ACCESS TECHNICAL NOTE

PROPOSED RESIDENTIAL DEVELOPMENT
LAND SOUTH OF NEWARK ROAD, SUTTON IN ASHFIELD

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DOCUMENT CONTROL

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version	date	author	reviewer	comments
6	06/04/2023	Matt Tatler	David Cummins	ped/cycle access drawing added

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1.0 INTRODUCTION

1.1 Hallam Land Management commissioned ADC Infrastructure to provide transport and highways advice in support of a proposed residential development on land south of Newark Road in Sutton in Ashfield. Nottinghamshire County Council (NCC) are the local highway authority.

1.2 The development would be accessed via a new traffic signal controlled T-junction on Newark Road. There would be no vehicular access from Coxmoor Road or Searby Road.

1.3 ADC Infrastructure have produced a number of reports to support two planning applications seeking outline consent for the development. Application V/2017/0565 ("the 2017 Application") resulted in no objection from NCC subject to conditions and obligations. Application V/2022/0629 ("the 2022 Application") is yet to be determined and NCC's comments are awaited on the updated Transport Assessment and Travel Plan reports produced in August 2022 to support that application.

1.4 The updated Transport Assessment presented a revised site access junction arrangement, designed in accordance with the latest design standards. However, since then it has been discovered that there is an unregistered piece of land required to deliver the access proposal. National Archive records confirm that the unregistered land was part of a stopping up order from 1960, and hence the landowner is in the process of registering the land. In the meantime, and on a precautionary basis, this Access Technical Note has been produced to present an amended access junction layout that avoids that unregistered piece of land. The amended access keeps the design largely unchanged from the design that was presented in the updated Transport Assessment. However, the access junction has been moved further east on Newark Road to avoid the unregistered land.

1.5 This Technical Note presents the amended access design, compares it with the previous designs, and assesses the impact of moving the access on the operation of the Coxmoor Road/Newark Road/Cauldwell Road signal-controlled junction to the east of the site.

2.0 BACKGROUND AND CONTEXT

2.1 As agreed with NCC, the proposed development would be accessed via a new signal controlled junction on Newark Road, catering for all modes of transport. In addition, there would be accesses for pedestrians and cyclists onto Searby Road in two locations, and onto the footpath at the western end of the development, all as shown on the illustrative masterplan. The site access junction layout that was agreed with NCC in the 2017 Application is shown in **Drawing ADC1580/003 P10** and an extract is below in **Figure 1**.

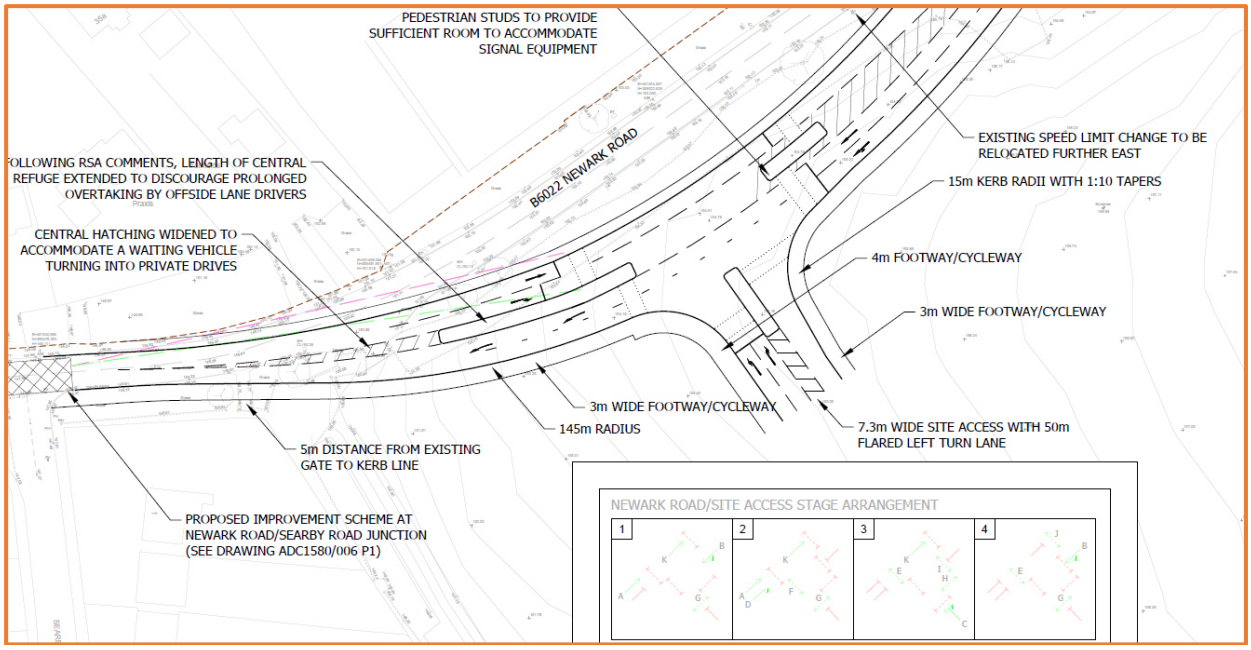


Figure 1: extract of Drawing ADC1580/003 P10

2.2 In the updated Transport Assessment for the 2022 Application, the access junction design was revised, as shown in **Drawing ADC1580/003 P12** and **Figure 2**. The access arrangement was designed in accordance with NCC's Highway Design Guide (Table T3.1.1).

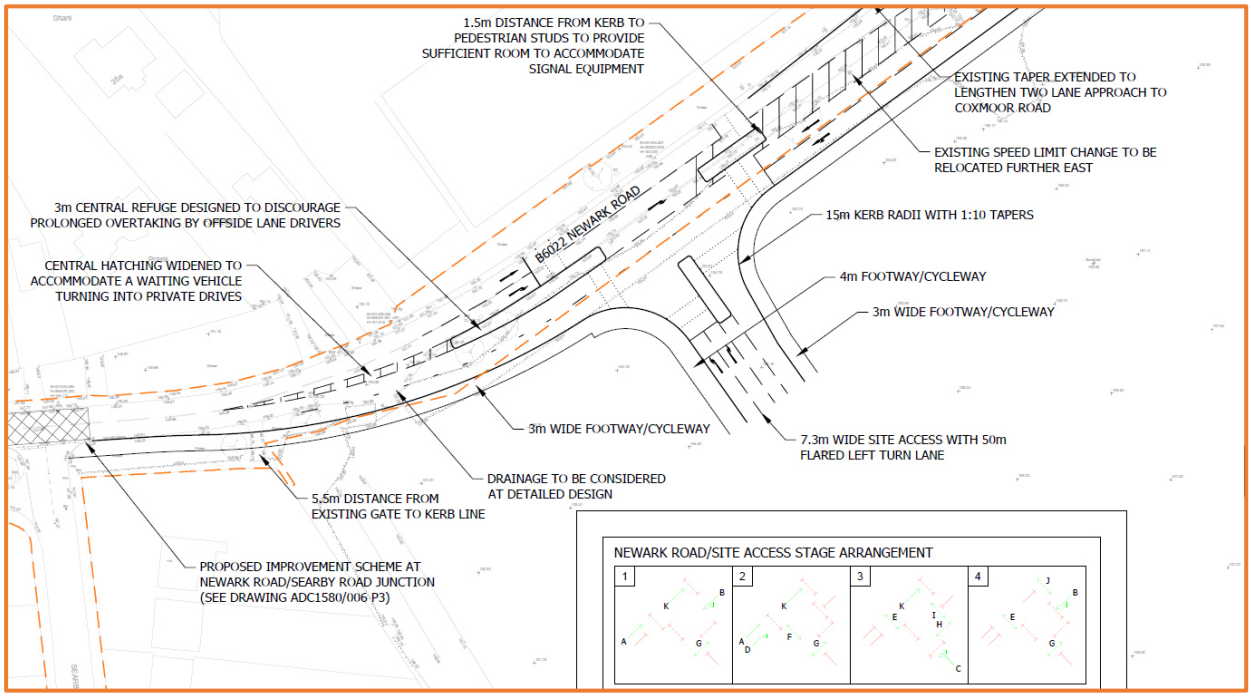


Figure 2: extract of Drawing ADC1580/003 P12

2.3 The layout submitted with the 2022 Application (shown in Figure 2 above) differed from the agreed drawing from the 2017 Application (shown in Figure 1) because the Government published new design guidance, set out in the Traffic Signs Manual Chapter 6[1]. The Traffic Signs Manual requires forward visibility to signal heads to be provided in accordance with Manual for Streets. That supersedes NCC's request to provide 90m forward visibility to the signal heads, a distance derived from the Design Manual for Road and Bridges (DMRB). As a result, the site access arm no longer needed to be pushed south of the Newark Road carriageway to achieve forward visibility. All other parameters at the junction such as the number of lanes and crossing details were unchanged from the design approved by NCC in the 2017 Application.

2.4 On review of the red line and extent of public highway shown on **Drawing ADC1580-SK-002-P1** (and in **Figure 3** below), there is a small rectangular piece of unregistered land in the northwestern corner of the site where the site boundary meets the Newark Road public highway. The unregistered land was previously identified to accommodate widening of the Newark Road carriageway associated with the access, and the provision of a footway/cycleway along the site frontage.

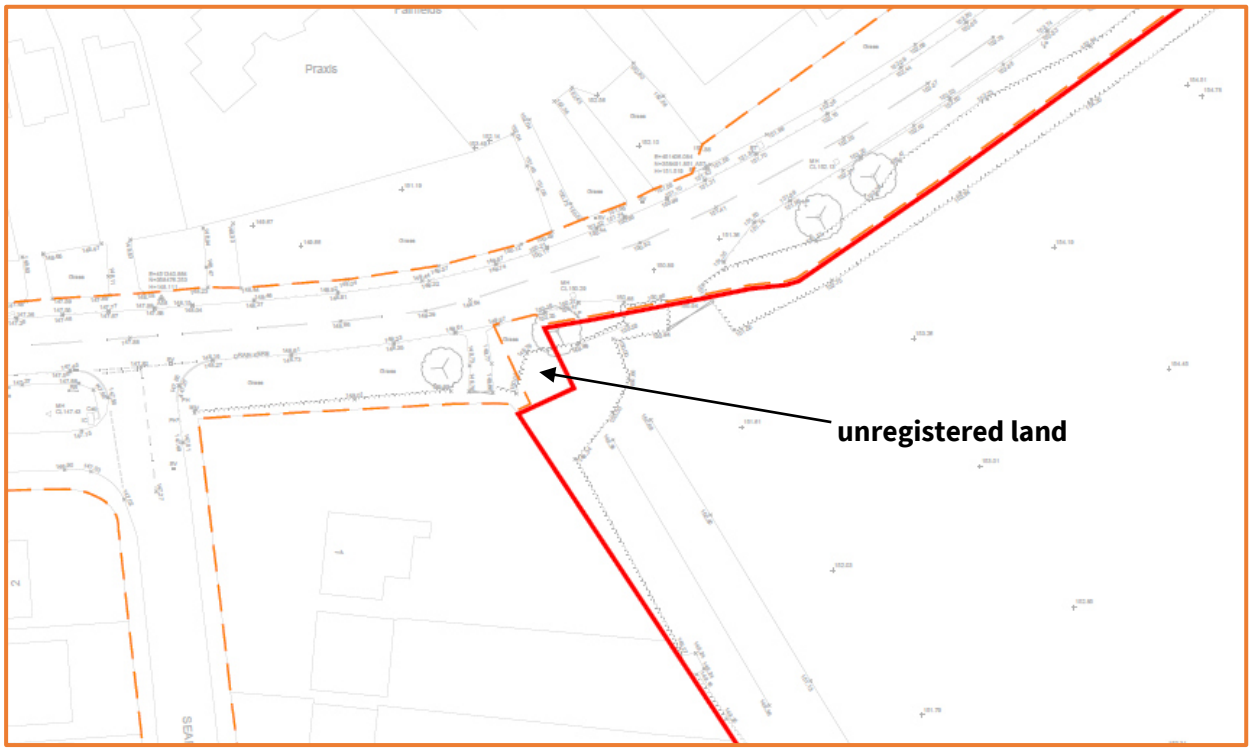


Figure 3: extract of Drawing ADC1580-SK-002-P1

2.5 National Archive records confirm that the unregistered land was part of a stopping up order from 1960, and hence the landowner is in the process of registering the land. However, given the time taken to complete that process, an amended access design has been prepared that avoids the unregistered land and still delivers suitable access to the proposed development. The amended design moves the access east to allow a standard lane drop over 100m to be provided, whilst avoiding the unregistered land. In all other respects, the design is the same as previously approved by NCC, with the same lane configuration and pedestrian crossing provisions. The design is presented in detail in Section 3.

[1] Traffic Signs Manual Chapter 6, Traffic Control - Department for Transport, 2019

3.0 REVISED ACCESS PROPOSAL

Access design

3.1 The amended access arrangement is shown in **Drawing ADC1580-DR-012-P3**. In effect the previous design has been moved about 50m eastwards, so that the westbound merge from two lanes to one is complete before passing the unregistered land. This negates the need for carriageway widening into the unregistered land.

3.2 The Traffic Signs Manual Chapter 6 (para 4.4.3) states, "*The number of lanes on the exit side of the junction should match the number of ahead lanes at the Stop line. If localised widening of an exit is necessary to achieve this, the subsequent reduction in the number of lanes should be carried out beyond the junction over a distance of at least 100 m for a single lane reduction.*" At Newark Road, a 100m merge distance is provided, starting beyond the pedestrian crossing. Thus the merge satisfies the standards and is acceptable in principle.

3.3 The previous design included a 3m wide footway/cycleway along the Newark Road frontage. The amended design provides that route up to the unregistered land, and continues it after, leaving a gap of around 5m in between. To compensate, the pedestrian/cycle access to Searby Road, which was already part of the proposals, will become more prominent in the layout design, to provide the main route in and out of the development for pedestrians and cyclists wishing to route to and from the west. Further, a footway will be provided around the unregistered land, so that pedestrians who choose to walk that way will still have the option to do so, with minimal inconvenience.

