

Transport Assessment

Replacement Beeslack High School Easter Bush, Midlothian

Sweco UK Limited
Sweco 2nd Floor Quay 2
139 Fountainbridge
Edinburgh, EH3 9QG



02/08/2024
Project Reference: 65207956
Document Reference: Transport Assessment
Revision: 2
Prepared For: Midlothian Council

Status / Revisions

| Rev. | Date | Reason for issue | Prepared | | Reviewed | | Approved | |
|------|----------|---------------------|----------|----------|----------|----------|----------|----------|
| [1] | 01.08.24 | Draft | CD | 01.08.24 | RM | 01.08.24 | RM | 01.08.24 |
| [2] | 02.08.24 | Final | CD | 02.08.24 | RM | 02.08.24 | RM | 02.08.24 |

© Sweco 2024. This document is a Sweco confidential document; it may not be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, photocopying, recording or otherwise disclosed in whole or in part to any third party without our express prior written consent. It should be used by you and the permitted disclosees for the purpose for which it has been submitted and for no other.

Table of contents

| | | |
|---------|--|----|
| 1 | Introduction..... | 7 |
| 1.1 | Background | 7 |
| 1.2 | Scoping | 7 |
| 1.3 | Report Structure..... | 7 |
| 2 | Development Proposal..... | 8 |
| 2.1 | Site Location | 8 |
| 2.2 | Existing Beeslack High School | 8 |
| 2.3 | Development Proposals..... | 9 |
| 2.4 | Pedestrian and Cycle Provision..... | 10 |
| 2.4.1 | Access | 10 |
| 2.4.2 | Cycle Parking | 11 |
| 2.5 | Vehicle Access and Parking | 11 |
| 2.5.1 | Access | 11 |
| 2.5.1.1 | School Access | 11 |
| 2.5.1.2 | Vet Practice Access..... | 12 |
| 2.5.2 | Parking | 12 |
| 2.5.2.1 | School Parking | 12 |
| 2.5.2.2 | Vet Practice Parking..... | 12 |
| 2.5.3 | School Pick-up/Drop-off..... | 13 |
| 2.5.3.1 | School Bus | 13 |
| 2.5.3.2 | Private vehicle | 13 |
| 2.6 | Servicing | 13 |
| 3 | Policy Review | 14 |
| 3.1 | Introduction | 14 |
| 3.2 | NPF4..... | 14 |
| 3.3 | Planning Advice Note (PAN) 75 – Planning for Transport..... | 15 |
| 3.4 | Transport Assessment Guidance | 15 |
| 3.5 | A Long-Term Vision for Active Travel in Scotland, 2030 | 16 |
| 3.6 | SESplan Strategic Development Plan | 16 |
| 3.7 | Midlothian Local Development Plan (2017) | 17 |
| 3.8 | Midlothian Active Travel Strategy, 2018-2021 | 18 |
| 3.9 | Assessment of Development Against Policy | 19 |
| 4 | Accessibility Assessment..... | 21 |

| | | |
|---------|--|----|
| 4.1 | School Catchment..... | 21 |
| 4.2 | Existing Active Travel Provision..... | 22 |
| 4.3 | Aspirational Active Travel Provision | 28 |
| 4.4 | Walking Catchment..... | 31 |
| 4.5 | Cycling Catchment..... | 32 |
| 4.6 | Liveable / 20-minute Neighbourhood | 33 |
| 4.7 | Public Transport..... | 34 |
| 4.7.1 | Bus Provision..... | 34 |
| 4.7.2 | Rail Provision..... | 36 |
| 4.8 | Road Network | 37 |
| 4.8.1 | A703 Seafield Moor Road | 37 |
| 4.8.2 | Bush Farm Road | 37 |
| 4.8.3 | Seafield Road | 38 |
| 4.8.4 | A701 | 38 |
| 5 | Travel Plan Framework | 39 |
| 5.1 | Introduction | 39 |
| 5.2 | School Travel Plan..... | 39 |
| 5.2.1 | Travel Plan Measures..... | 39 |
| 5.2.1.1 | Travel Plan Coordinator (TPC)..... | 39 |
| 5.2.1.2 | Travel Plan Welcome Leaflet | 40 |
| 5.2.1.3 | Walking and Cycling..... | 41 |
| 5.2.1.4 | Public Transport | 41 |
| 5.2.1.5 | Car Sharing | 41 |
| 5.2.2 | Action Plan | 41 |
| 5.2.3 | Monitoring..... | 41 |
| 5.3 | Community Use Travel Plan | 42 |
| 5.3.1.1 | Travel Plan Coordinator (TPC)..... | 42 |
| 5.3.1.2 | Travel Plan Welcome Leaflet | 42 |
| 5.3.1.3 | Walking and Cycling | 43 |
| 5.3.1.4 | Public Transport | 43 |
| 5.3.1.5 | Car Sharing | 43 |
| 5.3.2 | Action Plan | 43 |
| 5.3.3 | Monitoring..... | 43 |
| 5.4 | Vet Practice Travel Plan | 44 |

| | | |
|-------|--|----|
| 6 | Travel Demands | 45 |
| 6.1 | Introduction | 45 |
| 6.2 | People Trips | 45 |
| 6.2.1 | School | 45 |
| 6.2.2 | Vet Practice | 45 |
| 6.3 | Mode Share | 45 |
| 6.3.1 | School | 45 |
| 6.3.2 | Vet Practice | 46 |
| 6.4 | Vehicle Demand | 46 |
| 6.4.1 | School | 46 |
| 6.4.2 | Vet Practice | 47 |
| 6.5 | Vehicle Trip Distribution | 48 |
| 6.5.1 | Pupils | 48 |
| 6.5.2 | Staff | 48 |
| 6.5.3 | Vet Practice | 48 |
| 6.6 | Committed Developments | 48 |
| 7 | Traffic Impact Assessment | 49 |
| 7.1 | Introduction | 49 |
| 7.2 | Scope of Assessment | 49 |
| 7.3 | Baseline Traffic Flows | 49 |
| 7.4 | Assessment Scenarios | 50 |
| 7.5 | Threshold Analysis | 50 |
| 7.6 | Assessment Methodology | 50 |
| 7.7 | Modelling Results | 50 |
| 7.7.1 | Site Access Junction Modelling Results | 51 |
| 7.7.2 | Local Road Junction Modelling Results | 51 |
| 7.7.3 | Trunk Road Junction Modelling Results | 52 |
| 7.8 | Traffic Impact Mitigation | 52 |
| 7.9 | Accident Analysis | 52 |
| 7.10 | Construction Traffic Management | 53 |
| 8 | Summary and Conclusions | 54 |
| 8.1 | Summary | 54 |
| 8.2 | Conclusions | 54 |

Appendices

Appendix A – Scoping Correspondence 55

Appendix B – Masterplan Layout 56

Appendix C – Swept Path Analysis 57

Appendix D – Midlothian Council Cycle Maps 58

Appendix E – TRICS Output 59

Appendix F – Traffic Flow Diagrams 60

Appendix G – Modelling Results 61

1 Introduction

1.1 Background

Sweco was commissioned by Midlothian Council to prepare a Transport Assessment (TA) to support the planning application for the replacement Beeslack High School at Easter Bush, Midlothian. The development will comprise an education campus including a high school, Additional Support Needs (ASN) facility, pool, shared community facilities, veterinary (vet) practice and associated parking and landscaping.

The TA was prepared in accordance with the guidelines set out in the Scottish Government publication 'Transport Assessment Guidance' and takes account of the policies within national transport planning guidance including the National Planning Framework 4 (NPF 4) document, with an assessment of the accessibility of the site by non-car modes including walking, cycling and public transport. The TA also provides a framework for a Travel Plan (TP) for the site, aimed at encouraging travel by sustainable modes.

1.2 Scoping

The scope of the TA was agreed during discussions with Midlothian Council (the Council) and Transport Scotland. Confirmation of scoping discussions with Transport Scotland is provided in **Appendix A**.

1.3 Report Structure

The remainder of the report is structured as follows:

- **Chapter 2** – Development Proposal;
- **Chapter 3** – Policy Review;
- **Chapter 4** – Accessibility Assessment;
- **Chapter 5** – Travel Plan Framework;
- **Chapter 6** – Travel Demands;
- **Chapter 7** – Traffic Impact Assessment; and
- **Chapter 8** – Summary and Conclusions.

2 Development Proposal

2.1 Site Location

The proposed replacement Beeslack High School will be located at Easter Bush, Midlothian. It is located approximately 4km north-east of the existing Beeslack High School. The site includes an East Field and a West field, which are bisected by the A703 Seafeld Moor Road. The West Field will contain the school campus, ASN facility, sports facilities, and parking, while the East Field will contain further sports facilities. For the purposes of this report, the developed site is known as “the campus”.

The site is bound by Bush Farm Road to the north, a residential area and Bilston Primary School to the east, a residential area and future residential development to the south, and Bush Estate to the west. A site location plan is shown in **Figure 2.1**.

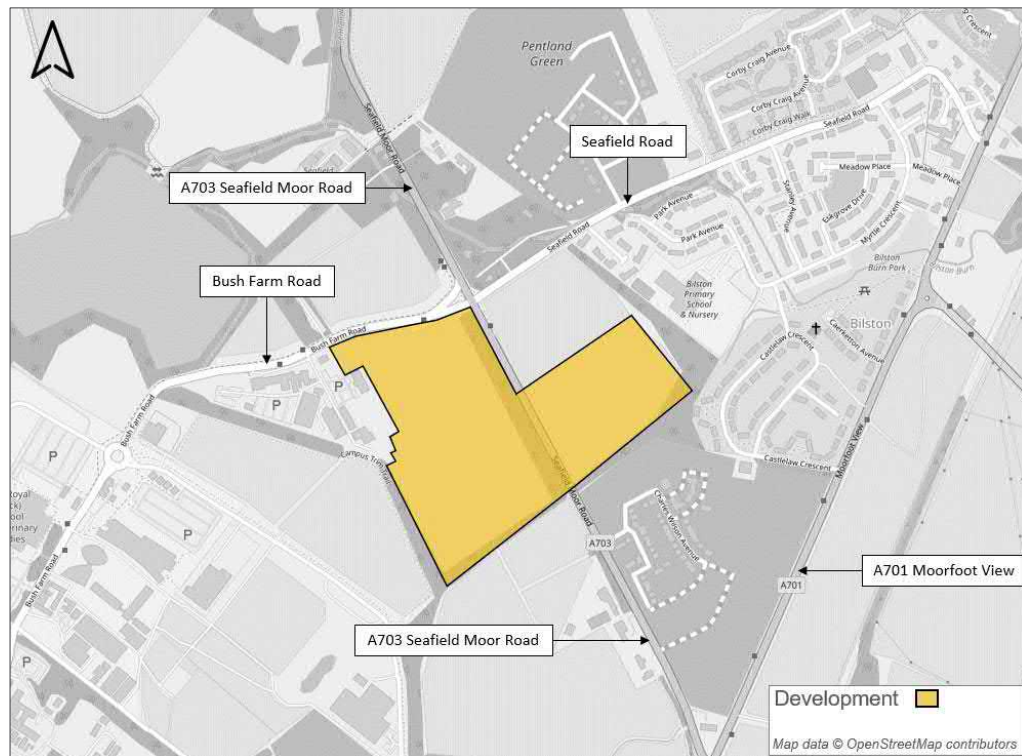


Figure 2.1. Site location

2.2 Existing Beeslack High School

The existing Beeslack High School is located in the north of Penicuik, east of the A701. The location of the existing school in relation to the replacement school is shown in **Figure 2.2**.



Figure 2.2. Existing and replacement school locations

Beeslack High School currently accommodates approximately 740 pupils and 121 members of staff.

2.3 Development Proposals

The campus will contain the following:

- 1,600 pupil mainstream secondary school;
- 30 pupil ASN school/facility;
- Community facilities;
- 4 sports pitches;
- First Opinion Vet Practice.

The proposed Masterplan layout is provided in **Appendix B**.

Table 2.1 shows the expected number of staff that will be employed at the new campus.

| Facility | Staff |
|-------------------|-------------------------|
| Mainstream School | 169 |
| ASN School | 45 |
| Vet Practice | 20 Staff 14 Students |

Table 2.1. Proposed staff numbers (FTE)

Additional staff will be employed at the community uses within the school.

2.4 Pedestrian and Cycle Provision

2.4.1 Access

Two key pedestrian access points will be provided at the campus, as shown in **Figure 2.3**. A footpath connection will be provided from the north-east of the campus, which will connect into the existing footway on Bush Farm Road. Pedestrian access points to both the West Field and East Field of the campus will be provided on the A703 Seafield Moor Road. A controlled pedestrian crossing will be introduced on the A703 Seafield Moor Road to facilitate safe crossing for school children.

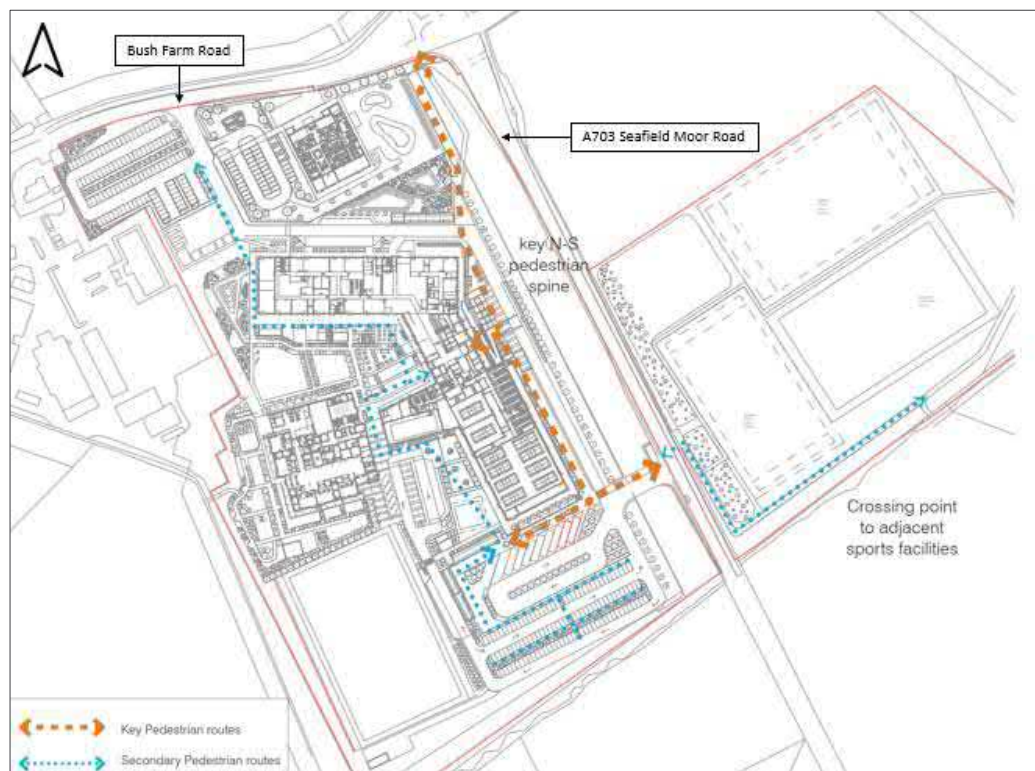


Figure 2.3. Pedestrian access

2.4.2 Cycle Parking

The *Midlothian Council Parking Standards* document follows Transport Scotland's *Cycling by Design 2010* document, which specifies minimum standards for cycle parking at secondary schools. The minimum standards plus those for vet practices are shown in **Table 2.2**.

| Type of Development | Minimum Standard | Number | Minimum Provision |
|---|--|---|-------------------|
| Secondary School | 1 space per 10 staff members | 214 staff | 22 |
| | 1 space per 5 pupils | 1,600 pupils | 320 |
| | 2 spaces at main entrance for visitors | - | 2 |
| Vet Practice (Based on standards for Medical Centre) | Staff: 1 space plus 1 space per 20 staff Visitors: 1 space per 2 consulting rooms | 20 staff 14 students 8 consulting rooms | 7 |

Table 2.2. Council minimum cycle parking standards

Table 2.2 shows that 22 cycle parking spaces will be required for school staff and 320 cycle parking spaces will be required for pupils at the mainstream school.

It is proposed that cycle parking for the school pupils will be provided across three external secure cycle stores, located to the north and south of the mainstream school building. Additionally, staff cycle parking spaces will be provided within a separate cycle store located north of the mainstream school building. Cycle parking will be provided in line with Council standards.

An additional total of 19 cycle parking spaces will be designated as visitor spaces, which can be used by visitors of the school and the community uses.

It is proposed that 7 cycle parking spaces will be provided at the vet practice, in line with Council standards.

Cycle parking locations can be seen in the proposed Masterplan layout in **Appendix B**.

2.5 Vehicle Access and Parking

2.5.1 Access

2.5.1.1 School Access

Access to the campus will be available via a new priority junction on Bush Farm Road and a new three arm signalised junction on the A703 Seafeld Moor Road.

An internal access road will connect the northern and southern car parks within the campus. The through-road will be dedicated for accessible parking access and servicing only, with access controlled by school management.

Vehicle access to the ASN facility will be available via an access road connecting to the western side of the southern car park.

2.5.1.2 Vet Practice Access

Access to the vet practice will be provided via a priority junction connecting with the campus access road to the north of the development site.

To support the vehicle access strategy a 20mph speed limit will be introduced along Bush Farm Road and the A703 Seafield Moor Road in the vicinity of the site.

2.5.2 Parking

The *Midlothian Council Parking Standards* document states a maximum vehicle parking standard of 1 space per staff member for secondary schools. It is noted that the total number of spaces will include visitor and disabled spaces, meaning all staff members will not be allocated a space. **Table 2.3** shows the maximum vehicle parking provision for the site, also covering vet practices.

| Type of Development | Maximum Standard | Number | Maximum Provision |
|--|---|--------------------------------|-------------------|
| Secondary School | 1 space per staff member | 214 staff | 214 |
| Vet Practice (Based on standards for Medical Centre) | Staff: 0.5 spaces per staff Visitors: 4 spaces per consulting room | 20 Staff 8 Consulting Rooms | 42 |

Table 2.3. Council maximum vehicle parking standards

2.5.2.1 School Parking

Two staff car parks will be provided at the campus, to the north and south of the school buildings, which will be accessible from the new site access junctions described in **Section 2.5.1**. Accessible parking areas will also be provided adjacent to the mainstream school and the ASN facility.

It is proposed that 213 standard spaces will be provided at the campus. It is expected that community uses will take place out of school hours and that users will park within the school car park during these times when it is vacant. Therefore, no additional parking will be provided for community uses.

It is proposed that an additional 21 accessible bays will be provided within the campus, 12 of which will be provided adjacent to the mainstream school entrance, and 9 of which will be provided adjacent to the ASN entrance.

A total of 32 bays (29 of the standard bays and 3 of the accessible bays) will be designed with electric vehicle charging infrastructure.

2.5.2.2 Vet Practice Parking

It is proposed that 42 parking spaces will be provided at the vet practice, including 3 accessible bays.

No student car parking spaces will be provided on site. Instead, students will park at the Royal (Dick) School of Vet Studies campus.

2.5.3 School Pick-up/Drop-off

2.5.3.1 *School Bus*

A school bus pick-up/drop-off (PUDO) area will be provided within the southern car park, accessed via the new signalised junction on the A703 Seafield Moor Road. This PUDO area will accommodate 8 bus parking spaces. A further 5 mini-bus spaces will be provided adjacent to the ASN facility. The bus PUDO arrangements are shown in **Appendix B**.

2.5.3.2 *Private vehicle*

Private PUDO activity will take place at a layby on the internal access road, north of the mainstream school building. Vehicles associated with PUDO activity will enter and exit the campus via the Bush Farm Road access, with adequate turning space provided on the access road at the layby.

A layby is also provided to the east of the ASN drop-off area for private vehicle PUDO activity.

2.6 **Servicing**

Servicing vehicles will enter the development site via the priority junction on Bush Farm Road, as shown in **Appendix B**. Emergency vehicle access to the East and West Fields will also be required.

Swept path analysis is provided in **Appendix C**.

3 Policy Review

3.1 Introduction

To demonstrate that the proposed development complies with current national and local transport planning policy, a review of the following documents was undertaken:

- National Planning Framework 4 (NPF4);
- Planning Advice Note (PAN) 75 – Planning for Transport
- Transport Assessment Guidance;
- Designing Streets – A Policy Statement for Scotland;
- A Long-Term Vision for Active Travel in Scotland, 2030;
- Cycling Action Plan for Scotland, 2013;
- SESplan Strategic Development Plan;
- Midlothian Local Development Plan (2017);
- Midlothian Active Travel Strategy, 2018-2021.

An assessment of how the development relates to the relevant policies provided below.

3.2 NPF4

NPF 4 includes a focus on sustainable transport, design, quality and place, and the local living and the 20-minute neighbourhood concept.

NPF4 states that LDPs should prioritise locations for future development that can be accessed by sustainable modes, and that development proposals which enhance sustainable travel connections will be supported. Policy 13 states that development proposals will be supported where they provide sustainable travel benefits such as safe walking and cycle routes, access to public transport, electric vehicle charging, safe and convenient cycle parking. It states that where development proposals will generate a significant increase in person trips, that a Transport Assessment will be undertaken and supported by a Travel Plan.

Policy 14 states that development proposals should be designed to improve the quality of an area and should be supported where they are consistent with the six qualities of successful places:

- Healthy;
- Pleasant;
- Connected;
- Distinctive;
- Sustainable; and
- Adaptable.

Policy 15 within NPF 4 states the following in relation to the 20-minute neighbourhood concept:

‘Development proposals will contribute to local living, including, where relevant, 20-minute neighbourhoods. To establish this, consideration will be given to existing settlement pattern, and the level and quality of interconnectivity of the proposed development within the surrounding area, including local access to:

- Sustainable modes of transport including local public transport and safe, high-quality walking, wheeling, and cycling networks;
- Employment;
- Shopping;
- Health and social care facilities;
- Childcare, schools, and lifelong learning opportunities;
- Playgrounds and informal play opportunities, parks, green streets and spaces, community gardens, opportunities for food growth and allotments, sport, and recreation facilities;
- Publicly accessible toilets;
- Affordable and accessible housing options, ability to age in place and housing diversity.'

3.3 Planning Advice Note (PAN) 75 – Planning for Transport

Planning Advice Note (PAN) 75 acts as a good practice guide on measures that planning authorities, developers and others should carry out in their policy development, proposal assessment and project delivery.

Paragraph 24 states that:

“development plan policy should encourage development of significant travel generating proposals at locations which are key nodes on the public transport network”, and “locations should encourage modal shift of people and freight by providing good linkages to rail, walking and cycling networks”.

PAN 75 provides guidance on accessibility thresholds and walking distances as follows:

- Walking distances from new developments should be no greater than 400 metres to bus stops and 800 metres to rail stations; and
- The maximum acceptable walking distance to local facilities is 1,600 metres.

Travel plans are documents that set out complementary measures for the overall delivery of sustainable travel patterns specific development and should be implemented to encourage a shift to sustainable modes of travel. Travel plans are applicable to various developments including schools.

PAN 75 states that evaluation of new and existing pedestrian routes should consider:

- Is the development likely to be a significant generator of trips on foot?;
- Is the development located on existing or potential pedestrian links?;
- What are the likely level of pedestrian flows at peak and off-peak times?; and
- What types of pedestrians are likely to use the routes?.

3.4 Transport Assessment Guidance

This document accompanies SPP and PAN75 and aims to provide a good practice guide for the Transport Assessment of new development and redevelopment. The document provides a general guide to Transport Assessments' along with some detailed information on the criteria which should be considered. In particular Chapter 5 states:

- Journey times of 20-30 minutes are appropriate for walking and 30-40 minutes for cycling;
- Public transport journey times can be calculated by a combination of analysis of timetables and maps. This should be complemented by observation of walking times to actual (or potential) bus stops. A 30-minute door to door travel time is an appropriate choice of time-band by public transport although it may also be helpful to consider a 45-minute door to door travel time; and,
- For developments of national or regional importance, public transport journey times of 1 hour may be appropriate.

The above guidelines were followed during the preparation of this Transport Assessment.

Demand management in the form of travel planning can be adopted at schools, which can include various measures such as information on public transport, car sharing and marketing initiatives.

3.5 A Long-Term Vision for Active Travel in Scotland, 2030

The active travel strategy sets out a vision for walking and cycling to be the most popular choice for shorter everyday journeys. The strategy hopes that by achieving this vision, progress towards achieving the following objectives will also be made:

- Better health and safer travel for all;
- Reducing inequalities;
- Cutting carbon emissions and other pollution;
- Delivering liveable, more pleasant communities; and
- Supporting delivery of sustainable economic growth.

3.6 SESplan Strategic Development Plan

The Strategic Development Plan (SDP) was approved in June 2013 and covers six member authorities:

- Edinburgh;
- East Lothian;
- Fife;
- Midlothian;
- Scottish Borders;
- West Lothian.

The document sets out a vision statement on future development in the SESplan area and a spatial strategy for future development and land use.

The SDP states that local planning authorities in collaboration with Transport Scotland and SEStran will support and promote the development of a sustainable transport network by:

- Ensuring that development likely to generate significant travel demand is directed to locations that support travel by public transport; foot and cycle;
- Ensuring that new development minimises the generation of additional car traffic, including through the application of mode share targets and car parking standards that relate to public transport accessibility;
- Relating density and type of development to public transport accessibility;

- Taking account of the cross-boundary transport implications of all policies and proposals including implications for the transport network out with the SESplan area;
- Ensuring that the design and layout of new development demonstrably promotes non-car modes of travel; and
- Considering the merits of protecting existing and potential traffic-free cycle and walking routes such as disused railways affected by any development proposal.

3.7 Midlothian Local Development Plan (2017)

The Midlothian Local Development Plan (MLDP) is prepared within the context of SESplan's Strategic Development Plan and focuses on providing for, and managing, future change across the Council area in line with the SESplan requirements'.

The LDP contains strategic aims which underpin the policy framework:

- To implement the requirements of the Strategic Development Plan for South-East Scotland (SESplan);
- To contribute to the delivery of successive Midlothian Single Outcome Agreements;
- To support the development of a vibrant, competitive, and sustainable local economy;
- To safeguard and enhance Midlothian's natural and built heritage, which sustains the quality of life of its communities;
- To respond robustly to the challenges of mitigating climate change and adapting to its impacts;
- To provide positively for development which secures long-term social, economic, and environmental benefits for existing and new residents, and not just short-term gain;
- To identify and implement a Green Network for Midlothian consistent with national and regional green network projects; and
- To help ensure that Midlothian is a welcoming and enriching place to live, work and visit.

The LDP also contains various environmental, social, and economic objectives.

Particular policies are of relevance to the proposed development:

Policy TRAN 1 – Sustainable Travel

The Council will seek to develop an active travel network to promote sustainable travel and give priority to walking, cycling and public transport initiatives and developments over provision for car-based travel. The network would be a combination of existing and planned routes and infrastructure which would include:

- Safer routes to school;
- Re-prioritised road space to support walking and cycling;
- Dedicated routes to encourage walking and cycling to work, and for recreation and leisure; the proposed Midlothian Green Network and Core Paths network;
- The integration of new and existing housing and economic development;
- Contributions towards cross-boundary/long distance recreation and commuting routes;
- The development and extension of the National Cycle Route Network; and

- Facilities for visitors and tourists.

