APP/SCW/8.3 B
PINS reference **APP/R4408/W/25/3359917**
Local Planning Authority Reference **2024/0122**

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Proposed Residential Development Land North of Hemingfield Road, Hemingfield, Barnsley

Appendices SCW1 to SCW25 to Proof of Evidence

May 2025

APPENDICES

Appendix SCW1	Site Location Plan
Appendix SCW2	Illustrative Masterplan (drawing No. 2344:01 Rev D) along with Wider Safeguarded Land Illustrative Concept Plan May 2025
Appendix SCW3	Email correspondence with BMBC Highways dated 13th May and 31st May 2024
Appendix SCW4	Survey Location Plans
Appendix SCW5	2023 Existing Traffic Flows
Appendix SCW6	Personal Injury Collision Data
Appendix SCW7	Walking TRACC Accessibility Plan (drawing No. 23/160/ACC/001)
Appendix SCW8	Location of Local facilities (drawing No. 23/160/LOC/010)
Appendix SCW9	Secondary School Location Plan (drawing No. 23/160/LOC/11)
Appendix SCW10	Cycling TRACC Accessibility Plan (drawing No. 23/160/ACC/002)
Appendix SCW11	Bus routing in vicinity of site (drawing No. 23/160/LOC/009)
Appendix SCW12	Public Transport TRACC Accessibility Plans (drawing No. 23/160/ACC/003 & 23/160/ACC/004)
Appendix SCW13	Proposed Vehicular and Pedestrian Access from Hemingfield Road (drawing No. 23/160/SKH/007 Rev E)
Appendix SCW14	Swept Path Analysis – Proposed Site Access (drawing No. 23/160/ATR/001 Rev D)
Appendix SCW15	TRICS Data
Appendix SCW16	Trip Distribution Percentages
Appendix SCW17	Development Generated Traffic Flows
Appendix SCW18	2029 Growthed Traffic Flows

Appendix SCW19	2029 Committed Development Traffic Flows
Appendix SCW20	2029 Base Traffic Flows
Appendix SCW21	2029 Predicted Traffic Flows
Appendix SCW22	Development Generated Traffic Flows (520 dwelling Sensitivity Test)
Appendix SCW23	Predicted Traffic Flows (520 dwelling Sensitivity Test)
Appendix SCW24	Junction Model Outputs (Sensitivity Test)
Appendix SCW25	Response to Third Party Representations

APPENDIX SCW 1

BRYAN G HALL

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Bryan G Hall

Title: SITE LOCATION PLAN

Status: FOR PLANNING

Scale: N.T.S.
Size: A3 - 420 x 297

Drawn: PP | Chkd: RD | Appvd: MC

Rev:	Date:	Amendment:	DRN	CHK	APR

Client: HARGREAVES LAND LIMITED

Project: HEMINGFIELD ROAD, BARNSLEY

Drawing No: 23/160/LOC/005
Job No: 23-160

Revision:
Date: 19/01/2024

APPENDIX SCW 2

Hargreaves Land

HEMINGFIELD ROAD ROUNDABOUT

A6195 - DEARNE VALLEY PARKWAY

DRAINAGE BASIN

OPEN SPACE

OPEN SPACE

HEMINGFIELD ROAD

BRIERY MEADOWS

THE PADDOCK

Notes:

This drawing, design and concept are copyright of STEN Architecture.

All Dimensions are to be verified on site before any work commences. If any discrepancies, errors or emissions are noted, these are to be reported to STEN Architecture immediately.

If any other drawings are referenced within this layout, please refer to the specific detailed drawing for design, materials and specific working practices.

1. PRIMARY VEHICULAR ENTRANCE FROM HEMINGFIELD ROAD
2. RETAINED FOOTPATH ROUTE THROUGH THE CENTRE OF THE SITE AND CONNECTION TO THE NORTH. THIS ROUTE IS SET IN A PLEASANT GREEN CORRIDOR WITH THE POTENTIAL TO INCLUDE NEW NATIVE PLANTING AND TREES
3. RETAINED PUBLIC RIGHTS OF WAY (FOOTPATH 17 AND 18)
4. ATTRACTIVE GREENSPACE AT THE DEVELOPMENT ENTRANCE
5. PROPOSED DRAINAGE BASIN
6. FEATURE SPACES AND GATEWAY BUILDINGS
7. POTENTIAL ACCESS POINTS TO ADJACENT LAND
8. RETAINED HEDGEROW ALONG THE EASTERN BOUNDARY
9. DEDICATED WALKING ROUTE
10. PROPOSED EQUIPPED PLAY AREA
11. AMENITY SPACE

- DEVELOPMENT PARCELS
- FRONTAGE AND BUILT FORM
- KEY PEDESTRIAN ROUTES
- VEHICLE ROUTES
- REAR BOUNDARIES
- EXISTING SEWER AND EASEMENT

NB:-

A) Proposed Landscaping is shown indicatively and subject to detailed design and recommendations from Ecology, Landscape, and Arboriculture consultants.

B) Proposed highways and footpaths are shown indicatively. All streets and routes will comply with Local Authority Guidance.

- Primary Streets will mainly comprise 5.5m highway, flanked by 2m footpaths.
- Shared Surfaces will be a maximum overall width of 7.4m including appropriate service margins.
- Private Drives will be a maximum of 5.5m.

N

Scaled @ 1:1250

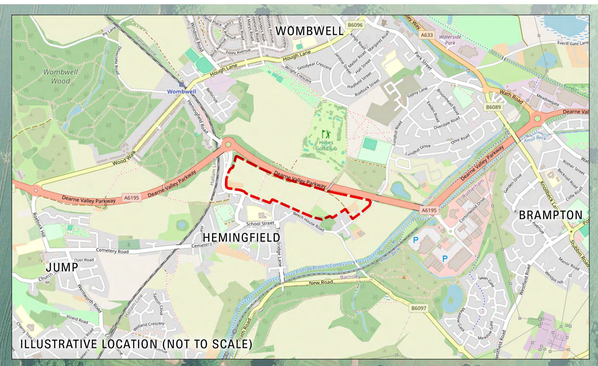
0 25m 50m 100m

STEN ARCHITECTURE

SITE: HEMINGFIELD, BARNSLEY				
TITLE: ILLUSTRATIVE MASTERPLAN				
SCALE AT A2: 1:1250	DATE: DEC 2023	DRAWN: SSH	CHECKED:	
PROJECT NO: 2344	DRAWING NO: 2344:01		REVISION: D	

Hargreaves Land

WOMBELL TRAIN STATION



1. PRIMARY VEHICULAR ENTRANCE FROM HEMINGFIELD ROAD
2. RETAINED WALKING ROUTE THROUGH THE CENTRE OF THE SITE AND CONNECTION TO THE NORTH. THIS ROUTE IS SET IN A PLEASANT GREEN CORRIDOR WITH THE POTENTIAL TO INCLUDE NEW NATIVE PLANTING AND TREES
3. RETAINED PUBLIC RIGHTS OF WAY
4. ATTRACTIVE GREENSPACE AT THE DEVELOPMENT ENTRANCE
5. PROPOSED DRAINAGE BASINS
6. FEATURE SPACES AND GATEWAY BUILDINGS
7. PROPOSED CONNECTION POINTS BETWEEN WESTERN AND EASTERN PARCELS
8. RETAINED HEDGEROW AND FIELD BOUNDARY PLANTING
9. PROPOSED WALKING ROUTES
10. PROPOSED EQUIPPED PLAY AREA
11. PROPOSED OPEN SPACE
12. EXISTING COPSE
13. GREEN CORRIDOR TO THE EDGE OF THE PROPOSAL
14. POTENTIAL VEHICULAR ENTRANCE FROM BEECH HOUSE ROAD

NB:-

A) Proposed landscaping is shown indicatively and subject to detailed design and recommendations from ecology, landscape, and arboriculture consultants.

B) Proposed highways and footpaths are shown indicatively. All streets and routes will comply with local authority guidance.

- DEVELOPMENT PARCELS
- FRONTAGE AND BUILT FORM
- KEY PEDESTRIAN ROUTES
- INFORMAL PEDESTRIAN ROUTES
- VEHICLE ROUTES
- REAR BOUNDARIES
- EXISTING SEWER AND EASEMENT (subject to detailed survey)
- EXISTING BUS STOPS
- PROPOSED BUS STOP (AS PART OF THE WESTERN PROPOSAL)
- PUBLIC RIGHTS OF WAY
- EXISTING WALKING ROUTES

PROW CONNECTION TO WOMBWELL

PROW CONNECTION TO WOMBWELL

PLAYING FIELDS

DEARNE VALLEY PARKWAY

THE TAVERN (PUBLIC HOUSE)

HEMINGFIELD ROAD

BEECH HOUSE ROAD

PROW CONNECTION TO JUMP

RECREATION GROUND

THE ELLIS CHURCH OF ENGLAND PRIMARY SCHOOL

HEMINGFIELD VILLAGE STORE

SCALE 1:1250
0 10 20 50 100

Hargreaves Land

PROJECT:
PROPOSED RESIDENTIAL DEVELOPMENT
BEECH HOUSE ROAD, HEMINGFIELD

DRAWING:
WIDER SAFEGUARDED LAND ILLUSTRATIVE CONCEPT PLAN, MAY 2025

SCALE:
1:1250 @ A0

NORTH

STEN ARCHITECTURE

RIBA Chartered Practice

URBAN DESIGN GROUP RECOGNISED PRACTITIONER

APPENDIX SCW 3

Robbie Donaldson

From: Martin Crabtree
Sent: 13 May 2024 16:34
To: Turner , Jamie (SENIOR ENGINEER)
Cc: Robbie Donaldson; 'Craig Woolmer'
Subject: Hemingfield Road, Hemingfield

Jamie

It was good to catch up earlier today and I thought it prudent to drop you a note just to confirm the agreed way forward. If this could be relayed to your colleague Garry Hildersley, for his confirmation, that would be much appreciated.

As discussed, we will carry out operational assessments using the computer programme "Junctions" to determine the impact of the vehicular trips associated with the total safeguarded land at three junctions, which include the site access (to confirm the findings of the TA), the Hemingfield Road Roundabout and the Hemingfield Road/Cemetery Road junction. However, for junctions further afield i.e. those along the Dearne Valley Parkway, it was agreed that as the impact of the development related vehicular trips will be reduced/minimal, beyond the Hemingfield Road Roundabout, we would carry out a development trip percentage assessment comparing with baseline flows to demonstrate the impact.

I trust that the above approach is agreed and will await your and Garry's confirmation, and once we receive this, we will progress with producing the required information to address all of the points raised within your consultation response, in addition to the above.

I look forward to hearing from you.

Regards

Martin Crabtree
Associate
BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

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Mobile: [redacted]
Leeds: 0113 246 1555
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W www.bryanghall.co.uk
Registered in England and Wales
Company Number 4104802

Robbie Donaldson

From: Turner , Jamie (SENIOR ENGINEER) [redacted]
Sent: 31 May 2024 10:28
To: Martin Crabtree
Cc: Robbie Donaldson; Craig Woolmer
Subject: RE: Hemingfield Road, Hemingfield

Hi All,

Apologies again for the delay in responding.

I've spoken to my line manager and he is happy with the approach suggested below (he's in a better position to agree a way forward than Garry who mainly deals with things at a higher, broader level). We're happy for the assessment to go ahead as per the below. Obviously, if something is thrown up where an unusually high trip generation is produced well over a percentage rate than cannot be compared to the diurnal changes of flow then additional detail will be required, but as we said in the meeting, we're looking at vehicles quickly feeding onto a newly-built trunk road so I'd hope that any percentage increase in traffic was not considered to be significant.

Kind Regards,

Jamie

From: Martin Crabtree [redacted]
Sent: Monday, May 13, 2024 4:34 PM
To: Turner , Jamie (SENIOR ENGINEER) [redacted]
Cc: Robbie Donaldson [redacted]; Craig Woolmer [redacted]
Subject: Hemingfield Road, Hemingfield

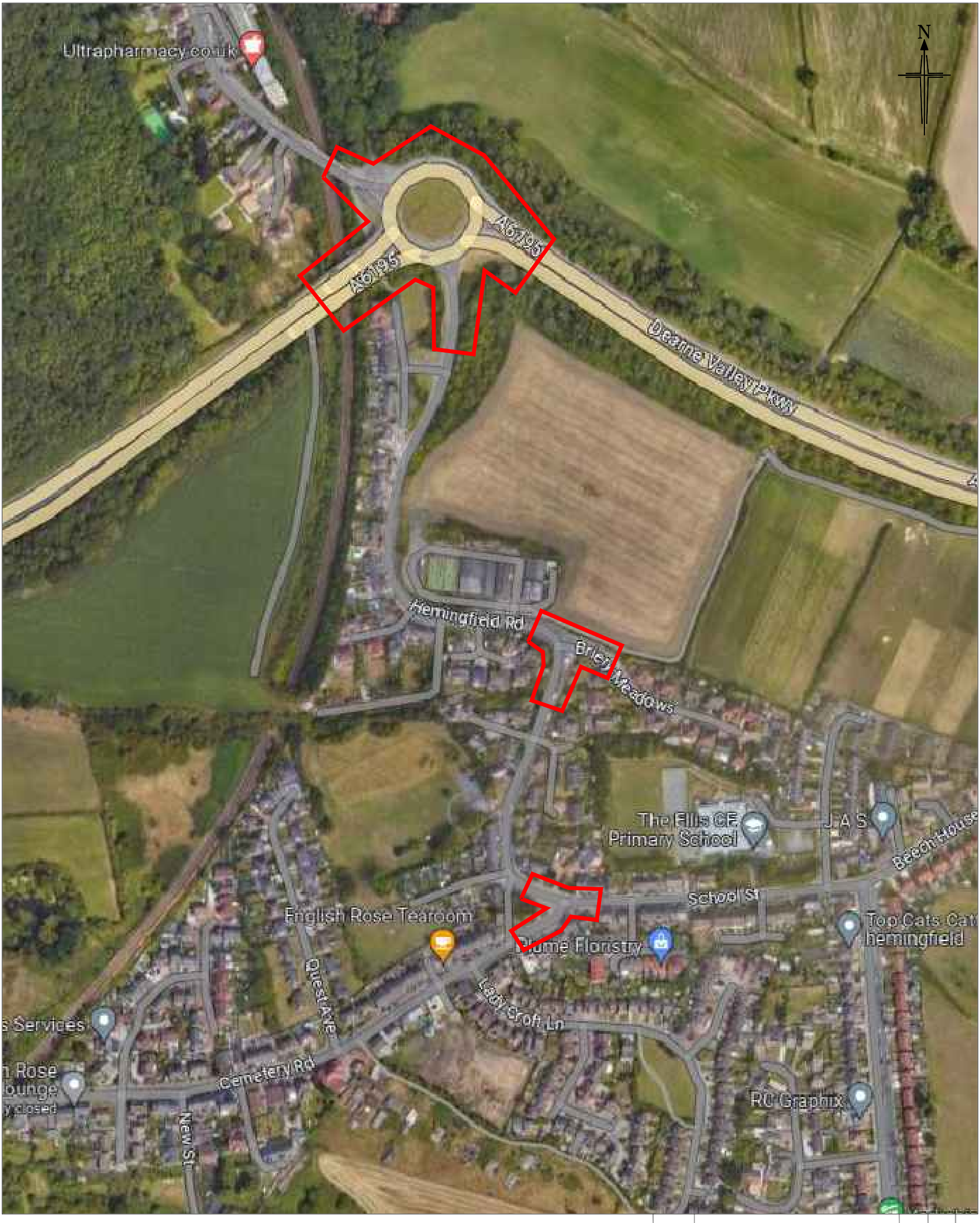
Jamie

It was good to catch up earlier today and I thought it prudent to drop you a note just to confirm the agreed way forward. If this could be relayed to your colleague Garry Hildersley, for his confirmation, that would be much appreciated.

As discussed, we will carry out operational assessments using the computer programme "Junctions" to determine the impact of the vehicular trips associated with the total safeguarded land at three junctions, which include the site access (to confirm the findings of the TA), the Hemingfield Road Roundabout and the Hemingfield Road/Cemetery Road junction. However, for junctions further afield i.e. those along the Dearne Valley Parkway, it was agreed that as the impact of the development related vehicular trips will be reduced/minimal, beyond the Hemingfield Road Roundabout, we would carry out a development trip percentage assessment comparing with baseline flows to demonstrate the impact.

I trust that the above approach is agreed and will await your and Garry's confirmation, and once we receive this, we will progress with producing the required information to address all of the points raised within your consultation response, in addition to the above.

APPENDIX SCW 4



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Bryan G Hall

Rev:	Date:	Amendment:	DRN	CHK	APR

Title: TRAFFIC SURVEY LOCATION PLAN

Client: HARGREAVES LAND LIMITED

Project: RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY

Scale: N.T.S. Size: A3 - 297 x 420

Drawn: LD | Chkd: MC | Appvd: MC

Drawing No: 23/160/LOC/001
Job No: 23-160

Revision: -
Date: 21/06/2023

BRYAN G HALL

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Bryan G Hall

Title: ATC LOCATION PLAN

Scale: N.T.S. Size: A3 - 297 x 420

Drawn: RD Chkd: MC Appvd: MC

Rev:	Date:	Amendment:	DRN	CHK	APR

Client: HARGREAVES LAND LIMITED

Project: RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY

Drawing No: 23/160/LOC/003

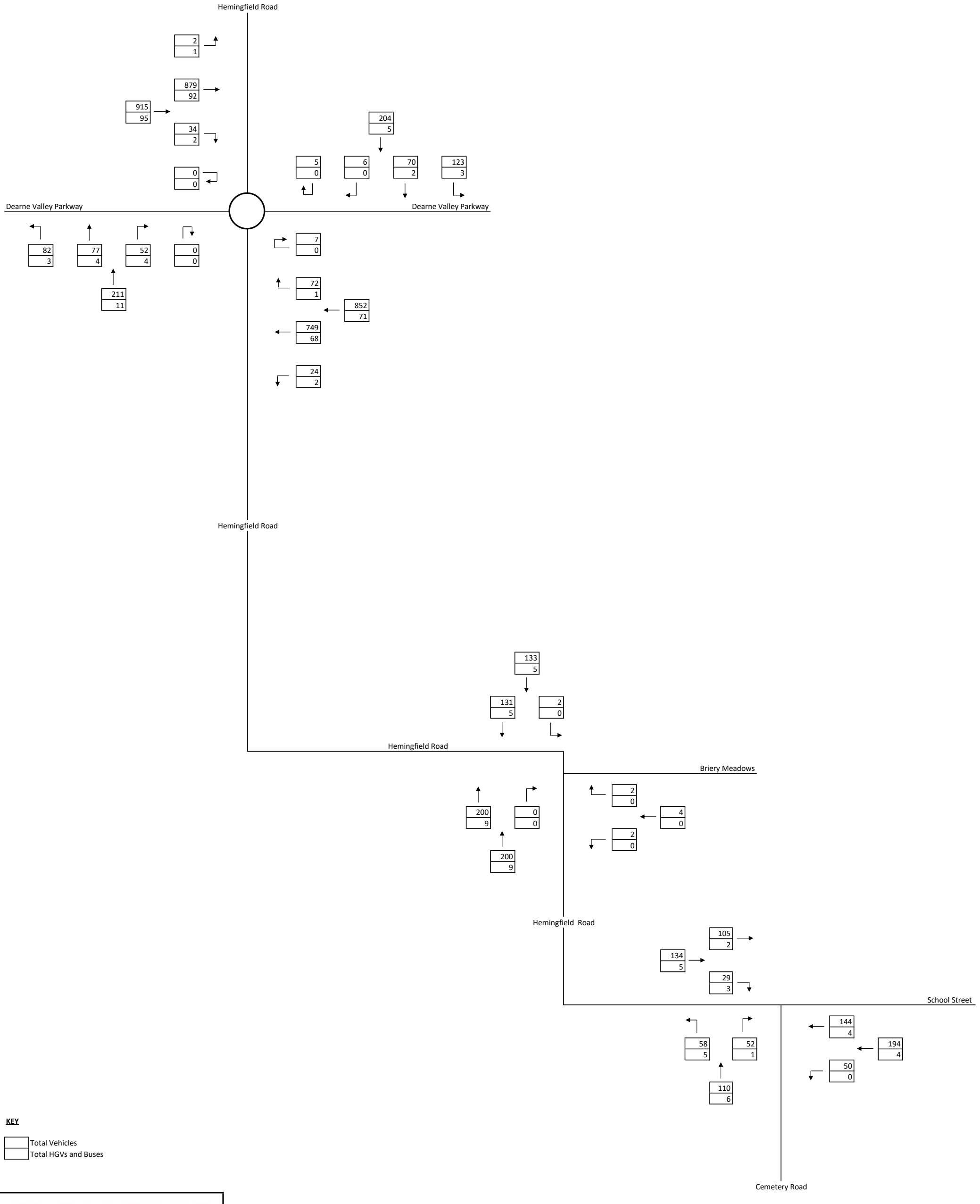
Job No: 23-160

Revision: -

Date: 21/12/2023

APPENDIX SCW 5

2023 EXISTING VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
TUESDAY 27TH JUNE 2023
AM PEAK HOUR
8:00am - 9:00am



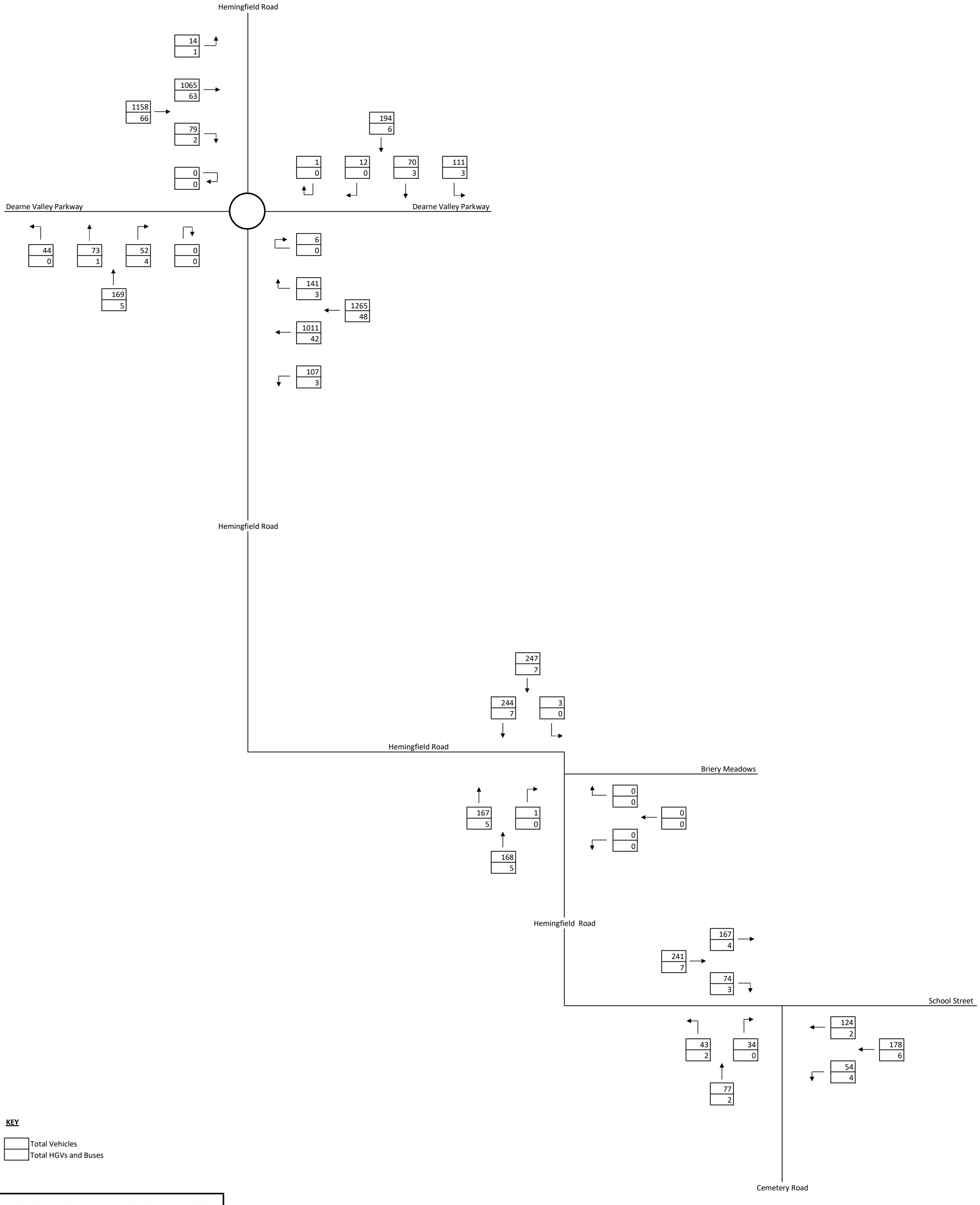
KEY

	Total Vehicles
	Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

2023 EXISTING VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
TUESDAY 27TH JUNE 2023
PM PEAK HOUR
4:00pm - 5:00pm



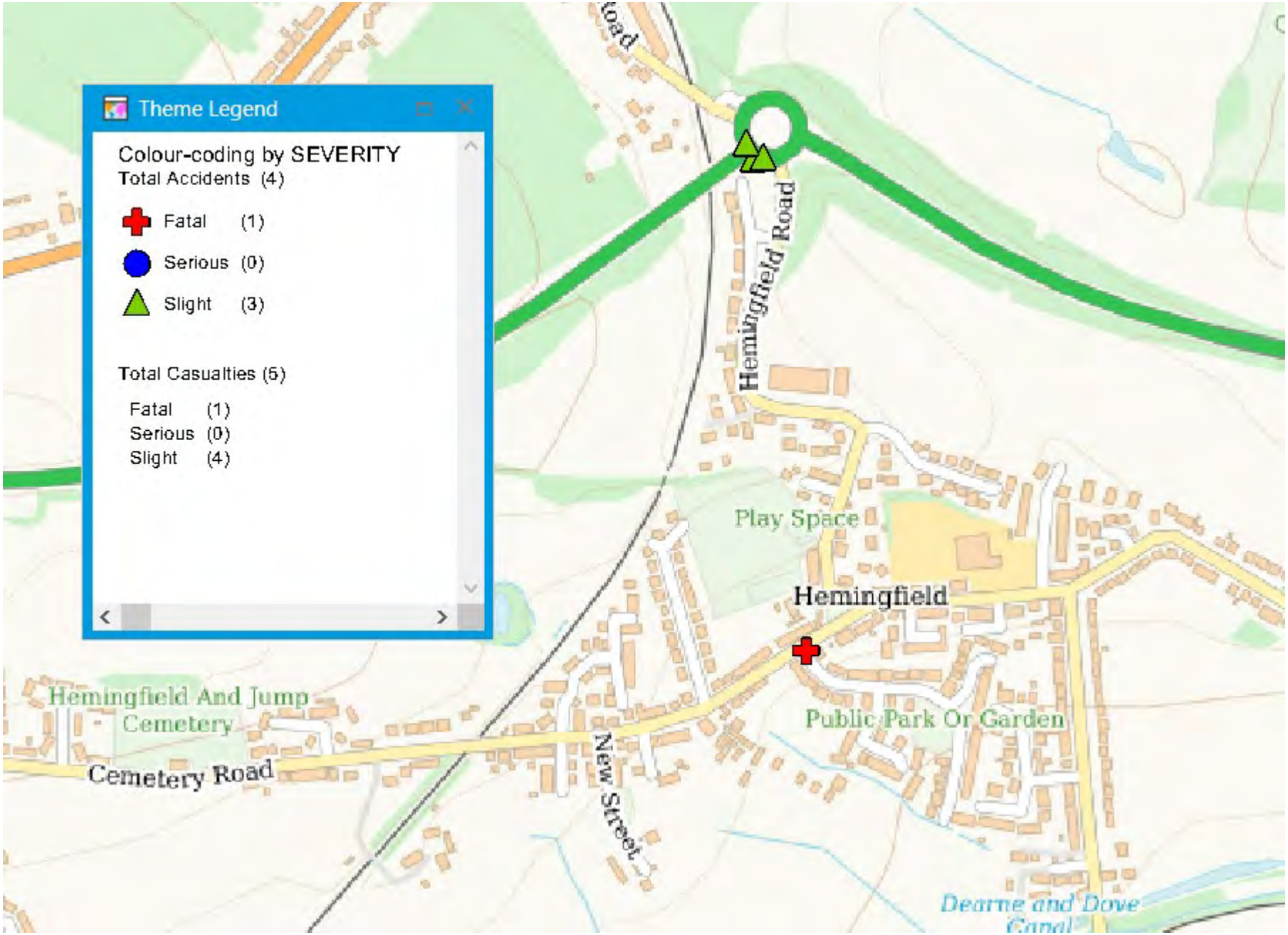
KEY

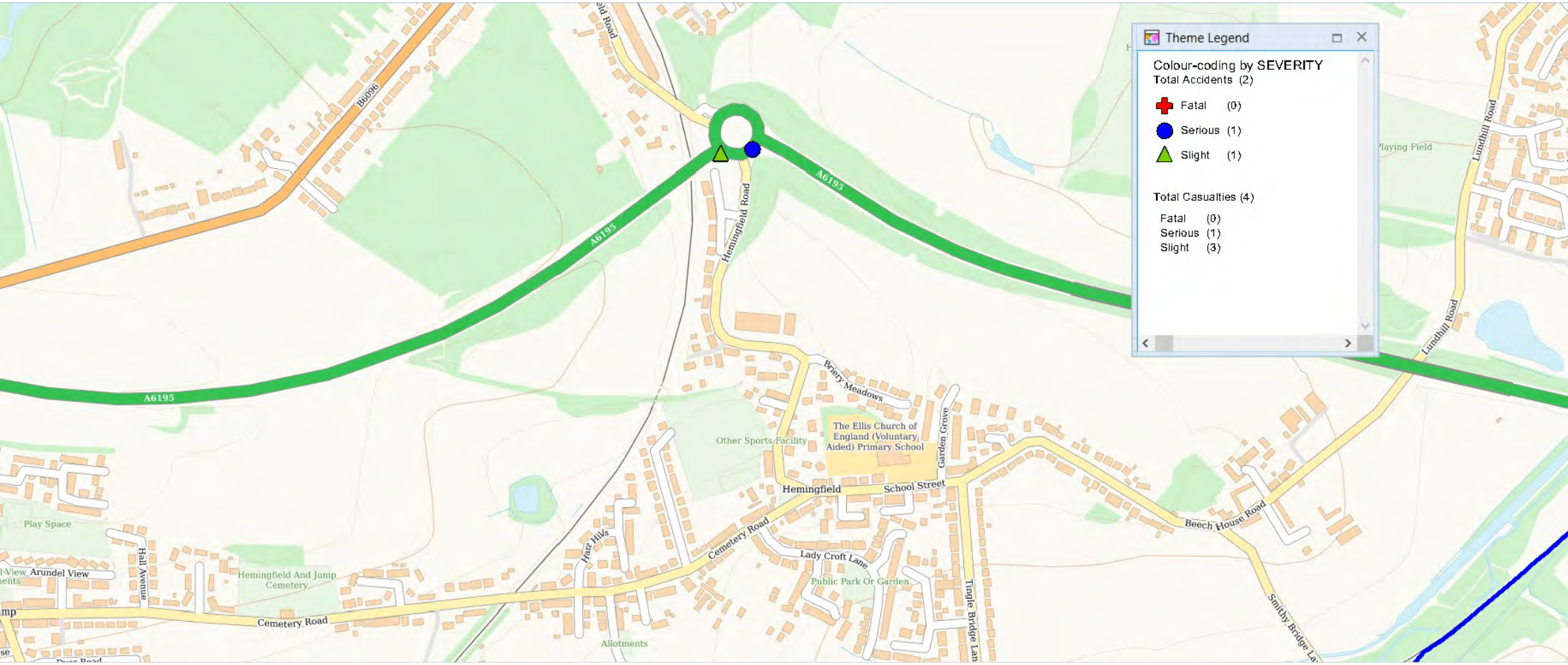
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX SCW 6