3.4 The previous design included controlled pedestrian crossings over both Newark Road arms of the access junction. Those crossings remain in the amended design. However, to further compensate for the unregistered gap, the footway on the northern side of Newark Road would be widened to 2m. Given the surrounding geography, where most attractions are to the north, it is this footway that would be most heavily used to cater for the desire lines.

3.5 Other provisions and dimensions at the Newark Road signal controlled junction are consistent with the previous design, which was approved by NCC. The site access road leading towards the junction would still have a 7.3m wide carriageway with a 3m wide footway/cycleway on the eastern side and a 4m wide footway/cycleway on the western side. This overwide design provides additional space for maintenance/emergency access in the unlikely event that the site access road becomes blocked. This overwide road forms the stem leading to an internal spine road where the carriageway will be reduced to 6.2m wide, sufficient to accommodate a bus route, and loops are developed either side to provide alternative ways around blockages.

3.6 As previously, the amended site access junction has been designed to co-ordinate with the operation of the adjacent Coxmoor Road/Newark Road/Cauldwell Road signal-controlled crossroads to the northeast of the site. That junction will also be improved as part of the development, and the mitigation remains unchanged from the arrangements previously agreed with NCC, as shown in **Drawing ADC1580-DR-012-P3**.

3.7 With regards to forward visibility to the primary signal heads at the access junction, a 51m distance is provided. That accords with the speed survey results reported in the updated Transport Assessment that supported the 2022 Application, calculated in accordance with Manual for Streets, as required by the Traffic Signs Manual Chapter 6. However, it is also worth noting that moving the access eastwards means that 90m forward visibility is achievable, and therefore NCC's original request, despite being superseded by more recent design guidance, can

still be satisfied. All other parameters at the junction such as the number of lanes, crossing details, and staging arrangement remain unchanged. Suggested improvements that resulted from the independent Stage One Road Safety Audit are still included.

Pedestrian/Cycle Access Strategy

3.8 In addition to the pedestrian and cycle provisions around the main access on Newark Road, and internally, the illustrative masterplan shows additional accesses for pedestrians and cyclists would be provided at the southern end of Searby Road, and onto the public right of way at the western end of the site. Those accesses are also shown on **Drawing ADC1580-DR-013-P1**. Overall, there would be a comprehensive provision for pedestrian and cycle access that would adequately cater for the demand.

Capacity assessments

3.9 Paragraphs 7.20 to 7.27 of the updated Transport Assessment that supported the 2022 Application presented capacity assessments of the signal controlled Coxmoor Road/Newark Road/Cauldwell Road crossroads. They explained that the existing stand-alone crossroads would operate as follows in 2032 without the development.

existing crossroads	peak	cycle time	PRC	total delay (PCUhr)	degree of Saturation	longest MMQ (PCUs)
2032 Without Development	AM	270	-10.7%	51.37	99.6%	33.1
	PM	270	-14.5%	93.78	103.0%	52.1

3.10 Also reported was how the junction would operate once improved, combined with the signal controlled access junction, and with the development. The results are repeated below. There would be a significant improvement in performance.

2022 layout Dwg ADC1580/003 P12	peak	cycle time	PRC	total delay (PCUhr)	degree of Saturation	longest MMQ (PCUs)
2032 With Development	AM	90	-4.8%	35.76	94.4%	22.5
	PM	120	-6.0%	47.52	95.4%	32.3

3.11 The amended junction layout (avoiding the unregistered land) moves the site access closer to Coxmoor Road, reducing the queuing length on Newark Road in both directions. The impact of this has been tested using LinSig. The results are in **Appendix A** and a summary is in the table below.

amended layout Dwg ADC1580-DR-012-P3	peak	cycle time	PRC	total delay (PCUhr)	degree of Saturation	longest MMQ (PCUs)
2032 With Development	AM	90	-4.8%	36.77	94.4%	22.5
	PM	120	-6.0%	49.42	95.4%	32.3

3.12 Unsurprisingly, the relocation of the site access closer to Coxmoor Road does not affect the capacity of the combined junctions. The total delay very slightly increases because of the changed queueing space on the Newark Road approach to the crossroads.

3.13 Queuing has been examined in detail to ensure that queues would still be contained within the available space. The table below compares the forecast queuing on all arms of the junction with the site access in the agreed position compared with the new position closer to Coxmoor Road.

3.14 The table shows that the queues on both Coxmoor Road arms and Cauldwell Road are unchanged as a result of moving the site access. The queues on Newark Road increase by 0.9 PCUs (passenger carrier units) in the morning peak hour but are unchanged in the evening peak hour.

Peak		Coxmoor Road (N)	Cauldwell Road	Coxmoor Road (S)	Newark Road	Total
AM	2032 Without Development (existing crossroads)	33.1	1.0	26.5	16.3	76.9
	2032 With Development (2022 layout)	22.5	0.3	14.8	6.3	43.9
	2032 With Development (amended junction)	22.5	0.3	14.8	7.2	44.8
PM	2032 Without Development (existing crossroads)	52.1	0.9	33.0	34.1	120.1
	2032 With Development (2022 layout)	32.3	0.4	17.4	13.1	63.2
	2032 With Development (amended junction)	32.3	0.4	17.4	13.1	63.2

3.15 The Newark Road approach to the crossroads has two lanes. An inside lane caters for vehicles turning left to Coxmoor Road (N), and is priority controlled. The outside lane flares from the inside lane and caters for ahead and right turns. In the amended layout, the flared outside lane provides 60m queuing space for right turn movements from Newark Road to Coxmoor Road (S), sufficient storage space for 10 PCUs.

3.16 The two lanes interact, because if the storage space in a lane is exceeded, vehicles are prevented from reaching the other lane. Thus, in the LinSig model they are represented as a single link. In the morning peak hour, the queue on the link (ie across both lanes) would be 7.2 PCUs. That is less than the 10 PCUs storage space and hence neither lane would be blocked. In the evening peak hour, the queue on the link (ie across both lanes) would be 13.1 PCUs. As this is greater than 10 PCUs it was checked. The queue in the short right turn lane would peak at 8 PCUs before being released. Hence, the queues can be accommodated and neither lane would block the other.

3.17 In the other direction, traffic queueing on the Newark Road approach to the site access arm would experience the longest queues in the evening peak hour. There would be a queue of 3.4 PCUs in the nearside lane and 4.1 PCUs in the outside lane. The storage space in each lane, between the access junction and Coxmoor Road, would be 11 PCUs. Hence there would be sufficient space.

3.18 The two junctions would operate under linked MOVA control, and consequently the cycle times and green splits will vary depending on the incoming traffic demands. The benefits of MOVA control cannot be modelled in LinSig and thus the actual operation would be better than modelled. Further, if required, a series of hurry calls could be installed at the junction to hold back traffic and ensure the Coxmoor Road/Newark Road/Cauldwell Road junction operated as efficiently as possible.

3.19 Overall, the amended access junction would continue to provide safe and suitable access to the proposed development for all people, and the rest of the mitigation package would remain valid and appropriate. With the amended access junction, the development would not have severe impacts on the local road network. Indeed, it is not considered the proposed development would

have a significant negative impact. Rather, it would be beneficial and lead to material improvements to the highway network.

4.0 SUMMARY AND CONCLUSIONS

4.1 As agreed with NCC, access to the proposed residential development on the land south of Newark Road in Sutton in Ashfield would be provided via a traffic signal-controlled T-junction.

4.2 In the 2017 Application, NCC agreed the access junction layout shown on Drawing **ADC1580/003 Revision P10**. In 2022, Hallam Land Management submitted a new application that presented a revised junction layout, shown on **Drawing ADC1580/003 Revision P12**. The design reflected new guidance published by the Government, set out in the Traffic Signs Manual Chapter 6. The new guidance superseded NCC's requirement to provide 90m forward visibility to the signal heads. The revised design was contained within an updated Transport Assessment that is with NCC for review.

4.3 This Access Technical Note presents a new (third) access arrangement, shown on **Drawing ADC1580-DR-012-P3**. The site access junction would move closer to Coxmoor Road to avoid a piece of unregistered land on Newark Road. The access junction is unchanged in its principles from the layout NCC previously agreed and also includes the improvement works required to accommodate the development at the Coxmoor Road/Newark Road/Cauldwell Road crossroads.

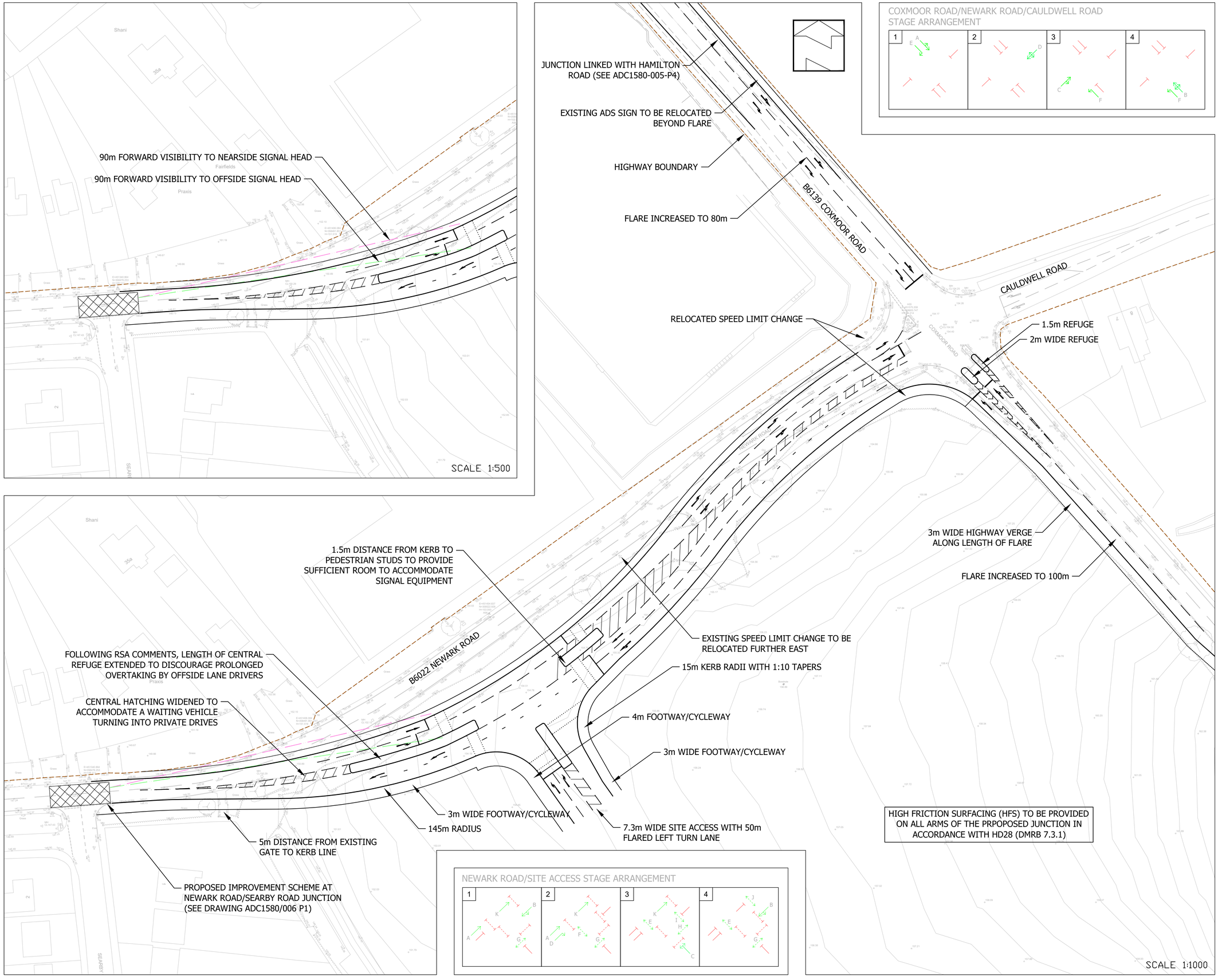
4.4 Capacity assessments confirm that the amended junction, combined with the improved Coxmoor Road/Newark Road/Cauldwell Road crossroads, would continue to operate satisfactorily. The combined junction would perform better than the existing crossroads, with a reduction in queueing and delay. The combined junction would accommodate the queues within the available carriageway space so as not to cause delays and blocking back to the wider local highway network.

4.5 The junction includes alternative and additional pedestrian and cycle provisions, such that the demand will still be adequately catered for. Reflecting the provisions on the illustrative masterplan, where internal linkages are shown, additional accesses for pedestrians and cyclists are shown on **Drawing ADC1580-DR-013-P1**.

4.6 Therefore, the amended access arrangements presented in this Technical Note would provide a suitable means of accessing the development. The arrangements can be secured by condition.

4.7 Overall, the revised access proposals would continue to provide safe and suitable access to the proposed development for all people. The revised access proposals do not prevent the other measures that are proposed to mitigate the impacts of the development. With the proposed measures, the development would not have a severe impact on the road network.

