ABERDEEN CITY COUNCIL

COMMITTEE	Operational Delivery		
DATE	29 th May 2018		
REPORT TITLE	Subsidised Transport and Safe Walking Routes to		
	Lochside Academy		
REPORT NUMBER	PLA/18/001		
DIRECTOR	Rob Polkinghorne		
CHIEF OFFICER	Gale Beattie / Mark Reilly		
REPORT AUTHOR	Chris Cormack / Jack Penman		
TERMS OF REFERENCE	Purpose 1		

1. PURPOSE OF REPORT

- 1.1 The purpose of this report is to advise members on the routing of bus services for pupils accessing Lochside Academy and on the outcome of the tendering exercise for supported bus services for accessing Lochside Academy.
- 1.2 This report also advises members of the work undertaken in relation to the issues raised around the safe walking routes to Lochside Academy.

2. RECOMMENDATION(S)

- 2.1 It is recommended that the Committee
 - 2.1.1 Notes the routes to be operated by bus services for pupils accessing Lochside Academy.
 - 2.1.2 Notes the outcome of the tendering exercise for supported bus services for accessing Lochside Academy.
 - 2.1.3 Instruct the Chief Officer of Strategic Place Planning to provide a Service Update Report in July detailing the final routings of First Aberdeen services 3 and 18.
 - 2.1.4 Instruct the Chief Officer for Operations and Protective Services not to progress with a puffin crossing on Cove Road at this time and to arrange for a follow up survey to be undertaken post opening of the school. The results of which should be reported as service update.
 - 2.1.5 Instruct the Chief Officer for Operations and Protective Services to progress with the implementation of a puffin crossing on Earns Heugh Road in proximity to its junction with Langdykes Road.

- 2.1.6 Notes the proposed costs of upgrading the path between Charleston Drive and Charleston Crescent and, if members are of the opinion that the path should be created, it should be referred to the budget process for 2019/20, to appropriate the necessary funds.
- 2.1.7 To instruct the Chief Officer for Operations and Protective Services to proceed with the installation of the lighting on South Loirston Road.
- 2.1.8 Note that Core Path 82 will be upgraded as per the planning conditions.
- 2.1.9 Instruct the Chief Officer for Operations and Protective Services to progress with implementing the necessary measures on the ground in relation to the loading ban on Wellington Circle.

3. BACKGROUND

3.1 **Background**

- 3.1.1 At the Education and Children's Services Committee meeting on 16th November 2017, the committee instructed: "the Interim Head of Planning & Sustainable Development to discuss adjustments to the routes of service buses 3/3G, 18 and the new supported public services detailed as were necessary to ensure that Lochside pupils were dropped off & picked up on Wellington Circle (or in the school grounds if appropriate) and report back on the outcome of those discussions"; and "to instruct the Interim Head of Planning & Sustainable Development to concurrently enter into discussions with bus providers with a view to re-routing services in Torry to ensure that pupils were picked up from safe locations and report back on the outcome of discussions."
- 3.1.2 At the Finance, Policy and Resources Committee meeting on 1st February 2018, the committee instructed: "the Interim Head of Planning and Sustainable Development to provide a brief report to members in June 2018 on the outcome of the tendering exercise for the supported bus service detailing what fares will apply."
- 3.1.3 At the Education and Children's Services Committee meeting on 16th November 2017, the committee instructed: "the Head of Public Infrastructure and Environment to carry out a study and option appraisal and budget analysis for the following measures in respect of safe walking routes to school for pupils residing in Cove and to report the outcome to the appropriate Committee to ensure that these works, if approved, were implemented prior to the opening of Lochside Academy."

The proposed measures are addressed in section 3.4 of this report.

3.2 First Aberdeen Services

- 3.2.1 Officers have been engaging with First Aberdeen on the routings of their services 3 and 18 and in particular have requested First Aberdeen to consider routing both into Wellington Circle at school opening and closing times and to route service 3 through Torry to avoid pupils having to board and alight services on Wellington Road.
- 3.2.2 First Aberdeen have considered the matter by reviewing road layouts, pupil locations and considered the request in conjunction with their service timetabling and existing passenger base.
- 3.2.3 First Aberdeen has confirmed that both the services 3 and 18 will route into either Lochside Academy or Wellington Circle on specific services operating at school times, in order to avoid pupils boarding and alighting on Wellington Road.
- 3.2.4 First Aberdeen are still working on options for the service 3 to route through Torry to avoid pupils boarding/alighting on Wellington Road at school times and a decision will be made prior to the summer holidays. If First Aberdeen are not able to route away from Wellington Road, pupils utilising the service 3 will be directed to bus stops at Victoria Bridge and Menzies Road, which is a maximum of 650m walking distances for the furthest away pupils.
- 3.2.5 In addition, First Aberdeen are still considering timetables, routes and vehicle deployment on the services 3 and 18 for school opening and as such amended services will likely operate, which will be specific school service variations on the services 3 and 18. Officers will provide a Service Update report to Members when First Aberdeen have finalised their commercial service provision. Officers will also be keeping community and parent groups updated through briefing sessions to be held in June and July 2018.
- 3.2.6 Work is ongoing between the Council, First Aberdeen and Transport Scotland for the bus pass provision for all Leggart, Torry and Kincorth pupils, to be added to the Accord Card, in order that this can be used as a Smart Travelcard. It is anticipated this work will be completed prior to the summer holidays and pupils will have their Accord Card loaded with the bus pass provision prior to the summer holidays for those currently in S1 to S5 and those currently in P7 will be issued with a pre-loaded card. If work is not able to be completed prior to summer holidays, then Officers will ensure events are held over the summer, in order the pupils return to school with their bus pass provision added to their Accord Card. The issue of the bus pass will be communicated to pupils and parents in due course.
- 3.2.7 The Travelcard will be operational Monday to Friday, school term time only, between 07:00 18:00, between the areas of Leggart, Torry and Kincorth and Lochside Academy only. The Travelcard must be used on both the First Aberdeen services and the supported bus services for Leggart and Balnagask. The noted limitations will be built onto the Travelcard, so the ticket machine won't accept the pass outwith these times, areas, or on other bus services.

