

PRIVACY NOTICE

LOCAL DEVELOPMENT PLAN

PUBLIC COMMENT

The Data Controller of the information being collected is Aberdeenshire Council.

The Data Protection Officer can be contacted at Town House, 34 Low Street, Banff, AB45 1AY.

Email: dataprotection@aberdeenshire.gov.uk

Your information is being collected to use for the following purposes:

- To provide public comment on the Aberdeenshire Local Development Plan. The data on the form will be used to inform Scottish Ministers and individual(s) appointed to examine the Proposed Local Development Plan 2020. It will inform the content of the Aberdeenshire Local Development Plan 2021.

Your information is:

Being collected by Aberdeenshire Council	X
--	---

The Legal Basis for collecting the information is:

Personal Data	
Legal Obligations	X

Where the Legal Basis for processing is either Performance of a Contract or Legal Obligation, please note the following consequences of failure to provide the information:

It is a Statutory Obligation under Section 18 of the Town and Country (Scotland) Act 1997, as amended, for Aberdeenshire Council to prepare and publish a Proposed Local Development plan on which representations must be made to the planning authority within a prescribed period of time. Failure to provide details requested in the 'Your Details' section of this form will result in Aberdeenshire Council being unable to accept your representation.

Your information will be shared with the following recipients or categories of recipient:

Members of the public are being given this final opportunity to comment on the Proposed Aberdeenshire Local Development Plan. The reasons for any changes that the Council receives will be analysed and reported to Scottish Ministers. They will then appoint a person to conduct a public examination of the Proposed Plan, focusing particularly on the unresolved issues raised and the changes sought.

Your name and respondent identification number (provided to you by Aberdeenshire Council on receipt of your submission) will be published alongside a copy of your completed response on the Proposed Local Development Plan website (contact details and information that is deemed commercially sensitive will not be made available to the public).

In accordance with Regulation 22 of the Town and Country (Development Planning) (Scotland) Regulations 2008 where the appointed person determines that further representations should be made or further information should be provided by any person in connection with the examination of the Proposed Plan the appointed person may by notice request that person to make such further representations or to provide such further information.

Your information will be transferred to or stored in the following countries and the following safeguards are in place:

Not applicable.

The retention period for the data is:

Aberdeenshire Council will only keep your personal data for as long as is needed. Aberdeenshire Council will retain your response and personal data for a retention period of 5 years from the date upon which it was collected. After 5 years Aberdeenshire Council will review whether it is necessary to continue to retain your information for a longer period. A redacted copy of your submission will be retained for 5 years beyond the life of the Local Development Plan 2021, possibly until 2037.

The following automated decision-making, including profiling, will be undertaken:

Not applicable.

Please note that you have the following rights:

- to withdraw consent at any time, where the Legal Basis specified above is Consent;
- to lodge a complaint with the Information Commissioner's Office (after raising the issue with the Data Protection Officer first);
- to request access to your personal data;
- to data portability, where the legal basis specified above is:
 - Consent; or
 - Performance of a Contract;
- to request rectification or erasure of your personal data, as so far as the legislation permits.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

Please use this form to make comments on the Proposed Aberdeenshire Local Development Plan 2020.

If you are making comments about more than one topic it would be very helpful if you could fill in a separate response form for each issue you wish to raise.

Please refer to Aberdeenshire Council's Privacy Notice at the start of this form for details of your rights under the Data Protection Act.

Your Details

Date: **31/07/2020**

Name:	Halliday Fraser Munro
Telephone Number:	██████████
Email address:	██████████
Postal Address:	████████████████████
Postcode:	██████████

Are you happy to receive future correspondence only by email? Yes

Are you responding on behalf of another person? Yes

If yes who are you representing? **CHAP Homes (c/o CHAP Group (Aberdeen) Ltd)**

Would you like to subscribe to the Aberdeenshire LDP eNewsletter: Yes

An acknowledgement will be sent to this address soon after the close of consultation.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

Your Comments (no more than 2000 words)

Modification that you wish to see (please make specific reference to the section of the Proposed Plan you wish to see modified if possible, for example Section 9, paragraph E1.1):

Appendix 7e – Settlement Statements Kincardine and Mearns

Modification Sought: *Allocate site KN064 for a new village of up to 600 homes, a small-scale business park, a village centre and land for a primary school.*

Reason for change:

PLEASE SEE SUPPORTING STATEMENT

Attached document:

PLDP response report

Supporting documents:

KN1 – BID document

KN2 – Transport document

KN3- Response to the MIR site assessment



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

**PROPOSED ABERDEENSHIRE LOCAL DEVELOPMENT PLAN 2020
RESPONSE TO PLDP**

KINCLUNY – Site KN064

JULY 2020

On behalf of
CHAP Group (Aberdeen) Ltd



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

Supporting Documents

KN1 - Bid Document/masterplan

KN2 - Transport Assessment

KN3 - Response to MIR Site Assessment



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

1.0 Introduction

This response has been prepared by Halliday Fraser Munro on behalf of CHAP Homes (c/o CHAP Group (Aberdeen) Ltd) in support of site KN064 (Kincluny). This site is located at a bend in the River Dee 1km to the south of Drumoak. It offers an excellent opportunity to deliver a new Deeside village comprising 600 sustainable homes, a small-scale business park, a village centre and land for a primary school. The site is located within an area of low landscape impact. The South Deeside Road (B9077) forms the southern boundary of the site and would be the primary access for the new development.

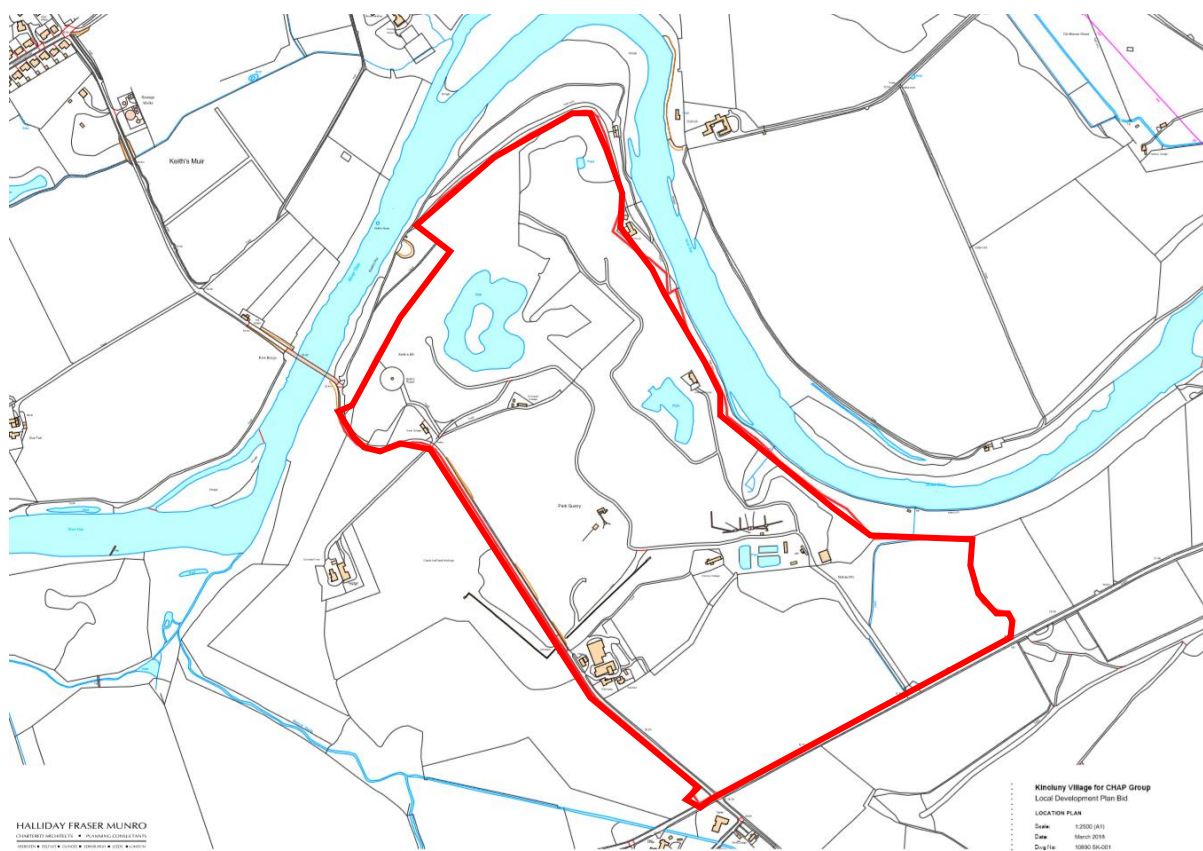


Figure 1: Site Location (KN064) (sites location shown by red line)

CHAP currently operate a sand and gravel quarry from the site. The sand and gravel resource will soon be depleted as the quarry has only a few years consented extraction remaining. The site is therefore previously used and the proposed development offers a unique sustainable development opportunity.

This radically reduced scale LDP bid offers the opportunity for a new exceptional Deeside village reflecting historical development patterns along the river valley. The bid is supported by the inclusion of the Kincluny Development Trust, road improvements on the South Deeside Road, generous open space provision and the inclusion of affordable and, custom and self-build housing in line with national housing strategies. Previous public consultation has demonstrated that this is an area where people want to live and one that can provide an outstanding quality of life. A new Deeside Village in this location would fit with a development



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

pattern native to this part of Aberdeenshire and one that will improve the overall housing affordability and accessibility in an area where affordability has historically been an issue.

The site is deliverable. CHAP own the site and are committed to providing a positive legacy post quarrying activity. A previous planning application for a larger development (withdrawn) allowed a full suite of supporting information to be prepared, lodged and consulted upon with statutory and Council consultees. There were no outstanding technical issues when that application had reached the final stages of consideration. CHAP are therefore confident that the development is technically and physically deliverable early in the plan process should the site be allocated.

Modification Sought: *Allocate site KN064 for a new village of up to 600 homes, a small-scale business park, a village centre and land for a primary school.*

Summary Reason for Change: *see below.*



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

2.0 Settlement Strategy

A separate representation on strategy and housing need has been submitted by CHAP Group in relation to housing land and the need for additional housing allocations to be made in the Aberdeenshire part of the AHMA.

2.1 Local Need / Strategy

Site KN064 is located within the AHMA in a 'local growth and diversification' area as identified by the Proposed Strategic Development Plan (PSDP). Kinclunly is located in an area of high demand yet there are no strategic allocations to support future growth. The corridor already has an active public transport network, which would be further reinforced if additional development was allocated. Despite the significant housing need and demand in this area the Proposed Local Development Plan (PLDP) consciously allocates all substantial new housing to the 'Energetica Corridor' (the A90 corridor running north from Aberdeen to Peterhead). Most of the allocations in this corridor have delivered little housing to date. This strategy seems to direct housing to less marketable areas and dilute the focus on deliverable land allocations.

Completions in Drumoak peaked at 36 in 2014 on the 2012 H1 site. The fact that the site was built out in a single phase demonstrates the level of demand in this area. Future land allocations are not sufficient to meet demand or sustain services but Kinclunly remains well placed to deliver a sustainable, self-sufficient mixed use development.

Councillors on the Kincardine and Mearns Area Committee during the MIR process were also of the view that there is merit in allocating the site. At that time the Committee were advised that there was no strategic need to do so which resulted in the site being excluded from the PLDP by a single vote. Since then the strategic housing need has been identified through increased SDP requirements and the removal of allocations for over 400 houses in the Kincardine & Mearns area of Aberdeenshire. Homes for Scotland (HfS), in their response to this plan has also identified issues that require additional land to be allocated to meet the SDP Housing Allowances particularly in areas around Aberdeen which are considered to be more deliverable and more sustainable. CHAP too have responded separately on housing land identifying additional concerns on assumptions and methodology that support the need for additional housing land. In that response the lack of housing allocations in the Deeside corridor is a concern, particularly when sites that have been allocated can't guarantee delivery in the plan period (such as Glen'o'Dee hospital where the development viability has even been questioned by the bidder). The Deeside area is therefore lacking in housing allocations when it is considered both a popular housing area and one where a greater mix of affordability is required.

3.0 The Proposed Site

Aberdeenshire Council have allocated significant development outwith Strategic Growth Areas in a number of locations - namely: Newmachar; Banff; Fraserburgh; Mintlaw and Turriff. The PSDP encourages growth and sustainable mixed-communities in local growth and diversification areas (paragraph 3.44 and 3.45). The proposed development is of a scale sufficient to create a self-sustaining Deeside village including a new village centre, local services and employment opportunities.

Further information is contained in supporting document **KN3** which comprises CHAP's response to the MIR.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

A Transport Assessment in support of the site is attached for information (KN2). The findings show that vehicular access to the north of the River Dee onto the A93 **is not** a requirement for this proposal. The site would be accessed from the B9077 (South Deeside Road), with a reduced speed limit along the development frontage and two new roundabout junctions proposed. Improvements to this section of the road would have a secondary road safety benefit. Improved public transport would be enabled along this route. Bus operators have in the past expressed a preference to run a bus route along South Deeside Road (B9077), as travel time to the city would be quicker than travelling the North Deeside Road (A93).

The site is well placed for access to the Deeside Way core path and National Cycle Network (route 165) (see figure 3 below). This is a popular walking and cycling recreational route, but also offers a car free route directly into Aberdeen City. The route offers a viable alternative to the car, as the distance to Aberdeen city centre is around 9 miles.

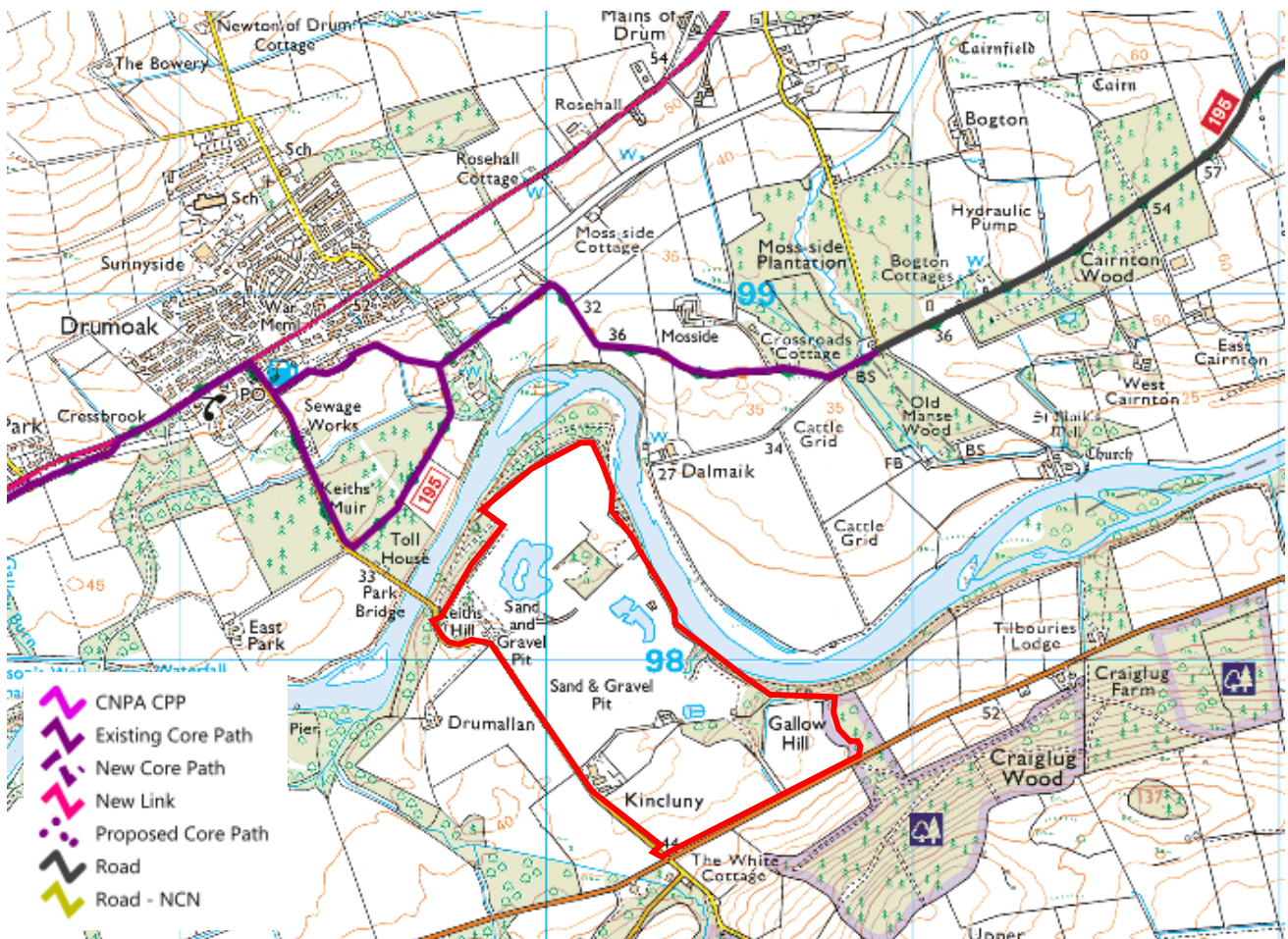


Figure 3: Extract from Aberdeenshire Council Core Path Plan (site location shown by red line)

Park Bridge is an A listed structure which is currently closed to vehicular traffic due to concerns about its structural stability. Park Bridge, however, is open to pedestrians providing pedestrian connectivity into Drumoak and public transport services on the A93 (North Deeside Road).



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

The development of this site could also enable options to upgrade or strengthen the existing bridge allowing it to re-open to traffic. Existing users of the bridge are currently facing a 7.5 mile detour so re-opening of the bridge is of substantial community benefit, not only in terms of convenience but also in reducing emissions through increased travel.

Please refer to pages 55-59 of the supporting Transport Assessment - In essence, the proposed development does not need Park Bridge to be open to traffic but could help facilitate that if it was considered a Council priority. The development would not require any significant junction upgrades off site.

A Flood Risk Assessment has been undertaken by Fairhurst which demonstrates that none of the proposed site is at risk of flooding. The developable part of the site is well above potential flood levels and is not at risk of fluvial flooding. SEPA and the Council's Flood Prevention Unit did not object to the previous application on the site and were content with this issue.

The site is currently zoned to Durris Primary School, which is operating within capacity. The initial phases of the development could therefore be accommodated within Durris Primary School. Beyond this, a review would need to be undertaken assess capacity in the area. One option could be to provide a new school at Kincluney for which land would be made available..

Aberdeenshire Council's Education Service did not object to a previous planning application for a larger development on the site and advised that there would be an education solution for the site. The Kincluney masterplan has always included the option of an on-site school and education contributions to assist in its delivery.

A village centre is proposed which would include retail, leisure and community facilities based on successful Deeside villages such as Ballater and Aboyne. It is envisaged that local shops, cafes, services and leisure uses would locate here. An existing farm steading on the site is proposed for a farm shop and café which would support local business. The proposed business park would also help to sustain more services and employment in the area.

CHAP has supported the development of The Kincluney Development Trust - a social enterprise that would be at the heart of the new community. The Kincluney Development Trust provide a sustainable management and maintenance structure. Its aim would be to promote sustainable development, for the benefit of local people, groups and business.

A full Ecological Impact Assessment was carried out by Northern Ecological Services in November 2015 in support of a previous planning application on the site. This assessment included a full site survey, habitat survey, bird survey, mammal surveys, and a bat survey, all agreed with SNH.

This assessment found that much of the proposed development site is of low ecological diversity and little ecological interest. The assessment concluded that "no significant impacts upon the River Dee SAC are therefore envisaged as a result of this development." The redevelopment of the site would offer the potential for net gains in biodiversity.

The proposed development would retain key riparian habitats, in particularly the woodland along the river, and no new outfalls to the Dee are proposed. Neither SEPA nor SNH objected to a proposed development of 1500 units on the site during a previous planning application (reference APP/2015/3696



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

The site is located within the Dee Valley Special Landscape Area (see figure 4 below). Special Landscape Areas are a local landscape designation placed on an area that exhibits particular qualities that make them valued.

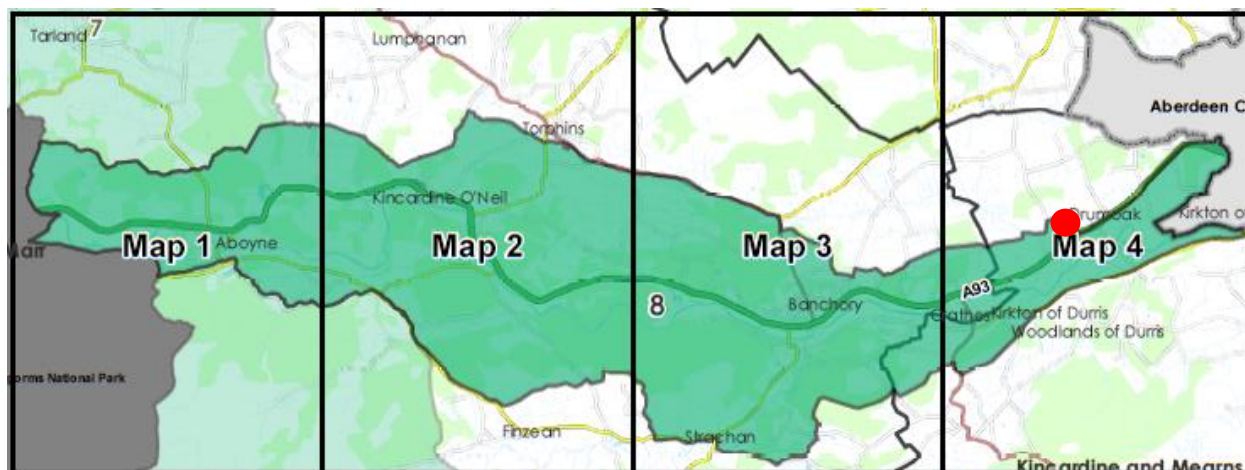


Figure 4: Deeside Special Landscape Area (site location shown by red dot)

The statement of importance for the Dee Valley recognises the Dee Valley has a strong identity with scenic qualities which are a combination of the river with its wooded valley sides rising to moorland hills. The built heritage in the area is recognised as a feature of the landscape and that development is best located on the lower slopes or valley. Kincluney Village, proposed to be sited on the valley floor, will have a limited visual impact and fits with the recommendations for the Dee Valley.

The location also reflects historic development patterns along Deeside (see figure 5 below). A full characterisation study was carried out in the supporting masterplan document (**KN1** Pages 7-12). The settlement is located on a bend in the river, similar to Braemar, Ballater, Aboyne, Kincardine O'Neil and Banchoy. These settlements are characterised by their proximity to the river and are usually located at historic river crossings.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS



Figure 5: Extract from masterplan document 'character study' (pages 7-8)

A Landscape Visual Impact Assessment (LVIA) was undertaken by Ian White Associates in 2015 in support of a planning application for a larger development on this site. This assessment found that the extensive woodland in the lower Deeside Valley makes the sensitivity of the landscape moderate since **“it has the ability to absorb change and development with little adverse impact”**. The high quality principle of the development will ensure that it would be carefully and thoughtfully landscaped to fit in well with the surrounding landscape.

The site is located within the Deeside corridor, running west from Aberdeen City towards Banchory. This corridor is an extremely popular and desirable area to live, which has historically resulted in higher house prices. The demand in the surrounding area is evident. Allocations in nearby Drumoak and Crathes from the 2012 LDP and have been fully built out. The fact that this site is in the ownership of a quality local housebuilder and is located in a highly marketable area cumulatively add to its qualities in making it an optimal location for allocating development.

Banchory is identified as a **high priority** for affordable housing, along with Stonehaven, Portlethen and Westhill, so the four largest towns closest to Kincluney are identified as having a high housing need (i.e. long waiting lists, low housing stock). The Housing Need and Demand Assessment 2017 (HNDA) assumes that a house is affordable if it is no more than four times the annual income. Figure 6 below shows the lower quartile prices across data zones in Aberdeenshire, and also indicates that site KN064 which is located in lower Deeside is within the highest price bracket £400,000+, and therefore presently the least affordable.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

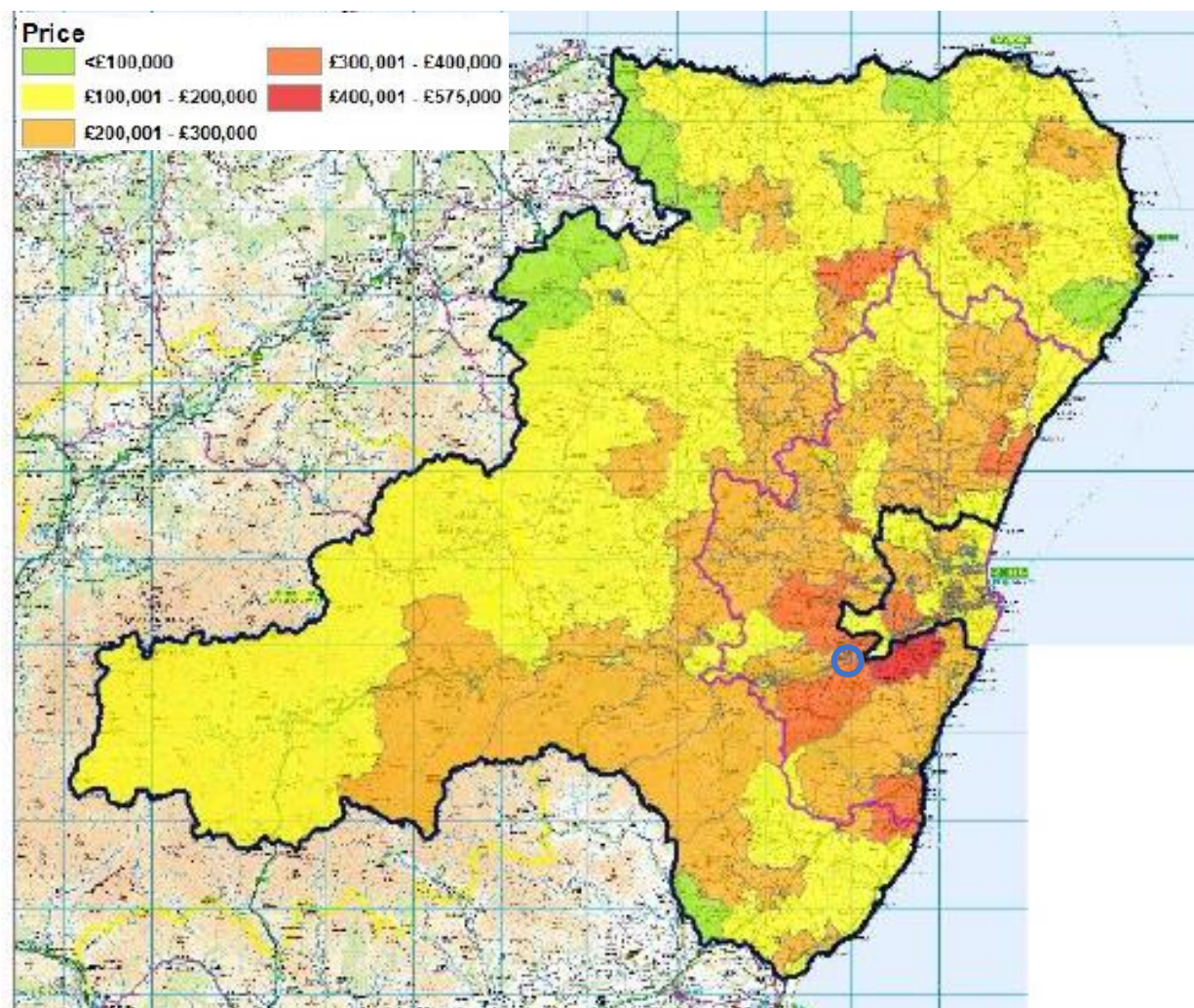


Figure 6: Lower quartile house price 2014 in Aberdeenshire (site location indicated by blue circle)

Source: <https://www.aberdeenshire.gov.uk/media/22984/aberdeen-city-and-shire-hnda-2017.pdf>

CHAP are in the unique position where they already own this site and can commit fully to delivering a mix of affordable homes early in the development increasing the mix and density of housing in the area.

In addition to delivering 25% of the site for affordable housing, CHAP are keen to promote custom and self-build plots within the site. Custom and self-build plots are being promoted by the Scottish Government as means of diversifying the housing market and providing additional affordable housing. The PLDP has only allocated 8 new self-build plots across the whole administrative area and does not require developments to include such provision. This site could, if allocated, help increase the supply of such sites in a highly desirable and high amenity location.

As a single ownership site, in the ownership of the developer, Kinclun Village would not encounter any difficulties associated with multiple ownership, site sale negotiation or legal deals. This ensures that the housing need in the area can be met in a shorter period of time than a traditional mixed use site of this scale.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

This form of development model is one which is supported by Officers. Their assessment for the proposed development at Chapelton (site KN055) continued to support that allocation because ***“the development model promoted on this site (with Housebuilders receiving very little of the uplift in value from the allocation of the land which has been retained by the landowner) is very different from the property speculation undertaken by other housing developers in the area”***.

The Kinclunty site is deliverable. Studies related to the previous larger application listed below are available for information if required:

- Landscape and Visual Impact Assessment
- Environmental Summary
- Ecological Impact Assessment
- Flood Risk Assessment
- Drainage Assessment
- Transport Assessment
- Masterplan
- Planning Statement
- Air Quality Assessment
- Sustainability statement

4.0 Conclusion

This radically reduced scale LDP bid offers the opportunity for a new exceptional Deeside village reflecting historical development patterns along the river valley modelled on much loved and popular villages such as Ballater. The bid is supported by the inclusion of the Kinclunty Trust, new traffic safety measures on the South Deeside Road, generous open space provision and the inclusion of affordable and self-build housing. Previous consultation has demonstrated that this is an area where people want to live and one that can provide an outstanding quality of life. The approach CHAP have taken to develop this proposal, in particular the master-planning approach and commitment to achieving and delivering sustainable development has been praised on numerous occasions in the past by planning officials, Councillor’s and a Reporter in a previous LDP Examination.

A new Deeside Village, including substantial new opportunities for affordable and self-build housing, at a bend in the River Dee is a development pattern native to this part of Aberdeenshire and one that will improve the overall housing affordability and accessibility in an area where affordability has historically been an issue.

The site has minimal visual and landscape impact and is in a location where there is capacity to accommodate development. Being within a Special Landscape Area does not preclude development, and design would be important for ensuring the development fits within the landscape.

This submission has demonstrated that there are no technical constraints to the development of the site, and CHAP have commissioned a range of supporting information meaning the site is ready to progress should it be allocated.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

If the site is allocated, it would provide the opportunity for a truly mixed-use sustainable village to be built in Deeside, ensuring that the area would continue to grow and thrive. CHAP have a track record of delivering high quality developments and are committed to providing a legacy through the development of Kincluny Village.

Modification Sought: *Allocate site KN064 for a new village of up to 600 homes, a small-scale business park, a village centre and land for a primary school.*

Summary Reason for Change: *The site(s) should be allocated for the following reasons:*

- *The site is deliverable and would contribute to Aberdeenshire's housing land supply in the short to medium term.*
- *The site is located in an area of high demand with significant under-allocation of housing.*
- *The site is already in use as a quarry and hence it makes sense to utilise this previously developed site.*
- *A high quality, sustainable mixed use village would be built, ensuring growth for the area.*
- *The site has good connectivity, the Deeside line is 500m to the north, there is a regular bus service on the A93, and enhancements to the public transport network would be enabled should the site be developed.*
- *The development would enable infrastructure improvements to be made to the local road network and specifically to assist with the re-opening and longer-term support for the continuing wider-community use of the Park Bridge;*
- *The site would enable delivery of a new primary school to serve the Durris catchment.*
- *The site is already in the ownership of CHAP, a local housebuilder who have a record of delivering high quality developments and are committed to delivering a legacy through Kincluny village*
- *There is a strategic need for additional housing allocations – separate response lodged in that respect.*



“ KINCLUNY VILLAGE IS A VERY EXCITING OPPORTUNITY FOR THE CHAP GROUP IN SEVERAL WAYS - PRINCIPALLY IT GIVES US THE OPPORTUNITY TO BUILD A GENUINE VILLAGE COMMUNITY IN A PLACE WHERE PEOPLE WANT TO STAY AND TO USE THE MOST UP TO DATE TECHNOLOGY TO ENSURE COMFORT AND AFFORDABILITY - IT GIVES US THE OPPORTUNITY TO USE OUR SKILLS BASE BUILT UP OVER 42 YEARS TO ENSURE THE QUALITY OF EVERY ASPECT OF THE VILLAGE. IT WILL ALSO ALLOW US THE CAPACITY NECESSARY TO TAKE ON EVEN MORE APPRENTICES AND GIVE CONSTRUCTION TRAINING IN A WHOLE RANGE OF TRADITIONAL SKILLS. WE HOPE THAT OUR VISION WILL BE SHARED. WE ARE READY TO TAKE UP THE CHALLENGE. ”



EXECUTIVE SUMMARY

The Vision

CHAP's vision for the existing Park Quarry site is to create a new sustainable Deeside Village providing high quality housing, employment land and community facilities. CHAP Group are committed to delivering excellence and wish to develop Kincluny Village, with a view to creating a lasting legacy in the north east. The key aims of the proposals are:

- Approximately 600 new homes (with a wide housing mix), including 150 affordable (variety of tenures), which will make use of local materials and vernacular building forms
- A village square, with space for small businesses, shops, cafes and other amenities
- A community hub, which could accommodate educational facilities, sports and healthcare facilities and community uses such as a library
- 10 acres of dedicated employment land (Kincluny Enterprise Park), intended for small-scale business use
- A variety of green open spaces (approximately 40% of the total site area), including a community loch, play spaces, allotments, outdoor sports pitches, foot paths and cycle routes. These, in addition to streets and boundary treatments will be designed to reflect the rural character and distinct qualities of nearby Deeside villages



Early Concept Sketch of Kincluny Village Square

The Kincluney Village proposal recognises the opportunity to redevelop the existing quarry to provide a new mixed use community in the popular Deeside corridor. CHAP Group have been working on their vision for the creation of a new village since 2007 and are the applicants, landowner, and developer of the site, placing them in a unique position to deliver this vision. They are committed to the delivery of a sustainable new village, and have identified a number of opportunities, including:

- Creating a high quality, planned village
- Previously developed site
- The early delivery of affordable housing
- The delivery of employment land
- The site is 'shovel ready' and under the control of the landowner and developer

Existing Context

The Deeside Valley contains many planned villages. Historically these have developed at a river crossing or ford, providing a defensible boundary. At Park Quarry, this in combination with the road to the south, provides defined edges and allows for a robust master planned approach to the delivery of the development. Furthermore, the landform created by the quarrying activity allows for the development 'to be integrated' into rather than 'sit on top of' the landscape. An extensive study of existing Deeside villages has been undertaken to inform the design and layout of the proposed development. The highest standards of urban and landscape design have been employed, which reflects the planned village

traditions in the Deeside corridor.

The existing fishing pond located on the site will be accessible to the public and enhanced to a community loch and village green, which will create a focal point for the village centre. This centre will support more dense residential units, with lower density housing located on the outskirts of the site, set overlooking large areas of open space and benefiting from existing woodland blocks and landscaping.

The current and historic use of the site for sand and gravel extraction and landfilling has created an area of brownfield land that provides an ideal platform for new development within an attractive and highly sought-after setting, while being close to Aberdeen City Centre. The present condition of the land is ideal to engineer and design a truly sustainable, mixed use development.

Housing Delivery

As a single ownership site, Kincluney Village would not encounter any difficulties associated with multiple ownership, such as delay due to financial or legal constraints. This ensures that the housing need in the area can be met in a shorter period of time than a traditional mixed use site of this scale.

The Deeside corridor is recognised as being one of the most attractive areas to live in the north east, and indeed in Scotland, and this demand for new housing in the area will continue to grow. In particular, the

demand for affordable housing is extremely high, with the area being identified as the most unaffordable in the local authority area (refer to figure overleaf). The mix of house types proposed at Kincluney will include private and affordable units and will ensure that high quality homes are delivered across a wide range of tenures to meet demand.

The delivery of housing on this site will also help to meet the required housing numbers. Despite large areas of land being allocated for development, there is still a substantial shortage of homes being delivered in Aberdeenshire.

Employment Land

As well as housing, there is a recognised shortage of affordable commercial accommodation in the north east. An area of 10 acres has been reserved for employment land within the proposed village. This will create employment opportunities adjacent to residential development and promote a mixed sustainable community. It will also provide opportunities for operators who are being priced out the market in Aberdeen City and Westhill. CHAP Group are currently considering the possibility of moving their operations onto this site.

LOCATION

Proximity to Aberdeen and Nearby Settlements

Park Quarry is situated within 6km of the Aberdeen City political boundary and 12.5km from Aberdeen city centre.

The site is located within a bend of the River Dee, approximately 1km south-east of the small village of Drumoak within the wider community of Durris. Other nearby communities include Park, Kirkton of Durris, Crathes as well as Peterculter (5km north-east), Milltimber (7km north-east) and Banchory (approximately 9km to the west). Such settlements provide additional services, facilities and employments opportunities.



Wider Context Map

The nearest off-site residential properties are; East Durris, adjacent to the north-eastern boundary of the site, Dalmaik, approximately 100m east of the site across the river, and Park Bridge Tollhouse, approximately 150m north-east, also across the river. To the south, a cluster of residences are located at the junction of the B9077/Drumoak roads, namely Durris House East Lodge, Tjaldur and White Cottage.

A number of new residential developments have completed in recent years. In addition a new primary school for 145 pupils with associated facilities opened in 2015.

Proximity to AWPR

The site is located within close proximity to the Aberdeen Western Peripheral Route (AWPR), which is due to open in 2018. This will take considerable traffic numbers off the main routes into the city.

Aberdeenshire Council have further proposals to develop an Inter-urban Park & Ride at Banchory which would link with the AWPR Park and Ride facility at the Milltimber Interchange via the A93.

Transportation Connectivity

The site has direct access to the B9077 South Deeside Road and is linked by Park Bridge across the River Dee to the existing village of Drumoak and the A93 North Deeside Road. Both the B9077 and A93 operate as commuter links to Aberdeen from the west (connecting Banchory, Aboyne, Ballater and Braemar to the city).



Location Plan

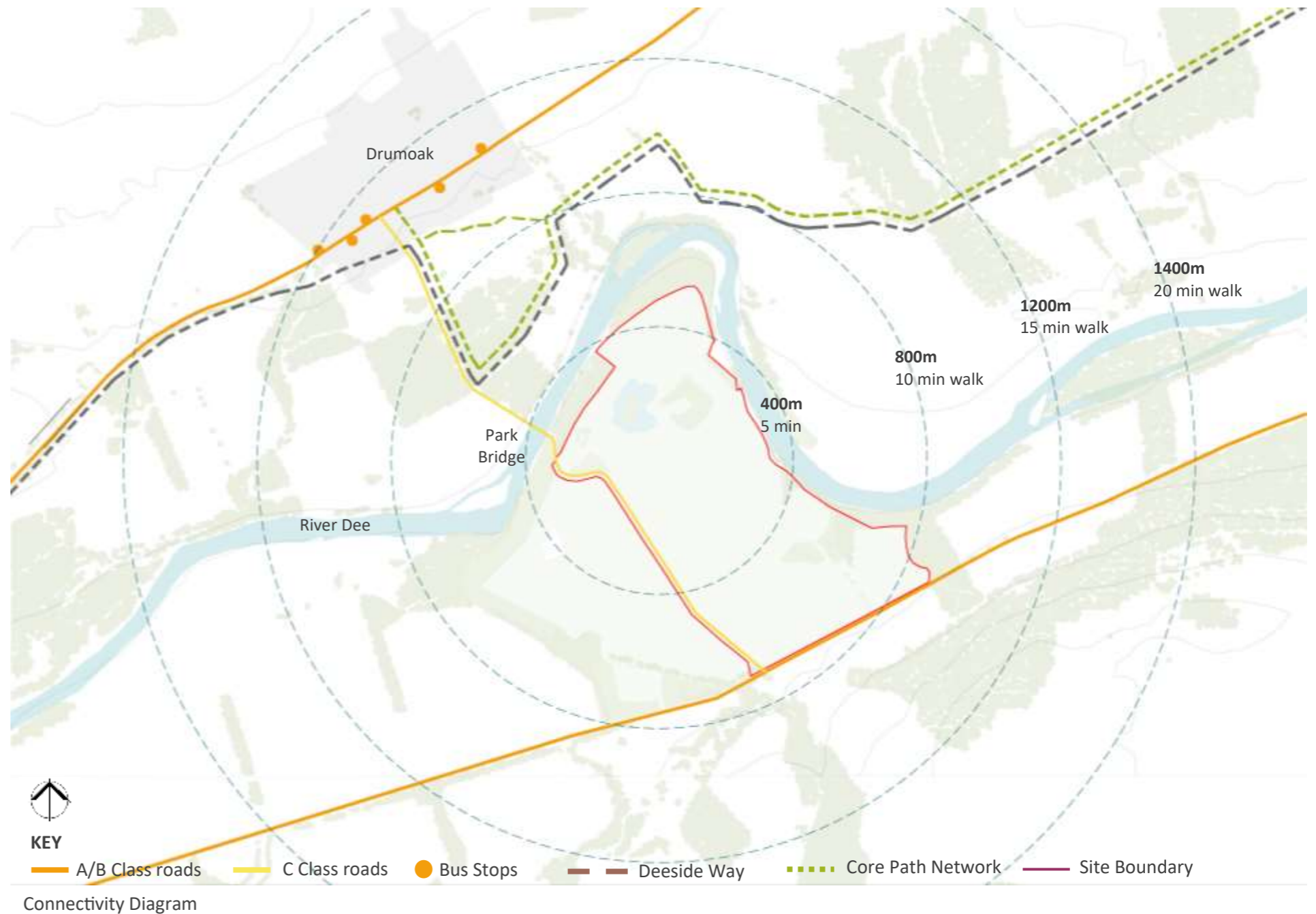
As well as being located on these two main east/west routes it provides one of only three Dee crossings between Aberdeen and Banchory. The crossing connects with a network of north/south roads on both sides of the river.

Core Paths / Cycle Network

A dedicated cycle/pedestrian route already exists within 300m of the site, providing a connection from Aberdeen City Centre to the Cairngorms. The route of the Deeside Way follows the line of the Old Royal Deeside Railway from Aberdeen to Banchory, through woodland and farmland to Kincardine O'Neil; re-joining the old line from Aboyne to Ballater and covering a total distance of 41 miles.

The Deeside Way is Route 195 of the National Cycle Network, which is coordinated and promoted by Sustrans. It is suitable for walkers and cyclists with many sections suitable for horses. Along the way, there are many opportunities to see remains of the old railway infrastructure as well as stunning views over the River Dee with the Cairngorm Mountains as a backdrop. Most of the route is off road with gradual gradients suitable for family cycling or commuting, although there are some short steeper sections.

The Deeside Way provides a significant opportunity to connect Kinclunly Village with surrounding settlements and the city of Aberdeen, both as a recreational and commuting route. The proposed village could become a destination in this historically important route through Deeside.



SITE DESCRIPTION

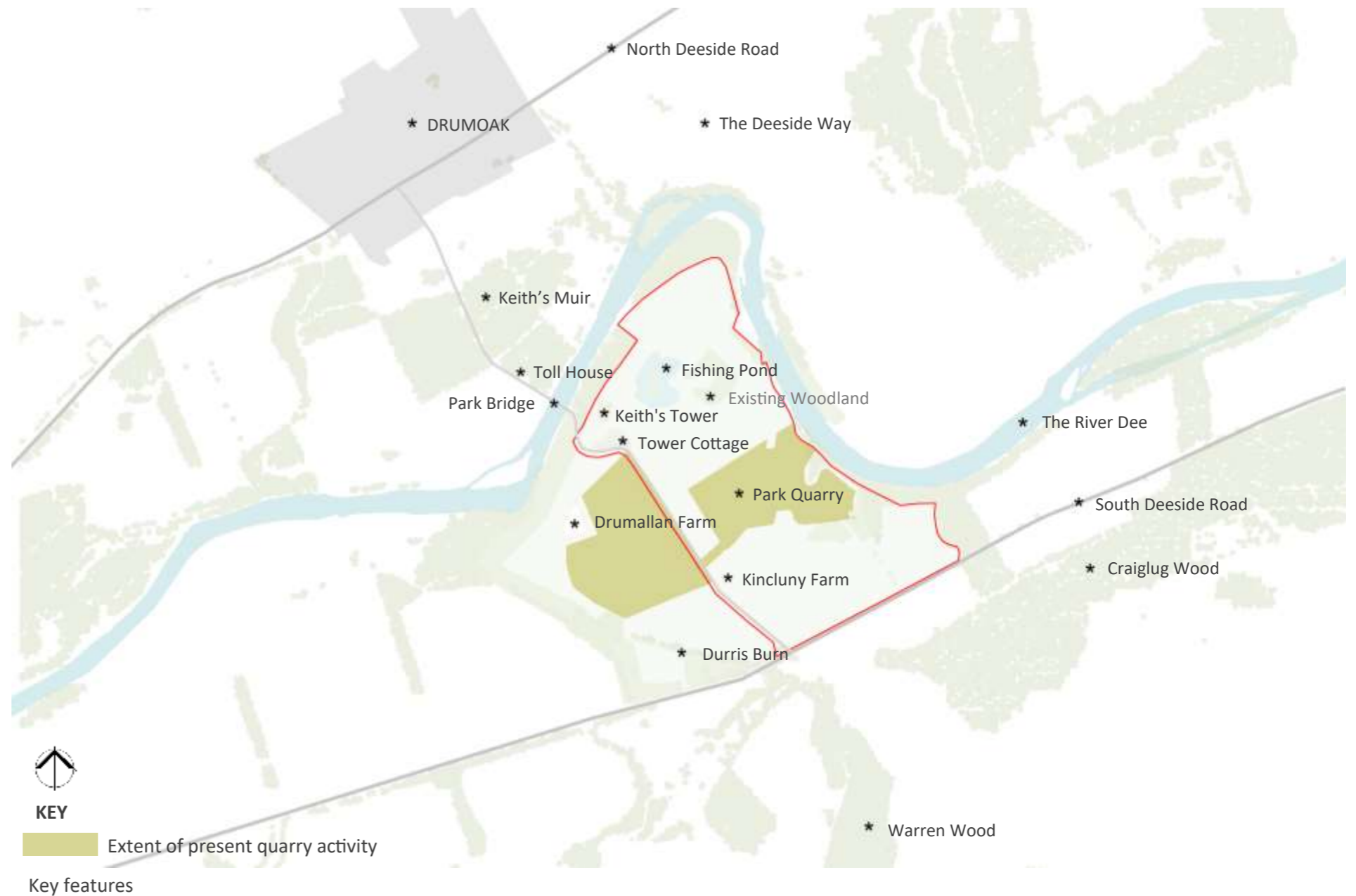
Site Description

The majority of the 44 hectare site functions as an active shallow sand and gravel quarry with silt lagoons, a large processing area, temporary cabins, small scale industrial buildings and semi-permanent haul roads for quarry activities. A small number of residential properties exist, with associated farm buildings and productive land. The B-listed Keith's Tower lies within the north-western part of the site and is the only designated building on the site. Areas of standing water are present within the quarry compound. The west, south and south-west parts of the site are mainly occupied by arable farmland with scattered pockets of woodland and scrub.

Site Boundaries

The site is bound to the north by the River Dee, lying within the broad valley floor with rising slopes north and south. The river foreshore is out with the development site boundary and ownership and is an active fishing beat, with footpaths and vehicular access to fishing bothies. The north western fringes of the site are constrained by a flood plain associated with the Durriss Burn tributary, where it meets the Dee. The western boundary edges the Durriss Burn which runs in a northern direction toward the River Dee. The southern site boundary is formed by the B9077 South Deeside Road. Along this same boundary, the site is bisected by the C35K Park Road, which connects the B9077 to the village of Drumoak, crossing the River Dee at Park Bridge.

Drumoak is the closest settlement to the site. It has a population of around 810 and local facilities include a post office, church, church hall, public hall, primary school and bowling green.



The quarry produces washed sand and aggregates for a range of civil engineering applications as well as accepting inert landfill from buildings and demolition processes. It has been in operation since 1986 and is now nearing the end of its operational use. The northern quarter of the site has been quarried and the landscape restored in recent years, in the form of a broad grassy bowl with a large fishing pond.

A series of planning consents have been issued for sand and gravel extraction at Park Quarry. At the time the quarry was first consented the eventual land use would have been reinstatement after land fill. Indeed, several parts of the quarry have been waste filled. The Environmental Impact Assessment looks in detail at the reinstatement conditions.

The site is located amongst highly productive mixed agriculture with fields of grazing pasture interspersed with hayfields and arable crops. The south and south-west parts of the site are, in particular, occupied by arable farmland with scattered pockets of woodland and scrub. Field boundaries are generally marked by hedges and ditches.

Residential properties on the site include Kincluney Farm, Kincluney Cottage, Greenlaw and Gallow Hill in the south and south-east of the site, and Kincluney Crofts, Drumallan Cottage and Tower Cottage in the north. In total, there are four vacant cottages on the site and the vacant Kincluney farmhouse, with its associated barns and outbuildings, which remain in partial use. The residential properties of Drumallan Farm and Drumallan Grange are located within the west of the site, however, they are excluded from the red-line boundary.



The Post Office in Drumoak



View within Park Quarry



Fishing pond



Keith's Tower



Small scale industrial structures within Park Quarry



Existing former dwellings within Park Quarry



Agricultural land surrounding Park Quarry

DEESIDE TOWNS AND VILLAGES

Aims of Character Study

The importance of understanding the historical form and patterns of Deeside villages cannot be underestimated in the planning of Kinclunly Village.

The Dee Valley contains a variety of different forms of settlements, from the hamlets and villages of Durriss and Kincardine O'Neil to the larger towns of Ballater and Banchory. An appraisal of these settlements shows the following common characteristics, which contribute to the distinctive and cohesive character of the area :-

- The proximity of development to the Dee, often within internal bends of the river
- The proximity of development to historic river crossings
- Settlements centred around a village green
- Progression from large detached houses, often set amongst mature trees, into tightly knit urban centres with houses opening out on to the street
- Richness of predominantly Victorian architectural detailing

The planned villages of Deeside can be found across the whole north east; south through the Mearns as well as into the Cairngorms. In each, a regular grid-like street pattern was adopted, with exception of Braemar (an unplanned settlement) in which a more natural, organic plan evolved. In all cases the village was centred around a focal space.

These characteristics are particularly notable at Ballater, where the father of Town Planning, Sir Patrick Geddes, was born. In fact, many comparisons

can be drawn between the site of Kinclunly Village and the setting of Ballater. Both occupy bends in the river where natural crossings once occurred and are now replaced by bridges. Both occupy relatively flat ground along the river valley and evidence shows that both were the sites of historic settlement. The character of the surrounding landscape, with tree covered hillsides and riverbank varies only in so far as the height and scale at Ballater reflects its geographical position further up the valley. Surrounding woodlands and open pasture help create an impression long before a visitor enters a built up area.

Methodology for Analysis

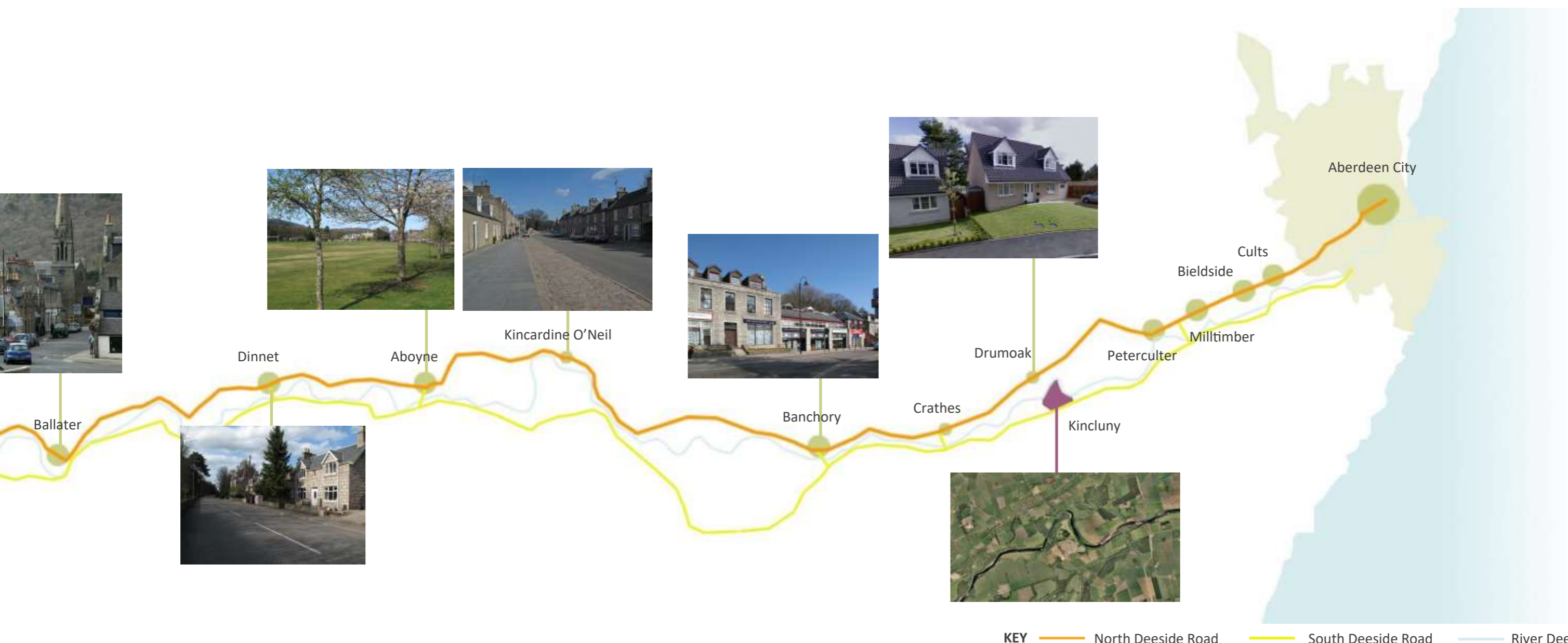
The first part of the analysis takes the form of a series of urban pattern studies, which looks at the wider characteristics of Deeside towns—such as their relationship to the river, land use and topography.

The second part of the analysis identifies six key characteristics that are evident in each settlement, with reference to specific examples. These six key characteristics are:

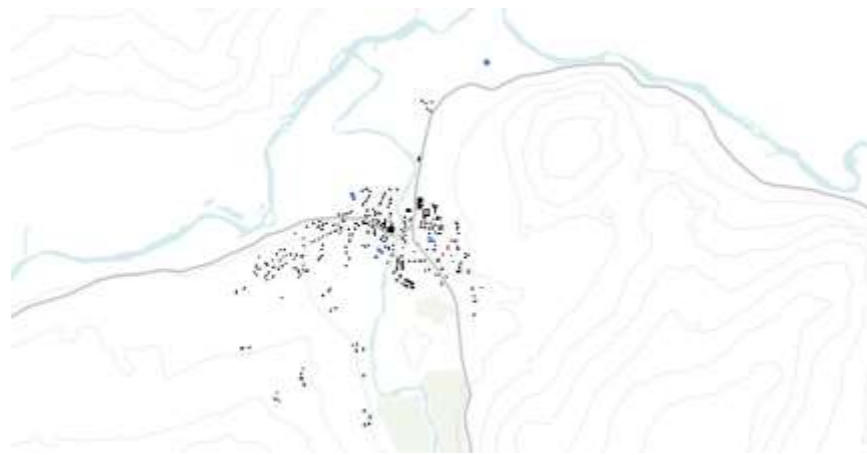
- Approach
- Edge of town housing
- High density housing
- Medium density housing
- Relationship to landscape
- Village square



Map of Deeside Villages



SETTLEMENT PATTERN



Braemar

Description

- One of the larger settlements in Royal Deeside and the Cairngorms
- Braemar has historically been the playground of kings and nobles
- In the 20th century, the village was almost completely owned and divided by the adjoining estates

Key Observations

- Position at the inside bend of the River Dee, on the valley floor
- Development concentrated around a convergence of routes
- Civic buildings dispersed throughout settlement
- Sporadic development along major arteries and into the surrounding countryside
- Unplanned, organic form



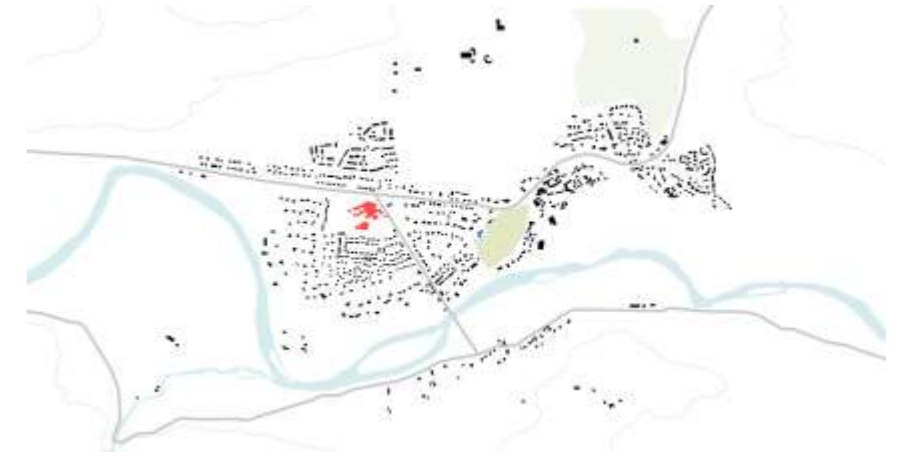
Ballater

Description

- A planned agricultural town dating back to the 1800s
- Attracts visitors and tourists
- The largest village on the eastern side of the Cairngorms National Park

Key Observations

- Position at the inside bend of the River Dee, on the valley floor
- Large recreational/open space located between the town and River Dee
- Grid like urban pattern with less formal edges
- Formal village green marks the town centre—through which major routes pass
- Key civic buildings located in town centre
- Tightly concentrated development



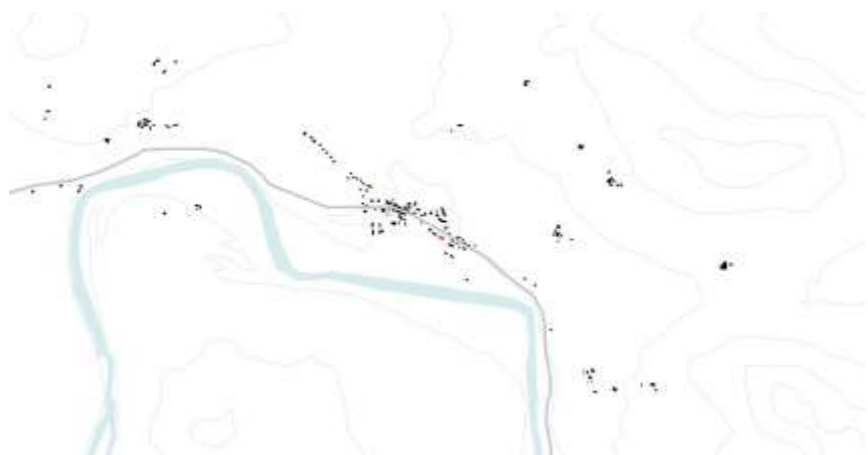
Aboyne

Description

- Small settlement established around the 17th century
- Further development in the 1820s with a new bridge over the River Dee
- The arrival of the railway and the establishment of a major golf club turned Aboyne into a popular Victorian country resort town
- The town spreads out from a large open village green

Key Observations

- Position at the inside bend of the River Dee, on the valley floor
- Informal village green marks the town centre—with major routes passing through
- Key civic buildings in town centre
- Sporadic development along major arteries
- A planned village



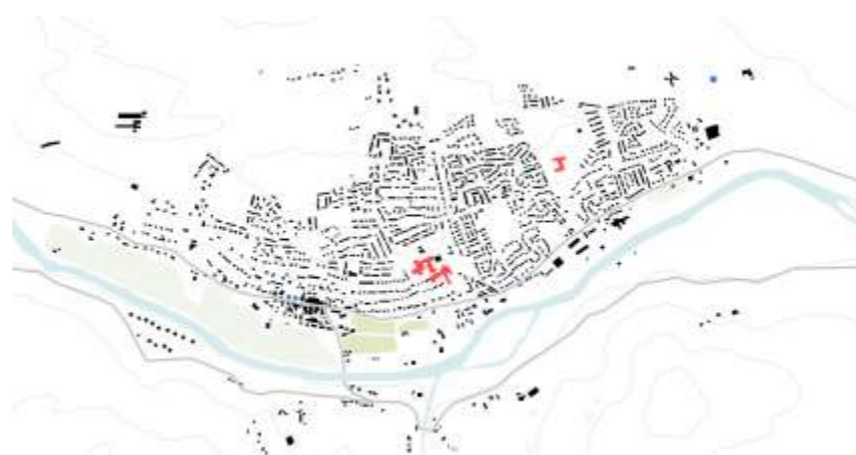
Kincardine O'Neil

Description

- The oldest village in Deeside
- This historical busy location led to the development of nearby settlements
- In the 19th century, the Deeside Railway bypassed Kincardine O'Neil, which obstructed its expansion, in contrast to other neighbouring settlements
- Kincardine O'Neil was declared a conservation area in 1978

Key Observations

- Position alongside River Dee
- Sporadic development along major arteries, with densely built high street
- Key civic building along high street
- A planned village



Banchory

Description

- The rural town of Banchory acts as a gateway to Royal Deeside and the Cairngorms
- The coming of the railway in 1853 turned the town into a country resort and much of its architecture dates back to that era

Key Observations

- Position at the inside bend of River Dee, on the valley floor
- Recreational/open space concentrated along the banks of the river
- Dense development pattern in town centre, with presence of key civic buildings
- School located close to town centre
- Grid like urban pattern with larger buildings concentrated on the outskirts of town and along major arterial routes
- A planned village



Drumoak and Proposed Site

Description

- A compact village centre
- Situated on the North Deeside road and close to the River Dee
- Connections to historic railway line

Key Observations

- Concentrated development along major arterial route
- Park Bridge over the River Dee provides a local crossing to the South Deeside road
- Primary School and church located to north of the village
- 20th Century urban sprawl to the north

BUILDING FORM

Traditional Deeside Architecture

Historical influences play a major role in contemporary design. Whether new buildings copy their predecessors or adopt new materials or building styles, the architectural language of the area is important in order to create a strong sense of place.

In Scotland, forms and building features are recognisable design statements, which identify the buildings as being part of a specific area and of a particular time.

The Deeside vernacular is particularly distinctive and its historical influences are easy to see. The dormer window, for instance, is a particularly element, which is typical of the Scottish vernacular; as are steep pitched roofs, crow-stepped gables, chimneys, low rise houses and vertical fenestration. In Deeside, the French influence has added turrets and towers to the vocabulary and the Victorians excelled in bay windows and balconies.

There is an opportunity, with the design of Kinclunly Village, to provide contemporary housing, which relates to the Deeside vernacular, in an appropriate and considered way.

The accompanying photographs provide a brief introduction to the vast array of architectural styles, forms and materials, which exist in Deeside today.



Architectural Features

Though this list is not extensive, notable features, across many architectural styles and time periods, include:

- Dormer windows
- Bay windows
- Chimneys
- Porches
- Steep pitched roof with traditional flat gables
- Vertical fenestration
- Solid front doors—some with the addition of a fan light or glazed side panel
- Sash and case, casement, or tilt and turn windows—mixture of timber and UPVC—generally white in colour
- Simple eaves detail
- Balconies
- Feature gables/crow stepped gable
- Timber decoration
- Bay windows
- Exposed rafter feet
- One to four storey heights

Key buildings and corner details

Key buildings, streets and corners are acknowledged in most Deeside villages for a variety of reasons. They help with wayfinding, improve aspect, allude to building use and enhance public space.

Key features (some of which can be seen in the adjacent photographs) include:

- Turrets or spires
- Corner doorways
- Signage
- Circular fenestration
- Feature gables
- Stone/metal decoration
- Shop front canopies
- Taller storey heights at corners



DESIGN CONCEPT

Design Concept

Kincluny Village is set in the heart of the Deeside valley, within a bend of the River Dee. The existing quarry is largely unseen due to the topography and structure planting. Any future development on the site will enjoy a similarly discrete setting.

A village square and community hub are situated within walking distance of the existing loch setting, the River Dee and historic B-Listed Keith's Tower, and form the heart of the community.

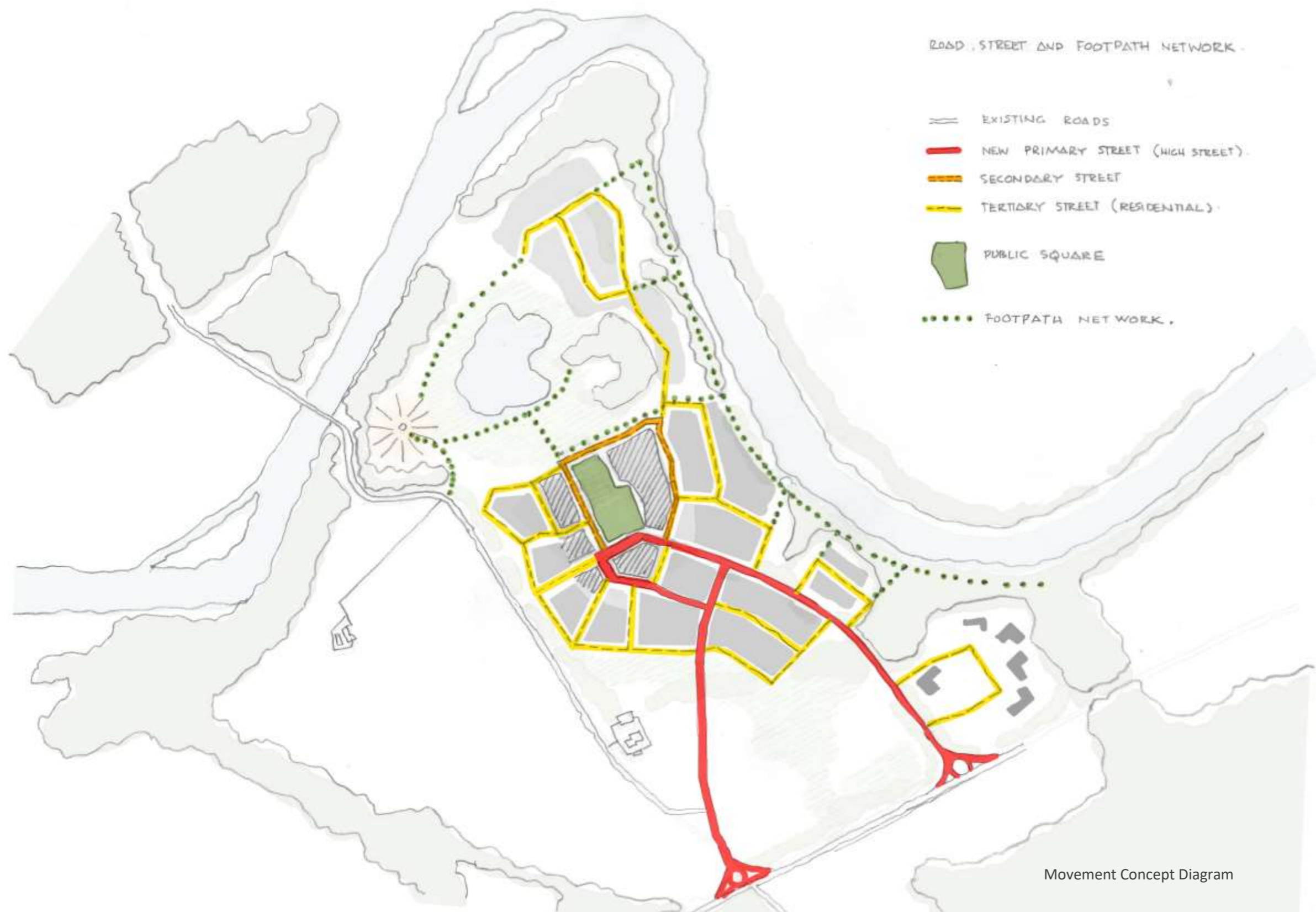
Housing densities and street patterns reflect existing Deeside settlements and enhance existing characteristics of the site. Routes converge at the village square to encourage activity and connect the settlement to the surrounding area.