Theme Legend
Colour-coding by SEVERITY
Total Accidents (4)
Fatal (1)
Serious (0)
Slight (3)
Total Casualties (5)
Fatal (1)
Serious (0)
Slight (4)
Hemingfield Road
Play Space
Hemingfield
Hemingfield And Jump Cemetery
Cemetery Road
New Street
Public Park Or Garden
Dearne and Dove Canal


Theme Legend
Colour-coding by SEVERITY
Total Accidents (2)
Fatal (0)
Serious (1)
Slight (1)
Total Casualties (4)
Fatal (0)
Serious (1)
Slight (3)
A6195
B6096
Hemingfield Road
Briery Meadows
The Ellis Church of England (Voluntary Aided) Primary School
Other Sports Facility
Garden Grove
Hemingfield
School Street
Beech House Road
Lundhill Road
Cemetery Road
Lady Croft Lane
Public Park Or Garden
Tingle Bridge Lane
Hall Croft Hills
Hall Avenue
Arundel View
Hemingfield And Jump Cemetery
Play Space
Allotments
Playing Field
Smithy Bridge La

Accidents between dates **01/01/2018** **and** **17/09/2023** (69) months

Selection:

Notes:

Selected using Manual Selection

Police Ref.	Date	Cas.	Sev.	P2W	Cycs	Peds	Ch	60+	Vis.	Manv.	Road Cond.	Time	Location
221244476	20/11/2022	1	Slight	0	0	0	0	0	Light	No turn	Dry	1335	
19818240	24/02/2019	1	Slight	1	0	0	0	0	Light	No turn	Dry	1227	DEARNE VALLEY PARKWAY (A6195) BARNSLEY AT OR NR JN WITH I
20987486	05/10/2020	2	Slight	0	0	0	0	1	Light	Left	Dry	0952	HEMINGFIELD ROAD ROUNDABOUT (A6195) BARNSLEY AT OR NR J
20941957	22/03/2020	1	Fatal	1	0	0	0	0	Light	Right	Dry	1648	CEMETERY ROAD BARNSLEY AT OR NR JN WITH LADY CROFT LAN
Column Totals		5		2	0	0	0	1					
No. of Accidents				2	0	0	0	1					

Total number of accidents listed: 4

Accidents between dates **01/09/2023** **and** **27/09/2024** (13) months

Selection:

Selected using Manual Selection

Notes:

Police Ref.	Date	Cas.	Sev.	P2W	Cycs	Peds	Ch	60+	Vis.	Manv.	Road Cond.	Time	Location
231355496	23/09/2023	1	Serious	1	0	0	0	0	Light	No turn	Dry	1255	HEMINGFIELD ROAD ROUNDABOUT (A6195) AT JUNCTION WITH DE
241464657	05/07/2024	3	Slight	0	0	0	1	0	Light	Left	Dry	1530	DEARNE VALLEY PARKWAY WESTBOUND (A6195) NEAR JUNCTION '
Column Totals		4		1	0	0	1	0					
No. of Accidents				1	0	0	1	0					

Total number of accidents listed: 2

Details of Personal Injury Accidents for Period - **01/01/2018** **to** **17/09/2023** (69) months

Selection: **Notes:**

Selected using Manual Selection

			Vehicles					Casualties		
Police Ref.	Day	Location Description	Veh No / Type / Manv / Dir / Class					Sex / Age / Sev		
	Date									
Road No.	Time									
2nd Road No.										
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

221244476	Sunday		Veh 1	Car	Going ahead	SW	to E	Dri	M	46 Slight
	20/11/2022		Veh 2	Car	Going ahead RH bend	E	to NW			
R1: A 6195	1335hrs									
R2: U	Daylight:street lights present									
E 439,099	Dry									
N 402,033	Fine without high winds									
	70 mph									

Causation Factor:		**Participant:**	**Confidence:**
1st:	Illness or disability, mental or physical	Vehicle 1	Very Likely

V1 TRAVELLING FROM CORTON WOOD ON DVP A6195 TOWARDS HEMMINFIELD ROUNDABOUT. HE HAS HAD AN EPILEPTIC FIT AND TRAVELLED OVER THE ROUNDABOUT INTO ONCOMING TRAFFIC STRIKING V2 AND THEN THE BARRIER. SEEN BY AMBULANCE. CONFIRMED NO DRINK OR DRUGS AND TAKEN
TO HOSPITAL

19818240	Sunday	DEARNE VALLEY PARKWAY (A6195)	Veh 1	M/C < 125 cc	Going ahead	E	to SW	Dri	M	49 Slight
	24/02/2019	BARNSLEY AT OR NR JN WITH	Veh 2	Car	Going ahead	E	to SW			
R1: A 6195	1227hrs	HEMINGFIELD ROAD ROUNDABOUT								
R2: A 6195	Daylight:street lights present									
E 439,108	Dry									
N 402,014	Fine without high winds									
	70 mph									

Causation Factor:		**Participant:**	**Confidence:**
1st:	Failed to judge other persons path or speed	Vehicle 1	Possible
2nd:	Failed to look properly	Vehicle 1	Possible

BOTH VEHICLES ONE AND TWO HAVE BEEN TRAVELLING UPHILL ON THE DEARNE VALLEY PARKWAY. AS EXITING THE ROUNDABOUT, THERE HAS BEEN A MINOR COLLISION WHEN VEHICLE ONE, THE MOTORCYCLE, HAS CONNECTED WITH THE FRONT CORNER OF VEHICLE TWO. THIS HAS CAUSED THE RIDE
R TO FALL FROM THE BIKE. AFTER GETTING UP FROM THE ROAD, INITIALLY HE DIDN'T THINK THAT HE HAD BEEN INJURED. HE SPOKE WITH THE DRIVER OF VEHICLE TWO, PASSED HIM HIS DETAILS AND MOBILE NUMBER AND ASKED THE DRIVER TO CONTACT HIM LATER AS HE DIDN'T HAVE ANY
THING TO WRITE THE DETAILS DOWN WITH. VEHICLE TWO HAD LEFT THE SCENE PRIOR TO OFFICER ARRIVAL. THEY LOCATED THE RIDER SAT AT THE ROADSIDE WITH HIS BIKE. HE THEN REALISED THAT HE WAS SUFFERING PAIN TO HIS RIGHT SHOULDER AND THAT HE HAD SUSTAINED A SHOULDE
R INJURY. HE HAS TRAVELLED TO BDGH WITH A FRIEND FOR ASSESSMENT.

Details of Personal Injury Accidents for Period - **01/01/2018** **to** **17/09/2023** (69) months

Selection: **Notes:**

Selected using Manual Selection

			Vehicles				Casualties			
Police Ref.	Day	Location Description	Veh No / Type / Manv / Dir / Class				Sex / Age / Sev			
	Date									
Road No.	Time									
2nd Road No.										
Grid Ref.	D/L									
	R.S.C									
	Weather									
	Speed									
	Account of Accident									
Causation Factor:										

20987486	Monday	HEMINGFIELD ROAD ROUNDABOUT (A6195) BARNSLEY AT OR NR JN WITH HEMMINGFIELD ROAD	Veh 1	Goods < 3.5t	Change lane to right	SE to SW				
	05/10/2020		Veh 2	Car	Turning left	SE to SW FSP	M	19	Slight	
R1: A 6195	0952hrs		Veh 2	Car	Turning left	SE to SW Dri	M	71	Slight	
R2: U	Daylight:street lights present									
E 439,119	Dry									
N 402,016	Fine without high winds									
	60 mph									

Causation Factor:		**Participant:**	**Confidence:**
1st:	Careless/Reckless/In a hurry	Vehicle 1	Very Likely

IT WOULD APPEAR THAT THE DRIVER OF V1 HAS INCORRECTLY NEGOTIATED THE ROUNDABOUT PULLING OUT TO THE RIGHT TO GET AROUND A CAR WHICH DIDN'T SET OFF THAT WAS IN THE LANE IN FRONT OF IT, COLLIDING WITH V2 WHICH WAS IN THE LEFT LANE PROCEEDING ONTO THE ROUNDA
BOUT AND GOING IN THE SAME DIRECTION

20941957	Sunday	CEMETERY ROAD BARNSLEY AT OR NR JN WITH LADY CROFT LANE	Veh 1	Car	Turning right	SW to SE				
	22/03/2020		Veh 2	M/C > 125 cc	Going ahead	NE to SW Dri	M	25	Fatal	
R1: U	1648hrs		Veh 3	Car	Parked	0 to 0				
R2: U	Daylight:street lights present		Veh 4	Car	Parked	0 to 0				
E 439,168	Dry									
N 401,448	Fine without high winds									
	30 mph									

Causation Factor:		**Participant:**	**Confidence:**
1st:	Aggressive driving	Vehicle 2	Very Likely

V1 TRAVELS ALONG CEMETRY ROAD AND AS IT TURNS RIGHT INTO LADY CROFT LANE, V2 OFF ROAD MOTORCYCLE COLLIDES WITH NEAR SIDE FRONT OF V1, RIDER IS THROWN ONTO THE ROAD SURFACE AND LIFE IS PRONOUNCED EXTINCT AT SCENE

Details of Personal Injury Accidents for Period - **01/09/2023** **to** **27/09/2024** (13) months

Selection: **Notes:**

Selected using Manual Selection

			Vehicles				Casualties		
Police Ref.	Day	Location Description	Veh No / Type / Manv / Dir / Class				Sex / Age / Sev		
	Date								
Road No. **2nd Road No.**	Time								
Grid Ref.	D/L								
	R.S.C								
	Weather								
	Speed								
	Account of Accident								
Causation Factor:									

231355496	Saturday	HEMINGFIELD ROAD ROUNDABOUT (A6195) AT JUNCTION WITH DEARNE VALLEY PARKWAY WESTBOUND	Veh 1	M/C Unknown	Starting	S	to N	Dri	M	54	Serious
	23/09/2023		Veh 2	Car	Starting	SE	to NW				
R1: A 6195	1255hrs										
R2: A 6195	Daylight:street lights present										
E 439,153	Dry										
N 402,025	Fine without high winds										
	70 mph										

Causation Factor:		**Participant:**	**Confidence:**
1st:	Failed to judge other persons path or speed	Vehicle 2	Very Likely

V1 MOTORBIKE HAS COME UP THE LANE 2 OF THE DEARNE VALLEY PARKWAY TOWARDS HEMMINGFIELD ROUNDABOUT. V1 HAS THEN ENTERED THE ROUNDABOUT. V2 HAS ENTERED THE ROUNDABOUT AND NOT ANTICIPATED SPEED OR DIRECTION OF V1. V1 HAS COLLIDED TO O/S DOOR OF V2.

241464657	Friday	DEARNE VALLEY PARKWAY WESTBOUND (A6195) NEAR JUNCTION WITH HEMINGFIELD	Veh 1	Car	Going ahead	E	to W	RSP	M	8	Slight
	05/07/2024		Veh 1	Car	Going ahead	E	to W	Dri	F	32	Slight
R1: A 6195	1530hrs		Veh 2	Car	Turning left	E	to W	Dri	F	30	Slight
R2: A 6195	Daylight:street lights present										
E 439,104	Dry										
N 402,016	Fine without high winds										
	70 mph										

Causation Factor:		**Participant:**	**Confidence:**
1st:	Failed to look properly	Vehicle 1	Very Likely
2nd:	Distraction in vehicle	Vehicle 1	Very Likely

V1 AND V2 WERE TRAVELLING ON DUAL CARRIAGEWAY AND ENTERED THE ROUNDABOUT. V1 IN LANE 1 AND V2 IN LANE 2. AS V2 HAS GONE TO EXIT THE ROUNDABOUT AT THE SECOND EXIT, REMAINING IN LANE 2 TO EXIT INTO LANE 2, V1 HAS CONTINUED AROUND THE ROUNDABOUT, HEADING
TOWARD THE 3RD EXIT, ESSENTIALLY CUTTING ACROSS THE PATH OF V2. THE NEARSIDE OF V2 HAS COLLIDED WITH THE OFFSIDE OF V1 CAUSING IT TO SPIN IN THE ROAD AND PARTIALLY EXIT THE ROUNDABOUT ONTO THE CENTRAL RESERVATION.

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

221244476 20/11/2022 Sunday Time: 1335 Vehicles 2 Casualties 1 Slight
Easting: 439,099 Northing: 402,033
Fine without high winds Road Surface: Dry Daylight
Road Type: Roundabout Speed Limit: 70

Location:
Description: V1 TRAVELLING FROM CORTON WOOD ON DVP A6195 TOWARDS HEMMINFIELD ROUNDABOUT. HE HAS HAD AN EPILEPTIC FIT AND TRAVELLED OVER THE ROUNDABOUT INTO ONCOMING TRAFFIC STRIKING V2 AND THEN THE BARRIER. SEEN BY AMBULANCE. CONFIRMED NO DRINK OR DRUGS AND TAKEN TO HOSPITAL

Vehicle Reference: 1 Car Going ahead
First point of impact: Front
Vehicle direction: SW to E Journey: Other
Age of Driver : 46 Breath test: Negative

Contributory Factors : 505

Casualty Reference: 1 Age: 46 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead right hand bend
First point of impact: Front
Vehicle direction: E to NW Journey: Other
Age of Driver : 80 Breath test: Not requested

Contributory Factors : 505

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

19818240 24/02/2019 Sunday Time: 1227 Vehicles 2 Casualties 1 Slight
Easting: 439,108 Northing: 402,014
Fine without high winds Road Surface: Dry Daylight
Road Type: Dual carriageway Speed Limit: 70

Location: DEARNE VALLEY PARKWAY (A6195) BARNSLEY AT OR NR JN WITH HEMINGFIELD ROAD ROUNDABOUT (A6195)
Description: BOTH VEHICLES ONE AND TWO HAVE BEEN TRAVELLING UPHILL ON THE DEARNE VALLEY PARKWAY. AS EXITING THE ROUNDABOUT, THERE HAS BEEN A MINOR COLLISION WHEN VEHICLE ONE, THE MOTORCYCLE, HAS CONNECTED WITH THE FRONT CORNER OF VEHICLE TWO. THIS HAS CAUSED THE RIDE R TO FALL FROM THE BIKE. AFTER GETTING UP FROM THE ROAD, INITIALLY HE DIDN'T THINK THAT HE HAD BEEN INJURED. HE SPOKE WITH THE DRIVER OF VEHICLE TWO, PASSED HIM HIS DETAILS AND MOBILE NUMBER AND ASKED THE DRIVER TO CONTACT HIM LATER AS HE DIDN'T HAVE ANY THING TO WRITE THE DETAILS DOWN WITH. VEHICLE TWO HAD LEFT THE SCENE PRIOR TO OFFICER ARRIVAL. THEY LOCATED THE RIDER SAT AT THE ROADSIDE WITH HIS BIKE. HE THEN REALISED THAT HE WAS SUFFERING PAIN TO HIS RIGHT SHOULDER AND THAT HE HAD SUSTAINED A SHOULDE R INJURY. HE HAS TRAVELLED TO BDGH WITH A FRIEND FOR ASSESSMENT.

Vehicle Reference: 1 Motorcycle over 50cc and up Going ahead
First point of impact: Offside
Vehicle direction: E to SW Journey: Other
Age of Driver : 49 Breath test: Negative

Contributory Factors : 406 405

Casualty Reference: 1 Age: 49 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Going ahead
First point of impact: Nearside
Vehicle direction: E to SW Journey: Not known
Age of Driver : 82 Breath test: Driver not contacted

Contributory Factors : 406 405

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

20987486 05/10/2020 Monday Time: 0952 Vehicles 2 Casualties 2 Slight
Easting: 439,119 Northing: 402,016
Fine without high winds Road Surface: Dry Daylight
Road Type: Roundabout Speed Limit: 60

Location: HEMINGFIELD ROAD ROUNDABOUT (A6195) BARNSLEY AT OR NR JN WITH HEMMINGFIELD ROAD
Description: IT WOULD APPEAR THAT THE DRIVER OF V1 HAS INCORRECTLY NEGOTIATED THE ROUNDABOUT PULLING OUT TO THE RIGHT TO GET AROUND A CAR WHICH DIDN'T SET OFF THAT WAS IN THE LANE IN FRONT OF IT, COLLIDING WITH V2 WHICH WAS IN THE LEFT LANE PROCEEDING ONTO THE ROUNDA BOUT AND GOING IN THE SAME DIRECTION

Vehicle Reference: 1 Van or Goods <= 3.5 tonnes Changing lane to right
First point of impact: Offside
Vehicle direction: SE to SW Journey: Journey as part of work
Age of Driver : 38 Breath test: Negative

Contributory Factors : 602

Vehicle Reference: 2 Car Turning left
First point of impact: Nearside
Vehicle direction: SE to SW Journey: Not known
Age of Driver : 71 Breath test: Negative

Contributory Factors : 602

Casualty Reference: 1 Age: 71 Male Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 19 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

20941957 22/03/2020 Sunday Time: 1648 Vehicles 4 Casualties 1 Fatal
Easting: 439,168 Northing: 401,448
Fine without high winds Road Surface: Dry Daylight
Road Type: Single carriageway Speed Limit: 30

Location: CEMETERY ROAD BARNSLEY AT OR NR JN WITH LADY CROFT LANE
Description: V1 TRAVELS ALONG CEMETRY ROAD AND AS IT TURNS RIGHT INTO LADY CROFT LANE, V2 OFF ROAD MOTORCYCLE COLLIDES WITH NEAR SIDE FRONT OF V1, RIDER IS THROWN ONTO THE ROAD SURFACE AND LIFE IS PRONOUNCED EXTINCT AT SCENE

Vehicle Reference: 1 Car Turning right
First point of impact: Nearside
Vehicle direction: SW to SE Journey: Other
Age of Driver : 27 Breath test: Negative

Contributory Factors : 601

Vehicle Reference: 2 Motorcycle over 125cc and up Going ahead
First point of impact: Front
Vehicle direction: NE to SW Journey: Not known
Age of Driver : 25 Breath test: Not provided (medical)

Contributory Factors : 601

Casualty Reference: 1 Age: 25 Male Driver/rider Severity: Fatal
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 3 Car Parked
First point of impact: Back
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 601

Accidents between dates **01/01/2018** **and** **17/09/2023** **(69) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 4 Car Parked
First point of impact: Back
Vehicle direction: Parked to Parked Journey: Not known
Age of Driver : Breath test: Driver not contacted

Contributory Factors : 601

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only excluding 2-wheels	0	0	2	2
2-wheeled motor vehicles	1	0	1	2
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	1	0	3	4

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	2	2
Passenger	0	0	1	1
Motorcycle rider	1	0	1	2
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	1	0	4	5

Accidents between dates **01/09/2023** **and** **27/09/2024** **(13) months**
Selection: **Notes:**
Selected using Manual Selection

231355496 23/09/2023 Saturday Time: 1255 Vehicles 2 Casualties 1 Serious
Easting: 439,153 Northing: 402,025
Fine without high winds Road Surface: Dry Daylight
Road Type: Roundabout Speed Limit: 70

Location: HEMINGFIELD ROAD ROUNDABOUT (A6195) AT JUNCTION WITH DEARNE VALLEY PARKWAY WESTBOUND (A6195), JUMP, BARNSLEY
Description: V1 MOTORBIKE HAS COME UP THE LANE 2 OF THE DEARNE VALLEY PARKWAY TOWARDS HEMMINGFIELD ROUNDABOUT. V1 HAS THEN ENTERED THE ROUNDABOUT. V2 HAS ENTERED THE ROUNDABOUT AND NOT ANTICIPATED SPEED OR DIRECTION OF V1. V1 HAS COLLIDED TO O/S DOOR OF V2.

Vehicle Reference: 1 Motorcycle - unknown cc Moving off
First point of impact: Front
Vehicle direction: S to N Journey: Other
Age of Driver : 54 Breath test: Not requested

Contributory Factors : 406

Casualty Reference: 1 Age: 54 Male Driver/rider Severity: Serious
Ped Dir: Ped Movement :
Ped Location:

Vehicle Reference: 2 Car Moving off
First point of impact: Offside
Vehicle direction: SE to NW Journey: Other
Age of Driver : 36 Breath test: Not requested

Contributory Factors : 406

Accidents between dates **01/09/2023** **and** **27/09/2024** **(13) months**
Selection: **Notes:**
Selected using Manual Selection

241464657 05/07/2024 Friday Time: 1530 Vehicles 2 Casualties 3 Slight
Easting: 439,104 Northing: 402,016
Fine without high winds Road Surface: Dry Daylight
Road Type: Dual carriageway Speed Limit: 70

Location: DEARNE VALLEY PARKWAY WESTBOUND (A6195) NEAR JUNCTION WITH HEMINGFIELD ROAD ROUNDABOUT (A6195), JUMP, BARNSLEY
Description: V1 AND V2 WERE TRAVELLING ON DUAL CARRIAGEWAY AND ENTERED THE ROUNDABOUT. V1 IN LANE 1 AND V2 IN LANE 2. AS V2 HAS GONE TO EXIT THE ROUNDABOUT AT THE SECOND EXIT, REMAINING IN LANE 2 TO EXIT INTO LANE 2, V1 HAS CONTINUED AROUND THE ROUNDABOUT, HEADING TOWARD THE 3RD EXIT, ESSENTIALLY CUTTING ACROSS THE PATH OF V2. THE NEARSIDE OF V2 HAS COLLIDED WITH THE OFFSIDE OF V1 CAUSING IT TO SPIN IN THE ROAD AND PARTIALLY EXIT THE ROUNDABOUT ONTO THE CENTRAL RESERVATION.

Vehicle Reference: 1 Car Going ahead
First point of impact: Offside
Vehicle direction: E to W Journey: Other
Age of Driver : 32 Breath test: Not requested

Contributory Factors : 405 509

Casualty Reference: 1 Age: 32 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Casualty Reference: 2 Age: 8 Male Passenger Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents between dates **01/09/2023** **and** **27/09/2024** **(13) months**
Selection: **Notes:**
Selected using Manual Selection

Vehicle Reference: 2 Car Turning left
First point of impact: Front
Vehicle direction: E to W Journey: Commuting to/from work
Age of Driver : 30 Breath test: Not requested

Contributory Factors : 405 509

Casualty Reference: 3 Age: 30 Female Driver/rider Severity: Slight
Ped Dir: Ped Movement :
Ped Location:

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only excluding 2-wheels	0	0	1	1
2-wheeled motor vehicles	0	1	0	1
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	1	1	2

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	1	2	3
Passenger	0	0	1	1
Motorcycle rider	0	1	0	1
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	1	3	4

Accidents between dates **01/01/2018** **and** **17/09/2023** (69) months

Selection:

Selected using Manual Selection

Notes:

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
221244476	Slight	20/11/2022	Sun	1335	439099 402033	0	0	1	505V1A	0 0 0	Light	Fine without high winds	Dry	9 9
19818240	Slight	24/02/2019	Sun	1227	439108 402014	0	0	1	406V1B 405V1B	0 0 0	Light	Fine without high winds	Dry	3 9
20987486	Slight	05/10/2020	Mon	0952	439119 402016	0	0	2	602V1A	0 0 0	Light	Fine without high winds	Dry	19 9
20941957	Fatal	22/03/2020	Sun	1648	439168 401448	1	0	0	601V2A	0 0 0	Light	Fine without high winds	Dry	9 4 9 9
Column Totals	**Slight :** 3					1	0	0			**Light :** 4		**Dry :** 4	
	Serious : 0										**Dark :** 0		**Wet :** 0	
	Fatal : 1													

Total number of accidents listed: 4

Accidents between dates **01/09/2023** **and** **27/09/2024** (13) months

Selection:

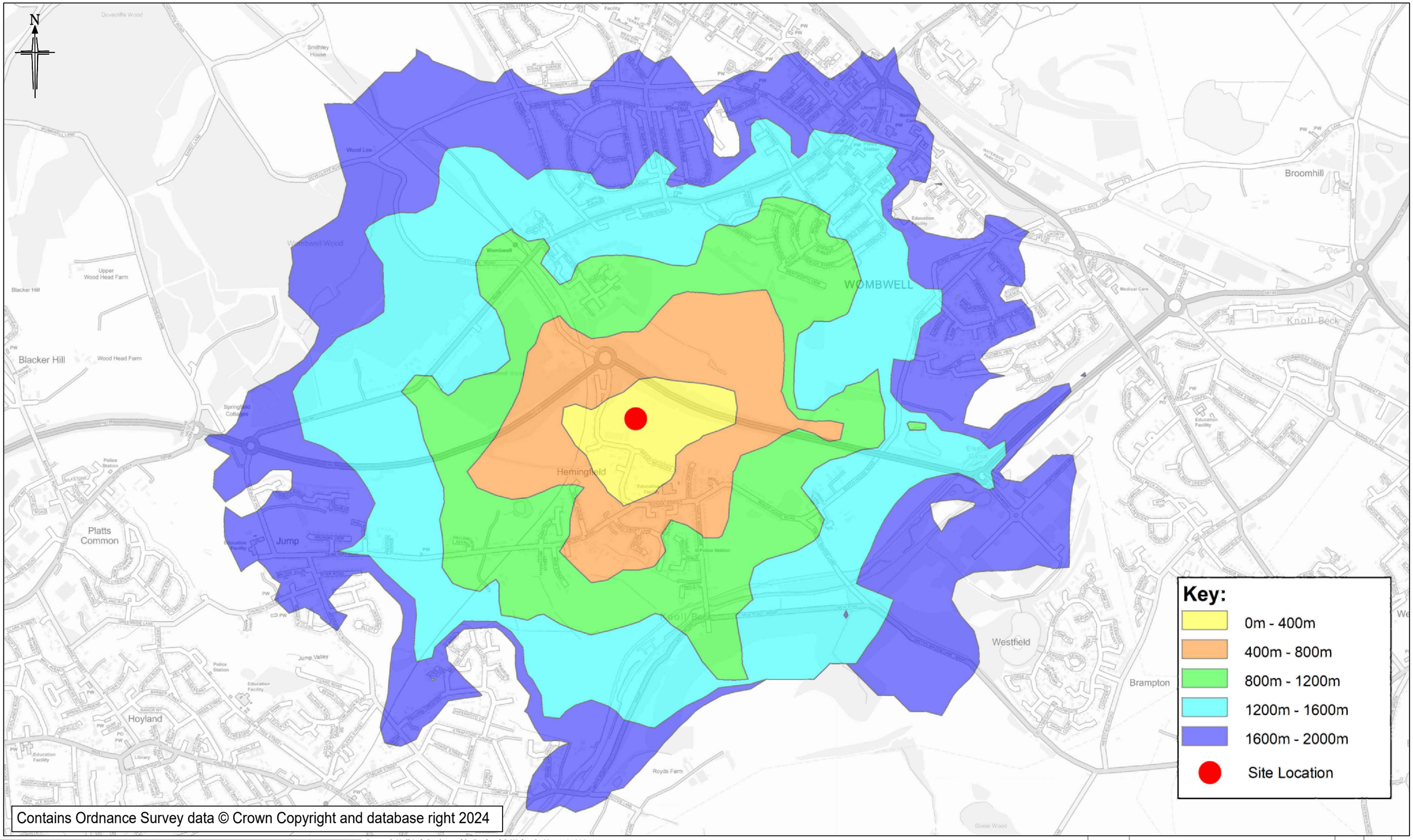
Selected using Manual Selection

Notes:

Police Ref.	Acc Class	Date	Day	Time	Grid References	Casualties Ftl	Ser	Slt	Causation Factors/ Prob	Ped L M D	Light	Weather	Road Surface	Vehicle Types
231355496	Serious	23/09/2023	Sat	1255	439153 402025	0	1	0	406V2A	0 0 0	Light	Fine without high winds	Dry	97 9
241464657	Slight	05/07/2024	Fri	1530	439104 402016	0	0	3	405V1A 509V1A	0 0 0	Light	Fine without high winds	Dry	9 9
Column Totals	**Slight :** 1					0	1	1			**Light :** 2		**Dry :** 2	
	Serious : 1										**Dark :** 0		**Wet :** 0	
	Fatal : 0													

Total number of accidents listed: 2

APPENDIX SCW 7



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Bryan G Hall

Rev:	Date:	Amendment:	DRN	CHK	APR

Title: TRACC 2KM WALKING CATCHMENT PLAN

Status: FOR PLANNING

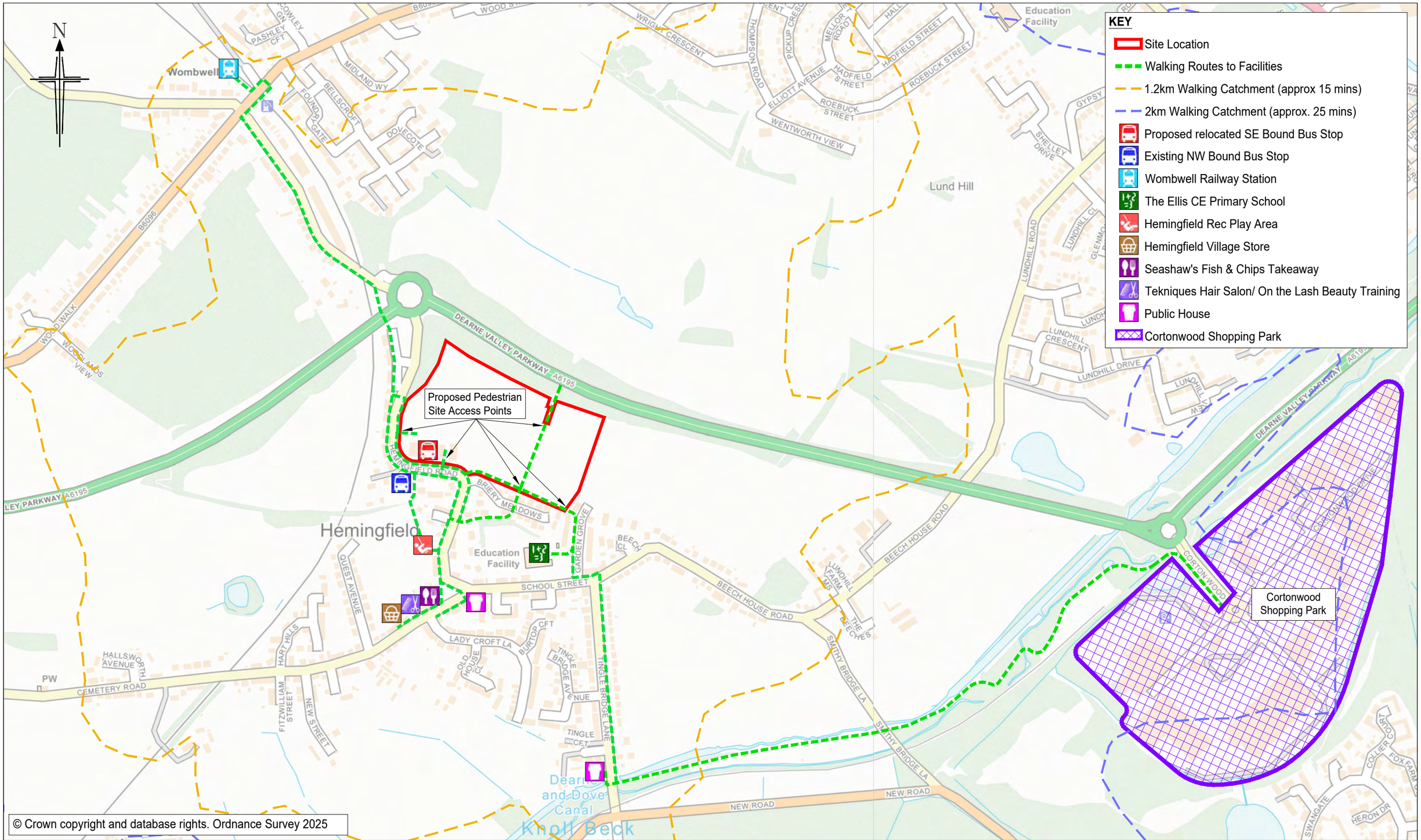
Client: HARGREAVES LAND LIMITED

Project: RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY

Scale: N.T.S.
Size: A3 - 420 x 297
Drawn: PP
Chkd: RD
Appvd: MC

Drawing No: 23/160/ACC/001
Job No: 23-160
Revision: -
Date: 16/01/2024

APPENDIX SCW 8



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Title: Walking Routes to Local Facilities

Status: For Planning

Scale: N.T.S.
Size: A3 - 420 x 297
Drawn: IA
Chkd: RD
Appvd: SCW

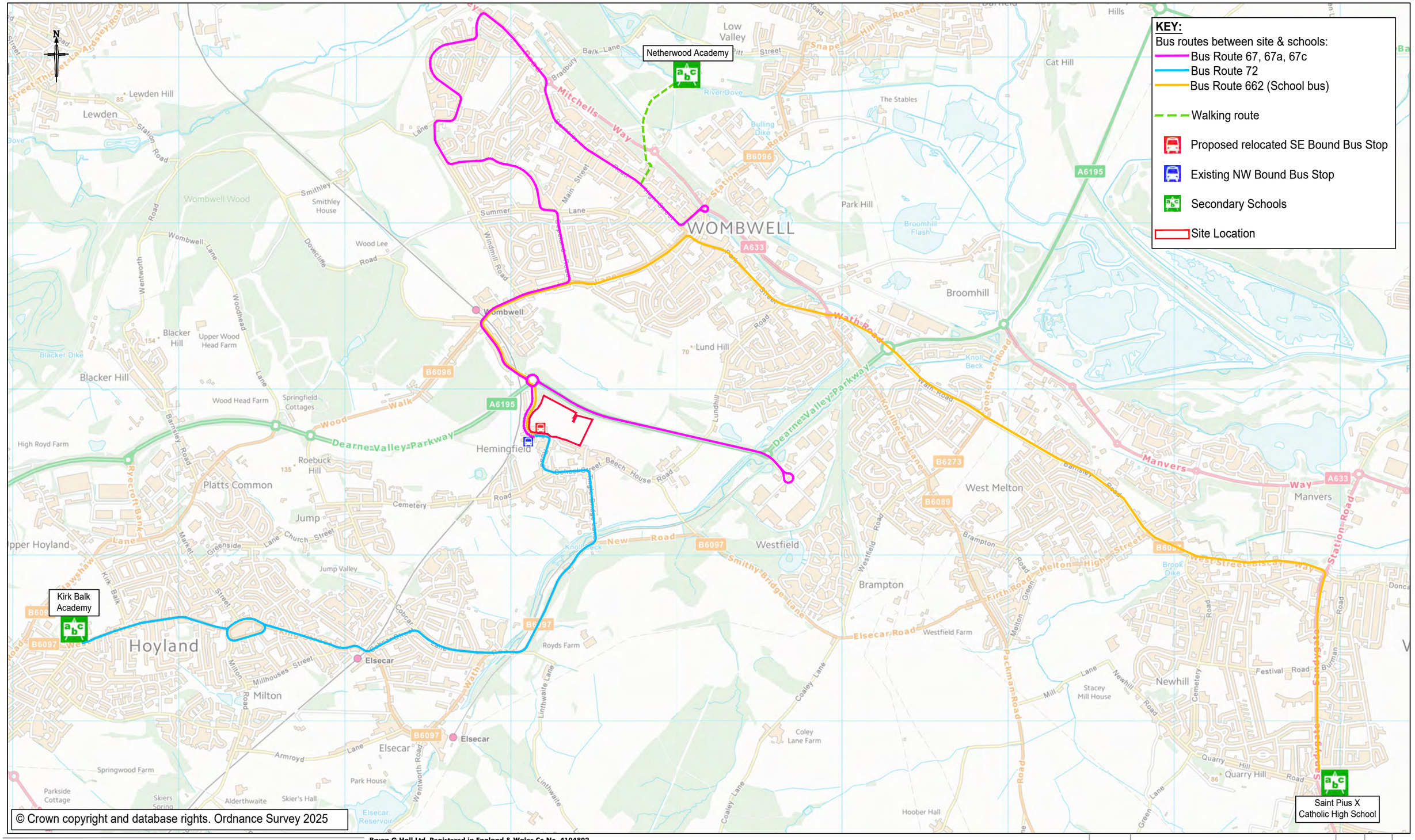
Rev:	Date:	Amendment:	DRN	CHK	APR

Client: Hargreaves Land Limited

Project: Proposed Residential Development, Hemingfield, Barnsley

Drawing No: 23/160/LOC/010
Job No: 23-160
Revision: -
Date: 30/04/2025

APPENDIX SCW 9



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Rev:	Date:	Amendment:	DRN	CHK	APR

Title: Secondary School Access Route Location Plan

Client: Hargreaves Land Limited

Project: Proposed Residential Development, Hemingfield, Barnsley

Status: For Planning

Scale: N.T.S,
Size: A3 - 420 x 297

Drawn: IA

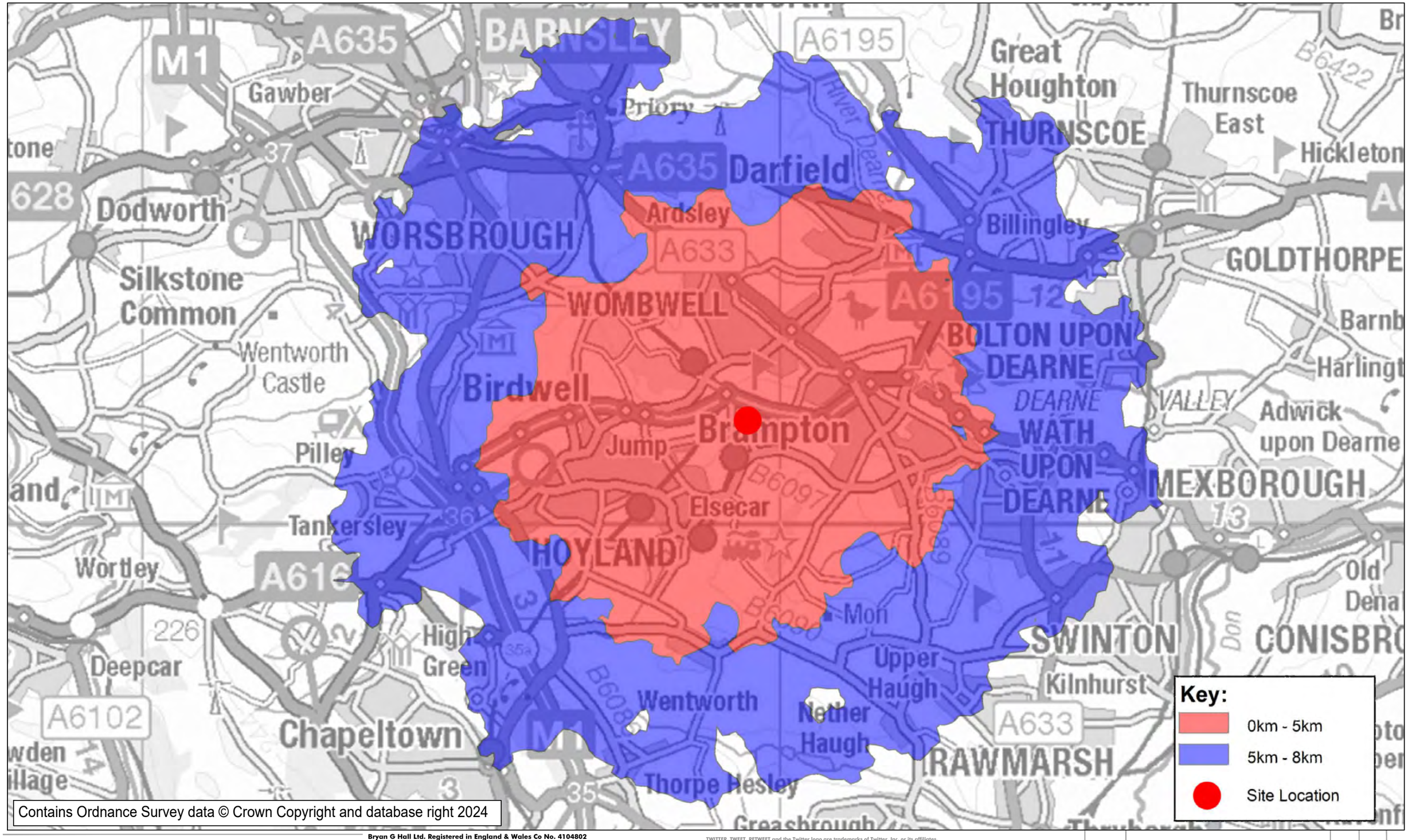
Chkd: RD

Appvd: SCW

Drawing No: 23/160/LOC/011
Job No: 23-160

Revision: -
Date: 23/04/2025

APPENDIX SCW 10



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Title: TRACC 8KM CYCLING CATCHMENT PLAN

Status: FOR PLANNING

Scale: N.T.S.
Size: A3 - 420 x 297
Drawn: PP
Chkd: RD
Appvd: MC

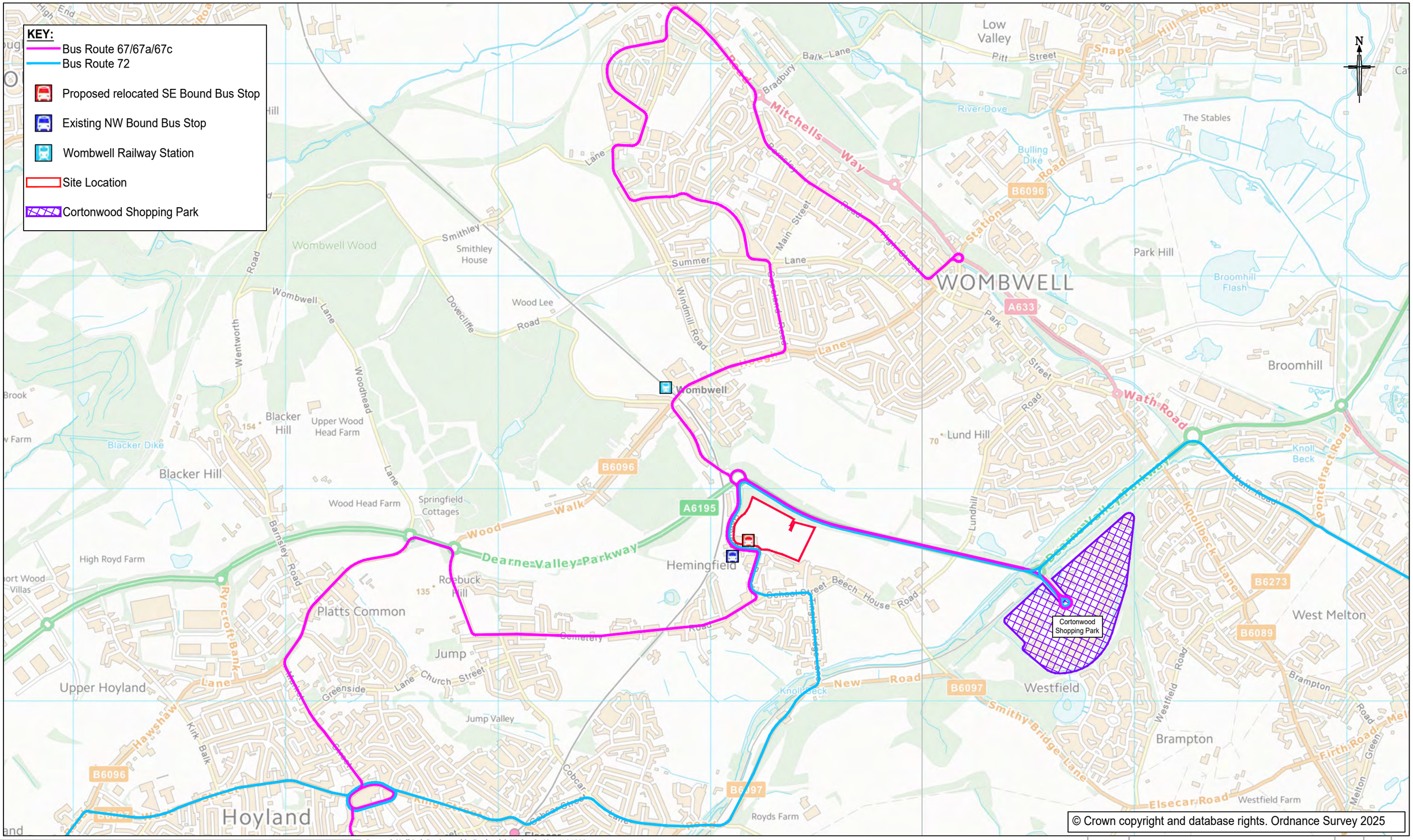
Rev:	Date:	Amendment:	DRN	CHK	APR

Client: HARGREAVES LAND LIMITED

Project: RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY

Drawing No: 23/160/ACC/002
Job No: 23-160
Revision: -
Date: 16/01/2024

APPENDIX SCW 11



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Rev:	Date:	Amendment:	DRN	CHK	APR

Title: Bus Route Location Plan

Status: For Planning

Client: Hargreaves Land Limited

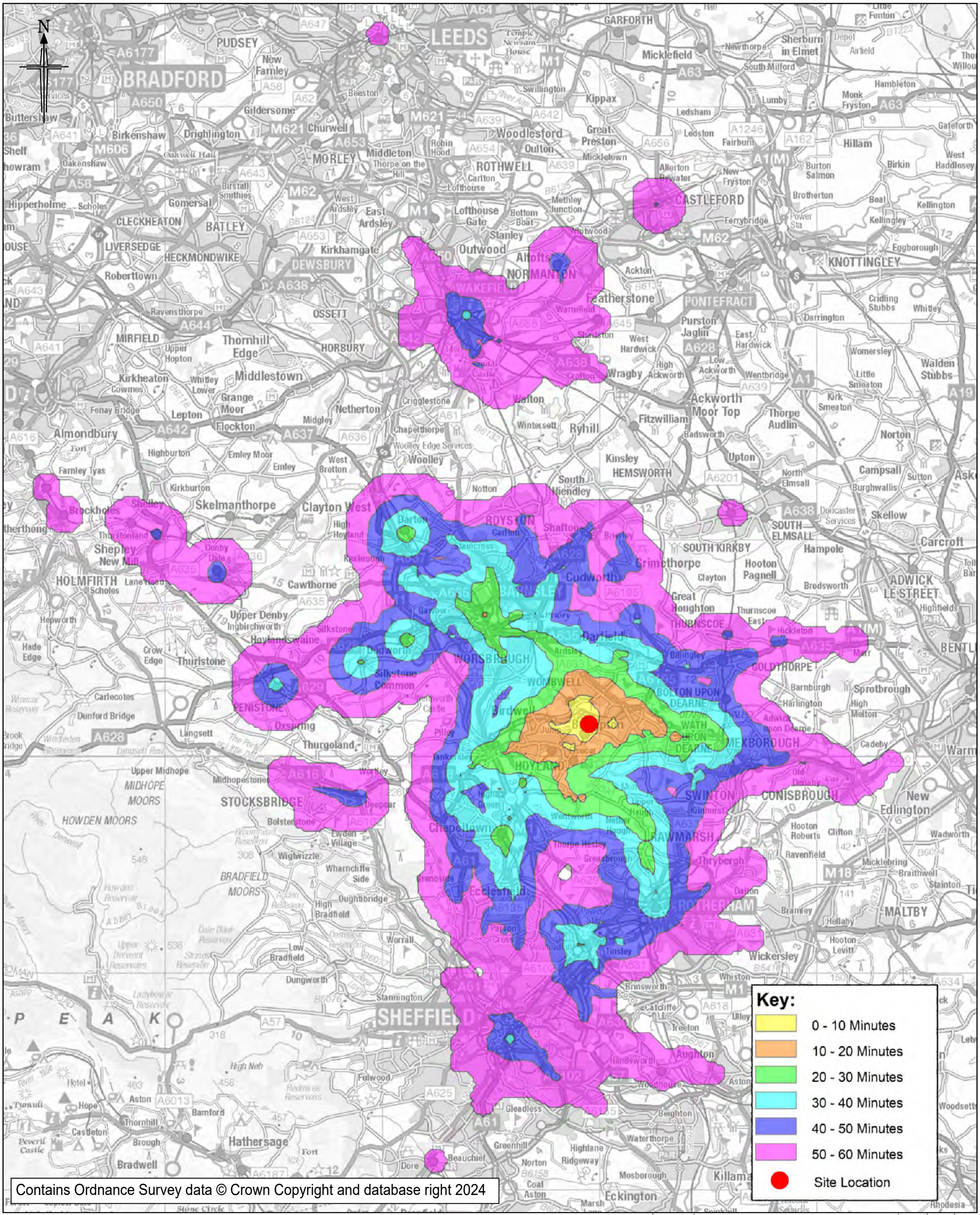
Project: Proposed Residential Development, Hemingfield, Barnsley

Scale: N.T.S.
Size: A3 - 420 x 297
Drawn: IA
Chkd: RD
Appvd: SCW

Drawing No: 23/160/LOC/009
Job No: 23-160

Revision:
Date: 22/04/2025

APPENDIX SCW 12



Rev:	Date:	Amendment:	DRN	CHK	APR

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Title: TRACC 60 MINUTE PUBLIC TRANSPORT CATCHMENT AM PEAK

Client: HARGREAVES LAND LIMITED

Project: RESIDENTIAL DEVELOPMENT HEMINGIFELD, BARNSLEY

Scale: N.T.S.

Size: A3 - 297 x 420

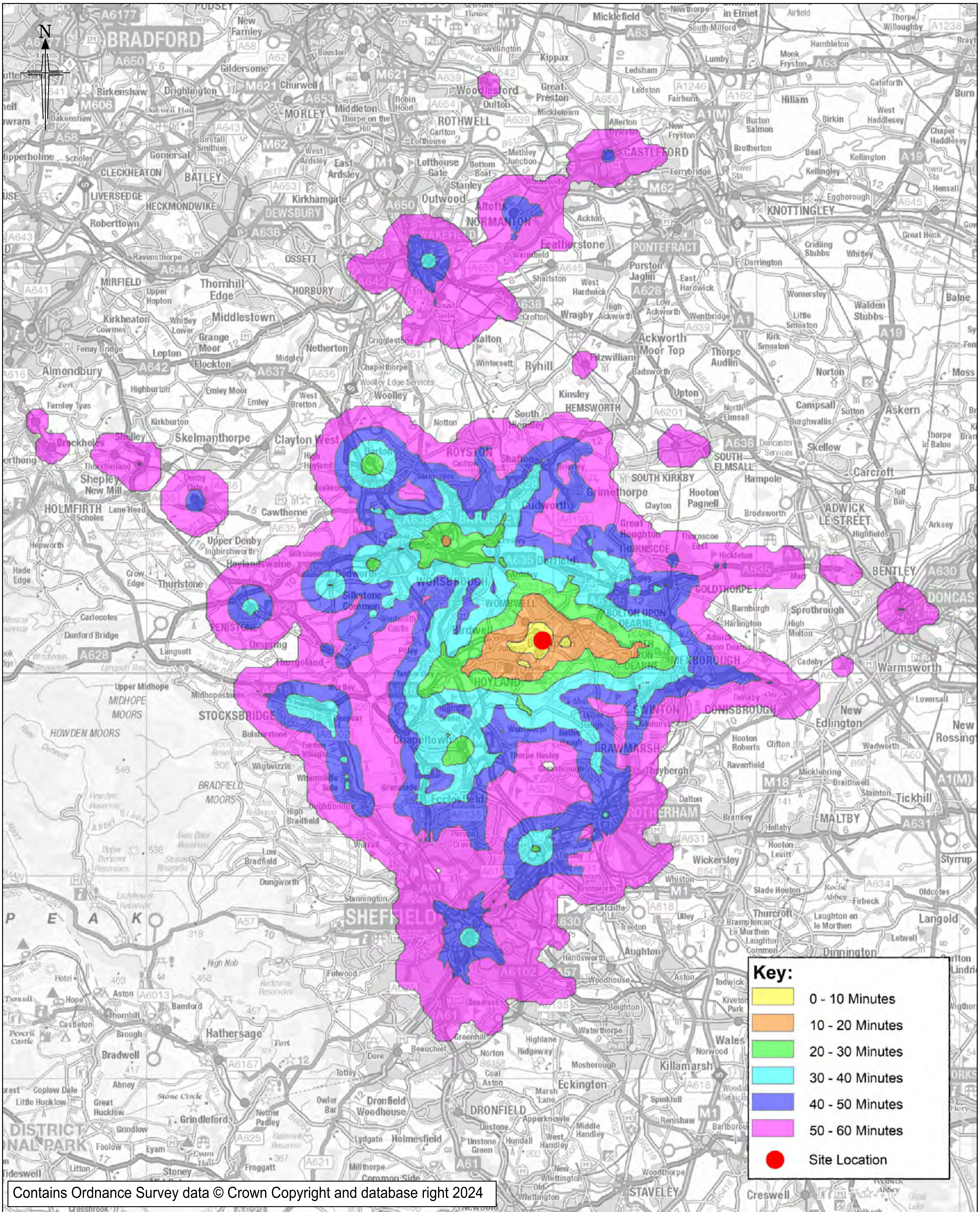
Drawn: PP | Chkd: RD | Appvd: MC

Drawing No: 23/160/ACC/003

Revision: -

Job No: 23-160

Date: 16/01/2024



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Bryan G Hall

Rev:	Date:	Amendment:	DRN	CHK	APR

Title: TRACC 60 MINUTE PUBLIC TRANSPORT CATCHMENT PM PEAK

Client: HARGREAVES LAND LIMITED

Project: RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY

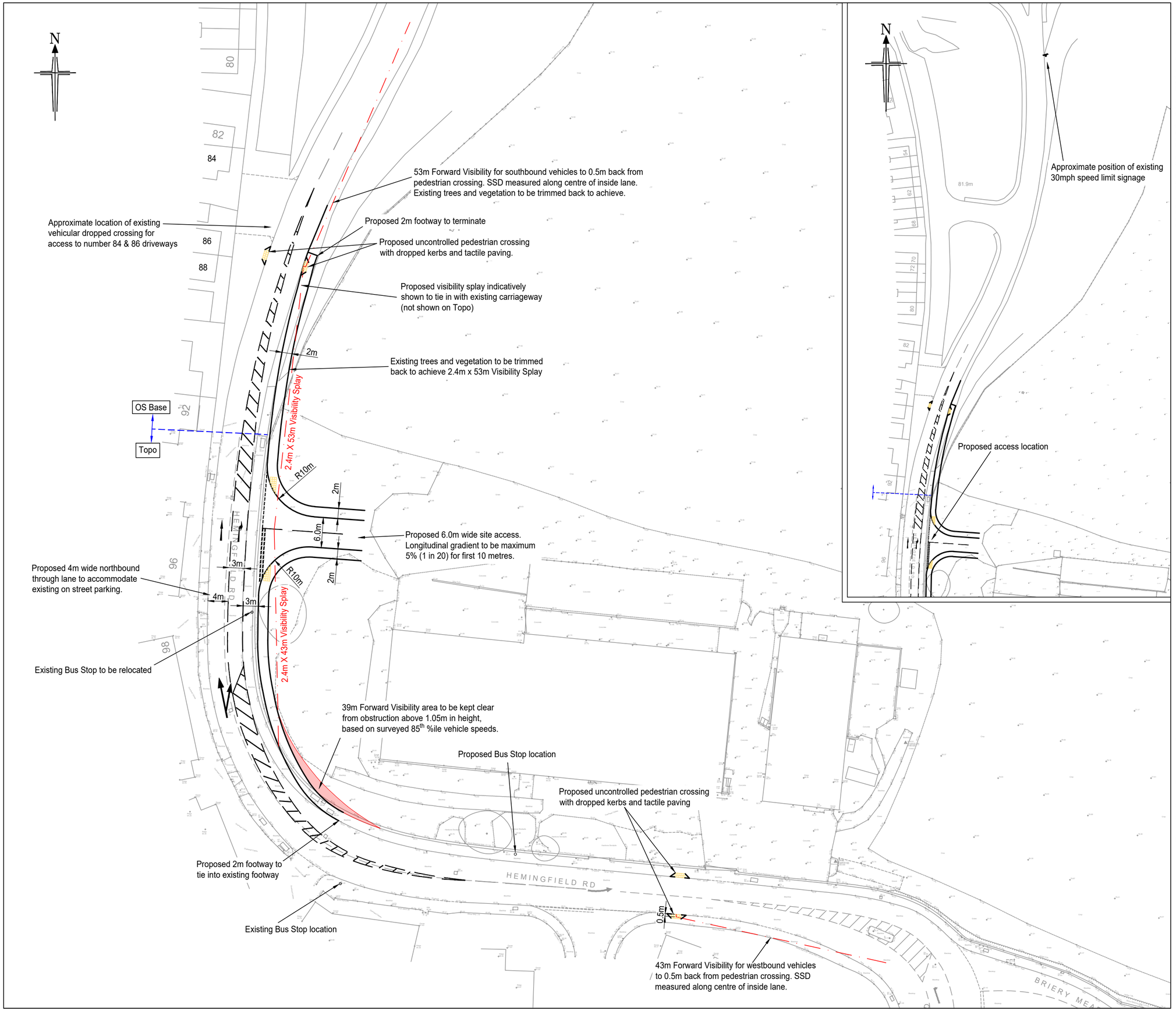
Scale: N.T.S. Size: A3 - 297 x 420

Drawn: PP Chkd: RD Appvd: MC

Drawing No: 23/160/ACC/004 Revision: -

Job No: 23-160 Date: 16/01/2024

APPENDIX SCW 13



Rev:	Date:	Amendment:	DRN	CHK	APR
E	21.08.24	Client name updated	RD	MC/JP	MC
D	19.07.24	Amended in response to Stage 1 RSA	RD	MC/JP	MC
C	18.01.24	Visibility amended to ATC speeds	RD	MC	MC
B	06.11.23	Title block updated following client comments	MIT	MC	SCW