3.3 Supported Bus Services

- 3.3.1 There will be two supported bus services for Lochside Academy: one operating between Leggart, Balnagask/Girdleness and Lochside Academy and one operating between Charleston, Cove and Lochside Academy. The Public Transport Unit tendered for these services in April 2018. These services have been contracted for 3 years and will operate until Summer holidays 2021. Should there be any requirement to amend service provision, each contract can be terminated with 30 days' notice, but as these are registered local bus services at least 42 days' notice must be given to the Traffic Commissioner to amend or cancel a service.
- 3.3.2 The Charleston/Cove service will operate school term time only and will be operated by First Aberdeen utilising 2 high capacity buses with pupils paying a fare to use the service. The fares applicable on the service will be in line with First Aberdeen's commercial fare structure, which will allow pupils to use any day or season passes to travel on other First services.
- 3.3.3 The Charleston/Cove service will operate the following route:
 - Service 21a Charleston Drive, Cove Road, Charleston Road, Charleston Road North, Wellington Road, Wellington Circle, Lochside Academy.
 - Service 21b Loirston Road, Cove Road, Earns Heugh Road, Loirston Avenue, Loirston Road, Langdykes Road, Wellington Circle, Lochside Academy.
- 3.3.4 The Leggart/Balnagask will operate school term time only and will be operated by First Aberdeen utilising 4 high capacity buses, with up to two of the buses operating via Leggart, with pupils using a bus pass provided by the Council to access the service. As the service will operating at school times only, the bus pass provided will also provide access to the First Aberdeen service 3 and 18 between the hours of 07:00 18:00, Monday to Friday, during school term time only, for pupils to attend any extra-curricular activities.
- 3.3.5 The Leggart/Balnagask Service operates the following route, in both directions:
 - Service 22a Leggart Terrace, Great Southern Road, West Tullos Road, Abbotswell Road, Wellington Road, Girdleness Road, Balnagask Road, Balnagask Circle, Girdleness Road, Wellington Road, Wellington Circle, Lochside Academy.
 - Service 22b AM only Balnagask Circle, Girdleness Road, Wellington Road, Wellington Circle, Lochside Academy.
 - Service 22c Victoria Road (at Mansefield Road), St Fitticks Road, Balnagask Road, Wellington Road, Wellington Circle, Lochside Academy.
- 3.3.6 Both supported services will access the bus turning circle in the grounds of Lochside Academy.

3.3.7 A full list of bus stops served by all bus services accessing Lochside Academy, along with route maps and timetables for supported bus services are detailed in Appendix 1.

3.4 Safe Walking Routes

At the Education and Children's Services Committee meeting on 16th November 2017, the committee instructed: "the Head of Public Infrastructure and Environment to carry out a study and option appraisal and budget analysis for the following measures in respect of safe walking routes to school for pupils residing in Cove and to report the outcome to the appropriate Committee to ensure that these works, if approved, were implemented prior to the opening of Lochside Academy." These recommendations are responded to below.

3.4.1 "Puffin crossing at an estimate cost of £30-35k on Cove Road to ensure the safety of pupils crossing this road with the location of the crossing determined in consultation with local Elected Members, Parent Council and the Community Council."

Aberdeen City Council assesses and prioritises the requirement for crossing facilities using the PV^2 survey method as in Local Transport Note 1/95 – The Assessment of Pedestrian Crossings, and as per Aberdeen City Councils approved policy.

This method determines a conflict value based on the number of pedestrians crossing the road P, which is then multiplied by the number of conflicting vehicles V². The PV² value is calculated from the arithmetic average of the four highest hourly values over a typical day. Allowances are made within this calculation for additional factors which give a more site specific final value, known as the modified PV² value. Examples of the additional factors which can be considered include the proximity of local services (shops, schools, bus stops, medical facilities etc.), percentage of elderly or young pedestrians, accident stats and local site conditions.

The table below details the values which must be met, and the appropriate response based on the modified PV² value.

Modified PV ² Value	Type of facility to be considered
Less than 0.7	Does not qualify for any type of crossing facility but
	can be reviewed at an appropriate later date should
	there be deemed a significant change in local
	circumstance.
Between 0.7 and 1.0	Will qualify for the provision of a central refuge
	island.
Greater than 1.0	Qualifies for the provision of a controlled crossing
	facility.

Table 1 PV² values and appropriate responses

The location for each survey and the results from the assessment are available in Appendix 2.

Three sections of Cove Road were surveyed and the results for each are:

- A) 0.03
- B) 0.02
- C) 0.04

Even when combining all the pedestrian movements along the route the PV² value is 0.09.

As can be seen, these results fall below the agreed threshold outlined in table 1 to consider providing any additional pedestrian crossing facilities. Officers recommend that we do not progress with a puffin crossing on Cove Road.

