

Appendix C

Ashgrove Connects Business Case

Outline Business Case

Project Name	Ashgrove Connects		
Author	Liam Gleeson	Date	09/09/2022
Sponsoring Cluster	Capital	Version	1

Contents

1.	Introduction and Project Overview	3
1.1	Context	3
1.2	Project overview	3
1.3	Business case development	3
2.	Executive Summary	4
2.1	Project overview	4
2.2	Costs and funding.....	4
2.3	Strategic fit.....	4
2.4	Project benefits	5
2.5	Deliverability and next steps	5
3.	Strategic Fit	6
3.1	Overview.....	6
3.2	Prosperous Place	6
4.	Business Aims, Needs & Constraints	7
4.1	Strategic and policy context	7
4.2	Case for Change.....	10
4.3	Existing arrangements	10
5.	Objectives	14
6.	Scope	15
6.1	Overview.....	15
6.2	Ashgrove Road West.....	15
6.3	North Anderson Drive signal-controlled junction	15
6.4	Foresterhill Road/ Foresterhill Junction	16
6.5	Westburn Drive Junction.....	16
6.6	Ashgrove Road (Westburn Drive to Laurelwood Avenue)	17
6.7	Ashgrove Road (Laurelwood Avenue to Berryden Road)	17
6.8	Laurelwood Avenue	17
6.9	Elm Place	17
6.10	Materials, Placemaking, landscape, drainage and trees.....	17
6.11	Handover period	18
6.12	Success criteria	18
6.13	Out of Scope.....	18
7.	Options Appraisal.....	18
7.1	Option 1 – Do Nothing	18
7.2	Option 2 – Full implementation	19
7.3	Option 3 – Phased implementation.....	20
7.4	Option 4 – Do Minimum	21
7.5	Recommendation.....	21
8.	Benefits	23
8.1	Overview of active travel benefits	23
8.2	Monetising active travel benefits.....	25
8.3	Anticipated scheme benefits	26
9.	Costs	29
9.1	Project Capital Expenditure	30
9.2	Post- Project Capital Expenditure	30
9.3	Post- Project Revenue Expenditure.....	30
10.	Key Risks	32
11.	Procurement Approach	33
12.	Time	33

13. Governance.....	33
14. Resources	33
15. Environmental Management	34
16. Preserving Our Heritage	35
17. Stakeholders	35
18. Assumptions.....	36
19. Dependencies	36
20. Constraints	36
21. ICT Hardware, Software or Network infrastructure	36
22. Change Controls Issued by the Project	37
23. Support Services Consulted	37
24. Decision by Capital Board.....	38
25. Document Revision History.....	38

1. Introduction and Project Overview

1.1 Context

The existing Berryden corridor facilitates journeys between the city centre, the north of Aberdeen, and beyond. The Berryden Corridor Improvement (BCI) project will provide two lanes in both directions throughout the length of the corridor, widening the existing road between Skene Square and Ashgrove Road and creating a new road between Ashgrove Road and St Machar Drive. Alongside the new carriageway there will be segregated infrastructure for pedestrians and cyclists along the majority of its length. The BCI project will provide improved, continuous, and dedicated infrastructure for active travel modes along its length. This active travel infrastructure will provide a step change in provision, encouraging modal shift and improving perceptions of safety. It will also provide a significant opportunity to further expand the provision of high-quality infrastructure on the surrounding network connecting neighbourhoods to the city centre.

During the consultation process for the Berryden Corridor Improvement project it was highlighted that the proposed off-carriageway cycle infrastructure should extend further. This would allow the full benefits of the new infrastructure for cycle traffic to be achieved. It would provide continuity of provision for likely journeys, with a suggested link between the NHS Foresterhill Campus and the city centre cited as a specific example. Cycle infrastructure provided by the BCI project is being developed to address these demands on roads covered by the project, however, much of what was identified is outwith the BCI project's scope.

The connection routes identified as important to onward travel from the Berryden Corridor were:

- Kittybrewster Roundabout to Haudagain Roundabout (A96 Great Northern Road);
- Kittybrewster Roundabout to Tillydrone Avenue/ Diamond Bridge (St Machar Drive);
- Skene Square to City Centre; and
- Berryden Corridor to Cornhill/ Foresterhill/ Mastrick (Ashgrove Road & Ashgrove Road West).

The Kittybrewster Roundabout to Haudagain Roundabout (A96 Great Northern Road) and Kittybrewster Roundabout to Tillydrone Avenue/ Diamond Bridge (St Machar Drive) routes will be considered as part of the Inverurie to Aberdeen Multi-Modal corridor transport study forming a part of the programme of work funded by the Transport Scotland Bus Partnership Fund.

The Skene Square to City Centre and Berryden Corridor to Cornhill/ Foresterhill/ Mastrick (Ashgrove Road & Ashgrove Road West) routes are included Berryden Corridor Active Travel Connections Programme. The Berryden Corridor Active Travel Connections Programme has, in parallel with the BCI and with funding from Nestrans, considered options for the development of connections from BCI cycle infrastructure which would maximise active travel opportunities on the corridor, leveraging the maximum active travel benefits of the BCI project.

Berryden Corridor to Cornhill/ Foresterhill/ Mastrick (Ashgrove Road & Ashgrove Road West) route is also known as Ashgrove Connects for consultation and project purposes.

1.2 Project overview

This proposal is for the redesign of the streets of Ashgrove Road, Ashgrove Road West, Laurelwood Avenue and Elm Place from North Anderson Drive to Berryden Road.

The purpose of the scheme is to make Ashgrove Road, Ashgrove Road West, and Laurelwood Avenue work better for all ages and abilities of people who use these streets to move around their communities, to access employment and take advantage of leisure opportunities. The proposal intends to maximise the benefits of the Berryden Corridor Improvements (BCI) project in line with the roads hierarchy.

The scope of the proposal includes physical improvements on the streets between North Anderson Drive and Berryden Road (including some connecting side streets) and a behaviour change plan. Proposals include traffic speed reduction measures, protected cycling tracks, improved footways and crossing facilities, enhanced bus stop facilities, and placemaking and greenspace improvements.

1.3 Business case development

Ashgrove Connects will be funded by the public sector. Accordingly, Aberdeen City Council is required to prepare a business case which demonstrates that value for money is being achieved and that risks have been considered and are managed appropriately.

This business case has been prepared in accordance with HM Treasury Green Book guidance. This business case was prepared by Atkins on behalf of Aberdeen City Council.

2. Executive Summary

2.1 Project overview

During the consultation process for the Berryden Corridor Improvement project it was highlighted that for the full benefits of the new infrastructure for cycle traffic to be realised, the proposed off-carriageway cycle infrastructure should extend further, providing continuity of provision for likely journeys. Ashgrove Connects is one of four such extension opportunities currently being progressed to meet this demand.

Options for improvements to the transport network on Ashgrove Road and Ashgrove Road West and Laurelwood Avenue/ Elm Place, to connect the BCI proposals with Mastrick at North Anderson Drive have been assessed.

Designs have been developed to a feasibility level with initial design ideas presented to the public and stakeholders following options assessment against the design objectives. Following this, concept design proposals were prepared following community feedback and further detailed options assessment.

The key features of the proposals are:

- 20mph speed limit on Ashgrove Road and Ashgrove Road West;
- Reduced carriageway width and crossing distances;
- Continuous footways at side roads to provide design priority for pedestrians;
- One new controlled crossing of Ashgrove Road West;
- A net increase in the number of street trees and green infrastructure;
- Two new opportunities for public realm features as gateways into the community;
- Protected cycle tracks on Ashgrove Road West, Ashgrove Road between Westburn Drive and Laurelwood Avenue, Laurelwood Avenue, and Elm Place.
- Enhanced bus stop facilities and cycle bypasses of bus stops; and
- Reduction in available on street parking commensurate with providing for residential need where required.

Implementation alongside the BCI will seamlessly join the infrastructure together, creating a, much enhanced, cohesive active travel network for communities in the north of the city.

2.2 Costs and funding

The total capital cost of the project is estimated as £15.685 million, inclusive of optimism bias. If the project is progressed swiftly alongside the delivery of the Berryden Corridor Improvement, there is an opportunity for this cost to be fully met by external funding.

The source of third-party funding that this project is primarily aligned with is Transport Scotland/ Sustrans Places for Everyone fund. This offers 100% design funding and 70% construction funding. The next window for applications closes on 18th October 2022 for funding decisions in December 2022.

The project with aim to use the BCI as match funding to cover the remaining 30% construction funding provided the projects are delivered at least partly in the same construction year. This project is being prepared at pace to meet this requirement. Commencement BCI construction is currently targeted in 2023-24.

2.3 Strategic fit

The adopted policy framework in Aberdeen, through approved ACC commitments including the Local Outcome Improvement Plan, Local Transport Strategy, Active Travel Action Plan, Climate Change Plan, the Aberdeen Roads Hierarchy, Aberdeen City Central Locality Plan, and the Regional Transport Strategy, set a clear direction towards:

- More active travel, public transportation, and improved multi-modal accessibility;
- Locking in the benefits of strategic network changes by reducing traffic volumes and providing improved networks for walking, cycling and public transport;
- Greater prioritisation of space for people and community activities rather than traffic; and

- The need to take net zero and climate mitigation opportunities in all new schemes.

Ashgrove Connects has been developed in direct response to these policies. It will deliver on two relevant commitments in the adopted Active Travel Action Plan 2017-2021:

- To work towards a road network where all users are safe from the risk of being killed or seriously injured, and the injury rate is much reduced; and
- To ensure that all young people have the opportunity to travel to school by active and/or sustainable modes of transport and are equipped with the necessary knowledge, skills and infrastructure to allow them to undertake local journeys safely and independently.

2.4 Project benefits

Ashgrove Connects will deliver a wide range of health benefits as increasing walking and cycling trips is a cost effective and practical way to improve public health. There is a clear link between increased physical exercise and reduced risk of chronic conditions like type 2 diabetes, heart disease, many types of cancer, depression and anxiety, and dementia.

Health benefits will even accrue to people who do not travel using the new active travel infrastructure. An increased mode share to walking and cycling will improve air quality across the project area. This will complement the Council's LEZ (Low Emission Zone) strategy, which was developed in response to dangerous levels of air pollution (mainly nitrogen dioxide – NO₂) mostly caused by road traffic.

Ashgrove Connects will make the road a better place to live, work, study, and visit. It will improve the quality of the pedestrian environment and deliver new places to rest and dwell leading to amenity and recreational benefits along the project area. This will increase local levels of economic activity, boost property values, and make an area more attractive to potential investors.

Ashgrove Connects will facilitate more accessible neighbourhoods. Compact communities improve the accessibility of key amenities and services for non-motorised users. This will also allow people to travel actively in support of their health and well-being, without access being limited by the cost of transport.