Policy IMP 1 – New Development

Planning conditions will be applied to ensure that appropriate provision is made for features such as:

- Essential infrastructure, including transport, required to enable to new development to take place;
- Connections to all forms of public transport services;
- Parking in accordance with approved parking standards;
- Cycling access and cycling facilities;
- Easy and safe access and movements for pedestrians; and
- Access for people with mobility issues.

In relation to education, the scale of growth in Midlothian since 2003 has resulted in a significant expansion of the school estate. To meet this planned growth, the Council has implemented a school replacement programme involving most of its primary schools and four out of its six secondary schools.

3.8 Midlothian Active Travel Strategy, 2018-2021

The Midlothian Active Travel Strategy aims to provide a framework of objectives for investment, to identify required improvements in the region, deliver a connected network and direct future active travel infrastructure and promotional initiatives.

Midlothian contains various types of active travel infrastructure, including:

- Core paths;
- Multi-user paths;
- On-road cycle lanes;
- Quiet routes;
- Cycle parking.

The Council has various considerations for new developments which will help promote active travel, including:

- Street user hierarchy should consider pedestrians first and private motor vehicles last;
- Street design should be inclusive, providing for all people regardless of age or ability;
- Design should be used to influence driver behaviour to reduce vehicle speeds to levels that are appropriate for the local context and deliver streets for all;
- Junctions should be designed with the considerations of the needs of pedestrians first;
- Street layouts should be configured to allow walkable access to local amenities for all street users;
- Street patterns should be fully integrated with surrounding networks to provide flexibility and accommodate changes in built and social environment.

Strategic active travel maps have been prepared for Midlothian, as further discussed in **Section 4.3**.

The objectives of the Active Travel Strategy are outlined below:

- Raise awareness of all aspects of active travel and promote walking and cycling as alternative transport modes for short trips and commuting;
- Encourage more people to walk and cycle more often by providing them with opportunities to do so;
- Increase the availability of active travel infrastructure and develop infrastructure improvements which encourage active travel.
- Improve the safety of walking and cycling and reduce the number of yearly walking and cycling casualties;
- Ensure walking and cycling needs are included in new development design;
- Maintain, repair and upgrade walking and cycling infrastructure, including routes and facilities;
- Increase active travel in schools through a variety of walking and cycling programmes.
- Seek and support funding for walking and cycling initiatives throughout Midlothian; and
- Monitor and evaluate the objectives and action plan of this strategy.

3.9 Assessment of Development Against Policy

The development of the site conforms with NPF4 Policy 15 as it is located close to active travel and public transport routes, employment and various local amenities which are accessible within a 10-minute walk. The development of the site complies with NPF4 Policy 13, relating to sustainable travel, through the provision of compliant cycle and vehicle parking (including EV charging infrastructure) and safe, direct active travel routes through the site. It also complies with Policy 14, which focuses on improved quality of an area, as it will help to create a connected, sustainable community.

The site is located within 400m of existing bus stops on Bush Farm Road and the A703 Seafield Moor Road, which complies with the maximum walking distances set out in PAN75. Buses serving these stops offer connections to areas throughout Midlothian, including many key settlements in the Beeslack High School catchment. Bus services also provide connections to areas in Edinburgh and East Lothian, which can be used by staff. Furthermore, school coach parking will be provided within the school grounds, which will be a key method of transport for many students that do not reside in a location from which they can arrive via active travel.

The campus is also located close to existing active travel infrastructure, including the shared use path to the north of Bush Farm Road and on-road cycle lanes on the A701, which meets criteria in PAN 75. Midlothian Council's Active Travel Strategy also has various aspirational active travel routes in the surrounding area which will also enhance safety for users and will further encourage active travel to the development. The development's internal road and pedestrian networks have been designed to encourage low vehicle speeds and create safe walking conditions for pupils and all other users. The proposed pedestrian crossings on the A703 Seafield Moor Road and Bush Farm Road and a reduction in speed to 20mph will improve the safety of the existing road network surrounding the school. This complies with the objectives set out in the Midlothian Active Travel Strategy and A Long-Term Vision for Active Travel in Scotland. The development will form a major educational and community facility within the 20-minute neighbourhood for local residential areas. The 20-minute Neighbourhood concept is a key feature in current government policy.

The development proposal meets the Council's vehicle and cycle parking standards and takes consideration of safer routes to school, which meets criteria set out in the Midlothian Local Development Plan. This will also help to achieve the objectives set out in the Midlothian Council Active Travel Strategy.

The provision of a Travel Plan for all users will further assist in supporting sustainable travel and alternatives to the private car for both pupils and staff. This will be promoted through behaviour change measures, as set out in **Chapter 5**.

4 Accessibility Assessment

A baseline accessibility assessment was undertaken to establish existing transport provision relevant to the proposed campus. The assessment considers travel by all relevant modes of transport and provides details of available infrastructure and service provision. The assessment recognises the need for both local and regional travel. It recognises that walking and cycling are main modes of transport but are also secondary modes of travel for public transport users.

4.1 School Catchment

The proposed pupil catchment for the new Beeslack High School is shown in **Figure 4.1**. As shown, the existing Beeslack catchment covers the north-western part of Midlothian and includes Bilston, Parkadykes and Roslin Primary Schools.

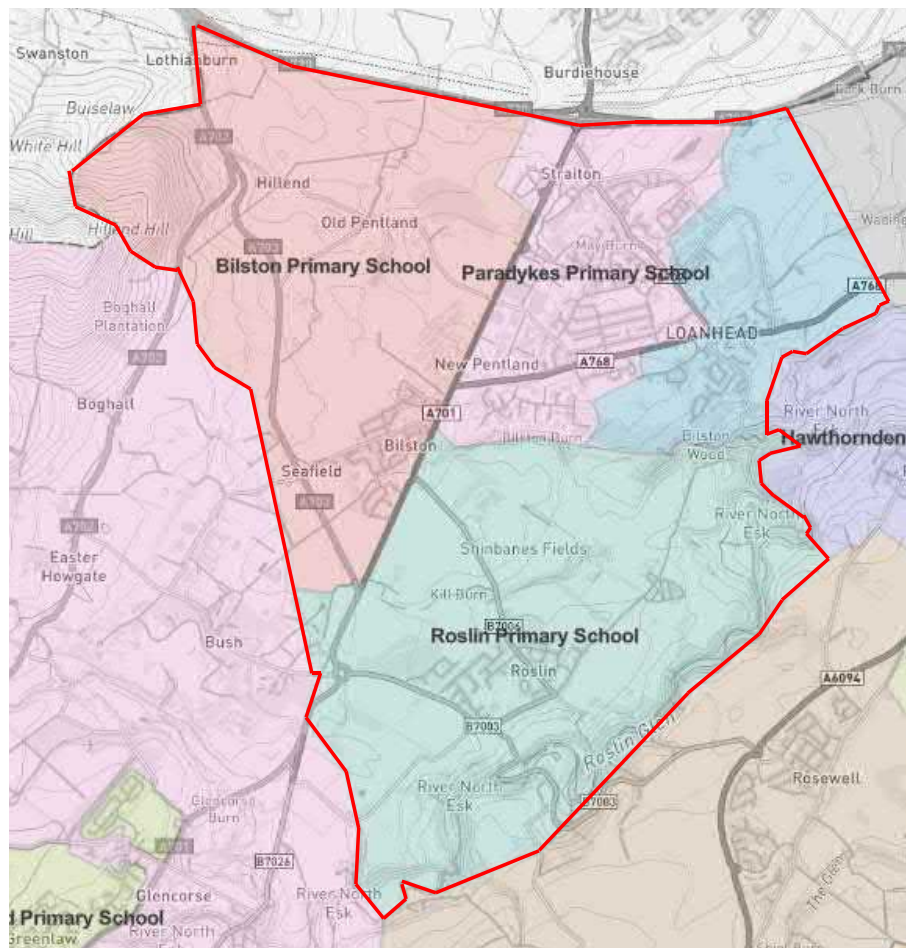


Figure 4.1. Proposed Beeslack High School catchment

The likely future routes to school from the catchment and surrounding areas are shown in **Figure 4.2**.

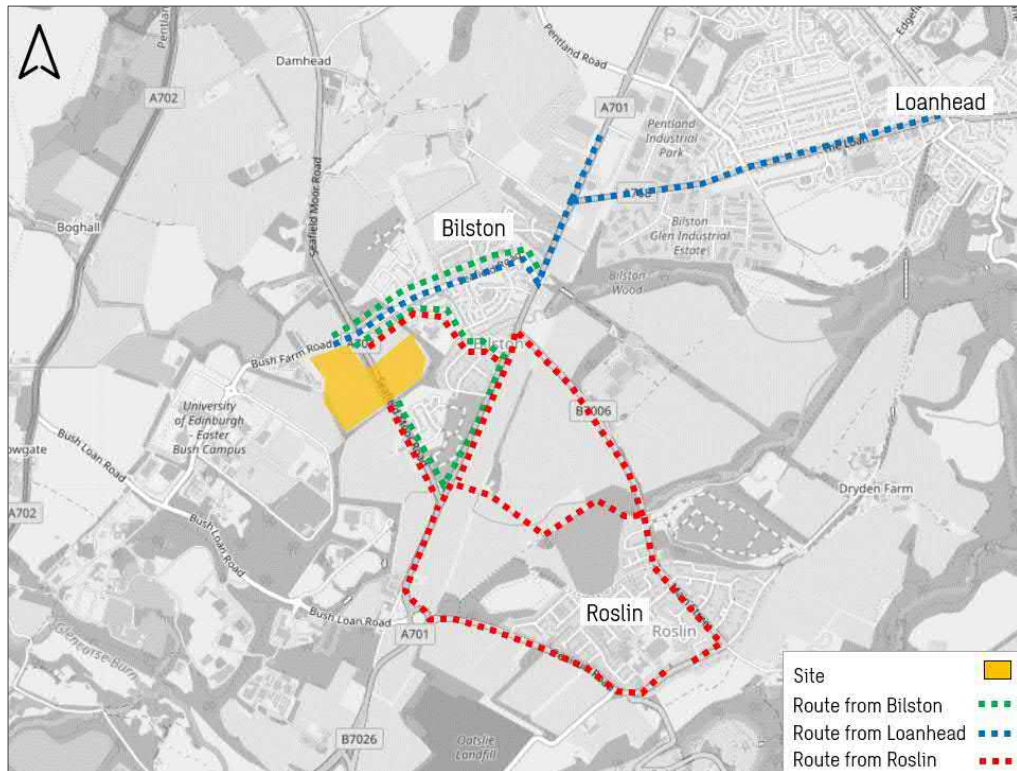


Figure 4.2. Routes from surrounding catchment

The routes shown in **Figure 4.2** are described in more detail in the following sections. In addition, routes from Penicuik and Auchendinny have been included acknowledging that staff / visitors to the community uses may use these routes.

4.2 Existing Active Travel Provision

Pedestrian access to the campus will be available from Bush Farm Road and the A703 Seafield Moor Road, as discussed in **Section 2.2.1**. The following section describes the pedestrian infrastructure surrounding the site.

A footway is provided on the southern side of Seafield Road for its entire length, as shown in **Figure 4.3**, which offers a pedestrian connection to the campus from nearby residential areas in Bilston.



Figure 4.3. Footway on southern side of Seafield Road

A footway is also provided on the eastern side of the A703 Seafield Moor Road, between the A701 to the south and the A702 to the north, as shown in **Figure 4.4**.



Figure 4.4. Footway on eastern side of Seafield Moor Road

Signalised crossings at the Bush Farm Road / Seafield Road / A703 Seafield Moor Road junction and the A701 / A703 Seafield Moor Road junction provide safe crossing

opportunities at a key junction in vicinity of the school. The signalised crossing offering a safe crossing over Bush Farm Road is shown in **Figure 4.5**.



Figure 4.5. Signalised crossing on Bush Farm Road

A shared use path is provided on the northern side of Bush Farm Road between the Bush Farm Road / Seafield Road / A703 Seafield Moor Road junction and the University of Edinburgh Easter Bush campus, as shown in **Figure 4.6**.



Figure 4.6. Shared use path on northern side of Bush Farm Road

Existing active travel infrastructure surrounding the site is shown in **Figure 4.7**.

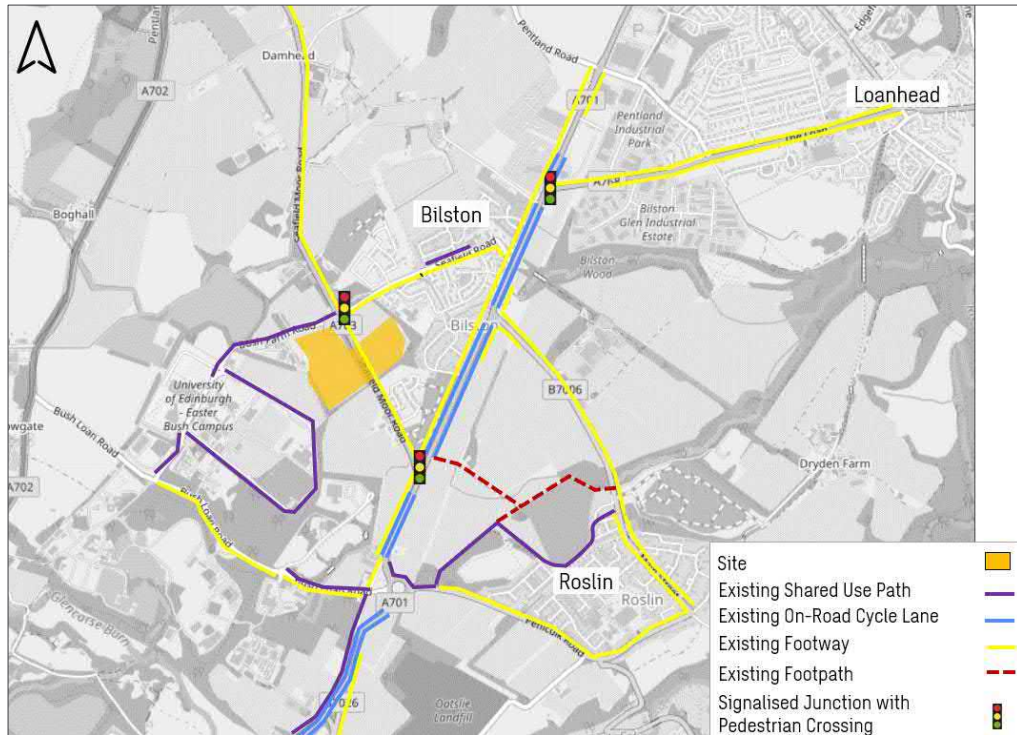


Figure 4.7. Existing pedestrian infrastructure surrounding the site

The sections below describe the existing active travel infrastructure from the main catchment areas for Beeslack High School.

Bilston

From Bilston, on-road cycle lanes are provided on the A701 between the Niven's Knowe Road priority junction to the A703 priority junction. As described above, a footway and street lighting are provided throughout Seaford Road, which connect the residential streets in Bilston to the campus.

Loanhead

From Loanhead town centre, footways are provided on both sides of the A768 to Main Street (Pentland Industrial Estate). From Main Street, a footway is provided on the northern side of the carriageway to the A701 priority junction. This connects into the footways and on-road cycle lanes on the A701.

Roslin

From Roslin, a footway is provided on the northern side of the B7003 Penicuik Road, which connects into the Gowkley Moss Roundabout. As shown in **Figure 4.8**, the footway is narrow in places.



Figure 4.8. Footway on northern side of A7003 Penicuik Road

A signalised crossing with central island is provided on the A701, approximately 80m north of the Gowkley Moss Roundabout, which offers a connection to the footways on the eastern side of the carriageway and the northbound on-road cycle lanes.

Within Roslin, an active travel route also links the B7006 and B7003 Penicuik Road, providing connections to residential estates located in between. This allows an onward connection to the footways / on-road cycle lanes on the A701. An image of the active travel route is shown in **Figure 4.9**.



Figure 4.9. Active travel route in Roslin between the B7006 and A7003 Penicuik Road

An existing footpath connects the B7006 in Roslin to the A701, approximately 80m north of the A703 Seafeld Moor Road junction. It can also be accessed via the cycle path described above. The path connects to a footway on the A701 which leads to a signalised crossing, offering a connection to the footway on the eastern side of the A703 Seafeld Moor Road. The path not surfaced, as shown in **Figure 4.10**, and is currently used for local farm access. The route is therefore sub-standard for school travel but is one of the Council's aspirational active travel routes (see **Section 4.3**).



Figure 4.10. Footpath between Roslin and the A701.

Penicuik

From Penicuik, a combination of on-road cycle lanes and bus, taxi and cycle lanes are provided on the A701 between Eastfield Farm Road and the Gowkley Moss Roundabout, which can be used by cyclists travelling from Penicuik. The on-road cycle lanes continue from Gowkley Moss Roundabout to the A701 / A703 junction, providing an onward connection to the school.

A short section of shared use path is provided to the west of the A701, between Bush Loan Road and approximately 1km south of the Gowkley Moss Roundabout. Prior to this, footways and street lighting are provided throughout the A701 to the south, offering a pedestrian connection from Penicuik.

Auchendinny

Footways and street lighting are provided on the B7026 in Auchendinny, which provide a connection to the footway network on the A701 to the north. It is noted that there is a lack of a safe crossing point for pedestrians to access the footway on the western side of the carriageway from the eastern side.

Signalised crossings at the junction of the B7026 and A701 offer a connection to the bus, taxi and cycle lane on the northbound side of the carriageway or to the shared use path to the west of the carriageway.

4.3 Aspirational Active Travel Provision

Discussions with the Council have highlighted committed active travel provision in vicinity of the site. The A701, south-east of the site, is being assessed as part of the A701 Relief Road Project. The existing A701 will include an active travel corridor element, with segregated walking/cycling infrastructure, and the A701 relief road will

also contain active travel provision. A feasibility study is also being undertaken for an active travel route on the A703 Seafield Moor Road.

The Council's Active Travel Strategy contains maps of existing and aspirational active travel infrastructure in Midlothian. **Figures 4.11** and **4.12** show various aspirational active travel routes that would improve access to Beeslack High School to its catchment areas of Bilston, Loanhead, Roslin and Penicuik.

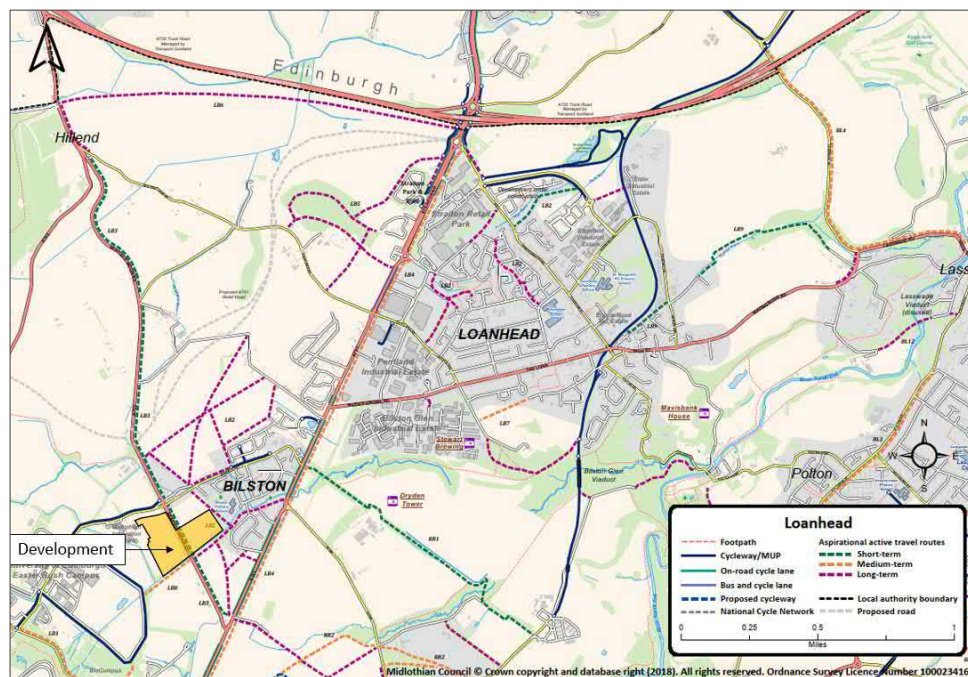


Figure 4.11. Active travel infrastructure in Loanhead, taken from Midlothian Council's *Active Travel Strategy*

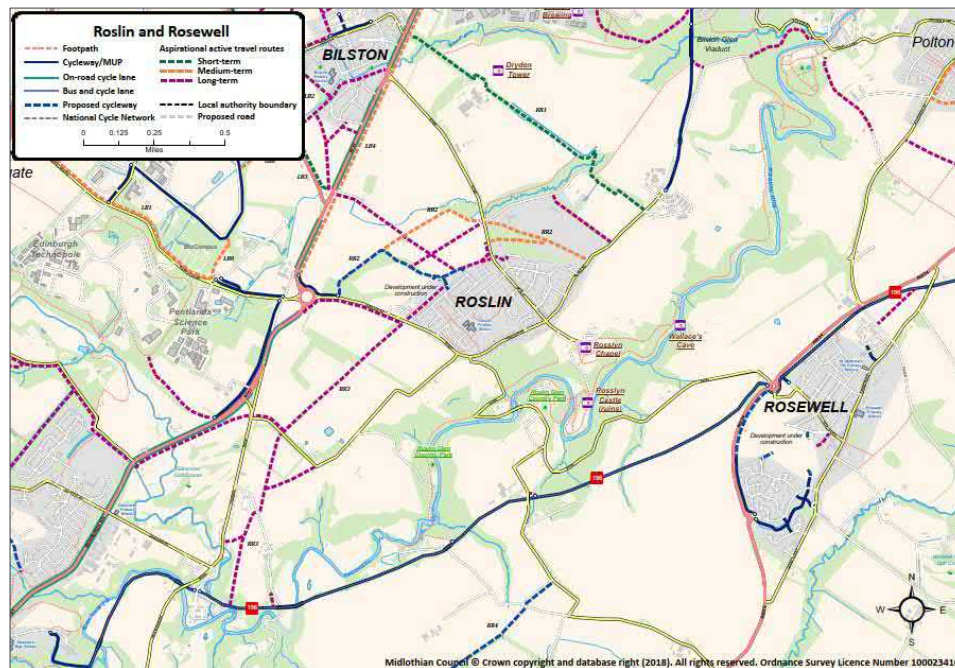


Figure 4.12. Active travel infrastructure in Roslin and Rosewell taken from Midlothian Council's *Active Travel Strategy*

Figure 4.11 highlights the aspirational active travel route the eastern side of the A703 Seafield Moor Road between the A701 and A702, which would benefit many active travel users entering the campus from the A701.

Figures 4.11 and **4.12** also highlight the aspirational active travel route on the A701 between Loanhead Road (located south of the A720 City of Edinburgh Bypass) and the Gowkley Moss Roundabout. This would be of great benefit to active travel users entering the development from Loanhead, Bilston or Roslin, providing appropriate crossing facilities were included on the A701.

Figure 4.12 highlights that the existing footpath between Roslin and the A701 is an aspirational active travel route, which would be beneficial to many residents of Roslin. **Figure 4.12** also highlights an aspirational active travel route between Auchendinny and Roslin, which would provide a safe off-road route for school children.

Figure 4.13 shows the network surrounding the site including infrastructure which will be implemented prior to the school opening and the Council's aspirational active travel routes.

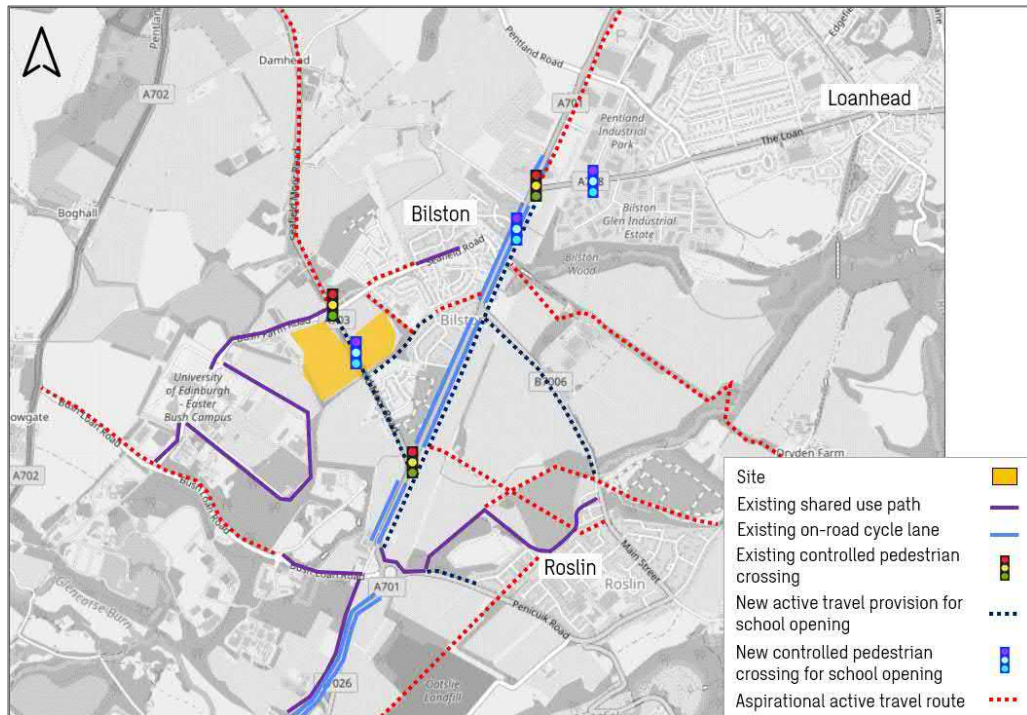


Figure 4.13. Future active travel network surrounding the site, including infrastructure which will be implemented prior to the school opening and Midlothian Council's aspirational active travel routes

4.4 Walking Catchment

Figure 4.14 highlights the pedestrian catchment for the site. National transport policy and guidance specifies that 400metres (5minute walk) is a reasonable walking distance to the nearest bus stops and 1.6km (20minute walk) to the nearest local amenities. In addition, an 800m catchment is shown which ties in with the 20-minute neighbourhood concept (10-minute walk catchment/20-minute round trip walk).

