

BOKLOK

LAND TO THE SOUTH OF LITTLEHAMPTON ACADEMY

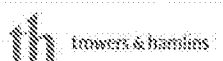
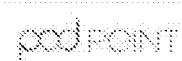
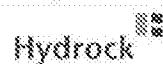
(Transport Assessment Addendum)

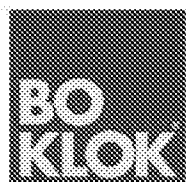
DOC: LTH-RGP-SW-XX-RP-Y-XX-6810 (P01)

May 2021



SKANSKA





TRANSPORT ASSESSMENT ADDENDUM

LAND SOUTH OF LITTLEHAMPTON ACADEMY, FITZALAN ROAD, LITTLEHAMPTON

Proposed Residential Development

Date: May 2021

Ref: 20/5433/TN07

1 INTRODUCTION

- 1.1 RGP is commissioned by BoKlok to provide highway and transport planning advice with respect to the proposed residential development of land to the south of Littlehampton Academy, located on Fitzalan Road in Littlehampton (the site).
- 1.2 Planning application LU/116/21/PL is currently being considered by Arun District Council (ADC), as a Local Planning Authority, for the proposed development of the site to provide 112 residential dwellings. In support of the planning application, RGP has submitted a detailed Transport Assessment (Ref: 20/5433/TS02) and Travel Plan (Ref: 20/5433/TP03) outlining the key transport-related aspects of the development.
- 1.3 Through the statutory consultation process, West Sussex County Council (WSCC), as County Highway Authority, has provided transport-related comments with respect to the transport-related proposals, confirming a number of aspects and requesting further information.
- 1.4 A copy of the submitted consultation response from WSCC dated 5th May 2021 is contained within Appendix A. The following key points are noted:
 - i) The proposed access arrangement is considered to comply with the relevant geometric design standards. Adequate spacing is considered to be achieved to the existing traffic signals to the south and the proposed roundabout to the north;
 - ii) The vehicular access has also been the subject of a Stage One Road Safety Audit as required by WSCC Policy. Whilst WSCC Highways are satisfied in principle with the Designer Organisations proposed response to the RSA problems, these would need to be formally set out within a RSA Response template as included within GG119 (the overarching guidance for Road Safety Audits);

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- iii) The retention of the existing access from Elm Grove is also noted. This is indicated as a pedestrian/cyclist/emergency access. The access is acceptable in principle and the future use should be controlled via condition;
- iv) The TA should at the very least include traffic distribution diagrams demonstrating how many trips are anticipated to be added to the A259/FLR roundabout to the north and B2187/FLR roundabout to the south. However, it is recognised that further formal capacity modelling of these junctions is unlikely but the potential increase in trips through these should be identified;
- v) The site is considered to satisfy paragraph 108 of the NPPF, in as much as it has taken appropriate opportunities to promote sustainable transport modes, given the location of the site, and that safe and suitable access can be achieved for all users.
- vi) The majority of the travel plan is acceptable. There are a few comments on detailed matters contained within this that may require alterations to the submitted document.
- vii) It is understood from the correspondence included in the TA, that the overall approach to parking has been agreed with Arun DC officers. Whilst it is for the Local Planning Authority to determine the overall acceptability of parking, in highway terms, WSCC Highways are generally satisfied that the reduced parking provision would not result in any highway safety consequences.

1.5 Most importantly, the comments from WSCC confirm that:

“There are no in principle objections to the proposals. There are a number of matters identified above that the developer should address prior to WSCC Highways providing a formal recommendation.”

1.6 This Transport Assessment Addendum has therefore been prepared to provide the further requested information outlined in WSCC’s comments and clarify any matters of detail identified.

2 ROAD SAFETY AUDIT RESPONSE REPORT

2.1 Paragraph 6 of WSCC’s comments confirms that:

“Whilst WSCC Highways are satisfied in principle with the Designer Organisations proposed response to the RSA problems, these would need to be formally set out within a RSA Response template as included within GG119 (the overarching guidance for Road Safety Audits). The RSA Response template should be submitted to WSCC Highways to enable these matters to be formally agreed.”

2.2 A formal Road Safety Audit (RSA) Response Report has therefore been prepared by RGP and is attached to this Addendum at Appendix B, for completeness.

3 TRAFFIC GENERATION & HIGHWAY CAPACITY

- 3.1 The comments confirm that the use of historic survey data outlined in the TA is accepted and in principle it is recognised by WSCC that the trips will be dispersed quickly across the network and as such the potential for severe impact is unlikely.
- 3.2 WSCC has requested further information including traffic distribution diagrams to confirm how many trips will be added to the network including the A259/Fitzalan Link Road roundabout to the north and the B2187/Fitzalan Link Road (FLR) roundabout to the south.
- 3.3 It is noted that no assessments of capacity were requested by WSCC through the pre-application consultation process. However, a capacity assessment of the proposed residential access junction with the future link road was undertaken (see Section 6.5 of RGP's TA) using industry standard capacity software and was found to operate well in capacity terms. These assessments included an assessment of the likely distribution of development based on the previously determined distribution of traffic on Fitzalan Road.
- 3.4 These assessments in the TA also included traffic flow diagrams of the which formed Appendix F of RGP's Transport Assessment. For the purposes of this assessment further traffic flow diagrams have been prepared to include the traffic flows for the A259/FLR roundabout junction to the north and the B2187/Fitzalan Link Road (FLR) roundabout to the south. A copy of the updated flow diagrams is attached to this Addendum at Appendix C.

Baseline Traffic Flows

- 3.5 As detailed in RGP's Transport Assessment, the future predicted traffic profile of the Fitzalan Link Road, once opened, has historically been assessed in considerable detail through previous approvals for the Link Road and the North Littlehampton Site through planning application LU/47/11. Subsequently, a Reserved Matters application LU/234/16/RES was approved in 2016 and included the detailed design aspects of the Link Road, on the basis of the approved future traffic flows. The use of this data has been confirmed as acceptable by WSCC through pre-application comments and its more recent statutory consultation response. Traffic flow diagrams (Figure 4 and Figure 5) at Appendix C confirm the '2016 base' traffic flows and turning counts at both junctions, extracted from the assessments of LU/47/11.

Traffic Growth

- 3.6 The previous assessments within the TA include an allowance for traffic growth to provide an indication of the likely traffic flows on the Fitzalan Link Road at the time of the planning application (2021) and to account for any traffic growth and additional development taking place locally since 2016. The '2021 base' traffic scenario was derived using traffic growth calculations extracted from the TEMPro database. This method of assessment is standard practice and is considered to be acceptable to WSCC.

- 3.7 Since the previous assessment, it has been established that the opening year of the site will be 2023. A further assessment of growth up to this point has therefore be applied, for completeness. A copy of the TEMPro outputs form Appendix D. The derived TEMPro growth factors of 1.0917 and 1.0915 for morning and evening peak hours respectively have therefore been applied to the 2016 observed traffic flows to forecast future traffic flows. The AM and PM peak hour traffic flows for the '2023 Base' are shown on Figure 6 and Figure 7 at Appendix C.

Proposed Development Traffic Flow & Distribution

- 3.8 As detailed in Table 5.1 of RGP's Transport Assessment, the proposed development would generate the following levels of peak hour traffic movements:

Time Period	Arrivals	Departures	Two-way
AM Peak Hour (08:00-09:00)	14	39	53
PM Peak Hour (17:00-18:00)	35	16	51

Table 1 Proposed Traffic Movements (Extract from Table 5.1 of the Transport Assessment)

- 3.9 In terms of the distribution of the proposed traffic flows, this has been determined using the directional proportions of the baseline traffic flows at Appendix C. The following directional traffic flows expected are summarised in Table 2.

Time Period	Arrivals		Departures	
	From north	From south	To north	To south
AM Peak Hour (08:00-09:00)	8 (56%)	6 (44%)	17 (44%)	22 (56%)
PM Peak Hour (17:00-18:00)	16 (46%)	19 (54%)	9 (54%)	7 (46%)

Table 2 Proposed Development Traffic Distribution (Turning Movements)

- 3.10 The full 'with development' traffic flows on the local highway network are shown on Figure 12 and Figure 13 attached hereto.

Traffic Impact

- 3.11 As detailed on the attached traffic flows diagrams the following levels of traffic and the percentage increases in traffic are confirmed for the two junctions identified by WSCC. It is noted that the capacity assessment of these roundabouts undertaken through the assessments of the link road (LU/47/11) confirmed that both junctions would operate with suitable capacity. The results of the capacity assessments (extracted from the TA for LU/47/11) are attached at Appendix E, for information purposes.

Roundabout Junction	Base 2023	With Dev' Flows	Net Change
AM Peak Hour (08:00-09:00)			
A259/Fitzalan Road/Lyminster By-Pass	3227	3252	+25 (0.77%)
Fitzalan Road/East Street	1717	1744	+27 (1.55%)
PM Peak Hour (17:00-18:00)			
A259/Fitzalan Road/Lyminster By-Pass	3402	3427	+25 (0.73%)
Fitzalan Road/East Street	1784	1809	+25 (1.38%)

Table 3 Net Traffic Impact

- 3.12 As confirmed above, the proposed development would have a negligible increase in traffic at both junctions, with the greatest increase of 1.5%. As confirmed by the 'West Sussex County Council Transport Assessment Methodology', the following parameters confirm the need for further capacity modelling of junctions:

• Generally the study area will include all junctions where there is a predicted increase in total entry flows of 30 or more vehicles in any hour ' or if the junction already experiences peak period congestion an increase of 10 or more vehicles ' as a result of the development proposals: •

- 3.13 As confirmed by the previous capacity assessments at Appendix E, the existing junctions would not operate with any peak period congestion. As indicated in Table 3 above, the proposed development would no result in an increase of more than 30 vehicle movements through the junctions. Therefore, no further capacity assessment is considered necessary.

4 TRAVEL PLAN COMMENTS

- 4.1 The consultation response from WSCC includes minor comments on the Travel Plan, including timings of the undertaking of surveys and the formal commitment to the measures identified. It is suggested that a final version of the Travel Plan document is secured through an appropriate planning condition and implemented prior to occupation of the dwellings, with all necessary details to be confirmed once a formal construction programme has been established and target dates for occupancy are known.

5 INTERNAL ROAD ADOPTION

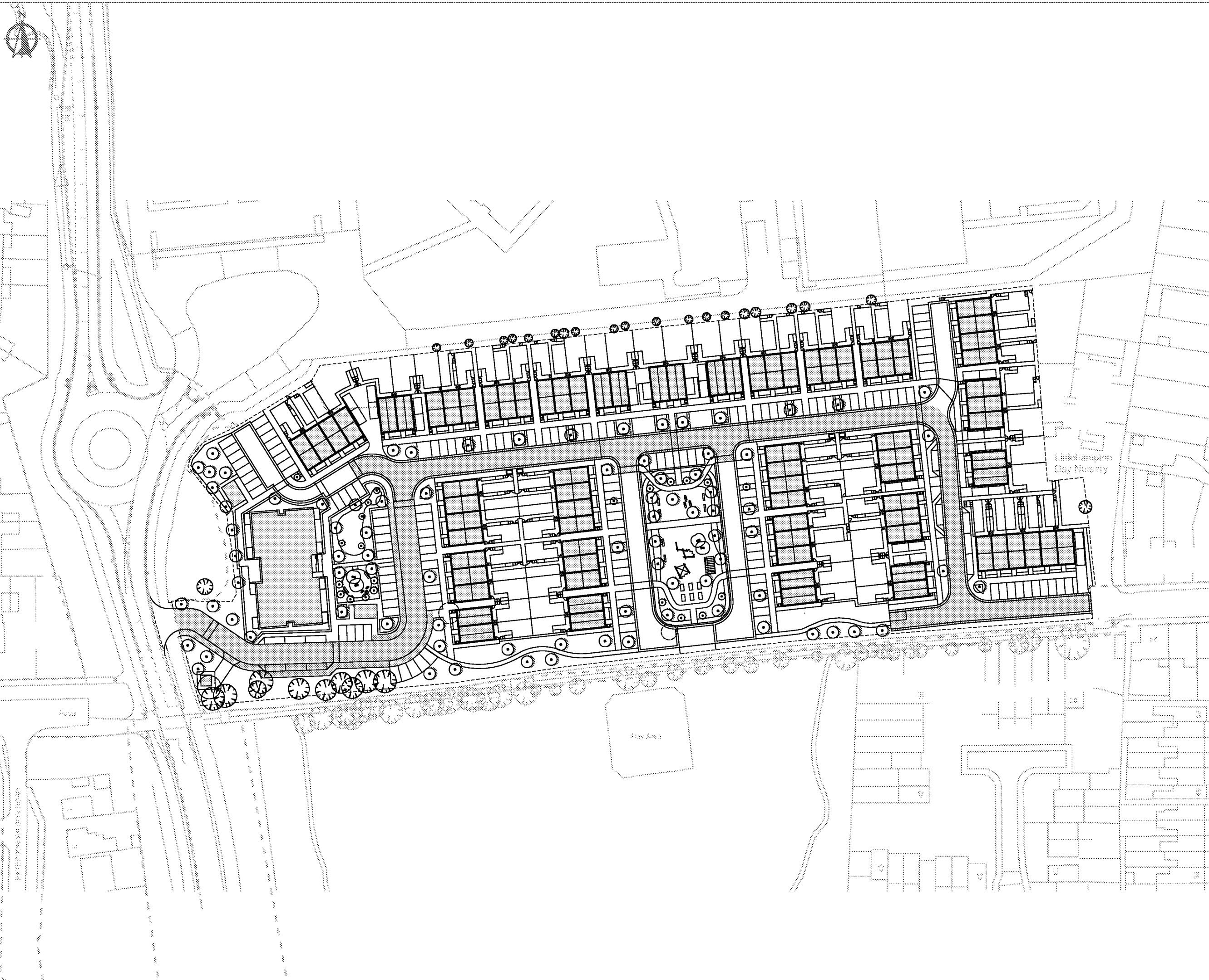
- 5.1 Whilst the adoption of the proposed access roads is not a material planning consideration, WSCC has requested further information with respect to the intended adoption of the internal road network. Whilst the full extent of adoption has not been determined by the Applicant, the internal roads that may become adopted have been designed with consideration of adopted standards. Drawing 6800 attached hereto illustrates the extents of these streets that have been designed as such.