Walking, wheeling, and cycling provide affordable and reliable transport. Investment in areas of multiple deprivation can promote differential equity impacts by improving access to services and employment opportunities for those on a low income. Further, projects which reduce car dependency may free up additional disposable income for impacted households.

Active travel projects encourage modal shift from the private car. By reducing the need to travel unsustainably, active travel projects can help meet transport planning objectives to reduce traffic congestion, energy consumption, and carbon emissions.

Finally, Ashgrove Connects will make active travel more safe, reliable, and, crucially, fun. Walking, wheeling, and cycling is already less stressful than driving, but improved infrastructure will enhance the quality of any journey and deliver enjoyment and wellbeing benefits to those who use it.

2.5 Deliverability and next steps

A number of package options were appraised for alignment with policy, objectives, and deliverability. The options considered ranged from do nothing (behaviour change and engagement only) to full implementation of the proposed scheme.

Full implementation (Option 2) offers the greatest maximisation of benefits and alignment with policy and objectives, particularly if delivered prior to or alongside the BCI utilising external funding.

At this stage, the preferred delivery mechanism is to implement the entire scheme at once. The Council is aspiring to deliver the full scheme and a phased implementation may risk existing funding arrangements. Careful project management will minimise any short-term disruption during the construction phase, and early design work will ensure appropriate interfaces with the BCI project.

Ashgrove Connects is still in its early phases of development. With technically feasible concept designs prepared, the next phase for the project is to develop a detailed design. The next step is to seek funding for further scheme development for Transport Scotland/ Sustrans Places for Everyone fund.

3. Strategic Fit

3.1 Overview

Ashgrove Connects is not specifically mentioned within the Local Outcome Improvement Plan (LOIP) 2016-26 (refreshed July 2021), however the benefits it will provide contribute directly and indirectly to many of the plan's desired outcomes.

The LOIP's stated collective vision is for Aberdeen to be a place where all people can prosper. It notes that how "we travel, shop...and our relationship with our place of work all provide us with opportunities to promote healthy lifestyles and make communities more self-sustaining. Giving citizens ready access to schools, amenities and employment could liberate them in new ways. Economic and environmental success must be translated into social success – lifting people out of poverty, offering equal opportunities for everyone to prosper."

The Project will contribute towards realising this vision by:

- Making active travel a viable mode of travel to access local schools, community amenities, medical services, and businesses in the immediate vicinity of Cornhill, Westburn, and Foresterhill.
- Providing a key strategic east-west link as part of a network of onward connections to the City Centre, Old Aberdeen, and the University of Aberdeen, Kittybrewster, Mastrick, Northfield and Sheddocksley.
- Extending the active travel network from the Berryden Corridor to North Anderson Drive, ensuring no gap in provision which may discourage travel.

This will help deliver low-cost travel options to education, employment, and services throughout the city.

In addition, bus stop waiting environments and facilities will be upgraded to improve the attractiveness of bus travel. Overall it is anticipated that the scheme will encourage more trips by active and sustainable transport modes and improve access, particularly for those without access to a car.

Prosperous Economy

The LOIP notes that, "...the city has strong economic foundations and should maintain its focus on repositioning for the long-term including investment in key infrastructure...". The active travel enhancements are such an investment. The Proposals support Stretch Outcomes 1-3: Stretch Outcome 1 - No one will suffer due to poverty by 2026, Stretch Outcome 2 - 400 unemployed Aberdeen City residents supported into Fair Work by 2026, and Stretch Outcome 3 - 500 Aberdeen City residents upskilled/ reskilled to enable them to move into, within and between economic opportunities as they arise by 2026. As a good transport network and infrastructure provision means anyone regardless of their social status/ economic means can choose a sustainable mode of travel for commuting. A reliable transport network supports economic growth and movement.

3.2 Prosperous Place

The LOIP notes that "The place where we live significantly influences the ability of individuals and communities to live in healthy, sustainable ways."

Improving active travel infrastructure can significantly influence the ability and desire for individuals to consider travelling in healthy sustainable ways. This is particularly the case when such measures can be implemented on a wider basis. At the same time, it can also reduce road congestion, climate change emissions, local toxic air pollution, noise, and road danger, improve social cohesion and create a better street environment.

Over the length of the corridor, Ashgrove Connects will provide improved, continuous, and dedicated infrastructure for active travel modes. improving the environment for active travel on a key route. The Project will contribute to Stretch Outcome 13 - Addressing climate change by reducing Aberdeen's carbon emissions by at least 61% by 2026 and adapting to the impacts of our changing climate and Stretch Outcome 14 - Increase sustainable travel: 38% of people walking and 5% of people cycling as main mode of travel by 2026.

Prosperous People (Children and Young People)

The LOIP notes that "We want Aberdeen to be a city where there is equality of outcomes and opportunities for all our children and young people and that children's circumstances and aspirations are not limited by their background or current environment."

Improving active travel infrastructure can significantly increase opportunities for people to walk or cycle for everyday journeys, providing free access to physical activity which can improve mental health and wellbeing through increased physical activity, contributing to Stretch Outcome 5.

Prosperous People (Adults)

The LOIP notes "...we need to ensure the right environment is also available to facilitate and support people to make the right behavioural choices." And "All people in Aberdeen are entitled to live within our community in a manner in which they feel safe and protected from harm." Segregated cycling and pedestrian facilities enables better decision making which leads to improved lifestyle choices in areas such as physical activity contributing to improved health and wellbeing. Reducing vehicular traffic and decreasing speed limits on the road network can also lead to a reduction of serious road traffic collisions. The Ashgrove Connects project supports Stretch Outcome 11 - Healthy life expectancy (time lived in good health) is five years longer by 2026. Encouraging the adoption of healthier lifestyles through the provision of active travel infrastructure.

4. Business Aims, Needs & Constraints

4.1 Strategic and policy context

The initial appraisal work is being sponsored by the Chief Officer of Strategic Place Planning. The Detailed design and construction phases will be sponsored by the Chief Officer of Capital.

The initial appraisal work has been funded by Nestrans. There is currently no dedicated budget for the next stages of work. The intention is that the Council will apply to the Transport Scotland/ Sustrans, Places for Everyone fund. The aim of Places for Everyone is to create safer, more attractive, healthier, and inclusive places which are enjoyed equitably by increasing and diversifying the number of trips made by walking or cycling for everyday journeys. It is funded by the Scottish Government through Transport Scotland and is administered by Sustrans. The fund can provide up to 100% of design work costs and 70% of the construction costs. The final 30% of construction costs need to be secured through match funding. Ongoing conversations with Sustrans are being held to determine if proposed BCI project infrastructure, already funded as part of the capital plan, can be considered as the Council match funding contribution. If applications are successful, all development and implementation costs will be met from external funders.

Adopted policies point towards a future direction for Aberdeen of more walking, cycling, bus travel and improved accessibility as well as local priorities for places where people activities have greater prominence. The Project is intended to support many local and regional strategies & plans and be delivered in line with current policies.

Table 1 below summarises the relevant aims of each of the reviewed local and regional policy documents and highlights how they support the strategic aims of Ashgrove Connects.

Table 1: Strategy & Policy Context Summary

Document	Summary of policy	Synergy with Ashgrove Connects
Local Outcome Improvement Plan 2016 to 2026 (2017, refreshed 2021)	The LOIP is a document which sets out how Community Planning Aberdeen will improve outcomes for and with local people and communities. The vision set out in the LOIP is that Aberdeen will be 'a place where all people can prosper' by 2026.	Links reduced car usage with various issues such as net zero, connectivity, and employment Sets percentage targets for increasing walking and cycling as main mode of travel by 2026
Climate Change Plan (2021)	The purpose of the Council climate change plan is to set out the Council's approach, pathway, and actions towards net zero and climate resilient Council assets and operations, by 2045. The plan sets out the scope of the City Council's ambitions with net zero and interim targets for a reduction in carbon emissions.	Sets out scope of ACC's net zero ambitions, with interim targets Note that Council General Fund Revenue Budget and Capital Programme has funding commitment for initiatives that will support development of net zero
Nestrans Regional Transport Strategy for the North East of Scotland (2021).	The RTS for the NESTRANS area is a statutory document covering Aberdeen City and Aberdeenshire Council areas. The RTS focusses less on the provision of new infrastructure and more on optimising infrastructure to influencing behaviours.	Aims include enhancing travel opportunities, reducing number and severity and casualties, increasing use of active travel, reducing proportion of journeys by car

NE Scotland Roads Hierarchy Study (2019)	The purpose of this document was to develop options for the updated roads hierarchy and to identify possible levels of intervention that could be implemented to support the delivery of the updated hierarchy.	Led to the reclassifying Ashgrove Road West as a C-class road / tertiary route
Local Transport Strategy (2016-2024) (2016)	The vision for the Local Transport Strategy (LTS) is to develop “a sustainable transport system that is fit for the 21st Century, accessible to all, supports a vibrant economy, facilitates healthy living and minimises the impact on our environment”	Increase no. people walking / cycling / using public transport Improve public realm by prioritising pedestrians, cyclists, public transport
Aberdeen City Central Locality Plan 2021-26 (2021)	The plan links to the re-refresh of the City’s Local Outcome Improvement Plan (LOIP) which highlights the breadth of work taking place and aims to utilise our assets to their full potential by working together.	Identifies Ashgrove and Stockethill as priority neighbourhoods. Aims include creating employment opportunities, improving access to services, create opportunities for people to connect and increase physical activity
Aberdeen Active Travel Action Plan 2017-2021 (2017)	This Action Plan identifies the policies and design principles that Aberdeen City Council will abide by and a series of actions and interventions that will be pursued in order to increase the proportion of journeys undertaken in our City by active travel.	Delivers on the Council’s commitment to “identify and implement projects that prioritise sustainable transport movements in the City” and “ensure that new cycling infrastructure adheres to best practice guidelines”
Aberdeen Sustainable Urban Mobility Plan (2019)	Aberdeen City Council has developed a Sustainable Urban Mobility Plan (SUMP) for the city centre. A SUMP is a transport strategy for a specific area which identifies projects that could be delivered by the Council and partners to enable and encourage users of that area to travel on foot, bike, public transport, or other low-emission forms of transport more often.	Key principle is to lock in benefits of AWPR to prioritise movement of active and sustainable travel through the reallocation of carriageway space and other prioritisation and traffic management measures

The project could contribute to the delivery of the Council’s Local Transport Strategy, particularly the following objectives:

- *To implement a programme of road improvement schemes to complement the AWPR in order to facilitate a restructuring of the roads hierarchy, minimising through traffic in the City Centre whilst reducing congestion, improving connectivity and addressing air quality concerns;*
- *To improve the condition of the road, footway and cycle networks; and*
- *To foster a cycling culture in Aberdeen by improving conditions for cycling in Aberdeen so that cycling becomes an everyday, safe mode of transport for all.*

The project could contribute to the delivery of the Council’s Active Travel Action Plan, particularly the following policies:

- *Continue to identify and implement projects that prioritise sustainable transport movements in the City leading up to and following the opening of the Aberdeen Western Peripheral Route.*
- *Improve and increase pedestrian facilities in Aberdeen, including footways and appropriate crossing provision with all new road and road improvement schemes, as well as new footpaths, pedestrianised or part-pedestrianised areas and improved lighting of key pedestrian routes*
- *Improve and increase segregated cycling facilities in the City particularly where road conditions are likely to deter less confident cyclists.*
- *Ensure that new cycling infrastructure adheres to best practice guidelines identified in the Sustrans Handbook for cycle-friendly design, Transport Scotland’s Cycling by Design and, where relevant, the trunk road Design Manual for Roads and Bridges (DMRB).*

- Continue to take advantage of external funding opportunities to implement and/or improve local and strategic walking and cycling routes within the City as they arise

The project could also support the following Stretch Outcomes (SOs) within the Local Outcome Improvement Plan (LOIP):

- SO11: *Healthy life expectancy (time lived in good health) is five years longer by 2026.* Active travel can provide an opportunity to include exercise within an individual's daily route assisting them to achieve minimum recommended levels of physical activity for good health;
- SO14: *Addressing climate change by reducing Aberdeen's carbon emissions by 42.5% by 2026 and adapting to the impacts of our changing climate,* in that measures to increase active travel and public transport will also reduce carbon emissions; and
- SO15: *38% of people walking and 5% of people cycling as main mode of travel by 2026,* in that it aims to improve opportunities and conditions for walking and cycling along the corridor.