The aim for Kincluny Village, is not only to create a sense of place, but also one that has a clear identity and sense of belonging to Deeside.





MOVEMENT



Movement Principles

One of the fundamentals of good place making is the creation of a permeable street network with pedestrian priority that gives maximum freedom of movement and a good choice of means of transport.

Radiating from the village square, a network of streets leading to other parts of the village and connecting to the wider road and footpath network, establish the basic urban form.

Traffic should be controlled and pedestrians given priority through the design of street surfaces and furniture. Street junctions offer opportunities to form smaller squares and civic, hard landscaped spaces.

Moving away from the centre, streets open out with larger front gardens. The proportions of these plots are critical to maintain the traditional Deeside character and the avoidance of dominant driveways and garages is essential to avoid creating the "anywhere" suburban style of the late 20th century.

Near the perimeter of the village, the streets evolve into narrow, rural routes, which are tree lined with walls and hedging enclosing large gardens. Open landscaped areas merge with detached housing creating a gradual and logical transition from village to countryside.

The primary function of the street plan is to create safe, clear and attractive pedestrian and cycle routes which: discourage car use; provide "active" public spaces for informal meeting and interaction and link the community to key community facilities.

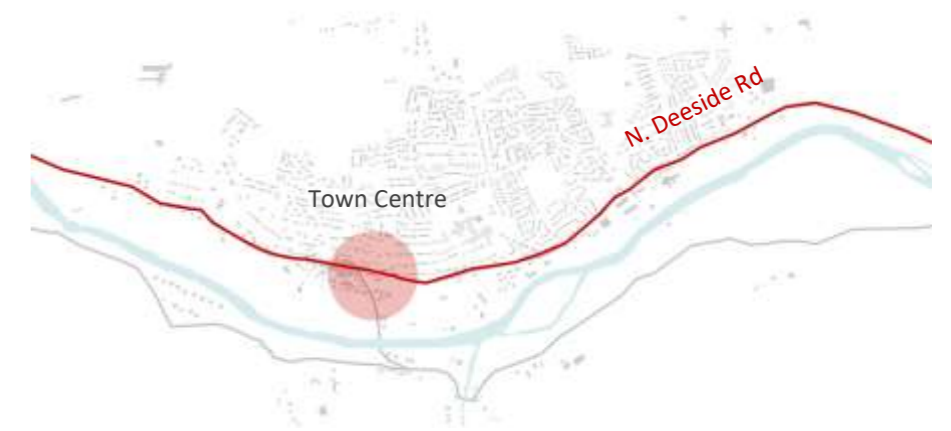
On a wider scale, the street pattern of Kinclunly echoes that of Ballater and Banchory. It mirrors long established, best practice urban planning, which was lost in the late 20th Century through sinuous developments of multiple cul-de-sacs and convoluted street patterns. The proposed grid layout encourages public walkability and safety with all internal connections and open spaces overlooked by residents.

Comparisons can also be drawn between Kinclunly Village and existing Deeside settlements, in the way in which primary routes provide a direct connection to the town or village centre. At Kinclunly Village, two primary routes are proposed, which will be accessed off South Deeside Road, leading north towards the village square and community loch.

Access from the South Deeside Road

As stated, the main access to the site will be via 2 junctions with the South Deeside Road, replacing the existing sub-standard C35K Park Road junction.

As part of the proposals, the B9077 South Deeside Road will have a reduced speed limit for the width of the development. The South Deeside Road is currently 60mph at this location and a number of accidents have occurred in recent years, including one fatality. In order to enforce the reduced speed limit, road engineering and street design will be agreed with Aberdeenshire Council through the planning application process.



Main Route Through Banchory



Main Route Through Ballater



Park Bridge



Example of pedestrian/cycle path

The form of junctions are envisaged to be roundabouts which will act as speed reducing measures on the approaches to the site. This will not only enable safe access to and from the site but will also address an existing area of concern for the local community where visibility from the existing junction is poor and vehicle speeds are high. This has resulted in a cluster of accidents occurring adjacent to the existing sub-standard C35K Park Road Junction over the past 10 years, which has included a fatality.

All proposed junctions will be designed to ensure that the speed of vehicles along the site frontage is reduced and will be agreed with Aberdeenshire Council's Roads Development service through the planning application process.

Access from the North Deeside Road

Access from the site to the A93 North Deeside Road at Drumoak will continue to be via the C35K Park Road priority junction. As part of the proposals a signal controlled pedestrian crossing would be provided adjacent to the A93 / C35K Park Road junction. This will provide safe pedestrian crossing opportunities for future residents of Kincluny and the existing residents of Drumoak who currently access the Post Office located on the C35K Park Road.

The existing Park Road and Park Bridge

The C35K Park Road crosses the South Deeside Road to connect with the Durris / Netherley area. This creates a cross-roads which has poor

visibility and accidents are clustered around this junction. As part of the proposals, the C35K Park Road junction onto the South Deeside Road will be replaced with a new roundabout to remove the dangerous crossroads.

The C35K Park Road crosses the River Dee via the Park Bridge, which is currently restricted to pedestrians, cyclists and vehicles less than 3 tonnes. The carriageway width over the bridge has been reduced, with additional bollards located at the entry points, to ensure that only cars and LGV's use the bridge. The reduced width has enabled foot/cycle-ways to be provided.

As a result of the reduced width, only one vehicle can cross the bridge at any time. This is currently controlled by way of signage giving priority to vehicles approaching from the south of the river. As part of the proposals for Kincluny Village, this arrangement will be formalised by way of providing traffic signals. Pedestrian and cycle provision will remain unimpeded with the existing provision continuing.

A footway will be provided from the western side of the Park Bridge which will connect in with The Deeside Way, which routes alongside the Park Road. As part of the Kincluny Village proposals, this section of the Deeside Way will be upgraded to cater for the increase in pedestrian and cycle movement.

The North Deeside Road currently runs through Drumoak and creates a dangerous crossing for residents on the north side of the road to access the amenities (such as the Post Office) located to the south. Equally there

has been recently completed housing developments located to the south side of the road, meaning residents must cross the busy road to access the Primary School and Church to the north. The creation of traffic signals on North Deeside Road will allow for the safe access for residents crossing this busy road.

Street hierarchy

A clear hierarchy of streets will help create a strong sense of place and aid movement through the new development. Good street design can promote a better quality of living for everyone. The street design for Kincluney Village will meet the six qualities of successful places; Distinctive, Safe & Pleasant, Easy to Move Around, Welcoming, Adaptable and Resource Efficient.

Street design has been approached following the street design hierarchy of street structure, layout and detail. At each stage, the aim has been to consider place as well as movement, with the needs of pedestrian, cyclists and public transport carefully considered.

The main street through the site, which is accessed from two new junctions on the B9077 South Deeside Road will be designed to allow for the potential provision of a new bus route through the site, improving bus accessibility throughout the community. It has been designed to give the site a sense of arrival and place, passing through a series of character areas and key junctions including the Community Hub and Village Square.

In addition to core routes through the site, there will be further streets, lanes and shared surfaces within the development areas which will be designed in accordance with 'Designing Streets' policy and appropriate standards/requirements of Aberdeenshire Council.

Street layout has been considered in tandem with land use. The proposed Kincluney Enterprise Park has been located adjacent to the South Deeside Road and is well connected to both the proposed development and the wider road network.

Transport design aspects including those described above are being considered as part of a Transport Assessment.

Core Paths

Footpath connections will be enhanced to ensure the development is connected with Drumoak and the surrounding context.

A convenient public path network will provide connections within the site and with the wider network. In particular, the National Cycle Network Route 195 / Deeside Way Long Distance (41 mile) path passing through Drumoak, located 1km to the north of Kincluney.

Parking Strategy

Parking provision within the development will accord with the relevant guidance contained within Aberdeenshire Council's 'Car Parking Standards for Development Control in Aberdeenshire' document.

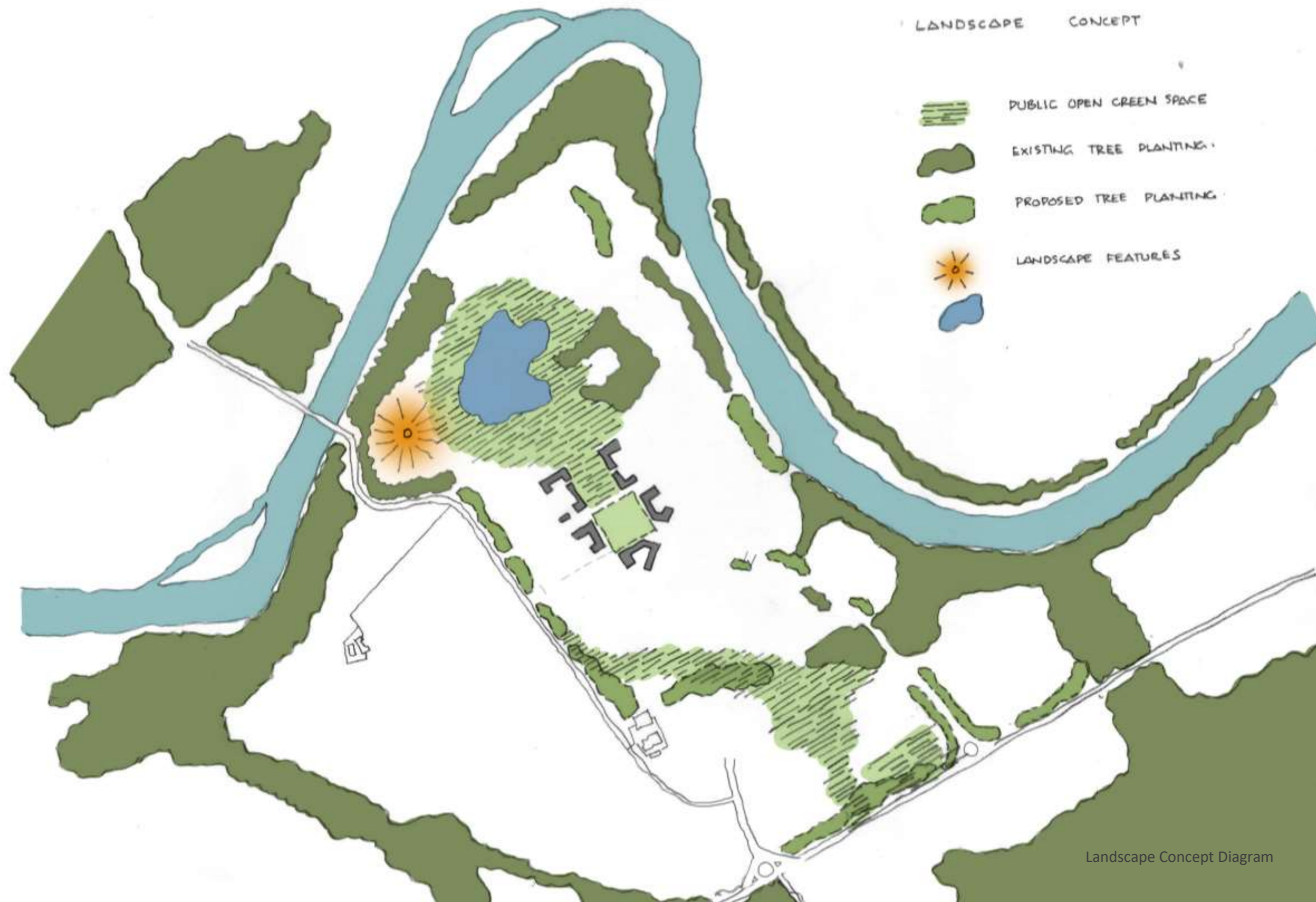


Example of use of shared surface



Example of use of shared surface

LANDSCAPE



Landscape Concept Diagram

Aims

Successful integration of the development into the local landscape will require a clear landscape strategy, that achieves the following key aims :

- to promote a coherent landscape structure and pattern
- to increase the diversity of landscape features
- to encourage a compact and traditional settlement pattern
- to improve and connect different habitats into a robust network
- to integrate public access and pedestrian permeability



Landscape Design

The landscape design seeks to provide a long-term framework that integrates the development of close-knit streets and housing into the rural landscape. The framework allows for future phases of development but does not depend upon them for its success. The key elements of this framework are :

- Use of stone walling for enclosure, entrance features on South Deeside Road, for retention where required and boundary definition to properties on key streets
- Community Loch and Parkland with glimpses of the River Dee and Keith's Tower as a prime open space
- Durris Burn, riparian habitat and amenity feature
- Village square
- Strengthening of boundary treatment to South Deeside Road
- Growing space, open space and sports provision
- Street and avenue trees reinforce the rural layout of the new housing
- Convenient public paths links throughout the site and also with the wider network, in particular the National Cycle Network Route135 / Deeside Way Long Distance (41 mile) path passing through Drumoak, 1km to the north of Kincluney
- SUDS features
- Play will provide a balance of provision, following a hierarchy from doorstep play to Formal Park

Play, Sport and Growing spaces

Play areas are distributed evenly across the whole site within a 200m range (3 min walk) in any direction. Providing 8,500m² over 3 play areas which will be equipped for a range of ages and varied in play opportunities. Seating, bins and fencing where appropriate, will be included.

Aiming to encourage exploratory play, the play areas will be rural in character and extending a connection with nature, including landforms and hedges as well as logs, boulders, platforms, sand pits and apparatus. The play park will weave through the space rather than being a static enclosure; and is enveloped by a mature tree group which provides local shelter from winds and offers a favourable west facing micro climate





overlooking the Loch.

Sports provision will be linked to the Community Hub within the heart of the development.

Growing spaces are offered on the site providing 5,000m² within a 500m range (10 min walk) in any direction. These are flexible areas that will evolve in more detail according to demand, but will likely comprise small orchard areas, fruiting hedges, community growing areas and allotments.

All provision complies with Aberdeenshire Parks and open space strategy as outlined within Appendix 1: Hierarchy of open space and Appendix 2: Standards for public open space.

SUDS

As well as providing a drainage function, SUDS can offer amenity value and a habitat for wildlife. Kincluny offers opportunities for integrated SUDS in the following ways:

- The SUDS basin forms a part of the meadow area, rather than being separated as a piece of drainage infrastructure. The slopes will be seeded with native grass and wildflower mix whilst the floor will be seeded with a mix more suited to damp conditions
- Reinstatement of Durris Burn where it currently culverts through the site



- Permeable paving / swales where appropriate

Ecology Strategy

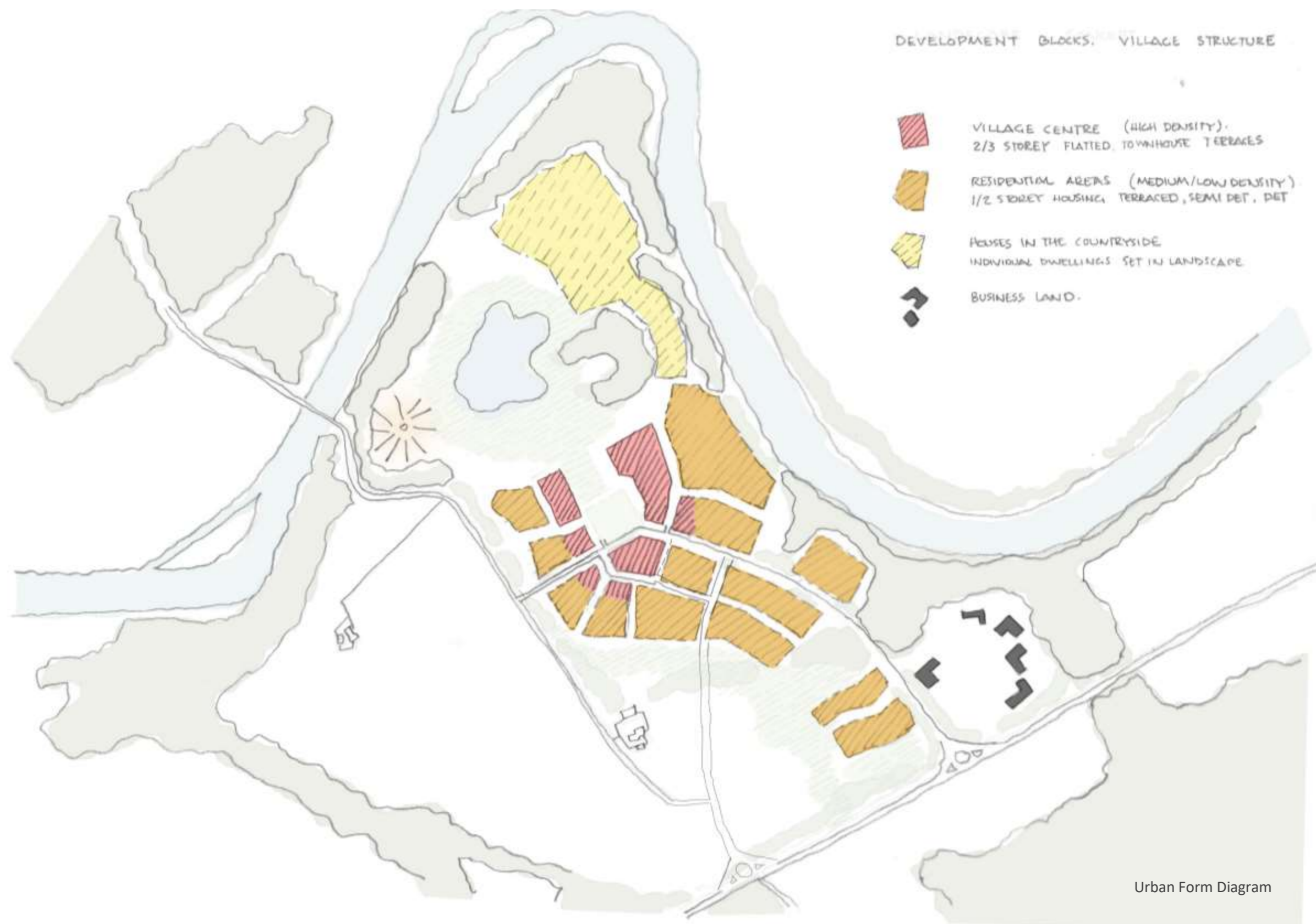
The objective of the landscape design is to achieve an improvement in biodiversity across the site and neighbouring land. The landscape framework will create and connect different habitat types to form a robust habitat network, consisting of :

- Native deciduous woodlands
- Birch and Scots pine copses
- Native mixed hedgerows with intermittent hedgerow trees
- Meadow grassland
- Damp meadow and aquatic marginal habitat to SuDS basins
- Orchard and avenue trees in meadow grassland
- Residential gardens with a mix of native and non-native ornamental species, and beech hedges

The Landscape Maintenance and Management Plan will detail how the landscape framework will be managed to aid establishment, healthy growth, habitat diversity and public access.

4.17 Boundaries

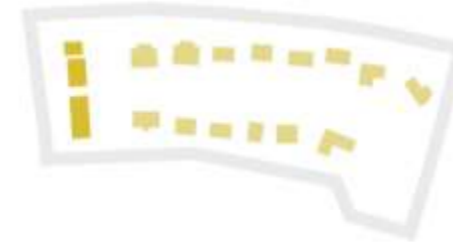
URBAN FORM



Precedent



Concept



Village Square

- Orientated around key open spaces
- Careful orientation of space to maximise solar gain
- A community hub brings people to the heart of the village
- Buildings set close to pavement, with minimal boundary treatment
- Shared surfaces encourage pedestrian movement and slow traffic
- Building scale relates to height of pedestrian
- Up to 3 storey mixed use accommodation (retail on ground and housing above)
- Combination of on-street and rear lane parking

High Density

- Predominately terrace housing (3 storeys or 4 at corners)
- 3 storey flats (or 4 at corners)
- Where separated, minimal gable to gable spacing applies
- Vistas created to end of streets
- Buildings set close to pavement
- Rear lane car parking with communal green spaces

Medium Density

- Variety of house types and set backs from road
- Variety of orientations and plot spacing
- Boundary treatments dependant on character area
- Combination of on-street parking and driveways/garages
- Terraces or flats only appropriate if facing green space
- Housing facing primary streets to maintain parallel frontage with the road

Transition from high to medium density

- Up to 2.5 storey terraces with car parking to front/side

Low Density

- Larger plots with generous gardens
- Generous spacing between housing
- Significant set backs and planting gives houses a less visibility from the road
- Car parking to driveways or garages

Business Park

- Prominent commercial location on South Deeside Road
- Plots take the form of development rooms set against a backdrop of mature shelterbelt tree planting

Urban Pattern

The site of Kincluney Village represents a classic location for a settlement. Positioned at a bend in the river, at a bridge crossing and in the heart of a fertile valley with good links to the surrounding area.

The treatment of the urban edges and the transition from low density 'houses in the countryside' to the hard surfaced dense streets in the centres are features of the area, as identified in the earlier character study, which can be analysed further and adopted in the proposed plan.

It is proposed that Kincluney Village will boast a village square similar in scale to that of Aboyne or Ballater where buildings are closely grouped together and overlook a village green. The existing loch and surrounding parkland will become the focal point around which the village centre will be arranged. Building uses and forms will be positioned to encourage a concentration of activity around proposed meeting places. Main streets linking the village centre to the South Deeside Road will follow the recognised Deeside pattern of approaching through low density detached housing with significant landscaping. On entering the village, the building density will gradually increase until reaching the tightly knit urban layout of the village centre where all the main public buildings and spaces will be held—including a community hub building.

This urban form aims to create not only a strong sense of place but also one that has a clear identity and sense of belonging to Deeside. The approach and layout of the master plan aims to capture the same feel in the hierarchy of streets and spaces as in the other Deeside villages. As demonstrated in the earlier character study, these are definitive elements



that can be measured, enhanced and adapted.

Individual neighbourhoods or character areas will all be built as home zones with a network of pedestrian routes helping connectivity—all loosely built around a grid-iron network of paths, courtyards and streets.

Subsidised and below market cost housing

25% of the Kincluney community will comprise a mix of subsidised rented and below market entry level housing either for sale or rent. The proportions of tenures within this segment will vary throughout the course of development as the needs of Local Authority and Private Sector and assisted sectors dictate.

There will be a wide variety of tenure and purchase options within the affordable housing provision, which may include some or all of the following with other variants as yet to be proposed by Government, Local Authority or the private sector. For example: Low Cost Home Ownership (LCHO), Council and RSL long term and short-assured tenancies, shared equity, mid market rental, sheltered & very sheltered accommodation, nursing home provision, key worker rental units – teachers, nurses and other public sector professionals.

For example there are recognised difficulties in attracting teachers to vacant posts in the rural areas due to the unaffordability of property and there are 23 Primary schools and 4 Academies within a 10 mile radius of Kincluney.

The mix will be such that residents within these properties will have an opportunity to move within the community as their circumstances change over the years thus releasing properties for new residents starting out and retaining established social and family links within the community.

Such is the flexibility of the provision, that the developer in consultation with the Local Authority Housing Service may provide a higher percentage of affordable units in early phases or at stages throughout the development period should this be financially viable, all being contained within the overall 25% provision.

The aim of the development is to ensure a balance of tenures leading to a fully integrated community assisted by on site employment opportunities and good public transport links to other centres of employment as well as being a desirable location for retirement or downsizing.

Materiality and Form

The architectural vocabulary used in the design of buildings for Kincluny Village will not involve pastiche or irrelevant copying of past forms, but instead will reflect the scale, materials and character of Deeside.

The urban form of the buildings will be flexible and capable of adaptation over time to accommodate the needs of various inhabitants and generations.



SUSTAINABILITY

Sustainability

The design of the urban form should be flexible to accommodate the varying needs of the inhabitants over a lifecycle. All construction must seek to minimise the use of carbon-based products, energy and non-renewable resources. CHAP Group recently completed the Donside Village in a Joint Venture with their RSL Partner and the knowledge gained here will be applied to the proposed development at Kincluny Village. There are a number of key criteria, which make this an outstanding site for sustainable development.

Connectivity

Park Quarry is located within 12.5km from Aberdeen city centre. It has direct access to the B9077 South Deeside Road and is linked by the C35K Park Bridge across the River Dee to the existing village of Drumoak and the A93 North Deeside Road. The B9077 and A93 are the main commuter links to Aberdeen from the west connecting Banchory, Aboyne, Ballater and Braemar to the city.

As well as being located on these two main east/west routes it provides one of only three River Dee road crossings between Aberdeen and Banchory. This crossing connects with a network of north/south roads on both sides of the river.

National Cycle Network Route 195, The Deeside Way, can be accessed 300 metres from the northern development site boundary and within 1500 metres from the southern development boundary. The Deeside Way

follows the alignment of the A93 passing established settlements such as Cults, Peterculter, Banchory and beyond including a connection to Aberdeen city centre. A wider network of cycle and footpath routes also exists in the area and the planning of the new settlement will treat the creation of urban routes and their integration with this wider network as a priority.

Public Transport

The existing Park Bridge will continue to be used by vehicles, pedestrians and cyclists. It currently has a 3 tonne weight limit and this will remain with formalisation of the current shuttle operation by way of traffic signals. Public Transport Services will therefore not be routing via the Park Bridge due to the weight limit imposed.

Discussions with the bus operators have established that extending bus routes will be possible simply through the provision of additional buses which will integrate with existing city and shire services. A temporary transport interchange at Kincluny Village will deliver regular bus services to the city centre along the key transport corridors for initial phases of development. As the development and infrastructure expands, bus services will be routed through the village.

Therefore, in conjunction with the proposed facility at Kincluny Village, a priority route to the future AWPR Park and Ride facility at the Milltimber Interchange could be promoted to redress this shortfall in Park & Ride provision to serve the corridor and accommodate through travel either



onwards to the city centre or to more peripheral locations via the AWPR orbital services.

Landscape and Ecology

The site is a working quarry and consequently no loss of quality agricultural land or natural habitats will result from the redevelopment. The existing quarry will provide a proportion of the construction materials for the development and the extensive topographical impact of the workings offers significant opportunities for the regeneration of this landscape and the formation of interesting ecological areas. These would provide not only valuable habitats but pleasant informal recreation areas.

Economy

Deeside represents an area where people want to live. It enjoys close links to areas for work, recreation, sport and leisure activities and shopping. It is connected to an International Airport and main line railway station. An increasing number of families now wish to create the healthy lifestyle associated with rural living but need the practical backup of the town and city.

A 10 acre area of employment land has been identified as Kincluny Enterprise Park. This will create employment opportunities within the settlement, providing a sustainable and mixed community. Kincluny Village is ideally located to satisfy both these needs. Furthermore, there will be opportunities for services and amenities put in place in the village

centre such as a Community Hub, retail, cafes etc. This will create investment and employment opportunities within the settlement.

However, an increasing number of people especially in the technology sector work from home and this is another area where this proposal aims to provide meaningful and needed accommodation. For example, high speed internet infrastructure will be incorporated into the development.

Since diversity is key to sustainable development local employers and businesses are recognised as essential. The Masterplan acknowledges this requirement and discussions have already taken place to secure appropriate village centre uses. These include a “country store” retail market (to cater for outdoor pursuits), a market, garden centre, coffee shop, and tourist shop for example. These facilities would provide employment, intensify activity and establish a source income for the community. The Kincluny Enterprise Trust will allow for the opportunity for investment in start-up companies and social enterprises by providing funding and support.



INDICATIVE MASTERPLAN

Key

1 Community Loch

Significant open green space provides a recreational space for residents and visitors alike—with parkland, a lake, natural play space, growing space and mature existing woodland.

2 Keith's Tower

The historic monument will form a focal point within the parkland setting.

3 Village Centre

Created at the crossroads of main access roads and based on historical precedent of Deeside Villages with public space enclosed by close knit buildings. The 'village square' will contain a variety of building uses including shopping, leisure and community facilities.

4 Primary School / Community Hub

Education and community facilities (if required by Aberdeenshire Council) will be located within generous playing fields and situated at the heart of the community, encouraging the creation of a meeting place.

5 Kinclunly Enterprise Park

Business uses are accommodated around the perimeter of the village, with a dedicated business park situated adjacent to the main access into the village and with good transport links from South Deeside Road.

6 Park Bridge

Existing listed structure to be used for pedestrian and vehicle traffic, in accordance with current load restrictions, and as a means of cycle and pedestrian connection to the Deeside Way.

7 Drumoak

It is intended that Kinclunly Village is a new settlement, separate from the existing community of Drumoak via a swathe of mature woodland, agricultural land and more significantly, the River Dee.

8 South Deeside Road

Two main arterial routes through the masterplan take access from the South Deeside Road. The southern boundary will be strengthened and will formally mark the entrance to the new settlement.

9 Footpaths and Cycle Paths

A network of footpaths and cycle paths will connect the site internally and with the surrounding countryside.

10 Country Store & Community Growing Space

Ground allocated for allotment gardens, in accordance with Aberdeenshire Council's policies and guidelines.

11 Housing

Wide range of housing types and tenures. High provision of affordable housing. Housing designed for varying needs. Allocation of housing within plots capable of permitting future house extensions, provision of housing with capability of home working e.g. office space.



PLANNING

Planning Context

National Context - Scottish Planning Policy

Scottish Planning Policy 2014 (SPP) supports sustainable development. SPP also requires planning to direct development to the right places. Specifically SPP notes that spatial strategies within LDP's should "consider the re-use or re-development of brownfield land before new development takes place on greenfield sites".

A large proportion of the proposed site is currently in use as a quarry and hence is previously developed. It is entirely logical to promote development on a previously developed site in advance of releasing greenfield land where the opportunity exists.

SPP is very strong on placemaking and in particular development that exhibits the 6 qualities of successful places:

Distinctive

Complementing local features, for example landscapes, topography, ecology, skylines, spaces and scales, street and building forms, and materials to create places with a sense of identity.

Safe and Pleasant

Development that is attractive to use because it provides a sense of security through encouraging activity. A pleasant, positive sense of place can be achieved by promoting visual quality, encouraging social and economic interaction and activity, and by considering the place before vehicle movement.

Welcoming

Development that helps people to find their way around.

Adaptable - development that can accommodate future changes of use because there is a mix of building densities, tenures and typologies where diverse but compatible uses can be integrated.

Resource Efficient

Development that re-uses or shares existing resources, maximises efficiency of the use of resources through natural or technological means and prevents future resource depletion, for example by mitigating and adapting to climate change.

Easy to Move Around and Beyond

Development that considers place and the needs of people before the movement of motor vehicles.

The ability to create successful places using these characteristics is significantly greater for completely new developments, where these can be adopted as guiding principles, than extensions to existing settlements. The proposed development adopts these guidelines in order to create a new and exceptional village in the Deeside tradition.

Regional Context - Strategic Development Plan

The site is located within the Local Growth and Diversification Area in the Aberdeen City and Shire Strategic Development Plan 2014. This is presently being replaced and a draft SDP Main Issues Report (2017) has been published which includes the option of introducing a strategic growth area from Westhill to Banchory. This will be the subject of future consultation but makes sense as a natural extension of the growth corridors that serve Aberdeen and its housing market area and take advantage of existing and new infrastructure such as the AWPR.

The draft MIR (2017) also identifies a potential housing allowance for 5,500 new homes up to year 2030 and 16,200 houses from 2031-2040. This is also subject to consultation and could increase. There is also a target to deliver 2,190 homes per annum over the next 25 years. Additional, and specifically deliverable, sites need to be allocated to meet this need. Kinclun Village is such a site.

Beyond that the SDP MIR identifies the opportunity to identify "reserved" sites that could fill the gap in housing land supply should other sites continue to under-deliver.

In all of these respects this proposal is a natural choice for additional housing land.

Site History and Uses

The site is currently operated as a sand and gravel quarry. The sand and gravel resource is coming to an end, and is currently being worked to the west of the Park Bridge Road. A planning application was granted in May 2016 to extend the workings by a further 3 years to 2019 (planning application reference: APP/2016/0708).

Previous Local Development Plan Bids and Reporter's Findings

A larger bid (for 1,500 new homes and employment land) was lodged during the last LDP bid process (Aberdeenshire Proposed Plan 2015). At the proposed new scale of 600 homes the development can now be considered in line with a local growth scenario and if a western corridor is accepted at a strategic level then this site could potentially fall within that growth corridor. The main reason for not allocating this site previously was that no additional housing land was required in general. The merits of this site and the consultation/masterplan approach here have been recognised positively by the Council during past bid processes.

Planning Application History

A planning application for a larger development of 1,500 homes plus employment land was submitted in December 2015. That included a substantial package of supporting information including a full Environmental Impact Assessment. The following information supported that application:

- Masterplan
- Environmental Statement
- ES Non-Technical Summary
- LVIA
- Ecological Impact Assessment
- Drainage Assessment
- Flood Risk Assessment
- Topographical Survey
- Transport Assessment
- Air Quality Assessment
- Planning Statement
- PAC Report
- Development Trust Report

Through the processing of that application, all technical issues were addressed with the exception of transportation and contaminated Land. The outstanding transportation issue related to connectivity to the north, over the River Dee. The Transportation Service considered that a two way bridge to the A93/Drumoak was required to serve the then larger scale of development (1,500 new homes) despite the TA indicating otherwise. At 600 homes a new bridge can no longer be considered a requirement as the existing arrangements are perfectly adequate.

The issue of contaminated land was only that further site investigation was required at a detailed level.

Public Consultation

Significant public consultation has been held to discuss the proposal, including three public events:

- ✦ *24 Nov 2011 Drumoak Church Hall - Public Consultation Event.*
- ✦ *24 February 2012 Robert Gordons University - Public Consultation Event.*
- ✦ *24 June 2015 Drumoak Church Hall - Public Consultation Event.*
5 Aug 2015 – Attendance at Special Community Council Meeting.

The issues identified as concerns during these events are being tackled by reducing the proposed development from 1,500 to 600 homes. Other comments were very positive about the development, supporting the concept and a new settlement designed well from the outset.

PHASING AND DELIVERY

Ownership

A key issue for large scale development is ownership of the land. This is particularly a problem where land is in multiple ownership. Time, effort and money can be wasted trying to reach agreements very often failing and resulting in piecemeal development.

The site of the proposed Kincluny Village is entirely owned by the CHAP Group giving them full control of the land with no large capital outlays required to secure the site. This provides CHAP with a great opportunity to put their resources into delivering a holistic sustainable development.

Development Phasing

The proposed phasing seeks to balance the topography and infrastructure requirements and provide early benefit to the existing road infrastructure, resolving known problems such as the junction of Park Road Bridge and the B9077. Due to the fact that CHAP are in ownership of the site, they are able to carry out the building works with minimal disturbance to both the existing community and the new community they are creating. The works will be contained wholly within the site, and the progression of the phasing is arranged such that construction access through completed areas will be kept to an absolute minimum.

Phase 1 of Kincluny would incorporate a wide mixture of housing types and tenures, and it is proposed that the social housing provision would be provided progressively from an early stage in the development of the community to address the current need across Aberdeenshire. This is already the subject of constructive discussions with Aberdeenshire

Council's Housing Department. Progression of this phase of the development would work towards the higher density village centre and the community loch, which is already established. Construction and occupation of these would in turn support the commercial and retail units at the heart of the community.

The following phases would see the release of land for community uses such as a community centre, nursery, educational facilities, playing fields, etc plus the opening up of the commercial employment land to the south east of the village.

Access from the site will continue to be via the B9077 South Deeside Road and the A93 at Drumoak. The existing C35K Park Road will be retained with its existing junction onto the B9077 South Deeside Road reconfigured to remove the existing dangerous crossroads. Footpath connections will be enhanced to ensure the development is connected with Drumoak.

Early phases of development will be accessed via the new junction onto the B9077 South Deeside Road and the existing C35K Park Road junction onto the A93 at Drumoak via Park Bridge

Footpath connections will be enhanced to ensure the development is connected with Drumoak and early phases of development will be accessed via the new junction onto the B9077 South Deeside Road and the existing C35K Park Road junction onto the A93 at Drumoak via Park Bridge.

Commitment

CHAP Group are fully committed to providing a positive legacy through the development of Kincluny Village, not only in the quality of the environment created, but also for the creation of a sustainable community, which form the heart of the proposals for Kincluny. As the site is fully owned by CHAP, they are in a unique position to commit fully to delivering a mix of affordable homes early in the development programme and in a manner which meets the needs of the immediate and surrounding Deeside communities. Via the Kincluny Development Trust, the community will also have direct input to the progress of the village, and CHAP will liaise with the Trust to ensure that the voice of the community is heard and taken into account during the life-span of this unique new village.

Kincluny Development Trust

Kincluny Development Trust was established to complement the growth of Kincluny Village. It is a Social Enterprise incorporated as a limited company by guarantee. The Development Trust was initiated by CHAP Homes and Aberdeen Foyer, a successful charitable organisation in Aberdeen and Aberdeenshire. It is envisaged that the Trust will be made up of property owners, developers, local authorities, businesses and representatives from the new village. Each householder and business will be a stakeholder through a formal 'share' agreement in the Trust. As such, the Trust can play an integral part in community life. The Trust will take responsibility for managing its own income, promoting community life and securing future development, as well as guiding the principles of how critical aspects of the community will develop over the years.

The creation of the Kincluny Development Trust, in association with Aberdeen Foyer gives Kincluny a unique opportunity to provide the most sustainable management and maintenance structure possible. The Foyer is a successful charitable organisation. It operates several social enterprise companies, (including property and grounds maintenance), providing training and employment, and consequently is well placed to assist the Development Trust as the community grows and establishes itself.



SUMMARY

The site is currently operating as a quarry, although the sand and gravel resource has almost depleted, and the quarry has a very limited timescale remaining. Whilst there is a requirement to reinstate the site to greenfield land, it is highly unusual to have an opportunity to re-use a site of this scale which is currently brownfield. Not only is this site highly deliverable it is also in a popular Deeside location with substantial demand for new housing. This is a location where people want to live.

CHAP have already demonstrated their commitment to the delivery of the site through the submission of a major planning application in 2015. The application process proved that there were no technical constraints to the delivery of the site, other than a transportation view that the development should include a new 2-way bridge across the River Dee. This bid has considered the responses to that 1,500 house proposal and taken a bold decision to fully accommodate any concerns. That has resulted in a significant reduction in the scale of the development to a proposed new village of 600 homes with associated services, community facilities and open space. We believe that the proposed bid of that scale

represents a very different bid from previously, one that overcomes any previous concerns. In particular this proposed does not require any improvements to the Park Bridge.

The proposed bid therefore seeks to allocate a site for 600 units and employment land, including a village centre, and potential site for a primary school. 600 units is equivalent to a small village, and would ultimately be of a similar size and quality to much praised Deeside village of Ballater (population 1500).

The site is readily available and highly deliverable. The site is in the ownership of CHAP, who would look to take forward delivery within 1-2 years of an allocation.



Proposed New Village at Kincluney, Aberdeenshire

Transport Assessment

March 2018



FAIRHURST

CONTROL SHEET

CLIENT: CHAP Group

PROJECT TITLE: Proposed New Village at Kincluny, Aberdeenshire

REPORT TITLE: Transport Assessment

PROJECT REFERENCE: 125023 TA01

Issue & Approval Schedule	ISSUE 1		Name	Signature	Date	
	Prepared by				26/03/18	
	Checked by				26/03/18	
	Approved by				26/03/18	
Revision Record	Rev.	Date	Status	Description	Signature	
	2				By	
					Checked	
					Approved	
	3				By	
					Checked	
					Approved	

This document has been prepared in accordance with procedure OP/P02 of the
Fairhurst Quality and Environmental Management System

Contents

1	Introduction	1
1.1	General	1
1.2	Development Proposal	1
1.3	Planning History	1
1.4	Planning Policy Context and Guidance	2
2	Planning Policy Context	3
2.1	National Policy	3
2.2	Regional Policy	5
2.3	Local Policy	6
3	Details of Development	7
3.1	Site Location	7
3.2	Proposed Development	7
3.3	Parking	8
4	Existing Transport Conditions	10
4.1	Introduction	10
4.2	Walking and Cycling Accessibility	10
4.3	Public Transport Accessibility	12
4.4	Local Road Network	13
4.5	Park Bridge	15
5	Trip Generation and Distribution	18
5.1	Methodology	18
5.2	Residential Trip Generation	18
5.3	Employment Trip Generation	20
5.4	Trip Distribution and Assignment	21
6	Site Accessibility Proposals	24
6.1	Introduction	24
6.2	Pedestrians and Cyclists	24
6.3	Public Transport Strategy	25
6.4	Safe Routes to Schools	27
6.5	B9077 South Deeside Road and Proposed Vehicular Access	28
6.6	Internal Roads	29

6.7	Park Bridge	30
7	Residential Travel Plan Framework	31
7.1	Introduction	31
7.2	Residential Travel Pack Aims and Objectives	31
7.3	Framework for the preparation of the Residential Travel Pack	31
8	Employment Travel Plan Framework	33
8.1	Overview	33
8.2	Travel Plan Management	33
8.3	Travel Plan Aims	33
8.4	Objectives	34
8.5	Delivery and Implementation Strategy	35
8.6	Appointment of a Travel Plan Co-ordinator	35
8.7	Staff Travel Survey	36
8.8	Travel Targets	36
8.9	Travel Plan Measures	36
8.10	Monitoring	40
8.11	Review	41
8.12	Action Plan	41
9	Traffic Impact Assessment	42
9.1	Area of Study and Base Traffic	42
9.2	Future Year Assessments	43
9.3	Committed Development Traffic	43
9.4	Junction Capacity Analysis	43
9.5	A93 North Deeside Road / B979 Milltimber Brae Signal Controlled Junction	44
9.6	B9077 South Deeside Road / B979 Milltimber Brae Priority Junction	46
9.7	B9077 South Deeside Road / B979 Netherley Road	47
9.8	A93 North Deeside Road / A957 Slug Road Priority Junction	47
9.9	B9077 South Deeside Road / A957 Slug Road Priority Junction	48
9.10	B979 Malcolm Road / B9119 Tarland Road 'Carnie Roundabout'	49
9.11	A93 North Deeside Road / B979 Malcolm Road	50
9.12	A93 North Deeside Road / C35K Park Road	50
9.13	A93 North Deeside Road / Bingham Road / & A93 North Deeside Road / Murtle Den Crescent Signal Controlled Junctions	51
9.14	AWPR Milltimber Interchange / A93 NDR Access Road Roundabout	52
9.15	B9077 South Deeside Road / Site Access Roundabouts	52
9.16	Park Bridge Traffic Signalisation	53

10	Sensitivity Analysis ‘No Park Bridge’ Option	55
10.1	Introduction	55
10.2	B9077 South Deeside Road / B979 Milltimber Brae Priority Junction	55
10.3	A93 North Deeside Road / B979 Milltimber Brae Signal Controlled Junction	56
10.4	AWPR Milltimber Interchange / A93 NDR Access Road Roundabout	58
11	Summary and Conclusion	60
11.1	Introduction	60
11.2	Accessibility Summary	60
	<i>Walking & Cycling</i>	60
	<i>Public Transport</i>	61
	<i>Safe Routes to School</i>	61
11.3	B9077 South Deeside Road and Proposed Vehicular Access	62
11.4	Park Bridge	62
11.5	Traffic Impact Summary	62
11.6	Conclusion	64

Appendices

APPENDIX A	Site Location Plan
APPENDIX B	Site Masterplan
APPENDIX C	Sustainable Transport Maps
APPENDIX D	TRICS Output Files
APPENDIX E	Traffic Network Diagrams
APPENDIX F	Proposed Infrastructure & Safe Routes to School
APPENDIX G	Example Staff Travel Survey
APPENDIX H	A93 / AWPR Milltimber Interchange - Signalised Junction
APPENDIX I	A93 / AWPR Milltimber Interchange - Theoretical Mitigation

1 Introduction

1.1 General

1.1.1 Fairhurst has been commissioned by CHAP Group to prepare a Transport Assessment (TA) in support of a Local Development Plan 2021 bid for a proposed new village development at Kinclunly, Aberdeenshire.

1.1.2 The site lies 1km to the south of Drumoak, an established village formed along the A93 corridor found between Peterculter and Banchory. The site boundary is formed along the banks of the River Dee, which makes up the northern perimeter. The southern boundary will form along the B9077 or otherwise known as the South Deeside Road. The site sits within commuting distance of Aberdeen and Banchory, with good road links and direct buses available from the A93 at Drumoak.

1.2 Development Proposal

1.2.1 CHAP's vision for Kinclunly is to create a new sustainable Deeside Village, providing high quality housing, employment land and community facilities.

1.2.2 The key aims of the proposals are to deliver:

- Approximately 600 new homes (with a wide housing mix), including 150 affordable (variety of tenures), which will make use of local materials and vernacular building forms;
- A village square, with space for small businesses, shops, cafes and other amenities;
- A community hub, which could accommodate educational facilities, sports and healthcare facilities and community uses such as a library;
- 10 acres of dedicated employment land (Kinclunly Enterprise Park), intended for small-scale business use; and
- A variety of green open spaces (approximately 40% of the total site area), including a community loch, play spaces, allotments, outdoor sports pitches, foot paths and cycle routes. These, in addition to streets and boundary treatments will be designed to reflect the rural character and distinct qualities of nearby Deeside villages.

1.3 Planning History

1.3.1 A planning application (ref: APP/2015/3696) was previously submitted in December 2015 for a new community comprising of 1500 dwelling houses, village centre, community facilities, employment uses and supporting infrastructure. In support of the planning application a TA was submitted, and subsequently audited by Aberdeenshire Council (AC), Aberdeen City Council (ACC) and Transport Scotland (TS).

1.3.2 Through the audit process a further two Technical Notes and a Public Transport Strategy were submitted in support of the proposals to address concerns and issues raised through the audit process.

- 1.3.3 Several meetings and a Pre Determination Hearing were held where the proposals were discussed in detail, particularly concerning the Park Bridge and its ability to accommodate the additional traffic that would be generated from the proposed development.
- 1.3.4 ACC and TS expressed a willingness to support the planning application subject to conditions relating to junction improvements at the A93 / B979 / AWPR Access Road signalised junction and the AWPR Milltimber Interchange / A93 Access Road Roundabout.
- 1.3.5 AC however expressed concerns with the increased volume of traffic that would be generated over the Park Bridge from the 1500 house proposal. These concerns were in relation to the single carriageway bridge being structurally capable of accommodating the additional volumes of traffic. Park Bridge is a Grade A listed structure and currently operates with a weight and width restriction, which as a result restricts access over the bridge to cars, light vans, motorbikes, bicycles and pedestrians.
- 1.3.6 The bridge was assessed and structurally found to be capable of accommodating the increase in traffic that would have been generated from the development proposal, subject to the timber deck being replaced, as it has been previously.
- 1.3.7 In terms of vehicle capacity, the traffic impact analysis confirmed that the single carriageway bridge could accommodate the volume of traffic generated by the 1500 house proposal under either traffic signal control or by retaining the existing 'give and take' arrangement.
- 1.3.8 AC however considered that the development of 1500 houses and associated facilities would benefit from a new bridge that accommodated 2-way traffic movements. AC considered that 'if' the existing Park Bridge were to be closed to all traffic in the future due to structural concerns, the traffic impact of the 1500 houses on the local road network to the south would be significant and there would be a loss of connectivity with the existing village of Drumoak located to the north.
- 1.3.9 Without the Park Bridge providing a link to the A93 at Drumoak, all development traffic would require to route via the B9077 South Deeside Road. Whilst the site access junctions and the B9077 South Deeside Road in general could accommodate the traffic generation from 1500 houses, there would be significant impact at the B979 Milltimber Brae / B9077 South Deeside Road priority junction with little opportunity to provide any meaningful mitigation.
- 1.3.10 Given the position of AC in respect of the Park Bridge, the applicant decided to withdraw the planning application in order to re-consider the development proposals with a view to submitting a bid for a revised proposal through the LDP 2021 process.

1.4 **Planning Policy Context and Guidance**

- 1.4.1 The TA has been undertaken giving regard to the appropriate national, regional and local planning policies. The TA also takes cognisance of the Scottish Government's publication 'Transport Assessment Guidance' (June 2012).

2 Planning Policy Context

2.1 National Policy

2.1.1 The National Policy Context is principally defined by 'Scottish Planning Policy' (SPP), and Scottish Planning Advice Note 75 (PAN 75) 'Planning for Transport'. The Scottish Government document 'Transport Assessment Guidance' is also of relevance.

2.1.2 The Scottish Government's 'Scottish Planning Policy' (SPP) issued in June 2014 replaces SPP (2010) and Designing Places (2001). SPP identifies the Scottish Government's overarching aim to increase sustainable economic growth within Scotland.

2.1.3 SPP revolves around the principle policies – sustainability and place making. In considering how planning should support the vision, the document outlines the key outcomes that developments need to contribute to:

- 'A successful, sustainable place – supporting sustainable economic growth and regeneration, and creation of well-designed, sustainable places.'
- 'A low carbon place – reducing our carbon emissions and adapting to climate change.'
- 'A natural, resilient place – helping to protect and enhance our natural and cultural assets, and facilitating their use.'
- 'A more connected place – supporting better transport and digital connectivity.'

2.1.4 The 'Promoting Sustainable Transport and Active Travel' section of SPP stresses the importance of efficient transport connections within Scotland and to international markets, and the crucial role that planning plays to improving such infrastructure. The section goes on to identify within paragraph 270 that the planning system should support developments that:

- 'optimise the use of existing infrastructure;
- reduce the need to travel;
- provide safe and convenient opportunities for walking and cycling for both active travel and recreation, and facilitate travel by public transport;
- enable the integration of transport modes'

2.1.5 Paragraph 273 notes that 'the spatial strategies set out in plans should support development in locations that allow walkable access to local amenities and are also accessible by cycling and public transport. Plans should identify active travel networks and promote opportunities for travel by more sustainable modes in the following order of priority: walking, cycling, public transport, cars.'

2.1.6 SPP notes in paragraph 287 that 'Planning permission should not be granted for significant travel-generating uses at locations which would increase reliance on the car and where:

- direct links to local facilities via walking and cycling networks are not available or cannot be made available;
 - access to local facilities via public transport networks would involve walking more than 400m'
- 2.1.7 PAN 75 identifies the need for the integration of land use planning with transport, taking into account policies on economic growth, education, health and the objective of a more inclusive society.
- 2.1.8 PAN 75 identifies in Annex B the undernoted thresholds:
- 'For accessibility of public transport the recommended guidelines are less than 400m to bus services;
 - A maximum threshold of 1600m for walking is broadly in line with observed travel behaviour'
- 2.1.9 Transport Assessment Guidance (TAG) has been published by Transport Scotland to guide the preparation of Transport Assessments (TA) for development proposals in Scotland. Paragraph 1.8 notes that the TA process "*is directed towards successful delivery of development-related transport measures aimed at achieving sustainable transport outcomes.*" It further notes that the "*process incorporates scoping, transport assessment and implementation including travel plans and monitoring.*" Paragraph 2.2 provides some guidance on the principles of the assessment and states "*the TA deals with person-trips, not car trips.*"
- 2.1.10 The National Roads Development Guide (NRDG) has been produced by the Society for Chief Officers of Transport in Scotland (SCOTS) and is designed to support Designing Streets (DS). NRDG expands on the principles of DS and provides clarification on the circumstances in which DS can be used.
- 2.1.11 NRDG identifies under 'purpose' a number of matters which include to:
- "provide a consistent, accessible and relevant source of information that links related detailed and complex infrastructure requirements in one place";
 - "advocate a re-designation of road hierarchy to user hierarchy";
 - "accommodate Local Authority Variances, such as parking standards or road details. These local departures are intended to be easily identified and accessed and as such form a section appended to this baseline document";
 - "encourage high quality environments that place a focus on people and enable developments to be designed on an individual methodology rather than following standard and rigid specifications where possible"; and
 - "support a more holistic, integrated approach to the planning and approvals process with early discussions between all parties actively encouraged."
- 2.1.12 'Designing Streets' sets out Scottish Government policy to be followed in designing and approving the layout of settlements. The Scottish Government's policy emphasises that street design should meet the six qualities of successful places, as set out in Designing Places. The six qualities and key considerations are summarised as follows:

- Distinctive – street design should respond to local context to deliver places that are distinctive
- Safe and pleasant – streets should be designed to be safe and attractive place
- Easy to move around – streets should be easy to move around for all users and connect well to existing networks
- Welcoming – streets layout and detail should encourage positive interaction for all members of the community
- Adaptable – street networks should be designed to accommodate future adaptation
- Resource Efficient – street design should consider orientation, the integration of sustainable drainage and use attractive, durable materials that can be easily maintained.

2.2 Regional Policy

2.2.1 Regional Policy for the proposed development is largely defined by:

- Approved Aberdeen City & Shire Strategic Development Plan (March 2014)
- NESTRANS Regional Transport Strategy Refresh 2035 (January 2014)

2.2.2 The Approved Aberdeen City & Shire Strategic Development Plan (SDP) identifies *'four strategic growth areas'* (SGA) which will be the focus of development in the area up to 2035. The SPD notes, *"The strategic growth areas are centred on Aberdeen and the main public transport routes."* The SDP also aims to *"make the most efficient use of the transport network, reducing the need for people to travel and making sure that walking, cycling and public transport are attractive choices."*

2.2.3 The Strategic Development Plan identifies among others the undernoted objectives:-

- 'To be a city region which takes the lead in reducing the amount of carbon dioxide released into the air, adapts to the effects of climate change and limits the amount of non-renewable resources it uses'
- 'To make sure that new development meets the needs of the whole community, both now and in the future, and makes the area a more attractive place for residents and business to move to.'
- 'To make sure that all new developments contribute towards reducing the need to travel and encourage people to walk, cycle or use public transport by making these attractive choices'.

2.2.4 The SDP endorses the role of 'Sustainable mixed communities' in making sure that 'new development meets the needs of the whole community, both now and in the future, and makes the area a more attractive place for residents and businesses to move to'.

2.2.5 The NESTRANS Regional Transport Strategy *Refresh* 2035 (RTS) identifies within its four Strategic Objectives the requirements to:

- ‘to enhance and exploit the north east’s competitive economic advantages, and to reduce the impacts of peripherality’
- ‘enhance choice, accessibility and safety of transport for all in the north east, particularly for disadvantaged and vulnerable members of society and those living in areas where transport options are limited’
- ‘to conserve and enhance the north east’s natural and built environment and heritage and reduce the effects of transport on climate, noise and air quality.’
- ‘support transport integration and a strong, vibrant and dynamic city centre and town centres across the north east’

2.2.6 In identifying an ‘Internal Connections Strategy’ the RTS sets out key initiatives aimed at improving transport infrastructure within Aberdeen City and Shire to meet the strategy’s objectives. These are focussed on delivering significant improvements to public transport that will increase usage and bring economic, environmental and social inclusion benefits. The construction of the Aberdeen Western Peripheral Route will facilitate the delivery of complementary transport measures as well as contributing *‘to the economy and sustainable communities across the north east’*.

2.3 Local Policy

2.3.1 Local Policy is defined in:

- Aberdeenshire Local Development Plan (ALDP) 2017;
- Local Transport Strategy (LTS) 2012.

2.3.2 The Aberdeenshire Local Development Plan (ALDP) 2017 sets out the ground rules for the development of land under the land use planning acts. The proposed plan sets out the Council’s statement of policies that will guide the assessment of planning applications while also confirming the principle of development on sites across Aberdeenshire. The ALDP sets out the Council’s land use planning and development policies from the date of approval until 2026.

2.3.3 The Aberdeenshire Local Transport Strategy 2012 (LTS) sets out the transportation vision and objectives of the Council and provides a three-year implementation plan for meeting local changes and needs.

2.3.4 To deliver the vision of the LTS, the Council agreed on five main objectives based on sustainable economy; social inclusion and accessibility; environmental stewardship; safety and security and integration.

2.3.5 The five broad objectives sets out in the LTS are ‘promote sustainable economy growth, promote social inclusion and accessibility, protect the environment, improve safety and improve integration.’

3 Details of Development

3.1 Site Location

- 3.1.1 The site is located to the south of Drumoak, an established village formed along the A93 corridor found between Peterculter and Banchory. The site boundary is formed along the banks of the River Dee, which makes up the northern perimeter. The southern boundary will form along the B9077 or otherwise known as the South Deeside Road. The majority of the site is comprised of an operational quarry, whilst the remaining land consists of agricultural farmland. The site's extremity is illustrated by Figure 3-1 below in the context of its location to Drumoak, with a wider area site location plan provided in Appendix A which illustrates the sites proximity to Aberdeen, the AWPR and other surrounding settlements.

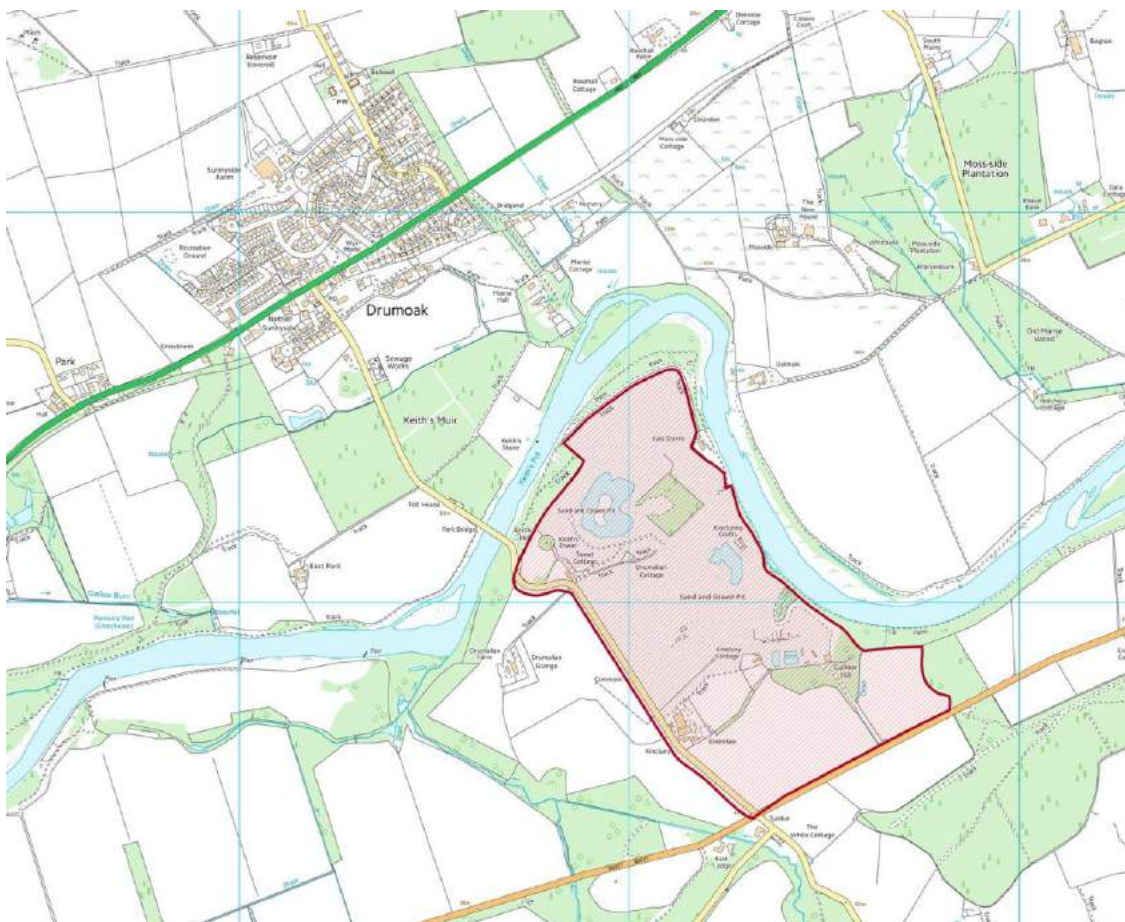


Figure 3-1: Proposed Development Site Location Plan

3.2 Proposed Development

- 3.2.1 The proposal is to create a new village comprising 600 dwellings (including 150 affordable units), a village square, land for a Primary School / Community Hub and 10 acres of dedicated employment land accommodating circa 11,350m² GFA of business park.
- 3.2.2 In addition, a variety of green open spaces including a community loch, play areas, allotments, sports pitches, footpaths and cycle routes are to be provided.

3.2.3 The housing element of the development will total 600 units which would be split into various housing types, generally as shown below:

- 60 Flatted Units, comprised of 1, 2 and 3 bedrooms
- 150 Semi Detached Units, comprised of 2 and 3 bedrooms
- 120 Terraced Units, comprised of 2 and 3 bedrooms
- 240 Detached Units, comprised of 3, 4, 5 and 6 bedrooms
- 30 Self Build Plots

3.2.4 With respect to on site roads and transportation matters, these would be developed further to comply with the requirements of the council's guidelines and the Road Construction Consent process.

3.2.5 The proposed development site masterplan is contained in Appendix B.

3.3 Parking

3.3.1 Parking provision within the development would accord with the relevant guidance contained within Aberdeenshire Council's '*Car Parking Standards for Development Control in Aberdeenshire*' document. Table 3-1 outlines the relevant car parking standards based on the current version of the standards.

Type of Development	Car Parking Standards
General Housing	2 spaces / dwelling (3 or fewer bedrooms) 3 spaces / dwelling (4 or more bedrooms)
Flats (up to 2 bedrooms)	1.5 spaces / dwelling
Housing Association House (3 or more bedroom)	2 spaces / dwelling
Housing Association Flats (up to 2 bedroom)	1 space / dwelling
Business	3 spaces / 100m ² GFA
Primary School	1 space / staff plus pick up facilities

Table 3-1: Aberdeenshire Council Car Parking Standards

3.3.2 There are currently no specific guidelines in relation to disabled, motorcycle and bicycle parking for residential developments. It is anticipated that disabled, motorcycle and bicycle parking would generally be required for flatted developments where communal parking is provided. AC's parking standards notes that, in respect of disabled and motorcycle parking, as a general rule a minimum provision of 4% and 3% of the total parking spaces should be provided respectively. Therefore, within the development where communal parking is provided for flatted developments, disabled and motorcycle parking would be provided to meet with the Council's standards.

- 3.3.3 For the business element of the development proposal, parking for disabled, bicycles and motorcycles would be in accordance with the Council's standards at a minimum of 4%, 4% and 3% respectively.

4 Existing Transport Conditions

4.1 Introduction

- 4.1.1 There is no surrounding urban infrastructure due to the location of the site, the nearest being to the north at Drumoak approximately 1km from the existing site.
- 4.1.2 The site, which has been an operational quarry since 1986, is entirely owned by the CHAP Group. This gives CHAP full control of the land and means that the site is “shovel-ready” and set for development. The adjacent land is predominately made up of agricultural greenfield to the east, west and south beyond the B9077.
- 4.1.3 Comparisons can be drawn between the site of Kinclunly village and the planned and unplanned settlements of Deeside, in the way in which it is positioned at a bend in the river, at a bridge crossing and in the heart of a valley with good transport links to the surrounding area. Figure 4-1 below shows an aerial photograph looking across the site from the east.



Figure 4-1: Existing Kinclunly Site

- 4.1.4 The following section describes the accessibility of the proposed development site by walking, cycling, public transport and car to the wider Aberdeenshire and Aberdeen City areas.
- ### 4.2 Walking and Cycling Accessibility
- 4.2.1 The area within and surrounding the site is limited in terms of pedestrian and cycling facilities due to its location and previous site land use. The C35K Park Road currently routes through the site providing a connection between the A93 North Deeside Road

and the B9077 South Deeside Road. There is currently no footway provision alongside the C35K Park Road south of the River Dee and Park Bridge.

- 4.2.2 Park Bridge accommodates footways on both sides along its entire length, however to the north of the Park Bridge there are no footways present for 200m until National Cycle Network Route 195 'The Deeside Way' joins the C35K Park Road routing adjacent to the east side of the road. The Deeside Way continues north alongside the C35K Park Road to Drumoak before continuing west towards Banchory and upper Deeside. To the east, the Deeside Way provides a link towards Peterculter and continues towards Aberdeen City Centre.
- 4.2.3 The Deeside Way is currently comprised of a gravel surface, unlit and is generally segregated from the C35K Park Road by a grass verge until it enters the village of Drumoak opposite Deeview Gardens where the Deeside Way reverts to 'on road'. At this point, the local footway network for Drumoak begins, providing onward connections to facilities in Drumoak such as the Post Office, Primary School, Church and bus stops alongside the A93.
- 4.2.4 The Deeside Way varies in width from 1.0m to 2.8m and is segregated from the C35K by a grass verge other than over a 75m length adjacent to the Scottish Water Sewage Treatment Works. At this location the footpath width increases to between 2.0m and 2.8m and is directly adjacent to the carriageway.
- 4.2.5 The Deeside Way joins the C35K Park Road opposite Deeview Gardens where the formal footway network for Drumoak is present on the west side of the C35K Park Road. At this point, there is also street lighting present. The footway provision alongside the C35K Park Road connects with the footway provision alongside the A93 where there are footways present to the north and south of the A93 carriageway.
- 4.2.6 Despite the proximity of bus stops on both sides of the A93 and the Drumoak Post Office being located on the C35K Park Road 50m south of the A93, there are no existing formal crossings and no dropped kerbing of the A93 at the junction with the C35K Park Road. Dropped kerbing is only present where the southern footpath alongside the A93 meets the C35K Park Road. The footways to the east offer passage into the village with links onto Sunnyside Avenue via footpaths, Sunnyside Drive and Reidford Gardens.
- 4.2.7 The nearest existing formal crossing point of the A93 is 300m to the east of the C35K Park Road / A93 junction where there is provision of a dropped kerb crossing with pedestrian refuge island. This crossing links in with a footpath providing pedestrian and cycle access to Reidford Gardens on the south side of the A93.
- 4.2.8 Figure 4-2 in Appendix C illustrates the areas covered by walking isochrones indicating the 400 metres (5 minutes), 800 metres (10 minutes) and 1600 metres (20 minutes) distances measured along pedestrian routes from the site's boundary to the north.
- 4.2.9 Figure 4-2 also indicates the existing local amenities, within Drumoak, which includes a post office, bowling green, primary school, church, public hall and a small local shop.
- 4.2.10 Although there are no cycle facilities directly serving the existing site, it is envisaged that cycling would occur on-road on the surrounding local network given that the roads are rural in nature. PAN 75 acknowledges that, *'for the foreseeable future, most cycling will be on the existing road network'*.

- 4.2.11 The nearest formal cycle route is the National Cycle Route 195, known as the 'The Deeside Way', with the path accessible just north of the River Dee. The Deeside Way is an off-road path, which follows the alignment of the A93 passing established settlements such as Cults, Peterculter, Banchory and beyond. This recognised route can be accessed 300 metres from the northern development site boundary and within 1500 metres from the southern development site boundary. The route adjacent to the site and through Drumoak is indicated on Figure 4-2 in Appendix C.
- 4.2.12 Transport Assessment Guidance notes that a journey time of 30 – 40 minutes is appropriate for determining a cycling catchment. This would encompass Drumoak, which is within 1.5km of the existing site or the equivalent of just over 10 minutes.
- 4.2.13 Whilst just outwith the 30 – 40 minute catchment, Peterculter is around 6km to the east, which is the equivalent of 45 minutes cycling time from the existing site boundary.
- 4.2.14 Banchory (10km) and Aberdeen City Centre (17km) are generally located outwith the recommended journey distance / time. However with the existing provision of good cycle networks via The Deeside Way as well as the on-road cycle provision along the A93 North Deeside Road, keen cycle commuters may choose to cycle into Aberdeen and Banchory with cycle times for them being closer to 35 minutes and 1 hour respectively.

