McCutcheon Halley
CHARTERED PLANNING CONSULTANTS

An Coimisiún Pleanála
64 Marlborough Street
Dublin 1

14 August 2026

Re: ACP Ref. 324278 – Response to Observations on Section 37L Application at Ardcahan, Dunmanway, Co. Cork

A Chara,

On behalf of the Applicant, Murray Brothers Tarmacadam Ltd., this letter responds to the observation received by An Coimisiún Pleanála in relation to the Section 37L application for proposed quarrying at Ardcahan, Dunmanway, Co. Cork.

The Section 37L application was submitted to An Coimisiún Pleanála on 6 May 2026. One observation was received from Alice and Patrick Hayes. In addition, Cork County Council submitted a report with their review of the application. A response to the Council's report is provided separately.

Response to Submission by Alice and Patrick Hayes

Introduction

The Applicant has carefully reviewed the submission lodged by Alice Hayes and Patrick Hayes. While the submission raises a number of detailed matters concerning the historical operation of the quarry, the ongoing substitute consent process and the associated Section 37L application, it is respectfully submitted that the observations do not identify any deficiency in the current application which would warrant refusal. The 37L application is accompanied by a comprehensive EIAR, Natura Impact Statement (NIS), technical reports and supporting documentation prepared by appropriately qualified specialists and assessed against the requirements of the Planning and Development Act, the EIA Directive and the Habitats Directive.

The Applicant notes that many of the issues raised relate to historical planning and enforcement matters that form part of the background context to the application and which are not determinative of the assessment now before An Coimisiún Pleanála under the substitute consent and Section 37L processes. The purpose of the current application is to provide the requisite environmental assessments and remediation measures to enable the competent authority to undertake a full EIA and Appropriate Assessment of the development.

Alleged Project Splitting

The submission contends that the substitute consent application and the associated Section 37L application constitute unlawful project splitting. This characterisation is not accepted.

The two applications have been prepared within a coordinated framework specifically established under the Planning and Development Act to address both the regularisation of historical development and the future operation of the quarry. The applications are transparently linked, mutually referenced and

accompanied by environmental assessments which clearly describe the relationship between the historic quarry operations, existing ancillary facilities and the proposed future extraction activities.

The EIAR and Planning Statement expressly identify the overlap between the applications and the extent of the overall landholding. The 37L application relates to future extraction activities and associated ancillary infrastructure within a defined application area of approximately 10.4 hectares, while the substitute consent application addresses historical quarry development and associated remediation requirements.

Rather than attempting to divide a single project to avoid assessment, the Applicant has undertaken comprehensive environmental assessment of the future development proposal through the EIAR and NIS and has openly acknowledged the interaction between the various components of the quarry operation. The relevant environmental receptors, impact pathways and mitigation measures have been assessed in a holistic manner to allow the competent authority to fully evaluate environmental effects.

Accordingly, it is submitted that the applications represent a transparent and comprehensive approach consistent with the statutory framework and do not constitute project splitting in either planning or environmental assessment terms.

The observers also contend that the quarry and macadam plant should be considered together and raise concerns regarding project-splitting. The Applicant does not accept that the application boundary has been artificially drawn or that the application constitutes project-splitting. This S37L application relates to proposed future quarrying, which is clearly identified within the red line boundary associated with the application. The fact that the macadam plant is located within the wider landholding and shares certain infrastructure does not mean that the permitted, and existing, macadam plant must itself form part of the S37L application. Its potential environmental interactions have nevertheless been considered through the cumulative assessment undertaken in the EIAR and NIS.

In-Combination Assessment

The submission argues that the NIS fails to adequately assess in-combination effects between the substitute consent application and the Section 37L proposal.

This assertion is not accepted.

The NIS includes specific assessment of cumulative and in-combination effects in accordance with Article 6(3) of the Habitats Directive and relevant European and national guidance. Potential impact pathways including water quality, sediment release, hydrocarbon contamination, dust generation and operational activities have been evaluated both alone and in combination with other plans and projects.

Importantly, the principal environmental concern identified in the NIS relates to potential downstream impacts on the Bandon River SAC through hydrological pathways. The NIS recognises the hydrological connection between the quarry and the SAC and incorporates extensive avoidance, design and mitigation measures specifically developed to prevent adverse effects on European site interests. These include attenuation ponds, controlled discharge infrastructure, settlement systems, interceptors, monitoring requirements and operational controls.

The NIS concludes that, following implementation of these measures, the proposed development will not adversely affect the integrity of the Bandon River SAC either alone or in combination with other plans or projects. The Planning Statement reiterates this conclusion and confirms the Applicant's willingness to accept conditions requiring implementation of the mitigation measures and monitoring regime identified by the environmental assessments.

The fact that both applications form part of a broader site context is not ignored within the assessment. Rather, the environmental documentation has been prepared specifically to enable the competent authority to evaluate all relevant environmental interactions and cumulative effects.

The EIAR also expressly assesses in-combination/cumulative impacts associated with the macadam plant and the proposed quarrying, including potential effects from runoff, wastewater and operational activities, and concludes that no significant cumulative environmental effects were identified.

Appropriate Assessment and Natura Impact Assessment

The submission contends that the NIS is legally deficient and that adverse effects on the integrity of the Bandon River SAC cannot be ruled out. The Applicant does not accept this conclusion.

The NIS identifies the hydrological connection between the site and the Bandon River SAC and, on a precautionary basis, screens the SAC into Stage 2 Appropriate Assessment. The qualifying interests of the SAC, including Freshwater Pearl Mussel, Brook Lamprey, watercourses and alluvial woodland habitats, are assessed in detail. The NIS explicitly recognises potential impact pathways associated with water quality, sedimentation, pollutants and dust and incorporates avoidance, design and mitigation measures specifically developed to address those pathways.

The NIS concludes that, following implementation of the proposed mitigation measures, the development will not adversely affect the integrity of any European site, either alone or in combination with other plans or projects. The Planning Statement reiterates that conclusion and confirms that the Applicant is willing to accept planning conditions requiring implementation of all mitigation and monitoring measures identified in the NIS.

The submission suggests that potential impacts on Freshwater Pearl Mussel cannot be excluded. However, the NIS and EIAR assess the hydrological pathway in detail and provide a comprehensive water management regime including attenuation infrastructure, controlled discharge arrangements, monitoring requirements, sediment controls, hydrocarbon controls and ongoing ecological monitoring designed specifically to protect the receiving water environment and downstream ecological receptors.

Accordingly, there is no basis for concluding that the NIS is deficient or that the competent authority is precluded from reaching a lawful conclusion under Article 6(3) of the Habitats Directive.

Water Quality and Hydrology

A significant focus of the submission concerns water quality, sediment transport and historic conditions within the catchment.

The Applicant notes that these matters are the subject of detailed specialist assessment within both the EIAR and NIS. The proposed development incorporates a purpose-designed surface water management system, including attenuation ponds, interceptors, controlled discharge infrastructure, water quality monitoring and ongoing environmental management procedures. The EIAR confirms that water management measures have been developed having regard to the proximity of the Bandon River SAC and that comprehensive monitoring will be undertaken throughout the life of the development.

The assessments conclude that, subject to implementation of the proposed mitigation measures, significant adverse effects on surface water quality will not arise and impacts on downstream ecological receptors can be avoided.

It is worth noting that Cork County Council's review of the application did not identify any significant impacts on the local surface or groundwater attributes.

Peregrine Falcon and Biodiversity

The submission raises concerns regarding Peregrine Falcon and Kestrel breeding activity within the quarry.

The Applicant acknowledges the ecological value of the quarry faces for breeding birds and notes that this matter has informed the design of the proposed development and mitigation strategy. The Planning Statement confirms the inclusion of a 50 m buffer to known Peregrine nesting locations, annual breeding season surveys, implementation of avoidance measures during sensitive periods, provision for artificial nesting ledges where required and ongoing monitoring.

The EIAR biodiversity assessment identifies relevant ecological receptors and assesses potential effects arising from quarry operations and restoration activities. Extensive mitigation and monitoring measures are proposed to ensure protection of species and habitats throughout the operational life of the development.

Accordingly, biodiversity considerations have been comprehensively assessed and addressed through the design and mitigation measures proposed.

Freshwater Pearl Mussel (FWPM)

The submission raises concerns regarding Freshwater Pearl Mussel populations within the Bandon River SAC and references survey information presented within the EIAR documentation.

The Applicant fully recognises the sensitivity and conservation importance of Freshwater Pearl Mussel and notes that this receptor was one of the key considerations informing both the EIAR and NIS. The NIS specifically identifies the hydrological connection between the site and the Bandon River SAC and consequently screens the SAC into Stage 2 Appropriate Assessment. Freshwater Pearl Mussel is identified as a qualifying interest requiring detailed assessment.

The NIS acknowledges that, in the absence of mitigation, deterioration in water quality could represent a potential pathway for effects on downstream designated species. For that reason, substantial emphasis has been placed on avoidance and prevention measures. These include:

- Controlled site drainage and attenuation infrastructure;
- Interceptor systems and settlement facilities;
- Prevention of sediment-laden runoff entering receiving waters;
- Hydrocarbon containment measures;
- Surface water quality monitoring;
- Groundwater monitoring;
- Biological and ecological monitoring during operation; and
- Environmental management procedures governing site operations.

The NIS concludes that with implementation of these measures there will be no adverse effect on the integrity of the Bandon River SAC, including the conservation objectives for Freshwater Pearl Mussel.

The observer also refers to historical findings concerning mussel populations in the wider catchment, however as outlined in the rNIS submitted with the concurrent Substitute Consent application, it is forestry, agriculture, peat cutting, construction and other diffuse sources that are the primary established contributors to water quality pressure within the catchment of the Bandon River SAC. It is submitted that the proposed development, as assessed and mitigated through the NIS and EIAR, can proceed without adversely affecting the integrity of the SAC.

Annex I Habitat

The rEIAR, submitted with the Substitute Consent application, identifies the historic habitat losses associated with quarrying activity and proposes a comprehensive suite of remedial measures, including retention and protection of remaining woodland and heath habitats, wetland and pond enhancement, invasive species control, ecological monitoring, habitat restoration and natural succession measures.