The project could also support delivery of:

- Regional and National Transport Strategies, both of which aim to deliver fewer miles travelled by private car and a cleaner transport system which results in fewer emissions;
- The Net Zero Vision for Aberdeen, the Air Quality Action Plan, and the potential Low Emission Zone (LEZ) by looking to improve opportunities for travel by low/zero emission forms of transport.

A full policy review is presented in Appendix C of the Ashgrove Connects Scheme Assessment report.

The Project could also complement the delivery of other Council projects. These are summarised by Table 2 below.

Table 2: Complementary Projects

Project	Summary of project	Synergy with Ashgrove Connects
A944/A9119 multi-modal study	Improving active travel and public transport connections between Westhill and Aberdeen City Centre. The project focuses on the key western approaches to the city, the A944 and A9119 (formerly B9119) corridors, and other roads used by public transport services serving the west of the city, reflecting the status of these corridors within the North East Scotland Roads Hierarchy.	The Ashgrove Connects project area is a short distance from the A944. Delivering both projects will greatly increase the scale of the active travel network in Aberdeen, making it easier for pedestrians and cyclists to travel safely, comfortably, and sustainably.
Berryden Corridor Improvement	The Berryden Corridor Improvement will provide two lanes in both directions, widening the existing road between Skene Square and Ashgrove Road and creating a new road between Ashgrove Road and St Machar Drive. Alongside the new carriageway there will be segregated infrastructure for pedestrians and cyclists along the majority of its length	The proposal intends to maximise the network benefits of the Berryden Corridor Improvements scheme in line with the Roads Hierarchy. The project will improve the streets between North Anderson Drive and Berryden Road, including some connecting side streets.
A92 (S) Bridge of Don to Bridge of Dee multi-modal study	Aberdeen City Council is undertaking a STAG appraisal of options for improving transport connections, in particular public transport and active travel (walking, wheeling, and cycling) along and across the A92 corridor (Anderson Drive and the Parkway) between Bridge of Don and Bridge of Dee.	Ashgrove Road West links directly onto the A92, meaning each project could physically extend the improved active-travel environment of the other.
Low Emission Zone	To protect public health and improve air quality, Aberdeen City Council is introducing a Low Emission Zone (LEZ) across the city centre. Aberdeen's LEZ has been introduced in response to dangerous levels of air pollution (mainly nitrogen dioxide – NO2) mostly caused by road traffic.	One of the key objectives of the LEZ is to encourage active travel. The Ashgrove Connects project supports this objective by providing the necessary infrastructure to encourage residents to take up sustainable modes.

4.2 Case for Change

The Ashgrove Connects Scheme Assessment sets out the purpose of the project, why it is needed, and establishes a compelling case for change. The rationale for investment is multi-faceted and relates to:

- **Links to employment opportunities:** car ownership and travel to work data for the area surrounding the street suggests that there is an opportunity to improve employment opportunities for some residents by enhancing lower cost travel links to employment destinations.
- **Multiple deprivation:** the project streets is adjacent to some areas within the most deprived quintile of all areas in Scotland, as measured by the Scottish Index of Multiple Deprivation (SIMD). Interventions which target increases in active travel will have a disproportionately positive effect on communities experiencing health deprivation.
- **Placemaking:** the project area is disjointed and does not have one single identity. The look and feel changes a lot and there are no single typologies of housing or frontage to tie the area together. Placemaking opportunities exist in several locations. Some unused or underused greenspaces around Ashgrove Road West could be improved to offer opportunities for rest or play or will be used as small activity hubs around for example bus stops. Adding seating or informal opportunities to rest will also provide places to rest for people who want to walk but may not be physically able to do long routes without rest.
- **Transport network improvements:** existing provision for active travel is piecemeal and does not provide the opportunity for door-to-door walking, cycling, and wheeling. The project will provide better active travel solutions for all ages and abilities and unlock suppressed demand for these modes.

Ongoing community engagement has highlighted support for less motor vehicle traffic and at lower speeds. The lack of continuous provision for walkers, cyclists, and wheelers is well-recognised. The community is frustrated by difficulties accessing local amenities, and at the lack of action to respond to these issues to date.

4.3 Existing arrangements

Atkins has undertaken a preliminary review of existing arrangements along Ashgrove Road West. This has considered both the infrastructure conditions and network performance. This section summarises the key findings of this review. Further detail can be found in the Ashgrove Connects Scheme Assessment report.

Infrastructure conditions

The infrastructure conditions review sets out the existing engineering conditions along the Ashgrove Connects project area and explores design opportunities for enhancement. The existing arrangements are summarised by Table 3 below.

Table 3: Infrastructure conditions

Walking provision	<p>A footway is provided on both sides of most of the carriageway. There is limited provision between North Anderson Drive and Castleton Drive and the footways narrows on Ashgrove Road between Laurelwood Road and Great Northern Road.</p> <p>A pedestrian phase is provided at the signal-controlled junctions at North Anderson Drive with Ashgrove Road West, Foresthill Road with Ashgrove Road West, and Westburn Drive with Ashgrove Road West/ Ashgrove Road.</p>
Inclusivity	<p>There is limited provision for vulnerable or impaired pedestrians on the corridor. Dropped kerbs and tactile paving are provided at the signal-controlled junctions of Foresthill Road with Ashgrove Road West, and Westburn Drive with Ashgrove Road West/ Ashgrove Road. Outwith these locations dropped kerb provision is inconsistent, and tactile paving is not provided at the formalised uncontrolled crossings on either Ashgrove Road or Ashgrove Road West.</p>
Cycling provision	<p>Cycling provision is on-carriageway alongside vehicular traffic. On Ashgrove Road West there are sections of advisory cycle lane marked on both sides of the carriageway, approximately 1m wide. The cycle lanes are not continuous and are frequently interrupted by on-road parking bays.</p>
Public transport	<p>On Ashgrove Road West, six bus stops are provided. 5 are marked with a flag only with no shelter provided. At Cornhill Terrace, the eastbound bus stop has a cantilever shelter. No bus boarder kerbs to assist access/ egress of the bus by passengers. There are no bus laybys along the route.</p>

<p>Parking</p>	<p>Formalised cycle parking is provided at the University of Aberdeen Foresterhill Campus, the NHS Foresterhill Health Campus Hospital, and Aberdeenshire Council's Headquarters Woodhill House. Along Ashgrove Road / and Ashgrove Road West there is no formalised cycle parking provision.</p> <p>Ashgrove Road West is within the Controlled Parking Zone Z; therefore, all lengths of road are covered by a restriction or control. There is capacity for approximately 112 spaces within the marked lengths of parking.</p> <p>Parking in the bays is restricted to those in possession of a valid resident's permit, vouchers or have paid by phone; the same restrictions apply to every bay. Parking surveys showed that occupancy levels were low both during the day and in the evening.</p> <p>Parking on Ashgrove Road is prohibited between Westburn Drive and May Baird Avenue, and there are uncontrolled sections on the south side of the carriageway to the east of May Baird Avenue. Junctions are protected by 'no waiting at any time' restrictions. Overnight occupation was high, whilst daytime occupation was observed to reduce to 50%.</p>
<p>Alignment and cross section</p>	<p>The full route follows a generally straight alignment, although there is a gentle curve Ashgrove Road West between Foresterhill Road and Westburn Drive, however this is likely to be barely notable to road users and unlikely effects traffic speeds. The corridor follows a generally west – east orientation, although the western and eastern extents follow a more pronounced southwest – northeast orientation.</p> <p>The cross-section of the Ashgrove Road West is a two-lane single carriageway route which is subject to a 30mph speed restriction. However, the carriageway width varies between 11m – 13m, far in excess 6m – 7.3m width typical of a standard urban residential route. At signal-controlled junctions the carriageway is sub-divided into several lanes to separate designated movement.</p> <p>Similarly, Ashgrove Road, between Westburn Drive and Laurelwood Avenue is generally 9m – 10m, narrowing east of Laurelwood Avenue to 7m – 8m</p>
<p>Junctions and accesses</p>	<p>Five junctions are situated directly on the route. Ashgrove Road West forms priority junctions at least seven side roads excluding commercial, third party, unadopted, and residential accesses. No dedicated right turn facility is provided at priority junctions; however, this is unnecessary due to the road width. The majority of residencies alongside the road have private driveways accessed via footway crossovers. It is a similar situation with Ashgrove Road, where it also junctions with seven side roads.</p>
<p>Traffic signals</p>	<p>At North Anderson Drive, traffic is controlled by traffic signals. Ashgrove Road West is a minor arm. Two lanes are provided on the approach to the junction and two on the exit arm. Ashgrove Road West has a long central island which separates traffic flows. Traffic approaching from the north and turning left into the corridor, do so via a filter lane. Pedestrians are provided an all-green phase, however, due to the filter lane all crossings involve two stages.</p> <p>Foresterhill Road and Ashgrove Road West form a signal-controlled staggered crossroads. Like North Anderson Drive pedestrians have an all-green phase, which due to the complexity of the junction can take some time to appear.</p> <p>Westburn Drive is a typical signal-controlled crossroads, with an all-pedestrian phase. All controlled crossings are push button activated.</p>
<p>Lighting</p>	<p>Ashgrove Road West is illuminated by LED street lighting with columns provided on alternating sides of the carriageway at intervals of 30-40m and situated to the front of the footway. The bases of the columns are approximately 350mm by 400mm which significantly reduced the actual and effective footway widths. Furthermore, to allow a 450mm offset from the carriageway the posts can effectively impact approximately 1m of the footway cross-section.</p> <p>On Ashgrove Road the columns are mostly slender and generally situated in grass verges. Between May Baird Avenue and Laurelwood Avenue the columns were predominantly on the southern side of the carriageway and further east on the northern side. The footways are narrower at these locations therefore the columns are situated to the rear of the footway to minimise impacts on effective widths.</p>
<p>Drainage</p>	<p>Through the corridor, surface water is generally removed from the carriageway through carriageway edge drainage. Visually there appears to be a shallow camber applied to the road and footways gently fall towards the carriageway. No obvious SuDS provision was noted within the corridor.</p>
<p>Pavement</p>	<p>No cores or intrusive carriageway surface surveys have been undertaken. Visually the carriageway is constructed of asphalt. The condition is reasonable and most wear observed around patches and other localised carriageway works.</p>

Play and leisure

Along the corridor play and leisure facilities are limited to Beattie Avenue playpark, however there is considerable amount of outdoor space dedicated for play and leisure within a short distance of the corridor at Westburn and Victoria Parks.