4.3 Public Transport Accessibility

- 4.3.1 The adjacent B9077 South Deeside Road is limited in terms of public transport provision with only the Stagecoach Bus Service 204 operating along the route. Bus stop and shelter provision is again limited with busses stopping on an informal basis.
- 4.3.2 Stagecoach Service 204 operates 2 daily services between Strachan through Banchory to Aberdeen via the B9077 South Deeside Road. The AM peak service starts from Strachan at 07:15 through Bridge of Feugh to Banchory High Street and back on the B974 through the South Deeside Road to Aberdeen, passing the existing site at approximately 07:40. In the PM peak there is a return service starting from the Aberdeen Bus Station at 17:20. Additionally there is one off-peak return service on Tuesdays and Fridays, between Banchory and Aberdeen.
- 4.3.3 The closest formal bus stops to the site are located at Drumoak, within 1km of the northern site boundary. Both bus stops comprise of bus shelters with timetable information boards and seating, the eastbound stop also including raised kerbing.
- 4.3.4 Despite the rural location of Drumoak, it is well served in relation to the local bus network. The A93 North Deeside Road is a key bus corridor linking several established towns and villages with Aberdeen as well as with one another.
- 4.3.5 Stagecoach Services 201 and 202 combine to provide on average a 30 minute frequency service between Aberdeen and Banchory passing through settlements along the A93 such as Peterculter, Milltimber, Cults and other Aberdeen City suburbs to the west. The eastbound services route to Aberdeen City Centre where it terminates at the bus station, however, in the westbound direction Service 201 continues to Braemar and Service 202 to Torphins and Lumphanan. The route through Banchory serves bus stops on the A93 Station Road / High Street. The journey time between Drumoak and Aberdeen Bus Station is approximately 40 minutes.

4.3.6 The local bus network and closest bus stops to the site are shown in Figure 4-3, Appendix C. The local existing bus routes and service frequencies are summarised in Table 4-1.

Operator	Service	Route	Weekly Service	Nearest Bus Stop
Stagecoach Bluebird	204	Aberdeen to Banchory via <i>Durris, Maryculter and Blairs</i>	Monday to Friday Two Daily Services from Aberdeen and 1 Daily Service from Banchory (Additional Service on Tuesday and Friday)	South Deeside Road
Stagecoach Bluebird	201	Aberdeen to Braemar via <i>Cults, Peterculter, Drumoak, Banchory, Aboyne and Ballater</i>	Monday to Saturday Every Hour Sunday Every Two Hours	A93
Stagecoach Bluebird	202	Aberdeen to Lumphanan via <i>Cults, Peterculter, Drumoak and Banchory</i>	Monday to Saturday Every Hour Sunday Every Two Hours	A93
Stagecoach Bluebird	203	Aberdeen to Ballater via <i>Cults, Peterculter, Drumoak, Banchory and Aboyne</i>	Monday to Saturday Two Daily Services (Only from Ballater and Banchory)	A93

Note that some services will differ in destinations, routing and frequency throughout the whole day

Table 4-1: Local Bus Service Information

4.3.7 PAN 75 notes that 'for accessibility of housing to public transport the recommended guidelines are less than 400m to bus services'. Only the southern areas of the existing site falls within the recommended 400m from existing bus services on the B9077 South Deeside Road.

4.4 Local Road Network

4.4.1 Vehicular access into the existing quarry site is taken from the B9077 South Deeside Road via a simple priority junction.

4.4.2 350m west of the existing quarry site access is the C35K Park Road, which routes through the site between the B9077 and A93 via the Park Bridge as the road crosses the River Dee. At its junction with the B9077 it forms a cross roads, whilst at the A93 a priority junction is formed.

4.4.3 The C35K, just south of the Park Bridge to its junction with the B9077, is a single carriageway rural country road with widths generally of 5m and passing places. The road is subject to a 60mph speed limit; however, speeds would generally be lower than this due its width, alignment and general rural nature. This section of road forms the western boundary of the site and will be upgraded (including its junction with the

B9077 South Deeside Road) and incorporated into the development in part to serve the site.

- 4.4.4 To the north of the Park Bridge, the C35K is again subject to a 60mph speed limit until it reaches the 30mph limit in Drumoak approximately 100m south of its junction with the A93, just to the south of Deevie Gardens. The C35K has a road width generally of 5m between the Park Bridge and the 30mph speed limit. From the 30mph speed limit to its junction with the A93, the road width is generally 6m with a 1.5m wide footway alongside. The distance between the Park Bridge and the A93 is approximately 770m.
- 4.4.5 There is currently a pinch point just to the north of the Park Bridge where the road passes by the Park Bridge Toll House and the road width drops from 5m to 4.6m over a distance of 25m. The Toll House is a Grade C listed building that is owned by CHAP Group.
- 4.4.6 Three passing places are provided, however generally 2 cars can pass each other at ease. A layby area also exists opposite where the Deeside Way cycleway connects and through observations, is currently used by people parking and then walking for leisure purposes. A further surfaced field access can also be used as a passing place.
- 4.4.7 The B9077 is a single carriageway rural road which runs between Aberdeen and Banchory, crossing the A957, 'Slug Road' just south of Crathes. It is a well-used commuter and tourist route and for its majority the road is subject to a 60mph speed limit. A 30mph limit has recently been put in place where the new village of Blair's has been developed, located between the existing site and Aberdeen.
- 4.4.8 The B9077 within the vicinity of the site has experienced several accidents since 2008. High vehicle speeds occur due to a number of long straight sections of the road. There are however a series of bends and several private accesses and side roads.
- 4.4.9 From interrogation of the Crashmap website, directly adjacent to the B9077 / C35K cross-roads there have been 8 accidents since 2008. This has included 4 slight, 3 serious and 1 fatal accident. Damage only accidents are not recorded however, this is a known accident black spot and is an area of concern for the local community and any improvements would be welcomed by them and Aberdeenshire Council.
- 4.4.10 Approximately 2.5km to the east, a further cluster of 8 accidents have occurred since 2008; 6 slight and 2 serious. Figure 4-4 shows the number of accidents that have occurred along the B9077 in the vicinity of the existing access's into the site.



Figure 4-4: B9077 South Deeside Road Accident Statistics since 2008

- 4.4.11 The A93 is a principal arterial road which connects Aberdeen to Perth, though it is not the primary road between the two cities. It provides access to settlements on the route and also serves as a key transport route to many tourist destinations within the Royal Deeside area.
- 4.4.12 Where the A93 passes through Drumochter the speed limit is reduced to 30mph. Driveways are accessed directly from the A93 and on-street parking occasionally occurs with no restrictions in place. The A93 is one of the main commuter links to Aberdeen from the west connecting Banchory, Aboyne, Ballater and Braemar to the city, all of which are served directly by the A93.
- 4.5 Park Bridge**
- 4.5.1 Where the C35K crosses the River Dee, Park Bridge provides a single track crossing. Park Bridge is Grade 'A' listed and enables access from the site to Drumochter, the A93 and also to Route 135 of the National Cycle Network: The Deeside Way.
- 4.5.2 The C35K Park Road crosses the River Dee via the Park Bridge which is currently restricted to pedestrians, cyclists and vehicles less than 3 tonnes. There is no restriction on the volume of traffic that can use the bridge.
- 4.5.3 The carriageway width over the bridge has been reduced, with additional bollards located at the entry points, to ensure that only cars and LGV's use the bridge. The reduced width has enabled footways to be provided on both sides of the bridge.
- 4.5.4 As a result of the reduced width only one direction of traffic can cross the bridge at any time. This is currently controlled by way of signage giving priority to vehicles approaching from the south of the river.
- 4.5.5 Traffic surveys have confirmed that the bridge is regularly used with over 600 vehicles using the bridge every day. Traffic flows are generally spread across the day with some traffic using this route as a rat-run to avoid travelling along the A93 North Deeside Road through the built up areas of Peterculter, Milltimber, Bieldside and Cults.

- 4.5.6 The Park Bridge provides one of only three Dee crossings between Aberdeen and Banchory and is the last opportunity for traffic to route from the A93 to the B9077 (and vice-versa) to access Aberdeen by avoiding travelling through the built up areas or Peterculter and Milltimber.
- 4.5.7 The Park Bridge also provides a direct link to Drumoak and nearby areas of Peterculter and Westhill for the local rural community of Durriss, which is located approximately 3.5km to the west of the site, adjacent to the B9077 South Deeside Road.
- 4.5.8 The Park Bridge would continue to be used by vehicles, pedestrians and cyclists, however it is not proposed to provide a direct vehicular connection through the development to the north (pedestrian / cycle connection would be provided). Access to / from the Park Bridge would still be available via the C35K from the southern area of the development and existing users would not be impacted upon. This will encourage the use of the B9077 South Deeside Road as the main route to / from Aberdeen and the AWPR by development traffic, particularly commuting traffic.
- 4.5.9 In June 2016, AC arranged for the Park Bridge to undergo a structural assessment of the columns, spandrels, beams, arch ribs and timber deck. The Structural Assessment Review Report was completed in August 2016 with the follow-up Timber Deck Condition Report completed in October 2016.
- 4.5.10 The August 2016 Assessment Review Report concluded the following:
- There was an error in the calculations within the previous November 2006 Report which resulted in the lower capacities of the cast iron columns, spandrels and arch ribs. The 2016 re-assessment of the cast iron elements gives their assessed capacities of 7.5t Assessment Live Loading.
 - When assessing the Assessment Live Loading of the arch rib bolted splice, the previous November 2006 Report concluded that this was 3t. However, the spacing of bolts and bolt diameters were based on site photographs and not site confirmed measurements. In addition, it is considered that the method of assessment adopted previously to determine the capacity of the spliced connection was not appropriate. The 2016 Assessment Live Loading of the arch rib bolted connection is 7.5t.
 - The assessed capacities of the steel transverse beams are confirmed as 7.5t Assessment Live Loading.
 - The timber deck beam assessed capacity remains as 3t Assessment Live Loading.
 - The assessed capacity of the bridge is limited by the timber deck beam's assessed capacity of 3t Assessment Live Loading.
 - The Principal Inspection Report made no mention of settlement or other distress in the foundations or substructure. The visual inspection undertaken confirmed this and the qualitative assessment is that the foundations and substructure are adequate to support the vertical loads.
 - The report concludes that all assessed structural elements can carry the 7.5 tonnes Assessment Live Loading except the timber deck which is only adequate for 3t Assessment Live Loading based on the assumptions that

there is no section loss and there is no deterioration of the timber deck beam. The bridge structure can therefore carry 3 tonnes Assessment Live Loading.

- 4.5.11 The August 2016 structural assessment confirms that the bridge is structurally sound and can continue to carry up to 3t Live Loading and therefore it is considered suitable to continue to be used by existing traffic and the marginal increase that would be expected from the proposed development given the proposed road layout and connections to the B9077 South Deeside Road and the C35K Park Road.

5 Trip Generation and Distribution

5.1 Methodology

5.1.1 The methodology adopted to determine the person trip generation has involved the use of vehicle trip rate data from the TRICS Online database and mode share data from Scotland's 2011 Census database. A multi-modal trip rate assessment has been carried out to determine the level of person trips that could potentially be generated by the proposed development.

5.2 Residential Trip Generation

5.2.1 To determine the level of vehicle trips likely to be generated by the proposed development, the TRICS online database has been interrogated for vehicle trip rates associated with land use type 'Residential' and the 'Houses Privately Owned' sub-category in an 'edge of town' location. The detailed TRICS output can be found within Appendix D which was agreed following previous scoping discussions with Aberdeenshire Council, Aberdeen City Council and Transport Scotland.

5.2.2 The Weekday AM and PM development peak hours based on TRICS are 08:00 - 09:00 and 17:00 - 18:00 hours respectively. The people trip rates, and hence resulting trip generation levels, have been agreed during scoping discussions, and these are summarised in Table 5-1 below.

People Trips	Weekday AM Peak (08:00 – 09:00)				Weekday PM Peak (17:00 – 18:00)			
	Trip Rates		Trips		Trip Rates		Trips	
Dwellings	In	Out	In	Out	In	Out	In	Out
600	0.246	0.860	148	516	0.630	0.374	378	224

Table 5-1: Residential People Trip Generation

5.2.3 It was agreed during previous scoping discussions to adopt the census mode share for the existing Drumoak village. Table 5-2 subsequently summarises the people trip generation for the proposed development of 600 houses.

Mode of Travel	Modal Split	Weekday AM Peak (08:00 – 09:00)		Weekday PM Peak (17:00 – 18:00)	
		In	Out	In	Out
Bus, minibus or coach	12.5%	18	65	47	28
Taxi or minicab	1.6%	2	8	6	4
Driving a car or van	63.5%	94	328	240	142
Passenger in a car or van	6.8%	10	35	26	15
Motorcycle, scooter or moped	0.2%	0	1	1	0
Bicycle	2.6%	4	13	10	6
On foot	11.4%	17	59	43	26
Other	1.4%	2	7	5	3
Total	100%	148	516	378	224

Table 5-2: Residential Modal Split and Peak Hour Trip Generation

- 5.2.4 Table 5-1 indicates that the full residential development could potentially generate 664 and 602 two-way people trips in the weekday AM and PM peak hour periods respectively. In regard to vehicle trips it has been estimated that the development will generate 421 and 383 two-way vehicle trips in the weekday AM and PM peak hours respectively.
- 5.2.5 2011 Census data has been used to determine the split between journey to work trips internally within the development and external trips outwith the development. Data for the nearby settlements of Banchory and Aboyne indicates that 36% of people aged 16 to 74 in employment travel less than 5km to their place of work or study, which suggests that they typically live and work in the same settlement.
- 5.2.6 The development proposals at Kincluny, whilst predominately residential, also include employment, retail and education proposals to create a new sustainable Deeside Settlement. A square, land for a primary school and community hub and dedicated employment land for a 11,350m² GFA business park is proposed.
- 5.2.7 Whilst the proposals are on a smaller scale to the existing settlements of Banchory and Aboyne, the principles of internal and external trips are relevant, although it is acknowledged that the retention of trips for Kincluny would not be to the same extent as Banchory and Aboyne. Nevertheless, when considering the full development proposals this is comparable to many smaller towns and villages in Aberdeenshire.
- 5.2.8 The recently approved, and currently under construction, development at Chapleton of Elsick adopted similar principles with Phase 1 of the development retaining 25% of the journey to work traffic generated by the residential element in order to reflect the employment opportunities available within the site at that stage. For the full development at Chapleton of Elsick it was considered that a retention of 35% should be readily achievable. For Phase 1A (approximately 800 houses + some employment) at Chapleton of Elsick a retention of 15% was agreed.

5.2.9 Just as the full development at Chapleton of Elsick would be considered similar to that of Banchory and Aboyne, the Kincluny development is considered to be similar to Phase 1A of Chapleton of Elsick where there will be 800 residential units plus employment. A retention rate of 15% has there been applied to trips generated by the residential element of the Kincluny development proposals with 85% considered as external trips on the wider local and strategic road network.

5.3 Employment Trip Generation

5.3.1 As part of the development it is proposed to deliver 10 acres of employment land accommodating a commercial park comprising the elements shown in Table 5-3 below.

Development Type	Office	Workshop	Total
Total Class 4 'Office'	5,666m ²	-	5,666m ²
Total Class 5 'Industrial'	1,136m ²	4,545 m ²	5,681m ²
Total	6,802m ²	4,545 m ²	

Table 5-3: Proposed Commercial Park Development

5.3.2 In order to assess the potential vehicle trip generation for the employment land, vehicle trip rates for the respective land-uses have been extracted from the TRICS online database.

5.3.3 The vehicle trip rates and the resulting vehicle trip generations over the Weekday AM and PM travel peak hours are summarised in Table 5-4.

Development Type	Weekday AM Peak				Weekday PM Peak			
	Trip Rates		Trips		Trip Rates		Trips	
	In	Out	In	Out	In	Out	In	Out
Class 4 'Office' – 6,802 m ²	1.733	0.193	118	13	0.153	1.533	10	104
Class 5 'Industrial' – 4,545 m ²	0.513	0.230	23	10	0.201	0.476	9	22
Total			141	23			19	126

Table 5-4: Employment Land Vehicle Trip Generation

5.3.4 As some of the employment trips would be generated internally from within the residential development, it had been agreed previously through scoping discussions that an allowance for 15% of the employment based trips associated with the Commercial Park would be considered as originating from within the new settlement.

5.3.5 Table 5-5 illustrates the level of internal trip generation associated with the commercial park, which would be discounted from vehicle trips to be assigned to / from the external network for the commercial park aspect of the proposals only.

	Weekday AM Peak		Weekday PM Peak	
	In	Out	In	Out
Total Employment Vehicle Trips	141	23	19	126
Internal Trips at 15%	21	4	3	19
Employment Trips – External	120	19	16	107

Table 5-5: Employment Land External Trips

5.3.6 Table 5-5 indicates that the full employment development could potentially generate 139 and 123 external vehicle trips in the weekday AM and PM peak hour periods respectively.

5.4 Trip Distribution and Assignment

5.4.1 Following previous discussions with AC's Transportation team, a distribution that took into account elements of the 2011 Census data, was provided by AC. However the data was based on the settlement of Drumoak, which is located directly adjacent to the A93. The resultant distribution was determined as 80% to the A93 and 20% to the B9077, as would be expected given Drumoak's proximity to the A93.

5.4.2 Following further discussions, AC revised their suggested distribution as 50.5% to the A93 and 49.5% to the B9077, resulting in an overall distribution of traffic North, South, East and West as follows:

- 53.5% North
- 36% East
- 2% South
- 8.5% West

5.4.3 Whilst the overall distribution North, South, East and West is generally agreed, the route traffic takes to reach each direction has been considered further given that the proposed development is located over 1km to the south of the A93 adjacent to the B9077 South Deeside Road.

5.4.4 As the site is currently an operational quarry and farm land there is essentially no relevant census data for this location and therefore engineering judgement and local knowledge of traffic movements is considered appropriate in determining the detailed distribution of traffic.

5.4.5 The distribution considered for this assessment results in a similar overall distribution of traffic to that proposed by Aberdeenshire:

- 50.5% North
- 37% East

- 4% South
- 8.5% West

- 5.4.6 The main difference being that 2% of traffic has been assigned to the B979 Netherley Road as it is considered that within the study area agreed, the development would result in some traffic routing to and from the employment areas at Portlethen via this route.
- 5.4.7 When considering the AM peak period the shortest route with the least journey time from the development site to the AWPR & B979 Milltimber Brae Junctions with the A93 is via the B9077 South Deeside Road. It is therefore considered that the distribution of traffic to the AWPR & B979 Milltimber Brae Junctions with the A93 would mainly be via the B9077 South Deeside Road. It is however acknowledged that some traffic will choose to route via the A93 at Drumoak to travel into Aberdeen.
- 5.4.8 Again it is acknowledged that traffic to Westhill and further west along the A944 is likely to route via the A93 and Malcolm Road. However, it is considered that some traffic travelling to Kingswells or further to the east would also route via the AWPR and therefore traffic to Kingswells would be distributed between the B9077 to the AWPR Milltimber junction and the A93 to the Malcolm Road junction.
- 5.4.9 When considering the scale of business development at Kingswells (current and planned) and taking on board Aberdeenshire Council's scoping comments, we would consider that a 80% Malcolm Road / 20% AWPR split of the 24.5% distribution to the Kingswells / Westhill area is robust.
- 5.4.10 Given that the shortest route with the least journey time from the development site to the AWPR Milltimber Junction is via the B9077 South Deeside Road we would consider that traffic would route this way. Similarly, the remaining 26% of trips allocated to the AWPR North would also route via the B9077.
- 5.4.11 This results in an overall distribution of development traffic in the AM peak hour from the site of 72% to the B9077 and 28% to the A93. This distribution is considered robust, realistic and fully takes into consideration the proposed Kinclunly development, its location and the AWPR. This also takes into full consideration comments previously received from Aberdeenshire Council, particularly in respect of the traffic distributions towards Westhill and Kingswells via Malcolm Road.
- 5.4.12 When considering the PM peak period and specifically for traffic returning to the site, the route with the least journey time from the AWPR & the A93 would be via the A93 North Deeside Road as opposed to the B979 Milltimber Brae and B9077 South Deeside Road. It is therefore considered that the distribution of traffic from the A93 would mainly be on the A93 North Deeside Road and continue to Drumoak, accessing the site via the C35K Park Road. Similarly traffic returning from the AWPR would mainly route via the A93 North Deeside Road rather than the B9077 South Deeside Road.
- 5.4.13 This results in an overall distribution of development traffic in the PM peak hour to the site of 45.5% to the B9077 and 54.5% to the A93. This distribution is considered robust, realistic and fully takes into consideration the proposed Kinclunly development, its location and the known operation of the road network. This is also similar to the distribution proposed by Aberdeenshire Council as discussed above.

- 5.4.14 Whilst the simplistic approach (which is generally accepted) would be to apply the same distribution of traffic in the AM and PM peak periods, the methodology discussed above takes into consideration the general operation of the existing road network. It also considers that many peak hour drivers, particularly in this area, will choose different routes to travel to and from Aberdeen and its surrounding area.
- 5.4.15 A major factor in driver's route choice is the journey time and in many locations the route a driver takes when returning in the PM peak differs from the route a driver takes in the AM peak.
- 5.4.16 The routing takes into consideration driver perception of the South Deeside Road and the A93. Driver perception is that when travelling to / from Aberdeen, journey times are less using the B9077 South Deeside Road rather than the A93 North Deeside Road. It is known and acknowledged by Aberdeenshire Council officers that many drivers from Banchory and further west use the B9077 South Deeside Road to access Aberdeen. It is also known that many drivers from Drumoak and those already on the A93 use the C35K Park Road (and Park Bridge) to access the B9077 South Deeside Road in order to route to / from Aberdeen and to avoid travelling along the A93 North Deeside Road. The B9077 South Deeside Road offers shorter journey times from the Kincluny development site due to it being mainly 60mph whereas the A93 North Deeside Road from Peterculter eastwards routes through built up areas and the speed limit is 30 / 40mph with several traffic signal junctions to route through.
- 5.4.17 The trip distribution and route assignment for the employment element of the development had been fully agreed during previous scoping discussions and have been retained as previously agreed.
- 5.4.18 Figure 24, Figure 27 and Figure 32 in Appendix E detail the percentage distribution of development traffic on the wider road network.
- 5.4.19 It is considered that the above will result in a very robust traffic impact assessment, however a more robust assessment which considers all vehicles routing to / from the development via the B9077 South Deeside Road has also been undertaken. This allows for a scenario where the Park Bridge is closed for any period of time for maintenance / repairs or if AC ever decided to permanently close the Park Bridge to all vehicular traffic due to any structural concerns.

6 Site Accessibility Proposals

6.1 Introduction

- 6.1.1 National and local planning policies encourage the use of sustainable travel modes rather than relying exclusively on access by private car, particularly single occupancy car trips. Current policies also promote a hierarchical approach in considering accessibility and prioritising opportunities for walking, cycling and public transport ahead of access for private cars. Support for this approach is outlined in the Scottish Government's policy document 'Designing Streets.' The key policy objective of 'Designing Streets' is a street hierarchy that focuses on a sense of place and greater priority for walking and cycling over vehicle trips.
- 6.1.2 The planning application is in principle so the exact layout of the development is not confirmed at this stage. An indicative site Masterplan is presented in Appendix B demonstrating that the site can be developed to be accessible and well connected, giving specific regard to the needs of vulnerable road user groups. It is envisaged that good access by all travel modes, internally and externally, would be key considerations in the design of the internal layout. The street layout would be designed to create direct connections to the existing key external routes, particularly walking and cycling routes in the area.

6.2 Pedestrians and Cyclists

- 6.2.1 With regard to walking as a main mode of travel, PAN75 suggests that a maximum walking threshold of 1600 metres (20 minutes) is in line with observed behaviour. Reference to paragraph 5.21 of TAG also suggests that journey times of 20 – 30 minutes (1600 – 2400 metres) are appropriate for walking.
- 6.2.2 The proposed new village at Kincluny will have its own local services and facilities and will not be reliant upon those provided within Drumoak. However it is acknowledged that early phases of development would access facilities within Drumoak and may continue to do so as the Kincluny development progresses. Similarly, residents of Drumoak would be likely to take advantage of the facilities and services provided within the Kincluny development.
- 6.2.3 As illustrated in Figure 4-2 in Appendix C, the northern site boundary is within 1600m walking distance from all of the local facilities in Drumoak. The residential phases of development are all within 800m of the northern site boundary resulting in maximum walking distances to all local facilities in Drumoak of 2400m, which, as referred to above, is considered appropriate for walking.
- 6.2.4 The proposed development therefore meets the test of SPP, which stipulates that 'Planning permission should not be granted for significant travel-generating uses at locations which would increase reliance on the car **and** [bold print ours] where: direct links to local facilities via walking and cycling networks are not available **or cannot** [bold print ours] be made available.
- 6.2.5 SPP requires significant travel generating sites to be located where they can provide direct links to local facilities via walking and cycling networks. All of the local facilities in Drumoak could be accessed via an upgraded footpath network connecting with the proposed development.

- 6.2.6 There is currently a gap in the existing footpath provision between the Park Bridge and the Deeside Way foot / cycle path located 200m to the north. It is therefore proposed that as part of the Kincluny development, footway provision will be provided from the Park Bridge connecting to the Deeside Way. Footway provision from within the site will also connect with the existing provision on the Park Bridge enabling a pedestrian link to be developed continuously between Kincluny and Drumoak.
- 6.2.7 Figure 6-1 in Appendix F illustrates the location of the existing and proposed footpath provision.
- 6.2.8 Previous comments received from Aberdeenshire Council have confirmed that any pedestrian route will require to be lit. It is envisaged that full details of any lighting proposals would be developed as part of any future planning application and appropriate planning conditions in this regard could be established.
- 6.2.9 The development proposals will therefore provide residents with the opportunity to walk or cycle to local facilities within Drumoak. Access to these local facilities would not be reliant on the car as the only travel mode. The wording of the SPP policy acknowledges that where sustainable travel options are available, which is the case with the Kincluny site, then a site is not considered to be reliant on private car use to access local facilities.
- 6.2.10 Despite the proximity of bus stops on both sides of the A93 and the Drumoak Post Office being located on the C35K Park Road 50m south of the A93, there are no existing formal crossings and no dropped kerbing of the A93 at the junction with the C35K Park Road. Dropped kerbing is only present where the southern footpath alongside the A93 meets the C35K Park Road. It is therefore proposed, to provide a formal signalised pedestrian crossing on the A93 adjacent to its junction with the C35K Park Road, thus significantly improving existing and future pedestrian connectivity.
- 6.2.11 Figure 6-2 in Appendix F illustrates the indicative location of the proposed pedestrian crossing. The exact location and full details of design would be agreed with Aberdeenshire Council through future detailed planning applications.
- 6.2.12 It must also be recognised that the development proposals are to create a new village that will include its own local facilities and it will therefore not be entirely reliant upon those present within Drumoak. Early phases of the Kincluny development will include a Village Square and other local facilities, with subsequent phases expanding on the development core.
- 6.2.13 The design of the internal layout would be consistent with the principles outlined in Designing Streets by facilitating a high level of pedestrian and cyclist permeability ensuring safe, convenient and direct links to / from the principal points of access on the external network to all dwellings within the new development. Where pedestrian facilities cross vehicular routes within the site, safe designated crossing points would be provided, appropriate to the context of the location within the development.
- 6.2.14 A Street Engineering Review would be undertaken to ensure that the internal layout meets the required Roads Construction Consent standards and would be undertaken and agreed as part of any future detailed planning applications. Aberdeenshire Council's Roads Development team would be fully involved in this process.

6.3 **Public Transport Strategy**

- 6.3.1 Existing services on the A93 in Drumoak are outwith PAN75 guidance on walk distances to public transport services of 400m. They are however within practical walk distance of 1600m. The weight restriction on the Park Bridge precludes diversion of existing services from Drumoak, however the proposed footpath connection established between Drumoak and the Park Bridge, would allow passengers from the development to connect to the frequent public transport services on the A93.
- 6.3.2 In order to provide bus services within PAN75 walk distance to bus services, a service pattern via B9077 South Deeside Road requires to be identified. The frequency of existing service 204 is insufficient to meet the needs of the scale of development proposed, except as an early stage measure for limited development of (say) up to 100 dwellings, providing a peak period journey for travel to and from Aberdeen.
- 6.3.3 As the development expands, it is anticipated that there may be an opportunity to enhance existing services to / from Aberdeen. Early discussions with Stagecoach Bluebird suggest their preference for service operation to Aberdeen would be to utilise the existing 204 route via B9077 South Deeside Road rather than the A93 and via Milltimber Brae. A concern over competing with First Aberdeen on the A93 corridor is noted. Stagecoach Bluebird has also confirmed that there is currently no possibility of diversion of existing A93 Royal Deeside services via the B9077 South Deeside Road.
- 6.3.4 Costings for increasing the service frequency of the existing Stagecoach Bluebird Service 204 have been received from Aberdeenshire Councils Public Transport Unit and are discussed further below.
- 6.3.5 The Blairs Village development, which the B9077 South Deeside Road routes by, would also benefit from any increase in bus services, but on its own cannot attract any service diversion due to the small number of potential passengers.
- 6.3.6 As with all new residential development, the level of demand for bus services is modest in the early stages of construction, making it very difficult to justify the provision of either new direct services or the diversion of existing services.
- 6.3.7 Existing services on the A93 in Drumoak are outwith PAN75 guidance on walk distances to public transport services of 400m. They are however within practical walk distance of 1600m. The weight restriction on the Park Bridge precludes diversion of existing services from Drumoak, however the proposed footpath connection established between Drumoak and the Park Bridge, would allow passengers from the development to connect to the frequent public transport services on the A93.
- 6.3.8 In order to provide bus services within PAN75 walk distance to bus services, a service pattern via B9077 South Deeside Road requires to be identified, as the frequency of the existing service 204 is insufficient to meet the needs of the scale of development proposed, except as an early stage measure for limited development of (say) up to 100 dwellings, providing a peak period journey for travel to and from Aberdeen.
- 6.3.9 Service 204 also operates an inter-peak return service on a Tuesday and Friday and if this were increased to a daily (Monday – Saturday) service it is considered that this would be appropriate to serve up to 300 houses.

6.3.10 Discussions with Aberdeenshire Council and Stagecoach have concluded that the costs to extend the Service 204 during the inter-peak and to operate 6 days a week and not just Tuesday and Friday would be a daily rate of circa £202 for the additional 4 days. Aberdeenshire Council confirmed that weekend costs are less than Monday - Friday costs and therefore to introduce a peak and inter-peak service on a Saturday would be a daily rate of circa £202.

- 101 to 300 Houses = 4 days x £202 = £808 x 52 weeks = £42,016 per annum

6.3.11 The costs to operate an additional service between the development and Aberdeen with a peak return journey and a Monday – Friday inter-peak journey would be circa £280 per day. With this additional service provision there would be 4 AM and 4 PM bus journeys operating which is considered to be appropriate to serve the development of 600 houses.

- 301 to 600 Houses = 5 days x £280 = £1,400 x 52 weeks = £72,800 per annum

6.3.12 A transport interchange at Kincluny could be constructed which would enable the Service 204 to access initial phases of the development directly via the B9077 South Deeside Road. As the development and infrastructure expands, bus services would be routed through the village and back onto the B9077 South Deeside Road.

6.3.13 An increase in frequency of the existing 204 service, operating between Kincluny and Aberdeen Union Square, would provide a more attractive journey time than the A93 services. In order to provide a 60 minute interval service, a resource of two vehicles would be required, whilst a single vehicle would be able to provide a 90 minute interval service.

6.3.14 The recent implementation of the Grasshopper multi operator ticket in the Aberdeen and Aberdeenshire areas will allow residents to change services and operators without having to buy separate tickets, increasing the attractiveness of bus travel.

6.3.15 In support of the previous development proposals a Public Transport Strategy was prepared and submitted to AC. This included details of all discussions with AC's Public Transport Team with potential costs identified for increasing the level of public transport provision to serve the Kincluny development.

6.4 **Safe Routes to Schools**

6.4.1 As part of the Kincluny development, land is safeguarded for a primary school / community hub and the site would be developed providing a safe network of internal footways and cycleways which would allow sustainable travel to any future primary school / community hub. Roads around the primary school / community hub would incorporate 20mph speed restrictions.

6.4.2 It is not envisaged that the primary school would not be required until approximately 300 houses. The proposed Kincluny development would initially fall within the catchment areas for Durriss Primary School and Banchory Academy.

6.4.3 There is no additional space at Durriss school to locate any temporary classrooms and although there is a new school built at Drumoak, due to the physical constraints of the site, additional temporary accommodation provision there is unlikely.

- 6.4.4 Discussions with Aberdeenshire Councils Education department had previously established that, assuming a 2018 start, Durris School can accommodate output from the development over the first 2-3 years to 2021 and Drumoak primary to 2023 if required. Further opportunities also exist at nearby Lairhillock school until a school is developed within Kincluny. It is envisaged that this position remains the same but with a start date of 2021.
- 6.4.5 A new primary school within Kincluny would enable the possibility of relocating the pupils from Durris school which would rationalise the Council's school estate and provide enhanced educational opportunities to assist in the delivery of the Scottish Governments Curriculum for Excellence.
- 6.4.6 Aberdeenshire Council's School Transport Policy states that *'the Council provides free transport to all children who live over two miles walking distance from school, in the case of primary school children, and three miles for secondary school pupils'*. This implies that a walking distance of up to 2 miles is generally acceptable for primary school children. The entire Kincluny site is within 2 miles of both Durris and Drumoak schools and are therefore within the acceptable walking distance to schools in accordance with national guidance and the Council's policy.
- 6.4.7 With the provision of a lit footpath connection between Drumoak and the Kincluny development, and a signalised pedestrian crossing of the A93, a safe pedestrian route to Drumoak school would be provided.
- 6.4.8 There is no footway provision along the B9077 South Deeside Road, or indeed the network of narrow country roads that lead to the hamlet of Woodlands of Durris, where Durris school is located. There is also no provision of lighting until within Woodlands of Durris.
- 6.4.9 It is not proposed as part of the Kincluny development to provide footway provision to Woodlands of Durris. However, in order to ensure a safe route to Durris school is established, the provision of school transport would be provided as part of the development proposals. This provision would be in place until such time as the new school at Kincluny was constructed.
- 6.4.10 Figure 6-3, contained in Appendix F illustrates the safe routes to Drumoak school once reaching the A93 at Drumoak.
- 6.4.11 Previous discussions with AC's Education department has established that the existing Banchory Academy could accommodate pupils generated by the development until around 2025. The Education department would foresee a financial contribution on an 'extension cost basis' rather than the provision of alternative solutions or accommodations.
- 6.4.12 The 'area' surrounding Kincluny adjacent to the B9077 South Deeside Road is currently served by school transport to and from Banchory Academy. It is therefore envisaged that this provision could be diverted into the Kincluny site, or via a dedicated pick up / drop off point adjacent to the B9077, thus providing a safe route to school for Academy pupils.
- 6.4.13 It is therefore concluded that safe routes to school can be provided from the Kincluny development to Banchory Academy as well as to both Durris and Drumoak primary schools.

6.5 **B9077 South Deeside Road and Proposed Vehicular Access**

- 6.5.1 As part of the development, it is proposed that the B9077 South Deeside Road will have a reduced speed limit along the development frontage. The South Deeside Road is currently 60mph at this location and a number of accidents have occurred in recent years, including a fatality.
- 6.5.2 In order to enforce the reduced speed limit, road engineering and street design would be agreed with Aberdeenshire Council through future detailed planning applications. However, to aid this process, the main access to the site will be via 2 new roundabout junctions with the South Deeside Road with early phases of development served initially by the junction to the west which would see the existing B9077 / C35K cross-roads junction upgraded to a 4-arm roundabout.
- 6.5.3 As discussed above, the existing B9077 / C35K junction has poor visibility, a history of accidents and it has been acknowledged by Aberdeenshire Council's Roads Development service that any improvements on this stretch of the B9077 South Deeside Road would be welcomed.
- 6.5.4 It is envisaged that the new roundabout junction to the east would be constructed to serve the proposed Business Park and later phases of the development.
- 6.5.5 The roundabout junctions would be designed in accordance with the relevant Aberdeenshire Council standards with full details agreed through future detailed planning applications and the Roads Construction Consent process.
- 6.5.6 Further vehicular access would be maintained from the A93 via the C35K and Park Bridge, however as discussed above, there would be no direct access from the north of the development with access via a southern connection between the development and the existing C35K.
- 6.6 Internal Roads**
- 6.6.1 A clear hierarchy of streets will help create a strong sense of place and aid movement through the new development. Good street design will promote a better quality of living for everyone and will meet the six qualities of successful places; Distinctive, Safe & Pleasant, Easy to Move Around, Welcoming, Adaptable and Resource Efficient.
- 6.6.2 Street design has been approached following the street design hierarchy looking at street structure, then layout, followed by detail. At all times this has aimed to consider place before movement, with the needs of pedestrian, cyclists and public transport considered before those of other vehicles.
- 6.6.3 A 'primary street' through the site creates a new link accessed from two new junctions on the B9077 South Deeside Road. This street will be designed to allow for the potential provision of a new bus route through the site, improving bus accessibility throughout the community. The primary street has been designed to give the site a sense of arrival and place, passing through a series of core spaces and key junctions including the Community Hub and Village Square.
- 6.6.4 In addition to the core streets there will be further streets, lanes and shared surfaces within the development areas which will be designed in accordance with 'Designing Streets' policy and appropriate standards/requirements of Aberdeenshire Council.

6.6.5 Street layout has been considered in tandem with land use. The proposed Kinclunly Business Park has been located adjacent to the B9077 South Deeside Road and is well connected to both the proposed development and the wider road network.

6.7 Park Bridge

6.7.1 The C35K Park Road crosses the River Dee via the Park Bridge, which is currently restricted to pedestrians, cyclists and vehicles less than 3 tonnes. The carriageway width over the bridge has been reduced, with additional bollards located at the entry points, to ensure that only cars and LGV's use the bridge. The reduced width has enabled foot/cycle-ways to be provided.

6.7.2 As a result of the reduced width only one direction of traffic can cross the bridge at any time. This is currently controlled by way of signage giving priority to vehicles approaching from the east of the river.

6.7.3 The Park Bridge provides one of only three Dee crossings between Aberdeen and Banchory and provides a direct link to Drumoak and nearby areas of Peterculter and Westhill for the local rural community of Durriss, which is located approximately 3.5km to the west of the site, adjacent to the B9077 South Deeside Road.

6.7.4 The Park Bridge is a Grade 'A' listed structure and whilst there has been concern raised with an increase of vehicles using the bridge, the more recent structural assessments confirm that the bridge is structurally sound and would be capable of accommodating the level of traffic likely to be generated by the proposed development.

6.7.5 The existing 'give and take' arrangement could be formalised by way of providing traffic signals to control the flow of traffic over the bridge, however this is not considered necessary as the bridge would continue to operate within capacity without the provision of traffic signals and the existing 'give and take' system being retained.

6.7.6 Pedestrian and cycle provision will remain unimpeded with the existing provision continuing. Previous correspondence from AC's Transportation service has acknowledged that the current give and take priority system with the existing footways can accommodate pedestrians with buggies, prams and wheelchairs.

7 Residential Travel Plan Framework

7.1 Introduction

- 7.1.1 Paragraph 279 of SPP comments that ‘Development plans should indicate when a travel plan will be required to accompany a proposal for a development which will generate significant travel’.
- 7.1.2 Travel Plans for Residential Developments require to be tailored to the needs, location and scale of the development. In line with emerging best practice, it is envisaged that the practical implementation of the Travel Plan would require the preparation of a Residential Travel Pack.
- 7.1.3 Aberdeenshire Council’s ‘Guide to Residential Travel Packs’ notes that ‘Travel Plans (including Residential) should be implemented to encourage a shift in transport mode for those travelling to and from the development.’ It also comments that ‘Specifically for residential travel plans, measures should be introduced which will be used as an incentive to house purchasers to use non-car travel modes.’

7.2 Residential Travel Pack Aims and Objectives

- 7.2.1 Kincluny village would be developed in a manner to enable and encourage access to both existing and future local facilities within the settlement area. The aim of the emerging Residential Travel Pack would be to promote and encourage use of more sustainable travel options rather than single occupier car journeys from the development.
- 7.2.2 The Residential Travel Pack would need to be reviewed, monitored and updated regularly until the development was completed and fully occupied. Objectives of the emerging Residential Travel Pack would be to address the following;
- Increase awareness among residents of travel choices and implications
 - Facilitate and promote more active forms of travel
 - Increase the share of residents travelling to work by walking, cycling or public transport
 - Promote the personal health benefits of active travel
 - Reduce single car occupancy trips by promoting car sharing

7.3 Framework for the preparation of the Residential Travel Pack

- 7.3.1 The Residential Travel Pack would be completed and presented to AC for approval prior to occupation of the first unit. It is the intention of the developer to liaise with the Council during the development of the Residential Travel Pack, which could form a planning condition. The undernoted general headings would form the framework for developing the Residential Travel Pack.
- Walking and cycling maps
 - Walking, cycling and bus travel times

- Site specific public transport information – service times at nearest stops
- Local taxi contact information
- Car sharing scheme information including details of Car Share Aberdeenshire and NESTRANS Lift Share Schemes.
- Information on reducing the need to travel – for example; use of technology for working from home

7.3.2 The Residential Travel Pack should contain information on the health benefits of active travel, directing residents to websites such as www.sustrans.org.uk and www.healthyliving.gov.uk. Tips for active travel include:

- Think “healthy living” before you travel – every time you use your legs it does you good
- If your trip is less than a mile or so, try walking – or walk some of the way if it is too far
- Start your active lifestyle gently, by walking part of the way, or taking a bus home
- If you are thinking about cycling, try out your route at the weekend first
- Try walking or cycling to work every day and see how much fitter you feel

7.3.3 The Travel Pack should also contain information on the environmental damage of CO2 emissions resulting from car use. Hints for reducing environmental damage created by car use could include:

- Try to avoid using a car for short journeys – use public transport, cycle or walk
- Plan ahead – choose uncongested routes, combine trips or car share
- Cold starts – drive away as soon as possible after starting
- Drive smoothly and efficiently – harsh acceleration and heavy braking have a very significant effect on fuel consumption, driving more smoothly saves fuel
- Slow down – driving at high speeds significantly increases fuel consumption
- Use higher gears as soon as traffic conditions allow
- Switch off – sitting stationary is zero miles per gallon, switch off the engine whenever it is safe to do so
- Lose weight – don’t carry unnecessary weight, remove roof racks when not in use.

8 Employment Travel Plan Framework

8.1 Overview

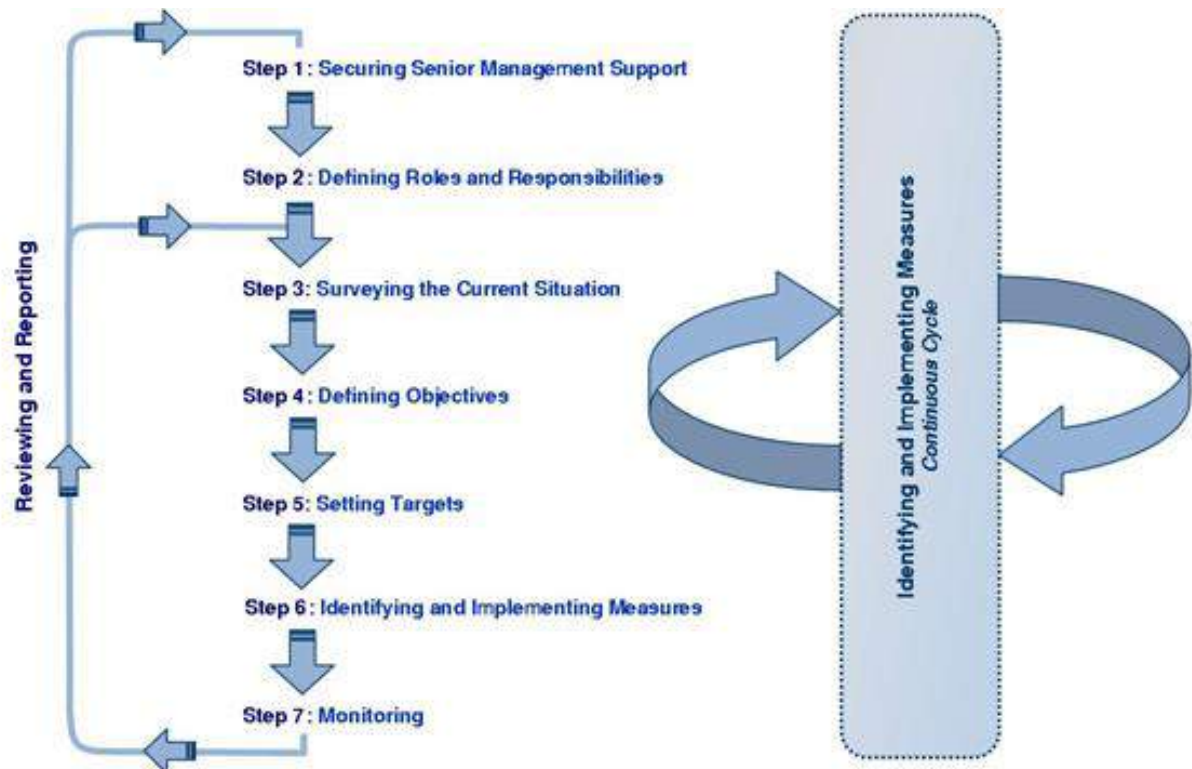
- 8.1.1 This Travel Plan Framework has been prepared in relation to the proposed business park included within the development proposals for a new village at Kincluny. The Travel Plan Framework will guide the preparation of the subsidiary Travel Plan by future building occupiers with a view to promoting sustainable travel to and from the development.
- 8.1.2 The proposed business park is located directly adjacent to the B9077 South Deeside Road and on the eastern edge of the proposed Kincluny village. All residential and community facilities within the proposed village are located within a 1200m walking catchment of the proposed business park.
- 8.1.3 Travel Plans are primarily aimed at encouraging a change in the way that staff travel to work, particularly targeting single occupancy private car users and employers who can impart greatest influence on employees. Nonetheless, Travel Planning measures can be aimed at influencing the way that infrequent building users travel to the site, including office visitors. Therefore, Travel Plans should be developed by the building occupiers aimed at reducing the travel impacts of their business.
- 8.1.4 At present, no tenants have been identified for the proposed business park and therefore it is not possible to fully develop any Travel Plan around the particular travel demands and needs of a specified occupier. However, this Travel Plan Framework does set out the process by which future occupiers can develop a site specific Travel Plan that considers the specific needs and operation of the individual business.
- 8.1.5 A Travel Plan is a dynamic document that evolves over time responding to the needs of the building user, and as such, future Travel Plans based on this framework will be developed further by companies beyond occupancy of the building to accommodate the specific travel patterns of building users once they become known.

8.2 Travel Plan Management

- 8.2.1 The future building occupants, or a management agent employed by them, will act as the Travel Plan Co-ordinator and will have overall responsibility for implementing and monitoring the Travel Plan. They will highlight and market the contents of the Travel Plan to staff, oversee the implementation of the Travel Plan, and monitor its progress. They will report to the Travel Plan Officer at Aberdeenshire Council as necessary providing regular monitoring results and the updated Travel Plan as it evolves.
- 8.2.2 If any buildings are leased, as a condition of their lease agreement, the tenant will be required to commit to the Travel Plan, and will need to identify a staff member who will be their Travel Plan Co-ordinator or employ an agent, with responsibility for promoting and monitoring the Travel Plan within the company.

8.3 Travel Plan Aims

- 8.3.1 The aim of the Travel Plan is to reduce car usage to the development, particularly single occupancy trips. This will be achieved through the introduction of measures to be employed by the occupiers of the buildings to encourage sustainable travel.



8.3.2 In order to establish a set of objectives the existing issues, barriers and incentives should be addressed to encourage sustainable mode choice.

8.4 Objectives

8.4.1 The aspirations of the Travel Plan to be prepared by the building occupiers should be specific to their business needs. This could include the following objectives relating to staff travel:

- Reduce the need for travel – both commuting trips and trips made during working hours
- Increase awareness among staff of travel choices, environmental implications of travel, and health benefits of sustainable travel
- Facilitate and promote more active forms of travel
- Increase the share of staff travelling to work by walking, cycling or public transport
- Reduce car use and in particular private car use
- To ensure the Travel Plan is reviewed, monitored and updated regularly

8.4.2 Similar objectives can be pursued with regard to infrequent visitors, office visitors such as clients or individuals attending meetings held within the office, which the Travel Plan should recognise where appropriate.

8.5 Delivery and Implementation Strategy

8.5.1 Successful delivery and implementation of a Travel Plan can improve accessibility by sustainable modes, positively affect modal choice for journeys to work and reduce congestion on the road network. The most important measure of a Travel Plan's success is its effect on travel behaviour through reduced single occupancy car use and promotion of more sustainable forms of travel.

8.5.2 To assist in the delivery of a successful Travel Plan for the development the following strategy will be pursued:

- Appointment of a Travel Plan Co-ordinator to oversee the implementation and management of the Travel Plan.
- Implementation of measures to promote sustainable travel to the office.
- The Travel Plan Co-ordinator will prepare the updated Travel Plan specific to the business, the objective to reduce car trips by employees and where possible visitors.
- Establish the travel pattern to the development through a programme of Staff Travel Surveys to be undertaken annually. In addition, a Staff Travel Survey would also need to be undertaken 3 months after first occupation of the office to establish the base line.
- Set clear modal shift targets with specific dates for their achievement.
- Monitor the progress of the Travel Plan at regular intervals.

8.6 Appointment of a Travel Plan Co-ordinator

8.6.1 The key to successful implementation of a Travel Plan is staff involvement at all stages. Consultation will be achieved via the Travel Plan Co-ordinator. Once appointed, the name and contact details of the Travel Plan Co-ordinator will be provided to the Council.

8.6.2 The Travel Plan Co-ordinator will be responsible for:

- Updating the Travel Plan, including preparation of travel surveys to be undertaken and agreement of travel mode share targets.
- Being the point of contact for travel information, including preparation and distribution of up to date travel information packs on a regular basis.
- Liaising with public transport operators, planning / highway authorities and other stakeholders to explore the potential for sustainable travel improvements.
- Promoting and marketing the Travel Plan within the company, including provision of up to date information on regional and national initiatives / promotional events, e.g. National Bike Week.

- Monitoring progress of the Travel Plan through co-ordinating repeat surveys and using the findings to develop new measures as necessary to encourage sustainable travel.
- Regularly reviewing the aims / objectives of the Travel Plan, implementing any new Travel Plan measures and setting revised travel targets.
- Monitoring use of the car park.
- Annual review of the progress of the Travel Plan with the Council.

8.7 Staff Travel Survey

- 8.7.1 Within the first 3 months of the office being occupied, the Travel Plan Co-ordinator will liaise to ensure that a Staff Travel Survey is carried out to establish how the member of staff has travelled to work and for those that have driven to work, where they have parked. The Staff Travel Survey will also obtain the views of staff with regard to existing barriers to sustainable travel, as well as any measures that could potentially be implemented to encourage sustainable travel. The survey data would be collected via self-completion questionnaires issued to staff, and passed to the Travel Plan Co-ordinator who can compare findings and co-ordinate any necessary measures in response. In addition to this, an annual staff survey would also be undertaken on a selected survey date.
- 8.7.2 Surveys can be undertaken electronically or by paper means to capture the required data. Once the surveys have been completed and analysed the existing Travel Plan can be updated with new travel targets. An example of a Staff Travel Survey is contained within Appendix G.

8.8 Travel Targets

- 8.8.1 Travel targets will be set, in agreement with Aberdeenshire Council, following the completion of the initial travel surveys and a thorough review of the data obtained.
- 8.8.2 A reasonable Travel Plan target could be to achieve a 5% reduction in single occupancy car trips over a 5 year period, with a proportionate increase in other sustainable modes of travel.
- 8.8.3 Staff travel surveys will determine the suitability of the agreed Mode Share, and they can be altered as necessary.

8.9 Travel Plan Measures

- 8.9.1 This Section sets out a range of measures that could assist in achieving the aims and targets of the Travel Plan. The building occupier will allocate reasonable resources to ensure that the identified measures can be considered and implemented.
- 8.9.2 A number of measures will be implemented as part of the development which will contribute towards the aim of reducing single occupancy car travel. These measures are:
- Provision of cycle parking spaces for staff use to encourage cycling to work
 - Provision of bus stops located at the main entrance to the business park

- Provision of dedicated motor cycle spaces
- Provision of showers, changing room facilities and lockers, to encourage cycling to work in particular
- Preparation of Sustainable Travel Information Packs and promotional material aimed at informing the building occupier of their travel choices
- Appointment of a Travel Plan Co-ordinator to manage the Travel Plan

8.9.3 The business park site is within an accessible location where people will have a number of travel options from a variety of local origins. The following tables present additional measures that can be considered by the occupiers of the business park for inclusion within the Travel Plan, set out in two categories:

- **IMPLEMENT** – These measures should be implemented within a specified time from occupation.
- **CONSIDER** – These measures should be considered for implementation if justified by the findings of the Travel Survey and/or an assessment of feasibility/deliverability.

8.9.4 The measures are also given timescales for action:

- **SHORT** – up to 3 months
- **MEDIUM** – 3 months to a year
- **LONG** – over a year

8.9.5 Proposed measures are set out in the following sections of the Travel Plan Framework.

Management of the Plan

STATUS	ACTION	COMMENTS	TIMESCALE
<i>Implement</i>	<i>Senior management support.</i>	<i>This is key to the success of the Travel Plan.</i>	<i>Immediate – Prior to Occupation</i>
<i>Implement</i>	<i>Appointment of Travel Plan Co-ordinator.</i>	<i>Co-ordinator role to be identified in the management structure.</i>	<i>Immediate – Prior to Occupation</i>
<i>Implement</i>	<i>Clearly identify role/position of Travel Plan Co-ordinator within management hierarchy.</i>	<i>Identify person responsible for allocating funding and staff time for implementation of the Travel Plan.</i>	<i>Immediate – Prior to Occupation</i>
<i>Implement</i>	<i>Staff Travel Survey.</i>	<i>Key to obtaining up to date information.</i>	<i>Short – 3 months</i>

Actions for Raising Awareness and Marketing the Plan

STATUS	ACTION	COMMENTS	TIMESCALE
<i>Implement</i>	<i>All staff will be made aware of the contents of the Travel Plan and will be encouraged to travel by sustainable transport.</i>	<i>The Plan will be actively marketed to seek staff co-operation and encourage 'ownership' of the Plan.</i>	<i>Immediate – Prior to Occupation</i>
<i>Implement</i>	<i>Travel Plan Co-ordinator to operate an open door policy to encourage participation.</i>	<i>Imperative to obtain the thoughts of staff in order to identify existing boundaries</i>	<i>Immediate – Prior to Occupation</i>
<i>Implement</i>	<i>Issue a Travel Information Pack to all staff as part of the induction process.</i>	<i>Pack to set out current information on sustainable travel options.</i>	<i>Immediate – Prior to Occupation</i>
<i>Implement</i>	<i>Travel Awareness to be targeted at all staff on site. Suitable communications media to be identified.</i>	<i>Important to publicise success and keep staff informed.</i>	<i>Medium – 12 months</i>
<i>Consider</i>	<i>Promotional events.</i>	<i>Advertise and promote participation in national events such as national bike week.</i>	<i>Ongoing</i>
<i>Consider</i>	<i>Raise awareness of Travel Planning through company websites</i>	<i>Company website to promote sustainable means of travel for staff and office visitors.</i>	<i>Immediate – Upon Occupation</i>

Actions to Reduce the Need to Travel

STATUS	ACTION	COMMENTS	TIMESCALE
<i>Implement</i>	<i>Make sure staff are aware of amenities in the area to reduce the need to drive during the day.</i>	<i>Are there facilities in the area i.e. shops within walking distance</i>	<i>Immediate – Prior to Occupation</i>
<i>Consider</i>	<i>Video conferencing/SKYPE facilities</i>	<i>Consider installation of equipment or shared (rented) use of existing facilities operated by nearby employers</i>	<i>Short – 3 months</i>
<i>Consider</i>	<i>Introduce a home working scheme</i>	<i>Can reduce transport impacts if appropriate to business needs</i>	<i>Medium – 6 months</i>

Actions to Promote Walking and Cycling

STATUS	ACTION	COMMENTS	TIMESCALE
Implement	Provision of secure covered cycle parking and monitoring of usage.	Parking for 37 bicycles will initially be provided.	Immediate – Prior to Occupation
Implement	Shower, changing and locker facilities.	To be available to any staff that walk or cycle to work.	Immediate – Prior to opening
Implement	Display up to date information on local walking and cycling routes.	Information to be displayed where it can be viewed by staff and visitors.	Immediate – Upon Occupation
Consider	Ongoing promotion of cycling and walking as part of healthy living. Promote walking/cycling for special events e.g. bike2work week.	Travel Plan Co-ordinator to regularly distribute information and hang posters on staff notice boards.	Short – 3 months
Consider	Offering staff access to a government backed scheme for the tax efficient purchase of a bicycle.	Many websites available e.g. www.cyclescheme.co.uk	Medium – 6 months
Consider	Participation in wider cycling measures.	Measures may typically include participation in a local bicycle user group, provision of advice/training on safe cycling, arranging discounts with local cycle retailer etc.	Medium – 12 months

Actions to Promote Public Transport

STATUS	ACTION	COMMENTS	TIMESCALE
Implement	Publicity of taxi details and public transport routes, timetables and travel information lines for staff.	Current information to be displayed in public area. Promote bus and rail websites and on-line journey planning tools.	Immediate – Prior to Occupation
Consider	Subsidised bus travel	Incentives to encourage staff to travel by public transport rather than car	Long – Over 12 months
Consider	Company shuttle buses	Free or subsidised picking up at specific locations on route.	Long – Over 12 months

Actions to Reduce Car Use/ Modify Driving Behaviour

STATUS	ACTION	COMMENTS	TIMESCALE
<i>Implement</i>	<i>Provide facilities for staff that travel by motorcycle.</i>	<i>14 motorcycles space will be provided.</i>	<i>Immediate – Prior to Occupation</i>
<i>Implement</i>	<i>Promote car sharing.</i>	<i>Where appropriate and to meet the needs of the business. Potential to co-ordinate with other building users.</i>	<i>Medium – 12 months</i>
<i>Consider</i>	<i>Flexi-time schemes</i>	<i>Could enable an employee to alter their work pattern to match transport timetables</i>	<i>Short – 3 months</i>
<i>Consider</i>	<i>Guarantee lift home scheme.</i>	<i>Consider guaranteed lift home in times of emergency for those who do not drive to work</i>	<i>Medium – 12 months</i>
<i>Consider</i>	<i>Provision of pool cars for staff that travel by car during the day. Ensure that any new lease cars are fuel efficient.</i>	<i>This would have to meet business needs.</i>	<i>Long – Over 12 months</i>

8.10 Monitoring

8.10.1 The occupant of any building will be required to assess staff travel patterns within 3 months of occupation through a staff questionnaire. Thereafter, surveys will be undertaken annually by the company on the same agreed date with the council. The results of this survey would then be collated and reviewed by the Travel Plan Co-ordinator to determine the modal share for the development. Results will be used to identify specific measures to be incorporated into the Travel Plan document in future.

8.10.2 Information on current travel behaviour will be summarised and circulated among staff through information boards and emails with key initiatives highlighted. Other sustainable travel alternatives to private car use will be promoted through information packs and email / intranet.

8.10.3 The Travel Plan Co-ordinator will assess the effects of the various initiatives annually, based on the travel survey results. The purpose of this monitoring is to:

- Provide continued awareness of how staff travel to the site
- Assess performance against the aims and targets of the Plan
- Demonstrate continued management support
- Guide implementation of revised targets or further travel initiatives if necessary

8.10.4 The Travel Plan Co-ordinator will produce an annual monitoring report, which will be submitted to the Council. The report will include the Staff Travel Survey results,

analysis of trends against previous surveys, brief details of marketing and promotional events during the past year and details of any new measures adopted. It will also include details of relevant changes in personnel associated with the Travel Plan.

8.11 **Review**

8.11.1 The Travel Plan is an organic document that will require periodic review of targets and measures, in consultation with the Council.

8.11.2 The first review should take place one year after the updated travel surveys have been undertaken, with further reviews annually thereafter.

8.11.3 Where monitoring has revealed issues with the progress of the Travel Plan, revised targets or further measures will be identified, and agreed with the Council, to address these issues.

8.12 **Action Plan**

8.12.1 Beyond planning consent the following actions would be taken to update and develop the Travel Plan.

- Confirmation / appointment of a Travel Plan Co-ordinator by the occupier shortly after planning consent granted.
- Implementation of Travel Plan measures by the developer prior to occupation.
- Travel Plan Co-ordinator to regularly review public transport plans, timetables, and relevant policy and changes to the area affecting travel to the site.
- Travel Plan Co-ordinator to obtain updated Staff Travel Survey information from building occupier within 3 months of occupation.
- Travel Plan Co-ordinator to prepare an updated Travel Plan within 6 months of the company occupying any building, setting out Mode Share Targets for staff.
- Travel Plan Co-ordinator to implement annual Staff Travel Surveys.
- Travel Plan Co-ordinator to review responses to the Staff Travel Survey annually and produce a Monitoring Report for discussion with Aberdeenshire Council.
- Travel Plan Co-ordinator to update the Travel Plan on an annual basis responding to the Monitoring Report details, reviewing measures to be implemented and Mode Share targets for staff where appropriate.
- Travel Plan Co-ordinator to encourage implementation of new measures as necessary to respond to the results of Staff Travel Surveys, filtering information back through the company for implementation at a local level.

9 Traffic Impact Assessment

9.1 Area of Study and Base Traffic

- 9.1.1 Transport Scotland previously confirmed that they require a stand-alone capacity assessment of the roundabout junction at the AWPR Milltimber Interchange.
- 9.1.2 The relevant AWPR design flow information for the Milltimber Junction was obtained from the AWPR consultants Jacobs and has been utilised to undertake the relevant traffic impact analysis.
- 9.1.3 Post AWPR Aberdeen Sub Area Model 4 (ASAM) data for the 2033 post AWPR has been adopted to represent post AWPR scenarios.
- 9.1.4 Through previous scoping discussions with Aberdeenshire Council (AC), Transport Scotland (TS) and Aberdeen City Council (ACC), the use of this data for the purposes of undertaking the relevant Traffic Impact Assessments was agreed. This traffic data has again been used for the 600 house proposal.
- 9.1.5 During previous scoping discussions with ACC, it was requested that a percentage impact assessment be carried out to determine the extent of junctions in Aberdeen which should be included in the wider impact study. ACC suggest that they are likely to be concerned about the impact in and around Milltimber Brae and possibly through Peterculter if traffic was accessing the A93.
- 9.1.6 Following submission of the previous percentage impact assessment, ACC confirmed that the following two junctions on the A93 North Deeside Road require to be looked at in detail for the modelling purposes:
- Binghill Road / North Deeside Road Signalised Junction;
 - A93 North Deeside Road / Murtle Den Crescent Signalised Junction
- 9.1.7 ACC also confirmed that due to the proximity of the two signals that they are modelled as linked signals.
- 9.1.8 AC confirmed that the following junctions required to be considered within the Transport Assessment for the 1500 house proposal:
- A93 North Deeside Road / B979 Milltimber Brae;
 - B9077 South Deeside Road / B979 Milltimber Brae;
 - B9077 South Deeside Road / B979 Netherley Road;
 - B9077 South Deeside Road / A957 Slug Road;
 - A93 North Deeside Road / A957 Slug Road;
 - A93 North Deeside Road / B979 Malcolm Road;
 - B979 Malcolm Road / B9119 Tarland Road 'Carnie Roundabout';
 - A93 North Deeside Road / C35K Park Road;

- AWPR Milltimber Interchange / A93 NDR Access Road Roundabout;
- B9077 South Deeside Road / Development Site Access Roundabout X 2; and
- Park Bridge Single Lane Operation.

9.1.9 The above junctions have again been assessed under the current proposals for 600 houses plus employment.

9.2 Future Year Assessments

9.2.1 It is anticipated that the completion and occupation of units will be phased over a number of year following a successful bid and subsequent planning application. The full development has been assessed at 2033. Consequently, ASAM 2033 post AWPR data has been utilised within the Traffic Impact Assessment therefore no additional growth factor has been applied given that assessment year is 2033.

9.3 Committed Development Traffic

9.3.1 In line with the scope agreed, with both ACC and AC, for the previous TA, the following committed developments have been accounted for in the traffic impact analysis:

- Park – H1 site allocated for 6 houses;
- Crathes – EH1 site allocated for 45 houses (currently under construction);
- Banchory – M2 and H2 allocated for 395 houses + 2ha of employment land;
- Banchory – H1 allocated for up to 15 houses; and
- Oldfold Farm Mixed Use Development, Milltimber

9.3.2 Figure 3 through to Figure 15, contained in Appendix E, illustrates the Weekday AM and PM committed development traffic flows.

9.3.3 Given that post AWPR ASAM traffic data has been used to inform the Traffic Impact Assessment, which includes the impacts of allocated development sites for both Aberdeen City and Aberdeenshire, it is considered there will be an element of double counting by considering the committed developments listed above.

9.3.4 However due to previous concerns from AC, ACC and TS of the robustness of the ASAM predictions in future growth on certain areas of the road network, the full development traffic flows for the committed developments have been included. It is considered that this represents a robust assessment.

9.4 Junction Capacity Analysis

9.4.1 TRL's software package Junctions 9 has been used to assess the operation of priority controlled and roundabout junctions using the PICADY and ARCADY modules, whilst JCT Consultancy Limited software package LinSig V3 has been used to assess signal controlled junctions within the study area.

9.4.2 The proposed development's traffic impact has been assessed under the following scenarios;

- 2033 Base + Committed representing base traffic conditions;
- 2033 Base + Committed + 600 units + 11,347m² GFA Business - representing traffic conditions in '2033 as the year of completion of full development.

9.4.3 The traffic flow network diagrams which consider Park Bridge remaining open are contained in Appendix E of this report. Electronic copies of model input and output files are available on request. Section 10 of this report considers the impact without Park Bridge.

9.4.4 Priority junctions have been assessed to determine the proposed development's traffic impact in the future years in terms of 'Ratio of Flow to Capacity' (RFC) and vehicle queuing. Vehicle queue lengths, expressed in Passenger Car Unit (pcu) values have been rounded up to the nearest whole number. Traffic signal junction impacts have been expressed in terms of Degree of Saturation (DoS) and Mean Max Queue (MMQ).

9.4.5 The following provides a junction-by-junction summary of the impact of the proposed development traffic on the operation of the study junctions. Electronic copies of model input and output files available are available on request.

9.5 A93 North Deeside Road / B979 Milltimber Brae Signal Controlled Junction

9.5.1 The junction has recently been upgraded to signal control to accommodate the access road from the A93 to the AWPR Milltimber Interchange. Fairhurst received a copy of scheme design layout for the proposed signalised arrangement, which is illustrated by AWPR Drawing No: AWPR-DJV-HW1200-SG04-DR-C-0001 REV P01 included within Appendix H. The scheme design layout has been used to inform the capacity assessment using the LinSig modelling software package for traffic signal junctions.