DRAWINGS



COXMOOR ROAD/NEWARK ROAD/CAULDWELL ROAD
STAGE ARRANGEMENT

NEWARK ROAD/SITE ACCESS STAGE ARRANGEMENT

Rev	Description	Date
P10	Revised Layout following RSA comments	15/04/19
P9	Revised Layout following comments	22/10/18
P8	Revised Layout following comments	25/07/18
P7	Revised Layout following RSA comments	01/05/18
P6	Revised layout following comments	10/04/18
P5	Revised visibility following comments	19/03/18
P4	Revised visibility following comments	06/03/18
P3	Revised Layout	05/02/18
P2	Revised Layout	01/08/17
P1	Revised Layout	20/07/17

Client:
Hallam Land Management

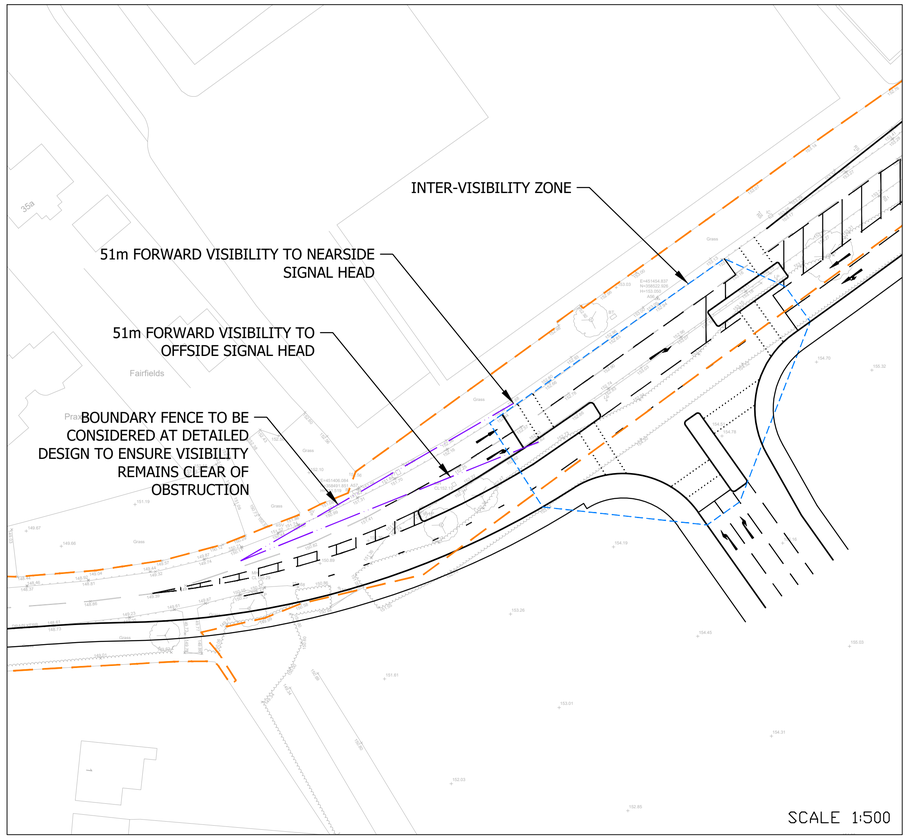
Project:
Proposed Residential Development
Newark Road, Sutton in Ashfield

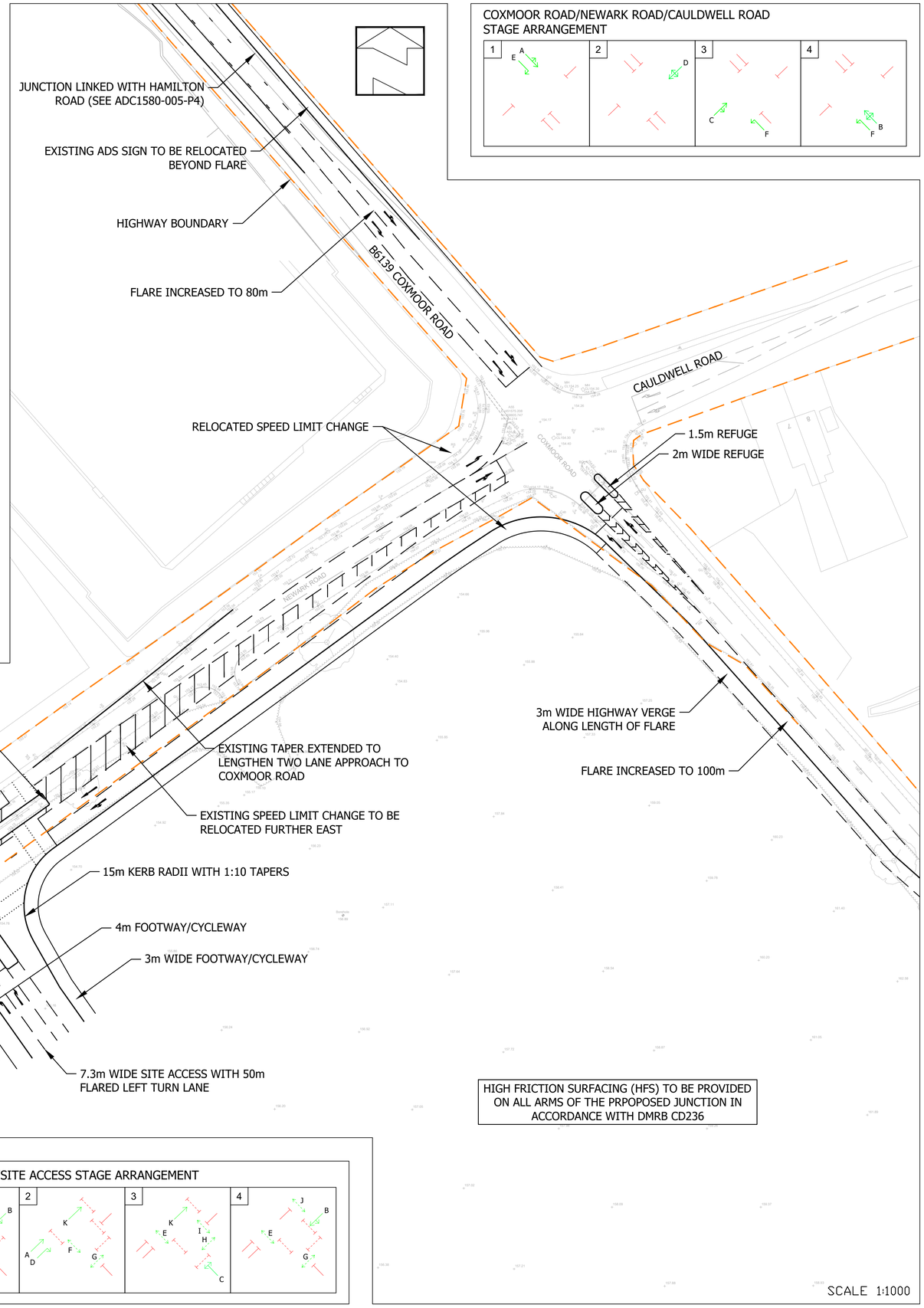
Title:
Signal Controlled
Access Junction Layout
& Mitigation at Coxmoor Road/Cauldwell Road Junction

ADC INFRASTRUCTURE

Drg Size:	Scale:	Date:
A1	As Shown	05/05/2017

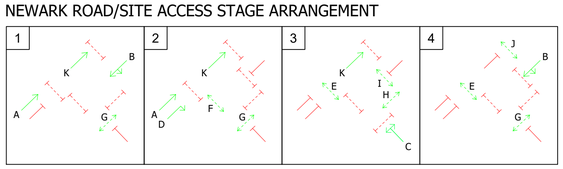
Drg No: ADC1580/003
Rev: P10





COXMOOR ROAD/NEWARK ROAD/CAULDWELL ROAD
STAGE ARRANGEMENT

NEWARK ROAD/SITE ACCESS STAGE ARRANGEMENT



HIGH FRICTION SURFACING (HFS) TO BE PROVIDED ON ALL ARMS OF THE PRPOPOSED JUNCTION IN ACCORDANCE WITH DMRB CD236

Rev	Description	Date
P12	Notes added following RSA comments	22/06/22
P11	Revised Layout following new speed survey	09/06/22
P10	Revised Layout following RSA comments	15/04/19
P9	Revised Layout following comments	22/10/18
P8	Revised Layout following comments	25/07/18
P7	Revised Layout following RSA comments	01/05/18
P6	Revised layout following comments	10/04/18
P5	Revised visibility following comments	19/03/18
P4	Revised visibility following comments	06/03/18
P3	Revised Layout	05/02/18
P2	Revised Layout	01/08/17
P1	Revised Layout	20/07/17

Client:

Hallam Land Management

Project:

Proposed Residential Development
Newark Road, Sutton in Ashfield

Title:

Signal Controlled
Access Junction Layout
& Mitigation at Coxmoor Road/Cauldwell Road Junction

ADC INFRASTRUCTURE

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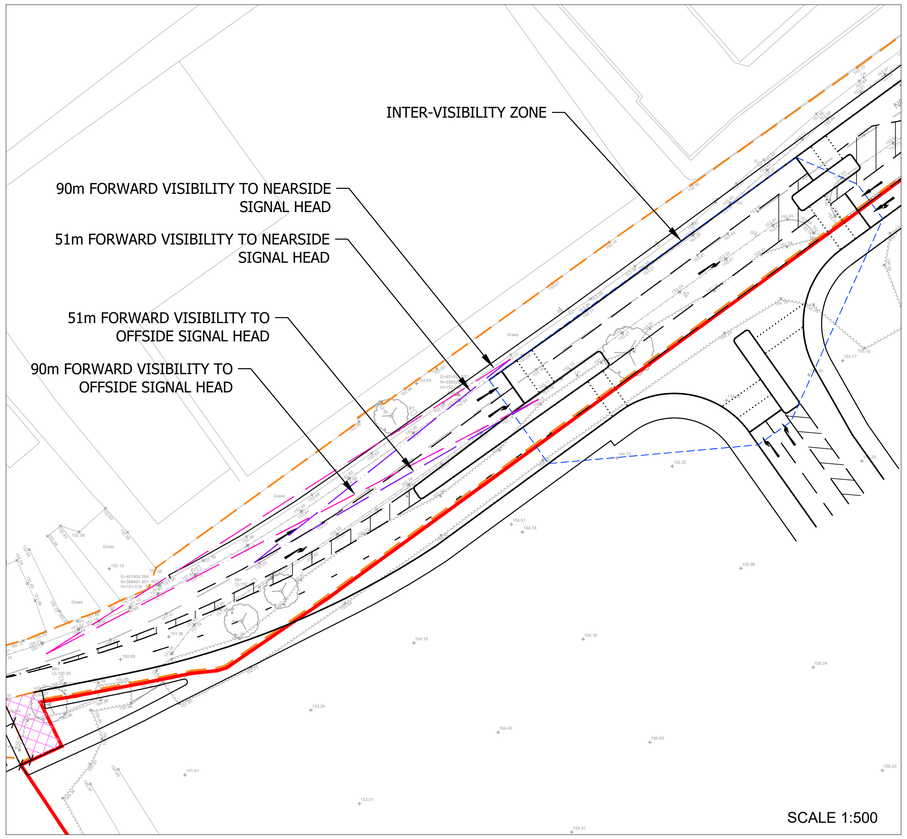
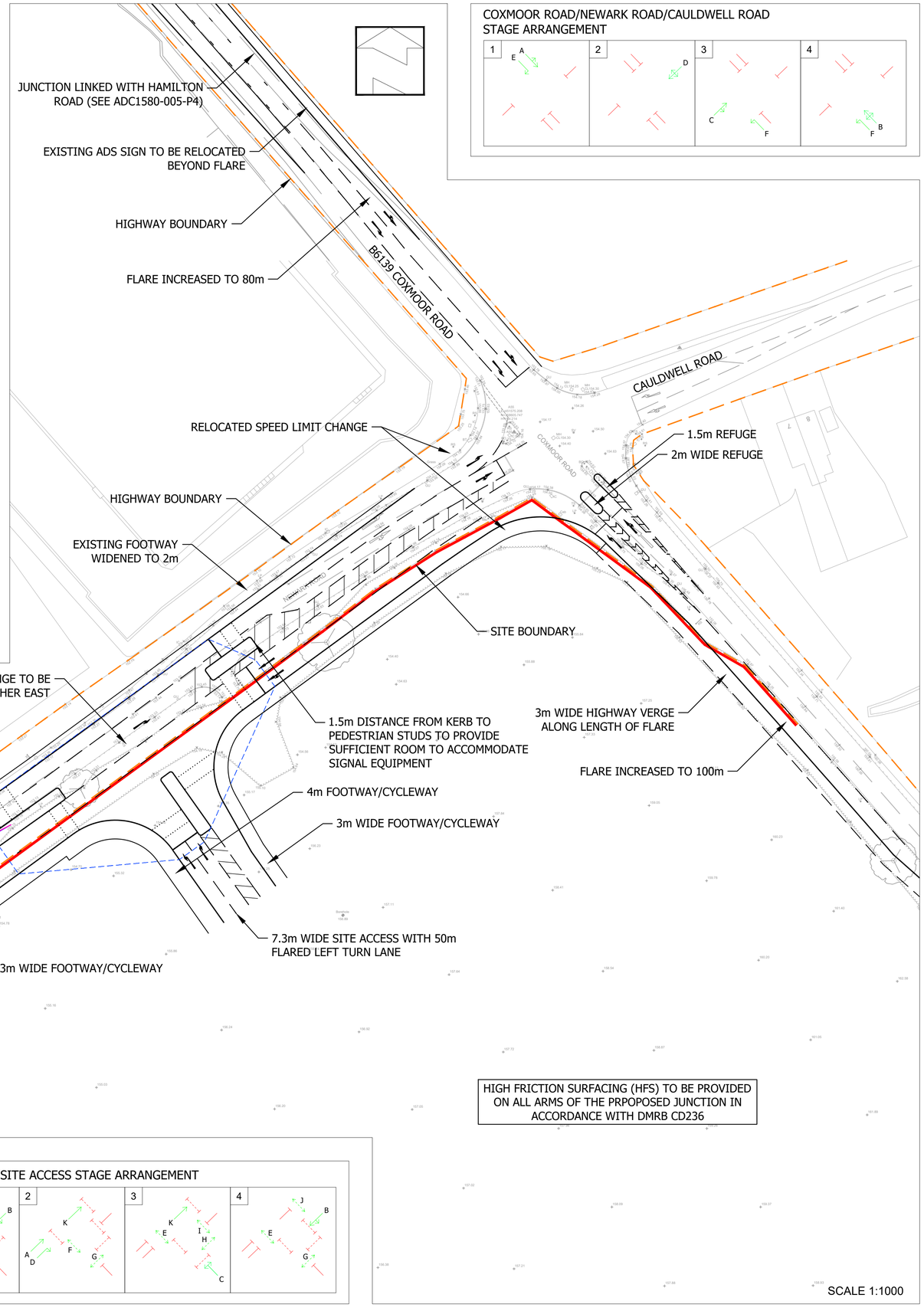
A1	As Shown	05/05/2017

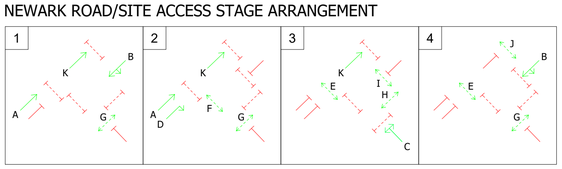
Drg No:	Rev:
ADC1580/003	P12





COXMOOR ROAD/NEWARK ROAD/CAULDWELL ROAD
STAGE ARRANGEMENT

NEWARK ROAD/SITE ACCESS STAGE ARRANGEMENT



HIGH FRICTION SURFACING (HFS) TO BE PROVIDED ON ALL ARMS OF THE PRPOPOSED JUNCTION IN ACCORDANCE WITH DMRB CD236

Notes

1. Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
2. This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
3. All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.
4. Any discrepancies noted on site are to be reported to the engineer immediately.