Transport network

Ashgrove Road West is a wide two-lane single carriageway to the west of Aberdeen City Centre. It is positioned to the north of the A944 Westburn Road, the east of A92 North Anderson Drive and west of the A96 Great Northern Road. While it is not intended to serve an arterial / distribution function, its proximity to the key routes does make it vulnerable to through traffic.

Ashgrove Road West generally lies on a west – east axis and is generally residential in nature. The road also provides access to a number of health, civic and commercial properties. The road is subject to a 30mph restriction and situated within a Controlled Parking Zone.

Ashgrove Road is predominantly a wide single carriageway which narrows east beyond the Laurelwood Avenue side road junction. The western section of the road has minimal direct frontages, with residencies and health facilities setback via sideroads. The eastern side of the road is predominantly fronted by flatted residential properties.

Traffic flows

Summary data for automated traffic counter surveys suggests that traffic flows at the weekend are significantly lower than those during the week. Wednesday and Thursday tend to be the busiest days. Table 4 below presents the movements per day at three count sites, alongside the road hierarchy thresholds.

Table 4: Road hierarchy thresholds and traffic volumes

Mode	Movements per Day				
	Priority	Secondary	Site 1	Site 2	Site 3
Cars	> 10,000	> 3,000	6,269	9,674	5,760
Freight (LGVs / HGVs)	1,500+	> 450	503	889	369
Buses	100	< 100	114	27	0
Cycles	100	< 100	33	45	67

The observed movement for cars falls within the threshold for a secondary road, as do the freight movements at two of the three count sites. The bus movements would class just one of these sites as a priority route, one as a secondary, and no bus activity occurs at the third.

Speeds

Average speeds were observed to be in excess of the posted 30mph speed limit on Ashgrove Road West but were within the limit on Ashgrove Road. The 85th percentile speeds were observed to range between 32-35mph.

Parking

All of the marked bays on Ashgrove Road West fall within a controlled parking zone (CPZ) and are signed as “*Mon – Fri, 10am – 4pm, voucher parking and residents permits only*”. When surveyed, the majority of vehicles parking in the designated CPZ parking bays did so without the required permits, indicating that there is minimal enforcement of restrictions.

Two surveys of car parking occupancy were undertaken in April 2022, including one on a Tuesday and another on a Saturday. This suggests that there is excess capacity in the route corridor, with a maximum occupancy of just 55 of the 155 spaces (35.5%). Most of this excess capacity is due to the excess capacity along Ashgrove Road East, where demand appears to be primarily driven by employment uses. During the Tuesday morning peak, just 34 of the 112 spaces were occupied.

Complementary projects

Particular to the study area, key complementary schemes all aim to deliver improvements to bus operations and conditions for people walking, wheeling, and cycling as well as keeping strategic traffic on the routes intended for it:

- A96 Berryden Corridor Improvement (BCI),
- A96 Inverurie to Aberdeen Multi-Modal Corridor Study;
- A944 / A9119 Westhill to Aberdeen Multi-modal Corridor Study

- A92 Bridge of Don to Bridge of Dee Multi-modal Corridor Study

The A96 BCI scheme identified the need to develop strategically important cycle links along and across the road to maximise the mode shift benefits of the BCI investment as part of developing a network of connections. Delivery of these is outside the scope of the BCI project and are being developed separately by ACC. This scheme proposal is for one of these branches, and in full they are:

- St Machar Drive (Berryden Corridor to Tillydrone Avenue)
- Ashgrove Road & Ashgrove Road West (Berryden Corridor - Mastrick)
- Skene Square & Gilcomston Steps, (Berryden Corridor - City Centre)
- A96 Great Northern Road Berryden to Haudagain

Ashgrove Connects has been developed to complement all these schemes.

Business impact of project delivery

The Project will require input from staff across ACC including Strategic Place Planning, Operations, Estates, Capital, Procurement and Legal teams. Input will be required at different levels and different stages throughout. Such tasks will include, but are not limited to, land and property acquisition / management, contract document preparation and tendering, contract administration and site supervision as well as operational input / management upon delivery.

Constraints

Ashgrove Road West currently has a 12m wide carriageway with the restrictions located in the footways, trees, utility infrastructure, private property entrances. Working within the current carriageway boundaries allow for a number of opportunities due to the width available without having to deal with the constraints. These opportunities may include widening existing footways, introducing cycling facilities suitable for all ages and abilities, while achieving a reduction in carriageway width available to motor vehicles.

Ashgrove Road has a narrower 7.5m-9m wide carriageway with similarly located constraints within the footways. Due to the narrower carriageway opportunities are limited within the current width and would potentially require reduction to the space available on footways and verges. These options then must deal with the restrictions within the footways. The opportunities described above are still available within this zone, but the width restrictions would require trade-offs to be made between different uses of the street.

There are businesses and services located along the length of the corridor, key ones being the hospital, University of Aberdeen, the ambulance service, the Post Office, and the Spar. These all come with their own restrictions, primarily accessibility. They all require good and clear access for non-motorised, public vehicle and private vehicle users.

Historical restrictions are also located along the corridor with the Rosemount and Westburn conservation area being the only conservation area with a number of listed buildings within. There are a few other listed buildings out with that are in proximity to the corridor, though are unlikely to cause any restrictions to the current scope.

Table 5 below summarises other constraints which act on the project.

Table 5: Constraints

Topography	Ground levels along the corridor gently rise from the east extents of the corridor, where Ashgrove Road is approximately 38m above sea level, to a height of approximately 101m at North Anderson Drive. Ground levels to the south of the route corridor are either level or fall gently from the roadside. Land to the north of the corridor rises with varying degrees of severity. Ground level variations are less pronounced east of Westburn Drive.
Space	The corridor does not contain any obvious vacant brownfield space. There are significant areas of grassed land sited adjacent to the road corridor.
Flooding	The project area is situated outside of the flood risk area of any waterway in Aberdeen. The study area is susceptible to small, isolated areas of surface water flooding. The likelihood of river and surface water flooding across the study area is highly unlikely to adversely impact any proposed active travel route alignments.
Utilities	A C2 notification was issued to statutory undertakers and 13 confirmed they had apparatus within the corridor. Most significantly, Scottish Gas Networks maintain low and medium pressure gas mains below Ashgrove Road West and Ashgrove Road.

5. Objectives

The project has six interrelated objectives developed from their fit with policy and strategy, network requirements and demonstrable public demand:

Traffic: the street is a slower, quieter, and calmer environment where traffic access is retained but people feel safer, and traffic is less of a barrier to community activity for people of all ages and abilities.

Crossings and Junctions: using junctions and crossing is an easier and more comfortable experience, which is accessible for people of all ages and abilities by all means of travel.

Place Quality and Greenspace: the street feels more attractive and safer for people to spend time in, with improved access to and through local greenspaces, the distinctive feel of local spaces enhanced and an overall net gain of 'green'.

Walking: people of all ages and abilities can more easily walk to access facilities safely, comfortably, and independently.

Cycling: people of all ages and abilities are able to move around by bicycle safely, comfortably, and independently.

Parking and Loading: provide parking and loading within a reasonable distance of homes and businesses ensuring equitable access for all.

6. Scope

6.1 Overview

A feasibility study has been undertaken considering the options for active travel, landscaping and placemaking and bus stop improvements along the route. As part of the Ashgrove Connects project, the community was approached with a blank canvas so that any design proposals could be directly influenced by those who live/work in the area and/ or use the route. Public, school children, and other stakeholder consultations online and face to face were undertaken and asked participants for their comments on the existing infrastructure and what improvements they would like to see.

Following the completion of the initial concept designs further consultations have been undertaken. The comments from both consultations were analysed and incorporated into the design where appropriate. The key features of the resulting proposals are:

- 20mph speed limit on Ashgrove Road and Ashgrove Road West;
- Reduced carriageway width and reduced crossing distances;
- Footway priority at minor side roads to provide design priority for pedestrians;
- One new controlled crossing of Ashgrove Road West;
- A significant net increase in the number of street trees and amount of green infrastructure;
- Two new opportunities for public realm features as gateways into the community;
- Protected cycle tracks between North Anderson Drive and Berryden Road (BCI) on Ashgrove Road West, Ashgrove Road, Laurelwood Avenue and on Elm Place.
- Enhanced bus stop facilities; and
- Reduction in available on street parking commensurate residential demand.

In all cases the Emergency Services have been consulted and the Ambulance Service in particular has responded constructively. Their contribution has informed the proposals.

6.2 Ashgrove Road West

The proposed movement corridor between North Anderson Drive and Westburn Drive consists of a central carriageway with segregated stepped cycle tracks, footways and interspersed greenspaces. The width of the carriageway is shown significantly reduced to underline the change to a 20mph zone.

All existing driveways and accesses have been accommodated in the concept design.

No on-street parking will be permitted, and a TRO will be advanced to enforce this.

In all cases the Emergency Services have been consulted and the Ambulance Service in particular has responded constructively. Their contribution has informed the proposals.

There are three key junctions on Ashgrove Road west that the proposals intend to improve.

6.3 North Anderson Drive signal-controlled junction

The preferred concept design is to retain signal-control, with the addition of cycle track crossings and upgraded pedestrian crossings to comply with guidance and standards:

- Parallel cyclist and pedestrian crossings;
- Uni-directional cycle tracks on the Ashgrove Road arm;
- A bi-directional cycle track on the west side of North Anderson Drive (pending tie-ins with the A96 multi-modal study);
- Removal of the left turn filter lane to discourage high speed through traffic onto Ashgrove Road;
- Retention of the two lane exit of Ashgrove Road in response to Emergency Service consultation;
- A community 'gateway' public realm area to the north-east side of the junction;

- All traffic movements are retained.

