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To: All Members of the Council

Town House, ABERDEEN, 28 April 2023

COUNCIL - ADJOURNED MEETING

The Members of the **COUNCIL** are requested to meet in Council Chamber - Town House on <u>THURSDAY, 4 MAY 2023 at 2.00pm</u>. This is a hybrid meeting, therefore Members may also take part remotely.

> JENNI LAWSON INTERIM CHIEF OFFICER - GOVERNANCE (LEGAL)

BUSINESS

GENERAL BUSINESS

1 <u>Beachfront Masterplan Update - COM/23/119</u> (Pages 3 - 562)

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Agenda Item 1

ABERDEEN CITY COUNCIL

COMMITTEE	Council
DATE	26th April 2023
EXEMPT	No
CONFIDENTIAL	No
REPORT TITLE	Beachfront Masterplan Update
REPORTNUMBER	COM/23/119
DIRECTOR	Steven Whyte/Gale Beattie
CHIEF OFFICER	Craig Innes
REPORT AUTHOR	Craig Innes
TERMS OF REFERENCE	21

1. PURPOSE OF REPORT

1.1. This report provides Members with the updated Beachfront Development Framework as well as presentation of the Outline Business Case (OBC) for the A956 Beach Boulevard Roundabout, the Strategic Outline Case (SOC) for a number of key Beachfront projects which are progressing through to OBC, and a Branding Strategy for the Beachfront and City Centre Masterplan projects.

2. **RECOMMENDATIONS**

- 2.1 Approve the content of the Aberdeen Beachfront Development Framework Phase 1, Executive Summary and Strategic Environmental Assessment (Appendices 1, 2 and 3), and agree to monitor the Development Framework Phase 1 as part of the annual review of the overarching City Centre and Beach Masterplan;
- 2.2 Notes the contents of the Executive Summary of the Scottish Transport Appraisal Guidance (STAG) report (Appendix 5) and Outline Business Case (Appendix 6) for the Commerce Street/Beach Boulevard junction improvement project, and agree the recommendations within the Outline Business Case.
- 2.3 Instruct the Chief Officer Commercial & Procurement in conjunction with the Chief Officer Capital to join Justice Street, Beach Boulevard and Commerce Street / Beach Boulevard junction projects into a single City Beach Connectivity Project and to progress detailed design and other preparatory work for City Beach Connectivity Project and provide a Full Business Case within an indicative timeline of 12 –18 months.
- 2.4 Approve the findings of the Beachfront Phase C Projects and Coastal Management in the prepared Strategic Outline Case (Appendix 7) and instruct the Chief Officer – Commercial & Procurement to progress to an OBC and report back to Council by December 2023.

2.5 Approve the development and implementation of the Branding Strategy (Appendix 8).

3. CURRENT SITUATION

Beachfront Development Framework

- 3.1 Officers were instructed at the 12 November 2021 meeting of the City Growth and Resources Committee to progress work on a Beachfront Development Framework (to sit as a sister document to the City Centre Masterplan 2015) and report back in June 2022. Officers presented the Draft Beachfront Development Framework and Executive Summary to Council on 28 June 2022 and were subsequently instructed to undertake a period of public consultation on the Draft Framework and its accompanying Environmental Report. The outcomes of the public consultation were reported back to Full Council in December 2022, and Officers were subsequently instructed to report an updated Development Framework to this Council meeting (April 2023) for consideration.
- 3.2 Officers were also instructed at Council on 25 August 2022 to consult on the existing red line boundary for the Development Framework, but that an extended Phase 2, to include the Footdee Conservation Area and the area north to the River Don, should explore opportunities for active travel and transport connectivity between these areas and other parts of the City. While a Phase 2 of the Development Framework will be brought forward in the future as required, the Development Framework Phase 1 presented to the Council (Appendix 1) has already considered connectivity and development opportunities within an extended Phase 2 boundary.
- 3.3 As reported to Council in December 2022, the public consultation on the Draft Development Framework attracted 713 responses with 55% of those generally supportive of the contents of the document, 24% uncategorised / neutral and 21% generally unsupportive. The areas that drew the most comments related to:
 - Traffic and Transport Management.
 - The Beach Village.
 - The Boardwalk and associated projections onto the beach.
- 3.4 The updated Development Framework is presented at Appendix 1. This is supplemented by an easy-read Executive Summary at Appendix 2 and a supporting Strategic Environmental Assessment at Appendix 3. Officers have made a number of suggested amendments to the Draft Framework to either provide more information on the points above or to make changes to what had been suggested in the draft. The document has also been updated to correct any typographical or drafting errors, and to reflect the additional design development which has been undertaken on some of the proposed interventions since the Framework was initially prepared in Spring of 2022. Appendix 4 sets out the key changes that have been made to each section of the Framework. This can be summarised as follows:

Section	Key Amendments
Introduction	Updates to reflect future Phase 2 as instructed by Council.
Policy Context	 Updated to reflect City Centre and Beachfront Masterplan context; and, Updated to reflect emerging LDP 2023 and NPF4 and associated policy landscape.
Consultation & Engagement	 Additional content in relation to public consultation and engagement process undertaken in Sept and Oct 2022; and, Updates to reflect feedback received from process and accommodating changes where possible.
The Site	 Further clarity in relation to existing transport networks including walking, cycling and parking availability; and, Revised text and images for consistency.
Vision, Opportunities & Design	 Leisure and Potential Stadium text, images and sketches updated to reflect optioneering in relation to continuity of ice provision for the city during construction of replacement facilities.
The Development Framework	 Reordering and condensing of content to ensure clearer and simpler messaging; Transport-related information largely consolidated into one section; Clarity provided in relation to parking at beachfront, and that overall supply will remain largely unchanged, with minor adjustments to existing arrangements; Further clarity provided in relation to emergency service access and controlled routes throughout – including commitment to continue working with emergency services. Clarity provided in relation to assessment of segregated cycle routes throughout; Confirmation that future Boardwalk proposals to be designed with awareness of locations of concern for suicide risk; Leisure and Potential Stadium sketch options and concepts updated to reflect potential for separated developments; and, Confirmation that a future Phase 2 will bring forward options for satellite facilities along the Beachfront for beach and water users.
Phasing & Delivery	No amendments

3.5 While the above-noted amendments have been made to the updated Development Framework, it continues to seek to deliver the Vision previously approved by Council, namely, to revitalise and renew the area to maximise the potential of this unique space and create an exceptional asset for the city of Aberdeen. The design approach continues to be collaborative and landscape led, in order to set an appropriate structure to accommodate a broad range of leisure uses, events and public spaces. The proposals will also be attuned to the needs of the local community whilst aiming to position the Beachfront as a prominent visitor location and reconnect the beach with the city centre.

3.6 As previously reported, once approved, the Framework will sit as one of the Council's Strategic Plans alongside the wider City Centre Masterplan, and under the overarching City Centre and Beach Masterplan. As such, it will be monitored as part of the annual review of the City Centre and Beach Masterplan.

A956 Beach Boulevard Roundabout Outline Business Case

- 3.7 A key aim of the Beachfront Development Framework is to improve connectivity between the City Centre and the Beach for people walking, wheeling, cycling and using public transport. In order to achieve this, the Framework proposes alterations to Beach Boulevard and its junction with Commerce Street. This considered high level options for change along the corridor and junction, however, due to its position within the wider transport network, a fuller appraisal was necessary to identify a preferred option for the junction.
- 3.8 At the meeting of Council in February 2022, Members instructed: the Head of Commercial and Procurement and the Chief Officer - Strategic Place Planning to develop an Outline Business Case to improve the connectivity between the city centre and the beach.
- 3.9 In parallel to work being undertaken by the City Centre Masterplan and Beachfront Development Framework to develop proposals for Justice Street and Beach Boulevard respectively, a STAG (Scottish Transport Appraisal Guidance) based appraisal of options for improving walking, wheeling, cycling and public transport connectivity through the junction to enhance links between the city centre and the beach area has therefore been undertaken.
- 3.10 The study was split into two phases:
 - Phase 1: Identification and appraisal of road network configuration options which facilitate Beachfront Development Framework aspirations for a car-free core; and
 - Phase 2: Identification and appraisal of options to improve the Commerce Street/Beach Boulevard junction, primarily for walking, wheeling and cycling.
- 3.11 Phase 1 considered the road network implications of the Beachfront Development Framework by examination of different road configuration options. This provided an evidence base to allow detailed junction options assessment work to be undertaken in Phase 2 and to inform the next steps required to develop the Development Framework's aspirations for a car-free core. Seven road configuration options were subject to modelling, with options modelling the closure of the Esplanade between Beach Boulevard and

just to the south of Accommodation Road, with no through routing on Park Road after Urquhart Road, emerging as the more viable options in terms of wider traffic and network implications. Additional sensitivity testing was also undertaken to assess the possible effects on the options of emerging proposals for Aberdeen Rapid Transit (ART) along the King Street (A956) corridor. These indicated that the modelled variations associated with ART in traffic flow and routing at the junction should not significantly influence the selection of the preferred option in Phase 2.

- 3.12 Phase 2 of the junction appraisal therefore progressed based on a representative Development Framework network scenario and resulting vehicle flows. Five objectives were set to assist with the junction option appraisal process:
 - Improve pedestrian wheeling and cycling connectivity;
 - Improve access for all;
 - Improve public transport connectivity;
 - Optimise the traffic network performance; and,
 - Optimise network resilience.
- 3.13 Option generation and sifting resulted in identification of a long list of options, and via a process of iterative modelling and appraisal, two viable and high-performing options emerged as worthy of consideration to proceed to Outline Business Case:
 - A smaller roundabout (Option 1), relocated slightly to the north-west of the existing roundabout, which allows for enhanced pedestrian and cycling connections around its circumference, with traffic signal controlled crossing facilities provided on all arms; and,
 - A traffic signal controlled junction (Option 4) with enhanced pedestrian and cycling connections, including an all-round pedestrian/cycle crossing stage, and with the right turn manoeuvre between Commerce Street and Beach Boulevard banned, the ahead movement from Justice Street to Beach Boulevard banned, and with Park Street accessible only via East North Street
- 3.14 Both options include the no through routing restriction on Park Road after Urquhart Road identified in Phase 1. An Executive Summary of the STAG appraisal is provided as Appendix 5. A DMRB (Design Manual for Roads and Bridges) Stage 2 Assessment (looking in more detail at engineering feasibility and environmental implications of different options) has also been undertaken to support the option appraisal and sifting process.
- 3.15 Whilst both Option 1 and Option 4 achieved comparable scores against all appraisal criteria with both expected to deliver significant positive benefits against the study objectives, the OBC recommends the adoption of Option 1 as the preferred option based on the following:-
 - Option 4 is dependent on the wider road network, particularly the area to the south and east of Beach Boulevard and Commerce Street. The

option proposes the use of Cotton Street and/or Miller Street as alternative routes to the beachfront area for vehicles travelling from southern areas of the city (or wider). To deliver this, each new route would have to be improved (e.g. junction access, local access, carriageway standards, parking provision, signage etc.). The existing junction of Commerce Street/Virginia Street/Castle Terrace and the new requirements for a junction at Cotton Street/Links Road in particular are highlighted as key risks to deliverability. Conversely, the footprint of Option 1 is solely contained within the existing junction area. Its delivery is not dependent on wider network use and the challenges this may bring.

- Option 4 is likely to have higher Capital costs than Option 1. Revenue costs would also be expected to be higher for Option 2 due the ongoing maintenance requirements of the alternative routes and junctions.
- The use of Cotton Street as an alternative route to the beach in Option 4 would require the Cotton Street/Links Road junction to be upgraded. The appraisal and modelling to date has assumed a solution is likely to be feasible (e.g. new roundabout or signalised junction). However, it is addition to a feasible solution, it is likely that any solution would encroach the red line boundary of the BFD at a location in the heart of the proposed urban park (i.e. Links Road).

Officers are therefore seeking Council approval to develop a Full Business Case based on Option 1.

Beachfront Phase C Works & Coastal Management Strategic Outline Case

- 3.16 The preparation of a Strategic Outline Case (SOC) presented in Appendix 7 seeks to demonstrate the necessity for the proposed Aberdeen Beachfront Masterplan Phase C Projects (shown below) to be progressed in their development including the consideration of the long-term coastal management of the Aberdeen City coastline frontage.
- 3.17 The Beachfront Masterplan Phase C Projects constitute part of the Aberdeen City Vision, forming a series of integral projects to the short, medium and long term phasing of the wider Beach Masterplan.
- 3.18 The key features of the Phase C Projects are:
 - Esplanade an enhancement of the public realm to create an active frontage along the length of the coastline.
 - Boardwalk/Pier a new structure that will become a focal point at the Masterplan's periphery, forming a new key public space between the Beach Boulevard, the Esplanade and the North Sea. A viewing point out to the North Sea.

- Beachfront Interface regrading of the existing levels, by building over the existing lower sea wall through the creation of a series of ramps and walkways, making the beach accessible to all.
- Satellite Facilities a series of facilities located at key points along the length of the Esplanade will provide toilet, change and shower facilities for all beach and water users, whilst utilising the elevation of these structures to create satellite observation decks.
- Beach Village, Pavilion & Slipway the slipway will provide access to the Beachfront below the Esplanade which could potentially be utilised by both the RNLI to launch in-shore lifeboats as well as Jet Skiers. The area to the north of the Beachfront would be supported by a new Pavilion incorporating an observation deck and supporting facilities for water users.
- New Footdee Club House a new Club House located at the very South of the Beachfront where the water is safest and could provide facilities for the Surf Club, Wild Swimmers and Surf Life Saving Club. The facility could provide various amenities, providing education on safe water usage, with opportunities for an elevated observation deck at the most used part of the water.
- 3.19 The Beachfront Phase C Projects have been developed through to RIBA Stage 1 (Preparation and Briefing Stage), where the report incorporates the wider masterplan "Ropeworks" theme approved during the February 2022 Council meeting, where Officers were requested to begin the development of the Beachfront based on this theme as part of a phased approach to project delivery.
- 3.20 The Beachfront Phase C brief development has been supported through a series of engagement sessions with key stakeholders to identify the Beachfront opportunities and enhance the existing beach usages. This has included engagement with Aberdeen's Water Safety Group (AWSG) incorporating key groups including the Royal National Lifeboat Institution (RNLI), HM Coastguard, Royal Life Saving Society UK, Scottish Fire & Rescue Service, Police Scotland, Aberdeen Surf Life Saving Club (ASLSC) and Sport Aberdeen.
- 3.21 The intention is for the Beachfront Phase C Projects, to be progressed in conjunction with the coastal management strategy. The Structures, Flooding and Coastal Engineering team have recently commissioned a strategic review of the coastal frontage which considered coastal management options and their associated costs. This study gained an improved understanding of the current risks, reassessed the previous studies and the performance of undertaken coastal works, while considering the on-going changes that have been witnessed along the coastline, develop an understanding of how the shoreline may develop into the future and consideration of the need for continued management.

3.22 The coastal management strategy has been considered as part of the prepared SOC, which has highlighted the benefit to progress the development of the long-term coastline strategy, whilst illustrating the benefit of a joint approach to ensure a coherent solution is progressed on the Beachfront.

Next Steps

3.23 The SOC outcome will look to seek approval to develop the Aberdeen Beachfront Phase C Projects including the consideration of the long-term coastal management of the Aberdeen City coastline frontage to an Outline Business Case (OBC). Through the development of the Beachfront Phase C works completed to date, it is anticipated that the overlapping development will be most efficiently progressed in collaboration with the Coastal Management strategy. The Masterplan Phase C Design Team will require to liaise closely with our internal Structures, Flooding and Coastal Engineering team and their external advisors to develop a coherent OBC and design solution for the Beachfront Masterplan. The proposal to progress the Beachfront Phase C Works in collaboration with the Coastal Management strategy will enable partnership working to deliver the common goal and meet the masterplan objectives.

4. BRANDING

4.1 A number of options relating to a suitable logo and brand were considered in order to demonstrate the visionary and ambitious nature of the Aberdeen City Vision programme. Following consultation, briefing, reference to existing brand guidelines and materials, and consultation with ACC colleagues the "Generation Aberdeen" branding has been chosen as the preferred option. Council approval is sought for this preferred option following which officers will create the City Vision microsite, social media templates and branding guidelines which will be used as branding across all materials relevant to the Aberdeen City Vision programme.

5. FINANCIAL IMPLICATIONS

- 5.1 The Council Budget meeting on 1 March 2023 reset the budget for the City Centre Master Plan and the Beach Programme and reprofiled £98 million of activity for between 2023/24 and 2025/26. These budgets will support delivery of Phases 1 and 2 of the CCMP and the first Phase of Beachfront works.
- 5.2 The Council will continue to facilitate the next stage of design works with Hub North Scotland Limited. This continued design will begin to flesh out the lifecycle costs of any new assets so these can be captured with the Council's medium term financial planning for future budget cycles. The work with Hub North Scotland Limited will engage with the potential supply chain of current contractors who will undertake works relating to two or more workstreams allowing lower cost.

5.3 Officers will continue to explore with partners any inward investment opportunities through central funding and inward investment mechanisms with both Scottish and UK Governments. The External Funding team within the City Growth cluster routinely monitor applicable funding structures and where appropriate develop applications to support development of the masterplan and arising projects.

6. LEGAL IMPLICATIONS

- 6.1 The Beachfront Development Framework will inform planning applications, but each application will be decided on a case-by-case basis by the Planning Authority.
- 6.2 The Council has commenced an extensive title examination of areas covered within the Beach Masterplan to determine if there are any ownership, third-party right, and/or Common Good Land issues affecting the review site. No material issues have been identified to date as part of this process.
- 6.3 As each project proposal progresses, they will be examined and managed within the professional scope of property / conveyancing industry accepted standards, ensuring all due diligence exercises and pre-contract enquiries are complete and satisfactory.

7. ENVIRONMENTAL IMPLICATIONS

- 7.1 The Beachfront Development Framework Phase 1 is accompanied by an Environmental Report (Appendix 3). The purpose of the Environmental Report is to document the Strategic Environmental Assessment (SEA) of the Beachfront Development Framework. The purpose of environmental assessment is to identify the likely environmental effects of a plan, and to avoid any adverse environmental effects occurring. Preparation of the Environmental Report has been an iterative process, involving engagement with both the public and the statutory consultation bodies (Historic Environment Scotland, NatureScot and SEPA).
- 7.2 The SEA Environmental Report was submitted to the SEA Gateway on 8 September 2022 as part of the formal consultation process, and consultee responses were received on 24 October 2022. The Consultation Bodies provided comment, advice, and guidance in relation to the SEA topics, and this has been incorporated into the Beachfront Development Framework where practicable.
- 7.3 Subject to approval of Recommendation 2.1, a Post Adoption Statement report will be prepared to show how environmental considerations have been integrated into the Beachfront Development Framework. The Post Adoption Statement will indicate:
 - How environmental considerations have been integrated into the Beachfront Development Framework;

- How SEA reporting has been taken into account in the Beachfront Development Framework;
- How the results of public and statutory consultation have been taken into account;
- Reasons for choosing the Beachfront Development Framework as adopted, in light of other alternatives dealt with;
- The measures that are to be taken to monitor the significant environmental effects of the strategy.
- 7.4 The Development Framework itself makes reference to commitments by Aberdeen City Council through the Local Outcome Improvement Plan 2016-2026 to aim for a net-zero operational development with active travel at its core which will create a key sense of 'Place' to the Beachfront.
- 7.5 The Development Framework also makes reference to Net Zero and Sustainability Policies and sets out the aspirations, Aberdeen City Council's 'Net Zero Aberdeen Route map towards becoming a net zero emissions city by 2045' sets out the approach, pathway and actions towards net zero and climate resilient Council assets and operations, by 2045. Energy-efficient design proposals will require to be incorporated within any design proposals and concept masterplan alongside renewable and low carbon energy sources, with consideration necessary to understand how further decarbonisation could be achieved in the future.
- 7.6 In addition to the energy approach, the Development Framework seeks to promote biodiversity and the protection of the natural assets found within the Beachfront area. Through the landscape and nature-led approach to the Development Framework, the Council can harness the baseline ecology of the site, work with local knowledge, and link in to other national and local organisations and initiatives such as B-Lines (connected networks enhancing invertebrate life throughout the UK Don and Dee Valley, and Coastline a designated networks) to comprehensively set the regeneration of the beachfront area as an exemplar of how to approach the natural and environment in the 21st century. Indeed, any development will require to be cognisant of the recommendations of the suite of Aberdeen City Council quidance.
- 7.7 Architectural interventions to come forward from the Development Framework are proposed to adopt some Passivhaus style construction principles such as super insulated building envelopes, high performance glazing and mechanical ventilation with heat recovery. They will also likely feature the use of smart controls, an off-site sourced 'green electricity' supply and some on-site renewable technologies including Photovoltaic Panels with associated battery storage. Distribution of heating & cooling is likely to be via an Ambient Loop system with water-to-water heat pumps connected to terminal units
- throughout. For added resilience back up heating & power could be sourced

from the existing Aberdeen Heat & Power District Heating System which it is anticipated will switch to a green hydrogen fuel source in the future.

7.8 Again, reference is made in the Development Framework to Net Zero Carbon Aspirations – the project gives a platform to incorporate new & innovative technologies and systems, to provide a net zero carbon, electricity, heating, and cooling solution to serve the load demands of the development. Additionally, there is scope for a solution which aligns with Aberdeen City Council's hydrogen strategy, to generate demand and interest in hydrogen as a power source in order to achieve their climate goals and to capitalise on the unique skills-base of the region.

8. RISK

Category	Risks	Primary Controls/Control Actions to achieve Target Risk Level	*Target Risk Level (L, M or H) *taking into account controls/control actions	*Does Target Risk Level Match Appetite Set?
Strategic	Failure to proceed with the Beachfront Masterplan impacts on wider City commitments and economic targets.	Continue to work collaboratively to achieve the masterplan delivery and wider advantages.	Μ	Yes
Compliance	Council title issues and other competing third- party rights.	The Council has undertaken an extensive title examination and engagement of a Third-Party review.	L	Yes
Operational	Beach Boulevard/Beach promenade traffic arrangements	Significant consultation with Council Roads and Planning Teams, Bus companies and Emergency services planned.	М	Yes
	Sufficient capacity of resources within Councils teams to	Resource review ongoing and augmented support through the PMO	Μ	Yes

	meet programme objectives			
Financial	Budget pressures due to current market volatility.	Robust budgets established. Independent monitoring process established. With PMO early supply chain mitigations action plan established across the programme.	Μ	Yes
	Removal or reduction in anticipated funding Streams.	engagement and monitor of ongoing funding applications.	Μ	Yes
Reputational	Failure or delay in proceed with the recommendations	Continue to work collaboratively to achieve the masterplan delivery and wider advantages.	Μ	Yes
Environmental & Climate	Coastal flooding risk	Engagement with Flooding Team, local community groups and understand that risk exists mitigated by Coastal Defences. Respond to risks identified as part of coastal studies.	Μ	Yes

9. OUTCOMES

COUNCIL DELIVERY PLAN	
	Impact of Report
Aberdeen City Council	Supports the delivery of Economy Policy Statement
Policy Statement	4 – Increase city centre footfall through delivery of
	the City Centre Masterplan. 1. – Continue to
	maximise community benefit from major
	developments.
Aberdeen City Local Outco	me Improvement Plan
Prosperous Economy	Supports Outcome 1 10% increase in employment
Stretch Outcomes	across priority and volume growth sectors by 2026.
Prosperous People Stretch	Supports Outcome 7 Child Friendly City which
Outcomes	supports all children to prosper and engage actively
	with their communities by 2026.
Prosperous Place Stretch	Supports Outcome 14 Addressing climate change
Outcomes	by reducing Aberdeen's carbon emissions by 42.5%
	by 2026 and adapting to the impacts of our
	changing climate Supports Outcome 15 38% of
	people walking and 5% of people cycling as main
	mode of travel by 2026.
Regional and City	The report supports the priorities in the Regional
Strategies	Economic Strategy (RES) investment in
	development potential improve the deployment of
	low carbon transport, to onable Abordoon to realize
	development opportunition in the City Control
	Masterolan
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10. IMPACT ASSESSMENTS

Assessment	Outcome
Integrated Impact Assessment	Completed
Data Protection Impact Assessment	DPIA Screening Questions completed. Neither a brief DPIA or full DPIA is required at this stage
Other	Strategic Environmental Assessment Scoping Report (Appendix C)

11. BACKGROUND PAPERS

- Council Decisions 13 December 2021 <u>https://committees.aberdeencity.gov.uk/documents/g7675/Decisions%2</u> <u>013th-Dec-2021%2010.30%20Council.pdf?T=2</u>
- Report to Council 28 February 2022 <u>https://committees.aberdeencity.gov.uk/documents/s129266/220228%2</u> <u>0City%20Centre%20Masterplan%20Update%20Report.pdf</u>
- Council Decisions 28 February 2022 <u>https://committees.aberdeencity.gov.uk/documents/g8184/Decisions%2</u> <u>028th-Feb-2022%2010.30%20Council.pdf?T=2</u>

12. APPENDICES

- Appendix 1 Beachfront Development Framework
- Appendix 2 Executive Summary: Beachfront Development Framework
- Appendix 3 Beachfront Development Framework: Strategic
 Environmental Assessment
- Appendix 4 Summary of Changes Made to Draft Development Framework Following Consultation
- Appendix 5 Notes Executive Summary of the Scottish Transport Appraisal Guidance report
- Appendix 6 A956 Beach Boulevard Roundabout Outline Business Case
- Appendix 7 Strategic Outline Case Beachfront Phase C Works & Coastal Management
- Appendix 8 Branding Examples

13. REPORT AUTHOR CONTACT DETAILS

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DEVELOPMENT FRAMEWORK PHASE 1 APRIL 2023 ABERDEEN CITY COUNCIL ABERDEEN BEACHFRONT

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Page





PROJECT TEAM

CLIENT

Aberdeen City Council

PROJECT DEVELOPMENT MANAGER hub North Scotland Ltd

MASTERPLANNER - BEACHFRONT Keppie Design Ltd

PLANNING CONSULTANT - BEACHFRONT Keppie Design Ltd

ARCHITECT - BEACH BALLROOM Keppie Design Ltd

ARCHITECT - BEACH INTERVENTIONS Keppie Design Ltd

ARCHITECT - BEACHFRONT STADIUM AFL

ARCHITECT - BEACHFRONT LEISURE AFL

LANDSCAPE ARCHITECT - BEACHFRONT Open

CIVIL & STRUCTURAL ENGINEER

Goodson Associates

MEP ENGINEER Wallace Whittle

STAKEHOLDER ENGAGEMENT LEAD Streets-UK

COST ADVISOR Currie & Brown

INCLUSIVE DESIGN CONSULTANT

Buro Happold

CONTENTS

1.0	INTRODUCTION	5.0	VISI	01
	VISION & OBJECTIVES		DEV	EL
	1.1 DEVELOPMENT FRAMEWORK		5.1	V
	1.2 STRATEGIC ENVIRONMENTAL ASSESSMENT		5.2	A
	1.3 HABITAT REGULATION ASSESSMENT		5.3	0
	1.4 SITE HISTORY		5.4	
			5.5	E
2.0	POLICY CONTEXT		5.0 5.7	K
	2.1 LOCAL OUTCOME IMPROVEMENT PLAN 2016-2026)./ E 0	Γ
	2.2 NET ZERO & SUSTAINABILITY POLICIES		J.0	Γ
	2.3 CITY CENTRE MASTERPLAN CONTEXT	6 0	THE	וח
	2.4 ABERDEEN LOCAL DEVELOPMENT PLAN 2023	0.0	61	וש
	2.5 NATIONAL PLANNING FRAMEWORK 4		6.2	0
	2.6 OTHER KEY POLICIES. GUIDANCE & INFORMATION		6.3	P
	2.7 RELEVANT TRANSPORT PROJECTS		6.4	L
			6.5	L
3.0	CONSULTATION & ENGAGEMENT		6.6	P
	3.1 PROCESS		6.7	B
	3.2 WHAT HAS BEEN DONE SO FAR?		6.8 C 0	U T
	3.3 STAKEHOLDER ENGAGEMENT		0.9 6 10	l R
	3.4 CHILDREN AND YOUTH ENGAGEMENT		6 11	B
	3.5 HOW HAVE WE RESPONDED?		6.12	L
	3.6 NEXT STEPS?		6.13	B
4 በ	THE SITE	70	рнл	ςι
4.0		7.0	1 11/4	
	4.5 SETTING CENISTING LANDSCAPE AREAS			

- 4.4 SITE INVENTORY & ANALYSIS
- 4.5 CONSTRAINTS
- 4.6 EXISTING MOVEMENT NETWORK

Currie & Brown

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optimised environments

Goodson

Consulting Civil & Structural En

Associates

wallace whittle

streets-uk

open

architects

architects

ON, OPPORTUNITIES & DESIGN ELOPMENT

VISION Approach

- **OPPORTUNITIES**
- INITIAL DESIGN CONCEPTS
- **EXPLORATION & TESTING**
- **ROPE WORKS DESIGN DEVELOPMENT**
- **ROPE WORKS KEY PRINCIPLES**
- **ROPE WORKS LEISURE AND POTENTIAL NEW STADIUM**

DEVELOPMENT FRAMEWORK

- **INTRODUCTION & PURPOSE**
- **DEVELOPMENT STRUCTURE**
- PROPOSED MOVEMENT NETWORK
- LANDSCAPE INTENTION
- LANDSCAPE, ECOLOGY, NATURE & CONSERVATION
- PROPOSED CHARACTER AREAS
- **BEACH BALLROOM**
- **QUEENS LINKS URBAN PARK**
- THE BEACH AND ESPLANADE
- **BEACH BOULEVARD**
- **BROAD HILL**
- LEISURE AND POTENTIAL NEW STADIUM
- **BEACH VILLAGE**

SING & DELIVERY

1.0 INTRODUCTION

The impact of the Coronavirus pandemic highlighted just how important accessible and good quality public space is to people's physical and mental health.

During this time, the citizens of Aberdeen rediscovered and fell back in love with the city's outdoor spaces and in particular the Beachfront area, understanding it's importance as a key public space for the city and wider area.

The aim of this Development Framework is to set a vision and key design principles for a world class sport, leisure and tourism destination which would revitalise the Beachfront area and reconnect it to the city centre.

OBJECTIVES OF THE DEVELOPMENT FRAMEWORK

The Framework has been developed in accordance with the guidance contained within Aberdeen City Council's 'Masterplanning Process' document in order to ensure an appropriate process of consultation and feedback is developed and is incorporated as the document evolves.

Due to the nature of masterplanning and the scale of the proposals, the detail of the individual elements of the design will inevitably evolve over time, however by establishing a clear structure these changes can be accommodated whilst retaining an overall clarity and coherence to the place. The Framework provides the basis for more detailed proposals to come forward in the future.

The Development Framework:

- Provides an overall vision for the area whilst also allowing for flexibility and differing approaches;
- Establishes a clear and coherent spatial structure which can accommodate change in the long term as detailed proposals emerge;
- Describes character areas and areas of potential intervention;
- Sets out strategic transport proposals in terms of access and connectivity; and
- Illustrates the general directions and phasing of development within the area.

VISION

The Beachfront Development Framework offers a unique opportunity to create a transformational new waterfront destination for the City of Aberdeen.

> **GATEWAY TO THE BEACH ENHANCED BEACH BOULEVARD**

MULTI-PURPOSE EVENTS

BEACH BALLROOM RE-I **AFFORDABLE**

COMMUNITY WATER PLAY THE WOW FACTOR HERITAGE & HISTORY

POTENTIAL STADIUM & LEISURE COMPLEX SPECTACULAR VIEWS

ACTIVE FRONTAGE THE JEWEL IN THE CROWN PEDESTRIAN FOCUSED & CYCLIST FRIENDLY 🚄 ICONI

LARGE SCALE EVENTS BEACH ACCESS PROMENADE CREATION OF A NEW DESTINATION



Beachfront Development Framework brief & Vision Collage

1.1 DEVELOPMENT FRAMEWORK

A Development Framework is one of the tools under the Council's 'masterplanning' umbrella and sets out a two-dimensional framework of development principles and parameters for the way in which the wider site is to be developed in the future. This Development Framework (both Phases 1 and 2) will serve as a strategy document used by Aberdeen City Council to guide the future development of the Beachfront. The Beachfront Development Framework will not be adopted as Supplementary Planning Guidance, but rather will be a Council-approved strategy, and has been assimilated into a recalibrated City Centre and Beach Masterplan, which was approved by the Council in August 2022. These documents will be material considerations in the assessment of any future planning applications for development at the Beachfront.

It is proposed that, following the approval of the Development Framework Phase 1 by the Council, detailed planning applications for the new buildings at the Beachfront would be submitted in due course, while the public realm aspects will be progressed by the Council under statutory powers, as previously confirmed by Committees. It is important to stress that the Development Framework sets out principles and parameters to be followed and will not be 'set in stone' or represent a final design solution for the Beachfront or any of the constituent developments. The document outlines a potential phasing strategy for the prospective developments and interventions at the Beachfront.

In August 2022, the Council agreed to extend the Development Framework area to include the Footdee Conservation Area to the south and the area north to the River Don. As illustrated in the image adjacent, this extended area forms Phase 2 of the Beachfront Development Framework. This Phase 2 will come forward as a separate masterplanning exercise, linking back to this Phase 1 exercise and document. It will consider additional opportunities beyond those considered in Phase 1, including additional facilities to improve Beach and water access, and improving active travel and public transport connectivity, all while protecting the historic settlement of Footdee and its valuable natural habitat and open space. BEACHFRONT DEVELOPMENT FRAMEWORK PHASE 1

Location plan with Aberdeen Beachfront Phase 1 Development Framework Area

Beachfront Development Framework Phase 1 Boundary Beachfront Development Framework Phase 2 Boundary

City Centre Masterplan (CCMP) Boundary

Page 20

CITY CENTRE MASTERPLAN





CITY CENTRE

MASTERPLAN



Site plan with Aberdeen Beachfront Development Framework Phase 1 area

1.2 STRATEGIC ENVIRONMENTAL ASSESSMENT

The Development Framework is accompanied by a Strategic Environmental Assessment (SEA). An SEA is a systematic review of plans, programmes, and strategies to ensure that environmental issues are considered throughout the preparation, implementation, monitoring, and review of these key documents. The aim of SEA is to achieve better integration of environmental considerations at the heart of decision-making through a more rigorous and transparent planning process.

In this instance, the SEA seeks to ensure that, once adopted, the Beachfront Development Framework contributes positively to the high level of environmental protection now expected by the Scottish Government. The SEA seeks to ensure that potential significant effects on the environment of implementing the Beachfront Development Framework, and of reasonable alternatives, are identified, described, evaluated and taken into account.

The Strategic Environmental Assessment Environmental Report is available separately on the Council's website.

1.3 HABITAT REGULATION ASSESSMENT

Due to the location of the proposed works, in proximity to the Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) and River Dee Special Area of Conservation (SAC), a European designated (Natura 2000) site, a Habitats Regulations Appraisal (HRA) is also required.

The HRA will assess potential impacts to the sites' qualifying features associated with the proposed works, including identifying any mitigation measures necessary to avoid, reduce or offset negative effects. The assessment will be completed in accordance with the approach outlined in 'Habitats Regulations Appraisal of Plans Guidance for Plan-Making Bodies in Scotland.

The HRA process has already commenced in relation to the Development Framework Phase 1, and it is anticipated that Appropriate Assessment will likely be required at the detailed design stage for those elements that have the greatest potential impact on the abovenoted protected sites. This would include the Boardwalk, Slipway, the potential Stadium and any other works directly and physically impacting the beach. Given their nature and scale, it is not anticipated that an Appropriate Assessment will be required for the other development proposals that are included within the Development Framework Phase 1.







View looking towards Beach Ballroom

Aerial view looking west over the beachfront

View of the beachfront with Esplanade and groynes

1.4 SITE HISTORY

Aberdeen, Scotland's third city, developed over many generations as two separate burghs, Old Aberdeen at the mouth of the Don and New Aberdeen, a fishing and trading settlement where the Denburn entered the Dee estuary.

Port activities, trading links, fishing and shipbuilding saw the city and its harbour expand and develop. The first of Aberdeen's shipyards opened in the late 1700's concentrating initially on fishing and whaling boats then steamers, coal carriers and coasters. Aberdeen was also home to thriving industrial and commercial operations focussed on the maritime industry, these included sail-making, tanneries, nail factories, and rope works. One such rope works was located to the south of Queens Links. The 19th century was a time of considerable expansion; however, growth was organic and un-planned. By 1901 the population was 153,000 and the city covered more than 6,000 acres.

The discovery of North Sea Oil in 1969 marked a major and recent milestone in Aberdeen's evolution. Over the last three decades the city has become the Energy Capital of Europe, the focus of international investment and business enterprise, creating employment opportunities, attracting incoming population, and transforming the harbour from fishing port to a busy industrial hub supporting offshore oil and gas production.

Aberdeen is a city with a close bond to the sea, and the Beachfront area has served the people of Aberdeen and beyond as a key leisure and recreation space for decades. Although still popular today, it was once a thriving tourist destination in the early 1900s, drawing visitors from across the country. Picture postcards from that era term Aberdeen 'The Silver City by the Sea' and describe the Beachfront itself as 'The Finest Beach and Most Beautiful Holiday Resort in Britain'. The Beachfront also housed several well utilised leisure facilities and recreational activities, such as a bathing station, tennis courts, lawn bowls, in addition to the Beach Ballroom which serves as the last remnant of this thriving time.

Capturing the nostalgia of that bygone era, the celebration of what has gone before provides inspiration for the future development of the Beachfront. The vision for the redevelopment of the area is to rejuvenate the Beachfront and return it to its former glory creating a major waterfront destination for future generations to enjoy.





Historic map - 1871

Historic map - 1932





The dance hall (Ballroom) and promenade

Page

22





Current map - 2023

Aberdeen beach historic postcard

1.4.1 BEACH BALLROOM HISTORY

The Aberdeen Beach Ballroom, affectionately known as the finest dance hall in Scotland, adopts a prominent position along the City's Beachfront esplanade. Opened in 1929, this important Art Deco entertainment venue has experienced much change, not least the major development of the 1970s Star Ballroom which provided additional function space on the roof of the eastern side overlooking the coastline. The building boasts a wealth of cultural history, having hosted many of Scotland's leading bands over the decades and is held in high esteem amongst Aberdonians who share fond memories of their time at the venue.

The Ballroom is to be considered as a primary focal point in the new Beachfront development, due to its central position but also because of its cultural significance. The venue is category B-listed and recognised for it's Art Deco styling and it's octagonal ballroom with set-back pan tiled pyramidal roof which is crowned by an arcaded lantern.

Over the years, the Ballroom has made attempts to adapt to new cultural and business trends, which has led to areas of inefficiencies within the interior fabric and planning of the building. This, combined with the harsh coastal environment, cultural changes and limited funding for refurbishment, has led to a Ballroom in need of a holistic strategy for renewal.

The emerging proposals identify opportunities for development, from interventions such as upgrades to internal fit outs to high level reimaginings of current and proposed revenue generating spaces. It is accepted that any opportunity for redevelopment must and will respect the heritage and memories defined by the Beach Ballroom to ensure it can continue to contribute to the lives of those who visit it.





Historic image of Ballroom interior



Aberdeen beach resort postcard: approach to the beach and dance hall

Beach Ballroom as existing



Historic Illustration of Beach Ballroom and Esplanade



Historic image of Ballroom event



POLICY CONTEXT

2.0 POLICY CONTEXT

The Development Framework area is covered by a number of relevant planning policies which have shaped the approach to the site. A summary of the policy context is outlined below:

2.1 LOCAL OUTCOME IMPROVEMENT PLAN 2016-2026 (LOIP) (INCLUDING LOCALITY PLANS)

The LOIP sets out Community Planning Aberdeen's plan for ensuring that everyone in Aberdeen, regardless of their background or circumstance, has access to the same opportunities.

The three key themes which are covered by the LOIP are: Economy, People and Place. The proposals within the Development Framework will:

- Contribute to the improvement of the 'Economy' through increasing employment opportunities.
- Provide a public focussed space which will aid in creating areas which have a positive impact on 'People's' health and well-being, in particular for children and young people.
- Aim for a net-zero operational development with active travel at its core which will create a key sense of 'Place' to the Beachfront.
- Protect a significant natural asset within Aberdeen and promoting biodiversity further adding to the 'Place'.

2.2 NET ZERO AND SUSTAINABILITY POLICIES

Aberdeen 'Net Zero Aberdeen Routemap: Towards becoming a net zero emissions city by 2045' sets out the approach, pathway, and actions towards net zero and climate resilient Council assets and operations, by 2045. Energy-efficient design proposals will require to be incorporated within any design proposals and concept masterplan alongside renewable and low carbon energy sources, with consideration necessary to understand how further decarbonisation could be achieved in the future. In addition to the energy approach the development will seek to promote biodiversity and the protection of the natural assets found within the Beachfront area. Any development will require to be cognisant of the recommendations of the suite of Aberdeen City Council guidance.

Aberdeen City Council updated and recalibrated the previous City Centre Masterplan of 2015 into a City Centre and Beach Masterplan, which was approved by the Council in August 2022. The City Centre and Beach Masterplan represents a strategic, place-led, projectfocused, overview which sits above a suite of more site specific masterplan reports, including this Development Framework. This suite of documents focuses on the desire to develop a holistic Aberdeen City Vision to support economic recovery and growth (post-COVID) and to support the continuing diversification from oil and gas-based industries to green infrastructure, emerging technologies, and renewables alongside optimising the remaining off-shore opportunities.

Investment in skills, health and well-being and quality of life through the utilisation of "place based" strategies will also support the development of "Aberdeen the place" – a vibrant city where people choose to live, work, do business and invest.

The Beachfront Development Framework document will sit as a 'sister' document to Aberdeen City Centre Masterplan of 2015, under the overview of the City Centre and Beach Masterplan.





2.3 CITY CENTRE & BEACH MASTERPLAN CONTEXT (2022)



Aberdeen City Council - City Centre and Beach Masterplan organogram

2.4 ABERDEEN LOCAL DEVELOPMENT PLAN 2023

The Aberdeen Local Development Plan 2023, as currently proposed, identifies the majority of land within the Development Framework as Urban Green Space and Green Space Network (Policy NE2) and Beach & Leisure (Policy VC11). The Urban Green Space element of Policy NE2 aims to protect areas for recreation and sport, while Policy NE1: Green Space Network aims to "protect, support, and enhance the City's Urban Green Space", for example parks, playing fields, outdoor sports facilities, unless suitable alternative and equally-convenient and accessible public green space can be provided. In terms of the Green Space Network, the policy notes that "Development proposals will seek to protect, support and enhance the Green Space Network...This broadly encompasses the wildlife, biodiversity, ecosystem services & functions, access, recreation, landscape and townscape value of the Green Space Network".

Within the Beach & Leisure areas of the city, the Aberdeen Local Development Plan 2023 notes that proposals will be permitted provided they:

- 1. contribute to the range and quality of the existing uses, facilities, and activities of the wider beach area;
- 2. are of an appropriate scale;
- 3. do not have an unduly adverse effect on the character of the area, or cause negative visual or environmental impacts or affect the amenities of nearby residents; and
- 4. do not result in the significant generation of car borne journeys, nor additional pressure for car parking.

Provided below is a note of further policies from the ALDP 2023 which will need to be considered at future detailed design stages:

- Policy NE4 Our Water Environment
- Policy WB1 Healthy Developments •
- Policy NE3 Our Natural Heritage
- Policy D1 Quality Placemaking
- Policy D3 Big Buildings
- Policy D4 Landscape •
- Policy D6 Historic Environment
- Policy R6 Low and Zero Carbon Buildings, and Water Efficiency •
- Policy I1 Infrastructure Delivery and Planning Obligations
- Policy T2 Sustainable Transport •
- Policy T3 Parking
- Policy WB3 Noise

2.5 NATIONAL PLANNING FRAMEWORK 4

Following its adoption in February 2023, the National Planning Framework 4 (NPF4) became the Scottish Government's new national planning policy document, and also now forms part of the statutory development plan, along with the Aberdeen Local Development Plan 2023. While NPF4 sets out 33 policies across three overarching themes (Sustainable Places, Liveable Places and Productive Places), Scottish Government guidance is NPF4 must be read and applied as a whole. However, conflicts between policies are to be expected, and factors for and against development should be weighed up in the balance of planning judgement. While a number of NPF4 policies are relevant to the implementation of the Beachfront Development Framework, it is considered that the key policies are:

- Policy 1 Tackling the climate and nature crises;
- Policy 2 Climate mitigation and adaptation;
- Policy 3 Biodiversity;
- Policy 4 Natural places;
- Policy 10 Coastal development;
- Policy 13 Sustainable transport;
- Policy 15 Local living and 20-minute neighbourhoods;
- Policy 21 Play, recreation and sport.

2.6 OTHER KEY POLICIES, GUIDANCE & INFORMATION

Further key policies, guidance and information will be instrumental in developing the Beach area and assessing the suitability of development proposals as they come forward.

An outline of some of the key documents is noted below:

- Aberdeen Planning Guidance (APG);
- Aberdeen Core Paths Plan (2009);
- Aberdeen Open Space Strategy 2011-2016; •
- Aberdeen Socio-Economic Rescue Plan 2020/21;
- Regional Economic Strategy: Action Plan (2018-2025);
- Healthy Cities Agenda;
- Destination Aberdeen & Aberdeenshire Tourism Strategy (2022-. 2030);
- Historic Environment Policy for Scotland (HEPS);
- Planning Advice Notes (PANs);
- Ellon to Garthdee Transport Corridor Study (2021).

In relation to a transport-specific policy framework, the following are also relevant to the delivery of the Development Framework:

- Climate Change Act (2019)- Scotland aspires to be a 'net-zero' country by 2045. In Aberdeen, targets have been set to reduce total car kilometres travelled by 20% by 2030, with a target that more than 50% of all journeys in the city by that time are made by noncar-based modes.
- National Transport Strategy 2;
- Aberdeen City Council Local Transport Strategy Five high-level

objectives are set out in the 2016-2021 LTS; (1) the delivery of a transport system that enables the safe and efficient movement of people and goods, (2) a safe and more secure transport system, (3) a cleaner, greener transport system, (4) an integrated, accessible and socially inclusive transport system and, (5) a transport system that facilitates healthy and sustainable living.

- in 2022;

- options;
- Aberdeen Rapid Transit (ART);

2.7 RELEVANT TRANSPORT PROJECTS

The Framework reflects relevant transport policies and is consistent with climate change-led traffic reduction targets. It recognises the importance of sustainable travel and measures proposed will facilitate necessary behavioural change.

The Framework is compatible with committed transport projects across the city and region, including:

- A944 Westhill to Aberdeen
- Ellon Park & Ride to Garthdee
 - A96 Inverurie to Aberdeen

• Aberdeen Active Travel Action Plan 2021-2026;

• A Low Emission Zone (LEZ), covering the city centre was introduced

• Aberdeen Sustainable Urban Mobility Plan (SUMP);

• City Centre and Beach Masterplan 2022;

Go Abz Journey Planner: A freely available journey planning

application which allows users to plan and price their local travel

• Park and Ride: A network of sites, providing more than 3,000 spaces, located to the north, west and south of the city centre served by a combination of high frequency local and express buses;

Bridge of Don to City Centre Active Travel Corridor;

• Car Clubs: A city-wide pay-as-you-go car hire initiative;

Sharebike (Big Issue) now in operation.

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



CONSULTATION & ENGAGEMENT



3.0 CONSULTATION & ENGAGEMENT

3.1 PROCESS

An Engagement Strategy for the overarching City Centre & Beach Masterplan has been prepared which will support ongoing design development and implementation of the City Centre and Beach Masterplan projects as they progress.

Engagement is an over-arching term and includes activity such as information giving, consulting, involving, collaborating, and empowering. Public consultation and engagement with key consultees is an important contribution to the preparation and development of a Development Framework. The support of the local community, wider city, stakeholders, and other groups for the proposals set out within the Development Framework will be essential for its successful delivery.





Children and young people postcard engagement exercise







Model Making in Class - Exploring in 3 Dimensions

3.2 WHAT HAS BEEN DONE SO FAR?

The concept masterplan work and the development optioneering that has been undertaken to date for the Beachfront has moved at a significant pace since summer 2021. This work to date, and the masterplan concepts and indicative development options that have subsequently emerged for consideration, have been directly influenced by significant public and stakeholder engagement including the exercise undertaken between June-July 2021 on "The Future of Aberdeen City Centre and the Beach", to which there were 7,697 responses, the largest response that the Council has received to any such consultation.

Subsequent to this, public consultation was undertaken during September and October 2022 in relation to the Beachfront Development Framework, Strategic Environmental Assessment and Beach Boulevard / South Esplanade temporary transport interventions. During this six week period, a total of 713 online and written responses were received, with 55% of respondents generally supportive of the Beachfront Development Framework, 21% being unsupportive and 24% neutral or uncategorised.

Other engagement events undertaken during the six-week period include:

Page • Three public drop in events staffed by design team representatives

29

- and council officers, held in the Beach Ballroom. • Local community events held in Fittie (Footdee) and Seaton.
- A live online webinar with presentations from ACC's Senior Responsible Officer and design team members.
- A summary display of information in the reception area of Marischal College.

Key positive themes gathered through the public consultation include:

- Regeneration benefits
- Stadium, Leisure and Ice Rink Facilities
- Beach Village
- Boardwalk/Pier
- Reduction in traffic/introduction of active travel infrastructure
- Improved connectivity with city centre •

Matters raised can be grouped into the following themes:

- Traffic management, public transport and parking
- Water safety and access
- Location of Beach Village
- Design and safety of Boardwalk/Pier
- Football Stadium
- Funding & deliverability

3.3 STAKEHOLDER ENGAGEMENT

A significant number of further engagement and consultation approaches have also been undertaken with other key stakeholders. This ongoing consultation has been key in shaping the Development Framework proposals so far. Over the past 12 months, we have engaged with:

- Key stakeholders representing a range of interest groups that are relevant to the individual project objectives
- Technical Stakeholders such as statutory consultees and regulatory bodies including HES, SEPA, Scottish Water, Marine Scotland and NatureScot
- Immediate neighbours for the individual projects including a range of organisations that use and/or have an interest in the Beachfront, including the Chamber of Commerce, the Cricket Club, the Surf Club and Water Safety Group.
- National and international investors and visitors
- Local bus operators, taxi and cycle groups
- Accessible City Transport Users Partnership (ACTUP) and Disability Equity Partnership (DEP)
- Children and Young People, including the Aberdeen Youth Parliament and a number of local School Roadshows

3.4 CHILDREN AND YOUTH ENGAGEMENT

A Children and Young People's (CYP) Engagement Strategy has been developed to support the Engagement Strategy for the City Centre and Beach Masterplan. The CYP Engagement Strategy builds on the proactive engagement with CYP that has already been undertaken during 2021/2022 and will expand the level of participation both in terms of age and location. The strategy will support children's and young people's rights and participation in planning, design and delivery of high-quality places. Our engagement methodologies have been collaborative and innovative, ensuring active participation is inclusive regardless of age, abilities, socio-economic status, culture or language.

Particular activities with children and young people include:

- Workshops with P6 Primary School children followed by a presentation of their ideas to members of the design team.
- A 'creative postcard exercise' undertaken with secondary school students.
- Consultation through a QR code and online survey.
- Site visits and workshops on the beach and surrounding area with school children

included:

- Skene Square Primary School Hanover Street School • St Joseph's Primary School Gilcomstoun School/Sgoil Gilcomstoun Lochside Academy • Seaton Primary School

- Bucksburn Academy
- St Peters Primary School



Over three days from the 3rd to 5th October 2022, almost 500 children and young people participated in 'hands on' creative workshops focused on exploring the concept design possibilities for, in principle, the Core Play are within the Beachfront Masterplan. These schools

Exploring by sketching

3.5 HOW HAVE WE RESPONDED?

Council officers and the design team have reviewed all comments and this final Development Framework document has been subsequently updated and amended. The document now accommodates and addresses the feedback received from the public and stakeholders, where possible. Key aspects that have been considered include:

- Traffic Management City Wide / Local / Football Traffic.
- Waterfront safety, including access for emergency response.
- Parking.
- Public Transport.
- Accessibility for All / Inclusive Design.
- Key Buildings, including Beach Ballroom / Football Stadium / Ice Rink / Leisure Centre / Boardwalk
- Treatment of, and access to the Beachfront
- Economic and Deliverability

3.6 NEXT STEPS

Significant future engagement with key stakeholders will be key to ensuring a successful project. In the months ahead, the Council and design team will continue to undertake wider engagement with key stakeholders and end users of the Beachfront in order to have the discussions and ask the very questions which will make these projects the best they can be for all users of the Beach.









Community consultation event at Aberdeen's Beach Ballroom





and there to be more grass and

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Young people and schools consultation boards



Busy with ideas



Individual suggestion by theme



What should a play structure include?



Collaborative model making







Page 32





Model making - exploring in three dimensions



Models made by the young people to demonstrate their ideas for the Core Play Area





Models made by the young people to demonstrate their ideas for the Core Play Area

Post-it notes of ideas from the young people at school consultations





THE SITE





4.0 THE SITE

4.1 SITE DESCRIPTION

The Beachfront Development Framework Phase 1 Area is located to the north-east of the city centre connected by the primary route of Beach Boulevard which links the Beachfront to Justice Street and on to the Castlegate. The site is bounded to the east by the North Sea; to the south is Codona's amusement park and a mixture of commercial, hospitality and retail uses; to the west of the site there are existing hotel and leisure units with a mix of residential typologies beyond; and to the north is the Kings Links Golf Course. The area of the proposed red line boundary is approximately 30 hectares.

The site is currently occupied by existing entertainment and leisure facilities, namely Aberdeen Beach Ballroom, Linx Ice Arena, the Beach Leisure Centre; the public space of Queens Links including Queens Links Play Park and Kings Links outdoor sports area; existing landscape features such as the beach and Broad Hill; and a series of existing vehicular routes including Beach Boulevard, Esplanade and Links Road.

Page 35

There are a number of separate uses bordering the Development Framework area which will require consideration as part of the proposals: to the west of the area are two sites owned by Aberdeen City Council but on long term leases to a hotel operator and extreme sports venue; to the north is a site under separate ownership which is operating as golf driving range; to the south is an amusement park owned and operated by Codona's. There are a series of small-scale structures and pavilions situated across the Development Framework area which will also need to be considered as part of the proposals.

Aberdeen City Council's legal team has been instructed to undertake a full review of the defined Development Framework red line boundary to establish legal ownership of the areas included.



Phase 1 Development Framework Area

4.2 APPROACH TO SITE

The following images illustrate the journey from Aberdeen City Centre, down Beach Boulevard and around the Beachfront area. The images seek to provide a general overview of the existing site conditions and features.



View northeast along Justice Street towards Virginia Court







View east along Beach Boulevard





Key Plan

5.



Page 36

View northeast towards Justice Street roundabout

View east along beach Boulevard towards Queens Links

Panoramic view of Queens Links looking east
4.3 SETTING & EXISTING LANDSCAPE AREAS

The site is noted within Nature Scot's 2019 Landscape Character Assessment, 'Aberdeen City Landscape Evolution and Influences', as being part of the 'Coastal Character Type' which is one of the five-character types noted in relation to Aberdeen. The character assessment notes that the coast, along with valleys of the Don and Dee rivers, is the most distinctive character type in the city. The assessment notes that "The high contrast between the sea and the land that occurs anywhere along the coast is heightened in Aberdeen by the inclusion of a sandy beach and dunes near to a harbour city."

The setting and character of the Development Framework area is as much defined by its context as by what exists on site. The Development Framework area is relatively well defined to the south, west and east by adjacent land uses and to the north it has an open aspect across a links landscape. The site is approximately 30ha, is largely public open amenity space with a few notable building uses, such as the Beach Ballroom, Beach Leisure Centre and Linx Ice Arena.

In assessing the site further, it is important to recognise that there are number of spatially distinct existing landscape areas that are evident, these are:

- 1. Beach Boulevard
- 2. Queens Links
- 3. The Beach
- 4. Broad Hill
- 5. Ballroom/Leisure/Kings Links
- 6. Esplanade

These areas are described in more detail in the following pages.



Existing Landscape Areas diagram

4.3 SETTING & EXISTING LANDSCAPE AREAS

Beach Boulevard

Beach Boulevard connects the beach to the city centre and is approximately 800m long in its entirety from the roundabout on Commerce Street/A956 to the Esplanade. On this route it passes through two main landscape areas; that from the roundabout to Links Road (500m) and from Links Road to the Esplanade (300m through Queens Links). It is the former section that is described in terms of setting and character here. Beach Boulevard is dominated by roadway and can essentially be described as a transport corridor, with two lanes in each direction although with some filter lanes and on street parking now taking up lane space. It is defined to the north by a range of mixed residential within the Constitution Street area, and some significant mature tree planting in places giving a green edge. To the south it is bound by a mixture of industrial type units generally backing on the street. The road area occupies most of the space between both sides of the street leaving little opportunity for a pedestrian friendly environment.

Queen's Links

The Queen's Links is the main green open space when arriving at the beach from the city centre via Beach Boulevard. It is approximately 5.5ha of relatively flat open amenity grass, bisected by the extensive roadway of Beach Boulevard. It is of open character and useful for large occasional events but with little other attraction other than an outdated play area to the north. It has a number of peripheral contextual uses that do not engage with the space – a hotel, Transition Extreme Sports and Codona's Amusements, all of which turn their back on the space. There is a limited amount of tree planting and earth mounding adjacent to some of the uses that adds to the separation. In areas where there are some level changes, such as around the current play area, there is a feeling of shelter. The Esplanade roadway and Links Road generally sit higher than the main open grass area which creates a distinct separation from the beach and historic Ballroom.

The Beach

The beach sits to the east of the Esplanade roadway, which in effect separates any direct connection to the Beachfront from the Queens Links. The beach itself has several distinctive features which give it a unique and well-defined character. The beach is characterised by large expanses of sand held in position from longshore drift by a regular rhythm of groynes and rock barriers set distinctively perpendicular to the coastline, at approximately 100m intervals. The composition of the setting gives a distinctive character to the whole beach front, providing some protection for bathing and other water activities within defined areas. The beach itself is separated from the Queen's Links by not only the infrastructure of the Esplanade but also by a height difference of approximately 6-8m. This is because of the engineered sea defences in this area of the city, as the presence of multi-level sea walls essentially maintain the level difference, providing challenges to accessibility down on to the beach itself. There are two hard landscaped pathways at varying levels which extend along the Beachfront defined by the sea walls with connections between the Esplanade and the beach being



Aerial view looking west over the Beachfront showing Existing Landscape Areas

generally via steps. However, close to the end of Beach Boulevard, around the interface with Queen's Links, a number of ramps systems allow easier access, but these are now dated and not compliant with modern accessibility standards. The natural dune back drop experienced elsewhere along the coastline, in particular north of the River Don (Donmouth), does not exist. It is noticeable that in areas between the two-layer sea wall, where sand has been allowed to collect, that primary grass species have colonised giving a glimpse of what would have been a more natural shoreline. The separation and isolation of this space created by the Esplanade roadway from the wider site is a key issue of the existing area.

Page

4.3 SETTING & EXISTING LANDSCAPE AREAS Broad Hill

Broad Hill is approximately 5ha of green natural space, and one of the most distinctive landscape features within the Development Framework area and indeed along this stretch of coastline. The landforms, of a sand and gravel morainic type, creates a defined boundary to the north and western edge of the site. It also offers views out across the North Sea and back across the city as it rises from Links Road to a high point and plateau to the north-west of the site boundary. A network of formal and informal paths criss-crosses this natural character area, illustrating that it is a popular spot in the coastal area, with a viewpoint at its summit. Recent tree planting (pine trees) on the leeward side (west), has been successful in further character and shelter to this area and offering a buffer to the Trinity Cemetery. The eastern slope, down to the Kings Links outdoor sports area and leisure buildings, is prone to erosion, possibly due to adventurous public and the abundance of burrowing rabbits. This area requires remedial natural stabilisation.

Ballroom/Leisure Buildings/Kings Links

This area is the most spatially defined in terms of landform due to the presence of Broad Hill and the Esplanade which effectively enclose this space. It is occupied by a number of leisure buildings, notably the historic Category B listed Beach Ballroom, the Leisure Centre and Linx Ice Arena. These buildings represent the only major built development within the Development Framework area. To the north of these facilities is Kings Links outdoor sports area, a large open area (approximately 3.5ha) of flat ground laid to grass, to the north of which is Accommodation Road and an open aspect north along the links landscape. Although partially sheltered by the elevation of the Esplanade on the east and height of Broad Hill to the west, the northern aspect is somewhat exposed. The B listed Ballroom is the most architecturally significant of the buildings and sits prominently to the south overlooking the Queens Links and beach area although separated from both by road infrastructure. The overall spatial character of this area is somewhat disjointed with the collection of buildings, although it is the most spatially defined in terms of landform.

Esplanade

The Esplanade has been included as a landscape area since it principally provides a landscape (albeit urban) interface between the beach and the coastal links. Under a natural circumstance this area would have been more like the dune landscape that characterises the coast north of Donmouth, but with the introduction of the Esplanade roadway, engineering works in the form of the coastal sea defence wall have been necessary to protect the infrastructure and the encroaching development of the city over the years. The Esplanade is a broad roadway with an adjacent footway/cycleway, with much of the space dominated by vehicles. In total the 'hard' esplanade is approximately 20m in width which is almost the entire width of the Esplanade. The Esplanade offers uninterrupted views in all directions due to its elevated position, looking out to sea there is the offshore wind farm and numerous shipping vessels journeying in and out of Aberdeen Harbour, with contrasting views back to the city.



Aerial view looking south over the Beachfront

Landmarks

There are a number of key landmark features on the site which help to orientate visitors to the area. Within the site itself these include the route of Beach Boulevard linking the city centre with the beach; the Beach Ballroom building and its distinctive roof form; the landscape form of Broad Hill. Prominent landmarks bordering the site include Codona's Amusement Park and it's iconic Grampian Eye Ferris wheel; h football stadium home to Aberdeen FC; and the towering forms of Virginia Court housing block located at the top of Beach Boulevard.



Site Inventory & Analysis - Landmarks

Topography

Available data suggests that the existing topography can be considered in two parts. The Kings and Queens Links areas of the site are relatively level, except for some engineered bunds associated with the commercial land uses. Both areas can be considered basins which sit at a lower level than the roads that surround them.

The remainder of the site, known as Broad Hill, forms a localised high ridge running north/south at approx. 28m above sea level at the highest point.



Site Inventory & Analysis - Topography



Landmark



Walking Distances

- + 31m
- + 29m
- + 28m
- + 26m
- + 24m
- + 23m
- + 21m
- + 20m
- + 18m
- + 16m
- + 15m
- + 13m
- + 11m
- + 10m
- + 8m
- + 7m
- + 5m
- + 3m
- + 2m
- + 0m

Building Heights

Beach Ballroom is three storeys in height with a semi-submerged lower ground floor level which sits below the street level. Its large roof structure extends beyond the general first floor roof level and provides a large domed space to the main ballroom space.

The Beach Leisure Centre and Linx Ice Arena are two to three storeys in height however due to their siting within a drop in the topography they sit lower than the Esplanade street level which reduces their visual impact in relation to the Beachfront.

The hotel and extreme sports venues are approximately three storeys in height.



Site inventory & Analysis - Building Heights

Page 41

Visual Analysis Visual analysis of the site as part of the assessment and design process has been an ongoing task. The views highlighted opposite are just some of those considered through the process so far in gaining an understanding of the spatial configuration of the site. Further dialogue is ongoing as part of the in terms of determining and refining the key assessment views that will inform the emerging designs within the Development Framework area. It is likely that the discussion on visual impact will consider views from long distance both from the land and the sea. The final filtering of the view selection is being done as part of a dialogue with ACC, NatureScot and other key stakeholders.





6+ Storeys

4-6 Storeys

1-3 Storeys



Views from Site

1 - View west from Beach Boulevard

- 2 View south east across Queens Links towards North Sea
- 3 View east to North Sea from Esplanade
- 4 View east to North Sea from Beach Ballroom
- 5 View north along Esplanade
- 6 View west to City from Broad Hill
- 7 View north from Broad Hill
- 8 View east from Broad Hill
- 9 View east to North Sea from Esplanade



Views to/within Site

- A View east down Beach Boulevard
- B View east down Queens Links
- C View north along Esplanade
- D View north to Beach Ballroom
- E View south from Broad Hill
- F View east from Broad Hill

G - View south along Esplanade



Existing Leisure Centre and Ice Arena

For more information on this area please refer to page 26.

Visual Analysis - Views from Site



View west from Beach Boulevard



View south east across Queens Links towards North Sea



5.



View north from Broad Hill



View north along Esplanade

6.



View east from Broad Hill







7.

4

View east to North Sea from Esplanade

View west to city from Broad Hill

View east to North Sea from Esplanade



View east down Beach Boulevard







View north to Beach Ballroom

Е



View south from Broad Hill

F



D

G

View south along Esplanade



View north along Esplanade



View east from Broad Hill

Existing Leisure Centre and Ice Arena

The Aberdeen Beachfront proposals assume that both the Beach Leisure Centre and Linx Ice Arena are replaced on the basis that they are nearing the end of their life and that refurbishment would not offer a long-term, economically viable solution.

The Beach Leisure Centre opened in 1989 and in now 34 years old. In May 2022, Sport Aberdeen announced that the leisure pool would close in August 2022 as a cost saving measure due to high energy prices. In March 2023, Sport Aberdeen announced that the Leisure Centre would close permanently; that the centre was at the end of its lifecycle; and that, due to a combination of rising energy costs and problems with the pool plant infrastructure, it was simply uneconomical to carry on.

The Linx Ice Arena which opened in 1992 is of a similar age to the leisure centre and is now 31 years old. The current ice arena sits centrally within the area designated for a Leisure and potential new Stadium development and options are being explored in order to maintain continuity of ice provision for the City while replacement Leisure and Ice facilities are constructed.

Any demolitions that come forward as part of this strategy will be subject to all necessary statutory consents and warrants, and any opportunities to minimise the loss of embodied carbon, or the reuse of demolition materials, investigated.



Existing shower in swimming facility











Page 44



Existing swimming facility

Existing Ice Rink

Exterior of existing Leisure Facility

4.5 CONSTRAINTS

Following the initial site walk-round and workshop session, the Design Team analysed the Beachfront Development Framework area as existing, identifying a number of additional site constraints and project challenges:

- Lack of sense of place
- Poor accessibility to beach
- Characterless open space
- Car dominated environment
- Lack of relationship of existing buildings with waterfront
- Lack of grand public realm setting for iconic ballroom
- No real sense of arrival
- Lack of focal point
- Exposure to the elements / lack of shelter
- Disconnect with Beachfront
- Uninviting / rear elevation of amusements / fairground
- Limited places to stop and rest
- Uninspiring approach from Beach Boulevard
- No celebration of entrance to Queens Links
- Dated industrial units / poor quality industrial architecture
- Underground sewage pipe running through centre of site
- Current and future coastal defences to be considered
- Variety of water sports to be considered
- Tired / dated Esplanade and uninspiring public realm
- Dated aesthetics of existing sport & Leisure elements
- Awkward relationship of existing Leisure to Ballroom
- Underutilised Kings Links area and golf driving range



Beachfront Constraints diagram

4.6 EXISTING MOVEMENT NETWORK

The Beachfront is around one mile from the city centre. It can be accessed on foot, by bike, by bus and by car, and many users regularly visit the area. The area is close to residential catchments east and west of King Street and there are established retail and commercial uses nearby. The existing transport situation is summarised, as follows.

Beach Boulevard extends from East North Street towards the Esplanade. It is four-lanes wide over most of its length, but kerbside parking reduces the easternmost section to two lanes. Bus stops, cycle lanes and pedestrian facilities are provided on Beach Boulevard but these are defined by road geometry and vehicular traffic. There is no physical segregation for cyclists.

The south end of Beach Boulevard forms one arm of a five-arm roundabout junction where Commerce Street, Park Street, East North Street and Justice Street all meet. Traffic moving through this junction includes local and strategic movements, with strategic flows between King Street and Commerce Street dominating. The roundabout is not user-friendly for pedestrians or cyclists.

The Esplanade carries significant volumes of through and commuting vehicular movements. The road geometry and high traffic volumes make it hard for pedestrians and cyclists to access the beachfront promenade. Where crossing opportunities are provided, they are often dislocated from pedestrian desire lines.

Links Road serves as the primary traffic route for vehicles accessing the Beach Boulevard retail park and Queens Links leisure park.

There is a mix of on and off-street parking. Most on-street parking in the area is free, but there are some pay & display and permit bays on Beach Boulevard. Unauthorised parking frequently occurs on the wide pedestrian link to the east of Queens Links play park. Many users travel to the area by car to enjoy views of the waterfront, while others need to move equipment required for watersports and recreational activities.

Pedestrian and cycle links in the vicinity of the Esplanade, including the lower promenade, form part of the local Core Path network and are of generous width, albeit they can be hard to access. Access to the lower promenade for those with reduced mobility, of for those using wheelchairs and buggies, is limited. A combination of zebra and pelican crossings is provided throughout the area.

Recent cycle-friendly measures include painted lanes on Beach Boulevard and Esplanade, with limited protection in the way of temporary bollards. Cyclists report that the Beachfront is hard to access from other parts of the city and that when there, routes and spaces are not well defined.

Local bus services have declined in recent years. First Aberdeen service 13 connects Seaton to Scatterburn via the city centre (with less frequent extensions to Footdee). Buses are infrequent and no longer serve



stops at the Beach Ballroom or the Esplanade, increasing the walking distance to access the beachfront. There are no shelters at key bus stops, making it less appealing for waiting passengers. Two taxi bays are provided in the central section of the Esplanade, to the north of the Innoflate attraction. Users can make advance bookings by phone and using apps.

Beach Development Framework - Severance and Constraints



Mapping highlighting Existing Severance and Constraints to Active Travel at Beachfront

- Pedestrian and Cycle Desire Line

4.6.1 EXISTING PEDESTRIAN SITUATIONS

Much of the existing pedestrian environment is shaped around traffic movements. Where formal crossings are provided, they often do not match pedestrian desire lines, increasing journey time and distance and adding to difficulties faced by users with reduced mobility. Street lighting and some limited way-finding signage is provided, but many users find that the environment is unattractive to pedestrians.

The beachfront is not physically distant from the city centre but traffic domination introduces a sense of severance which makes the Beach feel less accessible on foot. The existing pedestrian situation can be summarised, as follows:

- At-grade controlled pedestrian crossings between Justice Street and Beach Boulevard do not reflect pedestrian desire lines and safety fencing contributes towards a sense that pedestrians are constrained and channelled away from their preferred route.
- An alternative pedestrian link via Castlehill follows an indirect route which includes steps, a constrained overbridge and narrow fenced sections which contain blind corners.
- The pedestrian environment on Beach Boulevard is spacious, with wide links provided on both sides of the road. This section of the route is direct, with pedestrians required to cross over various side streets and site accesses. Over much of this section, street-lighting is mounted from the central verge, meaning the pedestrian spaces are not directly over-lit.
- Pedestrians can then travel north-eastwards on Links Road towards Broad Hill and the Beach Ballroom, to the south, via Links Road to the retail and leisure parks or directly east, via Beach Boulevard towards the Beachfront. Vehicular traffic movements at Links Road introduce further severance, albeit pedestrian crossings are provide at all arms of the junction.
- Pedestrian links at the Beach are defined by the expansive road geometry and heavy flows of vehicular traffic. This makes is hard for pedestrians to access the Promenade. The format of existing pedestrian crossings is varied, with zebra, pelican and raised table crossings used, several of which deviate from pedestrian desire lines.
- Pedestrian links on the Esplanade are wide and well-lit, with steps down towards the Promenade provided at regular intervals. Between the Beach Ballroom and Footdee, there are only four ramped accesses to the Promenade and none coincide with pedestrian crossings over the Esplanade.
- The current situation is not consistent with the road-user hierarchy and does not help to encourage a shift towards more sustainable travel patterns.





Existing Pedestrian Network - Justice Street Roundabout

- **Beach Development Framework Severance and Constraints**

4.6.2 EXISTING CYCLING SITUATION

The proposals seek to increase cycling for medium distance trips. Council monitoring between September 2020 and September 2021 looked at 41 sites across the city, with the Beach being the most popular location for cyclists.

The Beachfront is not physically remote from Aberdeen city centre. While some cycle facilities are incorporated into the local transport network, they generally take the form of in-carriageway links which are defined by the local road network. Aberdeen Cycle Forum has stressed that the area is not currently viewed as being attractive or safe.

Cycle links between the city centre and the beachfront are interrupted by strategic traffic links which pass through the Justice Street / Beach Boulevard roundabout junction. Justice Street, a recommended cycle route, leads cyclists towards this location which is not well-liked by users.

Recommended cycle routes between the city centre and the beachfront are indirect. They typically involve side streets where traffic flows are lighter, but where other hazards, such as parked cars, and priority junctions are present.

Beach Boulevard is the most direct route between the city centre and the Beachfront, yet cycle priority is limited to in-carriageway markings. Cyclists have to pass between general traffic and parked cars, and the link intersects various access roads and bus stop bays.

Advance cycle stop lines are incorporated to the traffic light junctions with Links Road and the Esplanade. Cycling activity east of Links Road generally takes place within a trafficked environment, where the wide road geometry which may appear intimidating to some users.

The spacious Esplanade forms part of the Core Path network, facilitating north to south cycle movements. While the Lower Promenade is separated from general traffic, there is potential for conflict between pedestrians and cyclists. Ramped accesses to the Promenade are concentrated in the central part of the Esplanade.

Several 'Spaces for People' initiatives emerged or were strengthened during lockdown periods of 2020/21. These routes appear temporary in nature and place cyclists directly alongside parked cars and traffic.

Secure cycle storage facilities are few in number. Some cycle lockers are located adjacent to the Linx Leisure Centre on the Esplanade and there is un-covered hoop storage provided in the vicinity of shop and café frontages on the central Esplanade.

Existing cycle provision does not meet with current guidance. Overall, facilities are shaped by the geometry of traffic links and suggested routes guide users to the area, but not within it. Significant opportunity exists to improve cycle access to the area by addressing severance, promoting segregation from other modes and incorporating routes and facilities which encourage recreational use.



ShareBike, Aberdeen's public cycle rental scheme, offers access to a fleet of e-bikes from locations throughout the city. The scheme was launched in November 2022 with 450 bikes. By March 2023, bikes were available from more than 40 locations. Using a smartphone app, users can hire bikes on a pay-as-you-go basis. In addition to bike stations located throughout the city centre, bikes can be hired from the Beach Esplanade adjacent to Codonas Leisure and at Footdee. It is hoped that the scheme can be further expanded as demand grows, with there being opportunities to increase the number of bikes and stations in and around the Beachfront area.

Beach Development Framework - Existing Cycling Situation



Mapping highlighting Existing Cycling Situation

- Bus / Cycle / Taxi Lane
- Dual-Use Path
- Formal Crossing Point

4.6.3 EXISTING PARKING SITUATION

The Beachfront is used by a wide range of groups, many of whom choose to travel to the area by car, either as a driver or a passenger. Car users include visitors who have travelled to the area from outside of the city, families with younger children, those whose use of the beach requires the transport of equipment and users with mobility limitations. For many of these users, trips on foot, by bike or by public transport are impractical, making it important that a suitable supply of parking is provided at the beachfront.

There is a good supply of on-street parking on Beach Boulevard, Links Road and on sections of the Esplanade, with the majority of capacity taking the form of unrestricted kerbside parking. Marked bays are provided within the central portion of the Esplanade adjacent to the leisure park and café outlets. Frequent unauthorised parking takes place in the pedestrian space which skirts the eastern edge of Queens Links play park. This area is not designated for parking and the kerb edge is clearly marked with double-yellow lines. Additional off-street parking is provided adjacent to the Beach Ballroom and Links Leisure centre.

Areas of accessible/blue badge parking are provided on the Esplanade adjacent to the cafes and Leisure Centre, respectively. Aberdeen City Council is currently working to increase the number of accessible bays at the waterfront, ensuring that users who have reduced mobility can have direct access.

With some minor exceptions, including the loss of the unauthorised parking area adjacent to Queens Links, the existing parking strategy will not be materially impacted by the Development Framework. Further details of future parking provision are provided in Section 6.3.5.



Private off-street Parking

Existing Parking Situation

- Beach Development Framework Existing Parking Strategy
 - Accessible on-street Parking Bays
 - Publicly Available off-street Parking
 - **Publicly Available on-street Parking**

4.6.4 EXISTING PUBLIC TRANSPORT, SERVICES, AND FACILITIES

The Beachfront is integrated into Aberdeen's local bus network, with bus stops located on Beach Boulevard, Links Road, York Street and at Footdee. Local stops are served by First Aberdeen service 13 which operates between Scatterburn via the city centre to Hillhead of Seaton. Buses operate every twenty minutes Monday to Saturday and every 30 minutes on a Sunday. As it passes through the Beachfront area, service 13 operates (in both directions) via Beach Boulevard, Links Road, Beach Retail and Leisure parks, and Park Road. Local buses stopped serving Footdee following a network revision in Summer 2022, however from November 2022, service 13 was extended on a trial basis to serve Footdee and York Street, with four buses operating to those stops each day.

While the area may be regarded as accessible by local bus services, the present-day level of service falls below that which might be regarded as 'frequent'. Historically, the Beachfront and Beach Boulevard formed a key part of Aberdeen's bus network but changes to travel behaviour and the availability of largely unrestricted car parking in the area have contributed to an overall decline in service provision, albeit the Beach remains a very popular attraction.

The masterplan vision provides significant potential to reverse this decline through the incorporation of new and improved services and facilities, including potential integration into Aberdeen Rapid Transit. The accompanying image shows the Beachfront in the context of key bus routes, including those that directly serve the King Street and Union Street corridors and those which provide a direct connection between Aberdeen's park and ride sites and the city centre. The image shows services which provide a direct connection to, or east of, the King Street corridor, to highlight the potential user catchment that can access the western part of the study area in a single bus journey, without the need for interchange. There is an overall sense that the Beachfront is detached, but not distant from the city centre. It can be accessed on foot within fifteen minutes of King Street, significantly broadening public transport opportunities from across the city.

The walking distance from Aberdeen bus and railway stations to the Beachfront is just over 1 mile - a walking time of approximately 25 minutes for most users. Mainline rail services, express coaches and regional bus services all serve these terminals, increasing the catchment that can be accessed using public transport. The public transport network includes park and ride facilities at Bridge of Don, Craibstone and Kingswells, with further sites located in Ellon and Newtonhill in Aberdeenshire. Combined, the park and ride sites provide capacity for nearly 3,000 cars. Given the potential for each of those spaces to accommodate a car with multiple occupants, the role that park and ride sites have to play, particularly in the context of large-scale events at the Beachfront, is significant.





32

Page

50

Mapping highlighting Existing Public Transport, Services and Facilities

Beach Development Framework - Existing Public Transport, Services and Facilities

Note: Only bus routes considered relevant are shown on this diagram.

VISION, OPPORTUNITIES

3

DESIGN DEVELOPMENT





5.0 VISION, OPPORTUNITIES & DESIGN DEVELOPMENT

5.1 VISION

The Beachfront proposals will seek to revitalise and renew the area to maximise the potential of this unique space and create an exceptional asset for the city of Aberdeen. Due to the special location of the site and its overall connection to the natural environment, the approach to design has been collaborative and landscape led in order to set an appropriate structure to accommodate a broad range of leisure uses, events and public spaces. This enhanced nature-based environment will be attuned to the needs of the local community whilst aiming to position the Beachfront as a prominent visitor location and reconnect the beach with the city centre.

A Dynamic Waterfront

The current area is lacking in the character and distinctiveness which would be expected of such a unique location. The proposals will seek to create a dynamic waterfront destination which the city can be proud of, and which will reconnect the city with the beach. The main route from the city via Beach Boulevard will be renewed with a focus on public transport, pedestrians, and cyclists. The Beachfront itself will be activated through potential dedicated play and events spaces, improved accessibility, a potential new stadium, and leisure facility as well as supporting facilities such as changing accommodation/satellite facilities and a potential landmark boardwalk structure, all connected by an enhanced green infrastructure network.

Beach Ballroom

The importance of the re-imagined Beach Ballroom is key to the proposals, with a desire to return this architecturally and culturally significant building to its former glory when it was known as the 'People's Ballroom'. Any renovation proposals will recognise the buildings heritage and historic significance whilst equipping it for the future as a modern events venue. This, coupled with an improved public realm, will make this a key focal point of the redevelopment of the area.

Connecting the Beach and the City

Currently the beach suffers from a lack of connection with the city centre, with the key route from the city being one which is car dominated and unattractive. With the potential renewal of Beach Boulevard and works to the major roundabout to the southwest end of this route, the proposals will reconnect the city and Beachfront through an attractive pedestrian and cycle focussed public realm. Proposed pedestrian and cycle routes will also seek to connect into the wider travel network to ensure viable and sustainable connections between the beach and the city are created.



High Quality Public Realm

The site as it exists is car dominated and suffers from a lack of good quality public space. The Beachfront proposals will invest in the area with a well-considered and high-quality public realm scheme which prioritises pedestrians and cyclists. The public realm approach will allow for public spaces to flow and reconnect the beach with the wider Beachfront area ensuring that the design is accessible and inclusive.

Developed Infrastructure

Proposed infrastructure, including traffic management, would be introduced that reduces the impact of the existing road network to promote alternative forms of travel, including cycling, whilst improving public realm. Furthermore, infrastructural works which would be co-ordinated with potential flood/sea defence works planned for the area would ensure the longevity of the Beachfront.

Leisure Facilities and Potential New Stadium

A leisure facility and potential new stadium could form part of the Beachfront Development Framework. Noted as a preferred option within this document, these world class facilities would become another key element to the revitalisation of the area. The potential new stadium could provide a new home to Aberdeen F.C and could share common facilities with a potential new state of the art leisure centre which would replace the existing Beach Leisure Centre and Linx Ice Arena.

CGI of Beachfront Aspirations

5.2 APPROACH

The landscape led design approach to the Development Framework has been based on a careful assessment to understand the most appropriate means to renew and revitalise the Beachfront area. The key steps are set out below:

Defined Character Areas

- Assess existing character areas to establish constraints and opportunities
- Identify clear character areas with design approach to establish quality and accessibility of spaces along with proposed uses.
- Highlight links between character areas and understanding of overall concept masterplan and how spaces interact.

Key Building Development and Supporting Facilities

- Identify existing buildings and proposed development to understand what is key to retain and what buildings and facilities can be proposed which will support and enliven the Beachfront.
- Understand location of retained and proposed development in relation to character areas.
- Develop understanding of potential use and how retained and proposed buildings and facilities will contribute to the wider area.

Revived Public Space

- Assess the limitations and challenges of the existing public space and public realm.
- Understand potential user requirements through extensive consultation to ensure public space and connections are fit for purpose and allow accessibility and usability for all.
- Propose public space and public realm approaches which enhance the public's experience of the Beachfront and create an asset for the city and wider communities.
- Renew and revitalise the beachfront experience through attractive design interventions and enhanced high-quality public realm.
- Development of a focal point for the beachfront in the form of a potential Boardwalk with accompanying art installation, creating a 'wow-factor' and attracting users from far afield.

Access and Connectivity

- Undertake assessment of existing network and various travel routes between the beach, the city and wider Aberdeenshire area
- Propose a variety of connections to the existing network which promotes the use of public transport; are attractive to pedestrians and cyclists; and which reduce reliance on car use.

Lighting Strategy

- Lighting strategy to be developed alongside emerging detailed design for each Character Area and associated details;
- Lighting proposals will utilise low energy, and design will be tailored to each element of the Character Areas, whether they are internal or external;
- Lighting levels and timings will be tailored to each specific area, to ensure public safety while also minimising impact on local wildlife and habitats.

Inclusive Design Approach

To ensure the Beachfront Development Framework meets the inclusive ethos detailed within Aberdeen City Council's brief, it is important that the internal and external environments meet the highest levels of accessible and inclusive design. The approach for the Beachfront Development Framework will start with the simple premise that inclusion, rather than just accessibility, is embedded in the design process from the outset.

Impactful inclusive design is about considering a range of abilities, age groups and community background. It reflects the different faiths, disabilities & hidden conditions, genders and addresses important issues that affect a neurodiverse population. People should be able to make effective, independent choices about how they use the Beachfront without experiencing undue effort or separation and be able to participate equally in the activities the area offers. True inclusive design benefits all of us, it aims to remove barriers from the environment that impact not only disabled people, but others such as families with children, people carrying heavy baggage, pregnant women, people with temporary injuries and older people.

No matter how physically accessible a space is the accessibility of the buildings and spaces will be compromised and over time, diminish. Therefore, criterion and practices must be established by the building management and end user operators, this will include the development of active management plans. An inclusive design approach:

• Places people at the heart of the design process.

- Acknowledges human diversity and difference.
- Offers dignity, autonomy, choice and spontaneity.
- Provides for flexibility in use.
- Provides buildings and environments convenient, safe and enjoyable for everyone to use.
- Goes beyond just meeting minimum standards or legislative requirements, and;
- Recognises everyone benefits from improved accessibility.

Inclusive design is indivisible from good design. It goes beyond 'accessibility' and incorporates a broad range of design considerations:

- All gender toilets as well as separate sex toilet facilities
- Trans people changing facilities
- Menopause
- Nursing mothers and parental rooms
- Cultural and faith considerations
- Mental health and well-being in buildings
- Biophilic design
- Inclusive play equipment
- Neurodiversity

All of these design approaches and principles will form part of the design considerations as the details for each element of the Development Framework come forward in the future.







Inclusive design interventions

5.2 APPROACH

Proposed Foul Drainage

It is proposed to collect all wastewater and foul discharges from the development into a traditional gravity system that discharges to the publicly adopted combined sewerage network.

The proposed foul water sewerage system is to be designed, in accordance with the latest edition of Sewers for Scotland, to operate without surcharge and achieve self-cleansing. It is anticipated that the foul sewerage system will be prospectively adoptable from the disconnecting manhole on each plot to the connection to the Scottish Water network. It should therefore be noted that the detailed design of any pumping station will have to be in accordance with the latest edition of Sewers for Scotland.

Proposed Surface Water Drainage

A preliminary sewerage network has been developed using the masterplan developed by Keppie Architects and OPEN. It consists of a traditional gravity network to collect the storm water-run-off from the various development plots and convey it, via a new outfall, to the North Sea. It should be noted that the sewer connecting the site to the headwall would penetrate the existing sea wall. Consequently, it is anticipated that consultation with the Local Authority's Flood Control Officer will be required to finalise the construction details – including the number, location relative to the planned pier and non-return valve arrangement.

It is anticipated that the surface water sewerage system will be prospectively adoptable from the disconnecting manhole on each plot to the connection to the receiving watercourse. The design of the proposed system must therefore take account of the latest edition of Sewers for Scotland and the SUDS Design Manual (CIRIA C753).

Proposed Utilities & Infrastructure

A high-level review of the utility services has been carried out to provide an outline strategy for the utility services to serve the site.

District Heating

Depending on the outcome of the energy strategy appraisal then an option would be to serve the Beach Ballroom, Leisure facility and potential new Stadium from the established Aberdeen City Council's Heat and Power network. A new energy centre would need to be located for the provision of with a Gas fired CHP, Green Hydrogen CHP, or a Hybrid between Gas/Hydrogen. The connection to the district heating system with a new energy centre would assist to provide resilience back into the established network, particular during period where energy demand at the Beachfront was not high. The overall heat demand on the existing would increase and a detailed appraisal would be required to review the capacity for connection on the district heating network. Provision of an Energy centre with a CHP unit would provide electricity for connection to meet some of the buildings, with the option to either export and surplus to the grid or used to produce hydrogen.

Electricity

At this stage it is too early to assess the electricity demand requirement for the buildings, however this would be developed as the design progresses, along with the energy strategy appraisal. New electricity connections will be required from the existing 11KV network to the energy centre and would be connected in parallel with the electricity produced by the CHP to serve the buildings.

Natural Gas

Depending on the outcome of the energy strategy appraisal then an option would be to serve the Beach Ballroom, Leisure facility and potential new Stadium from an energy centre powered via a natural gas CHP that had the potential to be converted to a hydrogen fuel source in the future. The overall heat demand on the existing connection is unlikely to be suitable for the new energy centre load and a detailed appraisals would be required to review the capacity of the gas network to determine the connection point. It is worth noting that the main disadvantage of this option initially would be the heat and power is still derived from a fossil fuel.

Public Street Lighting

Public street lighting shall be developed as the design progresses, however consideration at this stage should be given to the where the electricity is to be derived from and an option would be to provide power from the Combined Heat and Power Unit within the energy centre. Depending on the final energy strategy then this could be provided from green electricity.

Telecommunications

Digital Connection would be key to the functionality of the Leisure Centre and potential new Stadium facilities, and it is vital the connectivity of the buildings exceed the current availability and is future proofed. Details and proposal would need to be appraised and discussed further with the providers; however, consideration would be given to serve the buildings with multiple providers from diverse routes to provide added resilience to the facilities. Connections are available locally to Openreach, City Fibre and or CSP networks.

Consideration should also be given to provide the facilities with a Wired Score Digital accreditation

Water

At this stage it is too early to assess the water demand for the Beach Ballroom, Leisure, and potential new Stadium facilities. It is reasonable to assume that the service provided to the existing would meet most of the demand and a new connection is likely to be local, however a Predevelopment/Water impact assessment would need to be carried out to determine infrastructure upgrades and identify the likely connection point on to the existing Scottish Water Network.

Wastewater

The requirements of the foul and surface water drainage shall be carried out by the Civil and Structural Engineer.

Energy Strategy

The energy strategy for the proposals still requires to be fully developed but is likely to include one Energy Centre located at the Leisure Centre to serve the entire development. Architectural interventions are proposed to adopt some Passivhaus style construction principles such as super insulated building envelopes, high performance glazing and mechanical ventilation with heat recovery. They will also likely feature the use of smart controls, an off-site sourced 'green electricity' supply and some on-site renewable technologies including Photovoltaic Panels with associated battery storage. Distribution of heating & cooling is likely to be via an Ambient Loop system with water-to-water heat pumps connected to terminal units throughout. For added resilience back up heating & power could be sourced from the existing Aberdeen Heat & Power District Heating System which it is anticipated will switch to a green hydrogen fuel source in the future.

Net Zero Carbon Aspirations

The project gives a platform to incorporate new & innovative technologies and systems, to provide a net zero carbon, electricity, heating, and cooling solution to serve the load demands of the development. Additionally, there is scope for a solution which aligns with Aberdeen City Council's hydrogen strategy, to generate demand and interest in hydrogen as a power source in order to achieve their climate goals and to capitalise on the unique skills-base of the region. Following a Net Zero workshop with the design team and ACC we understand the project is seeking to achieve Net Zero Carbon in Operation status.

Futureproofing

The energy centre solution will need to meet the requirements of Aberdeen City Council Climate Change Plan 2021-25: Towards a Net Zero and Climate Resilient Council. The Plan sets out the approach, pathway, and actions towards net zero and climate resilient Council assets and operations, by 2045. As such, energy-efficient designs will be incorporated alongside renewable and low carbon energy sources, with consideration provided on how further decarbonisation could be achieved in the future.

Resilience

Given the scale and importance of the facilities planned within the development, the energy demands will be significant and critical to function. Consideration should therefore be given to added robustness and security of energy supplies so the energy centre solution should incorporate a degree of redundancy and back-up. This integrates smoothly with renewables-powered electrolysis or CHP (Combined Heat and Power) units adapted to support hydrogen, either partially or as the sole fuel source.

5.3 OPPORTUNITIES

Following on from the site analysis, the design team identified several opportunities which capture the initial ideas explored during early design workshops, these include:

- The potential for an attractive desire route from Beach Boulevard down towards the enhanced Ballroom/Potential Stadium/Leisure offer.
- Opportunity for celebration of arrival to the Beachfront / Queens Links.
- Creating an enhanced setting for the iconic Beach Ballroom with a more formal Public Plaza and grand entrance to the Ballroom.
- Potential for Integrated Stadium/Leisure complex with active frontage to the Beach esplanade.
- An enhanced public realm connecting Ballroom/Leisure/Potential Stadium elements.
- Utilising level changes for amphitheatre type spaces.
- Re-imagined play park for all ages including potential for water play.
- Facilitating a large capacity outdoor events zone with appropriate space and facilities.
- The creation of landforms to provide shelter from the elements.
- Consideration of integrated coastal defence opportunities.
- Harness water space activities and facilitate for WC/changing/ showers, etc.
- Potential feature Boardwalk structure and focal viewing point to take advantage of spectacular beach views.
- Structure planting / screening opportunities/enhanced green networks.
- Extension of Castlegate/enhanced Public Realm towards Roundabout/potential new Civic Space.
- Extension of an enhanced Beach Boulevard towards the City Centre enhancing the active travel experience between the beach and the city centre.