3.4.2 "Puffin crossing in the vicinity of Langdykes Road at an estimated cost of £30-35k to ensure the safety of pupils crossing this road with the location of the crossing determined in consultation with Elected Members, Parent Council and the Community Council."

Whilst officers have not conducted a PV² survey (as above) at this location, as there is no current demand for a crossing at this location, a desk based assessment identified this as an important route for pupils when the new school opens. Pupils from a number of different locations will cross Earns Heugh Road when heading to the main crossing point on Wellington Road.

Officers recommend the implementation of a puffin crossing on Earns Heugh Road in proximity to its junction with Langdykes Road

An indicative plan of a puffin crossing at this location is shown in Appendix 3.

Estimated Cost - £35,000

Funding Source - Lochside Academy Infrastructure capital budget.

3.4.3 "Investigate the adoption of the land between Charleston Drive and Charleston Crescent and the subsequent upgrading and lighting of the footpath at an estimated cost of £30-35k (works only not inclusive of the purchase of any land) as a route away from vehicular traffic for pupils to use travelling to and from the new Lochside Academy."

Officers have confirmed that the land is council owned.

Officers believe that the upgrading of this path would provide a good link for the community towards the commercial shopping areas and for pupils travelling to the new Lochside Academy. An indicative plan of the proposed path is shown in Appendix 4 along with a breakdown of the estimated costs. The suggested line of the path is to ensure the area is still available as amenity space.

Officers support this recommendation subject to the identification of a suitable funding source.

Estimated Cost – £40,000

3.4.4 "Resolve drainage issues, and delivery of upgraded lighting, on South Loirston Road as an identified safe route to the new Lochside Academy at an estimated cost of £25k (street lighting only)."

The developer must address the drainage issue through the installation of a soakaway. This has been raised with the developer through the Roads Construction Consent process. No further action is required in relation to this report.

The upgrading of the lighting on South Loirston Road will bridge this missing link and will help promote this as a safe walking route. Officers request permission to proceed with the installation of the lighting on South Loirston Road.

An indicative plan of the upgraded lighting and the proposed soakaway is available in Appendix 5.

Estimated Cost - £22,000

Funding Source - Lochside Academy Infrastructure capital budget.

3.4.5 "Consider the installation of barriers between the pavement and road on Wellington Road, between Souter-Head Roundabout and the junctions of both Charleston Road North and Wellington Circle."

Guardrail has often been employed in the past to direct pedestrians to designated crossing points, more recent guidance is to presume against the implementation of pedestrian guardrail unless strictly necessary.

Long sections of guard railing are unsightly, provide additional street clutter and increased maintenance costs. Many local authorities have actively reduced the amount of guardrailing in their respective areas without adversely impacting on safety.

An approximate cost for the cost of the guardrail would be £43,036.74, based on an approximate distance of 373 metres. Installation costs including traffic management would be in the region of £15,000. With an approximate total

cost of £58,036.74.

The Local Transport Note 2/09, issued by the Department for Transport, highlights that excessive segregation of pedestrians and vehicles may result in higher vehicle speeds in certain locations, as drivers may perceive a reduced risk of conflict with pedestrians. This has the potential to lessen the effectiveness of the part-time 20mph speed limit agreed on Wellington Road during peak school times.

The Aberdeen Active Travel Action Plan 2017-2021 policy recognises the restrictions which pedestrian guardrail poses to people walking and the dangers it poses to people cycling on road. Guardrail can result in pedestrians being trapped on the carriageway and in some circumstances, cyclists and motorcyclists can become trapped against the guardrail by turning vehicles at junctions.

The existing site characteristics would prevent guardrail being installed uniformly along the route as it could not cover the existing bus laybys. Furthermore, as the guardrail would have to be offset 0.5m from the kerb line this would reduce the effective width of the shared use paths on Wellington Road. This would result in either the shared use paths having to be revoked or paths having to be widened.

Through consideration of the above, officers do not recommend the installation of guard rail at this location.

3.4.6 "To instruct the Head of Public Infrastructure and Environment to upgrade, as per planning conditions, the path which runs from south end of Boyd Orr Avenue in a south east direction to Redmoss Road (noted as Core Path 82 on page 122 of the Report) to improve the safe walking route from the southern end of Kincorth."

As per the planning conditions Core Path 82 will be upgraded.

A plan is provided in Appendix 6.

3.4.7 "To request the Head of Public Infrastructure and Environment to report to Communities, Housing and Infrastructure Committee for approval to undertake the necessary legal process to implement a loading ban in Wellington Circle to ensure traffic restrictions were in place between Lochside Academy and Wellington Road."

The Traffic Regulation Order for the loading ban has completed the necessary

legal process and received no objections. The order will be created ahead of the school opening.

Estimated Cost - £3,000

Funding Source – Lochside Academy Infrastructure capital budget.

5. FINANCIAL IMPLICATIONS

5.1 There are no financial implications as a result of the recommendations of this report. All financial considerations with regards to Lochside Academy transport have already been considered by Committee.