This option may require some increase in overall carriageway footprint.

6.4 Foresterhill Road/ Foresterhill Junction

Two concept design options have been progressed for further assessment at Stage 3 design. These options are a staggered signal controlled junction and a double compact roundabout design.

Staggered Signal-controlled junction option

This proposal is to retain signal-control with the following changes:

- Parallel cyclist and pedestrian crossings;
- Uni-directional cycle tracks on the Ashgrove Road arms;
- Removal of the filter lanes to simplify and improve junction operation;
- Reduction of pedestrian crossing distances;
- All traffic movements are retained.

This option can be delivered within the existing carriageway footprint.

Double Compact Roundabout option

This option proposes to convert this junction into a double compact roundabout with the following features:

- Conversion of the Foresterhill Road and Foresterhill junctions into two roundabouts;
- Parallel cyclist and pedestrian zebra crossings on all arms;
- Uni-directional cycle tracks on the Ashgrove Road arms;
- All traffic movements are retained.

This option will require some land purchase to the south of Ashgrove Road.

6.5 Westburn Drive Junction

Two concept design options have been progressed for further assessment at Stage 3 design. These options are a signal controlled junction and a compact roundabout design.

Signal-controlled junction option

This proposal is to retain signal-control with the following changes:

- Parallel cyclist and pedestrian crossings;
- Uni-directional cycle tracks on the Ashgrove Road arms;
- Reduction of pedestrian crossing distances;
- All traffic movements are retained.

This option can be delivered within the existing carriageway footprint.

Compact Roundabout option

This option proposes to convert this junction into a compact roundabout with the following features:

- Conversion of the junction into a roundabout;
- Parallel cyclist and pedestrian zebra crossings on all arms;
- Uni-directional cycle tracks on the Ashgrove Road arms;
- All traffic movements are retained.

This option will require some land purchase to the south-east and north-east of Ashgrove Road.

6.6 Ashgrove Road (Westburn Drive to Laurelwood Avenue)

The proposed movement corridor between Westburn Drive and Laurelwood Avenue consists of a central carriageway with segregated stepped cycle tracks, footways and interspersed greenspaces. The width of the carriageway is shown significantly reduced to underline the change to a 20mph zone.

The proposal includes for uni-directional cycle tracks between Westburn Drive and May Baird Avenue. Between May Baird Avenue and Laurelwood Avenue the cycle track will be bi-directional on the south side of the carriageway only.

All existing driveways and accesses have been accommodated in the concept design.

On-street parking will be permitted in nine bays on the north side of the carriageway. A TRO will be required to supersede the existing order.

6.7 Ashgrove Road (Laurelwood Avenue to Berryden Road)

The proposed movement corridor between Laurelwood Avenue and Berryden Road consists of a central carriageway of no narrower than the existing movement space .

The design proposes two pinch points to control traffic speed, with the addition of trees within the design.

All existing driveways and accesses have been accommodated in the concept design.

On-street parking will be permitted in 11 bays in total, alternately on the north side and south side of the carriageway. A TRO will be required to supersede the existing order.

The design will tie into the emerging Berryden Corridor Improvement design at Ashgrove Road/ Berryden Road junction.

6.8 Laurelwood Avenue

The proposal is to facilitate active travel and reduce through traffic volume and speed on Laurelwood Avenue with the following changes:

- changing it to a 3.7m wide one-way southbound only lane for vehicular traffic;
- a bi-directional cycle track on the west side of the carriageway;
- enhanced traffic calming measures and pedestrian crossing opportunities within the street

All existing driveways and accesses have been accommodated in the concept design.

On-street parking will be permitted in 20 bays on the east side of the carriageway.

A TRO will be required to supersede the existing order.

6.9 Elm Place

The proposal is to facilitate active travel and reduce through traffic volume and speed on Elm Place by introducing a bi-directional cycle track on the north side of the carriageway between Laurelwood Avenue and Berryden Road.

All existing driveways and accesses have been accommodated in the concept design.

6.10 Materials, Placemaking, landscape, drainage and trees

The concept design identifies the following opportunities:

- Space to develop placemaking and landscaping approaches to create a consistent look and feel for the streets;

- From discussions with ACC Operations it is understood that there are emerging materials palette policies that this project should be cognisant of to maintain city-wide consistency;
- There may be sustainable urban drainage opportunities for some of those landscaped areas to be delivered as rain gardens to capture run-off and discussions with ACC Flooding and Coastal Engineering are at an early stage and should continue at Stage 3 design;
- Overall there will be a significant net gain in trees and landscaped area;
- Strong community support was forthcoming, partly due to the holistic approach to design. This should be built upon as the proposals develop.

6.11 Handover period

Design and construction services will likely be procured from the private sector. The contract terms will include the requirement to engage effectively to ensure that the infrastructure handover is in line with the requirements of ACC Operations to ensure ongoing maintenance costs are in line with expectations for public infrastructure.

6.12 Success criteria

Success criteria for the project will be:

- Delivery of the scheme within the construction window of the Berryden Corridor Improvement;
- Delivery at no additional cost to the Council
- Continued community support for the emerging design;
- More people of all ages walking, cycling, wheeling and taking the bus;
- Lower speeds and no increase through traffic on inappropriate routes ;
- Enhanced community wellbeing, health outcomes and low cost access to employment.

6.13 Out of Scope

The following items are out of the scope of the proposed Project:

- Increase in general traffic capacity
- Amendments to the BCI design
- Follow on cycle route infrastructure outside of the project area

7. Options Appraisal

7.1 Option 1 – Do Nothing

Description	No change to junction and link capacity on Project roads.
Expected Costs	No significant capital investment will be required. Routine investment in the roads and landscape maintenance of existing infrastructure will likely be necessary.
Expected Benefits	The main benefit of this option is reduced expenditure and network disruption associated with construction.

Risks Specific to this Option	<p><u>Should the Project be delayed or stopped:</u></p> <ul style="list-style-type: none"> • Risk of continuation of current mode share, contributing to local authority area emissions. • Risk of reputational damage given the involvement with the public. • The Council will also suffer reputational damage considering the level of expenditure incurred to develop the Project to its current position.
Advantages & Disadvantages	<p>The main advantage of this option is no immediate no public capital expenditure and short-term disruption associated with construction.</p> <p>The main disadvantages of this option are the lack of improvement to existing infrastructure and the lack of improvement to the wider active travel network. The gap in provision identified during the BCI consultation process would remain, discouraging active travel journeys. Traffic volume and speed would continue to be issues for the local community.</p> <p>Without the Project's dedicated active travel infrastructure, walking and cycling will continue to be unattractive modes of travel through the northern network. This will impact on the authority's ability to meet outcome 14 of the LOIP. (Increase sustainable travel:38% of people walking and 5% of people cycling as main mode of travel by 2026).</p>
Other Points	N/A

7.2 Option 2 – Full implementation	
Description	Detailed development and full implementation of the Project.
Expected Costs	£15.685 million (see section 9)
Expected Benefits	<p>This option would significantly improve the streets of Ashgrove Road, Ashgrove Road West, and Laurelwood. This area will be better for people of all ages and abilities who use these streets to move around their communities, to access employment and take advantage of leisure opportunities. The proposal intends to maximise the benefits of the Berryden Corridor Improvements (BCI) scheme in line with the Roads Hierarchy.</p> <p>It will also improve and extend active travel links on a wider network basis. There are significant existing junction capacity issues and gaps in the provision of facilities for pedestrians and cyclists, particularly along the Project corridor. The Project goes some length to reduce these gaps.</p> <p>The Project will significantly extend the active travel network in the north of the city. It will link the infrastructure delivered through the BCI scheme westwards towards North Anderson Drive. Over the length of the Project will be continuous and dedicated infrastructure for active travel modes.</p> <p>The improved standard of design will increase road user safety and the perception of safety along the corridor. This is particularly the case for people who do not currently feel that cycling is a safe or viable mode of travel.</p>
Risks Specific to this Option	<ul style="list-style-type: none"> • Lack of internal resources could lead to a delay in the delivery programme or increase reliance on external support which will increase costs. • Normal construction risks apply which include but are not limited to the risk of contractual claims arising from unforeseen events on site which may lead to contract cost increases. • Construction price inflation associated with the COVID-19 pandemic increases/ sustained in the medium term increasing works costs.

Advantages & Disadvantages	<p>Provides improved, continuous, and dedicated infrastructure for active travel modes.</p> <p>Improves connectivity for pedestrians and cyclists living and traveling through the north of the city.</p> <p>Improves road user safety and the perception of safety along the corridor.</p>
Other Points	N/A.

7.3 Option 3 – Phased implementation

Description	<p>As Option 2, but the project will be delivered in two phases alongside the BCI.</p> <p>Improvements at Ashgrove Road, Laurelwood Avenue, and Elm Place would be delivered first. Following this, the improvements at the east end of the study area between Westburn Drive and Berryden Road would be implemented.</p>
Expected Costs	<p>The project costs in section 9 suggest an estimate of £15.685 million for a full implementation. A phased implementation is highly likely to be more costly due to the additional preliminaries and fees involved.</p>
Expected Benefits	<p>This scheme may enable faster delivery of the eastern portion of the scheme. This would complement the BCI scheme and respond to community priorities alongside BCI implementation.</p> <p>There is potential to make the delivery of the second phase conditional on the benefits realisation of the first.</p>
Risks Specific to this Option	<ul style="list-style-type: none"> • Lack of internal resources could lead to a delay in the delivery programme or increase reliance on external support which will increase costs. • Normal construction risks apply which include but are not limited to the risk of contractual claims arising from unforeseen events on site which may lead to contract cost increases. • Construction price inflation associated with the COVID-19 pandemic increases/ sustained in the medium-term increasing works costs. • A longer overall delivery period may risk value for money and benefits realisation. • Longer delivery timescales may risk funding options
Advantages & Disadvantages	<p>As this option is delivered through two smaller works packages, it has the advantage of being easier to manage by the Council's internal programme management team. However, it is envisioned that much of the project will be funded and managed externally, negating the benefits of this somewhat.</p> <p>Splitting the works package into two may make this option more flexible should the interface with the BCI contract require combining the contract with the eastern phase of Ashgrove Connects.</p> <p>This option has the disadvantage of representing a change in scope relative to existing Places for Everyone funding applications. Potential reductions in scope and increase in timescales may risk external funding of the project.</p>
Other Points	As per Option 2

7.4 Option 4 – Do Minimum	
Description	Detailed development and implementation of only the eastern portion of the Project, between Westburn Drive and Berryden Road.
Expected Costs	Costs have not been estimated in detail. It is anticipated this would cost in the range of £5 - £10 million.
Expected Benefits	This option would complement the BCI scheme and respond to community priorities alongside BCI implementation. This option would improve the streets between Westburn Drive and Berryden Road. This area will be slightly improved for people of all ages and abilities who use these streets to move around their communities, to access employment and facilities to the south and east.
Risks Specific to this Option	<ul style="list-style-type: none"> • Risk of reputational damage resulting from the reduction in scope given the involvement with the public and that cycling infrastructure is disjointed and not coherent; • Future delivery of the Ashgrove Road West section will not be linked to delivery of the BCI. This will remove the opportunity to secure match funding alongside Sustrans Places for Everyone fund, increasing delay and cost to ACC; • Normal construction risks apply which include but are not limited to the risk of contractual claims arising from unforeseen events on site which may lead to contract cost increases; and • Construction price inflation associated with the COVID-19 pandemic increases/ sustained in the medium term increasing works costs.
Advantages & Disadvantages	<p>The primary advantage of this option is reduced public capital expenditure. It would also be simpler to deliver than the full scheme. The reduced scope would still meet key objectives around BCI integration.</p> <p>It is likely that this option could still attract external funding, however match funding against the BCI would not be possible, potentially resulting in additional public expenditure.</p> <p>This option would fail to connect the residential communities in the western end of the project area and beyond, missing the opportunity for the most significant benefits of the scheme. It would omit key destinations from the active travel network, including the Royal Infirmary, businesses, local parks, schools, and communities around Cornhill. The active travel network would remain fragmented. This option would forego opportunities to connect with future schemes at North Anderson Drive and the A944.</p>
Other Points	During this stage of project development, consideration was given to other approaches to the partial delivery of the Project. The most logical of these is the delivery of the eastern end of the scheme only, described above.