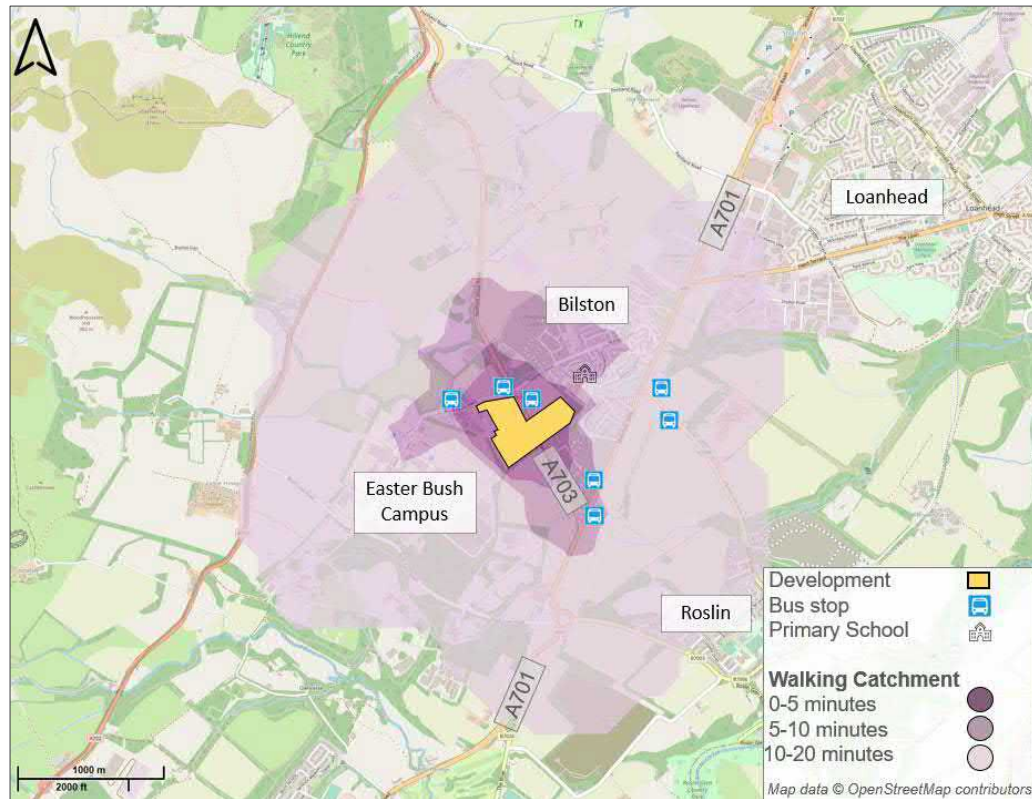


Figure 4.14. 20-minute walking catchment

As shown in **Figure 4.14**, different residential areas are located within a 20-minute walk of the development, including Bilston, Loanhead and Roslin. This means that the campus is within a reasonable walking distance of pupils residing in these areas. Additionally, bus stops located on Bush Farm Road and the A703 Seafield Moor Road, are located within a 5-minute walk of the development.

Bilston Primary School, which falls within the catchment area of the school, is located within a 10-minute walk to the north-east of the site.

4.5 Cycling Catchment

Figure 4.15 highlights the catchment within an approximate 30-minute cycle (c.8km) of the development, which is identified within 'Transport Assessment Guidance' as a reasonable cycle time for a local trip.

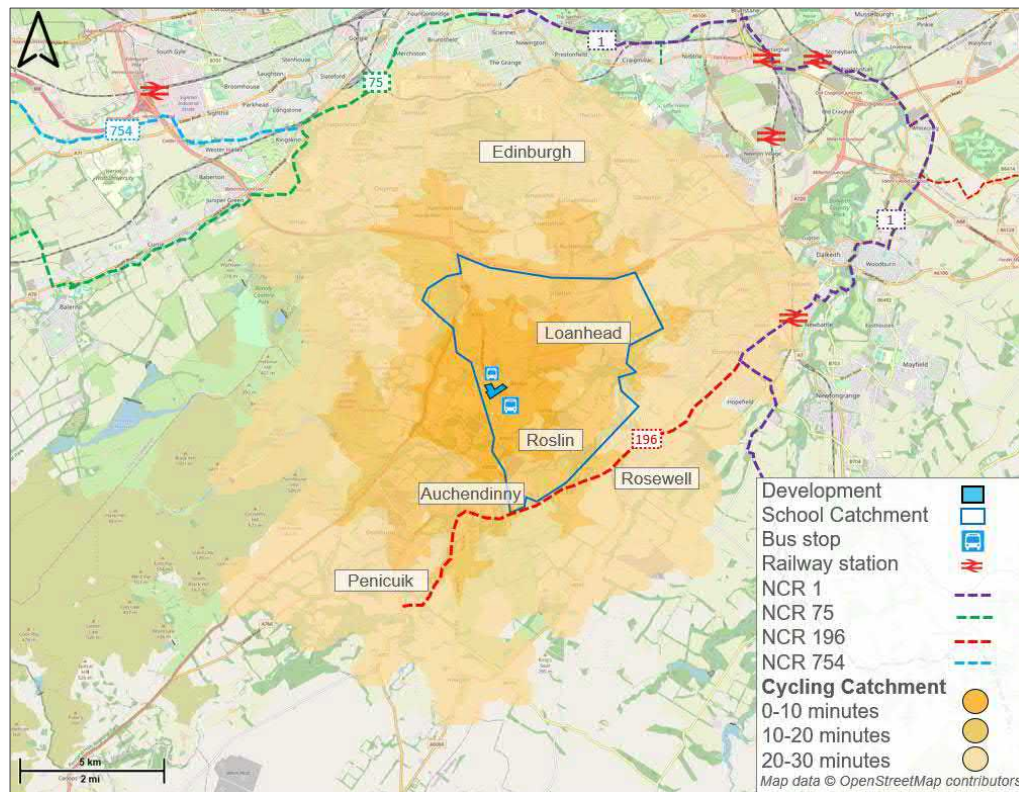


Figure 4.15. 30-minute cycling catchment

As shown in **Figure 4.15**, all residential areas within the Beeslack High School catchment, along with a larger area of Midlothian and southern Edinburgh can access the school within a 30-minute cycle. With appropriate active travel infrastructure in place, cycling could be a viable option by a number of pupils and staff as a primary mode of transport to the school.

National Cycle Route (NCR) 196 can be accessed within an approximate 12-minute cycle of the campus, which provides onward connections to NCR 1. Eskbank Railway Station is also located within a 30-minute cycle.

As part of the Travel Plan (TP) and to promote active travel, staff and pupils will be provided with a leaflet highlighting available walking and cycling routes. Further details of the TP are provided in **Chapter 5**.

Cycle maps, produced by the Council, are provided in **Appendix D**.

4.6 Liveable / 20-minute Neighbourhood

NPF4 focuses on local living and the “Liveable Neighbourhood” and “20-minute Neighbourhood” concepts, which assumes that an individual can walk to key local amenities and facilities within a reasonable distance of their home. The 20-minute neighbourhood concept has a significant role to play in the vision for the site, and as such, this section will consider how the development of the site can support this concept.

The school, and community facilities, will form key elements of the 20-minute neighbourhood for surrounding residential areas. **Figure 4.16** shows a 10-minute walking and 10-minute cycling catchment, which equate to 20-minute round trip journeys.

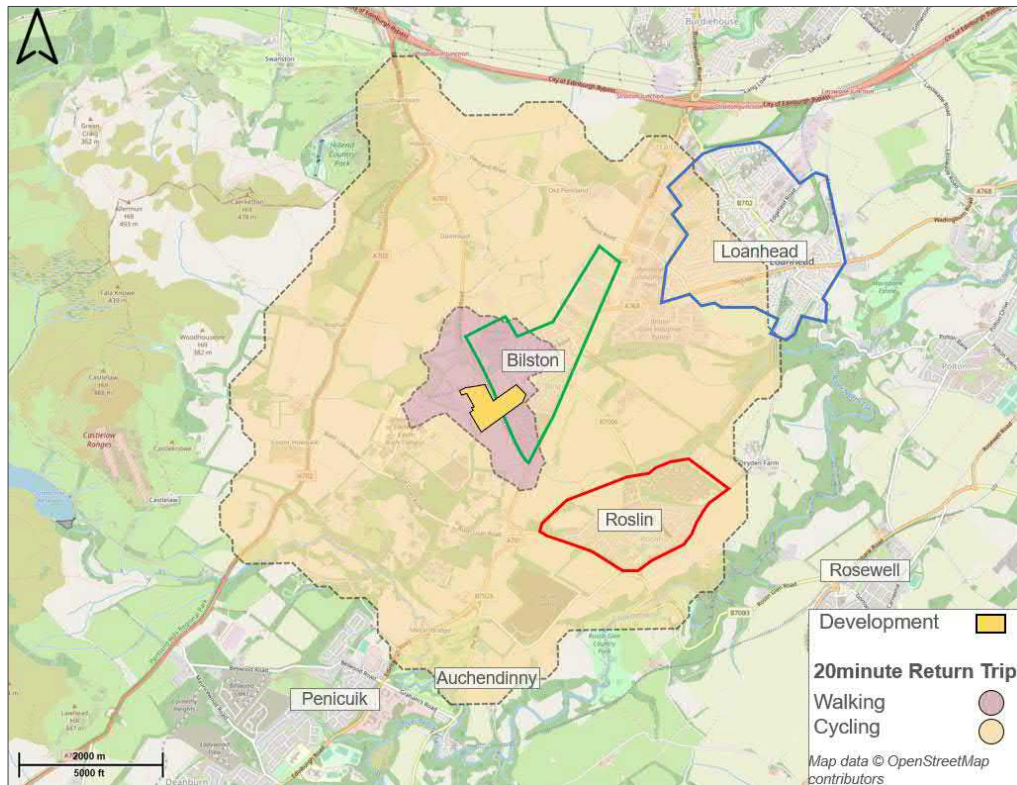


Figure 4.16. 20-minute neighbourhood catchments

As shown in **Figure 4.16**, the campus is within a 10-minute walking distance from residential areas in Bilston and a 10-minute cycling distance from Roslin and Loanhead. With the existing and aspirational infrastructure set out in **Sections 4.2** and **4.3** respectively, the development will be highly accessible by active travel.

4.7 Public Transport

The following describes access to the campus by public transport. It is expected that public transport services will be used by both staff members and pupils. It is expected that a high proportion of users of the community facilities at the campus will also travel by public transport.

4.7.1 Bus Provision

Several bus stops are located within close proximity to the site, on Bush Farm Road and the A703 Seafeld Moor Road. These stops are served by Lothian Bus and Lothian Country Bus routes and most stops offer shelters, seating and timetable information. The location of the bus stops is provided in **Figure 4.17**.

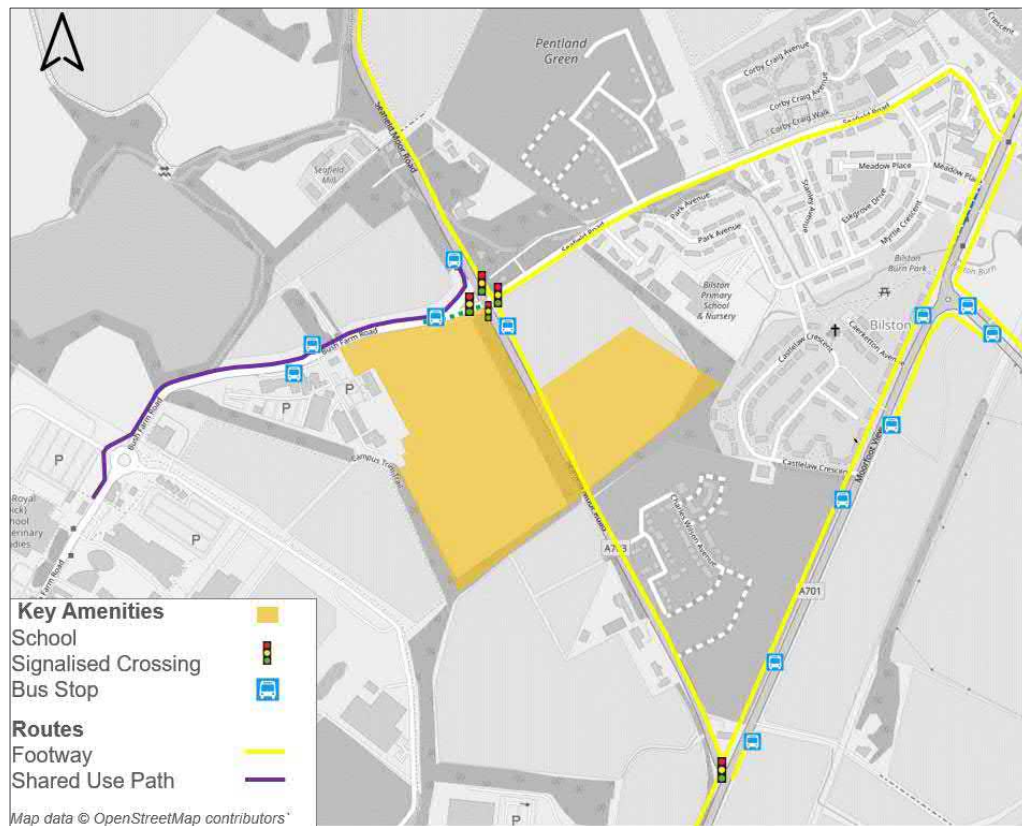


Figure 4.17. Existing bus stop provision

Bus stops on Bush Farm Road and the A703 Seafeld Moor Road are served by Lothian Bus routes 15, 37 and 47B shown in **Table 4.1**. With up to 7 buses available per hour on weekdays, 1 per hour on a Saturday and no services on a Sunday.

| Service | Provider | Route |
|---------|------------------|------------------------------|
| 15 | Lothian Buses | Easter Bush – Waterloo Place |
| 37 | | Easter Bush -Silverknowes |
| 47B | | Penicuik Ladywood - Granton |
| 141 | East Coast Buses | Penicuik - Musselburgh |

Table 4.1. Bus service provision on Bush Farm Road and the A703 Seafeld Moor Road (correct @ July 2024)

Figure 4.18 shows the public bus routes in relation to 1-mile and 2-mile catchments from the proposed school site.

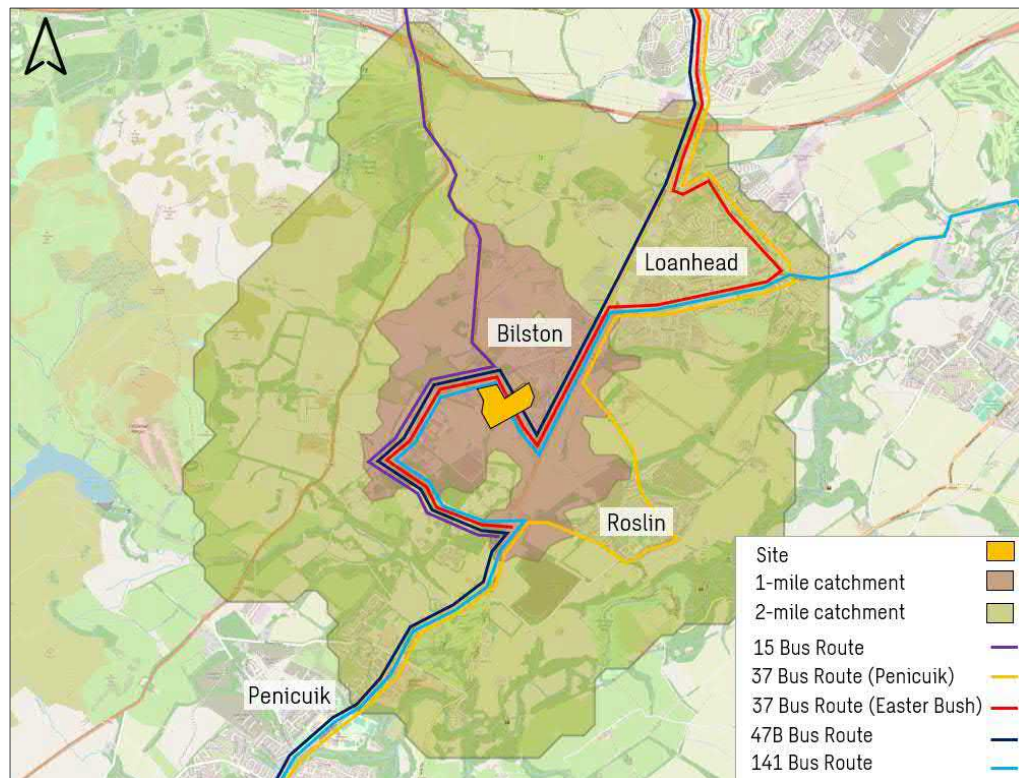


Figure 4.18. Bus routes in vicinity of school

As shown in **Figure 4.18**, bus services offer routes from Penicuik, Bilston and Loanhead, directly to the school. From Roslin, the 37 bus could be taken to the A701, which then falls within a 20-minute walk of the school building.

It is likely that these bus services will be used by a high proportion of pupils travelling from Penicuik, or Loanhead as all children are entitled to free public transport in Scotland. These services may also be used by staff members travelling from throughout Midlothian, Edinburgh, and East Lothian, and by those using the community facilities within the campus. The bus services on Bush Farm Road and the A703 Seafield Moor Road are accessible within a 5-minute walk of the school, which meets criteria set out in national transport planning guidance.

4.7.2 Rail Provision

The closest railway station to the site is Eskbank, located within a 30-minute cycle. Eskbank Railway Station is located on the Edinburgh – Tweedbank line and offers two services per hour in each direction on weekdays and Saturdays and one service per hour in each direction on Sundays. Train services are unlikely to be used by pupils but may be used by a low number of staff.

The 60-minute public transport catchment for the proposed site is shown in **Figure 4.19**.

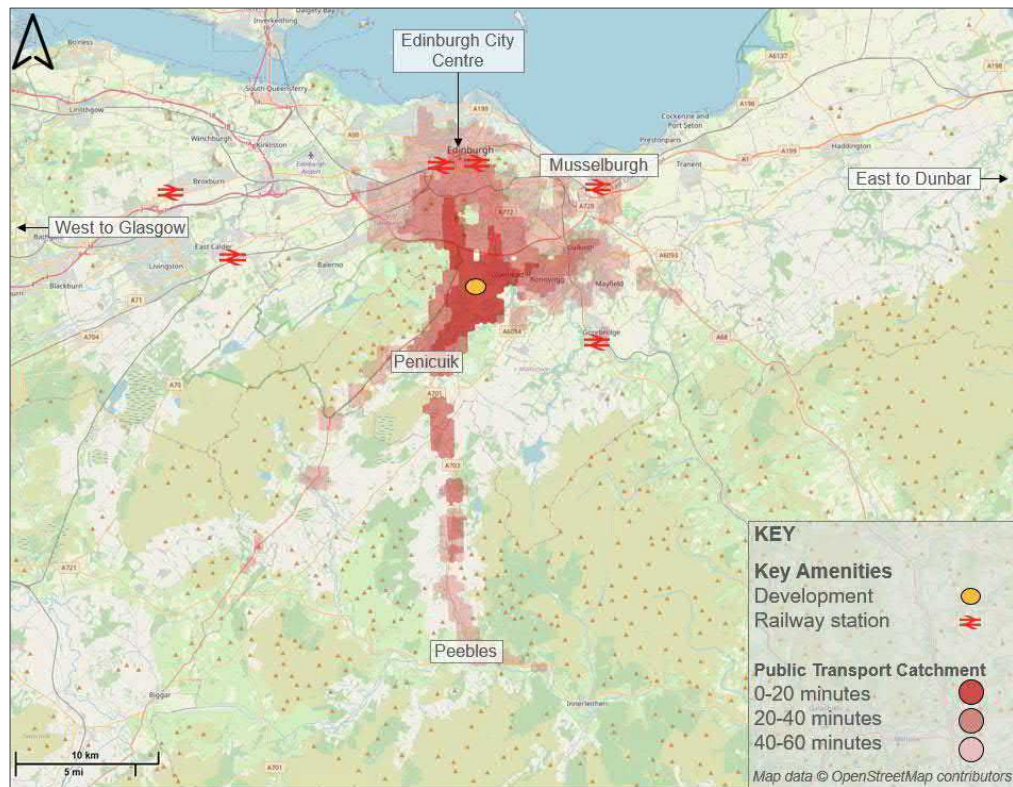


Figure 4.19. 60-minute public transport catchment

Figure 4.19 shows that the campus can be reached within a 60-minute public transport journey of number of settlements in Midlothian and a large part of Edinburgh.

4.8 Road Network

As part of the development proposal, vehicle access will be taken from the A703 Seafield Moor Road and Bush Farm Road with an associated reduction in the speed limit to 20mph in the vicinity of the accesses.

The existing characteristics of the road network surrounding the site are set out below.

4.8.1 A703 Seafield Moor Road

The A703 Seafield Moor Road is a two-way single carriageway that bisects the West and East Fields of the development and connects the A701 and A702. It is one of the primary routes from Edinburgh to the north and is subject to a 40mph speed limit. A footway is provided on the eastern side of the A703 Seafield Moor Road and signalised crossings are provided at the A703 Seafield Moor Road / Bush Farm Road / Seafield Road signalised junction.

4.8.2 Bush Farm Road

Bush Farm Road forms the northern boundary of the West Field of the site. It is a two-way single carriageway that is subject to a 30mph speed limit. This road connects to the University of Edinburgh's Easter Bush Campus and the Bush Estate to the west. A

segregated shared-use path is located north of the carriageway and street lighting is provided.

4.8.3 Seafield Road

Seafield Road is located north of the East Field and is a two-way single carriageway subject to a 30mph speed limit. This road provides a connection from the village of Bliston to the A703 Seafield Moor Road / Bush Farm Road crossroads. A footway is provided on the southern side of the carriageway and street lighting is present throughout.

4.8.4 A701

The A701 is primarily a two-way single carriageway that is to the South-East of the development site and is subject to a variable speed limit throughout. The A701 has a 40mph speed limit where it connects with the A703 Seafield Moor Road. The A701 is a key strategic route in Midlothian, providing connections from the A720 City of Edinburgh Bypass and Edinburgh to the north. Southbound, the A701 provides access from Penicuik and the Scottish Borders. Street lighting and on-road cycle lanes are provided on both sides of the carriageway and a footway is provided on the western side of the A701.

5 Travel Plan Framework

5.1 Introduction

Travel planning has the potential to help achieve more sustainable communities by improving accessibility and travel choice. It is acknowledged that this Travel Plan (TP) is a 'Destination based' Travel Plan (TP). Key elements of the TP are focused on education and the promotion of appropriate transport information.

This TP framework should be considered as guidance and an available resource which identifies objectives and measures aimed at improving sustainability and choice. The benefits of travel planning can be summarised as follows:

- Reducing carbon emissions;
- Education with respect to sustainable travel;
- Improve accessibility and travel choice for reaching places of study, local facilities and amenities;
- Achieving a more attractive and safer development by reducing car use;
- Improving the health of residents; and
- Improve knowledge of residents in relation to travel routes and locations of facilities.

As the campus will be used for school and community purposes, a framework will be required for the following users:

- Staff;
- Pupils / Parents; and
- Community users.

5.2 School Travel Plan

5.2.1 Travel Plan Measures

5.2.1.1 *Travel Plan Coordinator (TPC)*

A Travel Plan Coordinator will be appointed within the school to take responsibility for the implementation and monitoring of measures set out in this TP Framework. The TPC will raise awareness of the available methods of transport and provide details of the environmental, social and economic benefits to be gained.

The role of the school TPC will include the following:

- Encouraging the use of active and sustainable transport to staff and pupils / parents;
- Sharing of travel information, including a welcome pack travel leaflet for staff and notice board information, ensuring that it is kept accurate, relevant, and current;
- Monitoring and review of the Travel Plan;
- Acting as the key point of contact for staff and pupils / parents in order to provide information, advice, and guidance;

- Examining and processing comments and suggestions from staff and pupils / parents in relation to improving access to the site by active and sustainable modes of travel;
- Increasing awareness of the availability and benefits of active and sustainable modes of travel;
- Liaison with the Council.

5.2.1.2 *Travel Plan Welcome Leaflet*

It is proposed that opportunities for sustainable travel will be promoted through a school travel leaflet, to be provided within a staff 'Welcome Pack' and also sent to pupil's parents via a school letter.

The staff 'Welcome Pack' will include a travel leaflet incorporating the following:

- Information on the health and financial benefits of active travel and public transport;
- A map of existing pedestrian and cycle routes in vicinity of the campus;
- Details of pedestrian / cycle facilities within the campus grounds and location of cycle parking;
- Public transport information specific to the site. This will include links to relevant websites with relevant service provision and a map of bus stop locations and pedestrian routes for accessing these;
- Details of staff parking provision, access, and restrictions;
- Information on cycle to work schemes; and
- Information on local car club provision.

The school letter for pupils and parents will include the following:

- Information on the health and financial benefits of active travel and public transport;
- A map of existing pedestrian and cycle routes to the campus from residential areas within the school catchment;
- Details of pedestrian / cycle facilities within the campus grounds and location of cycle parking;
- Public transport information specific to the site. This will include links to relevant websites with relevant service provision and a map of bus stop locations and pedestrian routes for accessing these;
- Details of school pick-up/drop-off facilities, coach parking, site access, and restrictions around these;
- Details of upcoming active travel events; and
- Details of school and community facilities and opening hours.

The leaflets will provide staff and pupils/parents with detailed information in relation to a range of transport facilities and travel choices within the area. The leaflets will clearly state the parking and pick-up/drop-off restrictions within the site. It is proposed that the leaflet be finalised and implemented at an appropriate time following grant of planning permission and to reflect travel options available at that time.

5.2.1.3 *Walking and Cycling*

Various residential areas are located within a 10-minute walk or 10-minute cycle of the school, meaning both walking and cycling would be a realistic choice for many pupils to access the school. Recommended walking and cycling routes to the school from settlements within the school's catchment area would be promoted to pupils / parents in their school letter Travel Leaflet and information will be provided on noticeboards within the school building.

Cycle parking provision will meet the Council's standards and will be safe and secure for pupil and staff use. The TPC would monitor the cycle parking usage regularly.

5.2.1.4 *Public Transport*

Given the development's proximity to good public transport links, it is important that these are promoted well to staff and pupils. This information would be available within the Travel Leaflets provided for staff and pupils/parents and displayed on noticeboards in the school and on the school website.

5.2.1.5 *Car Sharing*

Car sharing with other members of staff will be encouraged to reduce the number of private car trips made. The travel leaflet and the TPC will promote the following local sharing service to be used by staff:

- <https://liftshare.com/uk>

5.2.2 Action Plan

An Action Plan, summarising the Travel Plan measures is provided in **Table 5.1**.

| Measure | Timescale |
|--|------------------------|
| Identification of the Travel Plan Coordinator | At opening |
| Provision of all staff with Welcome Packs containing the Welcome Leaflet and issuing pupils/parents with a school letter containing a Welcome Leaflet | At opening |
| Promote local and national walking and cycling events to staff and pupils, e.g. Bike Week and National Stepcount Challenge | Ongoing |
| Provision of information on notice boards within the school, including maps, public transport timetable information, and details of upcoming events. | At opening and ongoing |
| Promotion of www.travelinescotland.com which provides public transport information and journey planning facilities. | Ongoing |
| Gather information on staff and pupil mode share at the beginning of each school year | Ongoing |

Table 5.1. Action Plan

5.2.3 Monitoring

The TPC will monitor travel mode share and collect feedback on travel options every school year. This will take the form of a short, online questionnaire for staff and a 'hands up' survey for pupils, which will allow feedback to be gathered on travel issues and suggestions for improvement. The TPC will also monitor the vehicle and cycle parking usage at the school.

The TPC will use the data to guide effort and resource aimed at improving travel choices where required and to help educate staff and pupils / parents on travel options.

5.3 Community Use Travel Plan

5.3.1.1 Travel Plan Coordinator (TPC)

A Travel Plan Coordinator will be appointed within the community facilities to take responsibility for the implementation and monitoring of measures set out in this TP Framework. The TPC will raise awareness of the available methods of transport and provide details of the environmental, social, and economic benefits to be gained.

The role of the TPC within the community facilities will include the following:

- Encouraging the use of active and sustainable transport to staff and visitors;
- Sharing of travel information, including a welcome pack travel leaflet for staff and notice board information, ensuring that it is kept accurate, relevant, and current;
- Monitoring and review of the Travel Plan;
- Acting as the key point of contact for staff in order to provide information, advice, and guidance; and
- Examining and processing comments and suggestions from staff and visitors in relation to improving access to the site by active and sustainable modes of travel.

5.3.1.2 Travel Plan Welcome Leaflet

It is proposed that opportunities for sustainable travel will be promoted through a travel leaflet, to be provided within a staff 'Welcome Pack'.