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Client: Hargreaves Land Limited

Status: For Planning

Scale: 1:500
Size: A2 - 594 x 420

Drawn: MIT
Chkd: MC
Appvd: BR

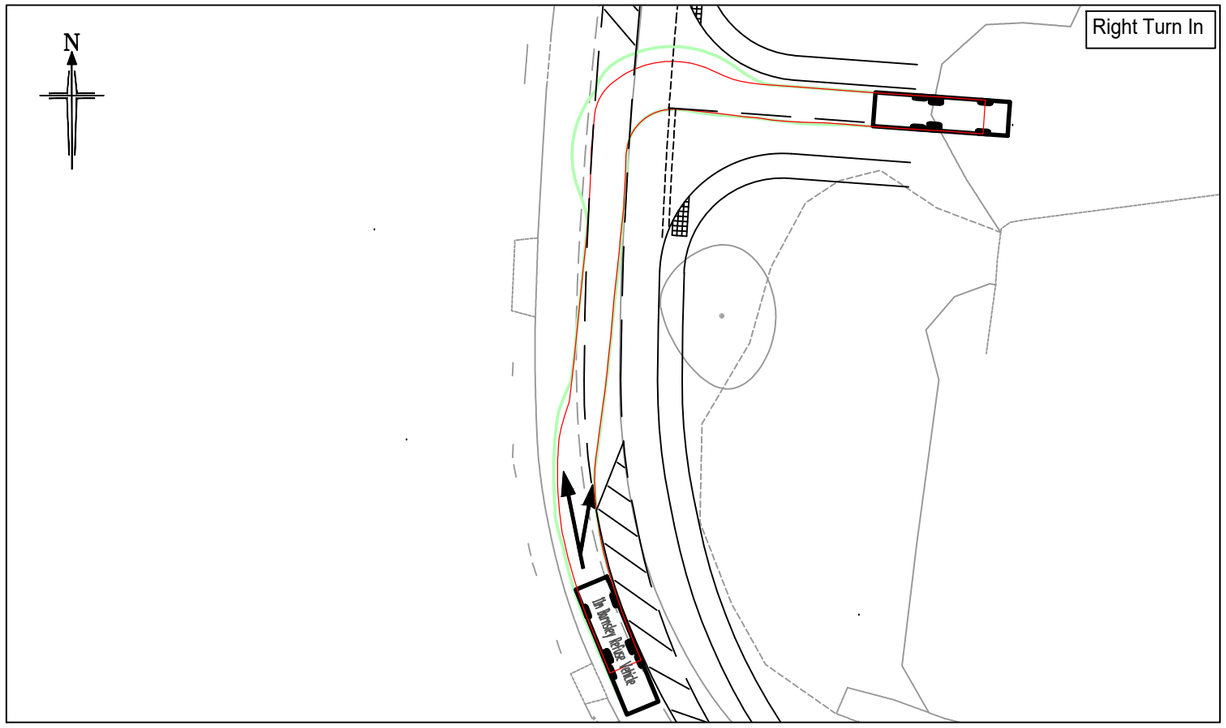
Project: Residential Development Hemingfield, Barnsley

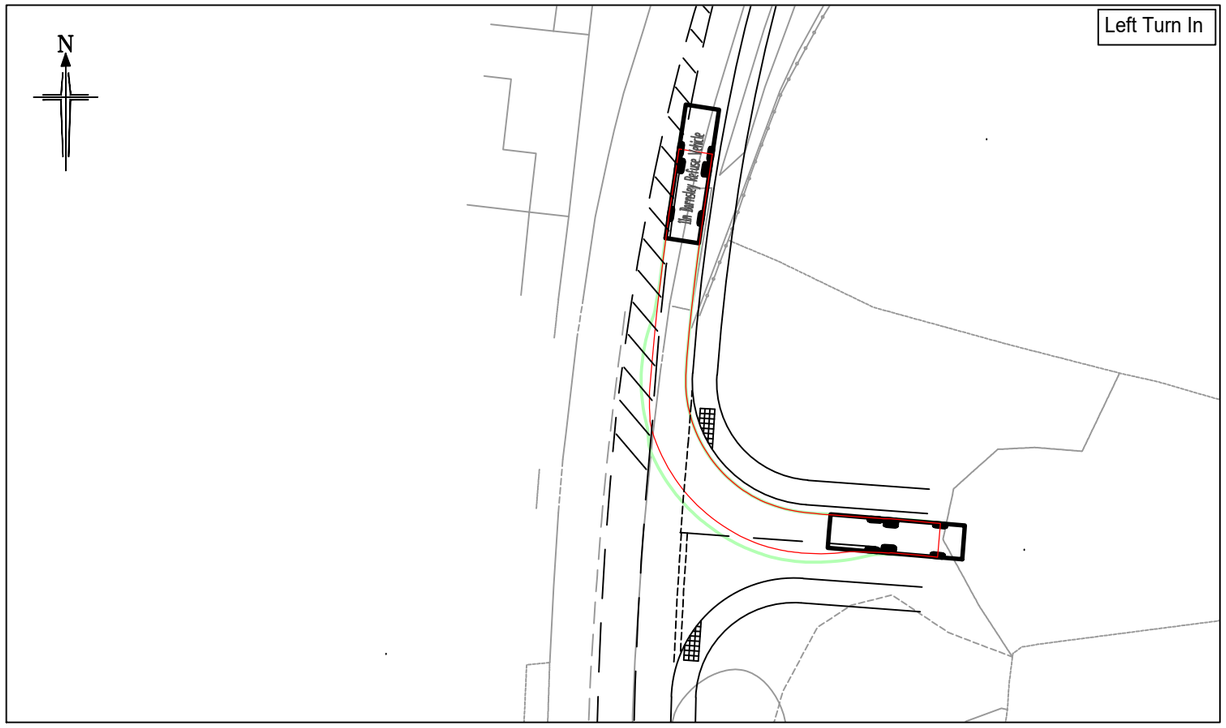
Title: Proposed Access Arrangement - Right Turn Ghost Island Junction

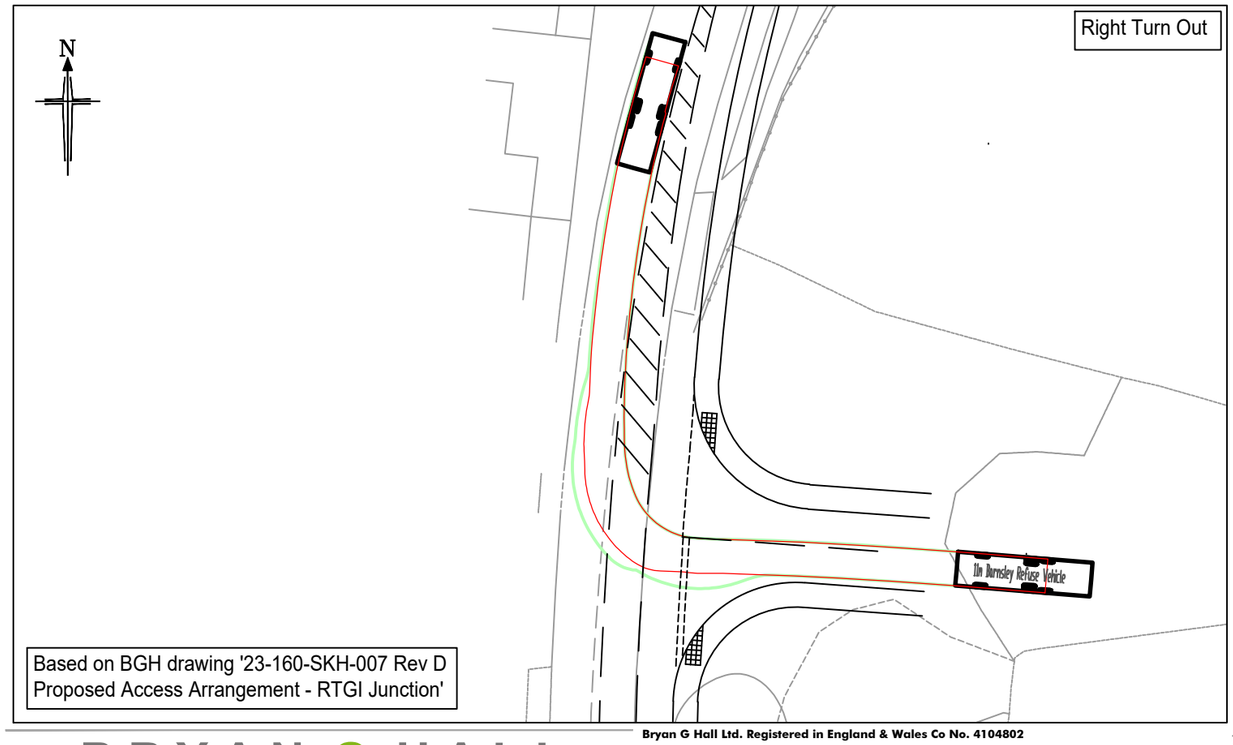
Drawing No: 23/160/SKH/007
Job No: 23-160

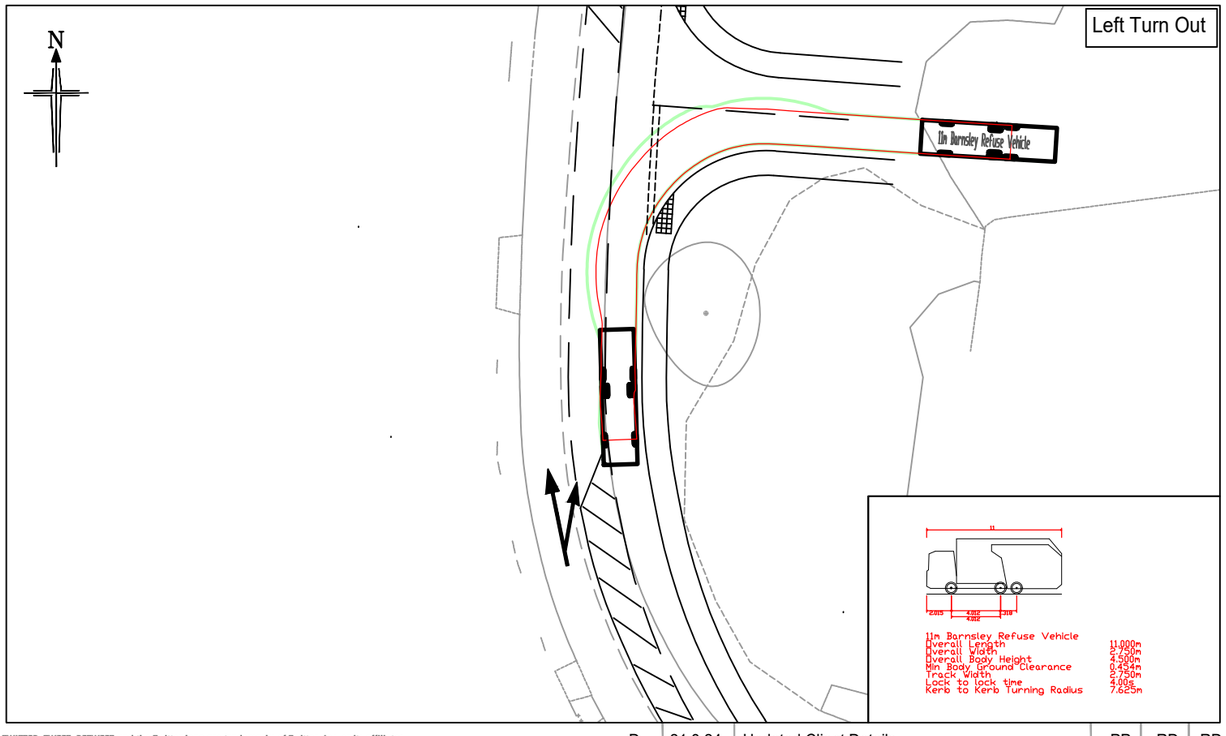
Revision: E
Date: 13.10.23

APPENDIX SCW 14









Based on BGH drawing '23-160-SKH-007 Rev D
Proposed Access Arrangement - RTGI Junction'

BRYAN G HALL

CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

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Suite E15 | Josephs Well
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Bryan G Hall

Rev:	Date:	Amendment:			
D	21.8.24	Updated Client Details	PP	RD	RD

Title: SWEPT PATH ANALYSIS OF REFUSE VEHICLE USING SITE ACCESS

Status: FOR PLANNING

Client: HARGREAVES LAND LIMITED

Project: RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY

Scale: 1:500
Size: A3 - 420 x 297

Drawn: PP | Chkd: RD | Appvd: MC

Drawing No: 23/160/ATR/001
Job No: 23-160

Revision: D
Date: 16/01/2024

APPENDIX SCW 15

Calculation Reference: AUDIT-604801-231130-1139

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 03 - RESIDENTIAL
Category : A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES

Selected regions and areas:

02	SOUTH EAST		
	ES	EAST SUSSEX	1 days
	HC	HAMPSHIRE	2 days
	HF	HERTFORDSHIRE	1 days
	KC	KENT	1 days
	SC	SURREY	1 days
	SP	SOUTHAMPTON	1 days
	WS	WEST SUSSEX	2 days
04	EAST ANGLIA		
	CA	CAMBRIDGESHIRE	1 days
	NF	NORFOLK	5 days
06	WEST MIDLANDS		
	ST	STAFFORDSHIRE	1 days

This section displays the number of survey days per TRICS® sub-region in the selected set

Primary Filtering selection:

This data displays the chosen trip rate parameter and its selected range. Only sites that fall within the parameter range are included in the trip rate calculation.

Parameter:	No of Dwellings
Actual Range:	152 to 250 (units:)
Range Selected by User:	150 to 250 (units:)

Parking Spaces Range: All Surveys Included

Parking Spaces per Dwelling Range: All Surveys Included

Bedrooms per Dwelling Range: All Surveys Included

Percentage of dwellings privately owned: All Surveys Included

Public Transport Provision:
Selection by: Include all surveys

Date Range: 01/01/15 to 15/05/23

This data displays the range of survey dates selected. Only surveys that were conducted within this date range are included in the trip rate calculation.

Selected survey days:

Monday	4 days
Tuesday	4 days
Wednesday	3 days
Thursday	4 days
Friday	1 days

This data displays the number of selected surveys by day of the week.

Selected survey types:

Manual count	12 days
Directional ATC Count	4 days

This data displays the number of manual classified surveys and the number of unclassified ATC surveys, the total adding up to the overall number of surveys in the selected set. Manual surveys are undertaken using staff, whilst ATC surveys are undertaking using machines.

Selected Locations:

Edge of Town	13
Neighbourhood Centre (PPS6 Local Centre)	3

This data displays the number of surveys per main location category within the selected set. The main location categories consist of Free Standing, Edge of Town, Suburban Area, Neighbourhood Centre, Edge of Town Centre, Town Centre and Not Known.

Selected Location Sub Categories:

Residential Zone	11
Village	3
Out of Town	2

This data displays the number of surveys per location sub-category within the selected set. The location sub-categories consist of Commercial Zone, Industrial Zone, Development Zone, Residential Zone, Retail Zone, Built-Up Zone, Village, Out of Town, High Street and No Sub Category.

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included	6 days - Selected
Servicing vehicles Excluded	19 days - Selected

Secondary Filtering selection:

Use Class:

C3	16 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order (England) 2020 has been used for this purpose, which can be found within the Library module of TRICS®.

Population within 500m Range:
All Surveys Included

Secondary Filtering selection (Cont.):

Population within 1 mile:

1,001 to 5,000	4 days
5,001 to 10,000	5 days
10,001 to 15,000	5 days
15,001 to 20,000	2 days

This data displays the number of selected surveys within stated 1-mile radii of population.

Population within 5 miles:

5,001 to 25,000	4 days
25,001 to 50,000	2 days
50,001 to 75,000	2 days
75,001 to 100,000	3 days
125,001 to 250,000	3 days
250,001 to 500,000	2 days

This data displays the number of selected surveys within stated 5-mile radii of population.

Car ownership within 5 miles:

0.6 to 1.0	3 days
1.1 to 1.5	11 days
1.6 to 2.0	2 days

This data displays the number of selected surveys within stated ranges of average cars owned per residential dwelling, within a radius of 5-miles of selected survey sites.

Travel Plan:

Yes	12 days
No	4 days

This data displays the number of surveys within the selected set that were undertaken at sites with Travel Plans in place, and the number of surveys that were undertaken at sites without Travel Plans.

PTAL Rating:

No PTAL Present	16 days

This data displays the number of selected surveys with PTAL Ratings.

LIST OF SITES relevant to selection parameters

1 CA-03-A-06 MIXED HOUSES CAMBRIDGESHIRE
CRAFT'S WAY
NEAR CAMBRIDGE
BAR HILL
Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 207
Survey date: FRIDAY *22/06/18* *Survey Type: MANUAL*

2 ES-03-A-03 MIXED HOUSES & FLATS EAST SUSSEX
SHEPHAM LANE
POLEGATE

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: MONDAY *11/07/16* *Survey Type: MANUAL*

3 HC-03-A-24 MIXED HOUSES & FLATS HAMPSHIRE
STONEHAM LANE
EASTLEIGH

Edge of Town
Residential Zone
Total No of Dwellings: 243
Survey date: WEDNESDAY *10/11/21* *Survey Type: MANUAL*

4 HC-03-A-29 MIXED HOUSES & FLATS HAMPSHIRE
CROW LANE
RINGWOOD
CROW
Edge of Town
Residential Zone
Total No of Dwellings: 195
Survey date: THURSDAY *30/06/22* *Survey Type: MANUAL*

5 HF-03-A-03 MIXED HOUSES HERTFORDSHIRE
HARE STREET ROAD
BUNTINGFORD

Edge of Town
Residential Zone
Total No of Dwellings: 160
Survey date: MONDAY *08/07/19* *Survey Type: MANUAL*

6 KC-03-A-08 MIXED HOUSES KENT
MAIDSTONE ROAD
CHARING

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 159
Survey date: TUESDAY *22/05/18* *Survey Type: MANUAL*

7 NF-03-A-13 MIXED HOUSES NORFOLK
BEAUFORT WAY
GREAT YARMOUTH
BRADWELL
Edge of Town
Residential Zone
Total No of Dwellings: 198
Survey date: TUESDAY *11/09/18* *Survey Type: DIRECTIONAL ATC COUNT*

8 NF-03-A-15 MIXED HOUSES & FLATS NORFOLK
SILFIELD ROAD
WYMONDHAM

Edge of Town
Out of Town
Total No of Dwellings: 235
Survey date: THURSDAY *20/09/18* *Survey Type: DIRECTIONAL ATC COUNT*

9 NF-03-A-32 MIXED HOUSES & FLATS NORFOLK
HUNSTANTON ROAD
HUNSTANTON

Edge of Town
Residential Zone
Total No of Dwellings: 164
Survey date: WEDNESDAY *21/09/22* *Survey Type: DIRECTIONAL ATC COUNT*

LIST OF SITES relevant to selection parameters (Cont.)

10 NF-03-A-39 MIXED HOUSES NORFOLK
HEATH DRIVE
HOLT

Edge of Town
Residential Zone
Total No of Dwellings: 212
Survey date: TUESDAY *27/09/22* *Survey Type: MANUAL*

11 NF-03-A-48 MIXED HOUSES NORFOLK
BRANDON ROAD
SWAFFHAM

Edge of Town
Residential Zone
Total No of Dwellings: 181
Survey date: THURSDAY *19/09/19* *Survey Type: DIRECTIONAL ATC COUNT*

12 SC-03-A-05 MIXED HOUSES SURREY
REIGATE ROAD
HORLEY

Edge of Town
Residential Zone
Total No of Dwellings: 207
Survey date: MONDAY *01/04/19* *Survey Type: MANUAL*

13 SP-03-A-02 MIXED HOUSES & FLATS SOUTHAMPTON
BARNFIELD WAY
NEAR SOUTHAMPTON
HEDGE END
Edge of Town
Out of Town
Total No of Dwellings: 250
Survey date: TUESDAY *12/10/21* *Survey Type: MANUAL*

14 ST-03-A-07 DETACHED & SEMI-DETACHED STAFFORDSHIRE
BEACONSIDE
STAFFORD
MARSTON GATE
Edge of Town
Residential Zone
Total No of Dwellings: 248
Survey date: WEDNESDAY *22/11/17* *Survey Type: MANUAL*

15 WS-03-A-08 MIXED HOUSES WEST SUSSEX
ROUNDSTONE LANE
ANGMERING

Edge of Town
Residential Zone
Total No of Dwellings: 180
Survey date: THURSDAY *19/04/18* *Survey Type: MANUAL*

16 WS-03-A-18 MIXED HOUSES & FLATS WEST SUSSEX
LONDON ROAD
HASSOCKS

Neighbourhood Centre (PPS6 Local Centre)
Village
Total No of Dwellings: 156
Survey date: MONDAY *15/05/23* *Survey Type: MANUAL*

This section provides a list of all survey sites and days in the selected set. For each individual survey site, it displays a unique site reference code and site address, the selected trip rate calculation parameter and its value, the day of the week and date of each survey, and whether the survey was a manual classified count or an ATC count.

MANUALLY DESELECTED SURVEYS

Site Ref	Survey Date	Reason for Deselection
SF-03-A-09	24/06/21	During COVID-19
WS-03-A-12	16/06/21	During COVID-19
WS-03-A-13	23/06/21	During COVID-19

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED
TOTAL VEHICLES
Calculation factor: 1 DWELLS
BOLD print indicates peak (busiest) period

	ARRIVALS			DEPARTURES			TOTALS		
Time Range	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate	No. Days	Ave. DWELLS	Trip Rate
00:00 - 01:00									
01:00 - 02:00									
02:00 - 03:00									
03:00 - 04:00									
04:00 - 05:00									
05:00 - 06:00									
06:00 - 07:00									
07:00 - 08:00	16	200	0.090	16	200	0.285	16	200	0.375
08:00 - 09:00	16	200	0.129	16	200	0.366	16	200	0.495
09:00 - 10:00	16	200	0.147	16	200	0.188	16	200	0.335
10:00 - 11:00	16	200	0.140	16	200	0.159	16	200	0.299
11:00 - 12:00	16	200	0.148	16	200	0.159	16	200	0.307
12:00 - 13:00	16	200	0.155	16	200	0.164	16	200	0.319
13:00 - 14:00	16	200	0.152	16	200	0.152	16	200	0.304
14:00 - 15:00	16	200	0.168	16	200	0.189	16	200	0.357
15:00 - 16:00	16	200	0.239	16	200	0.173	16	200	0.412
16:00 - 17:00	16	200	0.257	16	200	0.163	16	200	0.420
17:00 - 18:00	16	200	0.323	16	200	0.143	16	200	0.466
18:00 - 19:00	16	200	0.273	16	200	0.140	16	200	0.413
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.221			2.281			4.502

This section displays the trip rate results based on the selected set of surveys and the selected count type (shown just above the table). It is split by three main columns, representing arrivals trips, departures trips, and total trips (arrivals plus departures). Within each of these main columns are three sub-columns. These display the number of survey days where count data is included (per time period), the average value of the selected trip rate calculation parameter (per time period), and the trip rate result (per time period). Total trip rates (the sum of the column) are also displayed at the foot of the table.

