-	306	1808	362	84.6%
4/1		U	N/A	N/A	-		-	-	-	703	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	849	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	668	Inf	Inf	0.0%

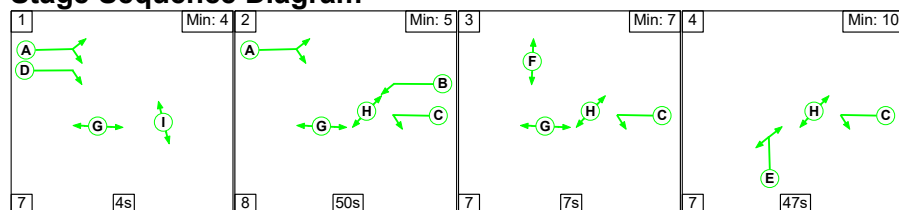
Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	12.3	5.7	0.0	18.0	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	12.3	5.7	0.0	18.0	-	-	-	-
1/1+1/2	583	583	-	-	-	2.2	0.4	-	2.6	16.1	11.7	0.4	12.2
2/2+2/1	1277	1277	-	-	-	4.3	2.6	-	6.9	19.4	25.6	2.6	28.3
3/1	54	54	-	-	-	0.8	0.1	-	0.9	57.7	1.9	0.1	2.0
3/2	306	306	-	-	-	5.1	2.5	-	7.6	89.4	12.7	2.5	15.2
4/1	703	703	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	849	849	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	668	668	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): 6.4 Total Delay for Signalled Lanes (pcuHr): 17.97 Cycle Time (s): 155 PRC Over All Lanes (%): 6.4 Total Delay Over All Lanes(pcuHr): 17.97													

Full Input Data And Results

Scenario 12: '2030 With JPA 17 Full Allocation - PM Peak -Surveyed cycle time' (FG6: '2030 With JPA 17 Full Allocation - PM Peak', Plan 1: 'Network Control Plan 1')