It should be noted that initial extraction activities that took place at the Site pre-1963, prior to the substitute consent period of 1990 and 2014. The vegetation clearance works that resulted in a loss of habitat pre-1990 are not subject to assessment within the substitute consent application.

It should be noted that the purpose of the Substitute Consent application is to assess and regularise development already undertaken and to determine whether appropriate remedial measures are proposed, rather than to secure offsetting for all historic habitat changes on a hectare-for-hectare basis.

A Remediation Plan was submitted with the Substitute Consent application, and a Regeneration Plan was submitted with the S37L application. Combined, these two plans provide detailed proposals for the existing and future ecology on site.

Alleged Inconsistencies in the EIAR and Planning Documentation

The submission identifies various alleged discrepancies relating to historic extraction figures, ownership dates, catchment areas, application areas and document references.

The Applicant submits that none of the matters identified undermine the integrity of the environmental assessment or prevent a full understanding of the proposed development. The EIAR, NIS and Planning Statement provide a clear description of the proposed development, the environmental baseline, the relevant impact pathways and the mitigation measures proposed.

To the extent that typographical errors, rounding differences or variations in how historic data are described may exist within a suite of documents prepared by multiple technical specialists, such matters do not affect the substantive conclusions of the environmental assessments or the ability of the competent authority to undertake EIA and Appropriate Assessment.

Traffic Modelling Appendix

The submission states that Appendix 12.1 (Traffic Modelling Report) was referenced in the EIAR contents but was allegedly absent from the public file and therefore claims that the EIAR is incomplete.

The Applicant notes this concern; however, the Traffic Modelling Report was submitted to the planning authority and the applicant is not responsible for the management of the information made available on the public file, but for completeness, the Traffic Modelling Report is appended to this response letter.

The EIAR contained a dedicated Traffic and Transportation assessment prepared by specialist consultants which evaluates the anticipated traffic impacts associated with the proposed quarry operations, haulage activity and access arrangements. The environmental effects of traffic are separately considered within the EIAR, including assessment of interactions with air quality, climate and other environmental disciplines.

Furthermore, the proposed development is forecast to produce approximately 175,000 to 200,000 tonnes of aggregate annually, with an anticipated maximum output of 225,000 tonnes per annum, and the transportation effects of those operations have been assessed within the environmental documentation accompanying the application.

Despite the alleged inadequacies of the traffic assessment in the EIAR, the observation does not identify any deficiency within the traffic and transportation assessment itself, nor does it demonstrate that An Coimisiún Pleanála lacks sufficient information to undertake EIA.

Planning Policy and Need for Development

The submission by Alice and Patrick Hayes places limited weight on the planning merits of the proposal. However, the Planning Statement demonstrates that the proposal is consistent with national, regional and local planning policy concerning extractive industries and the provision of construction materials. The Planning Statement highlights the strategic importance of aggregate supply for housing and infrastructure delivery, the existence of established quarry infrastructure on the site, and the environmental advantages of resuming quarrying at an existing disturbed location rather than establishing a new greenfield quarry.

The development will utilise an established aggregate and high quality resource, support construction and infrastructure delivery within Cork and the wider region, and will be accompanied by a comprehensive restoration and regeneration strategy that includes native woodland planting and wetland habitat creation.

Conclusion

The Applicant respectfully submits that the issues raised by Alice Hayes and Patrick Hayes have either been comprehensively addressed within the EIAR, NIS and Planning Statement or relate primarily to historical matters already known to and considered by the competent authority.

The environmental assessments accompanying the application are robust, comprehensive and prepared by suitably qualified experts. They demonstrate that the proposed development can proceed without significant adverse environmental effects and without adverse effects on the integrity of any European site, subject to the implementation of the proposed mitigation and monitoring measures. Accordingly, the observations do not provide any basis or justification for refusal of the application.

The common theme underpinning these objections is an assertion that the environmental assessment is either incomplete or incapable of supporting a lawful EIA and Appropriate Assessment. The Applicant respectfully disagrees. The EIAR and NIS identify all relevant environmental receptors, acknowledge the sensitivity of the Bandon River SAC and associated qualifying interests, assess the potential impact pathways in detail and provide a comprehensive package of design, mitigation, monitoring and management measures. The environmental documentation therefore provides a robust basis upon which An Coimisiún Pleanála can undertake both Environmental Impact Assessment and Appropriate Assessment in accordance with the requirements of the Planning and Development Act, the EIA Directive and the Habitats Directive.

Yours sincerely,

Saoirse Kavanagh

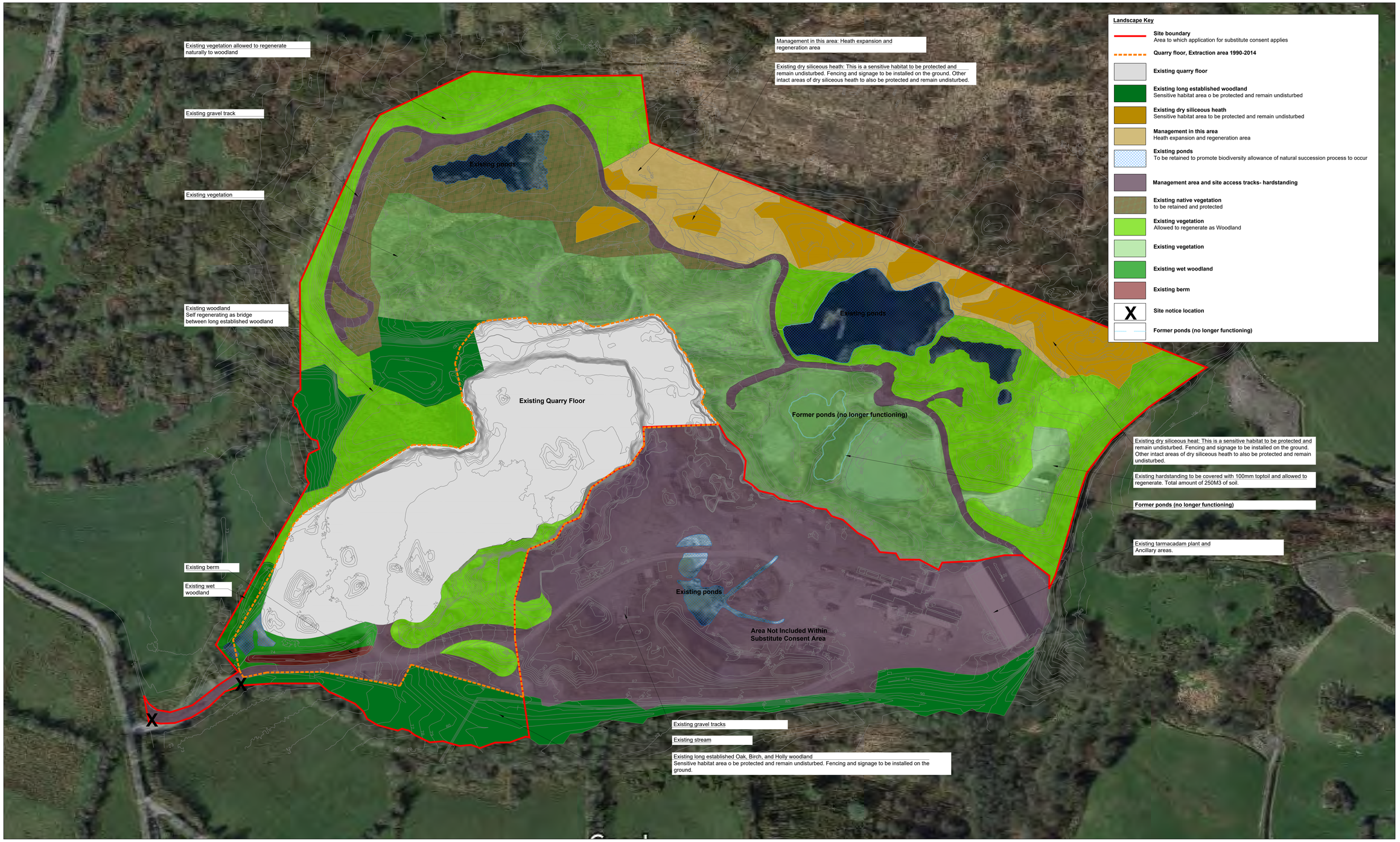
Saoirse Kavanagh

McCutcheon Halley

Appendix A – Substitute Consent Site Layout and Remediation Plan (Appendix 11.1 of rEIAR and submitted as a standalone drawing)

Please note a new 'former ponds' label has been added to two of the ponds shown in the centre of the site. Previously there was no label on these ponds.

ARDCAHAN QUARRY SUBSTITUTE CONSENT SITE LAYOUT AND REMEDIATION PLAN



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Cathal O'Meara
Landscape Architects
087 9202549
2 Mc Sweeney St,
Fermoy, Co. Cork
cathal meara landscape architects

Chartered member of the Irish Landscape Institute

Client: Murray Bros. Tarmacadam Ltd.