Beachfront Opportunities diagram

5.4 INITIAL DESIGN CONCEPTS

The creation of a transformational new Beachfront destination will rely on progressive and innovative design solutions, alongside a respectful acknowledgement to the heritage of the site. As the proposed Beachfront development will be centred around the iconic Beach Ballroom as the main focal point of the redevelopment, the history of the Beachfront is intrinsic to the character of the wider area.

The vision for the development is to rejuvenate the Beachfront back to it's former glory as a major waterfront destination for future generations. The component parts of previous successes can be re-imagined to create a contemporary new design solution which establishes Aberdeen Beachfront as a world-class leisure destination once more.

Initial design concepts drew upon the history and heritage of the Beachfront in an innovative, forward-thinking way.

5.5 EXPLORATION & TESTING

Given the scale and importance of the site, a number of options were developed to test out initial thoughts for the concept masterplanning approach for the Beachfront. This testing process has been crucial in allowing the development of a preferred Development Framework approach, along with alternative options, which is viable, deliverable and will maximise the potential of the area. This iterative process was undertaken by the design team alongside Aberdeen City Council to ensure the benefits and drawbacks of the potential design solutions were understood and the most appropriate proposal agreed amongst the design team.





Design sketch for Rope Works Concept



Design sketch for Tram Lines Concept



Historic map showing the location of the Rope Works near Queens Links



Historic image showing the former trams on the Beachfront





Page

56

Design Team collaboration workshop

Design sketch for the Groynes Concept

Image of the groynes structures which are positioned along Aberdeen Beach

5.5.1 OPTION 1: ROPE WORKS

Rope Works is inspired by Aberdeen's shipbuilding industry. Historically, the Rope & Sail Making Works that were located on the site at the South of Queen's Links. The Rope Works concept uses the formation of the rope itself to inspire a masterplanning design approach for the main character area of the site. The Rope Works concept takes the organic form of the rope to create a network of footpaths and desire routes, extending down from Beach Boulevard and opening up towards the Beach Ballroom at the heart of the proposed design.





5.5.2 OPTION 2:TRAM LINES

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Tram Lines uses the linearity of the historic tram routes to organise the central features of the concept masterplan, alongside influences such as the octagonal geometry of the Beach Ballroom and Bandstand. The Tram Lines concept in centred around the existing remnant of physical tram line located at the North of Queen's Links. The historic lines would be retained and enhanced to form an organising geometry from which to build a re-imagined Queens Links urban park, extending out into the sea to form a new pier structure which loops back round to create an amphitheatre-style external gathering space.





5.5.3 OPTION 3: THE GROYNES

The Groynes concept is inspired by the existing shore protection structures built perpendicular to the shoreline of the Aberdeen coast. These linear structures are an integral part of the unique Aberdeen seascape, creating a strong organising geometry from which the concept masterplan builds. The 2 central Groynes form the basis of an overall design language for the Links character area, extending out into the sea to form a new pier structure which loops back round to create an amphitheatre-style external gathering space.





Rope Works conceptual masterplan

Tram Lines conceptual masterplan

Groynes conceptual masterplan

5.6 ROPE WORKS DESIGN DEVELOPMENT

The main features of the Rope Works concept are as follows: History & Heritage

This option celebrates the historical character of the site and the previous Rope Works which supported Aberdeen's Shipbuilding heritage.

Free Play

This concept masterplan generates a multitude of zones and opportunities for free play for all ages. The child and young person focused areas drawing on Aberdeen's ambition to obtain UNICEF Child Friendly City status.

Natural Environment

The organic design characteristics of Rope Works creates a natural geometry of sinuous footpaths and routes linking seamlessly with Broad Hill and appears in harmony with the topography of the site. Boardwalk

The design of the Rope Works Pier structure and associated Boardwalk has the potential to provide an affordable design solution and would greatly improve accessibility to various levels within the network of pathways on the beach.

Aberdeen City Council subsequently approved Option 1: 'Rope Works', as their preferred masterplan concept at the meeting of the City Growth & Resources Committee in November 2021.

Page 58

5.7 ROPE WORKS KEY PRINCIPLES

The concept masterplan is centred around the re-imagining of the iconic Beach Ballroom, integrated with state-of-the-art Sport and Leisure facilities within an Urban Parkland setting, creating a transformational and vibrant new Beachfront destination for the City of Aberdeen.

The main features of the Rope Works conceptual masterplan are outlined below:

- An organic network of pedestrian-focussed desire routes and meandering pathways.
- An outdoor gathering area for large scale events (such as fireworks)
- Potential water features •
- Relocated & upgraded play park
- Potential canopy features with opportunities for PV panels for solar power.
- A potential Reflection pool to create a grand setting for the reimagined Beach Ballroom.
- Potential integrated Stadium, Leisure & outdoor sports facilities.
- Upgraded Esplanade with active frontage along the beach
- High quality hard/soft landscape opportunities.
- Natural landforms to offer protection from the elements, with proposed dune formations providing shelter from north easterly winds.
- Integration with Broad Hill and links to existing footpaths.



Key:

- 1. Pedestrian Boulevard
- 2. Urban Park
- 3. Public Space
- 4. Amphitheatre
- 5. Landscaping Mounding
- 6. Pavilion
- 7. Water Feature
- 8. Boardwalk
- 9. Beach Ballroom
 - 10. Hidden Garden

Rope Works Conceptual Masterplan

- 11. Public Plaza
- 12. Existing Ice Facility
- 13. Leisure Facility
- 14. Esplanade
- 15. Potential New Stadium
- 16. Slipway
- 17. Beach Pavilion

5.8 ROPE WORKS - LEISURE AND POTENTIAL NEW STADIUM

Three options for the Leisure and potential new Stadium elements of the proposals have been identified within the Rope Works concept, one preferred and two alternatives.

Preferred Leisure and Potential New Stadium Option

Potential new build Leisure Centre/Ice Arena with potential new build Football Stadium.

Alternative Option A

Retain and refurbish existing Leisure Centre/Ice Arena with potential new build Football Stadium.

Alternative Option B

Potential new Leisure Centre/Ice Arena with Football Stadium excluded.

Further work has been undertaken by the design team on reviewing these options including their aims, objectives, and outline project brief. Feedback during public engagement, and ongoing discussions with end users, made it clear that continuity of Ice Rink facilities is extremely important. As such, options are being explored in order to maintain continuity of ice provision for the City while replacement Leisure and Ice facilities are constructed. Therefore, these design options have been revised to allow for the potential retention of the existing Ice Rink until such time as the new Ice Arena is available for use.

All options were evaluated against the same criteria as the concept masterplans under the headings of accessibility and social value, vision and culture, urban design, and planning, commercial, adaptability, and sustainability. The scoring favoured a potential new build Leisure Centre /Ice Arena with potential new build Football Stadium (Preferred Stadium & Leisure Option), principally due to the ability to deliver a coordinated and integrated sport and leisure development within a transformational new waterfront destination for the City of Aberdeen.

5.8.1 PREFERRED LEISURE AND POTENTIAL NEW STADIUM OPTION

The preferred option assumes that the existing Leisure Centre and Ice arena are demolished (with existing Ice Rink being retained until the facility is opened) and would be replaced with a new facility that integrates leisure centre, ice arena, and football stadium uses as part of the development. The potential mix and integration of facilities would be in line with the Council's aspiration to make the most of the beach area as an opportunity and tourism asset as well as to generate new visits and spend. Furthermore, the potential to retain the stadium and it's footfall close to Aberdeen city centre would be an ideal outcome for all concerned.



Preferred Leisure and potential new Stadium sketch

5.8.2 ALTERNATIVE OPTION A

Alternative Option A assumes that the existing Leisure Centre and Ice Arena are retained and upgraded as part of the development alongside a potential standalone new Football Stadium.

The refurbishment of the existing Leisure Centre would be based on work already undertaken by Sport Aberdeen with the aim of improving the condition and utilisation of the facility, to increase participation, provide new revenue streams and to create a destination venue.

The refurbishment of the Ice Arena would be based on a light touch refresh focusing on redecoration, replacement of seats, fixtures, fittings, and dealing with outstanding maintenance to the building fabric and building services installations. The proposals do not seek to link the existing Leisure Centre and Ice Arena.



Alternative Option A sketch

Page 60

5.8.3 ALTERNATIVE OPTION B

Alternative Option B assumes that the existing Leisure Centre and Ice Arena are demolished, however, the existing Ice Rink will be retained until such time as a replacement facility is completed. The existing Leisure facility would be replaced by an integrated facility that links a potential new Leisure Centre and Ice Arena but with that the potential new Football Stadium will not form part of the development and is reprovided elsewhere in the city. The aim of the integrated Leisure Centre and Ice Arena would be to provide an efficient building plan and form that can be operated as a single entity and avoid the duplication of café and management spaces that occurs at the existing Leisure Centre and Ice Arena.

The retention of the existing Ice Arena until the replacement is constructed allows facilities for local and regional ice skating and ice hockey maintained where they cannot be provided elsewhere in the city.

5.8.4 FURTHER ALTERNATIVE OPTIONS

As there will be future consultation and design development in relation to the Leisure facilities and potential New Stadium, the Development Framework allows for further alternative options to be explored and developed as required to respond to the evolving brief.



Alternative Option B sketch







THE DEVELOPMENT FRAMEWORK



6.0 THE DEVELOPMENT FRAMEWORK

6.1 INTRODUCTION & PURPOSE

Based on the preferred options previously discussed, the design team produced an indicative Development Framework Plan which can be seen in the image opposite. This sets out an aspiration, allowing more detailed proposals to be tested and come forward in the future. The following pages set out the key principles of the development framework structure which in turn will be further explored later in the document.



Development Framework plan

6.2 DEVELOPMENT STRUCTURE

The Development Framework provides a basis for more detailed proposals to come forward in the future, however one of the principle aims of the Development Framework is to set out the key development structure to allow a coordinated and coherent approach for further design evolution over time. The key development structure is set out as a series of layers setting an appropriate level of spatial guidance to ensure the future development of the Beachfront area maximises its potential and responds best to its context. The identified layers are listed below and have been further explained in the following sections.

Development Framework - Principal Layers

- Arrival and Connections
- Character Areas
- Architectural Interventions
- Internal Movement Network
- Landforms
- Green Network
- Blue Network
- Civic Plazas

6.2.1 ARRIVAL & CONNECTIONS

The concept proposals look to improve the connectivity from the Beachfront to the city centre; from the Beachfront to the wider area in particular the surrounding neighbourhoods; and between the beach itself and the Beachfront area. The proposals seek to establish existing connections and supplement these with improved links and permeability from the local network into the site with the promotion of a pedestrian and cycle focussed approach.

The removal of vehicles from the east section of Beach Boulevard across Queens Links to the Esplanade, and from the Esplanade between Codona's and Accommodation Road will allow for improved permeability across the Beachfront site. The removal of these two sections of roadway will also allow for ease of access to the beach which currently feels quite isolated.

The way people move to and from the site will change, which will ensure there is a more inviting and safer atmosphere for those arriving and using the Beachfront area, encouraging a sense of health and well-being. It is recognised there are several key arrival points to the Development Framework area, each of which has a role to play in being welcoming, clearly orientating, and facilitating the best active travel experience. These include:

- 1. Beach Boulevard west Justice Street/City Centre
- 2. Beach Boulevard east Links Road/Queens Links
- 3. Urquhart Road
- 4. Esplanade (from the south)
- 5. Esplanade (from the North)
- 6. Accommodation Road
- 7. Broad Hill South







Existing Cor

Page 63

Arrival & Connections diagram

Potential Enhanced Connection to Beach

Existing Connection to Beach

6.2.2 PROPOSED CHARACTER AREAS & OPEN SPACES

The proposed arrangement of the Development Framework area has resulted in an exercise of reorganisation of the open space provision within the masterplan area. These spaces have been developed with the aim of creating different characters and opportunities for people to enjoy the site. Whether this be a relaxing walk along the promenade surrounded by grasses waving in the breeze on the proposed dune landforms, a visit to the vibrant, colourful, and exciting play park or arriving at the grand and civic Beach Ballroom Plaza; the overall masterplan design aims to provide a variety of characters and spatial experiences.

It should also be recognised that the character of the park will change from day to day and at different times of year. Events or match days will change the character of some spaces, particularly spaces such as the Central Square, Beach Ballroom Plaza, and the Events Field area.

Each proposed character area will be expanded on further in Section 6.6.

Key

- 1. Beach Boulevard
- 2. Core Play
- 3. Events Park
- 4. Beach Ballroom
- 5. Broad Hill
- 6. Leisure and Potential New Stadium
- 7. Beach Village
- 8. The Beach and Esplanade





Proposed Character Areas & Open Spaces diagram

Character Areas & Open Spaces

6.2.3 ARCHITECTURAL INTERVENTIONS

The Beach Ballroom renovation and extension, Leisure facilities, and potential new Stadium are the key architectural works within the design proposals. However, the Design Team have also explored a number of complementary architectural opportunities within the wider Development Framework area. In these instances, there is potential for flexible structures to be integrated into the design. The items listed below represent the key architectural works proposed for the Beachfront area:

1. Beach Ballroom

The B-listed Beach Ballroom will sit at the heart of the concept masterplan and will be revitalised through the addition of potential extensions and a full renovation.

2. Leisure and Potential New Stadium

The potential new leisure centre, ice arena and football stadium will be a vibrant, accessible, and welcoming building.

3. Gateway Building

The Gateway Building acts as a sculptural landmark offering an enhanced sense of arrival to the Beachfront and offers key wayfinding for the proposed beachfront development.

4. Hub Building

The Hub Building is located in the central plaza area at the heart of the new Urban Park and provides an opportunity for a potential cafe and community spaces.

5. Beach Pavilion

The Beach Pavilion offers active frontage to the Beach Esplanade within a flexible structure which could be used for a variety of activities.

6. Lightweight Canopy Structures

A number of Lightweight Canopy Structures are located at key nodal points within the Urban Park offering seating and shelter.

7. Amphitheatre

The Amphitheatre offers a flexible external events space with integrated areas to gather and rest.

8. Boardwalk

The Boardwalk structure follows the sinuous route of the Rope Works and extends out to the North Sea.

9. Broad Hill Viewing Interventions

Geometric viewing platforms or seating walls taking advantage of views across the Beachfront.

10. Slipway

Providing access to the Beachfront below the Esplanade.

The conceptual Masterplan encourages a common architectural language applied across all development opportunities within the wider Parkland area, creating a cohesive scheme that has been considered and designed as a whole.



Phase 2 of the Development Framework offers additional opportunities to create a number of satellite WC/shower/changing facilities located along the beachfront, with a potential combined Club House at Footdee for Surf/Swim/Life Saving. This could include the provision of new public Beach Huts or similar.



Potential Satellite Interventions (Development Framework Phase 2)

Architectural Interventions diagram

Architectural Interventions

6.2.4 LANDFORM

Landform can play a key role in creating usable spaces, helping to provide shelter and improve the microclimates across the site, increasing the comfort of visitors and dwell time. Enhanced microclimatic conditions can also assist with biodiversity and the creating of new habitats. Strategically across the Development Framework area new landscape mounding will aim to spatially redefine parts of the site, assisting with shelter and microclimate creation, while also adding significantly to the visual experience of the place, with new landform providing an opportunity to interact with the landscape. These mound features will also help to define and enclose spaces within the park, creating 'rooms' of different sizes which can accommodate the various programs of use.

The landforms will be carefully sited to frame and create views of existing and new interventions in and around the area. This could be creating choreographed views to the sea from the esplanade level in the park or setting up vistas to sculptures or interventions within the park. Through revealing and blocking views the mounds will also provide increased opportunities for exploration and discovery within the park.

Some of the landforms may be developed to contribute directly to the play value of the site. This may vary from informal elements such as mounds to run up and roll down or more formal elements such as the incorporation of slides or viewing points.

6.2.5 CIVIC PLAZAS

Civic plazas lie between the character areas of the site and are a key element in the definition and organisation of the core park area. These are large public spaces which form gathering places and key junctions in the internal network.

All these spaces relate to an architectural intervention or existing architectural feature, which acts as a landmark and assists in wayfinding.

These plazas are activated by water features, planting, furniture, and framed views, creating social spaces where people can come together. Some are large enough to host small scale events such as markets or pop-up food stalls.

1. Landform Mounds

2. Sunken Areas / 'Rooms'

3. Existing Landform (Broad Hill)

4. High Points

1. Civic Plazas

2. Key Connections





Landform diagram



Civic Plazas diagram

6.2.6 GREEN NETWORK

The green network within the site plays a key role in creating attractive spaces for people, as well as providing essential habitat for wildlife and increasing biodiversity.

Through the addition of strategic landform mounding, enough shelter is created to grow a variety of plant species. Additional tree planting is proposed throughout the site, and the green network aims to incorporate a variety of textural planting such as shrubs, wildflowers, and longer grasses. Large areas of lawn are proposed only where needed for amenity and events and should be species rich.

Consideration has been given to how the green network within the site connects outward into the wider landscape, creating green corridors for wildlife and overall enhancing biodiversity.

- 1. Green Connections
- 2. Street/Parkland Trees

....**...**>

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- 3. Coastal Connections
- 4. Species Rich Mixed Planting
- Woodland
 Species Rich Lawn



6.2.7 BLUE NETWORK

Page 67

Rain gardens and other surface water features could be created within the site, with the principle being applied that surface water will be dealt with at, or close to, source where this is possible. These features can be developed as attractive landscape features, enhancing the overall landscape design of the masterplan, increasing biodiversity in the area, and ensuring the blue and green infrastructure work together. For areas of hard surfacing on the ground, permeable surfaces can be explored, avoiding the need, where possible, to carry surface water in a piped system.

For areas of building roofs and impermeable surfacing to the north of the site, a surface water network making use of these same types of green and blue infrastructure features could be developed, but with a drainage outfall to sea, created through the existing underpass.

1. Potential Rain Gardens



2. Site Drains to Sea





Green Network diagram

Blue Network diagram

6.3 PROPOSED MOVEMENT NETWORK 6.3.1 ACTIVE TRAVEL STRATEGY

The Framework proposes expansion and upgrades to the active travel network, capitalising on the proximity of the Beachfront to the city centre. It will prioritise the needs of pedestrians and cyclists; a stepchange from the current situation where opportunities for walking and cycling are shaped around a traffic-led environment. Measures include:

- Reconfiguration of the A956 / Beach Boulevard roundabout junction, overcoming severance and reducing the dominance of vehicular traffic. New crossings will better reflect the desire line between the city centre and the Beachfront. The reconfiguration will be consistent with City Centre Masterplan and reflects the reclassification of the A956 corridor to a 'secondary' route, as defined by the Roads Hierarchy.
- Reallocation of road space on Beach Boulevard in favour of active travel modes. The eastbound carriageway would become a two-way traffic link, calming traffic and reducing vehicle speeds. The westbound carriageway would be reconfigured to accommodate segregated pedestrian and cycle links, integrated with the reconfigured A956 / Beach Boulevard junction. Improved links would be set within a landscaped and well-lit environment.
- Development of a wayfinding strategy, with signage and mapping to aid users in their journey between the city centre and the Beachfront.
- The Beach Boulevard would be closed to traffic north of its junction with Links Road, significantly reducing levels of through-traffic and creating an environment which promotes active travel. Changes to local traffic priority present further opportunities to ensure safe and direct connections towards the urban park and beachfront.
- Pedestrian and cycle links around the edge of the park will create a space which is well-integrated to the adjoining streetscape. New and improved links will aid connectivity with the retail park, Constitution Street, Urquhart Road and Broad Hill, better connecting these areas to the park, waterfront, redeveloped Beach Ballroom and leisure uses located to the north.
- Active travel hubs will be incorporated to the urban park, with opportunities to provide information and aid wayfinding, offering rest and changing facilities, cycle hire outlets and safe spaces for cycle storage.
- The active travel strategy proposes 'park-mobility' initiatives to ensure that all users feel safe and comfortable within the park. This could include short-term hire of mobility aids.
- Reallocating space to active travel modes will address severance at the waterfront, making it easier to move between Queens Links and the Promenade.











Active travel

6.3.2 PEDESTRIAN NETWORK

The park will include a network of links and paths to aid movement and exploration while catering for users of all abilities. The proposals promote access to the adjoining local catchment, prioritising pedestrian and cycle movement over general traffic and removing existing severance. New or improved pedestrian links will provide increased capacity, catering for the larger flows of people associated with sporting fixtures or events at the park. Conversely, some paths will reflect a more intimate scale, more conducive for exploring the park. A clear path/route hierarchy will help users to navigate the space, reinforced by a clear signposting strategy.

Suggested improvements to Justice Street, the roundabout, and Beach Boulevard aim to provide a direct, attractive and welcoming pedestrian environment between the City centre and the Beach. A key element of this will be the use of appropriate controlled or priority crossings, provision of step-free routes and the incorporation of seating and 'places to pause'.

Well-designed connections and crossings into the park from other arrival points will be a key consideration to ensure safe and convenient pedestrian access from throughout the wider Beachfront area, including the adjoining retail and leisure areas and the residential catchment to the north. As with the measures to connect the beachfront to the city centre, links to the north and south will form part of an integrated wayfinding strategy across the wider locality.





Pedestrian Network diagram

- **Primary Pedestrian Routes**
- **Secondary Pedestrian Routes**
- **Tertiary Pedestrian Routes**
- New Junction (Configuration TBC)

6.3.3 CYCLING NETWORK

The proposals encourage more cycling and wheeling activity. Consultation feedback emphasised the extent to which the area was used for recreation, but many respondents suggested that the area didn't feel safe or welcoming to cyclists.

Improving connectivity for cycling and wheeling is a key objective of the Justice Street / Beach Boulevard junction appraisal study. A segregated cycleway will extend over the length of the Beach Boulevard, limiting interactions between cyclists, pedestrians and vehicular traffic.

The Council is committed to exploring further options to implement physically segregated cycle tracks within the Development Framework area as proposals for the area develop. A STAG-based Options Assessment will be commissioned to ensure an appropriate balance between the needs of cyclists with those of other users, including vulnerable pedestrians; this assessment will consider the suitability of full cycle segregation. This will require further dialogue with Aberdeen Cycle Forum and other bodies.

The future cycle network will be aligned with the growing ShareBike cycle hire scheme and individual planning applications for buildings and spaces within the masterplan area will be required to provide secure covered cycle storage and suitable changing locker room facilities.



Active Travel Desire Routes Two Way Cycle Lane

Cycling Network diagram

New Junction (Configuration TBC)

6.3.4 PUBLIC TRANSPORT STRATEGY

Attractive and efficient public transport services and facilities will be central to the success of the Beachfront. The public transport strategy complements other measures to improve bus services across the city and throughout the region. The public transport strategy is summarised as follows.

The primary access route for buses will be via Beach Boulevard and Links Road, with stops located to meet key pedestrian links.

The Council will work with bus operators to encourage routes which pass through the area and those which terminate at the Beachfront, meeting the needs of adjoining residential catchments and providing direct access to new buildings and attractions.

A new bus waiting and turning facility should be considered, providing comfort facilities for drivers, space for buses to layover and suitable waiting facilities for passengers. This facility would be used by bus routes which terminate at the Beachfront.

A new road will be provided at the foot of Broad Hill between Links Road and Accommodation Road. The link will be for buses, local access and emergency use only. A suitable form of access restriction will ensure the link is not used as a through route by general traffic.

Bus priority measures should be incorporated, where possible, to aid service reliability and to demonstrate a commitment to attractive public transport.

An emphasis should be placed on high-quality services which are fullyintegrated to the wider city bus network, including services to park and ride sites on the city's periphery.

Service frequency should be at a high level, helping to build user confidence and increasing the overall visibility of buses in the wider area.

There is potential for the Beachfront to be integrated into the emerging Aberdeen Rapid Transit (ART) network, either by extending ART services to the area or by delivering high-quality services which integrate to ART in the city centre.

Consideration should be given to the creation of a brand identity for buses which serve the beachfront area, ideally with vehicle destination screens displaying a clear 'Beachfront' message to market the destination overall and contribute towards increased patronage levels.

Taxi bays will be located in close proximity to key buildings and spaces. Indicatively, these might include Links Road adjacent to the Beach Ballroom and on the southern Esplanade, adjacent to the cafes.

Coach drop-off and parking facilities will be provided, recognising the importance of group travel for sports fixtures, events and other activities. Coaches could park within the northern portion of the Esplanade.





Beach Development Framework - Indicative Public Transport Strategy

Potential Bus Layover and Turning Area

New Junction (Configuration TBC)

6.3.5 TRAFFIC AND NETWORK INTERVENTIONS

A key transportation consideration within the Development Framework is to maintain vehicular access to the area for users who may find active travel and public transport options impractical. To help achieve this, the proposals call for a significant reduction in the volume of through traffic from the Beachfront area.

The effects of these proposals have been tested using the Council's approved local and wide-area traffic models. The models enable detailed evaluation of changes to traffic priority, road closures and alterations to road space that are being considered, and they reflect other relevant local transport policies and interventions.

Model outputs demonstrate that Aberdeen's road network as a whole has the capacity to absorb changes in vehicle routing that result from the proposals. Vehicles which are making strategic through trips are likely to seek alternative routes which are defined in the city's Roads Hierarchy as more appropriate for such movements, with the Western Peripheral Route, North Anderson Drive and King Street all carrying some additional traffic.

The traffic and transport strategy anticipates that the delivery of complementary strategies, including the City Centre Masterplan, Low Emission Zone and Bus Corridor studies will reduce reliance on car-based trips in and around the city. The Development Framework proposes a proportionate package of measures to mitigate the impact of the proposals while ensuring that local connectivity is maintained.

A key part of the approach will be to carefully balance the performance of the road network with the delivery of an environment which is conducive to greater rates of pedestrian, cycle and public transport activity. For this to work, it is considered unwelcome for 'through' traffic displaced from the Esplanade to divert onto adjoining local roads.

The transport strategy proposes the following measures: A package of measures to protect King Street from the effects of displaced through traffic. These will include traffic signal alterations and bus priority at key junctions on the corridor.

- A package of local traffic management interventions to protect local access to Golf Road and Park Road, while making them less attractive to through traffic and commuting trips.
- Modifications to the character of the roundabout junction at A956 / Park Street / Beach Boulevard to facilitate an uplift in active travel and public transport movements between the city centre and Beachfront.
- It is likely that a form of vehicular access along Accommodation Road will be maintained, with details of any necessary upgrades to this link being determined at a later date.

The interventions, which are summarised in the adjacent image, should be delivered in a manner which balances increased rates of active travel and public transport use with ongoing access to local residential and commercial land uses, including the beachfront retail park.



Beach Development Framework - Traffic and Network Interventions

Potential Bus Gate **Potential Traffic Signal Alteration** Potential Junction Upgrade for Active Travel Potential New Junction New Junction (Configuration TBC)

Mapping highlighting Indicative Mitigation to the Transport Network
6.3.6 FUTURE PARKING SITUATION

Parking was one of the most frequently discussed topics during the consultation process, with many participants seeking reassurance that they could still access the beachfront by car, and park there. The future access strategy promotes access to the Beachfront by a range of travel modes and, while the vision encourages increased rates of pedestrian, cycle and bus use, it fully recognises that a number of trips to the area will continue to be made by car. This is particularly important because some users, including watersports participants, will find it impractical to make their trip by other means.

Key aspects of the future parking strategy are described below and shown in the adjoining image.

- There will be some minor adjustments to parking arrangements immediately adjacent to the Urban Park, but the overall supply of parking spaces throughout the Beachfront area will remain largely unchanged.
- The strategy will further develop the Council's ongoing commitment to increase the number of accessible bays in the area, with a focus to ensure that spaces located closest to the Urban Park are available for those who most need them.
- The extended footway to the eastern edge of Queens Links play park, where habitual illegal parking takes place will be absorbed into the new public park. This area has no formal designation for parking and while its removal will displace some parking activity, those parking demands can be compensated for in the new layout, with new pocket parking areas being provided around the periphery of the Park.
- Clear signage and road markings will help all users understand how to access the area and where to park.

Proposed alterations to the local road network - including the closure of the Esplanade to through traffic – will mean that some users who wish to access the area by car may need to find alternative routes.

The Strategy ensures that those who require to park at the Beachfront can continue to do so. This includes users who have reduced mobility for whom other modes are less practical and users whose use of the beach area depends on the movement of equipment.



Beach Development Framework - Proposed Parking Strategy



Mapping highlighting Indicative Parking Access Strategy

- Publicly Available off-street Parking
- **Publicly Available on-street Parking**
- New Junction (Configuration TBC)

6.3.7 DELIVERY, SERVICING AND EMERGENCY ACCESS Servicing and Deliveries

All necessary delivery, servicing and emergency functions to support buildings and spaces will be incorporated to the future Beachfront. In specific cases, this will involve exempted vehicles being permitted in spaces which are otherwise defined as 'traffic-free'. A summary of the managed access strategy is proposed, as follows:

- Vehicles will approach the area via the updated local road network. Access restrictions will prevent larger vehicles from using adjoining residential streets.
- Delivery and servicing functions can occur outside of core business hours; either early in the morning or in the twilight hours.
- A management strategy would be developed, setting out the circumstances in which vehicle movements are permitted in the urban park.
- Suitable 'gateway' treatments will be incorporated at entrances to the public park to regulate access by vehicles.
- The design of key links within the park will support movements by larger vehicles, but access would only be permitted under managed circumstances or in an emergency.
- On-site waste storage should be configured to minimise the number • of refuse vehicle movements within the urban park each day.

Specific details relating to local access, traffic management, signage and road markings will be considered as the process evolves.

Emergency Access

The Council recognises the imperative need for emergency services, including fire, police, ambulance and HM Coastguard, to access the beachfront area and to ensure blue light vehicles can enter and move within the urban park, if needed.

Participants in the public consultation sought comfort that changes to the local road network would not hamper the ability of emergency services to perform their roles. Specific feedback centred around the need for rescue and emergency services to access the waterfront and the requirement for Royal National Lifeboat Institution (RNLI) crew members to access the lifeboat station at York Place.

The Council is fully committed to working with all relevant services to evolve the details of emergency access as subsequent stages of the process emerge. In particular, this includes the identification of suitable exemptions to ensure emergency vehicles can safely access areas which are not open to general traffic and a pragmatic approach which recognises the vital role played by RNLI staff who use private, unmarked vehicles to access the lifeboat station.



Beachfront Emergency Vehicle Access Emergency Access Points Waste Collection, Deliveries, Event Access, Emergency Access Permitted Emergency Vehicle Routes **Existing Access Maintained** Managed Access / Public **Transport Route**

Page

74

Mapping highlighting Beachfront Emergency Vehicle Access



New Junction (Configuration TBC)

6.3.8 FUTURE TRAVEL DEMANDS & BEHAVIOURAL CHANGE

The Development Framework seeks to rejuvenate Aberdeen beachfront through a combination of new development and high-quality public spaces, with enhanced links to the city centre and adjoining catchments. From a transportation perspective, the Framework considers the movement of people - not vehicles - and sets an objective to grow rates of pedestrian, cycle and public transport activity while reducing rates of car use, consistent with local and national policy. Under current circumstances, car use in Aberdeen typically accounts for 63% of all trip-making (53% car driver and 10% car passenger) and data reveals that of all employment trips in the Hanover South ward, which includes the Beachfront, 72% are car-based.

While it is important to acknowledge that residents and visitors have varying travel requirements and preferences, the successful implementation of the Development Framework depends on a material reduction in rates of car use. The Framework recognises that a continuation of present-day travel patterns is not sustainable and would prevent the delivery of upgrades to pedestrian, cycle and bus facilities.

Formation of the urban park will require the closure of Beach Boulevard between Links Road and the Esplanade, and the removal of traffic from the central sections of the Esplanade. Local and area-wide traffic implications of this change to the local road network have been evaluated in a traffic model, the key outcomes of which are summarised in Section 6.3.4.

The framework presents an opportunity to positively influence the travel choices of those travelling to the Beachfront area. This can be achieved through the delivery of high-quality pedestrian, cycle and public transport facilities, providing a more comprehensive and inclusive transport network. These changes to the local environment will help to address the negative effects of severance and traffic intrusion, making the area feel safer and better-connected and encouraging more users to make trips using active travel modes.

While a key objective is to reduce the overall share of trips which are made by car, the framework recognises that it is not practical for all users to make trips on foot, by bike or by bus. This is particularly the case where users have reduced mobility or where sporting or recreational activities require the movement of equipment. The Framework therefore sets out to support movement by all travel modes and to cater equitably for users of varying ages and abilities, with careful consideration given to the incorporation of accessible parking spaces in locations which are connected to key buildings and spaces via welcoming and step-free pedestrian links.

Together the changes proposed by the Development Framework will make a valuable contribution towards the formulation of Aberdeen's future transport network.



Aberdeen hydrogen powered First Bus



Electric vehicle charging points





Promoting pedestrian movement

Cycling in Aberdeen (Image courtesy of The Press and Journal)

6.4 LANDSCAPE INTENTION

As stated in the introduction to section 6.0, this is essentially a landscape led framework, setting the structure for a re-organisation of the Beachfront area, allowing existing and new buildings, structures, infrastructure, and spaces to come together within an exciting new framework.

The diagram opposite illustrates the desired landscape intention and feeling that the spatial framework should deliver as a result of the framework structure set out in the preceding sections.

The conceptual masterplan has been developed to provide a clear and legible spatial hierarchy across the site. This responds to the access and key nodal points within the site to ensure that there are appropriate gathering and meeting spaces in key locations. Through this spatial hierarchy an aspirational series of spaces of different scales, character and uses has been developed, all of which are easily accessible and identifiable.



Spacial hierarchy diagram

6.5 LANDSCAPE, ECOLOGY, NATURE & CONSERVATION

We are living in a time where public awareness of our natural environment is heightened like never before. Climate change and the related nature crisis is a very real threat to our planet. Around the world this is no more acute than in our coastal regions.

Aberdeen needs to lead by example. That is why this Development Framework and beachfront masterplan has been a landscape led approach to the regeneration of this vital interface between city and sea. Throughout this Development Framework document, the focus of all elements discussed, investigated, and explained has been the improvement of the environment at the beachfront. This means the creation of a more adaptive, responsive, and natural environment than is there presently, an environment that enhances habitat and biodiversity for wildlife while creating the opportunity for distinctive places to improve health and wellbeing. This is fully in line with emerging national policy set out in National Planning Framework 4.

The design of the overall Beach front Development Framework looks to harness the natural environment and enhance it. The aim of this is multiple and interlinked just like nature itself.

Firstly, we need to work with coastal influence in a more harmonious way, using natural systems to protect the beach area while allowing people to enjoy the unique environment.

Secondly, we need to create shelter and develop micro-climates that not only offer usable spaces but create conditions for a more naturally diverse landscape, allowing new species to colonise and enhance biodiversity. Shelter and adaptive microclimates can be formed by natural topography and landforms (much like Broad Hill does now), and by creating the right conditions for tree planting and in particular afforestation by pioneer species. As a whole, for the betterment of our environment, we need to plant more trees. The images opposite highlight aspirational planting which could help create this microclimate and enhance biodiversity and is reflective of the design approach described throughout the Development Framework document.







Indicative tree planting



Indicative planting for pollinators







View from Aberdeen beach towards North Sea

Indicative wildflower planting



Indicative example of sustainable drainage

6.5 LANDSCAPE, ECOLOGY, NATURE & CONSERVATION

With enhanced landscape and increased biodiversity, we can start to respond to one of the toughest challenges we have in connection to our cities and development and that is flooding and drainage. With the 'working with nature' approach we can truly integrate sustainable drainage systems that become part of the landscape. 'Working with nature' will showcase the Beachfront concept masterplan as a working example of how to work harmoniously with our environment.

A Preliminary Ecological Assessment has been undertaken across the Development Framework site. This identifies the primary habitats and the flora and fauna found on the site. Through this landscape and nature led approach to the Development Framework, we can harness the baseline ecology of the site, work with local knowledge (residents and Aberdeen City Council environmental officers), respond to supporting emerging policies such as NPF4 (Sustainable, Liveable and Productive Places) and link in to other national and local organisations and initiatives such as B-Lines (connected networks enhancing invertebrate life throughout the UK – Don and Dee Valley, and Coastline a designated networks) to comprehensively set the regeneration of the beachfront area as an exemplar of how to approach the natural and built environment in the 21st century.

Proposals will be developed in partnership and consultation with Aberdeen City Council Operations, Environment, and Coastal and Flooding teams to ensure those that work with and understand this unique environment have the opportunity to share knowledge and shape the future of the Beachfront.



Coastal grasses colonising areas of blown sand





Existing Broad Hill vegetation

Existing Broad Hill vegetation



B-Lines Map (Copyright: Leaflet and OpenStreetMap)



Existing Broad Hill vegetation

6.6 PROPOSED CHARACTER AREAS

As previously mentioned, the spacial configuration exercise that was conducted for the proposed Development Framework area has resulted in a reorganisation of the open space provision within the masterplan area; reflecting the new priority of uses both in terms of open space and built. This has resulted in the definition of a new series of distinct character areas across the Development Framework area which reflect a variety of anticipated approaches and identities. These will be progressed and refined at subsequent masterplan phases. The following character areas have been established:

- 1. Beach Ballroom
- 2. Events Park + Field Queens Links Urban Park
- Core Play Park ∫^{Quei}
 The Beach and Esplanade
- Ine Beach and Esplanade
 Beach Boulevard
- 5. Beach Bouleva
- 6. Broad Hill
- 7. Leisure and Potential New Stadium
- 8. Beach Village Concept

Each character area is set out in the following sub sections, in order to describe the key attributes of each in terms of design principles. They also look at approaches giving definition to the spaces whilst retaining flexibility to allow for the brief of each area to evolve with any future refinement or adaptation of the Development Framework document.

Through this refinement of the character areas, it is important to acknowledge that the overall Development Framework area has an overriding aim of being cohesive and a joined-up piece of urban and landscape design delivering an identifiable and exciting new place of the city of Aberdeen and the wider region.

Based on the preferred options previously discussed, the design team produced a Character Area Plan for the Development Framework, which can be seen in the image opposite.



Proposed Development Framework Character Areas

6.7 BEACH BALLROOM CHARACTER AREA

The Beach Ballroom is to be considered as a primary focal point in the new Development Framework proposals, due to its central position and its cultural significance.

6.7.1 BEACH BALLROOM CONCEPT

In addition to the renovation and reworking of the ballroom, there is the potential to create improved public spaces in the immediate vicinity, for example:

- A potential civic plaza space with water features forming a grand setting for the building and ensuring the buildings prominence on the main pedestrianised route through the site from Beach Boulevard to Esplanade. This civic plaza will provide a location for wider orientation, wayfinding and gathering within high quality public realm.
- A potential sunken garden area to the rear of the ballroom which would provide a dedicated external space for use by the ballroom and serve to link the wider public space between the ballroom and a potential leisure facility adjacent.

Any opportunity for the regenerating the Beach Ballroom and its environs would respect the heritage and memories to ensure it can continue to contribute to the lives of those who visit it.

Several site visits to the existing building including conversations with operation staff to understand the day-to-day requirements and mechanics of the ballroom have already been undertaken to inform the evolving design. Concurrently, the design would respond to business case studies which would allow the Beach Ballroom to become a self-sustainable, flexible and revenue positive component of the wider beach front area.

It should be noted that statutory approvals and discussions with relevant authorities, consultees and stakeholders have not yet been completed and these will contribute to the design direction moving forward. As part of any future planning applications, a heritage statement will be prepared to support the planning and Listed Building Consent submissions.





Concept plan - Beach Ballroom

Potential Architectural Interventions

6.7.2 BEACH BALLROOM PROPOSED WORKS

The proposed renovation and extension of the B-listed Beach Ballroom will seek to respect the heritage and memories defined by this iconic space to ensure to can continue to contribute to the lives of those who visit it. Those historic aspects of the interior and exterior of the building will be retained and revitalised through an extensive programme of renovation. As part of this renovation, an interior design strategy which promotes the buildings Art Deco heritage will bring a sense of grandeur back to the property. Potential new extensions to the building will be considerate and of an appropriate scale and style to compliment the Ballroom.

The Design Team have suggested a number of potential improvements/ study areas for the Beach Ballroom that will be explored in more detail moving forward:

- Celebration of Entrance creating a grand setting for the building with a real sense of arrival and enhanced public realm
- Improve accessibility / wheelchair access and install lift core
- Upgrade & restoration of external impressive Art Deco façade •
- Dome restoration / expose and enhance original feature ceiling •
- Improved viewing gallery & enhanced hospitality offer (VIP / • Premium seating)
- Utilise external balcony / roof areas to create bar / terrace taking advantage of spectacular views of Aberdeen Beach
- Potential for external break-out space, creating more intimate / sheltered private external space (Secret Garden)
- External feature lighting opportunities to showcase unique Art Deco architectural features on building façade
- Potential to remove star ballroom extension and replace with more complementary and lighter roof extensions



Spanish City, Whitley Bay - precedent image



The Reel House, Glasgow - precedent image



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Key

- 1. Spanish City, Whitley Bay precedent image
- 2. The Reel House, Glasgow precedent image
- 3. Architecture and materiality precedents
- 4. Proposed new main entrance
- 5. Proposed exterior public realm
- 6. Proposed east Ballroom elevation





5

6.



Proposed exterior public realm



Proposed east Ballroom elevation

The images above provide design inspiration for the Beach Ballroom and are indicative only.

6.7.3 BEACH BALLROOM - PLAZA

The Beach Ballroom Plaza will create a grand setting for the building. The main circulation routes of the site pass either side of the space ensuring that pedestrian movement to the potential new Stadium on match days is accounted for and that the Beach Ballroom is a key landmark and part of this journey.

The plaza space will not only frame the setting of the Beach Ballroom, but the space also itself will be defined to the east by earth mounding, integrating soft landscape while providing a sheltering interface to the beach and onshore winds. To the west it will be partly defined by the location of the Amphitheatre and integrated woodland planting and other soft landscape opportunities. This integration of soft landscape within a civic plaza offers the opportunity to enhance biodiversity in this key area, while still providing a distinctive civic function. The inclusion of the water features will add an additional level of interest and setting, bringing sound and animation to the space, providing opportunities of play whilst enhancing the grandeur of the building.

Due to the highly public function of the building all the public realm will be designed to be level access and step free, with plenty of opportunities for seating and longer dwell time in the space. A more open hard space will be designed to the north and west as approaching from the foot of Broad Hill, allowing for controlled VIP drop off to the front of the building and to allow controlled VIP access through to the front of the potential new Stadium.

6.7.4 BEACH BALLROOM SECRET GARDEN

The Secret Garden is a sunken formal space to the west side of the Beach Ballroom, between the building and Broad Hill. It carefully integrates accessible parking and centres on an enclosed garden area. This garden space could be utilised for outdoor drinks receptions or wedding photography, as well as providing a calm and sheltered setting to the accessible entrance at the lower ground level.

Although discreet and clearly part of the Beach Ballroom environs, the Secret Garden is part of the wider public space which links the Beach Ballroom to the proposed Leisure facility. The proposed landscape intervention works with the level differences to create an attractive southwest facing terrace, providing accessible pedestrian access to the Leisure facility.

The landscape itself will knit together with the materiality and colour strategies of the wider proposals to create a sense of drama and arrival to the area. By its very nature, the soft landscape element of the garden will be dominant, providing a greener and more natural interface with the Beach Ballroom than the south facing civic plaza which sits up at Esplanade level. The soft landscape material will be of suitable scale to create instant impact and allow appropriate related Beach Ballroom events from day one. The soft landscape also allows the potential to enhance the biodiversity in this part of the site, close to the diverse Broad Hill, enhancing green network connection to the wider Queens Links and Esplanade area.



Concept montage [All elements of detailed design and materials are indicative and for illustrative purposes only]





Beach Ballroom Plaza

Beach Ballroom Secret Garden

6.8 QUEENS LINKS URBAN PARK CHARACTER AREA

The heart of the open space provision within the Development Framework is focussed on the urban park, a central landscape space, approximately 5.5ha, designed to accommodate multiple uses. The Urban Park is composed of two main character areas, the Core Play, Park and the Events Park + Field, joined by the Pedestrian Spine (former Beach Boulevard east), with nodes of key civic plazas providing locations of orientation, wayfinding and gathering within high quality public realm areas.

6.8.1 OUEENS LINKS URBAN PARK CONCEPT

A public park must be accessible for everyone. The richness of the park will come in its form and uses. Play and games are an obvious part of this mix and creating the physical environment for this to flourish is key. The whole park should be seen as incorporating elements of play opportunity, with areas that are more focused and defined along with the more natural and incidental play integrated throughout the park.

Potential insertions within the urban park space include:

- Civic plazas.
- An external Amphitheatre with canopy located adjacent to the Beach Ballroom.
- A large events field capable of hosting events and day-to-day use.
- A gateway building located at entrance to Beachfront area giving sense of arrival.
- A hub building located at centre of site offering a place to engage and refresh.
- Canopy features offering shelter and seating across the site.
- Water features to bring drama and animation to spaces.

There are many other uses to be considered, and careful analysis of what is best is important as flexibility will be key in the evolution of a public park along with its functionality and flexibility to cater for yet unforeseen city uses.

The park must create a strong sense of place which becomes a destination within the city. It should be unique and special, respecting its coastal location. The park should be inclusive and with activities for all to use.

The design must consider micro-climate and the provision of shelter so that it can be used 365 days a year. It must also be comfortable and welcoming for different sizes of groups including individuals, families, small gatherings, and large events. A variety of scales of space will be required to meet these requirements.

Movement through the park, whether to reach the Beach, the potential new Stadium or the Arcades must be a key consideration, ensuring that the park can cope with the movement of large groups of people. In designing these routes, desire lines must be catered for.





Concept plan - Urban Park

Potential Architectural Interventions

6.8.2 CORE PLAY PARK

The Core Play Park is approximately 2.5ha and sits between the Events Park + Field area and Codona's. Although this area has been termed the play and games zone it is not intended that opportunities for play will be constrained to this area of the site. The intention is that informal play opportunities will be present throughout the park. Equally the intention is that this area is a fully integrated part of the park landscape and is permeable and able to be explored as part of a visit to the park.

The Core Play Park will be enclosed to some degree by landforms/ tree planting to help create a suitable micro-climate and provide a comfortable year-round space. Equally the aim has been to provide some shelter from the wind which is particularly important for games such as table tennis and volleyball. The landforms in particular will be of such a scale to offer further natural opportunities for play as well as be a key component in spatial definition and character of the area.

A structure for the play and games zone has been developed which can accommodate a variety of play. At this point the content of the play parks is still being developed however approximate areas have been set aside for separate younger and older children's play areas in response to feedback through consultation with children and young people. This level of consultation will continue through the design development of the core play area and indeed the wider park. In line with the increasing detail required through the design development process the core play area will be refined both spatially and in terms of the content - refinement of play opportunities and equipment. This level of engagement throughout the process will continue to shape the design to the appropriate level in accordance with the stage of the project.

Other uses with a larger footprint have been included within the development of the plan to ensure space is allowed for these uses within the plan, these include a skate landscape/skate park, a basketball court and volleyball courts all of which were raised during youth engagement.

Other smaller uses have been indicated on the plan such as chess tables, table tennis tables etc. the final location of these elements is more flexible due to their smaller size.

The Core Play Park is a tremendous opportunity to create a significantly sized outdoor destination for the city in a unique context. The Core Play Park is part of the wider landscape masterplan that binds together many of the proposed and existing buildings and uses in the area, and importantly facilitates connections back to the city centre.

Furthermore, abundant elements of play and child/youth focussed spaces will assist to provide a public space worthy of Aberdeen's ambition to become a UNICEF Child Friendly City.



Concept plan - Play Park

6.8.2.1 CORE PLAY PARK - ASPIRATION

The below images provide visual inspiration for the Core Play Park and are indicative only.



Slide down landscape mounding features



Play and games Space (Photo courtesy of Karavan landskapsarkiter)



Play and games space (Photo courtesy of Karavan landskapsarkiter)



Architectural Interventions



Play and games space (Photo courtesy of Karavan landskapsarkiter)





Aerial sketch of Core Play Park

Skate landscape

6.8.3 EVENTS PARK & FIELD

The Events Park & Field is an area of approximately 2.5ha and has been designed as a flexible space capable of holding events, festivals, larger concerts etc. but also to provide a large, grassed area for day-to-day use including informal sports and games such as football, touch rugby, ultimate Frisbee, and passive recreation such as picnicking.

It is currently bordered to the west by adjacent land uses that effectively turn their back on the area. It is proposed that this interface is further reinforced by additional mounding and tree planting, creating a strong green, ecologically rich edge to the overall Events Park & Field, enhancing the green network opportunities from Broad Hill further in and around the overall site. This gives a backdrop of trees and landforms, focussing attention away from adjacent land uses and out into a wider events and performance area.

The wider Events Park & Field will not only include large grass areas (both amenity and wild flower), but also utilise natural landforms to create intimate events/concert, theatre and outdoor cinema spaces. Its location closer to the Beach Ballroom offers opportunity for co-joined activities. The amphitheatre creates the opportunity to embed localised accessible toilet facilities adjacent to the accessible parking on the West part of the site into its mounding.

Taking advantage of the existing site topography/levels, the location for the Amphitheatre naturally shields the adjacent buildings to the West, whilst the orientation of this space provides natural screening and acoustic benefits which can be enhanced with strategic planting to provide an additional level of privacy to the space.

Additional space is also provided by the adjacent hard landscaped public spaces, such as the repurposed Beach Boulevard forming a new Pedestrian Spine and Esplanade sections making them suitable for more intensive 'street' and civic type uses both independently and in support of any programmed events with the Park & Field.





Concept events plan: Festival





Concept events plan: Market

Concept plan - Events Park & Field

Concept events plan: Fireworks

6.8.4 AMPHITHEATRE

Within the Urban Park area, the opportunity to create a more intimate outdoor venue, suitable for music, theatre, outdoor cinema, or screenings is provided with the creation of a small external amphitheatre located adjacent to the Beach Ballroom.

The proposed Amphitheatre is supported with a lightweight angular canopy structure, tying in with the sculptural roof forms of the wider Masterplan. This roof form provides an element of shelter to the seating area. Below the tiered Amphitheatre there is the opportunity for localised accessible toilet facilities adjacent which would be sited close to the accessible parking to the north of this space.

The vision for this space is to create a flexible, intimate external events space with the potential to tie in with larger events hosted at the Beach Ballroom/Stadium and Events Field which is located adjacent.

The following images provide visual inspiration for the Amphitheatre and are indicative only.









Amphitheatre concept diagram

Page 87

6.8.5 CANOPY FEATURES

Several canopy structures are proposed at key nodal points within the Urban Park to aid orientation on the Beachfront journey. The angular roof structures proposed will provide shelter from the elements and seating areas for rest and reflection.

A variety of seating, including back and arm rests will be provided, as well as accessible spaces for wheelchair users. These flexible structures offer opportunity for social/meeting points, picnic areas, recycling points, individual seating, and quiet areas.

The following images provide visual inspiration for the Canopy Features and are indicative only.







Canopy Structure concept diagram

Amphitheatre isometric sketch view

Canopy Structure isometric sketch view

6.8.6 GATEWAY BUILDING

The Gateway Building is positioned at the foot of Beach Boulevard to act as a sculptural landmark at the entrance to the Core Play area, signalling arrival from the city to the Beachfront. The Gateway building is the first architectural intervention visitors will encounter when arriving at the Beachfront, its main function is being a point of first contact where users can obtain information regarding services located in the new Urban Park and any events that may be taking place on the chosen day of their visit.

The strategic positioning and form of the building is intended to enhance the sense of arrival whilst serving as transitional space that orientates users towards the new Urban Park and Beachfront.

The following images provide visual inspiration for the Gateway Building and are indicative only.









Gateway Building concept diagram

6.8.7 HUB BUILDING

The Hub Building, positioned centrally within the Beachfront proposals, will create a focal point at the heart of the new Urban Park. The positioning of the building at a key nodal point on the main pedestrian route from Beach Boulevard, will capitalise on footfall from visitors to the site heading through the revived landscape in most directions.

The primary purpose of the Hub Building is to create a place to pause, engage and refresh along this primary desire route, therefore it is proposed that a potential cafe will be incorporated as the main element of the pavilion. Internal and external seating will be provided with visual links to the Core Play area, Events Park and Pedestrian Spine offering parents and visitors the chance to rest and observe key areas of the Beachfront Park.

The following images provide visual inspiration for the Hub Building and are indicative only.









Hub Building concept diagram

Page 88

Gateway Building isometric sketch view

Hub Building isometric sketch view

6.9 THE BEACH AND ESPLANADE CHARACTER AREA

A key aspiration of the Development Framework is the removal of vehicles (except maintenance/ emergency/ permitted vehicles) along a section of the Esplanade between Codona's and Accommodation Road. This would seek to create a people-focussed environment and would allow the park to connect directly with the beach and to improve the association between the two.

6.9.1 THE BEACH INTERFACE AND ESPLANADE CONCEPT

The intention at the Beachfront is to enable a more accessible transition between the beachfront park and the beach. Initial ideas are to investigate modifying the levels across this transition area while maintaining the sea defences. The aim is to create better visual and physical connectivity between the park and the sea.

The modification of the landform in this 'upper' beach and esplanade area, facilitated by the removal of the road, will play a key role in heightening the relationship between the beach, the park, and the city. It is important that the humanising of this interface is a priority, while maintaining the necessary coastal defences. Some early ideas include incorporation of the lower sea defences in the design, thereby leaving them intact, and designing a new series of physical components allowing easier access and interface with the beach. The improved access is also important for maintaining and improving the general amenity value of the beach.

Proposals are being developed by the design team in consultation with Aberdeen City Council Flooding and Coastal Team in order to ensure there is a healthy connection between the Esplanade level and Beach level. A number of investigative studies and surveys will be carried out to identify feasibility of the proposals and the condition of the sea defences. Suitable access between these areas is essential for water sport activities and for access to potential satellite changing/shower and W/C provisions which may come forward.



Concept Plan - Esplanade North - Existing esplanade and sea wall are enhanced with planting and landform



Concept plan - Esplanade south - Reshaped beach and sea wall

Potential Architectural Interventions

6.9.2 BOARDWALK

The proposed Boardwalk allows for the creation of an enhanced beach frontage with opportunities for views towards the sea. This new structure will become a focal point at the Masterplan's periphery, forming a new key public space and creating a threshold between Beach Boulevard, the Esplanade and the North Sea.

Formed as an extension of Beach Boulevard, the Boardwalk enhances the fundamental relationship between the boulevard and Beach Ballroom. These two principal paths are joined through the creation of a centrepiece at the nose of the Boardwalk in the form of a sculpture with a key light element to symbolise the Aurora (Northern Lights). This sculptural element could be designed in collaboration with a local artist, consistent with the overall Masterplan concept.

To ensure protection of the elements, the structure slopes up outwards towards the sea. It further provides the opportunity for level change in order to ensure accessibility to the beach.

Any future proposals for the Boardwalk, where it may project over the beach or water, will need to be designed with awareness of locations of concern for suicide risk.

There is an opportunity for animation along the Boardwalk through the incorporation of landscaping and seating. Perforated mesh or glazed balustrades will also be considered in order to create a sense of openness towards the sea.

For information regarding emergency vehicle accessibility throughout site, please refer to Section 6.3.6: Delivery, Servicing and Emergency Access.









Aspirational image of Vancouver waterfront boardwalk

The images above provide visual inspiration for the Boardwalk and are indicative only.





Potential boardwalk structure (Photo courtesy of Wilkinson Eyre)



Boardwalk concept sketches

Isometric sketch view

Variety of routes (Photo courtesy of Steven Kroodsma)

6.10 BEACH BOULEVARD CHARACTER AREA

The Beach Boulevard main character area runs from Links Road to the roundabout on the A956/Commerce Street and will be reconfigured to provide the main active travel between the beach and the city centre, prioritising those on foot, bike and wheeling, while incorporating vehicles.

6.10.1 BEACH BOULEVARD CONCEPT

This section of Beach Boulevard is approximately 500m long and is approximately 27.5m wide. Roughly 67% of this is currently dedicated to vehicles therefore reconfiguration is a key aim within the Development Framework to allow the redistribution of available space to increase the allocation for pedestrians, cycles, SUDS, planting, and seating whilst maintaining vehicle and public transport access. The reallocation of space along Beach Boulevard will improve both the ease and the quality of the journey between the city centre and the beach area, making it more attractive to pedestrians and cyclists and would provide environmental improvements through increased planting and improved water and air quality.

Traffic surveys and detailed layouts are required to develop and test these proposals further in relation to their possible impacts on the wider network.

6.10.2 BEACH BOULEVARD ROUNDABOUT

Several different concept options have been investigated to determine how best to improve the connection from the city to the Beach. Of the options developed it is believed that an 'At Grade' solution has the potential to create the most effective solution.

In the adjacent image, highlighted within the dashed circle, an indicative illustrative option shows a potential reconfiguration of the roundabout for further exploration. The concept option have not been tested in relation to geometries or traffic modelling however it aims to illustrate an aspiration for how the roundabout could be transformed improving pedestrian and cycle connectivity, extending the character of the city centre, and creating a new into a new public space.

Further studies will be undertaken in line with Scottish Transport Appraisal Guidance (STAG) to identify a future junction arrangement. Detailed STAG evaluations will be underpinned by a range of objectives, including the Council's Road User Hierarchy, helping to arrive at a layout which facilitates increasing rates of sustainable and active travel trip making.







Concept plan - Beach Boulevard

New Junction (Configuration TBC)

6.10.3 BEACH BOULEVARD WEST - ACTIVE TRAVEL

The section (right) illustrates the current space allocation along Beach Boulevard. Most of the space is allocated to cars and does not contribute to a pleasant pedestrian or cycle environment.

The section (right) shows what could be achieved where space is relocated along Beach Boulevard. This could provide space for bus stops, additional soft landscape or seating, cycle lanes and cycle parking. This could provide space for legible pedestrian routes, seating areas. SuDS and soft landscape, and cycling infrastructure.

The north side of the corridor is defined by a mix of residential within the Constitution Street area, and some significant mature tree planting in places providing a green edge and is permeable to the pedestrian. These connections into the surrounding neighbourhood, along with the mature trees, should be maintained and enhanced where possible.

The interventions illustrated for Beach Boulevard have still to be tested in relation to geometries and traffic modelling. The aim is to illustrate an aspiration for how these spaces could be transformed enhancing a memorable journey to and from the Beach and city centre utilising the following aims:





Example of Segregated Cycle Lane

- Increasing pedestrian and cycle connectivity between the city and the Beach;
- Improving the appearance and experience of walking or cycling to the beach;
- Improving legibility of the journey;
- The delivery of a segregated cycling route, to be developed in consultation with a range of stakeholders including DEP, and walking and cycling groups;
- Increasing soft landscape and biodiversity;
- Accommodating SUDS.



Pedestrian Planting Footpath

Reduced Carriageway

zzzzz/ Planting

Beach Boulevard as existing

New Segregated Cycle Lane

Pedestrian Footpath

Beach Boulevard as proposed

6.10.3.1 BEACH BOULEVARD WEST - ACTIVE TRAVEL

The below images provide visual inspiration for the Beach Boulevard and are indicative only.



A potential view of Beach Boulevard with a new segregated cycleway and soft landscape



Mix of planting (Photo courtesy of Sheffield City Council)



Activated streetscapes (Photo courtesy of Sheffield City Council)



Hard and soft landscaping and wayfinding (Photo courtesy of Sheffield City Council)

6.10.4 BEACH BOULEVARD COMMUNITY GARDEN

At the bottom of Beach Boulevard, the space widens. This could be an opportunity to create community gardens with a smaller, more intimate scale than within the main body of the park.

These gardens could include sensory elements such as herb gardens, coloured light and sound features and promote use and enjoyment of the gardens by all. They could incorporate small elements of play and interaction as well as opportunities for social seating arrangements and quieter areas to relax. They could include community growing and fruit trees.

The below images provide visual inspiration for the Beach Boulevard (Community Gardens) and are indicative only.



Sound and light within a community garden



Aromatic planting within a community garden



Social seating arrangements



Key 1. Aromatic garden 2. Sound garden

Concept Plan - Beach Boulevard Community Garden

- 3. Light garden
- 4. Orchard garden

6.11 BROAD HILL CHARACTER AREA

The conceptual approach to Broad Hill is one that looks to conserve the natural form and condition of this environment. This could be described as a lighter touch nature-based intervention approach. Any interventions must be respectful of this existing environment and comply with any stand-offs or restrictions necessitated by the presence of protected species on Broad Hill.

It is likely that Broad Hill is already the most biodiverse part of the Development Framework area, however the aim will be to further look for ecological enhancements through additional tree planting especially along the leeward side of the hill, expanding the pine woodland, grassland management and providing a nature led stabilisation program for the steeper eroding east slopes. This enhancement of the ecological resource will offer a key biodiverse catalyst and generator for the rest of the Development Framework area and the creation of wider green networks. The enhancement and management of the biodiversity provides opportunities for more sensitively located seating and educational information.

Other interventions on Broad Hill will look to be light touch, with improvements to the existing path network that criss-crosses the hill at present, with 2 or 3 opportunities explored for viewpoints/resting places, possibly sculptural in form but with minimal impact on the land. These interventions will maximise the expansive views available to the sea and city, as well as commanding views of the new Beachfront park, leisure, and potential new Stadium, offering opportunities for wayfinding and educational interpretation.



Page 905

Concept plan - Broad Hill

Potential Architectural Interventions

6.11.1 BROAD HILL VIEWING PLATFORMS

There is opportunity for three viewing platforms on Broad Hill, taking advantage of spectacular unobstructed views across the Beachfront. The indicative form of the platforms consists of a base structure with integrated seating areas to pause, rest and reflect along the popular walking route.

To coincide with the other Masterplan interventions and create a common aesthetic throughout the Urban Park, design consistency will be maintained with the Broad Hill viewing platforms. To offer shelter from the elements, potential canopy structures are also proposed at strategic points.

Informative directional signage and/or sculptures pointing to specific landmarks are proposed, with accompanying observational stand binoculars. There are also opportunities for public art installations in collaboration with local artists, potentially being integrated within the geometric concrete structures.









Aspirational imagery of Seating Platform

Location plan

6.12 LEISURE AND POTENTIAL NEW STADIUM CHARACTER AREA

Aberdeen City Council will require the Beachfront developments to become a new destination in their own right, be of exceptional architectural quality and have the 'wow factor'.

The proposals will also embrace the principles of active design that promote activity, health, and stronger communities through the way we design and build our towns and cities.

There are three key functions to be provided within the Leisure and potential Stadium Character Area:

- Leisure Centre
- Ice Arena
- Stadium

The aims and objectives of the sport and leisure facility and potential Football Stadium and are to place sport, physical activity, health, and well-being at the very heart of the community in Aberdeen. Each facility would help activate the city, increase opportunities for people to participate in physical activity and sport, invest in the City's infrastructure of people and places and be inclusive to provide the opportunity to become and stay active, as well as helping to improve physical and mental well-being.

The potential new facilities would offer the opportunity to participate in sport, leisure, recreation, and community activities within a comfortable, modern, and safe environment. The potential leisure facility would be open to casual visitors to the beach area who simply wish to enjoy the seafront and observe rather that participate in the wide range of activities. The facility would be an attraction in its own right and act as a hub for visiting other parts of the beach area.

The potential new stadium would provide a new home for Aberdeen Football Club of which that the supporters, players, and staff could be proud. The potential new Stadium would offer a great experience for both home supporters and away fans, wherever they are sitting and in line with current initiatives and expectations within the sport. The Stadium would also seek to support the local, national, and international strategies that the Aberdeen F.C Trust are involved with that address the importance of increasing physical activity, and tackling issues such as poverty, inequalities, and well-being.



Potential Architectural Interventions

Concept [plan - Leisure and potential new Stadium

6.12.1 POTENTIAL NEW STADIUM TRAVEL STRATEGY

If taken forward, a new stadium would be located less than 500m from Pittodrie Stadium, equating to less than a ten-minute walk. Established travel patterns associated with Pittodrie can be built upon without the creation of additional car-based trips. Aberdeen Football Club has set out ambitious sustainability targets and aims to be net-zero by 2040 and reflecting its role within the wider city context, the club seeks to reduce emissions by 50% by 2030. These objectives will play a key role in shaping a future stadium access strategy.

Examination of the 2016 Pittodrie supporter travel survey demonstrates that just less than half of Aberdeen Football Club (AFC) season ticket holders travel to Pittodrie on foot, by bus or by taxi. Of all the supporters who arrive in the city centre by coach or train, more than 90% walk the 2.2km distance to access the stadium. While many supporters revealed that they travelled to the stadium by car, they typically do so in groups of 2, 3 or 4 and that they are prepared to walk up to 30 minutes to access the stadium.

Season ticket holders were also asked about how their match-day travel patterns might change in the event that AFC relocated to Kingsford. Car and pedestrian trips were forecast to fall by 6% and 12%, respectively, but bus use was expected to increase by 18%. While these values relate to the Kingsford site, they demonstrate that supporters are willing to change their travel behaviour if a new stadium was built. The Beachfront offers considerable potential to grow both pedestrian and bus-based trips while reducing car use.

Through the Development Framework, the potential exists to promote partnership working between Aberdeen City Council, the football club and relevant transport providers to influence and manage event and match-day travel choices. In the first instance, this would include an expansion of the existing scheme whereby season ticket holders are entitled to travel ticket discounts for match day attendance. Through a well-designed travel plan, it would be possible to directly engage with supporters' groups or those promoting events at the stadium to share positive messages around mode choice, group travel opportunities, use of park and ride facilities etc.

Successful incorporation of the stadium will depend upon the influence of travel behaviours through well designed public space, the incorporation of effective and attractive public transport and a well-considered package of strategies to manage and coordinate activities.





Aberdeen team with First Bus (Image courtesy of Aberdeen F.C)



80

Page

86

Aberdeen team bus (Image courtesy of The Press and Journal)

Walking to stadium (Image courtesy of Hans Henrik Appel)

6.12.2 LEISURE AND POTENTIAL NEW STADIUM CONCEPT Site Context

The Leisure and Potential New Stadium Character Area benefits from a flat open area set at a level approximately 3.5m lower than the beach Esplanade to the east. Behind the site to the west is Broad Hill which rises 25m above the site and offers a striking escarpment in an otherwise relatively flat coastline. The ambition for development in this area is to express the forms of the key functional spaces which appear wrapped in individual envelopes and which allow elements of the development to be delivered during different phases.

Broad Hill also provides a backdrop to the rear of the development and a great vantage point for views across the adjacent coastline. The height and massing of development in this Character Area must ensure these important views, particularly to the North Sea from Broad Hill, are protected and not obstructed. The public realm between the Leisure and potential new Stadium buildings must also be carefully considered and created as a 'valley' park encouraging public access and community use rather than being limited to a back of house/service corridor.

The Beach Ballroom sits at the southern edge of this Character Area. The existing leisure centre and ice arena are also located here but it is intended that these facilities be replaced by the new sport and leisure development. It is proposed that the existing Kings Links outdoor sports area is relocated elsewhere in the city at a location suitable for those that use it for organised sports, should the Leisure facilities and potential new Stadium be realised as shown. Indeed, increased cricket pitch provision has already been provided at Inverdee.

Design Principles

The Leisure and potential new Stadium concept embrace the Rope Works masterplan concept and key principles that are inspired by Aberdeen's shipbuilding industry.

As they develop, the leisure and potential new stadium proposals will be required to:

- Be of a high architectural and urban design quality, using materials appropriate to site location;
- Ensure the setting of the adjacent Beach Ballroom is enhanced and not detrimentally affected;
- Incorporate an organic network of pedestrian focused desire routes and meandering pathways;
- Include a study to determine the best ways to integrate the potential stadium, leisure and outdoor facilities together, visually and, where possible, physically;
- Consider how best to upgrade the Esplanade and include elements of active frontages:
- Incorporate high quality hard and soft landscape and public realm proposals:
- Incorporate natural landforms to offer protection from the elements, such as dune formations to provide shelter from north easterly winds; and,
- Integrate with Broad Hill and ensure that views from Broad Hill are not interrupted.







The project requirements for the leisure facilities and potential new Stadium are in the process of being developed and the detailed design will be subject to these overarching needs, however, two alternative design inspirations for the Leisure and Potential New Stadium Character Area have been considered as follows:

Shells

The design inspiration of shells comes from a group of shells found on the Aberdeen coastline such as mussels. These organic forms lend themselves to roofing the large span spaces as well and adding a visual interest to the form of the vertical cladding.

Sails

The design inspiration of sails comes directly from Aberdeen's shipbuilding history. Aberdeen became Scotland's leading shipbuilding port in the latter part of the 18th century and produced tall and fast clipper ships powered by sail. The triangular sail offers a distinct and recognisable architectural motif that can also lend themselves to the form, massing and elevational treatment of the potential Stadium and Leisure elements.

Under both concepts, and any others which may emerge, the Leisure development will be designed as a singular development with primary functional spaces which appear individually wrapped, whilst still







allowing for independent operation of separate uses within. This approach will also extend to the Beach Ballroom which, although will continue to stand as a separate structure, will be able to operate together with the new sport and leisure facilities.

It is recognised that the Beach Ballroom is a Category B-listed building and has significant historical and emotional importance in the city. The potential new Stadium and leisure developments will balance their heights, massing, and form so as not to overpower the Ballroom and to ensure its setting is not detrimentally affected.

The intent for the massing of the new development is twofold: firstly, to align the seaward side of the new development with the front façade of the Beach Ballroom to create much needed active frontage to the Esplanade; and secondly, respecting the scale of the Beach Ballroom to step up the massing of the forms from the lower height and narrower footprint of the Leisure facilities up to the higher roof and wider footprint of the potential new Stadium.

6.12.3 POTENTIAL ALTERNATIVE DESIGNS

Other design options may come forward in the future in response to the evolving brief for these facilities. Any alternative design concept or proposal will require to be reflective of the Rope Works concept, the beachfront location and the Design Principles noted above.

Sails concept sketches

6.12.4 LEISURE AND POTENTIAL NEW STADIUM CONCEPT Materials and Operations

The harsh coastal environment means that a palate of high quality yet robust materials and detailing will be essential. The scheme must look to choose materials and fixings that do not easily corrode in the salty damp air. Any painting of steelwork equally needs to be marine grade and considered on the longevity. Overall, the choice of materials that will weather well in this location avoiding regular cleaning or painting with be important.

Although glazing will be an essential part of the project for the amazing views out over the sea, this should be optimised at higher levels due the need to regularly clean and should include easy access strategy. Glazing at street level will be readily easy to access on a day-to-day basis so will be more liberally distributed. Glazing at street level will contribute to active frontages.

The split level of the site allows the servicing to the development to be located at the lower less-prominent area behind the Esplanade. Building maintenance considerations will form part of any future design process, but every effort will be made to ensure any physical requirements are accommodated in the least intrusive manner possible. Exterior lighting to the new developments will also be considered.

All internal plant areas should have stair access and additionally lift access to at least the level below abut ideally to the same level. All lighting and AV systems over the large span areas, where it will be difficult to always access from mobile platforms from below, will require access gantries to provide safe regular access. Exterior lighting to the new developments will also be considered.

As noted in Section 6.3 Active Travel, public transport and existing parking opportunities surrounding the site will be optimised rather than the creation any large new dedicated car parking areas for these facilities. Additional well-located accessible parking spaces will be provided.



Aspirational imagery of leisure facility concept

6.12.4 LEISURE AND POTENTIAL NEW STADIUM - ASPIRATION

The below images provide visual inspiration for the Leisure and potential New Stadium character area and are indicative only.





Kilden Performing Art Centre, Norway



Public realm tied to Potential Stadium

Zhengzhou Grand Theatre, Zhengzhou City, Henan Province, China



Jubilee Church, Italy

6.13 BEACH VILLAGE CHARACTER AREA

The potential Beach Village is envisaged as an area which can form a centre for a variety of Beachfront activities, such as, wild swimming, sailing, and kayaking, by providing facilities for hire, changing, general welfare and include areas for parking.

Within the Development Framework Phase 2, locations are under consideration for an extension of the Beach Village character area to incorporate satellite intervention locations, for changing and W/C provisions, along with a potential Water Sports Club House located at Fittie. This could include the provision of new public Beach Huts.

6.13.1 BEACH VILLAGE CONCEPT

A potential Beach Pavilion building would offer a flexible layout that can used to support these different Beachfront activities.

An associated Slipway to assist in facilitating a wide range of uses within the Beach Village, would be accessible via the existing underpass route which would be maintained and enhanced, giving direct access to the Beach. The slipway proposal will require to be assessed in relation to its impact on the natural coastal processes and beach development.

The Beach Village could also serve as an extension of the Leisure and Potential New Stadium proposals to allow an expanded offer of activities to be developed.

A future Phase 2 of the Development Framework may also bring forward additional facilities outwith the Phase 1 area which will similarly allow for an expanded offer of activities.





Potential Archite

Concept plan - Beach Village

Potential Architectural Interventions

6.13.2 BEACH PAVILION

The exact location of the Beach Pavilion needs to be carefully considered. Notionally it is located adjacent to the existing underpass and proposed new slipway. In response to the safety concerns highlighted by the Aberdeen Water Safety Group, it is proposed that rather than encouraging water/beach use at this location, the pavilion could instead offer a flexible layout that can be used to support different activities, such as informal play and flexibility for larger gatherings as well as having a safety focus First Aid provisions.

The Beach Pavilion offers a flexible layout that can be used for a variety of different Beachfront activities. The building provides active frontage to the Beach Esplanade which could potentially house Sports Clubhouse, and other complementary uses. First Aid provision and equipment storage areas would also be accommodated.

The building will be in close proximity to suggested accessible parking and will be fully accessible with ramped access integrated into the landscape design. The Pavilion could form part of a wider Beach Village or potentially be utilised for future extreme sports facilities, linking into the Leisure Centre and potential new Stadium.

The adjacent images provide visual inspiration for the Beach Pavilion Building and are indicative only.

6.13.3 SLIPWAY

Located in close proximity to the proposed Beach Pavilion, the associated Slipway will be accessible via the existing underpass route which will be maintained and enhanced, giving direct access to the Beach. The Slipway could form part of a wider Beach Village, potentially being utilised for future extreme sports facilities, linking into the wider satellite intervention facilities, Leisure Centre and potential new Stadium.

In line with proposals for other structures within the wider Masterplan, locally sourced larch timber could be utilised, suitable for a marine environment.



Slipway Materiality





Aspirational isometric sketch view

6.13.4 BEACH VILLAGE - ASPIRATION

The below images provide visual inspiration for the Beach Village and are indicative only.





Indicative landscape mounding

Summer Island BUGA, Heilbronn, 2019 by LOMA





Active water activities

Page 103









7.0 PHASING & DELIVERY

The proposals documented within the Development Framework are still at an indicative stage however the adjacent phasing diagrams illustrate the desired direction of growth as currently envisaged. As advised in the Introduction, there are elements of the Development Framework proposals that can be progressed by the Council under their statutory 'permitted development' powers, mainly the public realm and urban park areas. That is because these are works which are for the maintenance, improvement and alteration of Council land for the existing purposes of function of that land, namely existing public parks and open recreational spaces. However, any buildings within these areas would likely still require planning and associated permissions. As such, it is anticipated that the public realm-related developments will the items to come forward first.

Phase 1 - Queens Links Park

Phase 2 - Broad Hill

Phase 3 - Beach Boulevard

Phase 4 - Beach Ballroom

Phase 5 - The Beach & Esplanade

Phase 6 - Leisure & Potential New Stadium

Phase 7 - Beach Village

A key consideration of the developing phasing & delivery strategy will be attempting to mitigate any disruption to the Council's existing events schedule and the current on site or neighbouring facilities operation as much as possible.

This phasing is only indicative and there are likely to be elements of work, be that Character Area-specific or across a number of Character Areas, which will be carried out concurrently or to enable certain other works to be undertaken.



Proposed Beachfront Development Framework proposals

Phase 1 - Queens Links Parks

Phase 1 of the Beachfront proposals would see the following elements developed:

- A large core play park area with diverse range of play and games opportunities.
- An external Amphitheatre with canopy located adjacent to the Beach Ballroom.
- A large events field capable of hosting events and day-to-day use.A gateway building located at entrance to Beachfront area giving
- A gateway building located at entrance to Beachfront area giving sense of arrival.
- A hub building located at centre of site offering a place to engage and refresh.
- Canopy features offering shelter and seating across the site.
- Water features to bring drama and animation to spaces.



Page 105

Phase 2 - Broad Hill

Phase 2 of the Beachfront proposals would see the following elements developed:

- Additional tree planting and nature-based intervention.
- Improvements to the existing path network.
- Two or three opportunities explored for viewpoints/resting places.



Phase 1 - Queens Links Park



Phase 2 - Broad Hill

Phase 3 - Beach Boulevard

Phase 3 of the Beachfront proposals would see the following elements developed:

- Reconfiguration of available space to increase the allocation for pedestrians, cycles, SUDS, planting and seating whilst maintaining vehicle and public transport access.
- Community gardens located at the bottom of Beach Boulevard where the streetscape widens.
- A potential reconfiguration of the Justice Street roundabout to improve pedestrian and cycle connectivity.



Phase 4 - Beach Ballroom

Phase 4 of the Beachfront proposals would see the following elements developed:

- Proposed renovation and potential extensions of the B-listed Beach Ballroom.
- A potential plaza space with water features forming a grand setting for the building.
- A potential sunken garden area to the rear of the ballroom which would provide a dedicated external space for use by the ballroom.



Phase 3 - Beach Boulevard

Phase 4 - Beach Ballroom

Phase 5 - The Beach & Esplanade Phase 5 of the Beachfront proposals would see the following elements developed:

- Modifications to beach edge improving visual and physical connectivity between the park and the sea
- New dune landforms created
- Potential Boardwalk structure formed



Page 107

Phase 6 - Leisure and Potential New Stadium

Phase 6 of the Beachfront proposals would see the following elements developed:

- Leisure facility and potential new Stadium developed
- Associated landscaping works installed



Phase 7 - Beach Village Phase 7 of the Beachfront proposals would see the following elements developed:

- Formation of the Beach Village landscape and forms
 Creation of Beach Pavilion building
 Creation of potential new slipway



Phase 7 - Beach Village
160 WEST REGENT STREET GLASGOW G2 4RL KEPPIEDESIGN.CO.UK 01412040066



Page 110

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DEVELOPMENT FRAMEWORK PHASE 1 EXECUTIVE SUMMARY APRIL 2023 ABERDEEN CITY COUNCIL ABERDEEN BEACHFRONT



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Page 112



INTRODUCTION





1.0 INTRODUCTION

The impact of the Coronavirus pandemic highlighted just how important accessible and good quality public space is to people's physical and mental health - particularly the Beachfront. The Development Framework aims to revitalise the Beachfront as a worldclass destination for sport, leisure and tourism. Phase 1 focusses on the areas around Queens Links and Kings Link, and links back to the City Centre Masterplan. A future Phase 2 will consider connections and potential improvements to both the north and south of the Phase 1 site.



Location Plan with Aberdeen Beachfront Development Framework Area

Beachfront Development Framework Phase 1 Boundary Beachfront Development Framework Phase 2 Boundary City Centre Masterplan (CCMP) Boundary



OBJECTIVES OF THE DEVELOPMENT FRAMEWORK

- Provides an overall vision for the area whilst also allowing for flexibility and differing approaches;
- Establishes a clear and coherent spatial structure which can accommodate change in the long term as detailed proposals emerge;
- Describes character areas and areas of potential intervention; •
- Sets out strategic transport proposals in terms of access and connectivity; and
- Illustrates the general directions and phasing of development within the area.

VISION

Aberdeen.

CGI of Beachfront Aspirations

The Beachfront Development Framework offers a unique opportunity to create a transformational new waterfront destination for the City of

Page 114







2.0 THE SITE

Aberdeen is a city with a close bond to the sea, and the beachfront area has served the people of Aberdeen and beyond as a key leisure and recreation space for decades. Although still popular today, it was once a thriving tourist destination in the early 1900s, drawing visitors from across the country. Picture postcards from that era term Aberdeen 'The Silver City by the Sea' and describe the beachfront itself as 'The Finest Beach and Most Beautiful Holiday Resort in Britain'. The beachfront also housed several well utilised leisure facilities and recreational activities, such as a bathing station, tennis courts, lawn bowls, in addition to the Beach Ballroom which serves as the last remnant of this thriving time.

The Ballroom is to be considered as a primary focal point in the new beachfront development, due to its central position but also because of its cultural significance. The venue is category B-listed and recognised for it's Art Deco styling and it's octagonal ballroom with set-back pan tiled pyramidal roof which is crowned by an arcaded lantern.

The Beachfront Development Framework Phase 1 Area is located to the north-east of the city centre connected by the primary route of Beach Boulevard which links the Beachfront to Justice Street and on to the Castlegate. The site is bounded to the east by the North Sea; to the south is Codona's amusement park and a mixture of commercial, hospitality and retail uses; to the west of the site there are existing hotel and leisure units with a mix of residential typologies beyond; and to the north is the Kings Links Golf Course. The area of the proposed red line boundary is approximately 30 hectares.









Development Framework Area

The Dance Hall (Ballroom) and Promenade

Page 116





VISION & DESIGN PRINCIPLES



3.0 VISION & DESIGN PRINCIPLES

DETAILED VISION

A Dynamic Waterfront

The current area is lacking in the character and distinctiveness which would be expected of such a unique location. The proposals will seek to create a dynamic waterfront destination which the city can be proud of, and which will reconnect the city with the beach. The main route from the city via Beach Boulevard will be renewed with a focus on public transport, pedestrians, and cyclists. The Beachfront itself will be activated through potential dedicated play and events spaces, improved accessibility, a potential new stadium, and leisure facility as well as supporting facilities such as changing accommodation/satellite facilities and a potential landmark boardwalk structure, all connected by an enhanced green infrastructure network.

Beach Ballroom

The importance of the re-imagined Beach Ballroom is key to the proposals, with a desire to return this architecturally and culturally significant building to its former glory when it was known as the 'People's Ballroom'. Any renovation proposals will recognise the buildings heritage and historic significance whilst equipping it for the future as a modern events venue. This, coupled with an improved public realm, will make this a key focal point of the redevelopment of the area.

Connecting the Beach and the City

Currently the beach suffers from a lack of connection with the city centre, with the key route from the city being one which is car dominated and unattractive. With the potential renewal of Beach Boulevard and works to the major roundabout to the southwest end of this route, the proposals will reconnect the city and Beachfront through an attractive pedestrian and cycle focussed public realm. Proposed pedestrian and cycle routes will also seek to connect into the wider travel network to ensure viable and sustainable connections between the beach and the city are created.

High Quality Public Realm

The site as it exists is car dominated and suffers from a lack of good quality public space. The Beachfront proposals will invest in the area with a well-considered and high-quality public realm scheme which prioritises pedestrians and cyclists. The public realm approach will allow for public spaces to flow and reconnect the beach with the wider Beachfront area ensuring that the design is accessible and inclusive.



Developed Infrastructure

Proposed infrastructure, including traffic management, would be introduced that reduces the impact of the existing road network to promote alternative forms of travel, including cycling, whilst improving public realm. Furthermore, infrastructural works which would be co-ordinated with potential flood/sea defence works planned for the area would ensure the longevity of the Beachfront.

Leisure Facilities and Potential New Stadium

A leisure facility and potential new stadium could form part of the Beachfront Development Framework. Noted as a preferred option within this document, these world class facilities would become another key element to the revitalisation of the area. The potential new stadium could provide a new home to Aberdeen F.C and could share common facilities with a potential new state of the art leisure centre which would replace the existing Beach Leisure Centre and Linx Ice Arena.

Aspirational CGI of Beachfront proposals

ROPE WORKS DESIGN PRINCIPLES

The concept masterplan is centred around the re-imagining of the iconic Beach Ballroom, integrated with state-of-the-art Sport and Leisure facilities within an Urban Parkland setting, creating a transformational and vibrant new Beachfront destination for the City of Aberdeen.

The main features of the Rope Works conceptual masterplan are outlined below:

- An organic network of pedestrian-focussed desire routes and meandering pathways.
- An outdoor gathering area for large scale events (such as fireworks)
- Potential water features
- Relocated & upgraded play park •
- Potential canopy features with opportunities for PV panels for solar power.
- A potential Reflection pool to create a grand setting for the reimagined Beach Ballroom.
- Potential integrated Stadium, Leisure & outdoor sports facilities.
- Upgraded Esplanade with active frontage along the beach
- High quality hard/soft landscape opportunities.
- Natural landforms to offer protection from the elements, with proposed dune formations providing shelter from north easterly winds.
- Integration with Broad Hill and links to existing footpaths.



Key:

- 1. Pedestrian Boulevard 2. Urban Park
- 3. Public Space
- 4. Amphitheatre
- 5. Landscaping Mounding
- 6. Pavilion
- 7. Water Feature
- 8. Boardwalk
- 9. Beach Ballroom
- 10. Hidden Garden
- 11. Public Plaza
- 12. Existing Ice Facility

8

Page 118

Rope Works conceptual masterplan

- 13. Leisure Facility
- 14. Esplanade
- 15. Potential New Stadium
- 16. Slipway

17. Beach Pavilion

Page 119



THE DEVELOPMENT FRAMEWORK



4.0 THE DEVELOPMENT FRAMEWORK

INTRODUCTION & PURPOSE

Based on the preferred options previously discussed, the design team produced an indicative Development Framework Plan which can be seen in the image opposite. This sets out an aspiration, allowing more detailed proposals to be tested and come forward in the future.

As previously mentioned, the spacial configuration exercise that was conducted for the proposed Development Framework area has resulted in a reorganisation of the open space provision within the masterplan area; reflecting the new priority of uses both in terms of open space and built. This has resulted in the definition of a new series of distinct character areas across the Development Framework area which reflect a variety of anticipated approaches and identities. These will be progressed and refined at subsequent masterplan phases. The following character areas have been established:

- Beach Ballroom 1.
- 2. Events Park + Field)
- Queens Links Urban Park 3. Core Play Park
- 4. Esplanade and Beach
- 5. Beach Boulevard
- 6. Broad Hill
- 7. Potential Stadium and Leisure
- 8. Beach Village

Each character area is set out in the following sub sections, in order to describe the key attributes of each in terms of design principles. They also look at approaches giving definition to the spaces whilst retaining flexibility to allow for the brief of each area to evolve with any future refinement or adaptation of the Development Framework document.

Through this refinement of the character areas, it is important to acknowledge that the overall Development Framework area has an overriding aim of being cohesive and a joined-up piece of urban and landscape design delivering an identifiable and exciting new place of the city of Aberdeen and the wider region.



Page

120

Development Framework plan

BEACH BALLROOM CHARACTER AREA

The Beach Ballroom is to be considered as a primary focal point in the new Development Framework proposals, due to its central position and its cultural significance.

BEACH BALLROOM CONCEPT

The proposed renovation and extension of the B-listed Beach Ballroom will seek to respect the heritage and memories defined by this iconic space to ensure to can continue to contribute to the lives of those who visit it. Those historic aspects of the interior and exterior of the building will be retained and revitalised through an extensive programme of renovation. As part of this renovation, an interior design strategy which promotes the buildings Art Deco heritage will bring a sense of grandeur back to the property. Potential new extensions to the building will be considerate and of an appropriate scale and style to compliment the Ballroom.

In addition to the renovation and reworking of the ballroom, there is the potential to create improved public spaces in the immediate vicinity, for example:

- A potential civic plaza space with water features forming a grand setting for the building and ensuring the buildings prominence on the main pedestrianised route through the site from Beach Boulevard to Esplanade. This civic plaza will provide a location for wider orientation, wayfinding and gathering within high quality public realm.
- A potential sunken garden area to the rear of the ballroom which would provide a dedicated external space for use by the ballroom and serve to link the wider public space between the ballroom and a potential leisure facility adjacent.



Spanish City, Whitley Bay - precedent image

4

5.



The Reel House, Glasgow - precedent image







Potential Architectural Interventions

Concept Plan - Ballroom, External Plaza, Secret Garden

3.



Civic Plazas

Proposed new main entrance



Proposed exterior public realm



Proposed east Ballroom elevation

QUEENS LINKS URBAN PARK CHARACTER AREA

The heart of the open space provision within the Development Framework is focussed on the urban park, a central landscape space, approximately 5.5ha, designed to accommodate multiple uses. The Urban Park is composed of two main character areas, the Core Play, Park and the Events Park + Field, joined by the Pedestrian Spine (former Beach Boulevard east), with nodes of key civic plazas providing locations of orientation, way-finding and gathering within high quality public realm areas.

QUEENS LINKS PARK URBAN CONCEPT

A public park must be accessible for everyone. The richness of the park will come in its form and uses. Play and games are an obvious part of this mix and creating the physical environment for this to flourish is key. The whole park should be seen as incorporating elements of play opportunity, with areas that are more focused and defined along with the more natural and incidental play integrated throughout the park.

Potential insertions within the urban park space include:

• Civic plazas.

Page

122

- An external Amphitheatre with canopy located adjacent to the Beach Ballroom.
- A large events field capable of hosting events and day-to-day use.
- A gateway building located at entrance to Beachfront area giving sense of arrival.
- A hub building located at centre of site offering a place to engage and refresh.
- Canopy features offering shelter and seating across the site.
- Water features to bring drama and animation to spaces.

There are many other uses to be considered, and careful analysis of what is best is important as flexibility will be key in the evolution of a public park along with its functionality and flexibility to cater for yet unforeseen city uses.



Concept Plan - Urban Park









Potential Architectural Interventions



Concept Plan - Events Park & Field

BEACH & ESPLANADE CHARACTER AREA

A key aspiration of the Development Framework is the removal of vehicles (except maintenance/ emergency/ permitted vehicles) along a section of the Esplanade between Codona's and Accommodation Road. This would seek to create a people-focussed environment and would allow the park to connect directly with the beach and to improve the association between the two.

BEACH & ESPLANADE CONCEPT

The intention at the Beachfront is to enable a more accessible transition between the beachfront park and the beach. Initial ideas are to investigate modifying the levels across this transition area while maintaining the sea defences. The aim is to create better visual and physical connectivity between the park and the sea. The modification of the landform in this 'upper' beach and esplanade area, facilitated by the removal of the road, will play a key role in heightening the relationship between the beach, the park, and the city. It is important that the humanising of this interface is a priority, while maintaining the necessary coastal defences. Some early ideas include incorporation of the lower sea defences in the design, thereby leaving them intact, and designing a new series of physical components allowing easier access and interface with the beach. The improved access is also important for maintaining and improving the general amenity value of the beach.

A potential Boardwalk/Pier structure could allow for the creation of an enhanced beach frontage with opportunities for views towards the sea and back to the city. The Boardwalk would become a focal point on the area's periphery, forming a new key public space and creating a threshold between Beach Boulevard, the Esplanade, and the North Sea. The form of the Boardwalk would align with the Rope Works Concept to create an organic and intuitive journey, linking the key elements within the Urban Park to the new activate frontage of the Esplanade.



Concept Plan - Esplanade North - Existing esplanade and sea wall





Reshaped Beach and Sea Wall





Potential Boardwalk Pier Structure (Photo courtesy of Wilkinson Eyre)







The images above provide visual inspiration for the Boardwalk and are indicative only.

Aspirational image of Vancouver waterfront boardwalk

Isometric sketch view



Boardwalk concept sketches

BEACH BOULEVARD CHARACTER AREA

The Beach Boulevard main character area runs from Links Road to the roundabout on the A956/Commerce Street and will be reconfigured to provide the main active travel between the beach and the city centre, prioritising pedestrian, and cycle movement, while incorporating vehicles.

BEACH BOULEVARD CONCEPT

This section of Beach Boulevard is approximately 500m long and is approximately 27.5m wide. Roughly 67% of this is currently dedicated to vehicles therefore reconfiguration is a key aim within the Development Framework to allow the redistribution of available space to increase the allocation for pedestrians, cycles, SUDS, planting, and seating whilst maintaining vehicle and public transport access. The reallocation of space along Beach Boulevard would improve both the ease and the quality of the journey between the city centre and the beach area, making it more attractive to pedestrians and cyclists and would provide environmental improvements through increased planting and improved water and air quality.

Traffic surveys and detailed layouts are required to develop and test these proposals further in relation to their possible impacts on the wider network.



Concept Plan - Beach Boulevard





Potential Community Garden space at east end of Beach Boulevard



Community garden with planting



Social seating arrangements





Page 124

Proposed Streetscape works to Beach Boulevard

Potential view of Beach Boulevard with segregated cycleway and soft landscape



Mix of planting



Active streetscape

BROAD HILL CHARACTER AREA

The conceptual approach to Broad Hill is one that looks to conserve the natural form and condition of this environment. This could be described as a lighter touch nature-based intervention approach. Any interventions must be respectful of this existing environment and comply with any stand-offs or restrictions necessitated by the presence of protected species on Broad Hill.