7.5 Recommendation
<p>This business case considers the options for continued development and implementation of the preferred option for the Ashgrove Connects project, including a refreshed cost estimate and programme.</p> <p>This business case has highlighted the Project's sustained linkage to the Authority's strategies, policies & plans, progress made to date, high levels of anticipated operation, and a wide range of health, social, and economic benefits.</p> <p>The new active travel and community-focussed infrastructure will provide a step change in provision encouraging model shift and improving perceptions of walking, cycling and wheeling safety for all ages and abilities. It will also provide a significant opportunity to further expand this quality of provision on the surrounding network connecting neighbourhoods in the north of the city.</p>

It is recommended that Option 4 – Do Minimum is discounted. While it represents a deliverable scheme which could attract external funding, it fails to extend the benefits of the BCI scheme fully westward to the residential communities along Ashgrove Road West. It would leave a gap in the active travel network and forego the opportunity to connect with future schemes at North Anderson Drive and the A944. Although the cost is lower, the current availability of external funding means that full implementation will be capital cost-neutral for the Council. Whereas in this scenario the future funding of the west of the site will be significantly less certain and is likely to cost the Authority more. This negates the primary benefit of this option.

It is recommended that Option 2 be selected as the preferred delivery mechanism with the Ashgrove Connects project implemented in full and through one works contract. In this option the estimated cost of the scheme is lower as the construction works will be procured as a single contract. Furthermore, potential reductions in scope and increase in timescales associated with Option 3 may risk external funding of the project.

As the design process progresses, this may be reconsidered should a phased implementation provide significant advantages.

8. Benefits

8.1 Overview of active travel benefits

Ashgrove Connects will make the road a better place to live, work, study, and visit. While primarily a roads scheme, the Project is also a placemaking one. The pedestrian environment – including pavements, paths, and squares – make up a lot of the public realm. By improving the quality of this area, and by delivering new places to rest and dwell, Ashgrove Connects will deliver amenity and recreational benefits along the corridor. Public realm improvements have been shown to increase local levels of economic activity, boost property values, and make an area more attractive to potential investors.¹

ACC is seeking to deliver on local and national commitments to accessible neighbourhoods.² Compact communities improve the accessibility of key amenities and services for non-motorised users. This would also allow people to travel actively in support of their health and well-being, without access being limited by the cost of transport.³

Walking, wheeling, and cycling provide affordable and reliable transport.⁴ Investment in areas of multiple deprivation can promote differential equity impacts by improving access to services and employment opportunities for those on a low income. Further, projects which reduce car dependency may free up additional disposable income for impacted households.⁵

There are also wider benefits of the scheme which need to be considered. Such impacts are increasingly given greater weight in transport policy. The Scottish Government's new *National Transport Strategy* places walking and wheeling at the top of the sustainable transport hierarchy, followed directly by cycling.⁶

Active travel projects encourage modal shift from the private car. By reducing the need to travel unsustainably, active travel projects can help meet transport planning objectives to reduce traffic congestion, energy consumption, and carbon emissions.⁷ The *Council Climate Change Plan 2021 – 2025* states that ACC will promote active travel for these reasons to help tackle the climate emergency.⁸ Encouraging people to walk and cycle also means lower roads maintenance costs to the Council,⁹ as well as fewer accidents and collisions.

The health benefits of active travel are well-established. Increasing walking and cycling trips is a cost effective and practical way to improve public health as it gets more people out exercising more often.¹⁰ GPs in some parts of the UK are now prescribing walking and cycling to patients as a way to improve public health and reduce costs to the NHS.¹¹ There is a clear link between increased physical exercise and reduced risk of chronic conditions like type 2 diabetes, heart disease, many types of cancer, depression and anxiety, and dementia.

Health benefits will even accrue to people who do not travel using the new active travel infrastructure. An increased mode share to walking and cycling will improve air quality across the project area. This will complement the Council's LEZ (Low Emission Zone) strategy, which was developed in response to dangerous levels of air pollution (mainly nitrogen dioxide – NO₂) mostly caused by road traffic.

¹ Living Streets (2018). *The Pedestrian Pound: the business case for better streets and places*.

² The Scottish Government committed to this concept in the *2020-21 Programme for Government*.

³ ClimateXChange (2021). *walkable and cyclable neighbourhoods in a Scottish context*.

⁴ World Health Organisation (2022). *Walking and cycling: latest evidence to support policy-making and practice*.

⁵ Scottish Government (2022). *Reducing car use for a healthier, fairer, and greener Scotland*.

⁶ Scottish Government (2020). *National Transport Strategy*.

⁷ Christian Brand, et al. (2022). *The Climate Change Mitigation Effects of Daily Active Travel in Cities*

⁸ Aberdeen City Council (2021) *Council Climate Change Plan 2021 – 2025*.

⁹ Relative to the equivalent journey by car. See: Todd Litman (2016), *Transportation Cost and Benefit Analysis Guidebook*, Section 5.6.

¹⁰ Scottish Government (2019). *National Walking Strategy: Action Plan 2016-2026*.

¹¹ HM Government (2022). *Walking, wheeling and cycling to be offered on prescription in nationwide trial*.

Finally, projects like Ashgrove Connects make active travel more safe, reliable, and, crucially, fun. Walking, wheeling, and cycling is already less stressful than driving,¹² but improved infrastructure will enhance the quality of any journey and deliver enjoyment and wellbeing benefits to those who use it.¹³

The wide range of benefits anticipated through the Ashgrove Connects scheme is summarised below.

<p>Community impacts</p>	<ul style="list-style-type: none"> • Enables walkable and cyclable neighbourhoods • Greater accessibility of amenities and services • Differential equality impacts for people on low incomes • Reduced car dependence 	<p>Amenity value and public realm</p>	<ul style="list-style-type: none"> • Improved accessibility for non-motorised users • Transport cost savings • Open space preservation • Improved quality of life
<p>Modal shift from the private car</p>	<ul style="list-style-type: none"> • Reduced carbon emissions • Reduced traffic congestion • Lower road maintenance costs • Fewer road accidents • Improved local air quality - reduction in congestion and polluting fumes 	<p>Health impacts</p>	<ul style="list-style-type: none"> • Higher levels of physical activity • Improved health • Fewer sick days – economic growth • Reduced costs to the NHS • Less likelihood of serious road traffic collisions
<p>Journey quality benefits</p>	<ul style="list-style-type: none"> • Improved user convenience, comfort, and safety • Enjoyment and wellbeing impacts 		

Ashgrove Connects will have further benefits specific to Aberdeen given the synergies between it, the BCI project, the CCMP, and other complementary initiatives. The Project will help extend the active travel network delivered by other public investments, making it easier to get to and from many different places in the city. It will therefore maximise the benefits of committed investment at Berryden.

¹² Alexander Legrain, Naveen Eluru, and Ahmed M. El-Geneidy (2015). *Am Stressed, Must Travel: The Relationship between Mode Choice and Commuting Stress*

¹³ Leonhard K. Lades, Andrew Kelly, and Luke Kellehera (2020). *Why is active travel more satisfying than motorized travel? Evidence from Dublin.*

8.2 Monetising active travel benefits

Active travel, walkable and cyclable neighbourhoods, and the sustainable transport hierarchy have been established as policy priorities by the Scottish Government. A wealth of academic and grey literature supports this view, demonstrating the net positive impact of related projects at a macro level. ACC has accordingly focused on how best to deliver on these priorities by consulting our communities and businesses and designing schemes to a high quality, rather than directing resource to indicative monetary estimates.

Transport appraisal guidance in Scotland and the UK focuses largely on motor traffic. The primary benefits of transport investments, in the view of transport economists, are journey time savings. Such savings are valued because they allow more productive work to be carried out or more leisure to be enjoyed, at least in the short-run.¹⁴ Consequently, there has been little space, historically, for the 'slow modes' – as walking, wheeling, and cycling were once described.

The UK Department for Transport (DfT) has now developed an approach for active travel schemes.¹⁵ This allows the health benefits of walking and cycling to be considered, and benefit–cost ratios for such schemes can be much higher than for conventional road improvements.¹⁶ Yet such appraisals rely on resource-intensive demand forecasts which are inherently uncertain. The DfT notes that due to relatively low scheme costs, cost-benefit analysis is highly sensitive to the findings of these forecasts.¹⁷

This points to the paradox in active travel appraisal. The extensive evidence base – government policy, academic literature, and climate and health data – all point to the benefits of sustained investment in active travel schemes. At the same time, evidencing the benefits of a specific scheme is resource intensive and fraught with uncertainties. Decision makers across Europe have often therefore relied on the larger evidence base alone to make the case for local cycling schemes. The focus is often instead on the outcomes which will contribute to wider mode shift at regional or national levels.

For example, the Parisian municipal government published its *Plan Vélo 2021-2026* in December 2021.¹⁸ The new plan aims to make the city '100% cyclable' by constructing over 112 miles of segregated cycle lanes. The city committed to this €250 million investment in cycling infrastructure but has chosen not to advance a traditional cost-benefit analysis to justify this investment. Instead, the positive impact of cycling was established at a national level by the French government.¹⁹

Similarly, Copenhagen has excellent cycling infrastructure with segregated cycle lanes on every main road. Over a quarter (28%) of all trips and almost half (49%) of commutes to work or education were taken by bike in 2018.²⁰ At the publication of its first bicycle account in 1996 and later when the city launched its ambitions to become the "best cycling city of the world" in 2006, no cost-benefit analysis underpinned the business case for cycling infrastructure.²¹ Instead, the city has focused on directly measurable indicators, such as trip numbers, the length of the cycle network, and budget allocations, as well as regular surveys of cyclists.²²

¹⁴ David Metz (2016). *Travel Fast or Smart?: A Manifesto for an Intelligent Transport Policy*. London Publishing Partnership.