9.5.2 The results for the LinSig analysis of the junction are summarised in Table 9-1 for the AM and PM peak hours respectively. The junction capacity and operational performance are summarised as the Degree of Saturation (DoS) and the Mean Max Queue (MMQ). The Practical Reserve Capacity (PRC) and total delay over all lanes is also included.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	DoS	Max Que	DoS	Max Que	DoS	Max Que	DoS	Max Que
A93 Westbound Ahead Right Left	121.5%	57.1	112.4%	45.5	129.8%	72.6	124.0%	73.4
A93 Eastbound Ahead Left Right	124.8%	168.3	112.9%	58.5	128.2%	185.2	115.1%	65.1

AWPR Access Left Right Ahead	123.4%	86.2	115.4%	114.1	130.8%	109.5	124.2%	161.2
B979 Right Left Ahead	115.1%	35.7	114.6%	24.9	169.6%	117.3	117.8%	37.1
PRC Over All Lanes (%)	-38.7		-28.2		-88.4		-38.0	
Total Delay Over All Lanes (pcuHr)	320.26		217.50		460.18		308.57	

Table 9-1: A93 North Deeside Road / B979 Milltimber Brae – Weekday AM & PM Peak Hour

- 9.5.3 Signal controlled junctions can begin to experience operational and performance difficulties at DoS of 90% and above. At this stage traffic signals operate close to zero Practical Reserve Capacity (PRC) and small increases in traffic can result in significant increase in delays and queues.
- 9.5.4 Table 9-1 indicates that under the 2033 Base + Committed Development traffic scenario the junction operates over capacity with DoS in excess of 100% in both the AM and PM peak hours. Queues of up to 168 pcu's are predicted on the A93 eastbound approach during the AM peak hour. On the AWPR Access Road approach, queues of up to 114 pcu's are predicted during the PM peak period.
- 9.5.5 With the inclusion of the development traffic the junction performance deteriorates further with queues of up to 185 vehicles on the A93 eastbound approach during the AM peak hour. On the AWPR Access Road approach, queues of up to 161 pcu's are predicted during the PM peak period.
- 9.5.6 The main impact of the development traffic is predicted on the B979 approach, which is predicted to experience increases in DoS and queue length of 54.8% and 81.6 pcus respectively during the Weekday AM peak hour.
- 9.5.7 Theoretical mitigation at the junction has therefore been considered which incorporates the following as shown on Fairhurst Drawing Number 125023 / sk1001 contained in Appendix I:
- 75m increase in left turn flare on the A93 Eastbound Approach Arm;
 - 44m increase in flare on the B979 Milltimber Brae Approach; and
 - 25m increase in flare on the WPR Access Road Southbound Approach Arm
- 9.5.8 The results for the LinSig analysis of the junction with the above mitigation included are summarised in Table 9-2 for the AM and PM peak hours respectively. The junction capacity and operational performance are summarised as the Degree of Saturation (DoS) and the Mean Max Queue (MMQ). The Practical Reserve Capacity (PRC) and total delay over all lanes is also included.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development + Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	DoS	Max Que	DoS	Max Que	DoS	Max Que	DoS	Max Que
A93 Westbound Ahead Right Left	121.5%	57.1	112.4%	45.5	111.3%	40.0	112.2%	49.0
A93 Eastbound Ahead Left Right	124.8%	168.3	112.9%	58.5	114.0%	121.0	112.1%	48.9
AWPR Access Left Right Ahead	123.4%	86.2	115.4%	114.1	81.2%	13.9	113.1%	105.9
B979 Right Left Ahead	115.1%	35.7	114.6%	24.9	113.4%	44.8	106.5%	22.4
PRC Over All Lanes (%)	-38.7		-28.2		-26.7		-25.7	
Total Delay Over All Lanes (pcuHr)	320.26		217.50		189.59		211.53	

Table 9-2: A93 North Deeside Road / B979 Milltimber Brae (Mitigation) – Weekday AM & PM Peak Hour

9.5.9 The results in Table 9-2 demonstrates that with the mitigation included, the junction is predicted to perform with less delay over all lanes when compared with the 2033 Base + Committed Development Scenario in both the AM and PM peak hour periods

9.5.10 The results of the LinSig analysis does however confirm that the scheme design is not sufficient to accommodate 2033 base traffic levels.

9.5.11 The LinSig analysis with the theoretical mitigation included demonstrates that betterment is achieved when considering the total delay over all lanes. Queuing levels are also significantly reduced on the A93 eastbound and AWPR Access Road approaches in the AM peak hour. The B979 is predicted to experience an increase in queueing, however the mitigation provides overall improvement in junction performance.

9.6 B9077 South Deeside Road / B979 Milltimber Brae Priority Junction

9.6.1 The results for the PICADY analysis of the junction are summarised in Table 9-3.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
B979 to B9077 East	21%	0.3	30%	0.4	26%	0.3	35%	0.5
B979 to B9077 West	41%	0.7	44%	0.8	59%	1.4	57%	1.3
B9077 East to B9077 West & B979	22%	0.3	34%	0.4	25%	0.4	35%	0.6

Table 9-3: B9077 South Deeside Road / B979 Milltimber Brae

9.6.2 The results in Table 9-3 show that the junction is predicted to operate well within the 85% capacity threshold with the addition of Kincluny development. The additional traffic from the development would lead to only marginal changes in RFC and queuing on approaches to the junction.

9.6.3 It is concluded that this junction would therefore accommodate Kincluny development with no need for junction improvements.

9.7 B9077 South Deeside Road / B979 Netherley Road

9.7.1 The results for the PICADY analysis of the junction are summarised in Table 9-4.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
B979 to B9077 West	5%	0.0	4%	0.0	5%	0.1	5%	0.0
B979 to B9077 East	31%	0.5	15%	0.2	36%	0.6	17%	0.2
B9077 West to B9077 East & B979	16%	0.2	5%	0.1	20%	0.4	7%	0.1

Table 9-4: B9077 South Deeside Road / B979 Netherley Road

9.7.2 The results in Table 9-4 show that the junction is predicted to operate well within the 85% capacity threshold with the addition of Kincluny development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.

9.7.3 It is concluded that this junction would accommodate Kincluny development with no need for junction improvements.

9.8 A93 North Deeside Road / A957 Slug Road Priority Junction

9.8.1 The results for the PICADY analysis of the junction are summarised in Table 9-5.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
A957 Slug Road to A93 West	16%	0.2	24%	0.3	20%	0.2	33%	0.5
A957 Slug Road to A93 East	6%	0.1	3%	0.0	6%	0.1	3%	0.0
A93 East to Unclassified Road	8%	0.1	10%	0.1	8%	0.1	10%	0.1
Unclassified Road to A93 East	13%	0.2	8%	0.1	14%	0.2	8%	0.1
Unclassified Road to A93 West	5%	0.0	4%	0.0	5%	0.1	4%	0.0
A93 West & Unclassified Road to A93 East	31%	0.4	21%	0.3	40%	0.7	25%	0.3

Table 9-5: A93 North Deeside Road / A957 Slug Road

9.8.2 The results in Table 9-5 show that the junction is predicted to operate well within the 85% capacity threshold with the addition of Kincluny development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.

9.8.3 It is concluded that this junction would accommodate Kincluny development with no need for junction improvements.

9.9 B9077 South Deeside Road / A957 Slug Road Priority Junction

9.9.1 The results for the PICADY analysis of the junction are summarised in Table 9-6.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
B9077 South Deeside Rd West	0%	0.0	0%	0.0	0%	0.0	0%	0.0
A957 Slug Road south	0%	0.0	0%	0.0	0%	0.0	1%	0.0
B9077 South Deeside Rd East	0%	0.0	0%	0.0	1%	0.0	1%	0.0
B9077 South Deeside Rd East	9%	0.0	15%	0.0	13%	0.2	26%	0.3
A957 Slug Road North	0%	0.0	0%	0.0	0%	0.0	0%	0.0

Table 9-6: B9077 South Deeside Road / A957 Slug Road

9.9.2 The results in Table 9-6 show that the junction is predicted to operate well within the 85% capacity threshold with the addition of Kincluny development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.

9.9.3 It is concluded that this junction would accommodate Kincluny development with no need for junction improvements.

9.10 **B979 Malcolm Road / B9119 Tarland Road ‘Carnie Roundabout’**

9.10.1 The results for the ARCADY analysis of the junction are summarised in Table 9-7.

9.10.2 The 2033 Base includes committed mitigation associated with the consented Arnhall Phase 3 Business Park at Westhill.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
B979 North	37%	0.6	12%	0.1	39%	0.6	15%	0.2
B9119 East	21%	0.3	38%	0.6	21%	0.3	39%	0.6
B979 South	13%	0.1	19%	0.2	18%	0.2	22%	0.3
B9119 West	40%	0.7	17%	0.2	42%	0.7	17%	0.2

Table 9-7: B979 Malcolm Road / B9119 Tarland Road

9.10.3 The results in Table 9-7 show that the junction is predicted to operate well within the 85% capacity threshold with the addition of Kincluny development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.

9.10.4 It is concluded that this junction would accommodate Kincluny development with no need for junction improvements.

9.11 A93 North Deeside Road / B979 Malcolm Road

9.11.1 The results for the PICADY analysis of the junction are summarised in Table 9-8.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
Malcolm Road to A93 East	17%	0.2	13%	0.2	19%	0.2	14%	0.2
Malcolm Road to A93 West	9%	0.1	19%	0.2	16%	0.2	38%	0.6
A93 South	20%	0.5	24%	0.8	22%	0.6	29%	1.0

Table 9-8: A93 North Deeside Road / B979 Malcolm Road

9.11.2 The results in Table 9-8 show that the junction is predicted to operate well within the 85% capacity threshold with the addition of Kincluny development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.

9.11.3 It is concluded that this junction would accommodate Kincluny development with no need for junction improvements.

9.12 A93 North Deeside Road / C35K Park Road

9.12.1 The results for the PICADY analysis of the junction are summarised in Table 9-9.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
Park Road to A93 East	9%	0.1	11%	0.1	35%	0.5	25%	0.3
A93 North Deeside Road West	11%	0.2	1%	0.0	12%	0.3	3%	0.0

Table 9-9: A93 North Deeside Road / C35K Park Road

9.12.2 The results in Table 9-9 show that the junction is predicted to operate well within the 85% capacity threshold with the addition of Kincluny development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.

9.12.3 It is concluded that this junction would accommodate Kincluny development with no need for junction improvements.

9.13 A93 North Deeside Road / Binghill Road / & A93 North Deeside Road / Murtle Den Crescent Signal Controlled Junctions

9.13.1 The results for the LinSig analysis of the junction are summarised in Table 9-10. The junction capacity and operational performance are summarised as the Degree of Saturation (DoS) and the Mean Max Queue (MMQ).

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	DoS	Max Que	DoS	Max Que	DoS	Max Que	DoS	Max Que
Binghill Road Junction								
A93 Eastbound Ahead Right Left	69.7%	18.4	82.6%	25.5	74.5%	20.7	86.0%	27.9
Binghill Road Ahead Left Right	65.1%	5.8	43.6%	3.2	65.1%	5.8	43.6%	3.2
A93 Westbound Ahead Right Left	44.1%	7.3	80.2%	13.5	47.2%	7.7	83.6%	14.8
Beaconhill Road Right Left Ahead	26.2%	0.9	6.7%	0.3	26.2%	0.9	6.7%	0.3
Murtle Den Crescent Junction								
A93 Westbound Ahead Right Left	31.0%	5.1	79.5%	20.5	33.5%	5.8	82.7%	22.5
A93 Eastbound Ahead Right Left	79.1%	12.7	82.9%	14.2	83.6%	15.4	86.2%	24.6
Murtle Den Crescent Left Right	77.7%	8.2	31.0%	2.4	77.7%	8.2	31.0%	2.4

Table 9-10: A93 North Deeside Road / Binghill Road / & A93 North Deeside Road / Murtle Den Crescent Signal Controlled Junctions

9.13.2 Signal controlled junctions can begin to experience operational and performance difficulties at DoS of 90% and above. At this stage traffic signals operate close to zero Practical Reserve Capacity (PRC) and small increases in traffic can result in significant increase in delays and queues.

9.13.3 The results in Table 9-10 indicate that the junction is predicted to operate within capacity in both the AM and PM peak hour under the '2033 Base + Committed + Kincluny Development' traffic conditions.

9.13.4 It is concluded that this junction would accommodate Kincluny Development with no need for junction improvements.

9.14 **AWPR Milltimber Interchange / A93 NDR Access Road Roundabout**

9.14.1 Final detailed design information of the roundabout layout is not currently available and therefore the general layout of the junction as per the specimen design has been used to inform the capacity assessment.

9.14.2 The results for the ARCADY analysis of the junction are summarised in Table 9-11.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
AWPR Overbridge	35%	0.6	60%	1.5	38%	0.6	65%	1.8
A93 North Deeside Road Link	81%	4.2	41%	0.7	87%	6.4	45%	0.8
Northbound OffSlip Road	17%	0.2	28%	0.4	18%	0.2	28%	0.4

Table 9-11: AWPR Milltimber Interchange / A93 NDR Access Road Roundabout

9.14.3 The results in Table 9-11 show that during the PM peak hour, the junction is predicted to operate within the 85% capacity threshold with the Kincluny Development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.

9.14.4 During the AM peak hour, the A93 NDR Link Road operates marginally over the 85% capacity threshold with the addition of Kincluny Development. The additional from the development traffic would lead to increases in RFC and queue length of 6% and 2 pcus respectively, which Fairhurst do not consider to be onerous.

9.14.5 It is concluded the overall impact of the additional development traffic on the junction would be minor, which could be considered as a daily fluctuation that would be largely be unnoticeable by drivers. Therefore no improvements are considered necessary to the junction to mitigate the minor impact of the Kincluny Development.

9.15 **B9077 South Deeside Road / Site Access Roundabouts**

9.15.1 The results for the ARCADY analysis of the proposed site access junctions onto the B9077 South Deeside Road are summarised in Table 9-12 and Table 9-13 below.

9.15.2 The western roundabout will provide access to the early phases of development with the eastern roundabout access being constructed as part of later phases of the

development and will provide access to the proposed business park. Therefore, the assessment considers the 2033 plus Committed plus Kincluny development scenario.

	2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que
B9077 SDR East	10%	0.1	15%	0.2
B9077 SDR West	19%	0.2	7%	0.1
Site Access East	12%	0.1	11%	0.1

Table 9-12: : B9077 South Deeside Road / Site Access East Roundabout

	2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que
B9077 SDR East	7%	0.1	14%	0.2
B9077 SDR West	13%	0.1	6%	0.1
Site Access Road East	8%	0.1	6%	0.1

Table 9-13: B9077 South Deeside Road / Site Access West Roundabout

9.15.3 The results in Table 9-12 and 9-13 show that the proposed B9077 South Deeside Road site access junctions are predicted to operate well within the 85% capacity threshold with the Kincluny Development. The queue lengths predicted are minimal at both proposed site access junctions under all tested scenarios.

9.15.4 It is concluded that the two site access junctions from the B9077 South Deeside Road would accommodate the Kincluny Development with no adverse impact on the operation of the B9077 South Deeside Road.

9.16 Park Bridge Traffic Signalisation

9.16.1 For the purposes of demonstrating the capacity performance of the Park Bridge, the existing 'give and take' arrangement has been assessed as operating with traffic signals at either end in order to replicate a similar situation. This also demonstrates the potential for the bridge to be signalised in the future, if required.

9.16.2 The results for the LinSig analysis of the junction are summarised in Table 9-14. The junction capacity and operational performance are summarised as the Degree of Saturation (DoS) and the Mean Max Queue (MMQ).

Park Bridge Signals Option	2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour	
	DoS	Max Que	DoS	Max Que

Park Road Northbound	3.9	54.6%	2.6	53.1%
Park Road Southbound	2.8	51.3%	6.1	70.3%

Table 9-14: Park Bridge Traffic Signalisation

- 9.16.3 Signal controlled junctions can begin to experience operational and performance difficulties at DoS of 90% and above. At this stage traffic signals operate close to zero Practical Reserve Capacity (PRC) and small increases in traffic can result in significant increase in delays and queues.
- 9.16.4 The results in Table 9-14 indicate that the junction is predicted to operate well within capacity in both the AM and PM peak hours under the '2033 Base + Committed + Kincluny Development' traffic conditions.
- 9.16.5 It is concluded that signalisation of the bridge would accommodate the proposed development at Kincluny, if as discussed previously, it is considered that additional traffic control is required over the bridge.

10 Sensitivity Analysis ‘No Park Bridge’ Option

10.1 Introduction

10.1.1 As intimated previously, AC has expressed concerns with the structural integrity of the existing Park Bridge. However, following an assessment of the structure, it was found capable of accommodating potential increase in traffic from the full 1500 units plus employment uses considered in the previous TA in support of the Kincluny site.

10.1.2 AC has also considered that if the existing Park Bridge were to be closed to all future traffic due to structural concerns, traffic from the Kincluny development would have a significant impact on the local road network to the south. The majority of the development would route east on the B9077 South Deeside Road towards the B979 Milltimber Brae priority junction and then north towards the AWPR.

10.1.3 Therefore, the junction capacity assessment will focus on key junctions within the agreed study areas, which are likely to experience material increase in development traffic should Park Bridge be closed. The following key junctions have been assessed.

- B9077 South Deeside Road / B979 Milltimber Brae;
- AWPR Link Road A93 North Deeside Road / B979 Milltimber Brae; and
- AWPR Milltimber Interchange / A93 NDR Access Road Roundabout.

10.1.4 The traffic flow network diagrams for the ‘No Bridge’ option are contained in Appendix E of this report. Electronic copies of model input and output files are available on request.

10.1.5 The following provides a junction-by-junction summary of the impact of the proposed Kincluny development traffic on the operation of the junctions listed above assuming the existing Park Bridge is closed to all traffic. All relevant junction output files are included within Appendix H with electronic copies of model input and output files available on request.

10.2 B9077 South Deeside Road / B979 Milltimber Brae Priority Junction

10.2.1 The results for the PICADY analysis of the junction are summarised in Table 10-1.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
B979 to B9077 East	21%	0.3	30%	0.4	33%	0.5	60%	1.4
B979 to B9077 West	41%	0.7	44%	0.8	74%	2.7	85%	4.9
B9077 East to B9077 West & B979	22%	0.3	34%	0.4	26%	0.4	37%	0.7

Table 10-1: B9077 South Deeside Road / B979 Milltimber Brae 'No Bridge' Option

10.2.2 The results in Table 10-1 show that the junction is predicted to operate at the 85% capacity threshold with the addition of Kincluny development. The most onerous impact is predicted on the B979 Milltimber Brae approach in the Weekday PM peak period, with a maximum RFC and queue length of 85% and 5 vehicles respectively.

10.2.3 It is concluded that this junction would therefore accommodate Kincluny development under the 'no bridge' scenario with no need for junction improvements.

10.3 A93 North Deeside Road / B979 Milltimber Brae Signal Controlled Junction

10.3.1 The results for the LinSig analysis of the junction are summarised in Table 10-2 for the AM and PM peak hours respectively. The junction capacity and operational performance are summarised as the Degree of Saturation (DoS) and the Mean Max Queue (MMQ). The Practical Reserve Capacity (PRC) and total delay over all lanes is also included.

	2033 Base + Committed				2033 Base + Committed + Kincluny Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	DoS	Max Que	DoS	Max Que	DoS	Max Que	DoS	Max Que
A93 Westbound Ahead Right Left	121.5%	57.1	112.4%	45.5	130.0%	72.8	124.7%	74.6
A93 Eastbound Ahead Left Right	124.8%	168.3	112.9%	58.5	125.9%	173.8	113.3%	59.7
AWPR Access Left Right Ahead	123.4%	86.2	115.4%	114.1	112.1%	62.6	112.2%	106.9
B979 Right Left Ahead	115.1%	35.7	114.6%	24.9	370.0%	230.0	128.8%	56.5
PRC Over All Lanes (%)	-38.7		-28.2		-311.1		--43.1	
Total Delay Over All Lanes (pcuHr)	320.26		217.50		508.8		271.74	

Table 10-2: A93 North Deeside Road / B979 Milltimber Brae – Weekday AM & PM Peak Hour ‘No Bridge’ Option

10.3.2 Signal controlled junctions can begin to experience operational and performance difficulties at DoS of 90% and above. At this stage traffic signals operate close to zero Practical Reserve Capacity (PRC) and small increases in traffic can result in significant increase in delays and queues.

10.3.3 Table 10-2 indicates that with the inclusion of the Kincluny development traffic, the capacity constraints at the junction are exacerbated. The most onerous impact would occur on the B979 Milltimber Brae approach. This is as expected, given that all northbound development would be routed on to that corridor. Queues of up to 230 vehicles are predicted on the B979 Milltimber Brae approach during the AM peak hour, which could potentially impact on the operation of the B9077 South Deeside Junction to the south.

10.3.4 The same theoretical mitigation, identified under the ‘With Bridge’ Scenario has been tested for the ‘No Bridge’ Scenario and the results are summarised in Table 10-3.

	2033 Base + Committed				2033 Base + Committed + Kinclunly Development + Mitigation			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	DoS	Max Que	DoS	Max Que	DoS	Max Que	DoS	Max Que
A93 Westbound Ahead Right Left	121.5%	57.1	112.4%	45.5	111.5%	40.3	107.7%	38.8
A93 Eastbound Ahead Left Right	124.8%	168.3	112.9%	58.5	124.8%	167.7	110.1%	43.7
AWPR Access Left Right Ahead	123.4%	86.2	115.4%	114.1	87.1%	16.0	109.3%	87.7
B979 Right Left Ahead	115.1%	35.7	114.6%	24.9	106.7%	38.4	105.5%	23.7
PRC Over All Lanes (%)	-38.7		-28.2		-38.6		-22.4	
Total Delay Over All Lanes (pcuHr)	320.26		217.50		233.14		180.90	

Table 10-3: A93 North Deeside Road / B979 Milltimber Brae with Mitigation – Weekday AM & PM Peak Hour ‘No Bridge’ Option

10.3.5 The results in Table 10-3 demonstrates that with the mitigation included, the junction is predicted to perform with less delay over all lanes when compared with the 2033 Base + Committed Development Scenario in both the AM and PM peak hour periods

10.3.6 The LinSig analysis with the theoretical mitigation included demonstrates that betterment is achieved when considering the total delay over all lanes. Queuing levels are also reduced on the A93 westbound and AWPR Access Road approaches in the AM peak hour. The B979 is predicted to experience similar levels of queueing in comparison to the base scenario.

10.3.7 It can be concluded that the proposed mitigation achieves a no net detriment solution under both ‘With Bridge’ and ‘No Bridge’ Scenarios.

10.4 AWPR Milltimber Interchange / A93 NDR Access Road Roundabout

10.4.1 The results for the ARCADY analysis of the junction are summarised in Table 10-4.

	2033 Base + Committed				2033 Base + Committed + Kinclunly Development			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	RFC	Max Que	RFC	Max Que	RFC	Max Que	RFC	Max Que
AWPR Overbridge	35%	0.6	60%	1.5	40%	0.7	68%	2.1
A93 North Deeside	81%	4.2	41%	0.7	91%	9.0	47%	0.9

Road Link								
Northbound OffSlip Road	17%	0.2	28%	0.4	18%	0.2	28%	0.4

Table 10-4: AWPR Milltimber Interchange / A93 NDR Access Road Roundabout 'NO Bridge' Option

- 10.4.2 The results in Table 10-4 show that during the PM peak hour, the junction is predicted to operate within the 85% capacity threshold with the Kincluny Development. The additional traffic from the development would lead to only marginal changes in RFC and a negligible increase in queuing on approaches to the junction.
- 10.4.3 During the AM peak hour, the A93 NDR Link Road operates over the 85% capacity threshold with the addition of Kincluny Development. The additional traffic from the development would lead to increases in RFC and queue length of 10% and 5 pcus respectively, which Fairhurst do not consider to be onerous.
- 10.4.4 It is concluded the overall impact of the additional development traffic on the junction would be minor, which could be considered as a daily fluctuation that would be largely be unnoticeable by drivers. Therefore no improvements are considered necessary to the junction to mitigate the minor impact of the Kincluny proposals.

11 Summary and Conclusion

11.1 Introduction

- 11.1.1 This Transport Assessment (TA) has been prepared on behalf of CHAP Group in support of a proposed new village development at Kincluny, Aberdeenshire. The proposed scheme will be predominately residential though comprises an element of employment and retail land within.
- 11.1.2 The site lies 1km to the south of Drumoak, an established village formed along the A93 corridor found between Peterculter and Banchory. The site boundary is formed along the banks of the River Dee, which makes up the northern perimeter. The southern boundary will form along the B9077 or otherwise known as the South Deeside Road. The site sits within commuting distance of Aberdeen and Banchory, with good road links and direct buses available from the A93 at Drumoak
- 11.1.3 CHAP's vision for Kincluny is to create a new sustainable Deeside Village, providing high quality housing, employment land and community facilities.
- 11.1.4 The proposal is to create a new village comprising 600 dwellings (including 150 affordable units), a village square, land for a Primary School / Community Hub and 10 acres of dedicated employment land accommodating circa 11,350m² GFA of business park.
- 11.1.5 In addition, a variety of green open spaces including a community loch, play areas, allotments, sports pitches, footpaths and cycle routes will be provided.

11.2 Accessibility Summary

Walking & Cycling

- 11.2.1 The development proposals are to create a new village that will include its own local facilities and it will therefore not be entirely reliant upon those present within Drumoak. Early phases of the Kincluny development will include a Village Square and other local facilities.
- 11.2.2 The design of the internal layout would be consistent with the principles outlined in Designing Streets and a Street Engineering Review would be undertaken to ensure that the internal layout meets the required Roads Construction Consent standards.
- 11.2.3 There is currently a gap in the existing footpath provision between the Park Bridge and the Deeside Way foot / cycle path. As part of the Kincluny development, footway provision will be provided from the Park Bridge connecting to the Deeside Way. Lighting will be provided from the development, connecting to the existing lighting provision within Drumoak.
- 11.2.4 Opportunities exist for cycling for leisure or commuting purposes with the presence of National Cycle Network Route 195 'The Deeside Way', which is located approximately 300m north of Kincluny. This facilitates onward connection along Royal Deeside to Banchory, Aboyne and Ballater to the west and Peterculter, Milltimber, Cults and Aberdeen to the east.

11.2.5 To address the lack of formal pedestrian crossings on the A93 in Drumoak, it is proposed to provide a formal signalised pedestrian crossing on the A93 adjacent to its junction with the C35K Park Road.

11.2.6 The development proposals will provide residents with the opportunity to walk or cycle to local facilities within Drumoak with all of the local facilities able to be accessed via the upgraded footpath network connecting with the proposed Kincluny development.

Public Transport

11.2.7 In order to provide bus services within PAN75 walk distance to bus services, a service pattern via B9077 South Deeside Road requires to be identified. The frequency of existing service 204 is insufficient to meet the needs of the scale of the Kincluny development.

11.2.8 It is therefore proposed to add additional service provision on the B9077 South Deeside Road until a sustainable service pattern can operate without support. As the development and infrastructure expands, bus services will be routed through the village.

11.2.9 A Public Transport Strategy has been prepared and would be updated accordingly as part of any future planning application.

Safe Routes to School

11.2.10 Whilst land has been safeguarded for a primary school within the Kincluny Development, it is not anticipated to be operational until approximately 300 houses have been occupied. Until such time primary pupils would be educated at the nearby schools of Durriss and Drumoak. Banchory Academy would provide secondary education.

11.2.11 It has been established that Durriss School can accommodate output from the development over the first 2-3 years and Drumoak primary thereafter if required. A new primary school within Kincluny would enable the possibility of relocating the pupils from Durriss school which would rationalise the school estate and provide enhanced educational opportunities.

11.2.12 The entire Kincluny site is within 2 miles of both Durriss and Drumoak schools and are within the acceptable walking distance to schools in accordance with national guidance and the Council's policy.

11.2.13 With the provision of a lit footpath connection between Drumoak and the Kincluny development, and a signalised pedestrian crossing of the A93, a safe pedestrian route to Drumoak school would be provided.

11.2.14 In order to ensure a safe route to Durriss school is established, the provision of school transport would be provided as part of the development proposals. This provision would be in place until such time as the new school at Kincluny was constructed.

11.2.15 The 'area' surrounding Kincluny adjacent to the B9077 South Deeside Road is currently served by school transport to and from Banchory Academy.

11.2.16 Safe routes to school can be provided from the Kincluny development to Banchory Academy as well as to both Durriss and Drumoak primary schools

11.3 **B9077 South Deeside Road and Proposed Vehicular Access**

11.3.1 It is proposed that the B9077 South Deeside Road will have a reduced speed limit along the development frontage. In order to enforce the reduced speed limit, road engineering and street design will be agreed with Aberdeenshire Council.

11.3.2 The main access to the site will be via 2 new roundabout junctions with the South Deeside Road with early phases of development served initially by the junction to the west which would see the existing B9077 / C35K cross-roads junction upgraded to a 4-arm roundabout. This junction has a history of accidents, including a fatality, and improvements on this stretch of the B9077 South Deeside Road would be welcomed by the local community and Aberdeenshire Council.

11.4 **Park Bridge**

11.4.1 The C35K Park Road crosses the River Dee via the Category 'A' Listed Park Bridge which is currently restricted to pedestrians, cyclists and vehicles less than 3 tonnes. There is no restriction on the volume of traffic that can use the bridge.

11.4.2 The carriageway width over the bridge has been reduced to ensure that only cars and LGV's use the bridge. The reduced width has enabled foot-ways to be provided on both sides of the bridge and results in only one direction of traffic crossing the bridge at any time. This is currently controlled by directional priority signing.

11.4.3 The Park Bridge provides one of only three Dee crossings between Aberdeen and Banchory and is an important link for the local rural communities. Whilst there were previously concerns with increased traffic volumes using the bridge, the more recent structural assessments confirm that the bridge is structurally sound and would be capable of accommodating the level of traffic likely to be generated by the proposed development.

11.4.4 With the development traffic, the Park Bridge would continue to operate within capacity without the provision of traffic signals. The existing 'give and take' system could therefore be retained.

11.5 **Traffic Impact Summary**

11.5.1 As standard practice the TA has considered traffic estimates associated with developments which have planning permissions as being committed. In addition, post AWPR Aberdeen Sub Area Model 4 (ASAM) data for 2033 has been used to represent post AWPR scenarios. This includes the impacts of allocated development sites for both Aberdeen City and Aberdeenshire.

11.5.2 Whilst this will result in there being an element of double counting, due to concerns from AC, ACC and TS of the robustness of the ASAM predictions in future growth on certain areas of the road network, the full development traffic flows for the committed developments have been included. It is considered that this represents a robust assessment.

11.5.3 Junction capacity analysis has been carried out at the following junctions, as agreed with AC, ACC and TS:

- A93 North Deeside Road / B979 Milltimber Brae
- B9077 South Deeside Road / B979 Milltimber Brae

- B9077 South Deeside Road / B979 Netherley Road
- B9077 South Deeside Road / A957 Slug Road
- A93 North Deeside Road / A957 Slug Road
- A93 North Deeside Road / B979 Malcolm Road
- B979 Malcolm Road / B9119 Tarland Road 'Carnie Roundabout
- A93 North Deeside Road / C35K Park Road
- B9077 South Deeside Road / Development Site Access Roundabout X 2
- Binghill Road / North Deeside Road Signalised Junction
- Signalised access junction for the proposed residential development of Oldfold
- AWPR Milltimber Interchange / A93 NDR Access Road Roundabout
- Park Bridge Traffic Signalisation

11.5.4 The traffic impact analysis has demonstrated that with the full development constructed, all local road junctions operate within the capacity threshold with the exception of the A93 North Deeside Road / B979 Milltimber Brae / AWPR Access Road.

11.5.5 The junction has recently been upgraded to signal control to accommodate the access road from the A93 to the AWPR Milltimber Interchange. Fairhurst received a copy of scheme design layout for the proposed signalised arrangement and this has been utilised to inform the capacity assessment. The assessment confirms that the junction operates over capacity without the inclusion of any development traffic.

11.5.6 Theoretical mitigation has been considered and demonstrates that with the development traffic included the junction overall performs better with a reduction in the total delay over all lanes and improved PRC.

11.5.7 It is therefore concluded that all junctions on the local road network would accommodate 600 units + 11,347m² GFA business park at Kincluny with mitigation at the A93 North Deeside Road / B979 Milltimber Brae / AWPR Access Road junction.

11.5.8 Sensitivity analysis has considered the Kincluny development without the Park Bridge with the following key junctions assessed:

- B9077 South Deeside Road / B979 Milltimber Brae;
- AWPR Link Road A93 North Deeside Road / B979 Milltimber Brae; and
- AWPR Milltimber Interchange / A93 NDR Access Road Roundabout.

11.5.9 It is concluded that the B9077 South Deeside Road / B979 Milltimber Brae junction would accommodate the Kincluny development with no need for any junction improvements.

11.5.10 The same theoretical mitigation, identified under the 'With Bridge' Scenario has been tested for the 'No Bridge' Scenario and it is concluded that the proposed mitigation achieves a no net detriment solution.

11.5.11 The overall impact of the additional development traffic on the AWPR Milltimber Interchange / A93 NDR Access Road Roundabout would be minor and no improvements are considered necessary to the junction to mitigate the minor impact of the Kinclunly development.

11.6 **Conclusion**

11.6.1 The proposed new village at Kinclunly will not be reliant upon the local facilities within Drumoak and will include a range of local facilities including retail, employment, leisure and education.

11.6.2 Kinclunly would be similar to many other villages along the Deeside corridor and can therefore be considered as being located in an accessible and sustainable location, which meets with transport planning policy.

11.6.3 Enhanced and continuous footpath provision linking to Drumoak is proposed, including a new signalised pedestrian crossing of the A93.

11.6.4 The development traffic generated by the Kinclunly proposals will not have any material impact on the structural integrity or vehicle capacity of the Grade A listed Park Bridge.

11.6.5 Furthermore the development's transport impacts can be accommodated on existing networks with or without the Park Bridge.

Appendix A
Site Location Plan

Project Title:
125023 Kincluny at Drumoak
Proposed New Village

Drawing Title:
Site Location Plan
Kincluny at Drumoak, Aberdeenshire

KEY:



Proposed Development



Client:



Drawn by: 



Date: 26/03/18

Appendix B
Site Masterplan

Project Title:
125023 Kincluny at Drumoak
Proposed New Village

Drawing Title:
Site Masterplan
Kincluny at Drumoak, Aberdeenshire



Client: 	Drawn by: 
	Date: 26/03/18

Appendix C

Sustainable Transport Maps:

Figure 4-2 Walking Accessibility

Figure 4-3 Public Transport Accessibility

Project Title:
125023 Kincluny at Drumoak
Proposed New Village

Drawing Title:
Walking Accessibility
Walking Isochrones and Amenities

Figure 4-2

KEY:

-  Development Site
-  The Deeside Way
- Walking Isochrones:**
-  400 metres
-  800 metres
-  1600 metres

Local Amenities and Settlement:

-  1 Post Office
-  2 Irvine Arms (currently closed)
-  3 Bowling Club
-  4 Drumoak School
-  5 New Drumoak School Site
-  6 Drumoak Church
-  7 Drumoak Church Hall
-  8 Park Shop

Client:

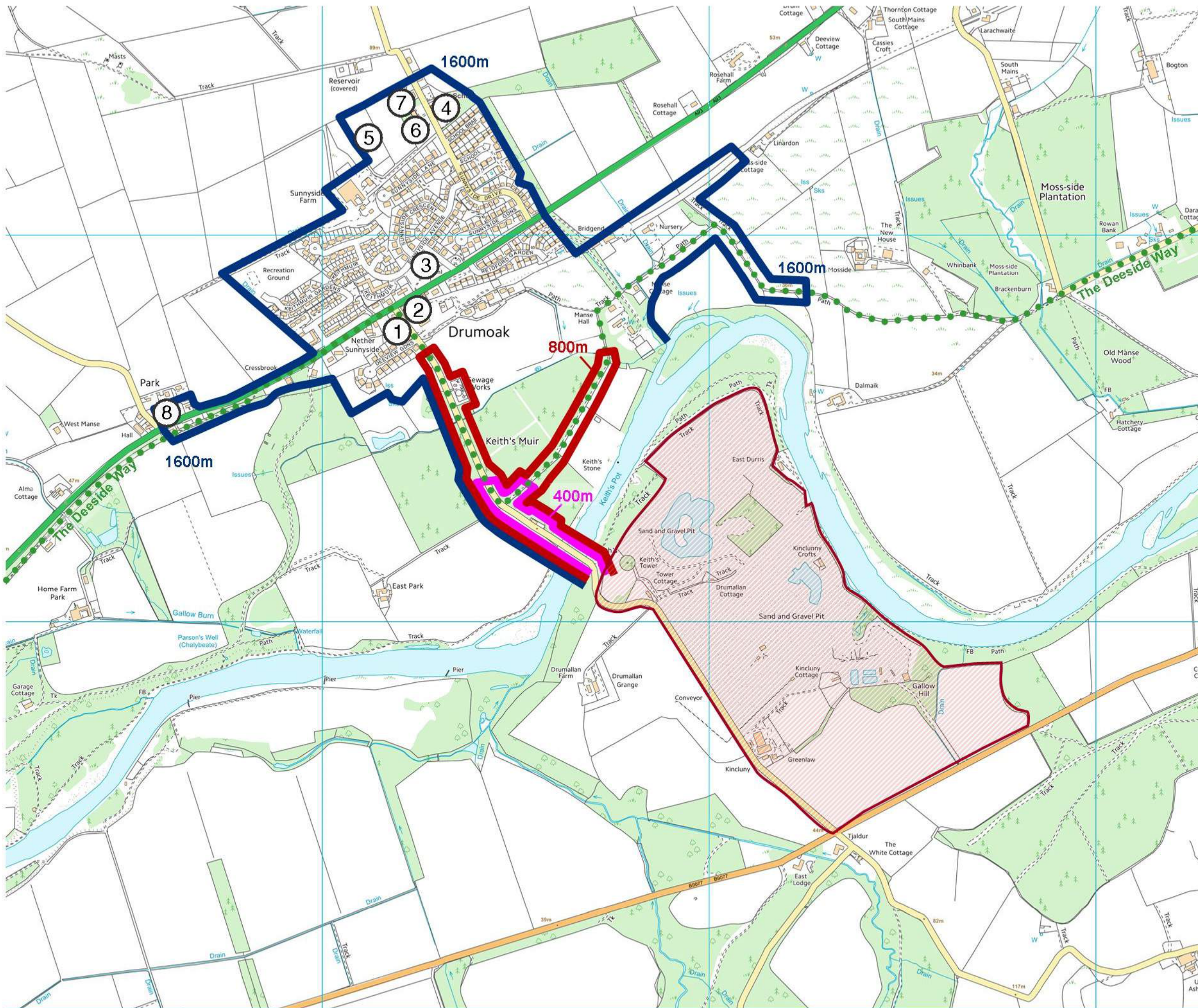


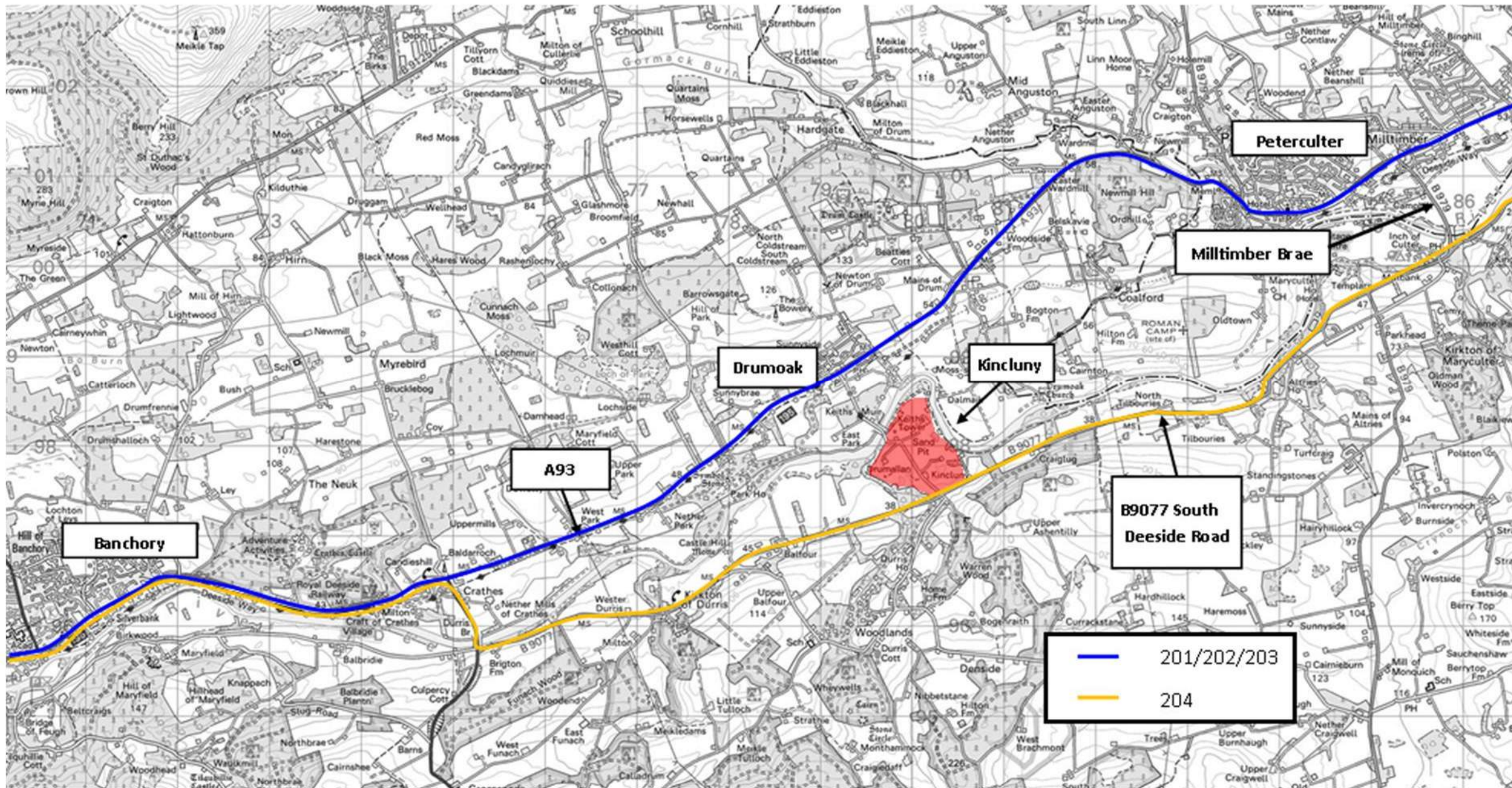
Drawn by: 

Date: 26/03/18



This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationary Office. © Crown Copyright 2015. All rights reserved. License number: 103905





Project Title:
125023 Kincluny at Drumoak
Proposed New Village


Drawing Title:
Public Transport Accessibility
Bus Routes and Bus Stops


Figure 4-3

KEY:

 Development Site

Bus Routes:

 Stagecoach Service 204

 Stagecoach Service 201/202/203

 Bus Stop with Shelter

 Bus Stop Flag Only



Client:



Drawn by: 

Date: 26/03/18

Appendix D
TRICS Output Files

TRIP RATE CALCULATION SELECTION PARAMETERS:

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

MULTI-MODAL VEHICLESSelected regions and areas:

03	SOUTH WEST	
	DC DORSET	1 days
04	EAST ANGLIA	
	SF SUFFOLK	1 days
05	EAST MIDLANDS	
	LN LINCOLNSHIRE	1 days
06	WEST MIDLANDS	
	SH SHROPSHIRE	3 days
	WK WARWICKSHIRE	1 days
	WM WEST MIDLANDS	1 days
07	YORKSHIRE & NORTH LINCOLNSHIRE	
	NE NORTH EAST LINCOLNSHIRE	1 days
	NY NORTH YORKSHIRE	2 days
08	NORTH WEST	
	CH CHESHIRE	1 days
	GM GREATER MANCHESTER	1 days
09	NORTH	
	CB CUMBRIA	2 days
10	WALES	
	CF CARDIFF	1 days
11	SCOTLAND	
	EA EAST AYRSHIRE	1 days
	FI FIFE	1 days
	HI HIGHLAND	1 days
12	CONNAUGHT	
	RO ROSCOMMON	1 days
13	MUNSTER	
	WA WATERFORD	1 days
14	LEINSTER	
	KK KILKENNY	1 days
15	GREATER DUBLIN	
	DL DUBLIN	1 days
16	ULSTER (REPUBLIC OF IRELAND)	
	CV CAVAN	1 days
	DN DONEGAL	3 days
17	ULSTER (NORTHERN IRELAND)	
	AR ARMAGH	1 days
	DO DOWN	1 days

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

Filtering Stage 2 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: Number of dwellings
 Actual Range: 7 to 432 (units:)
 Range Selected by User: 4 to 437 (units:)

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/07 to 26/09/14

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	5 days
Tuesday	6 days
Wednesday	4 days
Thursday	9 days
Friday	5 days

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

Selected survey types:

Manual count	29 days
Directional ATC Count	0 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 undertaken using machines.

Selected Locations:

Edge of Town	29
--------------	----

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	23
No Sub Category	6

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.

Filtering Stage 3 selection:**Use Class:**

C1	1 days
C3	28 days

This data displays the number of surveys per Use Class classification within the selected set. The Use Classes Order 2005 has been used for this purpose, which can be found within the Library module of TRICS®.

Filtering Stage 3 selection (Cont.):Population within 1 mile:

1,001 to 5,000	6 days
5,001 to 10,000	5 days
10,001 to 15,000	7 days
15,001 to 20,000	6 days
20,001 to 25,000	2 days
25,001 to 50,000	3 days

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

Population within 5 miles:

5,000 or Less	2 days
5,001 to 25,000	4 days
25,001 to 50,000	3 days
50,001 to 75,000	3 days
75,001 to 100,000	9 days
100,001 to 125,000	2 days
125,001 to 250,000	2 days
250,001 to 500,000	2 days
500,001 or More	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	7 days
1.1 to 1.5	22 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:

No	29 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.

LIST OF SITES relevant to selection parameters

1	AR-03-A-01	MIXED HOUSES	ARMAGH
	BIRCHDALE MANOR		
	LURGAN		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	153	
	Survey date: TUESDAY	15/06/10	Survey Type: MANUAL
2	CB-03-A-03	SEMI DETACHED	CUMBRIA
	HAWKSHEAD AVENUE		
	WORKINGTON		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	40	
	Survey date: THURSDAY	20/11/08	Survey Type: MANUAL
3	CB-03-A-04	SEMI DETACHED	CUMBRIA
	MOORCLOSE ROAD		
	SALTERBACK		
	WORKINGTON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	82	
	Survey date: FRIDAY	24/04/09	Survey Type: MANUAL
4	CF-03-A-02	MIXED HOUSES	CARDIFF
	DROPE ROAD		
	CARDIFF		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	196	
	Survey date: FRIDAY	05/10/07	Survey Type: MANUAL
5	CH-03-A-05	DETACHED	CHESHIRE
	SYDNEY ROAD		
	SYDNEY		
	CREWE		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	17	
	Survey date: TUESDAY	14/10/08	Survey Type: MANUAL
6	CV-03-A-01	DETACHED	CAVAN
	DUBLIN ROAD		
	CAVAN		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	37	
	Survey date: TUESDAY	18/12/12	Survey Type: MANUAL
7	DC-03-A-08	BUNGALOWS	DORSET
	HURSTDENE ROAD		
	CASTLE LANE WEST		
	BOURNEMOUTH		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	28	
	Survey date: MONDAY	24/03/14	Survey Type: MANUAL

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

LIST OF SITES relevant to selection parameters (Cont.)

8	DL-03-A-06	DETACHED		DUBLIN
	UPPER KILMACUD ROAD			
	DUNDRUM			
	DUBLIN			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	147		
	Survey date: FRIDAY	30/04/10		Survey Type: MANUAL
9	DN-03-A-02	DETACHED		DONEGAL
	GLENFIN ROAD			
	BALLYBOFEY			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	7		
	Survey date: THURSDAY	05/09/13		Survey Type: MANUAL
10	DN-03-A-03	DETACHED/ SEMI -DETACHED		DONEGAL
	THE GRANGE			
	GLENCAR IRISH			
	LETTERKENNY			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	50		
	Survey date: MONDAY	01/09/14		Survey Type: MANUAL
11	DN-03-A-04	SEMI -DETACHED		DONEGAL
	GORTLEE ROAD			
	GORTLEE			
	LETTERKENNY			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	83		
	Survey date: FRIDAY	26/09/14		Survey Type: MANUAL
12	DO-03-A-03	DETACHED/ SEMI DETACHED		DOWN
	OLD MILL HEIGHTS			
	DUNDONALD			
	BELFAST			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	79		
	Survey date: WEDNESDAY	23/10/13		Survey Type: MANUAL
13	EA-03-A-01	DETACHED		EAST AYRSHIRE
	TALISKER AVENUE			
	KILMARNOCK			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	39		
	Survey date: THURSDAY	05/06/08		Survey Type: MANUAL
14	FI-03-A-03	MIXED HOUSES		FIFE
	WOODMILL ROAD			
	DUNFERMLINE			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:	155		
	Survey date: MONDAY	30/04/07		Survey Type: MANUAL

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

LIST OF SITES relevant to selection parameters (Cont.)

15	GM-03-A-10	DETACHED/ SEMI		GREATER MANCHESTER
	BUTT HILL DRIVE			
	PRESTWICH			
	MANCHESTER			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		29	
	Survey date: WEDNESDAY		12/10/11	Survey Type: MANUAL
16	HI-03-A-13	HOUSING		HIGHLAND
	KINGSMILLS ROAD			
	INVERNESS			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		9	
	Survey date: THURSDAY		21/05/09	Survey Type: MANUAL
17	KK-03-A-03	MIXED HOUSING		KILKENNY
	FRESHFORD ROAD			
	FRIARSINCH			
	KILKENNY			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		70	
	Survey date: WEDNESDAY		26/11/08	Survey Type: MANUAL
18	LN-03-A-01	MIXED HOUSES		LINCOLNSHIRE
	BRANT ROAD			
	BRACEBRIDGE			
	LINCOLN			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		150	
	Survey date: TUESDAY		15/05/07	Survey Type: MANUAL
19	NE-03-A-02	SEMI DETACHED & DETACHED		NORTH EAST LINCOLNSHIRE
	HANOVER WALK			
	SCUNTHORPE			
	Edge of Town			
	No Sub Category			
	Total Number of dwellings:		432	
	Survey date: MONDAY		12/05/14	Survey Type: MANUAL
20	NY-03-A-10	HOUSES AND FLATS		NORTH YORKSHIRE
	BOROUGHBRIDGE ROAD			
	RIPON			
	Edge of Town			
	No Sub Category			
	Total Number of dwellings:		71	
	Survey date: TUESDAY		17/09/13	Survey Type: MANUAL
21	NY-03-A-11	PRIVATE HOUSING		NORTH YORKSHIRE
	HORSEFAIR			
	BOROUGHBRIDGE			
	Edge of Town			
	Residential Zone			
	Total Number of dwellings:		23	
	Survey date: WEDNESDAY		18/09/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

22	RO-03-A-01	MIXED HOUSES	ROSCOMMON
	GALWAY ROAD		
	ROSCOMMON		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	80	
	Survey date: THURSDAY	07/05/09	Survey Type: MANUAL
23	SF-03-A-02	SEMI DET./ TERRACED	SUFFOLK
	STOKE PARK DRIVE		
	MAIDENHALL		
	IPSWICH		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	230	
	Survey date: THURSDAY	24/05/07	Survey Type: MANUAL
24	SH-03-A-03	DETACHED	SHROPSHIRE
	SOMERBY DRIVE		
	BICTON HEATH		
	SHREWSBURY		
	Edge of Town		
	No Sub Category		
	Total Number of dwellings:	10	
	Survey date: FRIDAY	26/06/09	Survey Type: MANUAL
25	SH-03-A-05	SEMI-DETACHED/ TERRACED	SHROPSHIRE
	SANDCROFT		
	SUTTON HILL		
	TELFORD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	54	
	Survey date: THURSDAY	24/10/13	Survey Type: MANUAL
26	SH-03-A-06	BUNGALOWS	SHROPSHIRE
	ELLESMERE ROAD		
	SHREWSBURY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	16	
	Survey date: THURSDAY	22/05/14	Survey Type: MANUAL
27	WA-03-A-04	DETACHED	WATERFORD
	MAYPARK LANE		
	WATERFORD		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	280	
	Survey date: TUESDAY	24/06/14	Survey Type: MANUAL
28	WK-03-A-02	BUNGALOWS	WARWICKSHIRE
	NARBERTH WAY		
	POTTERS GREEN		
	COVENTRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	17	
	Survey date: THURSDAY	17/10/13	Survey Type: MANUAL

LIST OF SITES relevant to selection parameters (Cont.)

29	WM-03-A-03	MIXED HOUSING	WEST MIDLANDS
	BASELEY WAY		
	ROWLEYS GREEN		
	COVENTRY		
	Edge of Town		
	Residential Zone		
	Total Number of dwellings:	84	
	Survey date: MONDAY	24/09/07	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.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLES**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.068	29	92	0.263	29	92	0.331
08:00 - 09:00	29	92	0.161	29	92	0.453	29	92	0.614
09:00 - 10:00	29	92	0.177	29	92	0.235	29	92	0.412
10:00 - 11:00	29	92	0.147	29	92	0.184	29	92	0.331
11:00 - 12:00	29	92	0.181	29	92	0.190	29	92	0.371
12:00 - 13:00	29	92	0.218	29	92	0.194	29	92	0.412
13:00 - 14:00	29	92	0.211	29	92	0.205	29	92	0.416
14:00 - 15:00	29	92	0.231	29	92	0.237	29	92	0.468
15:00 - 16:00	29	92	0.306	29	92	0.230	29	92	0.536
16:00 - 17:00	29	92	0.350	29	92	0.214	29	92	0.564
17:00 - 18:00	29	92	0.413	29	92	0.235	29	92	0.648
18:00 - 19:00	29	92	0.320	29	92	0.241	29	92	0.561
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			2.783			2.881			5.664

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: 7 - 432 (units:)
 Survey date date range: 01/01/07 - 26/09/14
 Number of weekdays (Monday-Friday): 29
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TAXIS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.004	29	92	0.004	29	92	0.008
08:00 - 09:00	29	92	0.003	29	92	0.003	29	92	0.006
09:00 - 10:00	29	92	0.003	29	92	0.004	29	92	0.007
10:00 - 11:00	29	92	0.003	29	92	0.004	29	92	0.007
11:00 - 12:00	29	92	0.003	29	92	0.003	29	92	0.006
12:00 - 13:00	29	92	0.003	29	92	0.003	29	92	0.006
13:00 - 14:00	29	92	0.002	29	92	0.002	29	92	0.004
14:00 - 15:00	29	92	0.003	29	92	0.003	29	92	0.006
15:00 - 16:00	29	92	0.004	29	92	0.004	29	92	0.008
16:00 - 17:00	29	92	0.004	29	92	0.004	29	92	0.008
17:00 - 18:00	29	92	0.005	29	92	0.004	29	92	0.009
18:00 - 19:00	29	92	0.004	29	92	0.005	29	92	0.009
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.041			0.043			0.084

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: 7 - 432 (units:)
 Survey date date range: 01/01/07 - 26/09/14
 Number of weekdays (Monday-Friday): 29
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL OGVS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.002	29	92	0.001	29	92	0.003
08:00 - 09:00	29	92	0.002	29	92	0.003	29	92	0.005
09:00 - 10:00	29	92	0.004	29	92	0.003	29	92	0.007
10:00 - 11:00	29	92	0.003	29	92	0.003	29	92	0.006
11:00 - 12:00	29	92	0.001	29	92	0.001	29	92	0.002
12:00 - 13:00	29	92	0.002	29	92	0.002	29	92	0.004
13:00 - 14:00	29	92	0.001	29	92	0.002	29	92	0.003
14:00 - 15:00	29	92	0.003	29	92	0.002	29	92	0.005
15:00 - 16:00	29	92	0.003	29	92	0.001	29	92	0.004
16:00 - 17:00	29	92	0.002	29	92	0.002	29	92	0.004
17:00 - 18:00	29	92	0.000	29	92	0.001	29	92	0.001
18:00 - 19:00	29	92	0.000	29	92	0.000	29	92	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.023			0.021			0.044

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PSVS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.000	29	92	0.000	29	92	0.000
08:00 - 09:00	29	92	0.004	29	92	0.004	29	92	0.008
09:00 - 10:00	29	92	0.001	29	92	0.001	29	92	0.002
10:00 - 11:00	29	92	0.000	29	92	0.000	29	92	0.000
11:00 - 12:00	29	92	0.001	29	92	0.001	29	92	0.002
12:00 - 13:00	29	92	0.000	29	92	0.000	29	92	0.000
13:00 - 14:00	29	92	0.000	29	92	0.000	29	92	0.000
14:00 - 15:00	29	92	0.001	29	92	0.001	29	92	0.002
15:00 - 16:00	29	92	0.002	29	92	0.002	29	92	0.004
16:00 - 17:00	29	92	0.001	29	92	0.001	29	92	0.002
17:00 - 18:00	29	92	0.000	29	92	0.000	29	92	0.000
18:00 - 19:00	29	92	0.000	29	92	0.000	29	92	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.010			0.010			0.020

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL CYCLISTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.001	29	92	0.006	29	92	0.007
08:00 - 09:00	29	92	0.004	29	92	0.014	29	92	0.018
09:00 - 10:00	29	92	0.003	29	92	0.004	29	92	0.007
10:00 - 11:00	29	92	0.001	29	92	0.006	29	92	0.007
11:00 - 12:00	29	92	0.006	29	92	0.003	29	92	0.009
12:00 - 13:00	29	92	0.004	29	92	0.004	29	92	0.008
13:00 - 14:00	29	92	0.005	29	92	0.004	29	92	0.009
14:00 - 15:00	29	92	0.003	29	92	0.004	29	92	0.007
15:00 - 16:00	29	92	0.017	29	92	0.011	29	92	0.028
16:00 - 17:00	29	92	0.010	29	92	0.005	29	92	0.015
17:00 - 18:00	29	92	0.010	29	92	0.007	29	92	0.017
18:00 - 19:00	29	92	0.006	29	92	0.004	29	92	0.010
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.070			0.072			0.142

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL VEHICLE OCCUPANTS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.075	29	92	0.316	29	92	0.391
08:00 - 09:00	29	92	0.200	29	92	0.695	29	92	0.895
09:00 - 10:00	29	92	0.214	29	92	0.304	29	92	0.518
10:00 - 11:00	29	92	0.173	29	92	0.232	29	92	0.405
11:00 - 12:00	29	92	0.228	29	92	0.240	29	92	0.468
12:00 - 13:00	29	92	0.272	29	92	0.246	29	92	0.518
13:00 - 14:00	29	92	0.266	29	92	0.276	29	92	0.542
14:00 - 15:00	29	92	0.316	29	92	0.301	29	92	0.617
15:00 - 16:00	29	92	0.490	29	92	0.322	29	92	0.812
16:00 - 17:00	29	92	0.515	29	92	0.306	29	92	0.821
17:00 - 18:00	29	92	0.547	29	92	0.320	29	92	0.867
18:00 - 19:00	29	92	0.425	29	92	0.335	29	92	0.760
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			3.721			3.893			7.614

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PEDESTRIANS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.019	29	92	0.036	29	92	0.055
08:00 - 09:00	29	92	0.037	29	92	0.116	29	92	0.153
09:00 - 10:00	29	92	0.033	29	92	0.051	29	92	0.084
10:00 - 11:00	29	92	0.034	29	92	0.037	29	92	0.071
11:00 - 12:00	29	92	0.031	29	92	0.037	29	92	0.068
12:00 - 13:00	29	92	0.030	29	92	0.030	29	92	0.060
13:00 - 14:00	29	92	0.040	29	92	0.037	29	92	0.077
14:00 - 15:00	29	92	0.053	29	92	0.035	29	92	0.088
15:00 - 16:00	29	92	0.115	29	92	0.060	29	92	0.175
16:00 - 17:00	29	92	0.071	29	92	0.045	29	92	0.116
17:00 - 18:00	29	92	0.056	29	92	0.039	29	92	0.095
18:00 - 19:00	29	92	0.049	29	92	0.048	29	92	0.097
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.568			0.571			1.139

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL BUS/ TRAM PASSENGERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.000	29	92	0.013	29	92	0.013
08:00 - 09:00	29	92	0.005	29	92	0.030	29	92	0.035
09:00 - 10:00	29	92	0.003	29	92	0.010	29	92	0.013
10:00 - 11:00	29	92	0.002	29	92	0.006	29	92	0.008
11:00 - 12:00	29	92	0.006	29	92	0.007	29	92	0.013
12:00 - 13:00	29	92	0.006	29	92	0.007	29	92	0.013
13:00 - 14:00	29	92	0.006	29	92	0.004	29	92	0.010
14:00 - 15:00	29	92	0.006	29	92	0.004	29	92	0.010
15:00 - 16:00	29	92	0.016	29	92	0.006	29	92	0.022
16:00 - 17:00	29	92	0.012	29	92	0.003	29	92	0.015
17:00 - 18:00	29	92	0.017	29	92	0.008	29	92	0.025
18:00 - 19:00	29	92	0.018	29	92	0.004	29	92	0.022
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.097			0.102			0.199

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL RAIL PASSENGERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.000	29	92	0.000	29	92	0.000
08:00 - 09:00	29	92	0.000	29	92	0.000	29	92	0.000
09:00 - 10:00	29	92	0.000	29	92	0.000	29	92	0.000
10:00 - 11:00	29	92	0.000	29	92	0.000	29	92	0.000
11:00 - 12:00	29	92	0.000	29	92	0.000	29	92	0.000
12:00 - 13:00	29	92	0.000	29	92	0.000	29	92	0.000
13:00 - 14:00	29	92	0.000	29	92	0.000	29	92	0.000
14:00 - 15:00	29	92	0.000	29	92	0.000	29	92	0.000
15:00 - 16:00	29	92	0.000	29	92	0.000	29	92	0.000
16:00 - 17:00	29	92	0.000	29	92	0.000	29	92	0.000
17:00 - 18:00	29	92	0.000	29	92	0.000	29	92	0.000
18:00 - 19:00	29	92	0.000	29	92	0.000	29	92	0.000
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.000			0.000			0.000

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL COACH PASSENGERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.000	29	92	0.000	29	92	0.000
08:00 - 09:00	29	92	0.000	29	92	0.005	29	92	0.005
09:00 - 10:00	29	92	0.000	29	92	0.001	29	92	0.001
10:00 - 11:00	29	92	0.000	29	92	0.000	29	92	0.000
11:00 - 12:00	29	92	0.000	29	92	0.000	29	92	0.000
12:00 - 13:00	29	92	0.000	29	92	0.000	29	92	0.000
13:00 - 14:00	29	92	0.000	29	92	0.000	29	92	0.000
14:00 - 15:00	29	92	0.002	29	92	0.000	29	92	0.002
15:00 - 16:00	29	92	0.003	29	92	0.000	29	92	0.003
16:00 - 17:00	29	92	0.000	29	92	0.000	29	92	0.000
17:00 - 18:00	29	92	0.000	29	92	0.000	29	92	0.000
18:00 - 19:00	29	92	0.001	29	92	0.000	29	92	0.001
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.006			0.006			0.012

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: 7 - 432 (units:)
 Survey date date range: 01/01/07 - 26/09/14
 Number of weekdays (Monday-Friday): 29
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL PUBLIC TRANSPORT USERS**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.000	29	92	0.013	29	92	0.013
08:00 - 09:00	29	92	0.005	29	92	0.035	29	92	0.040
09:00 - 10:00	29	92	0.003	29	92	0.011	29	92	0.014
10:00 - 11:00	29	92	0.002	29	92	0.006	29	92	0.008
11:00 - 12:00	29	92	0.006	29	92	0.007	29	92	0.013
12:00 - 13:00	29	92	0.006	29	92	0.007	29	92	0.013
13:00 - 14:00	29	92	0.007	29	92	0.004	29	92	0.011
14:00 - 15:00	29	92	0.007	29	92	0.004	29	92	0.011
15:00 - 16:00	29	92	0.018	29	92	0.006	29	92	0.024
16:00 - 17:00	29	92	0.012	29	92	0.003	29	92	0.015
17:00 - 18:00	29	92	0.017	29	92	0.008	29	92	0.025
18:00 - 19:00	29	92	0.018	29	92	0.004	29	92	0.022
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			0.101			0.108			0.209

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: 7 - 432 (units:)
 Survey date date range: 01/01/07 - 26/09/14
 Number of weekdays (Monday-Friday): 29
 Number of Saturdays: 0
 Number of Sundays: 0
 Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Fairhurst STREET NAME TOWN/CITY

Licence No: 109305

TRIP RATE for Land Use 03 - RESIDENTIAL/A - HOUSES PRIVATELY OWNED

MULTI-MODAL TOTAL PEOPLE**Calculation factor: 1 DWELLS****BOLD print indicates peak (busiest) period**

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	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	29	92	0.094	29	92	0.370	29	92	0.464
08:00 - 09:00	29	92	0.246	29	92	0.860	29	92	1.106
09:00 - 10:00	29	92	0.252	29	92	0.370	29	92	0.622
10:00 - 11:00	29	92	0.210	29	92	0.282	29	92	0.492
11:00 - 12:00	29	92	0.271	29	92	0.287	29	92	0.558
12:00 - 13:00	29	92	0.313	29	92	0.286	29	92	0.599
13:00 - 14:00	29	92	0.318	29	92	0.321	29	92	0.639
14:00 - 15:00	29	92	0.380	29	92	0.344	29	92	0.724
15:00 - 16:00	29	92	0.641	29	92	0.398	29	92	1.039
16:00 - 17:00	29	92	0.607	29	92	0.358	29	92	0.965
17:00 - 18:00	29	92	0.630	29	92	0.374	29	92	1.004
18:00 - 19:00	29	92	0.498	29	92	0.391	29	92	0.889
19:00 - 20:00									
20:00 - 21:00									
21:00 - 22:00									
22:00 - 23:00									
23:00 - 24:00									
Total Rates:			4.460			4.641			9.101

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: 7 - 432 (units:)
Survey date date range: 01/01/07 - 26/09/14
Number of weekdays (Monday-Friday): 29
Number of Saturdays: 0
Number of Sundays: 0
Surveys manually removed from selection: 2

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 shown. Finally, the number of survey days that have been manually removed from the selected set outside of the standard filtering procedure are displayed.