Project: Ardcahan Quarry Susbstitute consent Site Layout and Remediation Plan

Drawing: Landscape Layout

Date: 11/08/2026
Drawn By: Luis Medeiros
Checked By: Cathal O'Meara

Issue: Planning

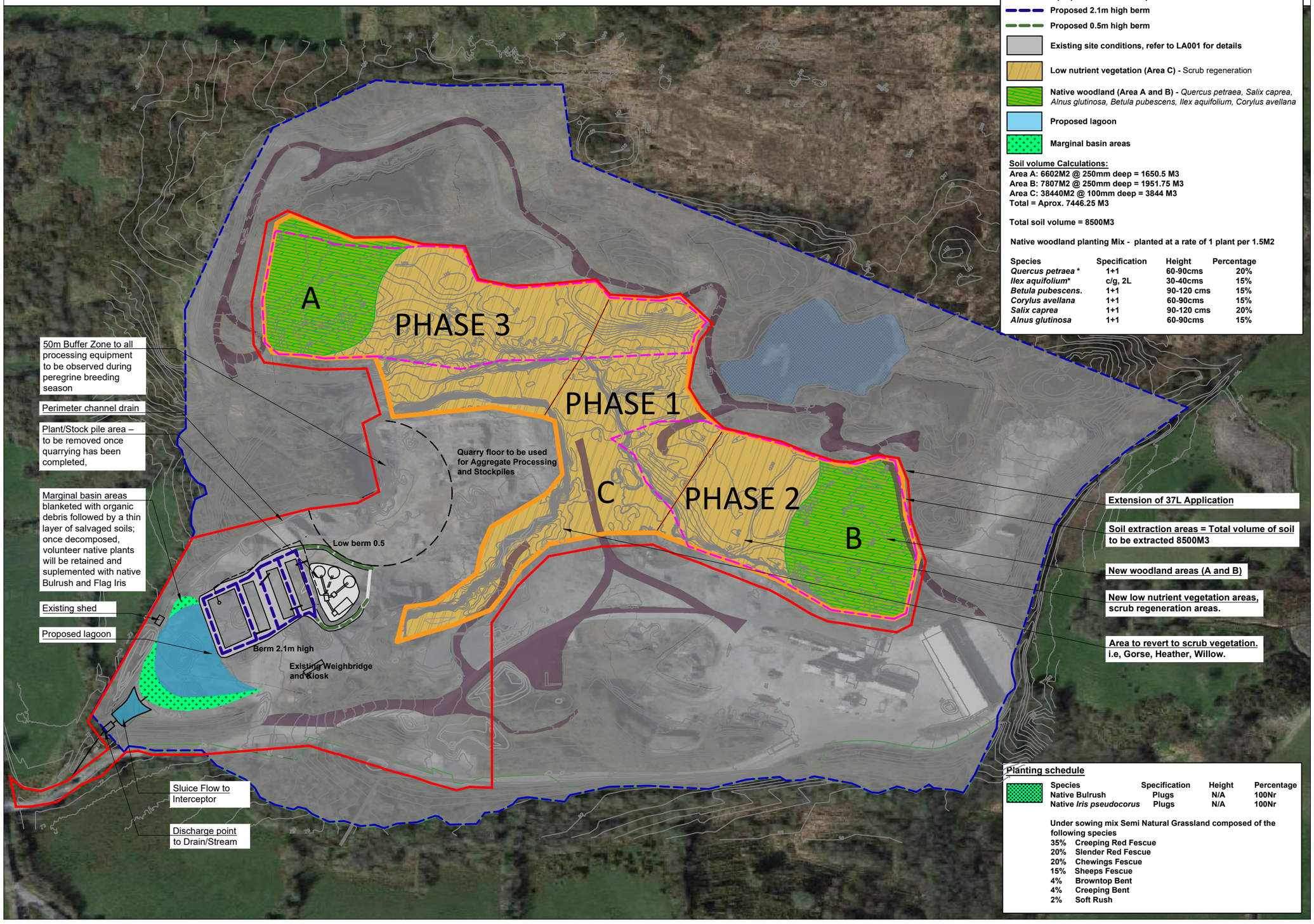
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Appendix B – Regeneration S37L Plan (Appendix 11.1 of S37L EIAR and submitted as a standalone drawing)

ARDCAHAN QUARRY REGENERATION 37L PLAN



Landscape Key

- **Extension of 37L Application**
- **Overall site ownership**
- **Soil extraction areas (35202M2) =** Total volume of soil to be extracted 8500M3
- **3 proposed intervention phases**
- **Proposed 2.1m high berm**
- **Proposed 0.5m high berm**
- **Existing site conditions, refer to LA001 for details**
- **Low nutrient vegetation (Area C) -** Scrub regeneration
- **Native woodland (Area A and B) -** *Quercus petraea, Salix caprea, Alnus glutinosa, Betula pubescens, Ilex aquifolium, Corylus avellana*
- **Proposed lagoon**
- **Marginal basin areas**

Soil volume Calculations:
Area A: 6602M2 @ 250mm deep = 1650.5 M3
Area B: 7807M2 @ 250mm deep = 1951.75 M3
Area C: 38440M2 @ 100mm deep = 3844 M3
Total = Aprox. 7446.25 M3

Total soil volume = 8500M3

Native woodland planting Mix - planted at a rate of 1 plant per 1.5M2

Species	Specification	Height	Percentage
***Quercus petraea** **	1+1	60-90cms	20%
***Ilex aquifolium** **	c/g, 2L	30-40cms	15%
Betula pubescens.	1+1	90-120 cms	15%
Corylus avellana	1+1	60-90cms	15%
Salix caprea	1+1	90-120 cms	20%
Alnus glutinosa	1+1	60-90cms	15%

Planting schedule

Species	Specification	Height	Percentage
Native Bulrush	Plugs	N/A	100Nr
Native *Iris pseudocorus*	Plugs	N/A	100Nr

Under sowing mix Semi Natural Grassland composed of the following species

35%	Creeping Red Fescue
20%	Slender Red Fescue
20%	Chewings Fescue
15%	Sheeps Fescue
4%	Browntop Bent
4%	Creeping Bent
2%	Soft Rush

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Cathal O'Meara
Landscape Architects
087 9202549
2 Mc Sweeney St,
Fermoy, Co. Cork

Chartered member of the Irish Landscape Institute

Client: Murray Bros. Tarmacadam Ltd.

Project: Ardcahan Quarry Restoration 37L Plan
Drawing: Landscape Layout

Date: 11/08/2026

Drawn By:
Luis Medeiros
Checked By:
Cathal O'Meara

Issue: Planning

Dwg No: 2009_LA002 16

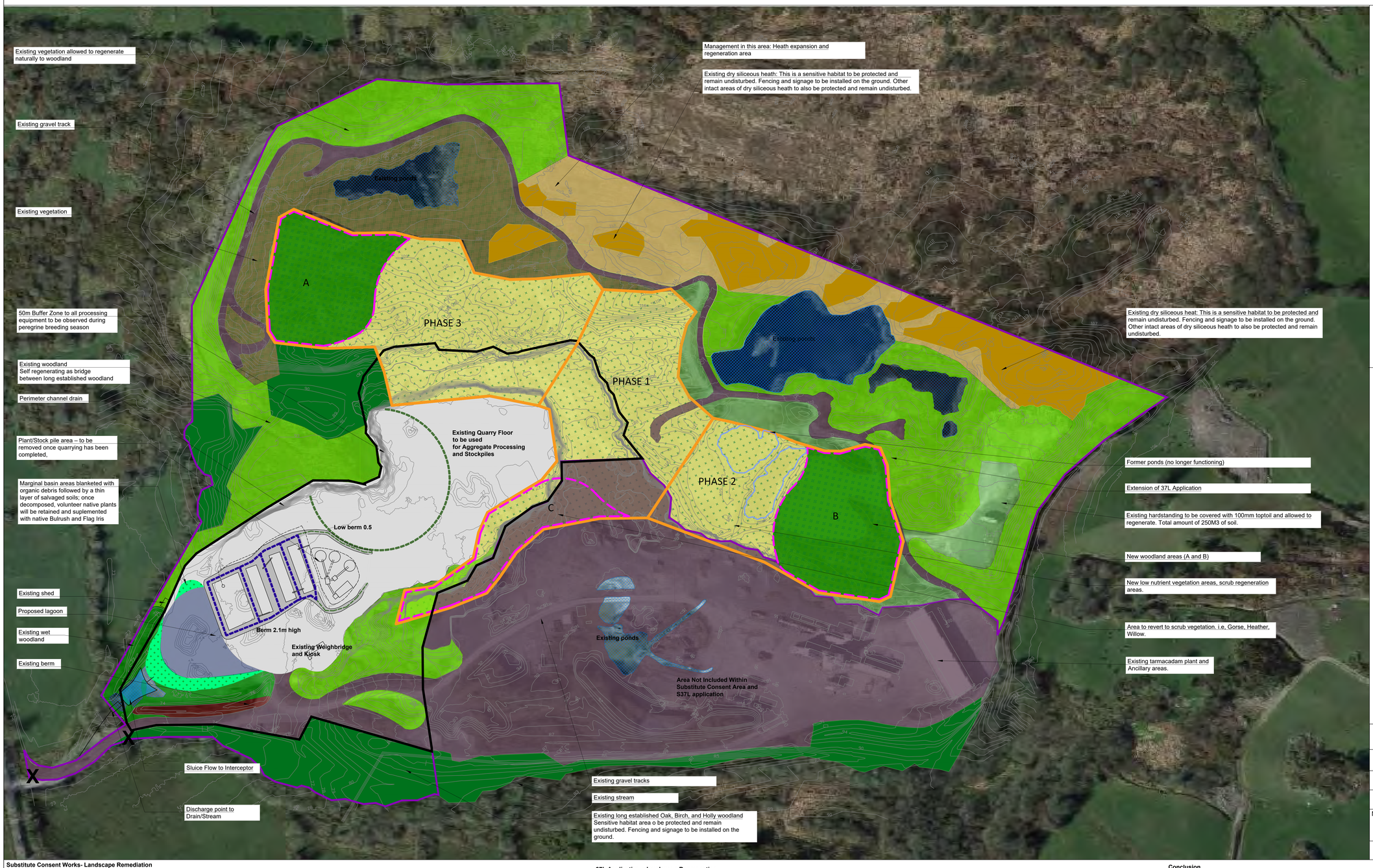
cathal o meara landscape architects

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Appendix C – Combined Substitute Consent Remediation and S37L Regeneration Plan (new drawing prepared for this response)

ARDCAHAN QUARRY COMBINED SUBSTITUTE CONSENT REMEDIATION AND S37L REGENERATION PLAN



LANDSCAPE KEY:
Substitute consent remediation

- **Substitute Consent Application Area**
- **Quarry floor, Extraction area 1990-2014**
- **Existing quarry floor**
- **Existing long established woodland**
  Sensitive habitat area o be protected and remain undisturbed
- **Existing dry siliceous heath**
  Sensitive habitat area to be protected and remain undisturbed
- **Management in this area**
  Heath expansion and regeneration area
- **Existing ponds**
  To be retained to promote biodiversity allowance of natural succession process to occur
- **Management area and site access tracks- hardstanding**
- **Existing native vegetation**
  to be retained and protected
- **Existing vegetation**
  Allowed to regenerate as Woodland
- **Existing vegetation**
- **Existing wet woodland**
- **Existing berm**
- **Site notice location** (X)
- **Former ponds (no longer functioning)**