6. LEGAL IMPLICATIONS

6.1 The Council must adhere to the legislative requirements for bus services as determined by the Transport Act 1985 and Transport (Scotland) Act 2001 and any procurement must be conducted in line with standing orders and an open Tender process would be required through Public Contracts Scotland

7. MANAGEMENT OF RISK

	Risk	Low (L), Medium (M), High (H)	Mitigation
Financial	There are no financial risks as a result of the recommendations of this report	L	N/A
Legal	There are no legal risks as a result of the recommendations of this report	L	N/A
Employee	There are no employee risks as a result of the recommendations of this report	L	N/A
Customer	There are no customer/citizen risks as a result of the recommendations of the recommendations of this report.	L	N/A
Environment	There are no environmental risks as a result of the	L	N/A

	recommendations of this report.		
Technology	There are no technological risks as a result of the recommendations of this report	L	N/A
Reputational	As the supported services are open to the general public and these are proposed to operate into the school grounds there is a risk that members of the public may be able to alight from the bus and enter the school grounds without signing in.	L	As the services only operate between Torry/Cove and the school this will be of little benefit to the general public, as such it is not anticipated there will be many members of the public utilising these services. If there are problems once the school is open then this will be reviewed, but the preference of parents is for buses to operate into the school grounds or at least Wellington Circle

8. OUTCOMES

Local Outcome Improvement Plan Themes		
	Impact of Report	
Prosperous Economy	Investment in Infrastructure - a high quality public transport system is important for any thriving economy in transporting people to work and education and directly support the business and education sectors and ensures the workforce can travel effectively and that all have access to appropriate education opportunities and access to all facilities in a cost effective way. The provision of transport to Lochside Academy will ensure appropriate access to education.	
Prosperous People	Children are our future; Best Start in life, safe and responsible - by ensuring that all pupils at the school have appropriate means by which to travel to school, the Council will be helping to improve equity in educational outcomes.	

Design Principles of Target Operating Model	
	Impact of Report

Customer Service Design	Co-design: We will design our services with input from our customers to better meet their needs - the services and routings have been designed following feedback from the school community. Prevention and Early Intervention: We will design services to focus on upstream prevention and early intervention to reduce costs while improving outcomes for individuals and families – the provision of these bus services will ensure equal access to the school from the outset, preventing any concerns for those travelling some distance from the school who would have been required to walk alongside and cross busy roads and the provision of free transport will ensure families do not face financial burdens for their children travelling to the school, given its new location.
Organisational Design	Outcome Led: We will commission services organised around the LOIP outcomes - the services provided ensure access to Education, recognising that children are our future and are safe and responsible.
Partnerships and Alliances	Shared vision and values: While recognising and respecting differences – and welcoming dialogue and debate – sufficient common ground must be found for our partnerships and alliances with others to be viable – partnership working with our partner First Aberdeen to ensure the services meet the needs of the pupils travelling to Lochside on the commercial bus services while also ensuring there is no significant impact to the traveling public as a whole.

9. IMPACT ASSESSMENTS

Assessment	Outcome
Equality & Human Rights Impact Assessment	Not Required
Privacy Impact Assessment	Not Required
Children's Rights Impact Assessment/Duty of Due Regard	Not Applicable

10. BACKGROUND PAPERS

10.1 Local Transport Note 1/95 – The Assessment of a Pedestrian Crossings

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/330269/ltn-1-95_Assessment-Crossings.pdf

10.2 Local Transport Note 2/09 – Pedestrian Guardrailing

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attach ment data/file/328996/ltn-2-09 Pedestrian guardrailing.pdf

10.3 Aberdeen Active Travel Plan 2017-2021

https://www.aberdeencity.gov.uk/sites/aberde

11. APPENDICES (if applicable)

- 11.1 Appendix 1 Bus Routes, Timetables and Stopping Points
- 11.2 Appendix 2 Cove Road survey area and PV² analysis
- 11.3 Appendix 3 Plan of puffin crossing in vicinity of Langdykes Road
- 11.4 Appendix 4 Plan of path between Charleston Drive and Charleston Crescent
- 11.5 Appendix 5 Plan of street lighting on South Loirston Road
- 11.6 Appendix 6 Plan of upgraded Core Path 82