The conceptual approach to Broad Hill is one that looks to conserve the natural form and condition of this environment. This could be described as a lighter touch nature-based intervention approach. It is likely that Broad Hill is already the most biodiverse part of the Development Framework area, however the aim will be to further look for ecological enhancements through additional tree planting especially along the leeward side of the hill, expanding the pine woodland, grassland management and providing a nature led stabilisation program for the steeper eroding east slopes. This enhancement of the ecological resource will offer a key biodiverse catalyst and generator for the rest of the Development Framework area and the creation of wider green networks.

Other interventions on Broad Hill will look to be light touch, with improvements to the existing path network that criss-crosses the hill at present, with 2 or 3 opportunities explored for viewpoints/resting places, possibly sculptural in form but with minimal impact on the land. These interventions will maximise the expansive views available to the sea and city, as well as commanding views of the new Beachfront park, leisure, and potential new Stadium, offering opportunities for wayfinding and educational interpretation.





Aspirational imagery of seating platform





Potential Architectural Interventions

Concept Plan - Broad Hill

Viewing platform/seating wall

Location plan

LEISURE & POTENTIAL STADIUM CHARACTER AREA

The aims and objectives of the sport and leisure facility and potential Football Stadium and are to place sport, physical activity, health, and well-being at the very heart of the community in Aberdeen.

LEISURE & POTENTIAL STADIUM CONCEPT

The proposals will also embrace the principles of active design that promote activity, health, and stronger communities through the way we design and build our towns and cities.

There are three key functions to be provided within the Leisure & Potential Stadium Character Area:

- Leisure facility
- Ice Arena
- Potential Stadium

Each facility would help activate the city, increase opportunities for people to participate in physical activity and sport, invest in the City's infrastructure of people and places and be inclusive to provide the opportunity to become and stay active, as well as helping to improve physical and mental well-being. The potential leisure facility would be open to casual visitors to the beach area who simply wish to enjoy the seafront and observe rather that participate in the wide range of activities. The facility would be an attraction in its own right and act as a hub for visiting other parts of the beach area.

Two design concepts have emerged for these facilities, which relate back to the Ropeworks concept of the Development Framework, and the Beachfront location. 'Shells' comes from the many shells found on the coastline. 'Sails' refers back to the city's shipbuilding past, and the historic rope works factory that was located at Queens Links.



Potential Architectural Interventions

Concept Plan - Leisure and potential new Stadium







Shell concept sketches





Public realm tied to Potential Stadium



Aspirational imagery of leisure facility concept



Page

126

Sails concept sketches

Zhengzhou Grand Theatre, Zhengzhou City, Henan Province, China

Kilden Performing Art Centre, Norway

BEACH VILLAGE CHARACTER AREA

The potential Beach Village is envisaged as an area which can form a centre for a variety of Beachfront activities, such as, wild swimming, sailing, and kayaking, by providing facilities for hire, changing, general welfare and include areas for parking.

Within the Development Framework Phase 2, locations are under consideration for an extension of the Beach Village character area to incorporate satellite intervention locations, for changing and W/C provisions, along with a potential Water Sports Club House located at Fittie.

BEACH VILLAGE CONCEPT

A potential Beach Pavilion building would offer a flexible layout that can used to support these different Beachfront activities.

An associated Slipway to assist in facilitating a wide range of uses within the Beach Village, would be accessible via the existing underpass route which would be maintained and enhanced, giving direct access to the Beach. The slipway proposal will require to be assessed in relation to its impact on the natural coastal processes and beach development.

The Beach Village could also serve as an extension of the Leisure and Potential New Stadium proposals to allow an expanded offer of activities to be developed.

A future Phase 2 of the Development Framework may also bring forward additional facilities outwith the Phase 1 area which will similarly allow for an expanded offer of activities.

The adjacent images provide visual inspiration for the Beach Pavilion Building and are indicative only.









Aspirational isometric sketch view





Slipway materiality



Beach Village materiality precedent

West 8 – Governors Island: The Hills

Summer Island BUGA, Heilbronn

Page 128









5.0 PHASING & DELIVERY

7.0 PHASING & DELIVERY

The proposals documented within the Development Framework are still at an indicative stage however the adjacent phasing diagrams illustrate the desired direction of growth as currently envisaged. As advised in the Introduction, there are elements of the Development Framework proposals that can be progressed by the Council under their statutory 'permitted development' powers, mainly the public realm and urban park areas. That is because these are works which are for the maintenance, improvement and alteration of Council land for the existing purposes of function of that land, namely existing public parks and open recreational spaces. However, any buildings within these areas would likely still require planning and associated permissions. As such, it is anticipated that the public realm-related developments will the items to come forward first.

- Phase 1 Queens Links Park
- Phase 2 Broad Hill

Page 129

- Phase 3 Beach Boulevard
- Phase 4 Beach Ballroom
- Phase 5 The Beach & Esplanade
- Phase 6 Leisure & Potential New Stadium
- Phase 7 Beach Village

This phasing is only indicative and there are likely to be elements of work, be that Character Area-specific or across a number of Character Areas, which will be carried out concurrently or to enable certain other works to be undertaken.



Phase 5 - The Beach & Esplanade





Phase 1 - Queens Links Urban Park



Phase 3 - Beach Boulevard



Phase 6 - Leisure and potential new Stadium





Phase 2 - Broad Hill

Phase 4 - Beach Ballroom

Phase 7 - Beach Village

160 WEST REGENT STREET GLASGOW G2 4RL KEPPIEDESIGN.CO.UK 01412040066







Aberdeen Beachfront Development Framework Strategic Environmental Assessment (Environmental Report)



September 2022

Aberdeen Beachfront Development Framework Strategic Environmental Assessment (Environmental Report)

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NON- TECHNICAL SUMMARY

Introduction

The Strategic Environmental Assessment (SEA) of the draft Aberdeen Beachfront Development Framework has been carried out by EnviroCentre, on behalf of Aberdeen City Council.

A SEA is required for the draft Aberdeen Beachfront Development Framework under the Environmental Assessment (Scotland) Act 2005. The SEA has been carried out alongside the development of the draft Beachfront Development Framework and seeks to ensure that, once adopted, the Beachfront Development Framework contributes positively to the high level of environmental protection now expected by the Scottish Government. The SEA seeks to ensure that potential significant effects on the environment of implementing the Beachfront Development Framework, and of reasonable alternatives, are identified, described, evaluated and taken into account before the Beachfront Development Framework is adopted.

To support the public consultation on the draft Beachfront Development Framework and the potential effects on the environment of its implementation, an Environmental Report, which documents the SEA process and outcomes, is required under the SEA legislation. This Non-Technical Summary of the Environmental Report is also required to facilitate wider consultation.

Consultation on Aberdeen Beachfront Development Framework

The **six week** consultation period on the Beachfront Development Framework is from:

12 September 2022 to 24 October 2022.

Responses to the consultation on the draft Beachfront Development Framework and its potential effects on the environmental should be sent to: <u>LaRobertson@aberdeencity.gov.uk</u> OR

Laura Robertson Senior Planner Aberdeen City Council Masterplanning, Design and Conservation Development Management / Strategic Place Planning Commissioning Marischal College Broad Street Aberdeen AB10 1AB

Background to the Beachfront Development Framework

The Aberdeen Beachfront Development Framework highlights the main issues for development in the Beachfront Area and sets out options for how these will be dealt with, including consideration of existing and new sites. The draft Beachfront Development Framework sets out a Vision and a series of Objectives and Actions for regenerating Aberdeen Beachfront.

Integration of the SEA with the Aberdeen Beachfront Development Framework - development process & engagement with stakeholders

Whilst the Beachfront Development Framework's development process was not explicitly subject to SEA from the outset, a number of SEA-type activities were undertaken by Aberdeen City Council and their consultants during the preparation of the Beachfront Development Framework and the Masterplan which informed it including community consultation and engagement, and undertaking initial scoring of the three masterplan options and three development options. These activities played a key role in informing the early development of the Beachfront Development Framework in advance of the formal SEA process.

The SEA process began in April 2022 and since then has been undertaken in parallel with the development of the draft Beachfront Development Framework with interaction between the SEA team and the Beachfront Development Framework team.

SEA overview

The SEA aims to inform the draft Beachfront Development Framework development process. It is important to note that the draft Beachfront Development Framework is a high-level plan and as such, the approach taken to the SEA has been of a high-level assessment. This SEA is not intended to address issues that should be considered during the assessment of lower-level plans or complementary strategies which may support the implementation of the Beachfront Development Framework.

SEA Screening

Aberdeen City Council screen plans to determine whether a SEA for the plan should be undertaken. When a plan is likely to have significant (i.e., negative, damaging, large or long-lasting) effects on the environment, the Council will undertake a SEA. (If the effect is not significant, no further action is taken and a pre-screening report would be prepared). In this case, it was determined by the Council that the environmental effects of the Beachfront Development Framework will potentially be significant and therefore a full SEA is required.

Scoping the level of detail for the assessment

The approach to the SEA of the draft Beachfront Development Framework initially involved determining the level of detail of the SEA to ensure it was appropriate to the draft Beachfront Development Framework (called 'Scoping'). A SEA Scoping Report was produced and consulted upon during June and July 2022. The Scoping Report presented the findings of the initial consideration of the potential environmental effects of the draft Beachfront Development Framework. It included information on the environmental baseline information) and a proposed approach to assessing the environmental effects of the draft Beachfront Framework.

The responses to the Scoping Report were taken into account to inform and adapt the approach to the development of the Beachfront Development Framework and the undertaking of the assessment of the Beachfront Development Framework's potential effects on the environment (Appendix A). The responses to the Scoping Report consultation provided comments on an initial review of relevant plans, programmes, strategies and associated environmental protection objectives to which the Beachfront Development Framework and the SEA would need to refer. A list of environmental protection objectives (termed 'SEA objectives') was identified under nine environmental topics, which would be appropriate for the Beachfront Development Framework to work towards. The SEA Objectives used as a framework for the assessment of the Beachfront Development Framework are included below in Table 1.

Page 134

Within Table 1 we have attempted to align air, noise and climate objectives as they are related in terms of sources and impacts and ideally should not be considered in isolation. Air quality is also considered under population and human health given it is a public health issue as well as environmental.

SEA Topic	Objectives	Indicators
Biodiversity, flora	 Protect or conserve and, where 	Condition of designated sites
and fauna	possible, restore and enhance	
	biodiversity and valued nature	Loss of designated sites
	conservation habitats and species.	
		Habitat fragmentation
	(*Amended at the request of	
	NatureScot)	LBAP species/habitats stable or
		increasing
Soil	Protect and enhance soil quality and	SUDS are delivered in new
	prevent any further degradation of	development.
	Solis .	Dovelopments should avoid soil
	Reduce the amount of vacant and Derelict Land in the Aberdeen	contamination
	Beachfront boundary area	
	Deachnone boundary area.	The waste hierarchy should be
	(* Amended at Request of NatureScot)	promoted.
Landscape	Protect and enhance landscape	Impact on visually prominent
•	character, local distinctiveness, visual	areas
	amenity and promote access to the	
	wider environment.	Development adversely affects
		the landscape/ townscape/
	(*Amended at the request of	seascape setting.
	NatureScot)	
Cultural heritage	Protect, conserve and enhance the	Number and condition of
	historic environment.	designated/non-designated sites
		and undiscovered remains.
water	Prevent deterioration, protect and anhance water quality and ecological	Impact on Flooding
	ennance water quality and ecological	Impact on water pollution
	Peduce the risk of flooding	
	Provide adequate drainage and	Impact on water bodies and the
	sewerage	coast
	(*Amended at Request of NatureScot)	
Population and	Improve human health and community	Impact on human health and
human health	wellbeing, while promoting a range of	community wellbeing,
(Note interactions	outdoor and recreational attractions.	
between Population	 Encourage physical activity. 	
and human health	Creation of community facilities.	
Air and Climatic		
Factors)		Air quality tranda
AIr	Maintain and improve air quality and reduce emissions of key pollutants	All quality trends
Climatic factors	Peduce emissions of greenbouse s in	Electricity is generated from
Chinadic factors	line with Scottish Government targets	renewable energy sources
	Promote active travel and sustainable	Terrewable energy searces.
	transport*.	Impact on human health and
	Reduce risks from climate change	community wellbeing.
	problems in the Aberdeen City Council	Quality and distance of new
	area include increased flood risk of	active travel routes created.
	coastal and fluvial sources.	

Table 1: Key Environmental Receptors and SEA Objectives

	Promote renewable energy sources. (* Amended at Request of NatureScot)	SUDS. Flood risk
Material assets	 Promote the sustainable use of community assets, natural resources and material assets. Promote quality urban design. 	Enhancing positive effects on community assets, natural resources and material assets.
	 Promote sustainable waste management and the circular economy. 	Waste minimisation and promotion of the circular economy.

To set the context within which the draft Beachfront Development Framework will need to operate, the SEA Objectives were used to support the identification of key environmental issues and used as a framework for establishing the environmental baseline against which the effects of the implementation of the draft Beachfront Development Framework would be assessed. Through this process, some initial monitoring indicators were identified for measuring progress of the Beachfront Development Framework towards achieving the SEA Objectives.

Description of the Proposed Beachfront Development Framework

A Development Framework is one of the tools under the Council's 'masterplanning' umbrella and sets out a two-dimensional framework of development principles and parameters for the way in which the wider site is to be developed in the future. The Development Framework will serve as a strategy document used by Aberdeen City Council to guide the future development of the Beachfront. The Beachfront Development Framework will not be adopted as Supplementary Planning Guidance, but rather will be a Council-approved strategy, and will be assimilated into a recalibrated City Centre and Beach Masterplan. These documents will be material considerations in the assessment of any future planning applications for development at the Beachfront.

It is proposed that, following the approval of the Development Framework by the Council, detailed planning applications for the new buildings at the Beachfront would be submitted, while the public realm aspects will be progressed by the Council under statutory powers, as previously confirmed by Committees. It is important to stress that the Development Framework sets out principles and parameters to be followed and will not be 'set in stone' or represent a final design solution for the Beach or any of the constituent developments. The document will outline a potential phasing strategy for the prospective developments and interventions at the Beachfront. **Chapter 4** of the main report contains a detailed description of the content of the Beachfront Development Framework, and the different options and alternatives considered.

Context of the Proposed Beachfront Development Framework

To guide and deliver what Aberdeen City Council plan to do in the Beachfront Development Framework EnviroCentre has made use of high-level documents, statements and pieces of legislation to influence how the Council have prepared the Framework which affects Aberdeen.

Chapter 3 of the main report contains a list of all the relevant plans, programmes, strategies and policies which have a bearing on the Beachfront Development Framework. **Appendix B** contains a more detailed description of these.

Environmental Baseline

We have collected information on the key characteristics of the environment in Aberdeen and the Beachfront area where information is available, to provide a snapshot of the state of the environment in Aberdeen at this time (**Chapter 3 and Appendix C**). We have also identified a number of environmental problems in Aberdeen, and what the role of the Beachfront Development Framework might be in addressing these problems.

The main challenges The challenges we must deal with:

- Aberdeen has air quality issues and has implemented three Air Quality Management Areas AQMA's), the closest to the Beachfront area being the City Centre AQMA;
- Aberdeen releases significant amounts of CO₂ as a result of heating, and driving vehicles among others. This is releasing CO₂ into the air and contributing to climate change;
- Past and present development have all affected soil and water quality;
- Dealing with waste also has implications for soils, water and climate;
- Aberdeen has a rich cultural heritage, development is putting pressure on these resources;
- New development can put pressure on biodiversity; and
- The diversity of the Aberdeen population needs to be considered for future development. For example, there are a range of ages living in Aberdeen who seek open space and recreational facilities, therefore the Beachfront Development Framework must cater for all, including people moving to live in the area.

The main part of SEA is assessing the effect of the strategy, policies and supplementary guidance on the environment. A summary of our findings can be found in the table below:

SEA Topic	Impact of the Development Framework
Air	The effects of the Beachfront Development Framework on the
	environment are generally positive.
	The Beachfront Development Framework "Development Options" could
	increase recreational activity in the area, and could result in vehicles on
	the roads which emit greenhouse gases, however, the Development
	Framework includes key "Design Principles" to promote sustainable
	modes of transport such as walking, cycling and public transport.
	The promotion of sustainable transport is also likely to benefit the Low
	Emission Zone (LEZ), covering the city centre and proposed
	enhancements to active travel connections between the city centre and
	the Beachfront could contribute towards LEZ objectives.
Climatic Factors	The overall effects of the Beachfront Development Framework are
	generally positive. The Beachfront Development Framework sets out the
	approach, pathway, and actions towards meeting NetZero and climate-
	resilient assets and operations by 2045. As such, energy-efficient designs
	will be incorporated alongside renewable and low-carbon energy sources,
	with consideration provided on how further decarbonisation could be
	achieved in the future.
Water	The overall effects of the Beachfront Development Framework on water
	are also mixed. The "Design Principles" promote the use of Sustainable
	drainage systems (SuDS) and blue/green infrastructure. The provision of
	SUDs and blue/green infrastructure can provide opportunities for
	biodiversity gain. Flood and Drainage impact assessment will be required
	prior to development.
Soil	The site is located on the edge of an area which has former industrial uses
	including chemical, gas, iron, rope and granite works. All of these have the
	potential to leach contaminants into the surrounding areas. Without
	knowing how contaminated material, if any, was dealt with when the site
	was first developed, it is not possible to discount the possibility that
	contaminated material will be encountered on site.

	The Development Framework does not contain any specific guidance on the protection or enhancement of soils.	
Biodiversity	The overall effects of the Beachfront Development Framework on biodiversity is generally positive and includes key "Design Principles" which indicate all new development will give consideration to biodiversity.	
Population and Health	The overall effects of the Beachfront Development Framework on population and health are generally positive because the new development will provide access to recreational/leisure facilities, improved infrastructure and potential new employment opportunities. However, traffic from new development and other polluting uses could have a negative effect on air quality which may have a negative effect on human health. The Beachfront Development Framework includes Design Principles to try and limit this effect through sustainable transport options.	
Cultural Heritage	The effects of the Beachfront Development Framework on cultural heritage are generally positive, particularly the refurbishment of the Beach Ballroom which is a Category B listed building are mixed. The Design Principles indicate that heritage will be protected, and people's understanding and enjoyment of it enhanced through the new developments. However, there may inevitably be some impact on their setting as a result of new development	
Landscape	The overall effects of the Beachfront Development Framework on our surroundings are mixed, some positive and others negative. Large-scale development, which can be seen from a number of locations, will have a negative effect on views and scenery and the character of the Beachfront Area. However, the Beachfront Development Framework also contains design principles" for new development which aims to minimise this impact.	
Material Assets	The overall effect of the Beachfront Development Framework is mixed.	

Chapters 5 and 6 of the main report describe in more detail how we approached the assessment of environmental effects and mitigation measures to help mitigate the negative (or enhance the positive) effects of the development options.

Chapter 7 Implementation and Monitoring the Beachfront Development Framework

Monitoring the significant environmental effects of implementing the Beachfront Development Framework is a fundamental part of the SEA process. The Environmental Assessment (Scotland) Act 2005 requires the significant environmental effects of a plan or programme to be monitored and that the Environment Report (this report) should include a description of measures 'envisaged' for monitoring the implementation of the plan. This may help identify opportunities for subsequent revisions of the Beachfront Development Framework to contribute further to the environmental protection and enhancement of the Aberdeen beachfront area. Chapter 7 explains how significant negative and positive effects of the plan and provides a description of what will be monitored, how this can be undertaken and how often.

Chapter 8 Conclusions and next steps

Following consultation on the Environmental Report (including this Non-technical summary) and the draft Beachfront Development Framework, all responses will be collated and analysed by the Beachfront Development Framework -development team. The results of the analysis will be taken into account in the finalisation of the Beachfront Development Framework. In line with SEA legislative requirements, if any significant changes are made to the Beachfront Development Framework, an assessment of its potential effect on the environment of the changes will be undertaken and summarised in an addendum to the Environmental Report. A post-adoption statement on how the Environmental Report itself and the responses to the SEA and draft Beachfront Development Framework have been taken into account will also be published along with a list of the Consultees.

The Environmental Report (along with any addendum required), and the Post-Adoption Statement, will be published alongside the final Beachfront Development Framework.

Contents

Nor	n- Tec	chnical Summary	i	
1	Background and Introduction1			
	1.1 Purpose of the Environmental Report and key facts			
	1.2	Key Facts	1	
	1.3	Compliance with the Environmental Assessment (Scotland) Act 2005	2	
	1.4	SEA activities to date	3	
2	SEA	approach	5	
	2.1	Overview of approach	5	
	2.2	Stakeholder consultation and engagement	6	
	2.3	SEA Methodology	8	
	2.4	Assessment of Environmental effects	. 11	
	2.5	Mitigation and Monitoring	. 21	
3	Env	ironmental objectives, baseline and context	. 22	
	3.1	Relationships with other plans, programmes, strategies and environmental protection		
		objectives	.22	
	3.2	Description of the environmental baseline	.26	
	3.3	Establishing the environmental baseline	.27	
	3.4	Environmental problems and opportunities identified	. 27	
	3.5	SEA Framework	.27	
4	Ass	essment of Aberdeen Development Framework alternatives	.35	
	4.1	Background to the assessment of strategic alternatives	.35	
	4.2	Evaluation Process	. 36	
	4.3	Scoring Criteria	. 36	
	4.4	Masterplan Options	. 38	
	4.5	Masterplan Option Scoring	. 60	
	4.6	Preferred Masterplan Option	. 62	
	4.7	Development Option Scoring	.62	
	4.8	Preferred Development Option	. 67	
	4.9	Business as Usual Option	. 67	
	4.10	Orroboration of Scoring Outcomes	. 69	
	4.11	Recommendations for improving the environmental performance of the 'preferred option'	. 69	
5	Ass	essment of draft Beachfront Development Framework Vision and Objectives	.71	
	5.1	Environmental Commentary on Draft Beachfront Development Framework Vision	.71	
	5.2	Compatibility analysis of draft Beachfront Development Framework objectives and SEA		
		objectives	.72	
	5.3	Draft Beachfront Development Framework Objectives	.72	
	5.4	Summary Commentary	.72	
	5.5	Environmental commentary on draft Beachfront Development Framework development		
		options	.75	
6	Ass	essment of Beachfront Development Framework Proposals	.76	
	6.1	Introduction	.76	
	6.2	Summary of Findings	. 82	
	6.3	Cumulative Effects	.85	
7	Imp	lementation and Monitoring the Beachfront Development Framework	. 88	
	7.1	Proposals for monitoring	. 88	
8	Con	clusions and next steps	. 93	

Appendices

- A Taking account of responses to the Scoping consultation
- B Summary of Plans, Programmes and Strategies relevant to the development of the Aberdeen Beachfront Development Framework
- C Environmental Baseline Appraisal
- D Compatibility Analysis
- E Assessment of Preferred and Alternative Options
- F Beachfront Development Framework

Figures

Figure 4-1: Option 1-Retain and refurbish the existing leisure centre, ice arena, new football	stadium 63
Figure 4-2: Option 2-New build leisure centre and ice arena, new build football stadium	65
Figure 4-3: Option 3-New leisure centre and ice arena, football stadium excluded	66
Figure 6-1: Preferred Option A: Potential Stadium & Leisure Sketch	77
Figure 6-2: Alternative Option A Sketch	77
Figure 6-3: Alternative Option B Sketch	78

Tables

Table 1-1: Key Facts relating to the Beachfront Development Framework	1
Table 1-2 Summary of SEA requirements and where these are covered in the Environmental Repo	ort3
Table 1-3: SEA activities to date	3
Table 2-1: SEA Process summary	5
Table 2-2: Timetable for the preparation of the Beachfront Development Framework and SEA	6
Table 2-3: SEA Topics for Scoping	10
Table 2-4: SEA significance criteria	12
Table 2-5: Staged approach to assessment	13
Table 2-6: Key Environmental Receptors and SEA Objectives	14
Table 2-7 Key to compatibility scoring	15
Table 2-8:Example matrix for comparing alternatives	16
Table 2-9 Tasks undertaken to assess the potentially significant environmental effects of the	
Beachfront Development Framework	16
Table 2-10: SEA Questions	19
Table 2-11: Assessment matrix for plan, strategy and policy issues, and site assessment	20
Table 2-12: Monitoring tasks and their purpose	21
Table 3-1: Name of Plan, Programme, Strategy or Environmental Protection Strategy	23
Table 3-2: Data Sources for Providing Baseline Environmental Assessment	28
Table 3-3: SEA Framework	32
Table 4-1: Scoring Criteria	36
Table 4-2: Masterplan Options- Scoring	61
Table 4-3: Development Options- Scoring	68
Table 5-1 Recommendations for improving the draft Beachfront Development Framework objectiv	'es 73
Table 6-1: Overview of Assessment Development Options	80
Table 7-1: Monitoring Plan	90

1 BACKGROUND AND INTRODUCTION

1.1 **Purpose of the Environmental Report and key facts**

To meet its legislative requirements under the Environmental Assessment (Scotland) Act 2005 for the preparation of its draft Beachfront Development Framework, Aberdeen City Council contracted EnviroCentre to prepare Strategic Environmental Assessment (SEA) Scoping and Environmental Reports. Aberdeen City Council will take into account the consultation responses and prepare the SEA Post-adoption Statement for publication with the final adopted Beachfront Development Framework.

This Report constitutes an Environmental Report in accordance with the requirements of the Environmental Assessment (Scotland) Act (2005).

This section describes the purpose of SEA and the Environmental Report (ER), the background on the Aberdeen City Council draft Beachfront Development Framework, the structure and content of this Environmental Report and where to locate relevant SEA statutory requirements by ER chapter. The ER as a whole is split into two distinct sections:

- **Chapters 1-3** provide information on the background to the draft Beachfront Development Framework and describe the environmental, legislative and policy context within which it will operate once adopted. This contextual information informed the development of a bespoke approach to the assessment of the draft Beachfront Development Framework's potential environmental effects. The approach taken to the SEA as a whole and, in particular, the assessment is described here also; and
- **Chapters 4-8** describe the outcomes of the assessment of the draft Beachfront Development Framework, recommendations for improving its environmental performance and measures proposed to monitor its significant environmental effects.

In addition, there is a separate Non-technical Summary (NTS) which summarises the SEA of the draft Beachfront Development Framework.

1.2 Key Facts

Name of Responsible Authority	Aberdeen City Council
Title of the of the policy, plan, programme (PPS)	Beachfront Development Framework
What Prompted the PPS	Planning & etc. (Scotland) Act 2006
Subject	Land Use (Sister Document to the City Centre Masterplan (CCMP))
Period Covered by the PPS	Annual review of progress and delivery

Frequency of Updates	The development framework sets out the aspirations for planning applications which will be submitted to Aberdeen City Council. It is not anticipated that the framework will be updated.
Area covered by the PPS	The Beachfront Development Framework Area is located to the north-east of the city centre connected by the primary route of Beach Boulevard which links the Beachfront to Justice Street and on to Cast legate. The site is bounded to the east by the North Sea; to the south is Codona's amusement park and a mixture of commercial, hospitality and retail uses; to the west of the site there are existing hotel and leisure units with a mix of residential typologies beyond; and to the north is the Kings Links Golf Course. The area of the proposed site is approximately 50 hectares.
	The site is currently occupied by existing entertainment and leisure facilities, namely Aberdeen Beach Ballroom, Linx Ice Arena, and the Beach Leisure Centre; public space, Queens Links including Queens Links Play Park and Crescent Cricket Club's Cricket Pitch; existing landscape features such as the beach and Broad Hill; and a series of existing vehicular routes including Beach Boulevard, Esplanade and Links Road. There are a number of separate uses bordering the Development Framework area which will require consideration as part of the proposals: to the west of the area are two sites owned by Aberdeen City Council but on long-term leases to a hotel operator and extreme sports venue; to the north is a site under separate ownership which is operating as golf driving range; to the south is an amusement park owned and operated by Codona's. There are a series of small-scale structures and pavilions situated across the Development Framework area which will also need to be considered as part of the proposals.
	The Development Framework area figures prominently within the current leisure and public space provision of Aberdeen City (Figures 2-1 and 2-2).
Purpose of PPS	The Development Framework (a sister document to the City Centre Masterplan (CCMP)) is one of the tools under the 'masterplanning' umbrella and will set out a two-dimensional framework of development principles and parameters for the way in which the wider site is to be developed in the future. It is proposed that, following the approval of the Development Framework by the Council, detailed planning applications for the constituent parts of the Beachfront proposals would be submitted. As such, the Development Framework will also include a visual assessment of the indicative three-dimensional forms of the proposed development Framework will set out principles and parameters to be followed and will not be 'set in stone' or represent a final design solution for the Beach or any of the constituent developments, which may require ongoing detailed design development in advance of any detailed planning applications in the future.

1.3 Compliance with the Environmental Assessment (Scotland) Act 2005

The requirements of the Environmental Assessment (Scotland) Act 2005 for information to be included in Environmental Reports are listed in Table 1-2. Table 1-2 cross-references the requirements of the Act to where the information can be found in this Environmental Report.

Table 1-2 Summary of SEA requirements and where these are covered in the EnvironmentalReport

Information to be included in the Environmental Report under the Environmental Assessment (Scotland) Act (2005)	Relevant Sections in the Environmental Report
Schedule 3 (10) – Non-technical Summary (including consultation timescale and address for comments)	See Non-Technical Summary
Schedule 3 (1) – An outline of the contents and main objectives of the plan, programme or strategy and its relationship with other qualifying plans, programmes and strategies	See section 3.1. and Appendix B
Schedule 3 (5) – Environmental protection objectives set at the international, Community or Member state level	See section 3.1, Table 3.1 and Appendix B
Schedule 3 (2) and (3)- The relevant aspects of the current state of the environment and the environmental characteristics of areas likely to be significantly affected – the Baseline	See section 3.2 and Appendix C
Schedule 3 (4) – any existing environmental problems or issues which are relevant to the plan, programme or strategy.	See section 3.4
Schedule 3 (6), (7) and (8) – Assessment of environmental effects of the plan, programme or strategy, including reasonable alternatives and proposed mitigation measures.	See section 2.4, chapters 4, 5 and 6 Appendix E
Schedule 3 (9) – Monitoring	See section 2.6 and Chapter 7

1.4 SEA activities to date

Table 1-2 summarises the SEA activities to date in relation to the Beachfront Development Framework.

SEA Action/Activity	When carried out
Screening: to determine whether the plan is	Not required, the Beachfront Development
likely to have significant environmental effects	Framework qualifies under Section 5(3) of the
	Environmental Assessment (Scotland) Act 2005.
Scoping: Scoping sets out sufficient information	Scoping report submitted to SEA Gateway 21st
on the Beachfront Development Framework to	June 2022
enable the Consultation Authorities (Historic	
Environment Scotland, NatureScot and Scottish	Consultee comments received 26th July 2022
Environment Protection Agency) to form a view	

Table 1-3: SEA activities to date
on the scope, level of detail and consultation	
period that would be appropriate.	
Preparation of Environmental Report Version:	Environmental appraisal carried out between
An environmental appraisal has been carried out	May 2022 and August 2022
on the issues and options set out in the	
Beachfront Development Framework.	
Publication and submission of Environmental	12 th September 2022
Report to SEA Gateway	

2 SEA APPROACH

2.1 Overview of approach

This section summarises the overall approach to the SEA of the draft Beachfront Development Framework. It follows the relevant legislation and draws on guidance, especially the Scottish Governments SEA Toolkit (Scottish Government guidance on Strategic Environmental Assessment (SEA), 2013), but the approach has been tailored to meet the specific needs of the assessment of the draft Beachfront Development Framework.¹ After Aberdeen City Council screened the draft Beachfront Development Framework internally and made a decision that SEA was required, the main stages of SEA undertaken have been:

- Setting the context, developing SEA objectives, establishing the environmental baseline and deciding on the scope;
- Assisting in the development and refinement of strategic alternatives and assessing the environmental effects of the draft Beachfront Development Framework; and
- Preparing the Environmental Report;

Further to consultation on this Environmental Report and the draft Beachfront Development Framework consultation comments will be collated and accounted for in final decision-making stages. Once adopted, the significant environmental effects of the Beachfront Development Framework will be monitored. Table 2-1 summarises the key tasks in the SEA of the draft Beachfront Development Framework.

Stage	Purpose	Tasks
Screening	Establish whether SEA is required	Aberdeen City Council determined there would be a requirement for SEA and went straight to Scoping
Scoping	Establish an appropriate level of detail for, and approach to, the SEA	 Identify other relevant PPSs & environmental protection objectives Collect baseline information Develop SEA Objectives Identify environmental problems and sensitive areas Consult on the scope of the SEA
Assessment	To assess the likely environmental effects of the Plan and its alternatives	 Test Plan objectives against SEA Objectives Develop strategic alternatives Predict and evaluate the effect of the Plan, including alternatives Consider ways to mitigate adverse effects Propose to monitor the environmental effects of the plan implementation
Reporting	Prepare an Environmental Report on the SEA	Report the SEA process including the likely significant environmental effects of the Plan and its alternatives for consultation with the draft.
Consultation & Decision Making	To consult on the likely significant effects of the Plan and the proposed monitoring plan	 Consult on the Environmental Report and Draft Plan Assess significant changes Decision-making and providing Information
Monitoring	To monitor the likely significant effects of the plan and the proposed monitoring plan	 Develop aims and methods for monitoring the significant environmental effects of the Plan Respond to adverse effects of the Plan

Table 2-1: SEA Process summary

¹ <u>https://www.gov.scot/publications/strategic-environmental-assessment-guidance/</u> (Accessed 15/06/2022)

2.2 Stakeholder consultation and engagement

The approach taken to stakeholder consultation and engagement involved both formal statutory consultation and also more informal consultation and engagement activities. The overall aim of the approach was to be as inclusive and transparent as possible given the timescales and other constraints. Table 2-2 summarises who was involved and when in the SEA of the draft Beachfront Development Framework.

As the development of the Beachfront Development Framework unfolded, a number of consultation and engagement activities were undertaken. This was necessary to, on a more ad hoc basis, capture information, opinion and guidance from various stakeholder groups. Informal engagement and consultation was carried out using various approaches including presentations, workshops etc. More detail on the approach is provided in Table 2-2.

In April 2022 EnviroCentre was commissioned to undertake the Strategic Environmental Assessment. EnviroCentre staff were involved in a number of Beachfront Development Framework team meetings involving Aberdeen City Council, Keppie Design, Goodson Associates (hydrology drainage and flooding), OPEN (Landscape and Visual), Systra (Transport), and developed the SEA Scoping Report, which was submitted to the SEA Gateway 21st June 2022 for consultation, with consultee comments received 26th July 2022.

Date	Type of consultation/ engagement activity	Attendees	Aim
06/08/21	Presentations and workshop	Vanguard are part of Aberdeen Chamber for Commerce which includes working groups for economic development and the environment,	To present the development framework to local stakeholders and identify key issues
		including a working group for the Beachfront.	relevant to the development framework
		looking for alternative relocation locations.	problems, pressures and opportunities
23&24/09/21	Options Workshop	Beachfront Consultants	Scoring the Masterplan and Stadium options
	Schools and Young People Workshops	Primary 6 Pupils from the following schools • Seaton • Ashley Road • Ferryhill • Hanover Street • Skene Square • St Josephs • St Peters	Workshops with the intention of an environment that supported them to think about play, think about aspects of their city, how they feel about it and how they would like it to be.
	Youth Engagement	A call was put out to all Academies to see which ones would be interested in running the Post Card engagement activity before the October 20221 holidays. Of the Academies contacted	Postcard engagement.

Table 2-2: Timetable for the preparation of the Beachfront Development Framework and SEA

		Hazelhead Academy and Northfield	
		Academy expressed interest and sent	
		out 200 and 100 copies respectively.	
28/09/21	Presentation	Beachfront Consultants with key	Key Stakeholder
	and workshop	stakeholders associated with the	Discussion. The workshop
		beachfront facilities	session presented the
			design team's thoughts to
			stakeholders
06/04/22	Round table	Aberdeen City Council, Keppie	SEA inception meeting.
	discussion	Design and SEA Consultants	Identify Beachfront
		(EnviroCentre)	
			/ SEA programme and
			of issues and agreement
			on an approach to
			scoping
19/04/22	Round table	Aberdeen City Council. Keppie	Beachfront Development
	discussion	Design, SEA Consultants	Framework Technical
		(EnviroCentre), Goodson Associates	workshop to introduce
		(hydrology and terrestrial flooding),	and discuss the
		OPEN (LVIA) NatureScot, HES,	Framework with
		Marine Scotland, SEPA	stakeholders
20/04/22	Round table	Aberdeen City Council, Keppie	Beachfront Development
	discussion	Design, Goodson Associates,	Framework/ SEA Scoping
		EnviroCentre	meeting. Review the
			progress of the
			Framework
			Clarify the approach to
			scoping and identify a
			forward plan for the SEA
06/05/22	Round table	Aberdeen City Council Flooding	Beachfront Development
	discussion	Team, Goodson Associated	Framework - Flooding and
		(Terrestrial Flooding) EnviroCentre	Coastal Team Discussion.
		(Coastal Flooding	The Council are looking to
			upgrade coastal flood
			defences in the area (but
			outwith the Framework
			area) and was keen to
			understand what is being
			proposed, modelled and
12/05/22	Round table	Aberdeen City Council Kennie	Beachfront Development
12,00122	discussion	Design, Goodson Associates	Framework/ SFA Sconing
		EnviroCentre	meeting. Review the
			progress of the
			Beachfront Development
			Framework.
			Review SEA scoping
			progress
26/05/22	Round table	Aberdeen City Council, Keppie	Beachfront Development
	discussion	Design, EnviroCentre (SEA), Goodson	Framework/ SEA Scoping

		Associates (Hydrology), OPEN (Landscape), Systra (Transport)	meeting. Review the progress of the Beachfront Development Framework. Review SEA scoping progress
27/05/2022	Draft Boachfront	Draft Beachfront Development	
	Development	Council ahead of Committee Meeting	
	Framework	on 22 nd June 2022.	
21/06/2022	SEA Scoping	SEA Scoping Report submitted to the	
	Report	SEA Gateway for Comment (Historic	
		Environment Scotland, NatureScot	
		and SEPA)	

2.3 SEA Methodology

2.3.1 Scoping the SEA

The scoping stage of the Beachfront Development Framework SEA involved the following key tasks:

- Identifying how the draft Beachfront Development Framework may influence and be influenced by other relevant Plans, Programmes and Strategies and environmental protection objectives;
- Collation of environmental baseline information related to the draft Beachfront Development Framework and the environment likely to be affected;
- Developing SEA objectives, assessment criteria and significance criteria as a framework against which the potential environmental effects of the draft Beachfront Development Framework were assessed;
- Identifying key environmental problems and sensitive areas relevant to the draft Beachfront Development Framework and the Beachfront area; and
- Consulting on the proposed scope of the SEA.

2.3.2 Approach to scoping

Scoping is an iterative process and all tasks undertaken informed each other throughout their development and the early development of the draft Beachfront Development Framework. Consultation on the SEA Scoping Report which ran between June and July 2022 marked the point at which views were sought from the statutory Consultation Authorities detailed below on the proposed scope of the SEA.

- Scottish Environment Protection Agency (SEPA);
- NatureScot; and
- Historic Environment Scotland

The Scoping Report was produced by EnviroCentre Ltd in collaboration with Keppie Design and Aberdeen City Council between April 2022 and June 2022. It was supported by formal and informal engagement with relevant stakeholders between August 2021 and June 2022 as the development of the SEA and the draft Beachfront Development Framework unfolded. In particular, a number of meetings took place between the SEA team and representatives from Aberdeen City Council. A more

comprehensive description of the approach taken to stakeholder consultation and engagement in the SEA as described in Section 2.2 and Table 2-2 is provided in Section 3 *Consultation & Engagement* of the Beachfront Development Framework (Appendix F).

Outcomes from the meetings and other informal engagement processes informed the development of scoping tasks. Appendix A provides a detailed analysis of how scoping consultation responses have been incorporated into the approach to the SEA. Furthermore, section 2.3.6 summarises how scoping responses have been accounted for in the revised approach to the assessment.

2.3.3 Key scoping tasks undertaken

Identifying other relevant plans, programmes and strategies and environmental protection objectives

The review of other relevant plans, programmes and strategies (PPS) helped to identify potential constraints and synergies that outside factors may place on the development and implementation of the draft Beachfront Development Framework and vice versa. For example, the Beachfront Development Framework has the potential to work towards delivering national and local level health objectives by supporting development that improves access to and encourages outdoor recreation.

In addition, the review of other relevant PPS was instrumental in identifying potential SEA objectives, assessment criteria and baseline information. These were considered and, where appropriate, incorporated into the SEA framework (see Section 3.1). A summary of the relationships between the draft Beachfront Development Framework and the most relevant PPS is provided in Chapter 3 Environmental Protection Objectives, Baseline and Context. A full list of the PPS considered is provided in Appendix B.

2.3.4 Collation of environmental baseline information

An initial review of available baseline data was undertaken during the scoping stage which sought to identify, as far as possible the following information:

- The current state of the environment;
- Past and likely future trends; and
- Key current environmental problems, sensitive areas and opportunities in the Aberdeen Beachfront area, particularly those of relevance to the development of the draft Beachfront Development Framework.

The initial approach was to collate broad environmental information for all SEA topics:

- Biodiversity, Flora and Fauna;
- Population and Human Health;
- Water;
- Soil;
- Air;
- Climatic Factors;
- Material Assets;
- Cultural Heritage; and
- Landscape

This informed the identification of key environmental issues and both these and the initial draft baseline were consulted on externally during the formal scoping consultation. As a consequence of the scoping

Page 150

consultation and subsequent informal engagement, a number of environmental issues have emerged as being particularly important in the area. The implications of these key issues are discussed in further detail in Section 3.

The SEA topics to be scoped in/out of this Environmental Report and the associated justification are provided in Table 2-3.

SEA Topic	Scoped	Scoped	Justification
	In	Out	
Biodiversity,	\checkmark		Development has the potential to affect habitats and
flora and fauna			species through loss of habitat and disturbance.
Soil	\checkmark		Development will result in changes to soils and geology.
Landscape	✓		Proposed development has the potential for significant
			effects on landscape/ seascape quality and character.
Cultural	\checkmark		There are sites such as Aberdeen Ballroom, within the area
heritage			which the proposals have the potential to affect.
Water	\checkmark		Increased run-off from development areas may increase
			flood risk albeit SUDS/ green infrastructure measures are
			proposed.
Air	\checkmark		New development may result in traffic at certain times of the
			day. These indirect effects may give rise to changes in local
			air quality and noise along affected routes.
Climatic factors	\checkmark		Indirect effects on carbon emissions from increases
			buildings. The proposals offer an opportunity to build with
			very low carbon emissions through energy efficiency,
			insulation and microgeneration.
Material assets	✓		The proposals provide an opportunity for sustainable
			construction methods and materials to minimise waste. The
			Beachfront Development Framework will enhance
			recreational and open space provision.
Population and	\checkmark		The Beachfront Development Framework incorporates open
human health			space, formal recreation and community facilities which
			offer potential benefits for the population.

Table 2-3: SEA Topics for Scoping

2.3.5 Alternatives

Schedule 3 of the Environmental Assessment (Scotland) Act (2005) requires that "reasonable alternatives" be considered. As the Beachfront Development Framework included preferred and alternative options, the assessment of reasonable alternatives was carried out at this stage and included in the Environmental Report.

2.3.6 Taking account of responses to the scoping consultation

The key outcomes from scoping were documented in a SEA Scoping Report. This was consulted between late June and early July 2022. A number of responses were received from the statutory Consultation Authorities; NatureScot, Scottish Environment Protection Agency and Historic Environment Scotland. Where practicable, these were accounted for in the revised approach to the SEA which is described in Appendix A which describes how specific scoping responses were incorporated into the revised approach to the SEA.

2.3.7 Developing the SEA Framework

The scoping tasks described above informed the development of the following:

- Headline SEA objectives;
- Sub-objectives or assessment criteria;
- Significance criteria; and
- Draft indicators.

These elements, which constitute the SEA framework, were used to help predict and evaluate the environmental effects of the draft Beachfront Development Framework.

Following the scoping consultation and early stages of assessment, the SEA framework was refined to take account of scoping responses received on the Scoping Report and any new issues that arose. The SEA Framework is described in Section 3.5.

2.4 Assessment of Environmental effects

The approach taken to assessing the potential environmental effects of the draft Beachfront Development Framework was split into three key stages.

The three stages of assessment, including key aims and outcomes, are summarised in Table 2-4. These criteria were developed to take account of the requirements of Schedule 2 of the Environmental Assessment (Scotland) Act to include the following types of environmental effects:

- Secondary, cumulative and synergistic;
- Medium and long term;
- Permanent and temporary; and
- Positive and negative.

The assessment has been summarised in assessment matrices as described in section 2.4.4. The assessment process involved an appraisal of each draft Beachfront Development Framework option under consideration to identify potential environmental effects. Each individual assessment was informed by assessment criteria, the environmental baseline, key issues, trends and expert judgement. Finally, the significance criteria were used to facilitate attribution of significance to the effects i.e., to help distinguish a major positive effect from a minor positive effect along a 5-point scale as described in Table 2-4.

The Environmental Assessment (Scotland) Act 2005 requires that significant environmental effects are identified, described and evaluated. The criteria used for evaluating the significance of predicted environmental effects are shown in Table 2-4. These criteria were developed to take account of the requirements of Schedule 2 of the Environmental Assessment (Scotland) Act to include the following types of environmental effects:

- Secondary, cumulative and synergistic;
- Medium and long term;
- Permanent and temporary; and
- Positive and negative.

The assessment has been summarised in assessment matrices as described in section 2.4.3. The assessment process involved an appraisal of each draft Beachfront Development Framework option under consideration to identify potential environmental effects. Each individual assessment was informed by assessment criteria, the environmental baseline, key issues, trends and expert judgement. Finally,

Page 152

the significance criteria were used to facilitate attribution of significance to the effects i.e., to help distinguish a major positive effect from a minor positive effect along a 5-point scale as described in Table 2-4

Table 2-4: SE	A significance	criteria
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Score	Description
Major positive effect (√√)	An action very likely to lead to significant improvement, or a series of long-term improvements, leading to large-scale and permanent benefits to the SEA objective being appraised. A major effect is also likely to have cumulative and indirect beneficial effects and is also likely to have positive transboundary effects.
Positive effect (✓)	An action likely to lead to moderate improvement in both the short and long-term, leading to large-scale temporary, or medium-scale permanent benefits to the objective being assessed, Even when beneficial effects are felt to be temporary, they should not be easily reversible in the long-term (to detriment of the SEA Objective).
Neutral effect (0)	An action which is unlikely to have any beneficial or negative effects on the SEA objective being assessed in either the short or long-term. Neutral scoring should only be used when it is very unlikely that the effect will be neither positive nor negative. A neutral score is not the same as uncertain where an appraiser is not sure if an effect is likely to be positive or negative, or 'mixed/. Where the appraiser feels that the effects are likely to be both positive and negative(see below for more details).
Negative effect (x)	An action is likely to moderate or loss in both the short and long term, leading to a large-scale temporary, or medium-scale permanent negative effect on the objective. An action which may also have limited cumulative and indirect detrimental effects and/or limited degradation of conditions outside the specific strategy area. It is also likely that it will be possible to mitigate or reverse a minor negative effect through policy or project intervention.
Major negative effect (xx)	A scheme/measure was likely to lead to significant or severe damage or loss, or a series of long-term negative effects, leading to large-scale and permanent negative effects on the SEA objective being assessed. A scheme/ measure which may also have significant cumulative and indirect detrimental effects and/or degrade conditions outside the specific scheme area so will have negative transboundary effects. A scheme/measure which is likely to threaten environmental thresholds or capacities in areas already under threat. The detrimental effects of a scheme/measure will be hard to reverse and are unlikely to be easily mitigated through policy or project intervention. Any damage or detrimental effect in or too environmentally sensitive areas, issues or landscapes which are recognised and/or protected locally, regionally, nationally or internationally.
Mixed effect (√√/x √/xx etc.)	The effect is likely to be a combination of beneficial and detrimental effects, particularly where effects are considered on sub-issue, areas or criteria. For example, a scheme/measure enhances the viability of certain protected species or habitats (such as native woodland) but through this, damages existing (non-native) habitats which may themselves be important. Such mixed effects will be hard to predict, but could be significant in the long term, or when taken with others e.g., cumulative or synergistic which may have.
Uncertain effect (?)	The effect of an action is not known or is too unpredictable to assign a conclusive score. The appraiser is not sure of the effect. This may be the case where an action covers a range of issues, or where the manner in which the action is implemented will have a material impact on the effects it will have.

The approach taken to assessing the potential environmental effects of the draft Beachfront Development Framework was split into three key stages. The three stages of assessment, including key aims and outcomes, are summarised below in Table 2-5.

The following details the approach taken to assessment of potential environmental effects of the draft Beachfront Development Framework. The assessment considered the potential environmental effects of:

- Draft Beachfront Development Framework Vision and Objectives;
- Options identified in the draft Beachfront Development Framework; and
- Broad categories of Beachfront Development Framework Projects.

	Table 2-5:	Staged	approach	to	assessment
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Assessment	Tasks	Key aims and outcomes of stage
Stage 1 Assessment of strategic elements of the draft Beachfront Development Framework	 Environmental commentary on strategic elements Beachfront Development Framework: Vision and Strategic Focus Compatibility analysis of Beachfront Development Framework objectives and SEA objectives 	 Provide an environmental commentary on the Beachfront Development Framework's vision and strategic focus to identify potential conflicts and synergies with environmental objectives. To focus the assessment of Beachfront Development Framework project categories on key issues and potential environmental effects
Stage 2 Assessment of alternative approaches to the draft Beachfront Development Framework	 Identify and develop reasonable alternative approaches to the draft Beachfront Development Framework. Assess reasonable alternatives based on their potential environmental effects. 	To inform the development of the Beachfront Development Framework by providing information on the environmental performance of the draft Beachfront Development Framework relative to other reasonable alternatives
Stage 3 Assessment of significant environmental effects	 Characterisation of the Beachfront area in terms of its key environmental and legislative constraints, vulnerabilities and opportunities Assessment of potential environmental effects of Beachfront Development Framework options and broad categories of proposed Beachfront Development Framework projects. Assessment of potential cumulative environmental effects of the draft Beachfront Development Framework as a whole. Develop mitigation measures for negative and enhancement measures for positive environmental effects. Develop a framework for monitoring the significant environmental effects of Beachfront Development Framework implementation 	 Overall aim: to ensure that the potential environmental effects of the draft Beachfront Development Framework have been fully considered and accounted for before its adoption. Related aims and outcomes include: To map and understand the key environmental and legislative constraints, vulnerabilities and opportunities in the Aberdeen Beachfront area. To predict and understand the potential environmental effects of broad categories of options in the draft Beachfront Development Framework. Evaluate the significance of potential environmental effects of categories of projects in the draft Beachfront Development Framework and groups of projects. Develop appropriate mitigation/ enhancement measures and monitoring proposals for significant potential environmental effects of the draft Beachfront Development Framework.

2.4.1 Environmental commentary on Beachfront Development Framework vision

The purpose of this task was to provide a high-level commentary and recommendations from an environmental perspective, on the content and wording of the Vision included in the draft Beachfront Development Framework.

2.4.2 Compatibility analysis of draft Beachfront Development Framework objectives and SEA objectives

This was done using a compatibility analysis approach. The compatibility analysis aimed to identify potential areas of conflict or support between what the draft Beachfront Development Framework aims to achieve, and the aspirations for the environment encapsulated in the SEA objectives.

A list of key SEA Receptors organised by SEA topic and objectives identified as relevant to Aberdeen Beachfront are summarised and presented in Table 2-6. The key receptors and objectives will be considered throughout the SEA process and used to inform the development of the draft Aberdeen Beachfront Framework at key decision-making stages.

Within Table 2-6 we have attempted to align air, noise and climate objectives as they are related in terms of sources and impacts and ideally should not be considered in isolation. Air quality is also considered under population and human health given it is a public health issue as well as environmental.

SEA Topic	Objectives	Indicators
Biodiversity, flora and fauna	Protect or conserve and, where possible, restore and enhance	Condition of designated sites
	biodiversity and valued nature conservation habitats and species.	Loss of designated sites
		Habitat fragmentation
	 (Amended at the request of 	
	NatureScot)	LBAP species/habitats stable or increasing
Soil	 Protect and enhance soil quality and prevent any further degradation of soils*. 	SUDS are delivered in new development.
	Reduce the amount of Vacant and Derelict Land in the Aberdeen Beachfront boundary area	Developments should avoid soil contamination.
	bedomion boundary area.	The waste hierarchy should be
	• (*Amended at Request of NatureScot)	promoted.
Landscape	 Protect and enhance landscape 	Impact on visually prominent
	character, local distinctiveness, visual	areas
	amenity and promote access to the wider environment	Development adversely affects
	wider environment.	the landscape/ townscape/
	• (Amended at the request of	seascape setting.
Cultural boritago	NatureScot)	Number and condition of
Cultural heritage	historic environment.	designated/non-designated sites
Water	Prevent deterioration, protect and	Impact on Flooding
	enhance water quality and ecological	
	status*.	Impact on water pollution.
	Reduce the risk of flooding. Provide adequate drainage and	Impact on water bodies and the
	sewerage.	coast

 Table 2-6: Key Environmental Receptors and SEA Objectives

	(*Amended at Request of NatureScot)	
Population and human health (Note interactions between Population and human health Air and Climatic Factors)	 Improve human health and community wellbeing, while promoting a range of outdoor and recreational attractions. Encourage physical activity. Creation of community facilities. 	Impact on human health and community wellbeing,
Air	 Maintain and improve air quality and reduce emissions of key pollutants. 	Air quality trends
Climatic factors	 Reduce emissions of greenhouse s in line with Scottish Government targets. Promote active travel and sustainable transport*. Reduce risks from climate change problems in the Aberdeen City Council area include increased flood risk of coastal and fluvial sources. Promote renewable energy sources. (*Amended at Request of NatureScot) 	Electricity is generated from renewable energy sources. Impact on human health and community wellbeing, Quality and distance of new active travel routes created. SUDS. Flood risk.
Material assets	 Promote the sustainable use of community assets, natural resources and material assets. Promote quality urban design. Promote sustainable waste management and the circular economy. 	Enhancing positive effects on community assets, natural resources and material assets. Waste minimisation and promotion of the circular economy.

Compatibility analysis informed the development of the SEA and draft Beachfront Development Framework by:

- Identifying areas where the plan lacked support for the SEA objectives;
- Identifying aspects of the environment that may be more vulnerable to the potential environmental effects affected by the draft Beachfront Development Framework; and
- Focusing the assessment of effects on key issues.

A summary of the compatibility analysis was presented in an assessment matrix with the SEA headline objectives across the top and the draft Beachfront Development Framework objectives on the left-hand side.

The key to scoring the compatibility of the draft Beachfront Development Framework objectives with the SEA objectives is summarised in Table 2-7.

Score	Description of score
✓	Plan objective supportive of SEA objectives
X	Potential conflict between plan and SEA objectives
?	Uncertain whether the plan objectives conflict with or support the SEA objectives
0	Plan objectives have no identified conflict or support of SEA objectives

Table 2-7 Key to compatibility scoring

2.4.3 Assessment of alternatives

The approach taken to assessing the potentially significant environmental effects of the alternatives to the draft Beachfront Development Framework expanded on stage 2 of the assessment approach outlined in Table 2-5 above. This part of the assessment adopted a relatively strategic approach, initially identifying through discussion with Aberdeen City Council and review of the main alternatives for achieving the stated vision and objectives that were considered during the process of developing the Beachfront Development Framework, and that would be considered reasonable from a SEA perspective.

An environmental commentary on the alternatives was prepared and the likely significant environmental effects of the Beachfront Development Framework's key alternatives were predicted and evaluated. The results were recorded in an assessment matrix. An example of the type of assessment matrix is shown below in Table 2-8.

Assessment of draft options/ alternatives				
SEA Objectives		Scores		Comments
	Option 1	Option 2	Option 3	Notes on: short, medium and long-term effects, the scale of effects, cumulative and spatially concentrated effects, potential mitigation and enhancement etc
Improve human health and community wellbeing,	X	~	√/x	
while promoting a range of outdoor and recreational				
attractions.				
Encourage physical activity.				
Creation of community facilities				
Promote sustainable transport.				
Reduce emissions of greenhouse s in line with				
Scottish Government targets.				
Overall comments:				
Note: To include a summary of comments and overal	l asses	sment	of the	effects of the option/
alternative.				
Option 1:				
Option 2:				

Table 2-8:Example matrix for comparing alternatives

Option 3:

2.4.4 Assessment of potential significant environmental effects of the draft Beachfront Development Framework

The approach taken to assessing the potentially significant environmental effects of the draft Beachfront Development Framework expanded on **Stage 3** of the assessment approach outlined in Table 2-5. A further five assessment **tasks** were undertaken as detailed in Table 2-9.

Table 2-9 Tasks undertaken to assess the potentially significant environmental effects of theBeachfront Development Framework

Task	Details
Task 1	Characterisation of the Aberdeen Beachfront area in terms of its key
	environmental and legislative vulnerabilities, constraints and opportunities
Task 2	Prediction and evaluation of potential environmental effects of:
	Options; and

	Broad categories of Beachfront Development Framework project.
	Note: the above are all assessment parameters under consideration.
Task 3	Prediction and evaluation of potential cumulative effects of the draft
	Beachfront Development Framework
Task 4	Develop measures to mitigate negative and enhance positive
	environmental effects
Task 5	Develop a framework to monitor the significant environmental effects of the
	Beachfront Development Framework.

The remainder of this section describes the approach taken to the five assessment tasks outlined in Table 2-9.

2.4.5 Characterisation of the Aberdeen Beachfront area

This task aimed to identify key environmental and legislative sensitivities, vulnerabilities and opportunities in the Aberdeen Beachfront area.

Publicly available data was sourced from, among others, Aberdeen City Council, Historic Environment Scotland, SEPA and NatureScot. This task was not undertaken as a feasibility study of potential Beachfront Development Framework project locations, rather it identified which parts of the Aberdeen Beachfront area are vulnerable, in environmental terms, to the effects of Beachfront Development Framework development to inform the assessment of significant environmental effects. Conversely, this task also identified a number of environmental opportunities in the Aberdeen Beachfront area (Refer to Appendix C Environmental Baseline Appraisal).

2.4.6 Prediction and evaluation of potential environmental effects of the draft Beachfront Development Framework

The framework for assessing the environmental effects of the Beachfront Development Framework, both positive and negative, has been formulated from:

- The guidance in the Environmental Assessment (Scotland) Act (2005), specifically Schedule 3, which sets out the information required in the Environmental Report;
- The advice and example tables contained in the Scottish Government's SEA Guidance (2013)
- The study of other Council plans programmes and strategies that have been subject to SEA.

The approach adopted to predict the potential environmental effects of the draft Beachfront Development Framework is described below.

2.4.7 Detailed assessment

This assessment was informed by the key issues identified through the Beachfront Development Framework and supported by SEA objectives and assessment criteria (the 'SEA Framework'), maps, environmental baseline, key issues, trends and significance criteria.

The outcomes of the assessment have been summarised in a matrix. The assessment parameters have been listed across the top of the matrix, and the SEA objectives down the side of the matrix. A matrix has been developed for each of the assessment parameters under consideration. Each individual assessment was appraised against the significance criteria to attribute significance to potential environmental effects identified. At this stage, the assessment informed the identification of some generic measures to mitigate and enhance potential environmental effects. Comments columns/ rows

on the assessment matrices were used to pull out significant issues related to individual projects/ sites where appropriate.

2.4.8 Cumulative Effects Assessment

As required by Schedule 3 of the Environmental Assessment (Scotland) Act 2005, the cumulative and synergistic effects of the strategies, policies and development opportunities in the Plan were assessed.

There are different types of cumulative effects, but what we were principally concerned with here was the overall combined effects of the whole plan and multiple actions it contains on a single 'receptor', which could be a certain group within the population, the water environment or flora and fauna for example. Many impacts arising from the draft Beachfront Development Framework are likely to be cumulative (e.g., emissions of air pollutants and greenhouse gases). From the assessment of the various parameters of the plan described in the section above, many effects that were already identified are cumulative in character. This was particularly emphasised where several aspects of the plan were predicted to impact upon the same or similar SEA issues e.g., water quality, designated sites, landscape etc.

At this stage, the most significant potential cumulative effects were identified, both positive and negative, which were predicted to occur due to the effects of a number of aspects of the plan on a particular issue or receptor or location. This was not intended to be an exhaustive list as predicting the interactions and additive effects is complex and uncertain, however these cumulative effects were considered some of the most significant.

In addition, consideration was given to the cumulative effects of the draft Beachfront Development Framework overall in combination with the potential effects of other related plans, such as the Local Plan.

2.4.9 Development of measures to mitigate adverse and enhance positive environmental effects

Where potential negative effects of the draft Beachfront Development Framework were identified, actions to avoid these through changes to the plan itself will be sought such as:

- Altering or changing the option causing the negative effect;
- Altering or changing a specific objective or sub-objective within the plan;
- Alterations to the broad project types promoted by the plan; and
- Inclusion of new provisions within the plan.

However, if there were potential negative effects identified which cannot be avoided through changes to the plan itself, other measures were identified to mitigate the potential effects such as:

- Recommendation for the application of technical measures during the implementation stage of the plan, e.g., buffer zones, application of design principles;
- Identifying issues to be addressed at a more detailed level in subsequent SEAs of lower level more detailed plans or project level Environmental Impact Assessments (EIA); and
- Proposals for amendments to other related plans.

Similarly, if potential positive environmental effects were identified, measures to enhance these were identified using a similar framework to the one described above for negative effects.

2.4.10 Predicting and evaluating the potential effects of the Beachfront Development Framework, including alternatives

The SEA Regulations require that the Environmental Report identifies, describes and evaluates the likely significant environmental effects of the Beachfront Development Framework. The Environmental Report will also include measures to avoid, reduce or mitigate any significant effects of the Beachfront Development Framework.

The Beachfront Development Framework's objectives and proposals will be assessed against the SEA objectives to be agreed through the scoping process. Significant environmental effects of the plan will be predicted to determine whether the Beachfront Development Framework has negative, positive, uncertain or neutral effects.

In addition, the effects will further be evaluated to determine damage or otherwise to the receptors in relation to reversibility or irreversibility of effects, risks, duration (permanent, temporary, long-term, short-term and medium-term) and cumulative (direct, indirect, secondary and synergetic). Table 5.4 shows the assessment framework that will be used to assess the effects of the Beachfront Development Framework. This will be reported in the Environmental Report.

Proposals will be assessed against the SEA Objectives, in accordance with guidance in Planning Advice Note 1/2010.

To assist with assessment against the objectives identified within Table 2-6, the following questions were considered in relation to site proposals (Table 2-10 and Table 2-11). A number of questions have either been modified or added as a result of the Scoping exercise.

Table 2-10: SEA Quest	ions	
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Biodiversity, flora and fauna
Does the site impact on designated sites?
Does the site impact on priority habitats or species?
To what extent will the site promote green network provision and habitat connectivity? (Question
amended at the request of NatureScot)
To what extent will the site impact wider biodiversity? (Question added at request of NatureScot)
To what extent will the site enhance biodiversity? (added - NatureScot response)
Population and human health
To what extent will the site connect to the local path network? (Question amended at request of
NatureScot)
How does the site relate to areas with high SIMD?
To what extent will the site impact access to open space? (Question amended at request of
NatureScot)
Water
Is the site at risk of flooding?
Are there water courses within the site or which would be affected by increased levels of flooding
resulting from the development of the site?
Are there water courses within the site or which would be affected by increased levels of pollution,
or other pressures, from development within the site?
Are there opportunities to improve the status of water courses?
Will the Beachfront Development Framework increase geomorphology and morphological erosion
pressures?
Are flooding/water & foul drainage issues addressed including in relation to ACC & Scottish Water
infrastructure? (Question added at request of SEPA)
To what extent will the site impact the ecological status of water bodies? (Question added at request
of NatureScot)
Soil

Does the site include areas of vacant or derelict land? Is the site prime agricultural land? Does the site include carbon-rich soil? To what extent will the site impact soil quality? (Question added at request of NatureScot) Air Is the site easily accessible by the core path network, and provide access to settlements and services? Does the site lie within an area where levels of air pollution are close to current limit values? Would development on the site contribute to higher traffic flows along transport routes or at key junctions where levels of air pollution are close to current limit values Does the development reduce the need to travel? (Question added at request of SEPA) **Climatic Factors** Does the location of the development reduce the need to travel? Is the site at risk of increased flooding or instability as a result of climate change? Does the framework promote the efficient use of energy? Does the framework promote the efficient use of water? Does the framework increase the resilience of people, material assets and the natural environment Does the framework include mitigation and adaptation measures in light of a changing climate and local environment? (Question added at request of SEPA). Does the framework seek to protect, create or enhance natural resources for carbon capture? (Question added at request of SEPA) To what extent will the site promote nature-based solution provision? (Question added at request of NatureScot) Does the framework increase the resilience of people, infrastructure and the natural environment to the impacts of climate change (including flood risk, extreme weather, heat and cold)? (Question added at request of SEPA) **Cultural Heritage** Would development impact the integrity of sites, monuments, buildings or areas designated for their cultural heritage value? Would development impact the setting of sites, monuments, buildings or areas designated for their cultural heritage value? Would development within the site impact archaeological remains? Landscape To what extent will the site impact landscape designations? (Question amended at request of NatureScot) To what extent will the site impact settlement setting and identity? (Question amended at request of NatureScot) To what extent will the site impact visual amenity and key views (Question amended at request of NatureScot) To what extent will the site impact landscape character? (Question added at request of NatureScot) **Material Assets** Is the site located close to existing transport, services, water and energy infrastructure? Is the site located to make the best use of shelter, solar gain and reduce the need to travel? Does the site reduce waste generation and promote waste recovery, recycling and composting? Table 2-11: Assessment matrix for plan, strategy and policy issues, and site assessment Description/summary of option/element/action SEA theme Impact Comments Mitigation/ enhancement Biodiversity, flora and fauna **Climatic factors** Air Water

Material assets

Soil		
Cultural Herita	ge	
Landscape		
Population and	human health	
Кеу		
++	Major positive effect	
+	Positive effect	
0	Neutral effect	
-	Negative effect	
	Major negative effect	
++/- +/ etc.	Mixed effect	
?	Uncertain effect	
S	Short term effect	
M	Medium-term effect	
L	Long term effect	
Imp	The effect will depend on how the Beachfront Development Framework is	
	Implementea	

2.5 Mitigation and Monitoring

2.5.1 Development of measures to monitor significant environmental effects

Monitoring is an integral part of SEA and the significant environmental effects of implementing the draft Beachfront Development Framework should be monitored to check the predictions made during the assessment, identify any unforeseen adverse effects and undertake any remedial action required. A proposed monitoring framework was developed during the SEA which identified the significant environmental effects predicted and potential indicators for monitoring them (see Chapter 7). Ideally, this SEA monitoring framework will be integrated with the monitoring requirements for delivery of the finalised Beachfront Development Framework and any other existing monitoring (e.g., undertaken by the Council or environmental regulators) to avoid duplication of effort.

The Environmental Report will consider measures to prevent, reduce or offset any significant adverse effects as far as possible before measures are considered to mitigate residual adverse effects. Mitigation measures could include changes to alternatives, changes to a specific proposal, inclusion of new provisions, technical measures to be applied, identifying issues to be addressed at a subsequent stage and proposals for changing other relevant plans, programmes or strategies.

The key monitoring tasks and their purpose are summarised below in Table 2-12.

Monitoring Tasks	Purpose		
1. Post-Implementation	To measure the environmental performance of the draft Beachfront		
Review	Development Framework in order to determine whether its effects are as		
	anticipated, and thereby inform future revisions.		
2. Learning or	Ensure that the adverse effects identified inform future revisions of the		
predictions	Beachfront Development Framework should they arise.		

Table 2-12: Monitoring tasks and their purpose

3 ENVIRONMENTAL OBJECTIVES, BASELINE AND CONTEXT

This section summarises the environmental baseline and key relationships between the draft Beachfront Development Plan and other relevant plans, programmes and strategies and environmental protection objectives. Establishing the environmental baseline and context is key to understanding the relevant environmental problems, sensitivities and opportunities that the development of the draft Beachfront Development Plan should consider. The environmental baseline and context have informed the development of the 'SEA Framework' against which the potential environmental effects of the draft Beachfront Development Plan have been assessed and will be monitored.

3.1 Relationships with other plans, programmes, strategies and environmental protection objectives

A key requirement of the Environmental Assessment (Scotland) Act is the consideration of relationships between the draft plan, programme or strategy (PPS) under development and other relevant PPS and environmental protection objectives. This supports the identification of the policy and legislative framework within which the draft Beachfront Development Framework sits. In addition, it helps the Responsible Authority (in this instance Aberdeen City Council) to account for any potential constraints and inconsistencies and take advantage of any synergies or opportunities. The approach taken to the consideration of other relevant PPS and environmental protection objectives is described in section 2.3.3.

The review of relevant PPS, in conjunction with the collation of environmental baseline information, has been key to the identification of key environmental problems, threats and opportunities in the Aberdeen Beachfront area. Many of the local and regional level PPS reviewed (such as the Aberdeen City Council Local Development Plan) include specific targets, actions and objectives for the Beachfront and wider Aberdeen City environment. The process of collating environmental baseline information has, by definition, identified the current state of the environment relevant to the development of the draft Beachfront Development Framework. Consideration of the environmental baseline in conjunction with environmental targets, actions and objectives from key PPS helps identify the environmental constraints within which the draft Beachfront Development Framework must operate. In addition, it identifies key environmental opportunities and strengths of the area which the development of the draft Beachfront Development Framework can capitalise and build on. Environmental constraints, vulnerabilities and opportunities in the Beachfront area are explored more in section 3.4.

Appendix B contains a full list of all relevant PPS considered as part of the SEA of the draft Beachfront Development Framework. It highlights their relevance to the draft Beachfront Development Framework and key opportunities, synergies and constraints. It identifies how the draft Beachfront Development Framework may respond and its implications for the SEA.

Table 3-1 below summarises the key PPS reviewed and the implications for the development of the draft Beachfront Development Framework and the SEA. These PPS are considered to be of most relevance to the scale of the draft Beachfront Development Framework and the scope of its objectives (Refer also to Appendix B: Summary of Plans, Programmes and Strategies relevant to the development of the Beachfront Development Framework).

Table 3-1: Name of Plan, Programme, Strategy or Environmental Protection Strategy		
International Level		
Nature Conservation		

Nature Conservation	1
	The Habitats Directive 92/43/EEC
	The Birds Directive 2009/147/EC
Water	
	Water Framework Directive 2000/60/EC
	Nitrate Directive 91/43/EC
Waste	
	The Landfill Directive 99/31/EC
	The Waste Framework Directive 2008/98/EC
Climate Change	
	Paris Agreement 2015
	International UN Agreements - Kyoto Protocol (2005)
	UN Climate Change Conference of the Parties (COP26) (Glasgow)
National Level	······································
Overarching Planning Policy	
	Planning (Scotland) Act 2019
	National Planning Framework for Scotland 3 (NPE3) (2014)
	Scottish Planning Policy 2014
	Draft National Planning Framework for Scotland 4 (NPF4)
Cross-Sectoral	································
	Transport (Scotland) Act 2019
	National Transport Strategy 2 (2020)
	Strategic Transport Projects Review (2009)
	The Government's Economic Strategy (2007)
	Choosing Our Future: Scotland's Sustainable Development Strategy
	(2005)
	Natural Resource Productivity (2009)
	Getting the best from our land: A land use strategy for Scotland
	2016-2021
	Building a Better Scotland Infrastructure Investment Plan: Investing
	in the Future of Scotland (2005)
Air and Climate Change	
_	Environment Act 1995
	Climate Change (Emissions Reduction Targets) (Scotland) Act 2019
	UK Air Quality Strategy for England, Scotland, Wales and Northern
	Ireland - Volume 1 (2011)
	Climate Ready Scotland: climate change adaptation programme
	(SCCAP2) 2019-2024
	Update to the Climate Change Plan 2018 – 2032
	Scottish Climate Change Adaptation Programme (SCCAP) Progress
	Report 2018
	Climate Change Plan: Third Report on Proposals and Policies 2018-
	2032 (RPP3)
	Scottish Climate Change Delivery Plan (2009)
	Clean Air Scotland – The Road to a Healthier Future (2015)
	A Low Carbon Economic Strategy for Scotland (2010)
	Scottish Energy Strategy 2017
	Planning Advice Note 84 Reducing Carbon Emissions in New
	Development (2008)
Heritage, Design and Regene	eration
	The Planning (Listed Buildings and Conservation Areas) Act 1997
	Ancient Monuments and Archaeological Areas Act 1979
	Historic Environment Policy for Scotland (HEPS 2019)

	Planning Advice Note (PAN) 2/2011: Planning and Archaeology
	Our Place in Time: The Historic Environment Strategy for Scotland
	(2014)
	Creating Places - A policy statement on architecture and place for
	Scotland (2013)
	Designing Streets: A Policy Statement for Scotland (2010)
	People and Place: Regeneration Policy Statement (2006)
	Green Infrastructure: Design and Placemaking (2011)
Soil and Landscape	
•	The Scottish Soil Framework (2009)
	Scottish Landscape Forum: Scotland's Living Landscape (2007)
Population and Health	
	All Our Futures: Planning for a Scotland with an Ageing Population
	(2007)
	Reaching Higher- Building on the Success of Sport 21 (2007)
	(Scotland's Sport Strategy)
	Let's Make Scotland More Active: A Strategy for Physical Activity (2003)
	Let's Make Scotland More Active: A Strategy for Physical Activity (2003)
	Let's Get Scotland Walking – The National Strategy
	Cycling Action Plan for Scotland 2017-2020
	A Long-Term Vision for Active Travel in Scotland 203
	Equality Act 2010
	Disability Discrimination Acts 1995 and 2005
	Community Empowerment Act 2015
Natural Conservation	
	Wildlife and Countryside Act 1981 (as amended)
	The Nature Conservation (Scotland) Act 2004
	Scotland's Biodiversity Strategy- It's in your hands (2004)
	2020 Challenge for Scotland's Biodiversity - A Strategy for the
	conservation and enhancement of biodiversity in Scotland (2013)
	The Conservation (Natural Habitats etc.) Regulations 1994 (as
	amended)
	The Conservation (Natural Habitats) Amendment (Scotland)
	Regulations 2007
Water	
	Water Environment (Controlled Activities) (Scotland) Regulations
	2011, as amended
	Water Environment and Water Services (Scotland) Act 2003
	Flood Risk Management (Scotland) Act 2009
	The river basin management plan for the Scotland river basin
	district: 2015–2027 (2015)
	Scottish Water Strategic Asset and Capacity Development Plan
	(2012)
	SEPA Groundwater Protection Policy for Scotland v3:
	Environmental Policy 19 (SEPA)
	Action Programme for Nitrate Vulnerable Zones (Scotland)
	Regulations 2008)
Waste	
	Scotland's Zero Waste Plan (2010)
	Waste (Scotland) Regulations 2012
	SEPA Guidelines for Thermal Treatment of Municipal Waste
Marine and Coastal	
	SEAS The Opportunity: A Strategy for the Long-Term Sustainability
	of Scotland's Coasts and Seas (2005)

	Marine (Scotland) Act 2010
	UK Marine Policy Statement
	Our Seas- a Shared Resource. High-Level Marine Objectives (2009)
Cross-Sector Guidance	
	PAN 60: Planning for Natural Heritage
	PAN 61: Planning and Sustainable Urban Drainage Systems
	Planning and Waste Management Advice (2015)
	PAN 65: Planning and Open Space
	PAN 75: Transport and Planning
	PAN 76: New Residential Streets
	PAN 77 ⁻ Designing Safer Places
	PAN 78: Inclusive Design
Regional Level	
Overarching Planning Policy	
	Aberdeen City and Shire Strategic Development Plan 2020
Cross Sectoral	Aberdeen City and Shire Strategic Development Flan 2020
Cross-Sectoral	Pagianal Economic Strategy - Securing the Euture of the North East
	2015
	Regional Economic Strategy: Action Plan (2018-2025)
	The Economic Action Plan for Aberdeen City and Shire to 2025
	NESTRANS Regional Transport Strategy Refresh (2013)
	Aberdeen Rapid Transit
	Destination Aberdeen & Aberdeenshire Tourism Strategy (2018-
	2023)
Nature Conservation	
	North East of Scotland Biodiversity Partnership - Action Plan 2014 -
	2017
	River Dee Catchment Management Plan (2007)
	Forestry and Woodlands Strategy 2017
Local Level	
	Aberdeen Local Development Plan 2017
	Aberdeen Local Development Plan 2020 (Draft)
	Aberdeen City Council Supplementary Guidance
	Aberdeen City Local Transport Strategy 2016 - 2021
	Aberdeen City Air Quality Action Plan
	Not Zero Aberdeen Beuteman, towards becoming a not zero
	met zero Aberdeen Routemap - towards becoming a net zero
	Aberdeen Seeie Economia Peseus Plan 2020/21
	ACC Open Space Strategy 2011 2016
	ACC Open Space Strategy 2011-2010
	Local Outcome Improvement Plan 2016-26
	Aberdeen Nature Conservation Strategy
	Aberdeen City Air Quality Action Plan
	Aberdeen City Core Paths Plan
	Aberdeen Rapid Transit
	Healthy Cities Agenda
	Landscape Character Assessment of Aberdeen
	Contaminated Land Strategy
	Aberdeen City Waste Strategy 2014-25
	Powering Aberdeen – Aberdeen Sustainable Energy Action Plan
	2016 (has been superseded.)
	Aberdeen Adapts: Climate Adaptation Framework
	Aberdeen Electric Vehicle Framework
	Granite City Growing, Aberdeen's food-growing strategy

3.1.1 Implications

As can be seen from Table 3-1 and Appendix B, there are a significant number of PPS which may influence the development of the draft Beachfront Development Framework and *vice versa*. Some PPS will have more influence than others. For example, the Aberdeen Local Development Plan 2017 establishes the land use and spatial planning framework for the City Centre and Beachfront area within which the spatial element of the regeneration of the area will need to operate i.e., what type of development can be pursued and where. Other, non-statutory PPS such as the ACC Open Space Strategy 2011-2016 and Healthy Cities Agenda will also have a significant influence on the development of the draft Beachfront Development Framework and *vice versa*.

There are a number of additional key issues highlighted by the PPS review as detailed in Table 3-1 and Appendix B. It will be important that the adopted Beachfront Development Framework reflects this context and incorporates the requirements of these other PPS as appropriate.

3.2 Description of the environmental baseline

In order to support the assessment and monitoring of the potential effects of implementing the draft Beachfront Development Framework a description of the existing state of the environment, relevant to the objectives and geographical scope of the draft Beachfront Development Framework, has been compiled. Where appropriate, this includes information on areas outside of the Beachfront area. The environmental baseline presents information on the current and potential future environmental problems, sensitive areas and opportunities relevant to the Plan. The likely future state of the environment in the absence of the Plan has been predicted by establishing, reviewing and extrapolating past trends, where relevant, and through discussions with Aberdeen City Council and other key stakeholders. In addition, the review of other relevant PPS has identified a number of statutory targets (such as air quality objectives) and non-statutory aspirations (such as aims for increased involvement in outdoor recreation) for the environment. Consideration of how these targets, actions, objectives and aspirations may affect the environment, both positively and negatively has been key in predicting its likely future state.

The identification of current and likely future environmental problems, sensitive areas and opportunities has helped to inform other aspects of the SEA and draft Beachfront Development Framework - development processes. The SEA objectives have been aligned with the potential environmental effects of the draft Beachfront Development Framework with consideration of the potential significance of these effects given the existing environmental problems in the Beachfront area. This aims to ensure that the assessment stages of the SEA process have been focused on fully understanding the potential implications that the draft Beachfront Development Framework may have on the environment. The environmental baseline (in conjunction with the review of other relevant PPS and environmental protection objectives) has identified environmental opportunities in the Beachfront area where the Beachfront Development Framework can work towards achieving environmental goals whilst simultaneously delivering economic and social regeneration. These are discussed further at the end of this chapter.

Consideration of the environmental baseline and the identified environmental problems and sensitive areas have helped to identify and develop a suitable approach to monitoring the potentially significant environmental effects of implementing the Draft Beachfront Development Framework.

3.3 Establishing the environmental baseline

The Environmental Assessment (Scotland) Act 2005 Schedule 3 requires that the Environmental Report includes a description of the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the PPS, and "the environmental characteristics of areas likely to be significantly affected". This section aims to describe the environmental context within which the PPS operates and the constraints and targets that this context imposes on the PPS.

The Environmental Assessment (Scotland) Act 2005 Schedule 3 requires that the Environmental Report includes a description of the relevant aspects of the current state of the environment and the environmental characteristics of areas likely to be significantly affected. An Environmental Baseline Appraisal report providing baseline environmental information is in Appendix C

3.4 Environmental problems and opportunities identified

A requirement of the SEA Act is to identify key environmental problems relevant to the plan being developed. Given the potentially broad scope of the draft Beachfront Development Framework, input from stakeholders and evidence in this environmental baseline and context chapter, this section has been expanded to incorporate consideration of environmental opportunities in the Aberdeen Beachfront area. Opportunities relate to potential synergies whereby protection and enhancement of the Aberdeen Beachfront Beachfront environment can be delivered alongside socio-economic regeneration.

The main environmental considerations are outlined in Table 3-2 below. These issues will be reviewed in more detail during the SEA and discussed in Chapters 5 and 6 of the Environmental Report.

3.5 SEA Framework

The development of SEA objectives and assessment criteria is central to the process. The SEA framework, based on these objectives, provides a way in which potential environmental effects of the draft Beachfront Development Framework can be described, assessed and compared.

The SEA objectives and assessment criteria are described below in Table 3.3. These were developed in line with the environmental topics scoped into the assessment and the environmental baseline set out in Appendix C.

SEA Topic	Environmental Issue	How the Framework contributes to tackling the problem?	Relevant Data
Population & Human Health	 Access to social and community facilities and the amenity of the area will have an impact on general wellbeing. The Beachfront Development Framework can influence the relationship between facilities, amenity and the general vitality of communities. The Beachfront Development area is adjacent to the City Centre Air Quality Management Area at the Beach Boulevard roundabout which leads to Commercial Street, Justice Street and the A956. A low-emission zone was introduced in May 2022 to tackle the health implications associated with poor air quality. 	Promoting access to employment, supporting accessibility and health Improvement. Framework aims to identify open space to improve health through increased physical activity, reduce pollution by encouraging walking and cycling as an alternative to the car. Positive effects on mental health and wellbeing. Promote sustainable alternatives to car travel. The form and location of new development within the Beachfront Development Framework area can contribute to social integration and improved wellbeing opportunities for	National Records of Scotland (NRS). Scottish Public Health Observatory (ScotPHO). Health and Wellbeing Profiles (life expectancy and mortality by cause). Access to outdoors / open space Sport and recreation participation Physical activity levels Scottish Index of Multiple Deprivation. Core paths Aberdeen City Council LDP. LAQM Annual Progress Report.
Biodiversity	 Potential impact on nature conservation designations. Potential impacts on protected species and priority habitats. Potential loss of green linkages and wildlife corridors. Pressure on Protected Species from new development through disturbance or loss of resting places and habitats. 	Protection and enhancement of designated areas, and important habitats. Safeguard and enhance biodiversity.	NatureScot Sitelink. Designated sites. Scotland's Environment. Protected Species data. UK BAP & North East Scotland Biodiversity Action Plan (NESBAP) priority habitats and species. Scottish Ancient Woodland Inventory.

Table 3-2: Data Sources for Providing Baseline Environmental Assessment

SEA Topic	Environmental Issue	How the Framework contributes to tackling the problem?	Relevant Data
Soils & Geology	 The potential impact from the loss of organic matter or compaction/ structural degradation within the soil. The potential impact related to soil sealing is associated with the proposed development design. The potential for impact is associated with existing soil contamination. The potential for changes in soil biodiversity as a result of the development. 	The Beachfront Development Framework should ensure that SUDS and green infrastructure are delivered in new development. Consider the impacts of the proposals on soil erosion.	Land Capability for Agriculture classifications. Scotland's Soils website Contaminated land. Geology of Britain viewer. Scotland's Environment.
Water	 Impact on existing water and wastewater infrastructure. The surface water management strategy for the. Geomorphology and morphological erosion pressures. 	Protection and enhancement of water status and avoidance of flood risk areas and areas which would contribute to increased flood risk. Beachfront Development Framework will be based on the principles of Sustainable Urban Drainage Systems (SUDs) and green infrastructure to incorporate best management practices for the treatment of surface water	SEPA flood maps. SEPA Water Classification Hub. Scottish Water Records Plan. Local water quality data. SEPA River Basin Management Plan (RBMP) Maps SEPA – RBMP Data. Aberdeen Catchment Study (once completed)
Landscape	 The area may have a direct impact on the quality of the landscape/seascape. Landscape character. Design quality and layout. 	The Beachfront Development Framework should seek to ensure that development takes account of the important landscape characteristics within the Beachfront area. Sites within the framework area will provide access to open space and recreation facilities and encourage walking and cycling through the provision of designated paths and will thus contribute to health promotion.	Local Development Plan. Landscape Character Assessment. Designated landscape areas. Inventory and non-inventory Gardens and Designed landscapes.

SEA Topic	Environmental Issue	How the Framework contributes to	Relevant Data
		tackling the problem?	
	Need to examine the impacts of the proposals on cultural	The Beachfront Development	Local Development Plan.
	heritage sites and settings in adjacent areas.	Framework should support the protection and enhancement of the	Pastmaps.
		cultural heritage resource, including	Canmore.
Archaeology		through consideration of the locations and impacts on specific resources and the wider historic landscape.	Scotland's Environment.
& Cultural Heritage		The Beachfront Development Framework can contribute to the overall conservation of cultural heritage through the protection of listed buildings and sites of historic or archaeological interest conservation areas	
Air	 Compliance with national and international standards. Road traffic movements. Construction 	One of the main sources of NO ₂ and PM ₁₀ emissions is road traffic, therefore, sustainable transport will be a key issue for the Beachfront Development Framework.	LAQM Annual Progress Report. Scottish Air Quality (<u>https://www.scottishairquality.scot/</u>).
Climatic Factors	 Climate change could have different impacts on the environment including water resources, flooding, biodiversity, population and health and wellbeing. Long-term climate trends for Scotland indicate hotter/drier summers and milder/wetter during autumn & winter, in addition to sea level rises. Issues such as flooding and landslips are potential issues. The Beachfront Development Framework has the potential to affect levels and forms of transport use and levels of energy consumption in buildings. 	The extent of the sites identified should seek to minimise contributions to the emissions of greenhouse gases and seek to avoid locations vulnerable to the effects of climate change. The Beachfront Development Framework will include measures to enhance existing transport links and accessibility in the area through additional bus services, cycling and	UKCP18 - <u>https://www.metoffice.gov.uk/researc</u> <u>h/approach/collaboration/ukcp</u> Local temperature levels. UKCIP09 Climate Change Projections Indicative SEPA river and coastal flood maps. Flood defences.

	 Opportunities for renewable energy provision and low/zero carbon technologies will be explored. Carbon of building materials and emissions caused by the change of use (LULUCF) 	walking with associated infrastructure improvements. Development will be laid out to allow direct and frequent connections throughout the area, to points of interest, neighbourhood centres and public transport.	https://www.gov.uk/government/colle ctions/uk-local-authority-and- regional-greenhouse-gas-emissions- national-statistics
Material Assets	 Open space and recreational facilities. Roads and pavements Waste minimisation and management. Drainage and wastewater capacity. 	Waste disposal incurs significant transport implications. Support for increased levels of recycling and composting and waste minimisation. The Beachfront Development Framework will ensure that maximum use is made of existing infrastructure where practicable (roads, pavements, water treatment, drainage). Where this is at capacity sustainable system will be put in place.	Open Space Audit and Strategy 2011-2016 (amount/type of space). Core Paths. Walking and cycle routes. SEPA data. Transport and infrastructure data.

SEA Topic	SEA Objectives	Questions
Biodiversity,	Protect or conserve and, where	Does the site impact on designated sites?
flora and fauna	possible, restore and enhance	Does the site impact on priority habitats or species?
	biodiversity and valued nature	To what extent will the site promote green network provision and habitat connectivity? (Question
	conservation habitats and species.	amended at request of NatureScot)
		To what extent will the site impact wider biodiversity? (Question added at request of NatureScot)
		To what extent will the site enhance biodiversity? (added - NatureScot response)
Soil	Protect and enhance soil quality	Does the site include areas of vacant or derelict land?
	and prevent any further	Is the site prime agricultural land?
	degradation of soils.	Does the site include carbon-rich soil?
	 Reduce the amount of Vacant 	To what extent will the site impact soil quality? (Question added at request of NatureScot)
	and Derelict Land in the	
	Aberdeen Beachfront boundary	
	area.	
Landscape	Protect and enhance landscape	To what extent will the site impact landscape designations? (Question amended at request of
	character, local distinctiveness,	NatureScot)
	visual amenity and promote	To what extent will the site impact settlement setting and identity? (Question amended at request
	access to the wider environment.	of NatureScot)
		To what extent will the site impact visual amenity and key views (Question amended at request of
		NatureScot)
		To what extent will the site impact landscape character? (Question added at request of
		NatureScot)
Cultural	Protect, conserve and enhance	Would development impact the integrity of sites, monuments, buildings or areas designated for their
Heritage	the historic environment	cultural heritage value?
		would development impact the setting of sites, monuments, buildings or areas designated for their
		Cultural heritage value?
		vouid development within the site impact archaeological remains?

SEA Topic	SEA Objectives	Questions
Water	 Prevent deterioration, protect and enhance water quality and ecological status. Reduce the risk of flooding. Provide adequate drainage and sewerage 	Is the site at risk of flooding? Are there water courses within the site or which would be affected by increased levels of flooding resulting from the development of the site? Are there water courses within the site or which would be affected by increased levels of pollution, or other pressures, from development within the site? Are there opportunities to improve the status of water courses? Will the Beachfront Development Framework increase geomorphology and morphological erosion pressures? Are flooding/water & foul drainage issues addressed including in relation to ACC & Scottish Water infrastructure? (Question added at request of SEPA) To what extent will the site impact the ecological status of water bodies? (Question added at request of NatureScot)
Air	Maintain and improve air quality and reduce emissions of key pollutants.	Is the site easily accessible by the core path network, and provide access to settlements and services? Does the site lie within an area where levels of air pollution are close to current limit values? Would development on the site contribute to higher traffic flows along transport routes or at key junctions where levels of air pollution are close to current limit values Does the development reduce the need to travel? (Question added at request of SEPA)
Climatic Factors	 Reduce emissions of greenhouse s in line with Scottish Government targets. Promote active travel and sustainable transport. Reduce risks from climate change problems in the Aberdeen City Council area include increased flood risk of coastal and fluvial sources. Promote renewable energy sources. 	Does the location of the development reduce the need to travel? Is the site at risk of increased flooding or instability as a result of climate change? Does the framework promote the efficient use of energy? Does the framework promote the efficient use of water? Does the framework increase the resilience of people, material assets and the natural environment Does the framework include mitigation and adaptation measures in light of a changing climate and local environment? (Question added at request of SEPA). Does the framework seek to protect, create or enhance natural resources for carbon capture? (Question added at request of SEPA) To what extent will the site promote nature-based solution provision? (Question added at request of NatureScot) Does the framework increase the resilience of people, infrastructure and the natural environment to the impacts of climate change (including flood risk, extreme weather, heat and cold)? (Question added at request of SEPA)

SEA Topic	SEA Objectives	Questions
Material	 Promote the sustainable use of 	Is the site located close to existing transport, services, water and energy infrastructure?
Assets	community assets, natural	Is the site located to make the best use of shelter, solar gain and reduce the need to travel?
	resources and material assets.	Does the site reduce waste generation and promote waste recovery, recycling and composting?
	 Promote quality urban design. 	
	 Promote sustainable waste 	
	management and the circular	
	economy.	
Population and	 Improve human health and 	To what extent will the site connect to the local path network? (Question amended at request of
Human Health	community wellbeing, while	NatureScot)
	promoting a range of outdoor	How does the site relate to areas with high SIMD?
	and recreational attractions.	To what extent will the site impact access to open space? (Question amended at request of
	 Encourage physical activity. 	NatureScot)
	Creation of community facilities.	

4 ASSESSMENT OF ABERDEEN DEVELOPMENT FRAMEWORK ALTERNATIVES

4.1 Background to the assessment of strategic alternatives

One of the key requirements of SEA is to consider reasonable alternatives as part of the assessment process. During the development of the draft Beachfront Development Framework, a range of options for framework have been considered and debated with the local community and other stakeholders, especially as part of the development of earlier versions of the Beachfront Development Framework and as part of the masterplanning process. This has resulted in the approach presented in the current draft Beachfront Development Framework and the potential projects it contains.