S37L Regeneration plan

- **Proposed intervention phases:**
  PHASE 1, 2 and 3: Low nutrient vegetation - Scrub regeneration
- **PHASE A and B: Native woodland, see below for specifications**
  PHASE C: Low nutrient vegetation - Scrub regeneration
- **Proposed 2.1m high berm**
- **Proposed 0.5m high berm**
- **Low nutrient vegetation -** Scrub regeneration
- **Native woodland -** *Quercus petraea, Salix caprea, Alnus glutinosa, Betula pubescens, Ilex aquifolium, Corylus avellana*

Native woodland planting Mix - planted at a rate of 1 plant per 1.5M2

Species	Specification	Height	Percentage
Quercus petraea *	1+1	60-90cms	20%
Ilex aquifolium *	c/g, 2L	30-40cms	15%
Betula pubescens.	1+1	90-120 cms	15%
Corylus avellana	1+1	60-90cms	15%
Salix caprea	1+1	90-120 cms	20%
Alnus glutinosa	1+1	60-90cms	15%

- **Proposed lagoon**
- **Marginal basin areas**

Species	Specification	Height	Percentage
Native Bulrush	Plugs	N/A	100Nr
Native *Iris pseudocorus*	Plugs	N/A	100Nr

Under sowing mix Semi Natural Grassland composed of the following species

- **35%** Creeping Red Fescue
- **20%** Slender Red Fescue
- **20%** Chewings Fescue
- **15%** Sheeps Fescue
- **4%** Browntop Bent
- **4%** Creeping Bent
- **2%** Soft Rush

Habitat to be removed	Area to be removed (hectares)	Value as per Biodiversity Chapter	Proposed Recolonisation (hectares)
Scrub	0,30	Low local value	3,84
Scrub / Dense Bracken	0,379	Low local value	
Scrub / Immature Woodland	1,732	Moderate local value	
Mixed Broadleaved Woodland	0,667	High local value	1,43

Substitute Consent Works- Landscape Remediation

This landscape plan proposes landscape remediation measures to address significant landscape and visual related effects that have occurred between 1990 and 2014.
The rEIAR identifies the historic habitat losses associated with quarrying activity and proposes a comprehensive suite of remedial measures, The guiding framework for this landscape plan is the acknowledgement of the current value of the ecological processes that have generated onsite and the facilitation of this natural succession is incorporated as a sustainable method for landscape and habitat restoration (See points 1-4 below). However, this is not merely a passive concern. Active processes such as Ecological monitoring and Invasive species monitoring and control will be engaged to promote landscape remediation (see points 5,6 below).
In short the main points of the Landscape Remediation are;

1) Retention and protection of remaining woodland habitats, (see Existing Long Established Woodland in Remediation Plan)

2) Retention and protection of remaining heath habitats (see Existing Dry Siliceous Heath Habitat and Management area for expansion in Remediation Plan)

3) Wetland and pond enhancement (See Existing Ponds in Remediation Plan)

4) Existing Native Vegetation allowed to regenerate naturally-- – wet woodland and scrub vegetation

5) Invasive species control

6) Ecological monitoring

37L Application – Landscape Regeneration

The proposed development comprises the extension of an established quarrying operation within a long-standing quarry site that has historically supplied aggregate materials in West Cork. The proposal seeks permission for the extraction of quartzitic sandstone within a 5.01ha extraction area over a 20-year period, with extraction phased and accompanied by progressive restoration measures
In short the main points of the Landscape Regeneration are;

1) Once quarrying activities have ceased, it is proposed to use the previously excavated site topsoil (phases 1, 2 and 3) to facilitate the establishment of new woodland habitats. The addition of approx. 250mm of topsoil will facilitate the expansion of these fragmented woodland habitats. These areas have been identified to support the expansion of the Existing Long Established Woodland in the Remediation Plan, Area A, and also Area B in the 37L Regeneration Plan.

2) A further area, Area C, has been identified as a transition scrub area in the supporting ecological report and this will be facilitated with the spreading of approx. 100mm of topsoil over the area. No imported seed will be brought into this area to facilitate the development of low nutrient scrub vegetation (ie Gorse, Heather and Willow).

3) Incorporation of Marginal wetland basin planting as a landscape transition from the lagoon. The planting of pockets of native wetland vegetation including Bullrush and Native Flag Iris will support the development of Marginal Wetland Planting as will the sowing of a native Seminatural grassland understorey.

Screening vegetation as well as raised berms along the southern boundary and south-western boundaries will be retained undisturbed to restrict views from the nearby receptors. Screen planting at these locations is developing well and needs to be retained as these berms merge with the existing hedgerows and peripheral scrub vegetation lending a consistent naturalistic appearance when viewed from a distance.

Conclusion

A Remediation Plan was submitted with the Substitute Consent application, and a Regeneration Plan was submitted with the S37L application. Combined these two plans provide detailed proposals for the existing and future ecology on site.
The substitute consent remediation plan focuses on the lands within the northern portion of the site. While the S37L regeneration plan proposes regeneration in the centre of the site, once the proposed future quarrying has been completed. The future quarrying activity, proposed as part of the S37L application, is in the centre of the overall site to ensure minimal impact on the remediation proposed as part of the substitute consent application. The two plans work alongside each other to provide a robust proposal for the landscape and ecology on site.
This composite drawing has been prepared to demonstrate how the two plans interact.

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087 9202549
2 Mc Sweeney St,
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Client: Murray Bros. Tarmacadam Ltd.
Project: Ardcahan Quarry Combined Substitute Consent Remediation And S37L Regeneration Plan
Drawing: Landscape Layout
Date: 11/08/2026
Drawn By: Luis Medeiros
Checked By: Cathal O'Meara
Issue: Planning
Dwg No: 2009_LA001 REV 21

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Scale 1:1000, @ A0

Appendix D – CLV Response Letter

The NSC Campus, Mahon, Cork.
Tel: +353 (0)21 242 8704
info@clvconsulting.ie
www.clvconsulting.ie

23/09991L01
31 July 2026

Ms. Saoirse Kavanagh
McCutcheon Halley Chartered Planning Consultants
6 Joyce House
Barrack Square
Ballincollig
Co. Cork

Saoirse,

RE: ARDCAHAN QUARRY - CORK COUNTY COUNCIL REPORT RESPONSE LETTER

Pursuant to the reports submitted by Cork County Council in respect of the substitute consent and S37L planning permission submissions for the Ardcahan Quarry, we have provided a response to the items relevant to the noise and vibration impact EIAR chapters as follows.

Council Report Item #1

1.) The respective number and distances of all noise sensitive receptors within 500m and 1000m of the proposed development should be presented and quantified. The referenced noise sensitive receptors that each selected noise monitoring location is considered to be representative of should also be identified and quantified and shown on a suitably scaled map.

CLV Response:

A scaled map identifying each of the nearest noise sensitive receptors within 500m and 1km of the substitute consent application is provided in Appendix A at the rear of this document. The map also includes the 2014 noise monitoring locations (S01, 02 & 03).

A table detailing the distances of the identified noise sensitive receptors and noise monitoring locations from the nearest quarry boundary is provided in Table 1 on the following page.

Note that the values listed represent the distance from the receptors to the nearest property boundary and not to the nearest proposed / existing working areas of the quarry which would have different variances depending on the direction.

Receptor	Type	Distance (metres)
1	Dwelling	505 m
2	Dwelling	524 m
3	Dwelling	519 m
4	Dwelling	434 m
5	Dwelling	395 m
6	Dwelling	668 m
7	Dwelling	697 m
8	Dwelling	690 m
9	Dwelling	781 m
10	Dwelling	761 m
11	Dwelling	888m
12	Dwelling	971m
13	Dwelling	904 m
14	Dwelling	644 m
15	Dwelling	405 m
16	Dwelling	342 m
17	Dwelling	233 m
18	Dwelling	550 m
19	Dwelling	387 m
20	Dwelling	726 m
21	Dwelling	772 m
22	Dwelling	880 m
23	Dwelling	938 m
24	Dwelling	946 m
25	Dwelling	849 m
26	Dwelling	662 m
27	Dwelling	540 m
28	Dwelling	498 m
29	Dwelling	449 m
30	Dwelling	180 m
31	Dwelling	170 m
32	Dwelling	303 m
33	Dwelling	284 m
34	Dwelling	632 m
35	Dwelling	678 m
36	Dwelling	881 m
37	Dwelling	928 m
38	Dwelling	483 m
39	Dwelling	496 m
40	Dwelling	523 m
41	Dwelling	437 m
42	Dwelling	636 m
43	Dwelling	940 m
44	Dwelling	331 m
45	Dwelling	303 m
S01	Noise Monitoring Location	287 m
S02	Noise Monitoring Location	185 m
S03	Noise Monitoring Location	305 m

Table 1 Noise Monitoring Locations & Noise Sensitive Receptors Within 1km of Ardcahan Quarry

Council Report Item #2

2.) Clarify whether an assessment has been carried out for the presence of any tonal/impulsive elements in the noise arising from the identified noise sources and if the overall predicted and cumulative noise levels have been adjusted accordingly for the presence or otherwise of such elements.

CLV Response:

A tonal element assessment cannot be definitively carried out given without octave band noise level data for specific site sources. However, the predicted noise emission levels from the quarry would not be sufficiently above the ambient noise level environment in the vicinity to give rise to tonal elements.

The noise emission levels for both the construction and operational phases of the quarry are compared with the ambient noise levels measured in the vicinity in Table 2 below.

Receptor Location	Measured Ambient Noise Level	Estimated Noise Level		Comparison of Quarry Noise Levels w/ Ambient
		Construction Phase	Operational Phase	
Dwellings to East	41 - 49	43	43	**Consistent with or below**
Dwellings to Southwest	50 - 51	37	41	**Below**
Dwellings to Southeast	48 - 50	38	40	**Below**

Table 2 Quarry Noise Emission Comparison with Ambient Noise Level Environment (dB L_{Aeq})

As can be seen from the above comparison, the predicted noise emission levels from the quarry are consistent with or below the ambient noise level environment in the vicinity and therefore would not be sufficiently high enough for tonal elements to manifest themselves at the nearest noise sensitive receptors even if they were present.