Appendix E
Traffic Network Diagrams

1500 Dwellings		Weekday AM Peak (08:00 – 09:00)				Weekday PM Peak (17:00 – 18:00)			
		Trip Rates		Trips		Trip Rates		Trips	
		In	Out	In	Out	In	Out	In	Out
Phase	500	0.246	0.860	123	430	0.630	0.374	315	187
Phase	1000	0.246	0.860	246	860	0.630	0.374	630	374
Phase 3	1500	0.246	0.860	369	1290	0.630	0.374	945	561
Year 2018	100	0.246	0.860	25	86	0.630	0.374	63	37
LDP Bid	600	0.246	0.860	148	516	0.630	0.374	378	224

LDP Bid 600 Houses

Bus, minibus or coach	12.50%	18	65	47	28
Taxi or minicab	1.60%	2	8	6	4
Driving a car or van	63.50%	94	328	240	142
Passenger in a car or van	6.80%	10	35	26	15
Motorcycle, scooter or moped	0.20%	0	1	1	0
Bicycle	2.60%	4	13	10	6
On foot	11.40%	17	59	43	26
Other	1.40%	2	7	5	3
Total	100%	148	516	378	224
	100%	148	516	378	224

Full Development

Development Type	Scale	Weekday AM Peak (08:00 - 09:00)				Weekday PM Peak (17:00 - 18:00)			
		Trip Rates		Trips		Trip Rates		Trips	
		In	Out	In	Out	In	Out	In	Out
Class 4 Office	6802	1.733	0.193	118	13	0.153	1.533	10	104
Class 5 Industrial	4545	0.513	0.23	23	10	0.201	0.476	9	22
Total	11347			141	24			20	126

15% Shared Trips Employment	21	4	3	19
15% Internal Trips Residential	35	123	90	53
	199	696	510	303
TOTAL EXTERNAL TRIPS	319	716	527	410

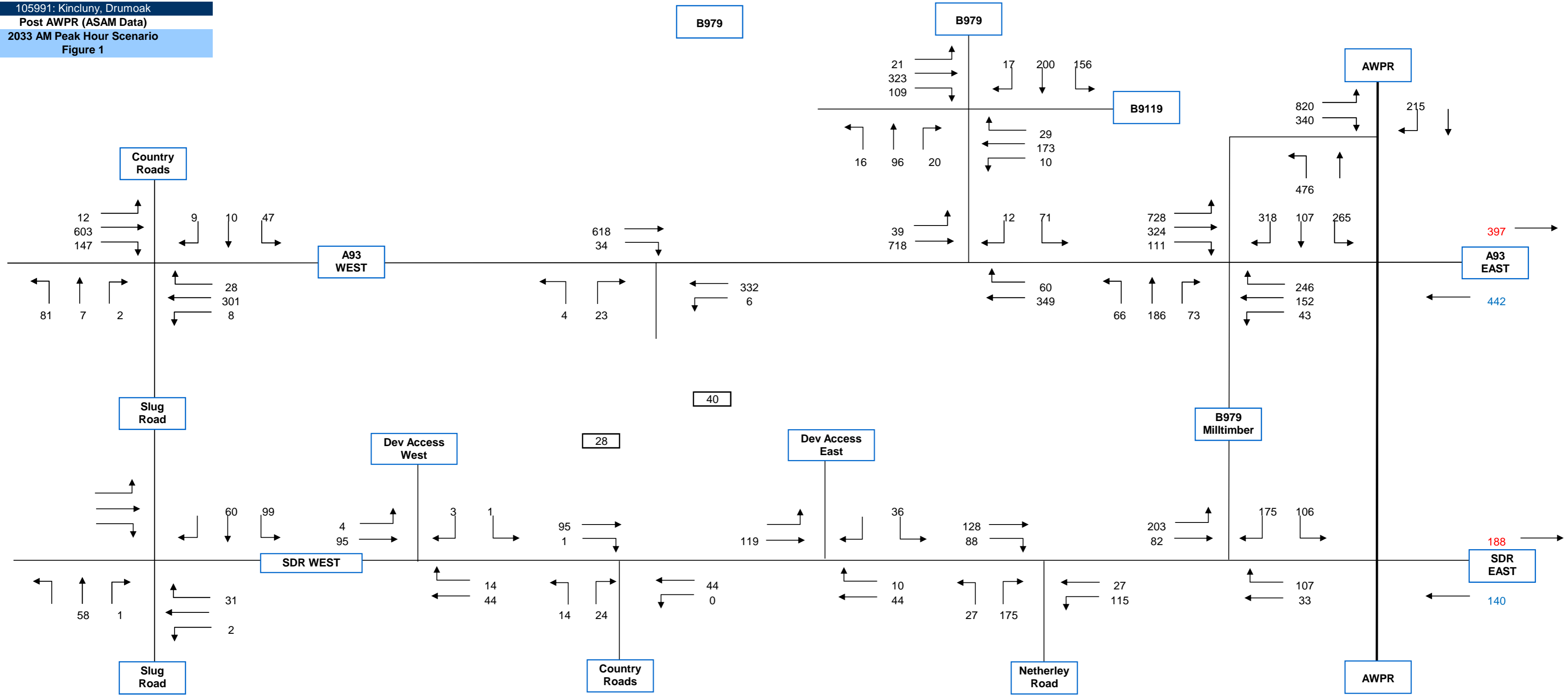
600 Houses

Development Type	Scale	Weekday AM Peak (08:00 - 09:00)				Weekday PM Peak (17:00 - 18:00)			
		Trip Rates		Trips		Trip Rates		Trips	
		In	Out	In	Out	In	Out	In	Out
Class 4 Office	6802	1.733	0.193	118	13	0.153	1.533	10	104
Class 5 Industrial	4545	0.513	0.23	23	10	0.201	0.476	9	22
Total	11347			141	24			20	126

15% Shared Trips Employment	21	4	3	19
15% Internal Trips Residential	14	49	36	21
	80	279	204	121
TOTAL EXTERNAL TRIPS	200	299	221	228

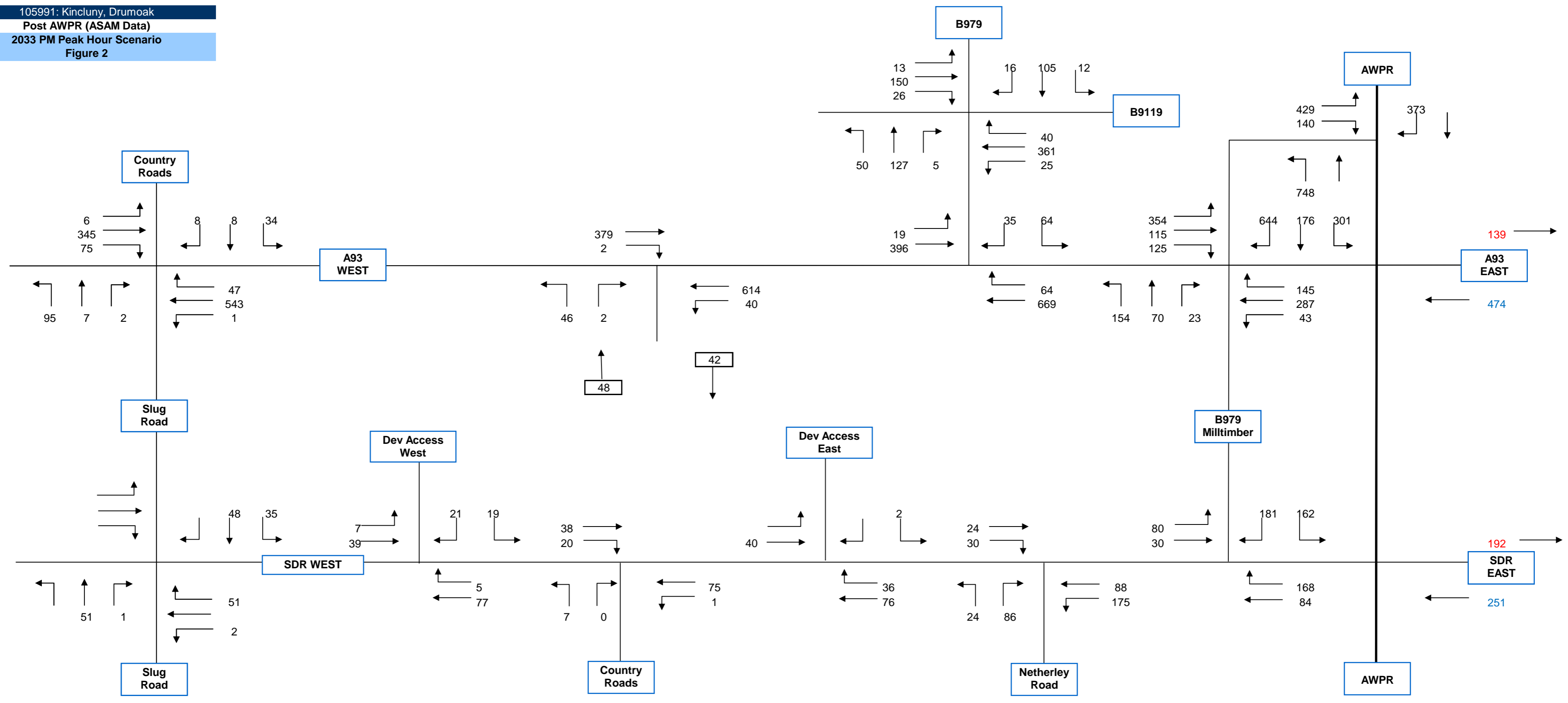
'With Bridge' Option

105991: Kinclun, Drumoak
Post AWPR (ASAM Data)
2033 AM Peak Hour Scenario
Figure 1

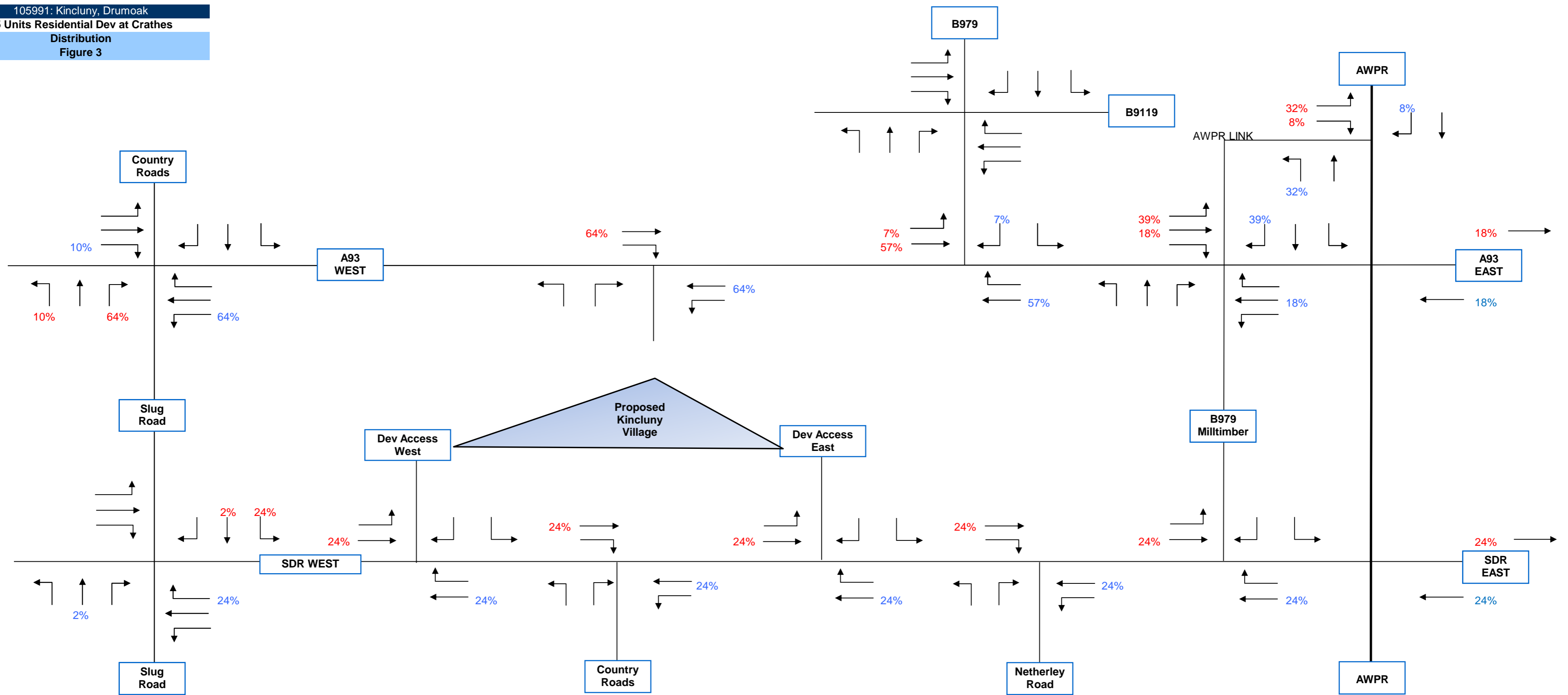


'With Bridge' Option

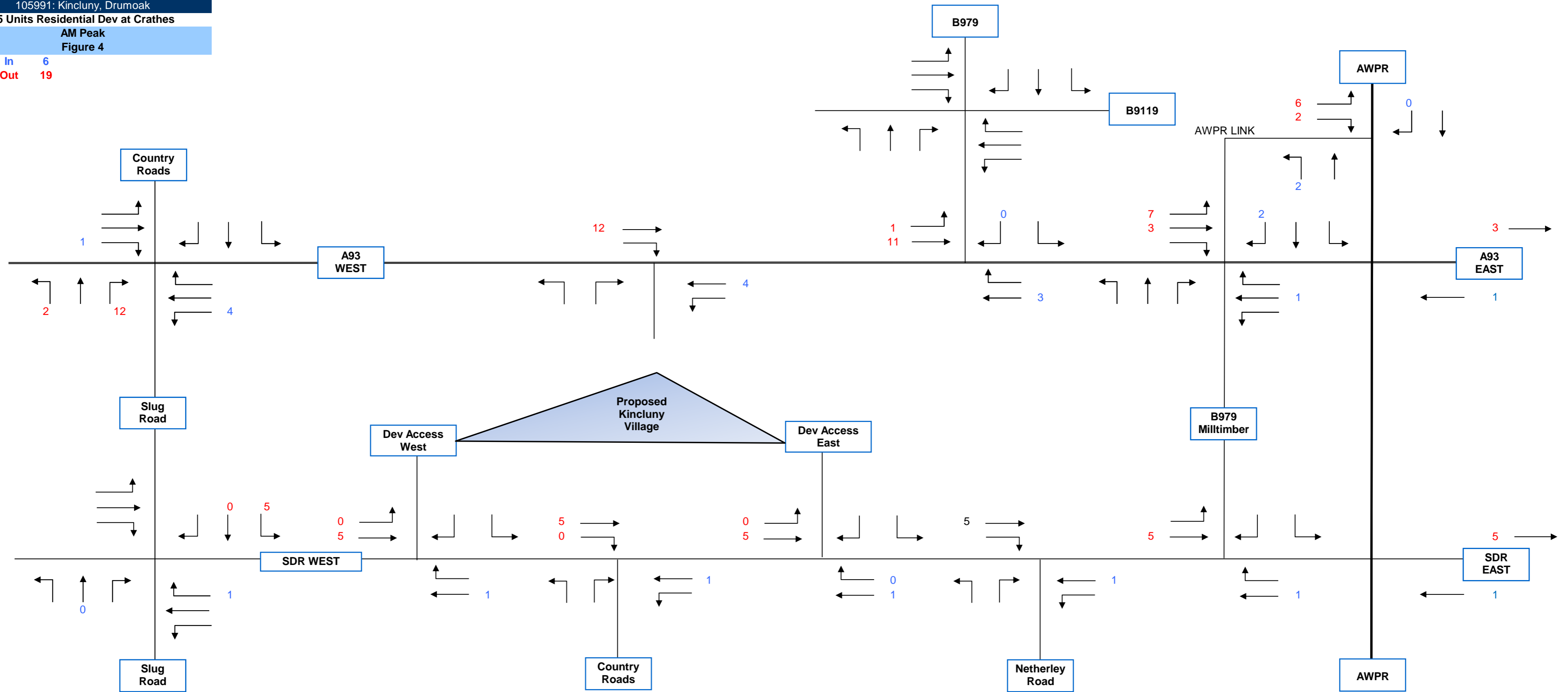
105991: Kinlun, Drumoak
Post AWPR (ASAM Data)
2033 PM Peak Hour Scenario
Figure 2



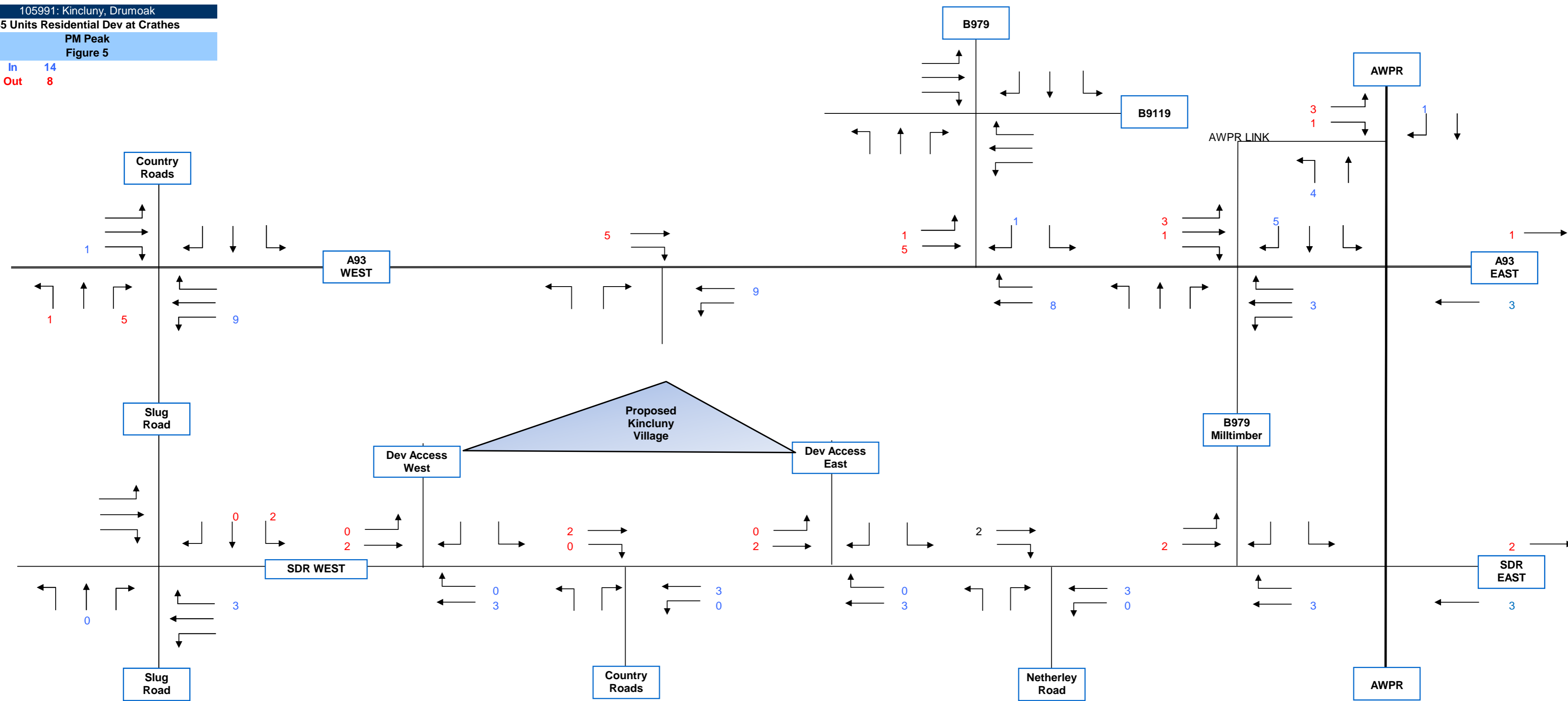
105991: Kincluney, Drumoak
45 Units Residential Dev at Crathes
Distribution
Figure 3



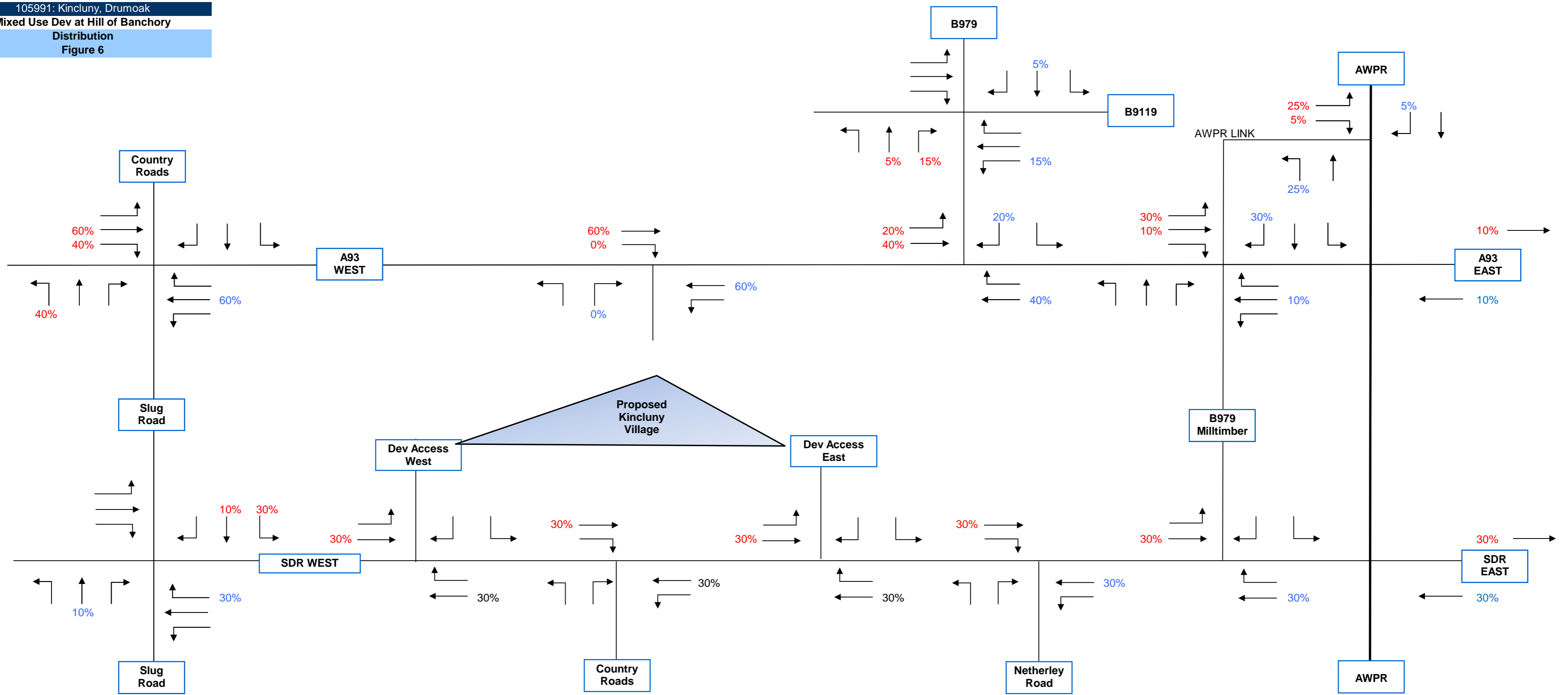
105991: Kincluny, Drumoak
45 Units Residential Dev at Crathes
AM Peak
Figure 4
In 6
Out 19



105991: Kincluny, Drumoak
45 Units Residential Dev at Crathes
PM Peak
Figure 5
In 14
Out 8

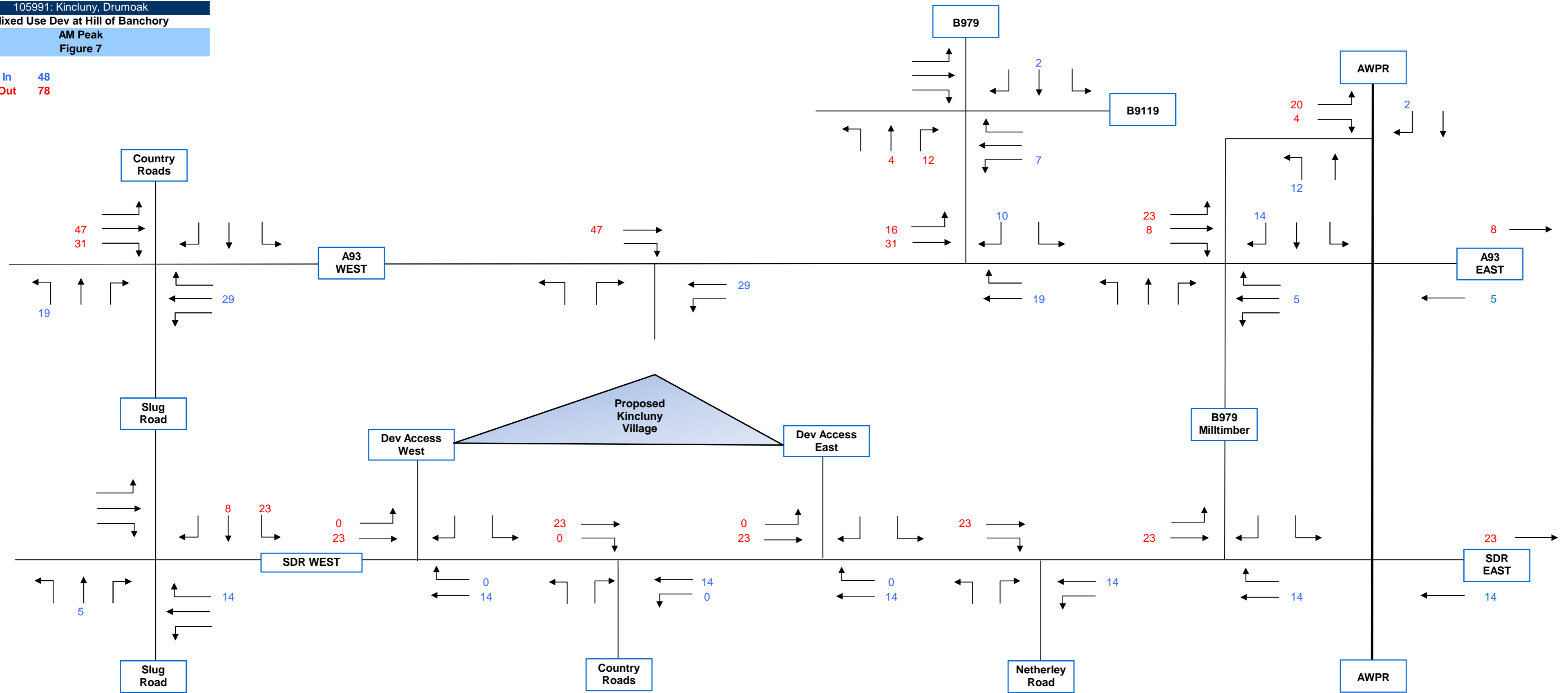


105991: Kincluney, Drumoak
Mixed Use Dev at Hill of Banchory
Distribution
Figure 6



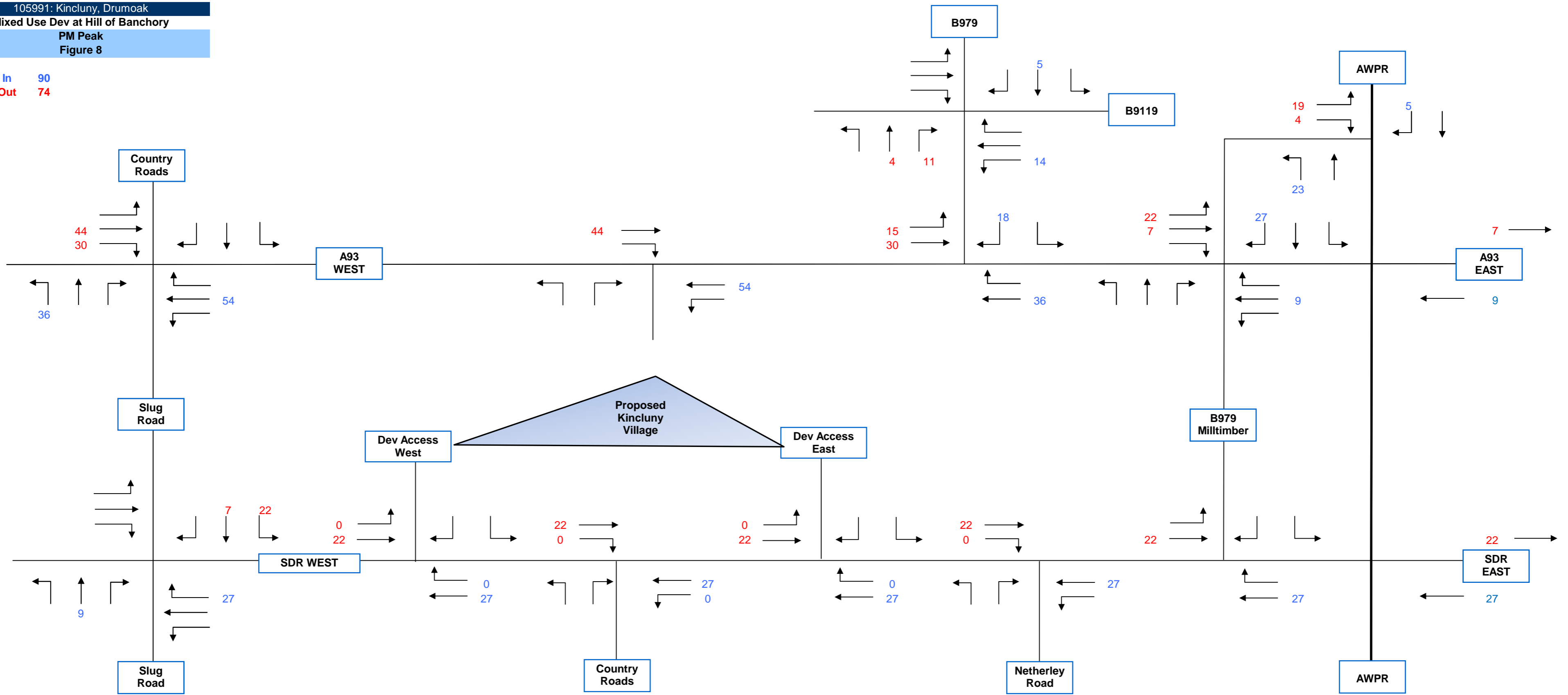
105991: Kincluney, Drumoak
Mixed Use Dev at Hill of Banchory
AM Peak
Figure 7

In 48
Out 78

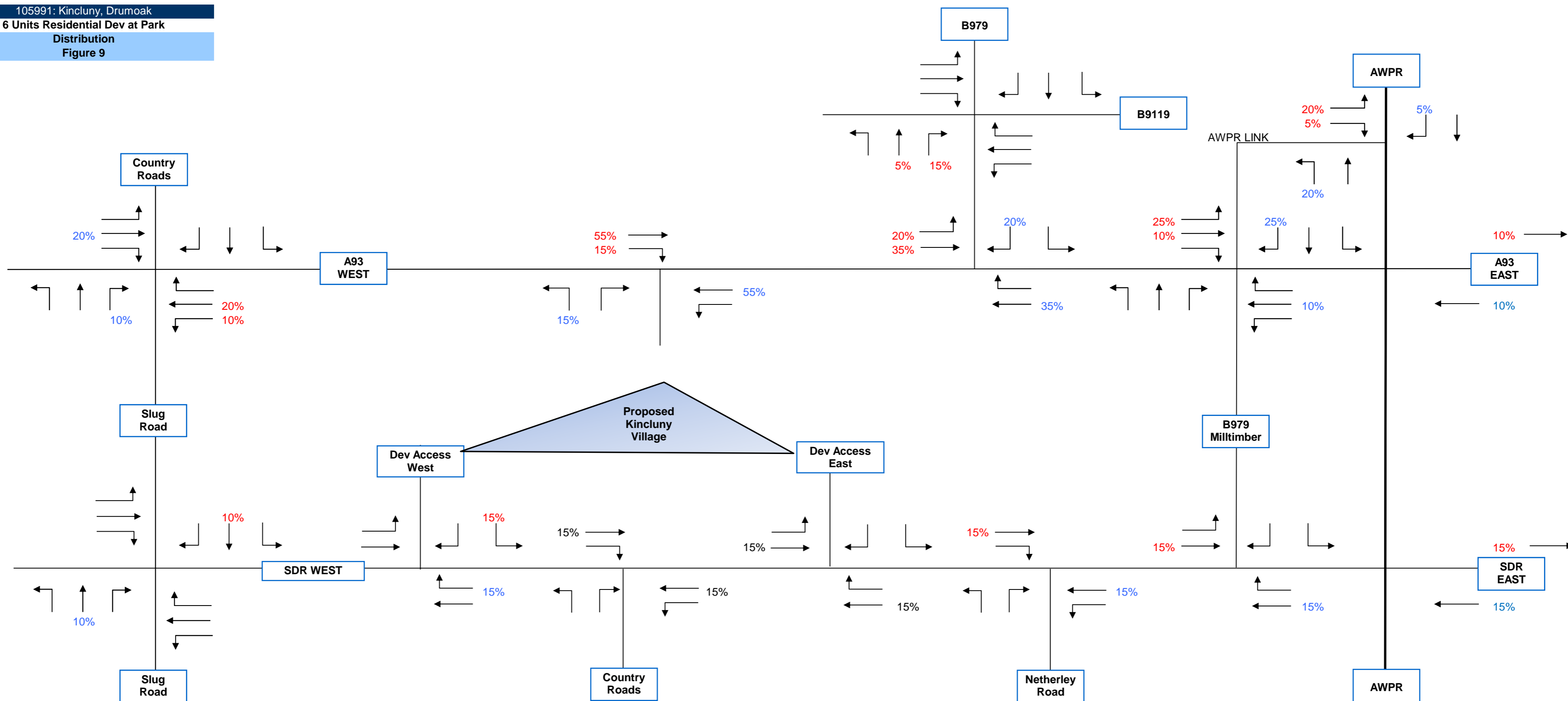


105991: Kincluney, Drumoak
Mixed Use Dev at Hill of Banchory
PM Peak
Figure 8

In 90
Out 74

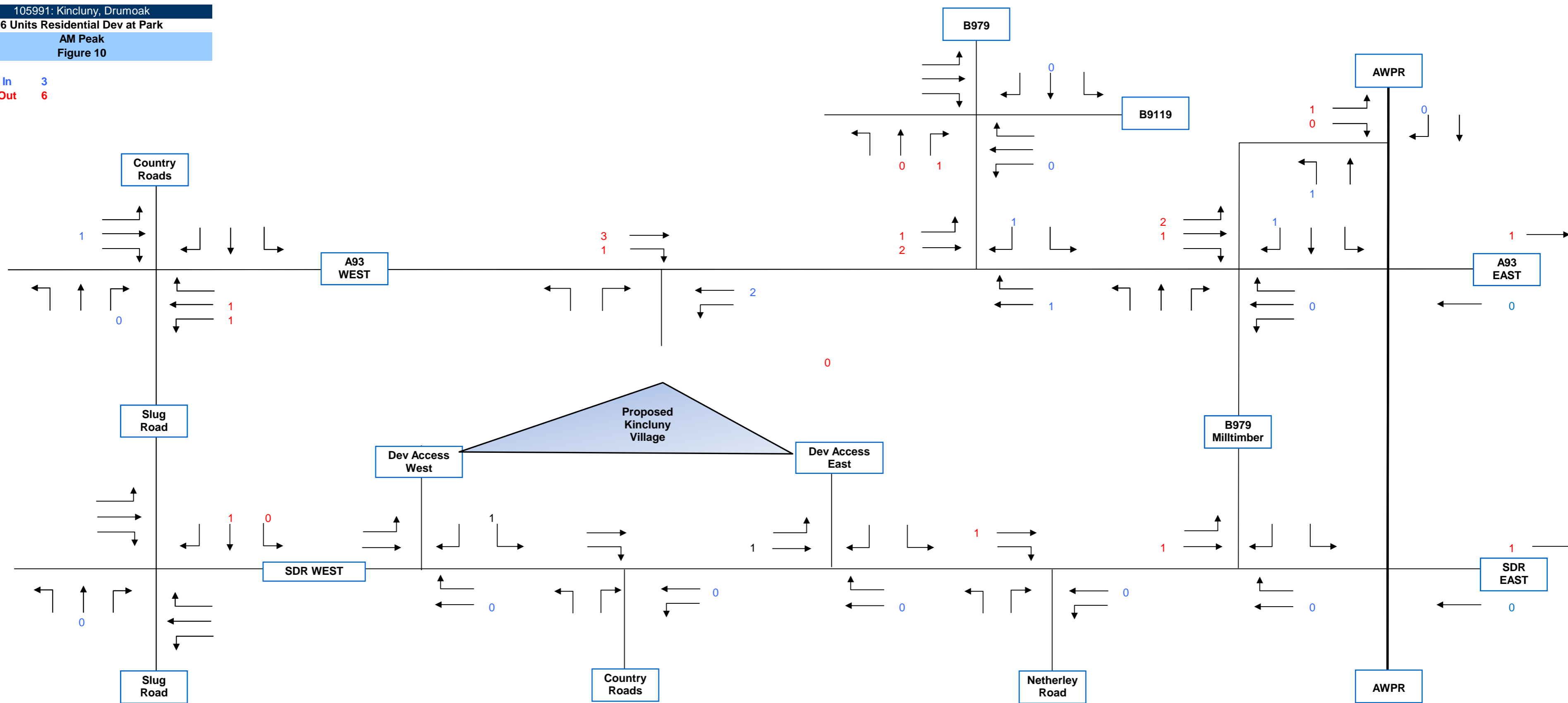


105991: Kincluny, Drumoak
6 Units Residential Dev at Park
Distribution
Figure 9



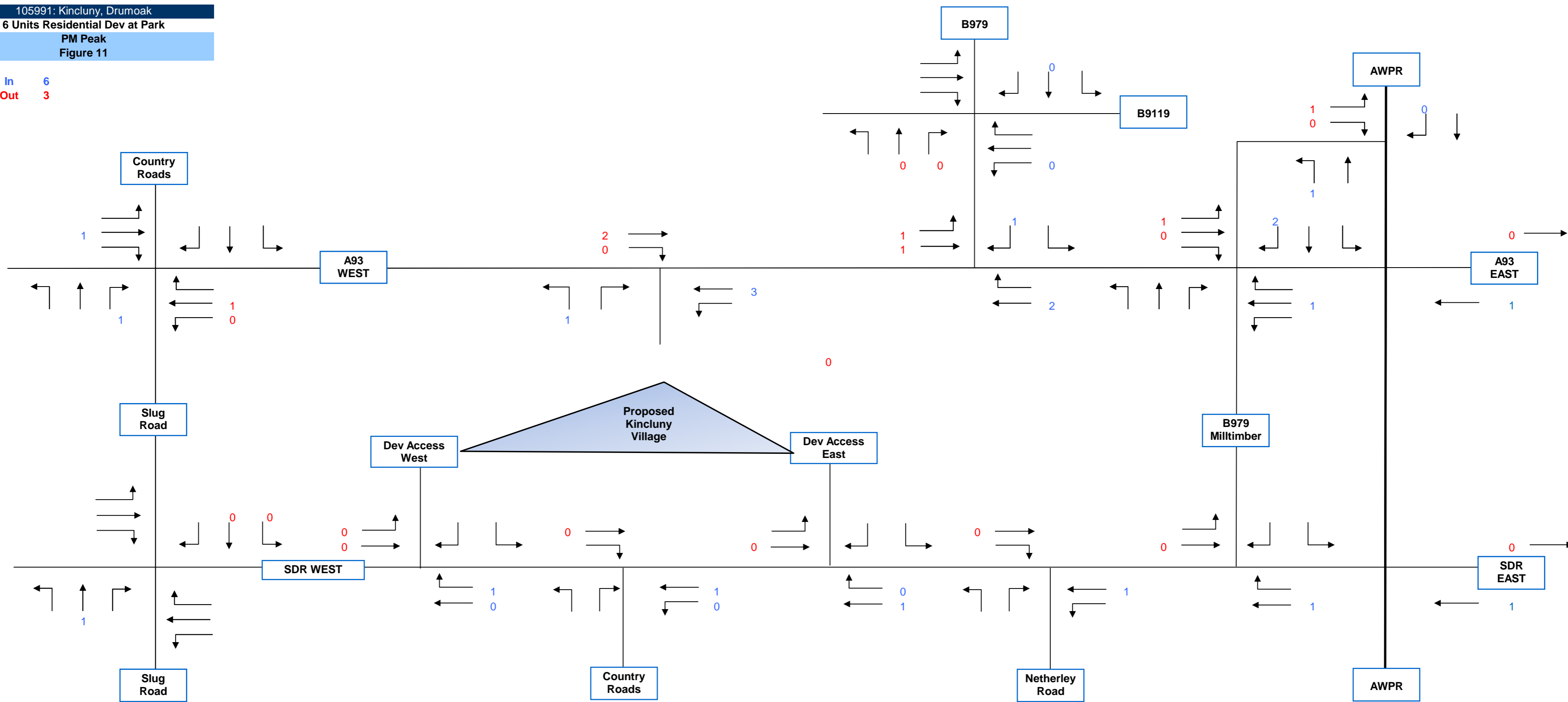
105991: Kincluny, Drumoak
 6 Units Residential Dev at Park
 AM Peak
 Figure 10

In 3
 Out 6

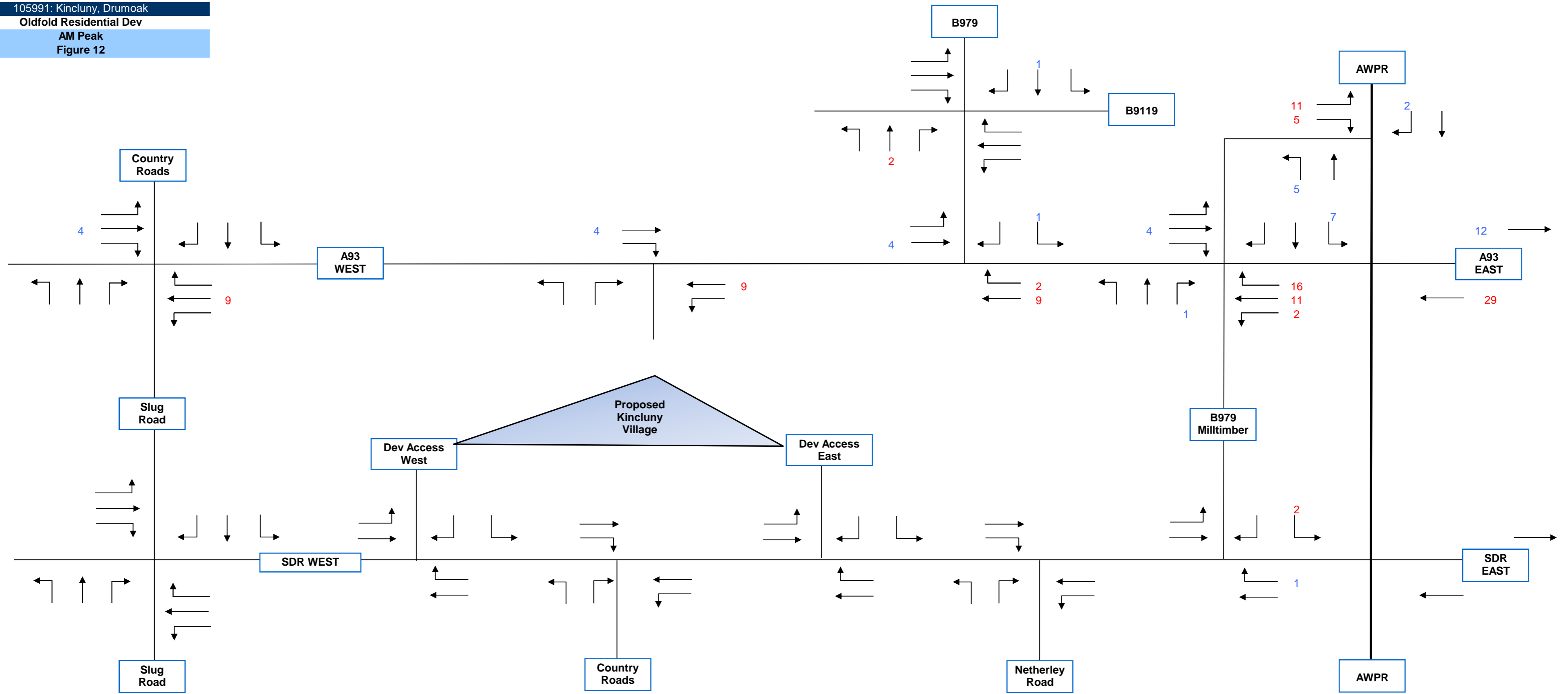


105991: Kincluny, Drumoak
6 Units Residential Dev at Park
PM Peak
Figure 11

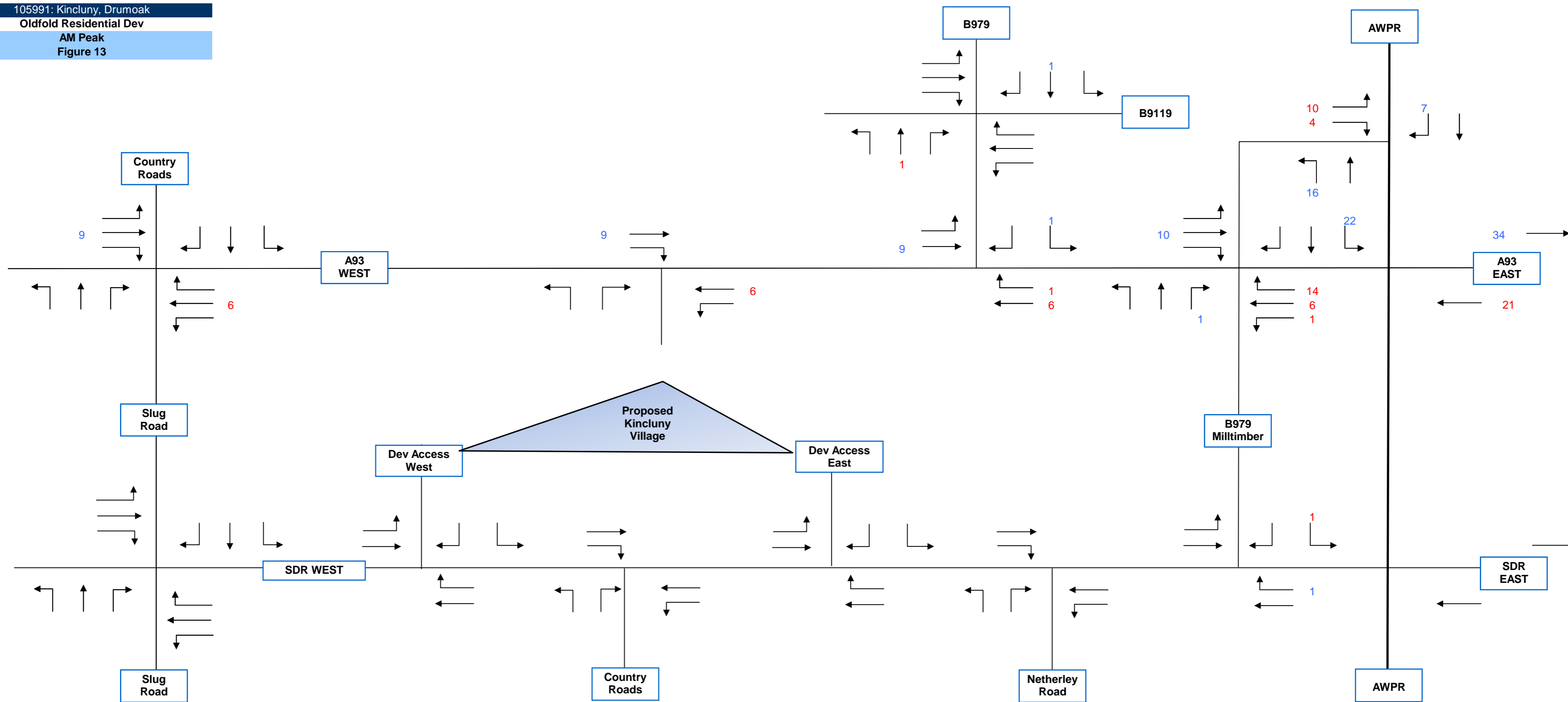
In 6
Out 3



105991: Kincluny, Drumoak
Oldfold Residential Dev
AM Peak
Figure 12

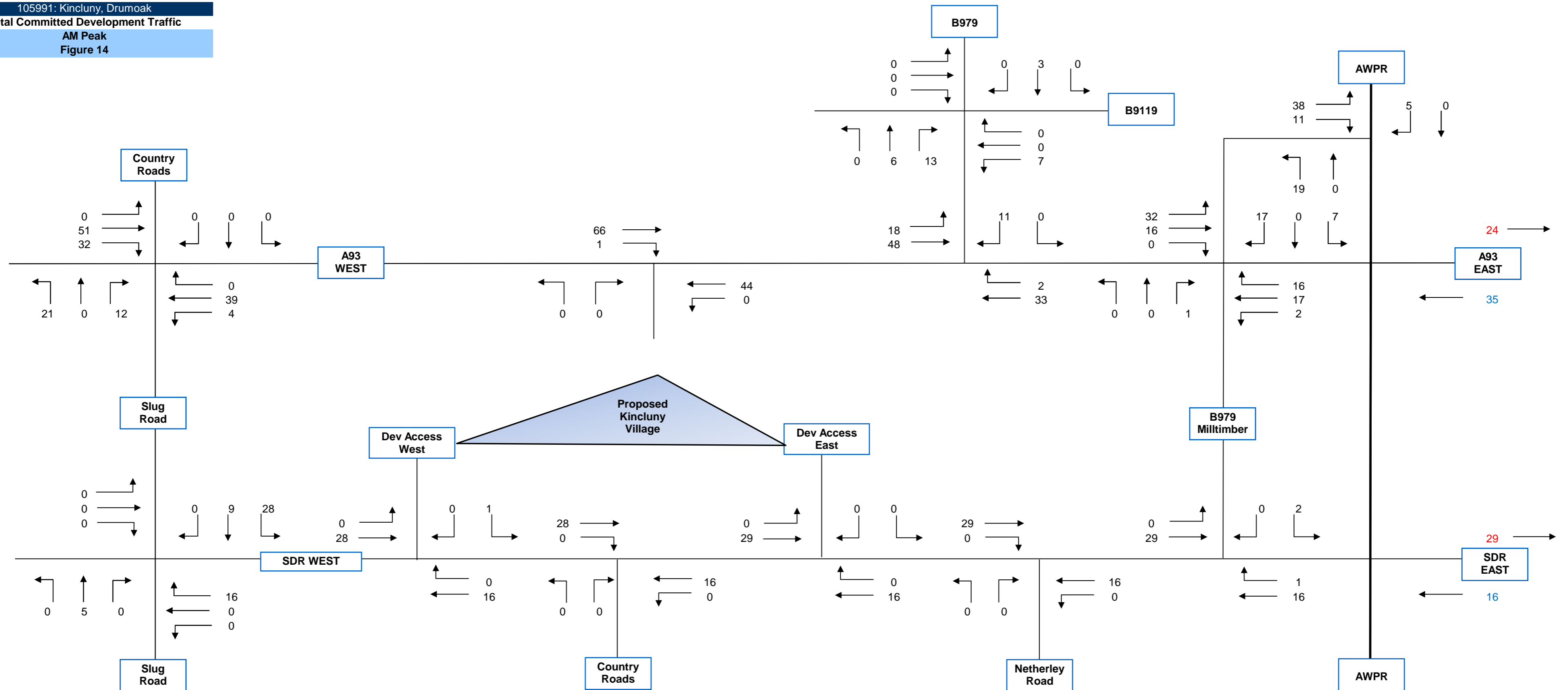


105991: Kincluny, Drumoak
Oldfold Residential Dev
AM Peak
Figure 13

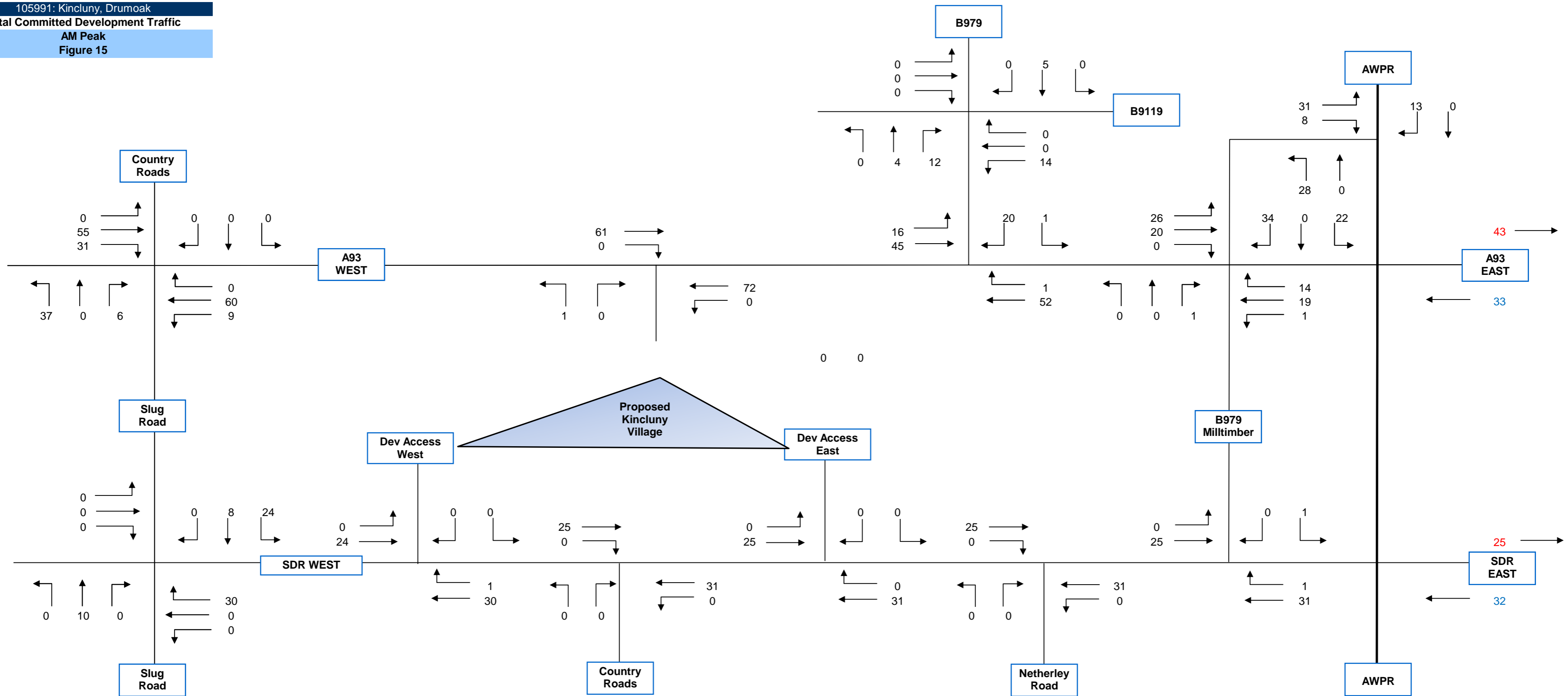


'With Bridge' Option

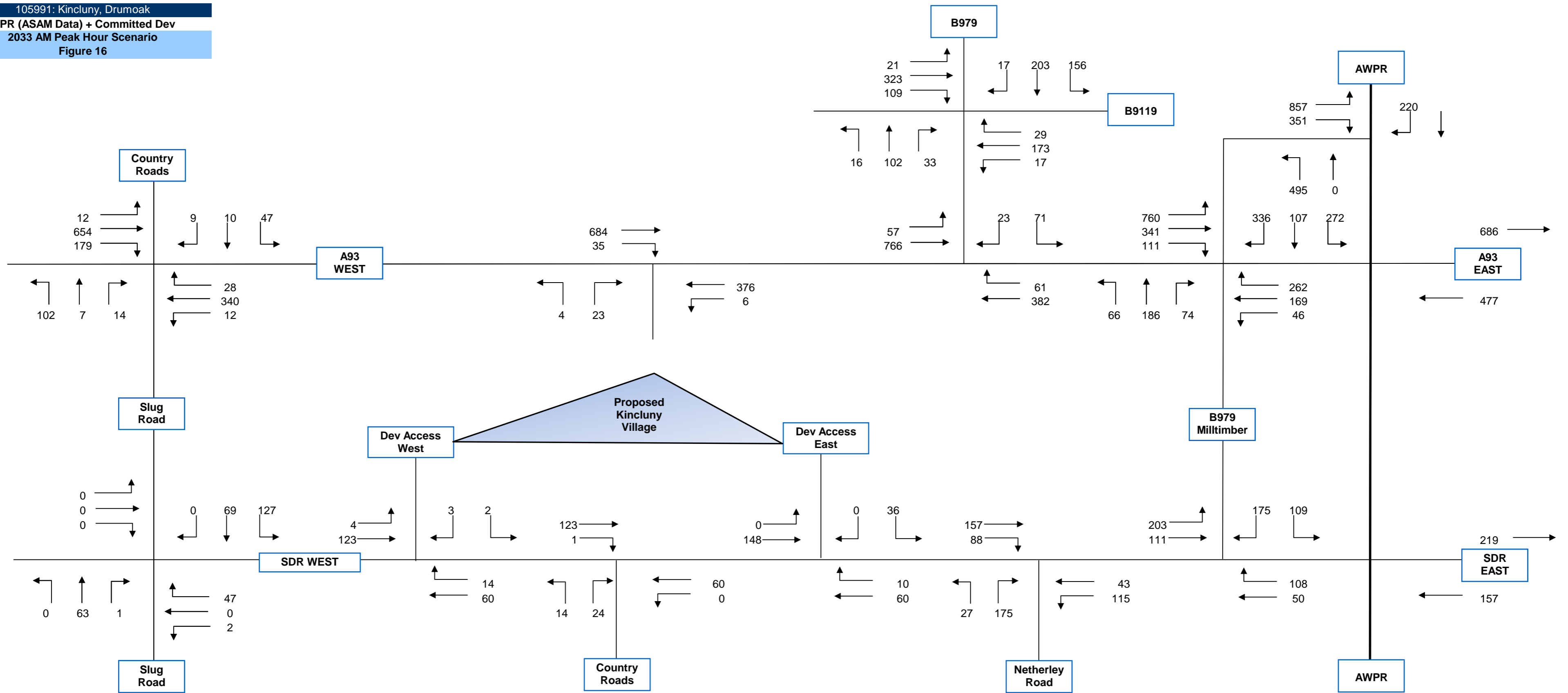
105991: Kincluney, Drumoak
Total Committed Development Traffic
AM Peak
Figure 14



105991: Kincluny, Drumoak
Total Committed Development Traffic
AM Peak
Figure 15

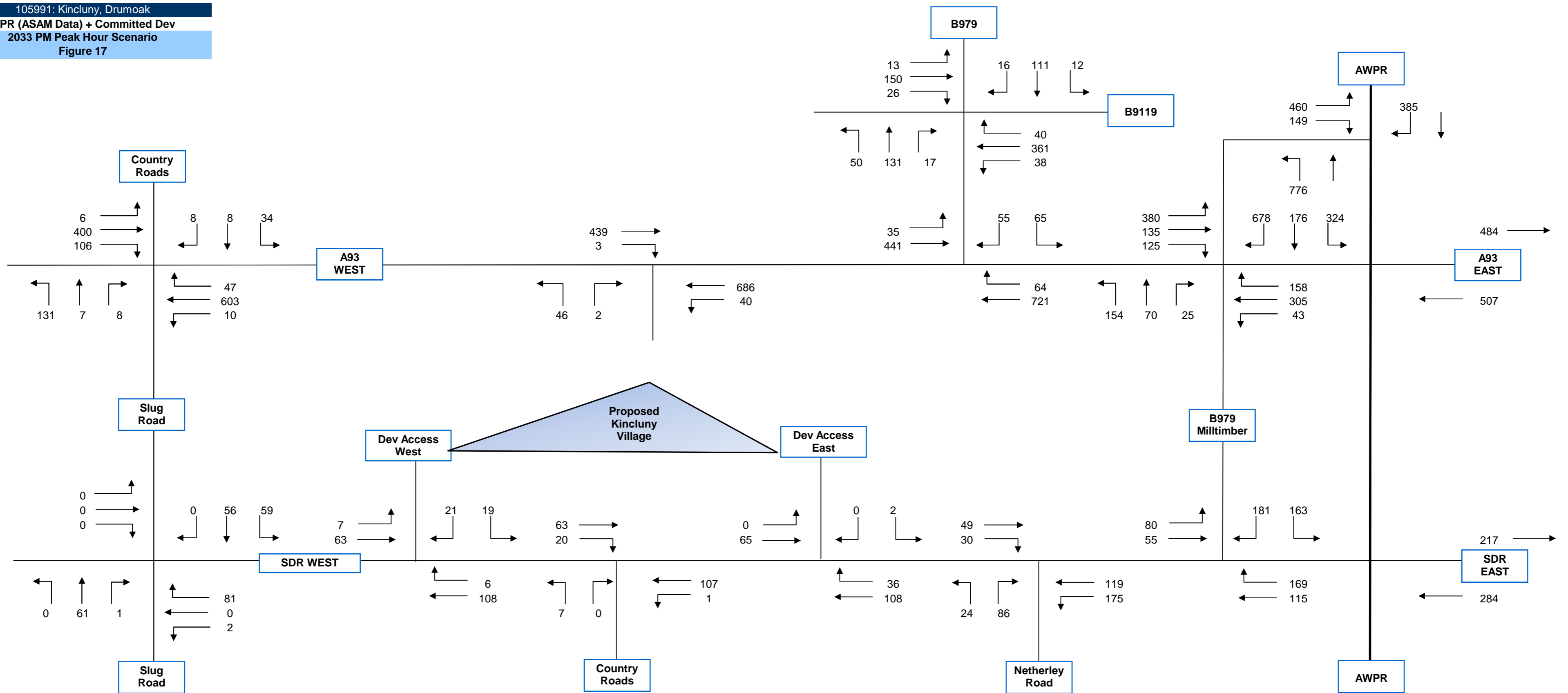


105991: Kincluny, Drumoak
Post AWPR (ASAM Data) + Committed Dev
2033 AM Peak Hour Scenario
Figure 16

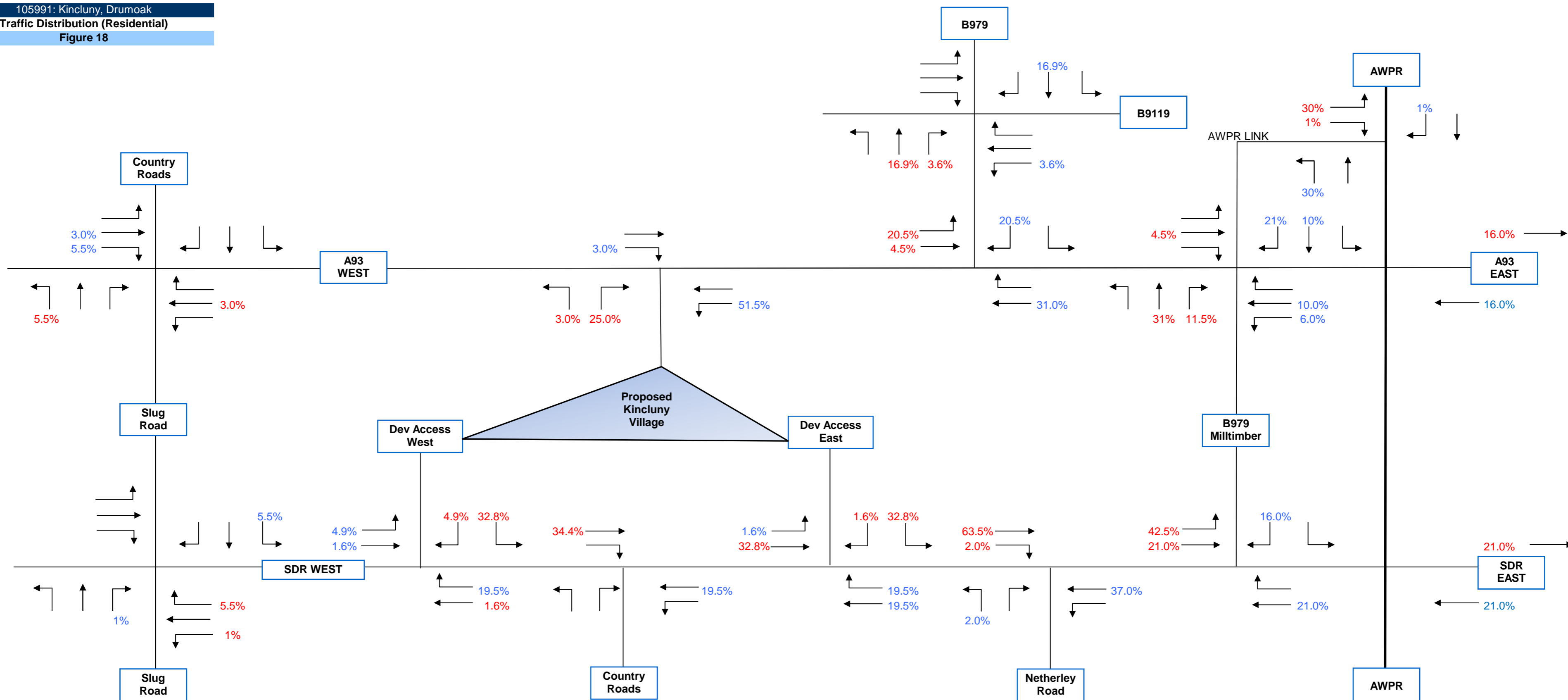


'With Bridge' Option

105991: Kincluny, Drumoak
Post AWPR (ASAM Data) + Committed Dev
2033 PM Peak Hour Scenario
Figure 17



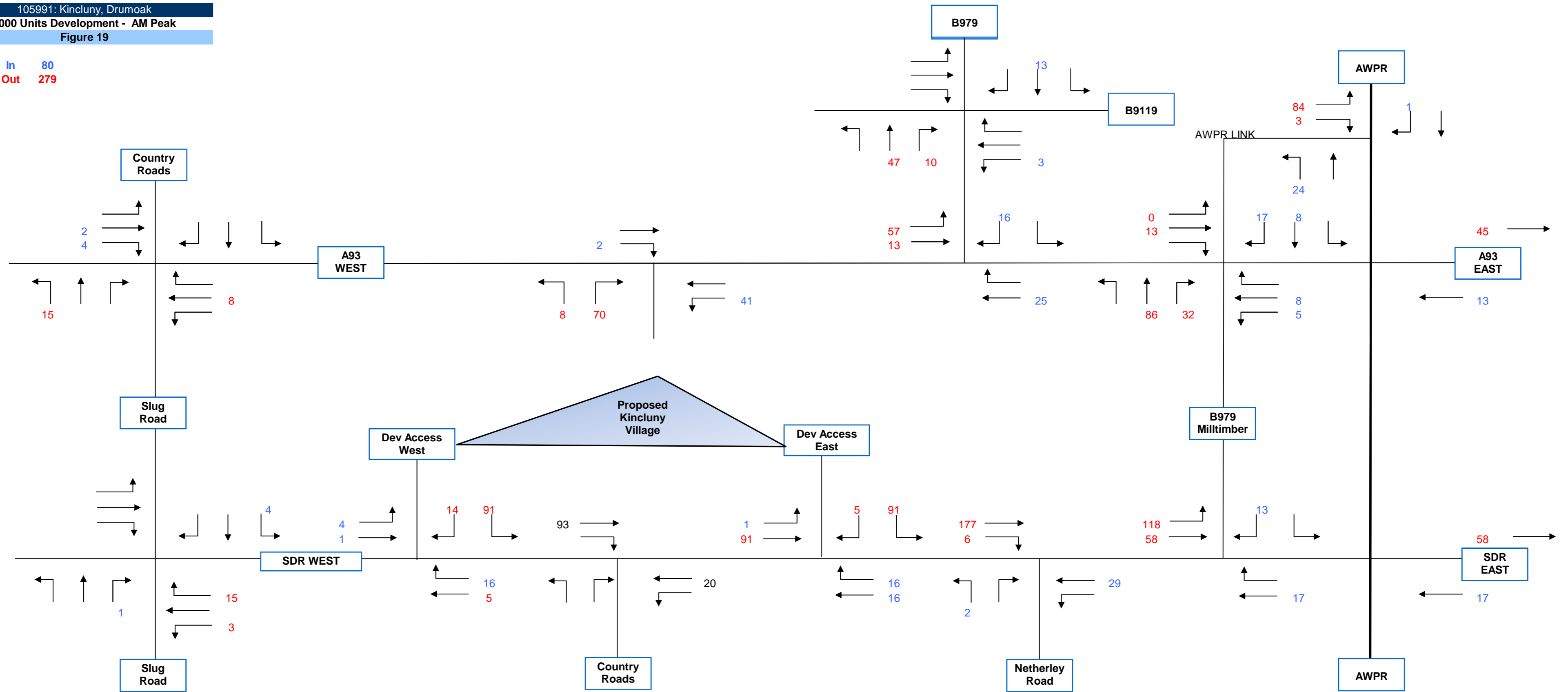
105991: Kincluny, Drumoak
Traffic Distribution (Residential)
Figure 18