*To obtain a trip rate, the average (mean) trip rate parameter value (TRP) is first calculated for all selected survey days that have count data available for the stated time period. The average (mean) number of arrivals, departures or totals (whichever applies) is also calculated (COUNT) for all selected survey days that have count data available for the stated time period. Then, the average count is divided by the average trip rate parameter value, and multiplied by the stated calculation factor (shown just above the table and abbreviated here as FACT). So, the method is: COUNT/TRP*FACT. Trip rates are then rounded to 3 decimal places.*

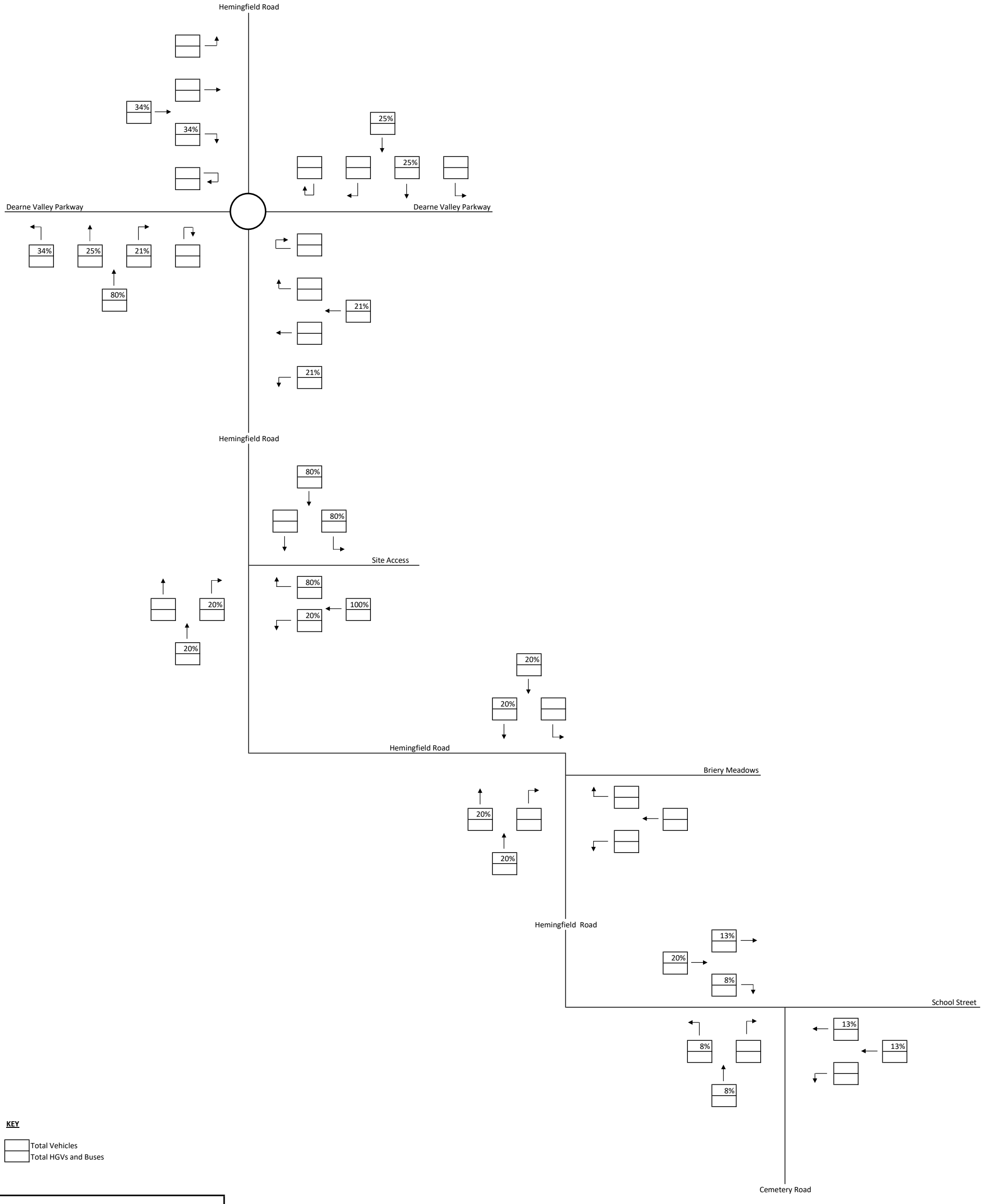
Parameter summary

Trip rate parameter range selected:	152 - 250 (units:)
Survey date date range:	01/01/15 - 15/05/23
Number of weekdays (Monday-Friday):	23
Number of Saturdays:	0
Number of Sundays:	0
Surveys automatically removed from selection:	5
Surveys manually removed from selection:	0

This section displays a quick summary of some of the data filtering selections made by the TRICS® user. The trip rate calculation parameter range of all selected surveys is displayed first, followed by the range of minimum and maximum survey dates selected by the user. Then, the total number of selected weekdays and weekend days in the selected set of surveys are show. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

APPENDIX SCW 16

TRIP DISTRIBUTION
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY



KEY

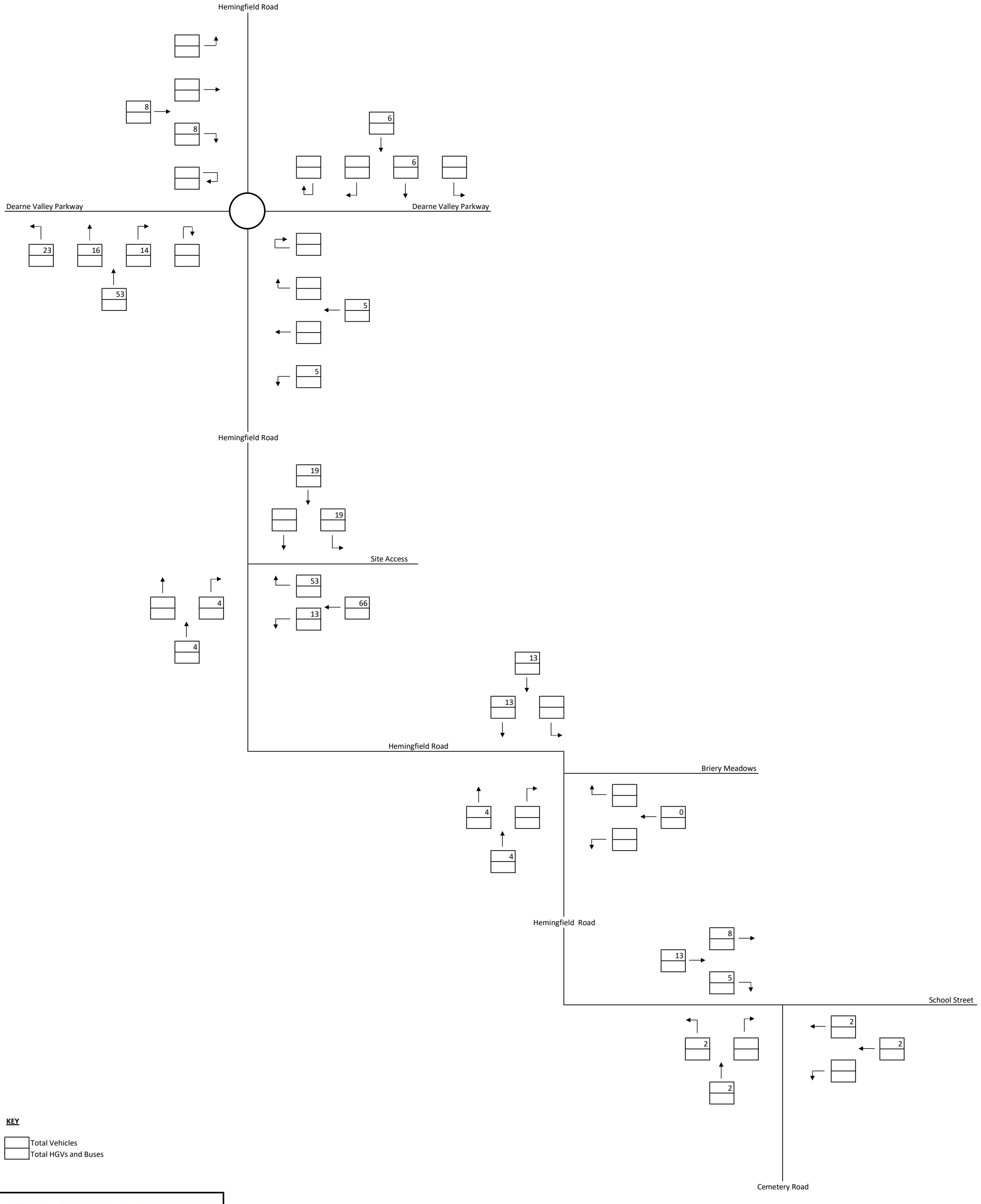
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX SCW 17

DEVELOPMENT GENERATED VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
AM PEAK HOUR



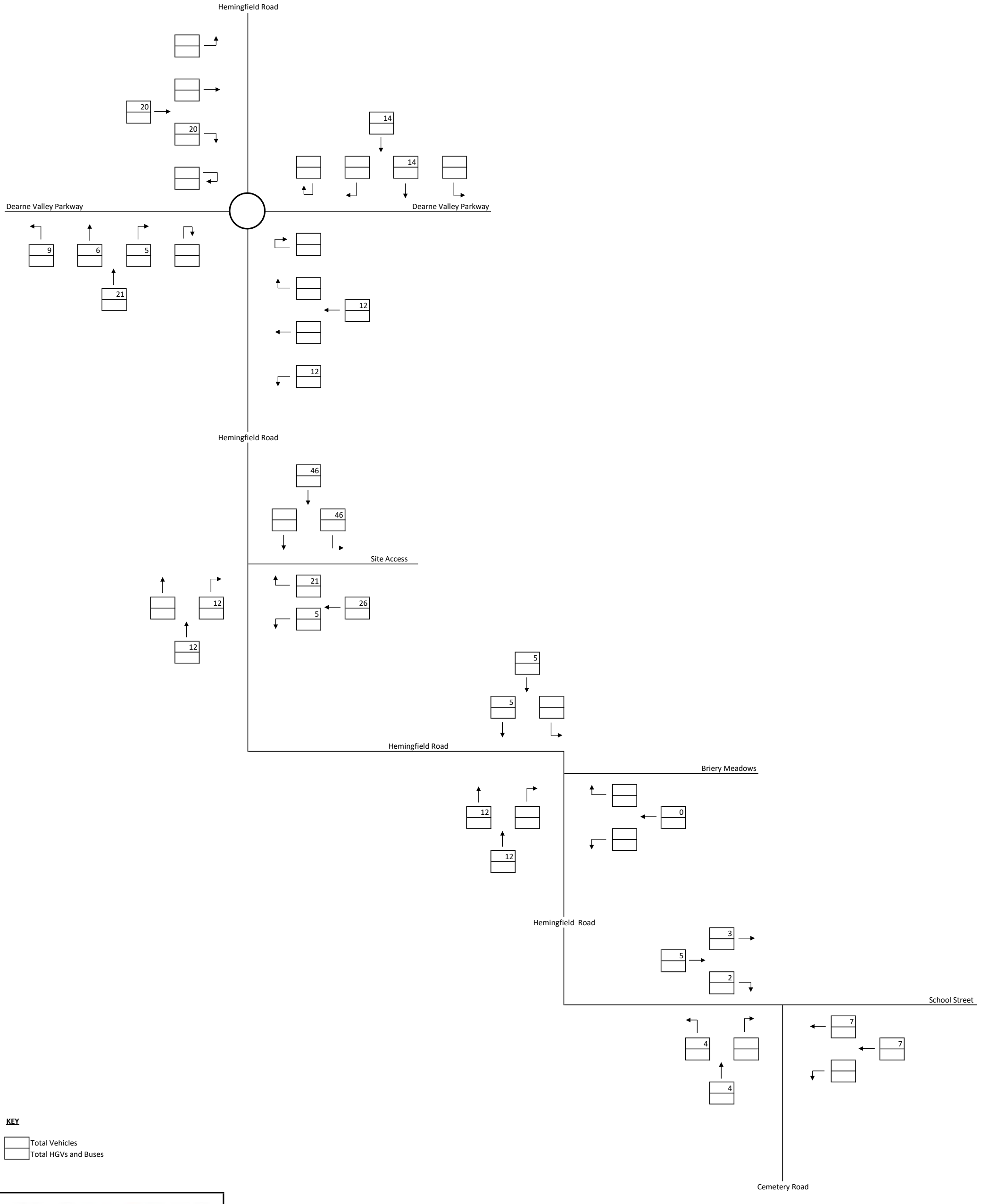
KEY

Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

DEVELOPMENT GENERATED VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
PM PEAK HOUR



KEY

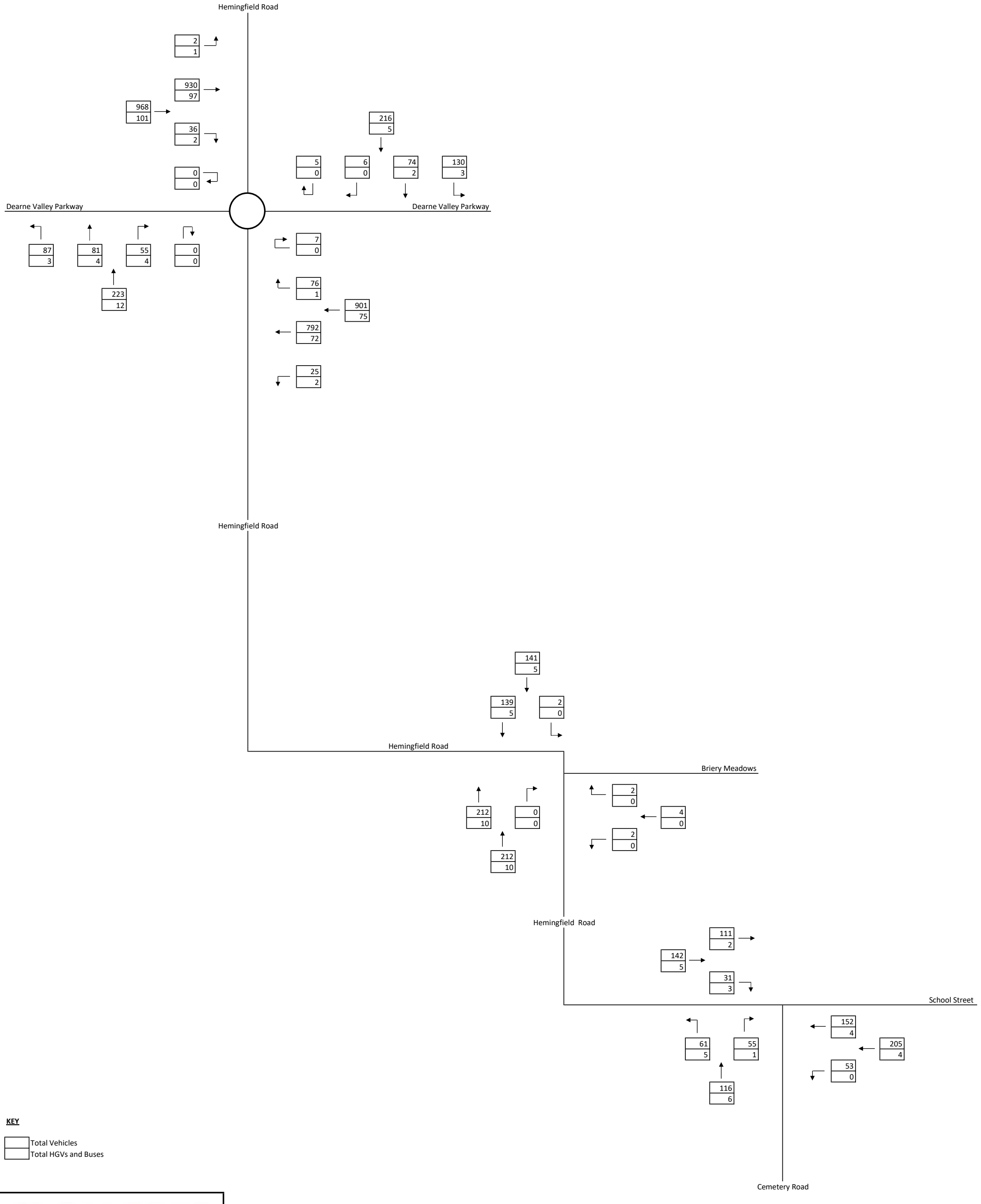
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX SCW 18

2029 GROWTHED VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
8:00am - 9:00am
AM PEAK HOUR



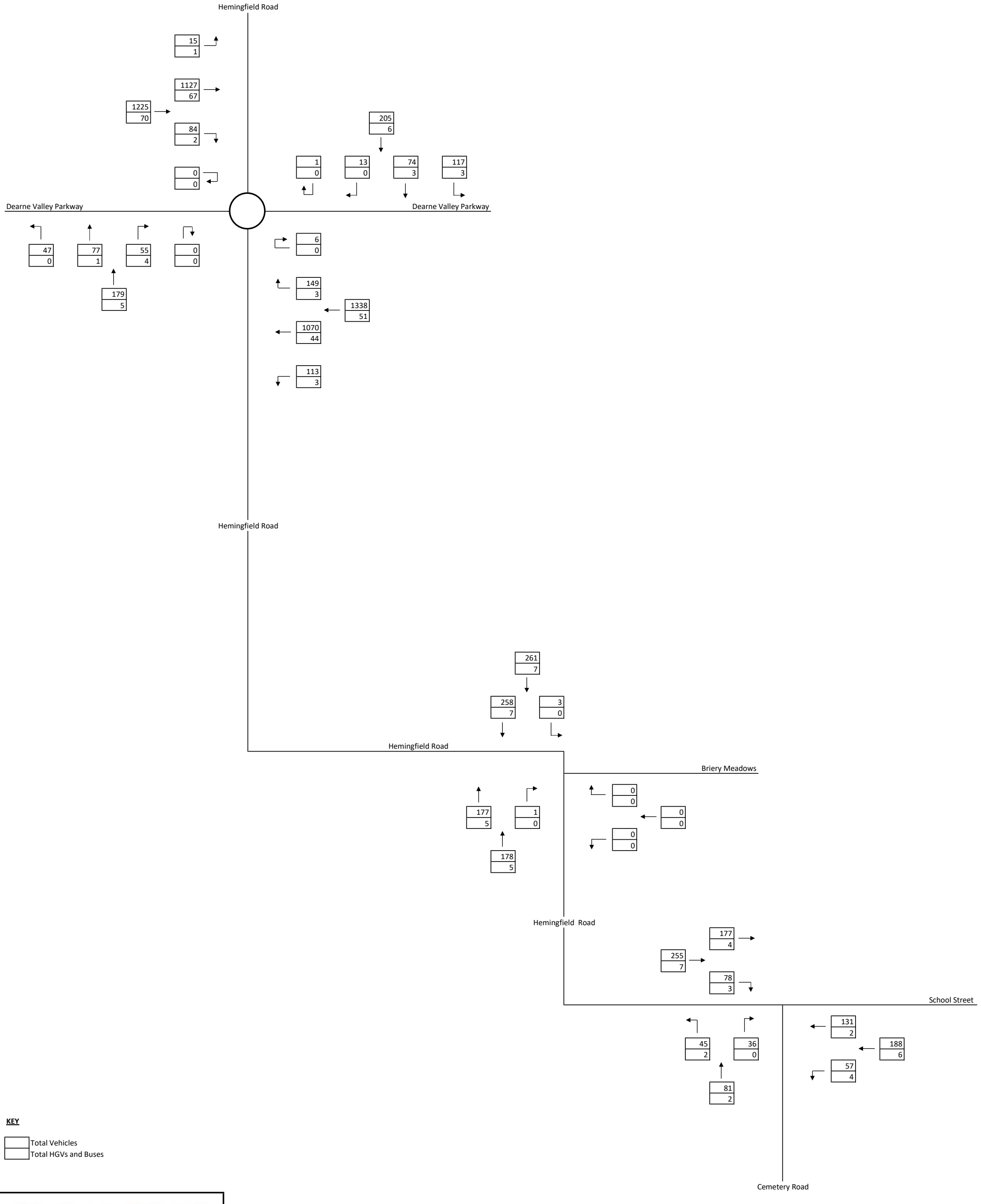
KEY

	Total Vehicles
	Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

2029 GROWTHED VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
4:00pm - 5:00pm
PM PEAK HOUR



KEY

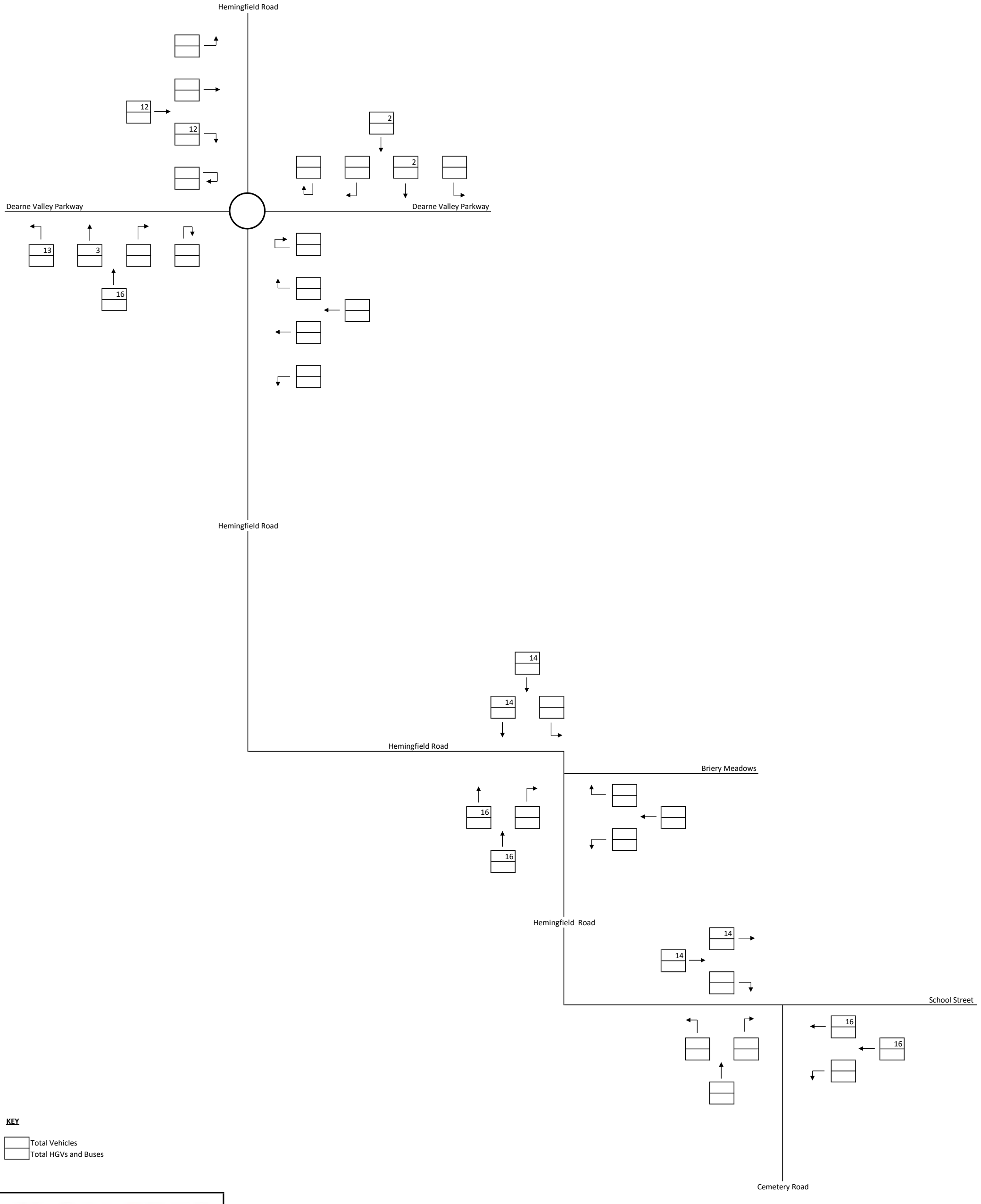
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX SCW 19

COMMITED DEVELOPMENT FLOWS - FORMER WOMBWELL SCHOOL SITE (APPLICATION REF: 2019/0089)
PROPOSED, RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY
AM PEAK
FROM AECOM TRANSPORT ASSESSMENT DATED 11/01/2019 - APPENDIX D, DIAGRAM 12



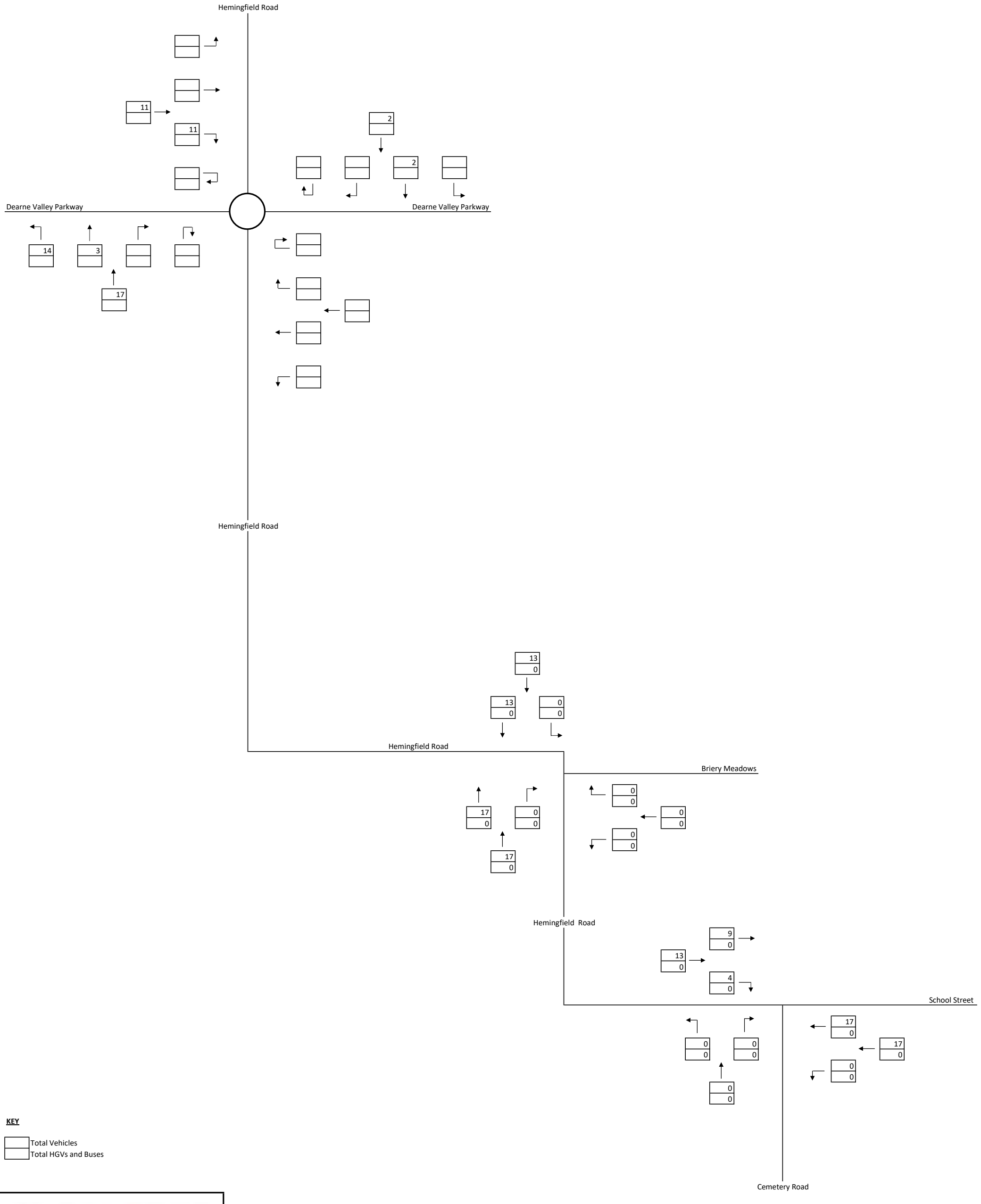
KEY

Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

COMMITED DEVELOPMENT FLOWS - FORMER WOMBWELL SCHOOL SITE (APPLICATION REF: 2019/0089)
PROPOSED, RESIDENTIAL DEVELOPMENT HEMINGFIELD, BARNSLEY
PM PEAK
FROM AECOM TRANSPORT ASSESSMENT DATED 11/01/2019 - APPENDIX D, DIAGRAM 12



KEY

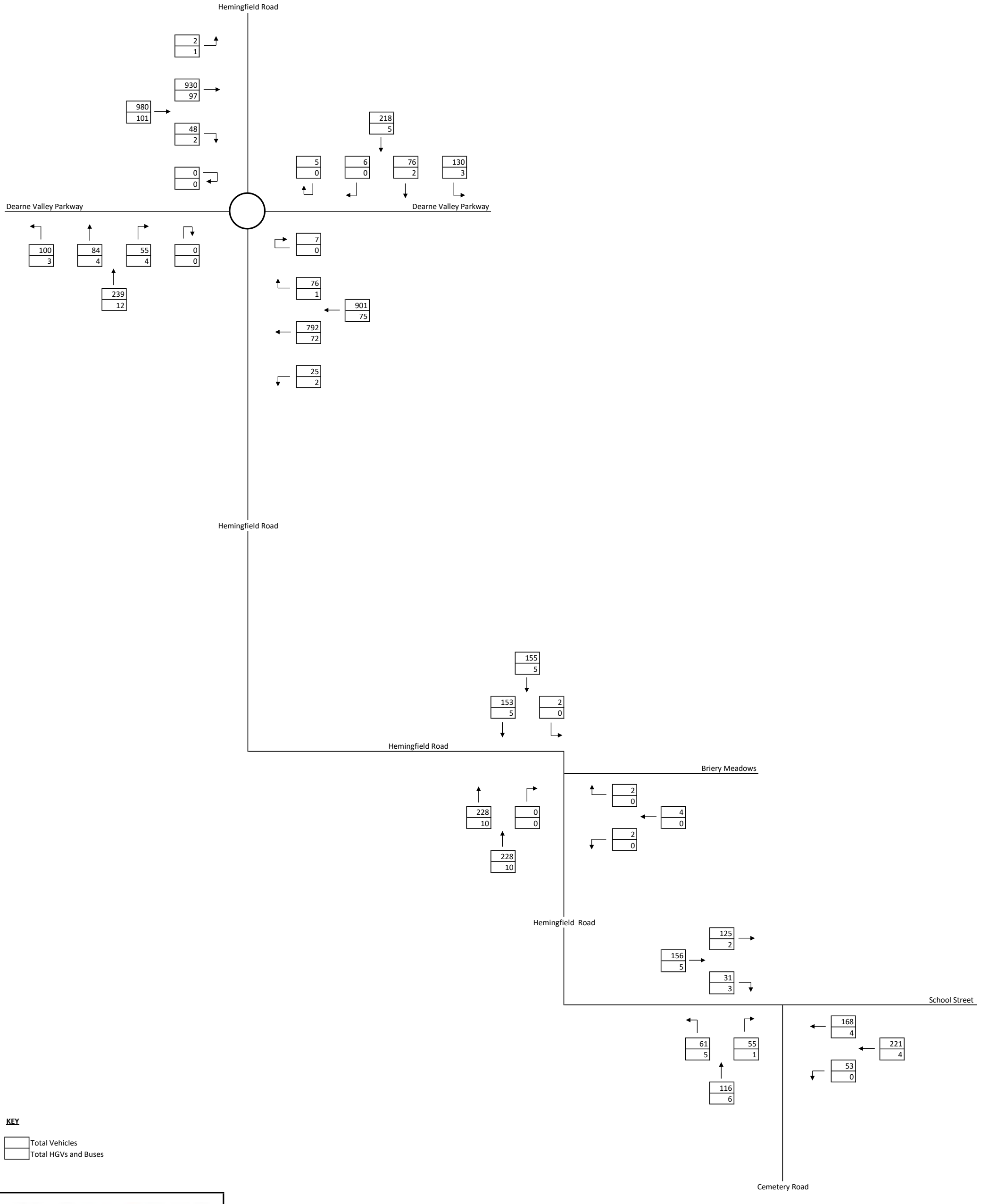
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX SCW 20