It should also be considered that quarry noise emissions (especially when there are multiple sources in operation at the same time) are generally broadband in nature.

In respect of impulsive noise, there will likely be impulsive noise events that occur due to the processes involved with earth moving equipment. However, as demonstrated in Table 2, the levels would not be sufficiently high enough for impulsive events to be at a nuisance level at the nearest noise sensitive receptors.

There would therefore be no justifiable basis for adjusting the predicted noise levels accordingly.

It should also be noted that all quarry noise sources will occur during daytime periods only.

Council Report Item #3

3.) Clarify whether overall predicted cumulative noise levels have had regard to noise levels and any noise contribution arising from the tarmacadam/asphalt plant.

CLV Response:

We can confirm that the predicted cumulative noise levels included contributions from both the future proposed quarry activities as well as from the existing tarmacadam / asphalt plant operations.

Council Report Item #4

4.) The operational criterion as set out in Page 10.10 of the Noise and Vibration Impact Assessment Report, refers to 55dB $L_{Aeq,1hr}$ as being adopted as appropriate. The daytime criterion as set out in Page 10.19 of the same assessment report refers to 50dB $L_{Aeq,1hr}$. This is assumed to be an error which should be clarified.

CLV Response:

We can confirm that is correct. The operational phase noise criterion of 55dB $L_{Aeq,1hr}$ was established in Section 9.4.1.1 of the Chapter. The subsequent referencing of this criterion in Sections 9.5.3 was incorrectly stated as being 50dB $L_{Aeq,1hr}$.

Note that this typo does not have any bearing on the assessment findings or conclusions detailed in the Chapter.

We trust this letter provides sufficient response for the concerns raised by Cork County Council. However, please do not hesitate to contact this office if they have any further queries or concerns.

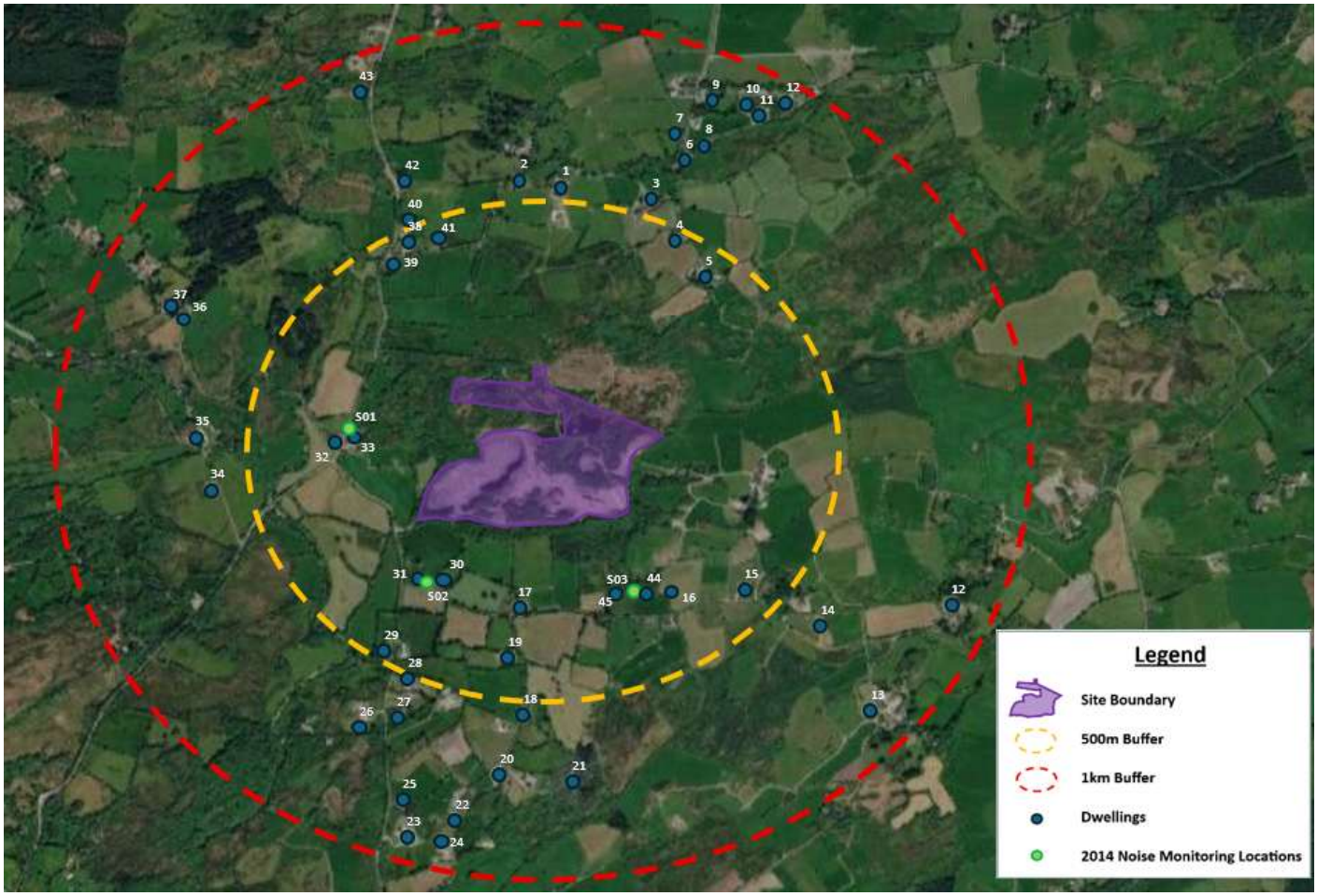
Yours sincerely,



BRIAN S. JOHNSON
Acoustic Specialist

APPENDIX A

Scaled Map Identifying Each of the Nearest Noise Sensitive Receptors at Distances Of 500m& 1km From the Nearest Development Boundary in Each Direction



Appendix E – Traffic Modelling Report (Appendix 12.1 of S37L EIAR)

Murray Brothers Tarmacadam Ltd

APPENDIX 12.1
TRAFFIC MODELLING REPORT

VOLUME III
APPENDICES

APRIL 2026

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.0.2307
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Filename: 23021TT- Traffic Modelling.j11
Path: N:\TIA\23021TT Ardcahan Quarry EIAR - Future Quarrying Application\Traffic Modelling
Report generation date: 16/01/2026 11:26:02

»D1 - 2026 | Base Year | AM
»D2 - 2026 | Base Year | PM
»D3 - 2027 | Op Year Without Dev | AM
»D4 - 2027 | Op Year Without Dev | PM
»D5 - 2027 | Op Year With Dev | AM
»D6 - 2027 | Op Year With Dev | PM
»D7 - 2032 | +5 without Dev | AM
»D8 - 2032 | +5 without Dev | PM
»D9 - 2032 | +5 with Dev | AM
»D10 - 2032 | +5 with Dev | PM
»D11 - 2042 | +15 without Dev | AM
»D12 - 2042 | +15 without Dev | PM
»D13 - 2042 | +15 with Dev | AM
»D14 - 2042 | +15 with Dev | PM

Summary of junction performance

	AM						PM					
	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity	Set ID	Queue (PCU)	Delay (s)	RFC	LOS	Network Residual Capacity
	2026 - Base Year											
Stream B-AC	D1	0.0	6.71	0.04	A	445 %	D2	0.0	6.88	0.04	A	368 %
Stream C-AB		0.0	5.52	0.01	A	[Stream B-AC]		0.0	5.79	0.03	A	[Stream B-AC]
	2027 - Op Year Without Dev											
Stream B-AC	D3	0.0	6.73	0.04	A	433 %	D4	0.0	6.85	0.05	A	360 %
Stream C-AB		0.0	5.52	0.01	A	[Stream B-AC]		0.0	5.78	0.03	A	[Stream B-AC]
	2027 - Op Year With Dev											
Stream B-AC	D5	0.1	6.97	0.07	A	358 %	D6	0.1	7.08	0.07	A	304 %
Stream C-AB		0.0	5.56	0.02	A	[Stream B-AC]		0.0	5.83	0.04	A	[Stream B-AC]
	2032 - +5 without Dev											
Stream B-AC	D7	0.0	6.77	0.04	A	402 %	D8	0.1	6.97	0.05	A	331 %
Stream C-AB		0.0	5.50	0.01	A	[Stream B-AC]		0.0	5.78	0.03	A	[Stream B-AC]
	2032 - +5 with Dev											
Stream B-AC	D9	0.1	7.03	0.07	A	334 %	D10	0.1	7.20	0.08	A	282 %
Stream C-AB		0.0	5.54	0.02	A	[Stream B-AC]		0.1	5.83	0.04	A	[Stream B-AC]
	2042 - +15 without Dev											
Stream B-AC	D11	0.1	6.94	0.05	A	357 %	D12	0.1	7.12	0.06	A	296 %
Stream C-AB		0.0	5.48	0.02	A	[Stream B-AC]		0.0	5.77	0.03	A	[Stream B-AC]
	2042 - +15 with Dev											
Stream B-AC	D13	0.1	7.19	0.08	A	301 %	D14	0.1	7.36	0.08	A	254 %
Stream C-AB		0.0	5.52	0.02	A	[Stream B-AC]		0.1	5.82	0.04	A	[Stream B-AC]

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

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	16/01/2026
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	MHL\bhill
Description	

Units

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

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
JUNCTIONS 11.1	5.75					✓	Delay	0.85	36.00	20.00		