'With Bridge' Option

105991: Kincluny, Drumoak
1000 Units Development - AM Peak
Figure 19

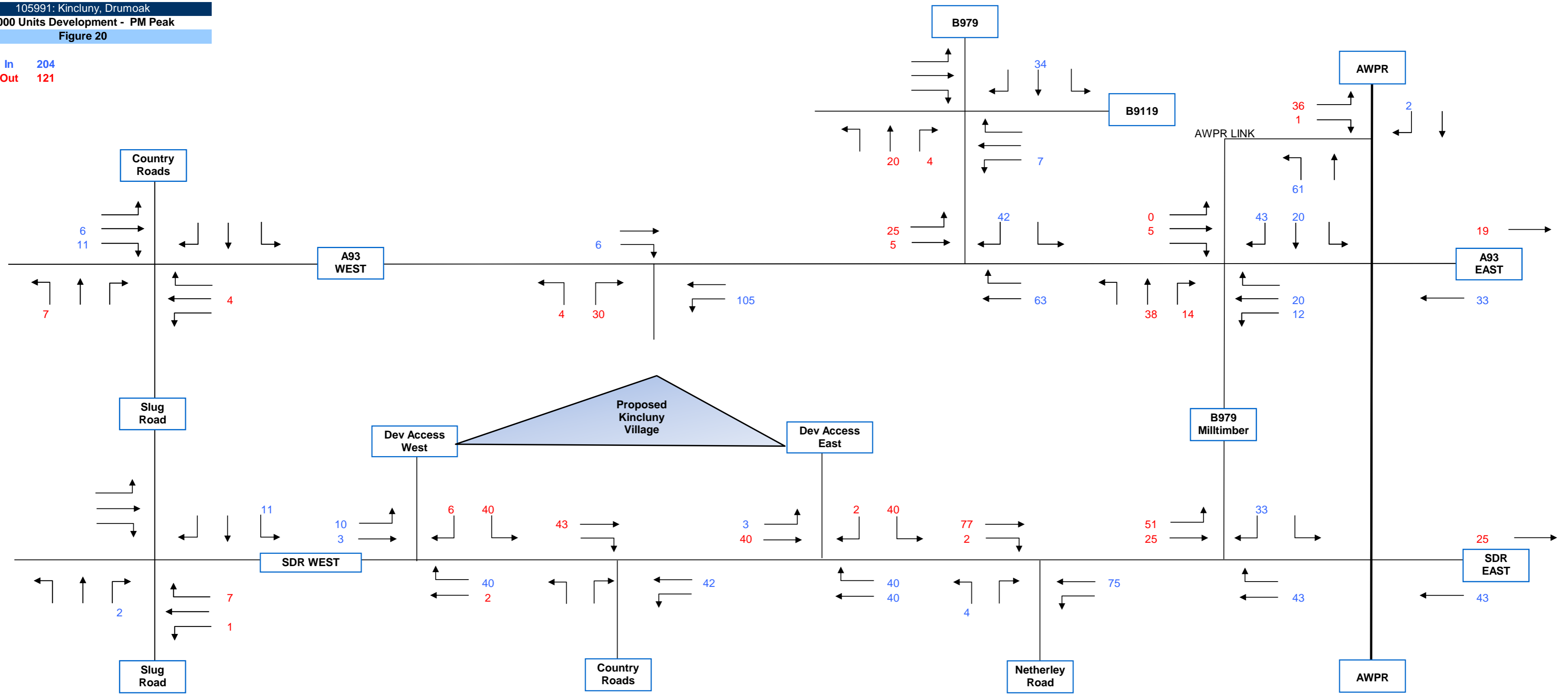
In 80
Out 279



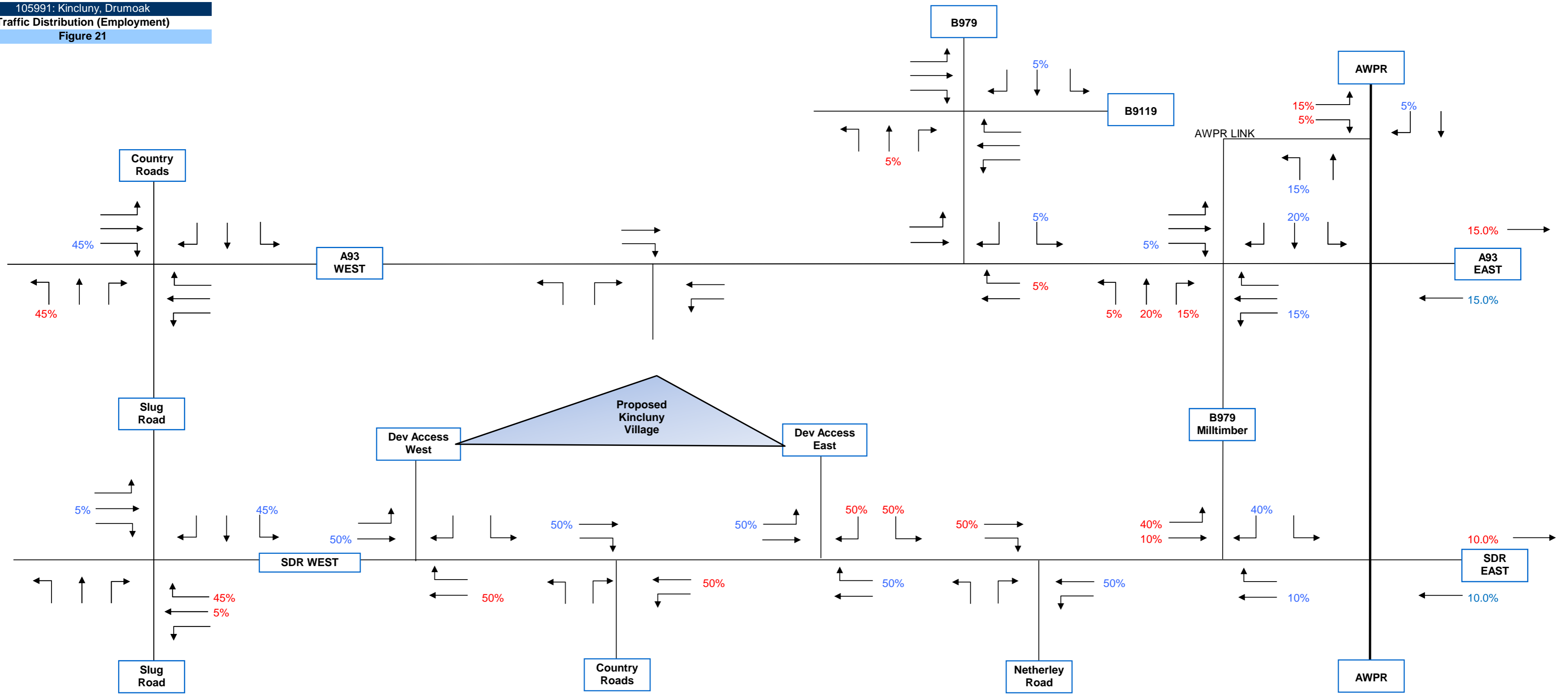
'With Bridge' Option

105991: Kincluny, Drumoak
1000 Units Development - PM Peak
Figure 20

In 204
Out 121

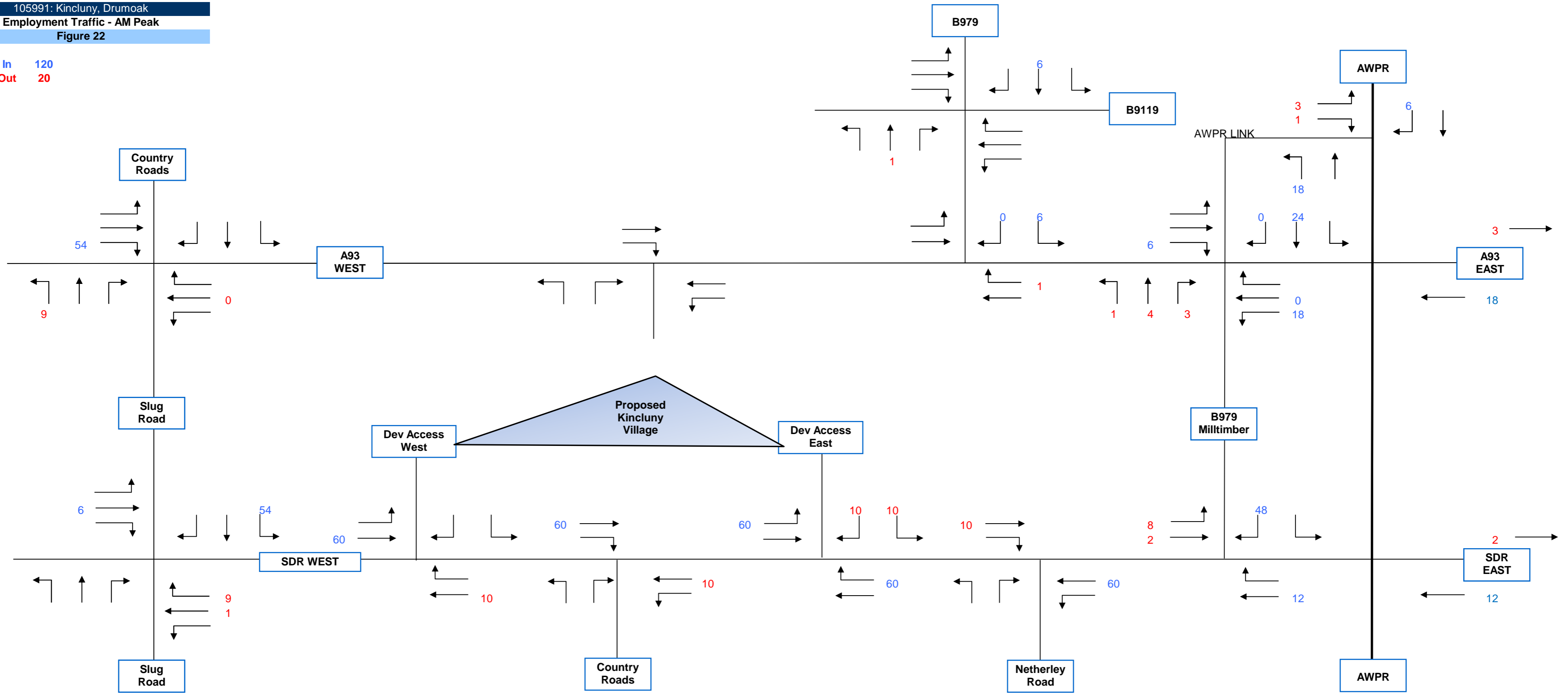


105991: Kincluney, Drumoak
Traffic Distribution (Employment)
Figure 21



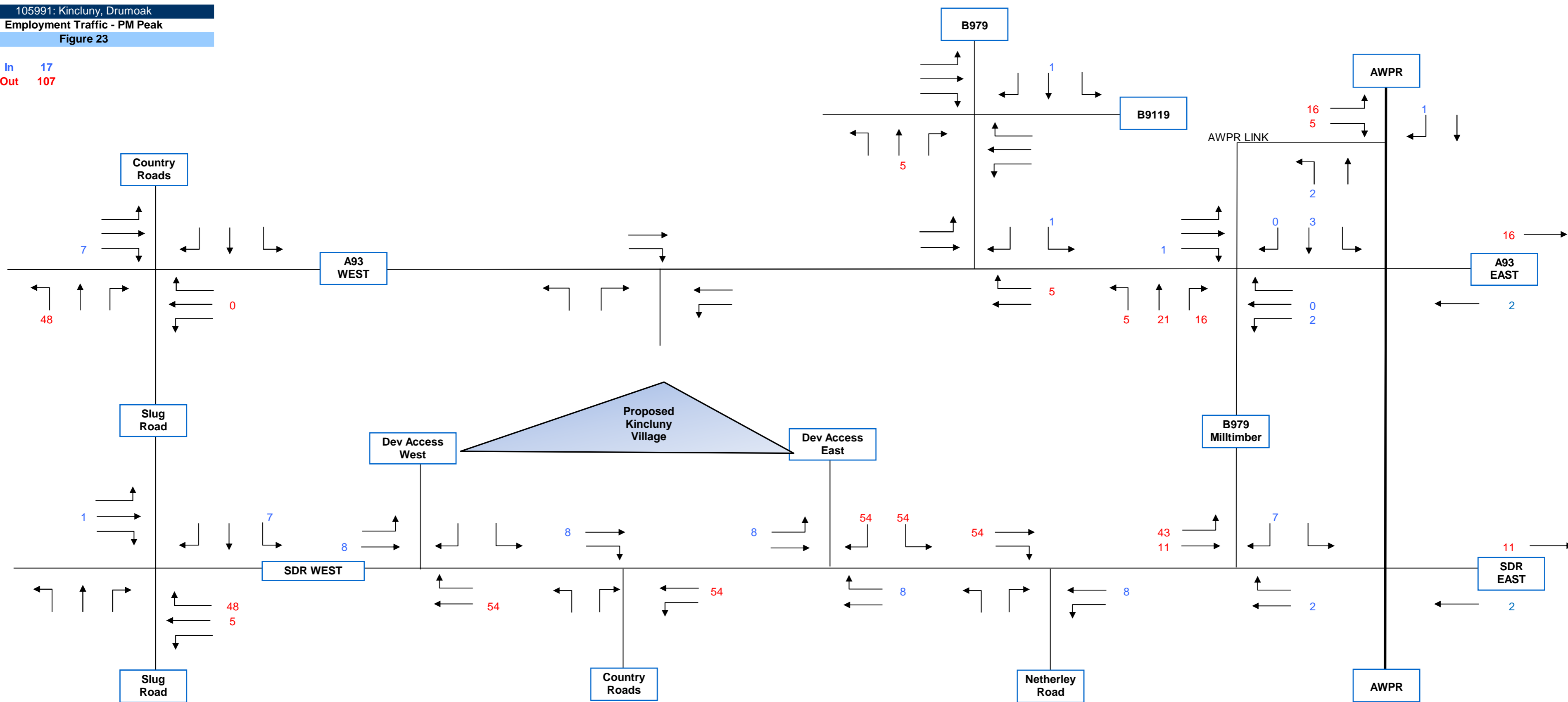
105991: Kincluny, Drumoak
Employment Traffic - AM Peak
Figure 22

In 120
Out 20



105991: Kincluny, Drumoak
Employment Traffic - PM Peak
Figure 23

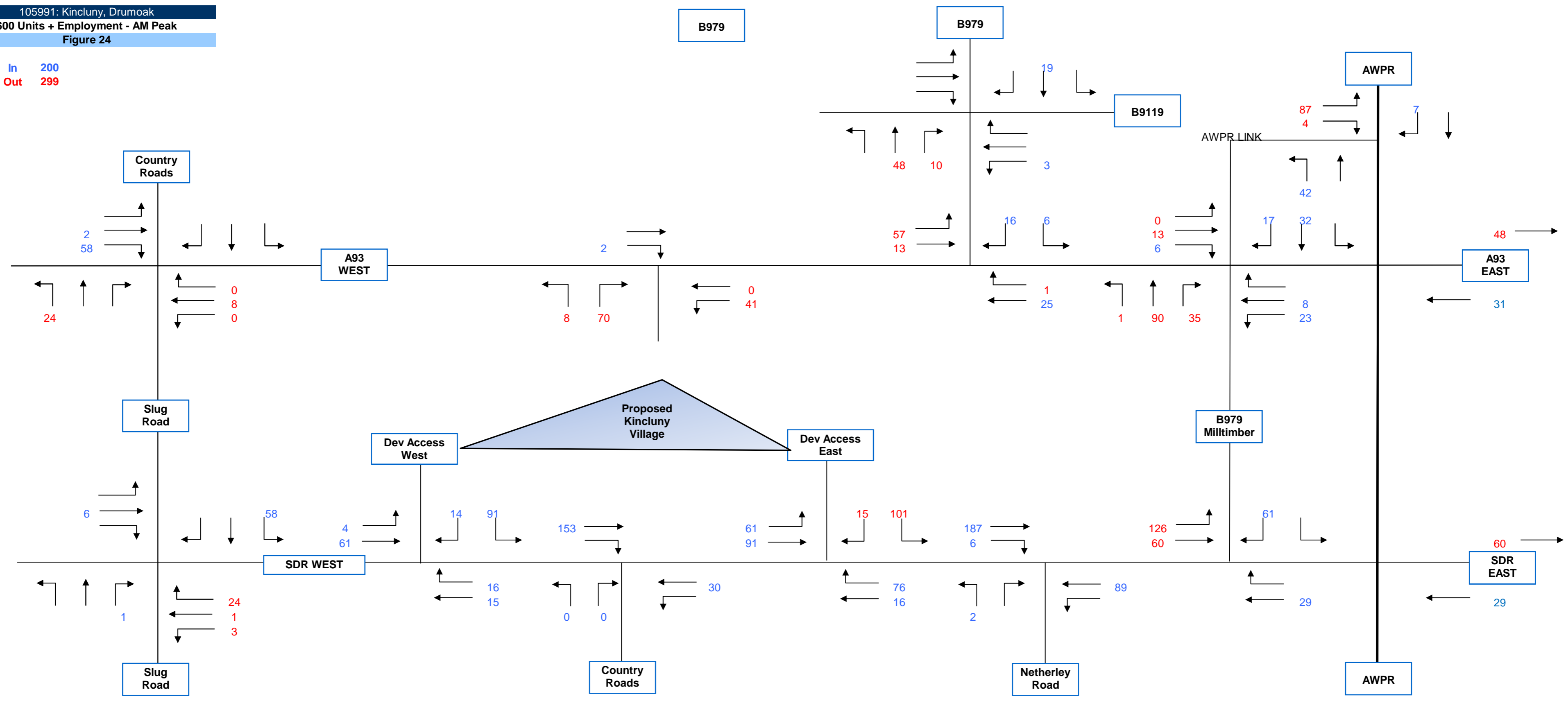
In 17
Out 107



'With Bridge' Option

105991: Kinlun, Drumoak
 600 Units + Employment - AM Peak
 Figure 24

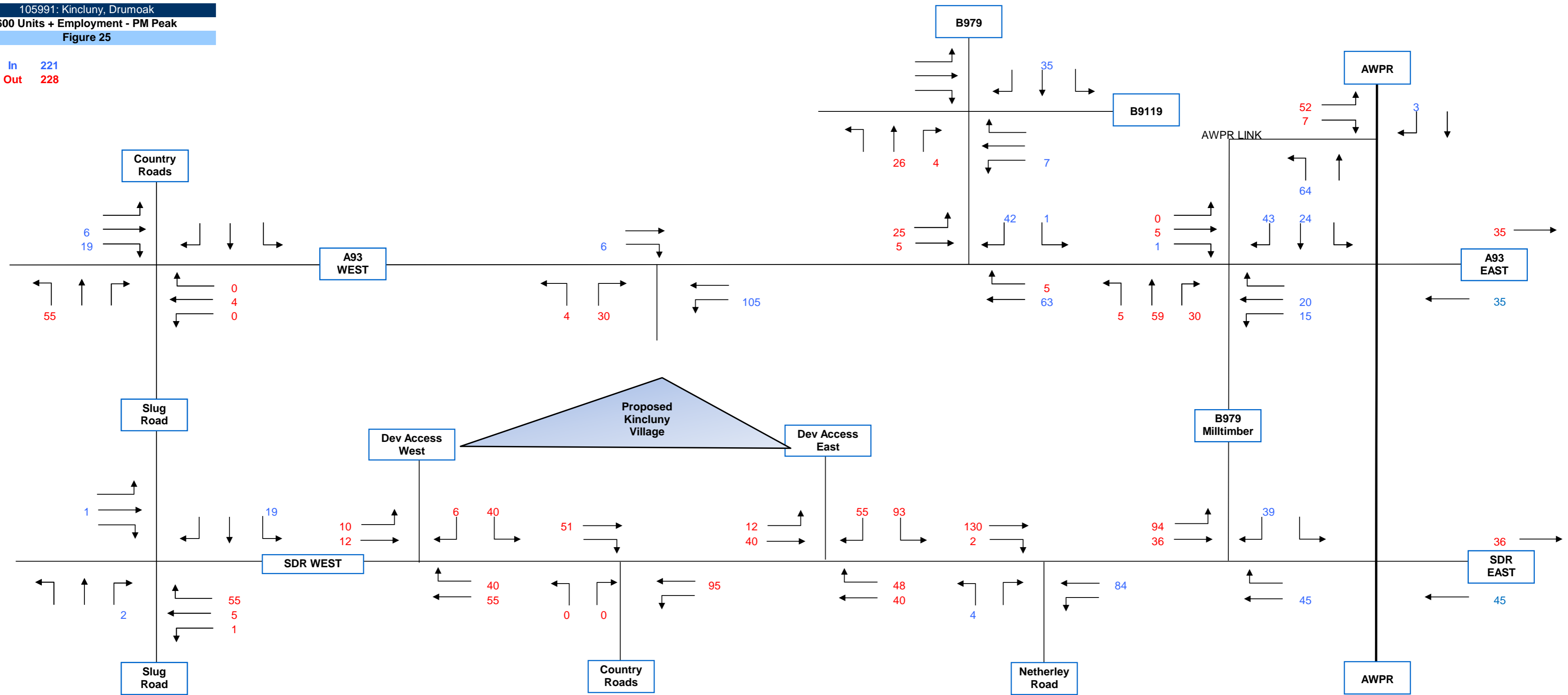
In 200
 Out 299



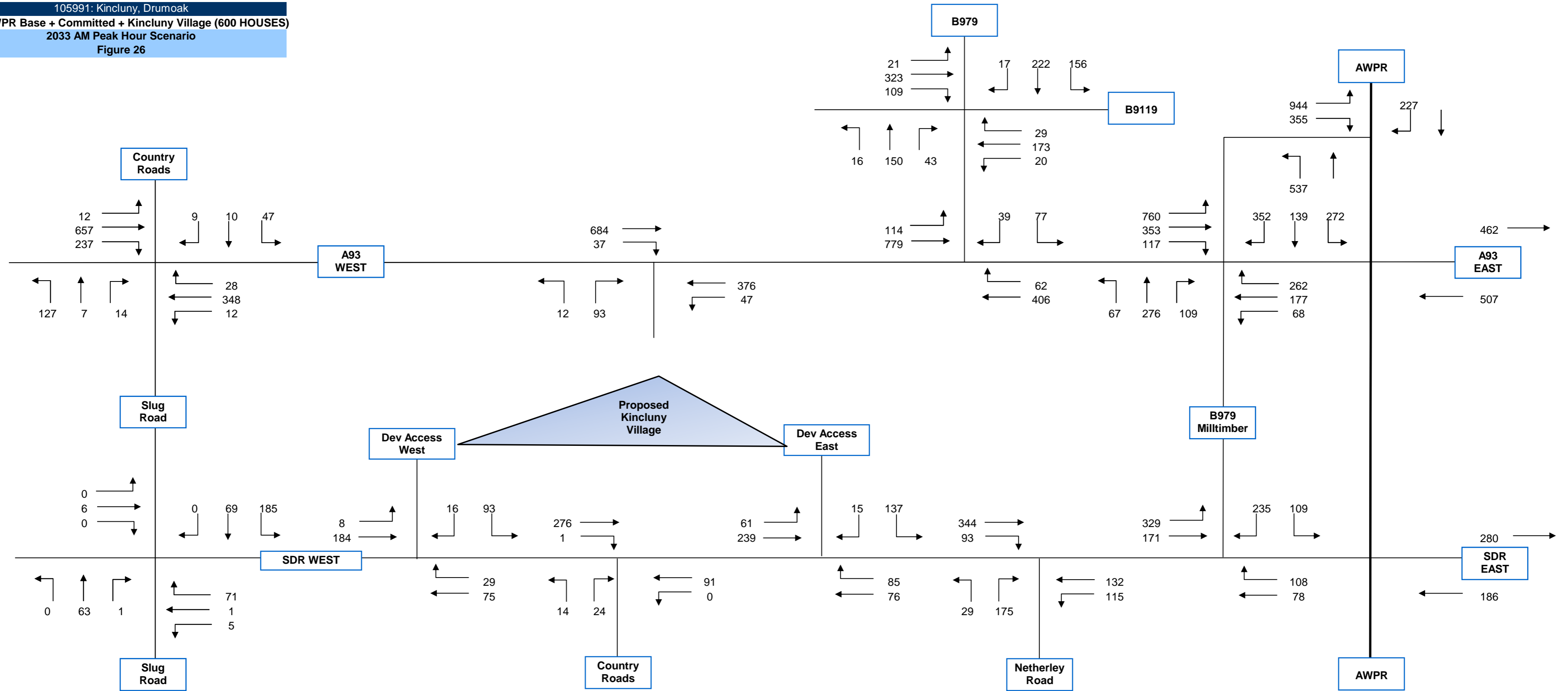
'With Bridge' Option

105991: Kincluny, Drumoak
600 Units + Employment - PM Peak
Figure 25

In 221
Out 228

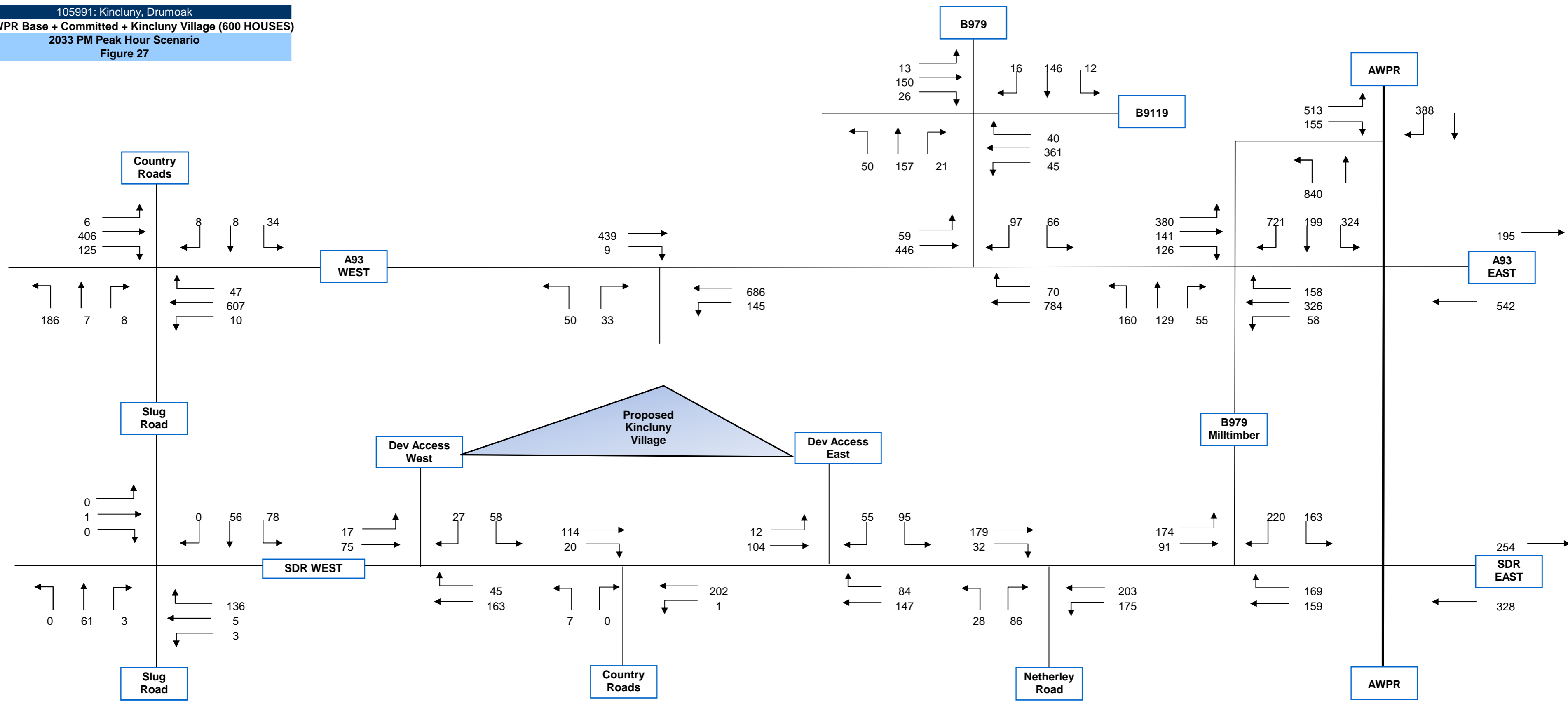


105991: Kincluny, Drumoak
Post AWPR Base + Committed + Kincluny Village (600 HOUSES)
2033 AM Peak Hour Scenario
Figure 26



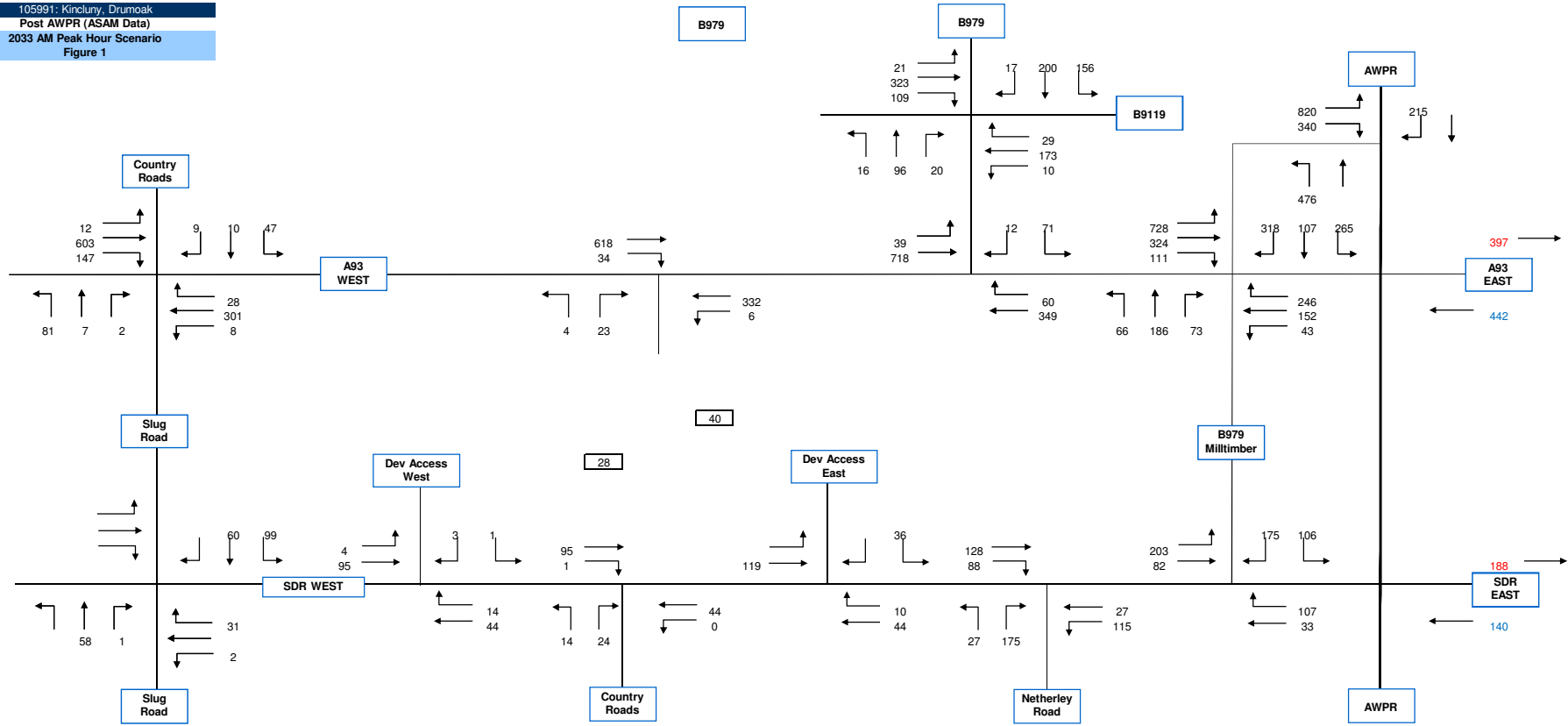
'With Bridge' Option

105991: Kincluny, Drumoak
Post AWPR Base + Committed + Kincluny Village (600 HOUSES)
2033 PM Peak Hour Scenario
Figure 27



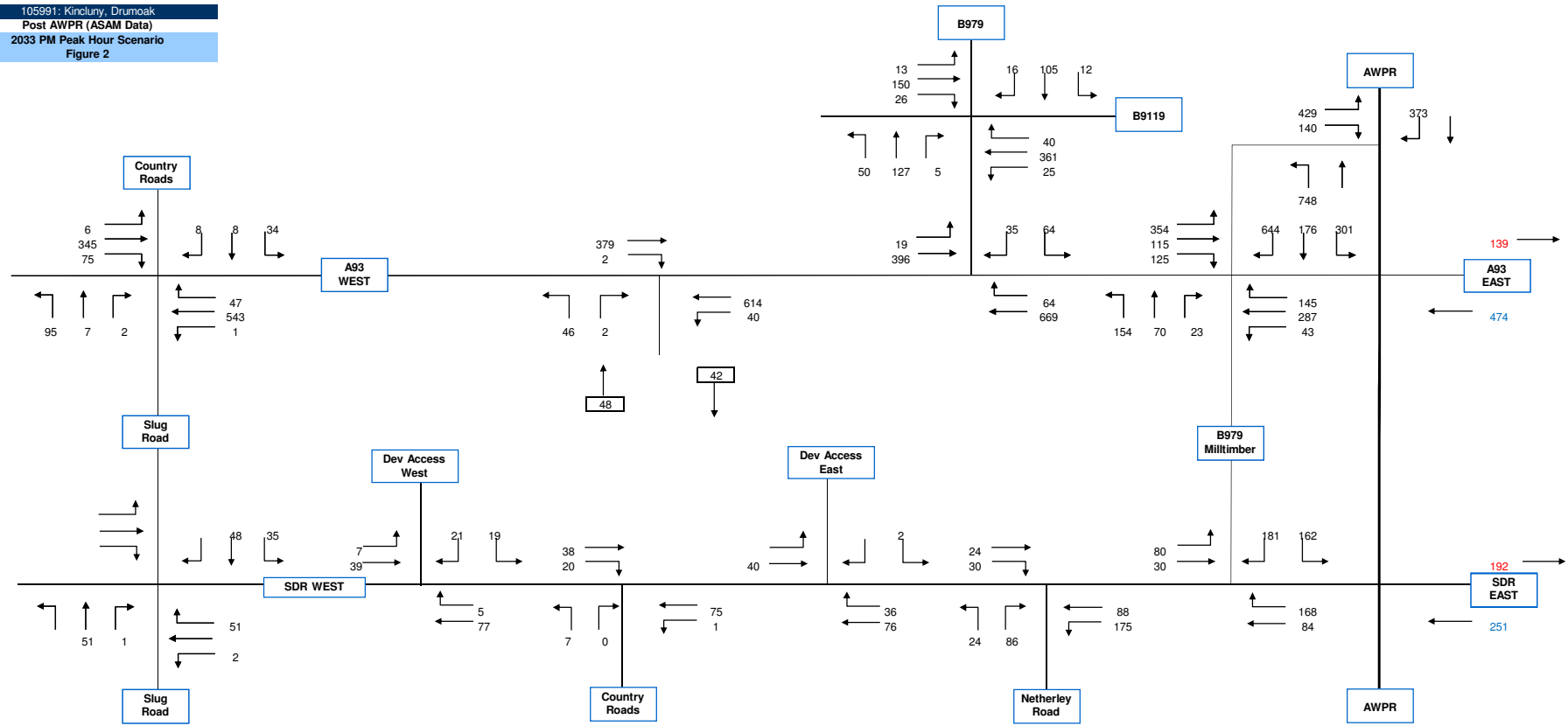
'No Bridge' Option

105991: Kincluny, Drumoak
Post AWPR (ASAM Data)
2033 AM Peak Hour Scenario
Figure 1

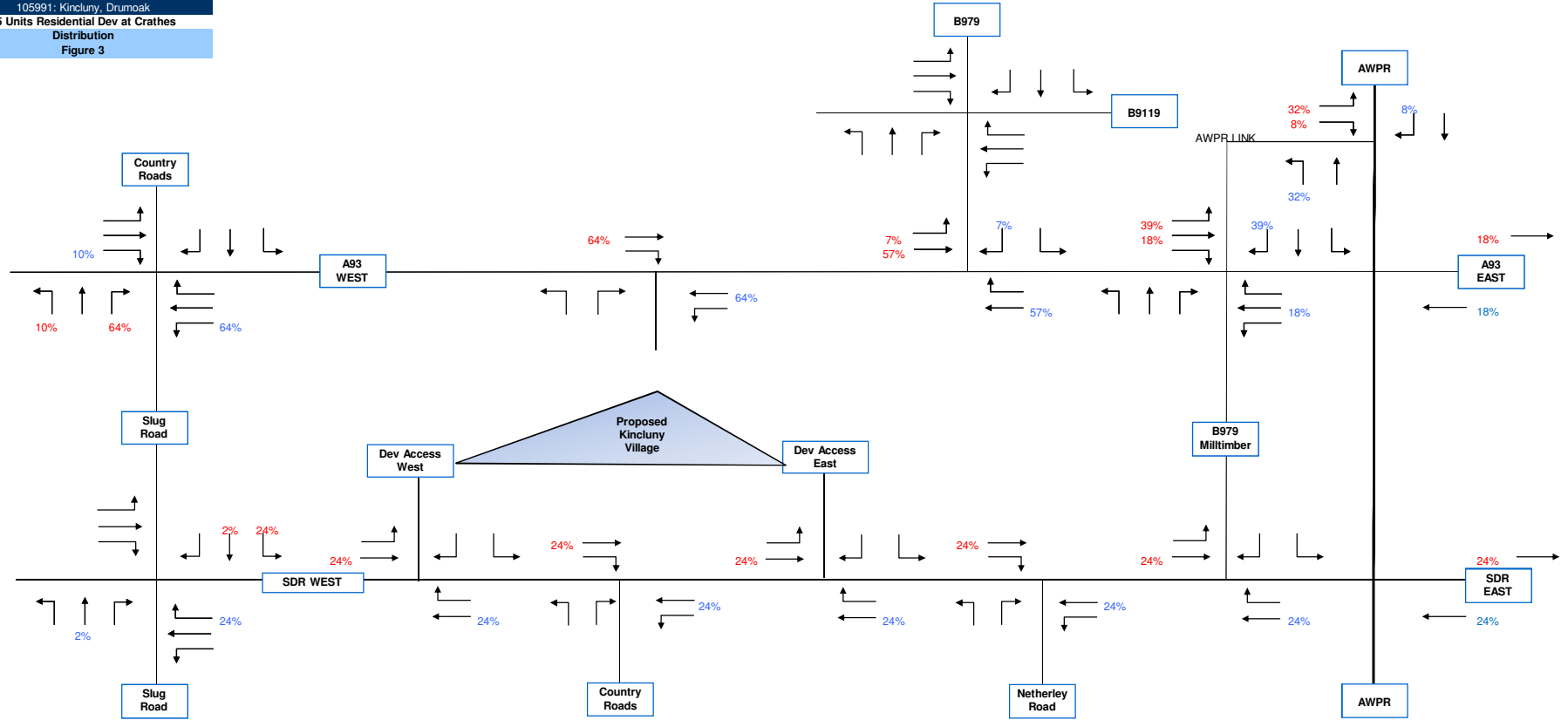


'No Bridge' Option

105991: Kincluny, Drumoak
Post AWPR (ASAM Data)
2033 PM Peak Hour Scenario
Figure 2

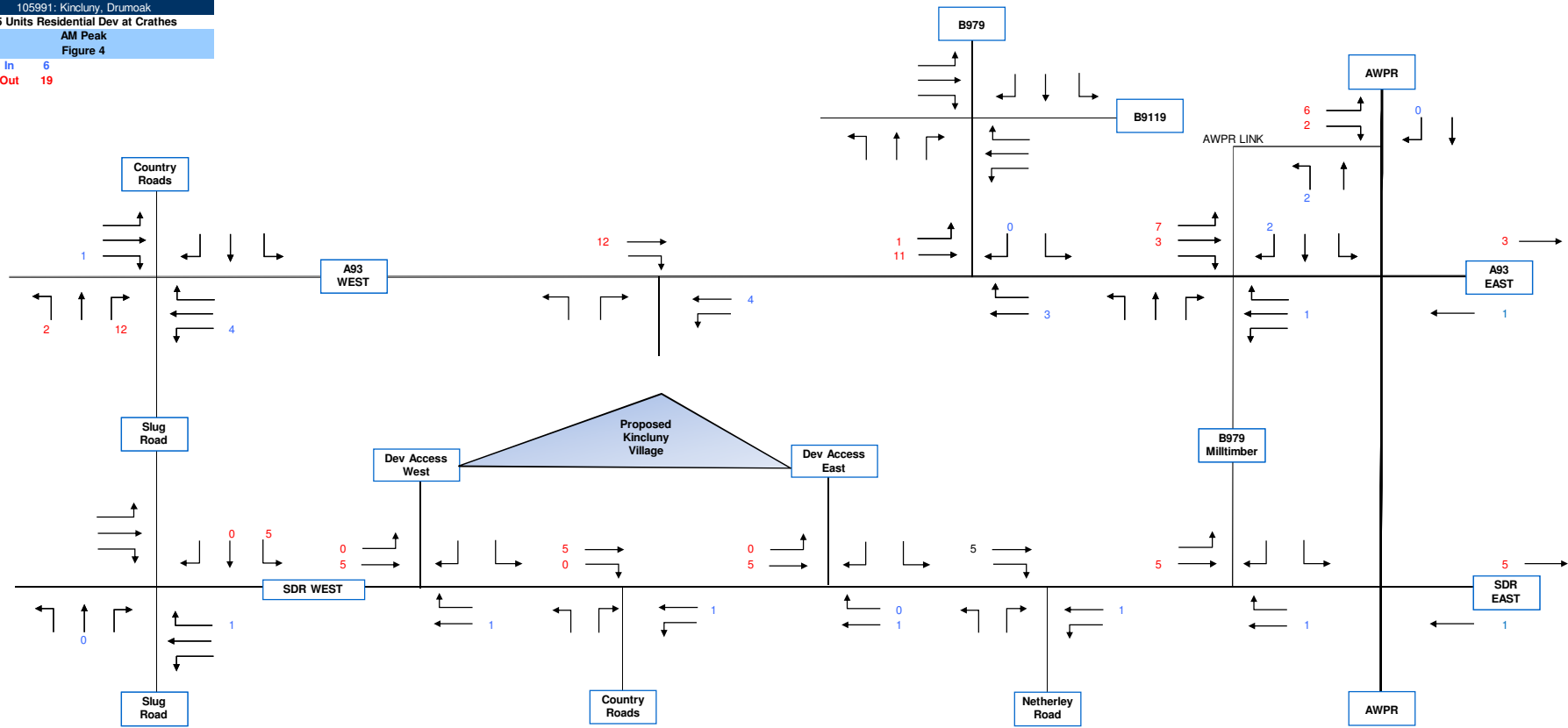


105991: Kincluny, Drumoak
45 Units Residential Dev at Crathes
Distribution
Figure 3



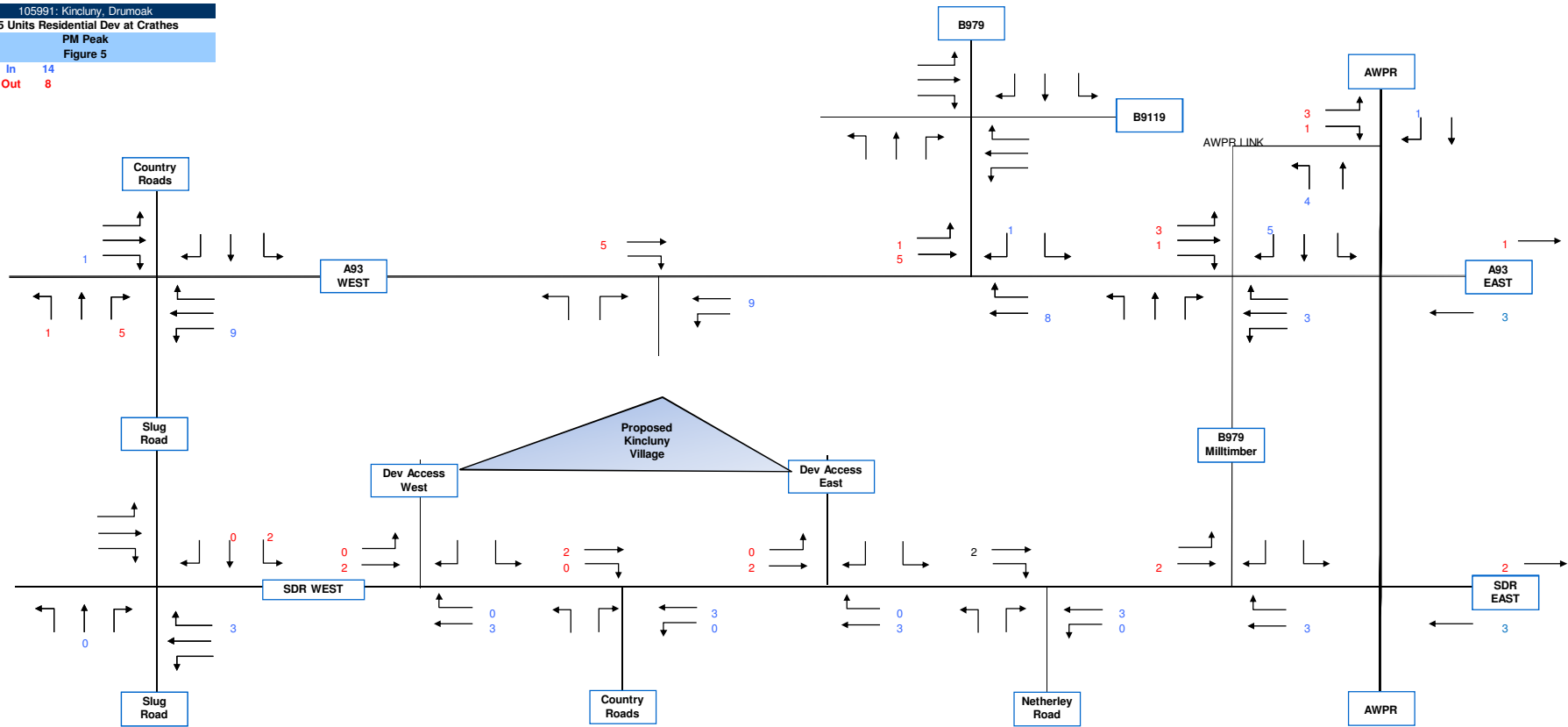
'No Bridge' Option

105991: Kincluney, Drumoak
45 Units Residential Dev at Crathes
AM Peak
Figure 4
In 6
Out 19

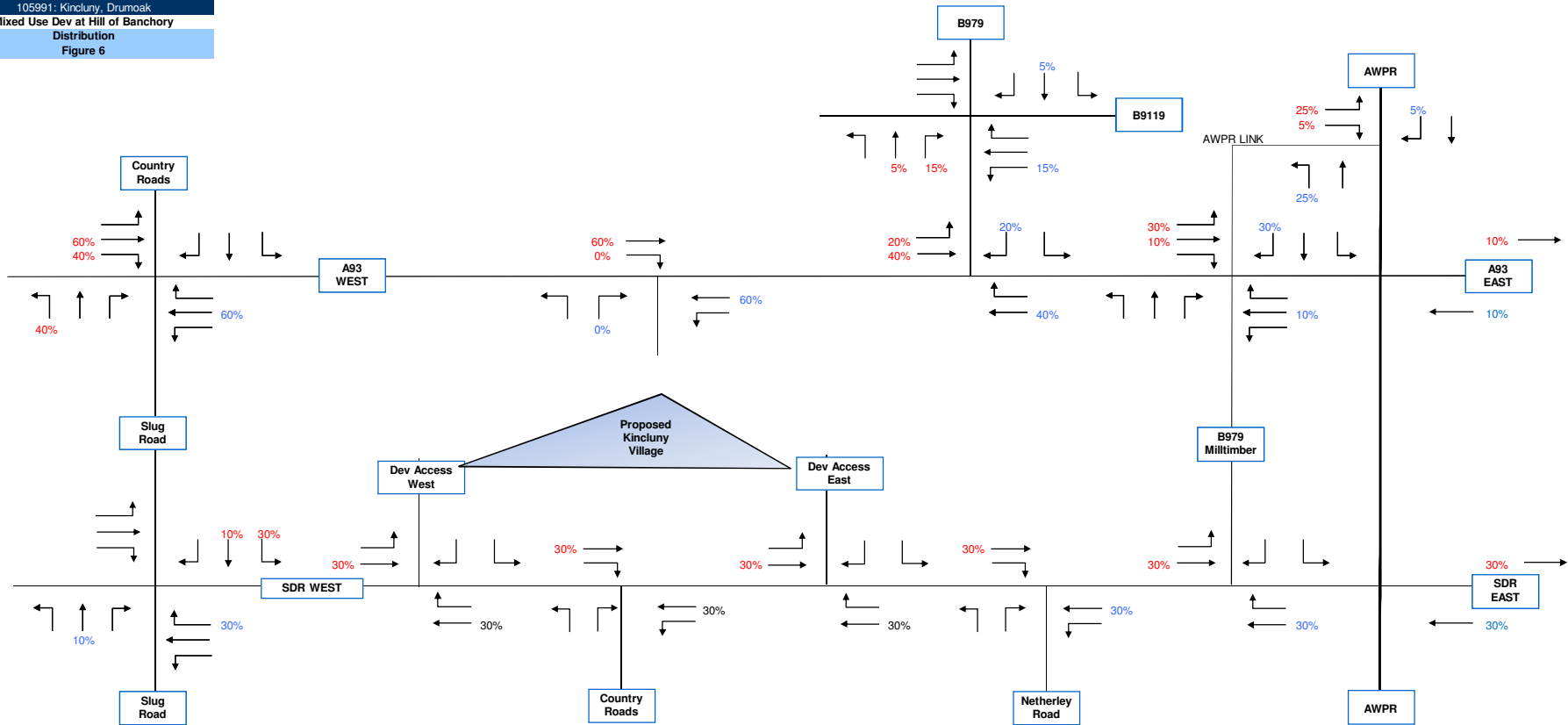


'No Bridge' Option

105991: Kinluney, Drumoak
 45 Units Residential Dev at Crathes
 PM Peak
 Figure 5
 In 14
 Out 8



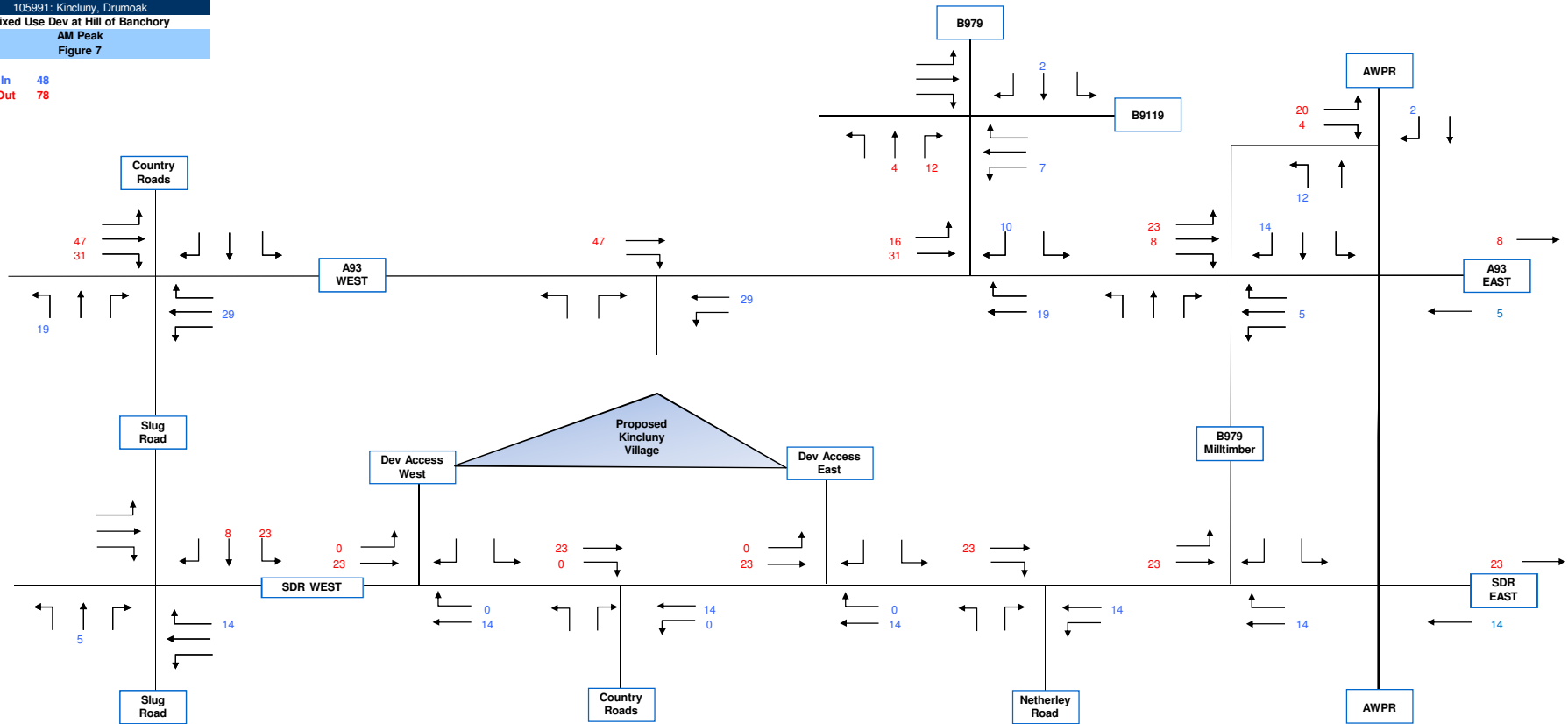
105991: Kinluney, Drumoak
Mixed Use Dev at Hill of Banchory
Distribution
Figure 6



'No Bridge' Option

105991: Kincluny_Drumoak
 Mixed Use Dev at Hill of Banchory
 AM Peak
 Figure 7

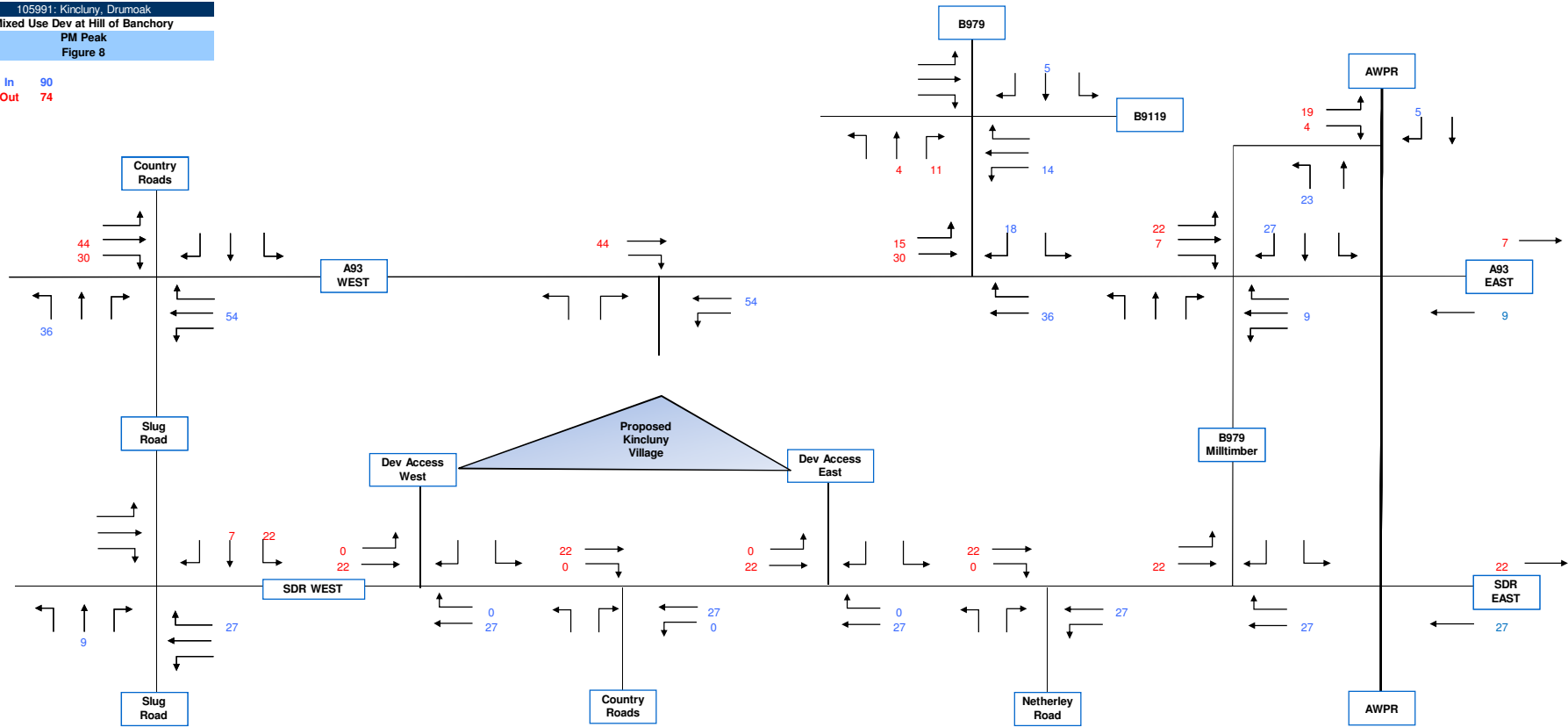
In 48
 Out 78



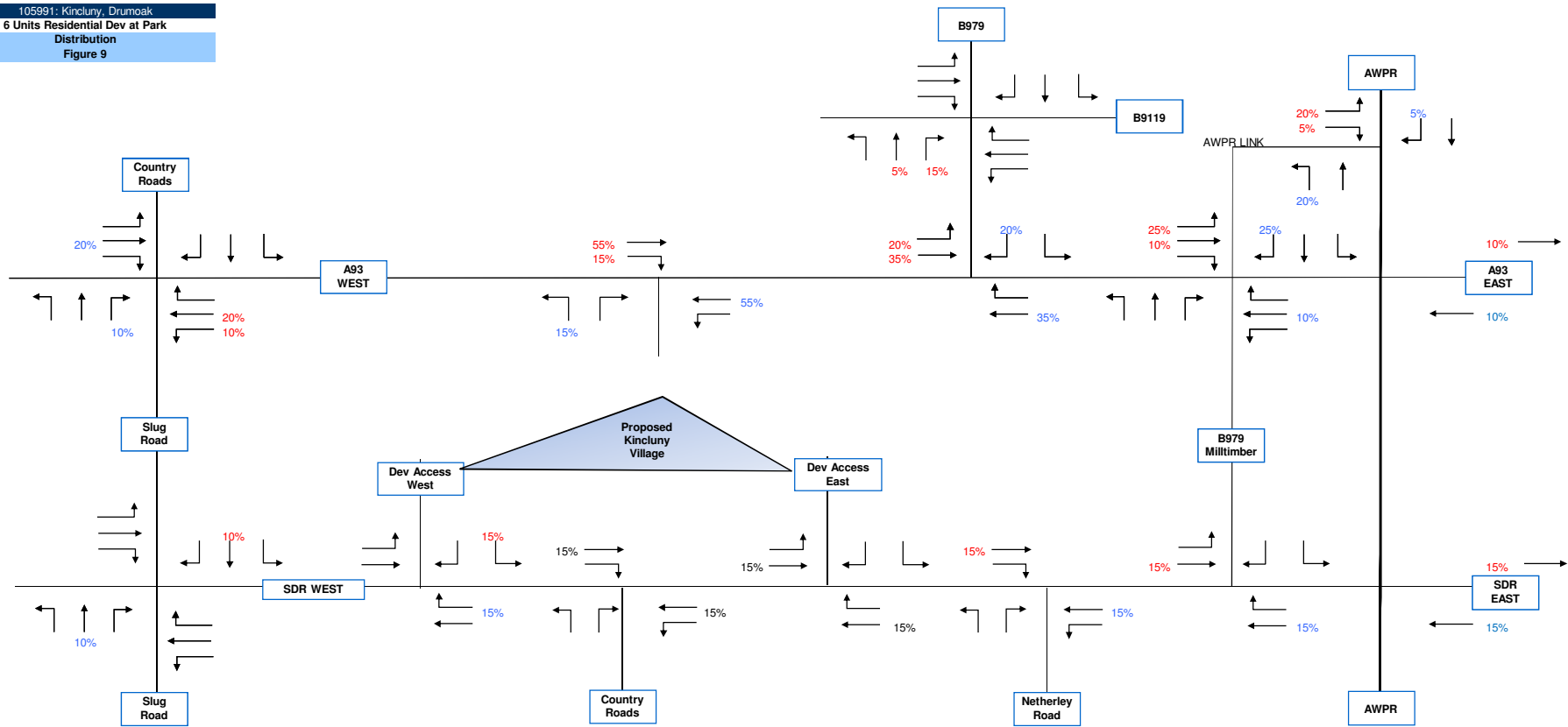
'No Bridge' Option

105991: Kincluny, Drumoak
 Mixed Use Dev at Hill of Banchory
 PM Peak
 Figure 8

In 90
 Out 74

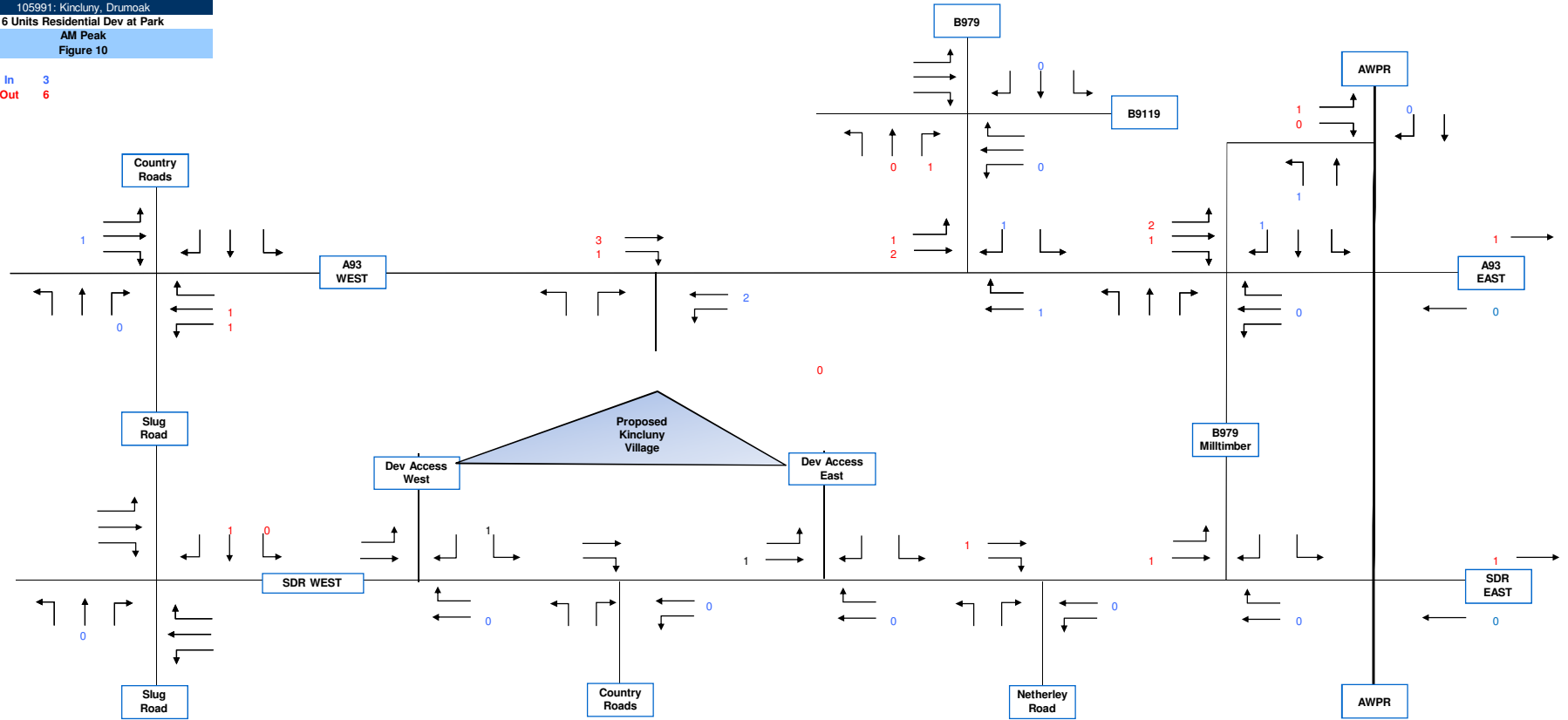


105991: Kinluney, Drumoak
6 Units Residential Dev at Park
Distribution
Figure 9



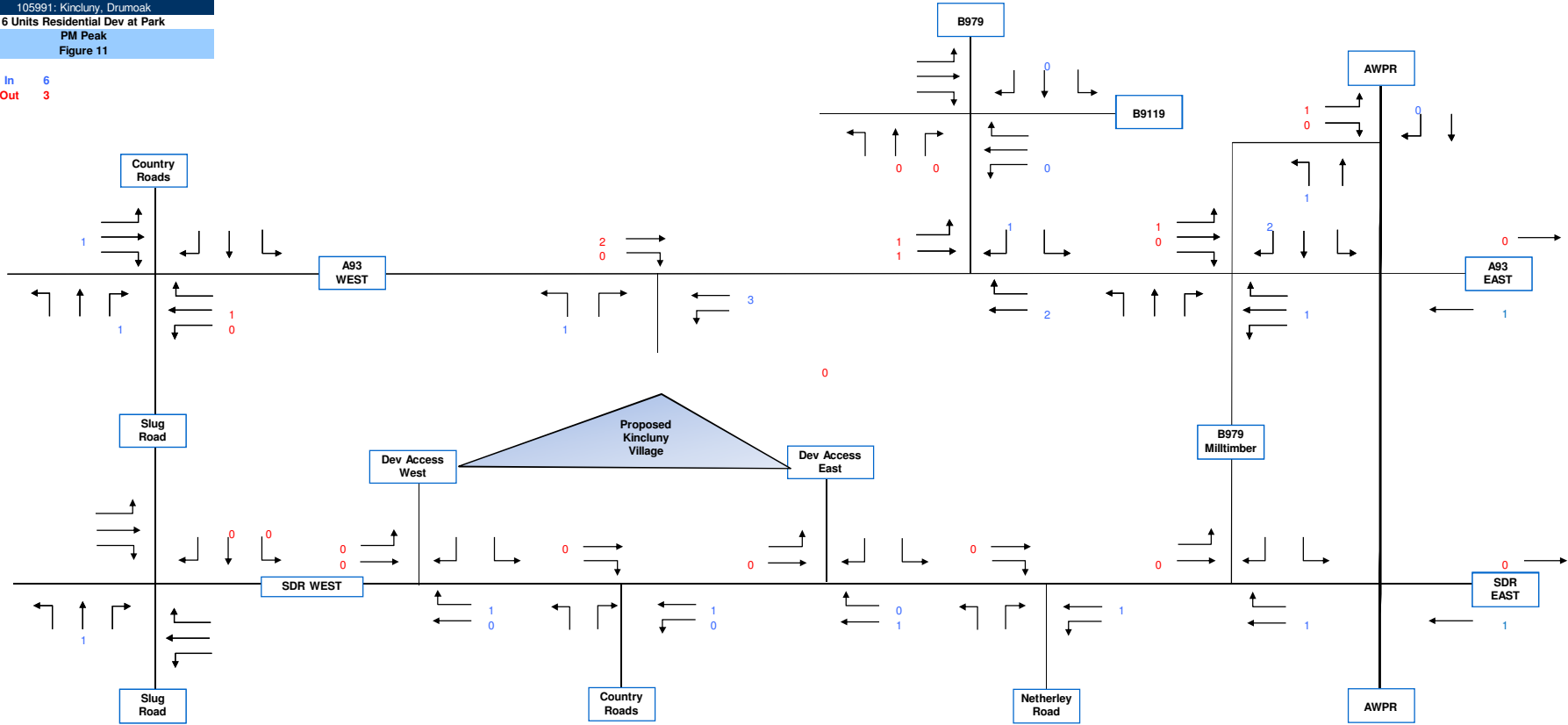
105991: Kinluney, Drumoak
6 Units Residential Dev at Park
AM Peak
Figure 10