- 5.2 The design of these routes was determined following a pre-application meeting with WSCC held on the 16th December 2021 to specifically discuss the design parameters for adoption. As confirmed in WSCC's latest comments, the principle of the layout is considered to satisfy current guidance within Manual for Streets.
- 5.3 As illustrated on the attached drawing, the access road is provided with footways for the initial section of the site, before becoming an adopted shared surface. Footpaths would also be provided within the private (unadopted) areas, segregated from the shared surface, providing direct access to dwellings and through landscaped areas and play space. With respect to WSCC's specific comments, these are confirmed as follows:
- 2 All private car parking spaces running immediately adjacent to the carriageway edge would be provided with a minimum 0.5 metre margin, as illustrated on drawing 6800. A copy of the more detailed Landscape GA plans is also attached at Appendix F for reference;
 - 2 All sections of footway to potentially be adopted is sited adjacent to the carriageway edge to avoid private spaces being 'sandwiched' between adopted areas. It is noted that the three spaces close to the entrance of the site are proposed for adoption, which would include the car club spaces to ensure that they can be controlled and maintained by the Highway Authority, in liaison with the car club operator, in perpetuity;
 - 2 As confirmed by WSCC, a single car club space would be marked out with a traffic regulation order to be put in place on to reserve the additional space for the use by a car club in the future. Full details of the car club spaces would be provided through the full Travel Plan.
- 5.4 It is therefore concluded that the proposed layout conforms with relevant design guidance for adoption and subject to confirmation of the extents of adoption would not require any material changes to the layout for it to be adopted. The full extents of adoption would be discussed and agreed with the Highway Authority post-planning.

6 OUTLINE CONSTRUCTION MANAGEMENT PLAN

- 6.1 As confirmed by WSCC, an outline Construction Environmental Management Plan (CEMP) has been submitted and will be finalised following the appointment of a Principal Contractor, with the full CEMP to be secured through a planning condition.
- 6.2 It is noted that WSCC has identified the contradictory times within 2.3.4 and 3.3.3. This has been corrected in the outline CEMP (Revision P03) and has been resubmitted to the LPA. All deliveries would avoid the peak times associated with the pupils arriving at the Littlehampton Academy. As confirmed by WSCC, the final CEMP will include further consideration of car parking provisions on site to ensure that all parking demand from contractors is met and no overspill of parking on the highway network occurs.





NOTES

This drawing has been prepared for the purpose of providing discussions and does not constitute a detailed design, drawing, or construction drawing. A Design Hazard Inventory has been prepared by RGP setting out the hazards which have been designed out. This is available upon request.

*** PROCEEDINGS OF AGONY ***

 PROPOSED EXTENT OF ADOPTION

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RESIDUAL HAZARDS

In addition to the hazards/risks normally associated with the type of work detailed on this drawing, please note the following residual hazards:

It is assumed that all work will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement.

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Client: Borlok

Project
Land to the south of
Littlehampton Academy

Highway Adoption Plan

Drawing No.	Rev.
6800	P04

Traces	Drawn By	Checked By	
1:1000	SJ	CB	AJ

BLIND DISTRICT COUNCIL 11/1 6/21/BI

APPENDIX A

WEST SUSSEX COUNTY COUNCIL CONSULTATION

TO:	Arun District Council FAO: Anita Gardner
FROM:	WSCC - Highways Authority
DATE:	5 May 2021
LOCATION:	Land South Of The Littlehampton Academy Fitzalan Road Littlehampton BN17 6ED
SUBJECT:	LU/116/21/PL Erection of 112 No. residential units with access from Fitzalan Road, open space, hard and soft landscaping works, internal roads/footways, car and cycle parking, substation, bin store and associated engineering and infrastructure works. This site is in CIL Zone 4 & is CIL Liable as new dwellings.
DATE OF SITE VISIT:	n/a
RECOMMENDATION:	More Information
S106 CONTRIBUTION TOTAL:	n/a

Introduction

1. The application is supported by way of a Transport Assessment (TA), Stage One Road Safety Audit (RSA), and Travel Plan. The scope of the TA has been commented on by WSCC Highways.
2. Reference is made within the TA to LU/55/15 (proposed 60 dwellings on the current application site). This planning permission has lapsed and as such is no longer implementable. In transport terms, no weight can be given to this previous application as it doesn't reflect a valid and implementable fallback position.

Access by Vehicular Modes

3. Vehicular access is shown from Fitzalan Road. This length of Fitzalan Road currently only provides access to the Littlehampton Academy. Planning permission has been granted and is the latter stages of being implemented, to enable Fitzalan Road to be extended northwards to a new roundabout junction on the A259. These works will also involve the provision of a new three arm roundabout incorporating the existing vehicular access into the Littlehampton Academy. It's anticipated that the northwards extension (known as the Fitzalan Link Road) will be complete and open to traffic in advance of the residential currently proposed being occupied. The vehicular access arrangement has consequently been viewed on this basis.

4. Vehicular access to the proposed development reflects that shown within LU/55/15. The acceptability of the vehicular access has been considered against the appropriate design guidance (namely Manual for Streets, in light of this section of the FLR being subject to a 30mph speed limit (the speed limit is intended to change to 40mph north of the Littlehampton Academy roundabout). The proposed access arrangement is considered to comply with the relevant geometric design standards. Adequate spacing is considered to be achieved to the existing traffic signals to the south and the proposed roundabout to the north.
5. The vehicular access has also been the subject of a Stage One Road Safety Audit as required by WSCC Policy. The RSA raises two problems both relating to visibility for vehicles emerging from the proposed access. The first problem refers to the potential for the visibility splay to cross 3rd party land and therefore for there to be the possibility that visibility would become obstructed. The designer has confirmed that the visibility splays are entirely within the adopted public highway and would not require 3rd party land. The second problem relates to the potential for vehicles associated with the Littlehampton Academy to obstruct visibility. With this problem, there is an existing scheme of no waiting at anytime restrictions that will be amended to suit the approved FLR road layout. The expectation is that there will be enforceable means in place to ensure vehicles cannot park within the visibility splays of the proposed access.
6. Whilst WSCC Highways are satisfied in principle with the Designer Organisations proposed response to the RSA problems, these would need to be formally set out within a RSA Response template as included within GG119 (the overarching guidance for Road Safety Audits). The RSA Response template should be submitted to WSCC Highways to enable these matters to be formally agreed.
7. The retention of the existing access from Elm Grove is also noted. This is indicated as a pedestrian/cyclist/emergency access. The access is acceptable in principle and the future use should be controlled via condition.

Trip Generation and Highway Capacity

8. The TA identifies that the site will generate an additional 53 two way movements in the AM peak period (0800-0900) and 51 two way movements in the PM peak period (1700-1800). It should be noted that these trip rates are extrapolated from surveys of other comparable residential developments undertaken prior to any restrictions imposed during the current Covid pandemic. The restrictions have enforced different ways of working, which may result in reduced need to travel.

The long term consequences on travel are accepted as unknown. The use of pre-Covid surveys for the purposes of the assessment are taken as representative and potentially worst case.

9. There is very limited further consideration of the impact of these trips, although in principle it's recognised that the trips will disperse quickly across the network and as such the potential for a severe impact is unlikely. Even so, the TA should at the very least include traffic distribution diagrams demonstrating how many trips are anticipated to be added to the A259/FLR roundabout to the north and B2187/FLR roundabout to the south. The TA does try to justify why the above requested information is not necessary. However the justification (based on the current development resulting only in a modest increase in vehicle movements compared with the previously consented scheme) is not accepted given the previous planning approval on the site has lapsed. It is recognised that further formal capacity modelling of these junctions is unlikely but the potential increase in trips through these should be identified.

Access by Non-vehicular Modes

10. There are no particular issues in terms of walking distances or provision for pedestrians from the site towards nearby services and facilities, including passenger transport. Likewise, for cycling, there are a range of services within reasonable distance. It is acknowledged that specific cycle infrastructure within the immediate area is limited; cyclists would have to share the carriageway with other vehicular traffic to reach certain destinations. The site wouldn't however generate such additional demands to warrant specific cycle improvements.
11. The site is considered to satisfy paragraph 108 of the NPPF, inasmuch as it has taken appropriate opportunities to promote sustainable transport modes, given the location of the site, and that safe and suitable access can be achieved for all users.
12. The majority of the travel plan is acceptable. There are a few comments on detailed matters contained within this that may require alterations to the submitted document.
 - It would be helpful to understand the potential build out duration. This is raised in respects of the commissioning of initial baseline travel monitoring, which is indicated to be commenced 6 months after full occupation. This could result in the baseline surveys being undertaken sometime after the first dwelling has been occupied. It may be more

appropriate to consider undertaking the baseline surveys once the site is 75% occupied.

- The 'Travel Plan Measures' section includes a comprehensive range of measures to encourage reduced car use. It would seem that these are only potential measures though rather than firm commitments. Nevertheless, the travel plan will need to employ some of these measures to achieve the identified targets. It is recommended that a final/implemented copy of the travel plan is provided to WSCC in due course once the travel plan co-ordinator is in post and all measures finalised.
- The final comment regarding the travel plan was that monitoring should be via the TRICS Standard Assessment Methodology rather than any alternative.

Layout and Car Parking

13. Whilst the adoption of the proposed access roads as public highway is not a material planning consideration, it would still be useful to understand the applicants intentions in respects of highway adoption. Where appropriate, comments are made regarding aspects of the design and highway adoption. It is accepted that some of these comments may not be applicable if the internal roads are being retained under private maintenance.
14. The internal roads are designed predominantly with footways segregated from the carriageway. Footways are generally 1.5 to 1.8 metres in width, with carriageways mainly 6 metres. Other than a few small areas, which are exclusively restricted to parking courts, there are no shared surfaces. Manoeuvring for a large refuse vehicle is also demonstrated. The principle of the carriageway and footway layout is considered to satisfy current guidance within Manual for Streets.
15. The only specific comment regarding the layout relates to specifics in terms of parking.
 - With those spaces running immediately adjacent to the carriageway edge, if the applicant's intention is to offer the roads for adoption but to allocate parking spaces to specific properties, a margin of at least 0.5 metre would be required between the carriageway edge and what will then have to be private parking spaces (as allocated parking cannot be provided within the public highway). This margin would be required to enable WSCC to maintain the highway edge.

- With respects to the above point, it should be noted that if the spaces are to be allocated/private, the preference would be for the footway (which is likely to be adoptable) to run adjacent to the carriageway edge (which would also be adoptable). The issue with the layout as shown is that this introduces the potential for private car parking spaces to be sandwiched between the adopted footway and carriageway. Again, comments are made on the basis that the layout will be adopted, which may not be the case.
 - Car club parking spaces are also indicated. From the correspondence, the car club operator is willing to operate a single vehicle from the site initially, increasing to two vehicles if demand justifies it. It's recommended that only a single car club space is initially marked out. If the roads are to be offered for adoption, a traffic regulation order would be required to reserve the respective parking space for use the car club use.
16. The applicant has reviewed the overall number of parking spaces against the Arun DC parking standards. Based on adopted standards 188 car parking spaces would be required. The site provides 178. Justification for the reduced level of parking includes the sustainable location promoting less car dependency and inclusion of a number of unallocated (39 plus 10 intended for visitors), and therefore flexible use parking spaces. It is understood from the correspondence included in the TA, that the overall approach to parking has been agreed with Arun DC officers.
17. Whilst it is for the Local Planning Authority to determine the overall acceptability of parking, in highway terms, WSCC Highways are generally satisfied that the reduced parking provision would not result in any highway safety consequences. If parking is insufficient, there are limited opportunities for overflow parking to take place outside the development in the immediate vicinity. This may consequently lead to inappropriate and anti-social parking within the development. The LPA may wish to request specific measures to deter parking on landscaped areas and verges (e.g. bollards or fencing).