Rev	Date	Description	Dr	Rev
P3	28.03.23	Additional right turn storage	MT	DC
P2	21.02.23	Additional notes added	MT	DC
P1	12.12.22	Preliminary issue	MT	DC

Client:
Hallam Land Management

Project:
Land at Newark Road, Sutton in Ashfield

Title:
Proposed Access Junction Layout

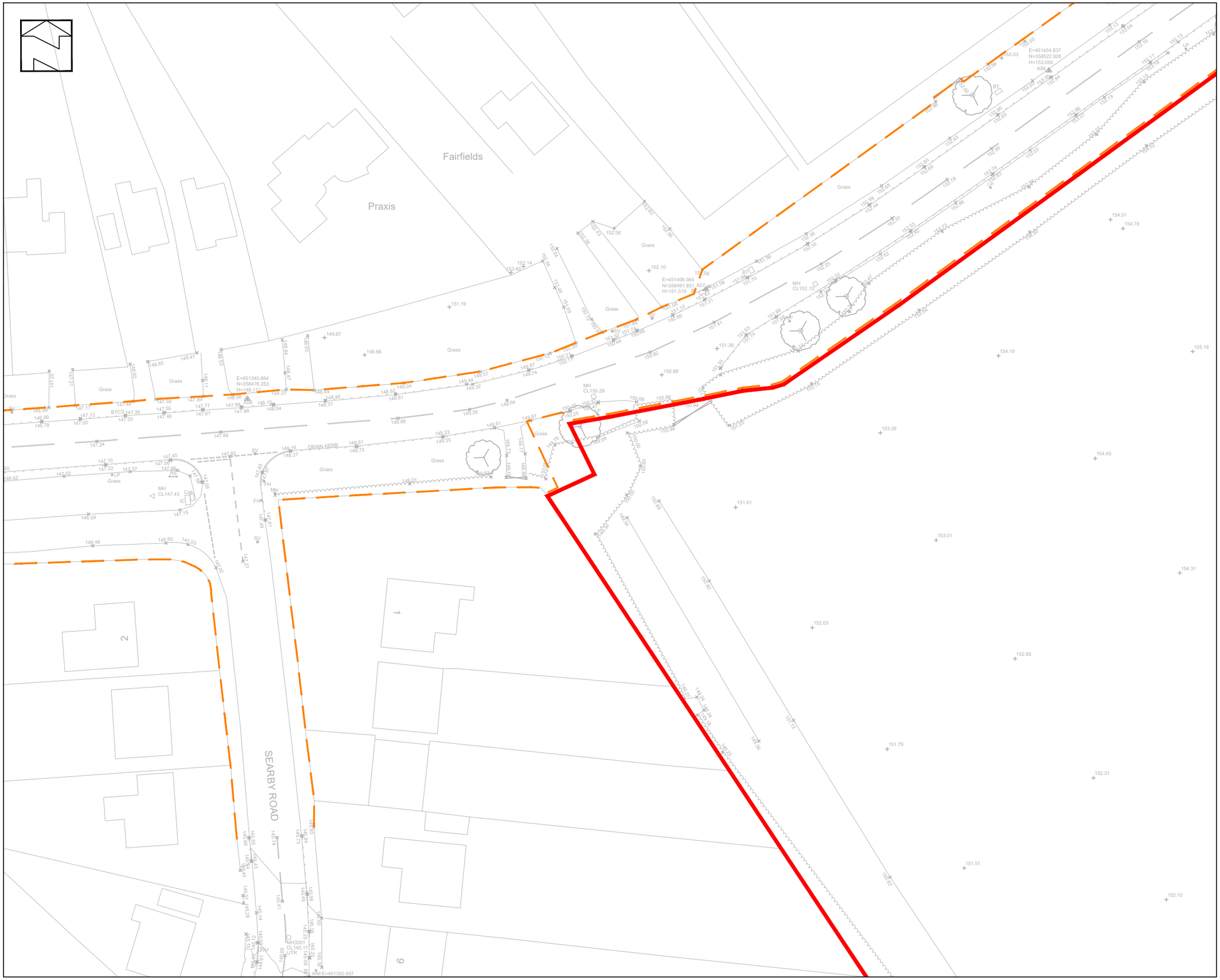
ADC INFRASTRUCTURE

Drawn:	Reviewed:
M. Tatler	D. Cummins

Size:	Scale:	Date:
A1	As Shown	12/12/2022

Status:
PRELIMINARY ISSUE

Project Reference	Type	Number	Revision
ADC1580-DR- 012			P3



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Rev	Date	Description	Dr	Rev
P1	17.10.22	Preliminary issue	MT	DC

Client:

Hallam Land Management

Project:

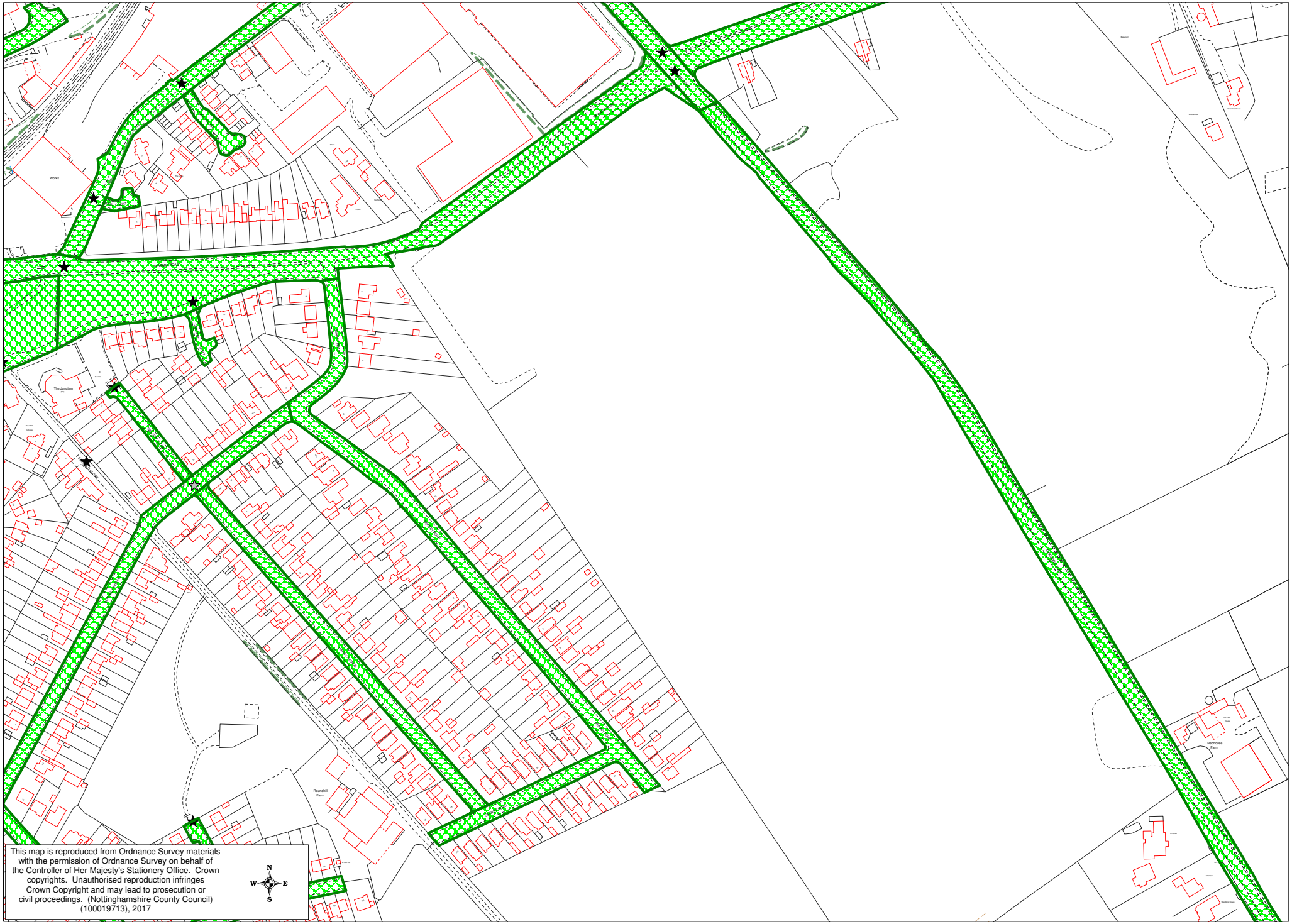
Newark Road,
Sutton in Ashfield

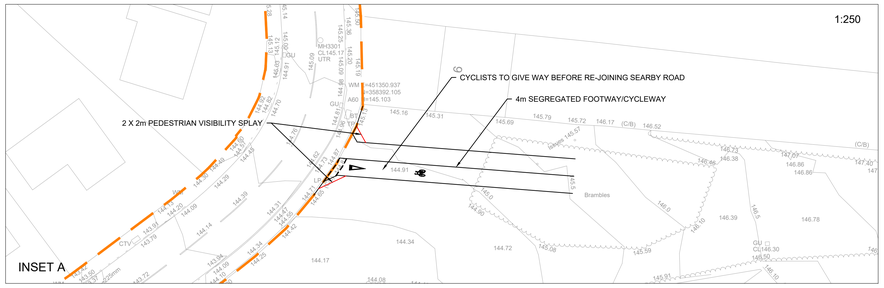
Title:

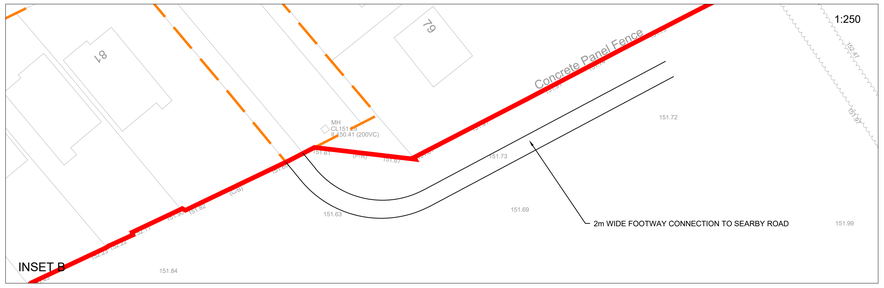
Highway Boundary / Title Plan
Overlay

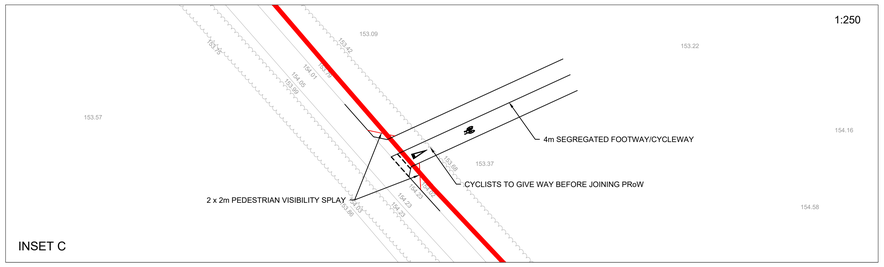
ADC INFRASTRUCTURE

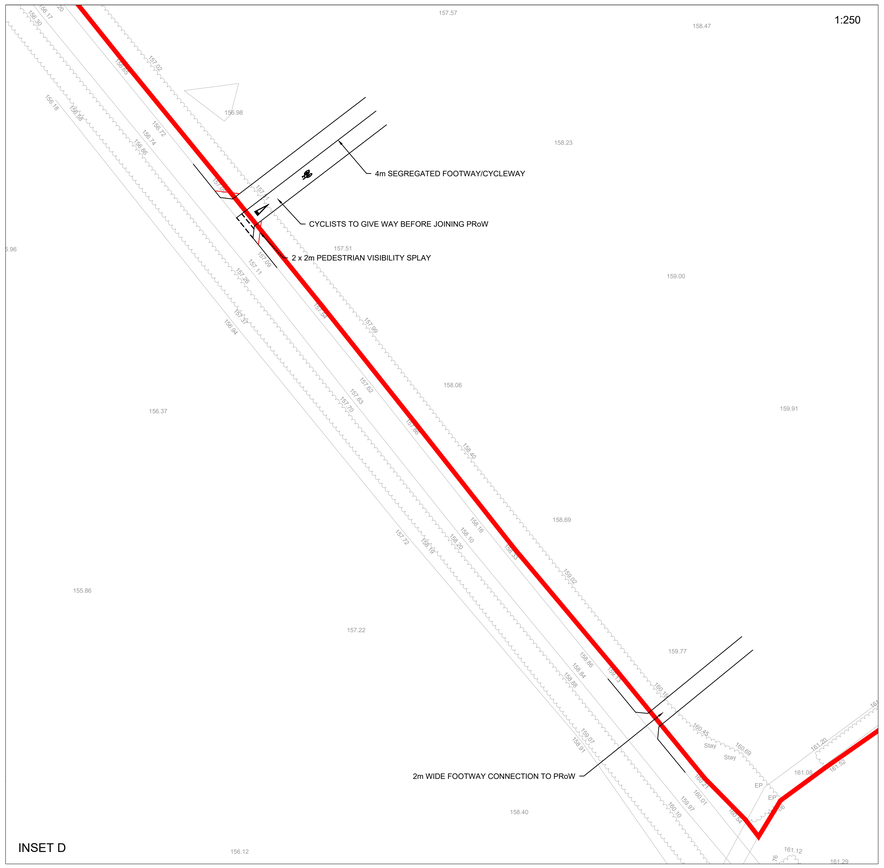
Drawn:	Reviewed:		
M.Tatler	D.Cummins		
Size: A3	Scale: 1:500	Date: 17/10/2022	
Status: PRELIMINARY ISSUE			
Project Reference	Type	Number	Revision
ADC1580-	SK -	002	P1