¹⁵ Department for Transport (2020). *TAG UNIT A5.1 Active Mode Appraisal*.

¹⁶ Department for Transport (2014). *Value for Money Assessment for Cycling Grants*

¹⁷ Department for Transport (2020). *TAG UNIT A5.1 Active Mode Appraisal*. para. 2.1.4.

¹⁸ Ville de Paris (2021). *Plan Vélo 2021-2026*.

¹⁹ République française (2021). *Impact économique et potentiel de développement des usages du vélo en France en 2020*.

²⁰ City of Copenhagen (2019). *The Bicycle Account 2018*.

²¹ COWI (2009). *Economic evaluation of cycle projects - methodology and unit prices*.

²² City of Copenhagen (2011). *Good, Better, Best The City of Copenhagen's Bicycle Strategy 2011-2025*.

Oslo undertook extensive consultation before the publication of its city cycling strategy in 2015.²³ Once again, instead of focusing on notional benefits derived from models, the city is targeting measures around travel behaviour, journey quality, and user safety. Regular surveys of the communities affected forms an integral part of monitoring and evaluation, rather than ex post measurements of economic impact.²⁴

This approach can even be found in the UK. The Mayor of London introduced the Mini-Hollands scheme in 2013. Here, outer London Boroughs were invited to bid for funding to build Dutch-style cycling infrastructure.²⁵ Waltham Forest constructed 14 miles of segregated cycling paths and introduced extensive traffic calming and mixed mode crossing. The Borough's bid to the Greater London Assembly makes no mention of monetised benefits, instead outlining the likely qualitative benefits of the scheme and committing to monitoring trip and accident data.²⁶ The other successful bids did include monetised assessments, however, here again, community impacts / improved quality of life benefits were considered prominently in both cases.²⁷

8.3 Anticipated scheme benefits

The table shows the anticipated benefits of the scheme how these will progress its design objectives.

Benefit	Measures	Source	Baseline	Expected Benefit	Expected Date	Measure Frequency
Slower, quieter, and calmer street where traffic access is retained by people feel safer, and traffic is less of a barrier to community activity.	<ul style="list-style-type: none"> • Vehicle movements by street and vehicle class • Vehicle speeds • Rate of traffic collisions and casualties • Parking demand, duration, and occupancy, by vehicle class, by road and type of parking facility 	<ul style="list-style-type: none"> • Stage 3-4 engagement feedback • Post-construction online/household surveys. • Post-construction TSV surveys and walking audits 	<ul style="list-style-type: none"> • Stage 1-2 TSV surveys • Road collision statistics to-date • Stage 1-2 engagement feedback • Baseline walking audits • Scottish Transport Statistics • DFT Traffic Counts • Cycling Scotland Data 	<ul style="list-style-type: none"> • Community impacts • Health impacts 	At least six months after scheme completion	Annually
People of all ages and abilities will more easily walk to access facilities	<ul style="list-style-type: none"> • % of Walking/wheeling travel mode share • % of Walking/wheeling travel for recreation / leisure trips 	<ul style="list-style-type: none"> • Stage 3-4 engagement feedback • Engagement and findings of Behavioural Change Plan 	<ul style="list-style-type: none"> • Stage 1-2 active travel surveys • Road collision statistics to-date 	<ul style="list-style-type: none"> • Community impacts • Health impacts 	At least six months after scheme completion	Annually

²³ Oslo kommune (2015). [Oslos sykkelstrategi 2015-2025](#)

²⁴ Oslo kommune (2021). [Holdningsundersøkelse om å sykle Oslo 2020](#)

²⁵ Mayor of London (2016). [Transforming cycling in outer boroughs: Mini-Hollands programme](#)

²⁶ Waltham Forest Council (2013). [Mini-Holland bid](#).

²⁷ Enfield Council (2013). [Mini-Holland bid report](#); Royal Borough of Kingston upon Thames (2014). [Kingston mini-Holland Programme outline business case](#)

safely, comfortably, and independently	<ul style="list-style-type: none"> Walking/wheeling journey times to local facilities % of short journeys made by walking/active travel modes Distance of walking trips Public awareness of active travel modes Perceived barriers to active modes Perceived journey quality for active modes 	<ul style="list-style-type: none"> Post-construction online/household surveys. Post-construction TSV surveys and walking audits 	<ul style="list-style-type: none"> Stage 1-2 engagement feedback Baseline walking audits Scottish Transport Statistics DFT Traffic Counts Cycling Scotland Data 	<ul style="list-style-type: none"> Journey quality benefits Modal shift benefits 		
People of all ages and abilities will be able to move around by bicycle safely, comfortably, and independently.	<ul style="list-style-type: none"> % of Cycle travel mode share % of Cycling travel for recreation / leisure trips Cycle journey times to local facilities % of short journeys made by cycling/active travel modes Distance of cycling trips Public awareness of active travel modes Perceived barriers to active modes Perceived journey quality for active modes 	<ul style="list-style-type: none"> Stage 1-2 active travel surveys Road collision statistics to-date Stage 1-2 engagement feedback Baseline walking audits Scottish Transport Statistics DFT Traffic Counts Cycling Scotland Data Hands up Scotland Survey 	<ul style="list-style-type: none"> Stage 3-4 engagement feedback Engagement and findings of Behavioural Change Plan Post-construction online/household surveys. Post-construction TSV surveys and walking audits 	<ul style="list-style-type: none"> Community impacts Health impacts Journey quality benefits Modal shift benefits 	At least six months after scheme completion	Annually
Using junctions and crossings will be an easier	<ul style="list-style-type: none"> % active travel mode share 	<ul style="list-style-type: none"> Stage 1-2 active travel surveys 	<ul style="list-style-type: none"> Stage 3-4 engagement feedback 	<ul style="list-style-type: none"> Community impacts 	At least six months after	Annually

<p>and more comfortable experience</p>	<ul style="list-style-type: none"> • Walking/wheeling journey times to local facilities • % of short journeys made by walking/active travel modes • Perceived barriers to active modes • Perceived journey quality for active modes • Queueing and delays at junctions. • Vehicle journey time reliability 	<ul style="list-style-type: none"> • Road collision statistics to-date • Stage 1-2 engagement feedback • Baseline walking audits • Scottish Transport Statistics • DFT Traffic Counts • Cycling Scotland Data 	<ul style="list-style-type: none"> • Post-construction online/household surveys. • Post-construction TSV surveys and walking audits 	<ul style="list-style-type: none"> • Health impacts • Journey quality benefits • Modal shift benefits 	<p>scheme completion</p>	
<p>The street will feel more attractive and safer for people to spend time in, with improved access to and through local green spaces, the distinctive feel of local spaces is enhanced and an overall net gain of 'green'.</p>	<ul style="list-style-type: none"> • Vehicle movements by street and vehicle class • Vehicle speeds • Rate of traffic collisions and casualties • Transport emissions / Air quality • Parking demand & vehicle types • Community health and wellbeing • Perception of safety travelling by public transport and active modes • Attitudes towards/propensity to walking, cycling and other active modes 	<ul style="list-style-type: none"> • Stage 1-2 active travel surveys • Road collision statistics to-date • Stage 1-2 engagement feedback • Baseline walking audits • Scottish Transport Statistics • DFT Traffic Counts • Cycling Scotland Data 	<ul style="list-style-type: none"> • Stage 3-4 engagement feedback • Post-construction online/household surveys. • Post-construction TSV surveys and walking audits 	<ul style="list-style-type: none"> • Community impacts • Health impacts • Amenity and public realm impacts 	<p>At least six months after scheme completion</p>	<p>Annually</p>

	<ul style="list-style-type: none"> Quality of walking and cycling infrastructure Public awareness of active travel 					
<p>Essential access for bus travel will be retained while improving its comfort, reliability, and safety.</p>	<ul style="list-style-type: none"> Public transport mode share Bus journey times to local facilities Satisfaction with public transport Perceived barriers to public transport use and access Local bus services and their frequency Bus journey time reliability Public transport patronage 	<ul style="list-style-type: none"> Stage 1-2 active travel surveys Road collision statistics to-date Stage 1-2 engagement feedback Baseline walking audits Scottish Transport Statistics DFT Traffic Counts Cycling Scotland Data 	<ul style="list-style-type: none"> Stage 3-4 engagement feedback Post-construction online/household surveys. Post-construction TSV surveys and walking audits 	<ul style="list-style-type: none"> Community impacts Health impacts Modal shift impacts Amenity and public realm impacts 	At least six months after scheme completion	Annually

<h2>9. Costs</h2>
<p>At this stage of project development, an initial capital cost estimate has been prepared. Quantity surveyors have prepared the estimate for the scheme. The tables below show the anticipated profile of capital and revenue expenditure over time. As discussed in section 12, no dates beyond stage 2 have been committed and it is anticipated the project will take between two-to-five years to deliver. Accordingly, the profiles presented below are indicative and are subject to change as the project progresses.</p> <p>All costs in the profile are indicative and subject to change. As appropriate in this early phase of project development, optimism bias of 44% has been included in the project cost estimates. This represents the 90th percentile value for road projects in the Department for Transport optimism bias guidance. The upper percentile figure has been used for the following reasons:</p> <ul style="list-style-type: none"> Early-stage design: the capital cost estimate has been prepared from existing plans for the improvements. These are at an early stage and are subject to change as the design progresses through future project stages. Further work is needed to fully identify technical standards, project interfaces, and geo-technical conditions.

- **Desired degree of cost certainty:** it is important to ensure that cost-overruns do not occur given the external funding available. The project will likely be working to a fixed budget with limited access to additional funds beyond the approved budget. The Council has a low willingness to accept risk with regards to cost overruns in this situation.

External and Internal fees are inclusive of ACC staff costs.

Maintenance costs have been assumed at a percentage of the total construction costs. Detailed maintenance costs will be developed as the project progresses. These figures are included on a worst-case basis – it is likely that reduced vehicular use will lead to slower deterioration of road surfaces and potentially to cash saving. Literature reviewed during the business case development process supports this assumption.²⁸

9.1 Project Capital Expenditure

(£'000)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
External & Internal fees / commissions	330	805	560	490	200						2,385
Land Acquisitions		250									250
Construction Costs		1,850	2,500	6,350	2,350						13,050
Sub-Total	330	2,905	3,060	6,840	2,550	-	-	-	-	-	15,685

9.2 Post- Project Capital Expenditure

(£'000)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Staffing Resources											
Monitoring and evaluation					15	15	15	15			60
Sub-Total					15	15	15	15			60

9.3 Post- Project Revenue Expenditure

(£'000)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
---------	--------	--------	--------	--------	--------	--------	--------	--------	--------	---------	-------

²⁸ Todd Litman (2016), *Transportation Cost and Benefit Analysis Guidebook*, Section 5.6.