Given the scale and importance of the site, a number of options were developed to test out initial thoughts for the concept masterplanning approach for the Beachfront. This testing process has been crucial in allowing the development of a preferred Beachfront Development Framework approach, along with alternative options, which are viable, deliverable and which will maximise the potential of the area. This iterative process was undertaken by the design team alongside Aberdeen City Council to ensure the benefits and drawbacks of the potential design solutions were understood and the most appropriate proposal agreed upon by consensus.

The concept masterplan work and the development optioneering that has been undertaken to date for the Beachfront have moved at a significant pace since the initial reporting to the City Growth and Resources Committee. This work to date, and the masterplan concepts and indicative development options that have subsequently emerged for consideration, have been directly influenced by the significant public engagement undertaken between June-July 2021 on "*The Future of Aberdeen City Centre and the Beach*", to which there were 7,697 responses, the largest response that the Council has received to any such consultation (Beachfront Projects Feasibility Report (25.06.21)). A number of further engagement and consultation approaches have also been undertaken with the local community and key stakeholders. This consultation has been key in shaping the Development Framework proposals so far:

- A series of stakeholder engagements have taken place with those associated with the core Beachfront facilities Beach Ballroom, Beach Leisure Centre and Stadium;
- Discussions also took place with a range of organisations that use and/or have an interest in the Beachfront, including the Chamber of Commerce, the Cricket Club, and the Surf Club;
- Workshop sessions were also held with key stakeholders associated with the Beachfront facilities forming the basis of this review – The ballroom management, Sport Aberdeen, and Aberdeen Football Club. During these sessions' outputs from the Options Appraisal exercise were presented and confirmed as an agreed recommendation;
- Extensive consultation and engagement was undertaken with children and young people. The exercises included the following:
 - Workshops with P6 Primary School children followed by a presentation of their ideas to members of the design team.
 - A 'creative postcard exercise' undertaken with secondary school students.
 - Consultation through a QR code and online survey;
- Further consultation has also taken place with local bus operators, with taxi and cycle groups also approached;
- Several technical workshops have been undertaken with Aberdeen City Council technical teams in order for the Beachfront Development Framework proposals to respond to their queries and feedback

- Attended stakeholder meetings with Accessible City Transport Users Partnership (ACTUP) and Disability Equity Partnership (DEP), including User Journey Mapping, undertaken with members of DEP; and
- Historic Environment Scotland (HES), Scottish Environment Protection Agency (SEPA), NatureScot and Scottish Water, were also consulted as part of the initial consultation and engagement process.

4.2 Evaluation Process

During September and October 2021, the Beachfront design team set out criteria for the evaluation of both the Masterplan concepts and the Leisure options combining the proposed new Stadium, Water Leisure, Ice Rink, Gym and Spa. The selection criteria were partly prepared by the Council Programme Management Office (PMO) in collaboration with the design team and its content was also reviewed by senior officials from Aberdeen City Council.

Following a series of workshops on the 23rd and 24th September 2021, each Beachfront consultant scored the following scenarios. Firstly, the masterplan options were scored (refer to Section 4.5)

- Masterplan Rope Works Option
- Masterplan Tram Lines Option
- Masterplan Groynes Option

Following the masterplan scoring process, the alternative Development Options were scored (refer to Section 4.8)

- Stadium Option 1(A) + 1(B)
- Stadium Option 2
- Stadium Option 3

4.3 Scoring Criteria

The key headings for the scoring criteria of options are illustrated in Table 4-1.

In summary, these were based on the following principles:

- Accessibility and Social Value
- Vision & Culture
- Urban Design & Planning
- Commercial Considerations
- Adaptability & Sustainability

The relevant sections of the submission:	Very Poor	0
Proposes a solution which performs poorly in all of the characteristics		
identified in the requirements.		
The relevant sections of the submission:	Poor	2-4
Proposes a solution which performs poorly in all of the characteristics		
identified in the requirements.		
The relevant sections of the submission:	Satisfactory	5
Proposes a solution which performs satisfactorily in all of the characteristics		
identified in the requirements.		
The relevant sections of the submission:	Good	6-7

Table 4-1: Scoring Criteria

	.	
Proposes a solution which performs well in all of the characteristics identified		
in the requirements.		
The relevant sections of the submission:	Very Good	8-9
Proposes a solution which performs well in all of the characteristics identified		
in the requirements.		
The relevant sections of the submission:	Excellent	10
Proposes a solution which performs very well in all of the characteristics		
identified in the sub-criteria and excels in some of the characteristics		
identified in the requirements.		
Criteria	Score (0-10)	
Accessibility & Social Value		
Availability of and opportunity for free activities and open space		
Consideration for and provision of accessible movement to and within		
Consideration of inclusivity within the design		
Consideration and opportunity for green methods of travel		
Design for employment and opportunity		
Vision & Culture	1	
Promotion of Aberdeen as a cultural destination		
Integration of landmark design features		
Promotion of and support for emerging cultures		
Aspirational design quality		
Integration of heritage and promotion of legacy		
Urban Design & Planning		
Consideration of design for safe spaces		
Design for flexibility of scale; intimate spaces and gathering spaces		
Promotion of a sense of place and social ownership		
Consideration of local planning principles and city plan		
Integration with immediate site constraints		
Commercial		
 Design for commercial opportunities of various scales 		
Consideration for footfall and yield		
Consideration for affordability / commercial feasibility		
Consideration for technical viability and deliverability of design		
Appropriateness of proposed commercial uses and scale		
Adaptability & Sustainability		
Design for flexible adaptable spaces		
Design for the permanent and temporary spaces		
Opportunities for incorporation of emerging technologies and energy		
Consideration for renewable energy consumption and production		
Integration with natural habitat and promotion of biodiversity		
Total		

The selection criteria were based on the following:

Accessibility & Social Value

A key focus of the Masterplan is to create a transformational environment for the Beachfront with an emphasis on tariff-free play zones and scenarios within an inclusive design, allowing access for everyone.

The ability of these spaces to be seamlessly linked allowing for the ease of movement between zones for pedestrians, cyclists and other active sustainable travel was also a key consideration.

Vision & Culture

This scoring section focussed on how the Masterplan can best promote Aberdeen's Beachfront as an emerging civic, regional and international asset.

This evaluation scoring also examined the integration of heritage and culture in the Masterplan and Leisure elements.

Urban Design & Planning

This section focussed on the ability of each option to address the emerging city plan and planning policy guidelines. Each option was also tested against placemaking principles to ensure the Urban Design solutions were of the highest quality.

Commercial

Whilst not the highest priority, all options were scored against affordability, commercial viability, and potential footfall. Employment opportunities and potential revenue generation were also evaluated in conjunction with an assessment of technical complexity, deliverability and future maintenance considerations.

Adaptability & Sustainability

The ability of each Masterplan to be able to be adapted to suit future requirements was a key consideration. These flexible Masterplan options were also tested against key environmental considerations such as Low or Net Zero Carbon technologies, renewable energy, the preservation of natural habitat and the promotion of biodiversity.

4.4 Masterplan Options

The creation of a transformational new Beachfront destination will rely on progressive and innovative Masterplan solutions, alongside a respectful acknowledgement of the heritage of the site. As the proposed Masterplan will be centred around the iconic Beach Ballroom as the main focal point of the redevelopment, the history of the Beachfront is intrinsic to the character of the wider area.

Aberdeen was a successful and thriving destination in the early 1900s, with a range of well-utilised leisure facilities and recreational activities located along the Beachfront.

Capturing the nostalgia of that glorious bygone era, the celebration of what has gone before provides inspiration for the future development of the Beachfront.

Touted as 'the finest beach and most beautiful resort in Britain', Aberdeen was known as 'The Silver City by the Sea' - a popular picture-postcard holiday spot. The vision for the Masterplan is to rejuvenate the Beachfront back to its former glory as a major waterfront destination for future generations. The component parts of previous successes can be re-imagined creating a contemporary new Masterplan solution which establishes Aberdeen Beachfront as a world-class leisure destination once more.

3 main initial Masterplan concepts have been developed in collaboration with the Design Team,

- Option 1: Rope Works:
- Option 2: Tram Lines: and
- Option 3: Groynes.

All three concepts described below draw upon the history and heritage of the Beachfront in an innovative, forward-thinking way.

4.4.1 Option 1: Rope Works

Rope Works is inspired by Aberdeen's shipbuilding industry. Historically, the Rope & Sail Making Works were located on the site at the South of Queen's Links. The Rope Works concept uses the formation of the rope itself to inspire a Masterplanning design approach for the main character area of the site. The Rope Works concept takes the organic form of the rope to create a network of footpaths and desired routes, extending down from Beach Boulevard and opening up towards the Beach Ballroom at the heart of the proposed Masterplan.

The Rope Works concept takes the organic form of the rope weave and unravels the strands to form a hierarchical network of sinuous footpaths and desire routes, extending down from Beach Boulevard and opening up towards the Beach Ballroom at the heart of the proposed Masterplan. The open strands shape the Masterplan framework to create the geometry of the key elements of the proposal, including areas of Play, Park, Gathering, Amphitheatre and potential Water Features. Natural landforms offer protection from the elements, with proposed dune formations providing shelter from North Easterly winds. The Rope Works concept allows the main desire route from Beach Boulevard to transition from a formal, dense character to more natural and softer forms, as the circulation pathways extend out organically to link the key features of the Masterplan
ROPE WORKS: CONCEPTUAL MASTERPLAN

The main features of the Rope Works conceptual Masterplan are outlined below:

- An organic network of pedestrian-focussed hierarchical desire routes and sinuous meandering pathways
- · An outdoor gathering area for large scale events
- Natural pods / lagoon feature ٠
- Relocated & upgraded play park with potential water feature .
- Natural dune formations providing shelter from North Easterly winds .
- Potential canopy features with opportunities for solar power .
- Reflection pool grand setting for re-imagined Beach Ballroom .
- . Integrated Stadium, Leisure & outdoor sports facilities
- Upgraded Esplanade with active frontage
- Integration with Broadhill and links to existing footpaths. •
- Podium deck offering high quality hard/soft landscape opportunities
- · Undercroft car park to conceal vehicular impact



Rope Works Conceptual Masterplan Diagram



Lagoon Water Feature

Landscaped Podium Deck with Undercroft Car Park

ROPE WORKS: MOVEMENT - PEOPLE

An initial, high-level analysis of movement and connectivity has been undertaken for each of the 3 Masterplan concepts.

The adjacent diagram suggests potential Pedestrian and Cyclist routes for the Rope Works concept, which looks to achieve the following:

- · Pedestrian-focussed environment
- · Highly permeable pedestrian movement
- Maintain cycle route along Beach Esplanade with managed crossover points





Rope Works Pedestrian & Cyclist Movement Diagram

ROPE WORKS: MOVEMENT - CARS

The adjacent diagram suggests potential Vehicular routes for the Rope Works concept, which looks to achieve the following:

- Create a car free environment
- Potential drop-off and lay by provision
- Controlled surface allowing VIP/Coach drop-off to front of Stadium
- Service access to rear



Rope Works Vehicular Movement Diagram

ROPE WORKS: MOVEMENT - BUSES

The adjacent diagram suggests potential Public Transport routes for the Rope Works concept, which looks to achieve the following:

- Maintain and enhance public transport options from City Centre to Beachfront
- Modification of existing No. 13 & 15 Bus routes
- Bus Stops to perimeter of site



Existing Bus Routes



Rope Works Public Transport Movement Diagram

Robertson Construction Group Ltd Aberdeen Beachfront Development Framework; Strategic Environmental Assessment (Environmental Report)



Rope Works Conceptual Massing Study

4.4.2 Option 2: Tram Lines

Tram Lines uses the linearity of the historic tram routes to organise the central features of the Masterplan, alongside influences such as the octagonal geometry of the Beach Ballroom and Bandstand. The Tram Lines concept in centred around the existing remnant of the physical tram line located at the North of Queen's Links. The historic lines would be retained and enhanced to form an organizing geometry from which to build a re-imagined Urban Park.

The historic lines would be retained and enhanced to form an organizing geometry from which to build the re-imagined Park. The new Play Park could incorporate the existing Tram Lines within its design, with the opportunity for a Café at the end of the line. The linear design could then extend out into the sea, with a potential pier structure inspired by the historic 1852 proposal in the same location. The main octagonal gathering space would link all elements of the Masterplan, with a central focal point drawing pedestrians down from Beach Boulevard towards the re-imagined Ballroom with an enhanced and more formal setting.

TRAM LINES: CONCEPTUAL MASTERPLAN

The main features of the Tram Lines conceptual Masterplan are outlined below:

- · Play Park centred on retained tram lines with potential feature tram cafe
- Tram line & Beach Ballroom central organising geometry with octagonal focal point
- Pedestrian-focussed Avenue following desire line from Beach Boulevard
- · Striking pier structure extending from tram line with feature viewing platform
- · Formal mounding providing shelter from the elements
- Lightweight structures collecting solar energy & providing rain cover
- · Potential pump park adjacent to existing extreme sports facility
- Active frontage with food & beverage units and water sports
- · External gathering space for large events with potential amphitheatre
- · Formal setting for re-imagined Beach Ballroom incorporating reflection pool
- Secret Garden offering external break-out for Ballroom
- Podium deck joining all leisure elements together with enhanced public realm and concealed parking
- Active frontage along Beach Esplanade
- External Sports Fields/Cricket Pitch





TRAM LINES: MOVEMENT - PEOPLE

The adjacent diagram suggests potential Pedestrian and Cyclist routes for the Tram Lines concept, which looks to achieve the following:

- · Pedestrian desire route from Beach Boulevard through new civic space
- Cycle route along Beach Esplanade with managed crossover points
- · Pier structure destination offering spectacular views of Aberdeen Beach





Tram Lines Pedestrian & Cyclist Movement Diagram

Robertson Construction Group Ltd Aberdeen Beachfront Development Framework; Strategic Environmental Assessment (Environmental Report)

th managed access to front of Beach Ballroom and

ovision at the periphery of the Links character area



TRAM LINES: MOVEMENT - BUSES

The adjacent diagram suggests potential Public Transport routes for the Tram Lines concept, which looks to achieve the following:

- Maintain and enhance public transport options from City Centre to Beachfront
- Modification of existing No. 13 & 15 Bus routes
- Bus Stops to perimeter of site



Disting Bus Routes



Tram Lines Public Transport Movement Diagram

Robertson Construction Group Ltd Aberdeen Beachfront Development Framework; Strategic Environmental Assessment (Environmental Report)



Tram Lines Conceptual Massing Study

4.4.3 Option 3: The Groynes

The Groynes concept is inspired by the existing shore protection structures built perpendicular to the shoreline of the Aberdeen coast. These linear structures are an integral part of the unique Aberdeen sea-scape, creating a strong organising geometry from which the Masterplan builds.

The Groynes concept uses these unique linear structures to create a powerful organising geometry from which the Masterplan builds. The 2 central Groynes form the basis of an overall design language for the Links character area, extending out into the sea to form a dramatic new pier structure with a spectacular focal viewing point. The geometry of the existing Groynes also extends back around in a loop to form a suggested amphitheatre-style external gathering space, with surrounding water features and organic dune formations to offer shelter from the elements. A re-imagined Play Park is situated to the South of the central Groynes, with the potential for a landmark or 'Gateway' feature to signal arrival from Beach Boulevard into the new Links character area. There is also an opportunity to extend the Park westwards up on to Beach Boulevard, with active frontages and potential redevelopment of the existing, tired industrial units. The main Avenue then follows the desire route through the Links towards the iconic Beach Ballroom, which has a more formal setting and enhanced public realm.

The main features of the Groynes conceptual Masterplan are outlined below:

- Utilise powerful linear geometry of unique Groyne structures
- · Create dramatic new pier structure extending the footprint of the existing Groynes
- Opportunities for changes in level within pier design with feature focal viewing
 platform
- Extend geometry around elliptical terraced outdoor gathering area / amphitheatre
- Potential landmark or Gateway feature to signal arrival from Beach Boulevard into the new Links character area
- Extension of Park westwards to Beach Boulevard with potential for redevelopment of existing industrial units
- Creation of organic dune mounding structures to provide shelter
- · Re-imagined and upgraded Play Park with potential for Water Play
- Podium deck with enhanced public realm connecting Ballroom, Leisure & Stadium
- Formal setting to ballroom with potential water feature and new civic space
- External break out to beach ballroom forming 'secret garden' feature
- Upgraded esplanade with active frontage to Beach



Robertson Construction Group Ltd Aberdeen Beachfront Development Framework; Strategic Environmental Assessment (Environmental Report)



Sinuous pathways following desire route through Links character area

Elegant structural solution with potential changes in level

Dynamic pier structure extending out from existing linear Groynes with focal viewing platform

GROYNES: MOVEMENT - PEOPLE

The adjacent diagram suggests potential Pedestrian and Cyclist routes for the Groynes concept, which looks to achieve the following:

- Pedestrian focused, cyclist friendly environment
- Desire route from Beach Boulevard to re-imagined Beach Ballroom and enhanced public realm/plaza
- Footpaths linking up to Broadhill, Stadium and Leisure facilities
- Dramatic Pier structure destination with opportunities for changes in level
- Focal point viewing platform destination with spectacular views over Aberdeen Beach





Groynes Pedestrian & Cyclist Movement Diagram

Page 197

56

GROYNES: MOVEMENT - CARS

The adjacent diagram suggests potential Vehicular routes for the Groynes concept, which looks to achieve the following:

- + Remove cars from main character area where possible
- Podium deck solution with undercroft parking .
- Pedestrian-focussed shared surface with managed access to Beach Ballroom and . Stadium/Leisure
- · Potential drop-off and lay by provision at the periphery of the Links character area
- . Service access to rear



GROYNES: MOVEMENT - BUSES

The adjacent diagram suggests potential Public Transport routes for the Groynes concept, which looks to achieve the following:

- Maintain and enhance public transport options from City Centre to Beachfront
- Modification of existing No. 13 & 15 Bus routes
- Bus Stops to perimeter of site





oroynes Public transport Movement Diagram

Robertson Construction Group Ltd Aberdeen Beachfront Development Framework; Strategic Environmental Assessment (Environmental Report)



4.5 Masterplan Option Scoring

At the time the scoring exercise was undertaken the wider environment was a consideration but loosely, given the early stage in the preparation of the Beachfront Development Framework, and no survey work had been undertaken.

The Rope Works concept allows the main desire route from Castlegate to flow down Beach Boulevard and transition from a formal character to more natural, softer and playful forms, as the pathways extend out organically to link the key features of the Masterplan, culminating in a dramatic Boardwalk structure and viewpoint which extends out towards the sea.

The core principles that form the basis for the Beach Masterplan proposals and embody the essence of the initiative for the Beachfront regeneration are:

- The importance of the re-imagined Beach Ballroom, including a desire to return it to its former glory when it was known as the 'People's Ballroom'. This needs to recognise the buildings heritage and historic significance whilst equipping it for the future as a modern events venue;
- The potential to share / link facilities associated with the new Stadium and Leisure facilities to support joint funding with the Stadium Anchor tenant and realise economies of scale;
- A desire for a dynamic waterfront making the most of the Beach Boulevard and considering support facilities such as changing accommodation/beach huts and a potential pier structure.
- Excellent, high-quality public realm;
- Leisure activities that are inclusive and accessible to all income groups that may visit the Beachfront;
- Improved Access and Connectivity between the Beachfront and City Centre;
- Infrastructure, including traffic management that reduces the impact of the existing road network to promote alternative forms of travel, including walking and cycling, whilst improving the public realm; and
- Co-ordination with potential flood and/or sea defence works planned for the area.

The Masterplan scoring outcomes can be found in Table 4-2.

Table 4-2: Masterplan Options- Scoring

CRITERIA	Rope Works			<u>Total</u>	Tram Lines			<u>Total</u>	The Groynes			<u>Total</u>										
Accessibility and social value								•	•							1						
Availability of and opportunity for free activities and open space	10	9	8	9	10	10	10	66	10	9	9	10	10	10	58	10	9	9	10	10	10	58
Consideration for and provision of accessible movement to and within	10	9	7	9	10	10	10	65	8	7	9	10	9	10	53	8	7	9	10	9	10	53
Consideration of inclusivity within the design	10	9	8	9	10	9	10	65	8	8	9	9	9	9	52	8	8	9	7	9	8	49
Consideration and opportunity for green methods of travel	10	8	7	9	10	10	10	64	8	7	9	10	10	10	54	8	7	9	10	10	10	54
Design for employment and opportunity	9	8	7	7	10	8	10	59 319	10	7	7	10	8	10	52 269	8	7	7	7	8	7	44 258
Vision & Culture																						
Promotion of Aberdeen as a cultural destination	10	9	8	8	10	9	10	64	9	8	9	9	9	9	53	8	8	9	8	8	8	49
Integration of landmark design features	10	8	7	8	10	10	10	63	8	9	9	10	10	10	56	8	9	9	10	10	10	56
Promotion of and support for emerging cultures	8	8	6	8	7	7	8	52	8	6	9	8	7	8	46	8	6	9	6	7	7	43
Aspirational design quality	10	9	8	8	10	10	9	64	8	8	9	10	10	9	54	8	8	9	10	10	9	54
Integration of heritage and promotion of legacy	10	9	8	8	10	10	10	65 308	9	8	9	9	10	9	54 263	8	8	9	8	10	8	51 253
Urban Design & Planning	<u> </u>	1	<u> </u>	<u> </u>	ļ	<u> </u>	<u> </u>		<u> </u>			<u> </u>		Į]	200	<u> </u>		<u> </u>	ļ	<u> </u>		
Consideration of design for safe spaces	8	8	7	9	10	9	10	61	10	7	9	10	9	10	55	8	7	8	10		10	43
Design for flexibility of scale; intimate spaces and gathering spaces	10	9	7	9	10	10	10	65	8	7	9	9	8	9	50	8	8	8	8	9	8	49
Promotion of a sense of place and social ownership	10	8	9	8	10	10	10	65	9	9	9	9	10	9	55	8	9	8	7	8	8	48
Consideration of local planning principles and city plan	10	9	9	8	10	8	10	64	9	9	9	10	8	10	55	9	9	8	10	10	10	56
Integration with immediate site constraints	10	9	8	8	10	9	10	64 319	9	8	9	9	9	9	53 268	9	8	8	8	8	8	49 245
Commercial	<u> </u>	1	<u> </u>	<u> </u>	ļ	<u> </u>	<u> </u>	010	<u> </u>			<u> </u>		Į]	200	<u> </u>		<u> </u>	ļ	0		
Design for commercial opportunities of various scales	8	9	7	7	10	9	10	60	9	7	9	9	9	9	52	8	7	9	8	9	8	49
Consideration for footfall and yield	10	8	7	7	10	10	10	62	8	7	9	9	9	9	51	8	7	9	7	7	8	46
Consideration for affordability / commercial feasibility	10	9	7	7	10	9	10	62	8	7	9	9	8	9	50	8	7	9	7	7	8	46
Consideration for technical viability and deliverability of design	10	9	7	7	10	10	9	62	8	7	9	10	10	10	54	8	7	9	8	8	8	48
Appropriateness of proposed commercial uses and scale	10	9	7	7	8	10	8	59 305	8	7	9	10	9	10	53 260	8	7	9	7	7	7	45
Adaptability & Sustainability	I	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	000			<u> </u>	<u> </u>		<u> </u>	200			<u> </u>	<u> </u>	<u> </u>		
Design for flexible adaptable spaces	10	9	6	8	10	10	10	63	7	7	8	9	9	9	49	8	8	8	7	7	8	46
Design for the permanent and temporary spaces	8	8	8	8	8	10	8	58	10	8	8	9	9	9	53	8	9	8	7	7	7	46
Opportunities for incorporation of emerging technologies and energy	10	9	9	8	9	8	10	63	10	9	8	9	8	10	54	10	9	8	8	8	10	53
Consideration for renewable energy consumption and production	8	7	8	8	9	8	9	57	8	9	8	9	8	9	51	8	9	8	8	8	9	50
Integration with natural habitat and promotion of biodiversity	10	9	7	8	10	10	9	63	8	7	8	7	8	7	45	9	7	8	6	8	7	45
								304 1555							252 1312							240
Highest Scoring Option								1555							1312							1230
Second Scoring Option																						

Lowest Scoring Option

Total Score

4.6 Preferred Masterplan Option

Following scoring, the **<u>Rope Works</u>** was selected by the Beachfront Masterplan team as the preferred masterplan option, as in summary, it had the following qualities:

History & Heritage

This option celebrates the historical character of the site and the previous Rope Works which supported Aberdeen's Shipbuilding heritage. The key pathways and routes are created in an organic manner simulating the unravelling of a rope.

Free Play

This Masterplan generates a multitude of zones and opportunities for free play. The layout creates zones for a range of activities such as a pump park, child play, teenager play and water-based play areas together with water sports and other outdoor Leisure experiences associated with the beach. An amphitheatre, mounding, a variety of paths and walkways culminating in the boardwalk /pier structure also added an additional dynamic to the visitor experience.

Natural Environment

The organic design characteristics of Rope Works create a natural geometry of sinuous footpaths and routes linking seamlessly with Broad Hill and appear in harmony with the topography of the site. This geometry allows all elements to flow together and is consistent with the emerging natural design shell form of the Stadium and Leisure buildings.

Attributes

Whilst all Masterplan options were considered to be successful, the Rope Works concept was selected as the preferred solution due to these aforementioned features.

Boardwalk & Pier

The Ropeworks masterplan originally did not have a boardwalk and Pier, but this option was included in the Tram Lines and Groyne masterplan options. The Boardwalk and Pier were incorporated into the Ropeworks masterplan largely as a result of feedback from Councillors at either Committee/Council meetings, or via officers. Following the options scoring Councillors requested this feature be included. Other elements (slipway and beach pavilion) evolved out of feedback from further stakeholder sessions.

4.7 Development Option Scoring

Using the scoring criteria identified within Section 4.3, the development options were scored to determine the preferred option and alternatives.

4.7.1 Development Option 1: Retain and refurbish the existing leisure centre, ice arena, new football stadium

Option 1 assumes that the existing leisure centre and ice arena are retained and upgraded as part of the development but does not seek to integrate the existing leisure centre and ice arena (which are already separate) or the new football stadium (Figure 4-1).



Figure 4-1: Option 1-Retain and refurbish the existing leisure centre, ice arena, new football stadium

The refurbishment of the existing leisure centre is based on work already undertaken by Sport Aberdeen with the aim of improving the condition and utilisation of the facility, increasing participation, providing new revenue streams and creating a destination venue. The proposals comprise the following:

- New double-height atrium entrance, new reception, connectivity between levels;
- Existing sports hall dedicated to new commercial play park with party rooms and sensory spaces. New curtain walling;
- New spa with treatment rooms, changing, showers, sauna & steam rooms, jacuzzi and plunge pool on lower level;
- Enlarged fitness and gym with toning, studios, spin studio, community use spaces and dedicated dry changing on upper level; and
- External re-working of public realm and parking.

These proposals have not been developed in detail but envisage developing the project brief, design proposals, cost plan and Beachfront Development Framework in greater detail with the Client and key stakeholders in the event that this option is pursued.

The refurbishment of the ice arena is based on a light touch refresh focusing on redecoration, replacement of seats, fixtures and fittings, and dealing with outstanding maintenance to the building fabric and building services installations. The proposals do not seek to link the existing leisure centre and ice arena to share reception, management offices and food & beverage provision.

Aberdeen FC's existing Pittodrie Stadium is near it's 'end of life' and therefore requires either major redevelopment on the existing site or the building of a new stadium at a new location. Various sites have been earmarked over the years and there is an existing planning permission to build on an out of town site. However, retaining the stadium and its footfall close to Aberdeen city centre would be an ideal outcome for all concerned.

The new football stadium will comprise the following:

- Stadium seating bowl;
- General Admission (GA) seating with contemporary concourse facilities;
- Premium GA seating and concourse with upgraded F&B offer and toilets;
- Various grades of hospitality seating and lounges with pitch views, some with sea views;
- Sky Boxes;
- State of the art UEFA compliant Players areas;
- Field of play capable of hosting football and Rugby Union; and
- SPL and UEFA compliant Media areas with flexibility to expand depending on match coverage.

4.7.2 Development Option 2: New build leisure centre and ice arena, new build football stadium

Option 2 assumes that the existing leisure centre and ice arena are demolished and will be replaced by an integrated facility that links the new leisure centre, ice arena and football stadium as part of the development (Figure 4-2). The integration aims to provide an efficient building plan and form that provides the opportunity to share facilities and operational benefits where possible.

The brief and facility mixed use for the new leisure centre has been derived from consultation with the Client and key stakeholders including the Beachfront Leisure Facility Concept Ideas document dated September 2021 and prepared by Sport Aberdeen. The facility mix in this document has been enhanced in line with the Client's aspiration to make the most of the beach area as an opportunity and tourism asset as well as to generate new visits and spend.

The brief and facility mixed for the new ice arena has been to largely replicate the facilities in the existing ice arena but to comply with the latest version of International Ice Hockey Federation (IIHF) design guidance (including the size of the ice pad), allow for the increase of seating capacity beyond 1200 seats that the existing ice arena provides and incorporate an improved hospitality offer.





The new football stadium will comprise the following:

- Stadium seating bowl
- General Admission (GA) seating with contemporary concourse facilities
- Premium GA seating and concourse with upgraded F&B offer and toilets
- Various grades of hospitality seating and lounges with pitch views, some with sea views
- Sky Boxes
- State of the art UEFA compliant Players areas
- Field of play capable of hosting football and Rugby Union
- SPL and UEFA compliant Media areas with flexibility to expand depending on match coverage

4.7.3 Development option 3: New leisure centre and ice arena, football stadium excluded

Option 3 assumes that the existing leisure centre and ice arena are demolished and will be replaced by an integrated facility that links the new leisure centre and ice arena but that the stadium does not form part of the development and is re-provided elsewhere in the city (Figure 4-3). The aim of the integrated leisure centre and ice arena is to provide an efficient building plan and form that can be operated as a single entity and avoid the duplication of café and management spaces that occurs at the existing leisure centre and ice arena.



Figure 4-3: Option 3-New leisure centre and ice arena, football stadium excluded

The brief is as per option 2 and facility mixed used for the new leisure centre has been derived from consultation with the Client and key stakeholders including the Beachfront Leisure Facility Concept Ideas document dated September 2021 and prepared by Sport Aberdeen. The facility mix in this document has been enhanced in line with the Client's aspiration to make the most of the beach area as an opportunity and tourism asset as well as to generate new visits and spend.

As for Option 2, the brief and facility mixed for the new ice arena has been to largely replicate the facilities in the existing ice arena but to comply with the latest version of International Ice Hockey Federation (IIHF) design guidance (including the size of the ice pad), allow for the increase of seating capacity beyond 1,200 seats that the existing ice arena provides and incorporate an improved hospitality offer.

It has been assumed that it is desirable to keep both the existing leisure centre and ice arena in operation during the construction of the new facilities. This allows the leisure centre and ice arena to continue to meet local and regional demand for the facilities, continue swimming lessons, support local clubs and maintain staff at both buildings.

As a result, the new leisure centre and ice arena building should avoid any overlap on plan with the existing facilities and therefore be located approximately 180m north of the Beach Ballroom with the existing leisure centre and ice arena demolished after completion of the new facilities and the area used for the new public realm, parking or further recreational facilities.

4.8 **Preferred Development Option.**

The development options evaluated were scored using the same scoring criteria as the Masterplan option under the headings of accessibility and social value, vision and culture, urban design and planning, commercial, and adaptability and sustainability.

The scoring favoured **Option 2: New Leisure, Ice Arena & Stadium** principally due to the ability to deliver a coordinated and integrated sport and leisure development within a transformational new waterfront destination for the City of Aberdeen (Table 4-3). Aberdeen FC's existing Pittodrie Stadium is near it's 'end of life' and therefore requires either major redevelopment on the existing site or the building of a new stadium at a new location. Various sites have been earmarked over the years and there is an existing planning permission to build on an out of town site. However, retaining the stadium and its footfall close to Aberdeen city centre would be an ideal outcome for all concerned.

Option 1 scored less well, particularly under the accessibility and social value, urban design and planning, and adaptability and sustainability headings with concerns around the retention of the existing leisure centre and ice arena. Option 3 providing new leisure facilities scored more favourably than Option 1, however, there was concern that the absence of the stadium meant that the option contributed less to the overall development compared with Option 2, therefore Option 2 was selected as the preferred option to be taken forward in the Beachfront Development Framework.

4.9 Business as Usual Option

A 'Business as Usual Option' was not assessed as part of the options appraisal. Business as usual would involve not implementing the draft Beachfront Development Framework, assuming development at the beachfront would be ad-hoc. This option, therefore, represents the likely evolution of the baseline without the Beachfront Development Framework.

Table 4-3: Development Options- Scoring

CRITERIA	Option 1A	<u>Total</u>	Option 1B	<u>Total</u>	Option 2	<u>Total</u>	Option 3	<u>Total</u>
Accessibility and social value		-		-				
Availability of and opportunity for free activities and open space Consideration for and provision of accessible movement to and within Consideration of inclusivity within the design Consideration and opportunity for green methods of travel Design for employment and opportunity	3 4 3 6 4 4 4 2 4 6 6 5 5 4 7 4 6 7 5 5 5 4 5 7 8 8 4 5 4 4 6 7 5 5 5	28 32 39 41 36 176	3 4 3 6 4 3 4 3 6 7 6 5 5 4 8 6 7 7 5 6 5 7 5 7 8 8 7 8 7 7 7 6 6 7	27 36 44 50 47 204	3 6 3 6 4 4 4 8 7 9 7 7 9 8 8 8 9 9 10 9 10 7 7 7 8 8 8 8 10 8 9 9 10 9 10	30 55 63 53 65 266	7 8 7 5 3 5 8 8 9 8 8 9 8 8 9 9 10 9 10 7 7 7 8 8 8 5 6 5 9 10 8 8	43 58 63 53 51 268
Promotion of Aberdeen as a cultural destination	2 4 6 5 4 5 4	24	5 7 7 5 5 6 5	40		65		50
Integration of landmark design features Promotion of and support for emerging cultures Aspirational design quality Integration of heritage and promotion of legacy	3 4 6 5 4 5 4 3 4 6 5 4 6 4 3 4 6 7 5 5 5 3 4 6 5 5 6 5 3 4 6 5 5 6 5 3 5 7 5 5 4 5	31 32 35 34 34 34 166	5 7 7 5 5 6 5 5 7 7 5 5 6 5 5 7 7 7 5 6 5 5 7 7 5 5 6 5 5 7 7 5 5 6 5 5 7 7 5 5 6 5 5 5 8 5 5 6 5	40 40 42 40 39 201	9 8 9 9 10 10 10 9 8 9 8 8 10 8 6 7 7 7 8 9 8 9 9 9 9 10 10 10 8 8 8 6 6 10 6	60 52 66 52 295	7 7 9 10 9 10 7 9 7 8 7 8 7 8 8 9 7 7 8 7 8 9 7 9 10 8 10 6 7 6 6 6 8 6	59 53 54 61 45 272
Urban Design & Planning							· · · · · · · · ·	
Consideration of design for safe spaces Design for flexibility of scale; intimate spaces and gathering spaces Promotion of a sense of place and social ownership Consideration of local planning principles and city plan Integration with immediate site constraints	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	39 33 34 37 39 182	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	44 43 42 44 44 217	10 9 9 9 10 10 10 10 9 9 9 10 9 10 10 9 9 9 10 9 10 10 9 9 9 9 10 9 10 8 9 8 10 8 10 10 8 9 6 6 9 6	67 66 65 63 54 315	7 8 8 9 10 9 10 7 8 8 7 7 8 8 7 8 8 7 7 9 8 7 8 8 8 8 8 8 7 8 8 8 8 8 8 7 7 8 6 6 8 6	61 53 54 55 48 271
Commercial		•						
Design for commercial opportunities of various scales Consideration for footfall and yield Consideration for affordability / commercial feasibility Consideration for technical viability and deliverability of design Appropriateness of proposed commercial uses and scale	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	36 36 40 37 36 185	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	46 44 41 43 43 217	10 8 9 9 10 10 10 10 8 9 9 10 10 10 10 8 9 8 8 9 7 10 8 9 8 8 8 8 10 8 9 8 8 8 8 10 8 9 9 10 9 10	66 66 59 59 65 315	7 8 8 9 10 9 10 7 7 8 9 10 9 10 7 7 8 8 8 8 7 7 7 8 8 8 8 8 7 7 8 8 8 8 8 7 8 8 9 10 8 10 7 8 8 9 10 8 10	61 60 53 54 60 288
Adaptability & Sustainability		-						
Design for flexible adaptable spaces Design for the permanent and temporary spaces Opportunities for incorporation of emerging technologies and energy Consideration for renewable energy consumption and production Integration with natural habitat and promotion of biodiversity	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	32 35 35 33 32 167	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	42 42 42 40 36 202	10 8 9 9 10 10 10 10 9 9 8 8 9 8 10 9 9 9 10 9 10 10 7 9 9 9 10 9 10 10 7 9 8 5 9 5 10 7 9 8 5 9 5	66 61 66 63 53 309	7 7 8 8 8 8 8 7 9 8 8 6 6 6 7 8 8 9 10 8 10 7 7 8 9 9 9 10 7 7 8 8 5 7 5	54 50 60 59 47 270
Uinheat Cooring Onting		876		1041		1500		1369
Highest Scoring Option Second Scoring Option								

Lowest Scoring Option

Total Score

September 2022

4.10 Corroboration of Scoring Outcomes

The final scoring results have been shared with representatives of the following organisations:

- Aberdeen City Council
- Sport Aberdeen
- Aberdeen Football Club

All stakeholders agreed in principle with the scoring outcomes of the evaluation and were very supportive of the design process.

In addition, Key Stakeholder sessions were also held which ratified Ropeworks and Stadium Option 2 as the preferred solutions.

The following Masterplan and Leisure options were therefore selected as the preferred solutions and taken forward as the Aberdeen Beachfront Development Framework:

- Preferred Masterplan Option: Rope Works
- Preferred Stadium & Leisure Option: 2 New build leisure centre and ice arena, new build football stadium

It should also be noted at this stage that all options received high ratings and all could easily be considered as successful, high-quality, potential design solutions.

4.10.1 Change of Option Names

Option 2 was subsequently renamed *Preferred Option*: New build leisure centre and ice arena and a new stadium.

Option 1 was renamed *Alternative Option A:* Retain and refurbish existing leisure centre, ice arena, new stadium.

Option 3 was renamed Alternative Option B: New leisure centre and ice arena, football stadium excluded

4.11 Recommendations for improving the environmental performance of the 'preferred option'

Given their shared remit of socio-economic regeneration and being development led to a degree, all three of the alternatives considered in this assessment have the potential to cause both positive and negative environmental effects. As discussed above, Aberdeen City Council are working to a brief defined by the vision of the draft Beachfront Development Framework. It should be noted that Development Option 1 would be unlikely to deliver these objectives given the nature of the refurbishment detailed for the leisure centre and ice area. Furthermore, despite being likely to have a lower overall environmental impact. Development Option 3 would be unlikely to deliver the same objectives due to less emphasis on built development i.e., no stadium, and thus lower socio-economic benefits.

The process of assessing and comparing the environmental performance of alternatives in SEA can help identify measures to improve the draft plan or the 'preferred alternative'. In this instance, the alternatives assessment has highlighted the need to consider a number of minor changes to the Beachfront Development Framework's preferred Alternative Development Option, to help realise some key environmental opportunities and reduce its overall potential environmental impact. Clearly, there will

Page 210

always be areas of conflict where environmental impact cannot be avoided or mitigated. In these instances, Aberdeen City Council will have to make the case to key stakeholders that the socio-economic benefits of development outweigh the consequences of the environmental impact.

5 ASSESSMENT OF DRAFT BEACHFRONT DEVELOPMENT FRAMEWORK VISION AND OBJECTIVES

5.1 Environmental Commentary on Draft Beachfront Development Framework Vision

The vision for improving the Beachfront and the associated facilities has been developed by the Council. This was initially developed and set out in the 2015 Aberdeen City Centre Masterplan (CCMP). The CCMP is a regeneration blueprint that is transforming the city centre while conserving its proud heritage. Eight objectives feed through the masterplan: to change perceptions, grow the city centre employment base, introduce a metropolitan outlook, create a living city for everyone, made in Aberdeen, reveal the waterfronts, become technologically advanced and environmentally responsible, and be culturally distinctive. In all the Council has 50 projects that range from delivering enhanced civic space to helping support exciting new events like the Great Aberdeen Run. The City Centre Masterplan is targeted at making Aberdeen an even better place to live, work, visit and do business.

The draft Beachfront Development Framework builds on the CCMP stating that the vision for Aberdeen Beachfront is:

'The Beachfront proposals will seek to revitalise and renew the area to maximise the potential of this unique space and create an exceptional asset for the city of Aberdeen. Due to the special location of the site, its overall connection to the natural environment the approach to design has been collaborative and landscape led in order to set an appropriate structure to accommodate a broad range of leisure uses, events and public spaces. This enhanced nature-based environment will be attuned to the needs of the local community whilst aiming to position the Beachfront as a prominent visitor location and reconnect the beach with the city centre.'

From an environmental perspective, the focus the vision places on the importance of enhancing the environment is welcomed and supported. The quality of both the natural and built environment is central to achieving the regeneration aims for Aberdeen Beachfront. As the vision acknowledges, utilising the natural assets of the coast will need to be an important aspect of the strategy for the area as it is a very valuable asset and fundamental to Aberdeen Beachfront's sense of place. Clearly there are potential tensions between achieving a "strong economy" and an "enhanced environment" and therefore opportunities with a win-win outcome will be needed rather than economic regeneration at the expense of the environment.

A key challenge for finalising the Beachfront Development Framework will be to ensure, as far as reasonably possible, that the vision's aspirations for the environment are delivered. The first step in delivering this will be to ensure that this aspiration is fully integrated into the whole of the Plan. The more detailed parts of the SEA, therefore, sought to assess how well environmental thinking had been integrated into the rest of the Plan and the likelihood of the vision's aspirations for an enhanced environment being realised.

As part of any successful "regeneration" strategy, it will be important to regularly assess the vision and plan and review it in light of changing circumstances. It would therefore be beneficial if the Beachfront Development Framework clearly set out an overview of how and when it will be reviewed. Whilst it is not appropriate to add this to the vision itself, it would be useful to include it somewhere in the Beachfront Development Framework, for example Chapter 5 "*Vision, Opportunities & Design Development*".

Similarly in order to develop a common agenda for Aberdeen Beachfront, the "top-down" Beachfront Development Framework also needs to link to "bottom-up" community-led innovation in a manner which fosters community involvement. An overview of the role of the community and how they were included is discussed in section 2.2 of this report.

5.2 Compatibility analysis of draft Beachfront Development Framework objectives and SEA objectives

The approach taken to the compatibility analysis of the draft Beachfront Development Framework objectives and SEA objectives are described in the Environmental Report in section 2.4.2. The purpose of the compatibility analysis was to identify potential synergies and inconsistencies between what the Beachfront Development Framework is trying to achieve and relevant aspirations for the environment as summarised in the SEA objectives. In addition, the compatibility analysis has informed the scope of the detailed assessment by highlighting particular issues that have benefited from more detailed consideration.

The compatibility analysis has been summarised in a matrix which is provided in Appendix D. The remainder of this section lists the draft Beachfront Development Framework objectives and summarises the outcome of the compatibility analysis and recommendations made.

5.3 Draft Beachfront Development Framework Objectives

The draft Beachfront Development Framework does not include an explicit list of plan objectives. However, through discussions with the Aberdeen City Council, they stated that the approach to the development of the Beachfront Development Framework was informed by the following objectives:

- 1. Revitalise and renew the area to maximise the potential of this unique space and create an exceptional asset for the city of Aberdeen;
- 2. Improve connectivity to the Beachfront area and the city with a focus on public transport, pedestrians, and cyclists;
- 3. Sympathetically restore the Beach Ballroom to its former glory when it was known as the People's Ballroom' while recognising the building's heritage and historic significance:
- 4. Improve the physical and built environment and provide a high-quality public realm;
- 5. Create quality and sustainable facilities for local people and visitors;
- 6. Maximise and enhance the outstanding natural coastal assets by attracting visitor attractions, leisure facilities, stadium and creating a dynamic waterfront destination; and
- 7. Develop a clear role for the area within the wider Aberdeen City area, making the most of the areas transport links.

5.4 Summary Commentary

Generally speaking, a degree of uncertainty was identified between the compatibility of the draft Beachfront Development Framework objectives and the SEA objectives. This was largely due to the potential for negative and/or positive effects depending on how the Beachfront Development Framework objectives are implemented.

The compatibility analysis highlighted a number of potential issues which were subsequently treated to more detailed consideration in the assessment of the draft Beachfront Development Framework (**see Chapter 6 of this report**). Recommendations/ issues highlighted for consideration in the detailed assessment are outlined below.

Key areas of potential conflict identified:

- Beachfront Development Framework relating to Landscape are potentially incompatible with SEA objective to 'Protect and enhance landscape character, local distinctiveness and promote access to the wider environment'. The potential New Stadium and Leisure Facilities will need to be designed and landscaped sympathetically to ensure they fit into the landscape.
- Development of the Aberdeen Beachfront area, in terms of attracting new visitors, could result in deterioration of water quality and potential flood risk.

Key areas of potential synergy identified:

- The SEA objectives 'Creation of community facilities', 'Provide adequate drainage and sewerage', 'to improve the quality of surrounding' and 'promote the sustainable use of community assets, natural resources and material assets' are all compatible with the Beachfront Development Framework objectives
- Beachfront Development Framework objectives are generally positive with SEA objective 'Maintain and improve air quality and reduce emissions of key pollutants'. Increased numbers of visitors to the Aberdeen Beachfront area could result in increased emissions of air pollutants from transport and commercial sources, however, there is a strong focus on the Beachfront Development Framework providing sustainable alternatives to car travel including promoting walking, cycling and public transport use, while improving connectivity to the City Centre.
- Beachfront Development Framework aims to improve the physical and built environment and provide a high-quality public realm and open space. This has key areas of support with several SEA objectives, primarily related to health, landscape, the quality of surroundings, promotion of energy-efficient development, renewables and targeting NetZero. Sensitive development in compliance with national planning policy and the ACC Local Plan is likely to deliver significant improvements in the area.

Recommendations

Recommendations for improving the draft Beachfront Development Framework objectives are summarised below in Table 5-1. Please refer to Appendix D for a summary of how the compatibility analysis informed subsequent stages of the SEA.

A key overarching recommendation is that the draft Beachfront Development Framework-development process would have benefited by including the Beachfront Development Framework objectives in the consultation document. It is a widely recognised approach to plan/strategy development to establish an overarching vision supported by a number of objectives or goals that the plan/ strategy aims to achieve. These should be linked to indicators (see Section 7 of this report) to facilitate monitoring of progress towards the achievement of the objectives/ goals. Though the development of the draft Beachfront Development Plan has been guided by the seven objectives listed above, their absence from the consultation document does not aid the transparency of the process of consultation on the draft plan as a whole.

Table 5-1 Recommendations for improving the draft Beachfront Development Framework
objectives

Draft Beachfront Development Plan objective	Recommendations for improving the draft objectives
1. Revitalise and renew the area to maximise the potential of this unique space and	 Ensure sympathetic design of new facilities and maximise the public open realm; Ensure sympathetic design and restoration of the Beach Ballroom; and

create an exceptional asset for the city of Aberdeen.	 Further information on the approach to development may identify potential support and/ or conflict for SEA objectives addressing noise and waste management and the circular economy.
2. Improve connectivity to the Beachfront area and the city with a focus on public transport, pedestrians, and cyclists.	 Ensure sustainable alternatives to car use are fully explored; Prioritise pedestrians, cyclists, and public transport wherever practicable; and Ensure there is adequate connectivity with the city centre.
3. Sympathetically restore the Beach Ballroom to its former glory when it was known as the People's Ballroom' while recognising the buildings heritage and historic significance.	 Ensure the plan includes sufficient details on why the Beach Ballroom is being restored, how it is envisaged it will be restored and what it means for Aberdeen Beachfront and Aberdeen as a whole.
4. Create quality and sustainable facilities for local people and visitors.	 Ensure that the word "sustainable" and/ or "sustainable development" is clarified in supporting text elsewhere in the Beachfront Development Framework so it is clear what these terms mean in the context of how they are being used and in the context of Aberdeen Beachfront. Achieve Net Zero and contribute to achieving Sustainable Development Goals
5. Improve the physical and built environment and provide a high-quality public realm.	 Ensure that the Beachfront Development Framework includes sufficient details on how potential conflicts should be avoided; and Ensure design is sympathetic to the natural environment including the landscape.
6. Maximise and enhance the outstanding natural coastal assets by attracting visitor attractions and encouraging leisure facilities	 Ensure that the plan includes sufficient details on how potential conflicts should be avoided. Consider the implications of locating development on the coast in terms of potential negative effects on natural heritage sites, biodiversity, flood risk and climate change vulnerability. Focus this objective on the consideration of management and other activities which enhances the coast's natural assets. Include a caveat, stating that built development will only be promoted where it can be demonstrated that significant negative environmental effects will be avoided and/ or it will contribute to environmental enhancement.
7. Develop a clear role for the area within the wider Aberdeen City area, making the most of the areas transport links.	 Ensure that the plan includes sufficient details on how potential conflicts should be avoided. Expand the coverage of the term 'transport' to ensure that walking, cycling and public transport are included and that transport is not based entirely on private car use.

5.5 Environmental commentary on draft Beachfront Development Framework development options

It is common practice in plan/ strategy development to link strategic vision, aims and objectives to output measures or indicators to monitor progress towards the achievement of these goals. This approach can help highlight where adequate progress is not being made and inform appropriate action to get the plan/ strategy back on track. The draft Beachfront Development Framework has limited scope to monitor progress towards achieving the Framework's environmental goals, particularly the statement in the Vision on creating an *"..enhanced public realm setting for the re-imagined Ballroom, integrated with a potential new Stadium and Leisure complex, will create a dynamic new Urban Park which connects back into the City Centre. This people-focused environment will be inclusive for all, creating a real community asset and bringing the 'Wow' factor back to the Beachfront".* In addition, the draft Beachfront Development Framework does not include a description of where/ how/ with what frequency monitoring data will be collected and how/ when it will be reported.

Chapter 7 summarises recommendations for monitoring the significant environmental effects of the Beachfront Development Framework. Where appropriate, monitoring recommendations have been identified that would allow integration of monitoring for SEA with monitoring progress towards the environmental goals of the Beachfront Development Framework (see **Chapter 7** of this report for further details).
6 ASSESSMENT OF BEACHFRONT DEVELOPMENT FRAMEWORK PROPOSALS

6.1 Introduction

Schedule 3 of the Environmental Assessment (Scotland) Act (2005) requires that "reasonable alternatives" be considered. As the Beachfront Development Framework included preferred and alternative options, the assessment of reasonable alternatives was carried out at this stage and included in the Environmental Report. It should be noted that the three development options all comprise common elements such as:

- Beach Ballroom
- Hidden Garden
- Public Plaza
- Urban park
- Public Space
- Amphitheatre
- Mounding
- Pavilion
- Water Feature
- Pedestrianised Boulevard
- Pier
- Esplanade
- Slipway
- Surf Pavilion

The differences between the three options primarily relate to the potential stadium & leisure/ ice arena elements i.e., inclusion/exclusion of the stadium and refurbished/new build leisure/ ice arena elements.

6.1.1 Ropeworks - Potential Stadium & Leisure

Three options for the potential stadium and leisure elements of the proposals have been identified with the ropeworks concept, one preferred option and two alternative options (Refer to Table 4-3).

Preferred Stadium & Leisure Option

Potential new build leisure centre/ice arena with potential new build football stadium (Figure 6-1).

The preferred potential stadium & leisure option assumes that the existing leisure centre and ice arena are demolished and would be replaced with a new facility that integrates leisure centre, ice arena, and football stadium uses as part of the development. The potential mix and integration of facilities would be in line with the Council's aspiration to make the most of the beach area as an opportunity and tourism asset as well as to generate new visits and spend. Furthermore, the potential to retain the stadium and its footfall close to Aberdeen Centre would be an ideal outcome for all concerned.



Figure 6-1: Preferred Option A: Potential Stadium & Leisure Sketch

Alternative Option A

Alternative Option A assumes that the existing leisure centre and ice arena are retained and upgraded as part of the development alongside a potential standalone new football stadium (Figure 6-2).

The refurbishment of the existing leisure centre would be based on work already undertaken by Sport Aberdeen with the aim of improving the condition and utilisation of the facility, increasing participation, providing new revenue streams and creating a destination venue.

The refurbishment of the ice arena would be based on a light touch refresh focusing on redecoration, replacement of seats, fixtures, and fittings, and dealing with outstanding maintenance to the building fabric and building services installations. The proposals do not seek to link the existing leisure centre and ice arena.

Figure 6-2: Alternative Option A Sketch



Alternative Option B

Potential new leisure centre/ice arena with potential football stadium excluded (Figure 6-3).

Alternative Option B assumes that the existing leisure centre and ice arena are demolished and would be replaced by an integrated facility that links a potential new leisure centre and ice arena but that the potential stadium does not form part of the development and is re-provided elsewhere in the city. The aim of the integrated leisure centre and ice arena would be to provide an efficient building plan and form that can be operated as a single entity and avoid the duplication of café and management spaces that occurs at the existing leisure centre and ice arena.

It has been assumed that it is desirable to keep both the existing leisure centre and ice arena in operation during construction of the new facilities. This allows the leisure centre and ice arena to continue to meet local and regional demand for the facilities, continue swimming lessons, support local clubs, and maintain staff at both buildings.

POTENTIAL LEISURE 5 LEE RINK

Figure 6-3: Alternative Option B Sketch

6.1.2 Environmental Assessment

The approach taken to the assessment has been evaluated to determine positive and negative effects on the environment in relation to reversibility or irreversibility of effects, risks, duration (permanent, temporary, long-term, short-term and medium-term) and cumulative (direct, indirect, secondary and synergetic).

Proposals have been assessed against the SEA Objectives, in accordance with guidance in planning advice note 1/2010.

The aim of the assessment was to:

 Identify significant environmental effects (positive and negative) that the draft Beachfront Development Framework may give rise to;

- Inform recommendations for amending the draft Beachfront Development Framework to reduce the likelihood of significant negative environmental effects arising;
- Inform the development of mitigation measures for significant negative effects that cannot be avoided by amending the draft plan;
- Inform the development of measures to enhance positive environmental effects; and
- Inform the development of a framework for monitoring the significant environmental effects of the adopted Beachfront Development Framework.
- The remainder of this chapter summarises the assessments of each of the Beachfront Development Framework Projects. Please refer to Appendices D and E for assessment matrices. The scoring used in the assessment matrices is based on the five-point significance scale based on Schedule 2 of the Environmental Assessment (Scotland) Act and described in Section 2.4. Each score has been informed by maps, environmental baseline information, key issues, trends and based on criteria established through the SEA objectives and sub-objectives and significance criteria.

Table 6-1 summarises the assessment of the three Development Options.

кеу						
$\checkmark\checkmark$	Major positive	effect				
✓	Positive effect					
0	Neutral effect	Neutral effect				
×	Negative effect	Negative effect				
××	Major negative	effect				
√√/x √/x× etc.	Mixed effect					
?	Uncertain effect	ot set set set set set set set set set se				
S N	Short term effe					
N	Medium-term e					
lmp	The effect will	depend on how the Beachfront Development Framework is implemented				
SEA Objective(s)		Questions	Pref Option	Alt Option A	Alt Option B	
Diadiversity flars and f			option	Option A	option B	
Biodiversity, flora and fauna		Does the site impact on designated sites?	0	0	0	
		Does the site impact on designated sites.	 ✓	 ✓	√	
		Does the site impact priority habitats of species?	S-M-L	S-M-L	S-M-L	
Protect or conserve and,	where possible,	To what extent will the site promote green network provision and habitat				
restore and enhance bio	diversity and	connectivity? (Question amended at the request of NatureScot)	S-IVI-L	S-IVI-L	S-IVI-L	
species		the request of NatureScot)	S-M-L	S-M-L	S-M-L	
		To what extent will the site enhance biodiversity? (added - NatureScot	✓	✓	✓	
		response)	S-M-L	S-M-L	S-M-L	
Population and human	health					
Improve human healt	h and community	amended at the request of NatureScot)	S-M-I	S-M-I	S-M-I	
wellbeing, while prom	noting a range of	amended at the request of NatureScot)		-₩-L ✓	√/x	
outdoor and recreation	onal attractions.	How does the site relate to areas with high SIMD?	S-M-L	S-M-L	S-M-L	
 Encourage physical a Creation of communit 	ty facilities	To what extent will the site impact access to open space? (Question	√	√	√	
		amended at the request of NatureScot)	S-M-L	S-M-L	S-M-L	
water		Is the site at risk of flooding?		√ /×	√ /×	
		Are there water courses within the site or which would be affected by	• / ~	*/*	•/~	
		increased levels of flooding resulting from development of the site?	0	0	0	
		Are there water courses within the site or which would be affected by increased levels of pollution, or other pressures, from development within the site?	о	о	o	
 Prevent deterioration enhance water quality 	, protect and	Are there experturities to improve the status of watercourses?	✓	✓	✓	
status.	y and ecological	Are there opportunities to improve the status of watercourses?	S-M-L	S-M-L	S-M-L	
 Reduce the risk of flooding. Provide adequate drainage and sewerage 		Will the Beachfront Development Framework increase geomorphology and morphological erosion pressures?	?	?	?	
		Are flooding/water & foul drainage issues addressed including in relation to ACC & Scottish Water infrastructure? (Question added at the request of SEPA)		?	?	
		To what extent will the site impact the ecological status of water bodies?	✓	1	✓	
		(Question added at the request of NatureScot)	S-M-L	S-M-L	S-M-L	
Protect and enhance	soil quality and	Does the site include areas of vacant or derelict land?	0	0	0	
prevent any further de	egradation of	Is the site prime agricultural land?	0	0	0	
soils.		Does the site include carbon-rich soil?	0	0	0	
Reduce the amount of Vacant and Derelict Land in the Aberdeen Beachfront boundary area.		To what extent will the site impact soil quality? (Question added at the request of NatureScot)	√/x	√/×	√/×	
		Is the site easily accessible by the core path network, and provide access to settlements and services?	✓ S-M-L	✓ S-M-L	✓ S-M-L	
Maintain and improve air	quality and	Does the site lie within an area where levels of air pollution are close to current limit values?	✓ S-M-L	✓ S-M-L	✓ S-M-L	
reduce emissions of key pollutants.		Would development on the site contribute to higher traffic flows along transport routes or at key junctions where levels of air pollution are close to current limit values		✓ S-M-L	√ S-M-L	
		Does the development reduce the need to travel? (Question added at the	1	1	1	
Climatia Easters		request of SEPA)	S-M-L	S-M-L	S-M-L	
Climatic Factors			✓	✓	✓	
		Does the location of the development reduce the need to travel?	S-M-L	S-M-L	S-M-L	
		Is the site at risk of increased flooding or instability as a result of climate	?	?	?	
Reduce emissions of	greenhouses in	change?	M-L	M-L	M-L	
Ine with Scottish Gov Promote active travel	ernment targets.	Does the framework promote the efficient use of energy?	S-M-I	S-M-I	S-M-I	
transport.		Does the framework promote the efficient use of water?	?	?	?	
Reduce risks from cl	imate change	Does the framework increase the resilience of people, material assets and the	$\checkmark\checkmark$	✓	1	
problems in the Aber	deen City Council	natural environment	S-M-L	S-M-L	S-M-L	
area include increase	a flood risk of	Does the tramework include mitigation and adaptation measures in light of a changing climate and local environment? (Ouestion added at request of	$\checkmark\checkmark$	1	✓	
 Promote renewable e 	nergy sources.	SEPA).	S-M-L	S-M-L	S-M-L	
	,	Does the framework seek to protect, create or enhance natural resources for	✓	1	✓	
		carbon capture? (Question added at the request of SEPA)	S-M-L	S-M-L	S-M-L	

	To what extent will the site promote nature-based solution provision?		✓	✓
	(Question added at the request of NatureScot)		S-M-L	S-M-L
	Does the framework increase the resilience of people, infrastructure and the	114	114	114
	natural environment to the impacts of climate change (including flood risk,	S-M-I	S-M-I	S-M-I
extreme weather, heat and cold)? (Question added at the request of SEPA)		3-IVI-L	3-IVI-L	3-IVI-L
Cultural Heritage				
	Would development impact the integrity of sites, monuments, buildings or		✓	√/×
Drotact concerns and enhance the	areas designated for their cultural heritage value?		S-M-L	S-M-L
biotoria environment	Would development impact the setting of sites, monuments, buildings or			
historic environment.	areas designated for their cultural heritage value?		U	0
	Would development within the site impact archaeological remains?	?	?	?
Landscape			•	
	To what extent will the site impact landscape designations? (Question	•		
	amended at the request of NatureScot)		U	0
Protect and enhance landscape	To what extent will the site impact settlement setting and identity? (Question		. la	. Les
character, local distinctiveness, visual	amended at the request of NatureScot)	•/×	•/*	•/*
amenity and promote access to the wider	To what extent will the site impact visual amenity and key views (Question		d hi	. Les
environment.	amended at request of NatureScot)		▼/X	▼/X
	To what extent will the site impact landscape character? (Question added at		d hi	d hi
	the request of NatureScot)		▼/X	▼/X
Material Assets				
Promote the sustainable use of	Is the site located close to existing transport, services, water and energy	✓	✓	✓
community assets, natural resources	sources infrastructure?		S-M-L	S-M-L
and material assets. Is the site located to make the best use of shelter, solar gain and reduce the		Imp	Imp	Imp
Promote quality urban design.	need to travel?	inp	inp	inp
 Promote sustainable waste 	Deep the site reduce waste generation and promote waste receivery			
management and the circular	poes the site reduce waste generation and promote waste recovery,	√/×	√/×	√/×
economy recycling and composting?				

Page 222

Section 6.2 provides a summary of the key findings of the assessment which can be found in Appendix E of this report. Section 6.3 describes the assessment of the potential cumulative effect on the environment of the Beachfront Development Framework as a whole.

Whilst the assessment of the draft Beachfront Development Framework has not specifically addressed individual projects in detail, the assessment was informed by consideration of the potential key effects of a project. Where an individual project was identified as having particularly significant effects, alternatives and/ or mitigation and enhancement have been suggested.

6.2 Summary of Findings

As noted within section 4.10 of this report, the initial option scoring process found that all options received high ratings and all could easily be considered successful, high-quality, potential design solutions. Similarly, Table 6.-1 indicates all three Development Options again scored similarly, and there were only minor differences between the three Development Options. Overall, the three Development Options are generally positive. The environmental effects which stood out relate to Population and Human Health, Climatic Factors and Cultural Heritage, and are discussed below.

Population & Human Health

The Beachfront Development Framework area is located partly within Seaton (north) which is one of the most deprived 20% data zones in Aberdeen City. The southern area of the Development Framework is located in Hanover South. As such the Framework has the potential to meet all SEA objectives.

The Development Framework proposals will provide potential long-term significant economic benefits for the area that will arise through the provision of high-quality amenities and relocation of the Football stadium within 500m of the existing stadium retaining economic activity within the city centre./ local area.

The development principle is to develop a world-class sport, leisure and tourism destination which would revitalise the Beachfront area and reconnect it to the city centre.

The health benefits associated with physical activity are actively supported by the Beachfront Development Framework.

Other benefits as a result of the Preferred Option potentially include the provision of employment as a result of the new build leisure facility ice area and stadium alongside the refurbishment of the Beach Ballroom public realm elements, integrated transport links and environmental improvements. This will ensure the key elements of a sustainable community are looked at holistically.

The proposed new stadium would provide a new home for Aberdeen Football Club. The stadium would seek to support the local, national, and international strategies that the Aberdeen FC Trust are involved with that address the importance of increasing physical activity, and tackling issues such as poverty, inequalities, and wellbeing.

The Beachfront Development Framework also locates the 16,000 seater stadium close to its original Pittodrie home and maintains its heritage with the local community and also continues to benefit city centre businesses.

Under Alternative Option A, the refurbishment of the ice arena is based on a light touch refresh focusing on redecoration, replacement of seats, fixtures and fittings, and dealing with outstanding maintenance to the building fabric and building services installations. This will not, therefore, be a new facility as compared to the Preferred Option. The refurbishment of the existing leisure centre is based on work already undertaken by Sport Aberdeen with the aim of improving the condition and utilisation of the facility, to increase participation, provide new revenue streams and to create a destination venue. This will not, therefore, be a new facility as compared to the Preferred Option.

Benefits will potentially include the provision of employment and community facilities, integrated transport links and environmental improvements. Nevertheless, refurbishment as opposed to the new build associated with the Preferred Option potentially reduces employment opportunities, however Alternative Option B retains the new build stadium at the Beachfront.

Alternative Option B removes the new football stadium and could see Aberdeen FC move to a new stadium elsewhere within the city. This could have detrimental socio/economic effect(s) on city centre businesses and the local community, including employment opportunities.

Climatic Factors

The minor differences relating to Climatic Factors revolve around three question

- 1. Does the framework promote the efficient use of energy?
- 2. Does the framework increase the resilience of people, material assets and the natural environment?
- 3. Does the framework include mitigation and adaptation measures in light of a changing climate and local environment?

With reference to **Question 1**, the Preferred Option scored highest. The Beachfront Development Framework assumes that the existing leisure centre and ice arena are demolished and would be replaced with a new facility that integrates leisure centre, ice arena, and football stadium uses as part of the development. Opportunities for renewable energy provision and low/zero carbon technologies are being explored during the development of the Beachfront Development Framework. This may include small-scale renewables/microgeneration and the identification of sites for local energy generation.

Alternative Option A includes the restoration of the Beach Ballroom, the leisure centre and the ice arena. The refurbishment of the ice arena is based on a light touch refresh focusing on redecoration, replacement of seats, fixtures and fittings, and dealing with outstanding maintenance to the building fabric and building services installations. The proposals do not seek to link the existing leisure centre and ice arena to share reception, management offices and food & beverage provision.

The refurbishment of the existing leisure centre is based on work already undertaken by Sport Aberdeen with the aim of improving the condition and utilisation of the facility, to increase participation, provide new revenue streams and to create a destination venue. The restoration proposals could be less energy efficient than new build due to existing constraints within the buildings.

Alternative Option B assumes that the existing leisure centre and ice arena are demolished and would be replaced with a new facility that integrates leisure centre and ice arena uses as part of the development. The removal of the stadium from this option potentially reduces energy efficiency opportunities.

With reference to **Question 2**, it is acknowledged that the energy strategy still requires to be fully developed, but it may include an Energy Centre potentially located at the Leisure Centre to serve the entire development. Architectural interventions are proposed to adopt some Passivhaus-style construction principles such as super-insulated building envelopes, high-performance glazing and mechanical ventilation with heat recovery. They will also potentially feature the use of smart controls, an off-site sourced 'green electricity' supply and some on-site renewable technologies including

Photovoltaic Panels with associated battery storage. Distribution of heating & cooling is potentially via an Ambient Loop system with water-to-water heat pumps connected to terminal units throughout. For added resilience backup heating & power could be sourced from the existing Aberdeen Heat & Power District Heating System which it is anticipated will switch to a green hydrogen fuel source in the future.

Alternative Options A and B scored slightly lower than the Preferred Option. The refurbishment of the Beach Ballroom, leisure facilities and ice arena and the inclusion of a new stadium under Alternative Option A and new build elements under Option B (but excluding the stadium), could include mitigation and adaptation measures, however, the nature of the proposals mean opportunities will likely be less than for the Preferred Option.

With reference to **Question 3**, the Beachfront Development Framework sets out the approach, pathway, and actions towards meeting NetZero and climate-resilient assets and operations by 2045. As such, energy-efficient designs will be incorporated alongside renewable and low-carbon energy sources, with consideration provided on how further decarbonisation could be achieved in the future.

Given the scale and importance of the facilities planned within the development, the energy demands could be significant and critical to function. Consideration shall therefore be given to added robustness and security of energy supplies as advocated by the Preferred Option.

The refurbishment of the Beach Ballroom, leisure facilities and ice arena and the inclusion of a new stadium associated with Alternative Option A could include mitigation and adaptation measures in light of a changing climate and local environment, however, the proposals mean opportunities for improvement will likely be similar to the current situation.

The refurbishment of the ice arena is based on a light touch refresh focusing on redecoration, replacement of seats, fixtures and fittings, and dealing with outstanding maintenance to the building fabric and building services installations. This will not, therefore, be a new facility as compared to the Preferred Option and is potentially unlikely to include the most effective energy-efficient technology capable of mitigating GHG emissions.

The refurbishment of the existing leisure centre is based on work already undertaken by Sport Aberdeen with the aim of improving the condition and utilisation of the facility, to increase participation, provide new revenue streams and to create a destination venue. This will not, therefore, be a new facility as compared to the Preferred Option, and will potentially be unlikely to include the most effective energy-efficient technology capable of mitigating GHG emissions. There is scope to include effective energy-efficient technology capable of mitigating GHG emissions into the design of the new stadium.

Alternative Option B involves the refurbishment of the Beach Ballroom, new leisure facilities and ice arena and excludes the new stadium, and similar to Alternative Option A mitigation and adaptation opportunities could potentially be lower than for the Preferred Option.

Cultural Heritage

With reference to cultural heritage, the question was "*Would development impact on the integrity of sites, monuments, buildings or areas designated for their cultural heritage value*?" Again, the differences were minimal, it was only the removal of the stadium option which created a negative effect. Removal of the proposed stadium from the Beachfront area could result in the relocation of Aberdeen FC elsewhere within the city. Importantly the club could lose an important part of its heritage i.e., the close connection it has with the local area and break a longstanding tie with the local community. Pittodrie Stadium was first used in 1899 and, from 1903, has been the home of Aberdeen FC. It could also have a detrimental economic impact on city centre businesses and local employment opportunities should the club move elsewhere.

6.3 Cumulative Effects

A key requirement of the Environmental Assessment (Scotland) Act (2005) is the consideration of potential cumulative, secondary and synergistic environmental effects of draft plans. Previous sections of this report have described the potential environmental effects of individual elements of the draft Beachfront Development Framework. This section takes a view on the plan as a whole and summarises its key cumulative effects on the environment.

In SEA, cumulative effects assessment should consider the effects of the draft plan in conjunction with other relevant plans outwith the geographical and temporal scope of the plan in question. In the context of the draft Beachfront Development Framework, the majority of its effects are likely to be 'internal', that is they are likely to arise from the various elements of the draft Beachfront Development Framework itself rather than from the Beachfront Development Framework in combination with other plans and programmes (assuming that the City Centre and any subsequent revisions to the Local Plan are treated as all part of a single overall strategy for the area – if they extend or diverge from the contents of the draft Beachfront Development Framework clearly there is the potential for additional cumulative effects from these various plans in combination). Once formally adopted, the individual Beachfront Development Framework projects will be subject to the planning application process through Aberdeen City Council, informed by the land use allocations in the current and/ or future Aberdeen City Council Local Plans. As part of this process, it is recommended that the cumulative effects of the project in question are considered in combination with other Beachfront Development Framework projects, on a case by case basis and in the context of the wider Aberdeen area, by the Aberdeen City Council Planning Department.

The cumulative effects of the draft Beachfront Development Framework have been identified based on:

- Similar environmental effects occurring repeatedly from different activities within the draft Beachfront Development Framework which individually may not be significant but are when in combination or the significance is increased by them occurring repeatedly
- Individual receptors (e.g., water quality, a particular type of habitat etc) are being impacted repeatedly by potentially different effects from Beachfront Development Framework activities

Similar environmental effects occurring repeatedly

The following is a list of environmental effects that have been identified as occurring repeatedly:

Positive cumulative effects

- Potential for tree planting under Beachfront Development Framework activities has the potential to contribute to enhancing natural resources for carbon capture.
- Potential for habitat creation and enhancement.
- Provision of employment and community facilities, integrated transport links, environmental improvements, and contributions to the regeneration including refurbishment of the Beach Ballroom.
- Aberdeen Beachfront area under the Beachfront Development Framework is likely to result in improvements to the general quality of surroundings.
- An energy strategy for the proposals is being progressed but still requires to be fully developed.
- Energy-efficient designs will be incorporated alongside renewable and low-carbon energy sources, with consideration provided on how further decarbonisation could be achieved in the future.
- Given the scale and importance of the facilities planned within the development, the energy demands will be significant and critical to function. Consideration should therefore be given to added robustness and security of energy supplies so the energy centre solution should incorporate a degree of redundancy and backup.

• The Development Framework proposal will have a positive impact by providing new green networks, particularly SUDs which will benefit biodiversity.

Negative cumulative effects

- Increased jobs, recreational/leisure facilities, commercial, football stadium etc. has the potential to result in increased GHG emissions (both through increased car use and energy use).
- The preference for site development on or in close proximity to the coast has the potential to increase vulnerability to climate changes including flooding, accelerated coastal erosion and sea level rise.
- Many Beachfront Development Framework activities, during construction and operational phases, have the potential to cause an increase in diffuse source water pollution.
- Beachfront Development Framework projects have the potential to result in soil sealing/ impermeable ground cover and as a result have the potential to increase flood risk and water pollution.
- Coastal developments may cause significant visual impact.
- Beachfront Development Framework activities have the potential to result in disturbance impacts on biodiversity during both the construction and operational phases.
- Beachfront Development Framework development is likely to increase the production of waste.

Individual receptors being affected repeatedly by several Beachfront Development activities

Many of the potential environmental effects of the Beachfront Development Framework affect the same type of receptor (e.g., water quality, air quality, historic environment features etc.) or the same receptor in a particular location (e.g., woodland). Some key receptors, identified as being subjected to repeated effects of the Beachfront Development Framework are outlined below:

People: current and potential future visitors have been consistently highlighted as receptors of potential positive and negative effects e.g., improved amenity value of open space and recreational facilities. Tendency to site development on or in proximity to the coast is likely to increase people and development vulnerability to flood risk. Potential increases in water and air pollution and nuisance impacts such as noise and vibration may all negatively affect health.

Climate change contribution: the proposed Beachfront Development Plan development seeks to minimise and mitigate short, medium and long-term increases in GHG emissions through an energy strategy, energy efficiency and actively promoting sustainable alternatives to private car use where practicable. The energy strategy being prepared for the area could provide significant benefits in regard to energy efficiency and reduction in CO_2 emissions

Water quality: Beachfront Development Framework activities have the potential to cause diffuse source water pollution during both the construction and operational phases. This could potentially negatively affect water quality, in particular bathing and coastal water quality which will require assessment prior to development.

Soil: much of the proposed Beachfront Development Framework development has the potential to increase soil sealing, with potential areas of contaminated land as a result of historic industrial works on the edge of the Beachfront area.

Landscape: potential for both positive and negative effects. Proposed development along the coast is likely to be detrimental to the coastal landscape. Sympathetic design, tree planting and other activities improving the public realm are likely to help minimise negative environmental effects.

Biodiversity: The Beachfront Development Framework could negatively affect biodiversity through land-take, water pollution, disturbance and trampling impacts. However, habitat creation and enhancement are at the core of the Beachfront Development Framework.

Material Assets: preference for siting development on the coast is likely to increase the vulnerability of new recreational facilities, stadium, boardwalk, slipway etc. to flood risk and climate change impacts including coastal erosion and sea level rise. Development activity under the Beachfront Development Framework is likely to result in increases in waste generation. There is potential for significant positive effects through increased uptake of sustainable waste management practices/ circular economy developed through advice/ guidance in awareness-raising programmes.

7 IMPLEMENTATION AND MONITORING THE BEACHFRONT DEVELOPMENT FRAMEWORK

7.1 **Proposals for monitoring**

Monitoring the significant environmental effects of implementing the Beachfront Development Framework is a fundamental part of the SEA process. The SEA Act require the significant environmental effects of a plan or programme (and in the case of the Act, a strategy) to be monitored and that the Environment Report (this report) should include a description of measures 'envisaged' for monitoring the implementation of the plan. This may help identify opportunities for subsequent revisions of the Beachfront Development Framework to contribute further to the environmental protection and enhancement of the Aberdeen beachfront area.

It is important to monitor performance against the SEA objectives, which have formed the core of this assessment, and identify where they are being achieved and where they are not so that appropriate remedial action can be taken. Table 7-1 below summarises the key significant environmental effects of the draft Beachfront Development Framework and proposed indicators for monitoring them.

As noted previously, assessment, mitigation/ enhancement recommendations and **monitoring proposals** outlined in this report will need to be re-visited after the consultation has been undertaken on the draft Beachfront Development Framework and this Environmental Report to take account of any responses and significant changes that may be made to the plan. In addition, a comprehensive framework for monitoring the significant environmental effects of the Beachfront Development Framework will need to be developed and submitted to the Scottish Government SEA Gateway within a statutory period after the Beachfront Development Framework is adopted. As such, the monitoring proposals outlined in Table 7-1 are only a starting point. They are likely to require significant refinement and update once final changes to the Beachfront Development Framework have been made.

Where possible, monitoring of significant environmental effects for SEA should be integrated with performance monitoring of the Beachfront Development Framework and any existing monitoring regimes e.g., water quality, public health and well-being, condition of SPAs and SACs etc. As discussed previously, the monitoring currently proposed in the draft Beachfront Development Framework is not adequate to monitor progress towards the environmental goals it enshrines in its vision and some of the objectives. We would recommend that Aberdeen City Council incorporate some environmental monitoring as part of its overall monitoring of output measures. Examples of monitoring for environmental performance might include improvements in the condition of Sensitive Landscape/seascape areas, UK Biodiversity Action Plan (BAP) and the North East Scotland Local Biodiversity Action Plan NESLBAP habitats brought back into favourable condition, the number of developers endorsing sustainable construction/ demolition guidance etc.

Table 7-1 identifies several different types of potential indicators including contextual, outcome and significant effects indicators. Further information on these types of indicators is provided below.

- **Contextual indicators** monitor the background against which the Beachfront Development Framework will operate once adopted. Examples of information collected under context indicators may include mortality rates, air quality and area of available open space.
- **Output indicators** monitor specific actions arising from the plan such as the number of flood defence schemes put in place or traffic management plans produced.
- **Outcome or significant effects indicators** facilitate an understanding of the actual nature of predicted effects. For example, monitoring the health impacts of increased traffic-related air

pollution in Aberdeen City Centre might consider the additional number of asthma cases within the population of Aberdeen.

Table 7-1: Monitoring Plan

Key significant environmental effects	Potential monitoring indicators	Data Source	Who is responsible	Timescale	What remedial actions could be taken?
		Population and human health	1		
Recreation and access effects Increase in size of population, potentially over a short period of time, may increase pressure on existing recreational facilities, open space and other green infrastructure.	 Impact on Open Space Provision Open space quality (Improve or degradation) 	Aberdeen City Council Open Space Strategy and Greenspace Network reviews	Aberdeen City Council Environment Team	Open Space Strategy Annual Monitoring	Review of supplementary guidance on open space and greenspace network
Nuisance effects Significant short-term nuisance effects may arise during construction phases in relation to noise, dust, vibration and other disruption impacts.	Number of complaints for nuisance (within Aberdeen beachfront area per 6 months)	Aberdeen City Council Environmental Health complaint procedure	Environmental Health	Annually	Responding to complaints
		Biodiversity, flora and fauna	-		
Effects on various biodiversity receptors are likely as a result of the construction and operational impacts of development including disturbance, trampling, vegetation removal, and land take.	 Impacts on the status of National and/or International natural heritage designations. Impacts on local natural heritage designations. Impacts on the wider biodiversity, flora and fauna. 	NatureScot <u>NatureScot data services</u> Aberdeen City Council 'Biodiversity Duty Report'	Aberdeen City Council Environment Team, NatureScot, North East Scotland Biodiversity Partnership	Annually Every 3 years	Review of Supplementary Guidance on Natural Heritage
		Water			•
Water quality and pollution effects Increased diffuse source water pollution including contaminated run-off from expanded urban areas and accidental discharges from beachfront facilities can potentially negatively affect water quality, particularly coastal and bathing.	 Impact on water quality Impact on the morphology of watercourses 	SEPA – Water Classification Hub	SEPA and Aberdeen City Council	Annually	Review supplementary guidance on flooding and drainage
Flood risk Proposed development along the coastal strip, either in or in close proximity to the coastal flood risk zones, is likely to increase vulnerability to flooding.	Impact on the number of flood events	Aberdeen City Council Flooding Team Flood monitoring data from SEPA <u>Scottish Environment Protection</u> <u>Agency</u> (SEPA)	SEPA and Aberdeen City Council	As and when flood risk and pollution increase	Review supplementary guidance on flooding and drainage Apply policy on water efficiency
		Air	-		
Air quality and emissions to air Proposed development under the Aberdeen Beachfront Development Framework has the potential to increase traffic in the area during construction (delivery vehicles/ heavy plant.	Effect on Air Quality Management Areas	Aberdeen City Council ' <u>Local Air</u> Quality Monitoring Progress Reports'	Environmental Health	As part of the Air Quality Action Plan or as and when is necessary	Review Supplementary Guidance on Air Quality
increased congestion due to temporary traffic lights etc) and operation (increased leisure traffic, delivery traffic, fan traffic etc) and as a result, increased emissions of traffic related air pollutants, including		Monitoring of Active Travel	Transportation	Annually Annual Progress	Review Local Transport Strategy
PM ₁₀ and NO _x , are likely.		of modal shift in transport modes	Transportation	Reports on the LTS	

Key significant environmental effects	Potential monitoring indicators	Data Source	Who is responsible	Timescale
		Soil		
Contaminated Land With reference to the draft Engineering Site Appraisal prepared by Goodson Associates, the site was previously used as a rifle range and rocket battery. In addition, there is made ground and ashy waste, and a gravel pit. The site is located on the edge of an area which has former industrial uses including chemical, gas, iron, rope and granite works. All of these have the potential to leach contaminants into the surrounding areas. Without knowing how contaminated material, if any, was dealt with when the site was first developed, it is not possible to discount the possibility that contaminated material will be encountered on site. The level of potential soil sealing/ increased impermeable ground cover has the potential to increase surface run-off potential and the associated risk of existing and planned material assets flooding.	Remediation of contaminated land Reductions in soil health/ quality.	Aberdeen City Council Contaminated Land Unit Aberdeen City Council - <u>Aberdeen</u> <u>Adapts Climate Adaptation</u> <u>Framework</u>	Contaminated Land Unit, SEPA	As and when
	•	Climatic factors	•	•
GHG emissions Increased numbers of visitors and businesses in the Aberdeen beachfront area can potentially result in significant increases in GHG emissions, mainly from the transport and domestic sectors.	Increase/decrease in Greenhouse Gas Emissions	Aberdeen City Council – Submission to Scottish Public Bodies Climate Change Reporting. The Climate Change Report uses BEIS UK local authority emissions data sets <u>https://www.gov.uk/government/colle</u> <u>ctions/uk-local-authority-and-</u> <u>regional-greenhouse-gas-emissions-</u> <u>national-statistics</u>	Aberdeen City Council Environment Team	Annually
Energy consumption Increased numbers of visitors, businesses and commercial properties in the Aberdeen beachfront area can potentially result in increased energy consumption.	Energy Efficiency	Net Zero Aberdeen Routemap	Aberdeen City Council Environment Team	As updated
Climate change adaptation and vulnerability The proposed development along the coastal strip has the potential to increase vulnerability to local climate change impacts including flooding, accelerated coastal erosion and sea level rise.	Priorities, goals and action areas for city resilience.	Aberdeen City Council - <u>Aberdeen</u> <u>Adapts Climate Adaptation</u> <u>Framework</u>	Aberdeen Adapts team	Annually

What remedial actions could be taken?
Prepare or revise
supplementary guidance.
Prepare or revise supplementary guidance.
Prepare or revise supplementary guidance.
Prepare or revise supplementary guidance.

Key significant environmental effects	Potential monitoring indicators	Data Source	Who is responsible	Timescale	
		Material Ass			
Existing and planned utilities, infrastructure, transport, etc.	 Number of new recreational/ commercial developments incorporating SuDS within Aberdeen beachfront area Information on the City's larger developments 	Monitoring of planning applications Aberdeen Development Activity Report	Development Management	Annually	
Waste and resource management Increased numbers of visitors and businesses in the Aberdeen beachfront area has the potential to cause a significant increase in production of waste, both during construction and operational phases.	 Percentage of Municipal Solid Waste recycled or composted (within Aberdeen beachfront area per year) Percentage of Municipal Soil Waste sent to landfill Number of developers endorsing sustainable construction using Construction Environmental Management Plans (CEMPs) 	Aberdeen City Council Waste and Recycling Team- Monitoring of Waste	Development Management, Waste Team, SEPA	Annually	
		Cultural Heritage			
Nationally, regionally and locally important historic environment features Potentially insensitive development under the Development Framework, including inappropriate design and/ or siting of projects, may negatively affect the site and setting of historic environment features.	 Integrity of site and setting of statutory historic environment features within Aberdeen beachfront area Integrity of site and setting of non-statutory historic environment features within Aberdeen beachfront area Condition of statutory historic environment features within Aberdeen beachfront area per year 	Masterplanning, Design and Conservation (MDC) team, Historic Environment Scotland	Aberdeenshire Council Archaeology Service, Historic Environment Scotland	Annually	
	Landscape				
Landscape Character Types Potential development activity under the Beachfront Development Framework, in particular recreational expansion along the coastal strip, has the potential to negatively affect the Coastal Landscape.	Condition of sensitive landscape/seascape within Aberdeen beachfront area.	Development Management and developers	Development Management and developers	Biannually	

What remedial actions could be taken?
Prepare or revise supplementary guidance.
Prepare or revise supplementary guidance.
_
Prepare or revise supplementary guidance.
Deview land allocations as d/as
review land allocations and/or prepare supplementary guidance

8 CONCLUSIONS AND NEXT STEPS

This SEA has highlighted that the draft Beachfront Development Framework may cause a number of significant positive and negative environmental effects. Where relevant, the SEA has made a number of recommendations for mitigating negative and enhancing positive environmental effects.

The difference the SEA has made

Whilst the Beachfront Development Framework's plan-development process was not explicitly subject to SEA from the outset, a number of SEA-type activities were undertaken by Aberdeen City Council and their consultants during the preparation of the Beachfront Development Framework and the Masterplan which informed it including community consultation and engagement, and undertaking initial scoring of the three masterplan options and three development options. These activities played a key role in informing the early development of the Beachfront Development Framework in advance of the formal SEA process.

Whilst this SEA has assessed a draft Beachfront Development Framework which was essentially a finalised document, consultation with internal Aberdeen City Council stakeholders during the latter stages of the SEA process identified an alternative approach whereby the SEA could play a key role in informing the implementation and indeed the future development of the Beachfront Development Framework. As documented in Sections 4, 5 and 6, the broadly socio-economic remit has historically driven an approach to regeneration that has attempted to maximise environmental opportunities and, in some instances, may contribute to conflicts with environmental protection objectives. Clearly, there will still be instances where the Aberdeen City Council's socio-economic objectives drive proposals that may conflict with environmental objectives and are likely to give rise to adverse environmental effects. In these circumstances, Aberdeen City Council will need to make the case to key stakeholders (including the public) for the socio-economic benefit outweighing the environmental impact.

As documented in the Environmental Report, the current environmental baseline and key trends in the Aberdeen Beachfront area indicate that in the absence of targeted action, certain aspects of the environment are likely to suffer from continued decline. This is particularly true of issues related to key material assets issues such as flood defence provision and quality of the built environment, environmental determinants of health such as open space provision and some issues related to biodiversity and conservation management. As described above, a key outcome of the SEA process has been Aberdeen City Council's recognition of an emergent alternative approach to regeneration combining the socio-economic benefits of the existing draft Beachfront Development Framework with the environmental protection and mitigation/enhancement benefits. As documented in Chapter 7, proposed measures for monitoring the significant effects of the Beachfront Development Framework have been developed. These measures should capture key emerging environmental issues related to Beachfront Development Framework implementation and inform Aberdeen City Council, stakeholders and the public of the Beachfront Development Frameworks' overall environmental performance.

Problems encountered during the SEA

As a result of the available timescales and scope of this SEA project, there are several gaps in the environmental baseline, particularly in relation to coastal erosion. These will require to be addressed in the future to support monitoring of the Beachfront Development Framework's significant environmental effects and any future assessments.

Key next steps

The key next steps and outputs should be as follows:

- Submission of the Environmental Report and draft Aberdeen Beachfront Development Framework to the Scottish Government SEA Gateway marking the beginning of the formal consultation period.
- Formal consultation on the draft Aberdeen Beachfront Development Framework and this Environmental Report.
- Amendments to the draft Aberdeen Beachfront Development Framework in light of consultation responses.
- Assessment of any significant changes, leading to either revisions to the Environmental Report, or an addendum to the Environmental Report, if changes are minor.
- Adoption of the final Aberdeen Beachfront Development Framework.
- Adoption Statement prepared by Aberdeen City Council to notify the public that the Aberdeen Beachfront Development Framework has been adopted. This should include information on the main issues raised during consultation and how these were taken into account in developing the Beachfront Development Framework and other information required as part of the SEA.
- Ongoing monitoring and review.