2029 BASE VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
8:00am - 9:00am
AM PEAK HOUR



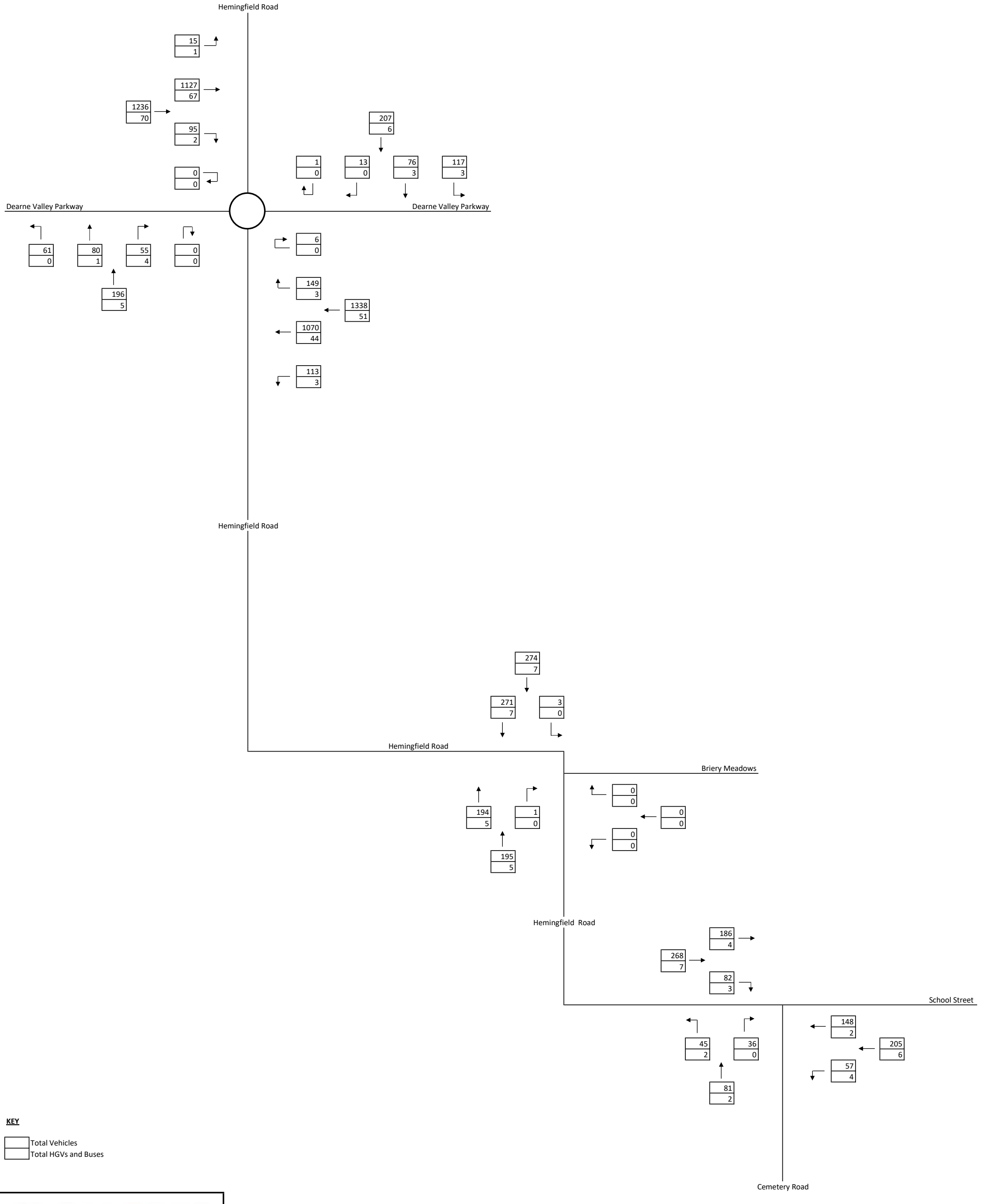
KEY

	Total Vehicles
	Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

2029 BASE VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
4:00pm - 5:00pm
PM PEAK HOUR



KEY

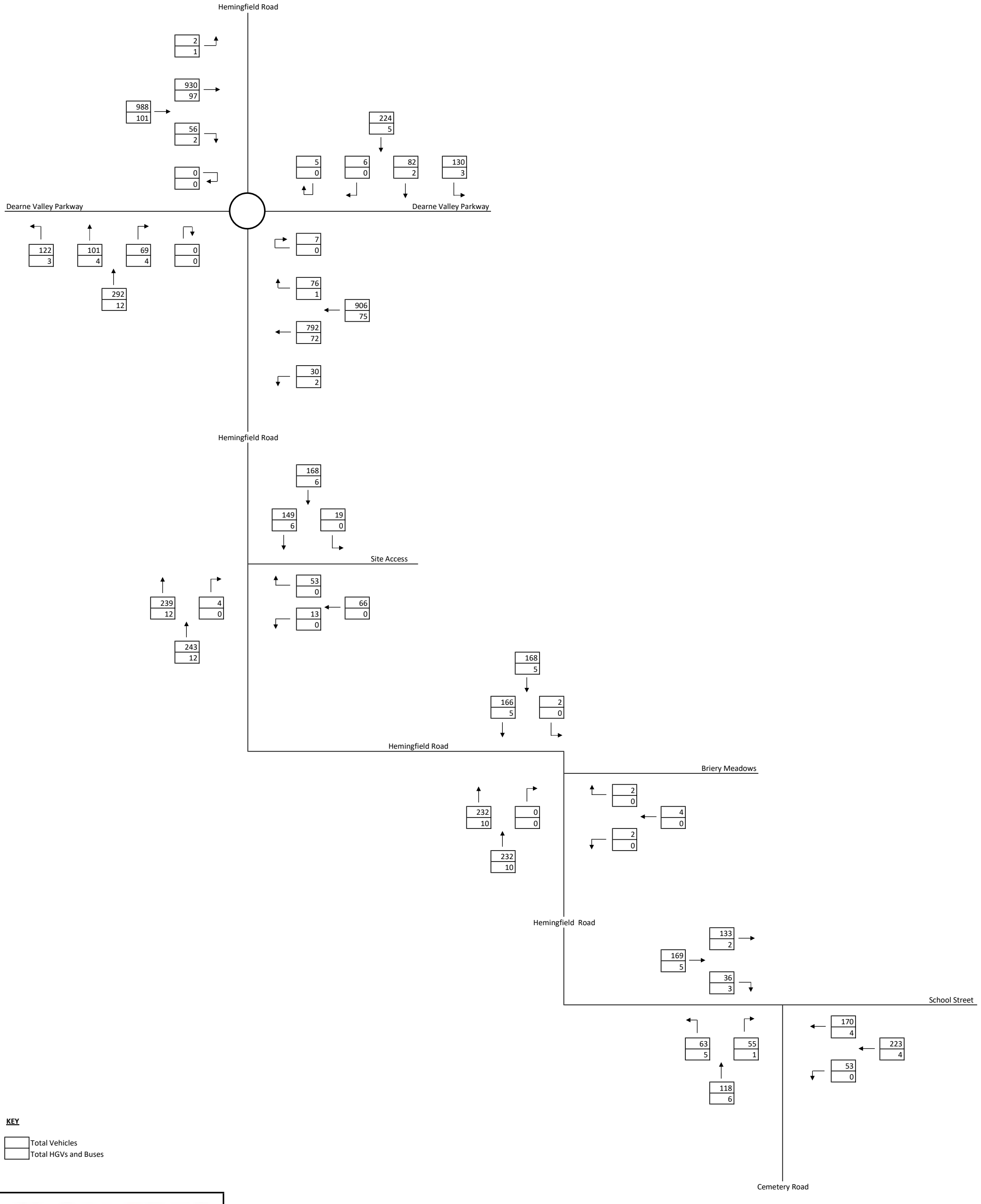
	Total Vehicles
	Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX SCW 21

2029 PREDICTED VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
8:00am - 9:00am
AM PEAK HOUR



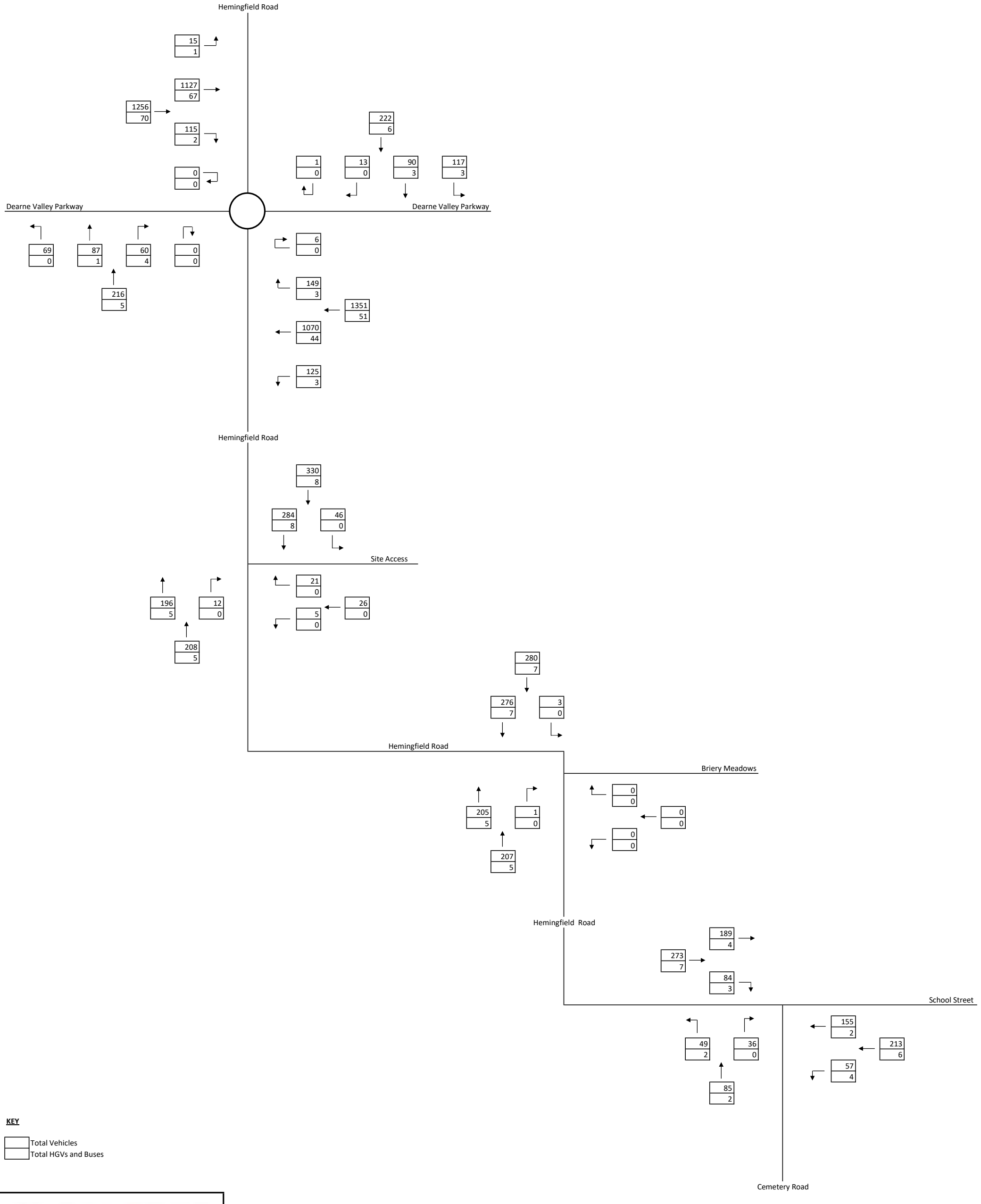
KEY

	Total Vehicles
	Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

2029 PREDICTED VEHICULAR FLOWS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
4:00pm - 5:00pm
PM PEAK HOUR



KEY

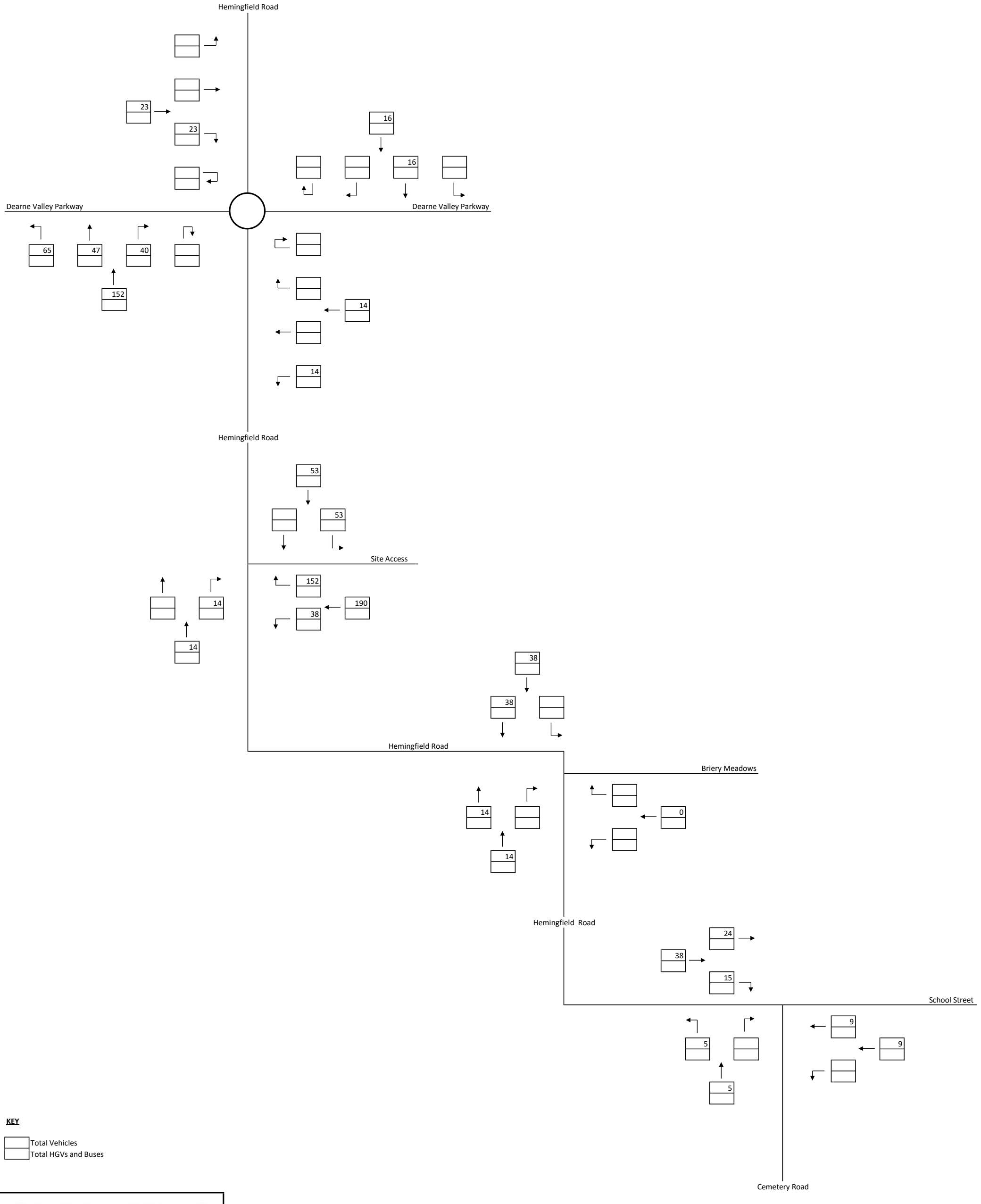
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Phoebe Pitcher
Checked by:	Robbie Donaldson

APPENDIX SCW 22

SENSITIVITY TEST - DEVELOPMENT GENERATED VEHICULAR FLOWS FOR 520 DWELLINGS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
AM PEAK HOUR



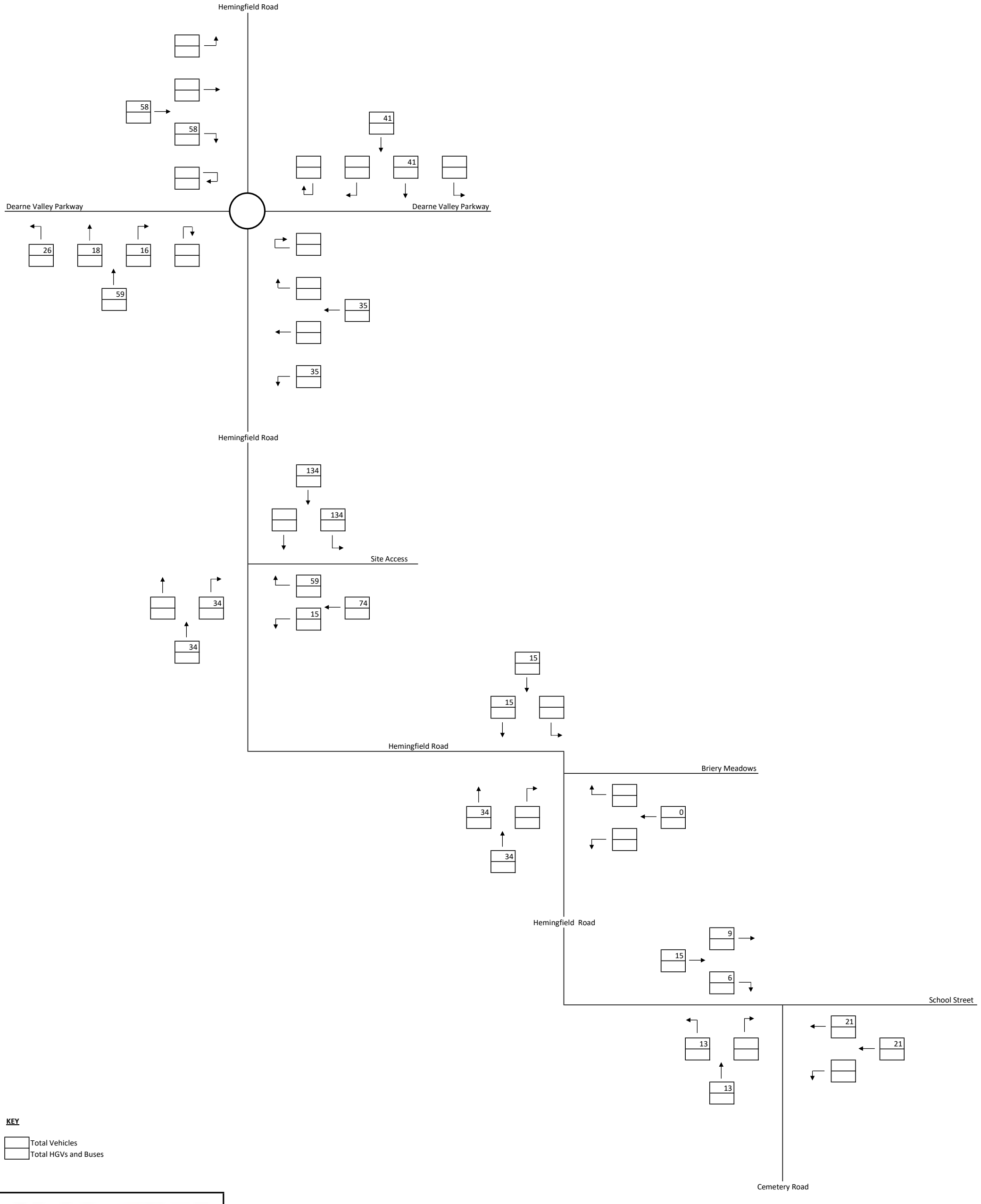
KEY

Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Robbie Donaldson
Checked by:	Martin Crabtree

SENSITIVITY TEST - DEVELOPMENT GENERATED VEHICULAR FLOWS FOR 520 DWELLINGS
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
PM PEAK HOUR



KEY

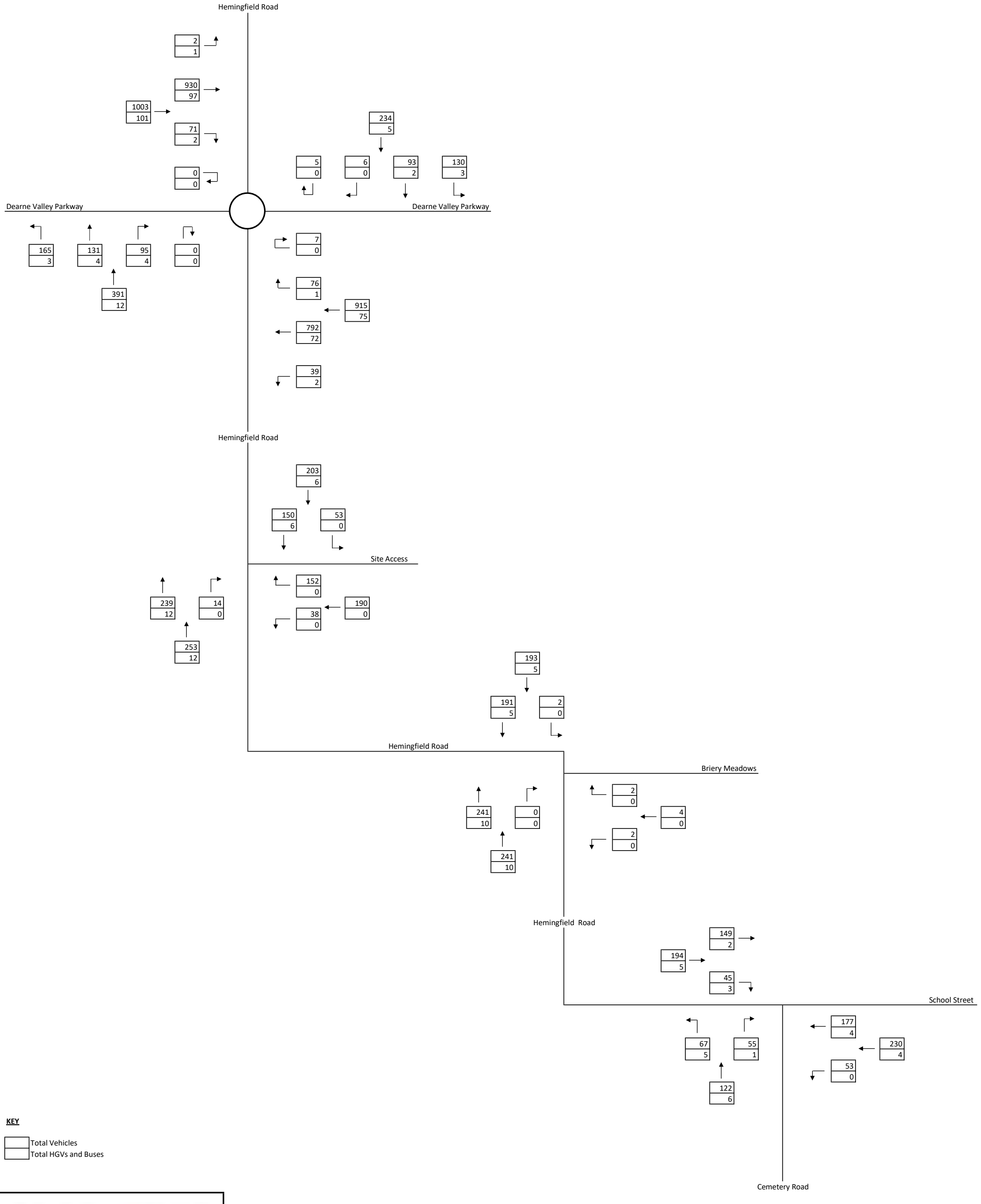
Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Robbie Donaldson
Checked by:	Martin Crabtree

APPENDIX SCW 23

2029 PREDICTED SENSITIVITY TEST VEHICULAR FLOWS (520 DWELLINGS)
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
8:00am - 9:00am
AM PEAK HOUR



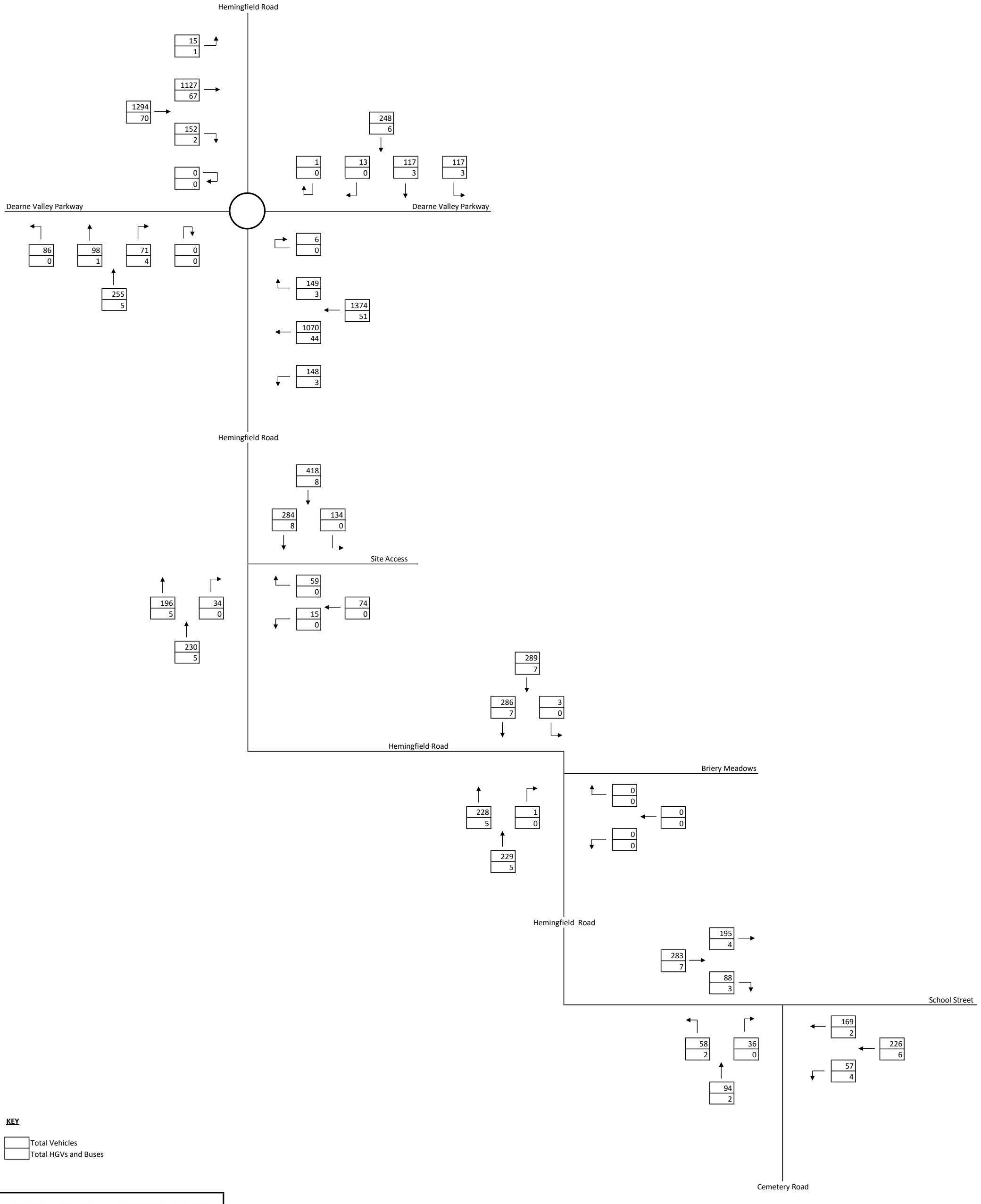
KEY

	Total Vehicles
	Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Robbie Donaldson
Checked by:	Martin Crabtree

2029 PREDICTED SENSITIVITY TEST VEHICULAR FLOWS (520 DWELLINGS)
PROPOSED RESIDENTIAL DEVELOPMENT, HEMINGFIELD, BARNSLEY
4:00pm - 5:00pm
PM PEAK HOUR



KEY

Total Vehicles
Total HGVs and Buses

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS

Client:	Hargreaves Land Limited
Project:	Hemingfield, Barnsley
Job Number:	23-160
Prepared by:	Robbie Donaldson
Checked by:	Martin Crabtree

APPENDIX SCW 24

Proposed Site Access/Hemingfield Road

Priority Junction with Right Turn Ghost Island

Junctions 10 PICADY Output

Junctions 10

PICADY 10 - Priority Intersection Module

Filename: 23-160 Proposed Site Access Juction Model - 520 Dwellings.j10
Path: Y:\2023\23-151 to 23-175\23-160 Residential Development Hemingfield, Barnsley\Technical\Junction Modelling\Site Access
Report generation date: 16/12/2024 11:46:19

»Proposed Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings) , AM Peak Hour
»Proposed Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings), PM Peak Hour

Summary of junction performance

	AM Peak Hour					PM Peak Hour				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Proposed Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings)									
Stream B-AC	D3	0.8	14.20	0.45	B	D4	0.2	10.72	0.20	B
Stream C-AB		0.0	6.13	0.03	A		0.1	7.14	0.07	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Proposed Site Access Junction Model
Location	Hemingfield, Barnsley
Site number	
Date	16/12/2024
Version	
Status	(new file)
Identifier	
Client	Hargreaves Land Limited
Jobnumber	23-160
Enumerator	BRYANGHALL\Design
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2029 Predicted (Sensitivity Test, 520 Dwellings)	AM Peak Hour	ONE HOUR	07:45	09:15	15
D4	2029 Predicted (Sensitivity Test, 520 Dwellings)	PM Peak Hour	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Proposed Layout	100.000

Proposed Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings) , AM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		4.19	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.19	A

Arms

Arms

Arm	Name	Description	Arm type
A	Hemingfield Road (North)		Major
B	Proposed Site Access		Minor
C	Hemingfield Road (South)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hemingfield Road (South)	6.00		✓	3.00	60.0	✓	5.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B - Proposed Site Access	One lane	3.66	26	21