12. REPORT AUTHORS CONTACT DETAILS

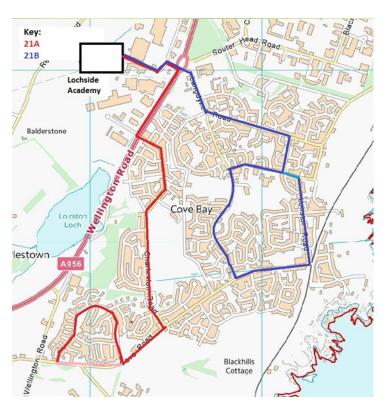
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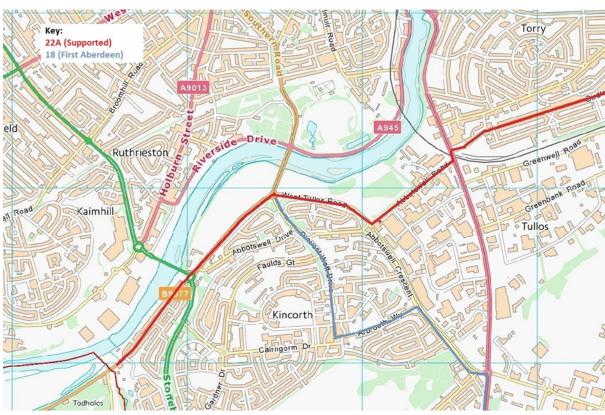
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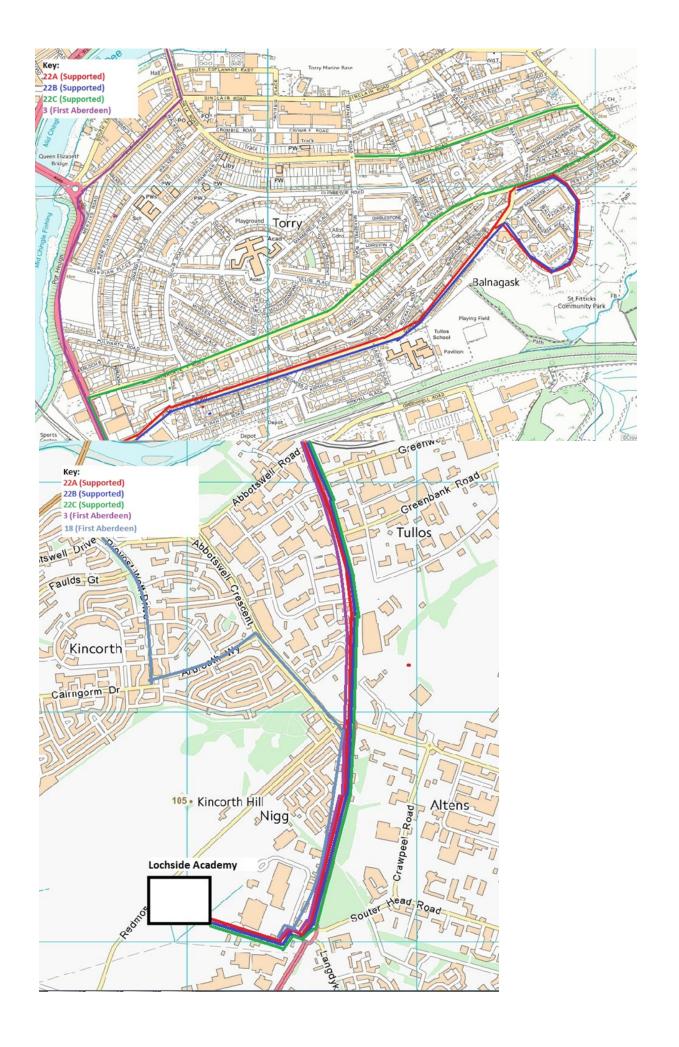
Appendix 1

Bus Routes, Timetables and Stopping Points

Bus Routes:







Timetables:

Service 21 a (Charleston – Lochside Academy)

Charleston Road 08:09
Lochinch Gardens 08:15
Lochside Academy 08:25

	Mon, Tues	Wed - Fri	
Lochside Academy	15:50	15:00	
Lochinch Gardens	16:00	15:10	
Charleston Road	16:09	15:19	

Service 21 b (Cove – Lochisde Academy)

Cove Road 08:13 Loirston Road 08:18 Lochside Academy 08:25

	Mon, Tues	Wed - Fri		
Lochside Academy	15:50	15:00		
Loirston Road	15:57	15:07		
Cove Road	16:02	15:12		

Service 22a

(Leggart – Lochside Academy via Balnagask Circle and Girdleness Road)

Leggart	07:40
Balnagask Circle	08:00
Lochside Academy	08:25

	Mon and Tues		Wed to Fri	
Lochside Academy	15:50	15:55	15:00	15:05
Wellington Road at Girdleness Road Balnagask Circle Leggart	16:00 16:10 16:30	16:05 16:15 16:35	15:10 15:20 15:40	15:15 15:25 15:45

Service 22b (Balnagask Circle – Lochside Academy via Girdleness Road)

Balnagask Circle	07:55
Wellington Road at Girdleness Road	08:10
Lochside Academy	08:20

Victoria Road

Service 22c (Torry – Lochisde Academy, via Balnagask Road)				
Victoria Road	07:50	07:55		
Balngask Road at Balnagask Circle	07:55	08:00		
W. II	00.40	00.45		
Wellington Road at Girdleness Road Lochside Academy	08:10 08:20	08:15 08:25		
	Mon and T	ues	Wed to	Fri
Lochside Academy	15:50	15:55	15:00	15:05
Wellington Road at Girdleness Road	16:00	16:05	15:10	15:15
Balngask Road at Balnagask Circle	16:10	16:15	15:20	15:25

Service 3 (Torry – Lochisde Academy, via Menzies Road)

16:15

16:20

 https://www.firstgroup.com/aberdeen/planjourney/timetables/?day=1&source_id=2&service=3%2F3G&routeid=2022373 1&operator=19&source=sp

15:30

15:25

 First Aberdeen are still considering timetables, routes and vehicle deployment for school opening, so amended services will likely operate. It is likely that First will operate specific school services on the service 3 between Torry and Lochside Academy, with timetables to be confirmed.

Service 18 (Kincorth – Lochside Academy, via Provost Watt Drive)

- https://www.firstgroup.com/aberdeen/plan-journey/timetables/?day=1&source_id=2&service=18&routeid=20223801&operator=19&source=sp
- First Aberdeen are still considering timetables, routes and vehicle deployment for school opening, so amended services will likely operate. It is likely that First will operate specific school services on the service 18 between Kincorth and Lochside Academy, with timetables to be confirmed.