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Rev	Date	Description	Dr	Rev
P1	05.04.23	First issue	MT	DC

Client:
Hallam Land Management

Project:
Proposed Residential Development
Newark Road, Sutton in Ashfield

Title:
Pedestrian / Cycle
Access Strategy

ADC INFRASTRUCTURE

Drawn:	Reviewed:
M. Tatler	D. Cummins

Size:	Scale:	Date:
A0	As Shown	05/04/2023

Status:
PRELIMINARY ISSUE

Project Reference	Type	Number	Revision
ADC1580-DR-		013	P1

APPENDIX A

JUNCTION 4: COXMOOR RD/NEWARK RD/CAULDWELL RD LINSIG OUTPUTS

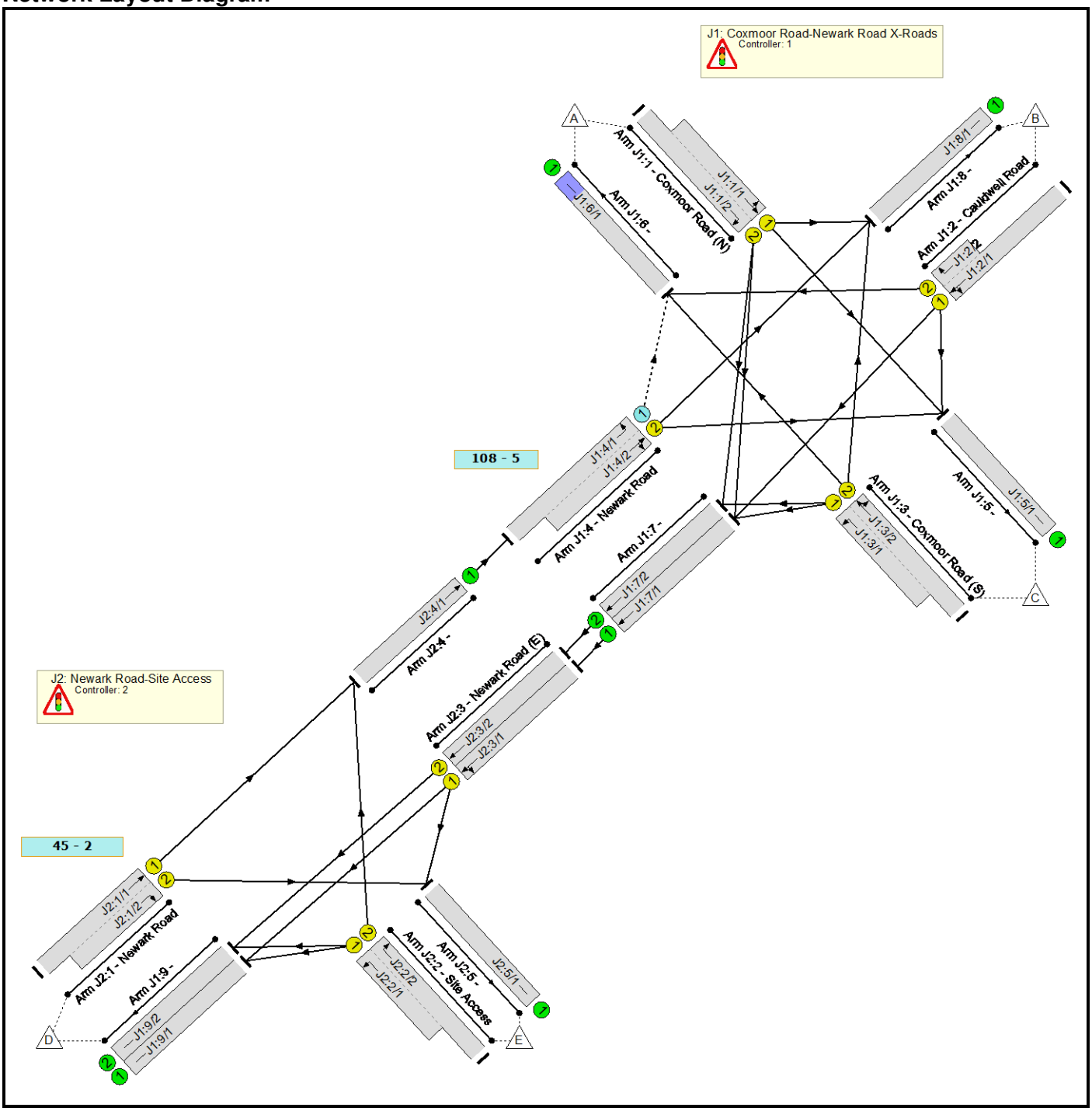
Full Input Data And Results

User and Project Details

Project:	**Newark Road, Sutton in Ashfield**
Title:	**Coxmoor Road/Newark Road/Cauldwell Road - Mitigation Option 2**
Location:	
Additional detail:	
File name:	Jct 4 - Coxmoor Road-Newark Road-Cauldwell Road LinSig Model - Mitigation Rev 5.lsg3x
Author:	
Company:	ADC Infrastructure Limited
Address:	Western House, Western Street, Nottingham NG1 3AZ

Full Input Data And Results

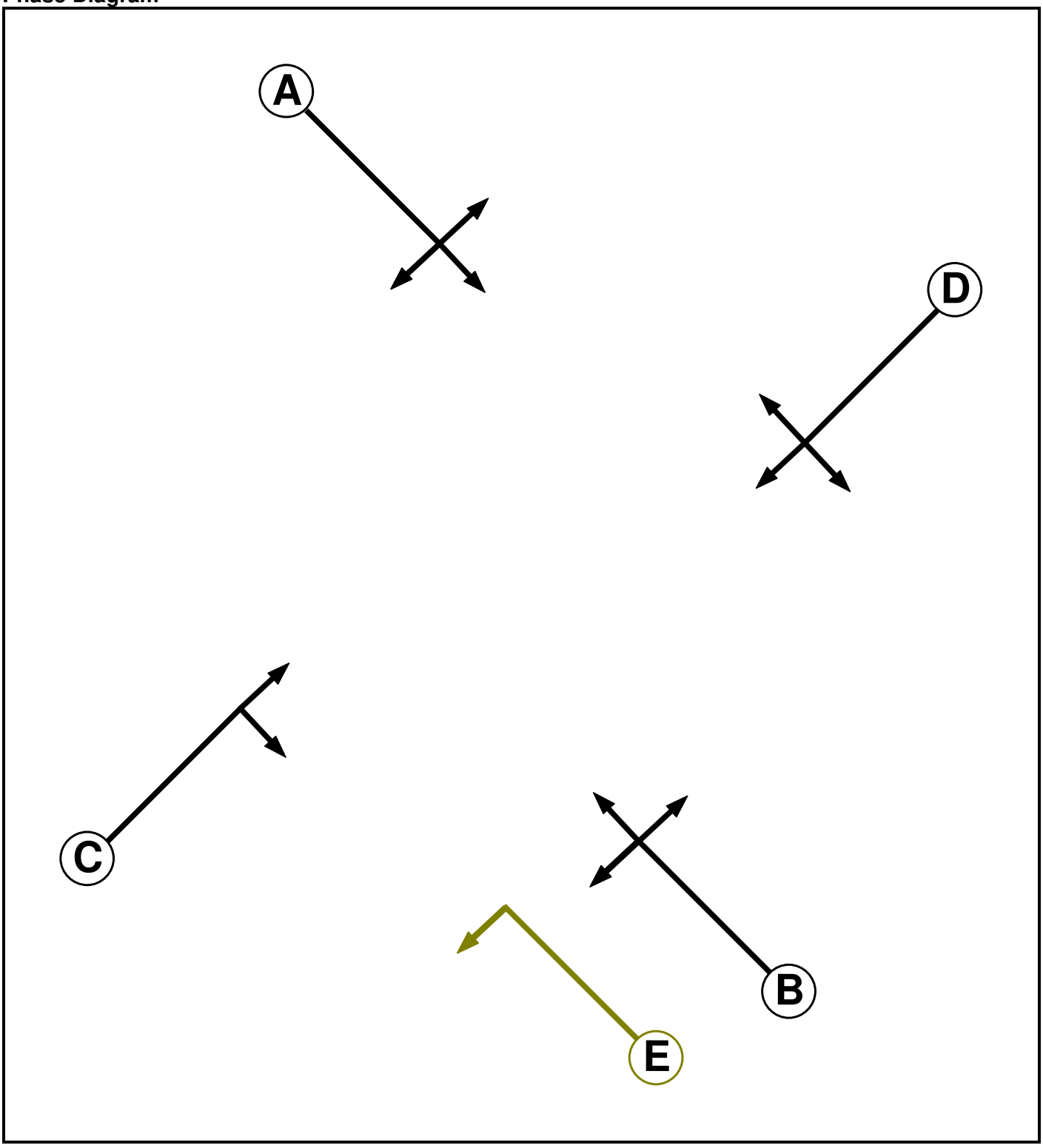
Network Layout Diagram



Full Input Data And Results

C1

Phase Diagram



Full Input Data And Results

Phase Input Data

Phase Name	Phase Type	Assoc. Phase	Street Min	Cont Min
A	Traffic		7	7
B	Traffic		7	7
C	Traffic		7	7
D	Traffic		5	5
E	Filter	B	4	0

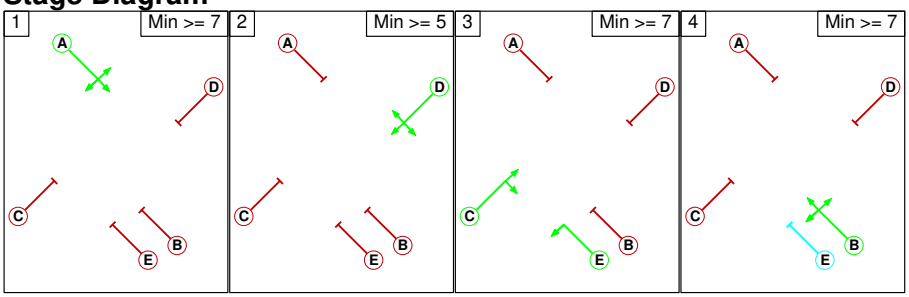
Phase Intergreens Matrix

	Starting Phase					
Terminating Phase		A	B	C	D	E
	A		5	5	6	5
	B	5		5	6	-
	C	5	5		6	-
	D	6	6	6		5
	E	-	-	-	5	