APPENDICES

A TAKING ACCOUNT OF RESPONSES TO THE SCOPING CONSULTATION

Beachfront Development Framework SEA – Responses from Consultation Authorities on the Scoping Report.			
Summary of responses to SR and recommended changes for SEA from the	How response has been accounted for		
Consultation Authorities			
Historic Environment Scotland			
Relationship with other Plans, Programmes and Strategies			
We welcome the review of the relevant plans, programmes and strategies listed in	Noted		
Table 3.1. As you will be aware from this review, the Historic Environment Policy			
for Scotland sets out the policies and principles that should be considered in			
decision-making that affect the historic environment. Of particular relevance to the			
creation of development frameworks is HEP3 which states that "Plans,			
programmes, policies and strategies, and the allocation of resources, should be			
annual the discount of the transformed and promotion the historic any incomment" in light			

Consultation Authorities	
Historic Environment Scotland	
Relationship with other Plans, Programmes and Strategies	
We welcome the review of the relevant plans, programmes and strategies listed in Table 3.1. As you will be aware from this review, the Historic Environment Policy for Scotland sets out the policies and principles that should be considered in decision-making that affect the historic environment. Of particular relevance to the creation of development frameworks is HEP3 which states that " <i>Plans, programmes, policies and strategies, and the allocation of resources, should be approached in a way that protects and promotes the historic environment.</i> " In light of this, we welcome the recognition of the importance of the Category B listed Beach Ballroom within the development framework area and the key role that this asset can play in plans for the site.	Noted
Environmental Baseline	
Locational data and information on historic environment assets such as listed buildings, scheduled monuments, gardens and designed landscapes, historic battlefields and historic marine protected areas can be found at the Historic Environment Portal. We also welcome that Aberdeen City Council Historic Environment Record has been reviewed.	Noted Review Historic Environment Portal
Scope and Methodology Proposed for the Strategic Environmental Assessment	t
We note that a standard matrix approach to the assessment is to be adopted. This includes SEA Objectives and SEA Questions and we can confirm that we consider these appropriate for testing the component parts of the framework. We particularly welcome the recognition that proposals have the potential to have both positive and negative effects on historic environment assets (for example potentially negative effects on the setting of sites and potentially positive effects from reuse, promotion or access). We also welcome that the environmental report will set out reasonable alternatives to the proposed actions and types of projects.	Noted

Mitigation and Monitoring	
We welcome that the environmental report will set out both mitigation and	Agreed
be driven by the type of significant effects identified and we look forward to further	Refer to Chapter 7
detail on this within the environmental report.	
Next Steps	
We welcome that the Environmental Report will be out for consultation for a	Noted
the Environmental Report to clearly set out where the assessment has informed	
and influenced the draft Framework that is out for consultation alongside the	
report	
Scottish Environmental Protection Agency (SEPA)	
Relationship with other Plans, Policies and Strategies (PPS)	
Some of the PPS included have themselves been subject to SEA. Where this is the case you may find it useful to prepare a summary of the key SEA findings that may be relevant to the Aberdeen Beachfront Framework. This may assist you with data sources and environmental baseline information and also ensure the current SEA picks up environmental issues or mitigation actions which may have been identified elsewhere.	Noted, this has not been possible within the timescale being worked to in preparing the Beachfront Development Framework and SEA
Environmental problems	
The Scottish Government SEA Guidance provides guidance to Responsible Authorities about the type of information that is expected to be provided at each SEA stage; we have also produced SEA topic guidance for those issues which fall within our remit.	Noted
We consider that the environmental problems described generally highlight the main issues of relevance for the SEA topics within our remit subject to the topic specific comments below.	
Scoping in/out of environmental topics	
We agree that in this instance all environmental topics should be scoped into the assessment.	Noted

Aberdeen Beachfront Development Framework; Strategic Environmental Assessment (Environmental Report)

Methodology for assessing environmental effects	
 We support the use of SEA objectives as assessment tools as they allow a systematic, rigorous and consistent framework with which to assess environmental effects. 4.2 When it comes to setting out the results of the assessment in the Environmental Report please provide enough information to clearly justify the reasons for each of the assessments presented. It would also be helpful to set out assumptions that are made during the assessment and difficulties and limitations encountered. 	Noted Refer to the Environmental Appraisal Report (Appendix C) and Appendix E
Mitigation and enhancement	
We encourage you to use the assessment as a way to improve the environmental performance of individual aspects of the final option; hence we support proposals for enhancement of positive effects as well as mitigation of negative effects. It is useful to show the link between potential effects and proposed mitigation/enhancement measures in the assessment framework. We encourage you to be very clear in the Environmental Report about mitigation measures which are proposed as a result of the assessment. These should follow the mitigation hierarchy (avoid, reduce, remedy or compensate). One of the most important ways to mitigate significant environmental effects identified through the assessment is to make changes to the plan itself so that significant effects are avoided. The Environmental Report should therefore identify any changes made to the plan as a result of the SEA.	Refer to the Chapter 7 <i>Implementation and Monitoring the Beachfront</i> <i>Development Framework</i> (Table 7-1 Monitoring Plan) and Appendix E
Topic Specific Comments	
Energy	
Table 3-1: Name of Plan, Programme, Strategy or Environmental ProtectionStrategyWe recommend that the reference to the Scottish Energy Strategy (2017) alsoincludes Scottish Energy Strategy Position Statement (2021) which sets out keypriorities for the short to medium-term in anticipation of the forthcoming secondScottish Energy Strategy due for publication in the coming year.	Noted and Included

 Table 3-8: Data Sources for Providing Baseline Environmental Assessment: We note the SEA scoping document does not reference Local Heat and Energy Efficiency Strategies (LHEES). LHEES Strategies will set out the long-term plan for decarbonising heat in buildings and improving their energy efficiency across an entire local authority area. For each local authority area, the Strategies will draw on the standardised methodology to: set out how each segment of the building stock needs to change to meet national objectives, including achieving zero greenhouse gas emissions in the building sector, and the removal of poor energy efficiency as a driver of fuel poverty; identify strategic heat decarbonisation zones, and set out the principal measures for reducing buildings emissions within each zone; and prioritise areas for delivery, against national and local priorities. We are aware that the LHEES for the Aberdeen City Council may have not commenced and therefore appreciate the complexity associated with integrating strategies which will contain spatial information and policy guidance into a broader development framework. However as outlined in the Heat in Buildings Strategy 	We also recommend the inclusion of the Heat in Buildings Strategy (2021) which focuses on improving the energy efficiency of Scotland's existing buildings and supporting the deployment of low-carbon heat options including Local Heat and Energy Efficiency Strategies (LHEES) which be highly influential on the energy and heat specific objectives of the proposed framework.	
(October 2021) LHEES documents will provide a framework for taking an area- based approach to heat and energy efficiency planning and delivery, and their development processes will provide an important platform to consider both local community and wider regional and national infrastructure issues. As a result, it is important that the SEA and the Beachfront Framework document is cognisant of LHEES and potential opportunities for identifying and delivering energy efficiency and net zero emission energy generation proposals in the right place and the impacts of this are considered as part of the assessment process.	 Table 3-8: Data Sources for Providing Baseline Environmental Assessment: We note the SEA scoping document does not reference Local Heat and Energy Efficiency Strategies (LHEES). LHEES Strategies will set out the long-term plan for decarbonising heat in buildings and improving their energy efficiency across an entire local authority area. For each local authority area, the Strategies will draw on the standardised methodology to: set out how each segment of the building stock needs to change to meet national objectives, including achieving zero greenhouse gas emissions in the building sector, and the removal of poor energy efficiency as a driver of fuel poverty; identify strategic heat decarbonisation zones, and set out the principal measures for reducing buildings emissions within each zone; and prioritise areas for delivery, against national and local priorities. We are aware that the LHEES for the Aberdeen City Council may have not commenced and therefore appreciate the complexity associated with integrating strategies which will contain spatial information and policy guidance into a broader development framework. However as outlined in the Heat in Buildings Strategy (October 2021) LHEES documents will provide a framework for taking an areabased approach to heat and energy efficiency planning and delivery, and their development processes will provide an important platform to consider both local community and wider regional and national infrastructure issues. As a result, it is important that the SEA and the Beachfront Framework document is cognisant of LHEES and potential opportunities for identifying and delivering energy efficiency and net zero emission energy generation proposals in the right place and the impacts of this are considered as part of the assessment process. 	Noted – for consideration in due course once prepared by Aberdeen City Council.

Proposed SEA Objectives	
We reiterate the value of the information gathered by the Local Authority as part of the LHEES development process may provide valuable data from which indicators to measure climatic factors can be developed.	Noted – for consideration in due course once prepared by Aberdeen City Council.
Table 5-4: SEA Questions	Noted
We consider the SEA questions to be appropriate with regards to energy considerations, particularly with the inclusion of the question of energy efficiency.	Questions added as suggested
We also encourage the assessment to consider the following questions under the Climatic Factors heading:	

- · Does the framework include mitigation and adaptation measures in light of a changing climate and local environment?
- Does the framework seek to protect, create or enhance natural resources for carbon capture?
- Does the framework increase the resilience of people, infrastructure and the • natural environment to the impacts of climate change (including flood risk, extreme weather, heat and cold)?

All	
The baseline information source for air quality is out of date and the most up to	Noted and amended.
date Air Quality Annual Progress Report for Aberdeen City Council should be used, this is the 2021 report. It is important the most up to date report is used in the SEA as it shows the most recent trends in air quality across the city, including any pollution hotspots. In addition, Aberdeen City Council implemented a low- emission zone in May 2022 which has not been considered in the SEA.	Reference to low emission zone included within the Environmental Baseline Appraisal
Table 3-8: Data Sources for Providing Baseline Environmental Assessment	Noted, amended and included with the SEA.
We advise that air quality should be considered under population & human health as an environmental issue given that poor air quality is a public health issue. The Annual Progress reports should be used to obtain relevant data regarding the location and extend of poor air quality across the city. The Scottish Government's Cleaner Air for Scotland 2 strategy provides information on the health impacts of poor air quality.	Cleaner Air for Scotland 2 is in Appendix B
Under SEA topic 'Air' – the environmental issues for this topic are closely related to noise and climate and this is not reflected in the current version of the SEA. We	

Air

recommend that this section is reviewed to reflect the potential impact that the proposed development could have on air quality in terms of increased emissions from both transport and energy sources and whether public exposure to poor air quality may change. This would demonstrate that the council is considering an integrated approach to dealing with environmental issues such as climate change, transport, noise, health, and energy etc.	
Please note that this paragraph should be amended as nitrogen dioxide is NO2. Please amend to remove NO2 (highlighted) - <i>One of the main sources of nitrogen dioxide emissions is road traffic; road traffic is also a contributor to NO2 and PM10 emissions. Sustainable transport will be a key issue for the Beachfront Development Framework.</i>	
Table 4-1: Key Environmental Receptors and SEA Objectives	Noted and Amended. Air quality is also considered under population
We advise that the section is revised to align air, noise and climate objectives as they are related in terms of sources and impacts and should not be considered in isolation. We advise that air quality is also considered under population& human health given it is a public health issue as well as environmental. It should be demonstrated that the Council is taking an integrated approach to addressing environmental issues in this SEA.	and human health (Refer to, for example, Table 1: Key Environmental Receptors and SEA Objectives)
Table 5-4: SEA Questions	Noted
We recommended including 'does the development reduce the need to travel?' as a question under 'air.'	Questions added as suggested
Water	
Table 3-8: Data Sources for Providing Baseline Environmental Assessment	Refer to the Water Section of the Environmental Bassline Appraisal
It should be clarified what relevant data is available from Scottish Water and also from Aberdeen City including flooding events.	(Appendix C)
Reference should be made to the 2Di model recently developed by Scottish Water in partnership with ACC.	
Table 5-4 SEA questions	Noted
In relation to impact on existing water and waste water infrastructure, we also encourage the assessment to consider the following question under the water heading:	Questions added as suggested

Aberdeen Beachfront Development Framework; Strategic Environmental Assessment (Environmental Report)

Are flooding/water & foul drainage issues addressed including in relation to ACC & Scottish Water infrastructure?	
NatureScot	
Scope of Assessment and Level of Detail	
We are content with the scope and level of detail proposed for the Environmental Report. The scoping report is well-structured and comprehensive.	Noted
Our specific comments set out in the annex to this letter provide suggested amendments to further strengthen the assessment.	
Methodology	
We note that the use of SEA Objectives and an assessment matrix is proposed to assess for significant environmental effects. This is a tried and tested approach which we support. We have made some recommendations below in relation to the SEA Questions in particular, which could be expanded and reworded to fully assess the potential environmental impacts as well as their significance.	Noted
The inclusion of enhancement as well as mitigation measures in the assessment matrix is strongly supported as this will allow for the identification of precise enhancement measures such as positive effects for biodiversity in line with the emerging National Planning Framework 4 (NPF4). We consider that the SEA a valuable tool in creating successful, nature-rich places and therefore we would like to see the Beach Development Framework maximise on this opportunity.	
Consultation Period for the Environmental Report	
We note that the proposed consultation period for the Environmental Report is 6 weeks which we are happy with.	Noted
3.7 Relationship with other Plans, Programmes and Strategies (Table 3.1, page 11)	Noted and added to Appendix B
We note that the Aberdeen City Local Development Plan 2017 has been included but the 2020 Plan does not appear to be mentioned. We suggest including this.	
We suggest that the SEA also considers the draft NPF4 as it is likely to be in effect when the Framework is adopted and whilst there are likely to be some amendments made to the draft, it is likely that the main themes issues will remain.	

It is also worth considering the emerging Scottish Biodiversity Strategy should this	
be published as the Framework is being prepared. A consultation document was	
recently published here.	
Environmental Baseline (p. 14)	
We note that the Development Framework area is of " <i>intrinsic low ecological and nature conservation value</i> " and are pleased to note that the Development Framework is expected to enhance biodiversity, flora and fauna (Section 3.10.3, p. 20-22), including carefully designed planting, and also providing a green network. We look forward to the Environmental Report providing further detail on this and setting out specific biodiversity enhancement opportunities and measures.	Noted and amended where necessary
The consideration of SPAs and SACs in the baseline is welcomed. We suggest amending the title of these from "Natura 2000" sites to 'European sites' to align with the terminology changes following Brexit.	
Under 3.10.5 Water, we welcome the intention to incorporate best management practices for SUDs and green infrastructure and suggest that the SEA is used to identify specific opportunities for precise habitat opportunities as well as wider multifunctional benefits which should directly inform the development framework.	
In relation to 3.10.7 Landscape, we note that longer-term landscape impacts will be determined by the nature, scale and extent of development submitted as part of future planning applications. The intention to create green networks and open spaces is welcomed and should be informed by the environmental assessment, setting out clear requirements for planning applications.	
The consideration of active travel / recreation is welcomed under 3.10.10 Climatic Factors. The intention to explore local energy generation is also welcomed and should be suitably assessed through the SEA, including Landscape & Visual impacts.	
The inclusion of Table 3-8 which details the data sources for the Environmental Baseline is welcomed.	
4.1 SEA Objectives (p. 35)	
We strongly support that the "key receptors and objectives will be considered throughout the SEA process and used to inform the development of the draft Aberdeen Beachfront Framework at key decision making stages".	Noted and amended where necessary

In line with the emerging NPF4, we suggest amending the Objective under Biodiversity, Flora and Fauna to " <i>Protect or conserve and, where possible, restore</i> <i>and enhance biodiversity and valued nature conservation habitats and species</i> ".	
We suggest amending the Objective under Soils also enhance soil quality, for example, " <i>Protect and enhance soil quality…</i> "	
Under Landscape, we suggest amending to consider visual amenity. For example, " <i>Protect and enhance landscape character, local distinctiveness, visual amenity and promote access to the wider environment</i> ".	
Under Water, we suggest that the Objective also protects and enhances the ecological status. This could be added to the first bullet point, for example, " <i>Protect and enhance water quality and ecological status</i> ".	
Under Climatic Factors, we suggest explicitly including active travel. This could be added to the second bullet point, for example, " <i>Promote active travel and sustainable transport</i> ". An indicator for this could be the quality and distance of new active travel routes created.	
In relation to Material Assets and Population and Human Health, it is unclear what is meant by 'Enhancing positive effects" in the Indicator column. We suggest clarifying this and ensuring that there is a specific, measurable indictor. The Indicators could also be more specific in relation to Climatic Factors.	
Scope (p. 37)	
We note that all SEA topics have been scoped into the SEA and we are content with this conclusion.	Previous Table 5-2 replaced by Table 2-5: Staged approach to assessment and includes identification of enhancement opportunities
Under 5.3 'Framework for Assessing the Beach Development Framework' we note that "The Environmental Report will also include measures to avoid, reduce or mitigate any significant	
effects". We consider the SEA process an excellent opportunity to also identify enhancement opportunities and suggest this is reflected throughout the SEA. As such, sub-task 5 in Table 5-2 (p. 38) could be amended to ensure that all enhancement opportunities have been considered.	
SEA Questions (Table 5-4, p. 40-41)	
For ease of use, it could be beneficial to include the SEA Objectives in Table 5-4 alongside the SEA Questions. It could also be useful to consider questions which	Noted

explore the significance of the impact, for example, " <i>To what extent does it site impact?</i> "	Amended/ added as suggested
In Table 5-4: SEA Questions, we suggest adding the following questions:	
Biodiversity, flora and fauna	
 To what extent will the site impact wider biodiversity? 	
To what extent will the site enhance biodiversity?	
• To what extent will the site promote green network provision and habitat connectivity? (Could replace habitat fragmentation question to shift focus onto delivery of positive outcomes)	
Population and Human Health	
 To what extent will the site impact access to open space? (could replace current question) 	
• To what extent will the site connect to the local path network? (could replace current question)	
Water	
• To what extent will the site impact the ecological status of water bodies?	
Soils	
 To what extent will the site impact soil quality? 	
Climatic Factors	
To what extent will the site promote nature-based solution provision?	
Landscape	
 To what extent will the site impact landscape designations? (could replace current question on designations) 	
 To what extent will the site impact settlement setting and identity? (could replace current question on settlement setting) 	
 To what extent will the site impact on landscape character? 	

• To what extent will the site impact on visual amenity and key views? (could replace the current question on key views)

Assessment Matrix (Table 5-5, pg. 41)	
This is a tried and tested tool which is clear and well-structured in Table 5-5. We welcome the mitigation/enhancement column which will be an excellent opportunity to identify precise mitigation measures and enhancement opportunities to be delivered on-site, for example, biodiversity enhancements in line with the emerging NPF4. The commentary column is also welcomed and it would be useful to include space for commentary on cumulative effects etc. For example, this could be added in another row at the bottom of the table.	Noted – cumulative effects are discussed in Section 6.3.
Consultation Period	
We note the consultation period of 6 weeks and are happy with this. The inclusion of the anticipated milestones is really useful.	Noted

B SUMMARY OF PLANS, PROGRAMMES AND STRATEGIES RELEVANT TO THE DEVELOPMENT OF THE ABERDEEN BEACHFRONT DEVELOPMENT FRAMEWORK

Other Relevant Plans, Policies and Strategies to be analysed in the Environmental Report for their Relationship to the Beachfront Development Framework

Level	Main Requirements of the PPS	Implications of the PPS for Beachfront Development Framework
International Level		•
Nature Conservation		
Paris Agreement 2015	The Paris Agreement is a legally binding international treaty on climate change. It was adopted by 196 Parties at COP 21 in Paris, on 12 December 2015 and entered into force on 4 November 2016. Its goal is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels.	United Nations. The Agreement includes commitments from all countries to reduce their emissions and work together to adapt to the impacts of climate change and calls on countries to strengthen their commitments over time.
International UN Agreements - Kyoto Protocol (2005)	Commitment by industrialised countries to reduce four greenhouse gases (carbon dioxide, methane, nitrous oxide, sulphur hexafluoride) plus two groups of gases (hydrofluorocarbons and perfluorocarbons).	United Nations Framework Convention on Climate Change (UNFCCC or FCCC) protocol aimed at fighting climate change.
UN Climate Change Conference of the Parties (COP26) (Glasgow)	The COP26 climate change conference took place in Glasgow from 31 October to 12 November 2021. The main goal was to secure global net zero by mid-century and keep a maximum of 1.5 C degrees of warming within reach.	Net zero aligns with the aims of both the Scottish Government and Aberdeen City Council.
The Habitats Directive 92/43/EEC	Protects habitats and species. Gives a basis to classify SACs and SPAs	The Beachfront Development Framework will aim to protect and enhance the natural habitats of associated flora and fauna.
The Birds Directive 2009/147/EC	Protection of wild birds and their habitats	The Beachfront Development Framework is designed to protect and conserve ecosystems and biodiversity, specifically rare or vulnerable birds.
Water		
Water Framework Directive 2000/60/EC	The purpose of the Directive is to establish a framework for the protection of inland surface waters (rivers and lakes), transitional waters (estuaries), coastal waters and groundwater. It will ensure all aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands meet 'good status'. Addresses groundwater pollution; flooding and droughts; river basin management planning.	Through the development of the Beachfront Development Framework, account will be taken to protect water bodies from fragmentation, pollution and degradation.

Waste		
The Landfill Directive	The Landfill Directive aims to reduce, as far as possible.	The Framework should reflect the needs of the
99/31/EC	 the negative effects of landfilling waste; and 	Landfill Directive, including the infrastructure
	 sets targets and timescales for reducing the amount of 	required to meet municipal biodegradable waste
	biodegradable municipal waste (BMW) sent to landfill	targets.
The Waste Framework	Requires the planning system to:	The Framework should ensure it utilises waste
Directive 2006/12/EC	 Provide policies and sites for waste disposal. 	management facilities identified under higher-tier
	Recover or dispose of waste without endangering human health	plans whilst safeguarding the natural and built
	and without processes or methods which could harm the	environment including designated areas, green
	environment.	belts, open countryside and the coast.
	 Liaison between planning authorities and SEPA. 	
	Provide the right infrastructure for the new thematic strategy on	
	the prevention and recycling of waste.	
National Level		
Overarching Planning Policy		
Town & Country Planning	This is the principle piece of legislation governing the use and	The Council must adhere to the requirements of the
(Scotland) Act 1997	development of land in Scotland.	Act in the preparation and production of the
		Beachfront Development Framework.
Planning Etc (Scotland) Act	Amends certain aspects of the 1997 Act, relating to both	The Council must take account of the requirements
2006	Development Planning and Development Management. Introduces	of the Act in the preparation and production of the
	a new development plan hierarchy: National Planning Framework;	Beachfront Development Framework, in protecting
	Strategic Development Plans; Local Development Plans.	and enhancing the environment and biodiversity
		and promoting low carbon economic growth.
National Planning Framework	Provides a framework to guide sustainable growth and development	The Beachfront Development Framework should
for Scotland 3 (NPF3) (2014)	of Scotland. Identifies priorities for strategic investment which will	contribute to each of these planning outcomes:
	be a material consideration in making sustainable planning policy. It	through developing a more coordinated Beachfront
	sets out key planning outcomes for Scotland:	Development Framework, this could create well-
	1. A successful sustainable place – supporting economic growth,	designed places, such as regenerating natural and
	regeneration and the creation of weil-designed places	cultural assets, this should enhance the area and
	2. A low carbon place – reducing our carbon emissions and	increase visitor numbers. Additionally, the role of
	auapling to climate change	green mirastructure, vegetation and water bodies
	5. A natural resilient place – neiping to protect and enhance our	will help create carbon sinks which contribute to the
	A connected place, supporting better transport and digital	aesthetics of the natural environment and the
	connectivity	

Draft National Planning	NPF4 will, when adopted, set out the Scottish Governments	Once NPF4 is adopted, development associated
Framework for Scotland 4	priorities and policies for the planning system up to 2045 and how	with the Beachfront Development Framework
(NPF4)	our approach to planning and development will help to achieve a	should be mindful of Part 3, National Planning Policy
	net zero, sustainable Scotland by 2045. NPF4 differs from previous	Handbook which includes the following:
	NPFs in two ways. It incorporates Scottish Planning Policy and the	 Sustainable Places (Universal policies)
	NPF into a single document and will form a part of the statutory	Liveable Places
	development plan.	 Productive Places and
		Distinctive Places
Scottish Planning Policy	Economic development should raise the quality of life of the	The Beachfront Development Framework should
2014	Scottish people through increasing economic opportunities for all,	take account of the principles set out in the SPP,
	on a socially and environmentally sustainable basis. The planning	and as a result, the Beachfront Development
	system should provide strong support for economic development,	Framework should incorporate elements of the SPP
	to both new and expanding businesses, where it is consistent with	where appropriate.
	other national and local policies, in particular the promotion of social	
	justice and sustainable development.	
The Planning (Listed	Primary legislation which sets out the legal requirements for the	If appropriate, the Beachfront Development
Buildings and Conservation	control of development and alterations that affect buildings that are	Framework should take account of this legislation in
Areas) (Scotland) Act 1997	listed, and the framework by which control is maintained.	relation to Listed Buildings.
Cross-Sectoral		
Transport (Scotland) Act	The Act aims to make Scotland's transport network cleaner,	The Beachfront Development Framework shall
2019	smarter and more accessible by empowering local authorities and	consider the requirements of the ACT.
	establishing consistent standards to tackle current and future	
	challenges. The Act seeks to deliver a more responsive and	
	sustainable transport system for everyone.	
National Transport Strategy 2	The National Transport Strategy sets out a vision for Scotland's	The Beachfront Development Framework should
(2020)	transport system for the next 20 years. The vision is underpinned	consider the integration of LIS objectives, actions
	by four priorities: Reduces Inequalities, Takes Climate Action, Helps	and committed projects into project.
	Deliver inclusive Economic Growth and Improves our Health and	
	weildeing, each with three associated outcomes.	
Getting the best from our	Scotland's first land use strategy, which identifies key principles for	The Beachfront Development Framework should
land: A land use strategy for	sustainable land use which reflect Government policies on the	aim to conserve Scotland's biodiversity whilst
Sectland 2016 2021		
Scolland 2010-2021	priorities which should influence land use choices. Sets out a long-	reducing resource depletion and encouraging
Scolland 2010-2021	priorities which should influence land use choices. Sets out a long- term vision towards 2050 with three clear objectives relating to	reducing resource depletion and encouraging responsible use of our natural resources.
Scotland 2016-2021	priorities which should influence land use choices. Sets out a long- term vision towards 2050 with three clear objectives relating to economic prosperity, environmental quality and communities.	reducing resource depletion and encouraging responsible use of our natural resources.
Environment Act 1995	Provides the legal basis for the local air quality management (LAQM) regime, secondary legislation and the UK Air Quality Strategy	The Beachfront Development Framework should include measures to improve local air quality.
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Climate Change (Emissions	The Climate Change (Emissions Reduction Targets) (Scotland) Act	The Beachfront Development Framework should
Reduction Targets)	2019 sets targets to reduce Scotland's emissions of all greenhouse	promote measures to reduce and minimise carbon
(Scotland) Act 2019	gases to net-zero by 2045.	emissions
UK Climate Change Risk	The UK Climate Change Risk Assessment 2017 Evidence Report is	The Beachfront Development Framework should
Assessment 2017	the most up-to-date and comprehensive analysis of the risks and	promote measures to reduce and minimise carbon
	opportunities posed by climate change to the UK	emissions
Heat in Buildings Strategy	Sets out how the UK will decarbonise our homes, and our	Refer to and apply as practicable.
(2021)	commercial, industrial and public sector buildings, as part of setting	
	a path to net zero by 2050.	
Climate Change Plan	This is the third report on proposals and policies (RPP3). It sets out	The Beachfront Development Framework will
2018-2032	the path to a low-carbon economy while helping to deliver	contribute to delivering on the policies and
	sustainable economic growth and secure the wider benefits to a	proposals set out in the plan.
	greener, fairer and healthier Scotland in 2032.	
Climate Ready Scotland:	The second Scottish Climate Change Adaptation Programme sets	The Beachfront Development Framework will reflect
climate change adaptation	out policies and proposals to prepare Scotland for the challenges	the changes in the greenhouse gas emissions
programme 2019-2024	that we will face as our climate continues to change in the decades	targets and outline how the Council will contribute
	ahead. The Programme is a requirement of the Climate Change	to meeting them
	(Scotland) Act 2009 and addresses the risks set out in the UK	
	Climate Change Risk Assessment (UK CCRA) 2017, published	
	under section 56 of the UK Climate Change Act 2008	
Securing a green recovery	This update to Scotland's 2018-2032 Climate Change Plan sets out	The Beachfront Development Framework will
on a path to net zero: climate	the Scottish Government's pathway to new and ambitious targets	incorporate the updates in the plan
change plan 2018–2032 -	set by the Climate Change Act 2019. It is a key strategic document	
update	on Scotland's green recovery from COVID-19.	
UK Air Quality Strategy for	The Strategy sets a number of air quality objectives for pollutants to	The Beachfront Development Framework should
England, Scotland, Wales	improve and protect ambient air quality in the UK including sulphur	provide actions that contribute to reducing air
and Northern Ireland (2011)	dioxide, nitrogen dioxide, particulate matter, lead and ozone.	pollution and improving air quality.
Cleaner Air for Scotland 2	Scotland's second air quality strategy, setting out how the Scottish	The Beachfront Development Framework should
(CAFS2) strategy (2021)	Government and its partner organisations propose to further reduce	include measures to reduce air pollution
	air pollution to protect human health and fulfil Scotland's legal	
	responsibilities over the period 2021-2026.	

Planning Advice Note 84 Reducing Carbon Emissions in New Development	Provides information on low and zero-carbon development through the use of energy-efficient and renewable energy systems	The Beachfront Development Framework should include measures encouraging new development to incorporate low-carbon and renewable sources of energy.
Scottish Energy Strategy Position Statement (2021)	The Energy Strategy position statement provides an overview of our key priorities for the short to medium-term in ensuring a green economic recovery, whilst remaining aligned with Scottish Government net zero ambitions.	Refer to and apply "Key Priorities For Energy" as practicable.
Heritage, Design and Regene	eration	
Historic Environment Policy for Scotland (HEPS 2019)	HEPS should be taken into account whenever a decision will affect the historic environment. This includes plans and policies that deal with funding decisions or estate management or other specific topics such as agriculture or energy. It is also a material consideration for planning proposals that might affect the historic environment and in relation to listed building consent and scheduled monument consent ('material consideration' means that decision-makers should take it into account when coming to a decision). Decisions on scheduled monument consent are made in line with Historic Environment Scotland's policy for determining consents at scheduled monuments.	The HEPS shall be taken into consideration when developing the Beachfront Development Framework to ensure it serves to promote and improve the historic environment, where relevant.
Our Place in Time: The Historic Environment Strategy for Scotland (2014)	A high-level framework produced by the Scottish Government which sets out a 10-year vision for Scotland's historic environment.	The Beachfront Development Framework should consider the role of carrying forward this strategy at a local level to protect and/or enhance Scotland's historic environment, particularly listed buildings and other locally important sites.
Creating Places - A policy statement on architecture and place for Scotland (2013)	The policy statement sets out the Scottish Government's overarching position on architecture and place. Architecture and place has an established, strong relationship with planning. Therefore, the policies contained in the document are material considerations in determining planning applications and appeals.	The policy framework for how design issues will be considered in relation to development and the different ways of doing things. The design factors and overarching objectives will be considered when selecting sites for play, open space projects and coordinating green network developments as part of the Beachfront Development Framework.
Designing Streets: A Policy Statement for Scotland (2010)	Sets the context for good street design and the policies for implementation, planning considerations and embraces the six qualities of successful places as promoted in Designing Places	The policy framework for how design issues will be considered in relation to development and the different ways of doing things. The design factors

Green Infrastructure: Design	Provides practical guidance to help achieve successful places.	and overarching objectives will be considered when selecting sites for play, open space projects and coordinating green network developments as part of the Beachfront Development Framework. The Beachfront Development Framework should
and Placemaking (2011)		promote the use of green infrastructure in development.
Soil		
Scottish Soil Framework	The main aim of the Framework is to promote the sustainable	The Beachfront Development Framework will take
(2009)	management and protection of soils consistent with the economic,	cognisance of soil outcomes.
Londooono		
Lanuscape	Considers how to promote good management of all landscores to	Consider how the Reachfront Development
Scotland's Living Landscape,	secure benefits for all. It provides seven key recommendations to	Framework can maintain and restore natural
Places for People (2007)	the Scottish Government and other public bodies as first steps to delivering better care for Scottish landscapes.	habitats to ensure biodiversity and landscapes
All Our Futures: Planning for a Scotland with an Ageing Population (2007)	The strategy covers topics such as the role of public services, increased opportunities for older people, better intergenerational relationships, improving health and providing lifelong learning opportunities.	The Beachfront Development Framework should consider the needs of an ageing population.
Let's Make Scotland More Active: A Strategy for Physical Activity (2003)	Aims to increase and maintain the proportion of physically active people in Scotland setting out targets to 2022.	The Beachfront Development Framework should promote physical activities.
Let's Get Scotland Walking – The National Strategy (2014)	Let's Get Scotland Walking - the National Walking Strategy sets out a vision where everyone benefits from walking as part of their everyday journeys, and everyone has access to welcoming and safe environments to walk in.	The Beachfront Development Framework will take cognisance of the national walking strategy and improve opportunities to access both formal and informal greenspaces.
Cycling Action Plan for Scotland 2017-2020	The Cycling Action Plan for Scotland (CAPS), sets out a framework aiming to increase cycling across Scotland	Encourage cycling and improve opportunities to access cycling infrastructure
A Long-Term Vision for Active	This document sets out how we hope Scotland will look in 2030 if	The Beachfront Development Framework should
Travel in Scotland 2030	more people are walking and cycling for short, everyday journeys to reap the benefits of active travel	align with the objectives of the long-term vision
Equality Act 2010	Sets out a framework which prevents individuals from unfair treatment and promotes a more equal society.	The Beachfront Development Framework should build the needs of people with protected characteristics into its strategic actions

Disability Discrimination Acts 1995 and 2005	Ensures that discrimination law covers all the activities of the public sector; and requires public bodies to promote equality of opportunity for disabled people. Aims to end the discrimination that many disabled people face and gives disabled people rights in the areas of employment, education, access to goods, facilities and services and buying or renting land or property.	The Beachfront Development Framework should build the needs of disabled persons into its strategic actions.
Community Empowerment	Provides a framework to increase community empowerment and	The Beachfront Development Framework should
Act 2015	engagement. Targets regeneration and community participation.	encourage and promote community involvement in
	Requires local authorities to produce a Food Growing Strategy.	the development of the framework, where
		appropriate.
Natural Conservation		
Wildlife and Countryside Act	The Wildlife and Countryside Act 1981 is the primary legislation	The Beachfront Development Framework will take
1981 (as amended)	which protects animals, plants and habitats in the UK.	cognisance of the Act.
The Nature Conservation	The Nature Conservation (Scotland) Act 2004 places a duty on	The Beachfront Development Framework will take
(Scotland) Act 2004	public bodies to further the conservation of biodiversity and	cognisance of the Act.
	increases protection for Sites of Special Scientific Interest.	
2020 Challenge for Scotland's	The 2020 Challenge is a supplement to the Scottish Biodiversity	The Beachfront Development Framework will take
Biodiversity - A Strategy for	Strategy (2004), focused on desired outcomes for 2020. It shows	cognisance of this strategy.
the conservation and	how the Scottish Government, its public agencies, Scottish	
enhancement of biodiversity	business and others can contribute to the Strategy's aims as well as	
in Scotland (2013)	supporting sustainable economic growth.	
The Conservation (Natural	In Scotland, the Habitats Directive is translated into specific legal	
Habitats etc.) Regulations	obligations by the Conservation (Natural Habitats, &c.) Regulations	
1994 (as amended)	1994.	The Beachfront Development Framework will
The Conservation (Natural	The Habitats Regulations have been amended in Scotland, most	comply with the Regulations by not adversely
Habitats) Amendment	recently in 2019 as a result of the UK leaving the EU. These	affecting European sites or any species listed
(Scotland) Regulations	amendments mean that we must continue to apply the	under the Directive.
	requirements of the Habitats and Birds Directives to how European	
	sites are designated and protected	
Water		
Water Environment	Outlines the different levels of authorisations to allow for	The Beachfront Development Framework will take
(Controlled Activities)	proportionate regulation depending on the risk an activity poses to	cognisance of these regulations
(Scotland) Regulations 2011,	the water environment. Some activities require authorisation	
as amended	including point source discharges, impoundments and abstractions.	

Water Environment and Water	Sets out the framework for protecting the water environment that	The Beachfront Development Framework will take
Services (Scolland) Act 2005	engineering activities in the water environment.	environment
Flood Risk Management (Scotland) Act 2009	Creates a framework in which organisations involved in flood risk management can co-ordinate actions to deliver sustainable and	The Beachfront Development Framework must take into account the provisions of the Act, in
	modern approaches to flood risk management	particular the assessment of flood risk and the preparation of flood risk management plans.
Scottish Planning Policy -	The central purpose is to prevent further development which would	The Beachfront Development Framework will
Planning and Flooding	have a significant probability of being affected by flooding, or which would increase the probability of flooding elsewhere	contribute to meeting the overall aim of reducing the negative effects of all sources of flooding on the environment.
The river basin management plan for the Scotland river basin district: 2015–2027 (2015)	River basin management plans (RBMPs) set out how organisations, stakeholders and communities will work together to improve the water environment.	The Beachfront Development Framework will support the protection and enhancement of water bodies.
Scottish Water Strategic Asset and Capacity Development Plan (2012)	Describes Scottish Waters processes and systems for calculating capacity available, at waste/ water treatment works in Scotland.	The Beachfront Development Framework will take cognisance of the importance of the Plan.
SEPA Groundwater Protection Policy for Scotland v3: Environmental Policy 19 (SEPA)	 This policy aims to provide a sustainable future for Scotland's groundwater resources by protecting legitimate uses of groundwater and providing a common SEPA framework to: Protect groundwater quality by minimising the risks posed by point and diffuse sources of pollution; Maintain the groundwater resource by authorising abstractions and by influencing developments, which could affect groundwater quantity. 	The Beachfront Development Framework will take cognisance of the Policy.
Waste		
Scotland's Zero Waste Plan (2010)	The plan outlines Scotland's key objectives in relation to waste prevention, recycling and reducing the amount of waste sent to	The Beachfront Development Framework will take cognisance of this plan and the importance of a
	landfill on the journey to a zero-waste Scotland. The plan proposes targets for Scotland's waste	circular economy in tackling climate change.
Marine and Coastal		
SEAS The Opportunity: A	Presents the marine strategy for Scotland's coast and marine	The Beachfront Development Framework will take
Strategy for the Long-Term	environment.	cognisance of this plan and the importance of a
Sustainability of Scotland's		circular economy in tackling climate change.
Coasts and Seas (2005)		

Marine (Scotland) Act 2010	 The Act provides a legislative and management framework for the Scottish marine environment, which includes: a marine planning system; a licensing system; powers to establish marine protected areas that protect natural and cultural marine features. The Act also introduces a regime for seal conservation and provides for Scottish marine enforcement officers to ensure compliance with the new licensing and conservation measures. This is a very detailed Act and the following Parts are of particular 	The Beachfront Development Framework must take into account the provisions of the Act, as they relate to marine planning and protected areas/species.
	relevance:	
UK Marine Policy Statement	The UK Marine Policy Statement (MPS) provides the policy framework for the marine planning system and taking decisions affecting the marine	The Beachfront Development Framework will take cognisance of the policy statement.
Cross-Sector Guidance		
PAN 60: Planning for Natural Heritage	Provides advice on how the land use planning system can contribute to the conservation and enhancement of Scotland's natural environment. It describes the planning system in Scotland as it was at the time when it was published and refers to the way that Natural Heritage is considered in both plan-making and decision-making.	The Beachfront Development Framework should contribute to the conservation, enhancement, enjoyment and understanding of the natural environment.
PAN 61: Planning and Sustainable Urban Drainage Systems	Describes how planning policy should set the framework for implementing Sustainable Urban Drainage Systems (SUDS) through the development control process.	The Beachfront Development Framework should consider the role of sustainable urban drainage.
Planning and Waste Management Advice (2015)	The Planning Advice complements the National Planning Framework (NPF3), Scottish Planning Policy (SPP) and Scotland's Zero Waste Plan (ZWP). A low carbon place and 'circular economy' are alternatives to the 'make, use, dispose' culture which means re- using products and materials continually and growing a low carbon economy. The advice provides step-by-step advice on development planning and development management.	The Beachfront Development Framework should consider waste management from the inception process. It should promote integrated waste management.

PAN 65: Planning and Open	Planning Advice Note (PAN) 65 provides advice on the role of the	The Beachfront Development Framework aims to
Space	planning system in protecting and enhancing existing open spaces	improve the quality of open spaces in the city and
	and providing high-quality new spaces. Raises the profile of open	will set out measures to improve the
	space as a planning issue.	quality/quantity of publicly accessible open spaces.
	Sets out how local authorities can prepare open space strategies	
	and gives examples of good practices in providing, managing and	
	maintaining open spaces.	
PAN 75: Transport and	The PAN aims to create greater awareness of how linkages	The Beachfront Development Framework should
Planning	hotwoon planning and transport can be managed. It highlights the	promote the use of existing transportation
Flamming	between planning and transport can be managed. It nightights the	
	roles of different bodies and professions in the process and points	
	to other sources of information.	alternatives.
	Establishes linkages between planning and transport and how it can	
	be managed.	
PAN 77: Designing Safer	Planning Advice Note (PAN) 77 provides advice on how planning	The Beachfront Development Framework should
Places	can help to create attractive well-managed environments which	safeguard safety.
	help to discourage antisocial and criminal behaviour.	
PAN 78: Inclusive Design	Looks at how to improve the design of places so that they can be	The Beachfront Development Framework should
_	used by everyone - regardless of age, gender or disability. Makes it	promote a high standard of design.
	a legal requirement to consider the needs of disabled people under	
	the terms of Disability Discrimination legislation	
Regional Level		
Overarching Planning Policy		
Aberdeen City and Shire	Creates a long-term sustainable framework of settlements in a	By setting the spatial development strategy and
Strategic Development Plan	hierarchy, which focuses major development on the main	supporting policies at a regional level, the
2020	settlements in the North East.	Aberdeen City and Shire Strategic Development
	Sets the strategic context for Aberdeen City Local Development	Plan aims to achieve alignment with the Scottish
	Plan which in turn sets the framework for land use development	Governments national outcomes and helps to
		direct and inform the local interpretation of
		planning. This will need to be fully reflected within
		the Deschfront Development Fromework
Creas Sastaral		The Deachmont Development Framework.
Regional Economic Strategy –	Sets the context for economic prosperity in the North East. The four	I ne Beachfront Development Framework should
Securing the Future of the	key strands are investment in infrastructure innovation, inclusive	support sustainable economic growth.
North East (2015)	economic growth and internationalisation.	

The Economic Action Plan for	Sets out objectives identifying actions to be undertaken towards the	The Beachfront Development Framework should
Aberdeen City and Shire to 2025	longer-term economic ambitions for Aberdeen City and Shire.	support sustainable economic growth.
Nestrans 2040 Regional	The Regional Transport Strategy is a long-term strategy for the	The Beachfront Development Framework should
Transport Strategy (RTS)	areas of Aberdeen and Aberdeenshire, which sets the vision and	contribute to meeting objectives set out in the
	direction for transport in the region up to the year 2040.	Regional Transport Strategy.
Nestrans Aberdeen Rapid	A competitive, affordable and efficient mode of public transport,	The Beachfront Development Framework should
Transit	offering an alternative to private vehicle travel.	contribute to meeting the objectives of Aberdeen
		Rapid Transit.
Nature Conservation		
North East of Scotland	North East Scotland Local Biodiversity Action Plan (NESLBAP)	The Beachfront Development Framework should
Biodiversity Partnership -	takes action to conserve important species and habitats for our	promote and protect biodiversity.
Action Plan	benefit and for future generations.	
River Dee Catchment	The management plan records the current state of the Dee	The Beachfront Development Framework should
Management Plan (2007)	catchment, including water quality, the type and extent of habitats	contribute to delivering the actions proposed in the
	and species in the catchment, and important land management	Catchment Management Plan.
	activities, identifies key issues and puts identifies potential solutions	
	through a series of actions.	
Local Level		I
Aberdeen Local Development	The local development plan is reviewed every five years. Aberdeen	Future development associated with the
Aberdeen Local Development Plan 2022	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the	Future development associated with the Beachfront Development Framework should be
Aberdeen Local Development Plan 2022	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022.	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which
Aberdeen Local Development Plan 2022	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022.	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which are likely to have a direct influence on
Aberdeen Local Development Plan 2022	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022. On 22 July 2021, Aberdeen City Council submitted to Scottish	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which are likely to have a direct influence on development.
Aberdeen Local Development Plan 2022	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022. On 22 July 2021, Aberdeen City Council submitted to Scottish Ministers the Aberdeen Local Development Plan Proposed Plan	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which are likely to have a direct influence on development.
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Aberdeen Local Development Aberdeen Local Development	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022. On 22 July 2021, Aberdeen City Council submitted to Scottish Ministers the Aberdeen Local Development Plan Proposed Plan 2020 to Scottish Ministers for examination. During November 2021 the reporter commenced the examination of conformity with the planning authority's participation statement as required by Section 19(4) of the Town and Country Planning Scotland Act 1997 (as amended). The Aberdeen LDP sets the framework for growth and development	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which are likely to have a direct influence on development.
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Aberdeen Local Development Plan 2022 Aberdeen Local Development Plan 2017	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022. On 22 July 2021, Aberdeen City Council submitted to Scottish Ministers the Aberdeen Local Development Plan Proposed Plan 2020 to Scottish Ministers for examination. During November 2021 the reporter commenced the examination of conformity with the planning authority's participation statement as required by Section 19(4) of the Town and Country Planning Scotland Act 1997 (as amended). The Aberdeen LDP sets the framework for growth and development and establishes a presumption in favour of development that contributes to sustainable development as defined in Scottish Planning Policy.	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which are likely to have a direct influence on development. The policies set out within the LDP have a direct influence on the development and implementation of the Beachfront Development Framework in regard to connecting green networks and developing active travel revets
Aberdeen Local Development Plan 2022 Aberdeen Local Development Plan 2017	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022. On 22 July 2021, Aberdeen City Council submitted to Scottish Ministers the Aberdeen Local Development Plan Proposed Plan 2020 to Scottish Ministers for examination. During November 2021 the reporter commenced the examination of conformity with the planning authority's participation statement as required by Section 19(4) of the Town and Country Planning Scotland Act 1997 (as amended). The Aberdeen LDP sets the framework for growth and development and establishes a presumption in favour of development that contributes to sustainable development as defined in Scottish Planning Policy.	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which are likely to have a direct influence on development. The policies set out within the LDP have a direct influence on the development and implementation of the Beachfront Development Framework in regard to connecting green networks and developing active travel routes.
Aberdeen Local Development Plan 2022 Aberdeen Local Development Plan 2017 Policy NC9 – Beach and	The local development plan is reviewed every five years. Aberdeen City Council intend the next local development plan to be the Aberdeen Local Development Plan 2022. On 22 July 2021, Aberdeen City Council submitted to Scottish Ministers the Aberdeen Local Development Plan Proposed Plan 2020 to Scottish Ministers for examination. During November 2021 the reporter commenced the examination of conformity with the planning authority's participation statement as required by Section 19(4) of the Town and Country Planning Scotland Act 1997 (as amended). The Aberdeen LDP sets the framework for growth and development and establishes a presumption in favour of development that contributes to sustainable development as defined in Scottish Planning Policy.	Future development associated with the Beachfront Development Framework should be mindful of the policies set out within the LDP which are likely to have a direct influence on development. The policies set out within the LDP have a direct influence on the development and implementation of the Beachfront Development Framework in regard to connecting green networks and developing active travel routes. The Beachfront Development Framework should apartisivate to delivering Delive MCO

	1. contribute to the range and quality of the existing uses, facilities	
	and activities of the wider beach area:	
	2. are of an appropriate scale:	
	3. do not have an unduly adverse effect on the character of the	
	area, or cause negative visual or environmental impacts or	
	affect the amenities of nearby residents:	
	4. do not result in a significant generation of car-borne journeys.	
	nor additional pressure for car parking. There is a presumption	
	against retail development in this area.	
Policy NE1 - Green Space	the Council will protect, promote and enhance the wildlife, access,	The Beachfront Development Framework should
Network	recreation, ecosystem services and landscape value of the Green	contribute to delivering Policy NE1
	Space Network, which is identified on the Proposals Map.	с, <u>,</u>
	Development proposals that are likely to destroy or erode the	
	character and/or function of the Green Space Network will not be	
	permitted.	
	Where major infrastructure projects or other developments	
	necessitate crossing the Green Space Network, such developments	
	should maintain and enhance the coherence of the network. In	
	doing so provision should be made for access across roads for	
	wildlife and outdoor recreation	
	Masterplanning of new developments should consider the existing	
	areas of Green Space Network and identify new areas incorporating	
	Green Space Network Masterplans will determine the location	
	extent and configuration of the Green Space Network within the	
	area, and its connectivity with the wider network	
	Development which has a negative impact on existing wildlife	
	babitate and connections, or other features of value to natural	
	habitats and connections, or other reatures of value to hatural	
	mitigated through the enhancement of the Green Space Network	
Policy NE3 Urban Groop	Permission will not be granted to redevelop any parks, playing	The Reachfront Dovelonment Framework should
Space	fields, sports pitches, woods, allotmonts or all other cross of urban	contribute to delivering Delicy NE2
Space	aroon anoon (including amollar anoon not identified on the	
	green space (including smaller spaces not identified on the Droposale Map) for any use other than represention and spart	With reference to Section 2.10.2 the badger sett
	Proposals map) for any use other than recreation and sport.	with reference to Section 3.10.3 the badger sett
	Exceptions will be made when an equivalent and equally convenient	and foraging area needs to be protected and
	and accessible area for public space is laid out and made available	disturbance kept to a minimum.
	in the locality by the applicant for urban green space purposes, for	

	example through the replacement of school buildings. In all cases,	Carefully designed planting should be considered
	development will only be acceptable provided that:	for both badgers and bats to create natural screens
	1 There is no significant loss to the landscape character and	and buffer zones to minimise disturbance, whilst
	amenity of the site and adjoining area.	providing a green network corridor
	2 Public access is either maintained or enhanced:	providing a green network contact.
	2. The site is of no significant wildlife or heritage value.	
	5. The site is of no significant wilding of heritage value,	
	4. There is no loss of established or mature trees;	
	5. Replacement green space of similar or better quality is located	
	in or immediately adjacent to the same community, providing	
	similar or improved health benefits to the replaced area and is	
	accessible to that community, taking into account public	
	transport, walking and cycling networks and barriers such as	
	major roads.	
	6. They do not impact detrimentally on lochs, ponds,	
	watercourses or wetlands in the vicinity of the development;	
	and	
	7 Proposals to develop outdoor sports facilities including playing	
	fields and sports nitches should also be consistent with the	
	terms of Scottish Planning Policy	
Policy NE4 - Open Space	The Council will require the provision of at least 2.8ha per 1.000	Policy NE4 does not only apply to residential
Provision in New	neople of meaningful and useful open space in new residential	developments but also covers green space
Dovelopment	development. Please see relevant Supplementary Guidance Open	notworks and general open space in pen
Development	Crean Infrastructure, detailed below for information on	residential developments
	Space & Green minastructure, detailed below, for information of	
	now to calculate open space requirements, as well as different	
	types of provision and the expected accessibility and quality	within Supplementary Guidance section 12 It
	standards. Public or communal open space should be provided in	mentions masterplanning/development frameworks
	all residential developments, including on brownfield sites.	that they should make use of the open space
	However, on some brownfield sites it may not be possible to	typologies set out in the Planning Advice Note 65
	increase the amount of open space, for example where existing	wherever possible. An open space plan with the
	buildings on the site are being retained. In these cases, commuted	functions and types could be useful.
	sums towards off-site provision or enhancement of existing open	
	spaces will be sought instead. In areas where the Open Space	
	Audit has shown that existing open space is of poor quality.	
	contributions may be sought to enhance existing provision instead	
	of new provision being required	
Policy NE6 - Floodina.	Development will not be permitted if:	The Beachfront Development Framework should
Drainage and Water Quality	1. It would increase the risk of flooding:	contribute to delivering Policy NE6

a) by reducing the ability of the functional flood plain to store
and convey water;
b) through the discharge of additional surface water; or
c) by harming flood defences.
2. It would be at risk itself from flooding;
3. Adequate provision is not made for access to waterbodies for
maintenance; or
4. It would require the construction of new or strengthened flood
defences that would have a significantly damaging effect on the
natural heritage interests within or adjacent to a watercourse.
5. Development on the functional floodplain will only be permitted
where its location is essential for operational reasons, and it
must be designed and constructed to remain operational during
floods and not to impede water flow. Applicants will be required
to provide a Flood Risk Assessment where a development is
likely to result in a material increase in the number of buildings
at risk of flooding, or where it has been indicated in the
opportunity sites schedule that one will be prepared. Windfall
sites may also require a Flood Risk Assessment. Drainage
Impact Assessment (DIA) will be required for new development
proposals comprising 5 or more homes or 250 square metres
of non-residential floorspace. DIA will also be required for
developments of any size that affect sensitive areas. DIA should
detail how surface water and wastewater will be managed.
Surface water drainage associated with development must:
6. Be the most appropriate available in terms of SuDS; and
7. Avoid flooding and pollution both during and after construction.
There is a presumption against excessive engineering and
cuiverting of waterbodies. Natural treatments of floodplains and
other water storage features will be preferred wherever possible.
I here will be a requirement to restore existing culverted or
canalised water bodies to a naturalised state where this is possible.
where the Council agrees that culverts are unavoidable for
technical reasons, they should be designed to maintain existing flow
conditions and aquatic life. Any proposals for new culverts should
have a demonstrably neutral impact on flood risk and be linked to

	long-term maintenance arrangements to ensure they are not the cause of flooding in the future. Connection to the public sewer will be a prerequisite of all development where this is not already provided. Private wastewater treatment systems in sewered areas will not be permitted. In areas not served by the public sewer, a private source treatment system for individual properties will be	
	permitted provided that the developer demonstrates that there will	
	be no adverse effects on the environment, amenity and public	
	health.	
Policy NE7 - Coastal Planning	 Development will only be permitted in undeveloped coastal areas if it can be demonstrated that: A coastal location is necessary given the purpose and operation of the development; There is no other suitable site, including the re-use of brownfield land; and It respects the character and value of the natural and historic environment, as well as the recreational value in the surrounding area; or There is an overriding environmental benefit. In all cases: Development will not be permitted in areas at risk from coastal erosion and flooding. New developments which require new 	Contribute to delivering Policy NE7
	 defences against coastal erosion or flooding will not be supported except where there is clear justification to avoid development in areas at risk. 2. A Flood Risk Assessment will be required to accompany applications for development in coastal areas. 3. Public access to and along the coast will be protected and promoted wherever possible. Development proposals will be required to demonstrate through appropriate marine noise modelling that adverse impacts on bottlenose dolphins and Atlantic salmon are avoided. 	
Policy NE9 - Access and	New development should not compromise the integrity of existing	The Beachfront Development Framework should
Informal Recreation	or potential recreational opportunities including general access	contribute to delivering Policy NE9
	rights to land and water, Core Paths, other paths and rights of way.	
	of development. Applicants should provide detail on how public	
	or development. Applicants should provide detail on now public	

	access and safety will be maintained during construction, for	
	example through temporary diversions.	
	Wherever possible, developments should include new or improved	
	provisions for public access, permeability and/or links to green	
	space for recreation and active travel.	
Policy D4 - Historic	The Council will protect, preserve and enhance the historic	The Beachfront Development Framework should
Environment	environment in line with Scottish Planning Policy, SHEP and its	contribute to delivering Policy D4
Environment	Supplementary Guidance and Conservation Area Character	
	Appraisals and Management Plan. There will be a presumption in	
	favour of the retention and reuse of listed buildings and buildings	
	within conservation areas that contribute to their character. High-	
	quality design that respects the character, appearance and setting	
	of the historic environment and protects the special architectural or	
	historic interest of its listed buildings, conservation areas and	
	historic gardens and designed landscapes will be supported	
	The physical in situ preservation of all scheduled monuments and	
	archaeological sites will be supported. Developments that would	
	adversely impact upon archaeological remains including	
	battlefields of either national or local importance or on their setting	
	will only be permitted in exceptional circumstances, where there is	
	no practical alternative site and where there are imperative reasons	
	for over-riding public need	
	In any such case, the applicant must at their own expense:	
	 take satisfactory steps to mitigate adverse development 	
	impacts: and	
	 where the preservation of the site in its original location is not 	
	possible, arrange for the full excavation and recording of the	
	site in advance of development and the publication/ curation of	
	the finding	
Policy I1 - Infrastructure	Development must be accompanied by the infrastructure, services	The Beachfront Development Framework should
Delivery and Planning	and facilities required to support new or expanded communities	contribute to delivering Policy I1
Obligations	and the scale and type of developments proposed. Where	
	development either individually or cumulatively will place additional	
	demands on community facilities or infrastructure that would	
	necessitate new facilities or exacerbate deficiencies in existing	
	provision, the Council will require the developer to meet or	

	-	
	contribute to the cost of providing or improving such infrastructure or facilities. Infrastructure requirements relating to Masterplan Zone sites and other allocated sites outwith the Masterplan Zones are set out in Appendices 3 and 4. Actions for delivering infrastructure are described in the Local Development Plan Action Programme. Infrastructure requirements and the level of contributions for other development will be assessed using the criteria set out in Supplementary Guidance. The precise level of infrastructure requirements and contributions will need to be agreed with the Council, in consultation with other statutory agencies where appropriate. The level of provision or contribution required will relate to the development proposed either directly or to the cumulative impact of development in the area and be commensurate to its scale and impact. Masterplans will be expected to reflect the infrastructure	
	Delivery Statement setting out details of how the proposed	
	development and supporting infrastructure will be delivered.	
	New infrastructure will either be provided by the developer or	
	through financial contributions. It will need to be compatible with	
Policy T2 Managing the	Commonsurate with the scale and anticipated impact new	The Reachfront Development Framework should
Transport Impact of	developments must demonstrate that sufficient measures have	contribute to delivering Policy T2
Development	been taken to minimise traffic generated and to maximise	
	opportunities for sustainable and active travel.	
	Transport Assessments and Travel Plans will be required for	
	developments which exceed the thresholds set out in	
	Supplementary Guidance.	
	The development of new communities should be accompanied by	
	an increase in local services and employment opportunities that	
	reduce the need to travel and include integrated walking, cycling	
	and public transport initiastructure to ensure that, where travel is	
	sustainable transport links to and from new developments are not in	
	place, developers will be required to provide such facilities or a	
	suitable contribution towards implementation.	

	Further information is contained in the relevant Supplementary	
	Guidance which should be read in conjunction with this policy.	
Policy T3 - Sustainable and	New developments must be accessible by a range of transport	The Beachfront Development Framework should
Active Travel	modes, with an emphasis on active and sustainable transport, and	contribute to delivering Policy T3
	the internal layout of developments must prioritise walking, cycling	
	and public transport penetration. Links between residential,	
	employment, recreation and other facilities must be protected or	
	improved for non-motorised transport users, making it quick,	
	convenient and safe for people to travel by walking and cycling.	
	Street layouts will reflect the principles of Designing Streets and	
	meet the minimum distances to services as set out in the	
	Supplementary Guidance.	
	Existing access rights, including core paths, rights of way and paths	
	within the wider network will be protected and enhanced. Where	
	development proposals impact on the access network, the principle	
	of the access must be maintained at all times by the developer	
	through the provision of suitable alternative routes.	
	Recognising that there will still be instances in which people will	
	require to travel by car, initiatives such as car sharing, alternative	
	fuel vehicles and Car Clubs will also be supported where	
	appropriate.	
Policy T4 - Air Quality	Development proposals which may have a detrimental impact on air	The Beachfront Development Framework should
	quality will not be permitted unless measures to mitigate the impact	contribute to delivering Policy T4
	of air pollutants are proposed and agreed with the Planning	
	Authority. Planning applications for such proposals should be	
	accompanied by an assessment of the likely impact of development	
	on air quality and any mitigation measures proposed.	
	Supplementary Guidance sets out the likely circumstances in which	
	applicants must submit an assessment of the potential impact of	
	particular types of development on existing and future air quality,	
	particularly in and around Air Quality Management Areas. It also	
	provides guidance on the process of air quality assessment and	
	how mitigation measures will be assessed and implemented.	
Policy T5 – Noise	In cases where significant noise exposure is likely to arise from	The Beachfront Development Framework should
	development, a Noise Impact Assessment (NIA) will be required as	contribute to delivering Policy T5
	part of a planning application.	

	There will be a presumption against noise-generating developments, as identified by a NIA, being located close to noise- sensitive developments, such as existing or proposed housing, while housing and other noise-sensitive developments will not normally be permitted close to existing noisy land uses without suitable mitigation measures in place to reduce the impact of noise. Development within or near Candidate Noise Management Areas (CNMAs) and Candidate Quiet Areas (CQAs) will not be permitted where this is likely to contribute to a significant increase in exposure to noise or a deterioration of noise conditions in these areas, or where this will reduce the size of, or cause an increase in the noise level within, the CQA. Further information on NIAs, CNMAs and CQAs, including maps of these areas, can be found in the relevant Supplementary Guidance which should be read in conjunction with this policy.	
Aberdeen City Council Supplementary Guidance	To provide guidance on policy implementation and forms part of the Development Plan and is a material consideration in the determination of planning applications.	Much of the Supplementary Guidance is relevant to the Beachfront Development Framework. A full list can be found on the Aberdeen City Council website at <u>https://www.aberdeencity.gov.uk/services/planning- and-building/local-development-plan/aberdeen- local-development-plan/supplementary-guidance- and-technical-advice#995</u>
Destination Aberdeen & Aberdeenshire Tourism Strategy (2018-2023)	Destination Aberdeen and Aberdeenshire Tourism Strategy 2018-2023 outlines the region's tourism ambition.	The Beachfront Development Framework should contribute to Tourism Strategy.
Aberdeen City Centre Masterplan	The Aberdeen City Centre Masterplan (CCMP) is a regeneration blueprint that is transforming the city centre while conserving its heritage. The goal is greater prosperity and a better quality of life for all.	The Beachfront Development Framework should contribute to delivering the actions proposed in the City Centre Masterplan
Aberdeen City Local Transport Strategy 2016 - 2021	Ensures the Local Development Plan takes full account of the environment, social and economic implications of transport; Promotes the maximisation of accessibility for all to services and jobs; sustainable and active travel, efficient resource use, as well as safety in delivering transportation.	The Beachfront Development Framework should consider the integration of LTS objectives, actions and committed projects into project.

Aberdeen City Air Quality

Action Plan

To reduce nitrogen dioxide within the Air Quality Management Area	The Beachfront Development Framework should
(AQMA) in Aberdeen City Centre, and to a lesser extent reduce	contribute to delivering the actions proposed in the
particulates (PM ₁₀) through short, medium and long-term	Action Plan in order to improve air quality with the
infrastructure and other projects.	AQMA and ensure land required to implement the
	Action Plan is provided timeously
Obesity is one of the contributing factors to the development of	The Beachfront Development Framework will

	infrastructure and other projects.	AQMA and ensure land required to implement the Action Plan is provided timeously
Aberdeen City Health & Social Care Partnership Strategic Plan 2019-2022	Obesity is one of the contributing factors to the development of type 2 diabetes which can lead to other negative impacts on a person's health. Promoting a healthy diet and weight and increasing opportunities for physical activity will go some way to offset these effects.	The Beachfront Development Framework will contribute to the encouragement of physical activity.
Local Outcome Improvement Plan 2016-26	 The vision is for Aberdeen to be 'a place where all people prosper'. Four themes are set out: Prosperous Economy, Prosperous People, Prosperous Place and Enabling Technology. It focuses on four priority areas for strategic partnership working: Aberdeen prospers Children are our future People are resilient, included and supported when in need Empowered, resilient and sustainable communities Creating a digital place 	The Beachfront Development Framework should support the themes and priority aims set out in the LOIP.
Aberdeen Socio-Economic Rescue Plan 2020/21	The Plan is an immediate and dynamic response to the impact of Covid19, and aligns with the LOIP strategic themes of Economy, People and Place. While it focuses on immediate actions, it informs the scheduled refresh of the LOIP in 2021.	The Beachfront Development Framework will take cognisance of the Rescue Plan.
Net Zero Aberdeen Routemap - towards becoming a net zero emissions city by 2045	The Net Zero Aberdeen Routemap - towards becoming a net zero emissions city by 2045 outlines how the city will adapt to changing climate conditions in the coming decades, focusing on six key theme strategies: mobility; buildings and heat; the circular economy; energy supply; the natural environment; and community empowerment.	The Beachfront Development Framework should support the theme strategies set out in the Net Zero Routemap
Aberdeen City Council Climate Change Plan 2012-25	The Plan sets out the approach, pathway and actions towards net zero and climate-resilient Council assets and operations, by 2045.	The Beachfront Development Framework should support the themes and priority aims set out in the Climate Change Plan.
Aberdeen Adapts: Climate Adaptation Framework	Aberdeen Adapts is a framework for city-wide working on adaptation. Incorporating the views of local organisations and communities, it sets the direction to build long-term city resilience.	The Beachfront Development Framework should ensure the Climate Adaption Framework is considered.

Aberdeen Electric Vehicle

Framework

The purpose of the EV framework for Aberdeen from 2020 to 2030	The Beachfront Development Framework should
is to encourage and actively cater for greater uptake of electric	ensure the EV framework is considered.
vehicles in the city and will support relevant national, regional and	
local strategies.	

	vehicles in the city and will support relevant national, regional and	
Granite City Growing, Aberdeen's food-growing strategy	'Granite City Growing: Aberdeen Growing Food Together 2020' is Aberdeen's first food growing strategy and has been co-produced with a range of community groups and key stakeholders.	The Beachfront Development Framework should ensure the EV framework is considered.
Aberdeen Nature Conservation Strategy	The strategy aims To conserve Aberdeen City's natural heritage for the benefit of our biodiversity, citizens and visitors, for current and future generations	The Beachfront Development Framework will consider the Granite City Growing strategy where practicable.
Open Space Audit and Strategy 2011-2016	Aberdeen City's Open Space Strategy sets out a vision and aims to improve the quality of our open spaces in the city. There is growing evidence that quality and accessible open spaces contribute towards improving health, economy, environment and wellbeing. It promotes sustainable development and helps in mitigating the impacts of climate change such as flooding and air pollution and provides green networks by linking various habitats benefiting biodiversity.	Ensure that the Beachfront Development Framework incorporates the findings of the Open Space Strategy audit and supports the aims of the strategy.
Aberdeen City Core Paths Plan (CPP)	The vision for Aberdeen's CPP is to "form a complete paths network throughout the City, encouraging healthy and sustainable access opportunities.	The objectives of the CPP should be considered in the Beachfront Development Framework and opportunities to enhance local core paths and active travel routes. The Core Paths Plan identified core paths within the Beachfront Development Framework boundary
Landscape Character Assessment: Aberdeen City - Landscape Evolution and Influences	This document provides information on how the landscape of the local authority area has evolved. It complements the Landscape Character Type descriptions of the 2019 dataset. The original character assessment reports are part of a series of 30.	The Beachfront Development Framework should take account of landscape character and promote good landscape design.
	mostly for a local authority area.	
Aberdeen City Waste Strategy 2014-25	Sets out the long-term plans to reduce the social, economic and environmental consequences of waste. It aims for Aberdeen to see waste as a resource and not a problem, and for it to be a zero- waste city, providing long-term social, economic and environmental benefits to all.	The Beachfront Development Framework could attract an increased quantity of visitors and tourists which makes it more prone to litter and waste. The Beachfront Development Framework should be cognisant of the objectives outlined in the ZWS plan, and adapt accordingly in order to contribute to them.

C ENVIRONMENTAL BASELINE APPRAISAL



Aberdeen Beachfront Development Framework Environmental Baseline Appraisal



September 2022

Aberdeen Beachfront Development Framework Environmental Baseline Appraisal

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Contents

1	Introduction	. 1
2	Site Setting and Proposed Development Framework	. 2
3	Environmental Baseline	. 5
4	Population and Human Health	. 6
5	Biodiversity	15
6	Geology and Soil	22
7	Water	25
8	Archaeology and Cultural Heritage	41
9	Landscape and Visual	45
10	Air	48
11	Noise	55
12	Climate Change	59
13	Material Assets	62
14	Aspects of Environment Potentially Affected and Potential Mitigation Measures During Design an	۱d
	Construction Phases	63
15	Conclusions	68

Appendices

- A Preliminary Ecological Appraisal (PEA)
- B Tree Survey

Figures

Figure 2-1: Aberdeen Beachfront Development Plan Boundary	2
Figure 2-2: Conceptual Masterplan (Rope Works)	4
Figure 4-1: Scottish Index of Multiple Deprivation Data Zones	6
Figure 4-2: Scottish Index of Multiple Deprivation Zones - Seaton and Hanover South	7
Figure 4-3: Aberdeen City: Birth by Age Group by Year 2018 and 2028	10
Figure 4-4: Aberdeen City: Male Leading Causes of Death. 2020	11
Figure 4-5: Aberdeen City: Female Leading Causes of Death. 2020	12
Figure 4-6: Core Path Network	13
Figure 5-1: Ythan Estuary, Sands of Forvie and Meikle Loch SPA and extension	16
Figure 5-2: River Dee Special Area of Conservation	17
Figure 7-1: Natural Drainage Features	26
Figure 7-2: Scottish Water Records	27
Figure 10-1: Aberdeen City Council AQMA and Location of Diffusion Tubes	49
Figure 10-2: Aberdeen City Council AQMA and Location of Continuous Monitoring Sites	50
Figure 10-3: Map of the Low Emission Zone (LEZ)	51
Figure 11-1: Candidate Noise Management Area in Proximity to the Proposed Development	55
Figure 11-2: Candidate Quiet Areas	56
Figure 11-3: Consolidated Day, Evening and Night (Lden)	56
Figure 12-1: UK Government, Local Authority CO2 emissions 2005-2019 national statistics	59

Tables

Table 4-2: Total population, Aberdeen City, 1998-20208Table 4-3: Projected population change by age group, Aberdeen City, 2018 and 202810Table 6-1: Soil Classification22Table 7-1: Tidal Water Levels at Aberdeen30Table 7-2: Extreme Sea Levels at Aberdeen Beach31Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach31Table 7-4: Water Classification32Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 4-1: Scottish Index of Multiple Deprivation Zones - Seaton and Hanover South	7
Table 4-3: Projected population change by age group, Aberdeen City, 2018 and 202810Table 6-1: Soil Classification22Table 7-1: Tidal Water Levels at Aberdeen30Table 7-2: Extreme Sea Levels at Aberdeen Beach31Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach31Table 7-4: Water Classification32Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 4-2: Total population, Aberdeen City, 1998-2020	8
Table 6-1: Soil Classification22Table 7-1: Tidal Water Levels at Aberdeen30Table 7-2: Extreme Sea Levels at Aberdeen Beach31Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach31Table 7-4: Water Classification32Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 4-3: Projected population change by age group, Aberdeen City, 2018 and 2028	10
Table 7-1: Tidal Water Levels at Aberdeen30Table 7-2: Extreme Sea Levels at Aberdeen Beach31Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach31Table 7-4: Water Classification32Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 6-1: Soil Classification	22
Table 7-2: Extreme Sea Levels at Aberdeen Beach31Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach31Table 7-4: Water Classification32Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 7-1: Tidal Water Levels at Aberdeen	30
Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach31Table 7-4: Water Classification32Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 7-2: Extreme Sea Levels at Aberdeen Beach	31
Table 7-4: Water Classification32Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach	31
Table 7-5: Aberdeen Bathing Waters33Table 7-6: General Binding Rules37Table 10-1: Aberdeen City Council AQMA48Table 10-2: Vehicle types within scope of the LEZ52Table 10-3: National Exemptions53Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO259Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During64	Table 7-4: Water Classification	32
Table 7-6: General Binding Rules	Table 7-5: Aberdeen Bathing Waters	33
Table 10-1: Aberdeen City Council AQMA 48 Table 10-2: Vehicle types within scope of the LEZ 52 Table 10-3: National Exemptions 53 Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO2 59 Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During 64	Table 7-6: General Binding Rules	37
Table 10-2: Vehicle types within scope of the LEZ 52 Table 10-3: National Exemptions 53 Table 12-1: CO ₂ emission estimates for the City of Aberdeen, all measures in ktCO ₂ 59 Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During 64	Table 10-1: Aberdeen City Council AQMA	48
Table 10-3: National Exemptions 53 Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO2 59 Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During 64	Table 10-2: Vehicle types within scope of the LEZ	52
Table 12-1: CO2 emission estimates for the City of Aberdeen, all measures in ktCO2	Table 10-3: National Exemptions	53
Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures DuringDesign and Construction Phases64	Table 12-1: CO ₂ emission estimates for the City of Aberdeen, all measures in ktCO ₂	59
Design and Construction Phases	Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During	
	Design and Construction Phases	64

1 INTRODUCTION

1.1 Terms of Reference

This Environmental Baseline Appraisal provides a desk-based study of the potential for the Aberdeen City Council Beachfront Development Framework to have significant environmental effects on the site and surrounding environment. The baseline appraisal is supplemented by the initial findings of the ecological fieldwork.

1.2 Scope of Report

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre.

If this report is to be submitted for regulatory approval more than 12 months following the report date, it is recommended that it is referred to EnviroCentre for review to ensure that any relevant changes in data, best practice, guidance or legislation in the intervening period are integrated into an updated version of the report.

Whilst the Client has a right to use the information as appropriate, EnviroCentre Ltd retain ownership of the intellectual content of this report. Any distribution of this report should be controlled to avoid compromising the validity of the information or legal responsibilities held by both the Client and EnviroCentre Ltd (including those of third-party copyright). EnviroCentre do not accept liability to any third party for the contents of this report unless written agreement is secured in advance, stating the intended use of the information.

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2 SITE SETTING AND PROPOSED DEVELOPMENT FRAMEWORK

2.1 Location

The Aberdeen Beachfront Development Framework Area is located to the north-east of the city centre connected by the primary route of Beach Boulevard which links the Beachfront to Justice Street and on to Castlegate. The site is bounded to the east by the North Sea; to the south is Codona's amusement park and a mixture of commercial, hospitality and retail uses; to the west of the site there are existing hotel and leisure units with a mix of residential typologies beyond; and to the north is the Kings Links Golf Course. The area of the proposed site is approximately 50 hectares (Figure 2-1).





The site is currently occupied by existing entertainment and leisure facilities, namely Aberdeen Beach Ballroom, Linx Ice Arena, and the Beach Leisure Centre; public space, Queens Links including Queens Links Play Park and Crescent Cricket Club's Cricket Pitch; existing landscape features such as the beach and Broad Hill; and a series of existing vehicular routes including Beach Boulevard, Esplanade and Links Road. There are a number of separate uses bordering the Development Framework area which will require consideration as part of the proposals: to the west of the area are two sites owned by Aberdeen City Council but on long-term leases to a hotel operator and extreme sports venue; to the north is a site under separate ownership which is operating as golf driving range; to the south is an amusement park owned and operated by Codona's. There are a series of small-scale structures and pavilions situated across the Development Framework area which will also need to be considered as part of the proposals.

2.2 Aberdeen Beachfront Development Framework

The Beachfront Development Framework seeks to set forth an overall design approach and key design principles which form a coherent strategy for Aberdeen Beachfront. When complete, this area will be a unique and world-leading leisure destination and as such it's important strategic location must be considered and a long-term vision for the area created.

The Framework has been developed in accordance with the guidance contained within Aberdeen City Council's 'Masterplanning Process' document to ensure an appropriate process of consultation and feedback is developed and is incorporated as the document evolves. Key to the process has been the creation of a clear organisational principle.

Due to the nature of masterplanning and the scale of the proposals, the detail of the individual elements of the design will inevitably evolve over time, however, by establishing a clear structure these changes can be accommodated whilst retaining an overall clarity and coherence to the place. The Framework provides the basis for more detailed proposals to come forward in the future.

The Development Framework:

- Provides an overall vision for the area whilst also allowing for flexibility and differing approaches;
- Establishes a clear and coherent spatial structure which can accommodate change in the long term as detailed proposals emerge;
- Describes character areas and areas of potential intervention;
- Sets out strategic transport proposals in terms of access and connectivity; and
- Illustrates the general directions and phasing of development within the area.

Aims

Key aims of the initial Beachfront project Brief as identified with Aberdeen City Council include:

- The importance of the re-imagined Beach Ballroom, including a desire to return it to its former glory when it was known as the 'People's Ballroom'. This needs to recognise the building's heritage and historic significance whilst equipping it for the future as a modern events venue;
- The potential to share/link facilities associated with the potential new Stadium and Leisure facilities to support joint funding with the potential Stadium Anchor tenant and realise economies of scale;
- A desire for a dynamic waterfront making the most of the beach and considering support facilities such as changing accommodation/beach huts and a potential pier structure;
- Excellent, high-quality public realm;
- Leisure activities that are inclusive and accessible to all income groups that may visit the Beachfront;
- Access and Connectivity between the Beachfront and the City Centre;
- Infrastructure, including traffic management that reduces the impact of the existing road network to promote alternative forms of travel, including cycling, whilst improving the public realm; and
- Co-ordination with potential flood/sea defence works planned for the area.

Page 279

Proposed Character Areas

Several broad character areas have been identified across the Framework area which reflect a variety of anticipated approaches and identities. These will be progressed and refined at subsequent masterplan phases. The following character areas have been established:

- Beach Ballroom;
- Urban Park;
- Potential Stadium and Leisure;
- Esplanade;
- Broad Hill;
- Beach Village; and
- Beach Boulevard.

Each character area posits design principles and approaches which give definition to the spaces whilst retaining flexibility to allow for the brief of each area to evolve with any future refinement (Figure 2-2)

Figure 2-2: Conceptual Masterplan (Rope Works)



KEY:

- 1. BEACH BALLROOM
- 2. HIDDEN GARDEN
- 3. POTENTIAL STADIUM & LEISURE
- 4. PUBLIC PLAZA
- 5. URBAN PARK
- 6. PUBLIC SPACE
- 7. AMPHITHEATRE 8. MOUNDING
- 9. PAVILION
- 10. WATER FEATURE
- 11. PEDESTRIANISED BOULEVARD
- 12. PIER
- 13. ESPLANADE
- 14. SLIPWAY
- 15. SURF PAVILION

3 ENVIRONMENTAL BASELINE

The proposed Beachfront Development Framework has been considered against the environmental setting of the site and its surrounds. This has been undertaken through a review of publicly available desktop information.

The specific topic areas which have been considered are as follows:

- Population and Human Health
- Biodiversity;
- Land;
- Soil and Geology;
- Water;
- Cultural Heritage;
- Landscape;
- Air;
- Climate; ; and
- Material Assets and Waste.

The following sections note some of the local sensitivities apparent from a high review of available information and data.

4 POPULATION AND HUMAN HEALTH

4.1.1 Description of Local Environment

4.1.2 Scottish Index of Multiple Deprivation (SIMD)

The Scottish Index of Multiple Deprivation (SIMD) is the Scottish Government's official tool for identifying small area concentrations of multiple deprivation across all of Scotland

The Scottish Index of Multiple Deprivation (SIMD) uses several measures to understand the relative deprivation of areas across Scotland. This is not only in terms of 'low income' but can be people who have fewer resources or opportunities in health and education. SIMD ranks data zones from most deprived (ranked 1) to least deprived (ranked 6,976), where 1 is within '10% most deprived areas' and 10 is within '10% least deprived area.

Aberdeen City is one of six Council Areas which includes North Lanarkshire, Moray, East Lothian, Highland and North Ayrshire which have a larger share of the 20% most deprived data zones in Scotland Compared with SIMD 2016. levels of deprivation have increased in Aberdeen City. None of these increases are greater than 2 percentage points.

The Beachfront Development Framework area comprises two data zones, Seaton (S01006666) and Hanover South (S01006640) (Figure 4-1). The Seaton data zone is ranked 973 out of Scotland's 6,976 data zones, while Hanover South is ranked 5,973.



Figure 4-1: Scottish Index of Multiple Deprivation Data Zones

Figure 4-2 and Table 4-1 indicates that Seaton is within Decile 2, Quintile 1 which is one of the more deprived areas, while Hanover South is within Decile 9, Quintile 5 is one of the least deprived areas.



Table 4-1: Scottish Index of Multiple Deprivation Zones - Seaton and Hanover South

Data Zone	Intermediate Zone	Total population	Working age population	SIMD 2020 Rank	Income Domain Rank	Employment Domain Rank	Health Domain Rank	Education Domain Rank	Access Domain Rank	Crime Domain Rank
S01006666	Seaton	1001	694	973	1033	956	855	1419	4581	629
S01006640	Hanover South	822	743	5973	5695	6491	6692	3610	4951	2794

4.1.3 Aberdeen City Population

On 30th June 2020, the population of Aberdeen City was 229,060¹ over an area of 186 km² (18,600 ha). This results in a population density of 12.3 people per hectare.

There was an increase of 0.2% from 228,670 in 2019. Aberdeen City had the 8th highest population in 2020, out of all 32 council areas in Scotland.²

Between 1998 and 2020, the population of Aberdeen City has increased by 6.2%. This is the 16th highest percentage change out of the 32 council areas in Scotland. Over the same period, Scotland's population rose by 7.7% (Table 4-2).

Year	Population	% change from 1998	Scotland % change from 1998
1998	215,650	0.0	0.0
1999	214,630	-0.5	-0.1
2000	213,340	-1.1	-0.3
2001	211,910	-1.7	-0.3
2002	210,680	-2.3	-0.2
2003	209,280	-3.0	-0.2
2004	207,820	-3.6	0.1
2005	208,690	-3.2	0.7
2006	209,630	-2.8	1.1
2007	212,470	-1.5	1.8
2008	214,020	-0.8	2.5
2009	217,020	0.6	3.0
2010	219,730	1.9	3.6
2011	222,460	3.2	4.4
2012	224,910	4.3	4.7
2013	227,070	5.3	4.9
2014	228,920	6.2	5.3
2015	230,350	6.8	5.8
2016	229,840	6.6	6.5
2017	228,800	6.1	6.8
2018	227,560	5.5	7.1
2019	228,670	6.0	7.6
2020	229,060	6.2	7.7

 Table 4-2: Total population, Aberdeen City, 1998-2020

In 2020, there were more females (50.2%) than males (49.8%) living in Aberdeen City. There were also more females (51.2%) than males (48.8%) living in Scotland overall.

Between 2018 and 2028, the population of Aberdeen City is projected to increase from 227,560 to 230,170. This is an increase of 1.1%, which compares to a projected increase of 1.8% for Scotland as a whole.

¹ <u>https://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/mid-2020</u>

² <u>https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/aberdeen-city-council-profile.html#:~:text=Population%20Estimates,-</u>

 $[\]label{eq:last} \underline{Last\%20updated\%3A\%20June\&text=On\%2030\%20June\%202020\%2C\%20the.of\%20Scotland\%20increased\%20} \\ \underline{by\%200.0\%25.\&text=Aberdeen\%20City\%20had\%20the\%208th.32\%20council\%20areas\%20in\%20Scotland}.$

Over the next 10 years, the population of Aberdeen City is projected to increase by 0.1% due to natural change (more births than deaths). Total net migration (net migration within Scotland, from overseas and from the rest of the UK) is projected to result in a population increase of 1.0% over the same period.

Between 2018 and 2028, the 0 to 15 age group is projected to see the largest percentage decrease (-3.2%) and the 75 and over age group is projected to see the largest percentage increase (+16.1%). In terms of size, however, 25 to 44 is projected to remain the largest age group.

The development framework proposals will provide long-term significant benefits for the area that will arise through the provision of high-quality amenities. The development principle is to develop a world-class sport, leisure and tourism destination which would revitalise the Beachfront area and reconnect it to the city centre. Other benefits include the provision of employment and community facilities, integrated transport links, environmental improvements and contributions to the regeneration of related areas. This will ensure the key elements of a sustainable community are looked at holistically.

4.1.4 Migrant Population

In 2019-20, Aberdeen City had the 12th highest level of net migration out of the 32 council areas in Scotland, with a net total of 500 people. This is a decrease of 310 from 810 people in 2018-19³.

Net migration is the difference between in-migration (those coming into an area) and out-migration (those leaving an area). Positive net migration means in-migration is higher than out-migration. Negative net migration means out-migration is higher than in-migration.

In Aberdeen City, the net migration rate decreased from 3.5 people per 1,000 population in 2018-19 to 2.2 in 2019-20. In comparison, the rate in Scotland overall decreased from 5.5 to 3.1 people per 1,000 population.

In 2019-20, Aberdeen City was the council area with the 17th highest net migration rate, out of all 32 council areas in Scotland. Between 2018-19 and 2019-20, 24 councils saw a decrease in net migration rates per 1,000 population and 8 councils saw an increase.

In the period 2019-20, net migration in Aberdeen City was higher for females (322) than for males (180). The age group with the highest level of total net migration was 15 to 19 (1,034). In contrast, the age group with the lowest level of net migration was 30 to 34 (-310).

4.1.5 Ageing Population

In terms of overall size, the 25 to 44 age group was the largest in 2020, with a population of 75,582. In contrast, the 75 and over age group was the smallest, with a population of 16,241. In 2020, more females than males lived in Aberdeen City in 4 out of 6 age groups.

Between 1998 and 2020, the 16 to 24 age group saw the largest percentage decrease (-16.5%). The 45 to 64 age group saw the largest percentage increase (+16.4%).

Between 2018 and 2028, the 0 to 15 age group is projected to see the largest percentage decrease (- 3.2%) and the 75 and over age group is projected to see the largest percentage increase (+16.1%). In

³ <u>https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/aberdeen-city-council-profile.html#migration</u> (Accessed 15/05/2022)

terms of size, however, 25 to 44 is projected to remain the largest age group (Figure 4-3 and Table 4-3).⁴





Age group	2018	2028	% change	Scotland % change
All people	227,560	230,170	1.1	1.8
0 to 15	34,833	33,702	-3.2	-6.0
16 to 24	27,357	28,713	5.0	-0.9
25 to 44	75,101	73,500	-2.1	3.1
45 to 64	54,737	53,329	-2.6	-5.5
65 to 74	19,297	22,077	14.4	14.4
75 and over	16,235	18,849	16.1	25.4

In Aberdeen City, life expectancy at birth was higher for females (81.3 years) than for males (76.9 years) in 2018-20.⁵

In Aberdeen City, life expectancy at birth is higher than at Scotland level for both females and males.

Over the period between 2001-03 and 2018-20, female life expectancy at birth in Aberdeen City has risen by 1.6%. This is the 2nd lowest percentage change out of all 32 council areas in Scotland and this is lower than the percentage change for Scotland overall (+2.7%).

Over the period between 2001-03 and 2018-20, male life expectancy at birth in Aberdeen City has risen by 3.8%. This is the joint 20th highest percentage change out of all 32 council areas in Scotland and this is lower than the percentage change for Scotland overall (+4.5%).

In Aberdeen City, life expectancy at age 65-69 was higher for females (20.0 years) than for males (17.3 years) in 2018-20. Male life expectancy at age 65-69 has increased more rapidly than female life expectancy at age 65-69 between 2001-03 and 2018-20.

⁴ <u>https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/aberdeen-city-council-profile.html#table_pop_proj_age</u> (Accessed 15/05/2022)

⁵ <u>https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/aberdeen-city-council-profile.html#life_expectancy</u> (Accessed 15/05/2022)

In Aberdeen City, female life expectancy at age 65-69 is higher than at Scotland level and male life expectancy at age 65-69 is lower than at Scotland level.

Over the period between 2001-03 and 2018-20, female life expectancy at age 65-69 in Aberdeen City has risen by 6.6%. This is the 29th highest percentage change out of all 32 council areas in Scotland and this is lower than the percentage change for Scotland overall (+9.2%).

Over the period between 2001-03 and 2018-20, male life expectancy at age 65-69 in Aberdeen City has risen by 11.3%. This is the 2nd lowest percentage change out of all 32 council areas in Scotland and this is lower than the percentage change for Scotland overall (+16.3%).

4.1.6 Health

In Aberdeen City, the standardised death rate increased from 10.8 per 1,000 population in 2019 to 11.0 in 2020. In comparison, the rate in Scotland overall increased from 10.6 to 12.0.

In 2020, Aberdeen City was the council area with the 27th highest standardised death rate. Between 2019 and 2020, 2 councils saw a decrease in standardised death rate and 30 councils saw an increase.

In Aberdeen City, the leading cause of death for males in 2020 was ischaemic heart diseases (13.8% of all male deaths), followed by lung cancer (7.8%). In Scotland overall, the leading cause of death for males was also ischaemic heart diseases (14.1%), followed by dementia and Alzheimer's disease (7.7%) (Figure 4-4).⁶

Figure 4-4: Aberdeen City: Male Leading Causes of Death. 2020



In Aberdeen City, the leading cause of death for females in 2020 was dementia and Alzheimer's disease (15.0% of all female deaths), followed by ischaemic heart diseases (8.4%). In Scotland overall, the leading cause of death for females was also dementia and Alzheimer's disease (14.2%), followed by ischaemic heart diseases (8.6%) (Figure 4-5).

⁶ <u>https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/aberdeen-city-council-profile.html#deaths</u> (Accessed15/05/2022)



Figure 4-5: Aberdeen City: Female Leading Causes of Death. 2020

Scotland has seen increasing levels of obesity over the past ten years and currently one in four adults (25%) in Aberdeen City are obese.⁷ Clinical obesity increases the risk of ill-health and premature death, and is, therefore, an important driver of life expectancy.

In Aberdeen, there are over 55 sites where the Council monitors air quality. These include simple measuring devices and 6 highly sophisticated automatic monitoring sites that work 24 hours a day, 7 days a week. The automatic monitors measure Nitrogen Dioxide (NO2) and Fine particles (PM10 and PM2.5) and are located at Union Street, Market Street, Anderson Drive, Errol Place, King Street and Wellington Road.

Air quality in most parts of Aberdeen is good and unlikely to cause any major health problems. However, there are hot spots of raised nitrogen dioxide, PM10 and PM2.5 levels around busy roads and particularly in the city centre. The raised pollution level is caused by traffic congestion and the number and type of vehicles on our roads.

If an air quality objective is exceeded, or predicted to be exceeded, then the authority must declare the affected area an Air Quality Management Area (AQMA). The Council has declared the following AQMA's due to Nitrogen Dioxide (NO2) and Particulate Matter (PM10) exceedances:

- City Centre
- Anderson Drive/Haudagain/Auchmill Road corridor
- Wellington Road (Queen Elizabeth II Bridge to Balnagask Road)

If health is good, the level of air pollution usually experienced is unlikely to have any serious short-term effects, but on rare occasions when pollution levels are high, some people may feel eye irritation, and others may start to cough or have difficulty breathing. Those likely to be more sensitive include people who suffer from heart and lung disease, including asthma and bronchitis, especially young children and the elderly.

Refer to Section 10 for more details on Air Quality.

4.1.7 Transport

The area has good access to bus, walking and cycling routes and will provide an excellent opportunity for the provision of new infrastructure. The enhancements will benefit the wider area. Viewed in the

⁷ Source: Scottish Health Survey, local authority results 2014-17 inclusive, published 2017

https://www.gov.scot/publications/scottish-health-survey-results-local-areas-2014-2015-2016-2017/ (Accessed 15/05/2022)
context of conventional appraisal techniques and when compared to many other UK cities, Aberdeen Beachfront is not physically distant from the city centre or the key transport corridors that serve it. Contemporary journey planning software shows the Beach Ballroom, a prominent feature of the Beachfront area, to be 1.7km from the junction of Union Street and Union Terrace Gardens – a location that may be judged to represent Aberdeen city centre. At typical walking speed, a distance of 1.7km equates to a journey time of 24 minutes, matching the journey time on foot from Aberdeen railway and bus stations at Union Square. A wider accessibility appraisal shows that the Beachfront is located within 700m of the King Street corridor, equating to a journey time on foot of approximately 15 minutes.

4.1.8 Core Paths

There is a general right of access on foot in Scotland to most areas of land.

The following core paths are in the area.

- Seaton to Aberdeen Beach
- University to Beach via Linksfield and Broad Hill
- Beach Esplanade Bridge of Don to Footdee
- Aberdeen Beach to City Centre
- River Don to City Centre

Figure 4-6: Core Path Network



4.1.9 Potential Environmental Effects

The development framework proposals will provide potential long-term health and economic benefits for the area that will arise through the provision of high-quality amenities, and the promotion of active travel and tourism. The development principle is to develop a world-class sport, leisure and tourism destination which would revitalise the Beachfront area and reconnect it to the city centre. Other benefits

include the provision of employment and community facilities, integrated transport links, environmental improvements and contributions to the regeneration of related areas. This will ensure the key elements of a sustainable community are looked at holistically.

The development framework incorporates open space, formal recreation and community facilities which offer potential benefits for the population.

The use of core paths will not be restricted as a result of the proposed Beachfront Development Framework.

5 **BIODIVERSITY**

5.1.1 Description of Local Environment

To inform the scoping report a desk study was completed. This involved a search for any statutory and non-statutory designated sites, notable habitats and species within a 5km radius of the site using the following sources:

- NatureScot SiteLink (for information on statutory designated sites);
- National Biodiversity Network's Gateway (NBN Gateway) (for records of protected or notable flora and fauna);
- Scotland's Environment (for information on statutory designated and non-statutory sites);
- Aberdeen City Council Local Development Plan (for non-statutory designated sites); and
- UK Biodiversity Action Plan (BAP) and the North East Scotland Local Biodiversity Action Plan NESLBAP (for priority habitats and species).

The findings of the desk study are presented below.

<u>Desk Study</u>

Special Protection Areas

Adjacent to the Beachfront Development Framework area is the Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA). The Ythan Estuary, Sands of Forvie and Meikle Loch SPA covers a complex area in the north east of Scotland that contains the long, narrow estuary of the River Ythan, the Sands of Forvie on the east bank of the estuary; and the eutrophic Meikle Loch.

Ythan Estuary, Sands of Forvie and Meikle Loch SPA qualifies under Article 4.1 by regularly supporting populations of European importance of the following Annex 1 species:

- Sandwich *tern Sterna sandvicensis* (1989 to 1991, up to 1125 pairs, up to 7% of the GB population);
- Common tern *Sterna hirundo* (1989 to 1993, up to 265 pairs, up to 2% of the GB population); and
- Little tern *Sterna albifrons* (1989 to 1993, up to 41 pairs, up to 2% of the GB population).

The marine component, immediately offshore of the terrestrial area forms the foraging zone for both Sandwich terns and little terns

Ythan Estuary, Sands of Forvie and Meikle Loch SPA further qualifies under Article 4.2 by regularly supporting populations of European importance of the migratory species: pinkfooted goose *Anser brachyrhynchus* (1988/89 to 1992/93 winter peak mean of 17,213 individuals, 9% of the Eastern Greenland/Iceland/UK biogeographic population).

Ythan Estuary, Sands of Forvie and Meikle Loch SPA also qualifies under Article 4.2 by regularly supporting in excess of 20,000 individual waterfowl. During 1988/89 to 1992/93 the site supported a winter peak mean of 26,400 individual waterfowl, comprising 8,000 waders and 18,400 wildfowl including nationally important populations of the following species: pink-footed goose (17,213 individuals, 9% of the GB population) and eider *Somateria mollissima* (winter peak mean of 1,860 individuals, 2% of the GB population).

In the five-year period, 1991/92 to 1995/96, a winter peak mean of 51,265 individual waterfowl was recorded with the assemblage additionally including nationally important populations of redshank *Tringa totanus* (1,149 individuals, 1% of the GB population) and lapwing *Vanellus vanellus* (2,542 individuals, 0.2% of the GB population).

The Beachfront at Aberdeen is adjacent to the extension to this SPA which encompasses the foraging areas potentially used by these terns breeding at this colony (Figure 5-1).





Special Area of Conservation

To the south of the Beachfront Development Framework area is the River Dee Special Area of Conservation (Figure 5-2).



Figure 5-2: River Dee Special Area of Conservation

Source: Scotland's Environment[®]

Annex II species that are a primary reason for the selection of this site are:

- Freshwater pearl mussel (Margaritifera margaritifera);
- Atlantic salmon (Salmo salar); and
- Otter (*Lutra lutra*).