Non-Staffing Resources											
Maintenance						75	75	75	75	75	375
Sub-Total						75	75	75	75	75	375

10. Key Risks	
Description	Mitigation
Funding: Places for Everyone funding is not guaranteed this year. Future funding is subject to a competitive process and may not be available.	Project development process following Sustrans suggested methodology. Expert consultants engaged throughout design and engagement process.
Link and junction capacity issues: significant traffic impacts arising from reduced lane capacity.	Agreed design to be tested using industry-standard modelling software / techniques and any identified traffic impacts to be accepted by ACC prior to commencement of works.
Traffic diversions: increase to costs, negative effect on public perception of the project.	Analysis of the impact of the works on nearby traffic with aim to minimise requirement for diversions.
Finances cannot be carried into the next financial year: project halted.	Confirm availability of finances for further work.
Land outwith ACC ownership: land will need to be purchased to allow the project to continue. Possibility of non-cooperation of landowner leading to lengthy legal processes.	Check ownership of any required land out with highway boundary.
Environmental risks: identification of protected species, nesting birds, or similar may result in delay/additional cost incurred by relocation and/or protection measures.	Requirement for ecological surveys to be undertaken during planning process.
Accommodation works required: increase in costs.	Early contractor involvement to be considered.
Utilities companies unable to provide diversions to services in acceptable timescale: delay to project construction in waiting for utilities companies.	Early consultation with utility companies.
Utilities companies not able to provide diversions to services within acceptable budget: delay to project construction in negotiating with utilities companies, increased project cost.	Early consultation with utility companies.
Accidental Damage to Services: cost of repairs, health and safety risk.	Request C3 information to confirm service diversions required.
Owner of drainage infrastructure does not permit new apparatus to be joined to existing networks: increase in cost as new facilities need to be provided.	Consultation to be undertaken as soon as route drainage design confirmed.
Transport model availability: future appraisal of the scheme may depend on the Aberdeen Sub Area Model (ASAM) which is managed and maintained by Nestrans.	Early engagement with Nestrans to ensure access.
Objections to scheme received: delay to project whilst issues are resolved.	Ongoing consultation with affected parties recommended.

11. Procurement Approach

Service contracts to support in house resources will predominantly be procured via existing framework arrangements. Works procurement will be undertaken on a construction only basis and in line with current Scottish Government procurement regulations.

12. Time

Ashgrove Connects is being developed in a phased approach consistent with the Places for Everyone funding programme. Under this programme, funding is awarded in groups of project stages for Concept (Stages 0-2), Design (Stages 3-4), and Construction (Stages 5-7).

- Concept (Stages 0-2) is about broadly defining the scope of a project and its desired outcomes. Partners are expected to carry out initial engagement with stakeholders and to outline the total expected costs.
- Design (Stages 3-4) involves carrying out developed and technical tasks in order to make a project workable. Partners use funding at these stages to clearly define their interventions, test implementations and undertake significant community engagement.
- Construction (Stages 5-7) is when a project is built. At this point, the project can be closed out and formalised into use in the community.

This business case represents the cumulation of the second stage. No dates beyond this stage have been committed but it is anticipated the project will take between two-to-five years to deliver. It is recommended that ACC will apply for funding for Stages 3-4 in October 2022 (for 2023-24) for the full scheme and that further consideration is given to the proposed phasing:

- 2023-24 Continuation of design and commencement of interventions set out in the Behaviour Change Activation Plan
- 2024-26 Construction period and full implementation of the Project

13. Governance

Monitoring of progress and delivery will be undertaken by the Transportation Programme Board reporting to the Capital Programme Board.

Role	Name	Service
Project Sponsor	David Dunne	Strategic Place Planning
Project Manager	Katherine Duncan	Capital
Senior User	Doug Ritchie	Operations and Protective Services
Senior Supplier	Alan McKay	Capital

14. Resources

Task	Responsible Service/Team	Start Date	End Date
Project Management	Roads Projects	Ongoing	August 2026
Design	Roads Projects	Ongoing	August 2024

Land Negotiation	Corporate Landlord	Ongoing	August 2024
Land Purchase	Legal Services	Ongoing	August 2024
Communications	Corporate Comms	Ongoing	August 2026
Procurement	Roads Projects	Winter 2024	Spring 2025
Works Supervision	Roads Projects	August 2025	August 2026
Traffic Orders	Operations	Spring 2025	Summer 2025
Commissioning Handover	Operations	Spring 2025	August 2026

15. Environmental Management

A Preliminary Ecological Assessment has been undertaken to identify key ecological constraints, whether additional ecological surveys are required, and any necessary avoidance, mitigation, compensation, and enhancement measures.

No statutory designated sites for nature conservation were recorded within 2km of the project area. Two non-statutory designated sites for nature conservation were recorded within 1km of the site:

- Inverness – Aberdeen Railway Line Local Nature Conservation Site
- Hilton Wood Local Nature Conservation Site

The project area mostly comprises hardstanding (roads and pavements) and houses with associated gardens. Areas of species-poor grassland, ornamental scrub planting, and broadleaved woodland were scattered throughout, typically located around community amenity areas and commercial businesses.

Habitats within the project area have suitability to support bats, badger, nesting birds, common species of reptile, red squirrel, hedgehog, and priority invertebrates. Possible veteran trees were also recorded.

Avoidance and mitigation measures include the following:

- Retention of habitat within the survey area as far as possible, including trees
- Avoidance of night-time working (defined as 30-minutes prior to sunset and 30-minutes after sunrise)
- Implementation of pollution prevention measures
- Methods to prevent accidental harm to wildlife during the works

Opportunities for biodiversity enhancement include the following:

- The installation of woodcrete bat and bird boxes within woodland areas
- The creation of habitats through habitat piles in grassland areas
- An increase in the floristic diversity through local-sourced green hay and woodland floristic communities

A preliminary bat roost assessment (PBRA) of structures and ground level tree assessment (GLTA) may be required, depending on the nature of the proposed works associated with the Scheme.

If works are likely to impact suitable habitat for red squirrel a survey for the presence or likely absence of squirrel dreys.

	Yes	No
Is a Buildings Checklist being completed for this project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If No, what is the reason for this?		
This is a road construction project.		

16. Preserving Our Heritage

The only recorded heritage interest within the project area is the Rosemount and Westburn Conservation Area, which borders on a small stretch of Ashgrove Road on the south side, east of Westburn Drive.

The buildings with notable historic significance within this conservation area are situated in Rosemount to the south. Westburn has been included within the conservation area to retain the parklands of Westburn and Victoria Parks.

17. Stakeholders

The stakeholder management plan will be updated. The key interested individuals, teams, groups, or parties identified at this stage are:

- Aberdeen Civic Society
- ACC Roads Teams
- Community Councils
- Cycling Groups - Aberdeen Cycle Forum, Grampian Cycle Partnership
- Disability Equity Partnership
- Divisional Road Policing Unit
- First Aberdeen
- Freight Transport Association
- General Public
- Local businesses
- Local Schools
- Network Rail
- Road Haulage Association
- Police Scotland
- Scottish Ambulance Service
- Scottish Fire and Rescue Service
- Stagecoach Bluebird
- Nestrans
- NHS Grampian
- University of Aberdeen

18. Assumptions

Current high level project development assumptions:

- No significant utility apparatus diversion works will be required
- Contingencies assumed at 5% with additional design development risk allowance at 4%.
- Scottish Government procurement requirements will remain in force for the duration of the project.
- BCI programme ambitions remain as stated in the current public programme

19. Dependencies

Dependencies are external factors such as infrastructure which the project is reliant upon to be successful, but which are beyond its direct control. The successful delivery of the objectives depends on these factors. Key dependencies include:

- The Berryden Corridor Improvement Project
- Planning consents
- Changes to financial markets
- Costs increasing as a result of unforeseen circumstances
- Behavioural change
- Land ownership and land take
- Availability of internal resources
- Workable diversions and operational arrangements during construction
- Construction market activity
- Traffic regulation and redetermination orders
- COVID-19 pandemic impacts

20. Constraints

Constraints are external considerations that set limits within which the proposals must work. Current high-level project development constraints include:

- Maintaining access to local residences and businesses (including emergency access);
- Maintaining utility supplies;
- Minimising delays to business traffic and travelling public; and
- Roads, Legal and Estates teams resourcing.

21. ICT Hardware, Software or Network infrastructure

Description of change to Hardware, Software or Network Infrastructure	Approval Required?	Date Approval Received
None	-	-

22. Change Controls Issued by the Project

Date	Change Ref ID	Approval Route	Change Description
N/A	N/A	N/A	N/A

23. Support Services Consulted

The minimum **consultation period for Outline Business Cases is 10 working days** unless the Programme Board Chair agrees there are exceptional circumstances that require a shorter turnaround time.

Note:

It is mandatory for Capital projects to consult with the full list below.

If any services are not consulted, this should be indicated in the Comments section, along with the reason why. All comments received should also be noted, or reasons given for discounting them.

It is a legal requirement for the Council to carry out an [Equality and Human Rights Impact Assessment \(EHRIA\)](#) to evaluate the impact our decisions have on our customers.

Note: There is a copy and paste version of the consultation list below which you can use for circulating your Business Case – [Support Services Consulted Circulation List](#)

Service	Consultee	Comments	Date
Resources	Chief Officer, Finance jbelford@aberdeencity.gov.uk		
Resources	Chief Officer, Corporate Landlord stbooth@aberdeencity.gov.uk		
Governance	Chief Officer, Governance frbell@aberdeencity.gov.uk		
Place	Chief Officer, Strategic Place Planning DDunne@aberdeencity.gov.uk		
Place	Chief Officer, City Growth rsweetnam@aberdeencity.gov.uk		
Operations	Chief Officer, Operations and Protective Services mareilly@aberdeencity.gov.uk		
Operations (Facilities)			
PMO			
Finance			
Asset Management			
Legal (Property/ Planning & Environment)			
Legal (Commercial & Procurement)			
Procurement			

Service	Consultee	Comments	Date
ICT – Digital & Technology			
Design – Public Buildings			
Grounds Maintenance			
Communications			
HR			
Transportation Strategy and Programmes			
Place – TSAP			
Roads Management			
Roads Projects			
Emergency Planning Officer			

You can attach a link to your document to the list above but will need to attach **a copy of your document** to the consultees below as the link function doesn't work for generic addresses:

Service	Consultee	Comments	Date
Estates			
Environmental Policy			
Equalities			
Planning			

24. Decision by Capital Board	Date
* Approved/Not Approved to:	

* Insert approval decision from Capital Board.

25. Document Revision History			
Version	Reason	By	Date
2			
3			
4			