The staff 'Welcome Pack' will include a travel leaflet incorporating the following:

- Information on the health and financial benefits of active travel and public transport;
- A map of existing pedestrian and cycle routes in vicinity of the campus;
- Details of pedestrian / cycle facilities within the campus grounds and location of cycle parking;
- Public transport information specific to the site. This will include links to relevant websites with relevant service provision and a map of bus stop locations and pedestrian routes for accessing these;
- Details of staff parking provision, access, and restrictions; and
- Information on cycle to work schemes.

The leaflets will provide staff with detailed information in relation to a range of transport facilities and travel choices within the area. The leaflets will clearly state the parking restrictions within the campus. It is proposed that the leaflet be finalised and implemented at an appropriate time following grant of planning permission and to reflect travel options available at that time.

Information on sustainable travel options will also be provided on public notice boards to inform any visitors of available active travel and public transport routes. Notice boards will also contain information on vehicle parking restrictions for community facility use within and outwith school hours. It will also detail cycle parking provision for public use.

5.3.1.3 *Walking and Cycling*

Recommended walking and cycling routes surrounding the development will be promoted to staff and information will be provided on noticeboards within the community facility buildings.

Cycle parking provision will meet the Council's standards and will be safe and secure for staff and visitor use. The TPC would monitor the cycle parking usage associated with the community facilities on a regular basis.

5.3.1.4 *Public Transport*

Given the campus's proximity to good public transport links, it is important that these are promoted well to staff and visitors. This information would be available within the Travel Leaflets provided for staff and displayed on noticeboards and the community facility website for visitors to read.

5.3.1.5 *Car Sharing*

Car sharing with other members of staff will be encouraged to reduce the number of private car trips made. The travel leaflet and the TPC will promote the following local sharing service to be used by staff:

- <https://liftshare.com/uk>

5.3.2 Action Plan

An Action Plan, summarising the Travel Plan measures is provided in **Table 5.2**.

| Measure | Timescale |
|--|------------------------|
| Identification of the Travel Plan Coordinator | At opening |
| Provision of all staff with Welcome Packs containing the Welcome Leaflet | At opening |
| Promote local and national walking and cycling events to staff, e.g. Bike Week and National Stepcount Challenge | Ongoing |
| Provision of information on notice boards within the community facilities, including maps and public transport timetable information | At opening and ongoing |
| Promotion of www.travelinescotland.com which provides public transport information and journey planning facilities. | Ongoing |
| Gather information on staff mode share on an annual basis | Ongoing |

Table 5.2. Action Plan

5.3.3 Monitoring

The TPC will monitor staff travel mode share and collect feedback on travel options on an annual basis. This will take the form of a short, online questionnaire which will allow feedback to be gathered on travel issues and suggestions for improvement. The TPC will also monitor the vehicle and cycle parking usage associated with the community facilities.

The TPC will use the data to guide effort and resource aimed at improving travel choices where required and to help educate staff and visitors.

5.4 Vet Practice Travel Plan

A TP will be developed for the vet practice at an appropriate time prior to opening. The TP will cover the following:

- Information on the health and financial benefits of active travel and public transport;
- Details of pedestrian and cycle routes in vicinity of the development;
- Details of pedestrian and cycle facilities at the development;
- Public transport information specific to the site;
- Details of staff parking provision, access, and restrictions;
- Information on cycle to work schemes and local car club provision.

A comprehensive action plan and appropriate monitoring plan will be developed to ensure that the TP delivers maximum benefit to users. A TPC will be identified to take responsibility for the implementation and monitoring of measures.

6 Travel Demands

6.1 Introduction

This chapter provides an estimate of the travel demand expected to be generated by the development proposals and includes estimates of traffic associated with committed development in the area.

As the community uses will take place outside of school hours and after the evening peak period, this chapter focuses on trip generation associated with the school, the ASN facility and vet practice only.

6.2 People Trips

6.2.1 School

The replacement Beeslack High School will have a capacity of 1,600 pupils at the mainstream school and 30 pupils at the ASN facility. It is assumed that the school will have full attendance each day, therefore generating 1,630 pupils.

A total of 214 staff members will be employed at the mainstream school and ASN facility. It is therefore assumed that an initial 214 staff will arrive and depart each day.

6.2.2 Vet Practice

A total of 20 staff will be employed at the vet practice, and 14 students will be on site. It is assumed that most staff and visitors will arrive by private car. As noted in **Section 2.5.2.2**, students will not park on site.

6.3 Mode Share

6.3.1 School

To establish mode share at the mainstream school, the most recent Sustrans 'Hands Up Scotland' secondary school survey data (from 2021) for the Midlothian region has been applied. Results of the survey are shown in **Table 6.1**.

| Travel Mode | % |
|---------------|-------------|
| Walk | 49% |
| Cycle | 1% |
| Scoot/Skate | 1% |
| Park & Stride | 3% |
| Bus | 35% |
| Taxi | 1% |
| Driven | 10% |
| Other | 0% |
| Total | 100% |

Table 6.1. Pupil mode share (results from 2021 Sustrans 'Hands Up Scotland' secondary school survey)

Due to the location of the school in relation to the residential areas in its catchment, it is expected that the percentage of pupils that walk to the school will be lower than 49%. Therefore, it is assumed that 35% of pupils will walk, and that the remaining 14% will arrive by bus. The adjusted mode share for the secondary school is shown in **Table**

6.2, with the additional percentage of bus and car arrivals proportioned based on existing values.

| Travel Mode | % |
|---------------|-------------|
| Walk | 35% |
| Cycle | 1% |
| Scoot/Skate | 1% |
| Park & Stride | 3% |
| Bus | 49% |
| Taxi | 1% |
| Driven | 10% |
| Other | 0% |
| Total | 100% |

Table 6.2. Adjusted pupil mode share

To establish mode share at the ASN facility, the most recent Sustrans 'Hands Up Scotland' SEN school survey data (from 2019) for the Midlothian region has been applied. Results of the survey are shown in **Table 6.3**.

| Travel Mode | % |
|---------------|-------------|
| Walk | 0% |
| Cycle | 0% |
| Scoot/Skate | 0% |
| Park & Stride | 0% |
| Bus/Minibus | 68% |
| Taxi | 18% |
| Driven | 14% |
| Other | 0% |
| Total | 100% |

Table 6.3. ASN mode share (results from 2019 Sustrans 'Hands Up Scotland' SEN school survey)

Given the nature of the facility, as per **Table 6.3**, it is expected that all pupils at the ASN facility will arrive by private car, taxi, or bus/minibus.

As confirmed by the Council, it is expected that 85% of school staff will travel by private car.

6.3.2 Vet Practice

It is expected that most staff and visitors will arrive by private car, given the nature of the land use.

6.4 **Vehicle Demand**

6.4.1 School

Using the mode shares outlined above, the estimated people trip generation values for the secondary school and ASN facility are shown in **Tables 6.4** and **6.5** respectively.

| Travel Mode | % | Pupil Trips |
|---------------|-------------|--------------|
| Walk | 25% | 560 |
| Cycle | 1% | 16 |
| Scoot/Skate | 1% | 16 |
| Park & Stride | 3% | 48 |
| Bus/Minibus | 59% | 784 |
| Taxi | 1% | 16 |
| Driven | 10% | 160 |
| Other | 0% | 0 |
| Total | 100% | 1,600 |

Table 6.4. Secondary school trip generation values, split by mode

Table 6.4 indicates that 784 pupils at the secondary school will arrive by bus, 16 will arrive by taxi and 160 will be driven by private car. It is assumed that pupils will car-share where possible to do so. Therefore, it has been assumed that there will be 1.5 pupils per private car, meaning a total of 107 private cars will be associated with pick-up/drop-off activity.

| Travel Mode | % | Pupil Trips |
|---------------|-------------|-------------|
| Walk | 0% | 0 |
| Cycle | 0% | 0 |
| Scoot/Skate | 0% | 0 |
| Park & Stride | 0% | 0 |
| Bus/Minibus | 68% | 21 |
| Taxi | 18% | 5 |
| Driven | 14% | 4 |
| Other | 0% | 0 |
| Total | 100% | 30 |

Table 6.5. Estimated ASN unit trip generation values, split by mode

Table 6.5 indicates that 21 pupils at the ASN facility will arrive by bus/minibus, 5 will arrive by taxi and 4 will be driven by private car.

It is expected that a total of 182 school staff will arrive by private car.

6.4.2 Vet Practice

To establish the level of traffic likely to be generated by the vet practice, vehicle trip rates were extracted from the TRICS database. The vehicle trip rates and corresponding vehicle trip generation values are shown in **Tables 6.6** and **6.7** respectively, with relevant TRICS output data provided in **Appendix E**.

| Land Use | Units | AM Peak | | School Finish | | PM Peak | |
|--------------|---------------------------|---------|-------|---------------|-------|---------|-------|
| | | Arr | Dep | Arr | Dep | Arr | Dep |
| Vet Practice | Per 100m ² GFA | 3.344 | 1.550 | 3.100 | 3.915 | 2.365 | 2.936 |

Table 6.6. Proposed vet practice vehicular trip rates

| Land Use | Units | AM Peak | | School Finish | | PM Peak | |
|--------------|---------------------|---------|-----|---------------|-----|---------|-----|
| | | Arr | Dep | Arr | Dep | Arr | Dep |
| Vet Practice | 960.2m ² | 32 | 15 | 30 | 38 | 23 | 28 |

Table 6.7. Proposed vet practice vehicular trip generation

As shown in **Table 6.7**, it is estimated that the vet practice will generate up to 47 and 51 two-way vehicle trips during the morning and evening peak periods respectively. Up to 68 two-way trips will be generated during the school finish hour.

6.5 Vehicle Trip Distribution

6.5.1 Pupils

Vehicle trip distribution estimates for pupils have been informed by catchment information provided by the Council. It is assumed that pupils arriving by car will generate arrival and departure trips in the morning peak. It is also assumed that 70% of students will depart the school shortly after school finishing hour, before the network evening peak. It is assumed that the remaining 30% of students will depart during the network evening peak.

During the morning peak, it is assumed that vehicles will arrive from home, and then depart the school towards workplaces. Similarly, it is assumed that when collecting pupils after school, vehicles will arrive from workplaces and depart towards their homes. It is assumed that these trips already exist on the surrounding road network and simply redistribute to the school as part of their journey. Notwithstanding this, the Traffic Impact Assessment acknowledges the detailed redistribution at the junction closest to the campus entrance.

6.5.2 Staff

Staff trip distribution has been based on existing Beeslack High School staff postcode data, provided by the Council. It is assumed that all staff will arrive in the morning peak and depart in the network evening peak. To calculate the number of staff trips associated with the existing Beeslack High School that are already on the road network, the number of staff at the existing school was applied to the distribution based on staff postcodes. This was subtracted from the trip generation for the new school to provide a more robust estimate and ensure that trips are not double counted.

6.5.3 Vet Practice

The distribution of vehicles associated with the vet practice has been assumed based on the local settlement catchment.

6.6 Committed Developments

The following committed developments have been taken account of in this Transport Assessment:

- Residential Development, Seafield Road, Bilston (19/00321/MSC)
- Residential Development, Bilston (17/00968/DPP)
- Roslin Expansion Site (18/00535/PPP); and
- Former Roslin Institute (13/00877/PPP).

Details of committed development build out at the time of the base traffic surveys was provided by the Council.

To estimate traffic volumes at the school finishing time, it is assumed that the traffic volumes associated with the committed developments will be approximately 70% of the evening network peak values.

7 Traffic Impact Assessment

7.1 Introduction

This chapter describes the methodology and conclusions for the assessment of traffic impact associated with the proposed development.

Based on guidance within Transport Scotland's document 'Transport Assessment Guidance' for the purposes of assessing the traffic impact of the development, it is assumed that the opening year of the development will be 2027.

The Council have confirmed that the campus will become operational prior to the introduction of the A701 Relief Road. On this basis, it was agreed that the existing road network will be considered in the Traffic Impact Assessment.

7.2 Scope of Assessment

It was agreed with the Council and Transport Scotland that the scope of the traffic impact assessment should consider the following junctions:

- A702 / A703 / Old Pentland Road priority junctions;
- A702 / Bush Loan Road priority junction;
- A703 Seafield Moor Road / Seafield Road / Bush Farm Road signalised junction;
- A701 / A703 Seafield Moor Road signalised junction;
- A701 / B7006 roundabout;
- A701 / Nivensknowe Road signalised junction.

The operation of the proposed site access junctions will also be considered within this chapter.

7.3 Baseline Traffic Flows

Classified traffic surveys were commissioned by Sweco and undertaken by MHC Traffic on Tuesday 4th October 2022 to collect base traffic flow data for the following junctions:

- A702 / A703 / Old Pentland Road junction;
- A702 / Bush Loan Road junction; and
- A703 / Seafield Road / Bush Farm Road signalised junction.

The following network peak hours were identified from the traffic surveys:

- Morning Peak – (07:30 – 08:30)
- Evening Peak – (16:30 – 17:30)

The hour during which the school finishes (15:00-16:00) has also been included in the assessment.

Further traffic survey data, provided by Systra, was collected on Thursday 25th August 2022 at the following junctions:

- A701/ A703 Seafield Moor Road signalised junction;
- A701/ B7006 roundabout;
- A701/ Nivensknowe Road signalised junction.

Based on a comparison of 2018 and 2021 data, extracted from permanent ATCs on the A702, high traffic growth has been applied to the assumed opening year of 2027-.

7.4 Assessment Scenarios

The following assessment scenarios have been considered:

- 2022 weekday base traffic flows;
- 2027 weekday base traffic flows;
- 2027 weekday base + committed development traffic flows;
- 2027 weekday base + committed development + development traffic flows.

Traffic flows for all scenarios are provided in **Appendix F**.

7.5 Threshold Analysis

A threshold analysis was undertaken at all junctions outlined in **Section 7.2**. Results of the threshold analysis indicate that all junctions are predicted to have a 5% increase in traffic on any one approach as a result of the development proposal and have been taken forward for detailed modelling.

7.6 Assessment Methodology

Junctions on the local road network have been modelled based on existing layouts.

It was agreed with Transport Scotland that the A702 / A703 / Old Pentland Road priority junctions will be modelled based on their existing layouts, whilst the A702 / Bush Loan junction will be modelled based on the proposed future design which will be implemented prior to the campus opening.

The capacity of priority junctions on the network was assessed using TRL Software Junctions 10 'PICADY', with results of the analysis presented in terms of the ratio of flow to capacity (RFC) and the corresponding maximum queue. A roundabout or priority junction is predicted to operate within 'reserve capacity' where an RFC of 0.85 or below is recorded. Where an RFC of over 1.00 is predicted the roundabout / priority junction is considered to operate over capacity.

Analysis of the performance of the proposed eastern access junction and the A703 / Seafield Road / Bush Farm Road signalised junction will be undertaken using the JCT Consultancy Ltd software LinSig v.3, with the results of the analysis presented in terms of percentage degree of saturation (DoS%) with the corresponding predicted mean maximum queue (MMQ). The Practical Reserve Capacity (PRC) is also presented within the results. The PRC is calculated from the maximum degree of saturation on a link and is a measure of how much additional traffic could pass through the junction while maintaining a maximum degree of saturation of 90% on all links.

7.7 Modelling Results

Modelling results are provided in **Appendix G** and summarised in **Table 7.1**.

Table 7.1 indicates if the junctions are operating:

- Under capacity (green)- RFC of less than 0.85 / DoS of less than 90% on any approach;
- At capacity (orange) – RFC of 0.85 to 0.90 / DoS of between 90% and 100% on any approach; and
- Over capacity (red) – RFC of 1.0 / DoS of over 100% or more on any approach.

| Junction | Base 2027 | | | Base 2027 + Committed Development | | | Base 2027 + Committed Development + Development | | |
|--|-----------|---------------|----|-----------------------------------|---------------|----|---|---------------|----|
| | AM | School Finish | PM | AM | School Finish | PM | AM | School Finish | PM |
| Eastern Site Access | | | | | | | | | |
| Northern Site Access | | | | | | | | | |
| A703 Seafield Moor Road / Seafield Road / Bush Farm Road | | | | | | | | | |
| A701 / A703 | | | | | | | | | |
| A701 / B7006 | | | | | | | | | |
| A701 / Nivensknowe Road | | | | | | | | | |
| A702 / A703 | | | | | | | | | |
| A702 / Old Pentland Road | | | | | | | | | |
| A702 / Bush Loan | | | | | | | | | |

Table 7.1. Junction assessment result summary

7.7.1 Site Access Junction Modelling Results

Both site access junctions are predicted to operate within capacity during all peak periods in the development scenario.

7.7.2 Local Road Junction Modelling Results

The A703 Seafield Moor Road / Seafield Road / Bush Farm Road signalised junction and A701 / B7006 roundabout are predicted to operate within capacity during all scenarios.

The A701 / A703 signalised junction is predicted to operate within capacity during all scenarios, although is nearing capacity during the evening network peak in the base + committed + development scenario. Within the junction model, it has been assumed that the pedestrian phase will be called every cycle during all scenarios. However, during the evening network peak, the majority of school pupils will already have

departed, and it is not expected that the pedestrian phase would be called every cycle. This will therefore offer improved green time to vehicles during this peak period.

The A701 / Nivensknowe Road junction is predicted to operate over capacity in its current geometry during the majority of scenarios. Notwithstanding this, the additional traffic predicted to be generated by the campus is minimal and is not expected to have a material impact on the operation of the junction. It is recommended that the Council consider improvements to the junction to support existing and committed development traffic.

7.7.3 Trunk Road Junction Modelling Results

Analysis of the A702 / A703 and A702 / Old Pentland Road priority junctions indicates that they are predicted to operate over capacity in the base and base + committed development scenarios. As they already operate over capacity, additional demand associated with the development will have an exponential impact on future operation and operate further over capacity. However, in the morning peak, it is predicted that 57 southbound trips will be generated by the development, turning left from the A702 into the A703, which equates to approximately 1 additional vehicle trip per minute. An additional 21 northbound vehicle trips are predicted on the A703 during the evening peak, which will turn right onto the A702, equating to an additional vehicle every three minutes. As the development will introduce a relatively low number of additional vehicle movements at the junctions during the peak hours, this is not predicted to have a material impact on the operation of the junctions.

The planned A702 / Bush Loan roundabout is predicted to operate within capacity in all scenarios.

7.8 **Traffic Impact Mitigation**

7.9 **Accident Analysis**

An accident analysis was undertaken in the vicinity of the site using online accident analysis tool 'Crashmap' (crashmap.co.uk). The analysis takes account of all road traffic accidents that have taken place in the vicinity of the site from 2018 to 2022, splitting the accidents by severity into slight, serious, and fatal. The extent of road network considered within the accident analysis is shown in **Figure 7.1**.

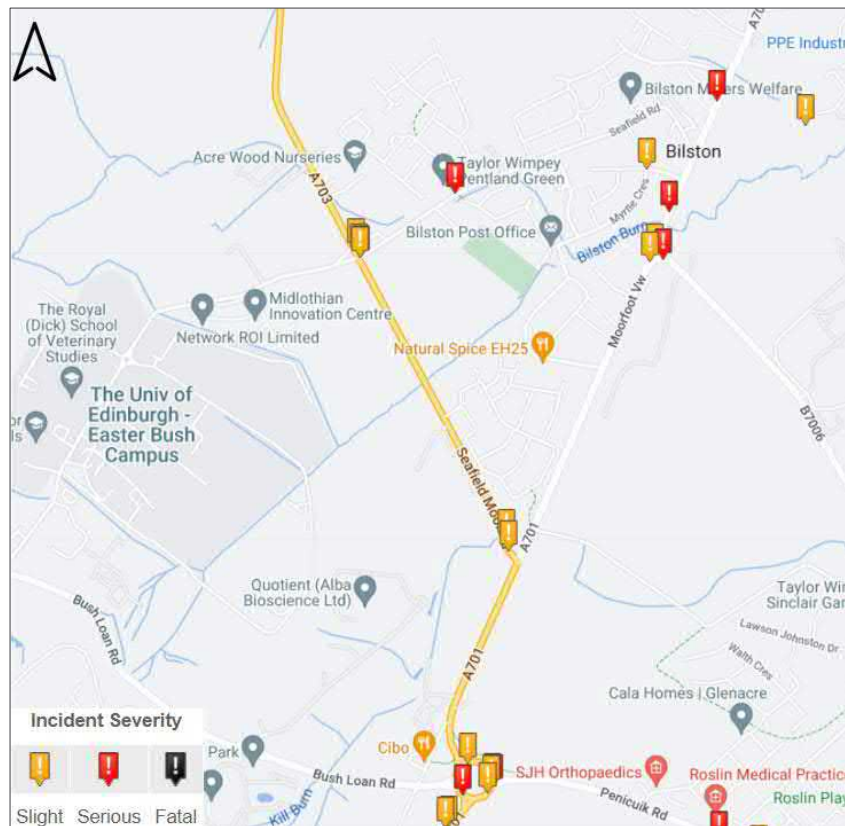


Figure 7.1. Accident analysis

Analysis indicates that the following accidents were recorded at key junctions in vicinity of the site:

- A703 / Seafield Road / Bush Farm Road signalised junction - 4 slight accidents;
- A701 / A703 signalised junction – 2 slight accidents;
- A701 / B7006 roundabout – 1 serious accident and 2 slight accidents;
- Gowkley Moss Roundabout – 3 serious accidents and 4 slight accidents.

It is noted that no accidents were recorded on Bush Farm Road and one serious accident was recorded on Seafield Road between 2018 and 2022.

Accident data for the trunk road network from 2018-2022 was provided by Transport Scotland. Three slight accidents were recorded at the A702/A703/Old Pentland Road priority junctions and two slight accidents were recorded at the A702 / Bush Loan priority junction between 2018 and 2022.

The accident analysis indicates there is no accident cluster at the locations of the proposed site accesses.

7.10 Construction Traffic Management

A Construction Traffic Management Plan (CTMP) will be prepared in advance of construction activity to minimise the impact on the surrounding road network.

8 Summary and Conclusions

8.1 Summary

Sweco was commissioned by Midlothian Council to prepare a Transport Assessment (TA) to support the planning application for the replacement Beeslack High School at Easter Bush, Midlothian. The development will comprise an education campus including a high school, ASN facility, pool, shared community facilities, vet practice and associated parking and landscaping.

The TA has been prepared with reference to appropriate policy and guidance and has been scoped with both Transport Scotland and Midlothian Council.

A review of the development proposal against local, regional, and national transport planning policy was undertaken to demonstrate compliance.

An accessibility review was undertaken to assess opportunities for travel to and from the site by all relevant modes of transport and to assess the current walking, cycling and public transport provision. This includes a consideration of the 20-minute neighbourhood concept and access from the surrounding school catchment area. The review considers existing, committed, and aspirational active travel connections in the area.

Travel Plan Frameworks have been prepared for each element of the development to underpin the preparation of full Travel Plans at an appropriate time.

The report sets out the predicted travel demands associated with all elements of the development proposal and a threshold analysis was undertaken to define the level of impact at junctions on the surrounding road network. All junctions considered within the traffic impact assessment were found to exceed defined thresholds and were taken forward to for detailed capacity analysis.

8.2 Conclusions

The site complies with relevant transport planning policy and provides cycle and vehicle parking in line with design standards.

The campus is well located in relation to existing and future walking and cycling routes and bus stops, offering sustainable travel connections from the surrounding school catchment. The Council's planned and aspirational active travel routes will help to remove gaps in the existing network. The pedestrian and cycle infrastructure and facilities within the site will also encourage arrival by active travel. The campus will form a key element of the Liveable/20-minute neighbourhood concept for surrounding residential areas.

A number of the junctions within the study are expected to operate over capacity in the base + committed development scenario. Notwithstanding this, the expected vehicle trip generation associated with the campus results in low levels of additional traffic at these junctions and will have a minimal impact on the operation of the surrounding road network.

Appendix A – Scoping Correspondence

Davidson, Calum

From: Davidson, Calum
Sent: 29 July 2024 09:46
To: Alan.Kerr
Cc: Neil.Heggie
Subject: RE: A702 - NE2214571 - Midlothian - 22/00484/PREAPP - SCOPING - MUD - Bilston
- Architype - TS Scoping Response (outgoing) - 03 July 2024

Good morning Alan,

Thanks again for your time on Friday.

To summarise, we will model the A702 / Bush Loan junction based on the proposed future design, acknowledging your advice that a suspensive condition will require the junction to be upgraded before the school is operational.

We will also model the A702 / A703 / Old Pentland Road junctions based on their existing layouts, and will provide commentary on the predicted increase in vehicle numbers at these junctions as a result of the development.