In 3
Out 6

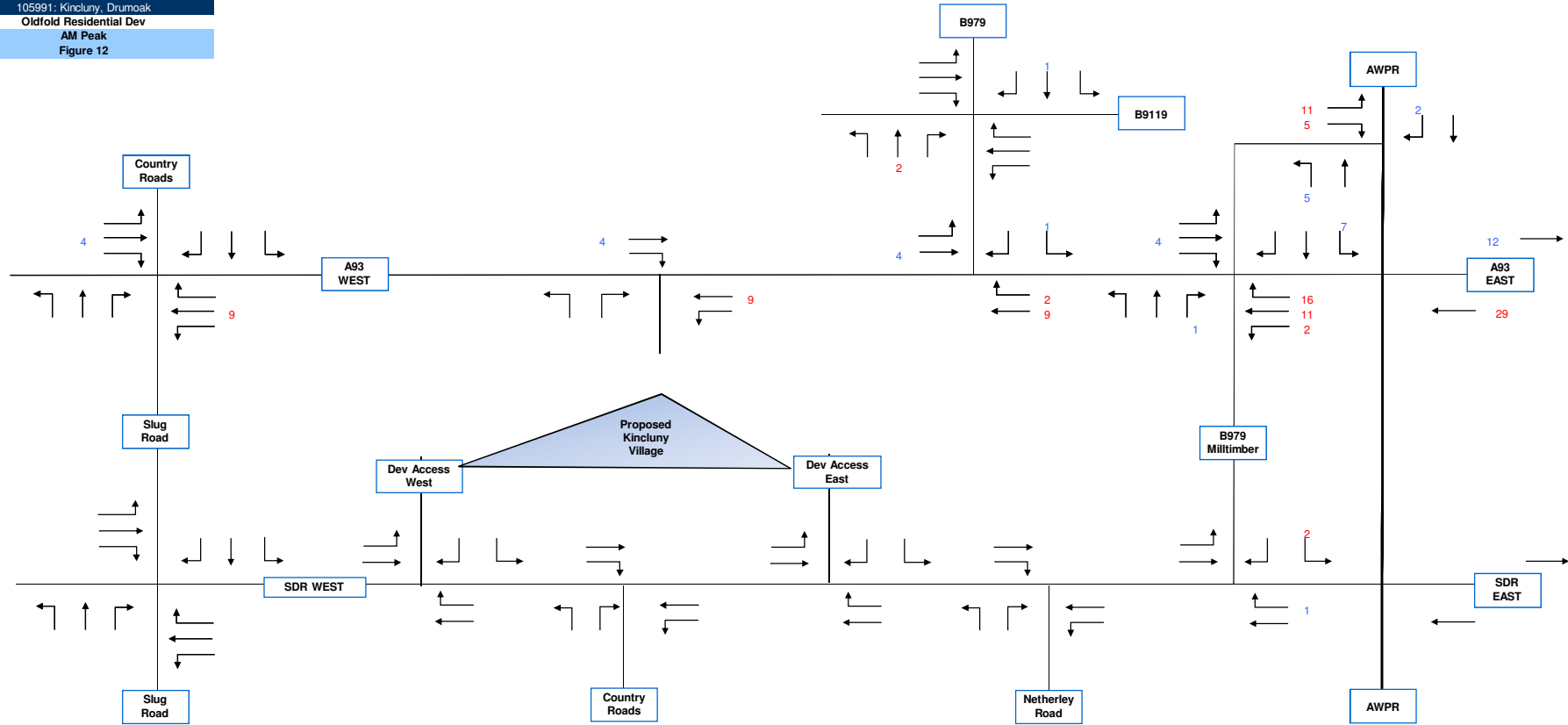


105991: Kinluney, Drumeak
6 Units Residential Dev at Park
PM Peak
Figure 11

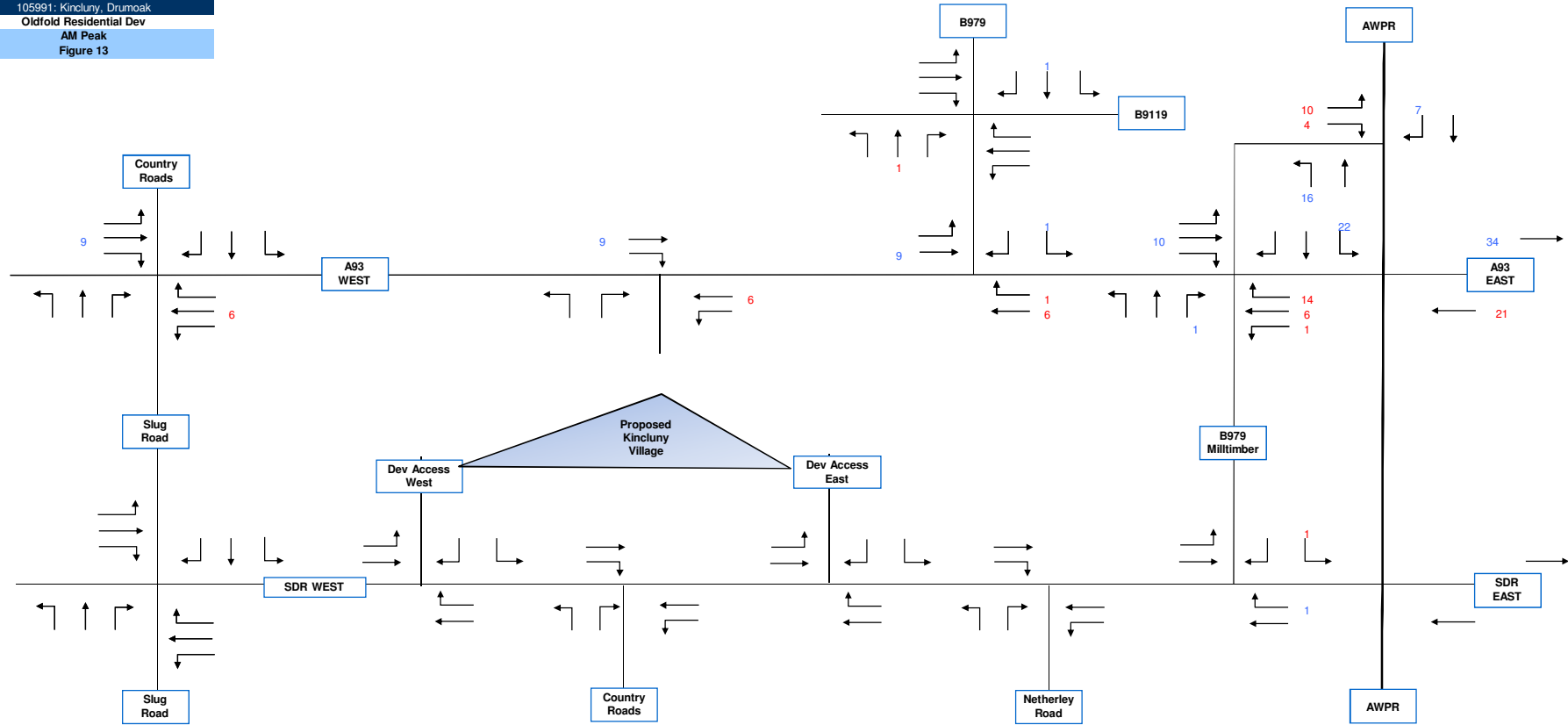
In 6
Out 3



105991: Kincluney, Drumoak
Oldfold Residential Dev
AM Peak
Figure 12

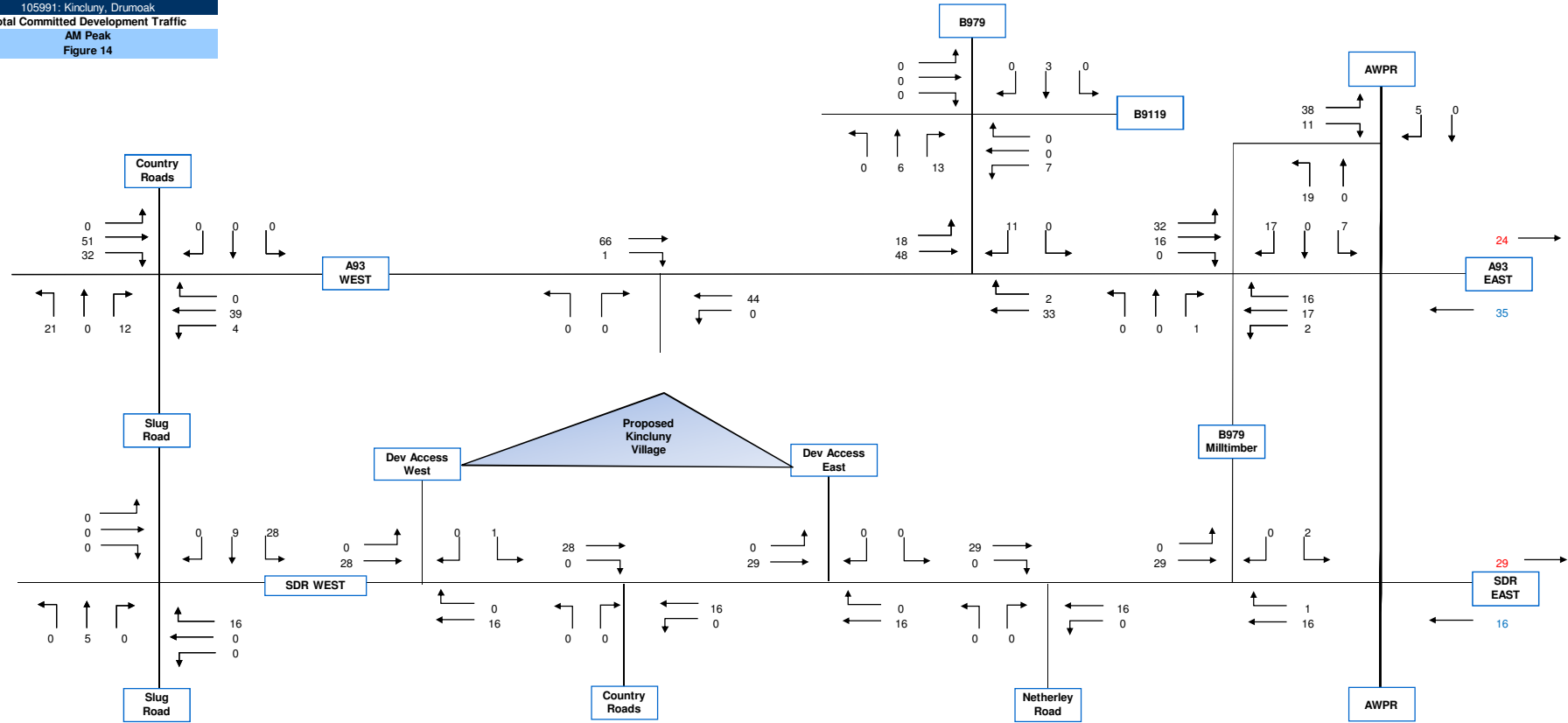


105991: Kincluney, Drumoak
Oldfold Residential Dev
AM Peak
Figure 13

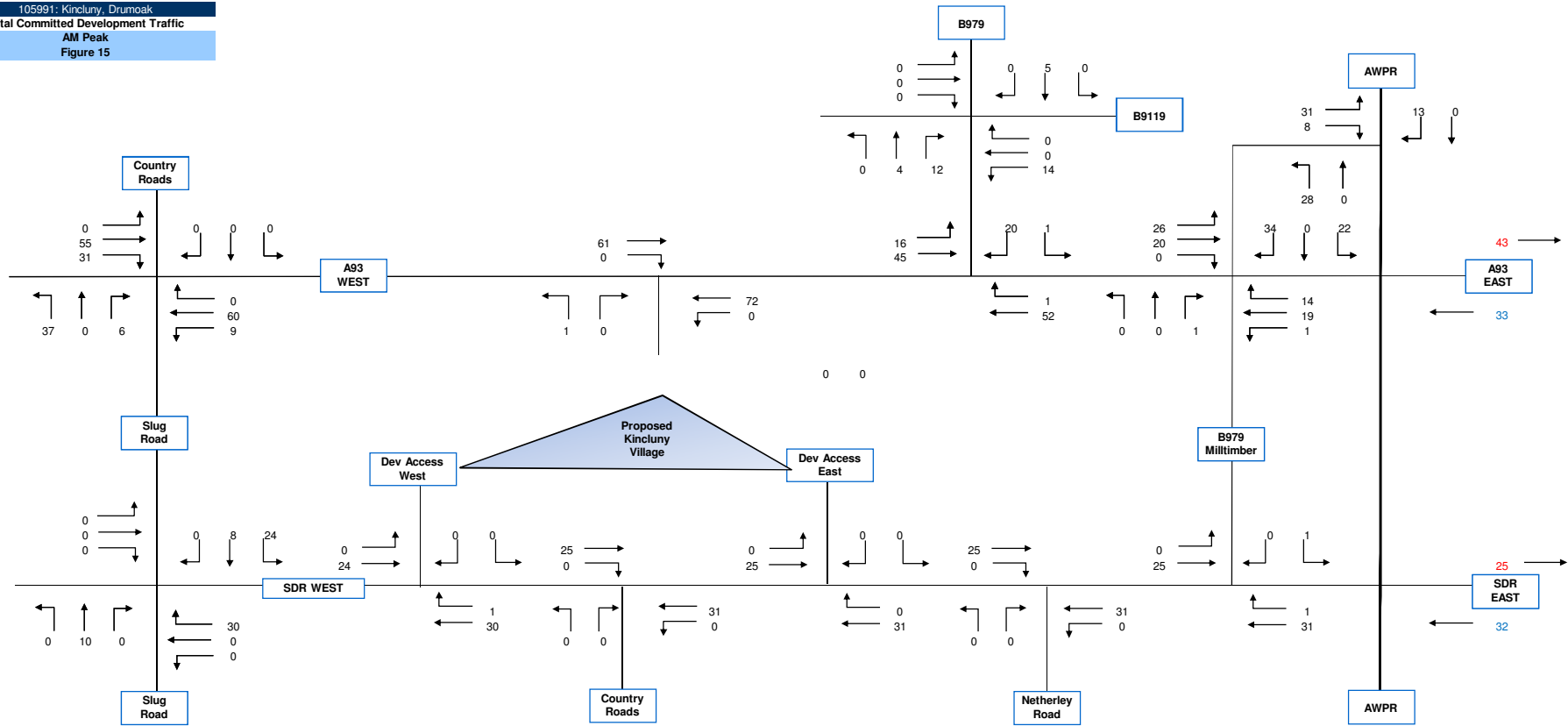


'No Bridge' Option

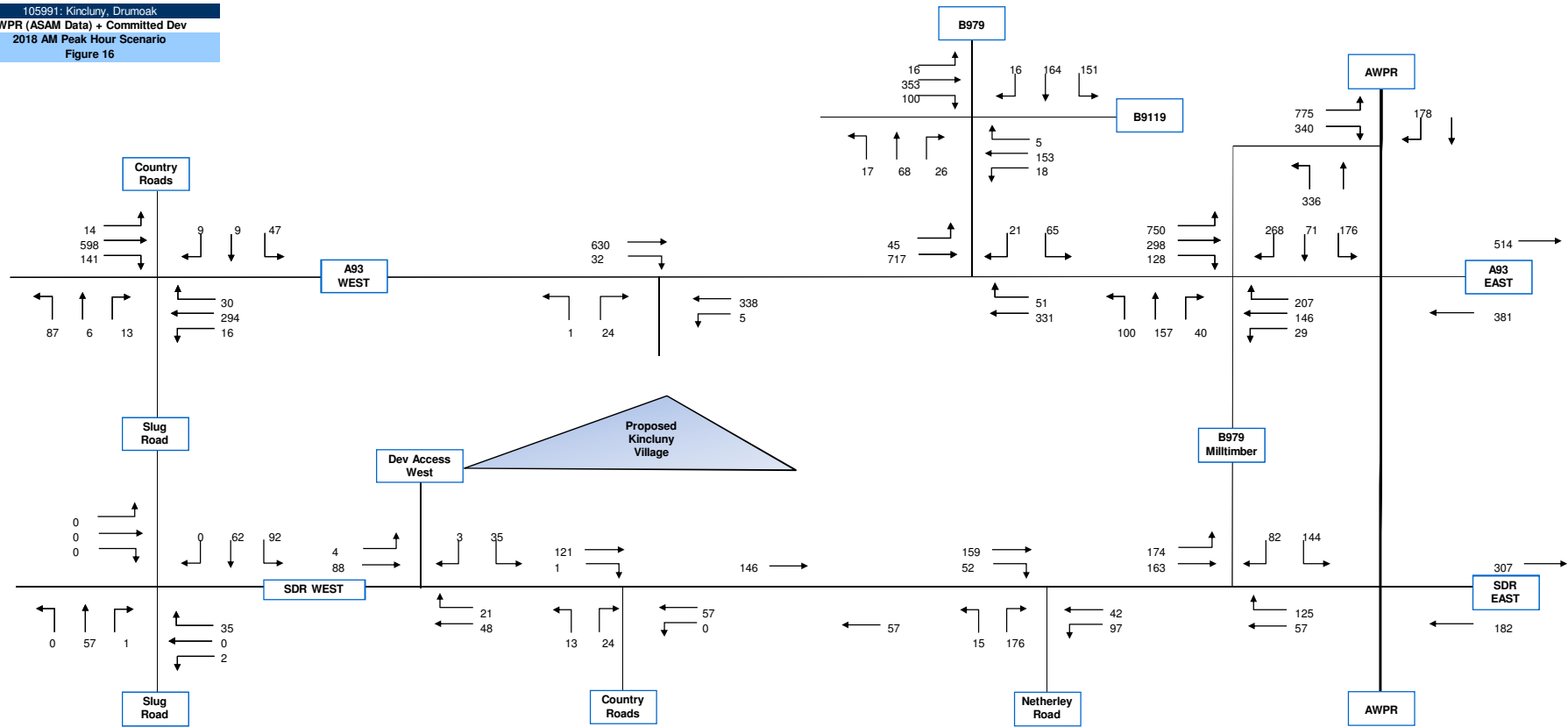
105991: Kinluney, Drumoak
 Total Committed Development Traffic
 AM Peak
 Figure 14



105991: Kinluney, Drumoak
Total Committed Development Traffic
AM Peak
Figure 15

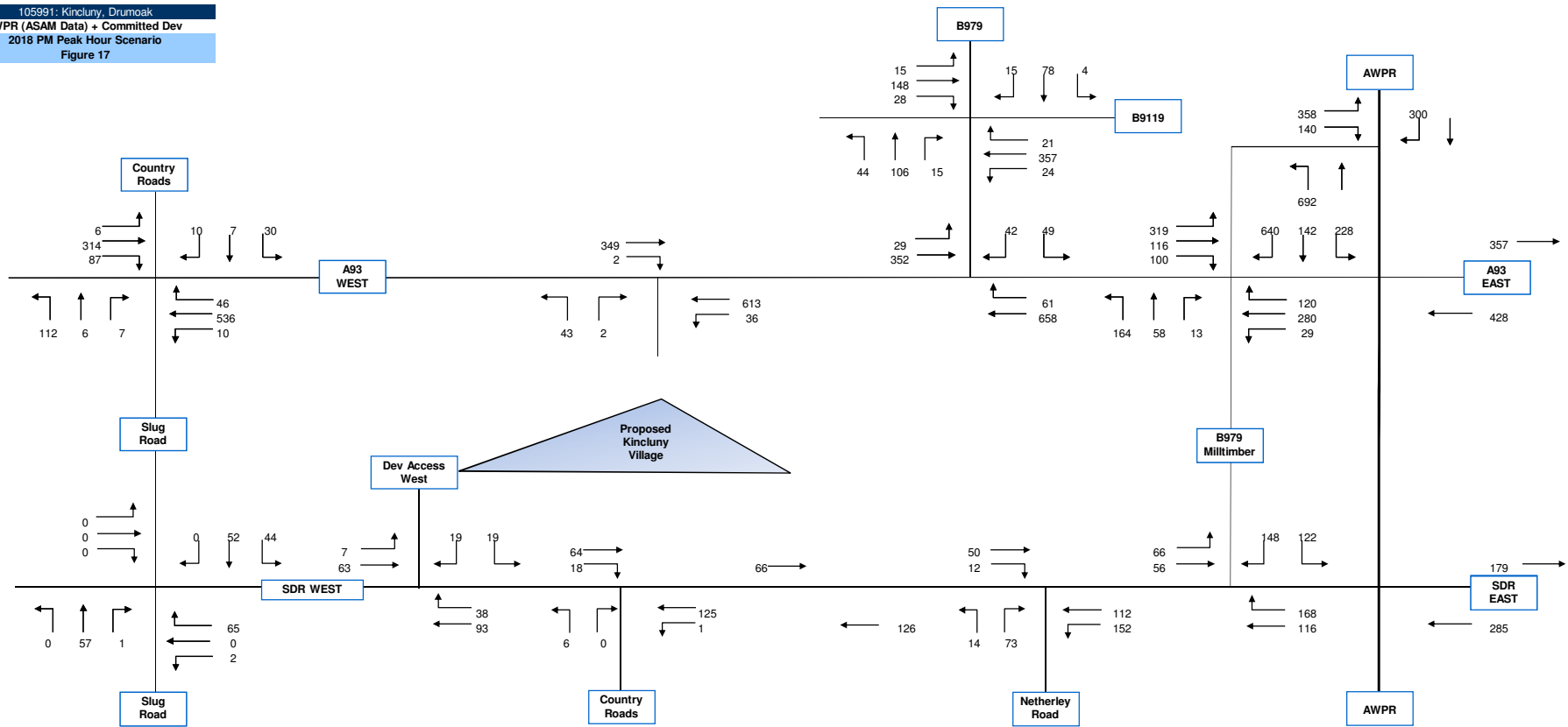


105991: Kincluny, Drumoak
Post AWPR (ASAM Data) + Committed Dev
2018 AM Peak Hour Scenario
Figure 16



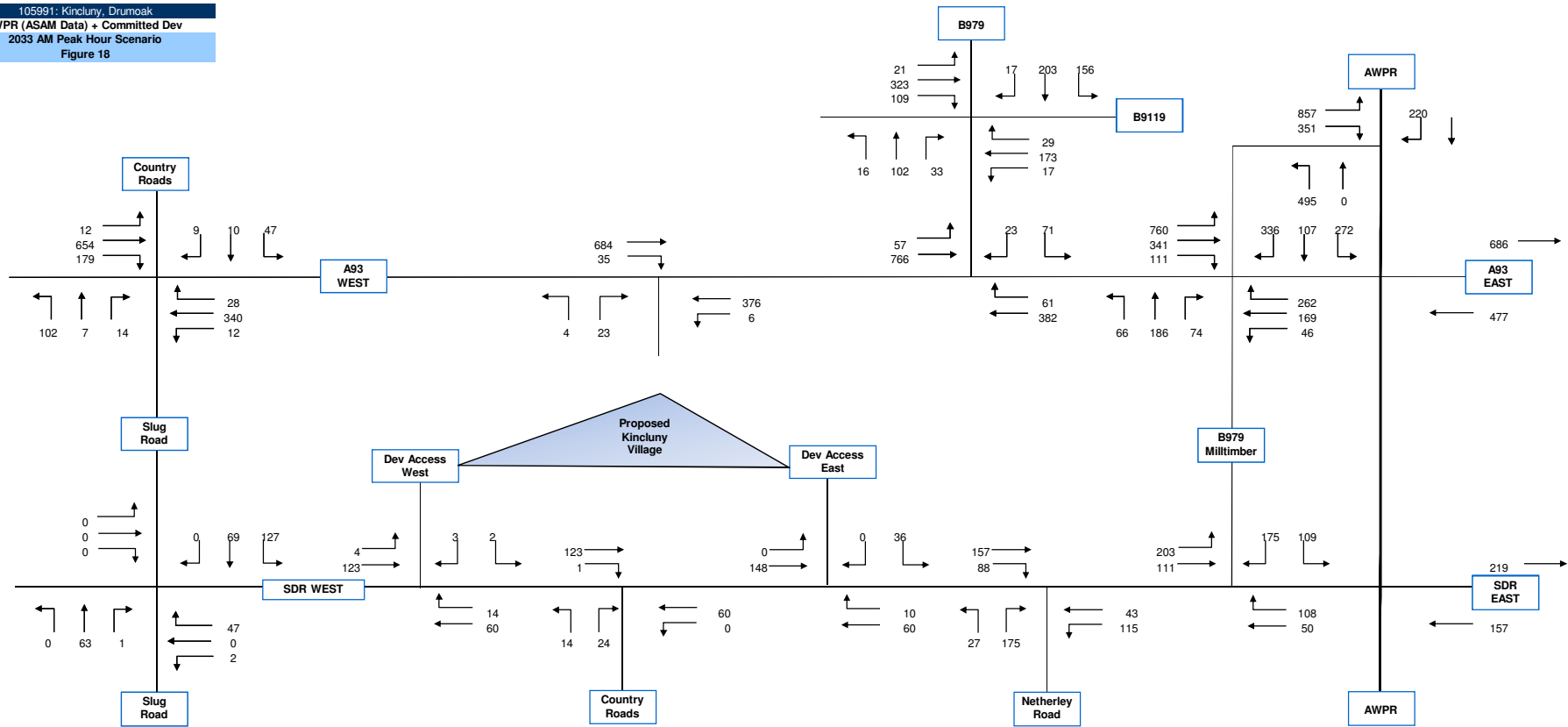
'No Bridge' Option

105991: Kincluny, Drumoak
Post AWPR (ASAM Data) + Committed Dev
2018 PM Peak Hour Scenario
Figure 17

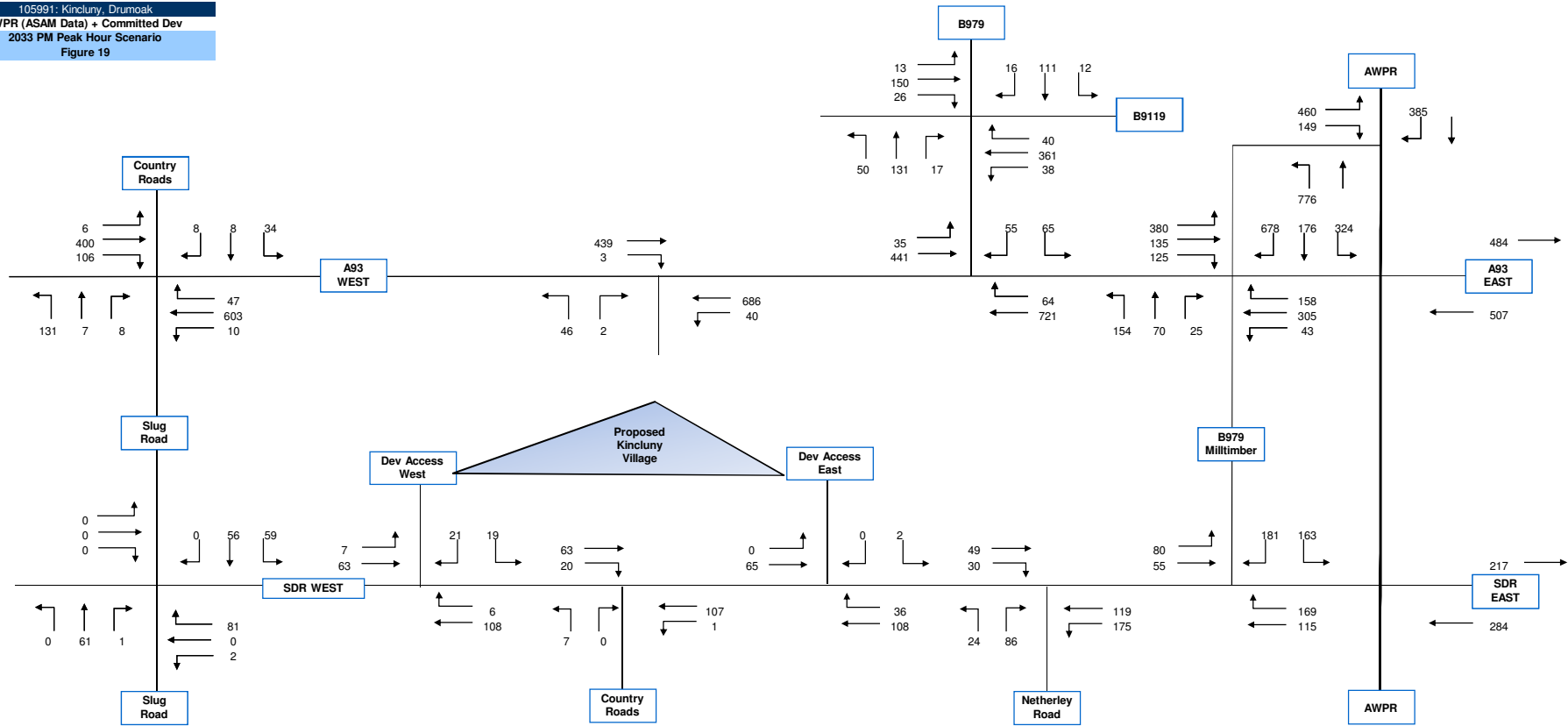


'No Bridge' Option

105991: Kincluney, Drumoak
 Post AWPR (ASAM Data) + Committed Dev
 2033 AM Peak Hour Scenario
 Figure 16



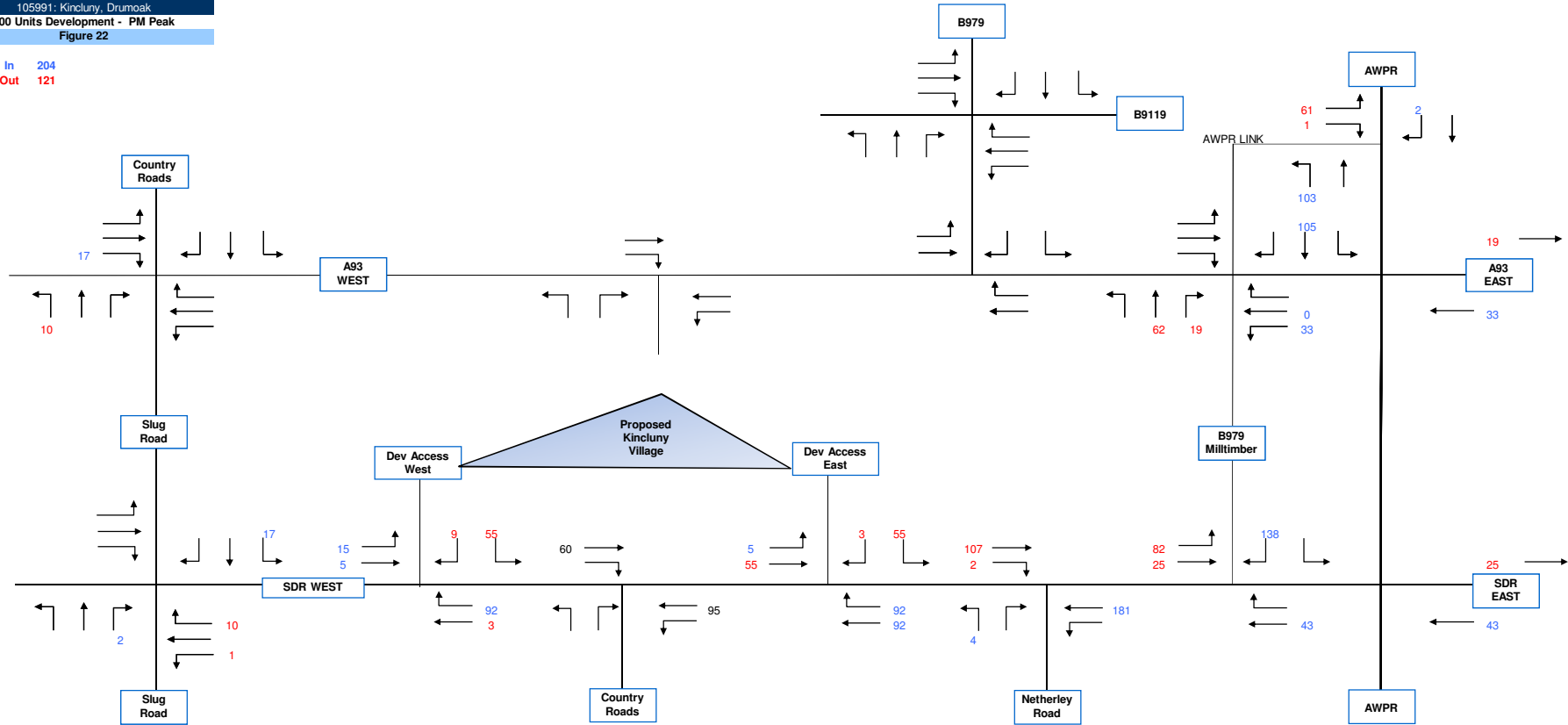
105991: Kincluny, Drumoak
Post AWPR (ASAM Data) - Committed Dev
2033 PM Peak Hour Scenario
Figure 19



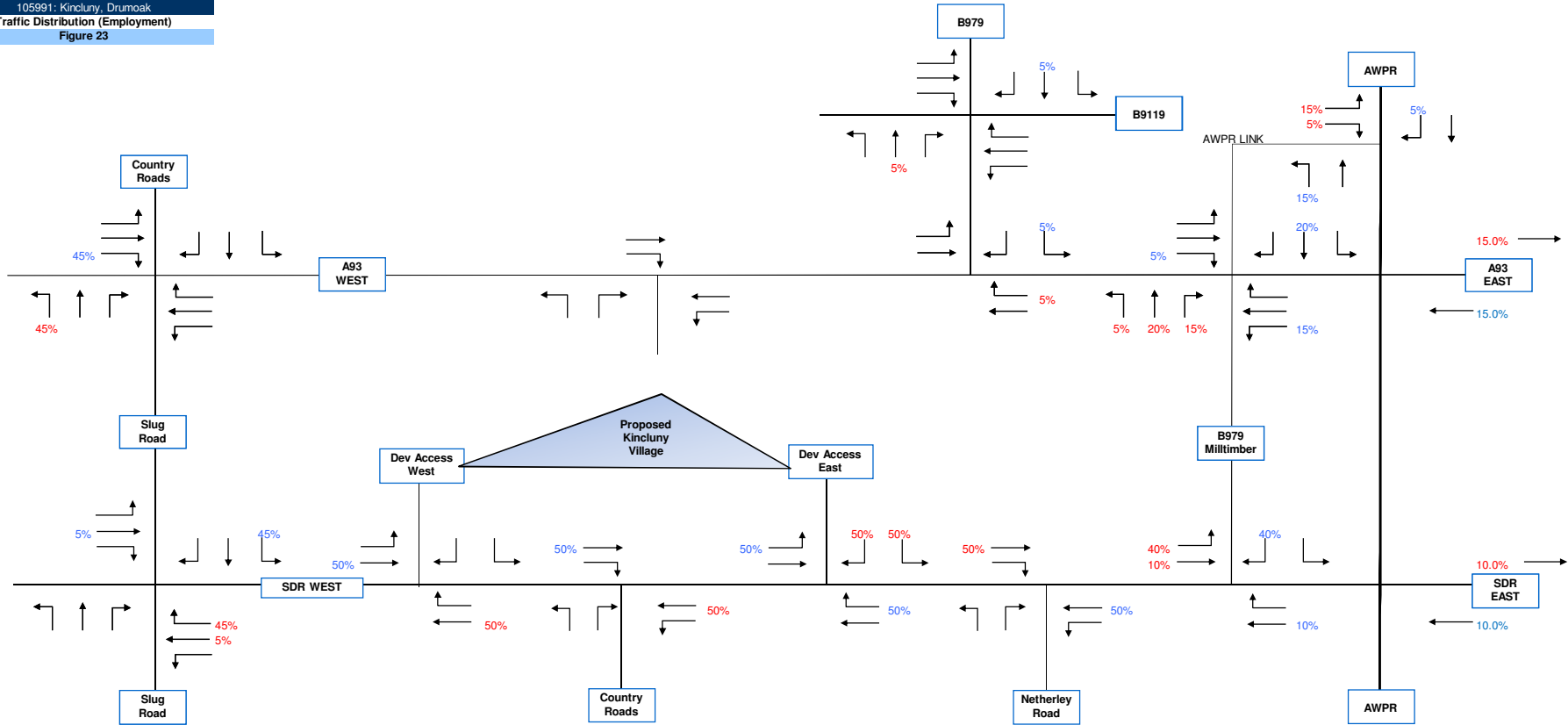
'No Bridge' Option

105991: Kinluney, Drumoak
 600 Units Development - PM Peak
 Figure 22

In 204
 Out 121



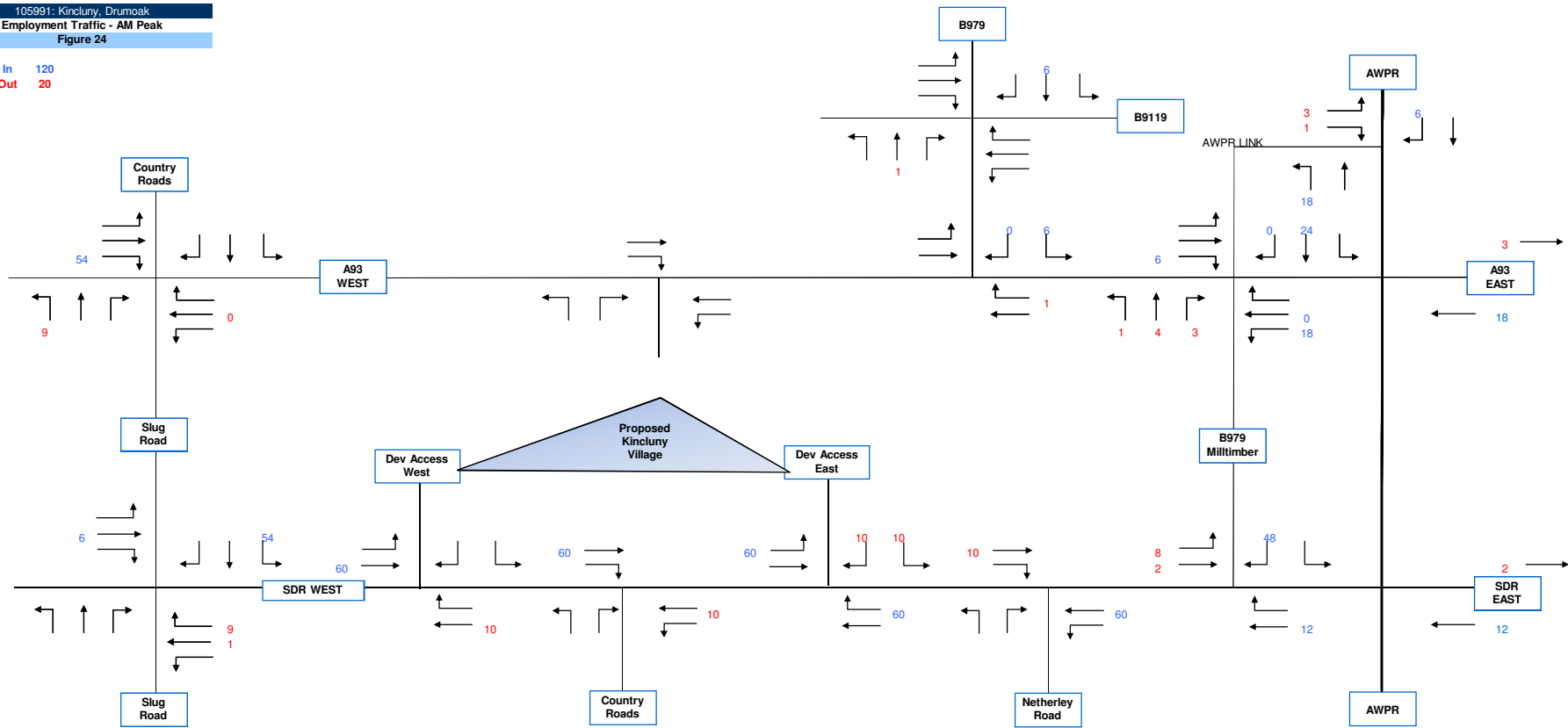
105991: Kinluney, Drumoak
Traffic Distribution (Employment)
Figure 23



'No Bridge' Option

105991: Kinlunty, Drumoak
 Employment Traffic - AM Peak
 Figure 24

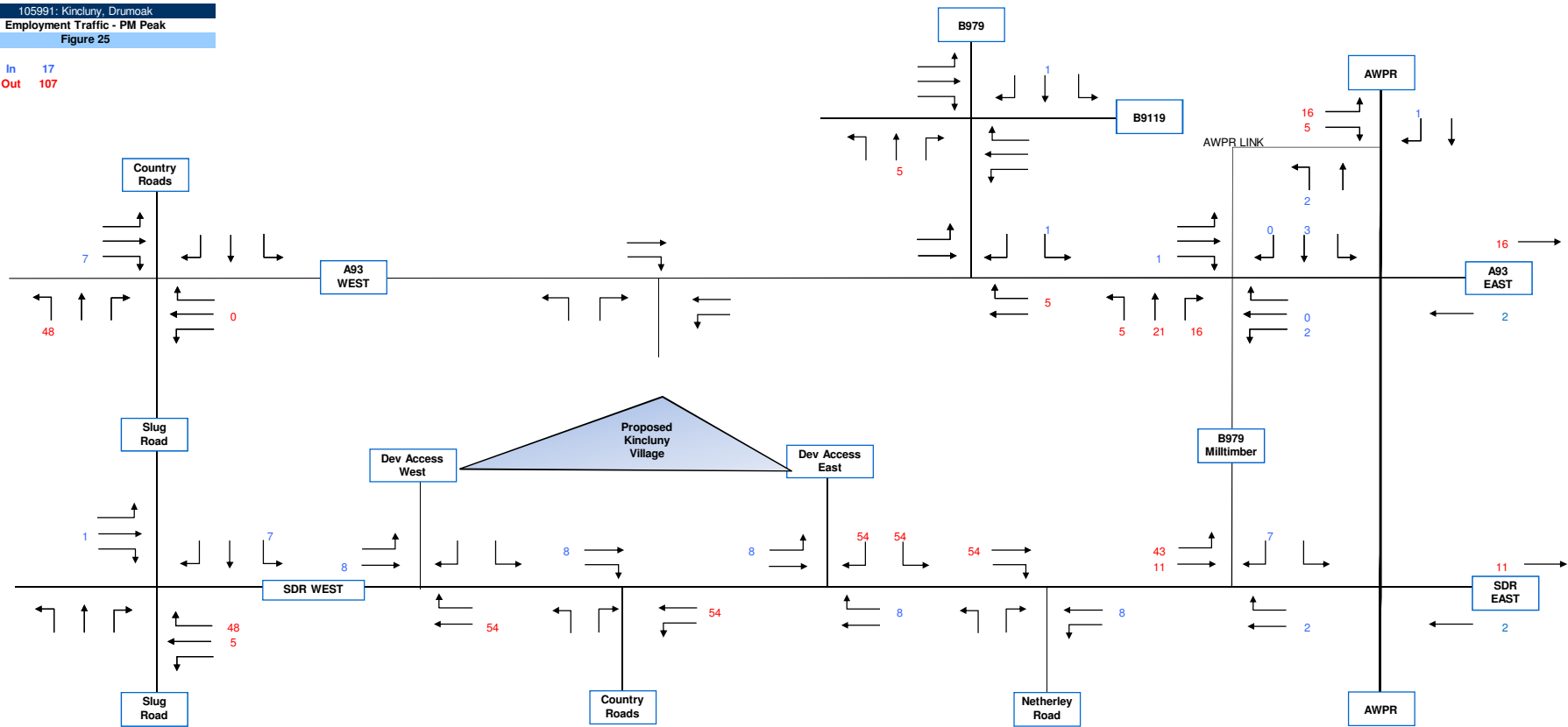
In 120
 Out 20



'No Bridge' Option

105991: Kincluney, Drumoak
 Employment Traffic - PM Peak
 Figure 25

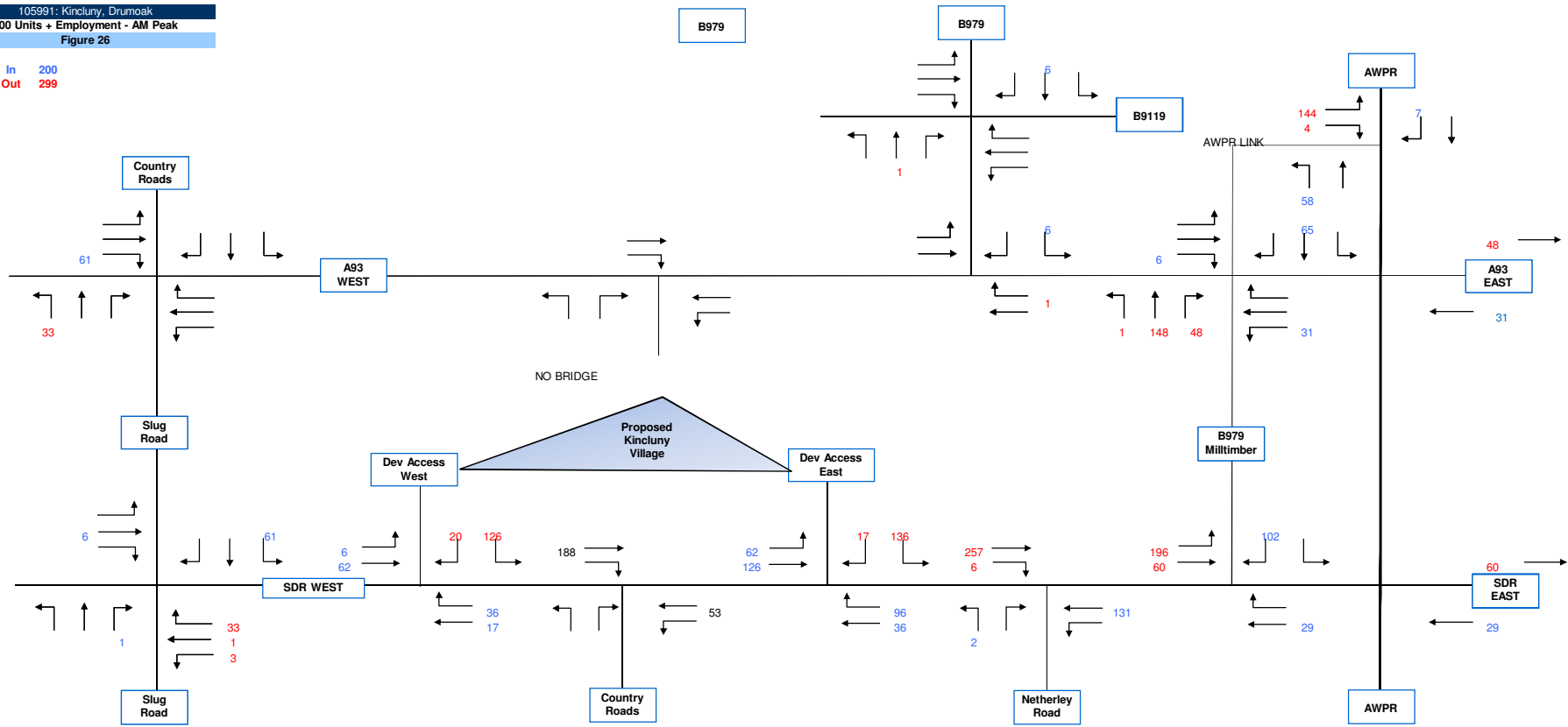
In 17
 Out 107



'No Bridge' Option

105991: Kincluny, Drumoak
 600 Units + Employment - AM Peak
 Figure 26

In 200
 Out 299



Appendix F

Proposed Infrastructure & Safe Routes to School:

Figure 6-1 Proposed & Existing Footpath Provision

Figure 6-2 Proposed Pedestrian Crossing

Figure 6-3 Safe Routes to School

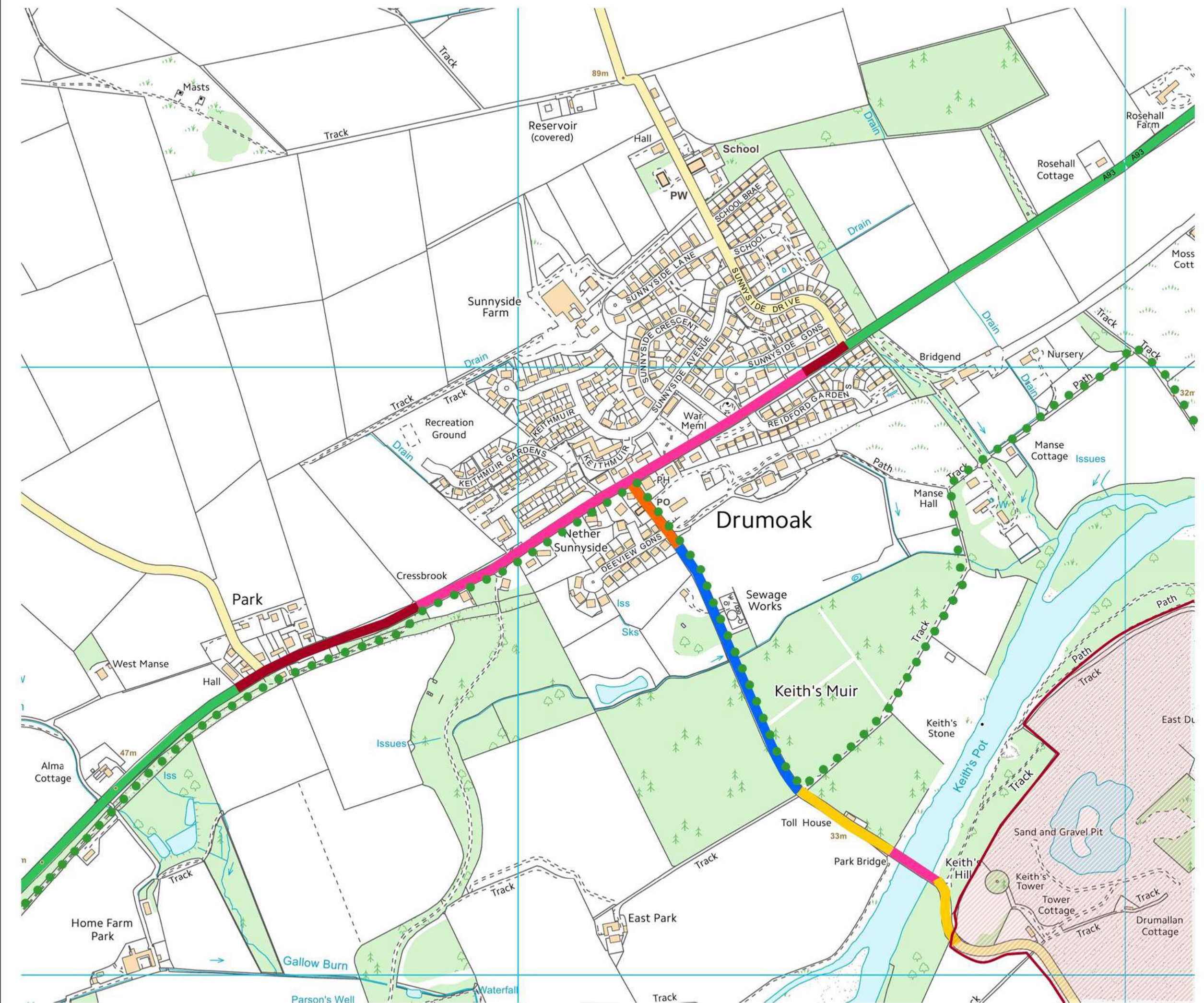
Project Title:
125023 Kincluny at Drumoak
Proposed New Village

Drawing Title:
Footpath Provision:
Existing & Proposed

Figure 6-1

KEY:

-  Development Site
-  The Deeside Way
-  Existing Footways both sides of carriageway
-  Existing segregated Footpath shared with Deeside Way.
-  Existing Footway west of carriageway
-  Existing Footway north of carriageway
-  Proposed new footway provision



Client: 

Drawn by: 

Date: 26/03/18

This map is based upon Ordnance Survey material with the permission of Ordnance Survey on behalf of the controller of Her Majesty's Stationary Office. © Crown Copyright 2015. All rights reserved. License number: 109905

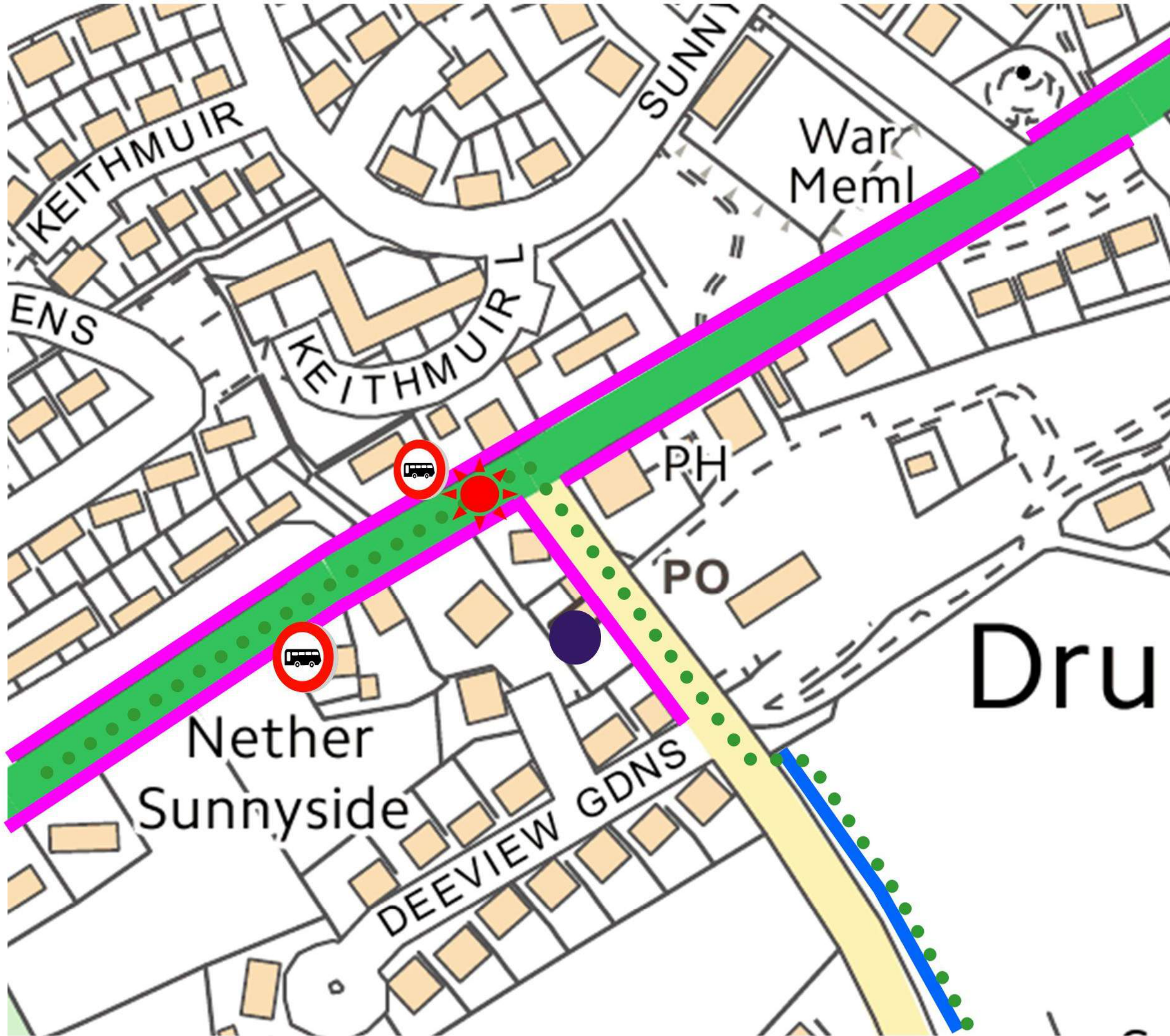
Project Title:
125023 Kincluny at Drumoak
Proposed New Village

Drawing Title:
Indicative Location of Pedestrian
Crossing & adjacent infrastructure

Figure 6-2

KEY:

-  Proposed pedestrian crossing location
-  The Deeside Way
-  Existing Footway provision
-  Existing segregated Footpath shared with Deeside Way.
-  Nearest bus stops
-  Post Office



Client: 

Drawn by: 

Date: 26/03/18



Appendix G
Example Staff Travel Survey

YOUR JOURNEY TO WORK QUESTIONNAIRE

We are undertaking a staff travel survey and would be grateful if you could take time to answer a few questions

PLEASE BE ASSURED THAT ALL YOUR ANSWERS WILL REMAIN CONFIDENTIAL

SECTION A - PLEASE ANSWER ALL THE QUESTIONS

1. How do you normally travel to work? *(Select one option)*

Walk	<input type="checkbox"/> 1	Car Driver, on your own	<input type="checkbox"/> 5
Bicycle	<input type="checkbox"/> 2	Car Driver, with Passenger(s)	<input type="checkbox"/> 6
Bus	<input type="checkbox"/> 3	Car Passenger	<input type="checkbox"/> 7
Motorbike	<input type="checkbox"/> 4	Other <i>(please specify)</i>	_____

2. Could you have used some other form of transport to travel to work? *(Select all that apply)*

Yes, Walk	<input type="checkbox"/> 1	Yes, Motorbike	<input type="checkbox"/> 4
Yes, Bicycle	<input type="checkbox"/> 2	No	<input type="checkbox"/> 5
Yes, Bus	<input type="checkbox"/> 3	Other <i>(please specify)</i>	_____

3. How long does it normally take you to travel to work? *(Select one option)*

Up to 15 minutes	<input type="checkbox"/> 1	Over 30 minutes and up to one hour	<input type="checkbox"/> 3
Over 15 minutes and up to 30 minutes	<input type="checkbox"/> 2	Over one hour <i>(please specify)</i>	_____

4. Which of the following changes would encourage you to cycle to work?

Please select no more than 3 *(If you already cycle to work which would you most like to see?)*

Improved cycle paths on the journey to work	<input type="checkbox"/> 1	Improved cycle changing facilities and lockers	<input type="checkbox"/> 4
Improved cycle parking	<input type="checkbox"/> 2	Arrangement to buy a bicycle at a discount	<input type="checkbox"/> 5
Minor changes to working hours	<input type="checkbox"/> 3	None	<input type="checkbox"/> 6
Other <i>(please specify)</i>	_____		

5. Which of the following changes would encourage you to use public transport for your journey to work?

Please select no more than 3 *(If you already use a bus to travel to work, which would you most like to see?)*

More direct bus routes from home to work	<input type="checkbox"/> 1	Improved public transport information	<input type="checkbox"/> 4
Minor changes to working hours	<input type="checkbox"/> 2	Better quality waiting facilities <i>(e.g. shelters)</i>	<input type="checkbox"/> 5
Discount tickets / passes	<input type="checkbox"/> 3	None	<input type="checkbox"/> 6
Other <i>(please specify)</i>	_____		

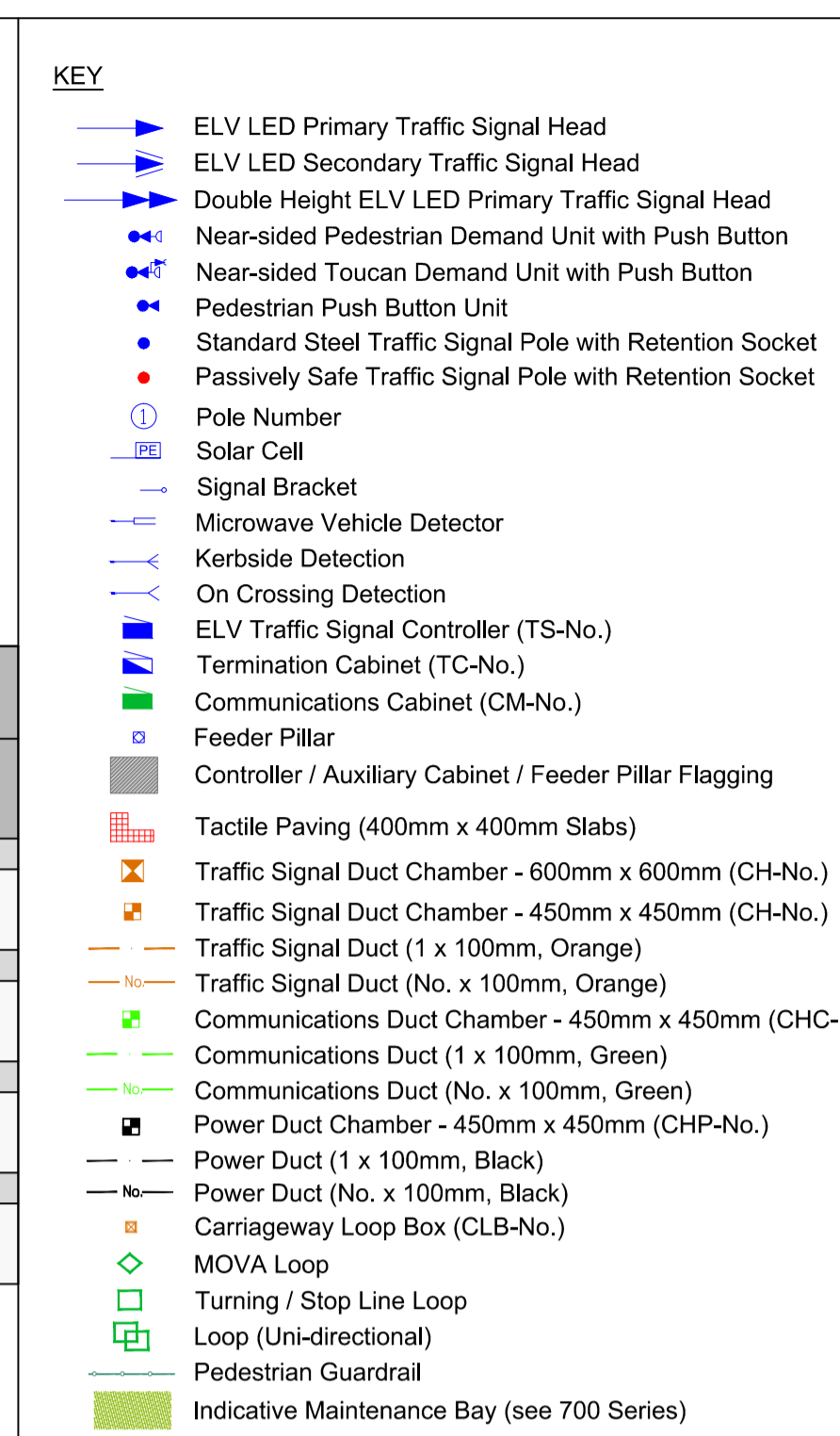
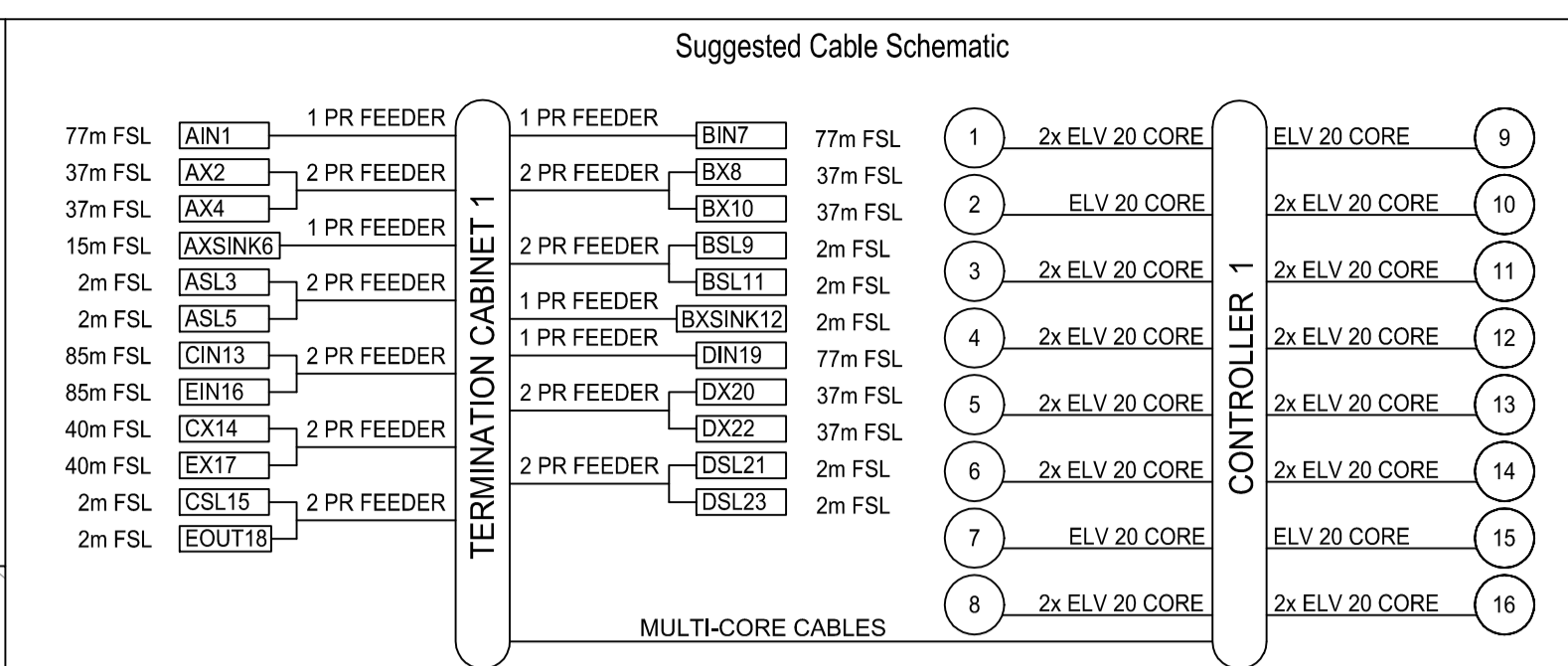
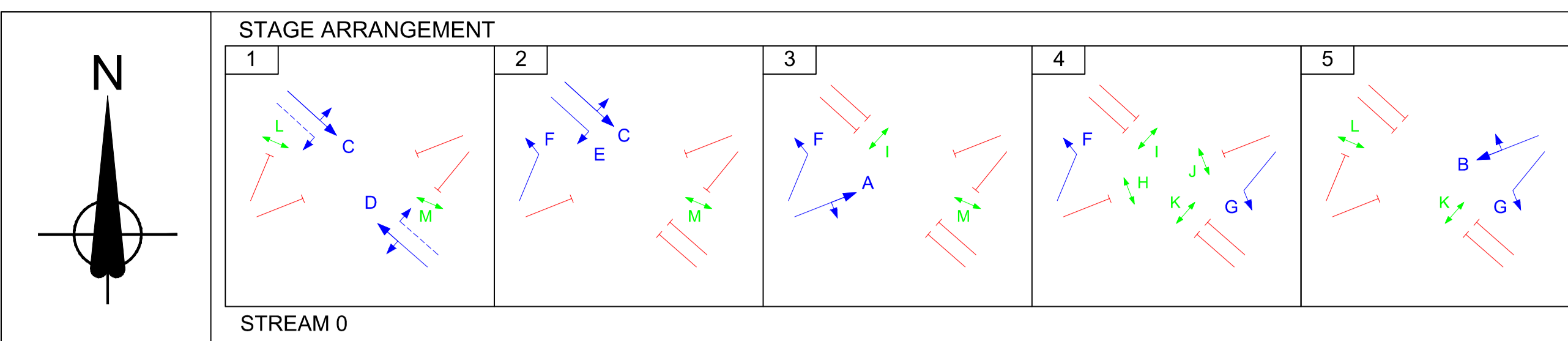
CONTINUED OVER THE PAGE



Appendix H

*A93 / AWPR Milltimber Interchange - Signalised Junction:
AWPR Drawing Number: AWPR-DJV-HW1200-SG04-DR-C-0001 REV P01*

100
0
10
Millimetres
DO NOT SCALE

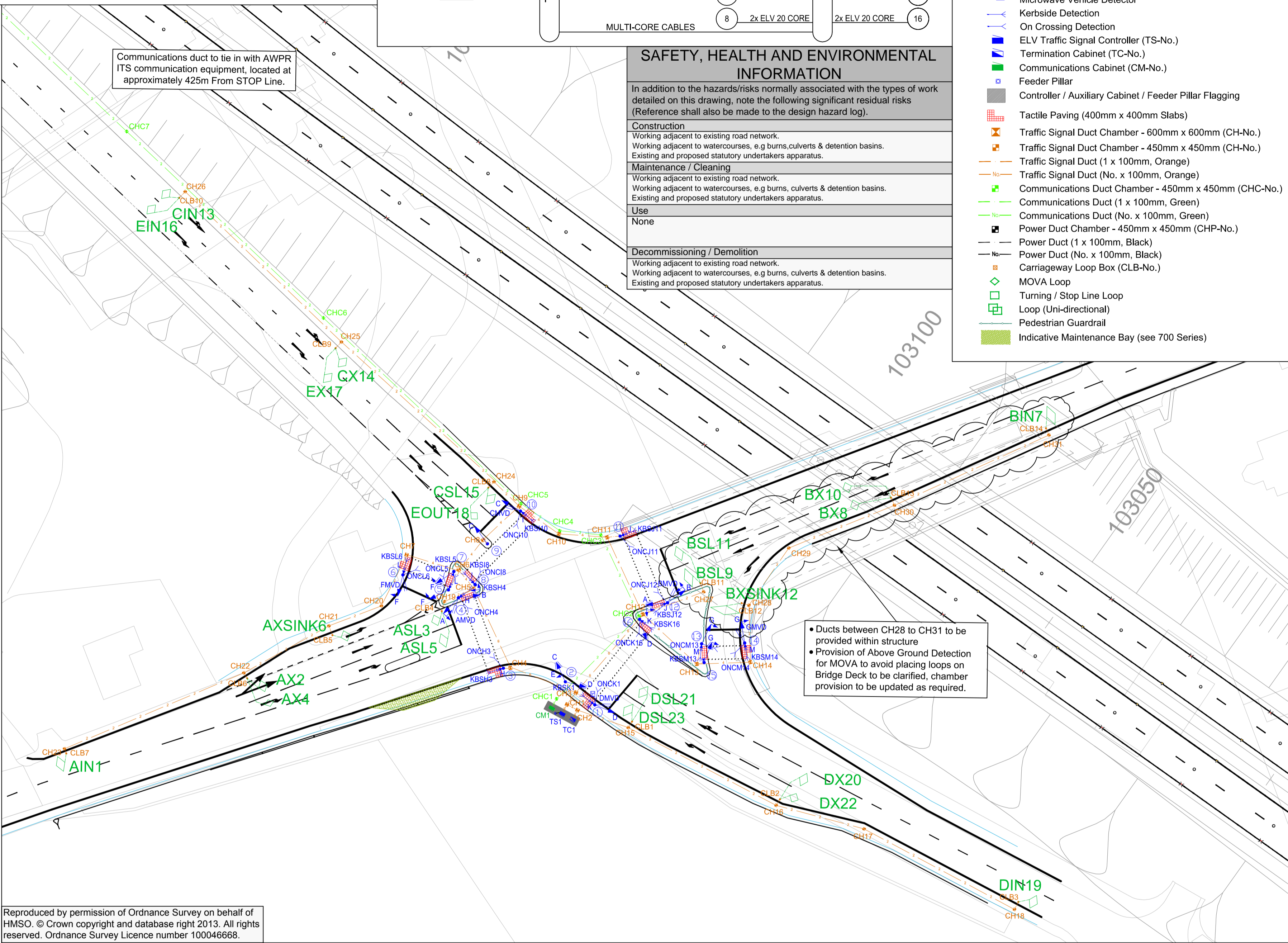


- NOTES**
- This drawing to be read in conjunction with the relevant Specification and all other relevant drawings.
 - All dimensions to be checked on site and any discrepancies identified prior to commencement of work.
 - All dimensions in metres unless otherwise noted.
 - Traffic signal controller and traffic signal heads to be ELV type (48V) with LED aspects.
 - An Uninterruptible Power Supply (UPS) unit to be provided at the controller for any emergency power requirements.
 - Maintenance sockets to be provided in all controller and auxiliary cabinets.
 - Electrical disconnection system to be provided for all NE absorbing passively safe traffic signal poles.
 - All tall poles (6m) and passively safe poles to have low level access doors.
 - Traffic signal pole loading requirements to be checked with supplier to ensure proposed pole diameters are appropriate for the specified equipment. If pole diameters are increased the associated retention socket size shall also be increased accordingly.
 - All traffic signal poles to have cast iron retention sockets.
 - All retention sockets to be located a maximum 500mm from the line of the crossing studs / tactile paving slabs.
 - Suggested cable schematic for typical purposes only. Contractor to provide appropriate cabling for the equipment used. All cabling should comply with the requirements of the Appendix 12/5.
 - Puffin / Toucan crossing widths as shown on drawing.
 - The distance between the stop line and the nearest set of studs to be 3m.
 - All traffic signal poles and cabinets to be grey in colour.
 - Exact location of traffic signal controller cabinet, Auxiliary cabinets, electrical termination pillar and associated hard standing areas to be determined on site with the agreement of the Engineer.
 - Exact location of traffic signal pole retention sockets and duct chambers to be determined on site with the agreement of Engineer.
 - Duct routes are indicative and may be adjusted on site with agreement of Engineer.
 - Detector loop positions are indicative and may be adjusted on site with agreement of Engineer.
 - Advanced warning signs to TSRGD diagram 7014 "New Traffic Signals" to be suitably located on all approaches to the junction.
 - All proposed road markings to tie in with existing road markings.
 - MOVA functionality to be provided using latest software.
 - RS485 links to be provided to each controller / termination cabinet.
 - Remote monitoring to Aberdeen City Council's In-station to be provided (with live update configuration).
 - Communication duct spur to be provided from the mainline AWPR communication network to the traffic signal controller to allow a communication link back to Aberdeen City Council's control centre.