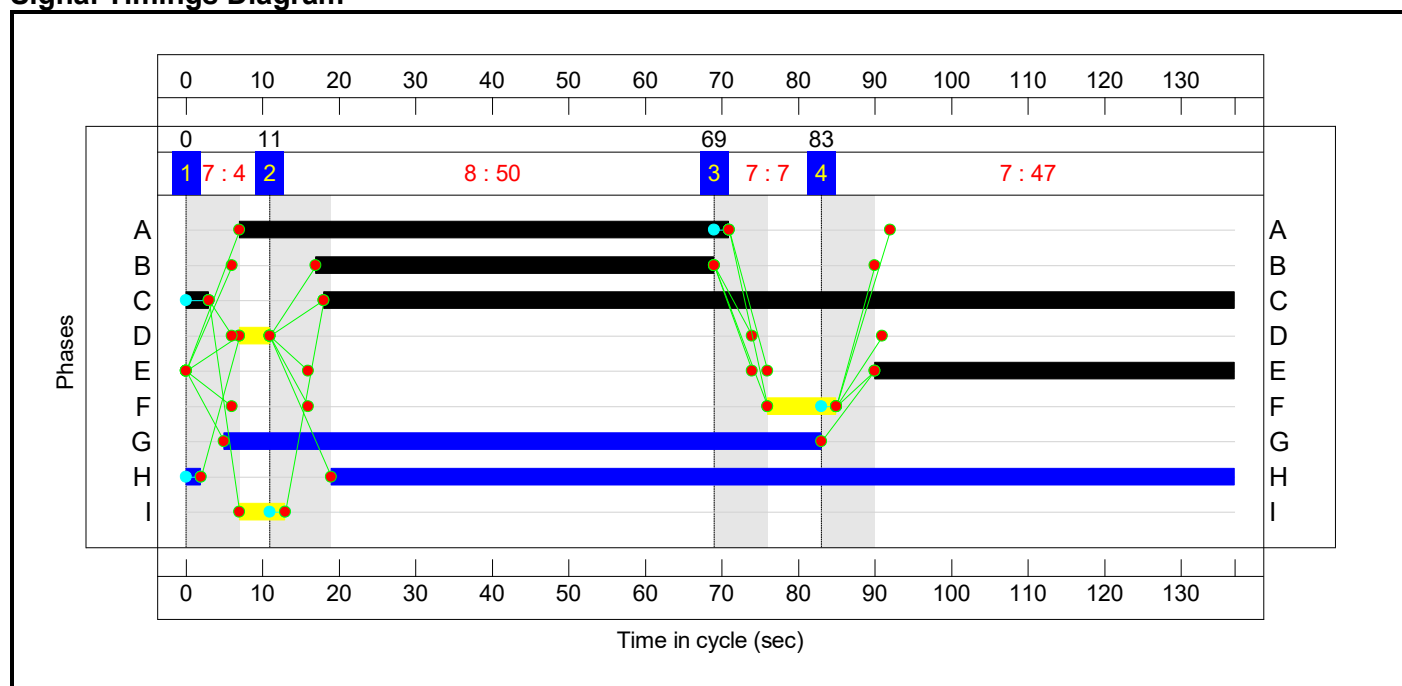
Stage Sequence Diagram



Stage Timings

Stage	1	2	3	4
Duration	4	50	7	47
Change Point	0	11	69	83

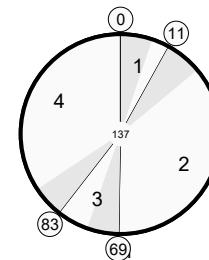
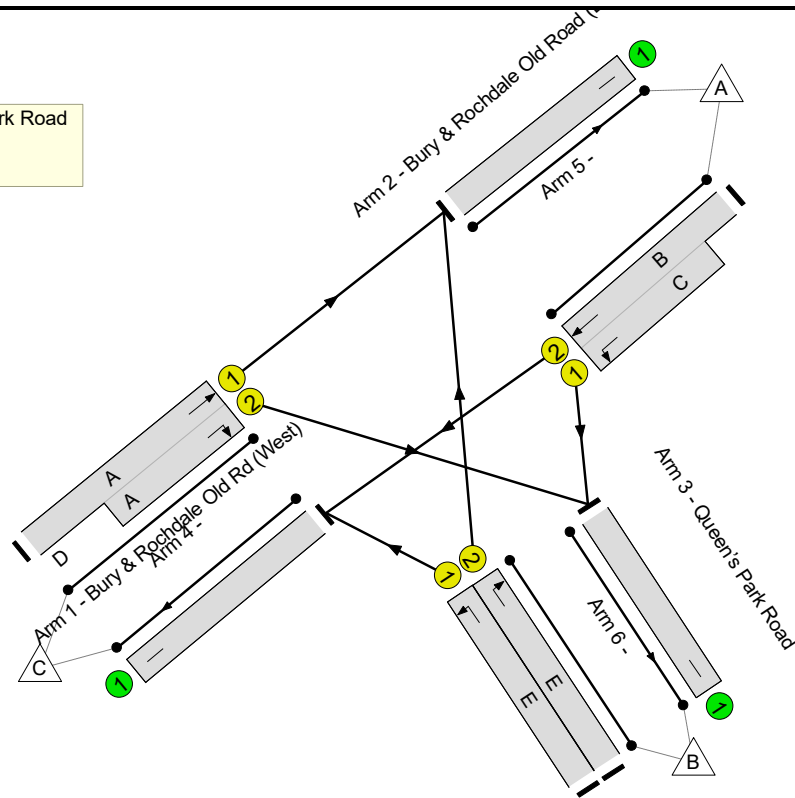
Signal Timings Diagram



Full Input Data And Results

Network Layout Diagram

Bury & Rochdale Old Road - Queen's Park Road
PRC: -9.6 %
Total Traffic Delay: 47.3 pcuHr



The signal timing information provided by TfGM states that under scout control the maximum cycle time for this junction is 104 seconds.

However, the 2025 surveyed signal timings identify that peak hour average cycle time are 155 seconds in AM Peak hour and 137 seconds in the PM Peak hour.

Stages							
1	Min >= 4	2	Min >= 5	3	Min >= 4	4	Min >= 7

Full Input Data And Results

Network Results

Item	Lane Description	Lane Type	Controller Stream	Position In Filtered Route	Full Phase	Arrow Phase	Num Greens	Total Green (s)	Arrow Green (s)	Demand Flow (pcu)	Sat Flow (pcu/Hr)	Capacity (pcu)	Deg Sat (%)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	N/A	-	-		-	-	-	-	-	-	98.7%
Bury && Rochdale Old Road - Queen's Park Road	-	-	N/A	-	-		-	-	-	-	-	-	98.7%
1/1+1/2	Bury & Rochdale Old Rd (West) Ahead Right	U	N/A	N/A	A	D	1	64	4	927	1915:1842	851+88	98.7 : 98.7%
2/2+2/1	Bury & Rochdale Old Road (East) Ahead Left	U	N/A	N/A	B C		1	52:122	-	970	2100:2075	615+519	85.6 : 85.6%
3/1	Queen's Park Road Left	U	N/A	N/A	E		1	47	-	48	1665	583	8.2%
3/2	Queen's Park Road Right	U	N/A	N/A	E		1	47	-	621	1808	633	98.0%
4/1		U	N/A	N/A	-		-	-	-	574	Inf	Inf	0.0%
5/1		U	N/A	N/A	-		-	-	-	1461	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	531	Inf	Inf	0.0%

Full Input Data And Results

Item	Arriving (pcu)	Leaving (pcu)	Turners In Gaps (pcu)	Turners When Unopposed (pcu)	Turners In Intergreen (pcu)	Uniform Delay (pcuHr)	Rand + Oversat Delay (pcuHr)	Storage Area Uniform Delay (pcuHr)	Total Delay (pcuHr)	Av. Delay Per PCU (s/pcu)	Max. Back of Uniform Queue (pcu)	Rand + Oversat Queue (pcu)	Mean Max Queue (pcu)
Network: Proposed Residential Development, Land off Greenvale, Bamford, Rochdale	-	-	0	0	0	22.2	25.1	0.0	47.3	-	-	-	-
Bury && Rochdale Old Road - Queen's Park Road	-	-	0	0	0	22.2	25.1	0.0	47.3	-	-	-	-
1/1+1/2	927	927	-	-	-	8.9	12.4	-	21.4	82.9	34.0	12.4	46.4
2/2+2/1	970	970	-	-	-	5.3	2.9	-	8.1	30.2	19.8	2.9	22.7
3/1	48	48	-	-	-	0.4	0.0	-	0.4	33.2	1.2	0.0	1.3
3/2	621	621	-	-	-	7.6	9.7	-	17.3	100.4	23.3	9.7	33.0
4/1	574	574	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
5/1	1461	1461	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	531	531	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
C1 PRC for Signalled Lanes (%): -9.6 Total Delay for Signalled Lanes (pcuHr): 47.26 Cycle Time (s): 137													
PRC Over All Lanes (%): -9.6 Total Delay Over All Lanes (pcuHr): 47.26													