Bus Stops:

21A (Charleston – Lochside)

- AM Services (Boarding points for pupils)
 - Charleston Drive, west side at Lochinch Way
 - o Charleston Drive, west side at Lochinch Walk
 - o Charleston Drive, east side at Lochinch Avenue
 - Charleston Road, west side at Scylla Drive
 - Charleston Road, west side at Charleston Crescent (south)
 - Charleston Road, west side at Charleston Crescent (north)
 - o Charleston Road North, west side at Wellington Green
 - Charleston Road North, south side at Langdykes Avenue
- PM Services (Alighting points for pupils)
 - Charleston Road North, north side at Langdykes Avenue
 - Charleston Road North, east side at Wellington Green
 - o Charleston Road, east side at Charleston Crescent (north)
 - Charleston Road, east side at Charleston Crescent (south)
 - o Charleston Road, east side at Charleston Circle
 - Charleston Drive, west side at Lochinch Way
 - o Charleston Drive, west side at Lochinch Walk
 - Charleston Drive, east side at Lochinch Avenue

21B (Cove – Lochside)

AM Services (Boarding points for pupils)

- Loirston Road, east side at Catto Crescent
- Loirston Road, east side at Loirston Place
- o Loirston Road, east side at Colsea Road
- Cove Road, south side at Cove Court
- o Earns Heugh Road, west side at Earns Heugh Circle
- o Earns Heugh Road, west side at Whitehills Rise
- Earns Heugh Road, west side at Earns Heugh View
- o Earns Heugh Road, west side at Partan Skelly Avenue
- o Loirston Avenue, north side at Loirston Road
- o Loirston Road, west side at Langdykes Road
- o Langdykes Road, south side at Marchmont Street
- Langdykes Road, south side at Strathburn Street (east)
- Langdykes Road, west side at Strathburn Street (west)

PM Services (Alighting points for pupils)

- Langdykes Road, east side at Strathburn Street (west)
- o Langdykes Road, north side at Strathburn Street (east)
- Langdykes Road, north side at Marchmont Street
- Loirston Road, east side at Loirston Manor
- Loirston Road, east side at Catto Crescent
- Loirston Road, east side at Loirston Place
- Loirston Road, east side at Colsea Road
- Cove Road, south side at Cove Court
- o Earns Heugh Road, west side at Earns Heugh Circle
- o Earns Heugh Road, west side at Whitehills Rise
- Earns Heugh Road, west side at Earns Heugh View
- o Earns Heugh Road, west side at Partan Skelly Avenue
- Loirston Avenue, north side at Loirston Road

Service 22A (Leggart – Lochside, via Balnagask) Service 22B (Balnagask Circle – Lochsice)

AM Services (Boarding points for pupils)

- Leggart Terrace, north side at Leggart Road (22A only)
- Leggart Terrace, north side at Leggart Place (22A only)
- o Balnagask Circle, east side at Pentland Crescent
- Balnagask Circle, east side at Balnagask Wynd
- Balnagask Circle, west side at Grampian Court
- o Girdleness Road, south side at Balnagask Circle
- Girdleness Road, south side at Rockall Road
- Girdleness Road, south side at Ladywell Place
- o Girdleness Road, south side at Gregness Gardens
- o Girdleness Road, south side at Kirkhill Lane
- o Girdleness Road, south side at Fernie Brae
- o Girdleness Road, south side at Wellington Road

PM Services (Alighting points for pupils)

- Girdleness Road, north side at Wellington Road
- o Girdleness Road, north side at Girdleness Terrace
- o Girdleness Road, north side at Fernie Brae
- Girdleness Road, north side at Gregness Gardens
- o Girdleness Road, north side at Ladywell Place
- o Girdleness Road, north side at Rockall Road
- Girdleness Road, north side at Balnagask Circle
- o Balnagask Road, north side at Finnan Brae
- o Balnagask Circle, east side at Pentland Crescent
- o Balnagask Circle, east side at Balnagask Wynd
- o Balnagask Circle, west side at Grampian Court
- Leggart Terrace, north side at Leggart Place (22A only)
- Leggart Terrace, north side at Leggart Road (22A only)

22C (Torry – Lochside, via Balnagask)

AM Services (Boarding points for pupils)

- Victoria Road, north side at Mansefield Road
- Victoria Road, north side at Baxter Street
- St Fitticks Road, north side at North Balnagask Road
- o Balnagask Road, south side at Pentland Road
- o Balnagask Road, south side at Finnan Brae
- o Balnagask Road, south side at Balnagask Place
- o Balnagask Road, south side at Farguhar Avenue
- o Balnagask Road, south side at Tullos Place
- Balnagask Road, south side at Farquhar Road

PM Services (Alighting points for pupils)

- We will look to add a new bus stop in at Balnagask Road, north side at Farquhar Road (currently does not exist)
- o Balnagask Road, north side at Farquhar Avenue
- Balnagask Road, north side at Balnagask Place
- o Balnagask Road, north side at Finnan Brae
- Balnagask Road, north side at St Fitticks Road
- Victoria Road, south side at St Fitticks Road
- Victoria Road, south side at Baxter Street
- Victoria Road, south side at Abbey Place

First Aberdeen Service 3 (Torry – Lochside)

To be confirmed by Service Update report.

First Aberdeen Service 18 (Kincorth – Lochside)

AM Services (Boarding points for pupils)

- Provost Watt Drive, east side at Kincorth Crescent
- o Provost Watt Drive, east side at Abbotswell Crescent
- o Provost Watt Drive, east side at Corthan Crescent
- o Provost Watt Drive, east side at Faulds Row
- Provost Watt Drive, east side at Kincorth Shopping Centre
- Arbroath Way, north side at Tollohill Square
- o Arbroath Way, north side at Arbroath Place
- Arbroath Way, north side at Abbotswell Crescent
- o Abbotswell Crescent, east side at Tollohill Place
- Abbotswell Crescent, east side at Nigg Way