Phases in Stage

Stage No.	Phases in Stage
1	A
2	D
3	C E
4	B

Stage Diagram



Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

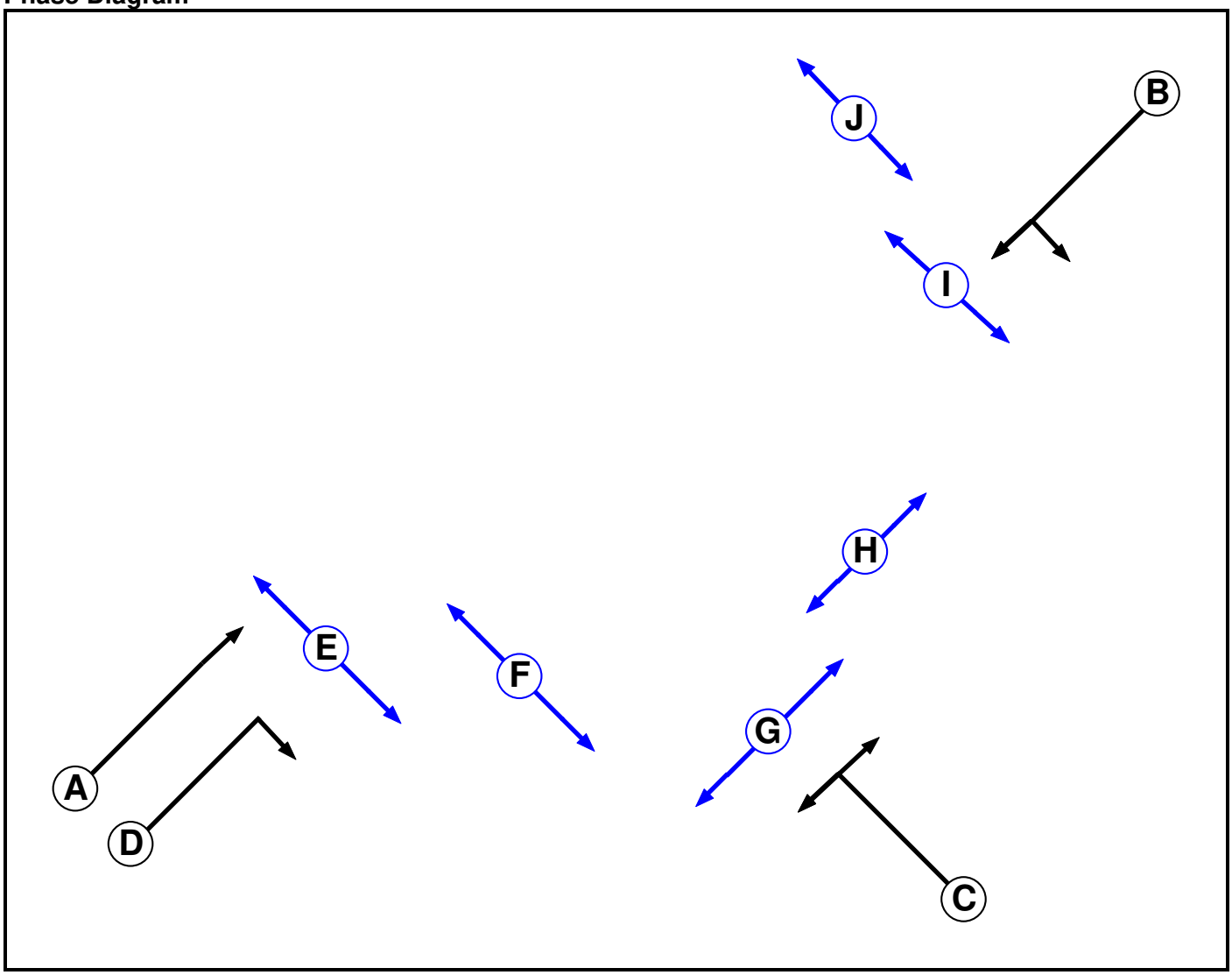
Full Input Data And Results

Prohibited Stage Change

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

C2

Phase Diagram



Full Input Data And Results

Phase Input Data

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

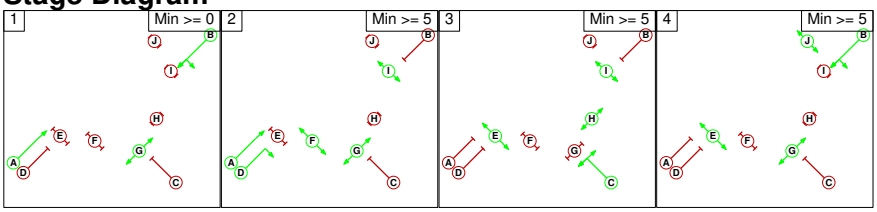
Phase Intergreens Matrix

Terminating Phase \ Starting Phase	A	B	C	D	E	F	G	H	I	J
A		-	5	-	5	-	-	-	-	10
B	-		5	5	-	7	-	5	5	-
C	5	5		5	-	7	5	-	-	10
D	-	5	5		5	-	-	7	-	-
E	7	-	-	7		-	-	-	-	-
F	-	5	5	-	-		-	-	-	-
G	-	-	5	-	-	-		-	-	-
H	-	5	-	5	-	-	-		-	-
I	-	5	-	-	-	-	-	-		-
J	5	-	5	-	-	-	-	-	-	

Phases in Stage

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

Stage Diagram



Full Input Data And Results

Phase Delays

Term. Stage	Start Stage	Phase	Type	Value	Cont value
There are no Phase Delays defined					

Prohibited Stage Change

		To Stage			
		1	2	3	4
From Stage	1		7	5	10
	2	5		7	10
	3	7	7		10
	4	7	7	5	

Full Input Data And Results

Give-Way Lane Input Data

Junction: J1: Coxmoor Road-Newark Road X-Roads											
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)**
J1:4/1 (Newark Road)	J1:6/1 (Left)	1439	0	J1:3/2	1.09	To J1:6/1 (Ahead)	-	-	-	-	-

Junction: J2: Newark Road-Site Access
There are no Opposed Lanes in this Junction

Full Input Data And Results

Lane Input Data

Junction: J1: Coxmoor Road-Newark Road X-Roads												
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)**
J1:1/1 (Coxmoor Road (N))	U	A	2	3	13.9	Geom	-	3.30	0.00	Y	Arm J1:5 Ahead	Inf
											Arm J1:8 Left	15.00
J1:1/2 (Coxmoor Road (N))	U	A	2	3	60.0	Geom	-	3.30	0.00	N	Arm J1:7 Right	12.00
J1:2/1 (Cauldwell Road)	U	D	2	3	60.0	Geom	-	3.00	0.00	Y	Arm J1:5 Left	Inf
											Arm J1:7 Ahead	10.00
J1:2/2 (Cauldwell Road)	U	D	2	3	4.0	Geom	-	3.00	0.00	Y	Arm J1:6 Right	15.00
J1:3/1 (Coxmoor Road (S))	U	B E	2	3	20.9	Geom	-	3.10	0.00	Y	Arm J1:7 Left	18.00
J1:3/2 (Coxmoor Road (S))	U	B	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J1:6 Ahead	Inf
											Arm J1:8 Right	10.00
J1:4/1 (Newark Road)	O		2	3	20.9	Inf	-	-	-	-	-	-
J1:4/2 (Newark Road)	U	C	2	3	10.4	Geom	-	3.60	0.00	N	Arm J1:5 Right	12.00
											Arm J1:8 Ahead	Inf
J1:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:6/1	U		2	3	60.0	User	1300	-	-	-	-	-
J1:7/1	U		2	3	3.5	Inf	-	-	-	-	-	-
J1:7/2	U		2	3	3.5	Inf	-	-	-	-	-	-
J1:8/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:9/1	U		2	3	60.0	Inf	-	-	-	-	-	-
J1:9/2	U		2	3	60.0	Inf	-	-	-	-	-	-

Full Input Data And Results

Junction: J2: Newark Road-Site Access												
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)**
J2:1/1 (Newark Road)	U	A	2	3	60.0	Geom	-	3.25	0.00	Y	Arm J2:4 Ahead	Inf
J2:1/2 (Newark Road)	U	D	2	3	11.0	Geom	-	3.25	0.00	Y	Arm J2:5 Right	15.00
J2:2/1 (Site Access)	U	C	2	3	8.7	Geom	-	3.50	0.00	Y	Arm J1:9 Left	12.00
J2:2/2 (Site Access)	U	C	2	3	60.0	Geom	-	3.50	0.00	Y	Arm J2:4 Right	20.00
J2:3/1 (Newark Road (E))	U	B	2	3	7.0	Geom	-	3.40	0.00	Y	Arm J1:9 Ahead	Inf
											Arm J2:5 Left	12.00
J2:3/2 (Newark Road (E))	U	B	2	3	7.0	Geom	-	3.00	0.00	Y	Arm J1:9 Ahead	Inf
J2:4/1	U		2	3	3.5	Geom	-	3.25	0.00	Y	Arm J1:4 Ahead	Inf
J2:5/1	U		2	3	60.0	Inf	-	-	-	-	-	-

Traffic Flow Groups

Flow Group	Start Time	End Time	Duration	Formula
1: '2032 AM WD'	08:00	09:00	01:00	
2: '2032 PM WD'	17:00	18:00	01:00	

Scenario 1: '2032 AM WD' (FG1: '2032 AM WD', Plan 3: 'Network Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	2	231	618	24	875
	B	10	0	4	8	0	22
	C	399	3	0	254	6	662
	D	548	3	207	0	20	778
	E	68	0	17	55	0	140
	Tot.	1025	8	459	935	50	2477

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 1: 2032 AM WD
Junction: J1: Coxmoor Road-Newark Road X-Roads	
J1:1/1 (short)	233
J1:1/2 (with short)	875(In) 642(Out)
J1:2/1 (with short)	22(In) 12(Out)
J1:2/2 (short)	10
J1:3/1 (short)	260
J1:3/2 (with short)	662(In) 402(Out)
J1:4/1 (with short)	843(In) 616(Out)
J1:4/2 (short)	227
J1:5/1	459
J1:6/1	1025
J1:7/1	472
J1:7/2	438
J1:8/1	8
J1:9/1	469
J1:9/2	466
Junction: J2: Newark Road-Site Access	
J2:1/1 (with short)	778(In) 758(Out)
J2:1/2 (short)	20
J2:2/1 (short)	55
J2:2/2 (with short)	140(In) 85(Out)
J2:3/1	472
J2:3/2	438
J2:4/1	843
J2:5/1	50

Full Input Data And Results

Lane Saturation Flows

Junction: J1: Coxmoor Road-Newark Road X-Roads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Coxmoor Road (N))	3.30	0.00	Y	Arm J1:5 Ahead	Inf	99.1 %	1943	1943
				Arm J1:8 Left	15.00	0.9 %		
J1:1/2 (Coxmoor Road (N))	3.30	0.00	N	Arm J1:7 Right	12.00	100.0 %	1853	1853
J1:2/1 (Cauldwell Road)	3.00	0.00	Y	Arm J1:5 Left	Inf	33.3 %	1741	1741
				Arm J1:7 Ahead	10.00	66.7 %		
J1:2/2 (Cauldwell Road)	3.00	0.00	Y	Arm J1:6 Right	15.00	100.0 %	1741	1741
J1:3/1 (Coxmoor Road (S))	3.10	0.00	Y	Arm J1:7 Left	18.00	100.0 %	1777	1777
J1:3/2 (Coxmoor Road (S))	3.50	0.00	Y	Arm J1:6 Ahead	Inf	99.3 %	1963	1963
				Arm J1:8 Right	10.00	0.7 %		
J1:4/1 (Newark Road Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:4/2 (Newark Road)	3.60	0.00	N	Arm J1:5 Right	12.00	98.7 %	1883	1883
				Arm J1:8 Ahead	Inf	1.3 %		
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	This lane uses a directly entered Saturation Flow						1300	1300
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:9/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Newark Road-Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Newark Road)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:1/2 (Newark Road)	3.25	0.00	Y	Arm J2:5 Right	15.00	100.0 %	1764	1764
J2:2/1 (Site Access)	3.50	0.00	Y	Arm J1:9 Left	12.00	100.0 %	1747	1747
J2:2/2 (Site Access)	3.50	0.00	Y	Arm J2:4 Right	20.00	100.0 %	1828	1828
J2:3/1 (Newark Road (E))	3.40	0.00	Y	Arm J1:9 Ahead	Inf	93.6 %	1940	1940
				Arm J2:5 Left	12.00	6.4 %		
J2:3/2 (Newark Road (E))	3.00	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1915	1915
J2:4/1	3.25	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1940	1940
J2:5/1	Infinite Saturation Flow						Inf	Inf

Scenario 2: '2032 PM WD' (FG2: '2032 PM WD', Plan 3: 'Network Plan 1')

Traffic Flows, Desired

Desired Flow :

		Destination					
		A	B	C	D	E	Tot.
Origin	A	0	13	335	600	64	1012
	B	10	0	3	7	0	20
	C	375	3	0	237	16	631
	D	732	11	243	0	52	1038
	E	23	0	4	18	0	45
	Tot.	1140	27	585	862	132	2746

Full Input Data And Results

Traffic Lane Flows

Lane	Scenario 2: 2032 PM WD
Junction: J1: Coxmoor Road-Newark Road X-Roads	
J1:1/1 (short)	348
J1:1/2 (with short)	1012(In) 664(Out)
J1:2/1 (with short)	20(In) 10(Out)
J1:2/2 (short)	10
J1:3/1 (short)	253
J1:3/2 (with short)	631(In) 378(Out)
J1:4/1 (with short)	1013(In) 755(Out)
J1:4/2 (short)	258
J1:5/1	585
J1:6/1	1140
J1:7/1	498
J1:7/2	426
J1:8/1	27
J1:9/1	427
J1:9/2	435
Junction: J2: Newark Road-Site Access	
J2:1/1 (with short)	1038(In) 986(Out)
J2:1/2 (short)	52
J2:2/1 (short)	18
J2:2/2 (with short)	45(In) 27(Out)
J2:3/1	498
J2:3/2	426
J2:4/1	1013
J2:5/1	132

Full Input Data And Results

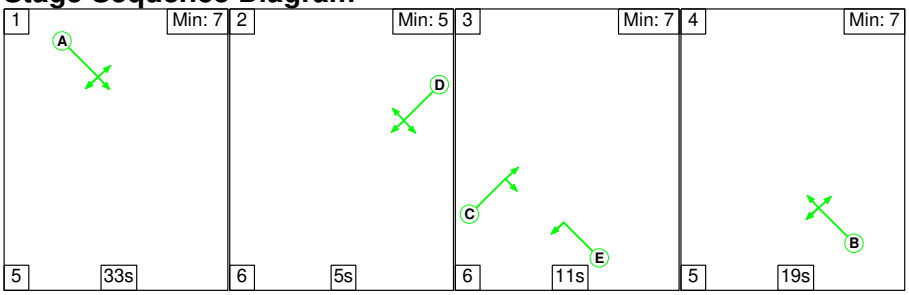
Lane Saturation Flows

Junction: J1: Coxmoor Road-Newark Road X-Roads								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J1:1/1 (Coxmoor Road (N))	3.30	0.00	Y	Arm J1:5 Ahead	Inf	96.3 %	1938	1938
				Arm J1:8 Left	15.00	3.7 %		
J1:1/2 (Coxmoor Road (N))	3.30	0.00	N	Arm J1:7 Right	12.00	100.0 %	1853	1853
J1:2/1 (Cauldwell Road)	3.00	0.00	Y	Arm J1:5 Left	Inf	30.0 %	1733	1733
				Arm J1:7 Ahead	10.00	70.0 %		
J1:2/2 (Cauldwell Road)	3.00	0.00	Y	Arm J1:6 Right	15.00	100.0 %	1741	1741
J1:3/1 (Coxmoor Road (S))	3.10	0.00	Y	Arm J1:7 Left	18.00	100.0 %	1777	1777
J1:3/2 (Coxmoor Road (S))	3.50	0.00	Y	Arm J1:6 Ahead	Inf	99.2 %	1963	1963
				Arm J1:8 Right	10.00	0.8 %		
J1:4/1 (Newark Road Lane 1)	Infinite Saturation Flow						Inf	Inf
J1:4/2 (Newark Road)	3.60	0.00	N	Arm J1:5 Right	12.00	95.7 %	1889	1889
				Arm J1:8 Ahead	Inf	4.3 %		
J1:5/1	Infinite Saturation Flow						Inf	Inf
J1:6/1	This lane uses a directly entered Saturation Flow						1300	1300
J1:7/1	Infinite Saturation Flow						Inf	Inf
J1:7/2	Infinite Saturation Flow						Inf	Inf
J1:8/1	Infinite Saturation Flow						Inf	Inf
J1:9/1	Infinite Saturation Flow						Inf	Inf
J1:9/2	Infinite Saturation Flow						Inf	Inf