Other Matters

18. The Construction Management Plan submitted with the current application is noted. It's understood that the CMP will be updated following the appointment of a principal contractor. The submitted document is therefore taken as draft. At this stage, the only comments are the contradictory times within 2.3.4 and 3.3.3; deliveries must avoid the peak times associated with the pupils arriving at the Littlehampton Academy. The limited provision for contractor parking is also a concern. There is no

possibility for overflow parking to occur on Fitzalan Road due to the waiting restrictions. Parking along Elmgrove Road is already under pressure so opportunities for overflow parking along here are limited. Likewise, Cornwall Road (to the east) already experiences parking pressures. The nearest public car park (St Martins) is a short stay facility and a reasonable walk away. Within the final CMP, it would need to be quite clear how contractor car parking demands will be met.

Summary

19. There are no in principle objections to the proposals. There are a number of matters as identified above that the developer should address prior to WSCC Highways providing a formal recommendation.

Ian Gledhill
West Sussex County Council – Planning Services

APPENDIX B

ROAD SAFETY AUDIT RESPONSE REPORT

LAND SOUTH OF LITTLEHAMPTON ACADEMY, FITZALAN ROAD, LITTLEHAMPTON

Date: May 2021

Ref: 20/5433/DRR07

AUDIT DETAILS

Audit Title:	Land South of Littlehampton Academy
Audit Stage:	Stage 1
Date:	December 2020
Document Reference and Revision:	RW-KS-20-3251-RSA 1
Prepared By:	The Safety Forum

AUTHORISATION SHEET

Prepared by:	Design Organisation
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Position:	Associate
Signed:	
Organisation:	RGP
Date:	7 th May 2021
Approved by:	Overseeing Organisation
Name:	Ian Gledhill
Position:	West Sussex County Council / Planning Services
Signed:	
Organisation:	West Sussex County Council
Date:	

INTRODUCTION

The development proposals comprise proposed access arrangements and off-site works associated with the proposed redevelopment of land to the south of Littlehampton Academy. The highway proposals include formation of a new access to serve 112 residential dwellings on the site.

At the request of West Sussex County Council (WSCC) as the Overseeing Organisation to this RSA process, an independent Stage 1 Road Safety Audit (RSA) has been carried out. The RSA report has been prepared by independent team members of The Safety Forum Limited (TSF). A copy of the Stage 1 Road Safety Audit (Ref: RW-KS-20-3251-RSA1) is attached at Appendix A.

RGP, as the Design Organisation, has prepared this Road Safety Audit Response Report to address the items raised within the Stage 1 Road Safety Audit. This Road Safety Audit Response Report has been prepared in accordance with the Design Manual for Roads and Bridges 'General Information' document GG 119 'Road Safety Audit'.

GG 119 confirms that:

„The objective of the road safety audit is to identify aspects of engineering interventions that could give rise to road safety problems and to suggest modifications that could improve safety. It is important to note that road safety audit is not intended to be a technical check of compliance with requirements:.

RGP, as the Design Organisation, has therefore fully considered the problems and recommendations raised within the Stage 1 RSA report mindful of the above paragraph. This RSA Response Report includes all the problems raised and recommendations made by the Road Safety Audit Team and provides RGP's response to these issues.

ITEMS CONSIDERED

The Stage 1 Road Safety Audit was undertaken on the scheme detailed in the following RGP documentation submitted to The Safety Forum.

Drawing No.	Revision	Title
2020/5433/001	P1	Proposed Access Arrangement - Current Link Road
2020/5433/002	P1	Proposed Access Arrangement - Future Link Road
LTH-EC E-XX-GL-SK-A-SL-5000	P07	Illustrative Site Plan (prepared by EC E Architecture)

In accordance with the requirements of GG 119, a Road Safety Audit Brief (Ref: BOKL/20/5433/RSA B1) was prepared by Design Organisation and issued to the Audit team, including all required information, prior to commencement of the RSA report process.

MATTERS ARISING FROM THE STAGE I ROAD SAFETY AUDIT

Problem 3.1: 2020/5433/001 - Existing Link Road Alignment

Location:	Verge to back of footway north of proposed access.
Summary:	Possible obstruction to visibility. The visibility splay for the proposed development site access junction passes over private land to the north. Any obstructions to visibility here such as landscaping/vegetation or development could obscure visibility between traffic exiting the school and vehicles exiting the development access onto Fitzalan Road. This could lead to failure to give-way type collisions.
Audit Team Recommendations:	Ensure that adequate visibility splays are maintained clear of any obstruction.

Design Team Response

The Audit team raised concern that the proposed visibility splays looking to the north (current alignment of the Fitzalan Link Road) would cross over private land. However, as confirmed by drawing 6801 and the Highway Boundary records at Appendix B, the proposed visibility splays would cross land that is entirely public highway, with no requirement for the use of third-party land.

Problem 3.2: 2020/5433/001 - Existing Link Road Alignment

Location:	Fitzalan Road south of proposed access.
Summary:	Queuing traffic at school collection time. During the site visit the Audit team observed traffic to be waiting on Fitzalan Road, queuing to past the controlled crossing on Fitzalan Road. This traffic was associated with school collection. The Audit Team are concerned that should the development be occupied whilst this queuing / waiting persists then northbound vehicles on Fitzalan Road entering the development may drive on the wrong side of the road to access the development. This would place them at risk of conflict with oncoming traffic from the development or the school.
Audit Team Recommendations:	Prevent or deter waiting or queuing on Fitzalan Road associated with the school.

Design Team Response

The Audit Team has stated that it observed a level of queuing along the link road from the Academy. It is considered likely that this is a temporary byproduct of the current functionality of the Fitzalan Road (effectively forming a cul-de-sac just for the Academy) whilst the link road is being constructed.

The proposed Link Road is due for completion and will likely be operational before the opening of the development. However, the existing link road includes 'no waiting at any time' restrictions that provide the enforceable means to ensure vehicles cannot park or wait within the visibility splays of the proposed access.

Notwithstanding the existing situation, the proposed development would principally generate traffic leaving the site during the morning period with little arrivals that would result in the overtaking manoeuvres suggested. During the PM peak hour when residents of the development are principally arriving home, the Academy activity is likely to be reduced and queuing less likely to occur. Therefore, in practice this arrangement is not likely to warrant a significant risk to safety.

Problem 3.3: 2020/5433/002 - Future Link Road Alignment

Location:	Verge to back of footway north of proposed access.
Summary:	Possible obstruction to visibility. The visibility splay for the proposed development site access junction passes over private land to the north. Any obstructions to visibility here such as landscaping/vegetation or development could obscure visibility between traffic exiting the school and vehicles exiting the development access onto Fitzalan Road. This could lead to failure to give-way type collisions.
Audit Team Recommendations:	Ensure that adequate visibility splays are maintained clear of any obstruction.

Design Team Response

The Audit team raised concern that the proposed visibility splays looking to the north (current alignment of the Fitzalan Link Road) would cross over private land. However, as confirmed by drawing 6802 and the Highway Boundary records at Appendix B, the proposed visibility splays would cross land that is entirely public highway, with no requirement for the use of third-party land.

Problem 3.4: 2020/5433/002 - Future Link Road Alignment

Location:	Fitzalan Road south of proposed access.
Summary:	Queuing traffic at school collection time. During the site visit the Audit team observed traffic to be waiting on Fitzalan Road, queuing to past the controlled crossing on Fitzalan Road. This traffic was associated with school collection. The Audit Team are concerned that should the development be occupied whilst this queuing / waiting persists then northbound vehicles on Fitzalan Road entering the development may drive on the wrong side of the road to access the development. This would place them at risk of conflict with oncoming traffic from the development or the school.
Audit Team Recommendations:	Prevent or deter waiting or queuing on Fitzalan Road associated with the school.

Design Team Response

The Audit Team has stated that it observed a level of queuing along the link road from the Academy. It is considered likely that this is a temporary byproduct of the current functionality of the Fitzalan Road (effectively forming a cul-de-sac just for the Academy) whilst the link road is being constructed.

It is noted that the existing scheme of 'no waiting at any time' restrictions that will be amended to suit the approved Fitzalan Link Road layout. The expectation is that there will be enforceable means in place to ensure vehicles cannot park within the visibility splays of the proposed access.

It is therefore considered that, following the completion of the Fitzalan Link Road and its opening to through-traffic, that these queues would dissipate. However, a further review of this aspect is suggested at Stage 2 (detailed design stage) to make sure that the proposed parking prevention measures are in place and suitable.

Notwithstanding the existing situation, the proposed development would principally generate traffic leaving the site during the morning period with little arrivals that would result in the overtaking manoeuvres suggested. During the PM peak hour when residents of the development are principally arriving home, the Academy activity is likely to be reduced and queuing less likely to occur. Therefore, in practice this arrangement is not likely to warrant a significant risk to safety.

DESIGN ORGANISATION STATEMENT

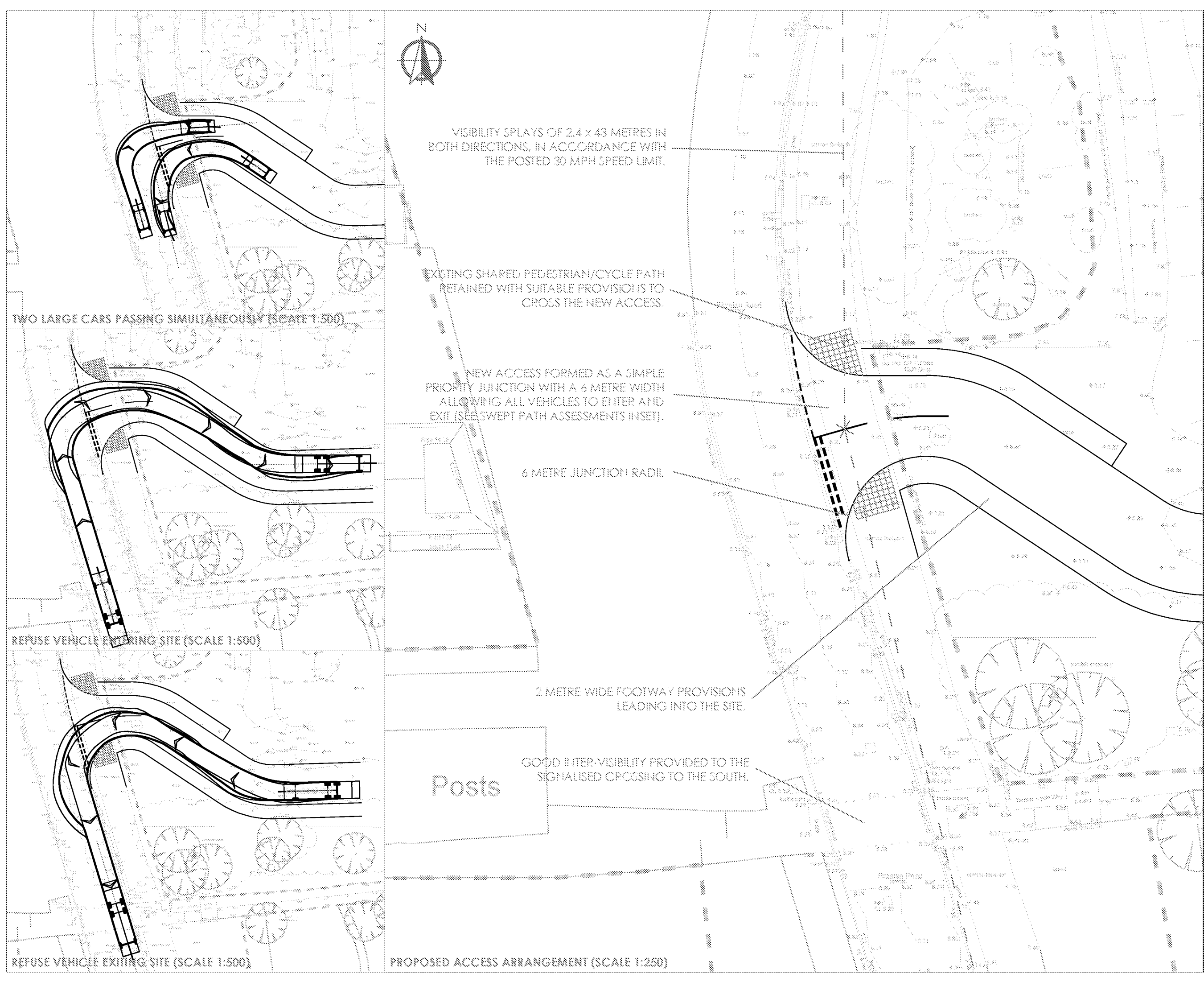
On behalf of the Design Organisation, I certify that the RSA actions identified in response to the Road Safety Audit problems in this Road Safety Audit have been discussed and agreed with the Overseeing Organisation.	
Name:	Stuart Jones
Signed:	
Position:	Associate
Organisation:	RGP
Date:	10 th May 2021

OVERSEEING ORGANISATION STATEMENT

On behalf of the Overseeing Organisation I certify that:	
1) the RSA actions identified in response to the Road Safety Audit problems in this Road Safety Audit have been discussed and agreed with the design organisation; and 2) the agreed RSA actions will be progressed.	
Name:	
Signed:	
Position:	
Organisation:	West Sussex County Council
Date:	



DRAWINGS



This drawing has been prepared for the purpose of providing discussions and does not constitute a detailed design drawing, or construction drawing. A Design Hazard inventory has been prepared by RGP setting out the hazards which have been designed out. This is available upon request.