Freshwater pearl mussel

The River Dee is a major east-coast Scottish river, which flows uninterrupted for some 130 km from its upland reaches in the high Cairngorms to the North Sea. It supports a functional population of freshwater pearl mussel, which is common in the Dee, recorded from a location approximately 30 km from the river source to approximately 6-7 km upstream from its mouth. Juveniles make up approximately 30% of the recorded population, among the highest proportions recorded in Scotland. This indicates that the population is recruiting strongly and is one of the most important in the UK.

Atlantic salmon

The River Dee supports a high-quality Atlantic salmon population in a river draining a large catchment on the east coast of Scotland. There is a weak nutrient gradient along its length, but it is essentially a nutrient-poor river. The high proportion of the river accessible to salmon has resulted in it supporting the full range of life-history types found in Scotland, with sub-populations of spring, summer salmon and grilse all being present. The headwaters which drain the southern Cairngorm and northern Grampian mountains are particularly important for multi sea-winter spring salmon, but there has been a significant decline in their abundance in recent years. The extensive areas accessible to salmon mean the River

⁸ <u>https://map.environment.gov.scot/sewebmap</u> (Accessed 27/04/2022)

Dee supports a significant proportion of the Scottish salmon resource. In recent years it has contributed about 4 or 5% of all salmon caught in Scotland.

Otter

The Dee is a major east-coast Scottish river, which flows uninterrupted for some 130 km from its upland reaches in the high Cairngorms to the North Sea. Surveys have indicated that the otter is found throughout the Dee catchment, from its mouth at Aberdeen to many of the high-altitude lochs. The river system contains extensive areas of suitable habitat for otter feeding, resting and breeding, including watercourses with high fish biomass and islands and marshy areas for resting. This is a strong, high-quality population, representative of north-east Scotland.

Other European sites

Due to the projection of the boardwalk and slipway into the marine environment there may be effects on mobile species and other more distant sites which may require to be assessed once design information becomes available, including:

- Moray Firth SAC;
- Fowlsheugh SPA;
- Montrose Basin SPA;
- Isle of May SAC; and
- Berwickshire and North Northumberland Coast SAC.

Sites of Special Scientific Interest (SSSI)

A review of Scotland's Environment Interactive Map indicates that there are no SSSIs in proximity to the Aberdeen Beachfront. Development Framework area.

Local Nature Reserves

A review of Scotland's Environment Interactive Map indicates that there are no Local Nature Reserves in proximity to the area covered by the Aberdeen Beachfront. Development Framework.

The Donmouth Local Nature Reserve 2km north of the site supports waterfowl and seal populations. It is connected to the site via the parkland and green residential garden habitats to the north of the site and the North Sea to the east.

Ancient Woodland

No areas of ancient woodland are present within the site or in close proximity (Refer to Appendix B Tree Survey). The nearest ancient woodland to the site is the long-established (of plantation origin) woodland at Seaton Park 2km northwest of the site. It is ecologically connected to the site by the parkland and green residential garden habitats present to the north and west of the site.

Field Study: Preliminary Ecological Appraisal (PEA)

A Preliminary Ecological Appraisal (PEA) was carried out by EnviroCentre Limited in April 2022 which included a desk study, UK Habitat Classification and Protected and Notable Species Survey. The PEA will be used to inform the SEA Environmental Report and Guide the Beachfront Development Framework.

UK Habitat Classification (UKHAB) Survey

The UKHab is a flexible hierarchical system for rapidly recording and classifying habitats and was used to identify ecologically sensitive features/habitats, to inform relevant species surveys and, aid in the recommendation of mitigation and enhancement measures in connection with a proposed development.

Habitats consisted of grassland (modified and other neutral), young plantation woodland, hardstanding ground, buildings, open water (North Sea), scrub and beach.

The information is used to identify ecologically sensitive features/habitats, inform relevant species surveys and, aid in the recommendation of mitigation and enhancement measures in connection with a proposed development.

The UKHab Survey indicates the site comprises the following habitats:

g3c –	Other neutral grassland;
g4 –	Modified grassland;
h3 -	dense scrub;
u1b –	Developed land; Sealed surface;
u1b5 –	Buildings;
u1e -	Built linear features;
s3a –	coastal sand dunes;
t2 –	littoral sediment; and
w1a6 -	Line of trees

No groundwater Dependent Terrestrial Ecosystems (GWDTEs) were identified during the survey.

Habitats

The North Sea and associated sand and pebble beach are present to the east of the site. The bank between the intertidal sediment (sand) and the built linear feature (Esplanade walkway), has been supported and reinforced with a stone sea wall (as shown in Photograph 10 of the PEA).

Groynes (stone-built structures) are present in the water, perpendicular to the shoreline, implemented as a method for shore protection to reduce longshore drift and trap sediments (as shown in Photograph 11 of Appendix A (Preliminary Ecological Appraisal Appendix I, Photographs)).

A small area of the shore has vegetated sand, which has been previously shaped by the wind and is a remnant of an existing dune feature (<25m²). The species present comprise dominant marram grass (*Ammophila arenaria*) and sand couch grass (*Sporobolus virginicus*), with occasional dandelion, common chickweed, ragwort, cleavers and common haircap moss (*Polytrichum commune*) (Photograph 12). Sand dunes are SBL priority habitats, however the sand dune habitat within the site would not be classed as viable due to it being a small remnant sand dune, with species untypical of that habitat type.

Sand and gravel dominated habitats fall within the Marine and Coastal NESBiP priority habitat. Therefore, beaches are of Regional importance.

Six primary habitats are present within the site, comprising grassland, woodland, trees, buildings, built linear features and beach habitats. A small remnant sand dune is also present within the beach habitat but is not considered a viable size for inclusion as a Scottish Biodiversity List (SBL) priority habitat.

Buddleja, a non-native invasive species, was identified within and adjacent to the site during the survey at many locations. A management plan should be devised for Buddleja.

Faunal Interest

Faunal species are transient and can move between favoured habitats regularly throughout and between years. Surveys were undertaken which provide a snapshot of field signs present in the survey area in April 2022.

The following was identified during the survey.

Buildings within and adjacent to the site and the footbridge over Commerce Street and Railway bridge under Beach Boulevard Road have Potential Roost Features (PRFs) and are considered to offer **low-moderate** suitability for roosting bats. Some of the mature broadleaf trees on site displayed PRFs and are considered to offer **low** suitability for roosting bats.

A badger sett and diagnostic evidence of badger (digging, snuffling, guard hairs on breach point etc.) were identified.

During the desk study records were returned for bottle-nosed dolphin (*Tursiops truncatus*), Harbour porpoise (*Phocoena phocoena*), Common dolphin (*Delpinus delphis*), Risso's dolphin (*Grampus griseus*), White-beaked dolphin (*Lagenorhynchus albirostris*), Humpback whale (*Megaptera novaeangliae*), Long-finned pilot whale (*Globicephala melas*), Minke whale (*Balaenoptera acutorostrata*), grey seal (*Halichoerus grypus*), harbour seal (*Phoca vitulina*), Atlantic white-sided dolphin (*Lagenorhynchus acutus*), Killer whales (*Orcinus orca*), Sperm whale (*Physeter microcephalus*) and Fin whale (*Balaenoptera physalus*). No direct sightings of any marine mammals were observed during the survey undertaken in April 2022.

Bird nests were identified in trees and on buildings during the survey and the site provides suitable habitat for a range of bird species.

Rabbit warrens are present in grassland areas throughout the site and rabbit activity within the site was high. A potential fox den was identified in the north-west of the site.

No evidence of otter, red squirrel or hedgehog was recorded within the survey area, however suitable habitat exists for these species within and adjacent to the site.

Carefully designed planting should be considered for both badgers and bats to create natural screens and buffer zones to minimise disturbance, whilst providing a green network corridor.

5.1.2 Potential Environmental Effects

The development framework area is of intrinsic low ecological and nature conservation value. The development framework proposals will have a cumulative positive impact by providing new green networks, particularly SUDs which will benefit biodiversity.

Faunal interest is limited to the presence of a badger set on site (the location of which is confidential) and bat roost potential. The potential impact on these species will be reported in the Environmental Report and mitigation measures included as required. The development framework includes landscaping proposals for woodland planting to provide screening and ecological enhancement. These measures will have beneficial positive impacts and will assist in increasing biodiversity interest of the area in the long term.

5.1.3 Relevant Guidance

Ecological Impact Assessment (EcIA) to be carried out in accordance with CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine;

EcIA should also consider the following:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- The Nature Conservation (Scotland) Act 2004;
- The Wildlife and Natural Environment (Scotland) Act 2011 (WANE);
- The Protection of Badgers Act 1992;
- The British Standard for Biodiversity;
- The Scottish Biodiversity Strategy;
- Scottish Planning Policy (2014);
- The Marine (Scotland) Act 2010;
- The European Commission Habitats Directive (1991);
- The Aberdeen City Local Development Plan⁹;
- Aberdeen City Council Aberdeen Beachfront Project Development Framework; and
- North East Scotland Biodiversity Partnership¹⁰.

⁹ <u>https://www.aberdeencity.gov.uk/services/planning-and-building/local-development-plan/aberdeen-local-development-plan</u> (Accessed April 2022)

¹⁰ <u>https://www.nesbiodiversity.org.uk/</u> (Accessed April 2022)

6 GEOLOGY AND SOIL

6.1.1 Description of Local Environment

Bedrock Geology

The Preliminary Drainage Strategy Plan prepared by Goodson Associates (January 2022) on Behalf of Aberdeen City Council indicates the bedrock geology comprises 'Brig O' Balgownie Formation' - Conglomerate and [subequal/subordinate] sandstone, interbedded. Sedimentary bedrock was formed approximately 393 to 419 million years ago in the Devonian Period. The local environment was previously dominated by rivers and alluvial fans. These sedimentary rocks are fluvial in origin. They are detrital, generally coarse-grained and form beds and fans of deposits where rivers flow from upland valleys onto lowland plains.

Superficial Geology

The eastern section of the site comprises Blown Sand - Sand. Superficial Deposits formed up to 3 million years ago in the Quaternary Period. Local environment previously dominated by wind-blown deposits. These sedimentary deposits are aeolian in origin. They are detrital, comprising medium- to fine- grained materials, forming lenses, beds (and locally) dunes.

The geology to the west of the site comprises Raised Tidal Flat Deposits - Clay, Silt And Sand superficial deposits formed up to 3 million years ago in the Quaternary Period. Local environment previously dominated by shorelines. These sedimentary deposits are shallow-marine in origin. They are detrital, generally coarse-grained forming beaches and bars in a coastal setting.

Soil

The National soil map of Scotland indicates that local soils consist primarily of immature soils with 'Links' Soil Association) (Table 6-1).¹¹

Generalised Soil Type	Immature soils
Major Soil Group	Regosols
Major Soil Subgroup	Regosols
Parent Material	Windblown sands
Soil Association	Links
Component Soils	Regosols
Land Form	Beaches and dunes with gentle and strong slopes

Table 6-1: Soil Classification

Links soils are represented by a broad class of shallow or weakly developed soils including alluvial soils, soils developed on coastal dunes and in relatively flat areas of blown sand, called links or machair ion Scotland and shallow soils resting almost directly onto rock or shattered rock. Such soils are distributed throughout almost the entire range of environmental conditions within Scotland and are generally classified according to their parent material; rather than by processes of soil formation¹².

Regosols are soils developed on unconsolidated material and can often have a weakly developed mineral 'A' horizon.

¹¹ <u>https://map.environment.gov.scot/Soil_maps/?layer=1</u> (Accessed (20/01/2022)

¹² https://www.hutton.ac.uk/learning/exploringscotland/soils/immaturesoils (Accessed 27/04/2022)

Scotland's Soils interactive map indicates the site topsoil organic carbon concentration is moderate between 1.5 - 3.0% (2.11%).

The majority of the development framework area is identified as having an average topsoil organic content concentration of 2.1% and is noted to range from extremely vulnerable to very vulnerable with respect to risk from subsoil compaction and a moderate risk of topsoil compaction.

The vulnerability of subsoils to compaction is shown in 4 classes: Not particularly vulnerable, Moderately vulnerable, Very vulnerable and Extremely vulnerable. Scotland's Soil map shows subsoil compaction risk is extremely vulnerable in the south of the Beachfront Development Framework area and very vulnerable in the north, east and west of Broad Hill.

The development framework area soil leaching potential is identified as Class H2 with respect to potential risk from leaching of contaminants impacting ground or surface water (deep, permeable, coarse-textured soils with little ability to retain potential pollutants). H1 has a greater leaching potential than H2 which in turn has a greater leaching potential than H3.

Scotland's Soil map shows the risk of the soil becoming saturated, causing water (or any liquid applied to the soil) to flow over land (runoff) and carry potential pollutants into water courses, or to collect (pond) on the surface. Within the Beachfront Development Framework area soil runoff is considered to be low i.e., soils can store large volumes of water or can allow water to quickly infiltrate and so surface runoff is limited

Scotland's Soil map 'risk of soil erosion' indicates the Beachfront Development area is classed as low erosion risk i.e., L3, coarse, medium and fine-textured soils with high to low water absorption capacity on almost level to moderate slopes. The combination of soil texture, the capacity to store rainfall and almost level to moderate slopes mean that the soils are at low risk of erosion.

With reference to Land Capability for Agriculture mapping, the majority of the development framework area is identified as having an agricultural capability of 4.1 (*Land capable of producing a narrow range of crops, primarily grassland with short arable breaks of forage crops and cereal*) with an area of 5.2 (*Land capable of use as improved grassland. Few problems with pasture establishment but may be difficult to maintain*) at Broad Hill. There is also an area with an agricultural capability of 6.2 (*Land capable of use as rough grazings with moderate quality plants*) in the north-east of the Development Framework area. The remainder is classified as Urban.

The whole of the development area is not identified as having significant capability with respect to forestry.

Site Topography

The Preliminary Drainage Strategy Plan prepared by Goodson Associates (January 2022) on Behalf of Aberdeen City Council indicates that the developable area occupies a gently sloping, slightly dished, plateau adjacent to the shoreline at approximately 5m Above Ordnance Datum (AOD).

A narrow, linear, steep-sided sand hill, known locally as Broad Hill, alters the falls along the western boundary. Rising to approximately 28m AOD, the feature separates the site from the residential and commercial areas associated with Park Street.

A steep-sided berm, rising to approximately 11m, runs along the edge of the backshore and elevates the Esplanade road corridor above the site and the shoreline level.

The road corridor associated with Beach Boulevard tends to fall from west to east, towards the shoreline.

Contamination

With reference to the draft Engineering Site Appraisal prepared by Goodson Associates, the site was previously used as a rifle range and rocket battery. In addition, there is made ground and ashy waste, and a gravel pit.

The site is located on the edge of an area which has former industrial uses including chemical, gas, iron, rope and granite works. All of these have the potential to leach contaminants into the surrounding areas. Without knowing how contaminated material, if any, was dealt with when the site was first developed, it is not possible to discount the possibility that contaminated material will be encountered on site.

Existing features such as car parking areas could contain localised contamination and therefore any made ground encountered should be tested for chemical contaminants and dealt with accordingly.

There is some potential for significant negative effects to arise, mainly through increases/ decreases in soil sealing, soil loss and erosion (e.g., building new car parks to accommodate increased visitor numbers), soil compaction (e.g., increased visitor numbers at sensitive areas. Secondary effects of increased uptake of sustainable transport options may result in less requirement for new car parking facilities at key attractions.

6.1.2 Potential Environmental Effects

The site is located on the edge of an area which has former industrial uses including chemical, gas, iron, rope and granite works. All of these have the potential to leach contaminants into the surrounding areas. Without knowing how contaminated material, if any, was dealt with when the site was first developed, it is not possible to discount the possibility that contaminated material will be encountered on site.

Potential development may reduce vegetation cover and increase the risk of soil erosion. Factors that lead to soil erosion include construction activities. Erosion rates are very sensitive to climate, land use, soil texture, slope, land cover, and rainfall.

Soil erosion by water is caused by rapidly moving water across bare soil. The beating action of rain on wet soil destroys surface aggregates which reduces water infiltration. Once water from rainfall exceeds water infiltration into the soil, run-off occurs. The severity of raindrops, the rate of precipitation and long and/or steep slopes affect the extent of soil erosion.

Over gentle undulating land, where the soil surface has been dried out, "blowing" can occur at wind speeds of about 18-25 miles per hour. A loose surface of fine tilth is most likely to erode whereas a coarse cloddy surface is least likely. The fine sand fraction is most likely to be moved by wind.

During construction excavation of existing fill, subsoil and bedrock may be required for site levelling, for the installation of foundations for the leisure facilities, ice arena and stadium, carpark, and service trenching. This will result in a permanent relocation of soil and subsoil at most excavation locations. The excavated materials are expected to include existing fill material, topsoil/subsoil, and some bedrock.

Similar to all construction sites, plant and machinery will require refuelling and so fuel and oil may be stored on-site. Managed incorrectly, there is the risk of spills and leaks associated with these operations impacting land and soils.

No impacts on soils and geology are anticipated during the operational phase. The operational stage of the development will not involve further disturbance to the topsoil, subsoils and geology of the area.

7 WATER

7.1.1 Drainage

Groundwater and Hydrogeology

An assessment of the prevailing ground conditions has been made by Goodson Associates using the data published by the British Geological Survey.

The Geological Survey of Scotland map series indicate conglomerate and sandstone bedrock, of the Brig O'Balgownie Formation, overlain by predominantly raised tidal flat deposits of clay, silt and sand. Some blown sand fronting marine beach deposits, which are consistent with the coastal location of the site, are also present.

From the relevant borehole and trial pit logs the following typical sequence of strata has been identified:

- 1. Topsoil Ranging in thickness from 0.15m to 0.40m.
- 2. Made ground –Typically silty sand, ash and gravel, with fragments of burnt shale. Where encountered depths vary from 1.5m to 4.1m.
- 3. Sand and Gravel Dense, becoming very dense, fine to coarse sand and fine to coarse angular to subrounded gravel.
- 4. Bedrock conglomerate and sandstone bedrock.

The Hydrogeological Map of Scotland shows that the quaternary sands and gravels that underlie the site are locally important aquifers. As the flow through such deposits is intergranular yields are significant and can range from 10l/s to 15l/s in exceptional circumstances. The site is denoted as an area where the chloride ion concentration within the groundwater exceeds 100 mg/l.

Given the coastal nature of the site, groundwater will likely be shallow and affected by the tidal system.

Natural Drainage Features

There are no natural surface water features within the proposed development boundary, the nearest watercourse being the River Don – which lies approximately 2km to the north of the site. The site forms part of the Aberdeen Beach Front and is only separated from the North Sea by the Esplanade. Consequently, it forms part of the catchment of the River Don/North Sea Confluence (See Figure. 7-1).

Given the topography of the site and the prevailing ground conditions, it is likely that run-off from the undeveloped parts of the development framework site drain to the natural water environment through groundwater percolation towards the North Sea.



Figure 7-1: Natural Drainage Features

Drainage Infrastructure (Foul and Surface Water)

Scottish Water's record plan shows that a 1170mm diameter combined sewer, of brick construction, is present within the development site boundary. The sewer traverses the site, running from north-west to south-east as it makes its way towards the York Place Pumping Station, which lies approximately 1km to the south of the site. It is believed that the discharge from the pumping station is transferred to the St Fitticks Wastewater Treatment Works a further 2km to the south (See Figure 7-2)



Figure 7-2: Scottish Water Records

The developments adjacent to the western and southern boundaries are generally served by a combined sewerage system that feeds into the trunk sewer that flows through the site – although, some of the more modern developments have separate systems with their site boundaries.

A combined sewer overflow, discharging to the River Dee adjacent to the Abercromby Jetty, provides relief to the pumping station during periods of intense rainfall.

Potential Effects

Sensitive Receptors

The following receptors have been identified:

- Ground water;
- River Don;
- North Sea; and
- Existing drainage infrastructure.

Key Potential Impacts

The potential effects of the proposed development framework could arise through either the construction or operational phases. These include:

Construction Phase

- 1. Earthworks and other general construction activities, such as tracking of plant, may pollute nearby watercourses or drainage systems with sedimentary material or construction materials (concrete, tarmac, lubricants, timber treatments, paint);
- 2. Increased loadings of suspended solids can smother the natural substrate of watercourses and adversely affect spawning ground and invertebrate communities;
- 3. Earthworks and drainage/ utilities/ foundation installation may mobilise pollutants in made ground/ soil and allow them to contaminate the water environment through surface water runoff and percolation to groundwater;
- 4. Earthworks, new drainage systems, temporary bunding or material stockpiles may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats;
- 5. Pollution from accidental spillage or leaks of fuels, hydraulic fluids and lubricants;
- 6. Pollution due to vandalism of stores or plant;
- 7. Foul drainage from washroom facilities, wheel washing, etc. polluting receiving waters;
- 8. Water abstraction or dewatering may change groundwater levels, altering the hydrological regime; and
- 9. Disturbance or damage to existing Scottish Water assets.

Operational Phase

- 1. Changes in volume and rate of surface runoff from impermeable surfaces such as roofs, car parking areas and access roads may effect flow characteristics or cause soil erosion;
- 2. Pollution of groundwater and receiving watercourses from accumulated contaminants in runoff from the new surfaces and landscaped areas, e.g., fuel, dust, surfactants, pesticides and herbicides, salt, and debris from plant litter;
- 3. Changes to the permeability of surface cover may impact the underlying hydraulic regime and groundwater recharge;
- 4. Surface drainage schemes may alter the flow characteristics of nearby watercourses and flooding characteristics;
- 5. Safety issues associated with the creation of new open water bodies (during times of flood for SuDS basins) including potential attraction of birds within the airport safeguarding area;

- 6. Enhancement of amenity/ ecology; and
- 7. Reduction in fly-tipping.

7.1.2 Terrestrial Flood Risk

From a review of SEPA's flood map, which provides an understanding of how the site may be affected by flooding, the following existing impacts have been determined:

Fluvial Flooding (River)

The Flood Map indicates that the site doesn't experience fluvial flooding during the 1:10 year (10%) or 1:200 year (0.5%) return periods. A small area, associated with the low point of Links Road is shown to be at risk of flooding from the Den Burn during the 1:1000 year (0.1%) return period event.

The river Don is shown to be prone to flooding during all return period events, but within the vicinity of the site, the extent of flood water is limited.

Pluvial Flooding (Surface Water)

No flooding is indicated during the 1:10 year (10%) return period event.

Pockets of surface water flooding, associated with existing hard-standings serving the existing buildings and the low point of beach boulevard are indicated for the 1:200 year (0.5%) and 1:1000 year (0.1%) return period events.

Potential Effects

Sensitive Receptors

The following receptors have been identified:

- Neighbouring properties and roads;
- Existing drainage infrastructure; and
- Proposed development.

Future assessments will refer to the 2Di model recently developed by Scottish Water in partnership with Aberdeen City Council.

Key Potential Impacts

The potential effects of the proposed development could arise through either the construction or operational phases. These include:

Construction Phase

- 1. Earthworks, temporary bunding or material stockpiles may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats; and
- 2. New drainage systems, temporary or permanent, may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats.

Operational Phase

 Changes in volume and rate of surface runoff from impermeable surfaces such as roofs, car parking areas and access roads may effect flow characteristics resulting in changes to flood risk;

Page 305

- 2. Changes to the permeability of surface cover may impact the underlying hydraulic regime and groundwater recharge; and
- 3. Surface drainage schemes may alter the flow characteristics of nearby watercourses and flooding characteristics.

7.1.3 Coastal Flood Risk

Geology

Review of the British Geological Survey (BGS) 1:50,000 scale bedrock geology mapping¹³ highlights that the Aberdeen Beachfront area is underlain by Conglomerate and Sandstone from the Brig O'Balgownie Formation, sedimentary bedrock formed in the Devonian Period. Superficial cover is shown to vary from Marine Beach Deposits on the present-day beach to Blown Sand around the Esplanade, with Raised Tidal Flat Deposits (Clay, Silt and Sand) further landward.

Topography and Bathymetry

Ordnance Survey map data indicates that ground levels along the Esplanade and within the Aberdeen Beachfront area are around 10 to 11 metres above Ordnance Datum (mAOD). The Mean High Water Springs (MHWS) level of 2.05 mAOD is shown at the base of the esplanade seawall, whilst the Mean Low Water Springs (MLWS) level of -1.65 mAOD is approximately 125 m east (seawards) from the seawall.

Tidal Water Levels

Tidal water levels from Admiralty Table Tides¹⁴ have been used in this assessment. Tidal water levels at Aberdeen are presented in metres (m) relative to Chart Datum (mCD) and Ordnance Datum (mOD) in Table 7-1. Chart Datum correction for Ordnance Datum is -2.25 relative to OD at Aberdeen.

Tidal Condition	Chart Datum (cmD)	Ordnance Datum (mOD)
Highest Astronomical Tide (HAT)	4.8	2.55
Mean high water springs (MHWS)	4.3	2.05
Mean high water neaps (MHWN)	3.4	1.15
Mean Sea Level (MSL)	2.6	0.35
Mean Low Water Neaps (MLWN)	1.6	-0.65
Mean Low Water Springs (MLWS)	0.6	-1.65
Lowest Astronomical Tide (LAT)	0.0	-2.25

Table 7-1: Tidal Water Levels at Aberdeen

Coastal Defences

Extensive coastal defences are present along Aberdeen beach to the south of the River Don, these include the following:

- A 3km long sloping revetment seawall, completed in 1969, is present to the back of Aberdeen Beach and extends from the harbour in the south toward Donmouth in the north;
- Thirty shore-perpendicular timber groynes at approximately 110m spacing, each extending 90m in length;

¹³ British Geological Survey: Geology of Britain Web Viewer

⁽https://mapapps.bgs.ac.uk/geologyofbritain/home.html)

¹⁴ Admiralty Tide Tables. UKHO, 2022.

- Five nearshore rock structures (3 V-shaped and 2 L-Shaped) extending from the seaward ends of five timber groynes. These structures are associated with recent (2006) beach replenishment activities; and
- A short section of gabion baskets extends between the northern end of the seawall and the River Don.

Coastal Flood Risk

A review of the SEPA Flood Maps¹⁵ shows that areas of coastal flood risk are located east of the Esplanade seawall, with no coastal flood risk shown for the proposed beachfront development area.

Extreme sea levels have been predicted around the whole UK coastline and published by the Environment Agency¹⁶. These extreme levels include the effects of both tides and storm surges and the effect of amplification within estuaries or sea lochs. Extreme sea levels predicted at a point offshore from Aberdeen Beach (chainage _3224) are summarised in Table 7-2. The 1 in 200 year return period event level is 3.22m Above Ordnance Datum (AOD), whilst the 1 in 1,000 year return period event level is 3.36mAOD.

Return Period (Years)	Water Level (mCD)	Water Level (mAOD)
1	4.94	2.69
2	5.02	2.77
10	5.18	2.93
25	5.27	3.02
100	5.40	3.15
200	5.47	3.22
1000	5.61	3.36

Table 7-2: Extreme Sea Levels at Aberdeen Beach

The extreme sea levels do not account for wave action or the potential for wave overtopping of the Esplanade seawall. Assessment of the risk of wave overtopping requires site-specific calculations, taking into consideration the wave climate, joint probability sea level occurrence, and the nature of the coastal edge or defence structure.

As outlined in SEPA climate change guidance¹⁷, future climate change may cause a sea level rise of 0.87 m in the North-East river basin region by 2100, based on UKCP18 outputs. Future climate extreme sea levels are presented in Table 7-3 below.

Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach				
Return Period (Years)	Water Level (mCD)	Water Level (mAOD)		
200	6.34	4.09		
1000	6.48	4.23		

Table 7-3: Future Climate (2100) Extreme Sea Levels at Aberdeen Beach

Potential Effects

The key potential environmental impacts on coastal flood risk during construction and operation have been identified and are outlined below:

• Potential changes in coastal flood risk; and

¹⁵ SEPA Flood Maps <u>https://map.sepa.org.uk/floodmap/map.htm</u>

¹⁶ Coastal Flood Boundary Extreme Sea Levels. Environment Agency, 2018.

¹⁷ Climate change allowances for flood risk assessment in land use planning Version 2. SEPA, 2022.

• Potential interactions between coastal flood impacts and associated ecology and environmental designations.

For the construction phase, the following potential effects will need to be assessed:

• Coastal flood risk during construction.

Potentially significant effects arising from the operational phase (i.e., once the works are complete) are likely to arise from the same potential impacts as highlighted above.

Where any significant effects on the water environment or coastal flooding are identified as part of the project EIA process associated with future planning applications, recommendations for design alteration or mitigation which could avoid, reduce or remedy the adverse effects will be identified.

Water Quality

The Don Estuary to Souter Head (Aberdeen) is a coastal water body (ID: 200105), in the Scotland river basin district. It is 50.2 square kilometres in area. The water body has been designated as a heavily modified water body on account of physical alterations that cannot be addressed without a significant impact on navigation and from an increased risk of subsidence or flooding.

With reference to the SEPA Water Classification Hub, the coastal waters from the Don Estuary to Souter Head have been classified under the Water Framework Directive (WFD) scheme as having good ecological potential, and good water quality (Table 7-4).¹⁸

Parameter	2020	2019	2018	2017	2016
Overall status	Good	Good	Good	Good	Good
	ecological	ecological	ecological	ecological	ecological
	potential	potential	potential	potential	potential
Pre-HMWB status	Poor	Poor	Poor	Poor	Poor
Overall ecology	Poor	Poor	Poor	Poor	Poor
Biological elements	Good	Good	Good	Good	Good
Invertebrate animals	Good	Good	Good	Good	Good
Imposex assessment	Good	Good	Good	Good	Good
Benthic invertebrates	High	High	High	High	High
Phytoplankton	High	High	High	High	High
Hydromorphology	Poor	Poor	Poor	Poor	Poor
Morphology	Poor	Poor	Poor	Poor	Poor
Water quality	Good	Good	Good	Good	Good

Table 7-4: Water Classification

Groundwater

The Beachfront Development Framework is within "Aberdeen groundwater" (ID: 150491) which covers approximately 37.8 square kilometres in area and is classified as being Good.¹⁹

¹⁸ <u>https://www.sepa.org.uk/data-visualisation/water-classification-hub/</u> (Accessed 12/05/2022)

¹⁹ https://www.sepa.org.uk/data-visualisation/water-classification-hub/ (Accessed 16/05/2022)

Bathing Water

SEPA has assessed the bathing waters in Scotland. This assessment compares the water quality against the standards in the European Bathing Water Directive. The bathing water assessments relevant to Aberdeen City were either sufficient to Good (Table 7-5).²⁰

Table 7-5: Aberdeen Bathing Waters

ID	Name	2018	2017	2016	2015
PAUKS761601	Aberdeen	Good	Sufficient	Good	Good

The relocation of the stadium may have a significant effect on the water environment and this will require assessment before the submission of a planning application.

7.1.4 Relevant Guidance

National Planning Framework 3

The purpose of the National Planning Framework 3²¹ is to outline plans for spatial growth in Scotland. The document focuses on sustainable growth with an emphasis on place-making. The document focuses on sustainable growth with an emphasis on place-making. Resilience is a key concern of the document and it is made clear that flood risk should be treated as a s fundamental issue in determining appropriate future land-use.

Sustainability is a key element of the National Planning Framework, therefore, the use of Sustainable Urban Drainage Systems is supported.

Scottish Planning Policy

The purpose of the Scottish Planning Policy²² is to set out national planning policies that reflect Scottish Ministers' priorities for the operation of the planning system and the development and use of land.

Scottish Government planning policy on managing flood risk and drainage is provided by Scottish Planning Policy (SPP) paragraphs 254–268 (Scottish Government, 2014). This policy is based on the following principles:

- Developers and planning authorities must consider the possibility of flooding from all sources;
- New development should be free from significant flood risk from any sources;
- In areas characterised as "medium to high" flood risk for watercourses and coastal flooding new development should be focused on built-up areas and all development must be safeguarded from the risk of flooding;
- The storage capacity of functional floodplains should be safeguarded from further development. The functional floodplains comprise areas generally subject to an annual probability of flooding greater than 0.5%;
- Drainage is a material consideration and the means of draining a development should be assessed. Any drainage measures proposed should have a neutral or better effect on the risk of flooding both on and off the site.

SPP proposes a Risk Framework approach which identifies flood risk in three main categories:

²⁰ https://www.sepa.org.uk/data-visualisation/water-classification-hub/ (Accessed 15/05/2022)

²¹ The Scottish Government (June 2014), *National Planning Framework: A Plan for Scotland: Ambition, Opportunity, Place.*

²² The Scottish Government (June 2014), *Scottish Planning Policy.*

- Little or no risk area (annual probability of flooding less than 0.1%). No constraints to development due to flood risk.
- Low to medium risk area (annual probability of flooding between 0.1% and 0.5%). Suitable for most developments, except civil infrastructure (unless existing civil infrastructure within a low to medium-risk area is being extended, or else civil infrastructure must be placed within this risk area for operational reasons).
- Medium to high-risk area (annual probability of flooding greater than 0.5%). Suitable for residential, institutional, commercial and industrial development within built-up areas (provided adequate flood protection is planned or already exists). Generally, not suitable for civil infrastructure or most vulnerable uses (such as schools and care homes) or for general development in undeveloped or sparsely developed areas (unless essential for operational reasons and alternative locations at lower flood risk are not viable).

Aberdeen City Council Local Development Plan (2017)

Aberdeen City Council's adopted Local Development Plan23 details the intentions of the local authority with regards to development over the designated period.

Policy NE6 states:

Development will not be permitted if:

- 1. It would increase the risk of flooding:
 - a) by reducing the ability of the functional flood plain to store and convey water;
 - b) through the discharge of additional surface water; or
 - c) by harming flood defences.
- *2.* It would be at risk itself from flooding;
- 3. Adequate provision is not made for access to waterbodies for maintenance; or
- 4. It would require the construction of new or strengthened flood defences that would have a significantly damaging effect on the natural heritage interests within or adjacent to a watercourse.

Development on the functional floodplain will only be permitted where its location is essential for operational reasons, and it must be designed and constructed to remain operational during floods and not to impede water flow.

Applicants will be required to provide a Flood Risk Assessment where a development is likely to result in a material increase in the number of buildings at risk of flooding, or where it has been indicated in the opportunity sites schedule that one will be prepared. Windfall sites may also require a Flood Risk Assessment.

Drainage Impact Assessment (DIA) will be required for new development proposals comprising 5 or more homes or 250 square metres non-residential floorspace. DIA will also be required for developments of any size that affect sensitive areas. DIA should detail how surface water and waste water will be managed. Surface water drainage associated with development must:

1. Be the most appropriate available in terms of SuDS; and

2. Avoid flooding and pollution both during and after construction.

There is a presumption against excessive engineering and culverting of waterbodies. Natural treatments of floodplains and other water storage features will be preferred wherever possible.

²³ Aberdeen City Council (2017), *Aberdeen Local Development Plan Document*.

There will be a requirement to restore existing culverted or canalised water bodies to a naturalised state where this is possible.

Where the Council agrees that culverts are unavoidable for technical reasons, they should be designed to maintain existing flow conditions and aquatic life. Any proposals for new culverts should have a demonstrably neutral impact on flood risk and be linked to long term maintenance arrangements to ensure they are not the cause of flooding in the future.

Connection to the public sewer will be a prerequisite of all development where this is not already provided. Private wastewater treatment systems in sewered areas will not be permitted. In areas not served by the public sewer, a private sewer treatment system for individual properties will be permitted provided that the developer demonstrates that there will be no adverse effects on the environment, amenity and public health.

The supplementary guidance document, Flooding, Drainage and Water Quality supports the above policy by providing guidance on how developments will be expected to assess and demonstrate their compliance with the above policy, with regard to Flooding, Drainage and Water Quality. Accordingly, SG Flooding Drainage and Water Quality include advice on Statutory Roles and Responsibilities, Arrangements for Flood Risk Management Planning in Scotland, Flood Risk Assessment, Drainage Impact Assessment, Sustainable Drainage Systems (SuDS), Regional SuDS and Waste and Foul Drainage.

Policy NE7 states:

Development will only be permitted in undeveloped coastal areas if it can be demonstrated that:

- 1. A coastal location is necessary given the purpose and operation of the development;
- 2. There is no other suitable site, including the re-use of brownfield land; and
- *3.* It respects the character and value of the natural and historic environment, as well as the recreational value in the surrounding area; or
- 4. There is an overriding environmental benefit.

In all cases:

- 1. Development will not be permitted in areas at risk from coastal erosion and flooding. New developments which require new defences against coastal erosion or flooding will not be supported except where there is clear justification to avoid development in areas at risk.
- 2. A Flood Risk Assessment will be required to accompany applications for development in coastal areas.
- 3. Public access to and along the coast will be protected and promoted wherever possible.
- 4. Development proposals will be required to demonstrate through appropriate marine noise modelling that adverse impacts on bottlenose dolphins and Atlantic salmon are avoided.

Aberdeen City Council Supplementary Planning Guidance

Aberdeen City Council's supplementary planning guidance documents, "*Supplementary Guidance: Flooding, Drainage & Water Quality*" and "*Drainage Impact Assessment, Guidance for Developers*", sets out the local authority's requirements for the design of drainage systems serving new developments and the requirements for the consideration of flood risk.

The currently prescribed technical requirements for the design of SUD systems are:

- 1. The discharge rate from the developed site should not exceed the pre-development discharge rate.
- 2. Sufficient storage must be provided, which may include temporary above-ground storage where appropriate, to ensure that there are no detrimental effects on the neighbouring properties or public highways during a 1 in 10 year return period event.

Where the discharge is to be made to coastal water a SUD system may be omitted, refer to section 10.3.6.

Where a development is likely to result in a material increase in the number of buildings at risk of flooding a Flood Risk Assessment will be required. The document suggests that Developers should give early thought to flood risk when considering a site, as it can have important implications for siting, design and in some cases the overall principle of development in a given location.

North East Local Plan District – Local Flood Risk Management Plan 2016-2022

The Local Flood Risk Management Plan for the North East Local Plan District describes the actions that will contribute to managing the risk of flooding and recovery from any future flood events. The task for local authorities, Scottish Water, the Scottish Environment Protection Agency (SEPA), the Scottish Government and all other responsible authorities and public bodies is to deliver this plan.

PAN 61/2001 Planning and Sustainable Urban Drainage Systems

Advice on the role of the planning system in helping to limit the adverse effects of development upon the water environment is provided in Planning Advice Note (PAN) 61/2001 – Planning and Sustainable Urban Drainage Systems²⁴. The document promotes a multi-disciplinary approach to the design of new surface water drainage systems, with the planning process playing a central co-ordinating role.

The principles of good SUDS design are presented within the context of the aim of such systems - to reduce diffuse pollution, improve the environmental quality of the development and benefit the local community. It further sets the goal of developing an integrated drainage system that deals with the issues of water quantity, water quality and amenity using the following principles:

- 1. Managing surface water run-off on-site as near to the source as possible.
- 2. Slowing down run-off.
- 3. Treating run-off naturally.
- 4. Releasing good quality surface water to watercourses or ground water.

SEPA – Controlled Activities Regulations

As an environmental protection agency, SEPA's role in the drainage approval process relates mainly to issues of water quality and the protection of the natural water environment. However, the regulatory agency uses its position within the planning process to contribute to sustainable flood risk management. This is delivered through:

- Water Environment and Water Services (Scotland) Act 2003;
- Flood Risk Management (Scotland) Act 2009; and
- Climate Change (Scotland) Act 2009.

Since April 2006 SEPA has fulfilled this duty through the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended) – more commonly known as the Controlled Activities

²⁴ The Scottish Government (2001), *PAN 61/2001 Planning and Sustainable Urban Drainage Systems*.

Regulations or CAR. Under these regulations, which were introduced in response to the Water Environment and Water Services (Scotland) Act 2003, there are three levels of authorisation.

The three levels allow for a proportionate and risk-based approach to control and are, in ascending order of rigorousness:

- 1. General Binding Rules.
- 2. Registrations.
- 3. Licences.

From a review of SEPA's guidance document, Water Environment (Controlled Activities)(Scotland) Regulations 2011 – A Practical Guide, it can be seen that the development falls within the scope of the pollution control regime.

The level of authorisation for point source discharges from commercial developments is based on the number of car parking spaces, with 1000 being the threshold above which a simple license is required.

It is therefore anticipated that the drainage systems will only require to be designed in accordance with General Binding Rules (GBR) 10B, 11 and 21 (See Table 10-1). This should be reviewed during the detailed design and the relevant licensing application progressed with SEPA if necessary.

Table 7-6: General Binding Rules

GBR 10B - The discharge of water run-off from a surface water drainage system to the water environment from buildings, roads, yards, or any other built development constructed on or after 1 April 2007.

a) All reasonable steps must be taken to ensure that the discharge does not result in pollution of the water environment,

b) the discharge must not— i) contain any trade effluent or domestic sewage, ii) result in visible discolouration, iridescence, foaming or sewage fungus in the water environment, or iii) contain any water run-off from a construction site,

c) the discharge must not result in the destabilisation of the banks or bed of the receiving surface water,

d) the development must be drained by a SUD system equipped to avoid pollution of the water environment, unless—

i) the run-off is from a development that is a single dwelling and its curtilage, or

ii) the discharge is to coastal water,

e) the discharge must not contain any water run-off from— i) any fuel delivery areas constructed on or after 1 April 2007, or any areas where vehicles, plant and equipment are refuelled constructed on or after 1 April 2007, ii) vehicle loading or unloading bays constructed on or after 1 April 2007 where potentially polluting matter is handled, or iii) oil and chemical storage handling and delivery areas constructed on or after 1 April 2007,

f) all facilities with which the surface water drainage system is equipped to avoid pollution, including oil interceptors, silt traps and SUD system attenuation, settlement and treatment facilities, must be maintained in good order and repair,

g) all reasonable steps must be taken to ensure that any matter liable to block, obstruct, or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment is prevented from entering the drainage system.

GBR 11 - Discharge into a surface water drainage system

a) Oil, paint thinners, pesticides, detergents, disinfectants or other pollutants must not be disposed of into a surface water drainage system or onto any surface that drains into a surface water drainage system;

b) any matter liable to block, obstruct or otherwise impair the ability of the surface water drainage system to avoid pollution of the water environment must not be disposed of into a surface water drainage system or onto a surface that drains into a surface water drainage system;

c) domestic sewage or trade effluent must not be discharged into any surface water drainage system; and

d) on construction sites, any area of exposed soil from which the discharge of water run-off to the water environment is authorised under activity 10D, and the period of time during which such soil is exposed, must be the minimum required to facilitate the construction works being undertaken at that site.

GBR 21 - The discharge of water run-off via a surface water drainage system to the water environment as a result of rural land activities

a) Water must be discharged in a way that minimises the risk of pollution of any river, burn, ditch, wetland, loch, transitional water or coastal water; and

b) no discharge from drainage may result in the destabilisation of the banks or bed of the receiving river, burn, ditch, wetland, loch, transitional water or coastal water.

Clause D of GBR 10B, which permits the use of a SUD system to be omitted if surface water is discharged to coastal water, is of particular significance to the proposed development site given the proximity to the shoreline. However, it should be noted that, in Regulatory Method (WAT-RM-08), SEPA state that, "while SUDS are not compulsory for discharges to coastal waters, they may be required in certain circumstances", as the GBR's still require pollution to be prevented.

Using the recommendations of SEPA's latest guidance document, "Climate change allowances for flood risk assessment in land use planning", it is appropriate to include a 35% uplift in peak rainfall intensities to make allowance for climate change.

Scottish Water (Sewers for Scotland, 4th Edition)

As the local water authority, Scottish Water publishes design guidance that relates to publicly adoptable drainage schemes and connections to the publicly owned sewerage system. Although not strictly applicable to the design of the privately maintained parts of the drainage system, Sewers for Scotland is considered to provide guidance on best practice for sewerage design in Scotland.

From a review of this document, the following major implications for the drainage system have been identified:

1. Separate foul and surface water systems should be provided.

- 2. Self-cleansing should be ensured. Either by designing for a minimum velocity taken to be 1m/s at pipe full flow in surface water sewers and 0.75m/s at one-third design flow in foul sewers or adopting the pipe size and gradients specified in Sewers for Scotland.
- 3. The 1 in 30-year return period should be considered and an allowance of 30% made to account for climate change. A further allowance of 10% should be made to account for urban creep unless this would result in a contributing area greater than the total site area.
- 4. Any discharge to the publicly owned combined sewerage system would have to be restricted to a rate agreed with Scottish Water. In the case of combined sewers this would typically be the 1 in 2 year greenfield run-off rate.

It should be noted that Scottish Water's current policy is to permit surface water connections to the combined system as a last resort, to minimise the pressure on the Wastewater Treatment Works. The preferred hierarchy for disposal of surface water run-off is:

- 1. Re-use, such as rainwater harvesting.
- 2. Discharge to ground.
- 3. Discharge to the natural water environment (watercourse, coastal waters).
- 4. Discharge to surface water sewerage system.
- 5. Discharge to combined water sewerage system.

In addition to the requirements of the statutory consultees given above, the concepts of best practice should also be incorporated into the design of the drainage systems.

The SUDS Manual (CIRIA C753)

The SUDS Manual (CIRIA C753) provides best practice guidance on the planning, design, construction and maintenance of Sustainable Drainage Systems (SuDS) to assist with their effective implementation within both new and existing developments.

The guidance provides the framework for designing SuDS to maximise amenity and biodiversity benefits, manage flood risk and water quality, while creating high-quality places for future generations.

There is also supporting information covering topics such as materials, landscape design, maintenance, community engagement and costs and benefits.

British Standards

BS EN 752:2008 sets out the objectives for drain and sewer systems outside buildings. It specifies the

functional requirements for achieving these objectives and the principles for strategic and policy activities relating to planning, design, installation, operation, maintenance and rehabilitation.

SEPA Guidance

SEPA issued guidance in relation to preparing flood risk assessments (FRAs) ("Technical Flood Risk Guidance for Stakeholders", v12, (SEPA, 2019)). Technical requirements for FRAs depend on the complexity of the site with more complex or high-risk sites requiring detailed assessments. In summary, FRAs must include the following:

- Background site data, including suitable plans and/or photographs;
- Historic flood information;
- Description of methodologies used;
- Identification of relevant flood sources;
- In case of river flooding: assessment of river flows, flood levels, depths, extents, displaced flood storage volumes, etc.;
- Assessment of culverts, sewers or other structures affecting flood risk;
- Consideration of climate change impacts;

- Details of required flood mitigation measures; and
- Conclusions on flood risk related to relevant national and local policies.

8 ARCHAEOLOGY AND CULTURAL HERITAGE

8.1.1 Description of Local Environment

An initial review of the study area consulted readily available historic environment resources to gauge the nature of the known assets that may be impacted and to consider the quality of the existing information base. From this review, we recognise that there is a fundamental division in the historic landscape covered by the Proposal that breaks roughly along Links Road.

To the southwest of Links Road, the issues to consider are the development of the burgh from the postmedieval to the 20th century, with the potential to reach back into the medieval period on Justice Street (in particular the site of Mauchlin Tower and the Justice Port). While much of this element of the study area is road infrastructure, these have been enlarged during the 20th century (particularly Beach Boulevard which broadly follows the former Albion Street) and as such their footprint overlies many aspects of the historic townscape. There have been a number of archaeological interventions, often associated with utility work, in this area that may inform the archaeological potential. As Beach Boulevard approaches Links Road, the historic urban character becomes increasingly of late 18th to 19th century industry with a Candle manufactory and mill ponds from the Banner Mill. Changing transport infrastructure is also relevant both at the regional level (railway and canal routes) and at the local (tramways).

Crossing over Links Road, the ground moves into the open amenity spaces covering the northern portions of the Queen's Links and the southern portion of the Old Town or King's Links as well as the shorefront esplanade. In common with many links adjacent to coastal burghs, they were within the control of the burgh and have been used for a broad range of purposes that have left differing traces. Older utilitarian uses should not be forgotten (grazing of animals, town dumps and storage of dangerous materials – gunpowder stores) although the two dominant themes are leisure use and military use.

Leisure use for Aberdeen encompasses golf courses (17th century onwards), a racecourse (18th century onwards), bowling greens, tennis courts, sea bathing facilities, the dance hall and promenading. These developed over time and are not all contemporary uses of this ground. During the latter part of the 20th century, leisure came to dominate the burgh's use of this ground.

In contrast, military use from at least the 19th century includes coastal defence (both shoreline defence and naval batteries), anti-aircraft defence (from WWI onwards), parades and training (inc. rifle ranges). The military use reflects real threats, with records showing air-dropped ordnance recorded from late 1940 to early 1941 across Aberdeen, extending into Queen's Links and Broad Hill. Most of the hardened defences have been actively removed during the latter part of the 20th century.

The maritime aspect is also always present given the prosperous harbour in Aberdeen, with both an array of maritime losses from the adjacent inshore waters and associated structures, such as lifeboat houses. While most maritime losses were salvaged in shallow inshore waters elements of some, such as the boiler from the steamship Cairnie beached after being bombed in 1941, remain. There are also a series of engineered shore defences with the coastal edge having changed from dunes – with the risk of tidal overflow - to a hardened shoreline (with the esplanade) before having groynes added to retain beach deposits (most recently in 2006).

The recovery of at least one Neolithic carved stone ball from the King's Links should act as a reminder that this landscape was utilised by humans before the establishment of either Old or New Aberdeen. The links appear to have had little modern archaeological investigation, although monitoring of some

small-scale utility work has occurred. In summary, the development area has a complex pattern of overlapping use that reflects the establishment, development and growth of the adjacent burghs.

Designated Sites within Area

Based on the initial review of the relevant historic environment designations there is one Listed Building within the area (the Beach Ballroom LB20314 a Category B listed building) and a small section of the City Centre Conservation Area.

Given the boundary of the proposed development area uses a series of urban street edges, there are expected to be a number of Listed Buildings immediately adjacent to the area.

No other designated assets have been identified at this time nor sites where protection would flow from their inherent characteristics (e.g., characteristics affording protection through the Protection of Military Remains Act 1986).

World Heritage Sites

A review of Pastmaps²⁵ and Scotland's Environment²⁶ identified there were no World Heritage Sites within the proximity of the area covered by the Aberdeen Beachfront Development Framework.

Scheduled Monuments

A review of Pastmaps and Scotland's Environment identified there were no Scheduled monuments within the proximity of the area covered by the Aberdeen Beachfront Development Framework.

Conservation Areas

There are eleven Conservation Areas in Aberdeen. Three are in proximity to the area covered by the Aberdeen Beachfront Development Framework including, Old Aberdeen/Balgownie Conservation, City Centre Conservation Area and Footdee Conservation Area.

All are located outwith the boundary of the area covered by the Aberdeen Beachfront Development Framework.

Garden & Designed Landscapes

There are no 'Garden & Designated Landscapes' within the proximity of the area covered by the Aberdeen Beachfront Development Framework.

<u>Battlefields</u>

There are no battlefields within the proximity of the area covered by the Aberdeen Beachfront Development Framework.

Historic Marine Protected Areas

There are no 'Historic Marine Protected Areas' within the proximity of the area covered by the Aberdeen Beachfront Development Framework.

²⁵ <u>https://pastmap.org.uk</u> (Accessed 21/01/2022)

²⁶ https://map.environment.gov.scot/sewebmap (Accessed 21/01/2022)

Protected Military Remains, Wrecks

There are no 'Protected Military Remains, Wrecks' within the proximity of the area covered by the Aberdeen Beachfront Development Framework

<u>Listed Buildings</u>

The Beach Ballroom is a Category B listed building located within the area covered by the Beachfront Development Framework.

The Beach Ballroom is an Art Deco large, single storey and raised basement, octagonal ballroom with set-back pantiled (vernacular) pyramidal roof crowned by arcaded lantern, and 3 projecting flat-roofed single-storey wings with a main south entrance, bowed bay at the south-east and Northern Lights Suite below later Star Ballroom to the east. Prominently sited on the Esplanade overlooking Aberdeen Bay. Brick and stone construction with buff faience cladding; harled with raised margins to lesser elevations. Deep contrasting granite base course, mutuled eaves cornice and stepped blocking course raised into block pediment over lonic columned door pieces; stylised lonic capitalled dividing pilasters and architraved keystoned windows.

The Aberdeen Ballroom will be sympathetically renovated, as highlighted in the Beachfront Development Framework.

Adjacent to the Beach Boulevard/A956 roundabout (and outwith the boundary of the Beachfront Development Area) are 19 and nine-storey modern Brutalist multi-storey 'slab' blocks of flats designed by Aberdeen City Architects Department, under the supervision of George McIntosh Keith (Chief Architect) (completed 1966) for the Aberdeen Housing Committee. The building contractor was the Aberdeen firm, W J Anderson. The buildings are oriented on north-south and east-west axes and connected by a pair of enclosed glazed linking footbridges. They are in a built-up inner urban area next to a ring road. Virginia Court contains 48 maisonette flats laid out on a crossover section: the flats are entered on the ground floor at either the bedroom or living area and cross up and over to the bedroom or living area providing a dual aspect on two levels. Marischal Court has 108 maisonette flats.

These are Category A listed Buildings.

Other Points of Interest

The following items have also been identified as points of interest on the Aberdeen City Council HER map and Canmore:

- Boundary stones and battery gun remains on Broad Hill;
- Large proportion of Queens Links used as late 19th to early 20th century bottle dump and tip;
- Lighthouse / rocket house;
- Remains of a tramway;
- Site of gunpowder magazine;
- Site of Aberdeen rope works;
- Queen's Links, Bathing Station; and
- WW2 heavy anti-aircraft gun battery.

8.1.2 Potential Environmental Effects

The subject lands are not proximate to any protected structures or archaeological/cultural heritage assets. The Aberdeen Beachfront Development Framework is expected to have minimal impact on archaeology or cultural heritage.

The Aberdeen Ballroom (Category B Listed Building) will be sympathetically renovated, as highlighted in the draft development framework.

The potential effects on the historic environment associated with the Beachfront Development Framework proposal are:

Physical disturbance of known or undiscovered historic environment sites or features, including unforeseen buried or submerged remains of archaeological interest.

All elements of the construction process have the potential for permanent adverse physical impact on historic environment sites that would be irreversible. There is also potential for currently unidentified sites to be present.

Effects on the setting of significant historic environment sites

The creation of new structures or landforms has the potential to have an adverse impact on the setting of significant historic environment sites within the masterplan area and in the immediate surrounding townscape.

8.1.3 Relevant Guidance

During the project phase, an assessment of the effects on the historic environment should be carried out in line with relevant heritage protection legislation and the following standards and guidance:

- Historic Environment Scotland (2009+) Managing Change in the Historic Environment Setting;
- The Scottish Government (2010) Scottish Planning Policy;
- The Scottish Government (2015) Scotland's National Marine Plan;
- The Scottish Government (2011) PAN 2/2011 Planning and Archaeology;
- The Chartered Institute for Archaeologists (2009) Standard and Guidance for Archaeological Desk-Based Assessment; and
- The Chartered Institute for Archaeologists (2010) Code of Conduct.

9 LANDSCAPE AND VISUAL

This is an unusual project in that its location between the coast and the urban parts of the city introduces seascape/coastal and townscape receptors to the assessment of effects on landscape resources. All are equally important however, these factors relating to the Site's context will be encompassed within the 'landscape' descriptor for ease of understanding.

Landscape and visual effects are independent but related issues. Landscape effects are changes in the landscape as a resource, including its constituent elements, the aesthetic and perceptual aspects of the landscape, and its distinctive character; visual effects relate to the effects of change upon the views available to people and their visual amenity.

A Landscape and Visual Impact Assessment ("LVIA") will be carried out by Chartered Landscape Architects at Optimised Environments (OPEN).

9.1.1 Description of Local Environment

The Site is located to the north-east of the city centre with which it is connected by the primary route of Beach Boulevard, Justice Street and Castlegate. The Site is largely rectangular and orientated along the coastline, with a small northern extension along the beach and Esplanade. Kings Links Golf Course abuts the northern boundary of the Site; the North Sea bounds the Site to the east; Codona's amusement park and a mixture of commercial, hospitality and retail uses abut the southern boundary of the Site. Further south the small settlement of Footdee is a tight cluster of low, terraced cottages set out on a peninsula that sits between the harbour, River Dee and the sea. The settlement is a conservation area.

Abutting the western boundary of the Site are existing hotel and leisure units, with a mix of residential typologies beyond including some high-rise housing.

The Site comprises Aberdeen Beach, areas of greenspace, including Broad Hill, and a series of existing vehicular routes including Beach Boulevard, Esplanade and Links Road. Existing entertainment and leisure facilities currently occupy the Site: Aberdeen Beach Ballroom, Linx Ice Arena, the Beach Leisure Centre; and public space including Queens Links, Queens Links Play Park and Crescent Cricket Club's Cricket Pitch. The Site encompasses but does not include two sites owned by Aberdeen City Council within the south-west corner. These are on long-term leases to a hotel operator (Hotels Locally) and extreme sports venue (Transition Extreme Sports). A series of small-scale structures and pavilions situated across the Site includes the Esplanade and the Beach Ballroom (category B listed). The Site is approximately 30 hectares in area.

The Site is largely flat and level with only Broad Hill providing sloping ground that rises to a high point of approximately 28m Above Ordnance Datum. The Esplanade does however sit at a higher level and runs near the coast between the main part of the Site and the beach itself. Beyond these features, the land around the Site is relatively flat.

The Site is largely identified as Urban, with only its very northern extents and beach being within the Beach, Dunes & Links Landscape Character Type (LCT), as described by NatureScot (2019) at a regional level. The Aberdeen Landscape Character Assessment (Aberdeen City Council, 2021) provides a local-level assessment of the landscape and describes the northern extents and beach as lying within LCA 21: King's Links. To the north LCT 21 abuts the River Don and LCA 7: Murcar & Balgownie Links and the southern boundary of LCT 21 abuts the mouth of the River Dee, with LCA 22: Girdle Ness beyond. The majority of the Site is not classified as being part of the landscape due to its urban

character, however the Historic Landuse Assessment mapping shows the majority of the Site as a Recreation Area.

The Aberdeen Coastal Character Assessment (Aberdeen City Council, 2021) provides a local-level assessment of the seascape and describes the beach within the Site as lying within Coastal Character Area (CCA) 2: Aberdeen Beach. Aberdeen City Council (ACC) has also prepared a third report looking at peri-urban areas of the city. This is entitled The Aberdeen Landscape Study – Peri-urban study (Aberdeen City Council, 2021) identifies the same area as LCA 21 as being Unit F and considers this in some detail. These documents will be used collectively to inform the descriptions of the landscape character that provide the context for the Site.

The Site is not covered by any national landscape planning designations associated with its scenic or historic character. Nor does the Site contain a Garden and Designed Landscape ("GDL") or locally designated Special Landscape Area ("SLA"). The Beach Ballroom (category B listed) is the sole listed structure within the Site.

Key issues may arise in relation to the following and will be assessed:

- Effects on the landscape character of LCA 21: King's Links, LCA 7: Murcar & Balgownie Links and LCA 22: Girdle Ness.
- Effects on CCA 2 Aberdeen Beach.
- Effects on views from the coastline and the wider area.
- Effects on views from local residential areas such as Footdee, Donmouth Road along Golf Road and from flatted developments to the west of the Site.
- Cumulative effects of the proposed development in the context of other consented, application stage and allocated development.

9.1.2 Potential Environmental Effects

Construction Phase

Short-term, temporary effects on landscape features (grassland, trees and hedgerows), landscape character and visual amenity.

Operational Phase

Long-term, permanent effects on landscape features (grassland, trees and hedgerows), landscape character and visual amenity.

9.1.3 Relevant Guidance

Future LVIA should be undertaken broadly in accordance with the approach set out in the 'Guidelines for Landscape and Visual Impact Assessment Third Edition' (2013) – produced by the Landscape Institute ("LI") and the Institute of Environmental Management and Assessment ("IEMA"). This guidance ("GLVIA 3") is considered to be the most thorough and current in relation to the assessment of landscape character and visual effects. In addition, the most recently published technical guidance relating to LVIAs will also be used:

- Scottish Natural Heritage and The Countryside Agency (2002). Landscape Character Assessment Guidance for England and Scotland.
- Assessing Landscape Value Outside National Designations Technical Guidance Note 02/21, Landscape Institute, May 2021.

• Visual Representation of Development Proposals – Technical Guidance Note 06/19, Landscape Institute, September 2019.

10 AIR

10.1.1 Description of Local Environment

To inform the Environmental Report, the 2021 Air Quality Annual Progress Report (APR) for Aberdeen City Council (the most up-to-date report available) was reviewed.

The main pollutants of concern associated with road traffic emissions are NO_2 and PM_{10} .

Aberdeen City Council has declared three Air Quality Management Areas (AQMA) (Table 10-1).

AQUA	Description	Pollutants
Aberdeen City Centre AQMA	Market St, Union St, King St between Castle St and Roslin Terrace, Virginia St, Commerce St, Guild St, Bridge St, Holburn St between Great Southern Road and Union St, Victoria Rd, Torry between Queen Elizabeth II Bridge and Crombie Rd and West North Street King St to 100m north of the junction with Littlejohn St.	Nitrogen dioxide NO₂, Particulate Matter PM₁0
Anderson Drive AQMA	All of Anderson Drive from the Bridge of Dee including Haudigan roundabout, part of Gt Northern Road from 815 GNR to Auchmill Road, part of Auchmill Rd from GNR to the junction with Howes Road.	Nitrogen dioxide NO ₂ , Particulate Matter PM ₁₀
Wellington Road AQMA	From the Queen Elizabeth II Bridge to Balnagask Road.	Nitrogen dioxide NO ₂ , Particulate Matter PM ₁₀

Table 10-1: Aberdeen City Council AQMA

The closest AQMA to the boundary of the Aberdeen Beachfront Development Framework is the Aberdeen City Centre AQMA (Figure 3-5). The location of diffusion tubes are identified in Figure 10-1.




Continuous Monitoring Sites

There are three automatic monitoring sites in proximity to the Beachfront area at Errol Place (CM1), Union Street (CM2) and Market Street (CM3) Figure 10-2).

The Errol Place, Union Street and Wellington Road sites are part of the UK's Automatic Urban Network. All sites are part of the Scottish Government data reporting process and subject to independent audit

Errol Place is representative of typical residential properties close to the city centre but not adjacent to a major road and provides urban background data. Union Street and Wellington Road continuous monitoring sites are on busy city centre roads and are representative of population exposure for NO₂, PM₁₀ and PM_{2.5}. Union Street is the city's main shopping street with shops on the ground level and commercial premises and flats on the 1st, 2nd and 3rd floors. Almost all the city's bus routes pass along at least part of Union Street and the inside lane of both sides of the road are designated bus lanes.

Market Street is adjacent to Aberdeen Harbour and has a high proportion of HGVs travelling between the north-east of Scotland, the Harbour and locations to the south of Aberdeen. The street is used by pedestrians travelling to the city centre from residential properties to the south of the river Dee, visiting the Union Square retail park and people working around the Harbour area. There are a small number of 1st, 2nd and 3rd floor flats. Emissions from Aberdeen Harbour also contribute to the pollution on Market Street.



Figure 10-2: Aberdeen City Council AQMA and Location of Continuous Monitoring Sites

Nitrogen Dioxide (NO₂)

The NO₂ automatic monitoring data collected at all sites in 2020 was significantly lower than in 2019. The majority of diffusion tube monitoring locations also showed significantly lower NO₂ concentrations compared to previous years. The main cause of this is likely to have been due to reduced road traffic as "lockdown" travel restrictions were imposed at a national and regional level throughout the year, to protect public health and minimise the spread of infection during the COVID-19 coronovirus pandemic.

Tube monitoring locations (DT11, DT20, DT21, DT22, DT33 and DT46) in the area of the King Street/North Street junction in the city centre AQMA suggest an average reduction of NO2 levels by 25% compared to 2019. The annual average of all these tubes were below the objective, except for DT9 located at 39 Market Street, with an annual average of 42 µg/m³.

There were no exceedances of the NO_2 one-hour mean objective at any of the automatic sites. CM1 recorded levels above or very close to the objective level since 2016. It appears the reduction in road traffic in 2020 had a significant impact of reducing measured NO_2 levels, at this location, in the region of 30%.

Diffusion tube data also recorded no sites with an annual mean >60ugm-3 suggesting exceedances of the 1 hour objective were unlikely across the city.

No exceedances of the annual mean were recorded at any of the continuous monitoring sites. No exceedances of the objective have been recorded at any site since 2016.

Particulate Matter (PM₁₀)

The annual mean and 24 hour PM_{10} objectives were met at all monitoring locations and the concentrations at measurement locations across the city are comparable to annual monitoring data since 2016.

No exceedances of the annual mean were recorded at any of the continuous monitoring sites. No exceedances of the objectives have been recorded at any site since 2016.

Aberdeen Low Emission Zone (LEZ)

Following approval from Scottish Ministers, Aberdeen City Council is introducing a Low Emission Zone (LEZ) in Aberdeen City Centre (Figure 10-3).



Figure 10-3: Map of the Low Emission Zone (LEZ)

The LEZ is an area of Aberdeen City Centre where the driving of vehicles which do not meet the specified emissions standards is prohibited. The aim of the LEZ is to improve air quality within the City Centre Air Quality Management Area (AQMA) to ensure compliance with the Scottish Government's air quality objectives, particularly for the pollutant nitrogen dioxide (NO₂).

The LEZ came into effect on 30th May 2022 and will operate for 365 days a year, 24 hours a day. A 2year grace period (during which enforcement of the LEZ will not take place) for both residents and nonresidents of the LEZ area and all non-exempt vehicle types will commence from this date, meaning that enforcement will take place from 1st June 2024.

The LEZ has been introduced in response to longstanding issues of poor air quality in the Aberdeen City Centre AQMA. Air pollution is believed to be a contributing factor in a number of serious health problems suffered by individuals, and the number of health concerns linked to poor air quality is growing every

day.²⁷ This has a disproportionate impact on the most vulnerable members of society, particularly the young, elderly and those with chronic heart, lung and respiratory conditions. Air pollution is therefore a significant Public Health concern and a LEZ is an effective means of responding to this. This accords with the precautionary public health approach to air pollution advocated in the Scottish Government's Air Quality Strategy, *Cleaner Air for Scotland 2* (CAFS2).²⁸

The Aberdeen City Council document 'Low Emission Zone (LEZ) Scheme' states that Air Quality modelling has shown that, even with the delivery of ambitious transport improvements in the City Centre, such as those identified in the Aberdeen City Centre Masterplan, emissions exceedance will remain unless tailpipe emissions are also addressed, While the COVID-19 pandemic and resulting travel restrictions led to air quality improvements in 2020 and 2021, the medium to long term impacts of the pandemic on transport and travel remains uncertain, therefore the pandemic is not a reason for delaying action.¹⁸

The LEZ applies to all vehicle types specified in the table below, unless subject to an exemption (Table 10-2).

Vehicle	Vehicle	Description	
	Category		
Light passenger vehicles	M1	Vehicles designed and constructed for the carriage of passengers and comprising no more than eight seats in addition to the driver's seat.	
Minibus	M2	Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass not exceeding 5 tonnes.	
Bus and coach	M3	Vehicles designed and constructed for the carriage of passengers, comprising more than eight seats in addition to the driver's seat, and having a maximum mass exceeding 5 tonnes.	
Light Goods Vehicles (LGVs)	N1	Vehicles designed and constructed for the carriage of goods and having a maximum mass not exceeding 3.5 tonnes.	
Heavy Goods Vehicles (HGVs)	N2	Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 3.5 tonnes but not exceeding 12 tonnes	
	N3	Vehicles designed and constructed for the carriage of goods and having a maximum mass exceeding 12 tonnes.	

Table 10-2: Vehicle types within scope of the LEZ

A number of vehicle types are exempt from LEZs in Scotland, meaning that any restrictions do not apply to them (Table 10-3).

Aberdeen City Council can also grant and renew time-limited exemptions to any vehicle type that is not covered by a national exemption, meaning the registered keeper of the vehicle would be exempt from LEZ enforcement for the period of time that the exemption applies.

The legislation allows for the LEZ to be suspended for the duration of events of local or national significance. The LEZ can also be suspended in emergencies, such as an incident on the wider road network that requires all vehicles to be temporarily diverted through the LEZ area (but only where vehicles follow prescribed diversionary routes).

²⁷ www.aberdeencity.gov.uk/sites/default/files/2022-05/LEZ%20Summary.pdf

²⁸ www.gov.scot/publications/cleaner-air-scotland-2-towards-better-place-everyone/

Vehicle type or	Description	
classification		
Emergency vehicles	The vehicle is being driven by any person who is:undertaking their duty as a constable;	
	 providing a response to an emergency at the request of the Scottish Ambulance Service Board; 	
	 exercising the functions of the Scottish Ambulance Service Board, the Scottish Fire and Rescue Service, Her Majesty's Coastguard or the National Crime Agency. 	
Historic vehicles	 The vehicle was manufactured or registered under the Vehicle Excise and Registration Act 1994 for the first time at least 30 years ago; The vehicle is no longer in production; and 	
	 The vehicle is no longer in production, and The vehicle has been historically preserved or maintained in its original state and has not undergone substantial changes in the technical characteristics of its main components 	
Vehicles for	The vehicle is being driven by any person who is in receipt of a badge (a blue	
disabled persons	badge) that has been issued under Section 21(2) of the Chronically Sick and Disabled Persons Act 1970.	
	 a passenger in the vehicle has been issued with a badge under that Section of that Act; or 	
	• a badge for the vehicle has been issued under Section 21(4) of that Act; or	
	 a reduction in annual rate of vehicle excise duty applies because the vehicle is being used by a disabled person in receipt of personal independence payment at the standard rate; or 	
	 Vehicles registered with a 'disabled' or 'disabled passenger vehicles' tax class e.g., the vehicle is exempt from payment of vehicle excise duty under paragraph 19(1) or 20(1) of schedule 2 of the Vehicle Excise and Registration Act 1994 (exemption s from excise duty for vehicles used by disabled persons). 	
Showman	• Vehicles described as either "showman's goods vehicle" or "showman's	
vehicles	vehicle" according to Section 62(1) of the Vehicle Excise and Registration	
	Act 1994. Note: these are highly specialised vehicles used for the purposes	
	of travelling showmen, where the vehicle is used during the performance,	
	used for the purpose of providing the performance or used for carrying performance equipment.	

Table 10-3: National Exemptions

10.1.2 Potential Environmental Effects

The potential exists for an increase in traffic in the vicinity of the surrounding road network and in turn increases in the pollutants NO_2 , PM_{10} and $PM_{2.5}$ which are most commonly associated with traffic emissions.

Future activities have the potential to impact the adjacent City Centre AQMA, however, the Beachfront Development Framework aims to encourage infrastructure, including traffic management that reduces the impact of the existing road network to promote alternative forms of travel, including walking and cycling, whilst improving the public realm. The promotion of active travel and public transport may positively benefit the City Centre AQMA.

10.1.3 Relevant Guidance

Future air quality assessment should be undertaken with reference to the following.

Air quality in the UK is protected by national and regional legislation. In the UK, Part IV of the Environment Act 1995 places a statutory duty on local authorities to periodically review and assess the air quality within their area. This involves consideration of present and likely future air quality against air quality standards and objectives. Guidelines for the "Review and Assessment" process of local air quality were published in the 1997 National Air Quality Strategy (NAQS) and associated guidance and technical guidance. In 2000, the Government reviewed the 1997 Strategy and produced a revised Air Quality Strategy for England, Scotland, Wales and Northern Ireland, which resulted in the production of air quality standards and objectives. The most current revision of the Strategy available is dated March 2011 (DEFRA, 2011).

The objectives adopted in Scotland are contained within the Air Quality (Scotland) Regulations 2000 and Air Quality (Scotland) Amendment Regulations 2002 for Local Air Quality Management and consolidate the provisions of the previous Air Quality Regulations. The Air Quality Standards (Scotland) Regulations 2010 introduce objectives for Particles (PM₁₀, PM_{2.5}), Polycyclic Aromatic Hydrocarbons and lead with the Air Quality (Scotland) Amendment Regulations 2016 amending the Air Quality (Scotland) Regulations 2000 to bring into statute an objective for PM_{2.5}.

Guidance on the assessment of dust from demolition and construction (IAQM, 2014 (amended 2016)

The Institute of Air Quality Management 'Guidance on the assessment of dust from demolition and construction sets out an approved method for undertaking construction impact assessment and will be used as the basis of the dust assessment.

LAQM.TG16 and LAQM.PG16

Technical Guidance (LAQM.TG(09)) was issued on behalf of the Department of Environment, Food and Rural Affairs (DEFRA) in February 2009 (DEFRA, 2009a). A Policy Guidance (LAQM.PG09) was also issued at the same time (DEFRA, 2009b). This guidance is designed to guide local authorities through the Review and Assessment process and will also be adhered to for the air quality assessment.

DEFRA and The Scottish Government have recently updated LAQM Technical Guidance (LAQM.TG16) (The Scottish Government, 2018). The main change is in the approach with a greater emphasis on action planning to bring forward improvements in air quality and to include local measures as part of EU reporting requirements. The reporting requirements for Local Authorities also changed with the adoption of an Annual Progress Report. Local Authorities continue to appraise pollutant concentrations of Nitrogen Dioxide (NO₂), Particulate Matter (PM₁₀) and Sulphur Dioxide (SO₂). Local Authorities are also required to work towards reducing levels of PM_{2.5}.

Land-use Planning & Development Control: Planning for Air Quality

The document "Land-Use Planning & Development Control: Planning for Air Quality" produced by Environmental Protection UK and the Institute of Air Quality Management (EPUK & IAQM, 2017) provides guidance on dealing with air quality issues within the development control process. This guidance provides an assessment approach to defining whether the impact on air quality associated with the proposed development should be of material concern.

11 NOISE

11.1.1 Description of Local Environment

Existing noise sources surrounding the site include road traffic, Linx Ice Arena, fitness gym and Beach Leisure Centre. There is also a range of cafes, restaurants, a family fun fair, a cinema and a retail park to the south of the development area.

There are no Candidate Noise Management Areas (closest being, 8- Littlejohn Street, Mealmarket Street, King Street) (Figure 11-1) or Candidate Quiet Areas (closest being 4 - Seaton Playing Field), 8 (Figure 11-2) within the proposed development boundary.



Figure 11-1: Candidate Noise Management Area in Proximity to the Proposed Development





Aberdeen Beachfront is characterised by an urban noise environment. Figure 11-3 provides a strategic overview of the annual average noise levels at 4m above ground level on a 10m calculation grid associated with road, rail, industrial and aircraft within Scottish agglomerations such as Aberdeen City.²⁹



Figure 11-3: Consolidated Day, Evening and Night (Lden)

²⁹ https://noise.environment.gov.scot/noisemap/ (Accessed 12/05/2022)

On review of the noise map above (Figure 11-3), it is noted that noise levels vary in the surrounding area, with the variations largely associated with road transport links. The Beachfront is shown to have relatively low noise levels when compared with the surrounding area with the road network itself being slightly higher.

11.1.2 Potential Environmental Effects

The development framework proposals have the potential to change the noise levels compared to the existing situation due to potential changes in traffic flow on existing roads. Detailed noise assessments of the effects of the development framework proposals will be undertaken during the detailed design. Mitigation measures to minimise the effects of possible increases in noise will be provided, for example, environmental barriers, such as earth mounding or acoustic fencing.

Development-specific noise impacts resulting from the development framework proposals will be reported further in the supporting Environmental Impact Assessment.

Noise Sensitive Receptors

The site is extensive in area and the development design is not yet finalised. As such the most exposed noise-sensitive receptors used for assessment purposes shall be confirmed at a later stage. It is anticipated that residential properties on Merkland Lane, Park Road, Urquhart Road, Links Road and Beach Boulevard will be utilised in the assessment.

Key Potential Impacts

The key potential noise impacts at each area in the development can be summarised as follows:

- Potential road traffic noise generated by the development has the potential to impact existing noise-sensitive receptors; and
- Potential for commercial and entertainment noise from proposed attractions to impact existing sensitive receptors.

11.1.3 Relevant Guidance

Future noise assessment should be undertaken with reference to the following

Aberdeen City Council Local Development Plan (2017)

Aberdeen City Council's adopted Local Development Plan³⁰ details the intentions of the local authority with regards to development over the designated period.

Aberdeen City Council Supplementary Guidance – Noise

Aberdeen City Council's Supplementary Guidance: Noise³¹ was produced to support the policy on noise outlined in Aberdeen City Council's Local Development Plan³².

³⁰ Aberdeen City Council (2017), *Aberdeen Local Development Plan Document*.

³¹ Aberdeen City Council (2017), *Supplementary Guidance: Noise*.

³² Aberdeen City Council (2017), *Aberdeen Local Development Plan*.

PAN 1/2011 Planning and Noise

Advice on the role of the planning system in helping to prevent and limit the adverse effects of noise is provided in Planning Advice Note (PAN) 1/2011 – Planning and Noise³³. PAN 1/2011 promotes the principles of good acoustic design and a sensitive approach to the location of both noise-sensitive and noise-generating developments.

Technical Advice Note (TAN) – Assessment of Noise

The Technical Advice Note (TAN) – Assessment and Noise³⁴ provide guidance to accompany PAN 1/2011 on the appropriate methodology to assess the impact of noise.

BS 4142:2014+A1:2019, Methods for rating and assessing industrial and commercial sound

BS 4142:2014+A1:2019³⁵ provides methods for rating and assessing sound of an industrial and/or commercial nature.

World Health Organization Guidelines for Community Noise

In *Guidelines for Community Noise*³⁶, 55 dB $L_{Aeq,16h}$ is indicated as a criterion threshold below which few people are seriously annoyed for an outdoor living area, during daytime and evening hours. A lower guideline value of 50 dB $L_{Aeq,16h}$ is provided as a criterion below which few people are annoyed. In addition, the guidance identifies that negative sleep impacts are avoided at 30 dB $L_{Aeq,8h}$ for continuous noise sources.

BS 8233: 2014 Guidance on Sound Insulation and Noise Reduction for Buildings

BS 8233:2014³⁷ provides guidance on the control of noise from outside buildings, noise from plant and services within buildings and room acoustics for non-critical situations. It provides suggested internal noise levels which should not give rise to sleep disturbance during nighttime periods or living room disturbance during daytime periods.

ProPG: Planning & Noise

ProPG³⁸, while not formally adopted in Scotland, represents the current best practice for the adoption and implementation of the recommendations of BS 8233:2014 in relation to new residential developments. Fundamental to the proposed method to consider noise is to carry out a noise risk assessment, quantifying the extent to which noise will need to be considered and influence the design of the site. The document also details best practice relating to good acoustic design.

Calculation of Road Traffic Noise

CRTN³⁹ is the standard UK procedure which defines measurement and calculation methods for assessing road traffic noise.

³³ The Scottish Government (2011), PAN 1/2011 Planning and Noise.

³⁴ The Scottish Government (2011), *TAN 1/2011 Technical Advice Note*.

³⁵ British Standards Institution (2019), *BS 4142:2014+A1:2019 – Methods for Rating and Assessing Industrial and Commercial Sound*.

³⁶ World Health Organization (1999), *Guidelines for Community Noise*.

³⁷ British Standards Institution (2014), *BS 8233:2014 – Guidance on Sound Insulation and Noise Reduction for Buildings*.

³⁸ The Association of Noise Consultants, Institute of Acoustics, Chartered Institute of Environmental Health (2017),

ProPG: Planning & Noise – Professional Practice Guidance of Planning & Noise – New Residential Development. ³⁹ The Department for Transport (1988), *The Calculation of Road Traffic Noise*.

12 CLIMATE CHANGE

Emission reductions set under the Climate Change (Scotland) Act 2009 were updated under the Climate Change Emissions Reduction Targets) (Scotland) Act 2019 to net zero by 2045.

 CO_2 emissions data for Aberdeen is set out in Figure 12-1, with the change in CO_2 emissions from 2005 to 2019 indicated by sector in Table 12-1.



Figure 12-1: UK Government, Local Authority CO2 emissions 2005-2019 national statistics

Sector	Breakdown	2005 Baseline	2019 Measure	%Change
	Electricity	154.15	42.84	-72%
	Gas	52.19	24.14	-54%
Industrial	Other Fuels	125.2	81.75	-35%
	Agriculture	3.32	3.23	-3%
	Total	334.87	151.96	-54.6
	Electricity	252.59	84.34	-67%
Commercial	Gas	124.13	70.58	-43%
Commercial	Other Fuels	0.81	0.62	-23
	Total	377.54	155.54	-58.8%

12.1.1 Potential Environmental Effects

Opportunities for renewable energy provision and low/zero carbon technologies will be explored during the implementation of the development framework. This may include small-scale renewables/microgeneration and the identification of sites for local energy generation.

Further opportunities will be explored and overall, where possible, the development will be futureproofed to meet the requirements of Net Zero Aberdeen Routemap (2022) which outlines the city-wide approach to net zero.

It should be noted that key buildings in the wider area are connected to District Heating networks. The Aberdeen Heat & Power website⁴⁰ indicates that the use of thermal storage within the network also allowed this increase in capacity, enabling the connection of buildings (among others) including:

- Aberdeen Beach Leisure Centre;
- Linx Ice Arena;
- Aberdeen Health Village;
- Beach Ballroom;
- Hanover School;
- Hanover Community Centre; and
- Constitution Court sheltered housing complex.

It is considered that the proposed Development Framework area would not result in a significant effect on climate. Any increase in emissions created during either construction or operation is likely to be negligible, and pollution and emissions control during construction could be managed within a detailed Construction Environmental Management Plan (CEMP).

Discussion of the vulnerability of the project to climate change is primarily concerned with the water environment, including flood risk. Flooding will be assessed as part of the Flood Risk Assessment, with rises in sea level being a key climate consideration.

During demolition and refurbishment, there will be a carbon impact from existing buildings. Demolishing a building and replacing it with a new building can result in greater carbon emissions.

With regard to restoration, retrofit measures must be sympathetically and responsibly implemented. Inappropriate restoration measures can lead to unintended consequences and damage buildings. Design is the most important factor in determining GHG emissions over a building's lifetime. By the time the construction process begins, the majority of decisions affecting the project's GHG emissions are locked in. The ability to influence a building's lifetime emissions is highest very early in a project and before construction has started.

Fundamental design decisions—such as new construction versus upgrading, building size and shape, level of insulation, and floor-space flexibility—can have a significant impact on emissions for decades to come.⁴¹

The project provides a platform to create new & innovative technologies and systems, to provide a net zero carbon, electricity, heating, and cooling solution to serve the load demands of the development.

The Beachfront Development Framework aims to achieve Net Zero Carbon in Operation status. The design team are also seeking to reduce carbon associated with construction, but it is understood the project will not seek formal Net Zero on Construction certification.

The energy solution will meet the requirements of Aberdeen City Council *Climate Change Plan 2021-25: Towards a Net Zero and Climate Resilient Council.* The Plan sets out the approach, pathway, and actions towards net zero and climate-resilient Council assets and operations, by 2045. As such, energy-efficient designs will be incorporated alongside renewable and low-carbon energy sources, with

⁴¹ <u>https://www.mckinsey.com/industries/engineering-construction-and-building-materials/our-insights/call-for-</u>

⁴⁰ <u>https://www.aberdeenheatandpower.co.uk/</u>

action-seizing-the-decarbonization-opportunity-in-construction

consideration provided on how further decarbonisation could be achieved in the future. Following the Net Zero Carbon workshop, we understand the aspiration is for one energy centre to serve the entire site.

Look to reduce private car use by providing people with a choice on how they travel. Ensure there is adequate transport infrastructure in place, including provision for walking and cycling.

The development option provides a platform to create a 'wow' factor by incorporating new & innovative technologies and systems, to provide a net zero carbon, electricity, heating, and cooling solution to serve the load demands of the Beachfront Development Framework Area. Additionally, there is scope for a solution which aligns with Aberdeen City Council's hydrogen strategy, to generate demand and interest in hydrogen as a power source to achieve their climate goals and to capitalise on the unique skills base of the region.

At this early stage in the design development options are ongoing with an appraisal to determine the best Energy Strategy for the proposed development. Collaboration will be possible with both Aberdeen Heat & Power and the Council's Green Hydrogen Joint Venture partner to fully explore and understand the feasibility of options.

This appraisal would include all load profiling, sizing, location considerations, technical specifications, capital costs and running costs considerations. In conjunction with the Council's wider net zero targets the appraisal will also explore the potential for future proofing benefits through green energy for other nearby assets.

13 MATERIAL ASSETS

13.1.1 Description of Local Environment

The land on which the site is situated is a material asset. It has been zoned for development through the appropriate Development Plan process and as such the use of this material asset in a manner compatible with the zoning designation and the development framework, is entirely appropriate.

Other material assets in terms of water services, electricity, and other utilities are local and the proposed developments within the development framework can readily connect to same.

The construction and operation of the proposed development elements will utilise material assets (access road and construction materials) but given the scale of the development this will be considered at the project level.

Significant progress has been made in recent years with regard to waste management in Aberdeen. The Zero Waste Plan and the European Council Landfill Directive establish a framework for reforming the waste management system in Scotland and set targets for improving the sustainability of waste management up until the year 2025. In 2013 Aberdeen recycled 37% of waste. By 2020 this figure had risen to 45.6%

In addition, the Aberdeen City Council area also generates 192,155 tonnes of business waste.⁴² This is selected businesses waste in Scotland, including factories, utility and transport companies, shops, offices, hotels, restaurants, schools and hospitals. As there is no statutory duty for businesses to report to SEPA on the waste they generate, SEPA derives the information from statutory waste data received from operators of licensed and permitted waste management sites, and from operators of activities exempt from full waste management licensing.

13.1.2 Potential Environmental Effects

A mix of new developments and protection of existing assets wherever possible.

At the project stage, the proposals should provide an opportunity for sustainable construction methods and materials to minimise waste. The development framework will aim to enhance recreational and open space provision.

Aberdeen City Waste Strategy (ACWS) 2014-2025 states Site Waste Management Plans are required for all development work across Aberdeen. They stipulate how a construction company intends to reuse and minimise on-site waste.⁴³

⁴² https://www.sepa.org.uk/environment/waste/waste-data/waste-data-reporting/business-waste-data/

⁴³ https://www.aberdeencity.gov.uk/sites/default/files/2021-02/2014-2025-Waste-Strategy.pdf

14 ASPECTS OF ENVIRONMENT POTENTIALLY AFFECTED AND POTENTIAL MITIGATION MEASURES DURING DESIGN AND CONSTRUCTION PHASES

The table below provides commentary on each of the environmental topics considered with information on:

- Local setting and any key known features;
- Potential effects of development; and
- Any mitigation, avoidance or enhancement measures that could be implemented.

Торіс	Potential Effects	Context and Observations	Mitigation Measures During Design and Construction Phases
Biodiversity, Flora and Fauna	Habitat loss or fragmentation of habitat which may alter the integrity of designated areas	The Ythan Estuary, Sands of Forvie and Meikle Loch SPA is located approximately 100m to the east of the development framework area and it will be unlikely to suffer the loss of / fragmentation of existing habitat as a result of the proposals within the development framework. The River Dee Special Area of Conservation is located 1.5km south of the development framework area and it will be unlikely to suffer the loss of / fragmentation of existing habitat as a result of the proposals within the development framework.	Subsequent applications flowing from the Frameworks will require ecological surveys to be undertaken, and site-specific mitigation developed based upon the findings of the assessment. SUDs, green/blue infrastructure and compensatory planting will be a consideration during the design process to improve biodiversity.
Biodiversity, Flora and Fauna	Introduction of invasive species.	Minimising the spread of Non-Native Species.	Subsequent applications flowing from the Frameworks will require works will be undertaken in line with the Scottish Government's "Non-native species: code of practice ⁴⁴ (2012)"
Biodiversity, Flora and Fauna	Damage to the Biodiversity, flora and fauna	Degradation/pollution of water quality during construction and operation through small accidental release of fuel and/or sediment- associated impacts on flora and fauna.	 Subsequent applications flowing from the Frameworks will adhere to: GPP 1: Understanding your environmental responsibilities - good environmental practices GPP 2: Above ground oil storage tanks PPG 3: Use and design of oil separators in surface water drainage systems GPP 5: Works and maintenance in or near water PPG 6: Working at construction and demolition sites PPG 7: Safe storage - The safe operation of refuelling facilities GPP 8: Safe storage and disposal of used oils GPP 21: Pollution incident response planning

Table 14-1: Aspects of Environment Potentially Affected and Potential Mitigation Measures During Design and Construction Phases

⁴⁴ <u>https://www.gov.scot/publications/non-native-species-code-practice/ (accessed 29/0/2022)</u>

Торіс	Potential Effects	Context and Observations	Mitigation Measures During Design and Construction Phases
			GPP 22: Dealing with spills
Landscape	Impact on the visual amenity of the site and surrounding area.	There will be an alteration to the landscape as a result of the proposed development framework site due to the erection of new buildings and infrastructure.	Subsequent applications flowing from the Frameworks will require design mitigation to be employed and ensure that the proposals associated with the development framework integrate with the landscape/ townscape setting.
Archaeology and Cultural Heritage	Potential damage/ loss of Archaeology and Cultural Heritage artefacts/assets	There are unlikely to be significant archaeological and cultural heritage assets within the boundary of the site, but this will be confirmed during assessment.	Archaeological artefacts can be found at any time and as such, therefore, subsequent applications flowing from the Frameworks will require watching brief at the project development stage should be proposed.
Air Quality	Construction emissions	During the construction stage, there is potential for dust and greenhouse gases emitted from vehicles to impact the local air quality. Once constructed there will be emissions to air through typical activities associated with the proposals within the development framework e.g., vehicle emissions, energy etc.	Subsequent applications flowing from the Frameworks will require a CEMP which will contain standard construction site dust suppression techniques. Design mitigation will be employed to ensure the proposals minimise emissions.
Noise and Vibration	Construction Noise and Vibration	Construction works may generate noise and vibration. Best construction practices will be employed in line with British Standard 5228: Code of Practice from noise and vibration on construction and open sites. In addition, during construction potential nuisance will be managed through a Construction Environmental Management Plan (CEMP).	 Subsequent applications flowing from the Frameworks will adhere to the various Planning Advice Notes, standards and guidance documents including: PAN 1/2011 Planning and Noise British Standards Institution. British Standard 5228: Code of practice for noise and vibration control on construction and open sites. BS 5228-1:2009+A1:2014: Noise. BS 5228-2:2009+A1:2014: Vibration A CEMP will be prepared to manage construction noise and vibration.
Water	Protect and enhance the state of the water environment.	Potential degradation of water quality during construction and operation.	A Drainage Strategy aims to ensure the site drains sustainably. Potential degradation of the water environment during construction would be managed by the CEMP.
Water	Flooding	Potential flooding as a result of surface water and coastal flooding.	Subsequent applications flowing from the Frameworks will require a flood risk assessment to determine likely flooding effects and to

Торіс	Potential Effects	Context and Observations	Mitigation Measures During Design and Construction Phases
			support planning applications associated with development framework proposals.
Population and Human Health	Protect and improve human health and wellbeing through	Degradation of air quality on local communities, through dust and emissions during construction.	Subsequent applications flowing from the Frameworks will require a CEMP containing standard construction site dust suppression techniques. Design mitigation will be employed to ensure the proposals minimise emissions.
Material Assets	Promote the sustainable use and management of material assets.	Construction of the proposed elements of the development framework will utilise material assets (access road etc) but given the scale of the development, this is not considered to be significant.	Subsequent applications flowing from the Frameworks will require the use of natural resources such as aggregate material for roads and buildings. This is likely to be on a scale which is typical for such a development scheme. Surface water run-off would be attenuated within an onsite SUDS/ green infrastructure strategy. There may be the possibility to reuse material such as soil on site. Trees, hedgerows, and mature vegetation will be retained where
			possible throughout the site. Although some will be removed to facilitate the residential layout, roads etc.
	Zero Waste	Adhere to the waste hierarchy wherever possible	Subsequent applications flowing from the Frameworks will require construction waste produced to be controlled, stored, and disposed of sustainably as per relevant environmental guidance. A final Construction Environmental Management Plan (CEMP) which includes 'Site Waste Management' will be agreed upon with Aberdeen City Council before the commencement of development. Operational waste for individual development phases will be controlled by each "developer".
Geology and Soil	Maintain or improve soil quality and prevent degradation of soils.	Disturbance to and loss of soils	Subsequent applications flowing from the Frameworks will require contractors to adhere to a CEMP.

Торіс	Potential Effects	Context and Observations	Mitigation Measures During Design and Construction Phases
Climatic Factors	Minimise greenhouse gas emissions.	Construction activities leading to increased greenhouse gas emissions, adding to existing carbon footprint.	Discussion of the vulnerability to climate change is primarily concerned with the water environment, including flood risk. Subsequent applications flowing from the Frameworks will require a flood risk.
			— e.g., by using renewable energies wherever practicable.
Cumulative Effects	Minimise cumulative effects	Construction of the proposed development has the potential to give rise to cumulative environmental effects.	Subsequent applications flowing from the Frameworks will require cumulative effects to be taken into consideration during the assessment(s) associated with development framework proposals.