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	529	0.096	0.244	0.153	0.348
B-C	679	0.104	0.263	-	-
C-B	662	0.256	0.256	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2029 Predicted (Sensitivity Test, 520 Dwellings)	AM Peak Hour	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hemingfield Road (North)		✓	209	100.000
B - Proposed Site Access		✓	190	100.000
C - Hemingfield Road (South)		✓	265	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	53	156
	B - Proposed Site Access	152	0	38
	C - Hemingfield Road (South)	251	14	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	0	4
	B - Proposed Site Access	0	0	0
	C - Hemingfield Road (South)	5	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.45	14.20	0.8	B
C-AB	0.03	6.13	0.0	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	143	492	0.291	141	0.4	10.236	B
C-AB	11	621	0.017	10	0.0	5.892	A
C-A	189			189			
A-B	40			40			
A-C	117			117			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	171	479	0.356	170	0.5	11.622	B
C-AB	13	614	0.021	13	0.0	5.989	A
C-A	226			226			
A-B	48			48			
A-C	140			140			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	463	0.452	208	0.8	14.093	B
C-AB	15	603	0.026	15	0.0	6.129	A
C-A	276			276			
A-B	58			58			
A-C	172			172			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	209	463	0.452	209	0.8	14.202	B
C-AB	15	603	0.026	15	0.0	6.129	A
C-A	276			276			
A-B	58			58			
A-C	172			172			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	171	479	0.356	172	0.6	11.745	B
C-AB	13	614	0.021	13	0.0	5.990	A
C-A	226			226			
A-B	48			48			
A-C	140			140			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	143	492	0.291	144	0.4	10.365	B
C-AB	11	621	0.017	11	0.0	5.895	A
C-A	189			189			
A-B	40			40			
A-C	117			117			

Proposed Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings), PM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Proposed Site Access	T-Junction	Two-way	Two-way	Two-way		1.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	1.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2029 Predicted (Sensitivity Test, 520 Dwellings)	PM Peak Hour	ONE HOUR	15:45	17:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - Hemingfield Road (North)		✓	426	100.000
B - Proposed Site Access		✓	74	100.000
C - Hemingfield Road (South)		✓	235	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	134	292
	B - Proposed Site Access	59	0	15
	C - Hemingfield Road (South)	201	34	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - Hemingfield Road (North)	B - Proposed Site Access	C - Hemingfield Road (South)
From	A - Hemingfield Road (North)	0	0	3
	B - Proposed Site Access	0	0	0
	C - Hemingfield Road (South)	3	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.20	10.72	0.2	B
C-AB	0.07	7.14	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	461	0.121	55	0.1	8.862	A
C-AB	26	579	0.044	25	0.0	6.496	A
C-A	151			151			
A-B	101			101			
A-C	220			220			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	443	0.150	66	0.2	9.565	A
C-AB	31	564	0.054	31	0.1	6.753	A
C-A	181			181			
A-B	120			120			
A-C	263			263			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	417	0.195	81	0.2	10.695	B
C-AB	37	541	0.069	37	0.1	7.141	A
C-A	221			221			
A-B	148			148			
A-C	321			321			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	81	417	0.195	81	0.2	10.720	B
C-AB	37	541	0.069	37	0.1	7.141	A
C-A	221			221			
A-B	148			148			
A-C	321			321			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	67	443	0.150	67	0.2	9.586	A
C-AB	31	564	0.054	31	0.1	6.755	A
C-A	181			181			
A-B	120			120			
A-C	263			263			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	56	461	0.121	56	0.1	8.895	A
C-AB	26	579	0.044	26	0.0	6.499	A
C-A	151			151			
A-B	101			101			
A-C	220			220			

Hemingfield Road Roundabout

Junctions 10 ARCADY Output

Junctions 10

ARCADY 10 - Roundabout Module

Filename: 23-160 Hemingfield Road Roundabout Model - 520 Dwellings.j10
Path: Y:\2023\23-151 to 23-175\23-160 Residential Development Hemingfield, Barnsley\Technical\Junction Modelling\Hemingfield Road Roundabout
Report generation date: 16/12/2024 12:11:24

Summary of junction performance

	AM Peak Hour					PM Peak Hour				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Existing Layout - 2023 Existing									
1 - Dearne Valley Parkway (East)	D1	0.8	2.88	0.43	A	D2	1.7	4.18	0.62	A
2 - Hemingfield Road (South)		0.3	4.05	0.21	A		0.2	4.48	0.19	A
3 - Dearne Valley Parkway (West)		0.9	2.96	0.45	A		1.3	3.59	0.56	A
4 - Hemingfield Road (North)		0.4	6.28	0.28	A		0.4	7.30	0.30	A
	Existing Layout - 2029 Base									
1 - Dearne Valley Parkway (East)	D3	0.9	3.04	0.46	A	D4	2.0	4.69	0.66	A
2 - Hemingfield Road (South)		0.3	4.30	0.24	A		0.3	4.86	0.23	A
3 - Dearne Valley Parkway (West)		1.0	3.16	0.49	A		1.6	3.97	0.60	A
4 - Hemingfield Road (North)		0.5	6.81	0.31	A		0.5	8.14	0.34	A
	Existing Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings)									
1 - Dearne Valley Parkway (East)	D5	0.9	3.14	0.47	A	D6	2.3	5.38	0.69	A
2 - Hemingfield Road (South)		0.6	5.26	0.38	A		0.4	5.29	0.29	A
3 - Dearne Valley Parkway (West)		1.1	3.38	0.51	A		1.8	4.35	0.63	A
4 - Hemingfield Road (North)		0.5	7.45	0.35	A		0.8	9.78	0.42	A

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

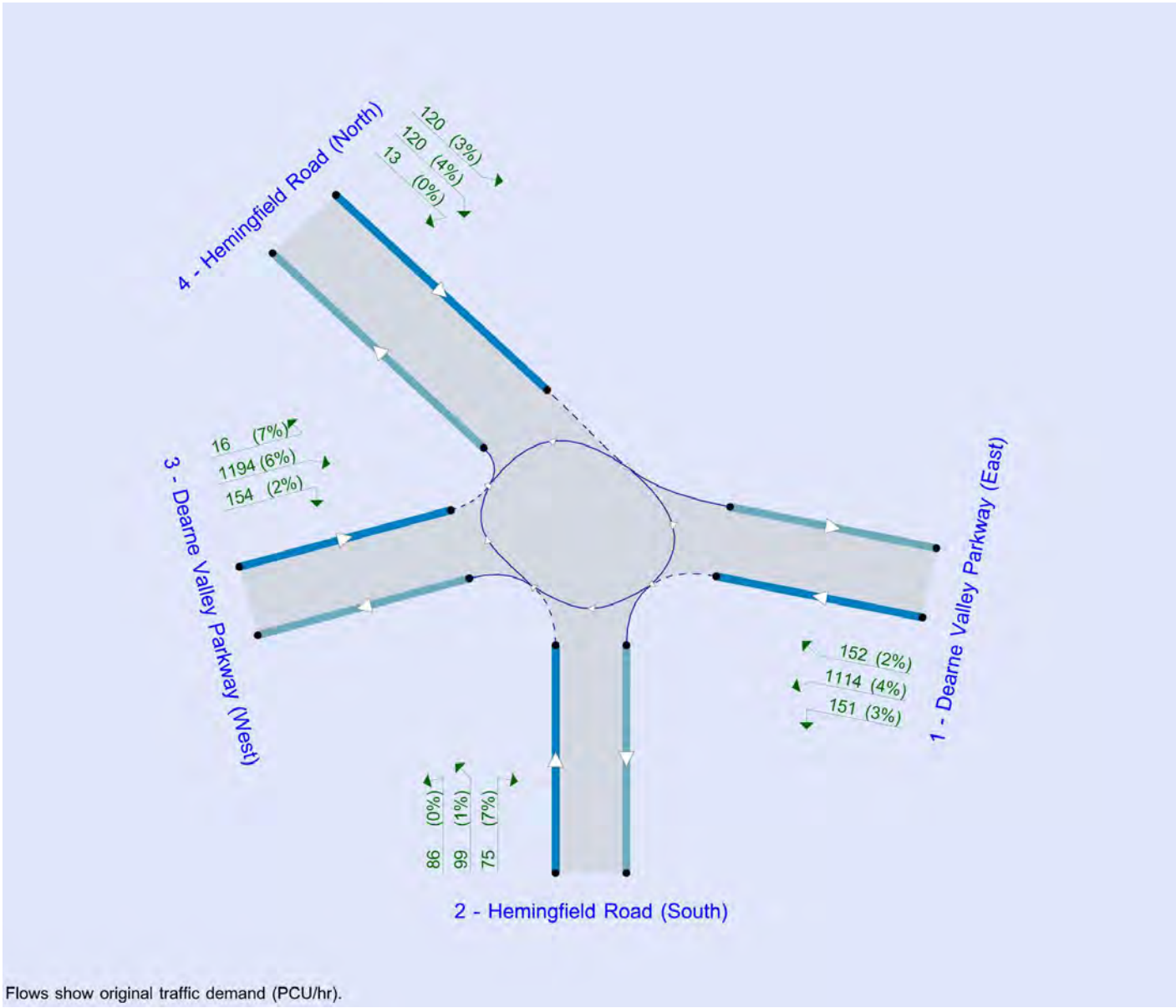
File summary

File Description

Title	Hemingfield Road Roundabout Model
Location	Hemingfield, Barnsley
Site number	
Date	16/12/2024
Version	
Status	(new file)
Identifier	
Client	Hargreaves Land Limited
Jobnumber	23-160
Enumerator	BRYANGHALL\design
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin



The junction diagram reflects the last run of Junctions.

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Existing	AM Peak Hour	ONE HOUR	07:45	09:15	15
D2	2023 Existing	PM Peak Hour	ONE HOUR	15:45	17:15	15
D3	2029 Base	AM Peak Hour	ONE HOUR	07:45	09:15	15
D4	2029 Base	PM Peak Hour	ONE HOUR	15:45	17:15	15
D5	2029 Predicted (Sensitivity Test, 520 Dwellings)	AM Peak Hour	ONE HOUR	07:45	09:15	15
D6	2029 Predicted (Sensitivity Test, 520 Dwellings)	PM Peak Hour	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

Existing Layout - 2023 Existing, AM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	3.32	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.32	A

Arms

Arms

Arm	Name	Description	No give-way line
1	Dearne Valley Parkway (East)		
2	Hemingfield Road (South)		
3	Dearne Valley Parkway (West)		
4	Hemingfield Road (North)		

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Entry only	Exit only
1 - Dearne Valley Parkway (East)	7.50	8.10	19.4	18.0	79.0	27.5		
2 - Hemingfield Road (South)	3.90	7.00	7.7	28.0	79.0	22.0		
3 - Dearne Valley Parkway (West)	7.50	9.00	8.9	18.0	79.0	25.0		
4 - Hemingfield Road (North)	2.90	5.70	13.4	16.0	79.0	48.0		

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Final slope	Final intercept (PCU/hr)
1 - Dearne Valley Parkway (East)	0.585	2446
2 - Hemingfield Road (South)	0.478	1659
3 - Dearne Valley Parkway (West)	0.610	2598
4 - Hemingfield Road (North)	0.396	1284

The slope and intercept shown above include any corrections and adjustments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Existing	AM Peak Hour	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	923	100.000
2 - Hemingfield Road (South)		✓	222	100.000
3 - Dearne Valley Parkway (West)		✓	1010	100.000
4 - Hemingfield Road (North)		✓	209	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	7	26	817	73
	2 - Hemingfield Road (South)	56	0	85	81
	3 - Dearne Valley Parkway (West)	971	36	0	3
	4 - Hemingfield Road (North)	126	72	6	5

Vehicle Mix

Heavy Vehicle %

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	8	9	1
	2 - Hemingfield Road (South)	8	0	5	4
	3 - Dearne Valley Parkway (West)	10	6	0	50
	4 - Hemingfield Road (North)	2	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.43	2.88	0.8	A
2 - Hemingfield Road (South)	0.21	4.05	0.3	A
3 - Dearne Valley Parkway (West)	0.45	2.96	0.9	A
4 - Hemingfield Road (North)	0.28	6.28	0.4	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	695	89	2394	0.290	693	0.4	2.289	A
2 - Hemingfield Road (South)	167	682	1333	0.125	167	0.2	3.250	A
3 - Dearne Valley Parkway (West)	760	167	2497	0.305	758	0.5	2.275	A
4 - Hemingfield Road (North)	157	803	965	0.163	157	0.2	4.549	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	830	107	2383	0.348	829	0.6	2.507	A
2 - Hemingfield Road (South)	200	816	1269	0.157	199	0.2	3.546	A
3 - Dearne Valley Parkway (West)	908	199	2477	0.367	907	0.6	2.520	A
4 - Hemingfield Road (North)	188	961	902	0.208	188	0.3	5.149	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1016	131	2369	0.429	1015	0.8	2.876	A
2 - Hemingfield Road (South)	244	999	1181	0.207	244	0.3	4.046	A
3 - Dearne Valley Parkway (West)	1112	244	2449	0.454	1111	0.9	2.954	A
4 - Hemingfield Road (North)	230	1177	817	0.282	230	0.4	6.261	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1016	131	2369	0.429	1016	0.8	2.879	A
2 - Hemingfield Road (South)	244	1000	1181	0.207	244	0.3	4.050	A
3 - Dearne Valley Parkway (West)	1112	244	2449	0.454	1112	0.9	2.959	A
4 - Hemingfield Road (North)	230	1178	816	0.282	230	0.4	6.275	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	830	107	2383	0.348	831	0.6	2.512	A
2 - Hemingfield Road (South)	200	817	1268	0.157	200	0.2	3.553	A
3 - Dearne Valley Parkway (West)	908	200	2476	0.367	909	0.6	2.528	A
4 - Hemingfield Road (North)	188	963	902	0.208	188	0.3	5.164	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	695	90	2393	0.290	695	0.4	2.296	A
2 - Hemingfield Road (South)	167	684	1332	0.126	167	0.2	3.257	A
3 - Dearne Valley Parkway (West)	760	167	2496	0.305	761	0.5	2.282	A
4 - Hemingfield Road (North)	157	806	964	0.163	158	0.2	4.567	A

Existing Layout - 2023 Existing, PM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	4.16	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.16	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Existing	PM Peak Hour	ONE HOUR	15:45	17:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	1313	100.000
2 - Hemingfield Road (South)		✓	174	100.000
3 - Dearne Valley Parkway (West)		✓	1224	100.000
4 - Hemingfield Road (North)		✓	200	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	6	110	1053	144
	2 - Hemingfield Road (South)	56	0	44	74
	3 - Dearne Valley Parkway (West)	1128	81	0	15
	4 - Hemingfield Road (North)	114	73	12	1

Vehicle Mix

Heavy Vehicle %

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	3	4	2
	2 - Hemingfield Road (South)	8	0	0	1
	3 - Dearne Valley Parkway (West)	6	3	0	7
	4 - Hemingfield Road (North)	3	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.62	4.18	1.7	A
2 - Hemingfield Road (South)	0.19	4.48	0.2	A
3 - Dearne Valley Parkway (West)	0.56	3.59	1.3	A
4 - Hemingfield Road (North)	0.30	7.30	0.4	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	988	125	2373	0.417	986	0.7	2.685	A
2 - Hemingfield Road (South)	131	913	1222	0.107	131	0.1	3.390	A
3 - Dearne Valley Parkway (West)	921	211	2470	0.373	919	0.6	2.452	A
4 - Hemingfield Road (North)	151	954	905	0.166	150	0.2	4.911	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1180	150	2358	0.501	1179	1.0	3.163	A
2 - Hemingfield Road (South)	156	1092	1137	0.138	156	0.2	3.777	A
3 - Dearne Valley Parkway (West)	1100	252	2444	0.450	1099	0.9	2.831	A
4 - Hemingfield Road (North)	180	1142	831	0.216	179	0.3	5.698	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1446	183	2338	0.618	1443	1.7	4.157	A
2 - Hemingfield Road (South)	192	1337	1020	0.188	191	0.2	4.469	A
3 - Dearne Valley Parkway (West)	1348	309	2410	0.559	1346	1.3	3.573	A
4 - Hemingfield Road (North)	220	1397	730	0.302	220	0.4	7.273	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1446	184	2338	0.618	1446	1.7	4.181	A
2 - Hemingfield Road (South)	192	1339	1019	0.188	192	0.2	4.476	A
3 - Dearne Valley Parkway (West)	1348	309	2410	0.559	1348	1.3	3.585	A
4 - Hemingfield Road (North)	220	1399	729	0.302	220	0.4	7.301	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1180	151	2358	0.501	1183	1.0	3.182	A
2 - Hemingfield Road (South)	156	1095	1135	0.138	157	0.2	3.788	A
3 - Dearne Valley Parkway (West)	1100	253	2444	0.450	1102	0.9	2.842	A
4 - Hemingfield Road (North)	180	1145	830	0.217	180	0.3	5.724	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	988	126	2372	0.417	990	0.7	2.701	A
2 - Hemingfield Road (South)	131	917	1221	0.107	131	0.1	3.399	A
3 - Dearne Valley Parkway (West)	921	212	2469	0.373	922	0.6	2.463	A
4 - Hemingfield Road (North)	151	958	904	0.167	151	0.2	4.936	A

Existing Layout - 2029 Base, AM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	3.55	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.55	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2029 Base	AM Peak Hour	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	976	100.000
2 - Hemingfield Road (South)		✓	251	100.000
3 - Dearne Valley Parkway (West)		✓	1080	100.000
4 - Hemingfield Road (North)		✓	222	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	7	28	864	77
	2 - Hemingfield Road (South)	59	0	103	89
	3 - Dearne Valley Parkway (West)	1027	50	0	3
	4 - Hemingfield Road (North)	133	78	6	5

Vehicle Mix

Heavy Vehicle %

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	8	9	1
	2 - Hemingfield Road (South)	8	0	3	5
	3 - Dearne Valley Parkway (West)	10	4	0	50
	4 - Hemingfield Road (North)	2	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.46	3.04	0.9	A
2 - Hemingfield Road (South)	0.24	4.30	0.3	A
3 - Dearne Valley Parkway (West)	0.49	3.16	1.0	A
4 - Hemingfield Road (North)	0.31	6.81	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	735	104	2385	0.308	733	0.5	2.357	A
2 - Hemingfield Road (South)	189	720	1315	0.144	188	0.2	3.350	A
3 - Dearne Valley Parkway (West)	813	178	2490	0.327	811	0.5	2.351	A
4 - Hemingfield Road (North)	167	858	943	0.177	166	0.2	4.732	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	877	125	2373	0.370	877	0.6	2.602	A
2 - Hemingfield Road (South)	226	862	1247	0.181	225	0.2	3.694	A
3 - Dearne Valley Parkway (West)	971	213	2469	0.393	970	0.7	2.636	A
4 - Hemingfield Road (North)	200	1027	876	0.228	199	0.3	5.433	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1075	153	2356	0.456	1074	0.9	3.034	A
2 - Hemingfield Road (South)	276	1055	1155	0.239	276	0.3	4.294	A
3 - Dearne Valley Parkway (West)	1189	261	2439	0.487	1188	1.0	3.155	A
4 - Hemingfield Road (North)	244	1257	785	0.311	244	0.5	6.788	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1075	153	2356	0.456	1075	0.9	3.039	A
2 - Hemingfield Road (South)	276	1056	1154	0.239	276	0.3	4.300	A
3 - Dearne Valley Parkway (West)	1189	261	2439	0.488	1189	1.0	3.160	A
4 - Hemingfield Road (North)	244	1258	785	0.312	244	0.5	6.813	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	877	125	2372	0.370	878	0.6	2.609	A
2 - Hemingfield Road (South)	226	863	1246	0.181	226	0.2	3.700	A
3 - Dearne Valley Parkway (West)	971	213	2468	0.393	972	0.7	2.645	A
4 - Hemingfield Road (North)	200	1029	876	0.228	200	0.3	5.454	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	735	105	2384	0.308	735	0.5	2.363	A
2 - Hemingfield Road (South)	189	723	1313	0.144	189	0.2	3.357	A
3 - Dearne Valley Parkway (West)	813	179	2489	0.327	814	0.5	2.359	A
4 - Hemingfield Road (North)	167	861	942	0.177	167	0.2	4.753	A

Existing Layout - 2029 Base, PM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	4.64	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	4.64	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2029 Base	PM Peak Hour	ONE HOUR	15:45	17:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	1388	100.000
2 - Hemingfield Road (South)		✓	201	100.000
3 - Dearne Valley Parkway (West)		✓	1307	100.000
4 - Hemingfield Road (North)		✓	214	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	6	116	1114	152
	2 - Hemingfield Road (South)	59	0	61	81
	3 - Dearne Valley Parkway (West)	1194	97	0	16
	4 - Hemingfield Road (North)	121	79	13	1

Vehicle Mix

Heavy Vehicle %

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	3	4	2
	2 - Hemingfield Road (South)	8	0	0	1
	3 - Dearne Valley Parkway (West)	6	2	0	7
	4 - Hemingfield Road (North)	3	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.66	4.69	2.0	A
2 - Hemingfield Road (South)	0.23	4.86	0.3	A
3 - Dearne Valley Parkway (West)	0.60	3.97	1.6	A
4 - Hemingfield Road (North)	0.34	8.14	0.5	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1045	142	2362	0.442	1042	0.8	2.819	A
2 - Hemingfield Road (South)	151	965	1197	0.126	151	0.1	3.528	A
3 - Dearne Valley Parkway (West)	984	224	2462	0.400	981	0.7	2.566	A
4 - Hemingfield Road (North)	161	1018	880	0.183	160	0.2	5.153	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1248	171	2346	0.532	1246	1.2	3.389	A
2 - Hemingfield Road (South)	181	1155	1107	0.163	180	0.2	3.988	A
3 - Dearne Valley Parkway (West)	1175	268	2435	0.483	1174	1.0	3.015	A
4 - Hemingfield Road (North)	192	1218	801	0.240	192	0.3	6.097	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1528	209	2324	0.658	1525	2.0	4.655	A
2 - Hemingfield Road (South)	221	1413	983	0.225	221	0.3	4.844	A
3 - Dearne Valley Parkway (West)	1439	329	2398	0.600	1437	1.6	3.949	A
4 - Hemingfield Road (North)	236	1491	693	0.340	235	0.5	8.097	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1528	209	2323	0.658	1528	2.0	4.693	A
2 - Hemingfield Road (South)	221	1416	982	0.225	221	0.3	4.856	A
3 - Dearne Valley Parkway (West)	1439	329	2398	0.600	1439	1.6	3.969	A
4 - Hemingfield Road (North)	236	1493	692	0.341	236	0.5	8.143	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1248	171	2346	0.532	1251	1.2	3.418	A
2 - Hemingfield Road (South)	181	1159	1105	0.164	181	0.2	4.001	A
3 - Dearne Valley Parkway (West)	1175	269	2434	0.483	1177	1.0	3.035	A
4 - Hemingfield Road (North)	192	1221	799	0.241	193	0.3	6.137	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1045	143	2362	0.442	1046	0.8	2.839	A
2 - Hemingfield Road (South)	151	970	1195	0.127	152	0.1	3.539	A
3 - Dearne Valley Parkway (West)	984	225	2461	0.400	985	0.7	2.582	A
4 - Hemingfield Road (North)	161	1022	878	0.183	161	0.2	5.183	A

Existing Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings), AM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	3.93	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	3.93	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2029 Predicted (Sensitivity Test, 520 Dwellings)	AM Peak Hour	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	989	100.000
2 - Hemingfield Road (South)		✓	402	100.000
3 - Dearne Valley Parkway (West)		✓	1103	100.000
4 - Hemingfield Road (North)		✓	239	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	7	41	864	77
	2 - Hemingfield Road (South)	99	0	168	135
	3 - Dearne Valley Parkway (West)	1027	73	0	3
	4 - Hemingfield Road (North)	133	95	6	5

Vehicle Mix

Heavy Vehicle %

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	7	9	1
	2 - Hemingfield Road (South)	6	0	3	4
	3 - Dearne Valley Parkway (West)	10	4	0	50
	4 - Hemingfield Road (North)	2	3	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.47	3.14	0.9	A
2 - Hemingfield Road (South)	0.38	5.26	0.6	A
3 - Dearne Valley Parkway (West)	0.51	3.38	1.1	A
4 - Hemingfield Road (North)	0.35	7.45	0.5	A

Main Results for each time segment

07:45 - 08:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	745	134	2367	0.315	743	0.5	2.393	A
2 - Hemingfield Road (South)	303	720	1315	0.230	301	0.3	3.692	A
3 - Dearne Valley Parkway (West)	830	242	2451	0.339	828	0.6	2.430	A
4 - Hemingfield Road (North)	180	905	925	0.195	179	0.2	4.933	A

08:00 - 08:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	889	161	2352	0.378	888	0.7	2.659	A
2 - Hemingfield Road (South)	361	861	1247	0.290	361	0.4	4.226	A
3 - Dearne Valley Parkway (West)	992	290	2421	0.410	991	0.8	2.758	A
4 - Hemingfield Road (North)	215	1083	854	0.252	214	0.3	5.754	A

08:15 - 08:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1089	197	2331	0.467	1088	0.9	3.130	A
2 - Hemingfield Road (South)	443	1055	1155	0.383	442	0.6	5.248	A
3 - Dearne Valley Parkway (West)	1214	355	2382	0.510	1213	1.1	3.372	A
4 - Hemingfield Road (North)	263	1326	758	0.347	262	0.5	7.421	A

08:30 - 08:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1089	197	2330	0.467	1089	0.9	3.136	A
2 - Hemingfield Road (South)	443	1056	1154	0.384	443	0.6	5.265	A
3 - Dearne Valley Parkway (West)	1214	356	2381	0.510	1214	1.1	3.381	A
4 - Hemingfield Road (North)	263	1328	757	0.348	263	0.5	7.454	A

08:45 - 09:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	889	161	2351	0.378	890	0.7	2.669	A
2 - Hemingfield Road (South)	361	863	1246	0.290	362	0.4	4.242	A
3 - Dearne Valley Parkway (West)	992	291	2421	0.410	993	0.8	2.769	A
4 - Hemingfield Road (North)	215	1086	853	0.252	216	0.3	5.784	A

09:00 - 09:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	745	135	2367	0.315	745	0.5	2.402	A
2 - Hemingfield Road (South)	303	723	1313	0.230	303	0.3	3.709	A
3 - Dearne Valley Parkway (West)	830	244	2450	0.339	831	0.6	2.441	A
4 - Hemingfield Road (North)	180	909	923	0.195	180	0.2	4.959	A

Existing Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings), PM Peak Hour

Data Errors and Warnings

No errors or warnings

Junction Network

Junctions

Junction	Name	Junction type	Use circulating lanes	Arm order	Junction Delay (s)	Junction LOS
1	Hemingfield Road Roundabout	Standard Roundabout		1, 2, 3, 4	5.29	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	5.29	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2029 Predicted (Sensitivity Test, 520 Dwellings)	PM Peak Hour	ONE HOUR	15:45	17:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
1 - Dearne Valley Parkway (East)		✓	1423	100.000
2 - Hemingfield Road (South)		✓	260	100.000
3 - Dearne Valley Parkway (West)		✓	1364	100.000
4 - Hemingfield Road (North)		✓	254	100.000

Origin-Destination Data

Demand (PCU/hr)

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	6	151	1114	152
	2 - Hemingfield Road (South)	75	0	86	99
	3 - Dearne Valley Parkway (West)	1194	154	0	16
	4 - Hemingfield Road (North)	120	120	13	1

Vehicle Mix

Heavy Vehicle %

		To			
		1 - Dearne Valley Parkway (East)	2 - Hemingfield Road (South)	3 - Dearne Valley Parkway (West)	4 - Hemingfield Road (North)
From	1 - Dearne Valley Parkway (East)	0	3	4	2
	2 - Hemingfield Road (South)	7	0	0	1
	3 - Dearne Valley Parkway (West)	6	2	0	7
	4 - Hemingfield Road (North)	3	4	0	0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1 - Dearne Valley Parkway (East)	0.69	5.38	2.3	A
2 - Hemingfield Road (South)	0.29	5.29	0.4	A
3 - Dearne Valley Parkway (West)	0.63	4.35	1.8	A
4 - Hemingfield Road (North)	0.42	9.78	0.8	A

Main Results for each time segment

15:45 - 16:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1071	216	2319	0.462	1068	0.9	2.972	A
2 - Hemingfield Road (South)	196	965	1198	0.163	195	0.2	3.668	A
3 - Dearne Valley Parkway (West)	1027	250	2446	0.420	1024	0.8	2.666	A
4 - Hemingfield Road (North)	191	1073	858	0.223	190	0.3	5.556	A

16:00 - 16:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1279	258	2294	0.558	1278	1.3	3.663	A
2 - Hemingfield Road (South)	234	1155	1107	0.211	233	0.3	4.216	A
3 - Dearne Valley Parkway (West)	1226	299	2416	0.508	1225	1.1	3.187	A
4 - Hemingfield Road (North)	228	1283	775	0.295	228	0.4	6.791	A

16:15 - 16:30

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1567	316	2261	0.693	1563	2.3	5.315	A
2 - Hemingfield Road (South)	286	1412	984	0.291	286	0.4	5.272	A
3 - Dearne Valley Parkway (West)	1502	366	2375	0.632	1499	1.8	4.322	A
4 - Hemingfield Road (North)	280	1570	661	0.423	278	0.7	9.690	A

16:30 - 16:45

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1567	317	2260	0.693	1567	2.3	5.378	A
2 - Hemingfield Road (South)	286	1416	982	0.292	286	0.4	5.293	A
3 - Dearne Valley Parkway (West)	1502	367	2375	0.632	1502	1.8	4.352	A
4 - Hemingfield Road (North)	280	1573	660	0.424	280	0.8	9.780	A

16:45 - 17:00

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1279	260	2294	0.558	1283	1.3	3.706	A
2 - Hemingfield Road (South)	234	1160	1104	0.212	234	0.3	4.235	A
3 - Dearne Valley Parkway (West)	1226	300	2415	0.508	1229	1.1	3.212	A
4 - Hemingfield Road (North)	228	1288	773	0.295	230	0.4	6.860	A

17:00 - 17:15

Arm	Total Demand (PCU/hr)	Circulating flow (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
1 - Dearne Valley Parkway (East)	1071	217	2319	0.462	1073	0.9	2.999	A
2 - Hemingfield Road (South)	196	970	1195	0.164	196	0.2	3.689	A
3 - Dearne Valley Parkway (West)	1027	251	2445	0.420	1028	0.8	2.683	A
4 - Hemingfield Road (North)	191	1077	856	0.223	192	0.3	5.598	A

Cemetery Road/School Street

Priority Junction

Junctions 10 PICADY Output

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.1.1.1905

For sales and distribution information, program advice and maintenance, contact TRL Software:
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Filename: 23-160 Cemetery Road School Street Model - 520 Dwellings.j10
Path: Y:\2023\23-151 to 23-175\23-160 Residential Development Hemingfield, Barnsley\Technical\Junction Modelling\Cemetery Road School Street Junction
Report generation date: 16/12/2024 11:56:53

Summary of junction performance

	AM Peak Hour					PM Peak Hour				
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Set ID	Queue (PCU)	Delay (s)	RFC	LOS
	Existing Layout - 2023 Existing									
Stream B-C	D1	0.1	7.15	0.11	A	D2	0.1	6.43	0.08	A
Stream B-A		0.2	9.38	0.13	A		0.1	9.32	0.09	A
Stream C-AB		0.1	6.32	0.06	A		0.3	6.25	0.16	A
	Existing Layout - 2029 Base									
Stream B-C	D3	0.1	7.26	0.12	A	D4	0.1	6.49	0.08	A
Stream B-A		0.2	9.70	0.14	A		0.1	9.66	0.10	A
Stream C-AB		0.1	6.21	0.07	A		0.3	6.34	0.18	A
	Existing Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings)									
Stream B-C	D5	0.2	7.25	0.13	A	D6	0.1	6.49	0.10	A
Stream B-A		0.2	10.12	0.15	B		0.1	10.19	0.10	B
Stream C-AB		0.2	6.17	0.10	A		0.3	6.40	0.20	A

There are warnings associated with one or more model runs - see the 'Data Errors and Warnings' tables for each Analysis or Demand Set.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle.