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In addition to the hazards/risks normally associated with the type of work detailed on this drawing, please note the following residual hazards:

It is assumed that all works will be carried out by a competent contractor working, where appropriate, to an approved risk assessment and method statement.

[illegible]

Client			
Borlase			
Project			
Land to the south of Littlehampton Academy			
Drawing Title			
Proposed Access Arrangements Current Link Road Alignment			
Drawing No.		Rev.	
6901		P1	
7/2006	Drawn By	Checked and by	Author
As Shown	SJ	CB	AN

ARUN DISTRICT COUNCIL LU/16/21/PL



APPENDIX A



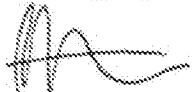
LAND SOUTH OF LITTLEHAMPTON ACADEMY PROPOSED RESIDENTIAL DEVELOPMENT ACCESS ARRANGEMENTS

Stage 1 Road Safety Audit

December 2020

RW-KS-20-3251-RSA1

Report title:	Land South of Littlehampton Academy. Proposed Residential Development Access Arrangements. RSA 1
Date:	14 December 2020
Document reference and revision:	RW-KS-20-3251-RSA1
Prepared by:	The Safety Forum
On behalf of:	West Sussex County Council

Revision Status	Prepared by: (Name)	Checked by: (Name)	Approved by: (Signature)	Date Approved:
Original	R Westhead	K Seymour		14/12/20
Designer's Response				
Authority's Response				
Audit Response				

Client:	
RGP	The Safety Forum Ltd
Shackleford Suite Mill Pool House Mill Lane Godalming GU7 1EY	PO Box 831 Godalming Surrey GU7 9HT
	Date: 14/12/20

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3.0 MATTERS ARISING FROM THIS STAGE 1 AUDIT.	6
4.0 AUDIT TEAM STATEMENT	8

APPENDIX A	Location Plan
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1.0 INTRODUCTION

- 1.1 This report results from a Stage 1 Road Safety Audit (RSA) carried out on the proposed access arrangements associated with a residential development on land to the south of Littlehampton Academy, off Fitzalan Road.
- 1.2 The highway proposals include: a new access junction serving the development site for 112 dwellings.

The proposals include the formation of a new all-purpose access off Fitzalan Road, along the western boundary of the site. Fitzalan Road currently serves as an access road to Littlehampton Academy where it terminates immediately to the north of the site. However, Fitzalan Road is currently in the process of being upgraded to form part of the 'Fitzalan Link Road' and will eventually form a section of the Lymminster By-pass. The upgrade of this link would result in changes across the site, to and from the north, including the realignment of the carriageway to provide a new roundabout junction.

The proposals therefore include phases of construction for the access, including an arrangement to tie in with the existing alignment of Fitzalan Road and a further option to tie in with the future alignment of Fitzalan Road. These are shown on RGP drawings 2020/5433/001 and 2020/5433/002 respectively, both subject to this Stage 1 Road Safety Audit.

From RSA Brief.

- 1.3 The Stage 1 RSA was carried out at the request of RGP on behalf of West Sussex County Council.
- 1.4 The Road Safety Audit Brief was supplied by RGP. The overseeing organisation is name of West Sussex County Council. The RSA Brief was accepted by the Audit Team as adequate to complete the RSA.
- 1.5 The Audit was carried out on 11th December 2020 by consultants working on behalf of The Safety Forum Limited. The Audit Team, which is established from The Safety Forum Ltd and independent of the project design team, has had no involvement with the project.

The Auditors were:

R Westhead - Team Leader MSoRSA, HE RSA Cert Comp

K Seymour - Team Member MCiHT, MSoRSA, BSc, PG Dip TS, HE RSA Cert Comp

- 1.6 The report has been prepared in accordance with General Principles and Scheme Governance General Information, GG 119, Road Safety Audit (Formerly HD 19/15).

-
- 1.7 The Audit consisted of a desktop study and a site visit. The site visit was carried out on 11th December 2020, between 14:45 and 15:30 hours by all members of the Audit Team together. The weather was dry and fine and the road surface was dry. Traffic conditions were quiet except as noted in paragraph 1.8 below.
- 1.8 Works to upgrade Fitzlan Road were in progress and the alignment of the link road to the north of the Littlehampton Academy could be seen. Traffic waiting to collect school pupils was observed to be waiting on the approach to the school in what would be the northbound approach to the roundabout junction on the link road for the Littlehampton Academy.
- 1.9 Issues relating to the health & safety of operatives constructing, operating or maintaining the highway are not covered by Road Safety Audit. Only issues relating to the design and construction of facilities for highway maintenance that may potentially contribute to a Road Safety Matter are considered by the Road Safety Audit process.

Road Safety Audit is not a technical check that the design conforms to Standards and/or best practice guidance. Design Organisations are responsible for ensuring that their designs have been subjected to the appropriate design reviews (including, where applicable, Walking, Cycling & Horse Riding Assessment & Review) prior to Road Safety Audit.

Road Safety Audit is not a check that the scheme has been constructed in accordance with the design.

Whilst reference is made to certain design standards, where safety may be compromised by a reduction in standard, this report is not intended to provide a design check. The Auditors have only reported on matters that might have an adverse effect on road safety in the context of the chosen design. No attempt has been made to comment on the justification of the scheme or the appropriateness of the design. Consequently, the Auditors accept no responsibility for the design or construction of the scheme.

- 1.10 The recommendations in this report are aimed at addressing the road safety problems; however, there may be other alternative acceptable ways to overcome a specific problem, when other practical issues are considered. The recommendations contained herein do not absolve the Designer of his/her responsibilities.
- 1.11 The Auditors would be pleased to discuss the acceptability of alternative solutions to problems identified during the Audit, and would encourage the Designer to consult them on this matter.
- 1.12 The Overseeing Organisation response to the RSA should be formally recorded and reported to the Designer and the RSA Team so that a record of the Audit process is contained in the As Built design pack to be provided and retained by the Overseeing Organisation on final completion.
- 1.13 All problems identified in this Road Safety Audit Report are indicated on a location plan in Appendix A

2.0 ITEMS CONSIDERED

2.1 The Road Safety Audit was undertaken on the scheme detailed in the following documentation.

Drawing No.	Rev	Title
-	-	Road Safety Audit Brief
2020/5433/001	P1	Proposed Access Arrangement ~ Current Link Road
2020/5433/002	P1	Proposed Access Arrangement ~ Future Link Road
LTH-ECE-XX-GL-SK-A-SL-5000	P07	Illustrative Site Plan

2.2 No departure from standards or other information was submitted to the Audit Team.

3.0 MATTERS ARISING FROM THIS STAGE 1 AUDIT.

Access Option to tie into existing alignment of Fitzlan Road. Drawing number 2020/5433/001 P1

3.1 PROBLEM

LOCATION: Verge to back of footway north of proposed access.

SUMMARY: Possible obstruction to visibility.

The visibility splay for the proposed development site access junction passes over private land to the north. Any obstructions to visibility here such as landscaping / vegetation or development could obscure visibility between traffic exiting the school and vehicles exiting the development access onto Fitzlan Road. This could lead to failure to give-way type conflicts.

RECOMMENDATION

Ensure that adequate visibility splays are maintained clear of any obstruction.

3.2 PROBLEM

LOCATION: Fitzlan Road south of proposed access.

SUMMARY: Queuing traffic at school collection time.

During the site visit the Audit Team observed traffic to be waiting on Fitzlan Road, queuing to past the controlled crossing on Fitzlan Road. This traffic was associated with school collection. The Audit Team are concerned that should the development be occupied whilst this queuing / waiting persists then northbound vehicles on Fitzlan Road entering the development may drive on the wrong side of the road to access the development. This would place them at risk of conflict with oncoming traffic from the development or the school.

RECOMMENDATION

Prevent or deter waiting or queuing on Fitzlan Road associated with the school.

Access Option to tie into future alignment of Fitzlan Link Road. Drawing number 2020/5433/002 P1

3.3 PROBLEM

LOCATION: Verge to back of footway north of proposed access.

SUMMARY: Possible obstruction to visibility.

The visibility splay for the proposed development site access junction passes over private land to the north. Any obstructions to visibility here such as landscaping / vegetation or development could obscure visibility between southbound traffic exiting the roundabout and vehicles exiting the development access onto Fitzlan Road. This could lead to failure to give-way type conflicts.

RECOMMENDATION

Ensure that adequate visibility splays are maintained clear of any obstruction.

3.4 PROBLEM

LOCATION: Fitzlan Road in area of access.

SUMMARY: Parking / waiting associated with school may obscure junction visibility.

The Audit Team are concerned that parking / waiting associated with the school may persist on Fitzlan Road following completion of the Fitzlan Link Road. Should parking / waiting occur around the access junction this may obscure junction visibility. The proposed Fitzlan Link Road alignment will significantly alter the character of the road and channel through traffic past the development access. This is likely to result in high traffic speeds than are currently experienced and could increase the risk of conflicts associated with parking that obscures visibility.

RECOMMENDATION

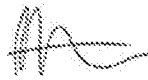
Ensure that visibility splays are maintained clear of any obstruction. Prevent or deter waiting or queuing on Fitzlan Road associated with the school.

4.0 AUDIT TEAM STATEMENT

4.1 We certify that this audit has been carried out in accordance with GG 119.

AUDIT TEAM LEADER

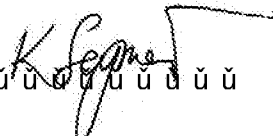
Name: R Westhead
Position: Audit Team Leader
The Safety Forum Ltd
PO Box 831
Godalming
Surrey
GU7 9HT

Signed: 