Kind regards

Calum Davidson
Senior Transport Planner

Sweco UK Limited | Edinburgh



Appendix B – Masterplan Layout

Appendix C – Swept Path Analysis

Appendix D – Midlothian Council Cycle Maps

Appendix E – TRICS Output

Calculation Reference: AUDIT-129301-240619-0632

TRIP RATE CALCULATION SELECTION PARAMETERS:

Land Use : 05 - HEALTH
Category : M - VETERINARY SURGERY
TOTAL VEHICLES

Selected regions and areas:

| | | |
|----|-----------------|--------|
| 03 | SOUTH WEST | |
| | WL WILTSHIRE | 1 days |
| 06 | WEST MIDLANDS | |
| | WK WARWICKSHIRE | 1 days |
| 11 | SCOTLAND | |
| | LO WEST Lothian | 1 days |

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

Grontmij STREET NAME Edinburgh

Licence No: 129301

Primary Filtering selection:

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

Parameter: Gross floor area
Actual Range: 280 to 496 (units: sqm)
Range Selected by User: 201 to 500 (units: sqm)

Parking Spaces Range: All Surveys Included

Public Transport Provision:

Selection by: Include all surveys

Date Range: 01/01/16 to 19/11/21

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

Selected survey days:

Tuesday 1 days
Wednesday 1 days
Friday 1 days

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

Selected survey types:

Manual count 3 days
Directional ATC Count 0 days

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

Selected Locations:

Edge of Town Centre 1
Edge of Town 2

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

Selected Location Sub Categories:

Residential Zone 3

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

Inclusion of Servicing Vehicles Counts:

Servicing vehicles Included 2 days - Selected
Servicing vehicles Excluded 1 days - Selected

Secondary Filtering selection:

Use Class:

E(e) 3 days

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

Population within 500m Range:

All Surveys Included

Grontmij STREET NAME Edinburgh

Licence No: 129301

Secondary Filtering selection (Cont.):

Population within 1 mile:

| | |
|------------------|--------|
| 5,001 to 10,000 | 1 days |
| 20,001 to 25,000 | 2 days |

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

Population within 5 miles:

| | |
|--------------------|--------|
| 50,001 to 75,000 | 2 days |
| 125,001 to 250,000 | 1 days |

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

Car ownership within 5 miles:

| | |
|------------|--------|
| 1.1 to 1.5 | 3 days |
|------------|--------|

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

Travel Plan:

| | |
|----|--------|
| No | 3 days |
|----|--------|

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

PTAL Rating:

| | |
|-----------------|--------|
| No PTAL Present | 3 days |
|-----------------|--------|

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

| | | |
|-----------------------|-----|--|
| Covid-19 Restrictions | Yes | At least one survey within the selected data set was undertaken at a time of Covid-19 restrictions |
|-----------------------|-----|--|

Grontmij STREET NAME Edinburgh

Licence No: 129301

LIST OF SITES relevant to selection parameters

| | | | |
|---|--|--------------------|---------------------|
| 1 | LO-05-M-01 BANKTON SQUARE LIVINGSTON | VETERINARY SURGERY | WEST LoTHIAN |
| | Edge of Town Residential Zone Total Gross floor area: | 450 sqm | |
| | Survey date: TUESDAY | 08/06/21 | Survey Type: MANUAL |
| 2 | WK-05-M-01 EDWARD STREET NUNEATON | VETERINARY SURGERY | WARWICKSHIRE |
| | Edge of Town Centre Residential Zone Total Gross floor area: | 496 sqm | |
| | Survey date: FRIDAY | 19/11/21 | Survey Type: MANUAL |
| 3 | WL-05-M-01 STRATFORD ROAD SALISBURY | VETERINARY SURGERY | WILTSHIRE |
| | Edge of Town Residential Zone Total Gross floor area: | 280 sqm | |
| | Survey date: WEDNESDAY | 17/11/21 | Survey Type: MANUAL |

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

Grontmij STREET NAME Edinburgh

Licence No: 129301

TRIP RATE for Land Use 05 - HEALTH/M - VETERINARY SURGERY

TOTAL VEHICLES

Calculation factor: 100 sqm

BOLD print indicates peak (busiest) period

| Time Range | ARRIVALS | | | DEPARTURES | | | TOTALS | | |
|---------------|----------|----------|-----------|------------|----------|-----------|----------|----------|-----------|
| | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate | No. Days | Ave. GFA | Trip Rate |
| 00:00 - 01:00 | | | | | | | | | |
| 01:00 - 02:00 | | | | | | | | | |
| 02:00 - 03:00 | | | | | | | | | |
| 03:00 - 04:00 | | | | | | | | | |
| 04:00 - 05:00 | | | | | | | | | |
| 05:00 - 06:00 | | | | | | | | | |
| 06:00 - 07:00 | 1 | 450 | 0.222 | 1 | 450 | 0.000 | 1 | 450 | 0.222 |
| 07:00 - 08:00 | 3 | 409 | 1.305 | 3 | 409 | 0.163 | 3 | 409 | 1.468 |
| 08:00 - 09:00 | 3 | 409 | 3.344 | 3 | 409 | 1.550 | 3 | 409 | 4.894 |
| 09:00 - 10:00 | 3 | 409 | 2.202 | 3 | 409 | 2.610 | 3 | 409 | 4.812 |
| 10:00 - 11:00 | 3 | 409 | 2.692 | 3 | 409 | 2.365 | 3 | 409 | 5.057 |
| 11:00 - 12:00 | 3 | 409 | 2.529 | 3 | 409 | 1.876 | 3 | 409 | 4.405 |
| 12:00 - 13:00 | 3 | 409 | 2.773 | 3 | 409 | 3.263 | 3 | 409 | 6.036 |
| 13:00 - 14:00 | 3 | 409 | 3.589 | 3 | 409 | 3.752 | 3 | 409 | 7.341 |
| 14:00 - 15:00 | 3 | 409 | 3.670 | 3 | 409 | 3.670 | 3 | 409 | 7.340 |
| 15:00 - 16:00 | 3 | 409 | 3.100 | 3 | 409 | 3.915 | 3 | 409 | 7.015 |
| 16:00 - 17:00 | 3 | 409 | 2.365 | 3 | 409 | 2.936 | 3 | 409 | 5.301 |
| 17:00 - 18:00 | 3 | 409 | 2.610 | 3 | 409 | 2.447 | 3 | 409 | 5.057 |
| 18:00 - 19:00 | 3 | 409 | 1.223 | 3 | 409 | 2.284 | 3 | 409 | 3.507 |
| 19:00 - 20:00 | 1 | 450 | 0.222 | 1 | 450 | 1.778 | 1 | 450 | 2.000 |
| 20:00 - 21:00 | | | | | | | | | |
| 21:00 - 22:00 | | | | | | | | | |
| 22:00 - 23:00 | | | | | | | | | |
| 23:00 - 24:00 | | | | | | | | | |
| Total Rates: | | | 31.846 | | | 32.609 | | | 64.455 |

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

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

The survey data, graphs and all associated supporting information, contained within the TRICS Database are published by TRICS Consortium Limited ("the Company") and the Company claims copyright and database rights in this published work. The Company authorises those who possess a current TRICS licence to access the TRICS Database and copy the data contained within the TRICS Database for the licence holders' use only. Any resulting copy must retain all copyrights and other proprietary notices, and any disclaimer contained thereon.

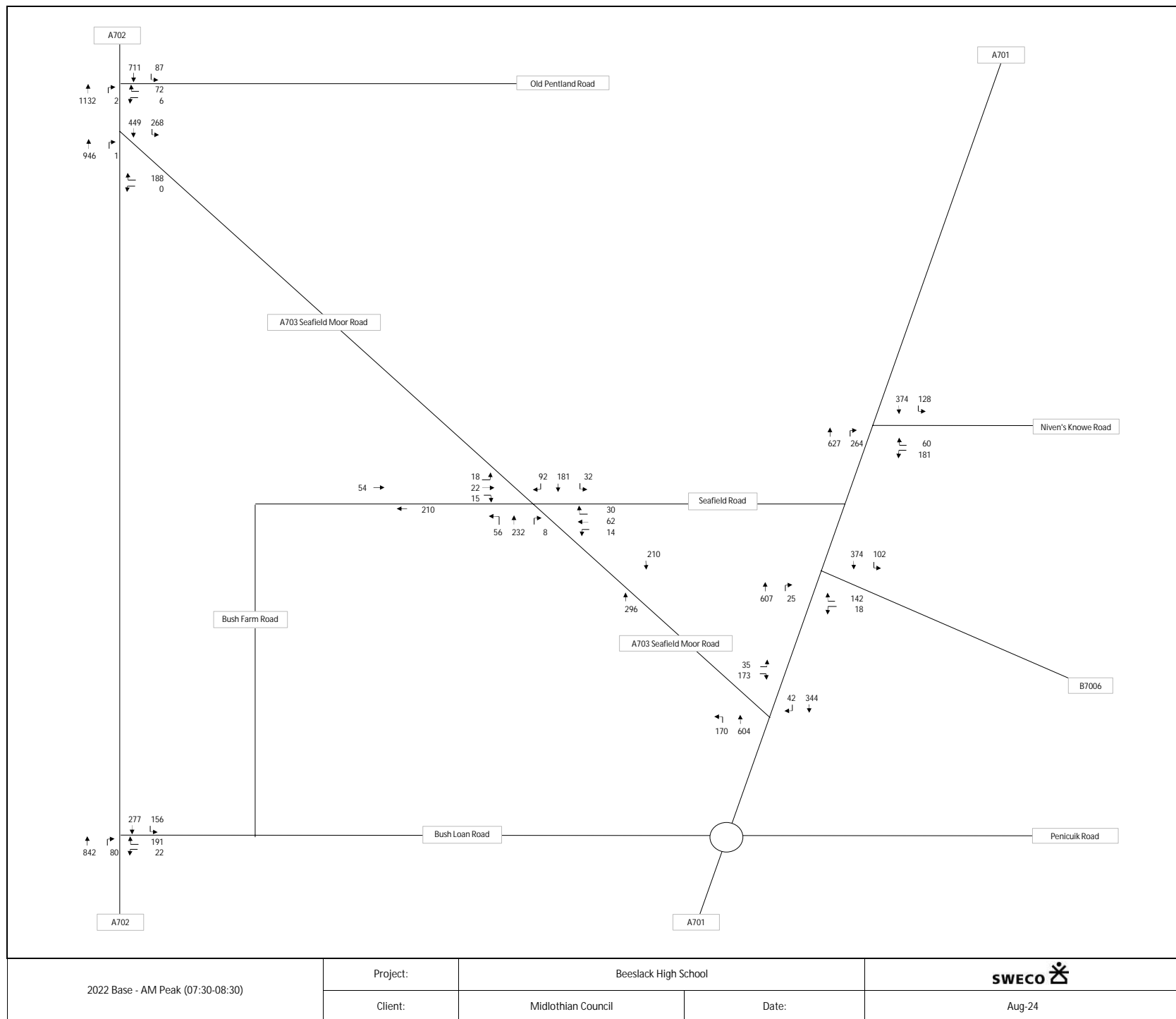
The Company accepts no responsibility for loss which may arise from reliance on data contained in the TRICS Database. [No warranty of any kind, express or implied, is made as to the data contained in the TRICS Database.]

Parameter summary

| | |
|---|------------------------|
| Trip rate parameter range selected: | 280 - 496 (units: sqm) |
| Survey date range: | 01/01/16 - 19/11/21 |
| Number of weekdays (Monday-Friday): | 3 |
| Number of Saturdays: | 0 |
| Number of Sundays: | 0 |
| Surveys automatically removed from selection: | 0 |
| Surveys manually removed from selection: | 0 |

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

Appendix F – Traffic Flow Diagrams



2022 Base - AM Peak (07:30-08:30)

Project:

Beeslack High School

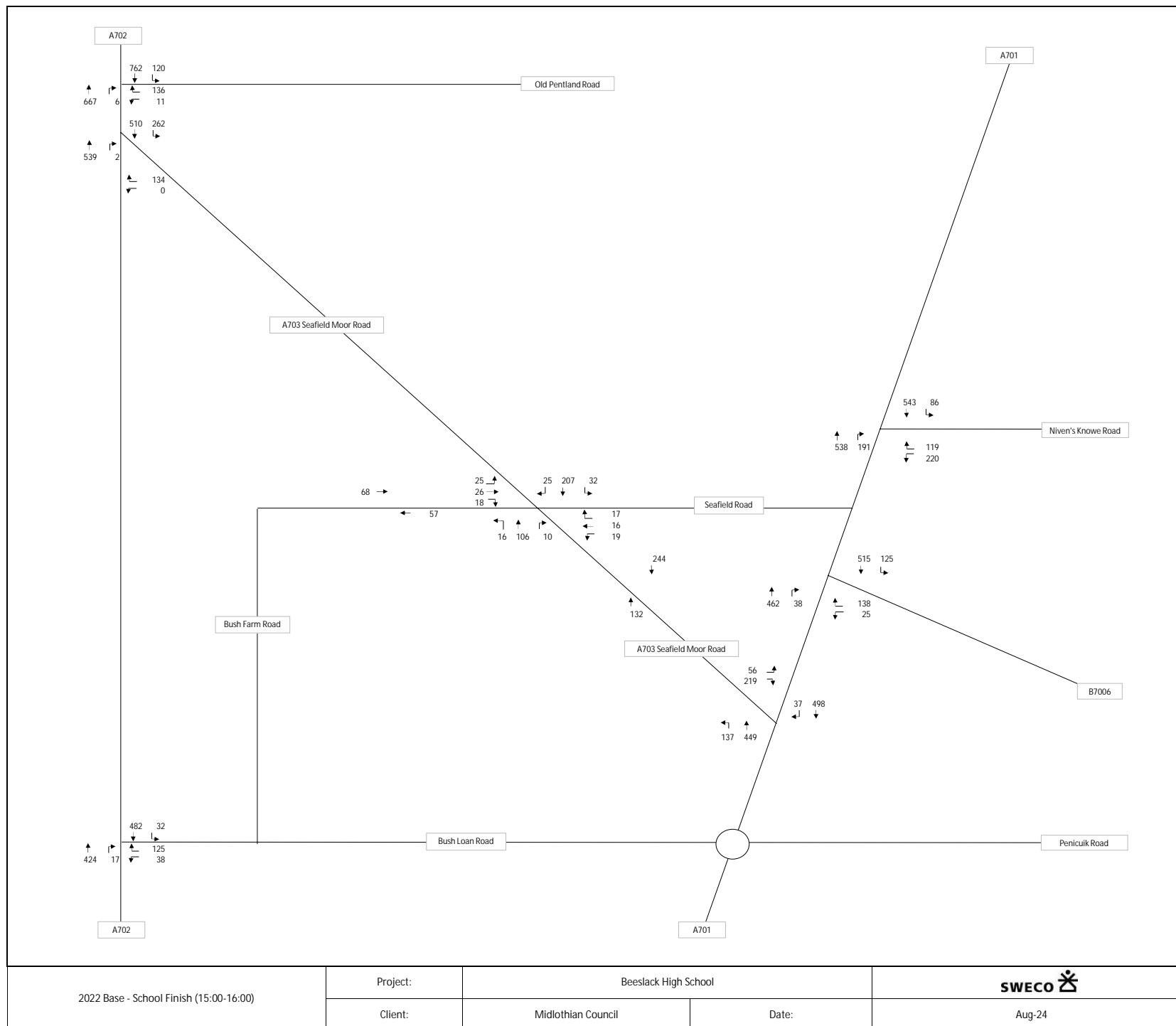


Client:

Midlothian Council

Date:

Aug-24



2022 Base - School Finish (15:00-16:00)

Project:

Beeslack High School

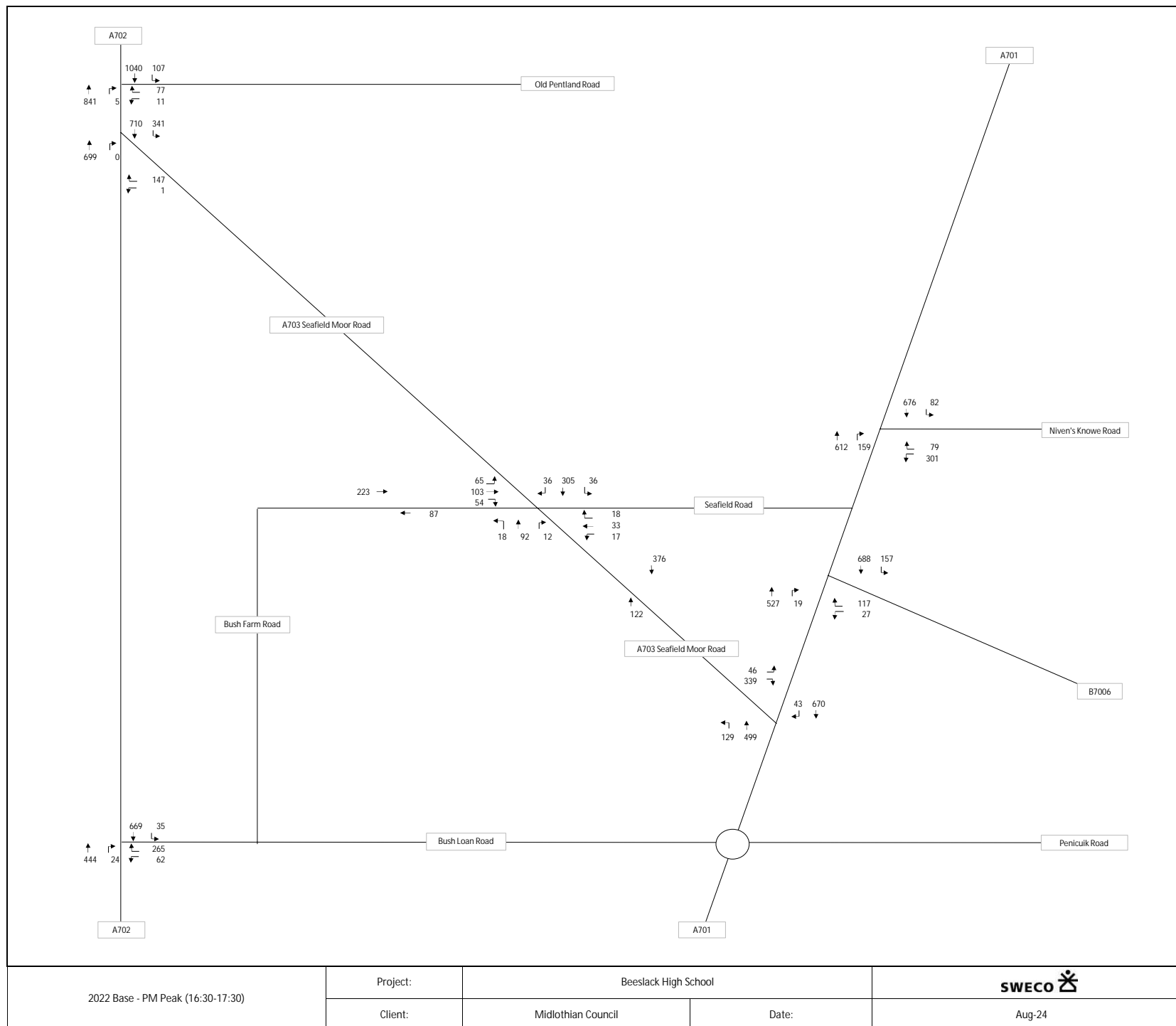


Client:

Midlothian Council

Date:

Aug-24



2022 Base - PM Peak (16:30-17:30)

Project:

Beeslack High School

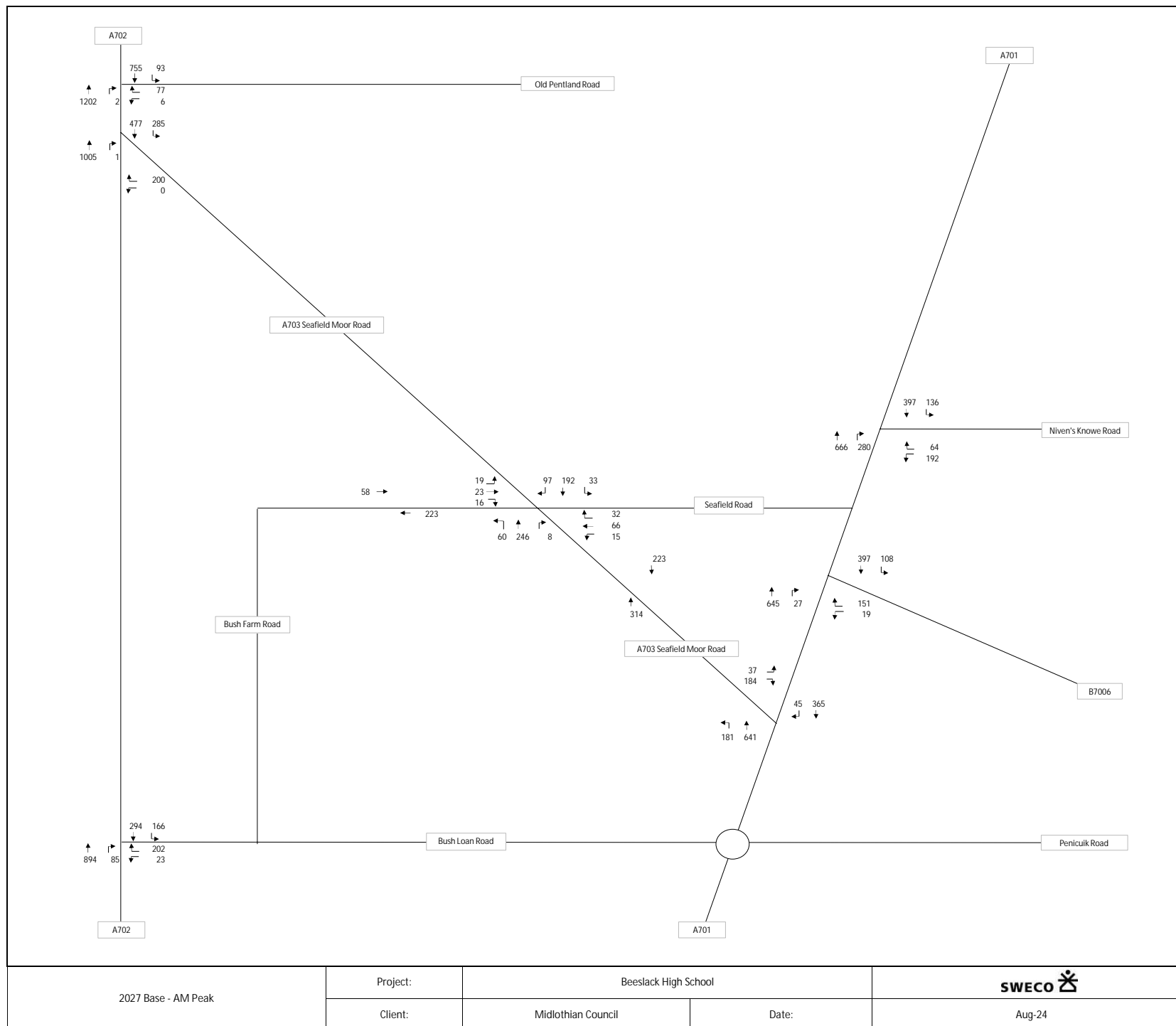


Client:

Midlothian Council

Date:

Aug-24



2027 Base - AM Peak

Project:

Beeslack High School

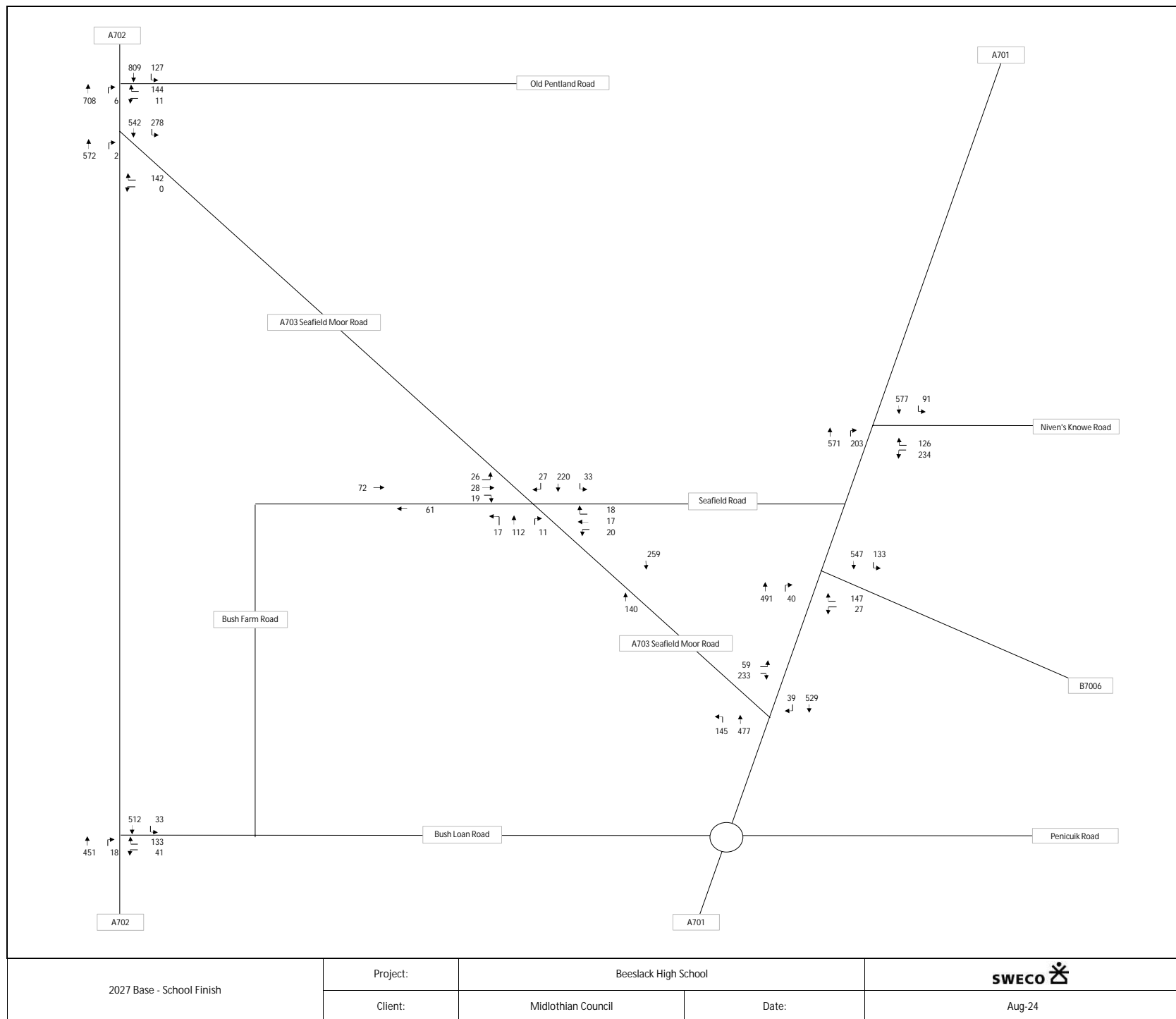



Client:

Midlothian Council

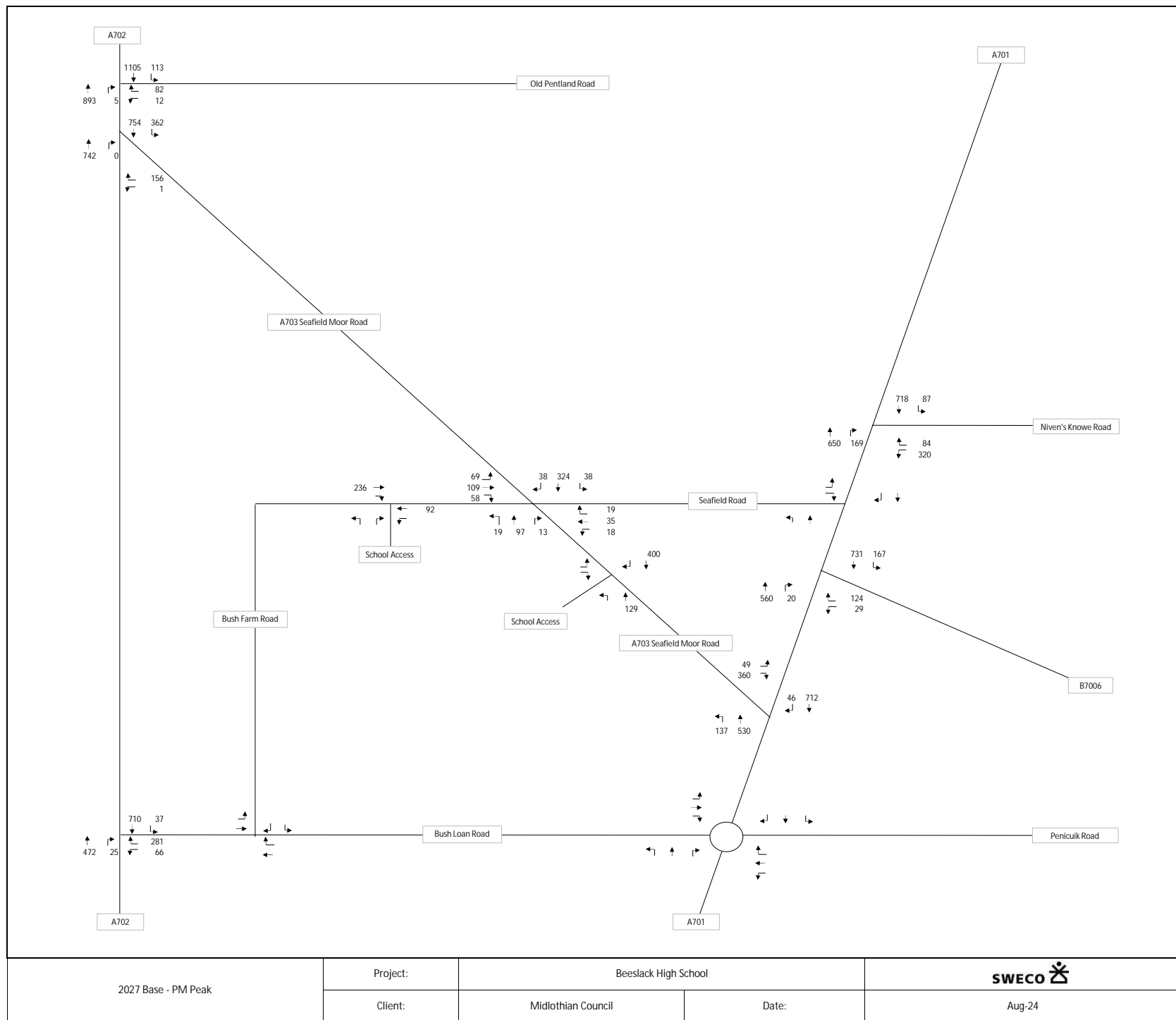
Date:

Aug-24



| | | | | |
|---------------------------|----------|----------------------|-------|---|
| 2027 Base - School Finish | Project: | Beeslack High School | |  |
| | Client: | Midlothian Council | Date: | |

Aug-24



2027 Base - PM Peak

Project:

Beeslack High School

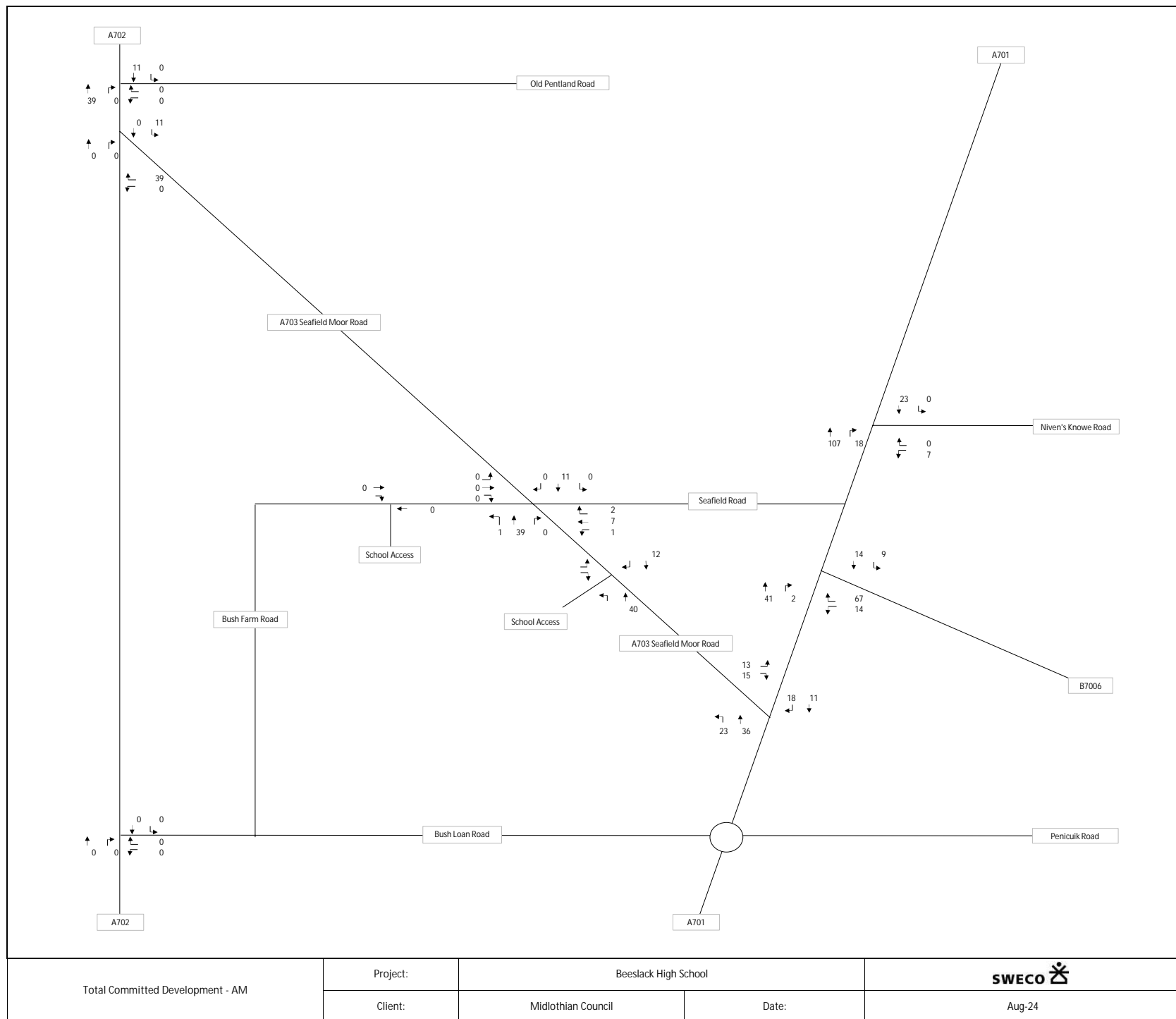


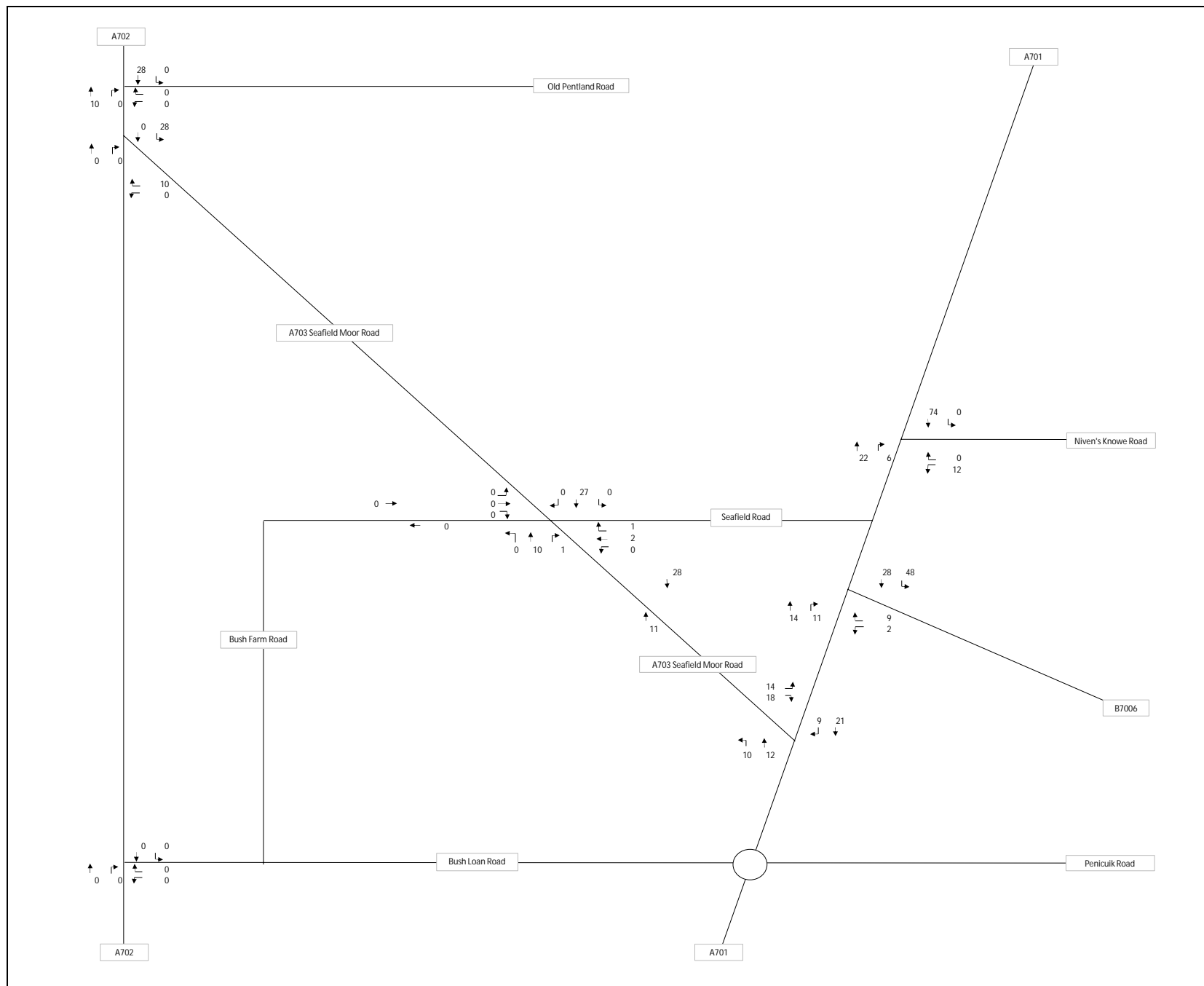
Client:


Midlothian Council

Date:

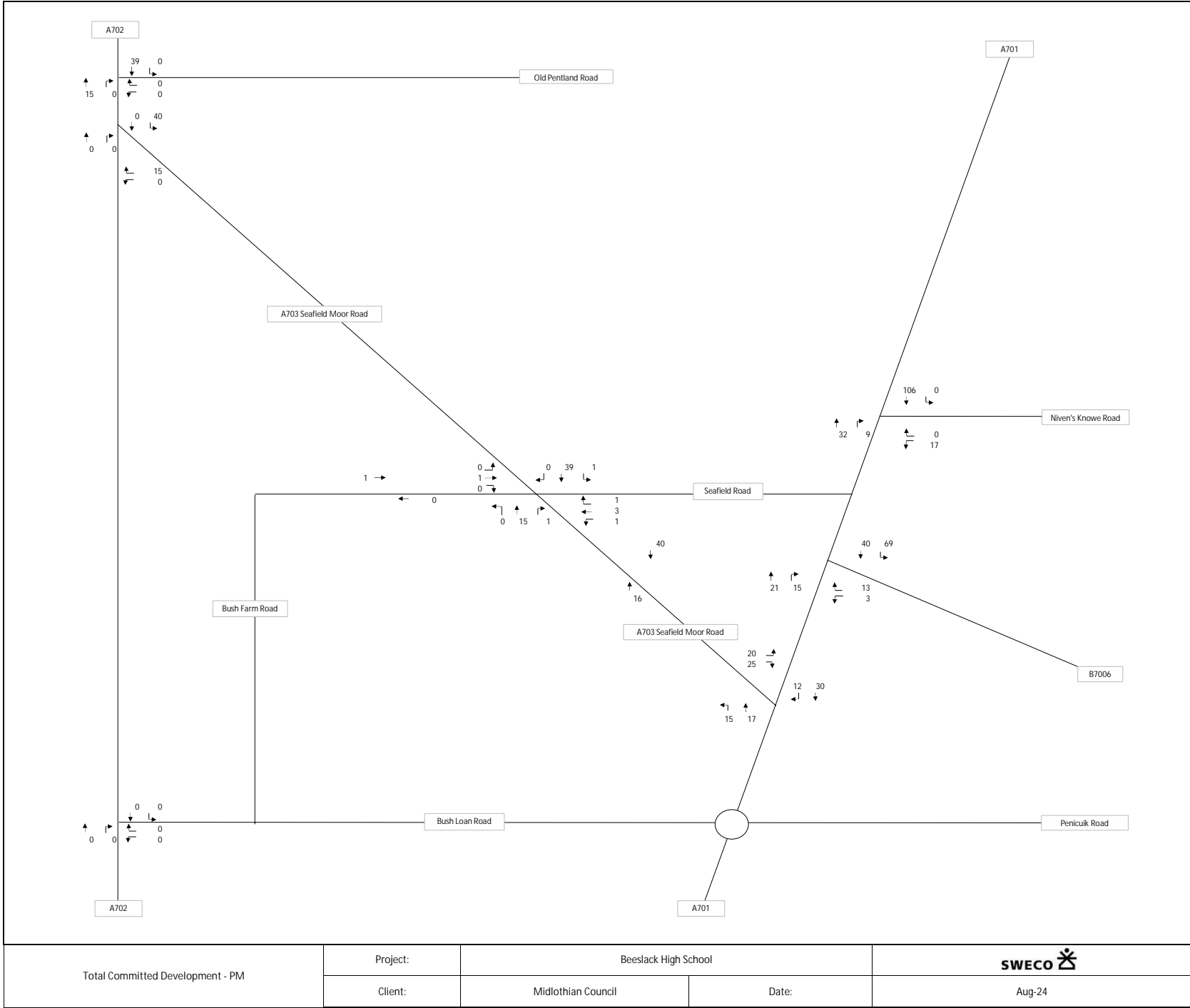
Aug-24

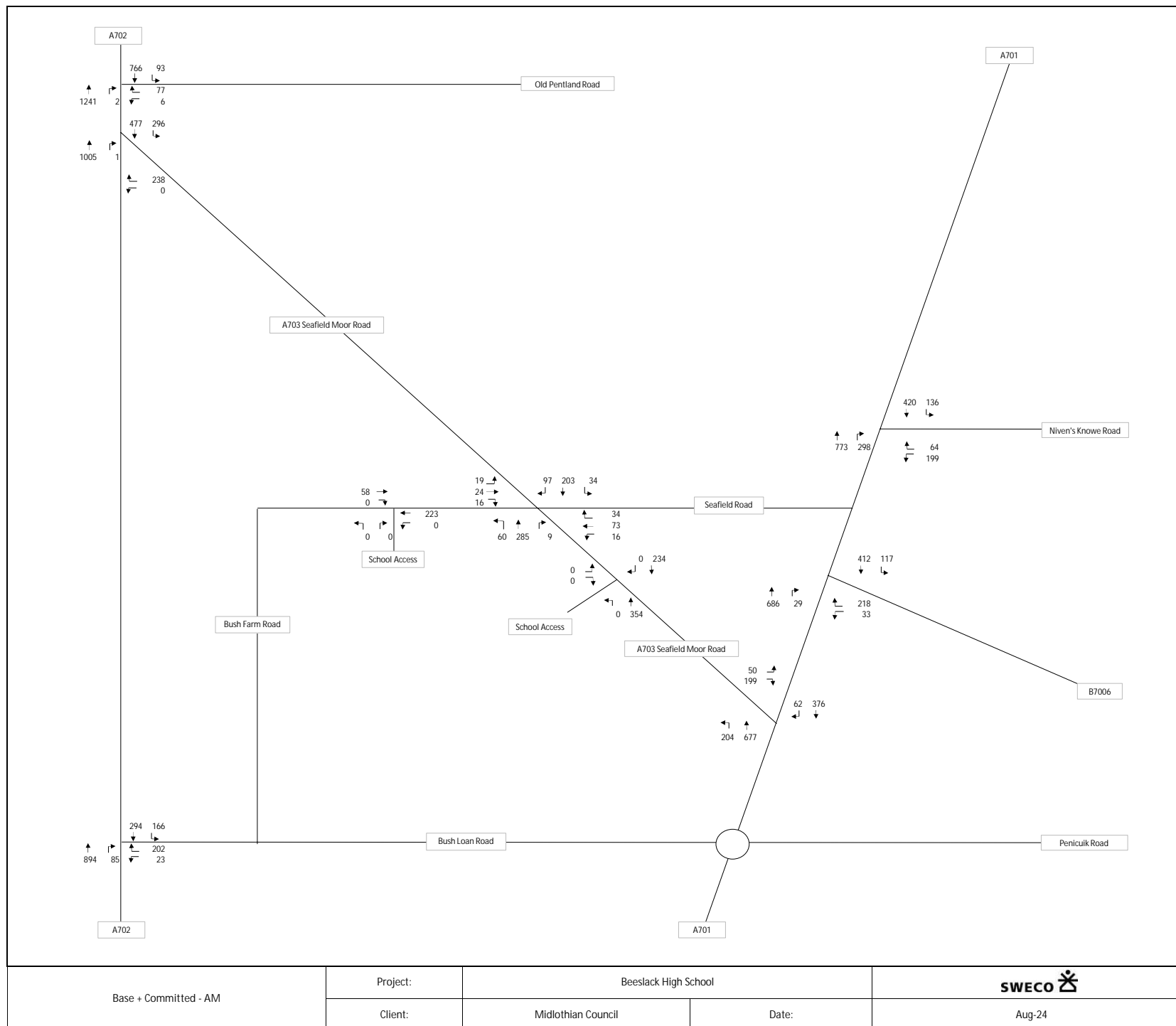




| | | | | |
|---|----------|----------------------|-------|---|
| Total Committed Development - School Finish | Project: | Beeslack High School | |  |
| | Client: | Midlothian Council | Date: | |

Aug-24





Base + Committed - AM

Project:

Beeslack High School

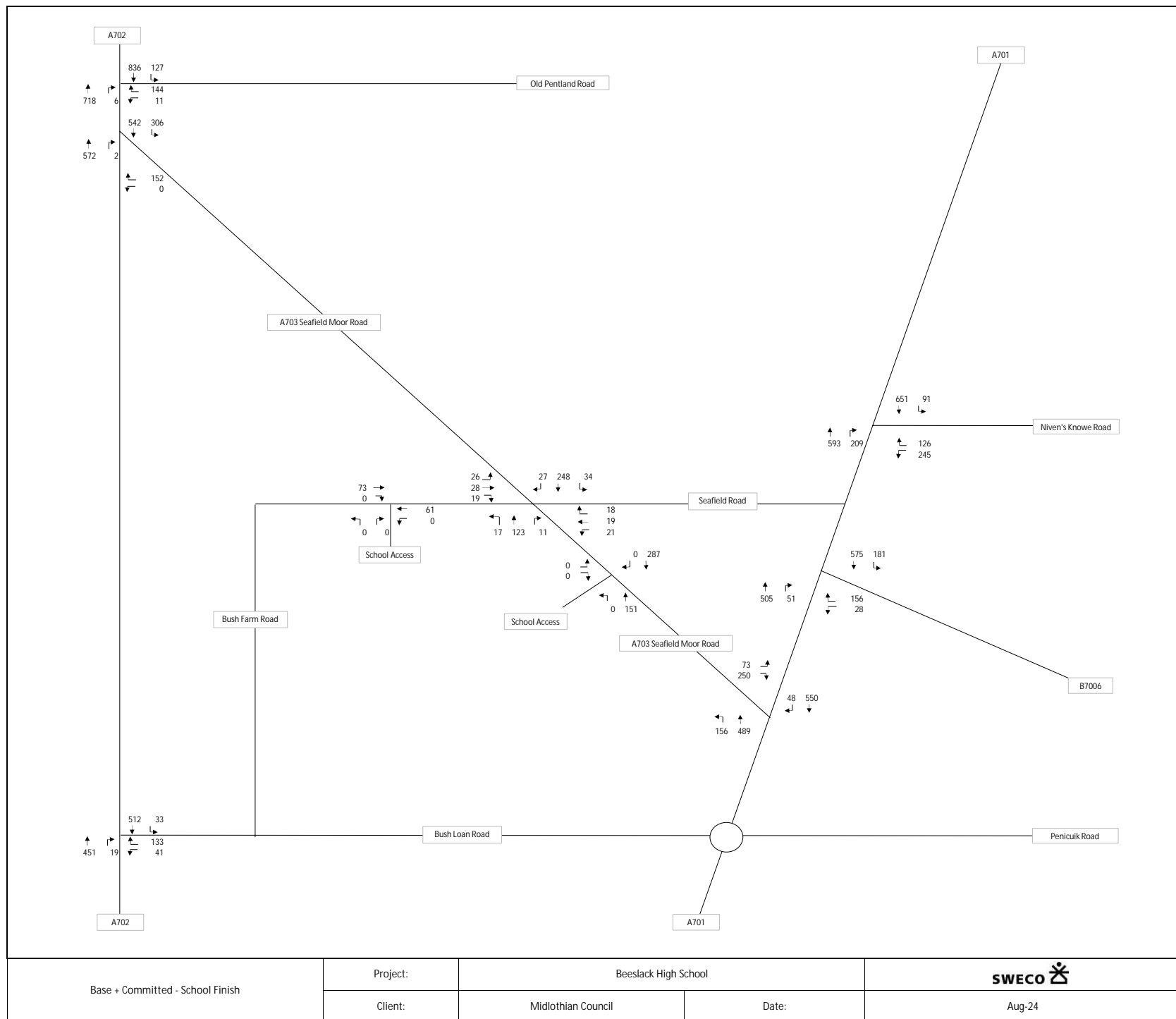



Client:

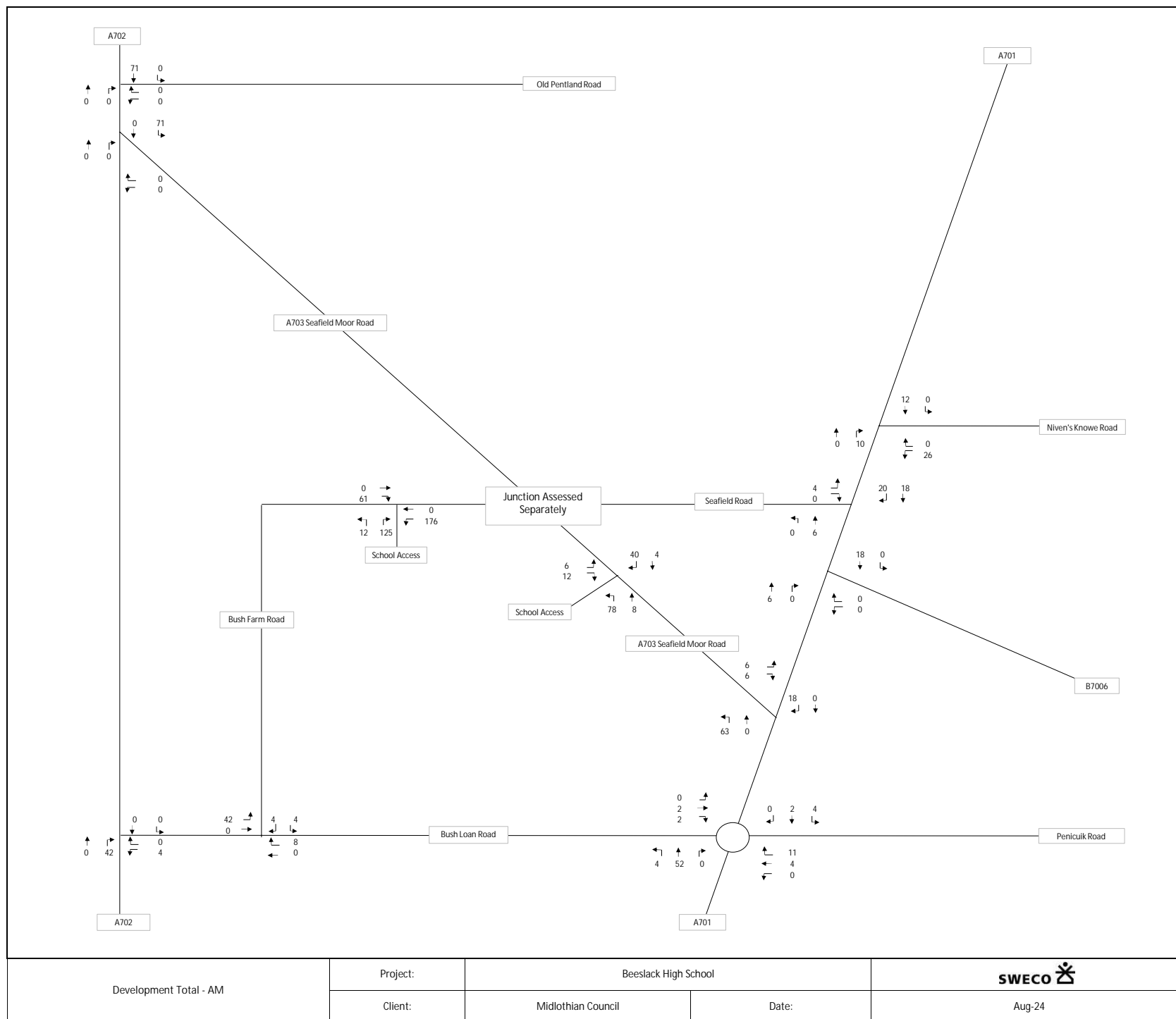
Midlothian Council

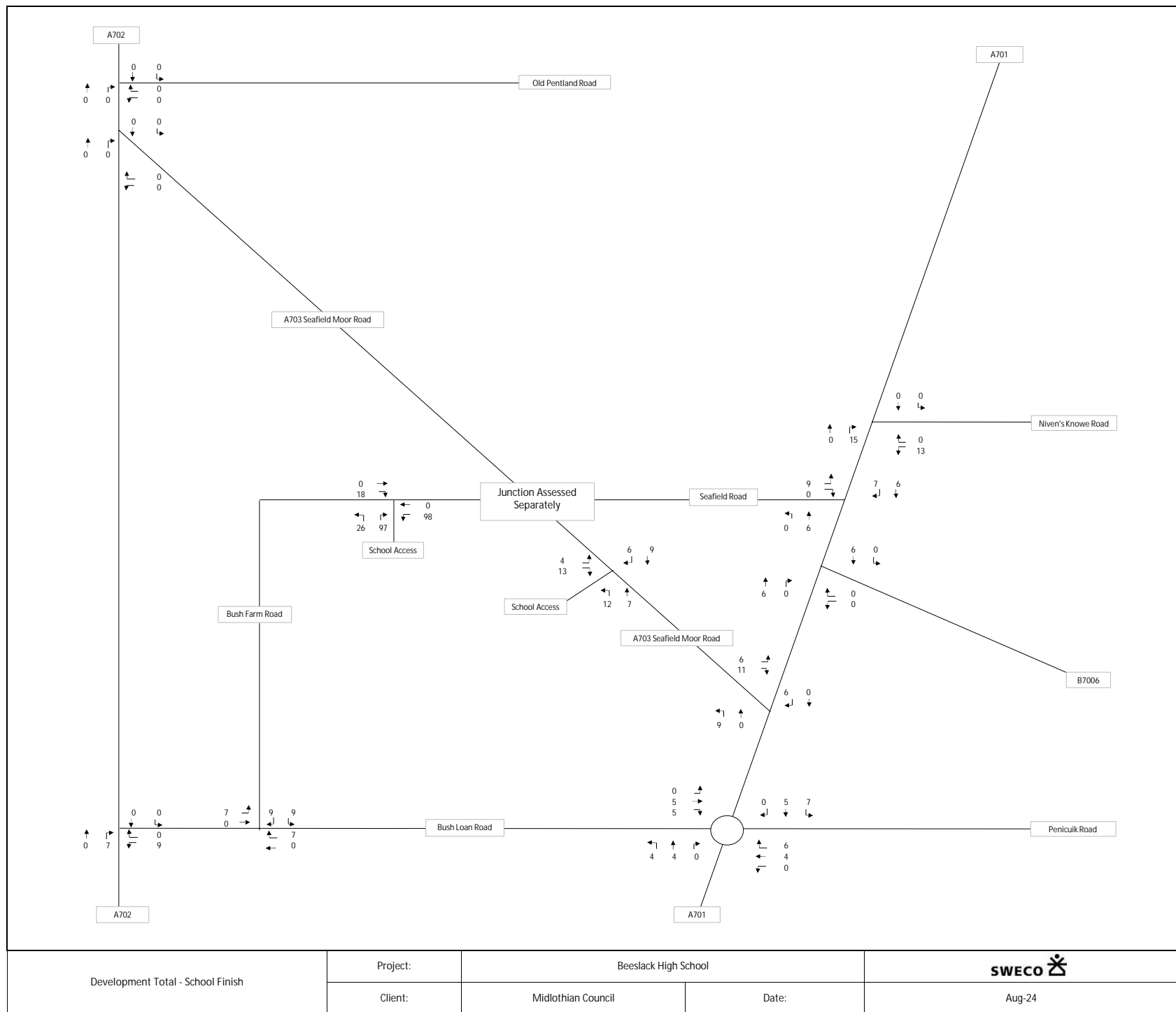
Date:

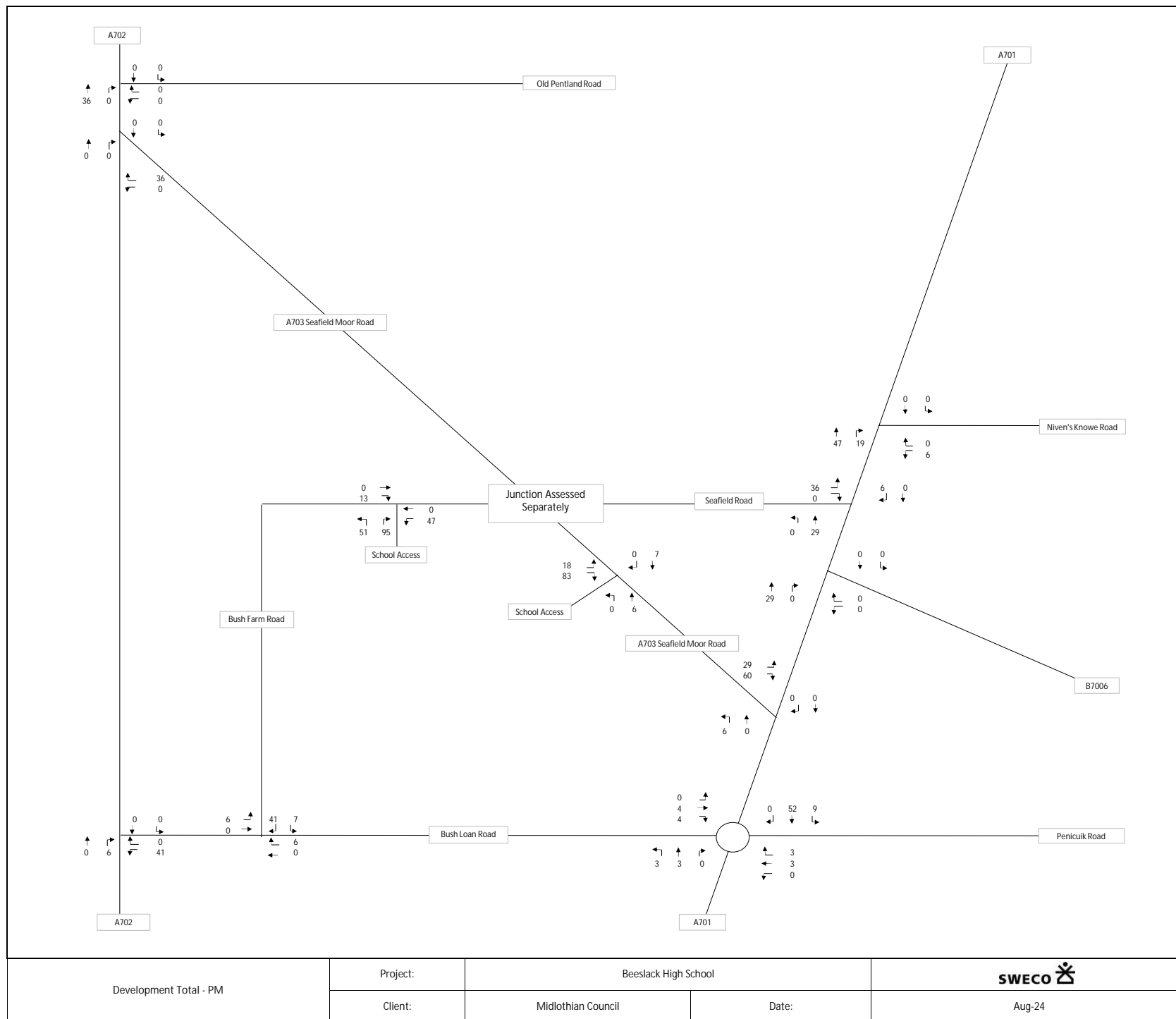
Aug-24




| | | | | |
|----------------------------------|----------|----------------------|-------|--|
| Base + Committed - School Finish | Project: | Beeslack High School | | SWECO  |
| | Client: | Midlothian Council | Date: | |

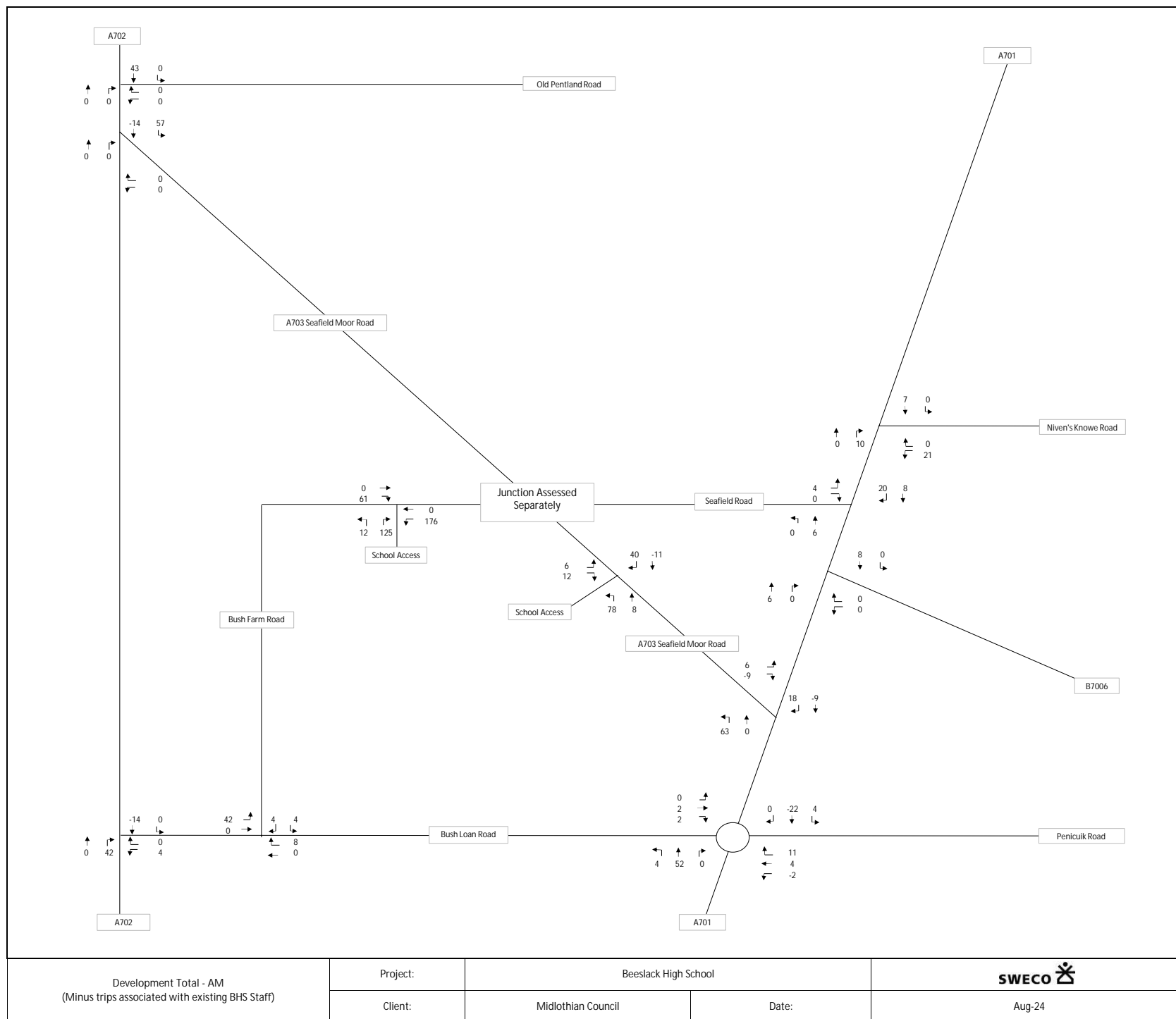






| | | | | |
|------------------------|----------|----------------------|-------|---|
| Development Total - PM | Project: | Beeslack High School | |  |
| | Client: | Midlothian Council | Date: | |

Aug-24



Development Total - AM
(Minus trips associated with existing BHS Staff)

Project:

Beeslack High School

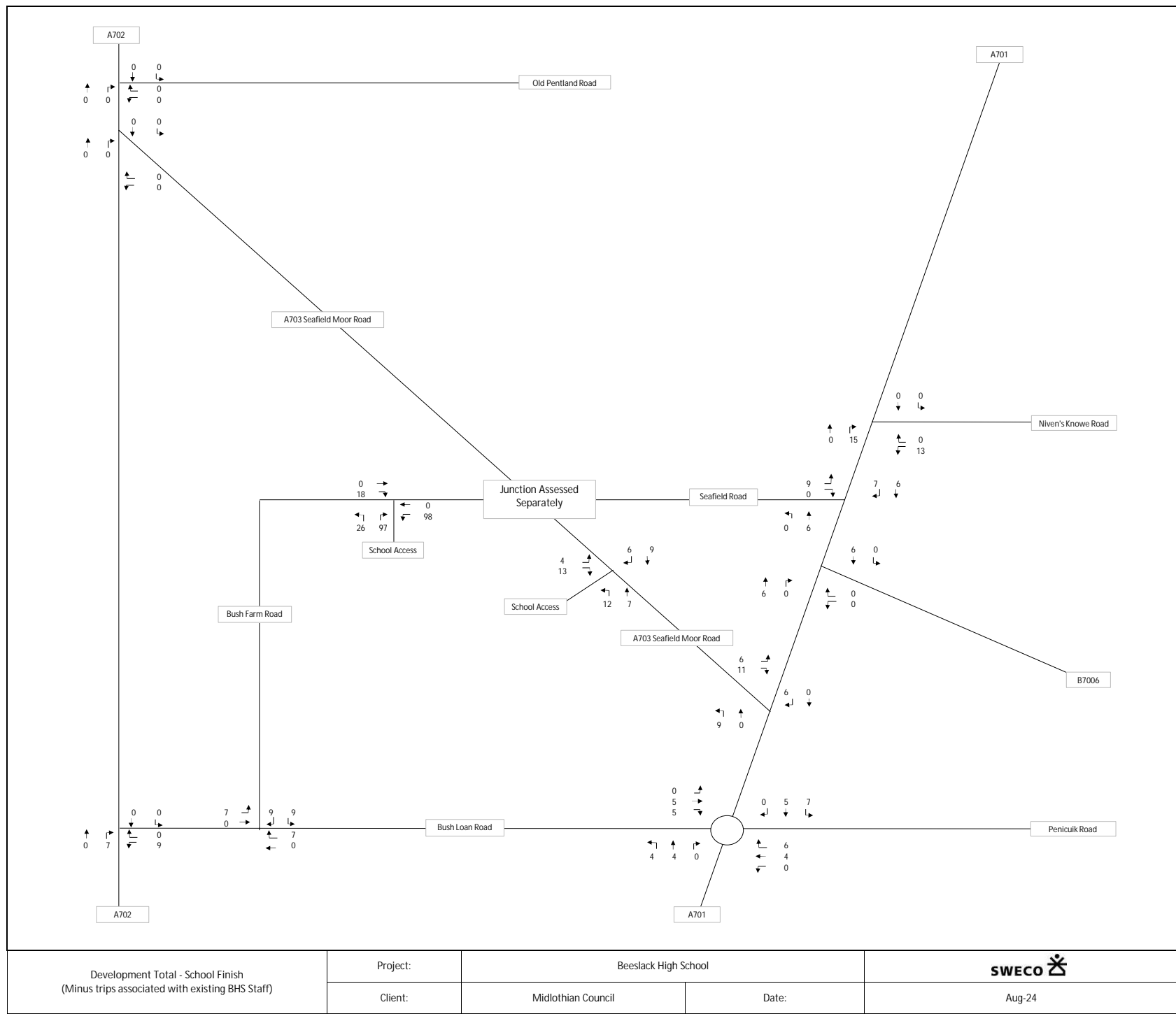


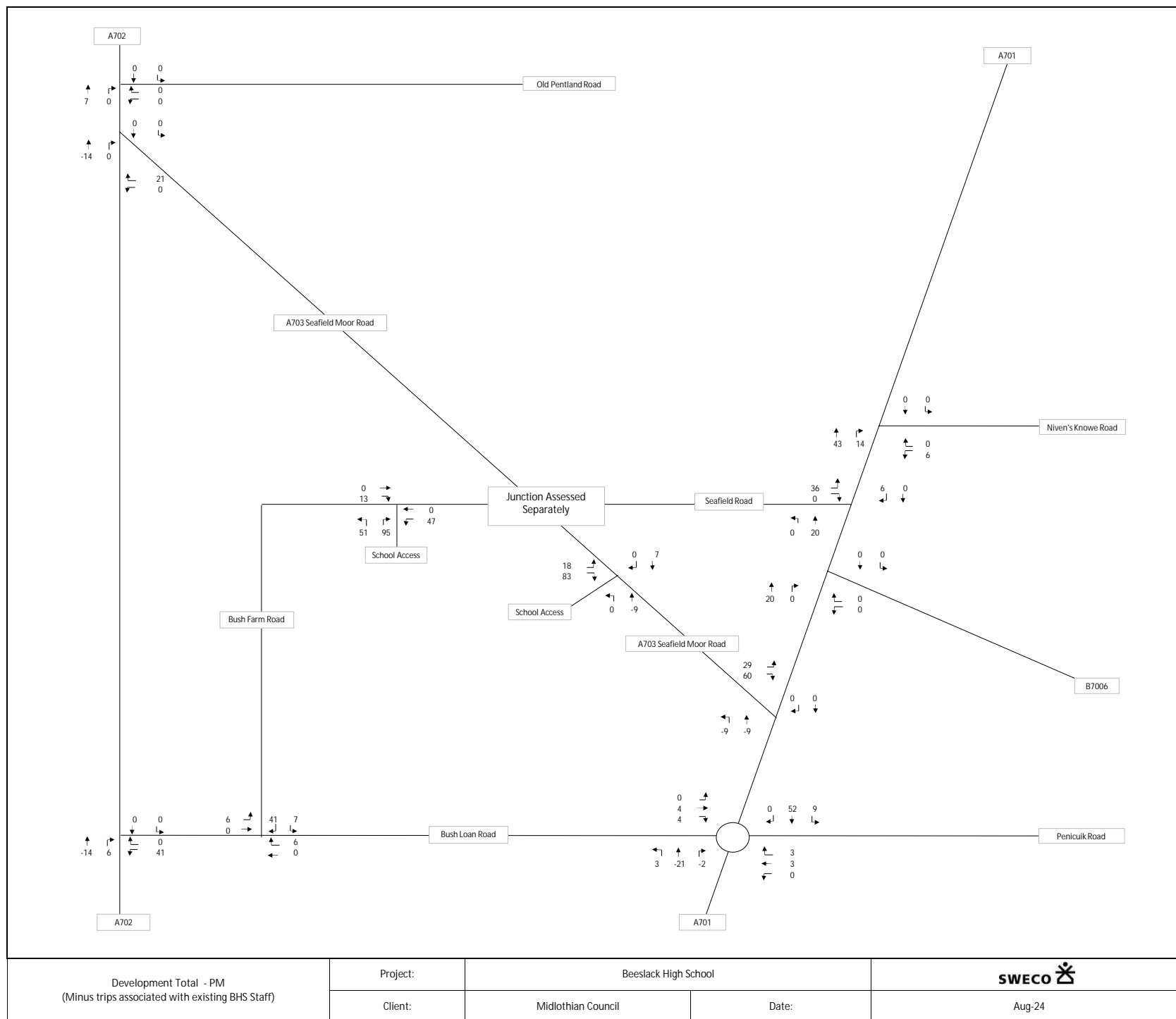
Client:

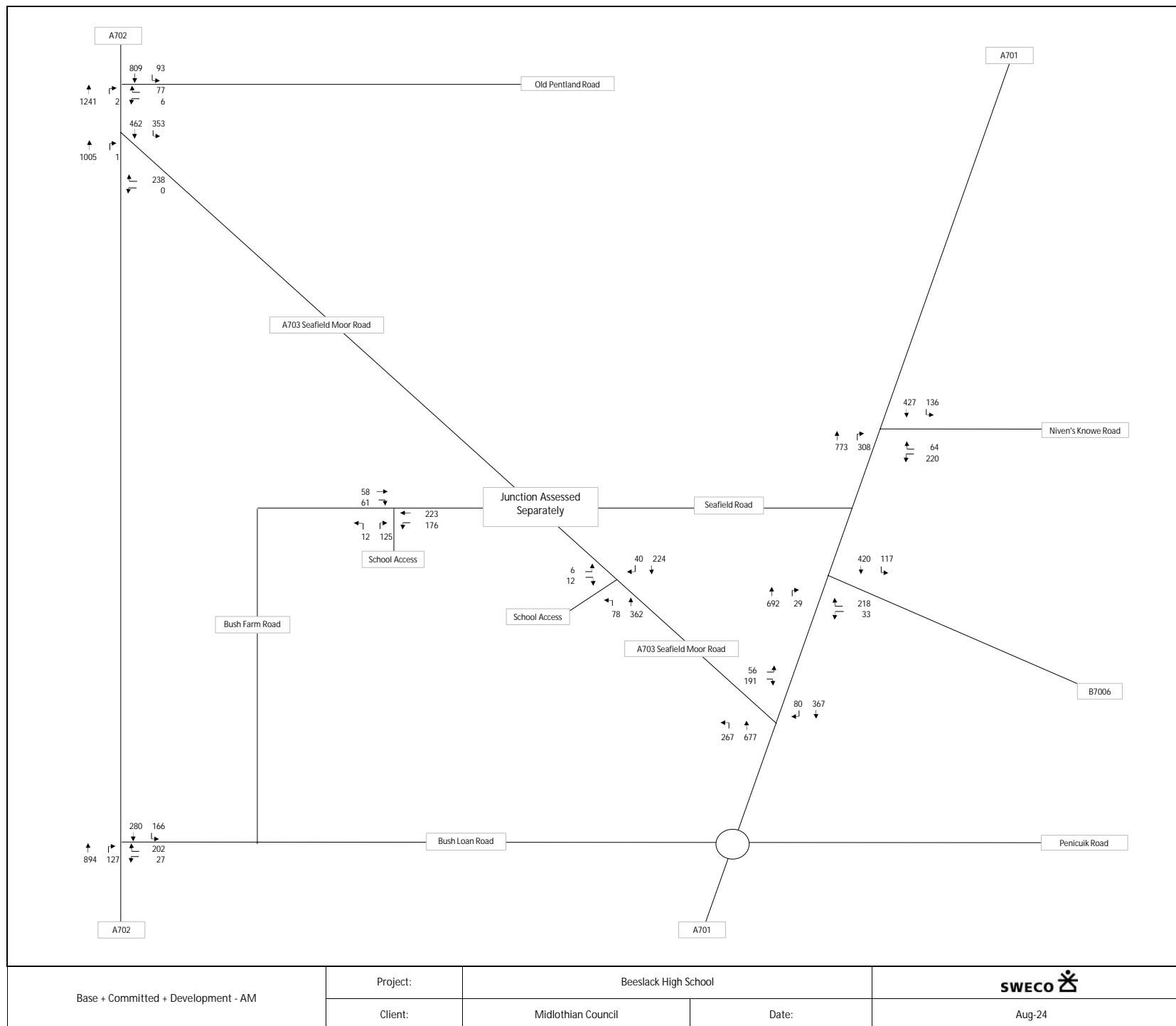
Midlothian Council


Date:

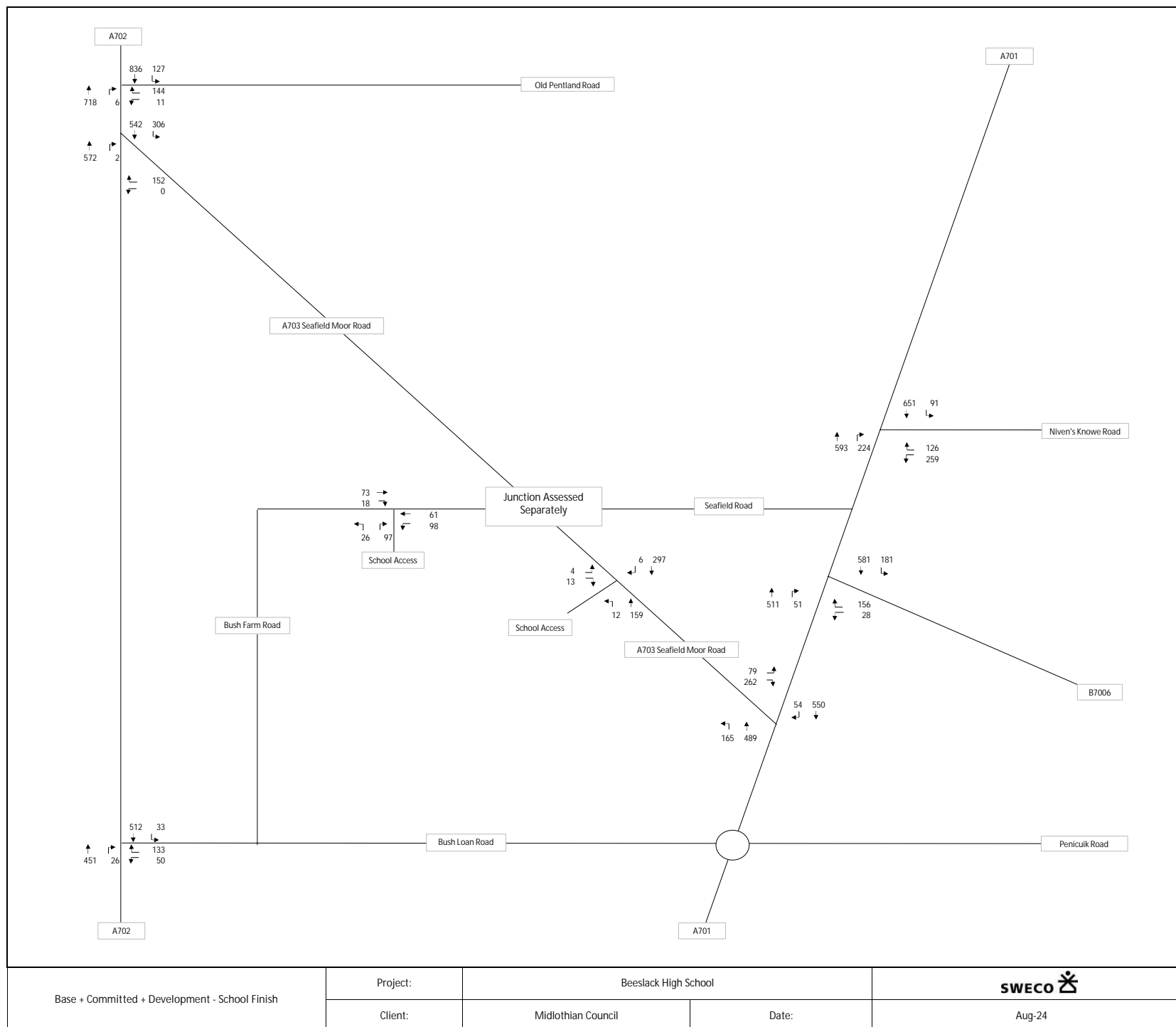
Aug-24







| | | | | |
|-------------------------------------|----------|----------------------|-------|---|
| Base + Committed + Development - AM | Project: | Beeslack High School | | SWECO  |
| | Client: | Midlothian Council | Date: | |



Base + Committed + Development - School Finish

Project:

Beeslack High School

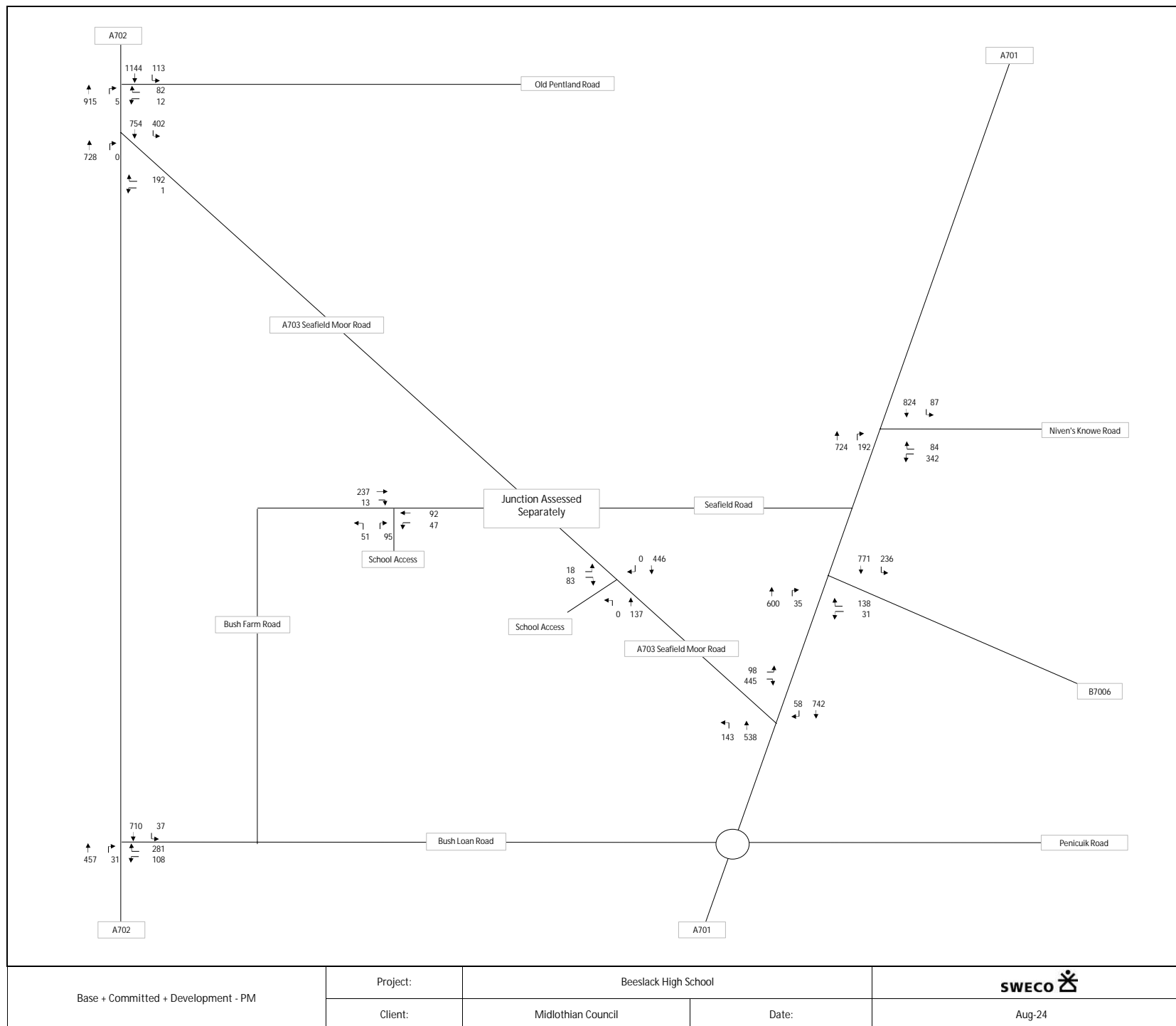


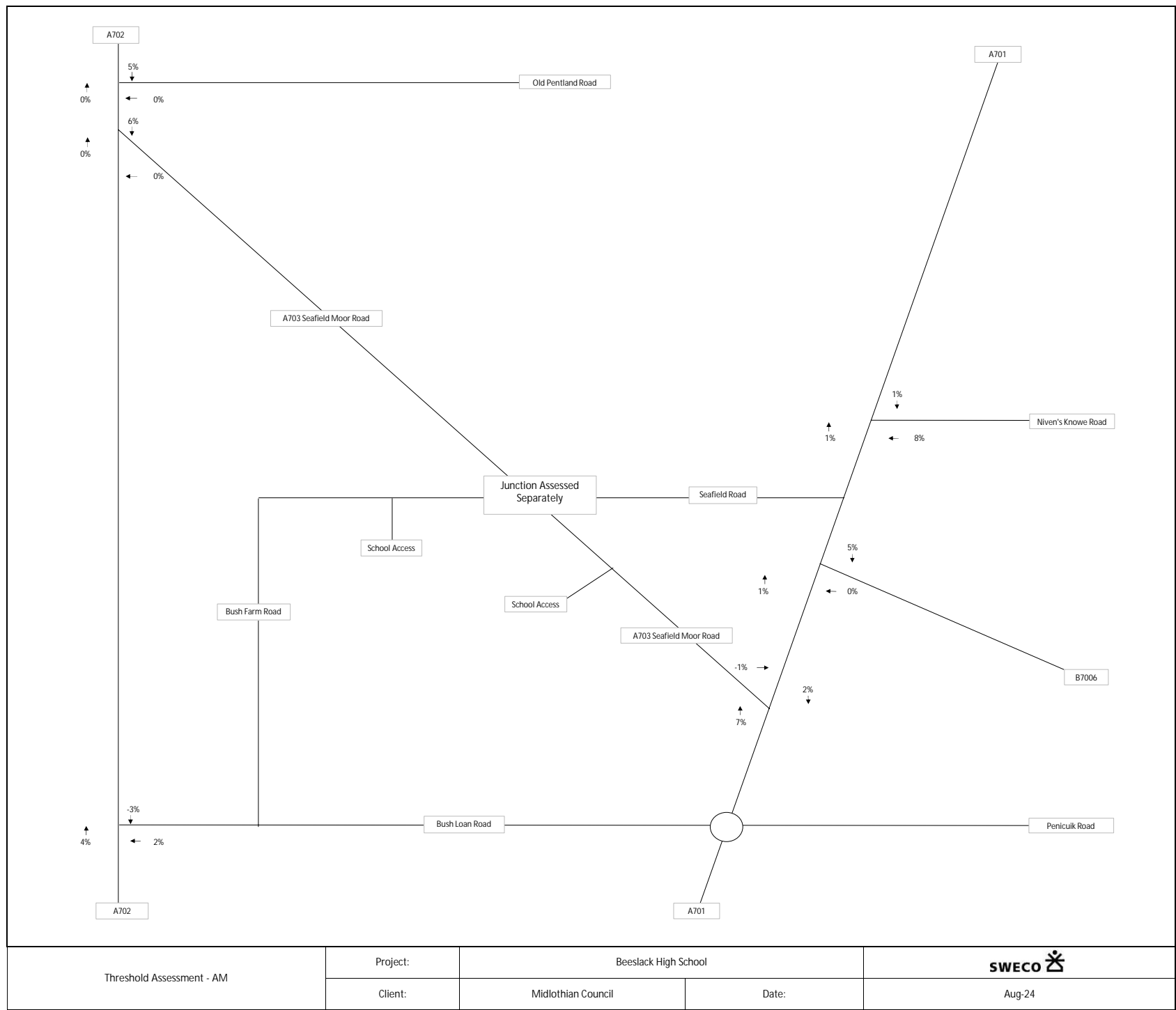
Client:


Midlothian Council

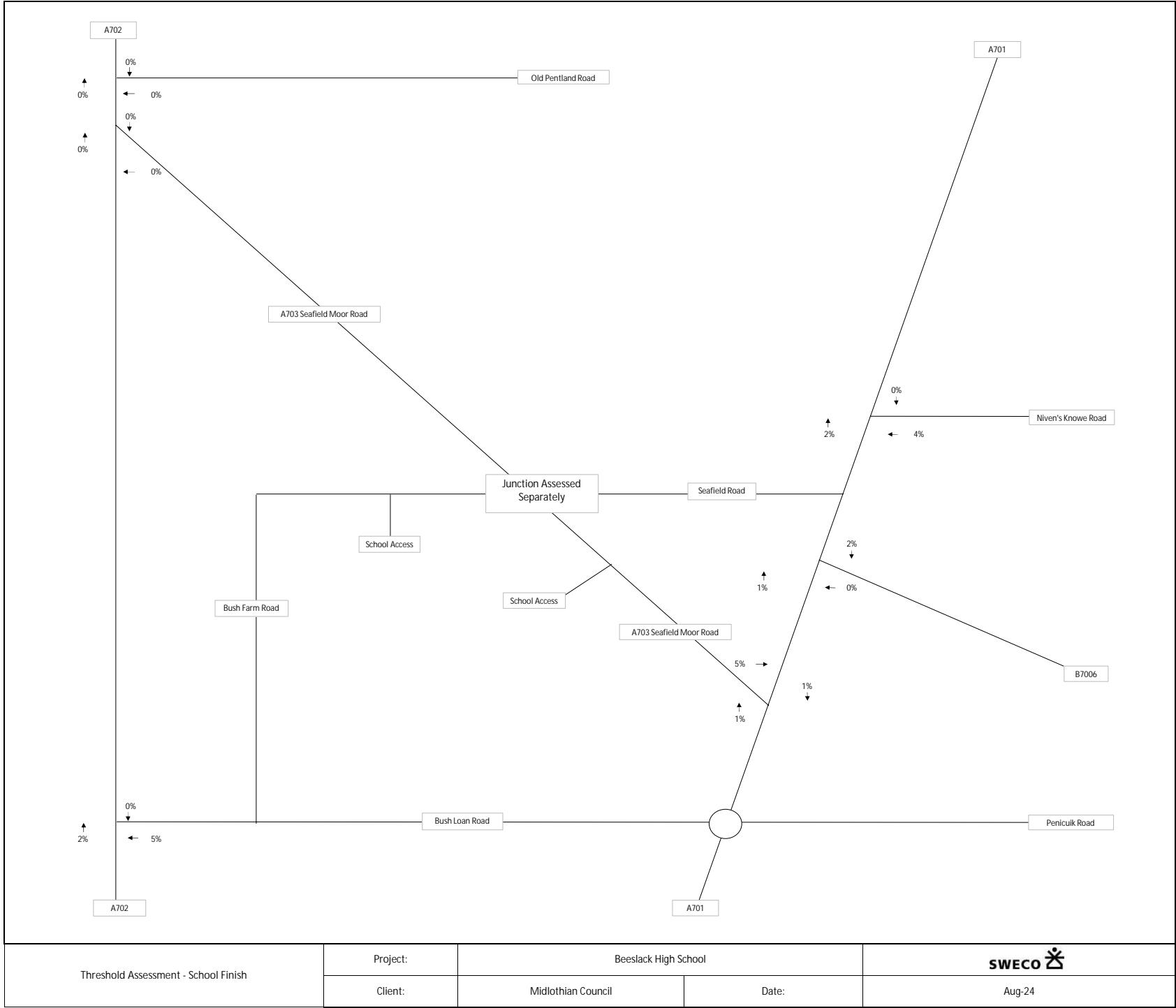
Date:

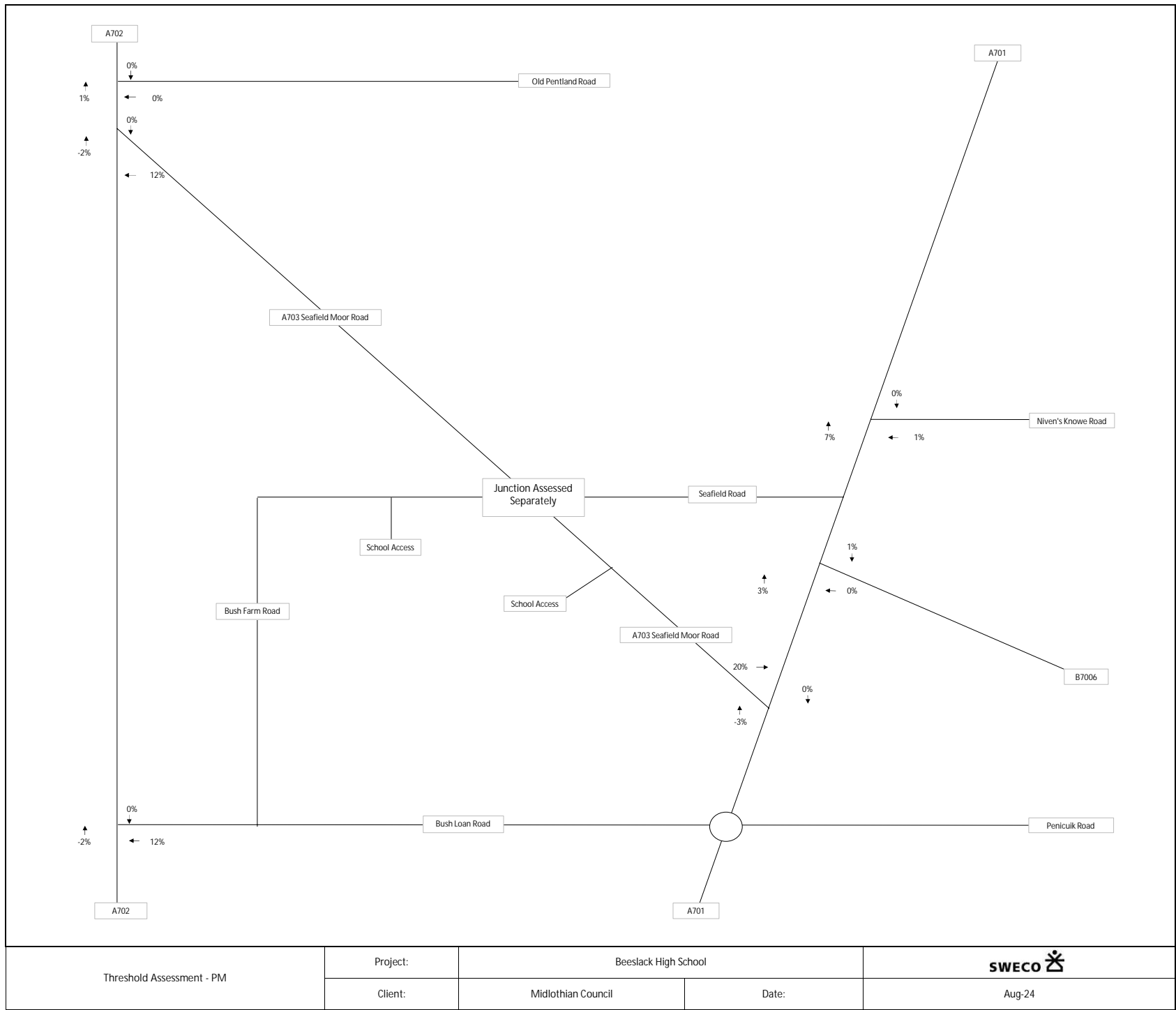
Aug-24

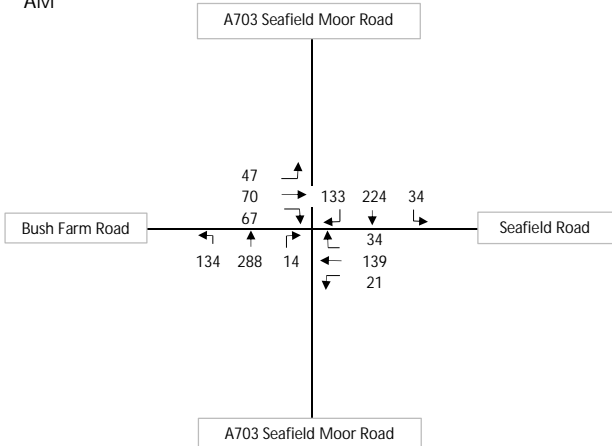
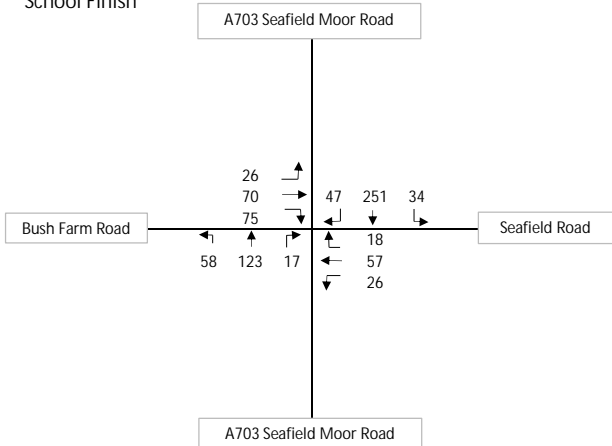
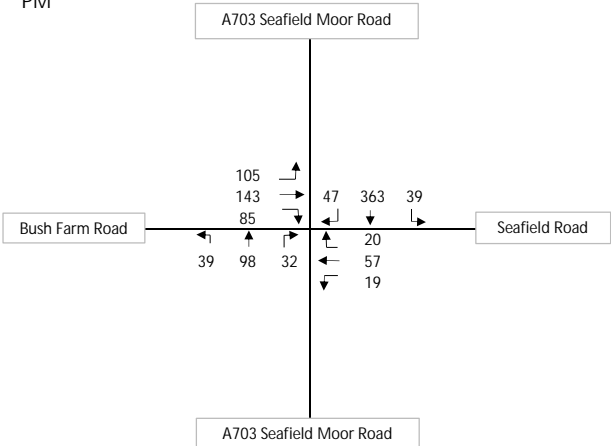



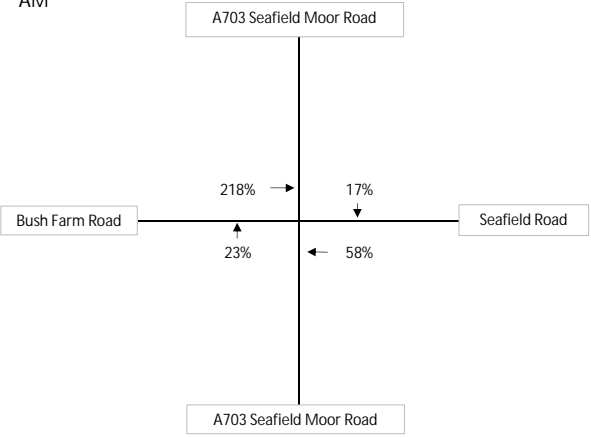
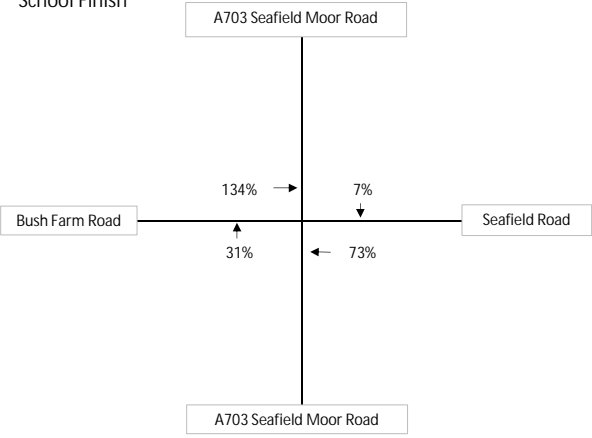
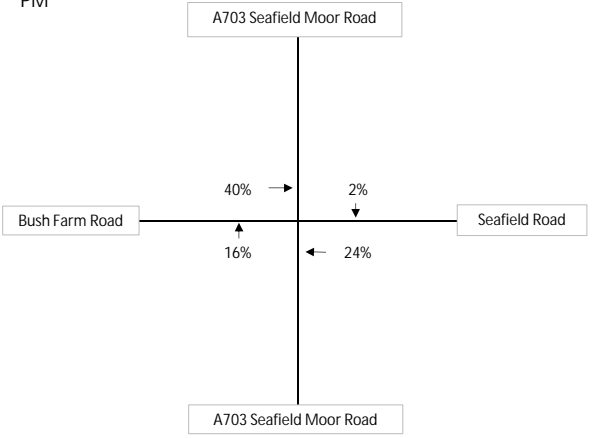



| | | | | |
|---------------------------|----------|----------------------|-------|---|
| Threshold Assessment - AM | Project: | Beeslack High School | |  |
| | Client: | Midlothian Council | Date: | Aug-24 |





| | | | | | |
|---|----------|--|-------|--|--|
| AM | | School Finish | | PM | |
|  | |  | |  | |
| A703 Seafield Moor Road / Seafield Road / Bush Farm Road: Base + Committed + Development | Project: | Beeslack High School | | SWECO  | |
| | Client: | Midlothian Council | Date: | Aug-24 | |

| | | | | | |
|---|--|--|----------------------|---|--|
| AM | | School Finish | | PM | |
|  | |  | |  | |
| A703 Seafield Moor Road / Seafield Road / Bush Farm Road: Threshold Analysis | | Project: | Beeslack High School | |  |
| | | Client: | Midlothian Council | Date: | Aug-24 |

Appendix G – Modelling Results

Site Access Junctions

| Approach | Base + Committed + Development | |
|-----------------------------|--------------------------------|-----|
| | DoS (%) | MMQ |
| Morning Peak | | |
| A703 Seafield Moor Road (N) | 19.2% | 2 |
| School Access | 15.9% | 1 |
| A703 Seafield Moor Road (S) | 36.4% | 7 |
| PRC | 147.4% | |
| School Finish | | |
| A703 Seafield Moor Road (N) | 21.9% | 3 |
| School Access | 14.9% | 1 |
| A703 Seafield Moor Road (S) | 13.8% | 2 |
| PRC | 310.8% | |
| Evening Peak | | |
| A703 Seafield Moor Road (N) | 37.4% | 8 |
| School Access | 35.3% | 3 |
| A703 Seafield Moor Road (S) | 12.8% | 2 |
| PRC | 148.1% | |

Table 1. Eastern Site Access modelling results

| Approach | Base + Committed + Development | |
|----------------------|--------------------------------|-----|
| | RFC | MMQ |
| Morning Peak | | |
| Site Access | 0.33 | 1 |
| Bush Farm Road | 0.13 | 0 |
| School Finish | | |
| Site Access | 0.25 | 0 |
| Bush Farm Road | 0.03 | 0 |
| PM Peak | | |
| Site Access | 0.29 | 0 |
| Bush Farm Road | 0.03 | 0 |

Table 2. Northern Site Access modelling results

Local Road Network Junctions

| Approach | Base 2027 | | Base + Committed | | Base + Committed + Development | |
|-----------------------------|-----------|-----|------------------|-----|--------------------------------|-----|
| | DoS (%) | MMQ | DoS (%) | MMQ | DoS (%) | MMQ |
| Morning Peak | | | | | | |
| Seafield Road | 40.1% | 4 | 43.6% | 4 | 58.4% | 7 |
| A703 Seafield Moor Road (S) | 40.2% | 8 | 43.4% | 9 | 59.2% | 12 |
| Bush Farm Road: Ahead/Right | 14.9% | 1 | 15.7% | 1 | 60.6% | 5 |
| Bush Farm Road: Left | 5.1% | 0 | 5.6% | 0 | 13.3% | 1 |
| A703 Seafield Moor Road (N) | 35.9% | 5 | 38.0% | 6 | 56.0% | 7 |
| PRC | 124.2% | | 106.3% | | 48.6% | |
| School Finish | | | | | | |
| Seafield Road | 28.1% | 2 | 29.6% | 2 | 26.0% | 3 |
| A703 Seafield Moor Road (S) | 14.2% | 2 | 15.3% | 3 | 25.9% | 4 |
| Bush Farm Road: Ahead/Right | 22.8% | 2 | 22.8% | 2 | 40.0% | 5 |
| Bush Farm Road: Left | 10.1% | 1 | 10.1% | 1 | 10.1% | 1 |
| A703 Seafield Moor Road (N) | 28.1% | 5 | 30.6% | 6 | 39.6% | 7 |
| PRC | 220.3% | | 194.5% | | 124.8% | |
| Evening Peak | | | | | | |
| Seafield Road | 20.3% | 2 | 23.8% | 2 | 23.6% | 3 |
| A703 Seafield Moor Road (S) | 15.6% | 3 | 16.8% | 3 | 21.4% | 3 |
| Bush Farm Road: Ahead/Right | 45.6% | 5 | 50.2% | 6 | 56.8% | 7 |
| Bush Farm Road: Left | 26.8% | 2 | 26.8% | 2 | 40.8 | 2 |
| A703 Seafield Moor Road (N) | 46.8% | 9 | 49.8% | 10 | 55.5% | 11 |
| PRC | 92.2% | | 79.2% | | 58.4% | |

Table 3. A703 Seafield Moor Road / Seafield Road / Bush Farm Road modelling results

| Approach | Base 2027 | | Base + Committed | | Base + Committed + Development | |
|-------------------------|-----------|-----|------------------|-----|--------------------------------|-----|
| | DoS (%) | MMQ | DoS (%) | MMQ | DoS (%) | MMQ |
| Morning Peak | | | | | | |
| A701 (S): Ahead | 59.9% | 15 | 65.3% | 17 | 64.3% | 17 |
| A701 (S): Left | 11.4% | 2 | 12.9% | 2 | 16.8% | 2 |
| A703 Seafield Moor Road | 59.6% | 7 | 61.7% | 8 | 63.8% | 8 |
| A701 (N) | 37.5% | 8 | 41.2% | 8 | 44.5% | 8 |
| PRC | 50.2% | | 37.8% | | 40.0% | |
| School Finish | | | | | | |
| A701 (S): Ahead | 50.8% | 12 | 52.1% | 12 | 53.1% | 12 |
| A701 (S): Left | 9.1% | 1 | 9.8% | 1 | 10.4% | 1 |
| A703 Seafield Moor Road | 58.4% | 9 | 64.5% | 10 | 66.0% | 11 |
| A701 (N) | 59.2% | 14 | 62.2% | 15 | 63.9% | 16 |
| PRC | 52.1% | | 39.4% | | 36.3% | |
| Evening Peak | | | | | | |
| A701 (S): Ahead | 57.5% | 14 | 59.3% | 14 | 64.1% | 15 |
| A701 (S): Left | 8.6% | 1 | 9.6% | 1 | 9.0% | 1 |
| A703 Seafield Moor Road | 79.3% | 15 | 88.0% | 18 | 91.0% | 22 |
| A701 (N) | 80.4% | 23 | 84.7% | 26 | 92.8% | 30 |
| PRC | 12.0% | | 2.2% | | -3.1% | |

Table 4. A701 / A703 modelling results

| Approach | Base 2027 | | Base + Committed | | Base + Committed + Development | |
|----------------------|-----------|-----|------------------|-----|--------------------------------|-----|
| | RFC | MMQ | RFC | MMQ | RFC | MMQ |
| Morning Peak | | | | | | |
| A701 (North) | 0.31 | 1 | 0.32 | 1 | 0.33 | 1 |
| B7006 | 0.15 | 0 | 0.22 | 0 | 0.22 | 0 |
| A701 (S) | 0.45 | 1 | 0.50 | 1 | 0.50 | 1 |
| School Finish | | | | | | |
| A701 (North) | 0.42 | 1 | 0.46 | 1 | 0.43 | 1 |
| B7006 | 0.17 | 0 | 0.18 | 0 | 0.17 | 0 |
| A701 (S) | 0.36 | 1 | 0.38 | 1 | 0.38 | 1 |
| Evening Peak | | | | | | |
| A701 (North) | 0.54 | 1 | 0.61 | 2 | 0.61 | 2 |
| B7006 | 0.17 | 0 | 0.19 | 0 | 0.19 | 0 |
| A701 (S) | 0.39 | 1 | 0.41 | 1 | 0.42 | 1 |

Table 5. A701 / B7006 modelling results

| Approach | Base 2027 | | Base + Committed | | Base + Committed + Development | |
|------------------|-----------|-----|------------------|-----|--------------------------------|-----|
| | DoS (%) | MMQ | DoS (%) | MMQ | DoS (%) | MMQ |
| Morning Peak | | | | | | |
| A701 (N) | 67.0% | 15 | 67.4% | 16 | 69.5% | 16 |
| Nivensknowe Road | 86.1% | 11 | 97.7% | 15 | 100.2% | 18 |
| A701 (S) | 89.2% | 27 | 99.0% | 46 | 101.0% | 53 |
| PRC | 0.9% | | -10.0% | | -12.3% | |
| School Finish | | | | | | |
| A701 (N) | 94.8% | 28 | 107.5% | 58 | 109.9% | 65 |
| Nivensknowe Road | 94.1% | 17 | 104.8% | 28 | 108.7% | 34 |
| A701 (S) | 91.0% | 23 | 104.7% | 44 | 108.3% | 56 |
| PRC | -5.3% | | -19.5% | | -22.1% | |
| Evening Peak | | | | | | |
| A701 (N) | 111.8% | 77 | 121.5% | 119 | 123.9% | 127 |
| Nivensknowe Road | 109.7% | 37 | 123.5% | 60 | 120.3% | 56 |
| A701 (S) | 91.2% | 26 | 93.3% | 28 | 100.9% | 44 |
| PRC | -24.2% | | -37.3% | | -37.7% | |

Table 6. A701 / Nivensknowe Road modelling results

Trunk Road Junctions

| Approach | Base 2027 | | Base + Committed | | Base + Committed + Development | |
|----------------------|-----------|-----|------------------|-----|--------------------------------|-----|
| | RFC | MMQ | RFC | MMQ | RFC | MMQ |
| Morning Peak | | | | | | |
| A703 | 1.17 | 21 | 1.40 | 42 | 1.42 | 43 |
| A702 | 0.00 | 1 | 0.00 | 0 | 0.00 | 0 |
| School Finish | | | | | | |
| A703 | 0.60 | 1 | 0.65 | 2 | 0.65 | 2 |
| A702 | 0.01 | 0 | 0.01 | 0 | 0.01 | 0 |
| Evening Peak | | | | | | |
| A703 | 1.22 | 19 | 1.38 | 30 | 1.52 | 40 |
| A702 | 0.00 | 0 | 0.00 | 0 | 0.00 | 0 |

Table 7. A702 / A703 modelling results

| Approach | Base 2027 | | Base + Committed | | Base + Committed + Development | |
|----------------------|-----------|-----|------------------|-----|--------------------------------|-----|
| | RFC | MMQ | RFC | MMQ | RFC | MMQ |
| Morning Peak | | | | | | |
| Old Pentland Road | 0.70 | 2 | 0.77 | 3 | 0.87 | 4 |
| A702 | 0.01 | 0 | 0.01 | 0 | 0.01 | 0 |
| School Finish | | | | | | |
| Old Pentland Road | 0.84 | 4 | 0.88 | 5 | 0.88 | 5 |
| A702 | 0.02 | 0 | 0.02 | 0 | 0.02 | 0 |
| Evening Peak | | | | | | |
| Old Pentland Road | 1.28 | 14 | 1.60 | 21 | 1.64 | 22 |
| A702 | 0.02 | 0 | 0.02 | 0 | 0.02 | 0 |

Table 8. A702 / Old Pentland Road modelling results

| Approach | Base + Committed + Development | |
|----------------------|--------------------------------|-----|
| | RFC | MMQ |
| Morning Peak | | |
| Bush Loan | 0.19 | 0 |
| A702 (S) | 0.70 | 2 |
| A702 (N) | 0.27 | 0 |
| School Finish | | |
| Bush Loan | 0.17 | 0 |
| A702 (S) | 0.32 | 1 |
| A702 (N) | 0.32 | 1 |
| Evening Peak | | |
| Bush Loan | 0.40 | 1 |
| A702 (S) | 0.35 | 1 |
| A702 (N) | 0.44 | 1 |

Table 9. A702 / Bush Loan Roundabout modelling results