15 CONCLUSIONS

It is our initial opinion following the desk-based review of publicly available information, that potentially significant impacts on the environment as a result of the development framework proposals can be either avoided or mitigated.

A summary of the baseline review findings are below.

Biodiversity

A Preliminary Ecological Appraisal Report indicates no major ecological constraints have so far been identified. A badger sett was identified (the location of which is confidential), however this is in an area which is not earmarked for development other than potential planting and habitat creation.

Geology and Soils

The majority of the development framework area is identified as having an average topsoil organic content concentration of 2.1% and is noted to range from extremely vulnerable to very vulnerable with respect to risk from subsoil compaction and a moderate risk of topsoil compaction.

The development framework area is identified as Class H2 with respect to the potential risk from leaching of contaminants impacting ground or surface water (deep, permeable, coarse-textured soils with little ability to retain potential pollutants).

The extent of exposed soils should be minimised, particularly during winter months to prevent soil erosion.

Water

SEPA flood maps indicate that the site is at risk of surface water and coastal flooding. SEPA flood maps indicate there is no fluvial flood risk at the site. Nevertheless, a flood risk assessment and drainage assessment incorporating SUDs and blue/green infrastructure will be undertaken in support of the planning applications. In addition, potential coastal geomorphology and morphological erosion pressures will be assessed once there is sufficient boardwalk and slipway design information.

Landscape and Visual

In landscape and visual terms, there are receptors with a line of sight of the proposed development due to the character of the site and its surroundings. The landscape will be altered given the nature of the development framework proposals and design mitigation will be required.

Archaeology and Cultural Heritage

There are Archaeology and cultural heritage assets including the Beach Ballroom within the site boundary. However, the Beachfront Development Framework aims to minimise significant effects of future development, nevertheless, the precautionary approach is being taken by the Council which means that before any work is carried out on site, discussions will take place with the Archaeology service to determine what archaeological investigation will be required, where and when. The archaeology service are also consulted as part of the Planning Application process.

Air Quality

There are three Air Quality Management Areas (AQMA) in Aberdeen. The closest to the development framework area is the City Centre AQMA. Air quality is unlikely to be significantly altered, and potentially improved given the emphasis placed on active travel.

Air Quality Assessment will be undertaken and design mitigation can be applied to minimise/mitigate emissions associated with energy use.

Dust can be controlled during construction via a Construction Environmental Management Plan/ Dust Management Plan

Noise

Noise impact Assessment will be undertaken at the planning stage which promotes noise management and mitigation measures will be incorporated at the design stage. During construction, noise can be managed by a noise management plan.

Population and Human Health

Given the nature of the development proposals, it is unlikely there will be significant negative issues associated with population and human health. Active travel proposals can provide an opportunity to be physically active, which can contribute to improved health and wellbeing. In addition, the Beachfront Development Framework is likely to provide socio-economic benefits and employment opportunities.

Material Assets

The construction and operation of the proposed development will utilise material assets (land, access road(s), construction materials) but this is not considered to be significant given the scale of the proposals within the development framework.

Waste

A Site Waste Management Plan can ensure adequate measures for waste management are in place before and during construction. Operational waste management will aim to provide a robust strategy for storing, handling, collecting and transporting the wastes generated.

Climate Change

The Beachfront Development Framework aims to achieve Net Zero Carbon in Operation status. The design team are also seeking to reduce carbon associated with construction, but it is understood the project will not seek formal Net Zero on Construction certification.

Cumulative Effects

The proposed development is within an edge of town area with no other zoned sites coming forward for development at this time in the immediate vicinity.

A PRELIMINARY ECOLOGICAL APPRAISAL (PEA)



Beachfront Development Preliminary Ecological Appraisal



July 2022

Beachfront Development Preliminary Ecological Appraisal

Client: Robertson Construction Group Ltd

Document number: 10013 Project number: 375971 Status: Final

Author:Jennifer PatersonReviewers:Mhairi Mackintosh and Gemma Nixon

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EXECUTIVE SUMMARY

Envirocentre Limited were commissioned by Robertson Construction Group Ltd to undertake a Preliminary Ecological Appraisal for the proposed beachfront development in Aberdeen. The aim of the survey was to provide baseline information on the ecology present on site.

The Aberdeen - Inverness - Kittybrewster Railway Line, a Local Nature Conservation Site, crosses under the beach boulevard in the west of the site.

Seven primary habitats are present within the site, comprising of grassland, woodland, trees, buildings, built linear features and beach habitats. A small remnant sand dune is also present within the beach habitat, but is not considered a viable size for inclusion as a Scottish Biodiversity List priority habitat.

Buddleja, a non-native invasive species, was identified within and adjacent to the site during the survey at many locations. A management plan should be devised for Buddleja to avoid the spread of the species as a result of construction activities.

Buildings within and adjacent to the site and the footbridge over Commerce Street and Railway bridge under Beach Boulevard Road have Potential Roost Features (PRFs)and are considered to offer **low-moderate** suitability for roosting bats. Some of the mature broadleaf trees on site displayed PRFs and are considered to offer **low** suitability for roosting bats. Further survey of buildings, bridges and trees may be required to determine suitability and identify presence/absence of roosting bats if works are required on or in proximity to facilitate the development.

Marine mammals are known to inhabit the North Sea, therefore, if any in- water works which have the potential to impact marine mammals, a Marine Mammal Risk Assessment will need to be produced.

Bird nests were identified in trees and on buildings during the survey and the site provides suitable habitat for a range of bird species. Any vegetation removal/ building demolition works should be undertaken outside the nesting bird season (March-August).

Rabbit warrens are present in grassland areas throughout the site and rabbit activity within the site was high. A potential fox den was identified in the north west of the site. Any removal works should be undertaken out with any sensitive time period, under the audit of the project ecologist.

No evidence of otter, red squirrel or hedgehog was recorded within the survey area, however suitable habitat exists for these species within and adjacent to the site. Ecological data is considered valid for a period of 12 months.

Potential impacts (negative and positive) of the development have been considered in Section 4.1, good practice mitigation is recommended in Section 4.4 and opportunities for biodiversity gain are recommended in Section 4.5.

Contents

Exe	cutiv	e Summary	i
1	Intro	oduction	1
	1.1	Terms of Reference	1
	1.2	Scope of Report	. 1
	1.3	Site description	. 1
	1.4	Project description	. 1
	1.5	Legislation Policy and Guidance	2
	1.6	Report Usage	2
2	Met	hods	3
	2.1	Desk Study	3
	2.2	Field survey	3
	2.3	UKHAB Survey	4
	2.4	Groundwater Dependent Terrestrial Ecosystems	4
	2.5	Invasive Non-Native Species	4
	2.6	Constraints	9
3	Res	ults 1	11
	3.1	Desk Study 1	11
	3.2	Field Survey1	11
	3.3	GWDTE 1	16
	3.4	INNS Survey1	16
	3.5	Faunal Survey Results1	17
4	Furt	her surveys, licencing and mitigations2	22
	4.1	Potential Impacts	22
	4.2	Further survey	23
	4.3	Licensing	<u>2</u> 4
	4.4	Mitigation2	24
	4.5	Opportunities for Biodiversity Gain	25

Appendices

- A Site layout
- B Summary of Relevant Legislation
- C Geographical Level of Importance for Ecologic al Features
- D Geographical Level of Importance of Ornithological Features
- E Desk Study Maps
- F UKHab results
- G Photographs
- H Protected species Results
- I Photographs
- J Confidential Annex 1

Tables

Table 2-1: Survey Areas	4
Table 2-2: Suitability Classification of Roosting, Commuting and Foraging Habitats for Bats	5
Table 2-3: PRFs in Structures Frequently Used by Bats for Roosting	6
Table 2-4: Status of Otter Resting Sites	7
Table 4-3: Summary of Habitat Types Recorded on Site	12
Table 3-2: Bird species within 2km of the site NESBReC	19
Table 3-3: Bird species identified during survey	20

1 INTRODUCTION

1.1 Terms of Reference

Envirocentre Limited were commissioned by Robertson Construction Group Ltd to undertake a Preliminary Ecological Appraisal for the proposed beachfront development in Aberdeen.

The 'site' is demarcated by the red line boundary as shown in Appendix A.

1.2 Scope of Report

The aim of the survey was to provide baseline information on the ecology present on site. The objectives were as follows:

- A desk study to identifying any ecological sensitivities associated within and in proximity to the site;
- Identify and map broad habitat types on site and aim to identify any Invasive Non-Native Species (INNS) or Groundwater Dependent Terrestrial Ecosystems (GWDTEs) on or within influence of the site;
- Search for field evidence for a range of protected or notable species which may frequent the survey area;
- Identify suitable habitat for protected or notable faunal species in the survey area;
- Evaluate the site based on the habitats and species found;
- Make recommendations for any further survey and/or species licensing requirements; and
- Provide recommendations for methods to mitigate impacts on notable habitats or protected species and identify opportunities for biodiversity gain.

1.3 Site description

The site is situated in the east of Aberdeen City, centred at NJ 95233 07047 and at an elevation of 8m above sea level. The site sits on a reclaimed sand dune system and consists of amenity grassland, built roads and pathways, buildings containing sport facilities with associated parking and ornamental planting. The Aberdeen beach front, with associated sea wall and groynes is also included.

King's links golf course is present to the north of the site, Codona's amusement park to the south and residential housing, cemetery and sports facilities to the west. The wider landscape is dominated by Aberdeen city to the west and the North Sea to the east.

1.4 **Project description**

The Aberdeen Beachfront Development Project includes proposals for the construction of a c16,000 seater stadium and 12,000m² and Leisure/ ice arena facility, Boardwalk structure, Slipway, c200m² surf pavilion, energy centre and associated infrastructure/public realm etc. as detailed in the Draft Development Framework¹.

¹ Draft Development Framework 'ACB-KEP-XX-XX-RP-A-852007_DRAFT_Development Framework' document provided by the client on 14/04/2022.

1.5 Legislation Policy and Guidance

Legislation, planning policies, conservation initiatives and general guidance relevant to this study include:

- The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended);
- The Water Environment (Controlled Activities) (Scotland) Regulations 2011 (as amended);
- The Wildlife and Countryside Act 1981 (as amended) (WCA);
- The Nature Conservation (Scotland) Act 2004;
- The Wildlife and Natural Environment (Scotland) Act 2011 (WANE);
- The Protection of Badgers Act 1992;
- The British Standard for Biodiversity;
- The Scottish Biodiversity Strategy;
- Scottish Planning Policy (2014);
- The Marine (Scotland) Act 2010;
- The European Union Habitats Directive (1991);
- The Aberdeen City Local Development Plan²;
- Aberdeen City Council Aberdeen Beachfront Project Development Framework; and
- North East Scotland Biodiversity Partnership³.

A summary of protected species legislation is provided in Appendix B.

1.6 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre Limited.

If this report is to be submitted for regulatory approval more than 12 months following the report date, it is recommended that it is referred to EnviroCentre Limited for review to ensure that any relevant changes in data, best practice, guidance or legislation in the intervening period are integrated into an updated version of the report.

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EnviroCentre Limited accepts no liability for use of the report for purposes other than those for which it was originally provided, or where EnviroCentre Limited has confirmed it is appropriate for the new context.

² <u>https://www.aberdeencity.gov.uk/services/planning-and-building/local-development-plan/aberdeen-local-development-plan</u> (Accessed April 2022)

³ <u>https://www.nesbiodiversity.org.uk/</u> (Accessed April 2022)

2 METHODS

2.1 Desk Study

In order to anticipate the potential ecological sensitivities of the site, a desk study was conducted in advance of the field survey, in January 2022. The following sources were checked:

- NatureScot Sitelink for information on relevant statutory designated sites within 5km of the site⁴;
- Aberdeen City Council Local Development Plan 2017 for non-statutory designated sites within 2km of the site⁵;
- Scotland's Environment Map website to locate and identify ancient woodland within or adjacent to the site⁶;
- Saving Scotland's Red Squirrels (SSRS)⁷ and NBN Atlas Search for records of grey squirrel (*Sciurus carolinensis*) within 1km of the site⁸;
- NESBReC data request for ecological records within a 1km radius of the site; and
- The UK Biodiversity Action Plan⁹ and Scottish Biodiversity List¹⁰ for Priority Habitats and Species and the NESBIP for Local Priority Habitats and Species potentially relevant to the site.

2.2 Field survey

All field survey work was undertaken by EnviroCentre ecologist Jennifer Paterson who is an Associate member of the Chartered Institute of Ecology and Environmental Management (ACIEEM). The surveys were designed using the guidelines endorsed by NatureScot, CIEEM¹¹ and UK Habitat Classification¹². The survey focussed on plants and habitats on the site and those faunal species that are most likely to be found in the habitats which make up the landscape in and around the site. The survey was undertaken on 26th April 2022 when conditions were dry, breezy and 30% cloud cover. The average air temperature during the surveys was 12°C.

Table 2-1 provides an overview of the area surveyed for specific habitats, species, and species groups. Detailed methods regarding habitat and species surveys are provided.

https://map.environment.gov.scot/sewebmap/ (Accessed April 2022)

⁴ NatureScot. (No Date). *Site Link* [Online] Available at: <u>https://sitelink.nature.scot/map</u> (Accessed April 2022)

⁵ Aberdeen City Council (2017). Aberdeeen city council local development plan [online] Available at:

https://www.aberdeencity.gov.uk/services/planning-and-building/local-development-plan/aberdeen-local-development-plan (Accessed April 2022)

⁶ Scotland's Environment. (No Date). *Scotland's Environment Map*. [online] Available at:

⁷ Saving Scotland's Red Squirrels Sightings Map, available at: <u>https://scottishsquirrels.org.uk/squirrel-sightings/</u> (Accessed April 2022)

⁸ NBN Atlas occurrence download at <u>NBN Atlas</u> accessed on Tue Apr 19 13:06:46 UTC 2022.

⁹ Joint Nature Conservation Committee (JNCC). (No Date). *UK Biodiversity Action Plan (UKBAP) Priority Habitats & Species* [Online] Available at: <u>UK BAP List of UK Priority Species | JNCC Resource Hubhttps://jncc.gov.uk/our-work/uk-bap-priority-habitats/</u> (Accessed April 2022)

¹⁰ NatureScot. (2020) *Scottish Biodiversity List* [Online] Available at: <u>https://www.nature.scot/scottish-biodiversity-list</u> (Accessed April 2022)

¹¹ CIEEM PEA Guidance available at: <u>https://cieem.net/wp-content/uploads/2019/02/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-1.pdf</u> (Accessed April 2022)

¹² Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020). *The UK Habitat Classification User Manual Version 1.1* at <u>https://www.ukhab.org/ (Accessed April 2022)</u>

Habitat/Species/Species Group	Survey Area
UKHAB	Site
GWDTE	Site plus 250m buffer
Invasive Non-Native Species	Site plus 10m buffer
Bats (<i>Chiroptera spp.</i>)	Site plus 50m buffer
Otter (<i>Lutra lutra</i>)	Site plus 250m upstream and downstream
	of any waterbodies
Red Squirrel (<i>Sciurus vulgaris</i>)	Site plus 50m buffer
Badger (<i>Meles meles</i>)	Site plus 100m buffer
West European hedgehog (<i>Erinaceus europaeus</i>)	Site plus 50m buffer
Birds	Site plus 10m buffer
Marine Mammals	Site

Table 2-1: Survey Areas

2.3 UKHAB Survey

A UK Habitat Classification (UKHab) Survey was carried out in accordance with the user manual¹. UKHab is a hierarchical system for rapidly recording and classifying habitat via satellite imagery and field survey. The system comprises 5 levels of Primary Habitats which include ecosystems, broad habitats, priority habitats and Annex I habitats, along with non-hierarchical secondary codes which provide information on the environment, management and origin of Primary Habitats. The secondary codes are also used to map habitat mosaics and identify notable species features. The information collected is used to identify ecologically sensitive features and recommend mitigation and enhancement measures in connection with a proposed development.

The surveyor utilised the UKHab Professional edition with a Minimum Mapping Unit (MMU) of 25m² and aimed to categorise habitats to level 4. Where the level 4 habitat could not be determined due to a lack of indicative species, habitats were categorised to the broader level 3 habitat.

The information is used to identify ecologically sensitive features/habitats, inform relevant species surveys and, aid in the recommendation of mitigation and enhancement measures in connection with a proposed development.

2.4 Groundwater Dependent Terrestrial Ecosystems

The Functional Wetland Typology¹³ (FWT) was used to aid the identification of wetland habitats that derive their water from groundwater and surface water. This information is useful in identifying if and where further surveys are required to identify the presence and potential sensitivity of Groundwater Dependent Terrestrial Ecosystems (GWDTEs). To help assess ground water dependency, observations of local topography, underlying geology, and features such as springs, diffuse ground water emergence and floristic indicators of base enrichment were made.

2.5 Invasive Non-Native Species

The survey included a check for the presence of any invasive non-native species (INNS) including but not limited to the following:

- Japanese knotweed (*Reynoutria japonica*);
- Giant hogweed (*Heracleum mantegazzianum*); and

¹³ SNIFFER (2009). WFD95: A Functional Wetland Typology for Scotland; Project Report. Edinburgh: SNIFFER. (Accessed April 2022)

• Himalayan balsam (Impatiens glandulifera).

2.5.1 Bats

An assessment was undertaken in accordance with the criteria set out by the Bat Conservation Trust (BCT)¹⁴. No internal building inspections were undertaken during the survey. The suitability of roosting, commuting and foraging habitats was classified according to the criteria in Table 2-2 below.

Suitability	Roosting Features	Foraging and Commuting Habitats
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edges. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. The site is close to and connected to known roosts.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due their size, shelter, protection, conditions and/or surrounding habitat but unlikely to support a roost of high conservation status.	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis; or A tree of sufficient size and age to contain potential roost features but with none seen from the ground; or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated. Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or a patch of scrub.
Negligible	A structure or a tree with negligible features likely to be used by roosting bats.	Negligible habitat features likely to be used by foraging or commuting bats.

Table 2-2: Suitability Classification of Roosting, Commuting and Foraging Habitats for Bats

¹⁴ Collins, J. (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines. (London The Bat Conservation Trust, Ed.) (3rd ed.). (Accessed April 2022)

Potential Roosting Features (PRFs) in structures are listed in Table 2-3 below.

PRFs in trees frequently used as bat roosts	Access points in structures frequently used as bat roosts	Frequently used roosting locations in structures
Hollows and cavities from woodpecker, rot and knot holes	Gaps in windowsills and windowpanes	Top of chimney breasts, gable ends and dividing walls
Hazard beams and other vertical or horizontal cracks and splits in stems or branches	Underneath peeling paintwork or lifted rendering	All beams and roof beams (ridge, hip etc.)
Partially detached plated bark	Behind hanging tiles, weatherboarding, eaves, soffit boxes, fascias and lead flashing	Junction of timber joints, mortise and tenon joints
Cankers, included bark and compression forks with potential cavities	Under tiles and slates	Behind purlins
Partially detached ivy with stem diameters in excess of 50mm	Gaps in brickwork and stonework	Between tiles/slates and the roof lining
Bat or bird boxes	Gaps in rendering behind gutters	Under flat roof materials

Table 2-3: PRFs in Structures Frequently Us	sed by Bats for Roosting
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2.5.2 Otter

The otter survey followed best practice guidelines¹⁵, and aimed to identify suitable otter habitat and field signs, including:

- Spraints (otter faeces/droppings used as territorial signposts. Often located in prominent positions and can be placed on deliberate piles of soil or sand). Three categories are used for describing otter spraint: Dried fragmented (Df); Dried intact (Di); and Not fully dry (Nd);
- Footprints;
- Feeding remains (can often be a useful indication of otter presence);
- Paths/slides (otter can often leave a distinctive path from and into the watercourse);
- Holts (underground shelter) are generally found:
 - Within trees roots at the edge of the bank of a river;
 - Within hollowed out trees;
 - o In naturally formed holes in the river banks that can be easily extended;
 - Or preferably in ready-made holes created by other large mammals such as badger setts, rabbit burrows or outlet pipes; and
- Couches/lay-ups (couches or lay-ups are places for lying up above ground are usually located near a watercourse, between rocks or boulders, under dense vegetation).

In order to assess their importance, the status of otter resting sites was assigned from Low to High according to Table 2-4 below¹⁶.

¹⁵ Chanin, P. (2003). *Monitoring the Otter Lutra Lutra. Conserving Natura 2000 Rivers, Monitoring Series (No. 10).* Peterborough: EN, CCW, EA, SEPA, SNH & SNIFFER. (Accessed April 2022)

¹⁶ Bassett, S., & Wynn, J. (2010). *Otters in Scotland: How Vulnerable Are They to Disturbance?* CIEEM In Practice, (70), 19–22. (Accessed April 2022)

Resting Site	Definition
Status	
Low	Feature with limited evidence of otter activity – low number of spraints, not all age classes present. Insufficient seclusion to be a breeding site or key resting site, unlikely to have links to the key otter requirements. Most likely to provide a temporary 'stop off' for otters when moving through their territory. Loss/disturbance of such a feature is unlikely to be significant in terms of the individual or population.
Moderate	Feature containing sprainting with a range of age classes, but not in significant quantities. Availability may be limited by season, tides or flow. Unlikely to be suitable as a breeding/natal site but will be a key resting site and may be linked to other important features within the territory. The impact arising from a loss or disturbance of such a feature will be determined by the availability of more suitable or well used sites within the otter's territory.
High	Feature has a high level of otter activity, including an abundance of sprainting of all age classes, large spraint mounds, well used grooming hollows, paths and slides. Affords a high degree of cover and is linked to key features such as fresh water and abundance of prey. May be suitable as a breeding area (spraints may be absent from natal holts). The site is usually available at all times of year and at high and low tide/flow. The loss/ disturbance of such as feature will often be considered significant in terms of the individual or population.

Table 2-4: Status of Otter Resting Sites

2.5.3 Red Squirrel

A survey was undertaken based on best practice guidance¹⁷ which involves a search of suitable habitat (primarily coniferous woodland) for two distinct signs of squirrel activity. It should be noted that neither of these methods accurately distinguishes between red or grey squirrels (*Sciurus carolinensis*).

- Drey count dreys are the nests made by both species of squirrel in trees. Dreys are distinguishable from birds' nests as they are normally 50cm in diameter and 30cm deep, comprise a ball shape and are usually densely constructed. The dreys are normally located close to the main stem of the tree at a height of 3m or more; *and*
- Feeding evidence where cone producing trees (conifers) are evident evidence of squirrel feeding is searched for. Although the two species of squirrel cannot be distinguished from feeding remains, the way squirrels break open seeds and nuts, which are then left on the forest floor, is diagnostic.

2.5.4 Badger

A badger survey was undertaken in suitable and accessible habitat, with reference to the methodology described by Scottish Badgers¹⁸ and NatureScot^{19,20}, which aimed to identify the following field evidence:

• Setts (any structure or place, which displays signs indicating current use by badger/located within an active badger territory, as defined by NatureScot guidance²¹);

¹⁷ Gurnell, J., Lurz, P., McDonald, R. & Pepper, H. (2009) *Practical Techniques for surveying and monitoring squirrels. Forestry Commission Practice Note 11.* (Accessed, April 2022)

¹⁸ Scottish Badgers (2007) Level 1 Badger Awareness Manual, NatureScot Scotland's Wildlife Badgers and Development. (Accessed April 2022)

¹⁹ NatureScot: Licensing Guidance. Available from: <u>https://www.nature.scot/sites/default/files/2018-10/Guidance%20-</u>

<u>%20Licensing%20-%20Badgers%20-%20What%20is%20a%20Badger%20sett .pdf</u> (accessed January 2021) (Accessed April 2022)

²⁰ NatureScot: Protected Species Advice for Developers – Badger. Available from: <u>https://www.nature.scot/species-planning-advice-badger</u> (Accessed April 2022)

²¹ NatureScot definition of current use: "There is no case law to clarify what signs of current use means. For the purpose of this guidance, and in the absence of such case law, we consider that the presence of field signs such as bedding, fresh spoil heaps,

- Day beds (above ground area where badgers sleep, characterised by flattened vegetation or bundles of grass);
- Dung pits (single faeces deposit placed in a small excavation);
- Latrines (collection of faecal deposits often used by badger clans to mark home range boundaries);
- Foraging signs such as diggings or snuffle holes (badgers use their snout to turn over vegetation or soft soil to forage for bulbs and invertebrates);
- Paths (network of paths generally linking setts to foraging habitat);
- Breach points (gaps in fences or crossing points over roads);
- Scratching posts (marks on tree trunks/ fallen trees where badgers have left claw marks);
- Guard hair; and
- Footprints.

Setts were categorised as follows as per Scottish Badgers guidance²²:

- **Main sett**: numerous entrances, large spoil heaps, active and with well-used paths. One per social group;
- Annexe setts: numerous entrances, generally located within 150m of the main sett, with wellused paths connecting to the main sett. Not continuously active;
- **Subsidiary setts**: variable number of entrances not connected to other setts by obvious paths. Usually located <50m from main sett. Not continuously active; and
- **Outlier setts**: one or two entrances, often with little or no spoil heap. No defined paths connecting to other setts and used sporadically. May be occupied by fox or rabbit when not in use by badgers. Badger use can be recognised by a characteristic D-shaped tunnel (not actual entrance hole) which is at least 25cm in diameter.

To help determine if a sett is in current use, the entrances were classified according to their degree of usage as per Scottish Badger guidance:

- Well Used (WU): clear of debris and vegetation, sides worn smooth but not necessarily excavated recently.
- **Partially Used (PU):** not in regular use and has debris (i.e. twigs and leaves in entrance). Can be used but after only a minimum amount of clearance.
- **Disused (D):** not in use for some time. Can be partially blocked and could not be used without considerable effort. If disused for some time there is only an overgrown spoil heap and a depression in the ground where the hole used to be. Rabbits and foxes may take over part of a sett and keep disused entrances open.

Badger foraging habitat was classified on a primary and secondary basis as per best practice guidance²³. An assessment of the distribution of primary and secondary habitat (defined below) within the survey area was undertaken:

• Primary foraging habitat: short grazed or mown grassland, improved or unimproved, golf course habitat and broadleaved woodland (> 80% broadleaves); and

signs of recent digging, hair, latrines, or footprints in or around the potential sett or evidence of badgers entering or exiting the structure or place in question would indicate current use of the structure / place by a badger."

²² Scottish Badgers: Surveying for Badgers – Good Practice Guidelines. Version 1: 2018. Available from:

https://www.scottishbadgers.org.uk/userfiles/file/planning_guidelines/Surveying-for-Badgers-Good-Practice-Guidelines_V1.pdf (Accessed April 2022)

²³ The Highland Council. Best Practice Guidance – Model badger Protection Plan (BPP)– Badger foraging habitats (2006). Available from:

https://www.highland.gov.uk/downloads/file/2635/badger_best_practice_guidance_badger_protection_plans_september_2006 (Accessed April 2022)

• Secondary foraging habitat: arable, rough grassland (not grazed by domestic stock or mown), scrub and mixed woodland.

2.5.5 West European Hedgehog

The suitability of the habitats for hedgehog was assessed according to guidance²⁴. Suitable habitats include:

- Grazed pastureland separated into small fields by hedgerows;
- Deciduous woodland copses (oak, beech);
- Overgrown verges or margins; and
- Suburban gardens, woodpiles or parklands.

2.5.6 Birds

Habitats within the survey area were assessed for their suitability to support breeding and over wintering birds. Observations of birds were noted during the survey.

2.5.7 Marine Mammals

A general review of habitat suitability was made of the North Sea and its suitability to host marine mammals and a 10 minute scan of the open water was undertaken by eye and with the aid of close focus binoculars based on the 'Shorewatch' protocol adopted by Whale and Dolphin Conservation (WDC)²⁵. Any observations of marine mammals during the survey were noted.

2.6 Constraints

2.6.1 Desk Study

Desk studies are limited by the reliability of third-party information and the geographical availability of biological and/or ecological records and data. This emphasises the need to collate up-to-date, site-specific data based on field surveys by experienced surveyors. The absence of a species from biological records cannot be taken to represent actual absence. Species distribution patterns should be interpreted with caution as they may reflect survey/reporting effort rather than actual distribution.

2.6.2 Field Survey

Direct access to the railway tunnel which goes under the Beach Boulevard Road was not possible due to security fencing in place. The feature was assessed from a distance using binoculars and therefore, it is unlikely not gaining direct access has affected the survey outcomes at this stage.

Access to the driving range was not possible during the survey, however, the habitat type was easily discernible from a distance and therefore unlikely to have been affected.

²⁴ The Mammal Society (2012). UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation. (W. J. Cresswell, J. D. S. Birks, M. Dean, M. Pacheco, J. W. Trewhella, D. Wells, & S. Wray, Eds.). Southampton: The Mammal Society. (Accessed April 2022)

²⁵ Whale and Dolphin Conservation Shorewatch protocol available at:

https://www.wdcs.org/national_regions/scotland/shorewatch/protocol.php (Accessed April 2022)

A small area in the northwest of the site could not be accessed due to the presence of heras fencing and works going on beyond this point. The area of modified grassland was assessed from outside the heras fencing, as such some floral species may have been missed but it is considered the habitat would not be characterised differently.
3 RESULTS

3.1 Desk Study

Desk study information can be found in Appendix E.

3.1.1 Statutory Designated Sites

No statutory designated sites are located within the site.

The Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area boundary is located 100m to the east of the site. It supports bird populations including Sandwich tern (*Sterna sandvicensis*), common tern (*Sterna hirundo*), little tern (*Sterna albifrons*), pink-footed geese (*Anser brachyrhynchus*), eider (*Somateria mollissima*), lapwing (*Vanellus vanellus*) and provides a foraging zone for these species. It is ecologically connected to the site via the North Sea and coastline.

The River Dee Special Area of Conservation is located 1.5km south of the site. It contains populations of otter (*Lutra lutra*), Freshwater pearl mussels (*Margaritifera margaritifera*) and Atlantic Salmon (*Salmo salar*). It is ecologically connected to the site via the North Sea to the east and the green residential garden habitats to the south and west of the site.

3.1.2 Non-Statutory Designated Sites

The Aberdeen - Inverness - Kittybrewster Railway Line, a Local Nature Conservation Site, crosses under Beach Boulevard Road in the west of the site. It provides a green corridor through the city as it contains grassland, tall ruderal vegetation, scrub and woodland.

The Donmouth Local Nature Reserve 2km north of the site supports waterfowl and seal populations. It is connected to the site via the parkland and green residential garden habitats to the north of the site and the North Sea to the east.

3.1.3 Ancient Woodland

No areas of ancient woodland are present within the site or within proximity. The nearest ancient woodland to the site is the long-established (of plantation origin) woodland at Seaton Park 2km northwest of the site. It is ecologically connected to the site by the parkland and green residential garden habitats present to the north and west of the site.

3.2 Field Survey

3.2.1 UKHAB Survey

The results from the UKHab survey are shown in Appendix F and the photographic record in Appendix G.

Seven primary habitats, with secondary codes, are present within the site, as summarised in Table 4-3 and detailed further overleaf.

Table J-1. Summaly of Habital Types Necolded on Sile
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Habitat Type	Habitat	Primary Codes	Secondary Code
Grassland	Other neutral	g3c	10 – Scrub
	grassland		11 - Scattered trees
		16 - Tall Herb	
			56 – Young trees – planted
			77 – Neglected
			117 – Dry
			300 – Natural and semi-natural open
			space
	Modified grassland	g4	10 - Scrub
			11 - Scattered Trees
			66 – Frequently mown
			117 – Dry
			500 – Recreation ground
	Modified grassland	g4	10 - Scrub
			11 - Scattered Trees
			351 – Vacant/derelict land
Woodland	Other woodland;	w1h6	36 – Plantation
	mixed; mainly		76 - Recent management
	conifer		189 - Scattered grass
			343 - Woodland; conifers
	Line of trees	w1g6	1171 - Mature tree
			1172 – Young tree
	Buildings	u1b5	90 – Commercial building
			109 – Residential
			630 – Adventure playground
	Built Linear Feature	u1e	10 – Scrub
			11 - Scattered Trees
Urban			68 – Mortared wall
			89 – Car park
			111 - Road
			420 - Green access route
			421 - Walking/cycling route
			431 – Road island/verge
	Beach	t2h	113 – Sea wall
Marine Inlets and			380 – Coastal
Transitional Waters			381 – Beaches and sand dunes
			382 – Foreshore/rocks
			384 – Open saline water

3.2.2 Other Neutral Grassland (g3c)

Definition: Neutral grassland that does not meet the definition of either g3a or g3b. Perennial Rye-grass Lolium perenne is likely to be present at <30% with between 9 and 15 further species (m²) also present. Many of the more species rich swards that were previously described as "semi-improved neutral grassland" will fall here, together with rank unmanaged swards on neutral soils.

There are three main areas where this habitat is present: Broadhill in the north west of the site, the area of grassland in the north of the site, east of the driving range and verges along the south and east of the outside of the driving range and grassland along the seafront. These areas are predominantly unmanaged, with longer swards and are dry.

There are an average of 10 species per m² and 75% cover of grass species. The species composition in these areas are very similar and comprise of dominant annual meadow grass (*Poa annua*), Yorkshire fog (*Holcus lanatus*), Cocksfoot (*Dactylis glomerata*) and common bent (*Agrostis capillaris*). White

clover (*Trifolium repens*), dandelion (*Taraxacum officinale*), yarrow (*Achillea millefolium*), broadleaved dock (*Rumex obtusifolius*), common chickweed (*Stellaria media*) and springy turf moss (*Rhytidiadelphus squarrosus*) are abundant. Ribwort plantain (*Plantago lanceolata*), creeping thistle (*Cirsium arvense*), spear thistle (*Cirsium vulgare*) and ragwort (*Jacobaea vulgaris*) are regular and cow parsley (*Anthriscus sylvestris*), common mouse ear (*Cerastium fontanum*), nettle (*Urtica diocia*), cleavers (*Gallium aparine*) are occasional (Photograph 1).

A stand of rosebay willowherb (*Chamaenerion angustifolium*) is present in both Broadhill grassland and grassland to the east of the driving range (16). Scattered gorse (*Ulex europaeus*) (10), young-semi mature sycamore (*Acer pseudoplatanus*) (11) and a rare bracken (*Pteridium*) are also present in Broadhill grassland.

A small area in the northwest of the site, directly adjacent to the Broadhill grassland, has been used as an area where rubbish has been dumped and is overgrown with Buddleja (*Buddleia davidii*), young sycamore and nettle (Photograph 2).

Fresh planting of coniferous saplings has occurred in the north of Broadhill grassland (56).

Neutral, amenity and roadside verges fall into the Grasslands priority NESBiP habitat and golf courses also fall into the Built Environment NESBiP priority habitat. Therefore, other neutral grassland in the site is of Regional importance.

3.2.3 Modified Grassland (g4)

Definition: Vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of Rye-grass Lolium spp. and White clover Trifolium repens.

Frequently mown modified grassland, managed for recreational use is present throughout the site. Secondary codes that define the grassland habitats include grassland with scattered scrub, scattered trees and vacant/derelict ground.

3.2.3.1 Modified Grassland (g4 10 11 66 117 500)

The main species composition for this habitat type comprises cocksfoot and Yorkshire fog (comprising >75% cover) and annual meadow grass, with white clover, dandelion, yarrow, broadleaved dock being regularly observed. Common chickweed and springy turf moss are frequently observed.

Scattered trees are present in the modified grassland areas in the north, south and western regions of the site and consist of a range of young to mature species, including: whitebeam (*Sorbus aria*), Norway maple (*Acer platanoides*), bird cherry (*Prunus padus*), elm (*Ulmus procera*), sycamore, rowan (*Sorbus aucuparia*), willow (*Salix sp.*), ash (*Fraxnius excelsior*), Scot's pine (*Pinus sylvestris*), hawthorn (*Crataegus monogyna*), common lime (*Tilia x europaea*), oak (*Quercus robur*) and crack willow (*Salix fragilis*) (Photograph 3).

Areas of ornamental planting predominantly for screening reasons, between roads and recreational playing areas comprise planted elm, privet (*Ligustrum ep.*), hawthorn, *escallonia sp.*, blackthorn (*Prunus spinosa*), *cotoneaster sp.*, dog rose (*Rosa canina*), red flowering currant (*Ribes sanguineum*), brachyglottis (*Senecio sp.*), dogwood (*Cornus sanguinea*) and *Virburnum sp*. The ground around most of these areas of ornamental planting is bare, with occasional regenerating privet and elm, common mouse ear, cleavers and nettle.

A children's play area containing swings, roundabouts, slides etc. on natural soft sand and grassland surface is present in the central region of the site, east of Transition Extreme building (Photograph 4).

3.2.3.2 Modified Grassland (g4 10 11)

A small area of modified grassland is present in the west region of the site, near the roundabout This area has been disturbed, likely as the result of the buildings being developed adjacent in the north. Species present include regenerating grass species, cleavers, common chickweed, dandelion, spear thistle, and creeping buttercup (*Ranunculus repens*). Privet and Norway maple trees are present along the south boundary within this area.

Improved grasslands, roadside verges and amenity grasslands fall into the Grasslands NESBiP priority habitat. Therefore, modified grassland in the site is of Regional importance.

3.2.4 Other woodland; mixed; mainly conifer (w1h6)

Definition: A mixture of broadleaved and coniferous trees in which coniferous species make up between 50 and 80% of the tree cover.

Two blocks of mixed young plantation woodland (36), which have been obviously planted, are present on Broadhill with species composition comprising densely packed Scots pine and lodgepole pine (*Pinus contorta*), with sycamore, rowan and hawthorn at the southern extent. A stand of dense raspberry (*Rubus idaeus*) is present along the east edge of the eastern woodland block (Photograph 5).

The understory comprises Yorkshire fog (189), bracken, bluebell (*Hyacinthoides sp.*), cleavers, daffodil (*Narcissus pseudonarcissus*) and springy turf moss.

Planted coniferous woodlands fall into the Woodland NESBiP priority habitat and therefore planted mixed, mainly conifer woodland is of Regional importance.

3.2.5 Line of Trees (w1g6)

Definition: A line of trees at least 20 meters in length with open habitat on each side.

There are five treelines in the central region of the site, with species ranging from young to mature and creating avenue treelines.

One treeline surrounds the Hilton hotel grounds and comprises whitebeam, Norway maple, elm, cherry, sycamore, rowan, ash, Scot's pine and sea buckthorn (*Hippophae rhamnoides*), with a shrub lower storey comprising dog rose, willow and *brachyglottis sp* (Photograph 6).

The second treeline is present in the grassland area south of the Hilton Hotel, beyond the Beach Boulevard Road and comprises elm and sycamore, with modified grassland understory.

The third treeline is present to the west of the Beach Ballroom building and comprises black pine (*Pinus nigra*), whitebeam, elm, sycamore, with an understory of escallonia, blackthorn, cotoneaster, dog rose, red flowering currant and New Zealand holly (*Olearia macrodonta*).

The fourth treeline is present to the west of the Beach Ballroom building and comprises black pine, with a shrub lower story comprising of red flowering currant, *brachyglottis sp.*, bay laurel (*Laurus nobilis*) escallonia *and Virburnum sp.*

The fifth treeline is present to the east of the driving range in the area of other neutral grassland, where a line of semi mature rowan trees have been planted.

Lines of trees are not a priority habitat but provide important biodiversity value and area therefore are of Site importance.

3.2.6 Buildings (u1b5)

Definition: A relatively permanent closed construction over a plot of land, having a roof and usually windows and often more than one level used for any wide variety of activities, as living, entertaining, or manufacturing.

The site contains nine buildings. The buildings are present for a number of uses, including recreational and fitness activities (ice rink, swimming pool, gym, Transition Extreme), events (Beach ballroom, Hilton hotel function building) (90), public facilities (public toilets) and residing (Hilton hotel) (109) (Photograph 7).

The buildings on site comprise a mixture of stone, brick, steel, metal, wood panelling, panelling, cladding and rendered surround with roofing materials including, slate, corrugated metal, sheet metal and tiles.

In association with Transition extreme building, the aerial assault course and off-roading area are present to the north of the main building and are within fully enclosed, secure ground (Photograph 8) (630).

Buildings of a variety of purposes, from residential to business are present to full expanse of the south boundary of the site, along the north of the section of the site which extends westwards along Beach Boulevard Road and to the west and north west of the site.

Buildings are included in the Built Environment NESBiP priority habitat and buildings are therefore of Regional importance.

3.2.7 Built linear features (u1e)

Definition: Roads, railways, walls, fences, surfaced paths.

The site contains asphalt pavements (421), roads (111), walls (68) and car parking (89) units throughout the site.

Within this habitat, there are multiple road verges (431) with managed modified grassland habitat and associated scattered trees with species including common lime, sycamore and Norway maple (11).

An area of planted scrub and managed modified grassland is present on the roundabout in the west of the site and comprises *Cotoneaster horizontalis*, lodgepole pine, daffodil, barberry (*Berberis sp.*), yew (*Taxus baccata*), juniper (*Juniperus sp.*), downy birch (*Betula pubescens*) and pampas grass (*Cortaderia selloana*) (10).

An area east of the car park associated with the Leisure Centre has planted elm, privet (*Ligustrum ep.*) and hawthorn shrubs, with a bare understory (Photograph 9).

Associated green infrastructure with built linear features provides opportunities for foraging, commuting and resting/nesting wildlife. Therefore, built linear features are of Site importance.

Definition: Sand or pebble intertidal sediment.

The North Sea (384) and associated sand and pebble beach (382) is present to the east of the site. The bank between the intertidal sediment (sand) and the built linear feature (Esplanade walkway), has been supported and reinforced with a stone sea wall (Photograph 10) (113).

Sand fencing barriers are present at regular intervals along the sand likely used to control erosion (Photograph 11).

Groynes (stone-built structures) are present in the water, perpendicular to the shoreline, implemented as a method for shore protection to reduce longshore drift and trap sediments (Photograph 11).

A small area of the shore has vegetated sand, which has been previously shaped by the wind and is a remnant of an existing dune feature (<25m²) (381). The species present comprise dominant marram grass (*Ammophila arenaria*) and sand couch grass (*Sporobolus virginicus*), with occasional dandelion, common chickweed, ragwort, cleavers and common haircap moss (*Polytrichum commune*) (Photograph 12). Sand dunes are SBL priority habitats, however the sand dune habitat within the site would not be classed as viable due to it being a small remnant sand dune, with species untypical of that habitat type.

Sand and gravel dominated habitats fall within the Marine and Coastal NESBiP priority habitat. Therefore, beaches are of Regional importance.

3.3 GWDTE

No groundwater dependent terrestrial ecosystems were identified during the desk study.

3.4 INNS Survey

Records of Japanese Knotweed and Giant hogweed were identified 750m and 1km to the southwest of the site in residential gardens and a car park in 2012 and 2013 respectfully.

Buddleja, a non-native invasive species, was identified within and adjacent to the site during the survey at many locations (Photograph 2).

Further, non-native ornamental species, some of which grow rapidly were identified within the roundabout and scrub habitats and include:

- Cotoneaster;
- Barberry;
- Escallonia sp.
- New Zealand holly
- Brachyglottis sp.
- Virburnum sp.
- Pampas grass

3.5 Faunal Survey Results

3.5.1 Disclaimer

Faunal species are transient and can move between favoured habitats regularly throughout and between years. This survey provides a snapshot of field signs present in the survey area in April 2022.

Faunal survey results are presented in Appendix H and Photographs in Appendix I.

3.5.2 Bats

The NESBReC data search identified no records of bats within 1km of the site in the last ten years. However, between 2000 and 2003 two unidentified pipistrelle and an unidentified bat were recorded southwest of the site along the harbour.

Buildings

There are nine buildings on site comprising a range of materials and structural designs. Three buildings on site did not comprise any PRFs or are composed of materials not suitable for roosting bats and therefore were assessed as **negligible**, in reference to Table 2-2: Negligible – '*A structure or a tree with negligible features likely to be used by roosting bats*'. However, six buildings in the site had PRFs and are considered to offer **low-moderate** suitability for roosting bats due to the presence of gaps in mortar, gaps under loose or cracked tiles, gaps under dormer windows, gaps under lead flashings, gaps around windows, gaps behind guttering, gaps in soffit boxes and damage to stonework, in reference to Table 2-2: Low – '*A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis*' or Moderate – '*A structure or tree with one or more potential roost sites that could be used by bats due their size, shelter, protection, conditions and/or surrounding habitat but unlikely to support a roost of high conservation status*' (Photograph 13).

Some traditional buildings outside of the site offer **low-moderate** suitability for roosting bats due to the presence of PRFs via gaps behind soffit boxes, under lead flashings, gaps under tiles, gaps behind fascia boards and gaps in stonework from loose mortar. However, the majority of buildings outside the site are assessed as **negligible** due to being constructed of unsuitable materials for roosting bats, including metal sheet and Perspex or being in good condition with no PRFs.

Structures

Two bridges are present within the site. The railway bridge is fairly intact but has PRFs via small gaps in stonework from loose mortar. The foot bridge which extends over Commerce Street has some PRFs which bats could utilise including gaps in loose mortar on wall below bridge and presence of ivy (*Hedera helix*) (Photograph 14). Both bridge structures are assessed as **low** suitability to host roosting bats, in reference to Table 2-2: Low – '*A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis*'

<u>Trees</u>

There are a range of trees within the site, comprising a range of ages and species. Some of the mature broadleaf species (elm and aspen) displayed PRFs such as wounds, cracks in bark and lifted plated bark which could provide suitable roosting potential for bats (Photograph 15). These trees are

considered to offer **low** suitability for roosting bats, in reference to Table 2-2: Low - '*A tree of sufficient* size and age to contain potential roost features but with none seen from the ground; or features seen'.

Habitats

The treelines, young woodland, scattered trees and scrub habitats within the site, offer foraging and commuting resources for bats, by support a variety of invertebrate species, however these features are relatively fragmented from one another. The grassland within the site also provides some foraging and commuting resources for bat. These habitats are also connected to habitats within the locale via grassland, scattered trees and residential gardens. The railway line which spans under the Beach Boulevard Road and has vegetated banks provides a green corridor northward to suitable habitat, including parkland and the River Don with associated riparian habitat 3.4km north of the site. In general, the majority of the site is very exposed and open to the elements from the east coast, with the west of the site likely being more sheltered for bats due to the presence of buildings. Overall, the site provides **moderate** suitability for commuting and foraging bats, in reference to Table 2-2: '*Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.*'

Bats are European Protected Species (EPS) of International Importance.

3.5.3 Otter

The NESBReC data search identified no records of otter within the search radius. EnviroCentre are aware of otter sightings at the Donmouth Local Nature Reserve (LNR), 1.5km north and the River Dee 1.5km south.

No evidence of otter activity or otter holts were identified during the course of the survey.

The North Sea likely provides opportunities for foraging and commuting otter, especially around the mouths of the River Don and River Dee to the north and south of the site, respectively. However, this area lacks opportunities for rest site creation, due to the tidal nature of the sea, presence of sea walls, the areas being highly frequented by people and dogs and a lack of sheltered commuting opportunities. There are likely more suitable sites for resting otter north of the site (i.e. Donmouth and River Dee).

Otter are a European Protected Species and are therefore of International importance.

3.5.4 Red Squirrel

The NESBReC data search identified two records of red squirrel within the search radius in 2015. They were located 850m and 1km to the northwest of the site in a residential garden and along King's Street by the woodland in St Peter's cemetery. 11 records of Grey Squirrel (*Sciurus carolinesis*) were identified within 1km of site between 2020-2021 during the NBN Atlas search²⁶, identified in residential gardens to the west of the site. Grey squirrels tend to outcompete red squirrels when occupying the same areas.

The scattered trees and young mixed plantation woodland provide some limited connecting green corridors which squirrel may use for commuting and foraging purposes. However, overall, the site lacks the suitable areas of woodland for foraging, commuting and shelter for drey creation that red squirrel requires to sustain a population.

²⁶ Scottish Wildlife Trust (2021). The Scottish Squirrel Database. Occurrence dataset <u>https://doi.org/10.15468/fqg0h3</u> accessed via GBIF.org (Accessed April 2022)

Parkland and woodland habitats are present to the north and west of the site, loosely connected via back gardens, scattered trees and railway line.

Red squirrels are SBL priority species and protected under Schedules 5 of the Wildlife and Countryside Act and are therefore considered to be of national (UK) importance.

3.5.5 Badger

Field evidence of badger was identified during the survey and is detailed in confidential Annex 1.

Badgers are protected (for welfare reasons) under the Protection of Badgers Act 1992 as amended by the Wildlife and Natural Environment (Scotland) Act 2011, and so are of national (UK) importance.

3.5.6 West European hedgehog

The NESBReC data search identified no records of West European hedgehog within the search radius between 2011-2021. One hedgehog was recorded in 1997 in the grassland habitat in Mounthooly roundabout.

Hedgehogs have the potential of being present on site by the means of foraging, nesting, commuting or for hibernation purposes. The habitat on site could sustain a hedgehog, due to the presence of modified grassland and the site being located in an urban area which would provide plentiful supply of food; earthworms, beetles, snails and slugs. Shrubs present on site could provide suitable nesting habitat for hedgehog. Hedgehogs roam on average 2km on a single night, therefore the adjacent mixed woodland may be the perfect wildlife corridor for hedgehog travel.

The west European hedgehog is a SBL species and is therefore of national (UK) importance.

3.5.7 Birds

The NESBReC data search identified a number of protected bird records within the search radius between 2011-2021, including:

Species	Designation ²⁷
Goshawk (Accipiter gentilis)	BOCC – Green List
Skylark (<i>Alauda arvensis</i>)	BOCC – Red List
Swift (<i>Apus apus</i>)	BOCC – Red List
Goldeneye (Bucephala clangula)	BOCC – Red List
Dunlin (<i>Calidris alpina</i>)	BOCC – Red List
Purple Sandpiper (Calidris maritima)	BOCC – Red List
Black-headed Gull (Chroicocephalus ridibundus)	BOCC – Amber List
Peregrine (Falco peregrinus)	BOCC – Green List
Great Northern Diver (Gavia immer)	BOCC – Amber List
Red-Throated Diver (Red-throated Diver)	BOCC – Green List
Red Backed Shrike (Lanius collurio)	BOCC – Red List
Herring Gull (Larus argentatus)	BOCC – Red List

Table 3-2: Bird species within 2km of the site NESBReC

²⁷ Birds of Conservation Concern information available at: https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf

Common Scoter (Melanitta nigra)	BOCC – Red List
Curlew (<i>Numenius arquata</i>)	BOCC – Red List
House Sparrow (Passer domesticus)	BOCC – Red List
Dunnock (<i>Prunella modularis</i>)	BOCC – Amber List
Eider (Somateria mollissima)	BOCC – Amber List
Common tern (Sterna hirundo)	BOCC – Amber List
Arctic tern (Sterna paradisaea)	BOCC – Amber List
Sandwich Tern (Sterna sandvicensis)	BOCC – Amber List
Starling (Sturnus vulgaris)	BOCC – Red List
Redshank (<i>Tringa totanus</i>)	BOCC – Amber List
Redwing (<i>Turdus iliacus</i>)	BOCC – Amber List
Barn Owl (<i>Tyto alba</i>)	BOCC – Green List

Birds identified during the survey included:

Table 3-3: Bird specie	s identified	during	survey
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Species	Designation
Blackbird (Turdus merula)	BOCC – Green List
Pied Wagtail (<i>Motacilla alba</i>)	BOCC – Green List
Woodpigeon (<i>Columba palumbus</i>)	BOCC – Green List
House Sparrow (Passer domesticus)	BOCC – Red List
Herring Gull (Larus argentatus)	BOCC – Red List
Rook (<i>Corvus frugilegus</i>)	BOCC – Amber List
Carrion Crow (Corvus corone)	BOCC – Green List
Starling	BOCC – Red List
Cormorant (<i>Phalacrocorax carbo</i>)	BOCC – Green List
Magpie (<i>Pica pica</i>)	BOCC – Green List
Goldfinch (<i>Carduelis carduelis</i>)	BOCC – Green List
Bullfinch (<i>Pyrrhula pyrrhula</i>)	BOCC – Amber List

In addition, multiple nests in trees and on buildings were identified, currently in use by Woodpigeon, Magpie, Gulls and other passerines (Photograph 16). A bird pellet, likely regurgitated by a corvid was identified on the railway bridge at NJ 94908 06647 (Photograph 22) and a Woodpigeon egg remains were present below a nest in the grassland west of the Hilton Hotel at NJ 95018 06881 (Photograph 17).

Birds on the BOCC red list are of national importance, those on the amber list are of regional importance and green list birds are of local importance.

All wild bird species are protected under the Wildlife and Countryside Act 1981.

3.5.8 Marine Mammals

Three records of bottle-nosed dolphin (*Tursiops truncatus*) between 2011 and 2015 were returned from the desk study. Harbour porpoise (*Phocoena phocoena*), Common dolphin (*Delpinus delphis*), Risso's dolphin (*Grampus griseus*), White-beaked dolphin (*Lagenorhynchus albirostris*), Humpback whale (*Megaptera novaeangliae*), Long-finned pilot whale (*Globicephala melas*), Minke whale (*Balaenoptera acutorostrata*), grey seal (*Halichoerus grypus*), harbour seal (*Phoca vitulina*), Atlantic white-sided dolphin (*Lagenorhynchus acutus*), Killer whales (*Orcinus orca*), Sperm whale (*Physeter*)

microcephalus) and Fin whale (*Balaenoptera physalus*) have also been previously identified in the locale and considered during the Aberdeen Harbour Expansion project in 2015²⁸. No direct sightings of any marine mammals were observed during the survey.

The North Sea provides suitable habitat for marine mammals to inhabit. The North Sea is known to support an array of marine mammal species, including multiple species of dolphins, whales, porpoise and seals, with many frequenting the coastal waters of Aberdeen Beach²⁹.

All cetacean species are protected under European Legislation and so are of international importance.

3.5.9 Other observations

Rabbit were frequently observed within the site, with regular digging, direct sightings and droppings identified. There are several locations where burrows are present, with the most extensive area being the east aspect of Broadhill (NJ 95176 07178; Photograph 18).

A potential fox den is present within the small area used as a rubbish dump which is dominated by Buddleja (NJ 95014 07177; Photograph 19).

²⁸ Aberdeen Harbour Expansion Project (2015) Volume 2: Environmental Statement Chapter 15: Marine Mammals, available at: <u>https://www.portofaberdeen.co.uk/images/uploads/Volume 2 Environmental Statement Ch 15.pdf</u> (Accessed April 2022)

²⁹ 2010 Sea Watch Foundation report entitled 'Cetaceans of the East Grampian Region', available at:

https://www.seawatchfoundation.org.uk/wp-content/uploads/2012/08/East-gramp-cet-rev.pdf

4 FURTHER SURVEYS, LICENCING AND MITIGATIONS

4.1 Potential Impacts

This project includes proposals to construct a sports stadium/ leisure centre, landscaping of the beachfront, construction of a pier structure and a slipway, as such potential impacts associated with the site have been listed:

- Loss of Regional important habitats if any other neutral grassland, modified grassland, planted mixed; mainly conifer woodland, buildings or beach/intertidal habitat are to be removed or altered to facilitate development.
- Loss of Site important habitats if any lines of trees or built linear features are to be removed or altered to facilitate development.
- Further spread of Buddleja (INNS) within and adjacent to the site if any works require removal or alteration to facilitate development in areas with INNS.
- Removal or fragmentation of potential roosting resource as a result of the removal or alteration of PRF trees, bridges and buildings.
- Removal or fragmentation of important commuting and foraging corridors for bats as result of the removal or alteration of scrub, scattered trees, woodland and grassland habitats.
- Disturbance to roosting bats during and post works, if demolition/felling of buildings/structures/trees with PRFs or arboricultural works to trees and if works are in proximity features with PRFs.
- Disturbance to commuting or foraging otter is works occur in or next to North Sea.
- Removal of commuting and foraging habitat for red squirrel as a result of alterations or removal of scattered trees and woodland habitat.
- Removal of suitable resting and foraging opportunities for hedgehog as a result of the removal or alteration of scrub, trees and grassland.
- Removal of suitable nesting, loafing and foraging habitat for a range of bird species as a result of the removal of scattered trees, grassland, scrub and woodland habitats.
- Polluting North Sea from runoff or spills associated with the development, which provides habitat for a range of marine mammals, birds and other important species.
- Disturbance to marine mammals during creation of a pier due to underwater noise and vibration.
- Injury or death of fox if removal of potential den is required to facilitate development.
- Injury or death of rabbits if removal of warrens/burrows are required to facilitate development.
- Injury or death of wildlife as a result of increased traffic, increased human presence and if works are not appropriately timed.

Potential positive impacts include:

- Development design could be designed to retain and enhance/ increase ecological features highlighted during the survey (badger setts and trees with PRFs).
- Sensitive habitat retention and restoration may increase foraging provision for bats, badgers, hedgehogs, red squirrel and birds post development.
- Planting of native trees in the site to would increase biodiversity as well as increase foraging, resting, sheltering and nesting opportunities for a range of species.
- The future development of the site may include, in its design and construction, purpose-built and installed bird and bat roost provision such as externally fitted bird boxes, bat boxes and bat bricks on any buildings or trees.

4.2 Further survey

4.2.1 Habitats

No further survey is required of the habitats on site.

4.2.2 INNS

Buddleja is a widely planted garden plant across the UK an is a favoured nectar source for many pollinator species, known as the 'Butterfly Bush'. However, Buddleja is a vigorously growing plant which can form dense stands that can eliminate other plants and can also damage structural integrity of buildings. Buddleja is not listed among the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act, however for any INNS, controlling and stopping the spread is the advised strategy to implement. Therefore, a management plan for the control of Buddleja should be devised.

Although no further surveys are required for the non-native ornamental species identified on site, it would be advisable to avoid further planting of non-native species as native species benefit the native wildlife more and are complementary with the natural surroundings.

4.2.3 Protected Species

<u>Bats</u>

If any buildings or structures (bridges) with PRFs are to be removed or require any works to facilitate the Beachfront development, further surveys in relation to bats may be required, via detailed preliminary roost assessments, inclusive of internal access and summer activity surveys (May-September) to identify presence/absence of roosting bats.

As tree conditions can change over time, if any trees including those with PRFs are to be removed or require arboricultural works to facilitate the development, an update walkover and assessment will be carried out where development requires tree removal to identify those which may require further inspections/ survey to confirm an absence/presence of roosting bats.

Badger

Further survey works for badger are detailed in confidential Annex 1.

Marine Mammal

Should any works have the potential to impact marine mammals a Marine Mammal Risk Assessment will need to be produced inclusive of a detailed desk study, to identify species presence/absence and to implement correct mitigation to facilitate the works.

Otter, Red Squirrel and Hedgehog

No evidence of otter, red squirrel or hedgehog was recorded within the survey area, however suitable habitat exists for these species within and adjacent to the site. Therefore, no further survey is recommended for otter, red squirrel or hedgehog other than pre-works checks.

Ecological data is considered valid for a period of 12 months. Providing that ground works commence before April 2023, no further survey work in relation to these species is considered necessary. If the site boundary was to change, further survey work for these protected species may be required.

4.3 Licensing

No species licences are required at this time.

4.4 Mitigation

The following good practice mitigation is recommended based on the current level of available site information:

- Retention and protection of woodland, grassland, scattered trees, scrub and beach habitats wherever possible to maintain existing ecological connectivity to the wider landscape and to retain important habitat features.
- Suitable tree root protection areas should be determined and fenced off prior to any works commencing.
- Compensatory planting should be provided where areas of woodland and scattered trees are removed to facilitate development.
- A pre-works check of the site for protected species should be completed prior to any site works, by a suitably qualified ecologist or ECoW.
- All contractors should be made aware of the presence of protected species on site and in the wider landscape via a tool box talk (i.e. bats, otter, badger, red squirrel, hedgehog, birds and marine mammals).
- Any vegetation clearance should be scheduled to occur outside of the nesting bird season where possible (March to August inclusive).
- Where vegetation removal cannot be completed outside of the nesting bird season, a nesting bird check will be required within 48 hours of the works by a suitably qualified ecologist or ECoW. If nesting birds are found then a suitable exclusion zone will be set up to avoid nest destruction and disturbance.
- A watching brief and /or fingertip search will need to be undertaken before any works commence, if scrub habitats require removal during hedgehog hibernation period (October-April).
- Maximum 15mph speed restriction to avoid RTAs with protected species which may be present in the area should be implemented during and post works.
- Measures should be in place to preserve water quality and prevent pollution of North Sea following SEPA Guidelines for Pollution Prevention (GPPs) ³⁰.
- Any works causing high levels of noise or vibration should be limited to daylight hours to reduce disturbance nocturnal or diurnal species.
- Works should be limited to daylight hours within 30m of the North Sea, woodland and trees/buildings with PRFs to reduce disturbance to nocturnal or diurnal species such as bats, otter and badger.
- Fox dens should be monitored to confirm that they are empty prior to removal under the audit of the project ecologist and should be undertaken out with any sensitive time period (i.e. during breeding season March-July inclusive) if required.
- Should rabbit warrens and burrows require removal, this should be undertaken under the audit of the project ecologist and should be undertaken out with any sensitive time period (i.e. during breeding season January-July inclusive) if required.
- Any excavations created during works should not be left open for mammals to become trapped. Appropriate covers should be fitted at the end of every working day. At the very least, a shallow sloping edge or some form of ramp should be placed in the excavations to allow any animals to climb out.

³⁰ https://www.sepa.org.uk/regulations/water/guidance/

- The inclusion of hedgehog fencing would provide connectivity to greenspace habitats which provide foraging and nesting opportunities: <u>https://www.jacksons-fencing.co.uk/the-edit/new-hedgehog-friendly-gravel-boards-winter-news-topical-treats-and-more</u>
- Temporary lighting required during works should not illuminate the adjacent habitats (woodland, scattered trees, standing water and running water), which can affect the foraging of nocturnal and diurnal species.
- Any permanent lighting should be designed to be 'animal friendly' and should not illuminate habitats including scattered trees, scrub, water bodies, woodland and marshy grassland. Screening techniques and dark buffer zones are advised to reduce the impact on these habitats. Low or high pressure sodium lamps instead of mercury and metal halide lamps are preferred for their UV filtering properties, reducing light spillage and pollution. 'Warm white' lighting also reduces impacts of lighting on bats as well as other species: <u>https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/</u>.

4.5 Opportunities for Biodiversity Gain

The following general enhancement measures have been recommended based on the current level of available site information:

- It is recommended that future landscaping of the site seeks to maintain and enhance existing green infrastructure and encourage long term habitat connectivity to the wider landscape to comply with Aberdeen City Policy NE1 Green Space Network and Policy NE8 Natural Heritage³¹. Additional planting of trees throughout the sites and along the boundaries would further enhance this commuting and foraging resource, for bats, badger, otter and squirrel within the locale. Sourcing trees (seeds and plants also) of local provenance is key to achieving the best biodiversity outcome.
- The creation of species rich grasslands or flower meadows is recommended to encourage pollinators, improve insect biodiversity on the site and enhance connectivity to comply with Aberdeen City Policy NE1 – Green Space Network, NE3 Urban Greenspace and Policy NE4 – Open Space Provision in New Development. Seed mixes should include native plants appropriate to the local area.
- The SBL has identified over 400 terrestrial invertebrate species in the UK as priorities for conservation action. Suitable enhancement measures include creating log piles and invertebrate mounds, to comply with Aberdeen City Policy NE8 Natural Heritage.
- The planting of berry producing shrubs and trees is recommended to provide a sheltered commuting and nesting opportunities within the sites and food source for birds and mammals utilising the surrounding habitats and to comply with Aberdeen City Policy NE5 – Trees and Woodlands³². Suggested species include:
 - Hawthorn (*Crategus monogyna*)
 - Blackthorn (*Prunus spinosa*)
 - Holly (*llex aquifolium*)
 - Hazel (Corylus avellana)
 - Elder (*Sambucus nigra*)
 - o Rowan (Sorbus aucuparia)
 - Scot's pine (*Pinus sylvestris*)

https://committees.aberdeencity.gov.uk/documents/s49714/Policy%20NE8.pdf

³² Aberdeen City Policy NE5 – Trees and Woodlands, available at:

³¹ Aberdeen City Policy NE8 – Natural Environment, available at:

https://committees.aberdeencity.gov.uk/documents/s37423/NE5%20and%20NE6%20Policies%20-%20517%20NDR%20Policies.pdf

- To offer increased roosting and nesting opportunities for bats and birds, a variety of bat and bird boxes are recommended to be installed on trees and existing buildings to comply with Aberdeen City Policy NE8 Natural Heritage.
- The inclusion of water permeable materials for parking surfaces would allow for water to absorb into the ground and reduce the risk of localised flooding during the winter months for any car parking areas to comply with Aberdeen City Policy NE6 Flooding, Drainage and Water Quality.
- Green roofs could be incorporated to improve storm water management and provide habitat for birds and bats on any buildings associated with the development. Further information can be found here: https://www.rspb.org.uk/birds-and-wildlife/advice/how-you-can-help-birds/roofs-for-wildlife/green-roofs/

APPENDICES

A SITE LAYOUT



B SUMMARY OF RELEVANT LEGISLATION

European Protected Species – bats and otter

European Protected Species (EPS) are protected under the Conservation (Natural Habitats &c.) Regulations 1994 (the "Habitat Regulations") as amended. Under this legislation it is an offence to deliberately or recklessly:

- capture, injure or kill such an animal;
- harass an animal or group of animals;
- disturb an animal while it is occupying a structure or place used for shelter or protection;
- disturb an animal while it is rearing or otherwise caring for its young;
- obstruct access to a breeding site or resting place, or otherwise deny an animal use of a breeding site or resting place;
- disturb an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
- disturb an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- disturb an animal while it is migrating or hibernating;
- take or destroy its eggs; and
- possess, control, transport, sell or exchange specimens of any animal listed on Annex IV of the Habitats Directive. This applies to living or dead specimens and to their derivatives.

It is an offence of strict liability to damage or destroy a breeding site or resting place of such an animal. These sites and places are protected even when the animal isn't present. For example, great crested newt ponds are protected all of the time as long as it can be shown that the newts use the ponds some of the time.

A licence may be issued to permit the otherwise unlawful activities listed above if these three tests are satisfied:

- There must be a licensable purpose which includes 'preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment;'
- There is 'no satisfactory alternative'; and
- The derogation (i.e. any permission/licence granted) is 'not detrimental to the maintenance of the populations of the species concerned at a favourable conservation status in their natural range'.

Red Squirrel

Red squirrel are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Subject to certain exceptions, it is an offence to intentionally or recklessly:

- kill, injure or take (capture) an individual;
- damage, destroy or obstruct access to any structure or place which they use for shelter or protection;
- disturb an individual while it is occupying a structure or place which it uses for that purpose; or to

• possess or control, sell, offer for sale or possess or transport for the purpose of sale any live or dead animal or any derivative of such an animal.

Knowingly causing or permitting any of the above acts to be carried out is also an offence.

In some cases licences may be issued by NatureScot to enable certain otherwise illegal activities to take place for social, economic or environmental reasons (including development) as long as:

- the licensed activity will contribute to significant social, economic or environmental benefit;
- there is no satisfactory alternative; and
- there will be no significant negative impact on the conservation status of the species.

Badger

Badgers are protected under the Protection of Badgers Act (1992) (as amended). Offences under the Act include:

- wilfully taking, injuring or killing a badger;
- cruelty to a badger;
- intentional or reckless interference with a badger sett;
- sale or possession of a badger; and
- marking or ringing of a badger.

Interfering with a badger sett includes:

- damaging or destroying a sett or any part of it;
- obstructing access to a sett;
- disturbing a badger while it is in a sett; and
- causing or allowing a dog to enter a badger sett.

Where an offence is committed the individual (as well as the body corporate, Scottish partnership or, as the case may be, unincorporated association) is guilty of the offence and is liable to be proceeded against and punished accordingly.

Licences can only permit someone to 'interfere' with a badger sett for the purpose of development. A licence cannot permit the removal, translocation or killing of badgers for the purpose of development.

Interference primarily means anything that might:

- disturb any badger in a sett; and
- damage or block the tunnels that radiate from a sett's entrances.

Licences aren't generally issued during the breeding season (30 November to 1 July). Activities that necessarily involve disturbance should be scheduled to take place outside of this period.

Birds

All wild bird species in the UK are protected under the Wildlife and Countryside Act 1981 (as amended), with species listed on Schedules A1, 1 and 1A afforded additional protection.

For any wild bird species, it is an offence to intentionally or recklessly:

- kill, injure or take a bird;
- take, damage, destroy or interfere with a nest of any bird while it is in use or being built;
- obstruct or prevent any bird from using its nest;

- take or destroy an egg of any bird;
- possess or control a living or dead wild bird; and
- possess or control an egg of a wild bird (or any such derivatives).

For any wild bird species listed on Schedule 1, it's an offence to disturb:

- any bird while it is building a nest;
- any bird while it is in, on, or near a nest containing eggs or young;
- any bird while lekking; and
- the dependent young of any bird.

For any wild bird species listed on Schedule 1A, it's an offence to intentionally or recklessly harass any bird.

For any wild bird species listed on Schedule A1, it's an offence to intentionally or recklessly take, damage, destroy or interfere at any time with a nest habitually used by any bird.

Licences cannot be issued for the purpose of development in relation to any of the above offences.

Invasive Non-Native Species (Plants)

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to plant, or otherwise cause to grow, any plant in the wild at a location outside its native range.

'Native range' is defined in the 1981 Act as, "the locality to which the animal or plant of that type is indigenous, and does not refer to any locality to which that type of animal or plant has been imported (whether intentionally or otherwise) by any person."

The Scottish Governments Non-natives Code of Practice³³ defines 'in the wild'. Just about everywhere is wild except for:

- arable and horticultural land;
- improved pasture;
- settlements; and
- private and public gardens.

In exceptional circumstances it may be possible to obtain a licence from NatureScot to permit the above offence.

³³ https://www.gov.scot/publications/non-native-species-code-practice/

С **GEOGRAPHICAL LEVEL OF IMPORTANCE FOR ECOLOGIC AL FEATURES**

Level of	Sites ³⁴	Habitats	Species
International	Designated, candidate or proposed Special Areas of Conservation, Special Protection Areas and Ramsar sites; UNESCO (Ecological) World Heritage Sites; UNESCO Biosphere Reserves; Biogenetic Reserves.	A viable area of habitat included in Annex I of the EC Habitats Directive ³⁵ ; a habitat area that is critical for a part of the life cycle of an internationally important species.	A European Protected Species; an IUCN Red Data Book species that is globally Vulnerable, Endangered or Critically Endangered; a Category A internationally important bryophyte assemblage ³⁶ .
National (UK)	Sites of Special Scientific Interest/Areas of Scientific Interest; National Nature Reserves; Nature Conservation Review Sites; Marine Conservation Zones (UK offshore).	A viable area of priority habitat listed in the UK Biodiversity Action Plan ³⁷ ; an area of habitat fulfilling the criteria for designation as an SSSI/ASSI ³⁸ or MCZ; a habitat area that is critical for a part of the life cycle of a nationally important species.	An IUCN Red Data Book species that is Vulnerable, Endangered or Critically Endangered in the UK; a species that is Rare in the UK (<15 10km grid squares); a priority species in the UKBAP ³⁹ ; a Schedule 5 (animal) or Schedule 8 (plant) species included in the Wildlife and Countryside Act 1981; any species protected under national (UK) legislation where there is the potential for a breach of the legislation; a Category A nationally important bryophyte assemblage ⁴⁰ .
National (Scotland)	National Parks (England, Scotland, Wales); Natural Heritage Areas (Ireland); Marine Conservation Zones (England and Wales inshore); Marine Protected Areas (Scotland offshore); Marine Consultation Areas (Scotland); Marine Nature Reserves (Wales, Northern Ireland); Sensitive Marine Areas (England); Heritage Coasts (England and Wales).	Habitats of principal importance for biodiversity in Scotland, including Priority Marine Features (PMFs).	Species of principal importance for biodiversity in the relevant countries, including PMFs.

³⁴ JNCC guidance to all sites can be found here: <u>http://jncc.defra.gov.uk/page-1527</u>

³⁵ JNCC general guidance here: <u>http://jncc.defra.gov.uk/page-1523</u> (click on EU code) and specific guidance here: http://jncc.defra.gov.uk/page-4064 (click on audit trail).

³⁶ Averis, A.B.G, Genney, D.R, Hodgetts, N.G, Rothero, G.P. & Bainbridge, I.P. 2012. Bryological assessment for hydroelectric schemes in the west highlands – 2nd edition. NatureScot Commissioned Report No. 449b ³⁷ UKBAP priority habitats here: <u>http://jncc.defra.gov.uk/page-5706</u>

³⁸ SSSI designation criteria available at <u>http://jncc.defra.gov.uk/page-2303</u>

 ³⁹ UKBAP priority species here: <u>http://jncc.defra.gov.uk/page-5717</u>
⁴⁰ Averis, A.B.G, Genney, D.R, Hodgetts, N.G, Rothero, G.P. & Bainbridge, I.P. 2012. Bryological assessment for hydroelectric schemes in the west highlands - 2nd edition. NatureScot Commissioned Report No. 449b

Level of	Sites ³⁴	Habitats	Species
Importance			
Regional	Regional Parks (Scotland).	Regional Local Biodiversity Action Plan habitats noted as requiring protection.	A species that is Nationally Scarce in the UK (present in 16-100 10km grid squares); a species that is included in the Regional LBAP; an assemblage of regionally scarce species.
County / Metropolitan	Local Nature Reserves; Wildlife Trust Reserves (England and Wales); Woodland Trust Sites; Royal Society for the Protection of Birds Sites; Local Wildlife Sites (Scotland).	County LBAP habitats noted as requiring protection; semi- natural, ancient woodland >0.25ha in extent.	A species that is included in the County LBAP; an assemblage of species that are scarce at the county level.
Local		Semi-natural, ancient woodland <0.25ha in extent; diverse or ecologically valuable hedgerow network; semi-natural habitats that are unique or important in the local area; flushes, springs and base rich rock that support bryophyte assemblages that are widespread but localised to these habitats.	Species as defined by Local Authority lists (if available).
Site		Common and widespread	Common and widespread
Negative			An Invasive Non-Native Species (INNS) as defined by the GB Non-Native Species Secretariat (NNSS) ⁴¹ and supported by the GB Invasive Non-native Species Strategy (2015) ⁴² ; legally controlled species under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended by the relevant country legislation).

 ⁴¹ NNSS website here: <u>http://www.nonnativespecies.org/home/index.cfm</u>
⁴² GB INNS Strategy here: <u>http://www.nonnativespecies.org/index.cfm?sectionid=55</u>

D GEOGRAPHICAL LEVEL OF IMPORTANCE OF ORNITHOLOGICAL FEATURES

Level of	Assessment Criteria			
Importance	Legal Protection	Conservation Status		
International	Any species within Annex 1 of the EU Birds Directive ⁴³	Any species which is listed as Critically Endangered or Endangered on the IUCN Red List ⁴⁴		
National (UK)	Any species within Schedule 1 of the Wildlife and Countryside Act ⁴⁵	Any species that is listed as a Priority Species in the UKBAP ⁴⁶ ;		
		any species on the BoCC Red List		
National		Any species on the Scottish Biodiversity List ⁴⁷		
(Scotland)				
Regional		Any species on the BoCC Amber List		
County		Any species that is listed as a Priority Species in the LBAP ⁴⁸		
Local		BoCC Green List; or species with no conservation concern; common and widespread throughout the UK		

⁴³ Birds Directive <u>http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0147&from=EN</u>

- 44 IUCN Red List http://www.iucnredlist.org/
- ⁴⁵ WCA 1981 Schedule 1 http://www.legislation.gov.uk/ukpga/1981/69/pdfs/ukpga_19810069_en.pdf
- ⁴⁶ UKBAP <u>https://jncc.gov.uk/our-work/uk-bap-priority-species/</u>
- ⁴⁷ Scottish Biodiversity List <u>https://www.nature.scot/scotlands-biodiversity/scottish-biodiversity-strategy/scottish-biodiversity-list</u>

⁴⁸ North East Scotland Biodiversity Partnership (NESBP) <u>https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/important-habitats-for-biodiversity-in-the-north-east-of-scotland/</u> and <u>https://www.nesbiodiversity.org.uk/biodiversity-information-for-developers/important-local-species/</u>

E DESK STUDY MAPS



20220418	Bat records	Bats (Chiroptera)	Aberdeen	NJ 95215 07055
		Pipistrelle Bat species (Pipistrellus)		



20220418Common Swift recordsSwift (Apus apus)	Aberdeen	NJ 95215 07055
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20220418	Geese	Bar-headed Goose (Anser indicus)	Aberdeen	NJ 95215 07055
20220418	Geese	Bar-headed Goose (Anser indicus)	Aberdeen	NJ 95215 070



20220418	Invasive Non-Native Plant	Japanese Knotweed (Fallopia japonica)	Aberdeen	NJ 95215 07055
	Species	Giant Hogweed (Heracleum mantegazzianum)		



20220418	Aberdeen City Local	67 - Aberdeen - Inverness - Kittybrewster Railway Line -	Aberdeen	NJ 95215 07055
	Nature Conservation Sites	Mostly neutral grassland, tall ruderal, scrub and pockets		
		of woodland. Provides a green corridor through the city.		



F UKHAB RESULTS









Do not scale this map Client

Roberston Construction Group Ltd

Project Aberdeen Beachfront

Title

UKHab Map

Status					
FINAL					
Drawing No. 375971-GIS002		Revision Date - 07/06/202		022	
Drawn JEP		Checked GN	Approved GN		
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Roberston Construction Group Ltd

Project Aberdeen Beachfront

Title

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Roberston Construction Group Ltd

Project Aberdeen Beachfront

Title

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G PHOTOGRAPHS



Photograph 1: Other neutral grassland (Broadhill)



Photograph 3: Modified grassland in south of site with scattered trees



Photograph 5: Planted mixed; mainly conifer woodland in north west of site



Photograph 7: Aberdeen Leisure Centre and Ice Rink building within the site and associated car park



Photograph 2: Small area in the north west of the site where rubbish has been dumped and Buddleja is present



Photograph 4: Children's play park in modified grassland in east of site



Photograph 6: Line of trees surrounding Hilton Hotel



Photograph 8: Tansition extreme building and associated high ropes course and parking



Photograph 9: Ornamental planting associated with Leisure Centre parking area



Photograph 11: Groynes and wooden posts along beach for support and protection



Photograph 10: Beach habitat and sea wall



Photograph 12: Remnent sand dune on beach habitat







	Site Boundary
\land	Building with PRF - Moderate
\land	Building with PRF - Low
	Building with PRF - Negligible
	Bridge with PRF - Low
\bigcirc	Tree with PRF - Low
	Bird Nest
•	Nesting Gulls
	Bird Egg shell (Woodpigeon)
	Bird Pellet - Corvid
÷	Buddleija
•	Fox Den
☆	Mammal Path
♦	Rabbit Burrows

Do not scale this map Client

Roberston Construction Group Ltd

Project Aberdeen Beachfront

Title

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395000

Legend

Site Boundary
Building with PRF - Moderate
Building with PRF - Low
Building with PRF - Negligible
Bridge with PRF - Low
Tree with PRF - Low
Bird Nest
Nesting Gulls
Bird Egg shell (Woodpigeon)
Bird Pellet - Corvid
Buddleija
Fox Den
Mammal Path
Rabbit Burrows

Do not scale this map Client

Roberston Construction Group Ltd

Project Aberdeen Beachfront

Title

Status		FINAL	
Drawin 37597	g No. '1-GIS003	Revision -	Date 07/06/2022
Drawn JEP		Checked GN	Approved GN
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Rev	Date	Amendment	Initials
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	Banchory E Banch	nviroo Business Centre, Burr ory, AB31 5ZU. T: 01	centre



Site Boundary
 Building with PRF - Moderate
 Building with PRF - Low

Building with PRF - Negligible

Bridge with PRF - Low

Tree with PRF - Low

Bird Nest

Nesting Gulls

Bird Egg shell (Woodpigeon)

Bird Pellet - Corvid

🖶 Buddleija

• Fox Den

🛧 Mammal Path

Rabbit Burrows

Do not scale this map

Roberston Construction Group Ltd

Project Aberdeen Beachfront

Title

Status				
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	Site Boundary
\land	Building with PRF - Moderate
\land	Building with PRF - Low
	Building with PRF - Negligible
	Bridge with PRF - Low
\bigcirc	Tree with PRF - Low
	Bird Nest
•	Nesting Gulls
	Bird Egg shell (Woodpigeon)
	Bird Pellet - Corvid
•	Buddleija
•	Fox Den
☆	Mammal Path
♦	Rabbit Burrows

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Roberston Construction Group Ltd

Project Aberdeen Beachfront

Title

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Banchory Business Centre, Burn o'Bennie Road, Banchory, AB31 5ZU. T: 01330 826596 E: info@envirocentre.co.uk W: www.envirocentre.co.uk				





	Site Boundary
\land	Building with PRF - Moderate
\land	Building with PRF - Low
	Building with PRF - Negligible
	Bridge with PRF - Low

 \bigcirc Tree with PRF - Low

- Bird Nest
- \bullet Nesting Gulls
- Bird Egg shell (Woodpigeon)
- Bird Pellet Corvid
- ᠿ Buddleija
- \bullet Fox Den
- ☆ Mammal Path
- \diamond Rabbit Burrows

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Roberston Construction Group Ltd

Project Aberdeen Beachfront

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I PHOTOGRAPHS



Photograph 13: Building with PRFs via gaps behind wooden soffit box adjacent to the site



Photograph 15: Tree with PRFs of lifted plated bark in the site



Photograph 14: Bridge structure with gaps providing PRFs in the site



Photograph 16: Bird nest in tree within site



Photograph 17: Regurgitated corvid pellet on bridge



Photograph 18: Egg remnants of Woodpigeon under tree with nest near Hilton Hotel



Photograph 19: Rabbit warren in site on Broadhill



Photograph 20: Potential fox den in north west of site

J CONFIDENTIAL ANNEX 1

B TREE SURVEY



Aberdeen Beachfront Tree Survey



August 2022



Aberdeen Beachfront Tree Survey

Client: Robertson Construction Group Ltd

Document number: 10020 Project number: 375971 Status: Final

Author:Scott FraserReviewer:Douglas Blease

Date of issue:16 August 2022Filename:K:\375971\Outputs\Issued

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EXECUTIVE SUMMARY

EnviroCentre Limited was commissioned by Robertson Construction Group Ltd to undertake a tree survey for the proposed beachfront development, Aberdeen. The focus of the tree survey was to determine the constraints placed on future development by the tree stock on site.

The site is situated in the east of Aberdeen City, centred at NJ 95233 07047 and at an elevation of 8m above sea level. The site sits on a reclaimed sand dune system and consists of amenity grassland, built roads and pathways, buildings containing sport facilities including associated parking, and the Aberdeen beach front and sea wall defences.

The survey was undertaken in reference to recommendations detailed in BS5837:2012 plus contemporary guidance. The study included desk based research as well as interpretation of fieldwork results. A total of 166 trees were individually surveyed as six tree groups were identified by area, quality and a description of their composition.

Generally trees were of moderate quality with some examples of dead or poor quality trees. Occasional high quality trees were noted along the Beach Boulevard however some of these may be susceptible to Dutch Elm Disease in the medium term.

At this stage of the project, it is not known which trees may be affected by design, demolition and construction. Broad tree constraints and suggested opportunities for trees to be included in landscape design have been included in this report.

Upon receipt of design proposals, the data gathered in this study can be used to quantify and qualify the positive and negative effects on features of arboricultural interest, design protective measures and inform bespoke method statements.

Contents

Exe	cutive	e Summary	i
1	Intro	pduction	1
	1.1	Terms of Reference	1
	1.2	Aims and Objectives	1
	1.3	Site Description	1
	1.4	Author Qualifications	1
	1.5	Report Usage	2
2	Met	hods	3
	2.1	Guidance Documents	3
	2.2	Desk Study	3
	2.3	Tree Survey	3
	2.4	Tree Reference Plans	5
	2.5	Disclaimers	6
3	Res	ults	7
	3.1	Desk Study	7
	3.2	Current Tree Stock	8
	3.3	Tree Constraints and Opportunities	9
	3.4	Further Actions	0

Appendices

- A Site Boundary
- B Tree Quality Assessment Criteria
- C Tree Schedule
- D Tree Reference Plans

Tables

Table 2.1: Tree Age Classes	4
Table 2.2: Tree Condition Classes	5
Table 2.3: Tree Group Condition Classes	5
Table 3.2: Tree Species Recorded on Site	8
Table 3.3: Individually Surveyed Trees by Category	9

1 INTRODUCTION

1.1 Terms of Reference

EnviroCentre Limited was commissioned by Robertson Construction Group Ltd to undertake a tree survey for the proposed beachfront development, Aberdeen. The focus of the tree survey was to determine the constraints placed on future development (see Appendix A) by the tree stock on site. This report details the findings of the desk study, field data interpretation, and presents the tree constraints.

1.2 Aims and Objectives

The aim of this study was to present the potential constraints in relation to trees and vegetation to in relation to the design for future development of the site. The objectives of the study were as follows:

- Undertake a desk study to ascertain and statutory/non-statutory designations pertaining to the site, including tree preservation orders (TPOs) in addition to any pertinent guidance from the Aberdeen City Local Development Plan.
- Utilise tree survey data in reference to BS5857:2012 *Trees in relation to design, demolition and construction –Recommendations* to depict the influence that tree constraints pose to the design
- Identify trees which would be removed as part of sound arboricultural management (i.e., dead/unviable trees)
- Provide management recommendations to encourage the persistence of any high-quality trees and tree groups on or adjacent to the site, or suggestions for trees within future landscaping to contribute to the site's overall arboricultural interest.

1.3 Site Description

The site is situated in the east of Aberdeen City, centred at NJ 95233 07047 and at an elevation of 8m above sea level.

The site sits on a reclaimed sand dune system and consists of amenity grassland, built roads and pathways, buildings containing sport facilities including associated parking, and the Aberdeen beach front and sea wall defences.

King's links golf course is present to the north of the site, Codona's amusement park to the south and residential housing and sports facilities to the west.

The wider landscape is dominated by Aberdeen city to the west and the North Sea to the east.

1.4 Author Qualifications

I, Douglas Blease, am a Principal Consultant with EnviroCentre Ltd. I have 20 years of silviculture, arboriculture and arbor-ecology experience where I have worked both practically and in a consulting role on a range of development and land-use change projects as well as habitat management planning in relation to ecosystem function.

I hold Full Membership of the Chartered Institute or Ecology and Environmental Management (CIEEM), an Honours Degree in Environmental Management, a Diploma in Countryside Management.

1.5 Report Usage

The information and recommendations contained within this report have been prepared in the specific context stated above and should not be utilised in any other context without prior written permission from EnviroCentre.

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2 METHODS

2.1 Guidance Documents

The survey was conducted applying the standards and methods outlined in:

- BS 5837:2012 Trees in relation to design, demolition and construction Recommendations¹
- BS 5837 Advanced: Tree Assessment for Planning²
- Guidance Note 7: Tree Surveys A Guide to Good Practice³

2.2 Desk Study

A desk study was undertaken prior to the initial field survey which included a review of:

- Existing surveyor knowledge of area.
- Available aerial Imagery⁴;
- Tree Preservation Orders (TPOs)⁵ statutory and non-statutory designated sites⁶;
- The Ancient Tree and Ancient Woodland Inventories⁷;
- Relevant species and habitats listed on the Scottish Biodiversity List, the North East Scotland Biodiversity Partnership (NESBiP); and
- Aberdeen City Council Local Development Plan and applicable Supplementary Guidance.
- Soil conditions on site⁸

2.3 Tree Survey

Trees and groups of vegetation were visually assessed from ground level. No invasive instruments were used in assessing the trees' condition. The following information was recorded:

- Unique identification number;
- Species;
- Height measured using a Haglofs digital clinometer;
- Diameter at 1.5m;
- Crown dimensions;
- Life stage (age profile);
- Condition;
- General observations including preliminary management recommendations; and
- Tree quality categorisation.

¹Available at: <u>https://shop.bsigroup.com/products/trees-in-relation-to-design-demolition-and-construction-recommendations/standard</u> (accessed 05/04/2022)

² Barrell, J. (2016) BS 5837 – Advanced: Tree Assessment for Planning (1st ed.). Arboricultural Association.

³Available at: <u>https://www.trees.org.uk/Book-Shop/Products/Guidance-Note-7-Tree-Surveys-%e2%80%93-A-Guide-to-Good-Practice</u> (accessed 05/04/2022)

⁴ Available from Google Maps at: <u>https://www.google.com/maps/@57.1566681,-2.0826934,2540m/data=!3m1!1e3</u> (Accessed April 2022).

⁵ http://publications.aberdeenshire.gov.uk/dataset/3e835b44-cade-416d-9903-4a833d544cda/resource/b0fc74c2-4694-4d99-b3dc-

f45796bba34c/download/public-register-of-tree-preservation-orders-.pdf (Accessed April 2022).

⁶ Available at: <u>https://sitelink.nature.scot/map</u> (Accessed April 2022).

⁷ Available at: <u>https://map.environment.gov.scot/sewebmap (Accessed April 2022)</u>.

⁸ Available at: https://map.environment.gov.scot/Soil_maps/?layer=1# (accessed 16/08/2022)

For multi-stemmed trees and those on sloping ground, variance to the measurement method was made according to BS5837: 2012. Where trees stems were inaccessible, e.g., obscured by vegetation, the DBH has been estimated.

2.3.1 Tree Numbering and Identification

Individually surveyed trees were tagged with unique ID numbers or, where present, exiting tree tag ID numbers were recorded. All tags were attached on the main stem, approximately 1.5m above ground level.

Tree groups have been assigned an identification code in the format: TG#.

2.3.2 Life Stage

Abbreviation	Category	Description					
Y	Young	A juvenile tree newly planted or recently established.					
EM	Early	A tree that is becoming established increasing in height and					
	mature	landscape significance.					
SM	Semi-	An established tree but not showing any species-specific mature					
3101	mature	characteristics such as ridged bark.					
		A tree which has reached maturity and contains features such as					
М	Mature	anticipated climax height, and species-specific mature					
		characteristics.					
	Late	A tree which is exhibiting physiological and biomechanical changes					
LM		associated with aging and has the potential to become veteran or					
	mature	ancient.					
		A tree usually in the mature stage of its life and has important wildlife					
V	Veteran	and habitat features including hollowing or associated decay fungi;					
		holes; wounds and large dead branches.					
		A tree with one or more of the following characteristics:					
		Biological, aesthetic or cultural interest because of its great age					
Δ	Ancient	A growth stage that is described as ancient or post-mature					
~		A chronological age that is old relative to others of the same					
		species.					

Table 2.1: Tree Age Classes

2.3.3 General Observations and Management Recommendations

General (non-invasive) observations were made of individual trees regarding their structural and physiological condition (e.g., the presence of decay or physical defects shown by external biomechanical signs). Trees were classified in terms of their general condition using the categories outlined in Table 2.2.

Abbreviation	Category	Description
G	Good	A tree not showing more mechanical defects than would be expected
		or that could be easily remedied.
F	Fair	A tree showing more defects than could be reasonably expected, or
		which could be remedied.
Р	Poor	A tree in a poor structural condition with defects which could not be
		easily remedied.
D	Dead	A tree afflicted with a pathogen or having suffered a trauma which
		has resulted in death.

Table 2.2: Tree Condition Classes

Tree groups were classified in terms of their general condition using the categories outlined in Table 2.3 below.

Abbreviation	Category	Description
G	Good	Most trees did not show more mechanical defects and/or ill-health
		than would be expected and/or signs of ill-health.
F	Fair	Some of the trees show more defects and/or ill-health than could be
		reasonably expected.
Р	Poor	Most trees show signs of in poor structural condition or health

Table 2.3: Tree Group Condition Classes

2.3.4 Tree Quality Categorisation

Individual and groups of trees were afforded a general quality categorisation from A/B/C for retention or 'U' for removal. The categorisation also reflects the future contribution that the tree may provide. Please refer to Appendix B: Tree Quality Assessment Criteria for further details of the categorisation.

2.3.5 Root Protection Areas (RPA)

The RPA was calculated as an area equivalent to a circle with a radius 12 times that of the stem DBH or the equivalent diameter for multi-stemmed trees.

For the tree groups where the dominant trees can be surveyed, these shall be presented on the tree plans as individual trees within a tree group. Edge trees within groups will also be prioritized for individual survey as they are expected to depict an accurate representation of the significant constraints to development. At a minimum, tree groups shall be afforded an RPA that extends to the dripline of the group. Where tree groups require additional RPA allowance beyond their dripline, a modified RPA will be added to the tree plans.