Junction: J2: Newark Road-Site Access								
Lane	**Lane Width (m)**	**Gradient**	**Nearside Lane**	**Allowed Turns**	**Turning Radius (m)**	**Turning Prop.**	**Sat Flow (PCU/Hr)**	**Flared Sat Flow (PCU/Hr)**
J2:1/1 (Newark Road)	3.25	0.00	Y	Arm J2:4 Ahead	Inf	100.0 %	1940	1940
J2:1/2 (Newark Road)	3.25	0.00	Y	Arm J2:5 Right	15.00	100.0 %	1764	1764
J2:2/1 (Site Access)	3.50	0.00	Y	Arm J1:9 Left	12.00	100.0 %	1747	1747
J2:2/2 (Site Access)	3.50	0.00	Y	Arm J2:4 Right	20.00	100.0 %	1828	1828
J2:3/1 (Newark Road (E))	3.40	0.00	Y	Arm J1:9 Ahead	Inf	83.9 %	1917	1917
				Arm J2:5 Left	12.00	16.1 %		
J2:3/2 (Newark Road (E))	3.00	0.00	Y	Arm J1:9 Ahead	Inf	100.0 %	1915	1915
J2:4/1	3.25	0.00	Y	Arm J1:4 Ahead	Inf	100.0 %	1940	1940
J2:5/1	Infinite Saturation Flow						Inf	Inf

Full Input Data And Results

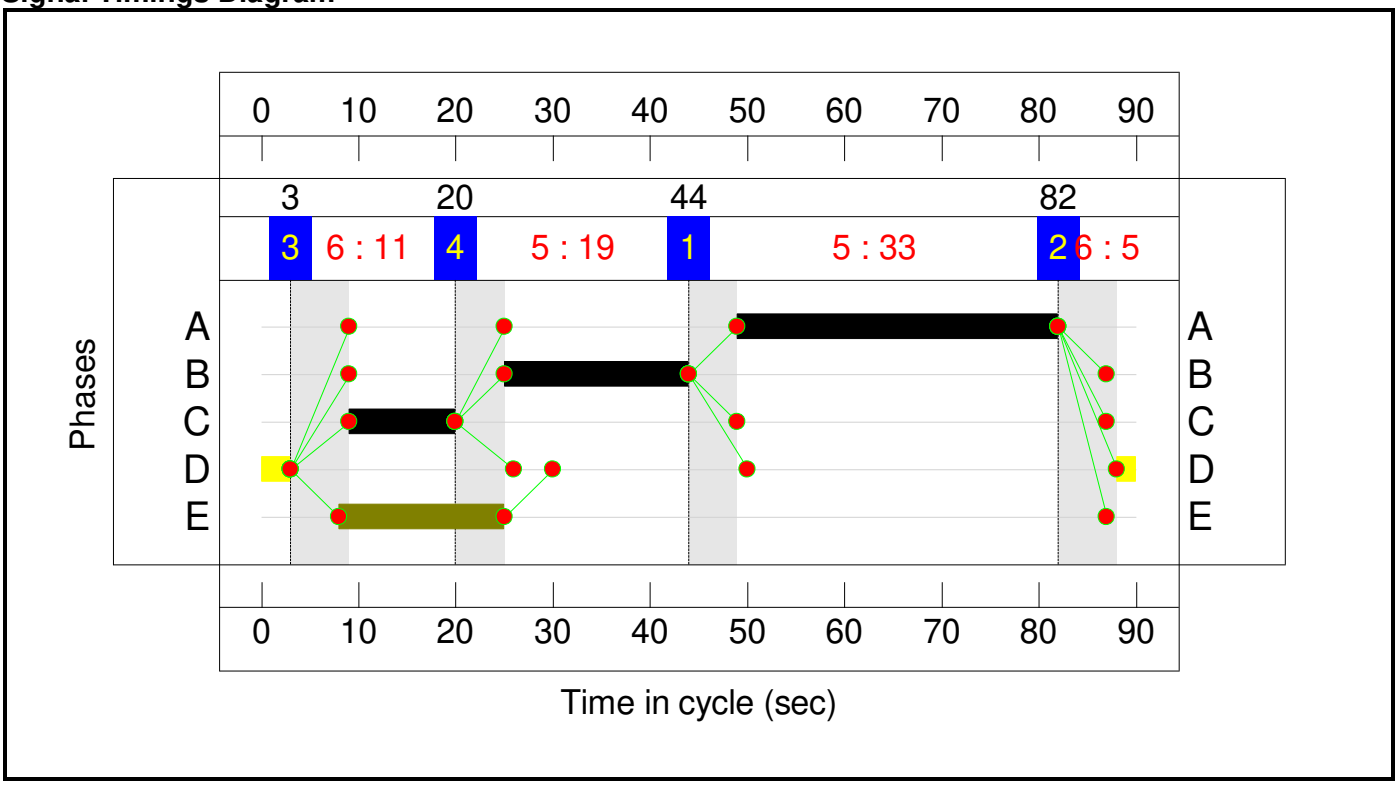
Scenario 1: '2032 AM WD' (FG1: '2032 AM WD', Plan 3: 'Network Plan 1')
C1
Stage Sequence Diagram



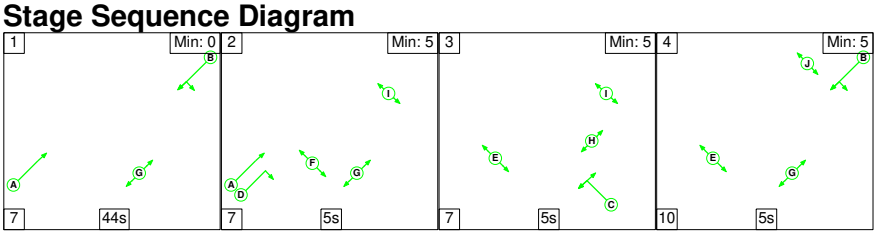
Stage Timings

Stage	1	2	3	4
Duration	33	5	11	19
Change Point	44	82	3	20

Signal Timings Diagram



C2
Stage Sequence Diagram

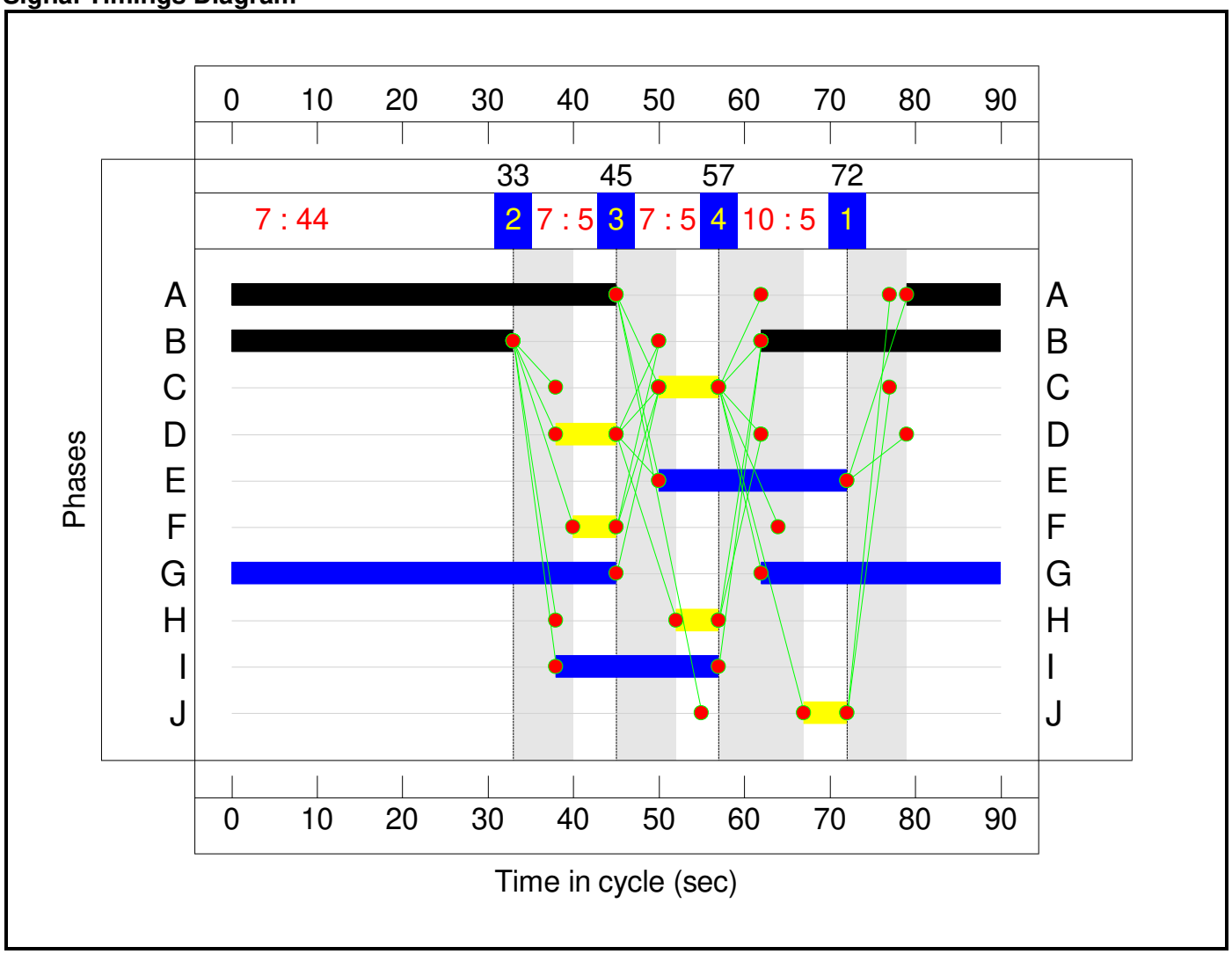


Full Input Data And Results

Stage Timings

Stage	1	2	3	4
Duration	44	5	5	5
Change Point	72	33	45	57

Signal Timings Diagram



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: Coxmoor Road/Newark Road/Cauldwell Road - Mitigation Option 2	-	-	**N/A**	-	-		-	-	-	-	-	-	**94.4%**
J1: Coxmoor Road-Newark Road X-Roads	-	-	**N/A**	-	-		-	-	-	-	-	-	**94.4%**
1/2+1/1	Coxmoor Road (N) Ahead Right Left	U	N/A	N/A	C1:A		1	33	-	875	1853:1943	680+247	94.4 : 94.4%
2/1+2/2	Cauldwell Road Left Right Ahead	U	N/A	N/A	C1:D		1	5	-	22	1741:1741	116+114	10.3 : 8.8%
3/2+3/1	Coxmoor Road (S) Ahead Left Right	U	N/A	N/A	C1:B	C1:E	1	19:36	17	662	1963:1777	436+282	92.2 : 92.2%
4/1+4/2	Newark Road Right Left Ahead	O+U	N/A	N/A	- C1:C		-	-	-	843	Inf :1883	815+251	75.6 : 90.4%
5/1		U	N/A	N/A	-		-	-	-	459	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	1025	1300	1300	78.8%
7/1	Ahead	U	N/A	N/A	-		-	-	-	472	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	438	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	8	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	469	Inf	Inf	0.0%
9/2		U	N/A	N/A	-		-	-	-	466	Inf	Inf	0.0%
J2: Newark Road-Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	**62.4%**
1/1+1/2	Newark Road Ahead Right	U	N/A	N/A	C2:A C2:D		1	56:7	-	778	1940:1764	1215+32	62.4 : 62.4%
2/2+2/1	Site Access Left Right	U	N/A	N/A	C2:C		1	7	-	140	1828:1747	162+125	52.3 : 44.0%
3/1	Newark Road (E) Ahead Left	U	N/A	N/A	C2:B		1	61	-	472	1940	1336	35.3%
3/2	Newark Road (E) Ahead	U	N/A	N/A	C2:B		1	61	-	438	1915	1319	33.2%

Full Input Data And Results

4/1	Ahead	U	N/A	N/A	-		-	-	-	843	1940	1940	43.5%
5/1		U	N/A	N/A	-		-	-	-	50	Inf	Inf	0.0%

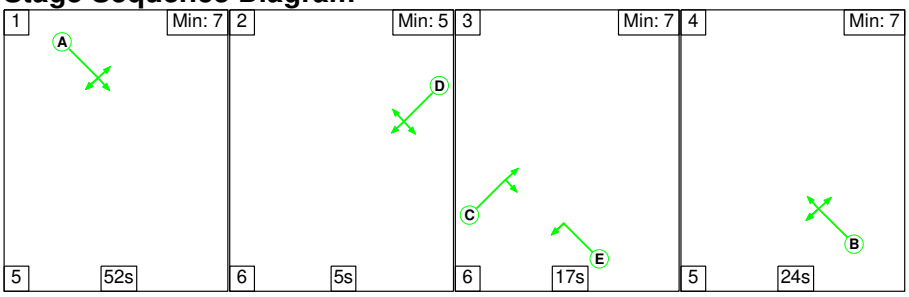
Full Input Data And Results

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: Coxmoor Road/Newark Road/Cauldwell Road - Mitigation Option 2	**-**	**-**	**22**	**594**	**0**	**19.2**	**17.6**	**0.0**	**36.8**	**-**	**-**	**-**	**-**
J1: Coxmoor Road-Newark Road X-Roads	**-**	**-**	**22**	**594**	**0**	**14.9**	**15.4**	**0.0**	**30.3**	**-**	**-**	**-**	**-**
1/2+1/1	875	875	-	-	-	6.0	6.7	-	12.7 (9.6+3.1)	52.3 (54.1:47.4)	15.8	6.7	22.5
2/1+2/2	22	22	-	-	-	0.2	0.1	-	0.3 (0.2+0.1)	48.3 (48.3:48.3)	0.3	0.1	0.3
3/2+3/1	662	662	-	-	-	5.1	5.0	-	10.1 (6.9+3.3)	55.1 (61.4:45.4)	9.8	5.0	14.8
4/1+4/2	843	843	22	594	0	2.4	1.9	-	4.3 (1.8+2.4)	18.3 (10.8:38.6)	5.4	1.9	7.2
5/1	459	459	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1025	1025	-	-	-	1.1	1.8	-	2.9	10.3	15.1	1.8	17.0
7/1	472	472	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	438	438	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	8	8	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	469	469	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	466	466	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Newark Road-Site Access	**-**	**-**	**0**	**0**	**0**	**4.2**	**2.2**	**0.0**	**6.4**	**-**	**-**	**-**	**-**
1/1+1/2	778	778	-	-	-	2.3	0.8	-	3.1 (2.9+0.2)	14.5 (13.8:41.6)	11.4	0.8	12.2
2/2+2/1	140	140	-	-	-	1.5	0.5	-	2.0 (1.2+0.8)	51.1 (51.3:50.7)	2.0	0.5	2.5
3/1	472	472	-	-	-	0.2	0.3	-	0.4	3.4	1.7	0.3	1.9
3/2	438	438	-	-	-	0.2	0.2	-	0.5	3.9	1.8	0.2	2.0
4/1	843	843	-	-	-	0.0	0.4	-	0.4	1.6	0.0	0.4	0.4
5/1	50	50	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-4.8	Total Delay for Signalled Lanes (pcuHr):	23.14	Cycle Time (s):	90
C2	PRC for Signalled Lanes (%):	44.3	Total Delay for Signalled Lanes (pcuHr):	6.03	Cycle Time (s):	90
	PRC Over All Lanes (%):	-4.8	Total Delay Over All Lanes(pcuHr):	36.77		