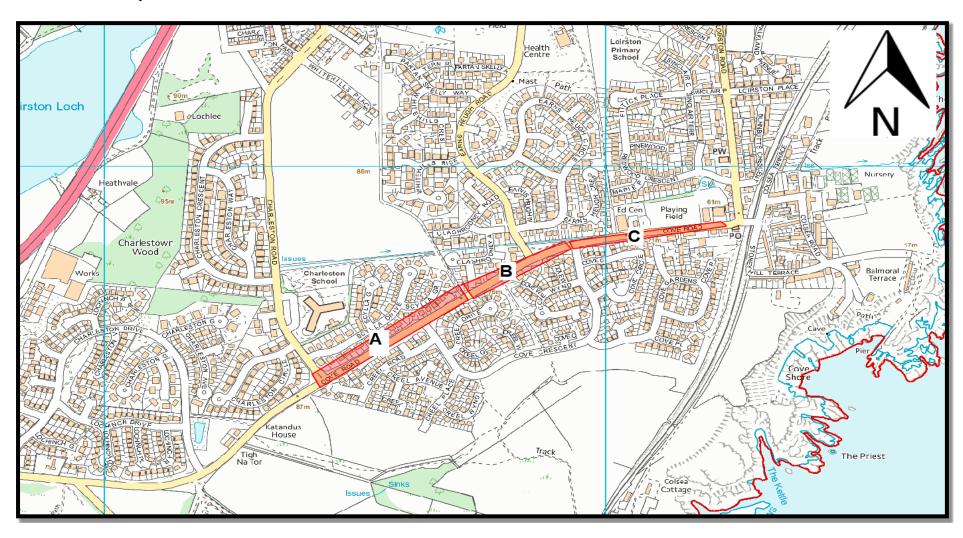
PM Services (Alighting points for pupils)

- Abbotswell Crescent, west side at Nigg Way
- Abbotswell Crescent, west side at Tollohill Place
- o Arbroath Way, south side at Abbotswell Crescent
- Arbroath Way, south side at Cairngorm Crescent
- o Arbroath Way, south side at Tollohill Square
- o Provost Watt Drive, west side at Kincorth Shopping Centre
- o Provost Watt Drive, west side at Faulds Row
- o Provost Watt Drive, west side at Kincorth Sports Centre
- Provost Watt Drive, west side at Abbotswell Drive
- o Provost Watt Drive, west side at Kincorth Crescent

Any changes to service 18 will be confirmed by Service Update Report.

Appendix 2

Cove Road Survey Areas



When conducting a PV² survey the first step is to conduct a desk top study of the area. This is used to inform the additional factors which will be included in the modified PV score.

Existing facilities- Cove Road is currently subject to a mandatory 30 mph speed limit, has street lighting and over a section of road covering the junction with Charleston Road there is a part time 20mph speed limit. This operates during peak school times.

There is are four pedestrian refuge islands located on Cove Road. These allow the pedestrians to cross the road in two stages. The islands are located in proximity to the path from Cove Road to Charleston Drive, Charleston Road junction, Earns Heugh junction and the community centre. These allow pedestrians to cross the carriageway in two distinct steps. They make it easier to cross carriageways as it is more likely to find two smaller gaps in traffic than one where gaps in both directions coincide. Islands help to reduce waiting times and improve safety as pedestrians are less likely to use gaps that turn out to be too short for safe crossing. Furthermore, using the refuge islands requires pedestrians only to judge one lane of traffic at a time.

Site Specifics- Cove Road has no properties fronting on to it and the carriageway is relatively straight and flat with good forward visibility for both drivers and pedestrians.

The carriageway is approximately 7 metres wide and there is adequate footpath on both sides along the majority of the route.

Accident Data – The accident stats for Cove Road collected by Police Scotland through the STATS 19 process were examined for the period 2014-2017.

Accidents are classified as Slight, Serious and Fatal. On Cove Road for this period there has been three slight accidents recorded. None of these involve a pedestrian.

Traffic Speed and Volume – The traffic speed and volume were recorded on Cove Road using a Radar Recorder. The results for the peak school period are summarised below:

Time	Total	85th	Mean
Begin	Vol.	%ile	Ave.
07:30	211	34.9	31.2
07:45	223	34.4	28.6
08:00	199	34.9	28.8
08:15	184	35.2	30.2
08:30	104	34.6	29.5
08:45	95	33.6	27.5
09:00	90	35.8	28.9
09:15	61	34.1	27.4
12:00	62	34.5	28.1
12:15	69	34	27.1
12:30	93	34.8	28.5
12:45	69	33.8	27.8
13:00	64	33.4	26.7
13:15	63	35	29
13:30	68	34.4	27.1
13:45	53	36.6	29.1
14:00	48	35.8	29.7
15:00	75	34.1	28.2
15:15	83	33.9	28.1
15:30	86	34.3	27.9
15:45	82	35.8	30.1
16:00	105	34.9	29.5
16:15	101	35.2	29.7
16:30	167	36.4	30.4
16:45	162	34.7	29.7

Traffic Survey data during peak school period

The additional factors included in the PV calculation were:

- A significant proportion of those crossing the road were classified as vulnerable road users.
- Cove Road is deemed to divide a substantial community.

These factors gave a multiplication factor of 1.2 which was used to produce the modified PV value.