Date: 14 December 2020

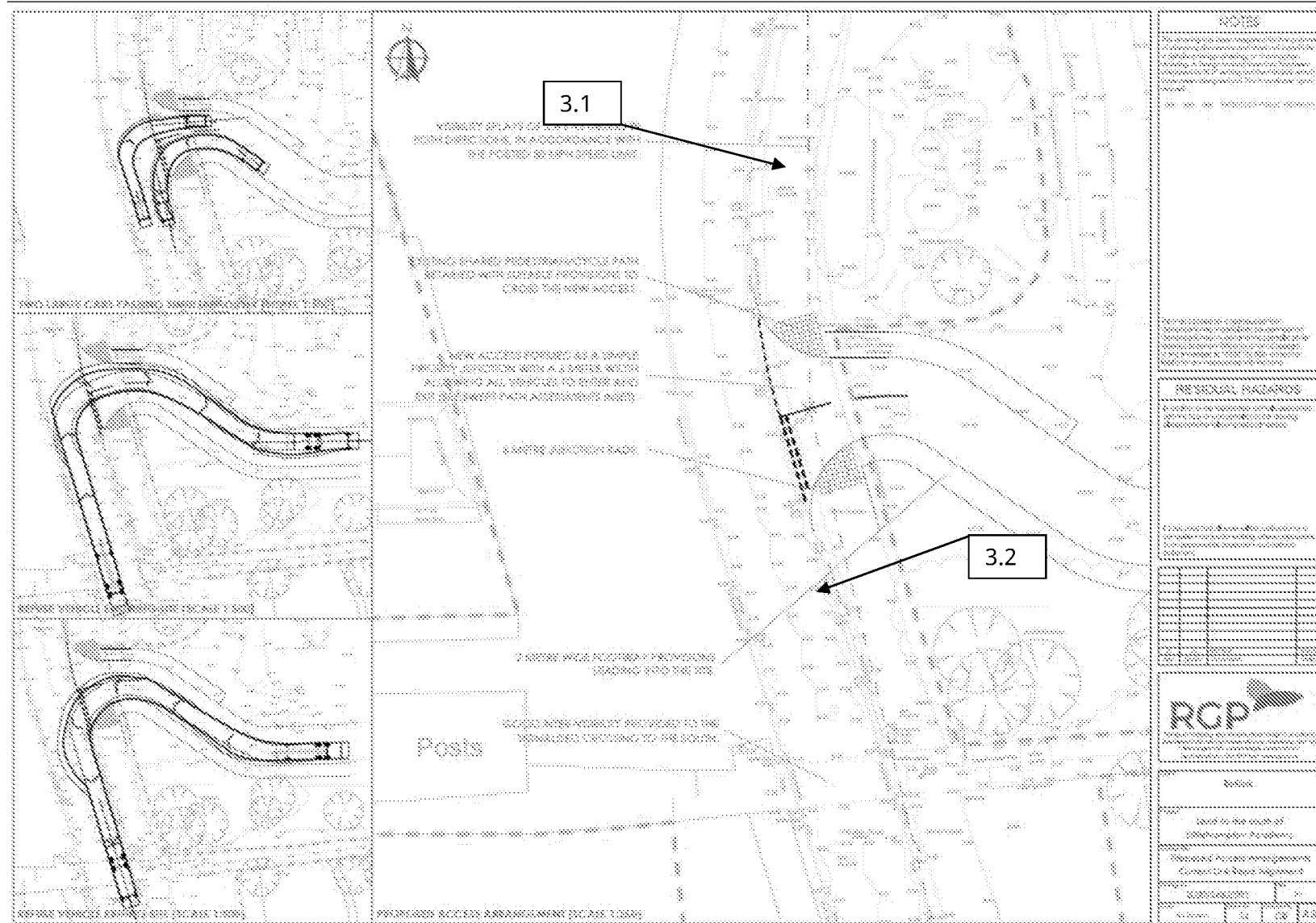
AUDIT TEAM MEMBER

Name: K Seymour
Position: Audit Team Member
The Safety Forum Ltd
PO Box 831
Godalming
Surrey
GU7 9HT

Signed:  ů ů ů ů ů ů ů ů

Date: 14 December 2020

APPENDIX A: LOCATION PLAN



APPENDIX B



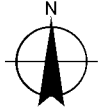
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Local Development
for Customers and Communities

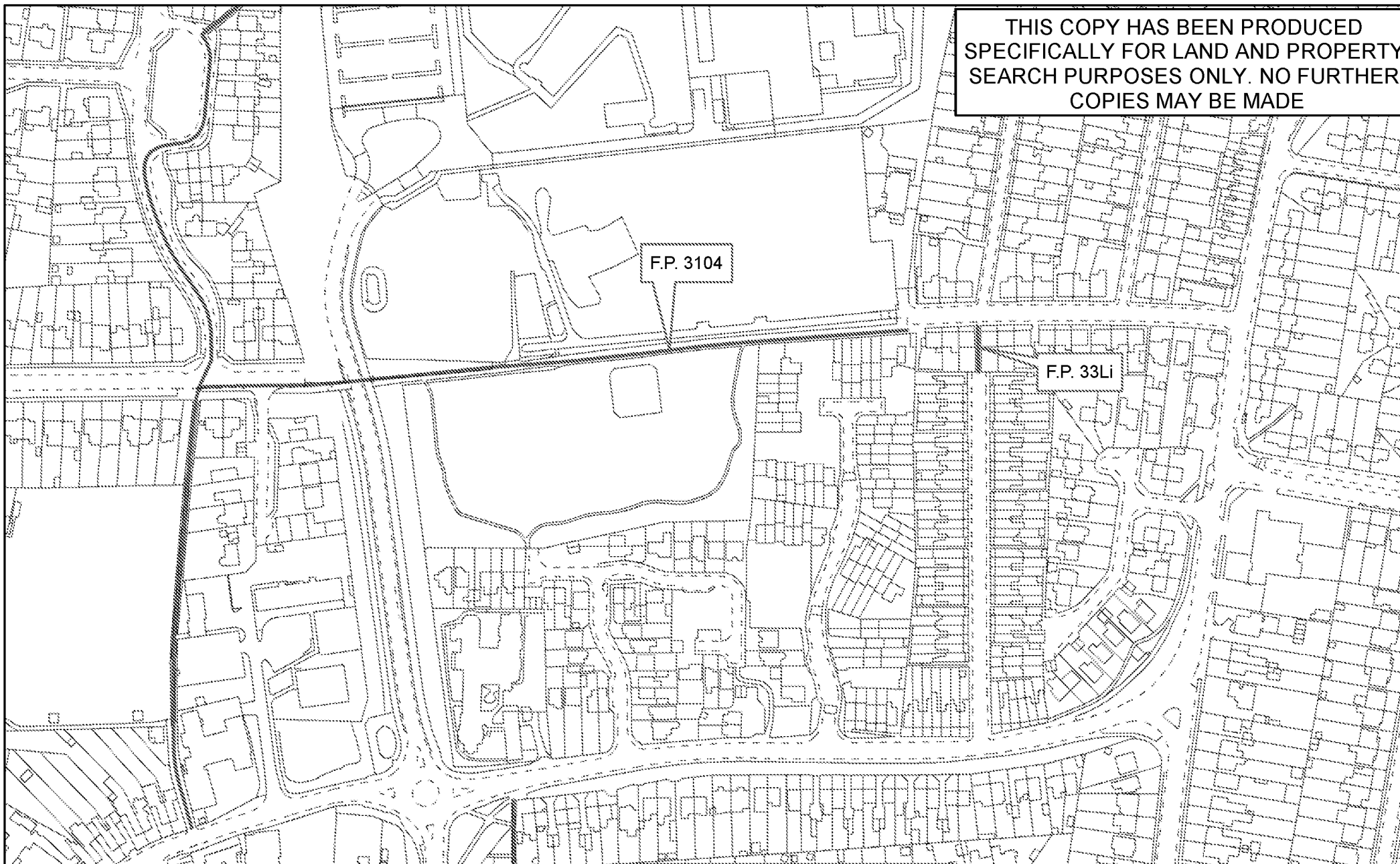
Information about the status of a highway, and in some circumstances the extent of the highway, may be taken from a number of sources held by the County Council. Unless taken from a legal agreement the information should be regarded as guidance only.

Date: 16/06/2020

Scale: 1:2,500



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--- Approx Route of Public Bridleway
--- Approx Route of Public Footpath