Demand Set Summary

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	Base Year	AM	ONE HOUR	07:45	09:15	15	✓
D2	2026	Base Year	PM	ONE HOUR	17:15	18:45	15	✓
D3	2027	Op Year Without Dev	AM	ONE HOUR	07:45	09:15	15	✓
D4	2027	Op Year Without Dev	PM	ONE HOUR	17:15	18:45	15	✓
D5	2027	Op Year With Dev	AM	ONE HOUR	07:45	09:15	15	✓
D6	2027	Op Year With Dev	PM	ONE HOUR	17:15	18:45	15	✓
D7	2032	+5 without Dev	AM	ONE HOUR	07:45	09:15	15	✓
D8	2032	+5 without Dev	PM	ONE HOUR	17:15	18:45	15	✓
D9	2032	+5 with Dev	AM	ONE HOUR	07:45	09:15	15	✓
D10	2032	+5 with Dev	PM	ONE HOUR	17:15	18:45	15	✓
D11	2042	+15 without Dev	AM	ONE HOUR	07:45	09:15	15	✓
D12	2042	+15 without Dev	PM	ONE HOUR	17:15	18:45	15	✓
D13	2042	+15 with Dev	AM	ONE HOUR	07:45	09:15	15	✓
D14	2042	+15 with Dev	PM	ONE HOUR	17:15	18:45	15	✓

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

D1 - 2026 | Base Year | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.54	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	445	Stream B-AC	0.54	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	5.20			75.0	✓	0.00

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

Minor Arm Geometry

Arm	Minor arm type	Lane width (m)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.20	50	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	598	0.113	0.285	0.179	0.407
B-C	755	0.120	0.303	-	-
C-B	617	0.248	0.248	-	-

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

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2026	Base Year	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	160	100.000
B		ONE HOUR	✓	20	100.000
C		ONE HOUR	✓	143	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	23	137
	B	15	0	5
	C	137	6	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	6.71	0.0	A	18	28
C-AB	0.01	5.52	0.0	A	7	10
C-A					124	187
A-B					21	32
A-C					126	189

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	0.00	581	0.026	15	0.0	0.0	6.356	A
C-AB	5	1	0.00	657	0.008	5	0.0	0.0	5.523	A
C-A	102	26	0.00			102				
A-B	17	4	0.00			17				
A-C	103	26	0.00			103				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	0.00	572	0.031	18	0.0	0.0	6.499	A
C-AB	7	2	0.00	665	0.010	7	0.0	0.0	5.466	A
C-A	122	30	0.00			122				
A-B	21	5	0.00			21				
A-C	123	31	0.00			123				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	559	0.039	22	0.0	0.0	6.709	A
C-AB	9	2	0.00	677	0.013	8	0.0	0.0	5.388	A
C-A	149	37	0.00			149				
A-B	25	6	0.00			25				
A-C	151	38	0.00			151				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	558	0.039	22	0.0	0.0	6.709	A
C-AB	9	2	0.00	677	0.013	9	0.0	0.0	5.390	A
C-A	149	37	0.00			149				
A-B	25	6	0.00			25				
A-C	151	38	0.00			151				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	0.00	572	0.031	18	0.0	0.0	6.503	A
C-AB	7	2	0.00	665	0.010	7	0.0	0.0	5.468	A
C-A	122	30	0.00			122				
A-B	21	5	0.00			21				
A-C	123	31	0.00			123				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	0.00	581	0.026	15	0.0	0.0	6.359	A
C-AB	5	1	0.00	657	0.008	5	0.0	0.0	5.523	A
C-A	102	26	0.00			102				
A-B	17	4	0.00			17				
A-C	103	26	0.00			103				

D2 - 2026 | Base Year | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.67	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	368	Stream B-AC	0.67	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D2	2026	Base Year	PM	ONE HOUR	17:15	18:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	214	100.000
B		ONE HOUR	✓	22	100.000
C		ONE HOUR	✓	122	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	26	188
	B	16	0	6
	C	109	13	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	6.88	0.0	A	20	30
C-AB	0.03	5.79	0.0	A	14	21
C-A					98	147
A-B					24	36
A-C					173	259

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	575	0.029	16	0.0	0.0	6.446	A
C-AB	11	3	0.00	633	0.018	11	0.0	0.0	5.787	A
C-A	81	20	0.00			81				
A-B	20	5	0.00			20				
A-C	142	35	0.00			142				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	563	0.035	20	0.0	0.0	6.623	A
C-AB	14	3	0.00	637	0.022	14	0.0	0.0	5.778	A
C-A	96	24	0.00			96				
A-B	23	6	0.00			23				
A-C	169	42	0.00			169				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	547	0.044	24	0.0	0.0	6.881	A
C-AB	18	4	0.00	642	0.027	18	0.0	0.0	5.766	A
C-A	117	29	0.00			117				
A-B	29	7	0.00			29				
A-C	207	52	0.00			207				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	547	0.044	24	0.0	0.0	6.882	A
C-AB	18	4	0.00	642	0.027	18	0.0	0.0	5.769	A
C-A	117	29	0.00			117				
A-B	29	7	0.00			29				
A-C	207	52	0.00			207				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	563	0.035	20	0.0	0.0	6.627	A
C-AB	14	3	0.00	637	0.022	14	0.0	0.0	5.779	A
C-A	96	24	0.00			96				
A-B	23	6	0.00			23				
A-C	169	42	0.00			169				

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	575	0.029	17	0.0	0.0	6.450	A
C-AB	11	3	0.00	633	0.018	11	0.0	0.0	5.787	A
C-A	81	20	0.00			81				
A-B	20	5	0.00			20				
A-C	142	35	0.00			142				

D3 - 2027 | Op Year Without Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.55	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	433	Stream B-AC	0.55	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D3	2027	Op Year Without Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	164	100.000
B		ONE HOUR	✓	20	100.000
C		ONE HOUR	✓	147	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	24	140
	B	15	0	5
	C	140	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	6.73	0.0	A	18	28
C-AB	0.01	5.52	0.0	A	8	12
C-A					127	190
A-B					22	33
A-C					128	193

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	0.00	580	0.026	15	0.0	0.0	6.371	A
C-AB	6	2	0.00	658	0.010	6	0.0	0.0	5.524	A
C-A	104	26	0.00			104				
A-B	18	5	0.00			18				
A-C	105	26	0.00			105				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	0.00	570	0.032	18	0.0	0.0	6.518	A
C-AB	8	2	0.00	666	0.012	8	0.0	0.0	5.467	A
C-A	124	31	0.00			124				
A-B	22	5	0.00			22				
A-C	126	31	0.00			126				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	557	0.040	22	0.0	0.0	6.734	A
C-AB	10	2	0.00	678	0.015	10	0.0	0.0	5.390	A
C-A	152	38	0.00			152				
A-B	26	7	0.00			26				
A-C	154	39	0.00			154				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	6	0.00	557	0.040	22	0.0	0.0	6.734	A
C-AB	10	2	0.00	678	0.015	10	0.0	0.0	5.390	A
C-A	152	38	0.00			152				
A-B	26	7	0.00			26				
A-C	154	39	0.00			154				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	4	0.00	570	0.032	18	0.0	0.0	6.519	A
C-AB	8	2	0.00	666	0.012	8	0.0	0.0	5.469	A
C-A	124	31	0.00			124				
A-B	22	5	0.00			22				
A-C	126	31	0.00			126				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	15	4	0.00	580	0.026	15	0.0	0.0	6.374	A
C-AB	6	2	0.00	658	0.010	6	0.0	0.0	5.524	A
C-A	104	26	0.00			104				
A-B	18	5	0.00			18				
A-C	105	26	0.00			105				

D4 - 2027 | Op Year Without Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.68	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	360	Stream B-AC	0.68	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D4	2027	Op Year Without Dev	PM	ONE HOUR	17:15	18:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	218	100.000
B		ONE HOUR	✓	23	100.000
C		ONE HOUR	✓	125	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	26	192
	B	16	0	7
	C	112	13	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	6.85	0.0	A	21	32
C-AB	0.03	5.78	0.0	A	14	21
C-A					100	151
A-B					24	36
A-C					176	264

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	578	0.030	17	0.0	0.0	6.413	A
C-AB	11	3	0.00	634	0.018	11	0.0	0.0	5.779	A
C-A	83	21	0.00			83				
A-B	20	5	0.00			20				
A-C	145	36	0.00			145				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	5	0.00	567	0.036	21	0.0	0.0	6.593	A
C-AB	14	3	0.00	638	0.022	14	0.0	0.0	5.769	A
C-A	98	25	0.00			98				
A-B	23	6	0.00			23				
A-C	173	43	0.00			173				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	0.00	550	0.046	25	0.0	0.0	6.854	A
C-AB	18	4	0.00	643	0.028	18	0.0	0.0	5.756	A
C-A	120	30	0.00			120				
A-B	29	7	0.00			29				
A-C	211	53	0.00			211				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	0.00	550	0.046	25	0.0	0.0	6.854	A
C-AB	18	4	0.00	643	0.028	18	0.0	0.0	5.756	A
C-A	120	30	0.00			120				
A-B	29	7	0.00			29				
A-C	211	53	0.00			211				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	21	5	0.00	567	0.036	21	0.0	0.0	6.597	A
C-AB	14	3	0.00	638	0.022	14	0.0	0.0	5.773	A
C-A	98	25	0.00			98				
A-B	23	6	0.00			23				
A-C	173	43	0.00			173				

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	578	0.030	17	0.0	0.0	6.419	A
C-AB	11	3	0.00	634	0.018	11	0.0	0.0	5.782	A
C-A	83	21	0.00			83				
A-B	20	5	0.00			20				
A-C	145	36	0.00			145				

D5 - 2027 | Op Year With Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.84	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	358	Stream B-AC	0.84	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D5	2027	Op Year With Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	174	100.000
B		ONE HOUR	✓	33	100.000
C		ONE HOUR	✓	150	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	34	140
	B	25	0	8
	C	140	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	6.97	0.1	A	30	45
C-AB	0.02	5.56	0.0	A	11	17
C-A					126	189
A-B					31	47
A-C					128	193