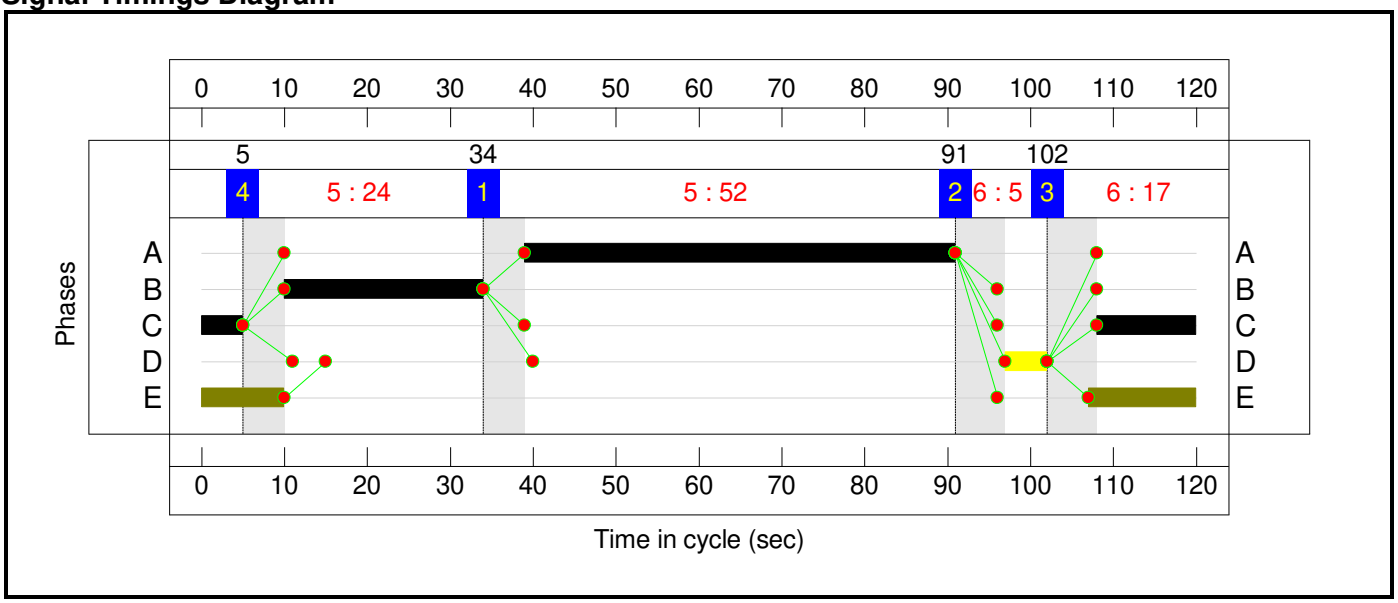
Full Input Data And Results
Scenario 2: '2032 PM WD' (FG2: '2032 PM WD', Plan 3: 'Network Plan 1')
C1
Stage Sequence Diagram



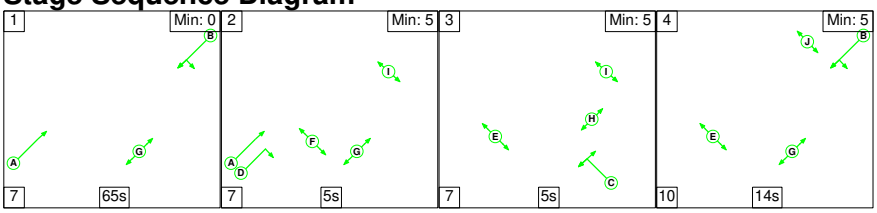
Stage Timings

Stage	1	2	3	4
Duration	52	5	17	24
Change Point	34	91	102	5

Signal Timings Diagram



C2
Stage Sequence Diagram

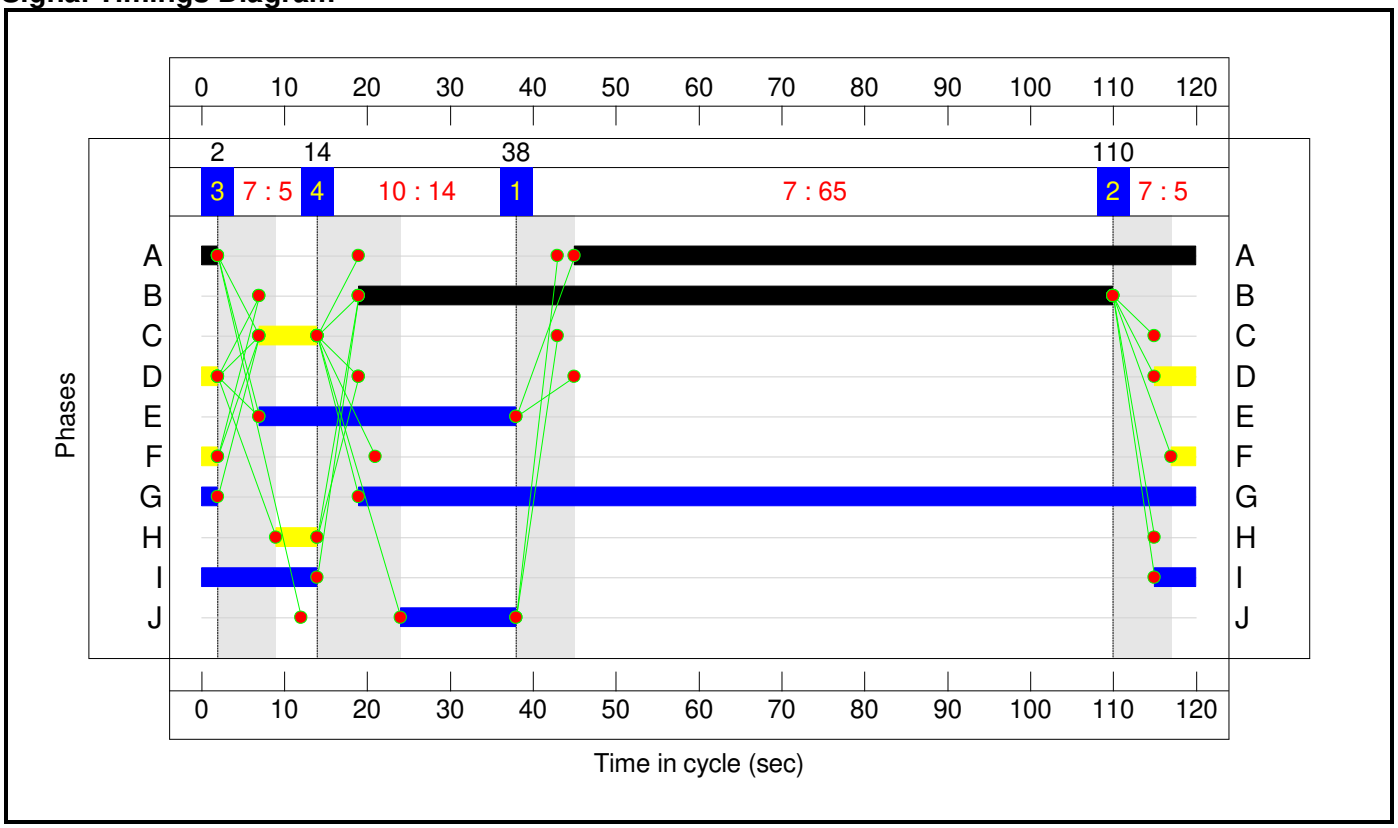


Stage Timings

Stage	1	2	3	4
Duration	65	5	5	14
Change Point	38	110	2	14

Full Input Data And Results

Signal Timings Diagram



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: Coxmoor Road/Newark Road/Cauldwell Road - Mitigation Option 2	-	-	**N/A**	-	-		-	-	-	-	-	-	**95.4%**
J1: Coxmoor Road-Newark Road X-Roads	-	-	**N/A**	-	-		-	-	-	-	-	-	**95.4%**
1/2+1/1	Coxmoor Road (N) Ahead Right Left	U	N/A	N/A	C1:A		1	52	-	1012	1853:1938	696+365	95.4 : 95.4%
2/1+2/2	Cauldwell Road Left Right Ahead	U	N/A	N/A	C1:D		1	5	-	20	1733:1741	87+87	11.5 : 11.5%
3/2+3/1	Coxmoor Road (S) Ahead Left Right	U	N/A	N/A	C1:B	C1:E	1	24:47	23	631	1963:1777	409+274	92.4 : 92.4%
4/1+4/2	Newark Road Right Left Ahead	O+U	N/A	N/A	- C1:C		-	-	-	1013	Inf :1889	829+283	91.1 : 91.1%
5/1		U	N/A	N/A	-		-	-	-	585	Inf	Inf	0.0%
6/1		U	N/A	N/A	-		-	-	-	1140	1300	1300	87.7%
7/1	Ahead	U	N/A	N/A	-		-	-	-	498	Inf	Inf	0.0%
7/2	Ahead	U	N/A	N/A	-		-	-	-	426	Inf	Inf	0.0%
8/1		U	N/A	N/A	-		-	-	-	27	Inf	Inf	0.0%
9/1		U	N/A	N/A	-		-	-	-	427	Inf	Inf	0.0%
9/2		U	N/A	N/A	-		-	-	-	435	Inf	Inf	0.0%
J2: Newark Road-Site Access	-	-	**N/A**	-	-		-	-	-	-	-	-	**81.1%**
1/1+1/2	Newark Road Ahead Right	U	N/A	N/A	C2:A C2:D		1	77:7	-	1038	1940:1764	1216+64	81.1 : 81.1%
2/2+2/1	Site Access Left Right	U	N/A	N/A	C2:C		1	7	-	45	1828:1747	122+116	22.2 : 15.5%
3/1	Newark Road (E) Ahead Left	U	N/A	N/A	C2:B		1	91	-	498	1917	1470	33.9%
3/2	Newark Road (E) Ahead	U	N/A	N/A	C2:B		1	91	-	426	1915	1468	29.0%

Full Input Data And Results

4/1	Ahead	U	N/A	N/A	-		-	-	-	1013	1940	1940	52.2%
5/1		U	N/A	N/A	-		-	-	-	132	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: Coxmoor Road/Newark Road/Cauldwell Road - Mitigation Option 2	**-**	**-**	**17**	**738**	**0**	**25.1**	**24.3**	**0.0**	**49.4**	**-**	**-**	**-**	**-**
J1: Coxmoor Road-Newark Road X-Roads	**-**	**-**	**17**	**738**	**0**	**18.7**	**21.1**	**0.0**	**39.8**	**-**	**-**	**-**	**-**
1/2+1/1	1012	1012	-	-	-	7.9	7.8	-	15.7 (10.6+5.1)	56.0 (57.5:53.2)	24.5	7.8	32.3
2/1+2/2	20	20	-	-	-	0.3	0.1	-	0.4 (0.2+0.2)	66.3 (66.3:66.3)	0.3	0.1	0.4
3/2+3/1	631	631	-	-	-	6.7	5.1	-	11.8 (7.9+3.8)	67.1 (75.7:54.3)	12.3	5.1	17.4
4/1+4/2	1013	1013	17	738	0	2.8	4.7	-	7.5 (3.7+3.8)	26.5 (17.6:52.6)	8.5	4.7	13.1
5/1	585	585	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
6/1	1140	1140	-	-	-	1.0	3.4	-	4.4	14.0	12.8	3.4	16.2
7/1	498	498	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
7/2	426	426	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
8/1	27	27	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/1	427	427	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
9/2	435	435	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0
J2: Newark Road-Site Access	**-**	**-**	**0**	**0**	**0**	**6.4**	**3.2**	**0.0**	**9.6**	**-**	**-**	**-**	**-**
1/1+1/2	1038	1038	-	-	-	4.9	2.1	-	7.0 (6.1+0.9)	24.3 (22.4:61.2)	24.5	2.1	26.6
2/2+2/1	45	45	-	-	-	0.7	0.1	-	0.8 (0.5+0.3)	62.3 (62.4:62.2)	0.8	0.1	1.0
3/1	498	498	-	-	-	0.4	0.3	-	0.6	4.6	3.1	0.3	3.4
3/2	426	426	-	-	-	0.5	0.2	-	0.7	5.7	3.9	0.2	4.1
4/1	1013	1013	-	-	-	0.0	0.5	-	0.5	1.9	0.0	0.5	0.5
5/1	132	132	-	-	-	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0

Full Input Data And Results

C1	PRC for Signalled Lanes (%):	-6.0	Total Delay for Signalled Lanes (pcuHr):	27.87	Cycle Time (s):	120
C2	PRC for Signalled Lanes (%):	11.0	Total Delay for Signalled Lanes (pcuHr):	9.10	Cycle Time (s):	120
	PRC Over All Lanes (%):	-6.0	Total Delay Over All Lanes(pcuHr):	49.42		