Local Development



1:2,500

APPENDIX C

LAND SOUTH OF LITTLEHAMPTON ACADEMY, LITTLEHAMPTON
BASE 2016 TOTAL TRAFFIC FLOWS
AM PEAK HOUR

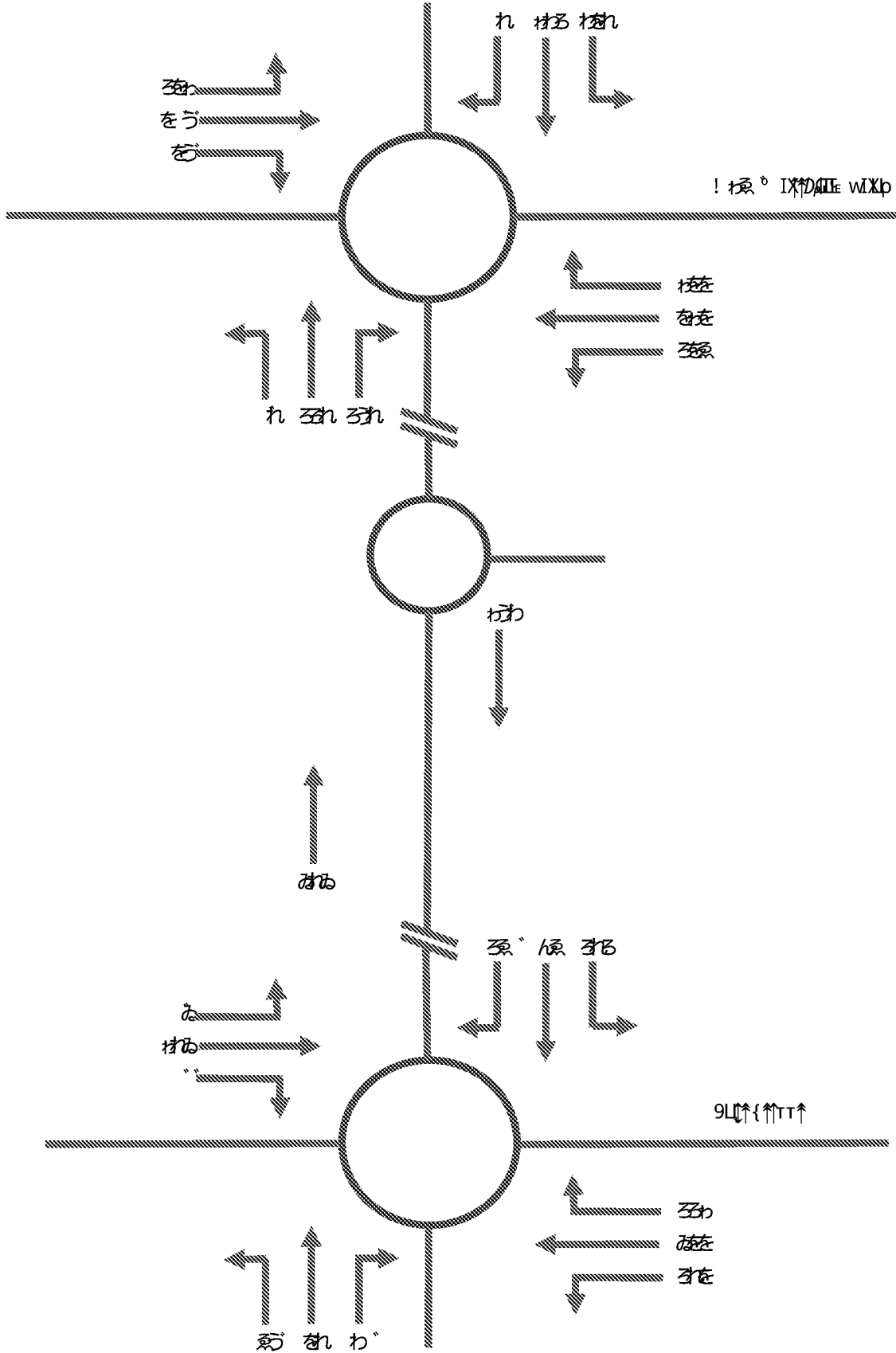


FIGURE 4



LAND SOUTH OF LITTLEHAMPTON ACADEMY, LITTLEHAMPTON
 BASE 2016 TOTAL TRAFFIC FLOWS
 PM PEAK HOUR

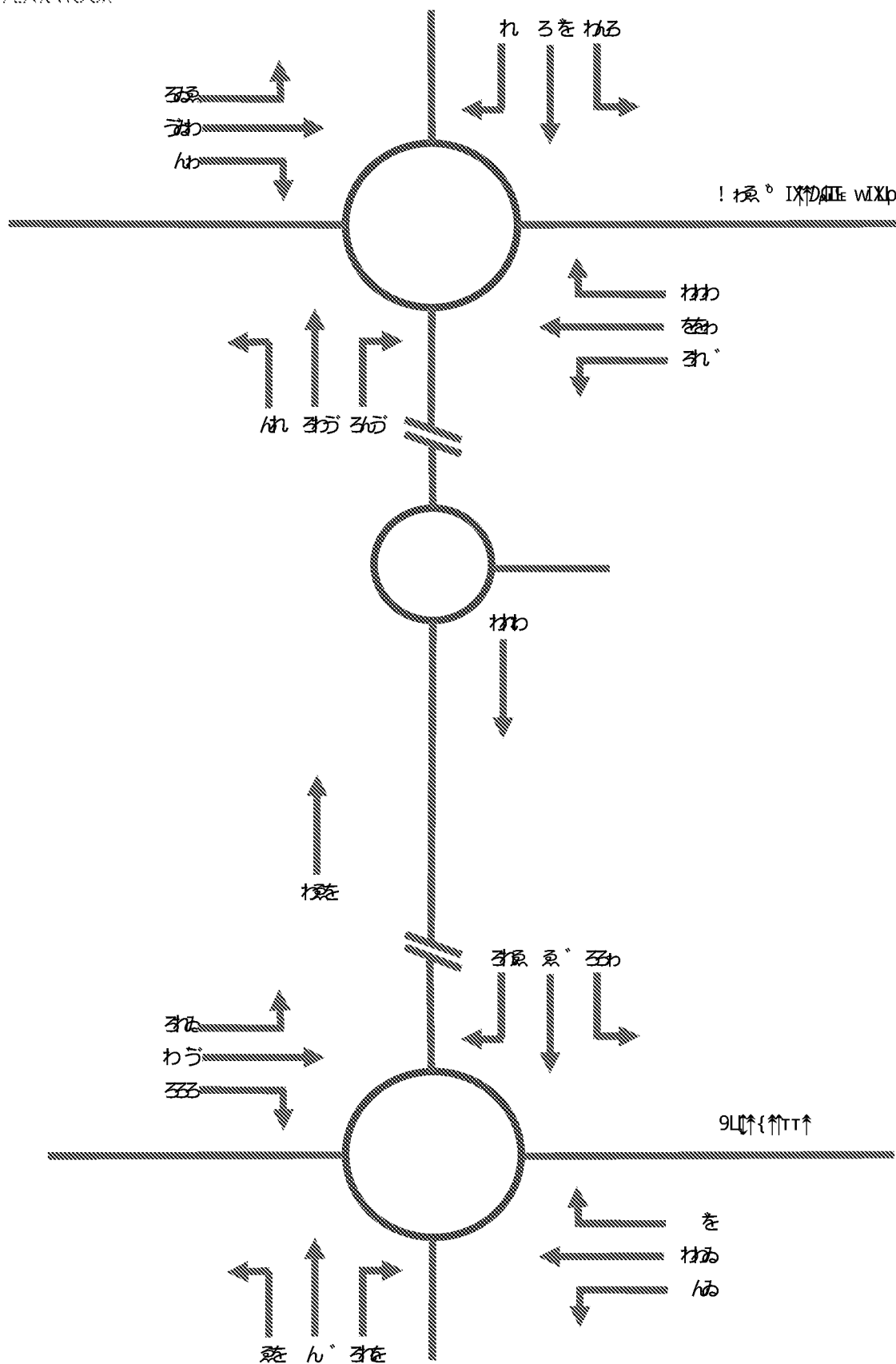


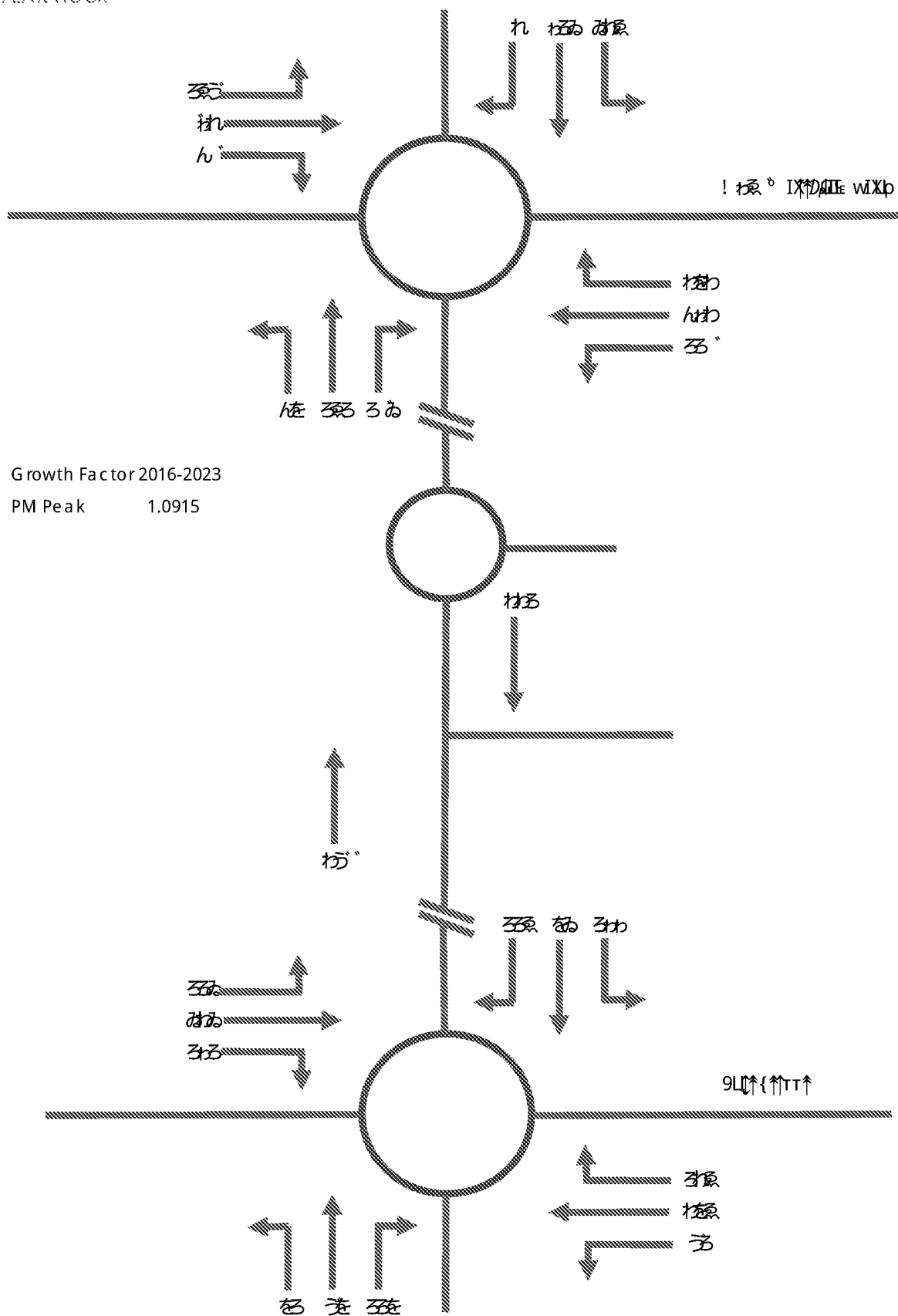
FIGURE 5

RGP

AM PEAK HOUR

RCP 

LAND SOUTH OF LITTLEHAMPTON ACADEMY, LITTLEHAMPTON
 BASE 2023 'OPENING YEAR' TOTAL TRAFFIC FLOWS
 PM PEAK HOUR



Growth Factor 2016-2023
 PM Peak 1.0915

FIGURE 7

LAND SOUTH OF LITTLEHAMPTON ACADEMY, LITTLEHAMPTON
DEVELOPMENT TRAFFIC DISTRIBUTION