The results for each section are displayed below:

	Α		
Time	Total Vehicles	Total Pedestrians	PV Value
07:15-08:15	761	3	0.01737363
08:15-09:15	473	25	0.05593225
12:00-13:00	293	9	0.00772641
15:00-16:00	326	24	0.02550624
		Average:	0.026634633
		4 D.P:	0.0266
		Modified PV:	0.03

Calculations for area A

		В		
Time		Total Vehicles	Total Pedestrians	PV Value
07:30-08:3	0	817	6	0.04004934
08:30-09:3	0	350	7	0.008575
12:00-13:0	0	293	5	0.00429245
13:00-14:0	0	248	2	0.00123008
			Average:	0.013536718
			4 D.P:	0.0135
			Modified PV:	0.02

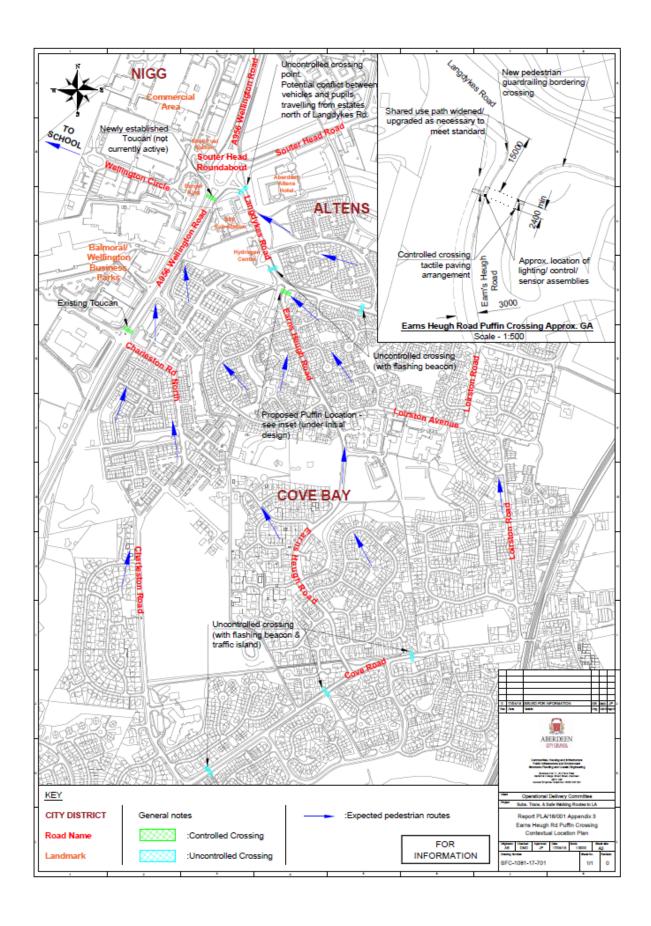
Calculations for area B

	С		
Time	Total Vehicles	Total Pedestrians	PV Value
08:15-09:15	473	24	0.05369496
12:00-13:00	293	14	0.01201886
15:00-16:00	326	32	0.03400832
16:00-17:00	535	7	0.02003575
		Average:	0.029939473
		4 D.P:	0.0299
		Modified PV:	0.04

Calculations for area C

	Combined		
Time	Total Vehicles	Total Pedestrians	PV Value
07:15-08:15	761	14	0.08107694
08:15-09:15	473	55	0.12305095
12:00-13:00	293	28	0.02403772
15:00-16:00	326	55	0.0584518
		Average:	0.071654353
		4 D.P:	0.0717
		Modified PV:	0.09

Combined PV values



Appendix 4



New 2m wide path (Charleston Drive to Charleston Cres)

Construction of new 2m wide bitumen surface path to connect with existing path:

Please note that estimate is based on the following assumptions:

- a) Ground conditions being reasonable
- b) No utilities are within the area.

Installation of new street lighting along path @ £2k/pole.

Distance = 158m.

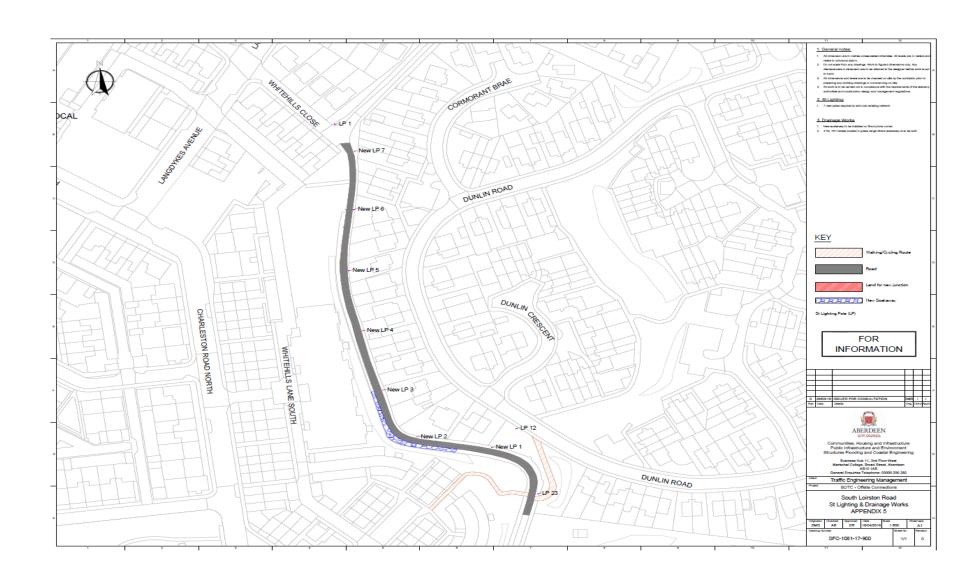
No of poles required = 7

Total St lighting installation costs = £14,000

Drainage = £9,000

Total cost of works = £40,000

Appendix 5



Appendix 6