POLE/SIGNAL HEAD SCHEDULE

POLE NUMBER	RETENTION SOCKET (DIA. - mm)	POLE TYPE	LENGTH (m)	PERP. DISTANCE FROM KERB FACE TO POLE FACE (mm)	PHASE	HEAD TYPE (SEE NOTE 1)	DIRECTIONAL ARROW BOX SIGN ASPECTS	NOTES
1	115	STEEL STRAIGHT	4.0	800	D	1P	-	SOLAR CELL
2	168	STEEL TALL	6.0	800	D	1S	-	FUTURE PROOF CCTV POLE
					C/E	9S	E10	
3	115	STEEL STRAIGHT	4.0	500	H	23	-	
4	115	STEEL STRAIGHT	4.0	800	A	10P	A.8/E.10	
					B	10S	A.8/E.10	
5	115	STEEL STRAIGHT	4.0	800	F	2P	A.9	
					L	23	-	
6	115	STEEL STRAIGHT	4.0	800	F	2P	A.9	
					L	23	-	
7	115	STEEL STRAIGHT	4.0	800	F	2S	A.9	PBU ONLY
					L	-	-	
8	115	STEEL STRAIGHT	4.0	800	I	23	-	
9	115	STEEL STRAIGHT	4.0	800	C	1P	-	
10	115	STEEL STRAIGHT	4.0	800	C	1P	-	
11	115	STEEL STRAIGHT	4.0	500	J	23	-	
					A	10S	A.8/E.10	
12	115	STEEL STRAIGHT	4.0	800	B	10P	A.8/E.10	
					J	23	-	
13	115	STEEL STRAIGHT	4.0	800	G	2P	A.9	
					M	23	-	
14	115	STEEL STRAIGHT	4.0	800	G	2P	A.9	
					M	23	-	
15	115	STEEL STRAIGHT	4.0	800	G	2S	A.9	PBU ONLY
					M	-	-	
16	115	STEEL STRAIGHT	4.0	800	D	1S	-	
					K	23	-	

- NOTES:**
- Refer to signal head type drawing AWPR-DJV-HW1200-SG00-DR-C-0001 for details of the aspect arrangement denoted by codes.
 - A minimum clearance of 500 mm shall be provided between the kerb edge and any mounted signal equipment.



SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION

In addition to the hazards/risks normally associated with the types of work detailed on this drawing, note the following significant residual risks (Reference shall also be made to the design hazard log).

Construction
Working adjacent to existing road network.
Working adjacent to watercourses, e.g burns, culverts & detention basins. Existing and proposed statutory undertakers apparatus.

Maintenance / Cleaning
Working adjacent to existing road network.
Working adjacent to watercourses, e.g burns, culverts & detention basins. Existing and proposed statutory undertakers apparatus.

Use
None

Decommissioning / Demolition
Working adjacent to existing road network.
Working adjacent to watercourses, e.g burns, culverts & detention basins. Existing and proposed statutory undertakers apparatus.

Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2013. All rights reserved. Ordnance Survey Licence number 100046668.

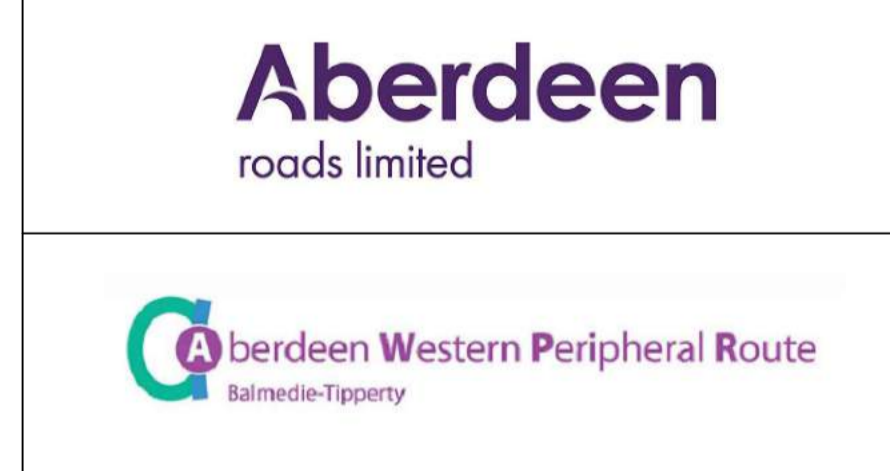
DETECTOR SCHEDULE

DETECTOR NUMBER	DETECTOR NAME	DISTANCE FROM STOP LINE (M)	DEMAND PHASE	EXTEND PHASE	DETECTOR TYPE	NOTES
1	AIN1	77	A	-	IN LOOP	
2	AX2	37	A	A	X LOOP	MOVA STOP LINE
3	ASL3	2	A	A	SL LOOP	MOVA STOP LINE
4	AX4	37	A	A	X LOOP	MOVA STOP LINE
5	ASL5	2	A	A	SL LOOP	MOVA STOP LINE
6	AXSINK6	15	F	F	SINK LOOP	
7	BSL11	77	B	-	IN LOOP	
8	BX8	37	B	B	X LOOP	ABOVE GROUND DETECTOR
9	BSL9	2	B	B	SL LOOP	ABOVE GROUND DETECTOR
10	BX10	37	B	B	X LOOP	ABOVE GROUND DETECTOR
11	BSL11	2	B	B	SL LOOP	MOVA STOP LINE
12	BXSINK12	2	G	G	SINK LOOP	
13	CIN13	85	C	-	IN LOOP	
14	CX14	40	C	C	X LOOP	
15	CSL15	2	C	C	SL LOOP	MOVA STOP LINE
16	EIN16	85	E	-	IN LOOP	
17	EX17	40	E	E	X LOOP	
18	EOUT18	2	E	E	OUT LOOP	CALLICANCEL
19	DIN19	77	D	-	IN LOOP	
20	DX20	37	D	D	X LOOP	
21	DSL21	2	D	D	SL LOOP	MOVA STOP LINE

22	DX22	37	D	D	X LOOP	
23	DSL23	2	D	D	SL LOOP	MOVA STOP LINE
24	AMVD	-	A	A	MVD	
25	BMVD	-	B	B	MVD	
26	CMVD	-	C	C	MVD	
27	DMVD	-	D	D	MVD	
28	FMVD	-	F	F	MVD	
29	GMVD	-	G	G	MVD	
30	PBH3	-	H	-	PUSH BUTTON	POLE 3, TACTILE ROTATING CONE
31	PBH4	-	H	-	PUSH BUTTON	POLE 4, TACTILE ROTATING CONE
32	PBH8	-	I	-	PUSH BUTTON	POLE 8, TACTILE ROTATING CONE
33	PBH10	-	I	-	PUSH BUTTON	POLE 10, TACTILE ROTATING CONE
34	PBH11	-	J	-	PUSH BUTTON	POLE 11, TACTILE ROTATING CONE
35	PBH12	-	J	-	PUSH BUTTON	POLE 12, TACTILE ROTATING CONE
36	PBK1	-	K	-	PUSH BUTTON	POLE 1, TACTILE ROTATING CONE
37	PBK16	-	K	-	PUSH BUTTON	POLE 16, TACTILE ROTATING CONE
38	PBL5	-	L	-	PUSH BUTTON	POLE 5, TACTILE ROTATING CONE
39	PBL6	-	L	-	PUSH BUTTON	POLE 6, TACTILE ROTATING CONE
40	PBL7	-	L	-	PUSH BUTTON	POLE 7, TACTILE ROTATING CONE
41	PBM13	-	M	-	PUSH BUTTON	POLE 13, TACTILE ROTATING CONE
42	PBM14	-	M	-	PUSH BUTTON	POLE 14, TACTILE ROTATING CONE
43	PBM15	-	M	-	PUSH BUTTON	POLE 15, TACTILE ROTATING CONE
44	KBSH3	-	-	-	KERBSIDE	POLE 3, HOLD DEMAND FOR PHASE H

45	KBSH4	-	-	-	KERBSIDE	POLE 4, HOLD DEMAND FOR PHASE H
46	ONCH3	-	-	H	ON CROSSING	POLE 3, EXTEND ALL RED PERIOD
47	ONCH4	-	-	H	ON CROSSING	POLE 4, EXTEND ALL RED PERIOD
48	KBSI8	-	-	-	KERBSIDE	POLE 8, HOLD DEMAND FOR PHASE I
49	KBSI10	-	-	-	KERBSIDE	POLE 10, HOLD DEMAND FOR PHASE I
50	ONCI8	-	-	I	ON CROSSING	POLE 8, EXTEND ALL RED PERIOD
51	ONCI10	-	-	I	ON CROSSING	POLE 10, EXTEND ALL RED PERIOD
52	KBSJ11	-	-	-	KERBSIDE	POLE 11, HOLD DEMAND FOR PHASE J
53	KBSJ12	-	-	-	KERBSIDE	POLE 12, HOLD DEMAND FOR PHASE J
54	ONCJ11	-	-	J	ON CROSSING	POLE 11, EXTEND ALL RED PERIOD
55	ONCJ12	-	-	J	ON CROSSING	POLE 12, EXTEND ALL RED PERIOD
56	KBSK1	-	-	-	KERBSIDE	POLE 1, HOLD DEMAND FOR PHASE K
57	KBSK16	-	-	-	KERBSIDE	POLE 16, HOLD DEMAND FOR PHASE K
58	ONCK1	-	-	K	ON CROSSING	POLE 1, EXTEND ALL RED PERIOD
59	ONCK16	-	-	K	ON CROSSING	POLE 16, EXTEND ALL RED PERIOD
60	KBSL5	-	-	-	KERBSIDE	POLE 5, HOLD DEMAND FOR PHASE L
61	KBSL6	-	-	-	KERBSIDE	POLE 6, HOLD DEMAND FOR PHASE L
62	ONCL5	-	-	L	ON CROSSING	POLE 5, EXTEND ALL RED PERIOD
63	ONCL6	-	-	L	ON CROSSING	POLE 6, EXTEND ALL RED PERIOD
64	KBSM13	-	-	-	KERBSIDE	POLE 13, HOLD DEMAND FOR PHASE M
65	KBSM14	-	-	-	KERBSIDE	POLE 14, HOLD DEMAND FOR PHASE M
66	ONCM13	-	-	M	ON CROSSING	POLE 13, EXTEND ALL RED PERIOD
67	ONCM14	-	-	M	ON CROSSING	POLE 14, EXTEND ALL RED PERIOD

P01					27/10/15
First Issue					
Rev	Drawn / Des	Checked	Approved		Date
Description					Suitability
	FOR REVIEW AND COMMENT				S3



TRAFFIC SIGNS - TRAFFIC SIGNALS
A93/B979 JUNCTION, GENERAL ARRANGEMENT
SHEET 01 OF 03

Scale	1:500	Designed / Drawn	Checked	Approved	Authorised
Original Size	A1	Date	Date	Date	Date
Project	AWPR - DJV - HW1200 - SG04 - DR - C - 0001	Originator	Volume		P01
Location	Type	Role	Number		

Printed: Oct 27, 2015 - 9:02am by: KV015498

Appendix I

*A93 / AWPR Milltimber Interchange - Theoretical Mitigation:
Fairhurst Drawing Number: 125023 / sk1001*



Do not scale from this drawing.

SAFETY HEALTH AND ENVIRONMENTAL INFORMATION

IN ADDITION TO THE HAZARD/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING RISKS AND INFORMATION.

RISKS LISTED HERE ARE NOT EXHAUSTIVE. REFER TO DESIGN ASSESSMENT FORM NO.

CONSTRUCTION

DEMOLITION

FOR INFORMATION RELATING TO USE, CLEANING AND MAINTENANCE SEE THE HEALTH AND SAFETY FILE

IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.

Rev.	Date	Description	Drawn	Checked	Approved

Notes:

Client:

Project Title:

PROPOSED NEW VILLAGE AT KINCLUNY, ABERDEENSHIRE

Scale at A1:
1:500

Status:
For Information

Drawing Title:
A93/B979 AWR ACCESS ROAD THEORETICAL MITIGATION

FAIRHURST

88 Queens Road,
ABERDEEN, AB15 4YQ
Tel: 01224 321 222 Fax: 01224 323 201

Scale at A1: 1:500	Status: For Information
Drawn: 07/03/18	Checked: 07/03/18
Approved: 07/03/18	Revision: -

Drawing No.: **125023/sk1001**

CIVIL ENGINEERING • STRUCTURAL ENGINEERING • TRANSPORTATION • ROADS & BRIDGES
PORTS & HARBOURS • GEOTECHNICAL & ENVIRONMENTAL ENGINEERING • PLANNING &
DEVELOPMENT • WATER SERVICES • CDM COORDINATOR SERVICES

www.fairhurst.co.uk

Aberdeen	Leeds
Bristol	London
Dundee	Manchester
Edinburgh	Newcastle upon Tyne
Elgin	Sheffield
Glasgow	Watford
Inverness	Wellesbourne

FAIRHURST

**ABERDEENSHIRE LOCAL DEVELOPMENT PLAN
RESPONSE TO MAIN ISSUES REPORT
KINCLUNY
KN064**

MARCH 2019

On behalf of
CHAP Group (Aberdeen) Ltd



HALLIDAY FRASER MUNRO
CHARTERED ARCHITECTS & PLANNING CONSULTANTS



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

CONTENTS

CONTENTS

- 1.0 Introduction
- 2.0 Settlement Strategy
 - 2.1 SDP Strategy
 - 2.2 Housing Delivery
 - 2.3 Local Need
- 3.0 Settlement Statements – Site
 - 3.1 Officers Assessment
 - 3.2 SEA
 - 3.3 SEA Summary
- 4.0 Site Analysis / Justification
 - 4.1 Infrastructure
 - 4.2 Education
 - 4.3 Services
 - 4.4 Ecology
 - 4.5 Landscape
 - 4.6 Need for the development
 - 4.7 Deliverability
- 5.0 Conclusion



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

1.0 Introduction

This response has been prepared by Halliday Fraser Munro on behalf of CHAP Homes (c/o CHAP Group (Aberdeen) Ltd) in support of site KN064 (Kincluny). The site is located at a bend in the River Dee 1km to the south of Drumoak. It offers an excellent opportunity to deliver a new Deeside village comprising 600 sustainable homes, a small-scale business park, a village centre and land for a primary school. The site is located within an area of low landscape impact. The South Deeside Road (B9077) forms the southern boundary of the site and would be the primary access for the new development.

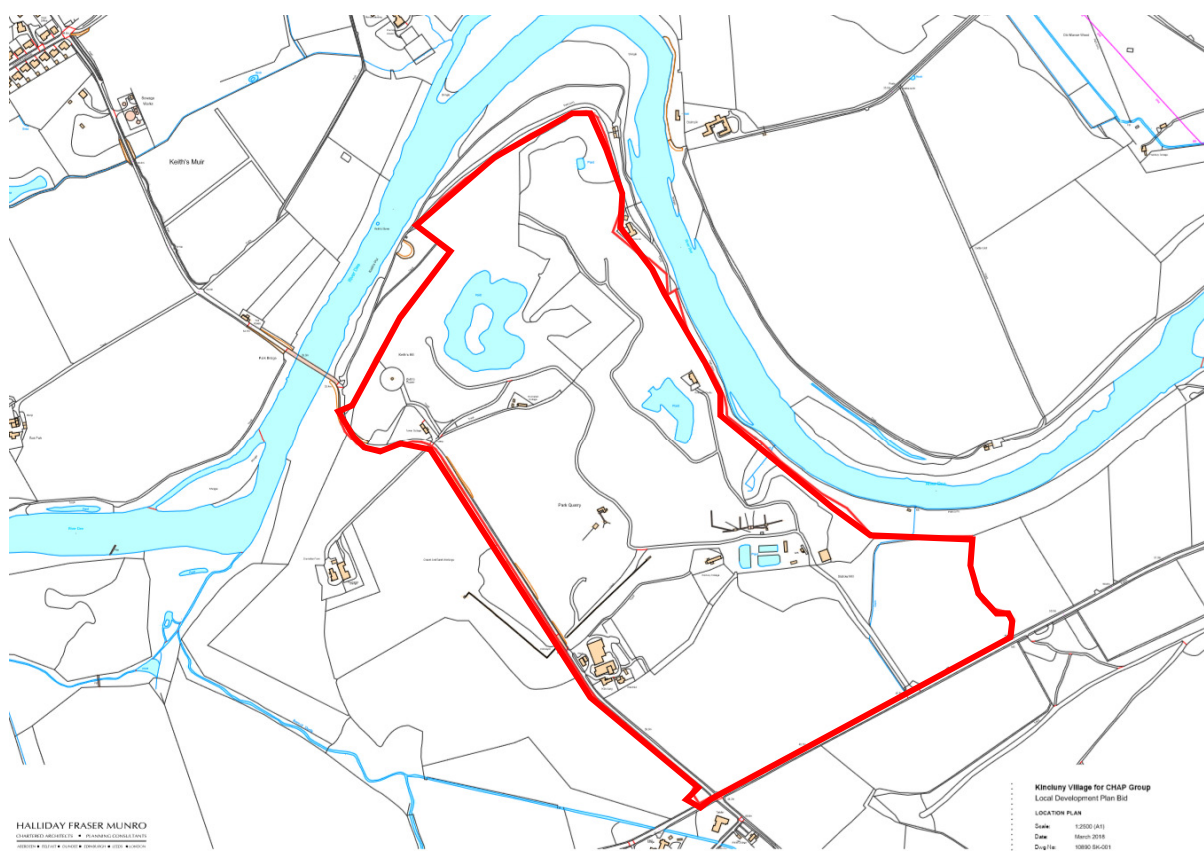


Figure 1: Site Location (KN064) (sites location shown by red line)

CHAP currently operate a sand and gravel quarry from the site. The sand and gravel resource will, however, soon be depleted as the quarry has only a few years extraction remaining. The site is therefore previously used and the proposed development offers a unique sustainable development opportunity.

This radically reduced scale LDP bid offers the opportunity for a new exceptional Deeside village reflecting historical development patterns along the river valley. The bid is supported by the inclusion of the Kincluny Development Trust, new traffic safety measures on the South Deeside Road, generous open space provision and the inclusion of affordable and custom and self-build housing. Previous public consultation has demonstrated that this is an area where people want to live and one that can provide an outstanding quality of life. A new Deeside Village in this location would fit with a development pattern native to this part of



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

Aberdeenshire and one that will improve the overall housing affordability and accessibility in an area where affordability has historically been an issue.

The site is deliverable. CHAP own the site and are committed to providing a positive legacy post quarrying activity. CHAP have all the information prepared to support a planning application should the site be allocated. CHAP are an established and successful construction and engineering company, based in the north east. CHAP Homes have a long established reputation of delivering high quality homes for sale on the open market and affordable homes on behalf of housing associations. CHAP Quarries have also owned and operated the quarry since 1985.

2.0 Settlement Strategy

A separate representation on strategy and housing need has been submitted by CHAP Group, but the key issues are summarised below, as they are relevant to bid site KN064.

2.1 Strategic Development Plan Settlement Strategy

Site KN064 is located within a 'local growth and diversification' area as identified by the Proposed Strategic Development Plan (PSDP). The PSDP increased allocations in the AHMA part of the Local Growth and Diversification Area, recognising that the levels of growth proposed in the RHMA were excessive and not likely to be delivered. This modification is welcomed, and acknowledges that there is additional demand in the AHMA. Kincluney is located in the AHMA, in an area of high demand.

However, CHAP do not support the failure to identify a western growth corridor, and representations have been made to the PSDP on the grounds that there should be an additional strategic growth corridor along the A93 / Deeside Corridor. A strong case has been put forward for inclusion of the Deeside Corridor as a Strategic Growth Area (SGA). This corridor is a popular place for people to live and work, and yet there are no strategic allocations to support future growth. The future of the A93 corridor is reliant on growth and it should be recognised for its strategic role. The corridor already has an active public transport network, which would be further reinforced if additional development was allocated. If a western corridor is supported in the Strategic Development Plan, Kincluney is in a prime position to deliver a high quality sustainable development within the lifetime of the plan.

If a western strategic growth corridor is not supported in the Strategic Development Plan, Kincluney remains well placed to deliver a sustainable mixed use development in the Aberdeen Housing Market Area.

2.2 Housing Delivery

Housing completions in Aberdeenshire in 2017 were at their lowest level for almost 30 years (according to Aberdeenshire Council's Monitoring Statement 2017-2018). The 2017-2018 Monitoring Statement notes that it is unusual for completions to drop below 1000 units in Aberdeenshire, and notes that this could in part be down to the small number of allocations. CHAP would agree that additional allocations should be made in order to increase housing delivery and meet the housing requirements of the Strategic Development Plan.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

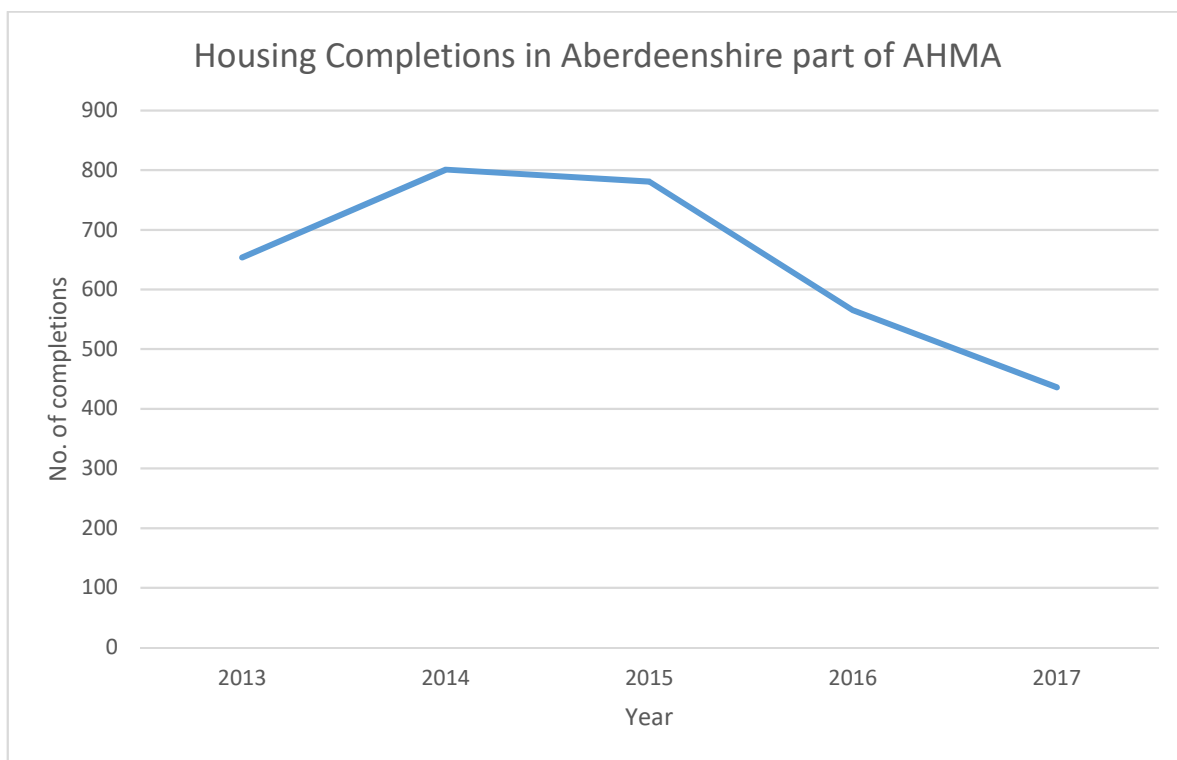


Figure 2: Housing completions in Aberdeen Housing Market Area within Aberdeenshire (data from Housing Land Audit 2018)

CHAP Group have submitted a separate response on housing land supply which goes into more detail on this issue, but broadly, CHAP are of the view that due to the lack of delivery on large sites, the artificial uplift in housing numbers expected through increased site densities and shortfall identified through the 2018 Housing Land Audit (HLA), there is a need for additional housing sites to be allocated in the AHMA part of Aberdeenshire. Kinclunry would deliver a high quality mixed use development in a sustainable location, on an eminently deliverable site which is already in their ownership.

2.3 Local Need

There is significant housing need and demand in the Deeside Area, However, despite this there are the MIR consciously allocates all substantial new housing to the 'Energetica Corridor' (the A90 corridor running north from Aberdeen to Peterhead). Most of the large scale allocations in this corridor have delivered no housing to date. This strategy seems to go directly against housing need, and shows disregard for SPP's requirement to have a focus on delivering development. Only three small additional housing sites have been identified in the Deeside corridor.

According to a review of Housing Land Audits, completions in Drumoak peaked at 36 in 2014, which was when site H1 as allocated in the 2012 LDP was built out. The fact that the site was built in one phase shows the level of demand in this area.

There are 19 completions forecast from 2018 to 2021, which is averages at around 5 completions per year. We do not believe that this is sufficient to meet demand or sustain services in the local area. Kinclunry can



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

provide additional local housing without impacting on Drumoak. Kinluncy promotes a standalone development that will provide its own services and facilities.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

3.0 Settlement Statements - Sites

3.1 Officers Assessment

Site KN064 (Kinclunly) has not been preferred by Officers in the MIR. However, the site assessment includes a number of comments which do not reflect the actual situation, and do not align with the information submitted in the supporting masterplan document and Transport Assessment (both resubmitted with this response). The site is absolutely appropriate for development and can be delivered. The site assessment seems to reflect a clear misunderstanding and should be reconsidered in light of the information below.

Table 1 below briefly summarises the issues raised in the Officers site assessment. The qualities of the site are discussed further in Section 4.

Officer's Comments	Response
<p>"Park Bridge likely to be closed & a link to the A93 will be required."</p>	<p>Access is proposed from the B9077 South Deeside Road. A Transport Assessment prepared by Fairhurst and submitted in support of the bid has shown that vehicular access to the A93 is not required for this development.</p> <p>Pedestrian connectivity to north Deeside Road is promoted, which can be achieved over the existing Park Bridge.</p> <p>Additional public transport provision would be proposed on the B9077 which would be of benefit to communities on the south side of the River Dee.</p> <p>A vehicular link to the A93 is not a requirement to serve the proposed development. In any case, CHAP understand that Park Bridge is scheduled to re-open in the future.</p>
<p>"A93 / A90 junction needs to be upgraded at Milltimber"</p>	<p>The Transport Assessment addresses this issue:</p> <p>"The overall impact of the additional development traffic on the AWPR Milltimber Interchange / A93 NDR Access Road Roundabout would be minor and no improvements are considered necessary to the junction to mitigate the minor impact of the Kinclunly development."</p> <p>The A93/A90 junction does not need upgraded, minor upgrades are required to the B9077/B979 junction as identified in the Transport Assessment. This type of upgrade is not unusual for this scale of development.</p>
<p>"Lack of services within walking distance"</p>	<p>Drumoak has a primary school, Post Office and church but doesn't offer a vast range of services.</p> <p>The proposal includes a village centre which would provide new services (retail, leisure, community). The inspiration for</p>



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

	<p>the village centre is based on successful Deeside villages such as Ballater and Aboyne. It is envisaged that local shops, cafes, services and leisure uses would locate here.</p>
<p>“Insufficient primary and secondary provision”</p>	<p>The education service did not object to a recent planning application on the site. There is in fact local capacity and detailed phasing of the site could need to be considered in relation to education capacity to avoid any potential conflict.</p> <p>Primary provision is currently provided for at Durris Primary School which is forecast to be operating at 60% capacity in 2022, with capacity for 23 pupils.</p> <p>The site is within 1.3miles of Drumoak primary School. Drumoak Primary School is forecast to be operating at 66% capacity in 2022, with capacity for 49 pupils.</p> <p>The site is zoned to Banchory Academy which is forecast to be operating at 92% in 2022, with capacity for 73 pupils.</p> <p>Land will be made available for educational purposes within the site if required by Aberdeenshire Council.</p>
<p>“Insufficient waste water treatment capacity”</p>	<p>Existing waste water treatment facilities are available and will be upgraded as required to accommodate Local Development Plan requirements through Scottish Water Growth Projects Funding and Developer Contributions, as appropriate.</p> <p>Scottish Water did not object to the previous planning application on the site, but did highlight a growth project may be required to serve the development.</p>
<p>“Adjacent to River Dee SAC”</p>	<p>The River Dee, which is an SAC, flows around the northern boundary of the site. The proposed development does not directly adjoin the river. The previously submitted Environmental Impact Assessment demonstrated that there will be no impact on the SAC. Both SNH and SEPA had no objections to the previously submitted planning application on the site.</p> <p>It is also of note that site KN128 which is preferred for development within Drumoak is also located on a tributary to the River Dee SAC, and this does not prevent development of the site.</p>



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

<p>“Adjacent to Dee Valley Special Landscape Area”</p>	<p>The Dee Valley Special Landscape guidance recognises the importance of the River Dee, however, it also recognises that development can come forward within this area, and suggests that development be located on lower slopes or floor of valley, and carefully sited and designed. This proposal is on the valley floor, and a LVIA lodged with the previous planning application found that development of this site has minimal landscape impact. As it stands, the site operates as one of the largest quarries in the area, and most people would be unaware it is there, testament to its low landscape impact.</p> <p>The masterplan document submitted in support of the bid highlights that the proposed development follows the settlement pattern of Deeside (see pages 7-10)</p> <p>Policy E2 ‘Landscape’ does not prevent development occurring within Special Landscape Areas. The policy criteria permits development if qualifying interests are not adversely affected or if the effects of the development are clearly outweighed by social, environmental or economic benefits of at least local importance.</p> <p>There would be very limited impact on Dee Valley Special Landscape Area.</p>
--	--

Table 1: Officers Assessment of Site KN064

None of the reasons identified by Officers are therefore valid. All of these issues were tested during a previous planning application process for a larger site, and no objections were outstanding, except in relation transportation. CHAP believe that the current bid overcomes these transport related issues, and hence there are no technical reasons not to allocate site KN064.

3.2 Strategic Environmental Assessment

The Strategic Environmental Assessment (SEA) of the plan is undertaken by the Planning Authority to address the effects that the plan is likely to have on the environment. The proposed bid sites have been assessed against ten topics to consider their effect on the environment. Table 2 below provides a response to the comments made by Officers in the SEA assessment of site KN064.

Officers Comments by SEA Topic	Response
<p>Air: “existing site is a quarry with associated dust, pollution and transport movements. This will be replaced by mixed use development where</p>	<p>The proposed development is for a sustainable community in which a mix of uses are proposed to reduce the need to travel. Additional public</p>



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

<p>emissions will largely be from private car use and heating. There is an infrequent bus service (twice a day that services the B9077)."</p>	<p>transport provision would be required should the development go ahead. It is therefore suggested that there would be an improvement on air quality in comparison to the sites current use as a quarry and processing plant.</p> <p>Disagree that the effect would be negative (-). Suggest that the proposed development would have at least a neutral effect (0)</p>
<p>Water: "The WWTW requires upgrading. The site includes ponds and abuts the River Dee Special Area of Conservation and buffer strips would be required to mitigate against any effects. If allocated, the development requirements of the opportunity site would include a statement, e.g. "Buffer strips will be required adjacent to all waterbodies, including the River Dee and these will be integrated as positive features of the development. A flood risk assessment may also be required.</p> <p>Some localised impacts on watercourses would occur during the development phase of this site i.e. change in water table, stream flows, site water budgets, silt deposition and water-borne pollution. The impact is likely to be short term."</p>	<p>The WWTW would also need to be upgraded to facilitate development of site KN0128 (the site preferred in Drumoak). The upgrade of a WWTW facility is not uncommon and would not adversely affect the water environment. Scottish Water did not object to the previous planning application on the site.</p> <p>The site boundary is adjacent to the River Dee but a buffer strip is shown on the indicative layout. The development is likely to improve the level of runoff into the River Dee from the existing quarry operation.</p> <p>A flood risk assessment has already been undertaken for this development. As part of a previous planning application, the FRA was accepted by both SEPA and Aberdeenshire Council's Flood Unit.</p> <p>Suggest that the effect would be neutral (0).</p>
<p>Climatic: "The development could have a long-term negative impact due to the potential for increased travel requirements (the need to travel long distances to services) and increased emissions. The B9077 is on a bus route, but it is very infrequent.</p> <p>The development is close to an area at risk of flooding. Given climate change flooding may become more extreme and could the effect the site in the long term – noted this is addressed.</p>	<p>There are significant positives from a potentially improved bus service along the South Deeside corridor (B9077). The site also has good access to the frequent public transport service on the A93 in Drumoak.</p> <p>The site is not at risk of flooding, as confirmed by a Flood Risk Assessment.</p> <p>Disagree that the site would have a negative effect, suggest the effect should be neutral (0)</p>
<p>Soil: "The proposed development could result in remediation of contaminated soil, but quarries are not classed as brownfield land.</p> <ul style="list-style-type: none"> o Any development on land not quarried, the proposed development is likely to have short-term 	<p>The proposed development would result in remediation of potentially contaminated land. This is the case whether or not the site is classified as brownfield.</p>



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

<p>adverse effects on soil through soil erosion, desegregation, compaction and pollution during construction phases.”</p>	<p>Agree that the effect would be neutral (0)</p>
<p>Biodiversity: “The development of a quarry is likely to improve the biodiversity of the site, such as buffer strips next to an area of woodland or water course, and would reduce potential negative effects and provide biodiversity enhancement opportunities.”</p>	<p>The site is likely to have a significant biodiversity enhancement. The masterplan for the development has been shaped by input from an ecologist and includes a positive ecological strategy.</p> <p>Agree that the effect would be positive (+)</p>
<p>Landscape: “Site is within the Dee Valley Special Landscape Area.</p> <ul style="list-style-type: none"> o The landscape experience is likely to change but the restoration of the former quarry and associated planting is likely to have an overall improvement in landscape character by restoring former landscape features. o On the other hand, the introduction of a new settlement along the river valley will affect the landscape character unless the site is contained and screen by existing and new tree belts. There are few settlements on the southern side of the River Dee. Development adjacent to the B9077 would be visible and have a negative landscape impact. As such, it should be contained within the existing tree belt.” 	<p>The site is within the Dee Valley Special Landscape Area. The Council’s ‘Special Landscape Area’ Supplementary Guidance outlines that:</p> <p><i>“Elsewhere [outwith towns and villages], development should be located on lower slopes or floor of the valley and carefully sited, designed and landscaped to integrate within the wider valley landscape.”</i></p> <p>The site is located on the lower slopes /valley floor and has been informed by a LVIA. The site has minimal landscape impact, but any impact will be mitigated with additional woodland planting. The area is characterised by a strong woodland framework and the development would be enclosed by perimeter woodland, the existing woodland would be enhanced with additional planting.</p> <p>As it stands, the site operates as one of the largest quarries in the area, and most people would be unaware it is there.</p> <p>Disagree that the effect would be negative. Suggest that the effect would be neutral (0)</p>
<p>Material Assets: “There are a number of infrastructure constraints associated with the site, namely road access and education provision and waste water however with the possible exception of road access to Drumoak the proposal could deliver new community facilities in line with the scale of the bid. Park Bridge could be closed to vehicular traffic and upgrades along the A93 would be required.</p> <ul style="list-style-type: none"> o Consultation with relevant infrastructure providers will be required to identify mitigation measures, and if allocated, the settlement 	<p>The WWTW will require to be upgraded in any case to deliver development in Drumoak. A mix of uses including a building for community use, and a site for a primary school would be made available if required.</p> <p>Park Bridge is currently closed to vehicular traffic, but remains open to pedestrians and cyclists. There could be an opportunity for development to contribute towards the reinstatement of Park Bridge.</p>



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

<p>statement will specify how to mitigate against these effects. “</p>	<p>New roundabouts are proposed on the A93 which would reduce speeds on this section of the road.</p> <p>Given the potential for new / improved, it is suggested that the effect would be slightly positive (0/+)</p>
<p>Population: “The development would allow for a mix of house types and integration of the people where they meet and work and provide additional community facilities.”</p>	<p>The wide mix of house types would cater for a range of people, and the mix of uses provides opportunities for employment.</p> <p>In addition, a social enterprise body – the Kincluny Development Trust would comprise home owners, developers, the local authority and businesses and would provide a sustainable management and maintenance structure.</p> <p>Agree that the effect would be positive (+)</p>
<p>Human Health: “New recreational opportunities and improvement to access in the local area.”</p>	<p>The site would provide additional open space and enhance core paths. The site would deliver affordable housing.</p> <p>Agree that the effect would be positive (+)</p>
<p>Cultural: “Unlikely to have any effects on the historic environment, but assessments would be required where they have not been undertaken as part of the quarry development. Keith’s Tower</p>	<p>The impact on adjacent listed buildings would be considered in more detail at detailed design stage.</p> <p>Agree that the effect would be neutral (0).</p>

Table 2: SEA Assessment of Site KN064

3.3 SEA Summary

The draft SEA is overly negative. It is agreed that the site offers potential improvement in landscape, biodiversity, material assets and population. We disagree that the site would impact on the Dee Valley Special Landscape Area. Additional use of the private car may be likely, but this the case for every allocated development site. We would argue that as a largely rural authority, car-based travel cannot be avoided across most of Aberdeenshire and as cars become cleaner in terms of emissions this issue may need reviewed. However, this development offers the opportunity to provide additional public transport for the whole of the south Deeside corridor, as well as access to a frequent bus service on the A93. Upgrades to waste water infrastructure is not uncommon and would be required for any additional development in Drumoak in any case.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

	Air	Water	Climate	Soil	Biodiversity	Landscape	Material Assets	Population	Human Health	Cultural Heritage
Officer's assessment	-	?	-	0	+	-	?	+	+	0
	Site has an overall mixed impact. Redeveloping a quarry offers potential improvement in landscape and biodiversity, and in terms of material assets and human population. However, the proposal is not particularly well related to Drumoak, would impact on the Dee Valley Special Landscape Area, and is likely to exacerbate the need to use the private car. Waste water and transport upgrades are likely to be required.									
Proposed Assessment	0	0	0	0	0	0	0/+	+	+	0
	The site has a slightly positive impact. The site would be a sustainable settlement in its own right, contributing new community infrastructure and improvements to roads and public transport. The development would have minimal impact on the landscape.									

Table 3: Summary of SEA



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

4.0 Review of Site Assessment and Site Analysis

4.1 Infrastructure

Access to the Site

Fairhurst have undertaken a Transport Assessment in support of this bid site. Their findings show that vehicular access to the north of the River Dee onto the A93 is not a requirement for this proposal. The site would be accessed from the B9077 (South Deeside Road), with a reduced speed limit along the development frontage and two new roundabout junctions proposed. This section of the road has a poor accident record and any improvement to this section of the road would have a secondary road safety benefit. The roundabouts would help enforce the reduced speed limit. Improved public transport would be enabled along this route on a phased basis should the development go ahead. This would offer substantial public benefit to the area. Bus operators have in the past expressed a preference to run a bus route along South Deeside Road (B9077), as travel time to the city would be quicker than travelling the North Deeside Road (A93).

The site is well placed for access to the Deeside Way core path and National Cycle Network (route 165) (see figure 3 below). This is a popular walking and cycling recreational route, but also offers a car free route directly into Aberdeen City. The route offers a viable alternative to the car, as the distance to Aberdeen city centre is around 9 miles.

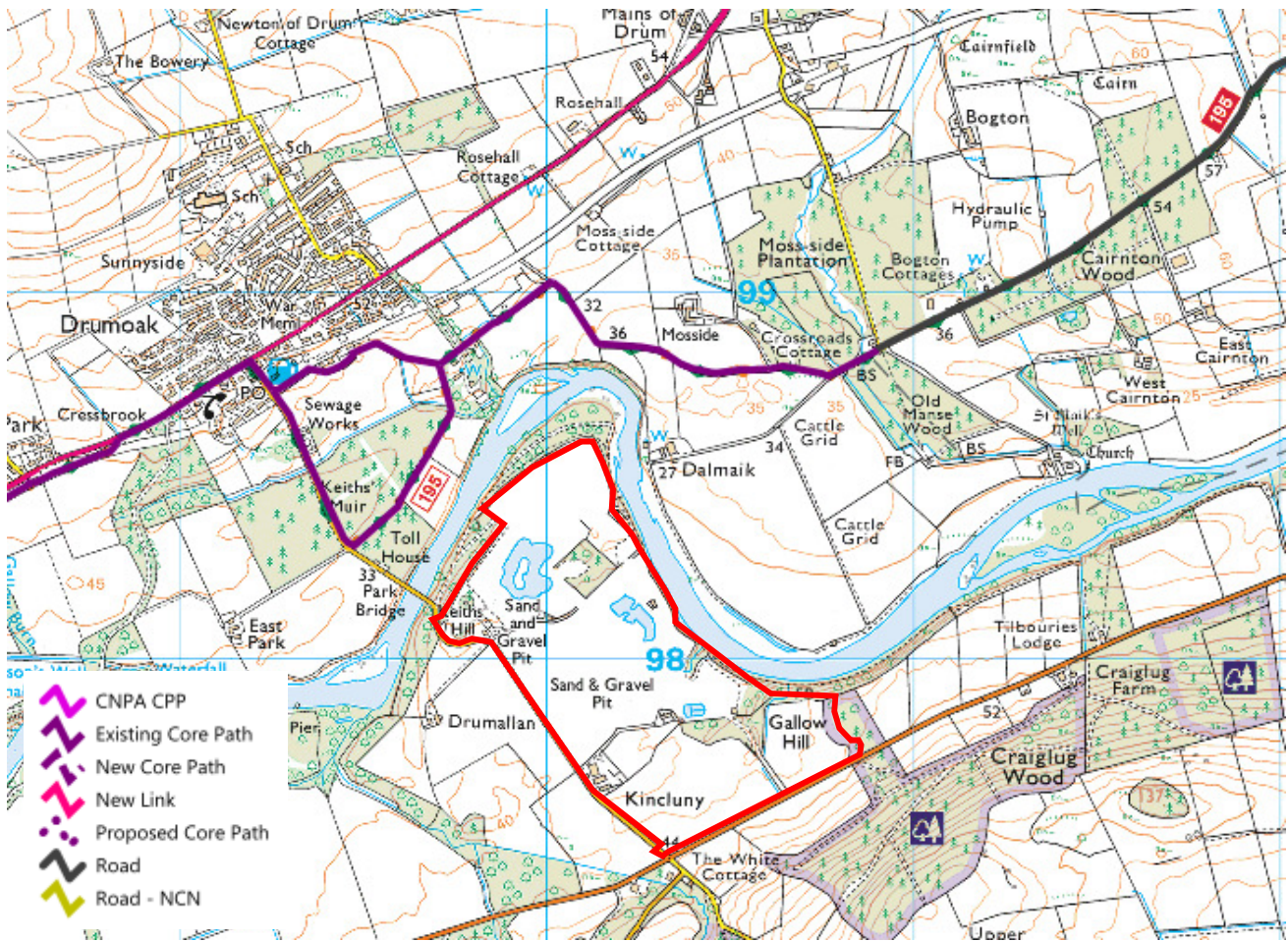


Figure 3: Extract from Aberdeenshire Council Core Path Plan (site location shown by red line)

Park Bridge

Park Bridge is an A listed structure which is currently closed to vehicular traffic due to concerns about the structural stability of the bridge. Park Bridge however is open to pedestrians, providing pedestrian connectivity into Drumoak, and public transport services on the A93 (North Deeside Road).

The development of this site could enable options to upgrade or strengthen the existing bridge enabling it to re-open to traffic. Existing users of the bridge are currently facing a 7.5 mile detour so re-opening of the bridge is of substantial benefit, not only in terms of convenience but also in reducing emissions through increased travel.

Solutions including traffic light control, have been previously suggested through the planning application process and these remain a valid option. Fairhurst have also assessed the impact on the following junctions under the scenario of 'no Park Bridge':



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

- The B9077 / B979 junction can operate within capacity with the development
- The A93/B979 junction requires some limited mitigation (as it would if the bridge was open to traffic). Theoretical mitigation would be increasing the length of turn flares on approach roads. This is considered achievable.
- The AWPR Milltimber interchange / A93 NDR Access Road Roundabout would in the main operate within capacity. There would be a minor impact at morning peak times which it is suggested would be considered as 'daily fluctuation' and mitigation is not considered necessary.

Please refer to pages 55-59 of the supporting Transport Assessment for more detail in relation to these junctions. In essence, the proposed development would not need Park Bridge to open to traffic but could help facilitate that if it was considered a priority. The development would not require any significant junction upgrades off site.

A93/A90 Junction

The impact on this junction has been assessed in two scenarios, with Park Bridge open to traffic, and with Park Bridge closed to traffic. Fairhurst have concluded that the impact of the development on this junction would be minor, and no improvements are considered necessary. Please refer to pages 52, 58 and 59 of the supporting Transport Assessment.

Contaminated Land

As an existing quarry and a site with a Pollution Prevention and Control (PPC) licence for disposal of inert waste, there is potential for localised contamination on the site. The proposed development would enable remediation of these historical contaminants. A full Environmental Summary and a comprehensive Desk Study have been prepared and discussion is ongoing with the Council's Environmental Health Department. This is a technical issue, to be dealt with regardless of the end use but the key point is that the redevelopment of the site would enable remediation of this sizeable site adjacent to the River Dee. This will have a positive impact on the River Dee SAC.

Flood Risk

A Flood Risk Assessment has been undertaken by Fairhurst which demonstrates that none of the proposed site is at risk of flooding. The developable part of the site is well above potential flood levels and is not at risk of fluvial flooding. SEPA and the Council's Flood Prevention Unit did not object to a previous application on the site and were content with this issue.

In relation to surface water drainage, the proposed development would incorporate SUDS for all surface water meaning that no untreated water would run off the site. This would be an improvement on the current situation.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

Waste Water Treatment

The scale of development proposed is likely to require implementation of a strategic growth project to upgrade Drumoak Waste Water Treatment works (WWTW) which would be enabled by the development. However, it is suggested in the site assessment for site KN128 in Drumoak that an upgrade to Drumoak WWTW would be required to serve that development of 49 houses so the WWTW will need upgraded in any case. WWTW is a simple technical issue that requires a technical solution. It is not a justification for ruling this site out. In any case, Scottish Water did not object to a previous planning application on the site for a significantly larger development.

4.2 Education

The site is currently zoned to Durriss Primary School, which is operating with capacity for 23 pupils (at 2022). The initial phases of the development could therefore be accommodated within Durriss Primary School. Beyond this, a review would need to be undertaken assess capacity in the area. One option could be to provide a new school at Kincluny for which land would be made available, and development at Kincluny would be required to make contributions towards education provision. Any new school could involve replacing Durriss Primary School, but there would be efficiency savings for Aberdeenshire Council in operating a larger, modern school.

Banchory Academy has limited capacity, but contributions could be made towards an extension of this school.

It is of note that Aberdeenshire Council's Education Service did not object to a previous planning application on the site and advised that there would be an education solution for the site.

4.3 Services

As a new community of 600 houses, a village centre is proposed which would include retail, leisure and community facilities. The inspiration for the village centre is based on successful Deeside villages such as Ballater and Aboyne. It is envisaged that local shops, cafes, services and leisure uses would locate here. There is an existing farm steading on the site which is proposed for a farm shop and café which would support local business, and enable re-use of traditional buildings on site. The proposed business park would also help to sustain more services in the area. The development would therefore offer additional services for the benefit of the whole area.

Kincluny Development Trust

CHAP have been working to develop The Kincluny Development Trust, which is a social enterprise that would be at the heart of the new community. The Kincluny Development Trust would comprise home owners, developers, the local authority and businesses and would provide a sustainable management and maintenance structure. Its aim would be to promote sustainable development, for the benefit of local people. Groups and business. CHAP commissioned Aberdeen Foyer to examine the roll of the trust in more detail, and a separate report on the Trust is appended to this submission.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

4.4 Ecology

Ecological Assessment

A full Ecological Impact Assessment was carried out by Northern Ecological Services in November 2015 in support of a previous planning application on the site. This assessment included a full site survey, habitat survey, bird surveyed, mammal surveys, and a bat survey, all agreed with SNH.

This assessment found that much of the proposed development site is of low ecological diversity and little ecological interest. The assessment concluded that “no significant impacts upon the River Dee SAC are therefore envisaged as a result of this development.” It is noted that careful master-planning has retained the areas of greatest diversity, and additional tree planting will be required in support of any development on the site, along with new habitat creation. The redevelopment of the site would therefore offer potential for net gains in biodiversity.

River Dee SAC

The development of this site is unlikely to have an impact on the River Dee SAC. The proposed development would retain key riparian habitats, in particularly the woodland along the river, and no new outfalls to the Dee are proposed. Neither SEPA nor SNH objected to a proposed development of 1500 units on the site during a previous planning application (reference APP/2015/3696) during which they had full information on ecology, species and habitats.

4.5 Landscape

Special Landscape Area

The site is located within the Dee Valley Special Landscape Area (see figure 4 below). Aberdeenshire Council have produced Supplementary Guidance on Special Landscape Areas, which relates to policy E2 “Landscape”. Special Landscape Areas are a local landscape designation placed on an area that exhibits particular qualities that make them valued. The SG document includes a ‘statement of importance’ for each landscape area.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

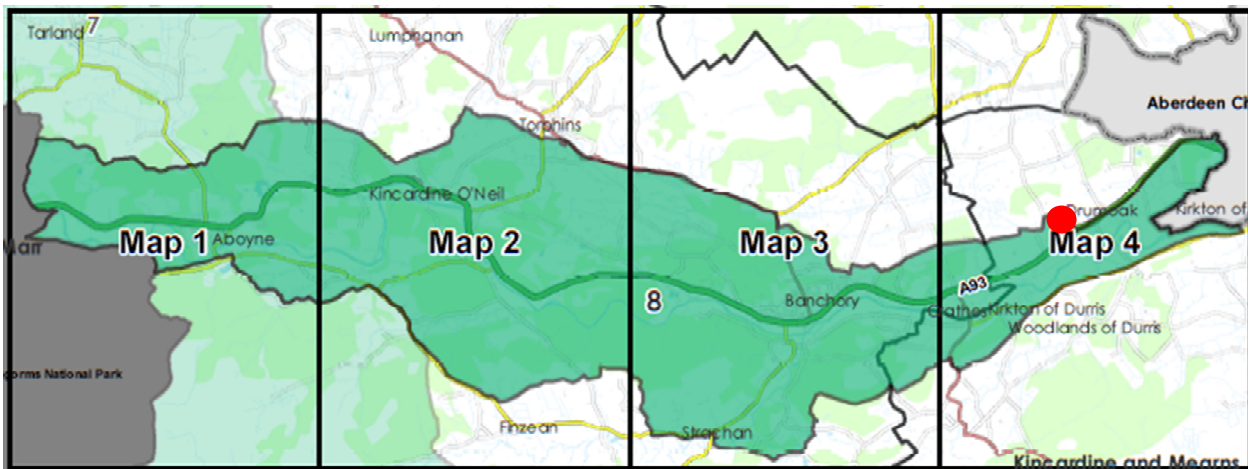


Figure 4: Deeside Special Landscape Area (site location shown by red dot)

The statement of importance for the Dee Valley recognises the Dee Valley has a strong identity with scenic qualities which are a combination of the river with its wooded valley sides rising to moorland hills. The built heritage in the area is recognised as a feature of the landscape. In relation to management recommendations, the guidance suggests that:

“emphasis should be on maintaining the current patterns of land use and settlement, with development focused within existing towns and villages. Elsewhere, development should be located on lower slopes or floor of the valley and carefully sited, designed and landscaped to integrate within the wider valley landscape.”

This designation does not prevent development coming forward, but should guide development to the best locations. A development sited on the valley floor, which has minimal visual impact fits with the recommendations for the Dee Valley. Development in Drumoak, which is extending up the valley sides has more visual impact. It is also noted that the preferred development in Drumoak (site KN128) is also sited within the Dee Valley Landscape Area, and the assessment within the MIR notes that the development will need to be carefully designed.

Landscape Impact

This proposed development is located on the valley floor, and follows the historic development pattern along Deeside (see figure 5) below. A full characterisation study was carried out in the supporting masterplan document, and is available on pages 7-12 of the masterplan document. The settlement is located within a bend in the river, continuing a trend of other settlements such as Braemar, Ballater, Aboyne, Kincardine O’Neil and Banchoy. These settlements are characterised by their proximity to the river, and are usually located at historic river crossings.



Figure 5: Extract from masterplan document 'character study' (pages 7-8)

A Landscape Visual Impact Assessment (LVIA) was undertaken by Ian White Associates in 2015 in support of a planning application for a larger development on this site. This assessment found that the extensive woodland in the lower Deeside Valley makes the sensitivity of the landscape moderate since **“it has the ability to absorb change and development with little adverse impact”**. The assessment recommended that to mitigate any impact, woodland should be retained where possible, and woodland planting extended to the southern edges of the site. Should this site be allocated, woodland planting would be carefully incorporated to enhance policy woodlands reflective of the Dee landscape.

The LVIA demonstrates an acceptable landscape impact. The case in point here is that a quarry is currently operating from the site with very limited visibility and impact.

4.6 Need for the Development

The site is located within the Deeside corridor, running west from Aberdeen City towards Banchory. The corridor is an extremely popular and desirable area to live, which has historically resulted in higher house prices in the area. CHAP have made submissions to the Aberdeen City and Shire Proposed Strategic Development Plan requesting that the Deeside Corridor (A93) is identified as a Strategic Growth Area to reflect the strategic nature of the corridor. However, regardless of the outcome of this process, the fact remains that the site is located in a marketable area, in which there is pent up demand for housing. The demand in the surrounding area is evident. Allocations in nearby Drumoak and Crathes from the 2012 LDP and have been fully built out. The fact that this site is about to cease operation as a quarry, is already in the ownership of a quality local housebuilder, and is located in a highly marketable area are three circumstances which cumulatively add to its qualities in making it an optimal location for allocating development.

There has also historically been insufficient affordable housing built in the area to meet the demand. Banchory is identified as a high priority for affordable housing, along with Stonehaven, Portlethen and Westhill, so the four largest towns closest to Kincluney are identified as having housing need (i.e. long waiting lists, low housing stock). The Housing Need and Demand Assessment 2017 (HNDA) considers affordability of



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

housing in the region. The HNDA makes an assumption that a house is affordable if it is no more than four times the annual income. Figure 6 below shows the lower quartile prices across datazones in Aberdeenshire, and also indicates that site KN064 which is located in lower Deeside is within the highest price bracket £400,000+, and therefore presently the least affordable.

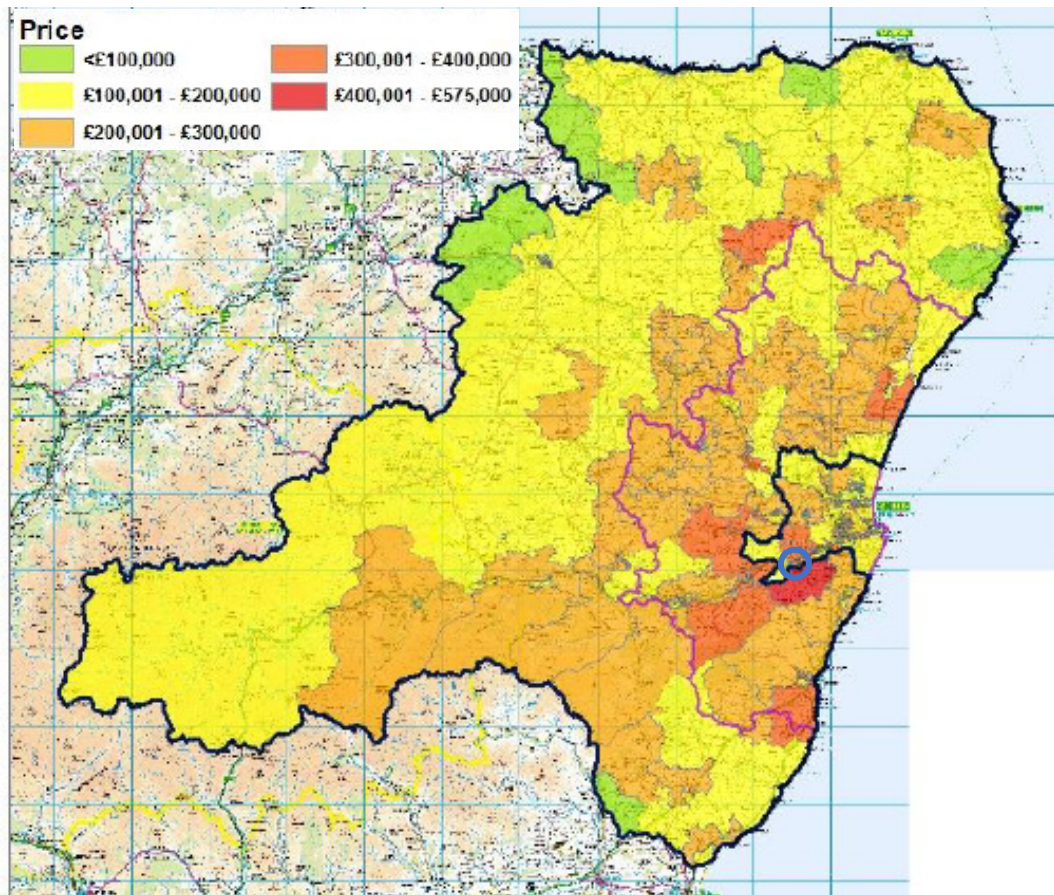


Figure 6: Lower quartile house price 2014 in Aberdeenshire (site location indicated by blue circle
Source: https://www.aberdeenshire.gov.uk/media/22984/aberdeen_city_and_shire_hnda_2017.pdf

CHAP are in the unique position where they already own this site and can commit fully to delivering a mix of affordable homes early in the development increasing the mix and density of housing in the area. CHAP are committed to meeting the housing needs of those in local communities.

Self and Custom Build

In addition to delivering 25% of the site for affordable housing, CHAP are keen to promote custom and self build plots within the site. Custom and self-build plots are being promoted by the Scottish Government as way of diversifying the way in which new homes are delivered. It is an additional form of affordable housing and is a priority of the Scottish Government. The Scottish Government have a self-build loan fund that can be accessed by residents who want to pursue this avenue of home ownership.



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

4.7 Deliverability

As a single ownership site, Kincluny Village would not encounter any difficulties associated with multiple ownership, such as delay due to financial or legal constraints. The site is in the ownership of CHAP, a housebuilder, who would be developing the site. This ensures that the housing need in the area can be met in a shorter period of time than a traditional mixed use site of this scale.

It is noted that this form of development model is one which is supported by Officers. The Officers assessment for the proposed development at Chapelton (site KN055) states that *“the development model promoted on this site (with Housebuilders receiving very little of the uplift in value from the allocation of the land which has been retained by the landowner) is very different from the property speculation undertaken by other housing developers in the area”*.

CHAP note that this development model and the potential benefits in delivery it creates is supported by Officers, and suggest that KN064 which is essentially in a similar ownership situation, should also be allocated for development. Site KN064 would deliver 25% affordable housing (plus custom and self build), in addition to a range and mix of house types and sizes to cater for varying needs. This is better than the model at Chapelton where the site hasn't been able to contribute 25% affordable housing.

In addition to the above, the Deeside corridor is recognised as being one of the most attractive areas to live in the north east, and indeed in Scotland, and this demand for new housing in the area will continue to grow. In particular, the demand for affordable housing is extremely high, with the area being identified as the most unaffordable in the local authority area (see above). Kincluny is extremely well placed to deliver a high quality mixed use village to meet housing demand, provide employment and small scale retail. The site would deliver a range and mix of house types would ensure that high quality homes are delivered across a wide range of tenures to meet demand.

The delivery of housing on this site will also help to meet the shortfall in homes which are not being delivered in Aberdeenshire.

The site is eminently deliverable, CHAP Group have all the information required to support the submission of a planning application:

- Landscape and Visual Impact Assessment
- Environmental Summary
- Ecological Impact Assessment
- Flood Risk Assessment
- Drainage Assessment
- Transport Assessment
- Masterplan
- Planning Statement
- Air Quality Assessment
- Sustainability statement

If site KN064 was allocated, a planning application could be lodged immediately. All of this supporting information has been examined via a past planning application on the site and consultations have considered



HALLIDAY FRASER MUNRO

CHARTERED ARCHITECTS & PLANNING CONSULTANTS

it acceptable. The Transport Assessment shows that no bridge is required to serve this proposed development.

5.0 Conclusion

This radically reduced scale LDP bid offers the opportunity for a new exceptional Deeside village reflecting historical development patterns along the river valley. Its predecessors include much loved and popular villages such as Ballater. The bid is supported by the inclusion of the Kincluny Trust, new traffic safety measures on the South Deeside Road, generous open space provision and the inclusion of affordable and self-build housing. Previous consultation has demonstrated that this is an area where people want to live and one that can provide an outstanding quality of life. The approach CHAP have taken to develop this proposal, in particular the master-planning approach and commitment to achieving and delivering sustainable development has been praised on numerous occasions in the past by planning officials, Councillor's and a Reporter in a previous LDP Examination.

A new Deeside Village at a bend in the River Dee is a development pattern native to this part of Aberdeenshire and one that will improve the overall housing affordability and accessibility in an area where affordability has historically been an issue.

The site has minimal visual and landscape impact, and is in a location where there is capacity to accommodate development. Being within a Special Landscape Area does not preclude development, and design would be important for ensuring the development fits within the landscape.

This submission has demonstrated that there are no technical constraints to the development of the site, and CHAP have commissioned a range of supporting information meaning the site is ready to progress should it be allocated.

If the site is allocated, it would provide the opportunity for a truly mixed use sustainable village to be build on Deeside, ensuring that the area would continue to grow and thrive. A high quality development would be delivered by CHAP, who have a track record of delivering high quality developments. CHAP are committed to providing a legacy through the development of Kincluny village.