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	0.00	577	0.043	25	0.0	0.0	6.514	A
C-AB	9	2	0.00	656	0.014	9	0.0	0.0	5.562	A
C-A	104	26	0.00			104				
A-B	26	6	0.00			26				
A-C	105	26	0.00			105				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	567	0.052	30	0.0	0.1	6.698	A
C-AB	11	3	0.00	664	0.017	11	0.0	0.0	5.512	A
C-A	124	31	0.00			124				
A-B	31	8	0.00			31				
A-C	126	31	0.00			126				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	0.00	553	0.066	36	0.1	0.1	6.968	A
C-AB	14	4	0.00	675	0.021	14	0.0	0.0	5.445	A
C-A	151	38	0.00			151				
A-B	37	9	0.00			37				
A-C	154	39	0.00			154				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	0.00	553	0.066	36	0.1	0.1	6.968	A
C-AB	14	4	0.00	675	0.021	14	0.0	0.0	5.447	A
C-A	151	38	0.00			151				
A-B	37	9	0.00			37				
A-C	154	39	0.00			154				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	567	0.052	30	0.1	0.1	6.703	A
C-AB	11	3	0.00	664	0.017	11	0.0	0.0	5.515	A
C-A	124	31	0.00			124				
A-B	31	8	0.00			31				
A-C	126	31	0.00			126				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	25	6	0.00	577	0.043	25	0.1	0.0	6.517	A
C-AB	9	2	0.00	656	0.014	9	0.0	0.0	5.562	A
C-A	104	26	0.00			104				
A-B	26	6	0.00			26				
A-C	105	26	0.00			105				

D6 - 2027 | Op Year With Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.95	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	304	Stream B-AC	0.95	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D6	2027	Op Year With Dev	PM	ONE HOUR	17:15	18:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	227	100.000
B		ONE HOUR	✓	36	100.000
C		ONE HOUR	✓	129	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	35	192
	B	25	0	11
	C	112	17	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	7.08	0.1	A	33	50
C-AB	0.04	5.83	0.0	A	19	28
C-A					100	149
A-B					32	48
A-C					176	264

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	0.00	577	0.047	27	0.0	0.0	6.546	A
C-AB	15	4	0.00	632	0.023	15	0.0	0.0	5.827	A
C-A	82	21	0.00			82				
A-B	26	7	0.00			26				
A-C	145	36	0.00			145				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	565	0.057	32	0.0	0.1	6.762	A
C-AB	18	5	0.00	636	0.029	18	0.0	0.0	5.827	A
C-A	98	24	0.00			98				
A-B	31	8	0.00			31				
A-C	173	43	0.00			173				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	548	0.072	40	0.1	0.1	7.080	A
C-AB	23	6	0.00	641	0.036	23	0.0	0.0	5.828	A
C-A	119	30	0.00			119				
A-B	39	10	0.00			39				
A-C	211	53	0.00			211				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	40	10	0.00	548	0.072	40	0.1	0.1	7.080	A
C-AB	23	6	0.00	641	0.036	23	0.0	0.0	5.829	A
C-A	119	30	0.00			119				
A-B	39	10	0.00			39				
A-C	211	53	0.00			211				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	32	8	0.00	565	0.057	32	0.1	0.1	6.764	A
C-AB	18	5	0.00	636	0.029	18	0.0	0.0	5.828	A
C-A	98	24	0.00			98				
A-B	31	8	0.00			31				
A-C	173	43	0.00			173				

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	27	7	0.00	577	0.047	27	0.1	0.0	6.553	A
C-AB	15	4	0.00	632	0.023	15	0.0	0.0	5.828	A
C-A	82	21	0.00			82				
A-B	26	7	0.00			26				
A-C	145	36	0.00			145				

D7 - 2032 | +5 without Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.56	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	402	Stream B-AC	0.56	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D7	2032	+5 without Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	174	100.000
B		ONE HOUR	✓	22	100.000
C		ONE HOUR	✓	156	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	25	149
	B	16	0	6
	C	149	7	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.04	6.77	0.0	A	20	30
C-AB	0.01	5.50	0.0	A	8	12
C-A					135	203
A-B					23	34
A-C					137	205

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	580	0.029	16	0.0	0.0	6.381	A
C-AB	6	2	0.00	661	0.010	6	0.0	0.0	5.501	A
C-A	111	28	0.00			111				
A-B	19	5	0.00			19				
A-C	112	28	0.00			112				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	570	0.035	20	0.0	0.0	6.542	A
C-AB	8	2	0.00	670	0.012	8	0.0	0.0	5.440	A
C-A	132	33	0.00			132				
A-B	22	6	0.00			22				
A-C	134	33	0.00			134				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	556	0.044	24	0.0	0.0	6.774	A
C-AB	10	3	0.00	682	0.015	10	0.0	0.0	5.357	A
C-A	162	40	0.00			162				
A-B	28	7	0.00			28				
A-C	164	41	0.00			164				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	556	0.044	24	0.0	0.0	6.774	A
C-AB	10	3	0.00	682	0.015	10	0.0	0.0	5.359	A
C-A	162	40	0.00			162				
A-B	28	7	0.00			28				
A-C	164	41	0.00			164				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	570	0.035	20	0.0	0.0	6.545	A
C-AB	8	2	0.00	670	0.012	8	0.0	0.0	5.442	A
C-A	132	33	0.00			132				
A-B	22	6	0.00			22				
A-C	134	33	0.00			134				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	17	4	0.00	580	0.029	17	0.0	0.0	6.384	A
C-AB	6	2	0.00	661	0.010	6	0.0	0.0	5.503	A
C-A	111	28	0.00			111				
A-B	19	5	0.00			19				
A-C	112	28	0.00			112				

D8 - 2032 | +5 without Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.68	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	331	Stream B-AC	0.68	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D8	2032	+5 without Dev	PM	ONE HOUR	17:15	18:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	233	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	133	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	28	205
	B	17	0	7
	C	119	14	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	6.97	0.1	A	22	33
C-AB	0.03	5.78	0.0	A	16	23
C-A					106	160
A-B					26	39
A-C					188	282

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	0.00	572	0.032	18	0.0	0.0	6.492	A
C-AB	12	3	0.00	635	0.019	12	0.0	0.0	5.780	A
C-A	88	22	0.00			88				
A-B	21	5	0.00			21				
A-C	154	39	0.00			154				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	560	0.039	22	0.0	0.0	6.688	A
C-AB	15	4	0.00	639	0.024	15	0.0	0.0	5.770	A
C-A	104	26	0.00			104				
A-B	25	6	0.00			25				
A-C	184	46	0.00			184				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	542	0.049	26	0.0	0.1	6.975	A
C-AB	19	5	0.00	645	0.030	19	0.0	0.0	5.757	A
C-A	127	32	0.00			127				
A-B	31	8	0.00			31				
A-C	226	56	0.00			226				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	542	0.049	26	0.1	0.1	6.975	A
C-AB	19	5	0.00	645	0.030	19	0.0	0.0	5.759	A
C-A	127	32	0.00			127				
A-B	31	8	0.00			31				
A-C	226	56	0.00			226				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	560	0.039	22	0.1	0.0	6.691	A
C-AB	15	4	0.00	639	0.024	15	0.0	0.0	5.771	A
C-A	104	26	0.00			104				
A-B	25	6	0.00			25				
A-C	184	46	0.00			184				

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	0.00	572	0.032	18	0.0	0.0	6.498	A
C-AB	12	3	0.00	635	0.019	12	0.0	0.0	5.781	A
C-A	88	22	0.00			88				
A-B	21	5	0.00			21				
A-C	154	39	0.00			154				

D9 - 2032 | +5 with Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.84	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	334	Stream B-AC	0.84	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D9	2032	+5 with Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	184	100.000
B		ONE HOUR	✓	35	100.000
C		ONE HOUR	✓	159	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	35	149
	B	26	0	9
	C	149	10	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.07	7.03	0.1	A	32	48
C-AB	0.02	5.54	0.0	A	12	17
C-A					134	201
A-B					32	48
A-C					137	205

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	576	0.046	26	0.0	0.0	6.541	A
C-AB	9	2	0.00	659	0.014	9	0.0	0.0	5.538	A
C-A	111	28	0.00			111				
A-B	26	7	0.00			26				
A-C	112	28	0.00			112				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	0.00	566	0.056	31	0.0	0.1	6.739	A
C-AB	11	3	0.00	668	0.017	11	0.0	0.0	5.485	A
C-A	132	33	0.00			132				
A-B	31	8	0.00			31				
A-C	134	33	0.00			134				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	0.00	551	0.070	38	0.1	0.1	7.028	A
C-AB	15	4	0.00	680	0.021	15	0.0	0.0	5.412	A
C-A	161	40	0.00			161				
A-B	39	10	0.00			39				
A-C	164	41	0.00			164				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	39	10	0.00	551	0.070	39	0.1	0.1	7.028	A
C-AB	15	4	0.00	680	0.021	15	0.0	0.0	5.414	A
C-A	161	40	0.00			161				
A-B	39	10	0.00			39				
A-C	164	41	0.00			164				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	31	8	0.00	566	0.056	32	0.1	0.1	6.743	A
C-AB	11	3	0.00	668	0.017	11	0.0	0.0	5.487	A
C-A	132	33	0.00			132				
A-B	31	8	0.00			31				
A-C	134	33	0.00			134				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	576	0.046	26	0.1	0.0	6.548	A
C-AB	9	2	0.00	659	0.014	9	0.0	0.0	5.539	A
C-A	111	28	0.00			111				
A-B	26	7	0.00			26				
A-C	112	28	0.00			112				

D10 - 2032 | +5 with Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.95	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	282	Stream B-AC	0.95	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D10	2032	+5 with Dev	PM	ONE HOUR	17:15	18:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	242	100.000
B		ONE HOUR	✓	37	100.000
C		ONE HOUR	✓	137	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	37	205
	B	26	0	11
	C	119	18	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.20	0.1	A	34	51
C-AB	0.04	5.83	0.1	A	20	30
C-A					106	158
A-B					34	51
A-C					188	282

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	571	0.049	28	0.0	0.1	6.620	A
C-AB	16	4	0.00	633	0.025	16	0.0	0.0	5.828	A
C-A	87	22	0.00			87				
A-B	28	7	0.00			28				
A-C	154	39	0.00			154				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	0.00	559	0.060	33	0.1	0.1	6.853	A
C-AB	19	5	0.00	637	0.031	19	0.0	0.0	5.828	A
C-A	104	26	0.00			104				
A-B	33	8	0.00			33				
A-C	184	46	0.00			184				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	0.00	541	0.075	41	0.1	0.1	7.199	A
C-AB	25	6	0.00	642	0.039	25	0.0	0.1	5.830	A
C-A	126	31	0.00			126				
A-B	41	10	0.00			41				
A-C	226	56	0.00			226				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	0.00	541	0.075	41	0.1	0.1	7.199	A
C-AB	25	6	0.00	642	0.039	25	0.1	0.1	5.833	A
C-A	126	31	0.00			126				
A-B	41	10	0.00			41				
A-C	226	56	0.00			226				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	0.00	558	0.060	33	0.1	0.1	6.857	A
C-AB	19	5	0.00	637	0.031	20	0.1	0.0	5.832	A
C-A	104	26	0.00			104				
A-B	33	8	0.00			33				
A-C	184	46	0.00			184				