AM PEAK HOUR

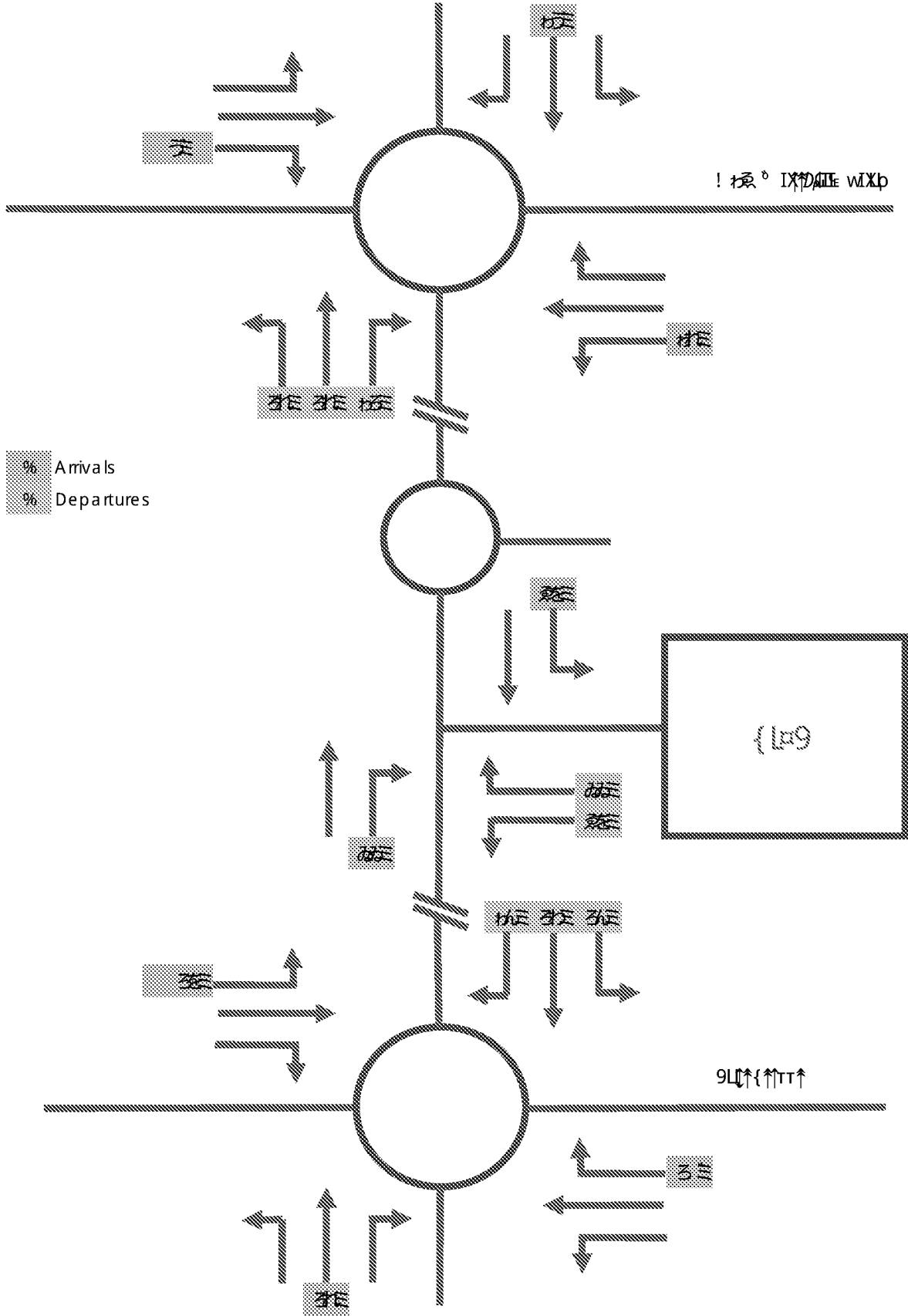


FIGURE 8



LAND SOUTH OF LITTLEHAMPTON ACADEMY, LITTLEHAMPTON
DEVELOPMENT TRAFFIC DISTRIBUTION
PM PEAK HOUR

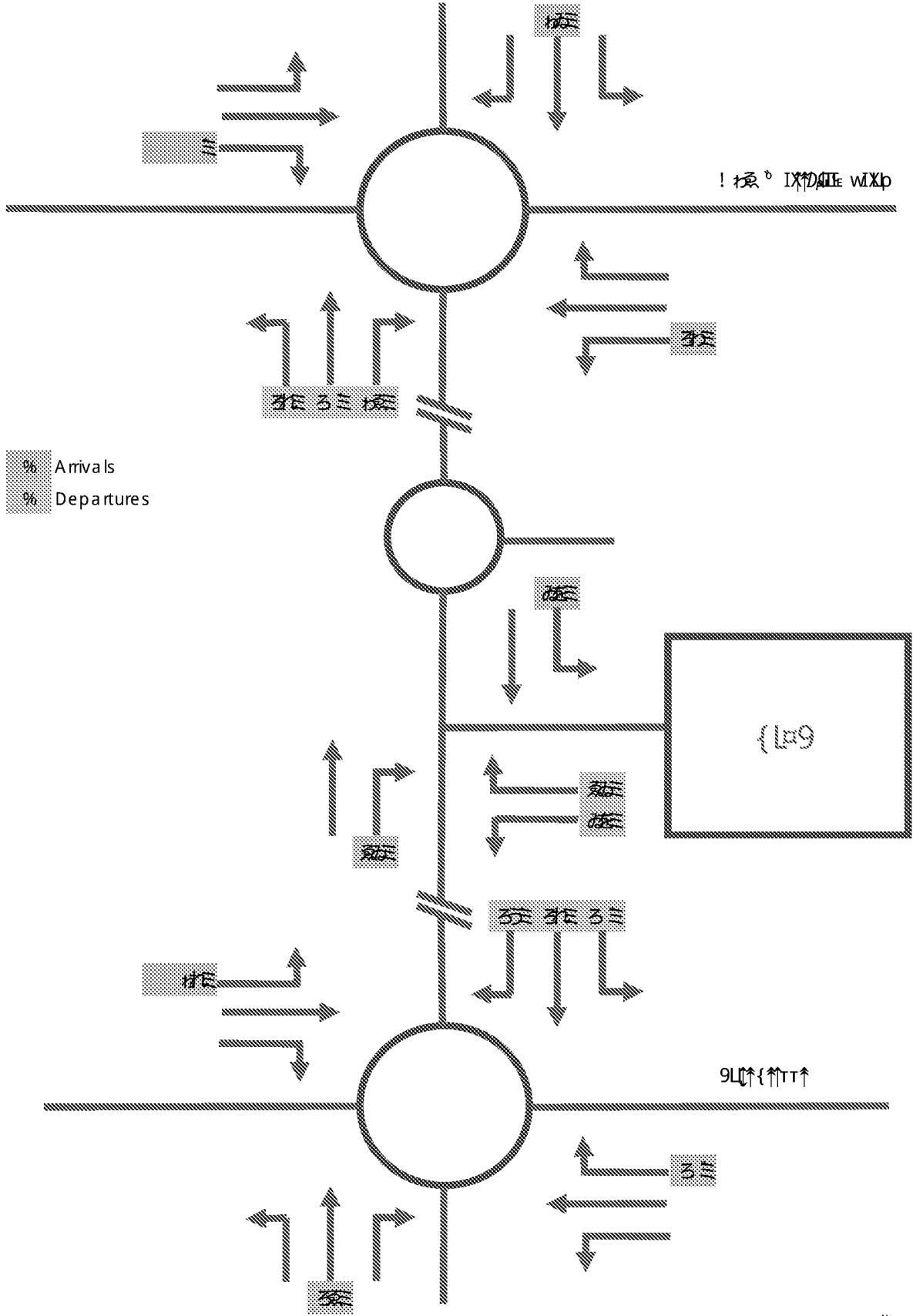


FIGURE 9



LAND SOUTH OF LITTLEHAMPTON ACADEMY, LITTLEHAMPTON
DEVELOPMENT TRAFFIC FLOWS
AM PEAK HOUR

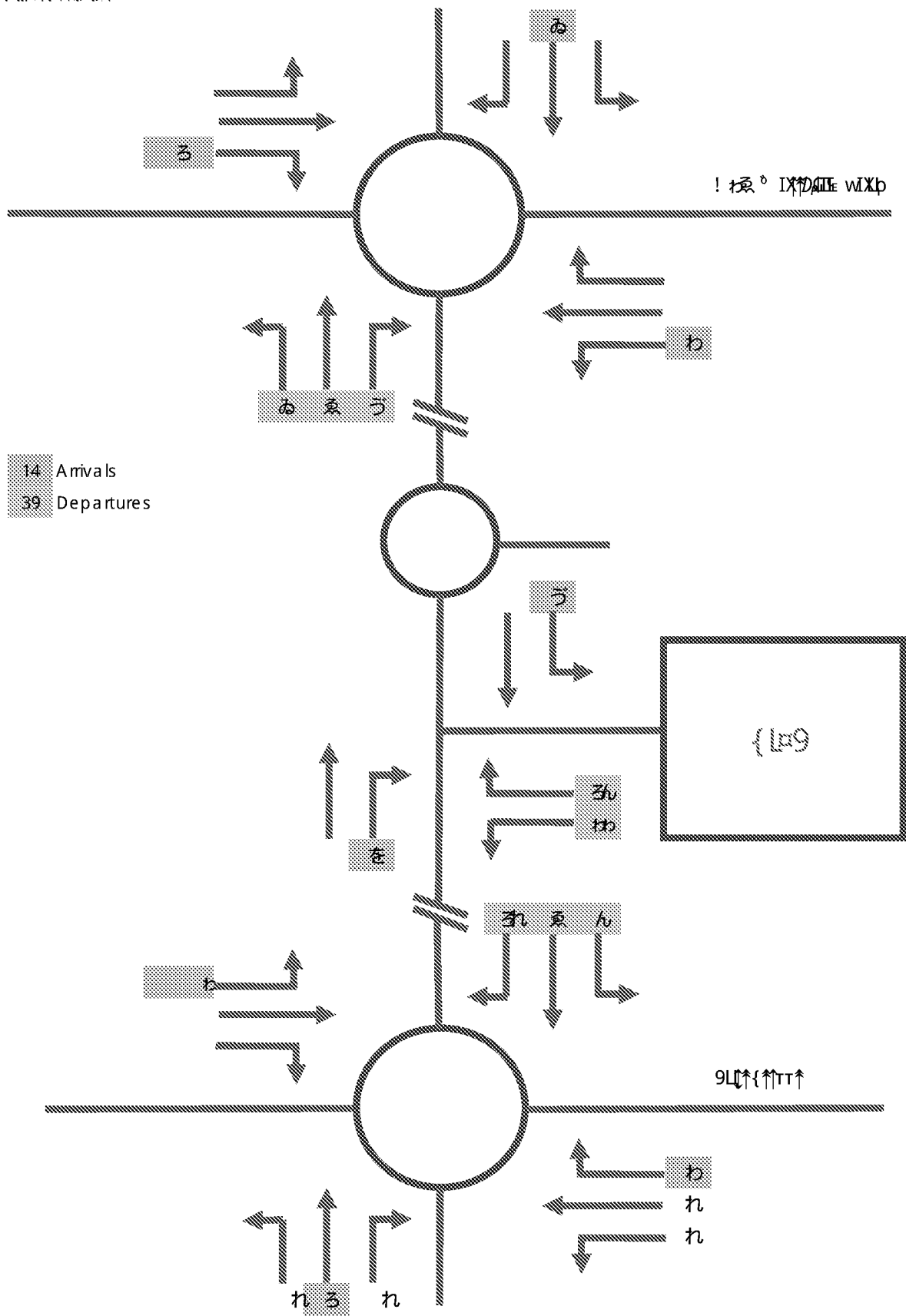


FIGURE 10

LAND SOUTH OF LITTLEHAMPTON ACADEMY, LITTLEHAMPTON
DEVELOPMENT TRAFFIC FLOWS
PM PEAK HOUR

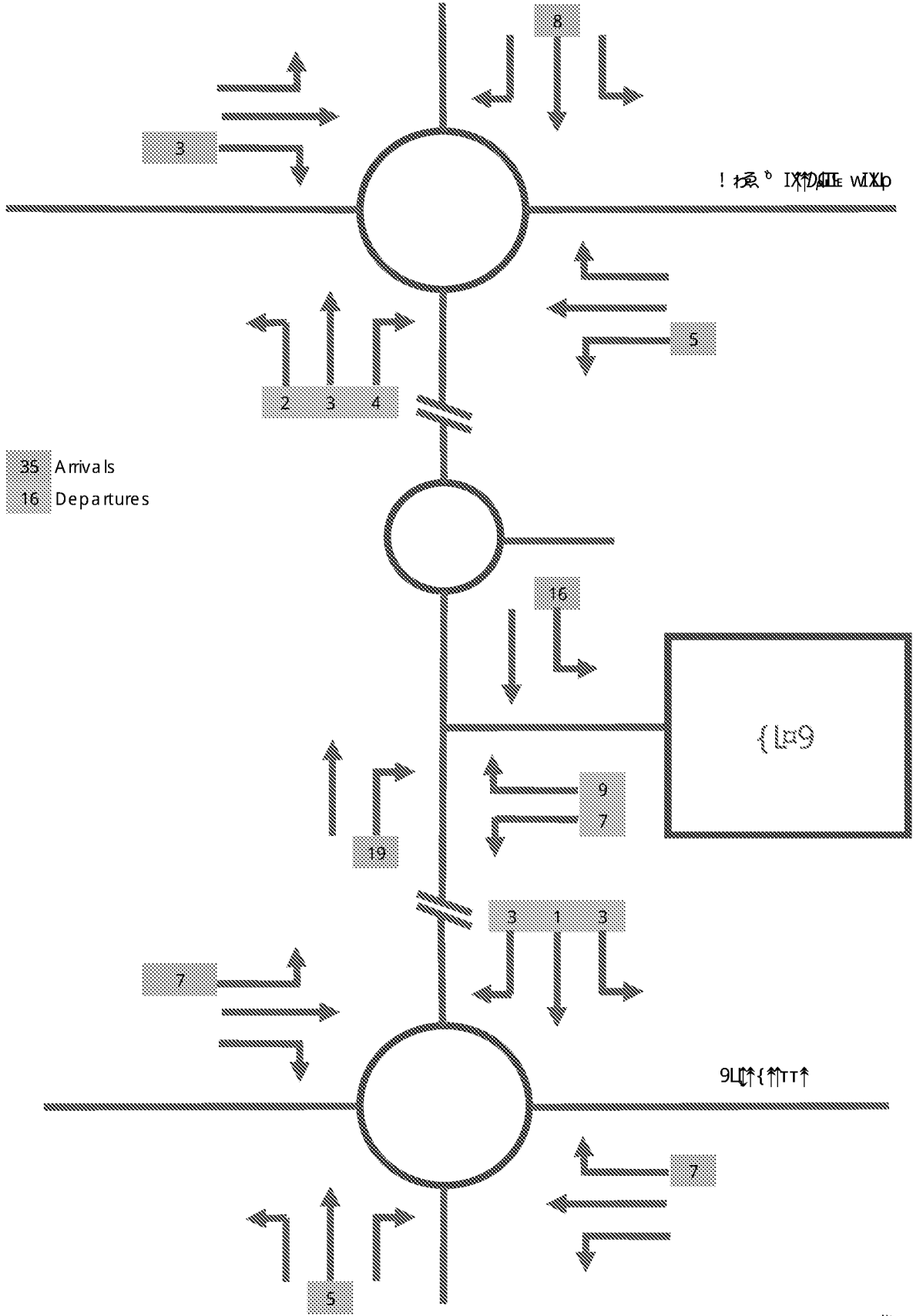


FIGURE 11



AM PEAK HOUR

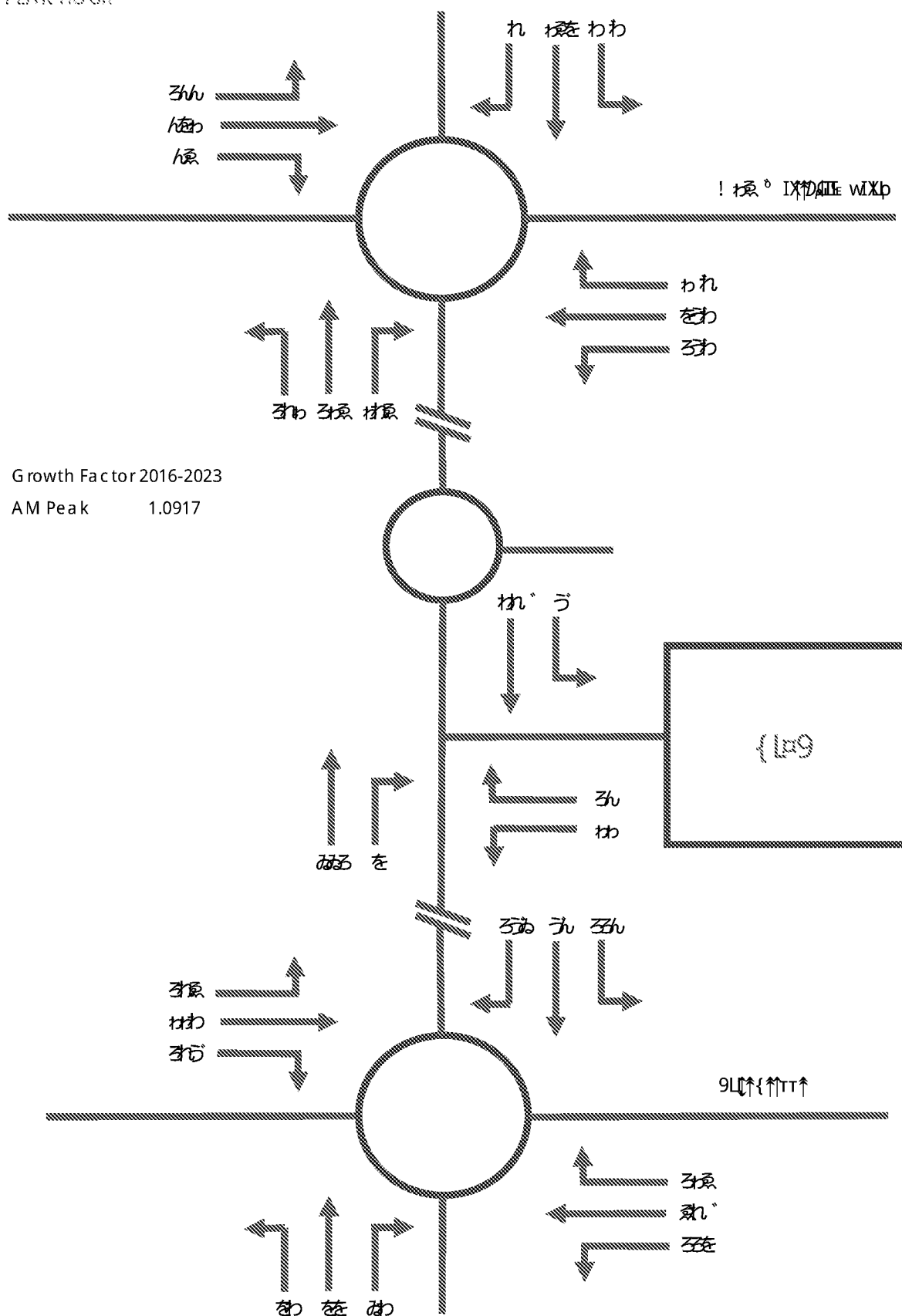


FIGURE 12

PM PEAK HOUR



APPENDIX D

NTM Traffic Growth Calculations



1: Select NTM Dataset:

NTM Dataset Description	From	To
RTF 2018 Scenario 1 - Reference	2015	2050
> NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

- ☒ SE
- ☒ West Sussex
- ☒ Arun
- ☒ Arun 009 (E02006550)

3: Select area type:

- ☐ Urban
- ☐ Rural
- ☐ All

4: Select road type:

- ☐ Motorway
- ☐ Trunk
- ☐ Principal
- ☐ Minor
- ☐ All

5: Select which area it serves:

- ☐ Region
- ☐ England

Calculate the adjusted local growth figure

Results

Level	Area	Local Growth Figure
Region	SE	1.0963
County	West Sussex	1.0940
Authority	Arun	1.0943
E02006550	Arun 009	1.0917

NTM Traffic Growth Calculations



1: Select NTM Dataset:

NTM Dataset Description	From	To
RTF 2018 Scenario 1 - Reference	2015	2050
> NTM AF15 Dataset	2010	2040

2: Select Areas to make up the geographic region:

- ☒ SE
- ☒ West Sussex
- ☒ Arun
- ☒ Arun 009 (E02006550)

3. Select area type:

- ☒ Urban
- ☐ Rural
- ☐ All

4. Select road type:

- ☐ Motorway
- ☐ Trunk
- ☒ Principal
- ☐ Minor
- ☐ All

5. Select which area it serves:

- ☒ Region
- ☐ England

Calculate the adjusted local growth figure

Results

Level	Area	Local Growth Figure
Region	SE	1.0940
County	West Sussex	1.0920
Authority	Arun	1.0923
E02006550	Arun 009	1.0915

APPENDIX E

- 6.75** It should be noted that the microsimulation network modelling carried out does not reflect this final junction design, and uses the layout shown in drawing WYGLITTLEHAMPTON.1/35. The junction layout was revised subsequent to the network modelling, which was not repeated due to time constraints. However, this is a single junction on the periphery of the modelled area, and the relatively minor alteration proposed would have no material impact on the operation of the wider highway network. Indeed, given that the alterations have significantly improved capacity, its effects would only be beneficial, and the network model can thus be regarded as robust.

Bypass (Southern Section) / A259 / Fitzalan Link Roundabout

- 6.76** The operation of the Southern Section / A259 / Fitzalan Link roundabout has been modelled using the computer program ARCADY.
- 6.77** In order to provide a robust assessment, the modelling was undertaken using the program's "ODTab" option, which synthesises a peak within the peak hour.
- 6.78** The modelling of the Southern Section / A259 / Fitzalan Link roundabout can be found in Appendix P and is summarised in the following table:

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Southern Section	0.521	1.1	0.583	1.4
Worthing Road A259 East	0.700	2.3	0.718	2.5
Fitzalan Link	0.452	0.8	0.505	1.0
Worthing Road A259 West	0.610	1.5	0.770	3.3

Table 6.15: Southern Section / A259 / Fitzalan Link Roundabout ARCADY Testing – 2016 No Courtwick

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Southern Section	0.568	1.3	0.593	1.4
Worthing Road A259 East	0.692	2.2	0.704	2.4
Fitzalan Link	0.458	0.8	0.497	1.0
Worthing Road A259 West	0.645	1.8	0.763	3.1

Table 6.16: Southern Section / A259 / Fitzalan Link Roundabout ARCADY Testing – 2016 With Courtwick

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Southern Section	0.617	1.6	0.720	2.5
Worthing Road A259 East	0.787	3.6	0.813	4.2
Fitzalan Link	0.543	1.2	0.622	1.6
Worthing Road A259 West	0.695	2.2	0.894	7.5

Table 6.17: Southern Section / A259 / Fitzalan Link Roundabout ARCADY Testing – 2026 No Courtwick

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Southern Section	0.662	1.9	0.711	2.4
Worthing Road A259 East	0.767	3.2	0.784	3.5
Fitzalan Link	0.533	1.1	0.588	1.4
Worthing Road A259 West	0.724	2.6	0.866	6.0

Table 6.18: Southern Section / A259 / Fitzalan Link Roundabout ARCADY Testing – 2026 With Courtwick

- 6.79** The above tables indicate that the proposed Southern Section/A259/Fitzalan Link would operate within capacity during peak hours after the completion of the proposed development. There would be no significant increase in queuing over the period from 2016 to 2026.

Fitzalan Link / Highdown Drive Priority Junction

- 6.80** The operation of Fitzalan Link / Highdown Drive junction has been modelled using the computer program PICADY.
- 6.81** In order to provide a robust assessment, the modelling was undertaken using the program's "ODTab" option, which synthesises a peak within the peak hour.
- 6.82** The modelling of the Fitzalan Link / Highdown Drive junction can be found in Appendix Q and is summarised in the following table:

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Highdown Drive Left onto Fitzalan Link	0.156	0.18	0.084	0.09
Highdown Drive Right onto Fitzalan Link	0.097	0.11	0.008	0.01
Fitzalan Link Right Turn into Highdown Drive and Ahead	0.174	0.21	0.194	0.24

Table 6.19: Fitzalan Link / Highdown Drive PICADY Testing – 2016 No Courtwick

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Highdown Drive Left onto Fitzalan Link	0.138	0.16	0.103	0.11
Highdown Drive Right onto Fitzalan Link	0.093	0.10	0.007	0.01
Fitzalan Link Right Turn into Highdown Drive and Ahead	0.201	0.25	0.191	0.24

Table 6.20: Fitzalan Link / Highdown Drive PICADY Testing – 2016 With Courtwick

- 6.83** The above table indicates that the Fitzalan Link / Highdown Drive junction layout would be suitable to serve the proposed development, working well within capacity in both 2016 and 2026. There would be no material increase in queuing from 2016 to 2026.

Fitzalan Link / East Street / Fitzalan Road roundabout

- 6.84** The operation of the Fitzalan Link / East Street / Fitzalan Road junction has been modelled using the computer program ARCADY.
- 6.85** In order to provide a robust assessment, the modelling was undertaken using the program's "ODTab" option, which synthesises a peak within the peak hour.
- 6.86** The modelling of the Fitzalan Link / East Street / Fitzalan Road roundabout can be found in Appendix P and is summarised in the following table:

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Fitzalan Link	0.363	0.6	0.360	0.6
East Street East	0.523	1.1	0.364	0.6
Fitzalan Road	0.228	0.3	0.296	0.4
East Street West	0.314	0.5	0.479	0.9

Table 6.21: Fitzalan Link / East Street / Fitzalan Road Roundabout ARCADY Testing – 2016 No Courtwick

Movement	AM Peak		PM Peak	
	RFC	Queue	RFC	Queue
Fitzalan Link	0.363	0.6	0.358	0.6
East Street East	0.568	1.3	0.407	0.7
Fitzalan Road	0.236	0.3	0.304	0.4
East Street West	0.316	0.5	0.497	1.0

Table 6.22: Fitzalan Link / East Street / Fitzalan Road Roundabout ARCADY Testing – 2016 With Courtwick

- 6.87** The above table indicates that the proposed Fitzalan Link / East Street / Fitzalan Road roundabout would be suitable to serve the proposed development, working well within capacity in both 2016 scenarios.

Bodyshop Roundabout

- 6.88** The operation of the Bodyshop Roundabout has been modelled using the computer program ARCADY.
- 6.89** In order to provide a robust assessment, the modelling was undertaken using the program's "ODTab" option, which synthesises a peak within the peak hour.

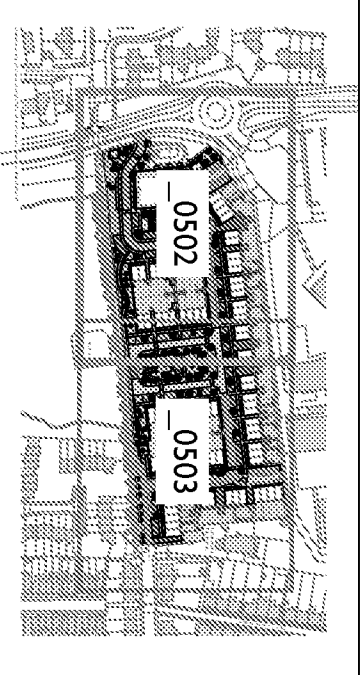
APPENDIX F

Paving and Furniture

- Adopted main route/roads, permeable as noted on kerb 145x255 exposed aggregate and tims
- Standard black blumastic macadam with Charcon Eco kerb 145x255 exposed aggregate and tims
- Shared surface
- Concrete block paving, permeable as noted on engineers drawings, colour buff, one size, laid herringbone pattern with Charcon Eco kerb 15x255 exposed aggregate and tims
- Parking bays
- Concrete block paving, permeable as noted on engineers drawings, colour buff, one size, laid herringbone pattern with Charcon Eco kerb 15x255 exposed aggregate and tims
- Road verge/parking
- Concrete block paving
- Black demarcation indicating footpath connections
- Private Tarmac footpaths
- Concrete flag paving
- Gravel maintenance area to private entrances
- Resin bound footpath with metal edge
- Safety play surfacing
- Tegmenhul use
- Self bound gravel pedestrian footpath with timber in tree root protected areas footpath to be installed above existing soil level
- Reinforced grass surfacing
- Close boarded timber fence 1.8m height to include hedging/side steps beneath the fences
- Community hub
- Doorstep informal play area - situated to form local elements. Grow your own zone with raised timber planters and tiered seating structure.
- DP
- Doorstep informal play area with bench seating and small static play elements
- NCHD hardwood bench
- Hardwood timber bollards
- Timber elements with additional level seating
- Grey wood saw zone
- Timber raised planters
- Site boundary

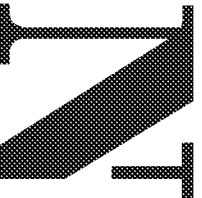
For Softworks refer to:

LTH-NITA-XX-00-DR-L-0504/0505/0506



LOCATION PLAN

LOGO	LOGO
P02	Legend, updated
P01	Foot lane
REV	DESCRIPTION
05	05.02.21
06	15.02.21
07	29.02.21
08	05/05/21



Land at Fitzalan Road

Littlehampton

Landscape GA Hardworks

Sheet 1 of 2

Job ref: 0399

DATE 22-01-21

SCALE 1:2500M

STATUS S1 - Coordination

DRAWN J9

CHECKED NT

APPROVED NT

DWG. NO LTH-NITA-XX-00-DR-L-0502 REV P03

05.02.21

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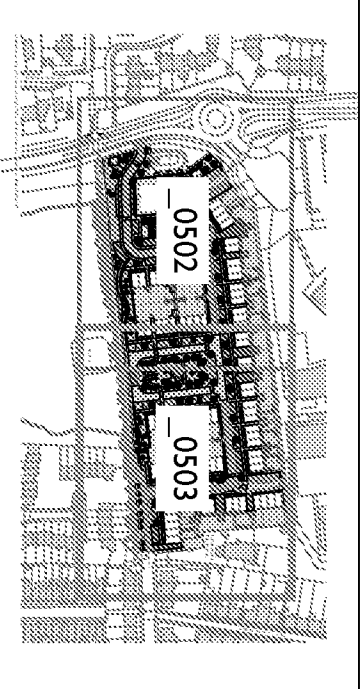
29.02.21

05/05/21

Paving and Furniture

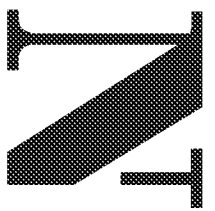
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- Reinforced grass surfacing
- Close boarded timber fence 1.8m height to include hedging/side steps beneath the fences
- Community hub
- Dorsetsey informal play area - situated to form local play elements. Grow your own zone with raised timber planters and tiered seating structure.
- Dorsetsey informal play area with bench seating and small static play elements
- DP
- NCHD hardwood bench
- Hardwood timber bollards
- Timber elements with additional level seating
- Grow your own zone
- Timber raised planters
- Site boundary

For Softworks refer to:
LTH-NITA-XX-00-DR-L-0504/0505/0506



LOCATION PLAN

Rev	Description	Date
P02	Layout, updated	08.03.21
P01	Final issue	19.02.21
REV	DESCRIPTION	DATE



Land at Fitzalan Road
Littlehampton

Landscape GA Hardworks
Sheet 2 of 2
Job ref: 0399

DATE: 22-01-21
SCALE: 1:2500M
STATUS: S1 - Coordination
DRAWN: JG
CHECKED: NT
APPROVED: NT
DWG. NO: LTH-NITA-XX-00-DR-L-0503 REV P03