File summary

File Description

Title	Cemetery Road / Hemingfield Road/ School Street
Location	Hemingfield, Barnsley
Site number	
Date	16/12/2024
Version	
Status	(new file)
Identifier	
Client	Hargreaves Land Limited
Jobnumber	23-160
Enumerator	BRYANGHALL\Design
Description	

Units

Distance units	Speed units	Traffic units input	Traffic units results	Flow units	Average delay units	Total delay units	Rate of delay units
m	kph	PCU	PCU	perHour	s	-Min	perMin

Analysis Options

Calculate Queue Percentiles	Calculate residual capacity	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)
		0.85	36.00	20.00

Demand Set Summary

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Existing	AM Peak Hour	ONE HOUR	07:45	09:15	15
D2	2023 Existing	PM Peak Hour	ONE HOUR	15:45	17:15	15
D3	2029 Base	AM Peak Hour	ONE HOUR	07:45	09:15	15
D4	2029 Base	PM Peak Hour	ONE HOUR	15:45	17:15	15
D5	2029 Predicted (Sensitivity Test, 520 Dwellings)	AM Peak Hour	ONE HOUR	07:45	09:15	15
D6	2029 Predicted (Sensitivity Test, 520 Dwellings)	PM Peak Hour	ONE HOUR	15:45	17:15	15

Analysis Set Details

ID	Name	Network flow scaling factor (%)
A1	Existing Layout	100.000

Existing Layout - 2023 Existing, AM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cemetery Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cemetery Road / School Street	T-Junction	Two-way	Two-way	Two-way		2.62	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.62	A

Arms

Arms

Arm	Name	Description	Arm type
A	School Street (E)		Major
B	Cemetery Road		Minor
C	Hemingfield Road (W)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C - Hemingfield Road (W)	7.15			100.0	✓	0.00

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

Arm	Minor arm type	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate flare length	Flare length (PCU)	Visibility to left (m)	Visibility to right (m)
B - Cemetery Road	One lane plus flare	10.00	7.00	5.50	4.60	4.60		1.00	41	63

Minor Arm Geometry Notes

Arm	Notes
B - Cemetery Road	Flare length input as 1 PCU due to curved approach to junction

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	521	0.090	0.228	0.143	0.326
B-C	687	0.100	0.253	-	-
C-B	632	0.233	0.233	-	-

The slopes and intercepts shown above include custom intercept adjustments only.
Streams may be combined, in which case capacity will be adjusted.
Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D1	2023 Existing	AM Peak Hour	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Street (E)		✓	198	100.000
B - Cemetery Road		✓	116	100.000
C - Hemingfield Road (W)		✓	139	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	50	148
	B - Cemetery Road	53	0	63
	C - Hemingfield Road (W)	107	32	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	0	3
	B - Cemetery Road	2	0	9
	C - Hemingfield Road (W)	2	10	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.11	7.15	0.1	A
B-A	0.13	9.38	0.2	A
C-AB	0.06	6.32	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	641	0.074	47	0.1	6.604	A
B-A	40	473	0.084	40	0.1	8.472	A
C-AB	27	651	0.042	27	0.1	6.286	A
C-A	77			77			
A-B	38			38			
A-C	111			111			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	57	631	0.090	57	0.1	6.827	A
B-A	48	463	0.103	48	0.1	8.835	A
C-AB	34	655	0.052	34	0.1	6.304	A
C-A	91			91			
A-B	45			45			
A-C	133			133			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	618	0.112	69	0.1	7.151	A
B-A	58	450	0.130	58	0.2	9.378	A
C-AB	43	661	0.065	43	0.1	6.324	A
C-A	110			110			
A-B	55			55			
A-C	163			163			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	69	618	0.112	69	0.1	7.155	A
B-A	58	450	0.130	58	0.2	9.384	A
C-AB	43	661	0.065	43	0.1	6.321	A
C-A	110			110			
A-B	55			55			
A-C	163			163			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	57	631	0.090	57	0.1	6.834	A
B-A	48	463	0.103	48	0.1	8.844	A
C-AB	34	655	0.052	34	0.1	6.292	A
C-A	91			91			
A-B	45			45			
A-C	133			133			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	47	641	0.074	48	0.1	6.615	A
B-A	40	473	0.084	40	0.1	8.488	A
C-AB	28	651	0.042	28	0.1	6.284	A
C-A	77			77			
A-B	38			38			
A-C	111			111			

Existing Layout - 2023 Existing, PM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cemetery Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cemetery Road / School Street	T-Junction	Two-way	Two-way	Two-way		2.41	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.41	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D2	2023 Existing	PM Peak Hour	ONE HOUR	15:45	17:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Street (E)		✓	184	100.000
B - Cemetery Road		✓	79	100.000
C - Hemingfield Road (W)		✓	248	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	58	126
	B - Cemetery Road	34	0	45
	C - Hemingfield Road (W)	171	77	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	7	2
	B - Cemetery Road	0	0	5
	C - Hemingfield Road (W)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	6.43	0.1	A
B-A	0.09	9.32	0.1	A
C-AB	0.16	6.25	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	657	0.052	34	0.1	6.065	A
B-A	26	453	0.057	25	0.1	8.418	A
C-AB	71	686	0.104	71	0.2	6.069	A
C-A	115			115			
A-B	44			44			
A-C	95			95			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	649	0.062	40	0.1	6.213	A
B-A	31	441	0.069	31	0.1	8.777	A
C-AB	89	697	0.128	89	0.2	6.137	A
C-A	134			134			
A-B	52			52			
A-C	113			113			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	638	0.078	49	0.1	6.425	A
B-A	37	424	0.088	37	0.1	9.314	A
C-AB	115	712	0.162	115	0.3	6.246	A
C-A	158			158			
A-B	64			64			
A-C	139			139			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	638	0.078	50	0.1	6.426	A
B-A	37	424	0.088	37	0.1	9.318	A
C-AB	116	712	0.162	116	0.3	6.250	A
C-A	158			158			
A-B	64			64			
A-C	139			139			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	40	649	0.062	41	0.1	6.218	A
B-A	31	441	0.069	31	0.1	8.785	A
C-AB	89	697	0.128	89	0.2	6.140	A
C-A	134			134			
A-B	52			52			
A-C	113			113			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	34	656	0.052	34	0.1	6.072	A
B-A	26	453	0.057	26	0.1	8.431	A
C-AB	72	686	0.104	72	0.2	6.079	A
C-A	115			115			
A-B	44			44			
A-C	95			95			

Existing Layout - 2029 Base, AM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cemetery Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cemetery Road / School Street	T-Junction	Two-way	Two-way	Two-way		2.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D3	2029 Base	AM Peak Hour	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Street (E)		✓	225	100.000
B - Cemetery Road		✓	122	100.000
C - Hemingfield Road (W)		✓	160	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	53	172
	B - Cemetery Road	56	0	66
	C - Hemingfield Road (W)	127	33	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	0	2
	B - Cemetery Road	2	0	8
	C - Hemingfield Road (W)	2	9	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.12	7.26	0.1	A
B-A	0.14	9.70	0.2	A
C-AB	0.07	6.21	0.1	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	635	0.078	49	0.1	6.637	A
B-A	42	466	0.090	42	0.1	8.642	A
C-AB	29	657	0.044	29	0.1	6.187	A
C-A	91			91			
A-B	40			40			
A-C	129			129			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	624	0.095	59	0.1	6.887	A
B-A	50	455	0.111	50	0.1	9.062	A
C-AB	36	662	0.054	36	0.1	6.201	A
C-A	108			108			
A-B	48			48			
A-C	155			155			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	608	0.119	73	0.1	7.252	A
B-A	62	440	0.140	62	0.2	9.695	A
C-AB	46	670	0.069	46	0.1	6.210	A
C-A	130			130			
A-B	58			58			
A-C	189			189			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	73	608	0.119	73	0.1	7.257	A
B-A	62	440	0.140	62	0.2	9.703	A
C-AB	46	670	0.069	46	0.1	6.205	A
C-A	130			130			
A-B	58			58			
A-C	189			189			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	59	624	0.095	59	0.1	6.893	A
B-A	50	455	0.111	50	0.1	9.074	A
C-AB	36	662	0.054	36	0.1	6.190	A
C-A	108			108			
A-B	48			48			
A-C	155			155			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	50	634	0.078	50	0.1	6.654	A
B-A	42	466	0.090	42	0.1	8.661	A
C-AB	29	657	0.044	29	0.1	6.185	A
C-A	91			91			
A-B	40			40			
A-C	129			129			

Existing Layout - 2029 Base, PM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cemetery Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cemetery Road / School Street	T-Junction	Two-way	Two-way	Two-way		2.42	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.42	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D4	2029 Base	PM Peak Hour	ONE HOUR	15:45	17:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Street (E)		✓	211	100.000
B - Cemetery Road		✓	83	100.000
C - Hemingfield Road (W)		✓	275	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	61	150
	B - Cemetery Road	36	0	47
	C - Hemingfield Road (W)	190	85	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	7	1
	B - Cemetery Road	0	0	4
	C - Hemingfield Road (W)	2	4	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	6.49	0.1	A
B-A	0.10	9.66	0.1	A
C-AB	0.18	6.34	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	35	650	0.054	35	0.1	6.086	A
B-A	27	445	0.061	27	0.1	8.599	A
C-AB	81	691	0.117	80	0.2	6.102	A
C-A	126			126			
A-B	46			46			
A-C	113			113			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	641	0.066	42	0.1	6.250	A
B-A	32	431	0.075	32	0.1	9.020	A
C-AB	101	703	0.144	101	0.2	6.193	A
C-A	146			146			
A-B	55			55			
A-C	135			135			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	52	629	0.082	52	0.1	6.489	A
B-A	40	412	0.096	40	0.1	9.657	A
C-AB	132	720	0.184	132	0.3	6.335	A
C-A	171			171			
A-B	67			67			
A-C	165			165			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	52	628	0.082	52	0.1	6.491	A
B-A	40	412	0.096	40	0.1	9.661	A
C-AB	132	720	0.184	132	0.3	6.341	A
C-A	170			170			
A-B	67			67			
A-C	165			165			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	42	641	0.066	42	0.1	6.254	A
B-A	32	431	0.075	32	0.1	9.029	A
C-AB	101	703	0.144	102	0.2	6.198	A
C-A	146			146			
A-B	55			55			
A-C	135			135			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	35	650	0.054	35	0.1	6.092	A
B-A	27	445	0.061	27	0.1	8.615	A
C-AB	81	691	0.117	81	0.2	6.117	A
C-A	126			126			
A-B	46			46			
A-C	113			113			

Existing Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings), AM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cemetery Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cemetery Road / School Street	T-Junction	Two-way	Two-way	Two-way		2.61	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.61	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D5	2029 Predicted (Sensitivity Test, 520 Dwellings)	AM Peak Hour	ONE HOUR	07:45	09:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Street (E)		✓	234	100.000
B - Cemetery Road		✓	128	100.000
C - Hemingfield Road (W)		✓	199	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	53	181
	B - Cemetery Road	56	0	72
	C - Hemingfield Road (W)	151	48	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	0	2
	B - Cemetery Road	2	0	7
	C - Hemingfield Road (W)	1	7	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	7.25	0.2	A
B-A	0.15	10.12	0.2	B
C-AB	0.10	6.17	0.2	A
C-A				
A-B				
A-C				

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	638	0.085	54	0.1	6.586	A
B-A	42	454	0.093	42	0.1	8.896	A
C-AB	44	667	0.065	43	0.1	6.108	A
C-A	106			106			
A-B	40			40			
A-C	136			136			

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	627	0.103	65	0.1	6.853	A
B-A	50	442	0.114	50	0.1	9.378	A
C-AB	54	675	0.080	54	0.1	6.137	A
C-A	125			125			
A-B	48			48			
A-C	163			163			

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	610	0.130	79	0.2	7.248	A
B-A	62	424	0.145	61	0.2	10.115	B
C-AB	70	685	0.102	70	0.2	6.175	A
C-A	149			149			
A-B	58			58			
A-C	199			199			

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	79	610	0.130	79	0.2	7.252	A
B-A	62	424	0.145	62	0.2	10.123	B
C-AB	70	685	0.102	70	0.2	6.170	A
C-A	149			149			
A-B	58			58			
A-C	199			199			

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	65	626	0.103	65	0.1	6.859	A
B-A	50	442	0.114	51	0.1	9.389	A
C-AB	54	675	0.080	54	0.1	6.127	A
C-A	125			125			
A-B	48			48			
A-C	163			163			

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	638	0.085	54	0.1	6.601	A
B-A	42	454	0.093	42	0.1	8.918	A
C-AB	44	667	0.065	44	0.1	6.110	A
C-A	106			106			
A-B	40			40			
A-C	136			136			

Existing Layout - 2029 Predicted (Sensitivity Test, 520 Dwellings), PM Peak Hour

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	B - Cemetery Road - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	Cemetery Road / School Street	T-Junction	Two-way	Two-way	Two-way		2.51	A

Junction Network

Driving side	Lighting	Network delay (s)	Network LOS
Left	Normal/unknown	2.51	A

Traffic Demand

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)
D6	2029 Predicted (Sensitivity Test, 520 Dwellings)	PM Peak Hour	ONE HOUR	15:45	17:15	15

Demand overview (Traffic)

Arm	Linked arm	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A - School Street (E)		✓	232	100.000
B - Cemetery Road		✓	96	100.000
C - Hemingfield Road (W)		✓	290	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	61	171
	B - Cemetery Road	36	0	60
	C - Hemingfield Road (W)	199	91	0

Vehicle Mix

Heavy Vehicle %

		To		
		A - School Street (E)	B - Cemetery Road	C - Hemingfield Road (W)
From	A - School Street (E)	0	7	1
	B - Cemetery Road	0	0	3
	C - Hemingfield Road (W)	2	3	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.10	6.49	0.1	A
B-A	0.10	10.19	0.1	B
C-AB	0.20	6.40	0.3	A
C-A				
A-B				
A-C				

Main Results for each time segment

15:45 - 16:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	662	0.068	45	0.1	6.009	A
B-A	27	428	0.063	27	0.1	8.972	A
C-AB	87	692	0.126	87	0.2	6.111	A
C-A	131			131			
A-B	46			46			
A-C	129			129			

16:00 - 16:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	651	0.083	54	0.1	6.206	A
B-A	32	413	0.078	32	0.1	9.452	A
C-AB	110	704	0.156	110	0.2	6.221	A
C-A	151			151			
A-B	55			55			
A-C	154			154			

16:15 - 16:30

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	637	0.104	66	0.1	6.492	A
B-A	40	393	0.101	40	0.1	10.185	B
C-AB	144	722	0.200	144	0.3	6.398	A
C-A	175			175			
A-B	67			67			
A-C	188			188			

16:30 - 16:45

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	66	637	0.104	66	0.1	6.494	A
B-A	40	393	0.101	40	0.1	10.192	B
C-AB	144	722	0.200	144	0.3	6.404	A
C-A	175			175			
A-B	67			67			
A-C	188			188			

16:45 - 17:00

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	54	651	0.083	54	0.1	6.212	A
B-A	32	413	0.078	32	0.1	9.461	A
C-AB	110	705	0.156	110	0.3	6.233	A
C-A	151			151			
A-B	55			55			
A-C	154			154			

17:00 - 17:15

Stream	Total Demand (PCU/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-C	45	661	0.068	45	0.1	6.019	A
B-A	27	428	0.063	27	0.1	8.990	A
C-AB	88	692	0.127	88	0.2	6.128	A
C-A	131			131			
A-B	46			46			
A-C	129			129			

APPENDIX SCW 25

Summary Response in relation to third party comments made in relation to Highways and Transportation matters

This document is prepared by Stuart Wilkins of Bryan G Hall, Consulting Civil and Transportation Planning Engineers. It provides a summary response on behalf of the appellant in relation to issues raised by third parties in representations to the planning application and the planning appeal. It summarises the principal issues raised and then responds accordingly.

- *Road safety on the roads in the vicinity of the school at drop off/pick up times*.

  I note the Ellis CE primary school is within a relatively short walking distance of the appeal site. It seems realistic to expect that the vast majority of trips between the site and the school would be on foot.

  In addition, the distribution of vehicular traffic from the site indicates that a large proportion of development generated trips would travel to/from the Dearne Valley Parkway, away from the site therefore not passing the primary school. The distribution of development traffic predicts that to the east of the Hemingfield Road/Cemetery Road junction along School Street, only 10 additional two-way vehicle trips are predicted to be generated during the weekday morning peak hour. In any event, the number of peak hour trips will be lower at school finish time, as the school finishing time will not coincide with the weekday evening peak hour on the network. I do not consider the proposed development would have any material negative impact on the operation of the highway network in the vicinity of the school.

- *Road layout in Hemingfield and impacts arising from the proposed development*

  I consider that in the vicinity of the site access, the proposals will improve the layout of Hemingfield Road, providing a widened northbound lane to accommodate on-street parking which takes place on the road on the opposite side from the site access and providing two new pedestrian crossing points on Hemingfield Road, comprising tactile paving and dropped kerbs. The proposed highway layout has been assessed by the Council and deemed acceptable in terms of highway safety and traffic impacts. In my view, the proposed development of the appeal site for housing is likely to have a traffic calming effect on Hemingfield Road, as the nature of the road frontage will change. I consider this a benefit of the proposed development.

- *The potential for impacts on people who walk through the site (on public rights of way) and along the existing public rights of way bordering Briery Meadows. It was noted that people use the routes for walking, running and cycling etc*.

As indicated by the Parameters Plan, both existing public rights of way through the site would be retained. They would be enhanced along their current alignment, with potential for widened routes benefiting from improved surfacing and lighting where appropriate.

- *In addition to other developments at Lundhill, the construction of 180 houses in the village and the potential for impacts relating to traffic delays and parking issues for residents.*

  The development of the former Wombwell School site at Lundhill has been accounted for in the appellant's assessment work as a committed development.

  I have demonstrated that the proposed development will not result in unacceptable delays at the junctions on the local highway network in the vicinity of and beyond the site, and that they will continue to offer a satisfactory level of provision post development.

  Parking provision within the site will be provided in accordance with local standards set by the planning authority. There will be no migration of residential or visitor parking into adjacent areas.

- *Proximity of the site access to an existing bend in the road which experiences parked vehicles on the side opposite the site access.*

  I have demonstrated that an acceptable junction design, including appropriate visibility splays based on the prevailing speed of traffic, is achievable at the location of the proposed site access. The proposals will improve the layout of Hemingfield Road at the site access, providing a widened northbound lane (4.0 metres wide) to accommodate on-street parking which currently takes place on the roadside and footway opposite the site access. The additional width will allow through traffic to safely pass a parked car even if a vehicle is waiting to turn right into the site.

- *Bus stop location and whether a lay-by is required*

  A kerbside stop is acceptable as it allows stopped buses to continue more easily. There is no need for a layby to ensure safe and suitable operation of the relocated bus stop.

- *The capacity of the proposed site access to accommodate full development across the site. Access onto Beech House Road. Reference to Personal Injury Collisions (PIC's) on the bend to the south of the proposed site access.*

  A sensitivity test of the operation of the site access junction has been undertaken and approved by the Local Highway Authority. It demonstrates that

the proposed site access junction would have sufficient capacity to accommodate development across the residual part of the area designated as safeguarded land. It is possible that full development of the safeguarded land would additionally be served by an access to the east onto Beech House Road, which in turn provides access onto Lundhill Road towards Wombwell. The work I have undertaken (to the Council's satisfaction) shows there does not need to be an eastern access to serve development of the safeguarded land.

Personal Injury Collision data has been reviewed for the last 5 years available data, and this review concludes that there are no existing road safety issues on the road network in the immediate vicinity of the site.

- *Within the site the illustrative designated site wide plan shows two parallel roads running east west and a third party suggested this could be reduced to a single road*.

  The appellant is not seeking approval for the detail of the internal site layout as part of the outline planning application. This is a matter for approval at a future reserved matters stage. The illustrative material has been prepared to show how the appeal site will not prejudice access to the rest of the safeguarded land in terms of design or capacity, in accordance with relevant guidance.

- *Potential impact from construction vehicles*.

  A Construction Traffic Management Plan will need to be approved pursuant to a condition of the planning permission, which will be prepared to manage construction trips to and from the site in order to minimise any disruption. At this stage it is considered likely that all construction related traffic will access the site from the A6195 Dearne Valley Parkway

- *Reference to the proposed access to the site being from land that is approximately 2 metres below the level of the existing road*.

  The level difference between the site and the road will be addressed as part of the detailed design of the proposed site access arrangement, but a satisfactory vertical design for the site access can be achieved.

- *Ability of the route from Hemingfield to Lundhill/Wombell to accommodate additional traffic*.

  It is predicted based on the likely traffic generation and distribution that to the east of the Hemingfield Road/Cemetery Road junction, only 10 additional two-way vehicle trips per hour are anticipated to be generated along School Street during the weekday morning and evening peak hours.

- *Road safety concerns were raised in relation to the ability of children to ride their bikes on streets and make their way to local parks*.

  Open space and play areas will be provided on the site and their locations will be subject to future reserved matters applications in accordance with the Parameters plan, which is for approval. Two crossing points comprising dropped kerbs and tactile paving are proposed on Hemingfield Road, one to the north of the site access and one on the southern frontage with Hemingfield Road. The public rights of way that pass through and close to the site will be maintained and enhanced as part of the scheme. It is agreed with the Local Highway Authority that the proposed development is acceptable in terms of highway impacts, including safety.

- *The potential of the proposals to widen the carriageway through the site access junction increasing southbound vehicle speeds*.

  A speed survey was undertaken on Hemingfield Road to the south of the site, which demonstrates that the 85th %ile speed for southbound vehicles on Hemingfield Road is 28.3mph, below the speed limit. As vehicles travel eastbound through the bend, the existing bend in the road has a traffic calming effect.

  The access proposals narrow the southbound carriageway from 3.5 metres to 3 metres, which is likely to further reduce vehicle speeds southbound on Hemingfield Road.

- *It was observed that new houses have been built or are in the process of being built within a 1 mile radius of Hemingfield. Including 400 houses off Lundhilll Road, Wombwell (Persimmon and Miller Homes developments) and 61 houses off Hough Lane in Wombwell, with a planning application in for 83 dwellings on land North of Wood Walk, Wombwell."*

  I have accounted for the former Wombwell School (Miller Homes) site for a residential development of 235 dwellings as committed development.

  The majority of vehicle trips from the Persimmon development will have been captured by the traffic surveys. The other two sites will have minimal impact on traffic flows on roads in the vicinity of the site.

- *The ability of traffic travelling up or down Hemingfield Road, including traffic turning right onto Briery Meadows, to see the traffic turning in and out of the farm entrance*.

  The existing farm entrance will not provide vehicular access to the site for dwellings when the site is operational.

- *Consideration of instances where cars approaching Briery Hill southbound may cut the corner at the junction using the ghost island right turn lane to travel southbound.*

  There is an existing traffic island in place at the head of the right turn ghost island to protect right turning traffic into Briery Meadows. There have been no reported PIC's at this junction in the five years considered and the proposed development will not result in any additional turning movements at the junction.

- *Whether the proposed development would exacerbate existing road safety issues at the Hemingfield Road roundabout on the Dearne Valley Parkway.*

  PIC data has been reviewed for the study area from October 2019 to September 2024. It revealed there are no inherent road safety issues at the junction.

- *Reference to the traffic assessment using data from the 2011 census and not 2021 to calculate the trip generation of the site.*

  The TRICS database has been used to calculate trip rates for the proposed development not the census data.

  The likely distribution of the traffic predicted to be generated by the proposed development was determined using origin/destination 2011 Census Data. The 2021 Census was undertaken at a time when COVID restrictions were in place and many people worked from home and is not considered to be representative of normal travel patterns.

- *Time of the year when traffic surveys were undertaken*

  Traffic surveys were undertaken at a time which represented normal operating conditions outside of school holidays.

- *Consideration of accidents at the Hemingfield Road/Mellwood Grove junction*

  Personal Injury Collision data indicates no recorded PIC's within the immediate vicinity of this junction. It is agreed with the Local Highway Authority that the proposed development is acceptable in terms of highways impacts, including safety.

- *Reference to the proposed site layout indicating the creation of a through road within the site.*

  The internal layout within the site will be subject to a future reserved matters application.

- *Whether the proposed bus-stop location has the potential to create tailbacks within the village*

  Both the existing stop and the proposed stop are kerbside stops and as such the relocated stop will not result in additional tailbacks. It is not unusual or unacceptable for vehicles to have to wait from time to time to allow for buses stopping at bus stops.

- *The existence of residents currently parking partly on the footway on Hemingfield Road opposite the junction and there is a move to ban parking on footways*

  BMBC Highways have accepted the 4 metre northbound lane to accommodate existing on street parking on Hemingfield Road in the vicinity of the site access. It has been demonstrated that there would be sufficient carriageway width available for vehicles to pass should cars be parked fully within the carriageway.

- *Whether roads within the site are being designed to provide access to the development of the rest of the safeguarded land and whether such roads should be traffic calmed.*

  Approval for the detail of the internal site layout is not being sought as part of the outline planning application. The illustrative material has been prepared to show how the appeal site will not prejudice access to the rest of the safeguarded land in terms of design or capacity, in accordance with relevant guidance.

- *Operation of residential driveways at properties directly opposite the proposed site access.*

  This arrangement is commonplace and does not create issues in practice. The widened carriageway width may improve access to these driveways. In any event, the proposed access is considered acceptable, including by reference to its immediate surrounds, which have been considered as part of the design process and subject to Road Safety Audit and review by the Local Highway Authority.

- *The potential for use of the Ellis CE Primary School by residents on the development to result in increase in traffic on School Street.*

The proximity of the site to the primary school is a clear benefit of the sustainable location of the appeal site. I consider that parents will most likely walk their children to and from the Ellis CE Primary School.

- *Location of speed surveys*

  In accordance with the relevant guidance in the Design Manual for Roads and Bridges CA 185 'Vehicle speed measurement', the speed survey/ATC was undertaken at the location towards which drivers exiting the site would be looking for oncoming southbound vehicles, as they should be.

- *It is considered the open space area within the illustrative designated site wide plan will result in children seeking to cross Hemingfield Road to reach Hemingfield Recreation Ground.*

  The site layout is not being determined however, open space on site will decrease the need to cross the road to other open space.

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