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	571	0.049	28	0.1	0.1	6.627	A
C-AB	16	4	0.00	633	0.025	16	0.0	0.0	5.831	A
C-A	87	22	0.00			87				
A-B	28	7	0.00			28				
A-C	154	39	0.00			154				

D11 - 2042 | +15 without Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.58	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	357	Stream B-AC	0.58	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D11	2042	+15 without Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	190	100.000
B		ONE HOUR	✓	24	100.000
C		ONE HOUR	✓	170	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	28	162
	B	18	0	6
	C	162	8	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.05	6.94	0.1	A	22	33
C-AB	0.02	5.48	0.0	A	9	14
C-A					147	220
A-B					26	39
A-C					149	223

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	0.00	572	0.032	18	0.0	0.0	6.495	A
C-AB	7	2	0.00	665	0.011	7	0.0	0.0	5.477	A
C-A	121	30	0.00			121				
A-B	21	5	0.00			21				
A-C	122	30	0.00			122				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	561	0.038	22	0.0	0.0	6.677	A
C-AB	9	2	0.00	674	0.014	9	0.0	0.0	5.412	A
C-A	144	36	0.00			144				
A-B	25	6	0.00			25				
A-C	146	36	0.00			146				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	545	0.049	26	0.0	0.1	6.943	A
C-AB	12	3	0.00	688	0.017	12	0.0	0.0	5.324	A
C-A	175	44	0.00			175				
A-B	31	8	0.00			31				
A-C	178	45	0.00			178				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	26	7	0.00	545	0.049	26	0.1	0.1	6.943	A
C-AB	12	3	0.00	688	0.017	12	0.0	0.0	5.326	A
C-A	175	44	0.00			175				
A-B	31	8	0.00			31				
A-C	178	45	0.00			178				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	22	5	0.00	561	0.038	22	0.1	0.0	6.681	A
C-AB	9	2	0.00	674	0.014	9	0.0	0.0	5.415	A
C-A	144	36	0.00			144				
A-B	25	6	0.00			25				
A-C	146	36	0.00			146				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	18	5	0.00	572	0.032	18	0.0	0.0	6.501	A
C-AB	7	2	0.00	665	0.011	7	0.0	0.0	5.480	A
C-A	121	30	0.00			121				
A-B	21	5	0.00			21				
A-C	122	30	0.00			122				

D12 - 2042 | +15 without Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.71	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	296	Stream B-AC	0.71	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D12	2042	+15 without Dev	PM	ONE HOUR	17:15	18:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	252	100.000
B		ONE HOUR	✓	27	100.000
C		ONE HOUR	✓	144	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	30	222
	B	19	0	8
	C	129	15	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.06	7.12	0.1	A	25	37
C-AB	0.03	5.77	0.0	A	17	26
C-A					115	173
A-B					28	41
A-C					204	306

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	568	0.036	20	0.0	0.0	6.573	A
C-AB	13	3	0.00	637	0.021	13	0.0	0.0	5.773	A
C-A	95	24	0.00			95				
A-B	23	6	0.00			23				
A-C	167	42	0.00			167				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	554	0.044	24	0.0	0.0	6.792	A
C-AB	16	4	0.00	641	0.026	16	0.0	0.0	5.762	A
C-A	113	28	0.00			113				
A-B	27	7	0.00			27				
A-C	200	50	0.00			200				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	535	0.056	30	0.0	0.1	7.117	A
C-AB	21	5	0.00	647	0.033	21	0.0	0.0	5.747	A
C-A	137	34	0.00			137				
A-B	33	8	0.00			33				
A-C	244	61	0.00			244				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	7	0.00	535	0.056	30	0.1	0.1	7.117	A
C-AB	21	5	0.00	647	0.033	21	0.0	0.0	5.750	A
C-A	137	34	0.00			137				
A-B	33	8	0.00			33				
A-C	244	61	0.00			244				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	24	6	0.00	554	0.044	24	0.1	0.0	6.796	A
C-AB	16	4	0.00	641	0.026	17	0.0	0.0	5.763	A
C-A	113	28	0.00			113				
A-B	27	7	0.00			27				
A-C	200	50	0.00			200				

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	20	5	0.00	568	0.036	20	0.0	0.0	6.579	A
C-AB	13	3	0.00	637	0.021	13	0.0	0.0	5.774	A
C-A	95	24	0.00			95				
A-B	23	6	0.00			23				
A-C	167	42	0.00			167				

D13 - 2042 | +15 with Dev | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.84	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	301	Stream B-AC	0.84	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D13	2042	+15 with Dev	AM	ONE HOUR	07:45	09:15	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	200	100.000
B		ONE HOUR	✓	37	100.000
C		ONE HOUR	✓	173	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	38	162
	B	28	0	9
	C	162	11	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.19	0.1	A	34	51
C-AB	0.02	5.52	0.0	A	13	20
C-A					146	219
A-B					35	52
A-C					149	223

Main Results for each time segment

07:45 - 08:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	569	0.049	28	0.0	0.1	6.644	A
C-AB	10	3	0.00	663	0.015	10	0.0	0.0	5.515	A
C-A	120	30	0.00			120				
A-B	29	7	0.00			29				
A-C	122	30	0.00			122				

08:00 - 08:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	0.00	558	0.060	33	0.1	0.1	6.865	A
C-AB	13	3	0.00	672	0.019	13	0.0	0.0	5.457	A
C-A	143	36	0.00			143				
A-B	34	9	0.00			34				
A-C	146	36	0.00			146				

08:15 - 08:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	0.00	541	0.075	41	0.1	0.1	7.191	A
C-AB	16	4	0.00	685	0.024	16	0.0	0.0	5.379	A
C-A	174	44	0.00			174				
A-B	42	10	0.00			42				
A-C	178	45	0.00			178				

08:30 - 08:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	41	10	0.00	541	0.075	41	0.1	0.1	7.191	A
C-AB	16	4	0.00	685	0.024	16	0.0	0.0	5.382	A
C-A	174	44	0.00			174				
A-B	42	10	0.00			42				
A-C	178	45	0.00			178				

08:45 - 09:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	33	8	0.00	558	0.060	33	0.1	0.1	6.869	A
C-AB	13	3	0.00	672	0.019	13	0.0	0.0	5.460	A
C-A	143	36	0.00			143				
A-B	34	9	0.00			34				
A-C	146	36	0.00			146				

09:00 - 09:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	28	7	0.00	569	0.049	28	0.1	0.1	6.651	A
C-AB	10	3	0.00	663	0.015	10	0.0	0.0	5.516	A
C-A	120	30	0.00			120				
A-B	29	7	0.00			29				
A-C	122	30	0.00			122				

D14 - 2042 | +15 with Dev | PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Major arm width	Arm C - Major arm geometry	For two-way major roads, please interpret results with caution if the total major carriageway width is less than 6m.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		0.96	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	254	Stream B-AC	0.96	A

Traffic Demand

Demand Set Details

ID	Year	Scenario	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D14	2042	+15 with Dev	PM	ONE HOUR	17:15	18:45	15	✓

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (PCU/hr)	Scaling Factor (%)
A		ONE HOUR	✓	261	100.000
B		ONE HOUR	✓	40	100.000
C		ONE HOUR	✓	148	100.000

Origin-Destination Data

Demand (PCU/hr)

		To		
		A	B	C
From	A	0	39	222
	B	28	0	12
	C	129	19	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS	Average Demand (PCU/hr)	Total Junction Arrivals (PCU)
B-AC	0.08	7.36	0.1	A	37	55
C-AB	0.04	5.82	0.1	A	22	32
C-A					114	171
A-B					36	54
A-C					204	306

Main Results for each time segment

17:15 - 17:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	8	0.00	567	0.053	30	0.0	0.1	6.705	A
C-AB	17	4	0.00	635	0.027	17	0.0	0.0	5.821	A
C-A	95	24	0.00			95				
A-B	29	7	0.00			29				
A-C	167	42	0.00			167				

17:30 - 17:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	0.00	553	0.065	36	0.1	0.1	6.967	A
C-AB	21	5	0.00	639	0.033	21	0.0	0.0	5.821	A
C-A	112	28	0.00			112				
A-B	35	9	0.00			35				
A-C	200	50	0.00			200				

17:45 - 18:00

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	11	0.00	533	0.083	44	0.1	0.1	7.355	A
C-AB	27	7	0.00	645	0.042	27	0.0	0.1	5.821	A
C-A	136	34	0.00			136				
A-B	43	11	0.00			43				
A-C	244	61	0.00			244				

18:00 - 18:15

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	44	11	0.00	533	0.083	44	0.1	0.1	7.356	A
C-AB	27	7	0.00	645	0.042	27	0.1	0.1	5.824	A
C-A	136	34	0.00			136				
A-B	43	11	0.00			43				
A-C	244	61	0.00			244				

18:15 - 18:30

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	36	9	0.00	553	0.065	36	0.1	0.1	6.972	A
C-AB	21	5	0.00	639	0.033	21	0.1	0.0	5.822	A
C-A	112	28	0.00			112				
A-B	35	9	0.00			35				
A-C	200	50	0.00			200				

18:30 - 18:45

Stream	Total Demand (PCU/hr)	Junction Arrivals (PCU)	Pedestrian demand (Ped/hr)	Capacity (PCU/hr)	RFC	Throughput (PCU/hr)	Start queue (PCU)	End queue (PCU)	Delay (s)	Unsignalised level of service
B-AC	30	8	0.00	566	0.053	30	0.1	0.1	6.715	A
C-AB	17	4	0.00	635	0.027	17	0.0	0.0	5.825	A
C-A	95	24	0.00			95				
A-B	29	7	0.00			29				
A-C	167	42	0.00			167				