Where access was not possible for individual trees or tree groups, estimated dimensions will be identified with the suffix # (British Standard 5837:2012 section 4.4.2.6 - c) and aimed to be representative of the likely constraints plus allowance for future growth.

2.4 Tree Reference Plans

Individual trees and tree groups have been plotted on the Tree Constraints Plan following survey of the site using GPS field data collection equipment.

The Tree Constraints Plan shows the following information:

- The location of the surveyed trees and groups of trees on site
- The tree quality colour code of individual trees and tree groups
- The estimated extent of individual tree crowns and tree group canopies
- The calculated individual and representative tree group RPAs (where required)
- An overlay of the proposed development design
- Trees that are deemed physically incompatible with the current design or have RPA infringement because of development

2.5 Disclaimers

This survey does not specifically address or quantify the health and safety risks posed by tree groups, although where potential hazards have been recognised it is possible to recommend an appropriate strategy for management. Regular arboricultural assessment should be undertaken of trees, particularly those recognised as posing a risk to persons or property within the site.

The survey conclusions relate solely to the conditions recorded at the time of inspection. Trees can be affected by environmental changes such as weather events, topographical alterations, or changes in hydrological regime; therefore, such changes may necessitate further survey.

Individually surveyed trees within tree groups are representative of the dominant trees within the group and are not an exhaustive survey of all trees within the woodland.

The Tree Schedule presented in this document includes preliminary management recommendations but is not a schedule of works and is not designed to be submitted to a contractor. Task specific Arboricultural Method Statements can be provided upon request.

3 **RESULTS**

3.1 Desk Study

3.1.1 Statutory Designated Sites

No TPOs were identified within or adjacent to the site and its buffers9

No statutory designated sites are located within the site.

3.1.2 Non-Statutory Designated Sites

The Aberdeen - Inverness - Kittybrewster Railway Line, a Local nature Conservation Site, crosses under the beach boulevard in the west of the site. It helps provides a green corridor through the city as it contains grassland, tall ruderal, scrubs and woodland. It is ecologically connected to the site via the green residential garden habitats found to the west of the site.

3.1.3 Ancient Woodland

No areas of ancient woodland are present within the site or within close proximity. The nearest ancient woodland to the site is the long-established (of plantation origin) woodland at Seaton Park 2km northwest of the site. It is ecologically connected to the site by the parkland and green residential garden habitats present to the north and west of the site.

3.1.4 Soils

Table Xx below is an extract of soil descriptions which can be used to inform studies on tree health, structure, site suitability for planting and future species selection.

Generalised Soil Type	Immature soils
Major Soil Group	Regosols ¹⁰
Major Soil Subgroup	Regosols
Parent Material	Windblown sands
Soil Association	Links
Component Soils	Regosols
Land Form	Beaches and dunes with gentle and strong slopes
pH in water - Mean	6.32

Table 3.1: Soil Description

<u>Subsoil Compaction Risk:</u> Extremely vulnerable <u>Topsoil Compaction Risk:</u> Moderate risk of topsoil compaction

⁹ http://publications.aberdeenshire.gov.uk/dataset/3e835b44-cade-416d-9903-4a833d544cda/resource/b0fc74c2-4694-4d99-b3dcf45796bba34c/download/public-register-of-tree-preservation-orders-.pdf (Accessed April 2022)

¹⁰ unconsolidated mineral material of some depth, excluding coarse textured materials and materials with fluvic properties, and have no diagnostic horizons other than an ochric horizon.

<u>Erosion Risk:</u> Coarse, Medium and fine textured soils with high to low water absorption capacity on almost level to moderate slopes

3.2 Current Tree Stock

This section should be read in conjunction with:

- Appendix C Tree Schedule
- Appendix D Tree Constraints Plan

Species recorded during the survey are detailed in Table 3.2.

Common Name	Scientific Name
Elm	Ulmus sp.
Lime	Tilia sp.
Sycamore	Acer psuedoplatanus
Whitebeam	Sorbus aria
Bird cherry	Prunus padus
Crack willow	Salix fragilis
White poplar	Populus alba
Oak	Quercus sp.
Norway maple	Acer platanoides
Rowan	Sorbus aucuparia
Black pine	Pinus nigra
Hawthorn	Crataegus monogyna
Sea buckthorn	Hippophae sp.
Scots pine	Pinus sylvestris
Black pine	Pinus nigra
Ash	Fraxinus sp.
Wild cherry	Prunis avium

Table 3.2: Tree Species Recorded on Site

3.2.1 Individual Trees and Arboricultural Features

A total of 166 trees were individually surveyed during the site visits, the vast majority of which were recorded as moderate quality (Category B). Individual trees generally comprised roadside specimens and amenity group planting.

In general the site's trees appear to receive little or no management. Dutch Elm Disease is present in the area and storm damage to some trees has not been remediated. Some young, planted trees are displaying poor vitality, probably resulting from a combination of low soil organic matter, poor planting and maintenance, damage, or poor nursery stock.

Trees surrounding the former Hilton hotel are a distinct landscape feature, with some good specimens. However site abandonment is reducing the positive arboricultural interest the site's landscaping offers. The trees alongside the Beach Boulevard appear to have once formed a tree-lined avenue which has become fragmented. Some high quality, large Wheatley Elm are present, however it is thought that these will succumb to Dutch Elm Disease in the short to medium term future. Trees adjacent to the Beach Ballroom were perhaps planted as a dwarf-shrub effect around parking bays, but are now small but weathered examples of hawthorn and pine with limited arboricultural interest.

Tree Category	Number of Trees
А	6
В	116
С	32
U	12

Table 3.3: Individually Surveyed Trees by Category

3.2.2 Tree Groups

The survey identified six distinct groups of trees within the site. Although varying in composition, physical quality and landscape contribution, all groups have been assigned a **B** categorisation:

Trees present in numbers usually as groups or woodlands, such that they form distinct landscape features thereby attracting a higher collective rating than they might as individuals.

TG1, TG2 and TG3 comprise vegetative stands associated with landscaping around the former Hilton hotel complex, Transition Extreme, and the Beach Ballroom. Whilst they are all of a relatively uninteresting composition, their collective as groups situated in otherwise open grassland, promotes them as landscape features.

TG 4 and 5 comprise a young, planted, woodland divided by a footpath, atop Broad Hill, west of the Linx Ice Arena. Its composition is dominated by Scot's pine, black pine, with occasional larch and rowan.

TG6 is a homogenous group of whitebeam in the north of the site, separating Accommodation road from the grassland adjacent to the Esplanade. Despite its lack of species diversity, the cohesive character of the group as a collective provides some amenity interest.

3.3 Tree Constraints and Opportunities

The site presents a variety of trees, in a variety of planted contexts linked to open space and to a range of buildings. At this stage, it is unknown which trees could be retained in the context of redevelopment and probably major landscaping works associated with the beachfront project.

It is thought that the trees lining the Beach Boulevard would probably be retained, however this project offers the opportunity to remove poor specimens and replace/upgrade and re-model the Boulevard with distinct, formal arboricultural features.

The open greenspace in the south of the site currently hosts poor to fair condition, small trees which don't appear to be particularly well suited to their coastal environment. With a large, open, greenspaces within the site there is the opportunity to increase the number of high quality tree features in future design.

Trees surrounding existing buildings (used and disused), are a mixture of moderate quality trees and relatively poor vegetative groups. The retention or otherwise of these trees may not be critical within the project on the assumption that landscape enhancement and increase in arboricultural interest may result from the development regardless.

It is assumed that the plantations on Broad Hill and in the north of the site (TGs 4,5 and 6) may remain within design. However, should this not be the case it is suggested that coastal woodland habitat creation is included to compensate for their loss.

3.4 Further Actions

Upon receipt of design proposals, the data gathered in this study can be used to quantify and qualify the positive and negative effects on features of arboricultural interest, design protective measures and inform bespoke method statements.



A SITE BOUNDARY



B TREE QUALITY ASSESSMENT CRITERIA

Category and colour on TCP		Criteria								
U - Removal Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years.	 Trees that have a serious, irremediable structural defect such that early loss is expected through collapse or become unviable after removal of other category U trees. Trees that are dead or are showing signs of significant, immediate, or irreversible overall decline. Trees infected with pathogens of significance to the health and/or safety of other nearby trees or trees of very low quality, suppressing adjacent trees of better quality. 									
A - Retain Trees of high quality with an	Mainly arboricultural value	Mainly landscape value	Mainly cultural values including conservation							
estimated remaining life expectancy of at least 40 years.	1 Trees that are particularly good examples of their species, especially if rare or unusual. Essential components of groups or formal or semi-formal arboricultural features (i.e., dominant/principal trees in an avenue).	2 Trees, groups, or woodlands of particular visual importance as arboricultural and/or landscape features.	3 Trees, groups, or woodlands of significant conservation, historical, commemorative or other value (e.g., Veteran trees or woodpasture).							
B - Retain Those of moderate quality with an estimated remaining life expectancy of at least 20 years.	1 Trees that might be included in the high category, but are downgraded because of impaired condition (e.g., remediable defects or poor past management/storm damage) such that they are unlikely to be suitable for retention beyond 40 years.	2 Trees present in numbers usually as groups or woodlands, such that they form distinct landscape features thereby attracting a higher collective rating than they might as individuals, or trees occurring as collectives but situated to make little visual contribution to the wider locality.	3 Trees with measurable conservation or cultural value.							
C - Retain Those of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm.	1 Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	2 Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value and/or trees offering low or only temporary/transient landscape benefits.	3 Trees with very limited conservation or cultural value.							

C TREE SCHEDULE

			lla in h4	l l a l a la d	11 - tailet	Usiaht	Usinht	l la in hé	l la in hé	Usiaht	Usiaht	l la in há	11-1-1-1-4	11-1-1-1-4						Branch Spread # (m)				Age Class Phy	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	Ν	E	S	W	Y/EM/SM/M /LM/V	M/SM/M Condition LM/V G/F/P/D	Can Struct Condition and/o G/F/P/D Recom	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C															
2036	Elm	7	210	3	3	3	3	SM	G		В																
2037	Elm	6	180	3	2	3	3	SM	G		В																
2038	Elm	6	3	2	3	3	3	SM	G		В																
2039	Elm	7	220	3	3	4	4	SM	G		В																
2040	Elm	7	160	3	2	3	1	SM	G		В																
2041	Elm	7	220	3	3	4	2	SM	G		В																
2042	Elm	7	180	3	2	3	3	SM	G		В																
2043	Elm	5	140	2	2	2	2	SM	F	Multiple stem	С																
2044	Elm	4	100	2	2	2	1	SM	F	Multiple stem	С																
2045	Elm	5	140	2	2	3	3	SM	F	Multi stem	С																
2046	Elm	7	210	3	4	4	4	SM	G		В																
2047	Elm	6	170	4	3	3	3	SM	G		В																
2048	Elm	7	180	3	2	2	2	SM	G		В																
2049	Elm	7	180	3	3	2	2	SM	G		В																

		Unight	Hoight	Hoight	Hoight		Br	anch Sp	oread # ((m)) Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	N	E	S	W	Y/EM/SM/M /LM/V	G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C			
2050	Lime	12	195	5	6	4	3	М	G		В			
2051	Elm	9	400	4	5	4	6	М	G	Multi stem	В			
2052	Sycamore	8	250	3	3	3	3	М	F		В			
2053	Elm	10	480	4	2	2	5	М	G		В			
2054	Whitebeam	8	310	3	3	3	2	SM	G		В			
2055	Whitebeam	8	260	3	2	3	1	SM	F		В			
2056	Whitebeam	8	320	4	1	3	1	SM	F		В			
2057	Bird cherry	10	400	6	2	4	2	М	G	Multi stem	В			
2058	White beam	9	368	4	2	4	1	SM	G		В			
2059	Whitebeam	10	430	5	1	4	3	М	G		В			
2060	Crack willow	10	540	6	1	4	5	М	F		В			
2061	Whitebeam	5	260	3	3	3	2	SM	G		В			
2062	Whitebeam	5	260	3	3	2	3	SM	G		В			
2063	Whitebeam	5	360	3	3	3	3	SM	G		В			
2064	Whitebeam	11	570	5	5	4	2	М	G		В			
2065	Whitebeam	11	340	3	2	4	2	SM	G		В			
2066	Sycamore	12	460	6	4	4	4	М	G		В			
		lls beha		Br	anch Sp	oread # ((m)	Age Class	Physiologi	General Observations of	Category			
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Tree No.	Species	(m)	DBH (mm)	Ν	E	S	w	Y/EM/SM/M /LM/V	G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C			
2067	Whitebeam	10	600	6	1	5	5	М	G		В			
2068	Whitebeam	8	380	4	4	3	3	SM	G		В			
2069	Whitebeam	8	420	4	3	4	4	М	G		В			
2070	Whitebeam	9	290	4	2	3	3	SM	F		С			
2070	Whitebeam	9	250	1	3	2	3	SM	F		С			
2072	Whitebeam	10	340	4	1	3	4	М	Р		С			
2073	Whitebeam	11	470	4	3	3	3	М	F		В			
2074	Sycamore	10	490	5	6	5	4	М	G		В			
2075	Whitebeam	10	570	4	5	4	5	М	F		В			
2076	Whitebeam	11	460	1	4	4	4	М	F		В			
2077	Whitebeam	11	480	5	4	1	3	М	F		В			
2078	Whitebeam	12	480	4	3	4	4	М	F		В			
2079	White poplar	13	428	5	3	2	5	М	Р	Storm damage	U			
2080	Whitebeam	11	440	4	2	4	2	М	F		В			
2081	Whitebeam	11	540	5	2	4	4	М	G		В			
2082	Whitebeam	11	510	5	4	4	4	М	F	Basal wound	В			
2083	Whitebeam	9	390	4	4	2	4	М	G		В			

		l la isibé		Br	anch Sp	oread # ((m)	Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	Ν	Е	S	W	Y/EM/SM/M /LM/V	G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C
2084	Oak	10	230	3	3	2	2	SM	G		В
1	Lime	14	350	4	2	1	3	М	F		В
2	Lime	16	570	6	5	4	5	М	G		В
3	Sycamore	10	290	4	4	3	2	SM	F		В
4	Sycamore	12	300	4	3	3	3	SM	F		В
5	Maple	12	290	4	2	4	4	SM	G		В
2085	Norway maple	12	530	6	6	6	5	М	G		A
2086	Lime	11	320	3	2	3	3	М	G		В
2087	Lime	12	420	4	4	3	3	М	G		В
2088	Whitebeam	10	470	5	4	5	7	М	F		В
2089	Sycamore	16	680	7	5	6	7	М	G		Α
2090	Norway maple	15	630	7	4	6	6	М	G		A
2091	Norway maple	13	450	6	6	6	5	М	G		Α
2092	Norway maple	12	570	7	6	6	6	М	F	Basal wound	В
2093	Sycamore	16	610	5	4	5	5	М	G		A
2094	Whitebeam	10	440	3	3	4	4	М	F	Stem wounds	В
2095	Whitebeam	9	380	4	4	3	3	М	Р	Large stem wound	U

_		Haimhé		Br	anch Sp	oread # ((m)	Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	N	E	S	w	Y/EM/SM/M /LM/V	G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C
2096	Whitebeam	10	520	3	4	4	2	М	F		В
2097	Elm	24	680	5	6	6	6	М	F	Monitor for dutch elm disease	A
2098	Sycamore	7	250	5	2	4	3	SM	F		В
2099	Sycamore	8	250	3	3	2	1	SM	F		В
2100	Sycamore	9	150	2	3	1	3	SM	F		В
2101	Sycamore	13	510	2	4	5	4	М	G		В
2102	Sycamore	15	540	3	4	4	6	М	G		В
2103	Sycamore	10	300	1	4	2	5	М	G		В
2104	Sycamore	16	490	6	4	3	5	М	G		В
2105	Elm	16	450	6	5	1	5	М	G		В
2106	Sycamore	7	180	2	2	2	2	SM	G		В
2107	Sycamore	6	130	2	1	2	1	SM	F		С
2108	Sycamore	6	150	2	2	2	3	SM	G		С
6	Whitebeam	8	400	3	3	4	4	SM	G		В
7	Whitebeam	8	220	2	2	2	2	SM	F	Multi stem	В
8	Rowan	8	350	4	2	1	4	SM	F		В
9	Rowan	8	240	1	2	2	3	SM	G		В

		Halash4		Br	anch Sp	oread #	(m)	Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	N	E	S	w	Y/EM/SM/M /LM/V	G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C
2109	Bird cherry	9	350	3	3	3	3	SM	F	3 stem tree, root damage	С
2110	Bird cherry	8	200	4	1	1	4	SM	F		С
2111	Bird cherry	9	200	3	3	1	1	SM	Р	Windblow	U
2112	Bird cherry	7	230	3	2	1	1	SM	Р	Stem wound	С
2113	Black pine	8	230	3	2	1	3	SM	G		В
2114	Elm	8	180	1	2	3	3	SM	F		В
2115	Elm	10	550	4	5	1	3	М	D	Dead	U
2116	Elm	10	350	1	3	4	4	SM	Р	Stem wounds	U
2117	Whitebeam	8	280	2	2	2	2	SM	F		В
2118	Black pine	12	200	2	3	1	1	SM	F		В
2119	Black pine	12	200	2	1	1	2	SM	F		В
2120	Black pine	12	230	1	1	1	4	SM	G		В
2121	Black pine	6	300	1	1	3	4	SM	G		В
2122	Black pine	8	200	3	2	3	1	SM	F		В
2123	Hawthorn	6	260	3	1	3	3	SM	G		В
2124	Hawthorn	6	200	4	1	3	2	SM	G	Multiple stem	В
2125	Hawthorn	6	230	4	2	3	2	SM	G		В

		II. Such 4		Br	anch Sp	oread # ((m)	Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	Ν	Е	S	W	Y/EM/SM/M /LM/V	G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C
2126	Hawthorn	6	240	4	2	3	2	SM	G		В
2127	Black pine	8	180	1	2	4	2	SM	G		В
2128	Sea buckthorn	5	200	3	3	4	3	SM	D	Storm damage	U
2129	Whitebeam	6	180	2	2	2	2	SM	G		С
2130	Whitebeam	6	180	2	2	2	2	SM	G		С
2131	Scots pine	7	220	3	3	1	3	SM	G		С
2132	Scots pine	7	220	2	3	3	1	SM	G		С
2134	Scots pie	4	220	1	4	2	1	SM	G		С
2133	Scots pine	4	220	1	2	2	4	SM	G		С
2135	Cherry	3	100	1	2	2	1	SM	G		С
2136	Ash	7	230	4	3	3	3	SM	G		В
2137	Ash	7	250	3	3	4	4	SM	G		В
2138	Cherry	7	230	3	2	4	4	SM	G		В
2139	Ash	7	220	3	3	3	3	SM	F		С
2140	Cherry	6	170	2	3	3	2	SM	F	Stem wound	С
2141	Sycamore	9	250	4	4	2	4	SM	G		В
2142	Norway maple	9	200	2	3	3	4	SM	F	Bark inclusion	С

		l la ischt		Br	anch Sp	oread # ((m)	Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	Ν	E	S	w	Y/EM/SM/M /LM/V	Condition G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C
2143	Ash	7	180	4	3	3	3	SM	G		В
2144	Cherry	5	180	3	3	3	3	SM	F	Multi stem	С
2145	Cherry	4	180	3	3	3	3	SM	F		С
2146	Whitebeam	6	230	3	3	3	3	SM	G		В
2147	Whitebeam	6	240	2	2	3	3	SM	G		В
2148	Sea buckthorn	4	200	1	1	4	3	SM	D	Windblown	U
2149	Whitebeam	4	180	2	2	2	2	SM	G		В
2150	Maple	7	200	4	3	4	2	SM	G		В
2151	Norway maple	7	200	4	2	4	4	SM	G		В
2152	Sycamore	7	190	3	3	2	2	SM	G		В
2153	Norway maple	8	210	4	2	2	5	SM	Р	Stem wound	С
2154	Cherry	5	150	2	3	2	2	SM	G		С
2155	Whitebeam	7	150	3	2	2	2	SM	G		В
2157	Cherry	6	170	2	2	3	3	SM	F		С
2156	Norway maple	7	150	2	3	3	3	SM	G		В
2158	Whitebeam	7	270	4	4	3	3	SM	G		В
2159	Norway maple	6	160	1	2	3	4	SM	G		В

		l la ischt		Bra	anch Sp	oread # ((m)	Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	Ν	Е	S	W	Y/EM/SM/M /LM/V	G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C
2160	Norway maple	8	200	5	4	3	2	SM	G		С
2161	Whitebeam	8	290	4	2	3	4	SM	G		В
2162	Sycamore	8	280	55	3	3	3	SM	G		В
2163	Sycamore	8	230	5	2	4	4	SM	G		В
2164	Cherry	6	200	4	4	4	3	SM	G		В
2165	Rowan	6	280	3	3	3	3	SM	G		В
2166	Sycamore	16	500	6	3	4	6	М	G		В
2167	Sycamore	16	440	6	5	6	6	М	G		В
2168	Elm	14	300	4	3	2	1	М	D		U
2169	Elm	15	390	5	2	3	5	М	D		U
2170	Elm	12	300	3	5	4	4	М	D		U
2171	Elm	12	350	4	4	4	5	М	D		U
2172	Elm	12	300	5	4	2	4	М	D		U
2173	Willow	9	220	5	5	3	1	SM	F		В
2174	Whitebeam	6	160	3	3	2	3	SM	G		В
2175	Whitebeam	6	180	3	3	3	3	SM	G		В
2176	Sycamore	6	180	22	2	2	22	SM	G		В

		l la ischt		Br	anch Sp	oread # ((m)	Age Class	Physiologi	General Observations of	Category
Tree No.	Species	(m)	DBH (mm)	Ν	E	S	W	Y/EM/SM/M /LM/V	Condition G/F/P/D	Structure/Physiological Condition and/or Preliminary Management Recommendations (detailed in bold).	U/A/B/C
2177	Sycamore	7	200	3	4	3	2	SM	G		В
2178	Sycamore	7	280	3	3	3	3	SM	G		В
2179	Sycamore	6	160	2	3	3	2	SM	G		В
2180	Elm	8	210	2	3	4	3	SM	F		С
2181	Rowan	6	150	2	2	3	3	SM	G		В
2182	Cherry	7	240	3	4	2	4	SM	G		В
2183	Sycamore	8	160	3	3	3	2	SM	F		С
2185	Cherry	6	400	6	5	5	5	М	G		В
2186	Chevy	5	220	4	3	3	4	SM	G		В
2187	Cherie	4	150	3	3	1	2	SM	G		С
2188	Elm	6	150	3	3	2	3	SM	G		С
2189	Whitebeam	7	310	3	3	3	3	М	G		В
2190	Whitebeam	6	170	2	2	3	3	SM	G		В
2191	Norway maple	6	190	3	2	2	3	SM	G		В
2192	Whitebeam	6	210	3	3	3	2	SM	F		С
2193	Whitebeam	7	210	3	2	2	3	SM	G		В

Robertson Construction Group Ltd Aberdeen Beachfront; Tree Survey

Tree Group ID	Species Composition	Maximum Height (m)	Maximum DBH (mm)	Age Profile Y/EM/SM/M/LM/V	General Condition G/F/P/D	Group Descriptors	Quality Category U/A/B/C
TG1	Cotoneaster, burbress, hawthorn, holly, crack willow, dogwood, rose.	7	250	SM-M	F	Dense shrub vegetation intermixed with planted trees surrounding the former Hilton Hotel carpark.	В
TG2	Holly, pine, cotoneaster, rose, elm, sycamore	7	250	SM	F	As above	В
TG3	Hawthorn, crack willow, bird cherry	4	250	Μ	F	A small vegetative group associated with the Beach Ballroom carpark landscaping	В
TG4	Scots pine, Black Pine, Rowan, Larch	5	200	SM	G	A planted woodland of native composition atop Broad Hill. Likely to provide some biodiversity interest.	В
TG5	As above but divided by a footpath	-	-	-	-		В
TG6	Whitebeam	5	250	М	F	A small, narrow band of whitebeam planted alongside Accommodation road, with a windswept character.	В

D TREE REFERENCE PLANS



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D COMPATIBILITY ANALYSIS

Rope Wor	ks: Compatibility analysis of draft Beachfront Develop	ment Framework obje	ectives with SEA o	bjectives																				
Key:	Plan objectives supportive of SEA objectives Potential conflict between plan and SEA objectives Plan objectives have no identified conflict or support for SE objectives Uncertain whether plan objectives conflict with or support the SEA objectives	Improve human hea and community wellbeing, while promoting a range outdoor and recrea attractions.	alth Encourag activity. of tional	e physical	Creation of communit facilities.	ty Promote active travel an sustainable transport.	d Reduce emissions of greenhouse s in line w Scottish Government targets.	To reduce contributio ith to climate change	ons Promote renewable energy sources.	To increase adaptation and reduce vulnerability to the effects of climate change	Maintain and improve air quality and reduce emissions of key pollutants.	Provide adequate drainage and sewerag	SEA Objectives Prevent deterioration, protect and enhance water quality and ecological status.	To avoid, reduce and manage flood risk	Protect and enhance so quality and prevent any further degradation of soils.	il Reduce the amount of Vacant and Derelict Land in the Aberdeen Beachfront boundary area.	Protect and enhance landscape character, local distinctiveness, visual amenity and promote access to the wider environment.	To improve the quality surroundings	of Protect or conserve and, where possible, restore and enhance biodiversity and valued nature conservation habitats and species	Protect, conserve and enhance the historic environment. To conserve and, where appropriate, enhance the historic environme and cultural heritage	Promote sustainable waste management and the circular economy.	Promote quality urbai design.	n Promote the sustainable use of community assets, natural resources and material assets.	Summary Comments NOTE: Briefly highlight key conflicts/ uncertainties/ supporting aspects of the Plan objectives with the SEA objective
	Revitalise and renew the area to maximise the potential of this unique space and create an exceptional asset for the city of Aberdeen										0	?	?	?	?	?					?			While the SEA objectives and Beachfront Development Framework objective are broadly compatible with the Rope Works masterplan option, the degree to which the objective is supportive/ conflicting is likely to depend on factors such as location and consideration of design principles and criteria, however, improved connectivity is a key element of the Beachfront Development Framework. In general, development is unlikely to increase the population directly affected by any Air Quality Management Area, which covers Aberdeen City Centre. Careful consideration with regards travel to the Beachfront facilities could potentially reduce traffic and associated emissions through the use of sustainable transport alternatives. During construction excavation of existing fill, subsoil and bedrock may be required for site levelling, for the installation of foundations for the leisure facilities, ice arena and stadium, carpark, and service trenching. This will result in a permanent relocation of soil and subsoil at most excavation locations. The excavated materials are expected to include existing fill material, topsoil/subsoil, and some bedrock. Further information on approach to development may identify potential support and/ or conflict for SEA objectives which are currently unknown.
sctives	Improve connectivity to the Beachfront area and the city with a focus on public transport, pedestrians, and cyclists	~		✓	✓	✓	✓	✓	О	✓	✓	О	О	Ο	Ο	О	✓	✓	О	О	О	✓	✓	Generally supportive compatibility, Key areas of potential support with SEA objectives are sustainable transport, landscape e.g. sensitive improvements that take account of design principles/ criteria are likely to be supportive of SEA objectives. Further information on approach to development may identify potential support and/ or conflict for SEA objectives which are currently unknown.
Framework Obje	Sympathetically restore the Beach Ballroom to its former glory when it was known as the People's Ballroom', while recognising the buildings heritage and historic significance	•		0	•	✓	•	•	✓		✓	?	?	?	?	?	•	•	•	✓	?	✓	✓	SEA objectives are generally compatible with the Beachfront Development Framework objective. Combined positive and negative effects on landscape character and local distinctiveness in the short term i.e. during exterior restoration. The focus of the objective is on improving and as such implies that existing resources will be maximised. Further information on the approach to improvements to the built environment and open space may identify further support or conflicts e.g. improvements should be sensitive to landscape issues.
chfront Development	Create quality and sustainable facilities for local people and visitors;			✓								?	?	?	?	?					?			 Conflict for SEA objectives which are currently unknown. Key area of support for health and community wellbeing, while promoting a range of outdoor and recreational attractions. SEA objectives are generally compatible with the Beachfront Development Framework objective. Landscape may be impacted by new leisure facilities, stadium, slipway and Boardwalk & Pier. With regards the slipway, boardwalk & pier, these proposals will be developed in partnership/consultation with Aberdeen City Council Operations, Coastal and Flooding teams. Further information on approach to development may identify potential support and/ or conflict for SEA objectives which are currently unknown.
Bead	Improve the physical and built environment and providing high quality public realm			✓	✓			✓			✓	?	?	?	?	?		✓			?			The ropeworks s will invest the area with a well-considered and high-quality public realm scheme which prioritises pedestrians and cyclists. The public realm approach will allow for public spaces to flow and reconnect the beach with the wider Beachfront area ensuring that the design is accessible and inclusive. Further information on approach to development may identify potential support and/ or conflict for SEA objectives which are currently unknown.
	Maximise and enhance the outstanding natural coastal assets by attracting visitor attractions and encouraging leisure facilities	✓		•	✓		О	О		0	0	?	?	?	?	?	✓	✓	О	О	?	✓	✓	Several objectives have no identified conflict or support for SEA objectives. Coastal sites are particularly sensitive to development due to natural and cultural heritage and flooding issues. Further information on approach may identify potential support/ conflict e.g. poor consideration of site location may increase vulnerability to climate change effects e.g. increasing flooding and storms. Coastal flooding is a key issue on the coastal sites. Further information on approach to development may identify potential support and/ or conflict for SEA objectives addressing coastal erosion, for example.
	Develop a clear role for the area within the wider Aberdeen City area, making the most of the areas transport links.	✓		✓	✓	✓	✓	✓	✓	✓	✓	?	?	?	?	?	•	✓	Ο	0	?	✓	✓	Generally supportive compatibility as the Beachfront Development Framework objective is, in part, concerned with marketing the area as an attractive destination. There is potential for the Beachfront Development Framework to encourage use of sustainable transport options and raising the profile of the area with respect to its historical past. Several objectives uncertain whether the plan objectives conflict with, or support, the SEA objectives. Further information on approach to development may identify potential support and/ or
NOTE: Bi conflicts/ the Plan of assessmo objective	Summary comments infly summarise for each SEA objective the key uncertainties/ supporting aspects across ALL objectives. This informs the subsequent at of effects, and the development of the Plan s, actions etc.	 Of the three options opportunity for free a Of the three options accessible movement Rope works scored h commercial feasibilities on the commercial uses and Of the three masterplan Development Frame of society/ all resider 	Rope Works score activities and open Rope Works score in to and within the highest for conside cy, flexible adaptal d scale. Islan options, rope we chnical viability a options support the work in delivering ints in the Beachfrom	d highest for prespace s highest for conframework are ration of footfal ole spaces, and vorks scored se and deliverabilit e development equitable healt at area.	roviding availability of and onsideration for and provisional ea. Il and yield, affordability / d appropriateness of propose econd for employment and by of design. t of the Beachfront h improvements to all sectors	on of Of the three options Rope Works scored highest for consideration and opportunity for green methods of travel and delivering equitable sustainable transport options to/within the Beachfront area.	The rope works scored is emerging technologies a	highest with regards opportu and energy.	unities for incorporation of	Consider how Beachfront Development Framework may affect adaption to unavoidable effects of climate change. Focus assessment on identifying opportunities for increasing adaptation to climate change e.g. integrating development, spatially, with existing natural and man made flood defences.	Significant potential for Beachfront Developmen Framework can contribute to improved a quality dependent on the approach taken to delivering objectives. Of the three masterplan options rope works score highest for consideration and opportunity for gree methods of travel and delivering equitable sustainable transport options to/within the Beachfront area.	 None off the three masterplan options discussed blue/green design features that may reduce pressure on the aquatic environment e.g SUDS. SEA assessment to focu on identifying key pressures on the aquati environment, potential opportunities for the Beachfront Development Framework to reduce these and practical mitigation measures for reducing any unavoidat adverse effects. 	None off the three masterplan options discussed water quality through provision of technologies and design g. features that may reduce pressure on the aquatic environment e.g. SUDS. US SEA assessment to focus on identifying key pressures on the aquatic environment, potential nt opportunities for the Beachfront Development Framework to reduce these and practical ble mitigation measures for reducing any unavoidabl adverse effects.	None off the three masterplan options discussed flood risk and vulnerability to flooding e.g. through inappropriate siting of development/ sealing of permeable soils resulting in increased surface run-off. SEA assessment to focus on identifying Beachfront Development Framework development that may be vulnerable or contribute to flooding and support the consideration of alternatives and/ or mitigation measures.	Generally uncertain compatibility. SEA assessment to focus on ensuring that Beachfront Development Framework development has minima environmental effects associated with soil sealing e.g. as a result of development.	Generally positive, SEA assessment to focus on ensuring that Beachfrom Development Framewor positively promotes the use of land	Ropeworks scores second for Integration o landmark design feature	f The rope works scores highest for flexibility of scale; intimate spaces a gathering spaces, sens of place and social ownership, consideratio of local planning princip and city plan, integration with immediate site constraints .	 Ropeworks scores highest for integration with natural habitat and promotion of biodiversity Potential for Beachfront Development Framework development to affect biodiversity. The extent o any effects is likely to be dependent on scope of projects and selection of sites. SEA assessment to focus on the identification of potential effects of key projects, categories of project. SEA to support the development of measures to reduce any negative effects, particularly on sensitive designated and coastal sites. 	 The Beachfront area contains many historic environment features. Rope works scores highest for promotion of Aberdeen as cultural destination, Integration of landmark design feature aspirational design qual and integration of heritage and promotion legacy. SEA assessment to focut on ensuring that: Beachfront Development Framework development is sensitive to constraint posed by the historic environment and that opportunities are developed for enhancint the benefits of cultural heritage as a key attraction of the area. 	 Ensure that the Beachfrom Development Framework commits to sustainable waste management and the circular economy wherever practicable. of of of of and the circular economy wherever practicable. 	ont Generally positive, SEA assessment to focus or ensuring that Beachfro Development Framewo positively promotes qua urban design.	 Beachfront Development Framework objectives have some key areas of support in seeking to improve existing town centres through re-use/ re-development. SEA should steer the use of coastal and other key natural resources in the area down a sensitive/ sustainable route. SEA assessment to support by further highlighting the key natural/ human-made resources that can be developed as opposed to using/ importing new resources. 	conflict for SEA objectives which are currently unknown.

Tram Lines: C	compatibility analysis of draft Beachfront Developm	nent Framework objectiv	ves with SEA objectives	S								SEA Obi	ootivoo											
Key:		Improve human healt	h Encourage physic	cal Cre	eation of community	Promote active travel a	nd Reduce emissions of	To reduce contributio	ons Promote renewable	To increase adaptation	Maintain and improve	Provide adequate Prevent of	deterioration,	To avoid, reduce and	Protect and enhanc	e soil Reduce the amount of	f Protect and enhance	To improve the quality	of Protect or conserve	Protect, conserve and	Promote sustainable	Promote quality urban	Promote the	Summary Comments
✓	Plan objectives supportive of SEA objectives	and community wellbeing, while	activity.	faci	ilities.	sustainable transport.	greenhouse s in line with Scottish Government	to climate change	energy sources.	and reduce vulnerability to the effects of climate	air quality and reduce emissions of key	drainage and sewerage. protect a water qu	and enhance ality and	manage flood risk	quality and prevent further degradation	any Vacant and Derelict of Land in the Aberdeen	landscape character, local distinctiveness,	surroundings	and, where possible restore and enhance	, enhance the historic environment. To	waste management and the circular economy.	l design.	sustainable use of community assets,	NOTE: Briefly highlight key conflicts/ uncertainties/ supporting aspects of the Plan objectives with the SEA objective
×	Potential conflict between plan and SEA objectives	promoting a range of	nal				targets.			change	pollutants.	ecologica	al status.		soils.	Beachfront boundary	visual amenity and		biodiversity and valu	ued conserve and, where			natural resources and	
0	bjectives bjectives	attractions.															wider environment.		habitats and species	the historic environme	ent		material assets.	
?	he SEA objectives																			and cultural heritage				
	Revitalise and renew the area to maximise the																							While the SEA objectives and Beachfront Development Framework objective are broadly
	potential of this unique space and create an																							compatible with the tram line masterplan option, the degree to which the objective is
	exceptional asset for the city of Aberdeen																							design principles and criteria, however, improved connectivity is a key element of the Plan.
																								In general, development does not increase the population directly affected by any Air Quality Management Area, which covers a very small area in Aberdeen, Careful consideration with
																								regards travel to the Beachfront facilities could potentially reduce traffic and associated
		✓	✓		\checkmark	✓	✓	✓	✓	✓	0	?	?	?	?	?	✓	✓	✓	\checkmark	?	✓	✓	During construction excavation of existing fill, subsoil and bedrock may be required for site
																								levelling, for the installation of foundations for the leisure facilities, ice arena and stadium, carpark, and service trenching. This will result in a permanent relocation of soil and subsoil at
																								most excavation locations. The excavated materials are expected to include existing fill material, topsoil/subsoil, and some bodrock
																								Further information on approach to development may identify potential support and/ or
																								conflict for SEA objectives addressing noise and waste management and the circular economy.
	Improve connectivity to the Reachfront area and																							Constally supportive compatibility. Key areas of potential support/ conflict with SEA
ves	the city with a focus on public transport,																							objectives for landscape e.g. sensitive improvements that take account of design principles/
ecti	pedestrians, and cyclists	✓	✓		\checkmark	✓	✓	✓	O	✓	✓	O	0	0	0	O	✓	✓	0	O	0	✓	✓	criteria are likely to be supportive of SEA objectives. Further information on approach to development may identify potential support and/ or
Objd																								conflict for SEA objectives addressing waste management and the circular economy.
ork (Sympathetically restore the Beach Ballroom to its former glory when it was known as the People's																							There are a number of objectives which score as being uncertain.as to whether plan objectives conflict with or support the SEA objectives.
ewo	Ballroom', while recognising the buildings heritage				4		2	2	2	2	2	2	2	2	2	2					2			SEA objectives are generally compatable with the Beachfront Development Framework
ram			0		•		f f	ſ	ſ	f f	ſ	f	(f f	f f	f f	· · · · · · · · · · · · · · · · · · ·	•			f	•		that existing resources will be maximised. Further information on the approach to
nt F																								improvements to the ballroom refurbishment may identify further support or conflicts.
mei	Create quality and sustainable facilities for local																							Key area of support for health and community wellbeing, while promoting a range of outdoor and recreational attractions
dole																								SEA objectives are generally the Beachfront Development Framework objective. Landscape
)eve		✓	✓		\checkmark	✓	✓	✓	✓	✓	✓	?	?	2	2	2	✓	✓	✓	✓	2	✓	✓	regards the slipway, boardwalk & pier, these proposals will be developed in
nt D																								partnership/consultation with Aberdeen City Council Operations, Coastal and Flooding teams.
ıfro																								Further information on approach to development may identify potential support and/ or
eacl	mprove the physical and built environment and																							The Tram Lines will invest the area with a well-considered and high-quality public realm
ă	providing high quality public realm																							scheme which prioritises pedestrians and cyclists. The public realm approach will allow for public spaces to flow and reconnect the beach with the wider Beachfront area ensuring that
		✓	✓		\checkmark	✓	✓	✓	✓	✓	✓	?	?	?	?	?	✓	✓	✓	\checkmark	?	✓	✓	the design is accessible and inclusive.
																								There are a number of objectives which score as being uncertain.as to whether plan objectives conflict with or support the SEA objectives.
	Maximise and enhance the outstanding natural																							Several objectives have no identified conflict or support for SEA objectives. Coastal sites are
	encouraging leisure facilities																							Further information on approach may identify potential support/ conflict e.g. poor
		✓	✓		✓	✓	O	O	✓	O	O	2	?	2	?	2	✓	✓	O	O	?	✓	✓	consideration of site location may increase vulnerability to climate change effects e.g. increasing flooding and storms. Coastal flooding is a key issue on the coastal sites.
																								Further information on approach to development may identify potential support and/ or conflict for SEA objectives addressing coastal erosion, for example
	Develop a clear role for the area within the wider																							Generally supportive compatibility as the Beachfront Development Framework objective is, in
	Aberdeen City area, making the most of the areas transport links.												\sim											part, concerned with marketing the area as an attractive destination. There is potential for the Beachfront Development Framework to encourage use of sustainable transport options and
		×	×		•	•	•	•	· · · · · · · · · · · · · · · · · · ·	×	×	(×	•		0		•	▼	raising the profile of the area with respect to its historical past. There is uncertainty as to whether the plan objectives conflict with, or support, the SEA
																								objectives.
NOTE: Brief	Summary comments y summarise for each SEA objective the key	Of the three options Tra opportunity for free act	am lines scored second f <mark>ivities an</mark> d open space	for providing a	availability of and	Of the three options tram lines scored joint second	All three masterplan option emerging technologies and	is provide similar opportu d energy and consideration	unities for incorporation of on for renewable energy	Consider how Beachfront Development Framework	Significant potential for Beachfront Development	None of the threeNone of themasterplan options hasmasterplan	he three an options has	None of the three masterplan options has	Generally uncertain compatibility.	Generally uncertain compatibility.	tram line scores higher for Integration of	st I ram lines scored higher for the consideration of	st Tram Lines scored second for integration	The Beachfront area contains many historic	Ensure that the Beachfron Development Framework	assessment to focus on	Beachfront Development Framework objectives	
conflicts/ un	certainties/ supporting aspects across ALL	Of the three masterplar	n options. tram lines scor	res hiahest for	employment and	for consideration and	consumption and production regards opportunities for in	on. Both the rope works a accorporation of emerging	and tram lines scored highest v technologies and energy, whil	with may affect adaption to	Framework to contribute	considerable potential to considered	ed potential to ality issues.	considered flooding potential.			landmark design featu	res design for safe spaces a consideration of local	nd with natural habitat ar	nd environment features.	commits to sustainable waste management and	ensuring that Beachfront Development Framewor	t have some key areas of support in seeking to	
assessment	of effects, and the development of the Plan	opportunity		0		methods of travel and	the tram lines scored secon	nd highest for the conside	eration of renewable energy	climate change. Focus	dependent on the	features that may reduce	essment to focus	SEA assessment to focus				planning principles and	Potential for Boachfre	Tram lines scored higher	est the circular economy	positively promotes qual	lity improve existing town	
objectives,	actions etc.	Of the three options tra	am lines scores second fo	or consideratio	on for and provision of	f sustainable transport				opportunities for increasing	delivering objectives Of	environment e.g. SUDS. on identify	ying key	Development Framework					Development Framew	vork design features,		urban design.	re-development.	
		accessible movement t	to and within the framewo	ork area.		options to/within the Beachfront area.				adaptation to climate change e.g. integrating	the three masterplan options rope Works	SEA assessment to focus environme	on the aquatic ent, potential	development that may be vulnerable or contribute to				Tram lines scored second for flexibility of scale;	hd development to affect biodiversity. The external	t nt of Tram lines scored seco	nd		SEA should steer the use	
		Tram Lines was second	d for consideration of foot	tfall and yield,	affordability /					development, spatially, with existing natural and	scores second for consideration and	on identifying key opportuni	ities for the nt Development	flooding and support the consideration of				intimate spaces and	any effects is likely to	be for promotion of Aberde	en		of coastal and other key	
		Trom lines court bird	oot for tooksical at 1 mil	and deliver						man made flood defences.	opportunity for green	environment, potential Framewo	rk to reduce	alternatives and/ or				promotion of a sense of	projects and selection	n of aspirational design qual	lity		area down a sensitive/	
		appropriateness of prop	posed commercial uses a	and scale.	and binty of design, and						delivering equitable	Beachfront Development mitigation	n measures for	miligation measures.				ownership and integrati	on	heritage and integration	n of		sustainable route.	
		All three masterplan op	otions support the develo	pment of the E	Beachfront						sustainable transport options to/within the	Framework to reducereducingthese and practicaladverse e	any unavoidable effects.					with immediate site constraints.	SEA assessment to for on the identification of	f legacy.	of		SEA assessment to support by further	
		Development Framewo	ork in delivering equitable	e health impro	ovements to all sectors	S					Beachfront area.	mitigation measures for							potential effects of ke	y If SFA assessment to focu	IS		highlighting the key	
		or coolety/ an residents										adverse effects.							project and groups of	on ensuring that:			resources that can be	
																			project. SEA to support the development of	Framework developmen	nt		developed as opposed to using/ importing new	
																			measures to reduce a	iny is sensitive to constrain	ts		resources.	
																			particularly on sensitiv	ve environment and that				
																			designated and coast sites.	developed for enhancin	g			
																				the benefits of cultural heritage as a key				
																				attraction of the area.				

The Groyn	es: Compatibility analysis of draft Beachfront Develo	pment Framework objectiv	ves with SEA objectives									SEA Objectives											
Кеу: ✓ С	Plan objectives supportive of SEA objectives Potential conflict between plan and SEA objectives Plan objectives have no identified conflict or support for SE objectives Uncertain whether plan objectives conflict with or support the SEA objectives	Improve human health and community wellbeing, while promoting a range of outdoor and recreationa attractions.	Encourage physical activity.	Creation of community facilities.	Promote active travel and sustainable transport.	Reduce emissions of greenhouse s in line with Scottish Government targets.	To reduce contribution to climate change	ns Promote renewable energy sources.	To increase adaptation and reduce vulnerability to the effects of climate change	Maintain and improve air quality and reduce emissions of key pollutants.	Provide adequate drainage and sewerag	Prevent deterioration, protect and enhance water quality and ecological status.	To avoid, reduce and manage flood risk	Protect and enhance a quality and prevent a further degradation o soils.	soil Reduce the amount of y Vacant and Derelict f Land in the Aberdeen Beachfront boundary area.	f Protect and enhance landscape character, local distinctiveness, visual amenity and promote access to the wider environment.	To improve the quality surroundings	y of Protect or conserve and, where possible, restore and enhance biodiversity and valu nature conservation habitats and species	Protect, conserve and enhance the historic environment. To conserve and, where appropriate, enhance the historic environmen and cultural heritage	Promote sustainable waste management and the circular economy.	Promote quality urban design.	Promote the sustainable use of community assets, natural resources and material assets.	Summary Comments NOTE: Briefly highlight key conflicts/ uncertainties/ supporting aspects of the Plan objectives with the SEA objective
	Revitalise and renew the area to maximise the potential of this unique space and create an exceptional asset for the city of Aberdeen									O	?	?	?	?	?				*	?	*		 While the SEA objectives and Beachfront Development Framework objective are broadly compatible with the tram line masterplan option, the degree to which the objective is supportive/ conflicting is likely to depend on factors such as location and consideration of design principles and criteria, however, improved connectivity is a key element of the Plan. The Groynes option "availability of and opportunity for free activities and open space" scored highest of the three options. During construction excavation of existing fill, subsoil and bedrock may be required for site levelling, for the installation of foundations for the leisure facilities, ice arena and stadium, carpark, and service trenching. This will result in a permanent relocation of soil and subsoil at most excavation locations. The excavated materials are expected to include existing fill material, topsoil/subsoil, and some bedrock. No impacts on soils and geology are anticipated during the operational phase. The
vork Objectives	Improve connectivity to the Beachfront area and the city with a focus on public transport, pedestrians, and cyclists							0		•	?	?	?	?	?			0	0	?	▲		operational stage of the development will not involve further disturbance to the topsoil, <u>subscile and analysis</u> of the area Generally supportive compatibility for sustainable alternatives to private car use. Key areas of potential support/ conflict with SEA objectives for landscape e.g. sensitive improvements that take account of design principles/ criteria are likely to be supportive of SEA objectives. All three options provide a consideration for and provision of accessible movement to and within the beachfront area, however the situation is considered to be slightly better under the rope works option. In general, the Groyne option aims to minimise the population directly affected by any Air Quality Management Area, which covers a very small area in Aberdeen.
lopment Framew	Sympathetically restore the Beach Ballroom to its former glory when it was known as the People's Ballroom', while recognising the buildings heritage and historic significance	e 🗸	О			✓		✓	✓	✓	?	?	?	?	?		✓			?	✓	✓	SEA objectives are generally compatable with the Beachfront Development Framework objective. All three options promote Aberdeen as a cultural destination, with the Groyne options scoring highest with the integration of landmark design features. Further information on approach to development may identify potential support and/ or conflict for SEA objectives addressing waste management and the circular economy during refurbishment
Beachfront Deve	Create quality and sustainable facilities for local people and visitors;	*				✓			•	•	?	?	?	?	?		✓	•		?	•	✓	Key area of support for health and community wellbeing, while promoting a range of outdoor and recreational attractions. SEA objectives are generally compatable with the Beachfront Development Framework objective. Landscape may be impacted by new leisure facilities, stadium, slipway and Boardwalk & Pier. With regards the slipway, boardwalk & pier, these proposals will be developed in partnership/consultation with Aberdeen City Council Operations, Coastal and Flooding teams. Further information on approach to development may identify potential support and/ or conflict for SEA objectives addressing waste management and the circular economy.
	Maximise and enhance the outstanding natural coastal assets by attracting visitor attractions and encouraging leisure facilities	✓			✓	 ✓ O 	✓	✓	 ✓ O 	 ✓ O 	?	?	?	?	?	✓	✓	 ✓ O 	 ✓ O 	?	✓	✓	scheme which prioritises pedestrians and cyclists. The public realm approach will allow for public spaces to flow and reconnect the beach with the wider Beachfront area ensuring that the design is accessible and inclusive. Several objectives have no identified conflict or support for SEA objectives. Coastal sites are particularly sensitive to development due to natural and cultural heritage and flooding issues. Further information on approach may identify potential support/ conflict e.g. poor consideration of site location may increase vulnerability to climate change effects e.g.
	Develop a clear role for the area within the wider Aberdeen City area, making the most of the areas transport links.	✓							✓		?	?	?	?	?		✓	0	0	?	✓		Further information on approach to development may identify potential support and/ or conflict for SEA objectives addressing waste management and the circular economy. Several objectives uncertain whether the plan objectives conflict with, or support, the SEA objectives. Generally supportive compatibility as the Beachfront Development Framework objective is, in part, concerned with marketing the area as an attractive destination. There is potential for the Beachfront Development Framework to encourage use of sustainable transport options and raising the profile of the area with respect to its historical past.
NOTE: Br conflicts/ the Plan o assessme objectives	Summarise for each SEA objective the key uncertainties/ supporting aspects across ALL objectives. This informs the subsequent ent of effects, and the development of the Plan s, actions etc.	 The Groyne masterplan of opportunity for free activity Of the three options. The provision of accessible mand opportunity for free a provision of accessible mand opportunity, consideration Design for commercial opportunity, consideration Design for commercial opportation of a segure and appropriate flexibility of scale; design spaces, promotion of a segure adaptable spaces and design and appropriate opportants. 	option scored second for pro- ities and open space Groyne scored joint second novement to and within the fractivities and open space an novement. options, The Groyne scored on of footfall and yield, afford portunities of various scales Consideration for technical v ess of proposed commercial lowest for design for conside n for flexibility of scale; intima ense of place and social own esign for the permanent and	I for consideration for and ramework area, availability of d consideration for and lowest for employment and ability / commercial feasibility s, Consideration for affordability viability and deliverability of I uses and scale eration of design for safe space ate spaces and gathering hership, design for flexible temporary spaces.	 Of the three options The Groyne scored joint second for consideration and opportunity for green methods of travel and delivering equitable sustainable transport options to/within the Beachfront area. (, ity 	All three masterplan option opportunities for incorpora and energy and considerat consumption and product tram lines scored highest incorporation of emerging while the tram lines score consideration of renewabl production	ons provide similar ration of emerging technolo ration for renewable energy tion. Both the rope works and t with regards opportunities g technologies and energy, ed second highest for the ole energy consumption and	seachfront Development for renewable energy sources where practicable within the Beachfront area.	Identify potential key climate change pressure in the Beachfront area e.g flooding, storm surges, change in availability of transport etc. Consider how Beachfront Development Framework may affect adaption to unavoidable effects of climate change. Focus assessment on identifying opportunities for increasi adaptation to climate change e.g. integrating development, spatially, with existing natural and man made flood defence	 Significant potential for Beachfront Development Framework to contribute to improved air quality dependent on the approach taken to delivering objectives. SEA assessment to focus on opportunities where the Beachfront Development Framework can contribute to improved air quality e.g. encouraging use and development of sustainable transport modes and routes, Iimitation of car parking facilities at new attractions/ business developments etc. 	Development activity supported by the Beachfront Development Framework has considerable potential provide blue/green des features that may reduce pressure on the aquate environment e.g. SUDS SEA assessment to foct on identifying key pressures on the aquate environment, potential opportunities for the Beachfront Development Framework to reduce these and practical mitigation measures for reducing any unavoida adverse effects.	 Development activity supported by the nt Beachfront Development Framework has to considerable potential to improve water quality through provision of technologies and design features that may reduce pressure on the aquatic environment e.g. SUDS. ic SEA assessment to focus on identifying key pressures on the aquatic environment, potential opportunities for the Beachfront Development Framework to reduce these and practical mitigation measures for reducing any unavoidable adverse effects. 	Improvements and development works have the potential to affect flood risk and vulnerabil to flooding e.g. through inappropriate siting of development/ sealing of permeable soils resulting in increased surface run off. SEA assessment to focu on identifying Beachfron Development Framewo development Tramewo development that may by vulnerable or contribute flooding and support the consideration of alternatives and/ or mitigation measures.	 Generally uncertain compatibility. SEA assessment to focus or ensuring that Beachfro Development Framewo development has minin environmental effects associated with soil sealing e.g. as a result development. us nt rk be e to e 	Generally positive, SEA assessment to focus on ensuring that Beachfron Development Framewor positively promotes the use of land	 A Significant potential for the Beachfront Development Framework to work towards this SEA objective if development improvements are sensitive to existing issues. SEA to support by identifying, from a strategic perspective, the constraints and opportunities of the Beachfront area's landscapes and townscapes. SEA assessment should help identify relevant environmental factors for integration with Beachfront Development Framework project principles/ design criteria. 	See SEA objective on landscape and townscape.	 Potential for Beachfrom Development Framework development to affect biodiversity. The externany effects is likely to dependent on scope of projects and selection sites. SEA assessment to for on the identification of potential effects of key projects, categories of project. SEA to support the development of measures to reduce an negative effects, particularly on sensitive designated and coasta sites. 	nt The Groyne masterplan option scored lowest for promotion of Aberdeen a cultural destination, be promotion of and support for emerging cultures and integration of heritage an promotion of legacy. SEA assessment to focus on ensuring that: y Beachfront Development f Framework development is sensitive to constraints ort posed by the historic environment and that ny opportunities are developed for enhancing ve the benefits of cultural al heritage as a key attraction of the area.	Ensure that the Beachfrom Development Framework commits to sustainable waste management and the circular economy wherever practicable.	t The Groyne masterplan option scored lowest fo consideration of inclusiv within the design and design for employment and opportunity.	 Beachfront Development Framework objectives have some key areas of support in seeking to improve existing town centres through re-use/ re-development. SEA should steer the use of coastal and other key natural resources in the area down a sensitive/ sustainable route. SEA assessment to support by further highlighting the key natural/ man-made resources that can be developed as opposed to using/ importing new resources. 	

E ASSESSMENT OF PREFERRED AND ALTERNATIVE OPTIONS

Key	
$\checkmark\checkmark$	Major positive effect
 ✓ 	Positive effect
0	Neutral effect
×	Negative effect
xx	Major negative effect
√√/x	
√/xx	Mixed effect
etc.	
?	Uncertain effect
S	Short term effect
Μ	Medium term effect
L	Long term effect
Imp	Effect will depend on how the Beachfront Development Framework is implemented

Preferred Option - New build leisure centre and ice arena, new build football stadium

Treferred Option - New Build leisd	ine centre and ice arena, new build loots	all Staului			
SEA Objective	Questions	Score	Comments	Mitigation	Enhancement
Biodiversity, flora and fauna	1				1
	Does the site impact on designated sites?	0	A preliminary ecological survey undertaken in April 2022 indicates that there are no designated sites are located within the site boundary. The Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) is located 100m to the east of the site. The River Dee Special Area of Conservation is located 1.5km south of the site.		
	Does the site impact on priority habitats or species?	√ S-M-L	Beachfront Development Framework activities have potential to result in disturbance impacts on biodiversity during both construction and operational phases. A preliminary ecological survey undertaken in April 2022 does not predict impacts to priority habitats. An outlier badger sett with two entrances was identified during the ecological survey (location is confidential). The Beachfront Development Framework aims to protect this area from future development.	The area with the badger set is not earmarked for development and will be retained.	
	To what extent will the site promote green network provision and habitat connectivity? (Question amended at request of NatureScot)	√ S-M-L	The development framework seeks to retain habitat to the west at Broad Hill, and habitat creation will be encouraged where development is proposed to ensure connectivity. Broad Hill is one of the most biodiverse parts of the Development Framework area, however the aim will be to further look for ecological enhancements through additional tree planting especially along the leeward side of the hill, expanding the pine woodland, grassland management and providing a nature led stabilisation program for the steeper eroding east slopes. This enhancement of the ecological resource will offer a key biodiverse catalyst and generator for the rest of the Development Framework area and the creation of wider green networks.	 The following good practice mitigation is recommended based on the current level of available site information: Retention and protection of woodland, grassland, scattered trees, scrub and beach habitats wherever possible maintain existing ecological connectivity to the wider landscape and to retain important habitat features. Buitable tree root protection areas should be determined and fenced off prior to any works commencing. Compensatory planting should be provided where areas of woodland and scattered trees are removed to facilitat development. Buddleja is widely planted across the UK and is a favoured nectar source for many pollinator species, known as th 'Butterfly Bush'. However, Buddleja is a vigorously growing plant which can form dense stands that can eliminate other plants and can also damage structural integrity of buildings. Buddleja is not listed among the wild invasive nor native plants listed on Schedule 9 of the Wildlife and Countryside Act, however for any INNS, controlling and stopping the spread is the advised strategy to implement. Therefore, a management plan for the control of Buddleja should be devised. It would be advisable to avoid further planting of non-native species as native species benefit the native wildli 	 Opportunities for Biodiversity Gain The following general enhancement measures h of available site information: It is recommended that future landscaping green infrastructure and encourage long term h with Aberdeen City Policy NE1 – Green Span Additional planting of trees throughout the site this commuting and foraging resource, for b Sourcing trees (seeds and plants also) of local plantcome. The creation of species rich grasslands of pollinators, improve insect biodiversity on the Aberdeen City Policy NE1 – Green Space Network
Protect or conserve and, where possible, restore and enhance biodiversity and valued nature conservation habitats and species	To what extent will the site impact wider biodiversity? (Question added at request of NatureScot)	√ S-M-L	The Beachfront Development Framework indicates that areas of woodland and various habitats will be retained and enhanced. The football stadium will be a relocation from the existing Pittodrie Stadium and will be constructed on the existing cricket ground which is of low ecological value. The area identified as being used by badgers is in an area which is not proposed for development.	 Modulate de davidable te davida faiture planting et neurinative operate de faiture operate de faitu	 Space Provision in New Development. Seed millocal area. The SBL has identified over 400 terrestriatic conservation action. Suitable enhancement met mounds, to comply with Aberdeen City Policy N The planting of berry producing shrubs a commuting and nesting opportunities within the utilising the surrounding habitats and to commuting the surrounding habitats and to commuting and sections and the surrounding habitats and to commutate the surrounding habitate the surrounding habitats and to commutate the s
	To what extent will the site enhance biodiversity? (added - NatureScot response)	√ S-M-L	The Beachfront Development Framework aims to preserve natural habitat and promote biodiversity as a key aim. Habitats and species described in the baseline ecological survey undertaken in April 2022 are likely to be enhanced, with the creation of habitats associated with blue/green infrastructure, planting and improved connectivity . The new football stadium, leisure centre and ice arena is to be located on the cricket with the Beach Ballroom retained and refurbished. The proposed boardwalk structure follows the sinuous route of the Rope Works and extends out to the North Sea a short distance as will the slipway which provides access to the Beachfront below the Esplanade. Coastal natural heritage is likely to be subject to protection and enhancement measures through improvements to natural flood defence capacity and promotion of environmental education and "green tourism"/ recreational opportunities. Neither of the two structures are likely to encroach upon the Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) which is located 100m to the east of the site, or The River Dee Special Area of Conservation (SAC) located 1.5km south of the site.	 A watching brief and /or fingertip search will need to be undertaken before any works commence, if scrub habita require removal during hedgehog hibernation period (October-April). Maximum 15mph speed restriction to avoid RTAs with protected species which may be present in the area shou be implemented during and post works. Measures should be in place to preserve water quality and prevent pollution of North Sea following SEP Guidelines for Pollution Prevention (GPPs) . Any works causing high levels of noise or vibration should be limited to daylight hours to reduce disturbance disturbance to nocturnal or diurnal species. Works should be limited to daylight hours within 30m of the North Sea, woodland and trees/buildings with PRFs reduce disturbance to nocturnal or diurnal species such as bats, otter and badger. Temporary lighting required during works should not illuminate the adjacent habitats (woodland, scattered trees, standing water and running water), which can affect the foraging of nocturnal and diurnal species. Fox dens should be undertaken out with any sensitive time period (i.e. during breeding season – March-July inclusive) if required. Should rabbit warrens and burrows require removal, this should be undertaken under the audit of the proje ecologist and should be undertaken out with any sensitive time period (i.e. during breeding season – January-July inclusive) if required. Any excavations created during works should not be left open for mammals to become trapped. Appropriat covers should be fitted at the end of every working day. At the very least, a shallow sloping edge or some form or ramp should be placed in the excavations to allow any animals to climb out. Any permanent lighting should be designed to be 'animal friendly' and should not illuminate habitats including scattered trees, scrub, water bodies, woodland and arshy grassland. Screening techniques and dark buffer zones are advised to reduce the impact on these	 Hawthorn (<i>Pranegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Holly (<i>Ilex aquifolium</i>) Hazel (<i>Corylus avellana</i>) Elder (<i>Sambucus nigra</i>) Rowan (<i>Sorbus aucuparia</i>) Scot's pine (<i>Pinus sylvestris</i>) To offer increased roosting and nesting opportoxes are recommended to be installed on tree. City Policy NE8 – Natural Heritage. Green roofs could be incorporated to improvisition of the second second second second with here: https://www.rspb.org.uk/birds-adwildlife/green-roofs/
Population and human health					
	To what extent will the site connect to the local path network? (Question amended at request of NatureScot)	✓ S-M-L	There Development Framework promotes a hierarchical network of footpaths and desire routes, extending down from Beach Boulevard and opening up towards the heart of the Masterplan. The framework has the potential to improve human health and community wellbeing, while promoting a range of outdoor and recreational attractions and encourage physical activity. The promotion of sustainable alternative modes of transport also support the health goals of the city centre Low Emission Zone.	Promote outdoor recreation utilising new facilities and ensure that development increases opportunities are for people of all ages, backgrounds and abilities to participate. Promote active travel to reduce emissions which can affect the population with health problems. Develop promotional material for the facilities on site promoting the health and environmental benefits of using sustainable transport modes to access them e.g. walk, bike, bus, train	

ave been recommended based on the current level
of the site seeks to maintain and enhance existing abitat connectivity to the wider landscape to comply ce Network and Policy NE8 – Natural Heritage . s and along the boundaries would further enhance ats, badger, otter and squirrel within the locale. provenance is key to achieving the best biodiversity
r flower meadows is recommended to encourag e site and enhance connectivity to comply with ork, NE3 Urban Greenspace and Policy NE4 – Open exes should include native plants appropriate to the
al invertebrate species in the UK as priorities fo easures include creating log piles and invertebrate E8 – Natural Heritage. Ind trees is recommended to provide a sheltere he sites and food source for birds and mammals ply with Aberdeen City Policy NE5 – Trees and
rtunities for bats and birds, a variety of bat and birds and existing buildings to comply with Aberdeen
ve storm water management and provide habitat fo the development. Further information can be found nd-wildlife/advice/how-you-can-help-birds/roofs-for-

 Improve human health and community wellbeing, while promoting a range of outdoor and recreational attractions. Encourage physical activity. Creation of community facilities. 	How does the site relate to areas with high SIMD?	√√ S-M-L	The Beachfront Development Framework area is located partly within Seaton (north) which is one of the most deprived 20% data zones in Aberdeen City. The southern area of the Development Framework is located in Hanover South. As such the Framework has the potential to meet all SEA objectives. The Development Framework proposals will provide potential long term significant economic benefits for the area that will arise through the provision of high-quality amenities and relocation of the Football stadium within 500m of the existing stadium retaining economic activity within the city centre./ local area. The development principle is to develop a world class sport, leisure and tourism destination which would revitalise the Beachfront area and reconnect it to the city centre. The health benefits associated with physical activity are actively supported by the Beachfront Development Framework. Other benefits as a result of the Preferred Option potentially include the provision of employment as a result of the new build leisure facility ice area and stadium alongside the refurbishment of the Beach Ballroom public realm elements, integrated transport links and environmental improvements. This will ensure the key elements of a sustainable community are looked at holistically. The proposed new stadium would provide a new home for Aberdeen Football Club. The stadium would seek to support the local, national, and international strategies that the Aberdeen FC Trust are involved with that address the importance of increasing physical activity, and tackling issues such as poverty, inequalities, and wellbeing. The Beachfront Development Framework also locates the 16,000 seater stadium close to its original Pittodrie home and maintains its heritage with the local community and also continues to home for the local community and also continues to home for the development.		Raise awareness of the health benefits of outdoo new activities. Ensure that development incorpo footpath and cycle network. Ensure that potentia recreation/ exercise opportunities to suit a range ages.
	To what extent will the site impact access to open space? (Question amended at request of NatureScot)	√ S-M-L	Development would lead to the loss of open space. Open space is a key consideration of the Beachfront Development Framework. The proposed reconfiguration of the Development Framework area will result in a reorganisation of the open space provision within the masterplan area. These spaces have been developed with the aim of creating different characters and opportunities for people to enjoy the site. Whether this be a walking along the promenade surrounded the proposed dune landforms, a visit play park or arriving at Beach Ballroom Plaza; the overall masterplan design aims to provide a variety of characters and spatial experiences. The new stadium will be build on the site of the existing cricket ground with the loss of open space.	Apply policy requiring all new developments provide open space	
Water					
	Is the site at risk of flooding?	√ /x	 Fluvial Flooding (River) The SEPA Flood Map indicates that site doesn't experience fluvial flooding during the 1:10 year (10%) or 1:200 year (0.5%) return periods. A small area, associated with the low point of Links Road is shown to be at risk of flooding from the Den Burn during the 1:1000 year (0.1%) return period event. The river Don is shown to be prone to flooding during all return period events, but within the vicinity of the Development Framework site the extent of flood water is limited. Pluvial Flooding (Surface Water) No flooding is indicated during the 1:10 year (10%) return period event. Pockets of surface water flooding, associated with existing hard-standings serving the existing buildings and the low point of beach boulevard are indicated for the 1:200 year (0.5%) and 1:1000 year (0.1%) return period events. Coastal Flooding Review of the SEPA Flood Maps shows that areas of coastal flood risk are located east of the Esplanade seawall, with no coastal flood risk shown for the proposed beachfront development area. 	Earthworks, temporary bunding or material stockpiles may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats; and New drainage systems, temporary or permanent, may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats. Changes in volume and rate of surface runoff from impermeable surfaces such as roofs, car parking areas and access roads may effect flow characteristics resulting in changes to flood risk. Changes to the permeability of surface cover may impact on the underlying hydraulic regime and groundwater recharge Surface drainage schemes may alter the flow characteristics of nearby watercourses and flooding characteristics Review national planning policy on flooding and specific ACC Local Plan policy on flooding. Undertake a flood risk assessment for the Aberdeen Beachfront area to identify key sources of flooding and mitigation measures e.g. development of new coastal flood defences, protection and enhancement of existing	
 Prevent deterioration, protect and enhance water quality and ecological status. Reduce risk of flooding. Provide adequate drainage and sewerage 	Are there water courses within the site or which would be affected by increased levels of flooding resulting from development of the site?	0	As above	natural flood defences e.g. wetlands/ dunes. Ensure that new development complies or betters planning requirements for provision of drainage infrastructure/ SuDS/ blue-green infrastructure. Given the topography of the site and the prevailing ground conditions, it is likely that run-off from the undeveloped parts of the development site drain to the natural water environment through groundwater percolation towards the North Sea. Review drainage capacity and develop new infrastructure if required. Develop management plan, in conjunction with relevant statutory bodies, to minimise impacts on biodiversity. Ensure compliance or enhancement of existing planning requirements for water efficiency in all new developments. Where practicable, minimise hydromorphological changes to reduce impact on natural water processes. The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Framework. This will be assessed prior to project development stage Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate Ensure development which can potentially impact coastal erosion adheres to best practice and potential effects are modelled.	
	Are there water courses within the site or which would		There are no natural surface water features within the proposed development boundary, the nearest watercourse being the River Don – which lies approximately 2km to the north of the site The site forms part of the Aberdeen Beachfront and is separated from the North Sea by	Given the topography of the site and the prevailing ground conditions, it is likely that run-off from the undeveloped parts of the development site drain to the natural water environment through groundwater percolation towards the	
	be affected by increased levels of pollution, or other pressures, from development within the site?	0	the Esplanade. Consequently, it forms part of the catchment of the River Don/North Sea Confluence.	North Sea.	
	be affected by increased levels of pollution, or other pressures, from development within the site? Are there opportunities to improve the status of water courses?	o ✓ S-M-L	the Esplanade. Consequently, it forms part of the catchment of the River Don/North Sea Confluence. The Development Framework surface water management strategy will be based on the principles of Sustainable Urban Drainage Systems (SUDs) and blue/green infrastructure to incorporate best management practices for the treatment of surface water.	North Sea. The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Development Framework.	1 , t



	Are flooding/water & foul drainage issues addressed including in relation to ACC & Scottish Water infrastructure? (Question added at request of SEPA)	?	The relocation of stadium is likely to have significant effect on the water environment and will require assessment prior to submission of a planning application. Beachfront Development Framework activities, during construction and operational phases, may have potential to cause an increase in diffuse source water pollution. Goodson Associates are currently assessing flooding/water & foul drainage issues. This is being assessed taking cognisance of ACC & Scottish Water infrastructure. A combined sewer runs north south through the centre of the site with a number of attributing sewers connecting into it. Points of connection and available capacity will need to be confirmed with Scottish Water.	Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate. Once completed outputs from the Aberdeen Integrated Catchment Study should be considered prior to planning applications to take account of culverted water courses, take a comprehensive approach to flood risk management, surface water management etc.	
	To what extent will the site impact the ecological status of water bodies? (Question added at request of NatureScot)	√ S-M-L	It is unlikely that there will be impacts on the ecological status of water bodies. The provision of SUDs and blue/green infrastructure has been proposed which will provide opportunities for biodiversity gain.	Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate. Once completed outputs from the Aberdeen Integrated Catchment Study should be considered prior to planning applications to take account of culverted water courses, take a comprehensive approach to flood risk management, surface water management etc.	
Soil	Dece the site include grace of vecent or develot land?	0	The site does not include gross of uppent or develot land as identified by ACC		
	Is the site prime agricultural land?	0	The Scotland's Soil Website indicates there is no prime agricultural land within the boundary of the Development Framework area. With respect to land capability considerations the majority of the Development Framework area is identified as having an agricultural capability of 4.1 (Land capable of producing a narrow range of crops, primarily grassland with short arable breaks of forage crops and cereal). Broad Hill comprises area of 5.2 (Land capable of use as improved grassland. Few problems with pasture establishment but may be difficult to maintain.) There is also an area in the north east having an agricultural capability of 6.2 (Land capable of use as rough grazings with moderate quality plants). The remainder is classified as urban.		
	Does the site include carbon rich soil?	0	The Scotland's Soil Website indicates that the majority of the Development Framework area incorporates immature soils with the dominant soil group being regosols formed of windblown sand. The western portion of the Development Framework area does not have an identified classification. The soil is identified as mineral soil with no peatland vegetation.		
 Protect and enhance soil quality and prevent any further degradation of soils Reduce the amount of Vacant and Derelict Land in the Aberdeen Beachfront boundary area. 	To what extent will the site impact soil quality? (Question added at request of NatureScot)	√ /x	With reference to the Engineering Site Appraisal prepared by Goodson Associates, the site was previously used as a rifle range and rocket battery. In addition there is made ground and ashy waste.and a gravel pit. The site is located on the edge of an area which has former industrial uses including chemical, gas, iron, rope and granite works. All of these have the potential to leach contaminants into the surrounding areas. Without knowing how contaminated material, if any, was dealt with when the site was first developed, it is not possible to discount the possibility that contaminated material will be encountered on site. Existing features such as car parking areas could contain localised contaminants and therefore any made ground encountered should be tested for chemical contaminants and dealt with accordingly. There is some potential for significant negative effects to arise, mainly through increases/ decreases in soil sealing, soil loss and erosion (e.g. building new car parks to accommodate increased visitor numbers), soil compaction (e.g. increased visitor numbers at sensitive areas. Secondary effects of increased uptake of sustainable transport options may result in less requirement for new car parking facilities at key attractions.	Some developments are likely to require remediation of contaminated land to secure development consent. The overall effect is likely to be a net reduction in contaminated areas in the Beachfront area. Additional vegetation cover in the area as a result of tree planting activities may reduce soil erosion. Ensure that development incorporates areas of both hard and soft end uses to minimise the effects of soil sealing. For example, include provision for significant areas of green space to avoid large areas of impermeable ground-cover. Minimise removal of vegetation during development. Additional vegetation cover in the area as a result of tree planting activities, for example, may reduce soil erosion. To reduce soil erosion risk all open spaces should not be left as bare soil through the winter. Use optimal mix of tree planting in any new woodland areas to protect soils. Measures should be in place to ensure that possible contamination from construction will be properly remediated and not affect the quality of the soil. Re-use of soil in local area where practicable.	
Air					
	Is the site easily accessible by the core path network, and provide access to settlements and services?	✓ S-M-L	Existing pedestrian links in the vicinity of the Esplanade, including the lower promenade, form		
Maintain and improve air quality and reduce emissions of key pollutants.	Does the site lie within an area where levels of air pollution are close to current limit values?	S-M-L	Aberdeen City Centre AQMA is located west of the main Development Framework site at the roundabout of Beach Boulevard. Following approval from Scottish Ministers, Aberdeen City Council is introducing a Low Emission Zone (LEZ) in Aberdeen City Centre. The LEZ is an area of Aberdeen City Centre where the driving of vehicles which do not meet the specified emissions standards is prohibited. The aim of the LEZ is to improve air quality within the City Centre Air Quality Management Area (AQMA) to ensure compliance with the Scottish Government's air quality objectives, particularly for the pollutant nitrogen dioxide (NO2). The LEZ came into effect from 30th May 2022 and will operate for 365 days a year, 24 hours a day. A 2-year grace period (during which enforcement of the LEZ will not take place) for both residents and non-residents of the LEZ area and for all non-exempt vehicle types will commence from this date, meaning that enforcement will take place from 1st June 2024. The promotion of sustainable alternatives to car travel within the Beachfront Development Framework, the promotion of energy efficient technology and the implementation of the LEZ demonstrates that the Council is considering an integrated approach to dealing with environmental issues such as climate change, transport, noise, health, and energy etc.	New development should consider sustainable travel methods and sustainable construction methods in line with LDP transport and air quality policies. This will help mitigate against negative impacts on air quality. Limit provision of new car parking facility where practicable.	
	Would development on the site contribute to higher traffic flows along transport routes or at key junctions where levels of air pollution are close to current limit values	√ S-M-L	Through delivery of the Beachfront Masterplan, key transportation principles which underpin the City Centre Masterplan and associated corridor studies will be applied which extends between Castlegate, Beach Boulevard and the Esplanade. These measures will enhance trip making opportunities for those who already make trips in the area while strongly influencing the travel choices of those who choose to visit the area in the future. A Low Emission Zone (LEZ), covering the city centre was introduced in 2022. Only vehicles which comply with specified emissions standards may enter the LEZ, helping to address air pollution in the city centre. Active and sustainable travel modes are prioritised within the LEZ, the eastern extent of which is defined by the A956 / East North Street. Proposed enhancements to active travel connections between the city centre and the Beachfront contribute towards LEZ objectives.	The proposed energy strategy can result in energy efficiency and aims to minimise emissions. Limit provision of new car parking facility where practicable.	
	Does the development reduce the need to travel? (Question added at request of SEPA)	√ S-M-L	The Development Framework has an aspiration to grow rates of active travel and to promote effective public transport. Promoting sustainable and active travel is likely to reduce greenhouse gases, thereby having a positive effect on climatic factors and air quality. It will also have a positive effect on health by promoting healthy lifestyles. The current AFC stadium at Pittodrie is around 400m away. Crucially therefore, a new stadium at the Beachfront and the transportation demands associated with stadium events will not be new to the area. For most supporters, their journey to a new stadium at the Beachfront would be relatively unchanged given how close the new stadium would be to Pittodrie. This has significant benefits with respect to disruption caused by infrequent stadium events. There will generally be no net detriment to the surrounding area.		



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	Does the location of the development reduce the need to travel?	√ S-M-L	Increased jobs, recreational/leisure facilities, commercial, football stadium etc. has potential to result in increased GHG emissions (both through increased car use and energy use). However, the core principles of the Beachfront Development Framework are to improve access and connectivity between the Beachfront and City Centre; Transport studies are ongoing to ensure infrastructure, including traffic management reduces the impact of the existing road network and promotes alternative forms of travel, including walking and cycling, whilst improving the public realm which is a key consideration of the Development Framework.				
	Is the site at risk of increased flooding or instability as a result of climate change?	? M-L	As outlined in SEPA climate change guidance, future climate change may cause a sea level rise of 0.87 m in the North-East river basin region by 2100, based on UKCP18 outputs. Proposals in the beach and esplanade area are therefore being developed in partnership /consultation with ACC Operations / Coastal / Flooding Teams.				
	Does the framework promote efficient use of energy?	√√ S-M-L	The Beachfront Development Framework assumes that the existing leisure centre and ice arena are demolished and could be replaced with a new facility that integrates leisure centre, ice arena, and football stadium uses as part of the development. Opportunities for renewable energy provision and low/zero carbon technologies are being explored during the development of the Beachfront Development Framework. This may include small scale renewables/ micro generation and the identification of sites for local energy generation.				
 Reduce emissions of greenhouses in line with Scottish Government targets. Promote active travel and sustainable transport. Reduce risks from climate change problems in the Aberdeen City Council area include increased flood risk of coastal and fluvial sources. Promote renewable energy sources. 	Does the framework promote efficient use of water?	?	At this stage it is too early to assess the water demand for the Beach Ballroom, leisure, ice arena and Stadium facilities. It is reasonable to assume that the service provided to the existing would meet most of the demand and a new connection is likely to be local, however a Predevelopment/ Water impact assessment would need to be carried out to determine if infrastructure upgrades are required and identify the likely connection point on to the existing Scottish Water Network.	Ensure that there are options to reduce the need to travel.			
	Does the framework increase resilience of people, material assets and natural environment	√√ S-M-L	The energy strategy still requires to be fully developed but an Energy Centre potentially located at the Leisure Centre to serve the entire development is currently being investigated. Architectural interventions are proposed to adopt some Passivhaus style construction principles such as super insulated building envelopes, high performance glazing and mechanical ventilation with heat recovery. They will also potentially feature the use of smart controls, an off-site sourced 'green electricity' supply and some on-site renewable technologies including Photovoltaic Panels with associated battery storage. Distribution of heating & cooling is potentially via an Ambient Loop system with water-to-water heat pumps connected to terminal units throughout. For added resilience back up heating & power could be sourced from the existing Aberdeen Heat & Power District Heating System which it is anticipated will switch to a green hydrogen fuel source in the future.	A proposed energy strategy which results in energy efficiency and minimises GHG emission is to be at the heart of the design and decision making process. All new buildings must install low and zero carbon generating technologies to reduce the predicted carbon generating technologies to reduce the predicted carbon dioxide emissions. LDP Policy encourages waste minimisation and sustainable and active travel. Encourage facilities to develop a 'Travel Plan/ Sustainable Urban Mobility Plan' for their employees and visitors. Ensure that new and refurbished facilities are within walking distance of public transport options (bus, rail or both).	The Energy Strategy has the potential to identify ent		
	Does the framework include mitigation and adaptation measures in light of a changing climate and local environment? (Question added at request of SEPA).	√√ S-M-L	The Beachfront Development Framework sets out the approach, pathway, and actions towards meeting NetZero and climate resilient assets and operations by 2045. As such, energy-efficient designs will be incorporated alongside renewable and low carbon energy sources, with consideration provided on how further decarbonisation could be achieved in the future. Given the scale and importance of the facilities planned within the development, the energy demands could be significant and critical to function. Consideration should therefore be given to added robustness and security of energy supplies so the energy centre solution should incorporate a degree of redundancy and back-up. This integrates smoothly with renewables-powered electrolysis or CHP (Combined Heat and Power) units adapted to support hydrogen, either partially or as the sole fuel source.	Promote/ develop sustainable transport options for accessing new facilities. Limit provision of new car parking facilities where practicable. Flood Risk Assessments and Drainage Impact Assessments will be required, along with provision of SUDS where appropriate. Apply policy to require all new buildings to install low and zero carbon generating technologies to reduce the predicted carbon dioxide emissions			
	Does the framework seek to protect, create or enhance natural resources for carbon capture? (Question added at request of SEPA)	✓ S-M-L	The Beachfront Development Framework indicates that tree/ woodland planting is proposed throughout the site. The Core Play Park, for example, will be enclosed to some degree by landform/tree planting to help create a suitable micro-climate and provide a comfortable year-round space. The planting regime for the Development Framework area has yet to be determined, however the Woodland trust suggest a young wood with mixed native species can lock up 400+ tonnes carbon per hectare.				
	To what extent will the site promote nature-based solution provision? (Question added at request of NatureScot)	✓ S-M-L	As above				
	Does the framework increase the resilience of people, infrastructure and the natural environment to the impacts of climate change (including flood risk, extreme weather, heat and cold)? (Question added at request of SEPA)	√/× S-M-L	Futureproofing is a key consideration of the Beachfront Development Framework. The energy centre solution will need to meet the requirements of Aberdeen City Council Climate Change Plan 2021-25: Towards a Net Zero and Climate Resilient Council. The Plan sets out the approach, pathway, and actions towards net zero and climate resilient Council assets and operations, by 2045. As such, energy-efficient designs will be incorporated alongside renewable and low carbon energy sources, with consideration provided on how further decarbonisation could be achieved in the future. There will be a carbon impact from renovation of existing buildings. Fundamental design decisions—such as new construction versus upgrading, building size and shape, level of insulation, and floor-space flexibility—can have a significant impact on emissions for decades to come. Note- there are existing connections to district heating for the beach leisure centre and ice rink				
Cultural Heritage							
Protect, conserve and enhance the historic environment.	Would development impact on the integrity of sites, monuments, buildings or areas designated for their cultural heritage value?	√ S-M-L	Based on the initial review of the relevant historic environment designations there is one Listed Building within the area (the Beach Ballroom LB20314 a Category B listed building) and a small section of the City Centre Conservation Area. Given the boundary of the proposed development area uses a series of urban street edges, there are expected to be a number of Listed Buildings immediately adjacent to the area. No other designated assets have been identified at this time nor sites where protection would flow from their inherent characteristics (e.g. characteristics affording protection through the Protection of Military Remains Act 1986). Constructional/ operational impacts of potential development may result in negative effects on previously unknown archaeological features. Central to the Beachfront Development framework is the sympathetic restoration of the Beach Ballroom which has the potential to enhance heritage in the area. A cultural heritage assessment will be undertaken of the wider development framework area to identify cultural heritage assets. The design principles indicate that heritage will be protected, and people's understanding and enjoyment of it enhanced through the new developments. However, there will inevitably be some impact on their setting as a result of large-scale new development. Aberdeen Football club would like to position the proposed 16,000 seater stadium in the city, close to its original home and maintain its heritage and local community while benefiting the economy of the city centre .	Raise awareness of the areas heritage to encourage ownership/ sense of place. Ensure that improvements to surroundings are in-fitting with local Landscape Character Types, the areas natural and cultural heritage and in compliance with national and local planning policy. Develop design briefs, in conjunction with Aberdeen City Council and Historic Environment Scotland to provide developers with clear guidelines on approach to development, ensuring that site and setting of cultural heritage is protected. Prior to commencement of work, discussions will take place with Aberdeen City Council's Archaeological service to determine whether the ground breaking locations require any mitigation	Ensure that improvements to surroundings are con and are compliant with national and local planning p		
	monuments, buildings or areas designated for their cultural heritage value?	0	assets. Cultural Heritage and Historic Environment could be considered within a supporting study to be submitted as part of the planning application.				

ntial to identify enhancement opportunities as it develops.
roundings are compatible with the historic environment features d local planning policy.

	Would development within the site impact on archaeological remains?	?	Potential impact on Cultural Heritage and Historic Environment could be considered within a supporting study to be submitted as part of the planning application		
Landscape			oupportang daaly to be babinitied ab part of the planning approacioni		
Protect and enhance landscape character, local distinctiveness, visual amenity and promote access to the wider environment.	To what extent will the site impact landscape designations? (Question amended at request of NatureScot)	0	The Site is not covered by any national landscape planning designations associated with its scenic or historic character. Nor does the Site contain a Garden and Designed Landscape ("GDL") or locally designated Special Landscape Area ("SLA"). The Beach Ballroom (category B listed) is the sole listed structure within the Site.		
	To what extent will the site impact settlement setting and identity? (Question amended at request of NatureScot)	√/x	There will be a permanent change to the landform in the area as a result of the Development Framework proposals. Coastal developments may cause significant visual impact. The longer- term landscape impacts will be determined by the nature, scale and extent of development submitted as part of future planning applications. There will, however, also be enhancement of existing habitats and creation of open spaces within the development framework area.	Mitigation seeks first to avoid adverse impacts and where impacts are unavoidable to reduce the significance of residual effects to an acceptable level. It also seeks enhancement and compensation where possible to provide the best practicable option. Potential landscape and visual mitigation measures include:	Identify opportunities for enhancing and protect sensitive new and re-development.
	To what extent will the site impact on visual amenity and key views (Question amended at request of NatureScot)	√/x	There will be an overall impact on visual amenity which will range from disturbance of an already changing urban environment, enhancement of existing habitats and creation of open spaces within the development framework area.	• Promote sympathetic design principles and ensure siting of development fully recognises the sensitivity of the landscape. Use tree planting of mixed native species to mitigate potential negative landscape effects. Consider	Use mixed native species appropriate to specific
	To what extent will the site impact on landscape character? (Question added at request of NatureScot)	√ /x	Construction Phase Short term, temporary effects on landscape features (grassland, trees and hedgerows), landscape character and visual amenity. Operational Phase Long term, permanent effects on landscape features (grassland, trees and hedgerows), landscape character and visual amenity. There will also be enhancement of existing habitats and creation of open spaces within the development framework area.	 using urban park project to increase viability and connectivity of key existing habitats I Planting and open space provision within the proposed development (and wider Development Framework) will limit adverse effects arising from the introduction of additional built form within the Site. I Consideration of built development scale, form and orientation in order to reduce or remove effects. 	Identify opportunities for protecting and enhance area, particularly where there are existing streng Ensure that improvements to surroundings are and are compliant with national and local planni
Material Assets					
	Is the site located close to existing transport, services, water and energy infrastructure?	✓ S-M-L	The site is located close to existing transport, services, water and energy infrastructure.	Promote active travel to reduce emissions which can affect the population with health problems. Develop promotional material for the facilities on site promoting the health and environmental benefits of using sustainable transport modes to access them e.g. walk, bike. bus, train	^D Ensure that development incorporates measure network.
•Promote the sustainable use of community assets, natural resources and material assets.	Is the site located to make best use of shelter, solar gain and reduce the need to travel?	Imp	The Beachfront Development Framework is subject to a coherent overarching strategy for the area which includes aims and proposals to reduce travel. Further work is required to determine the best use of shelter and solar gain which would be dependent upon development layout.	Determine the best use of shelter and solar gain which would be dependent upon development layout.	
 Promote quality urban design. Promote sustainable waste management and the circular economy 	Does the site reduce waste generation and promote waste recovery, recycling and composting?	√/x	Beachfront Development Framework development is likely to increase production of waste. There will be a carbon impact from demolition of existing buildings. Waste from the development would be directed to the local Material Energy Recycling Facility. Composting isn't specifically discussed as part of the Beachfront Development Framework.	Potential for significant positive effects through increased uptake of sustainable waste management practices developed through advice/ guidance in awareness raising programmes. Promote Site Waste Manageent Plans during construction New development will be required to provide sufficient space for the storage of general waste, recyclable materials and compostable wastes where appropriate.	Potential for significant positive effects through practices/ circular economy developed through
Summary score	•		•	•	•
Overall, the proposals are likely to have a similar e	ffect on the environment as the Preferred Option. with gene	rally positive	effects. There are areas of potentially positive effects in relation to population and human health	n, biodiversity, water, soil, air, cultural heritage climatic factors, material assets, and soil. There is potential for signification	ant negative effects, mainly related to water, soil.
uncertain and/ or neutral.		/		, , , , , , , , , , , , , , , , , , ,	.



, landscape and material assets. Other effects are

Key	
\checkmark	Major positive effect
✓	Positive effect
0	Neutral effect
×	Negative effect
xx	Major negative effect
√√/x √/×× etc.	Mixed effect
?	Uncertain effect
S	Short term effect
М	Medium term effect
L	Long term effect
Imp	Effect will depend on how the Beachfront Development Framework is implemented

active Option A – Potein and refurbich existing laisu (football stadie ntro ior

Alternative Option A - Retain and	refurbish existing leisure centre, ice are	ena, new f	ootball stadium		
SEA Objective(s) Biodiversity, flora and fauna	Questions	Score	Comments	Mitigation	Enhancement
	Does the site impact on designated sites?	0	A preliminary ecological survey undertaken in April 2022 indicates that there are no designated sites are located within the site boundary. The Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) is located 100m to the east of the site. The River Dee Special Area of Conservation is located 1.5km south of the site.		
Protect or conserve and, where possible, restore and enhance biodiversity and valued nature conservation habitats and species	Does the site impact on priority habitats or species?	√ S-M-L	Beachfront Development Framework activities have potential to result in disturbance impacts on biodiversity during both construction and operational phases. A preliminary ecological survey undertaken in April 2022 does not predict impacts to priority habitats. An outlier badger sett with two entrances was identified during the ecological survey (location is confidential). The Beachfront Development Framework aims to protect this area from future development.	The area with the badger set is not earmarked for development and will be retained.	 Opportunities for Biodiversity Gain The following general enhancement measures have level of available site information: It is recommended that future landscaping of the green infrastructure and encourage long term hab comply with Aberdeen City Policy NE1 – Green Heritage . Additional planting of trees throughout further enhance this commuting and foraging resulting the locale. Sourcing trees (conds and plants of the sources)
	To what extent will the site promote green network provision and habitat connectivity? (Question amended at request of NatureScot)	√ S-M-L	The development framework seeks to retains habitat to the west at Broad Hill, and habitat creation will be encouraged where development is proposed to ensure connectivity. Broad Hill is one of the most biodiverse parts of the Development Framework area, however the aim will be to further look for ecological enhancements through additional tree planting especially along the leeward side of the hill, expanding the pine woodland, grassland management and providing a nature led stabilisation program for the steeper eroding east slopes. This enhancement of the ecological resource will offer a key biodiverse catalyst and generator for the rest of the Development Framework area and the creation of wider green networks.	 The following good practice mitigation is recommended based on the current level of available site information: Retention and protection of woodland, grassland, scattered trees, scrub and beach habitats wherever possible to maintain existing ecological connectivity to the wider landscape and to retain important habitat features. Suitable tree root protection areas should be determined and fenced off prior to any work commencing. Compensatory planting should be provided where areas of woodland and scattered trees are remove to facilitate development. Buddleja is widely planted across the UK and is a favoured nectar source for many pollinator species known as the 'Butterfly Bush'. However, Buddleja is a vigorously growing plant which can form dense 	 the best biodiversity outcome. The creation of species rich grasslands or flower pollinators, improve insect biodiversity on the site Aberdeen City Policy NE1 – Green Space Network Open Space Provision in New Development. S appropriate to the local area. The SBL has identified over 400 terrestrial investors conservation action. Suitable enhancement measurement models invertebrate mounds, to comply with Aberdeen City and the set of the poly of the set o
	To what extent will the site impact wider biodiversity? (Question added at request of NatureScot)	√ S-M-L	The Beachfront Development Framework indicates that areas of woodland and various habitats will be retained and enhanced. The football stadium will be a relocation from the existing Pittodrie Stadium and will be constructed on the existing cricket ground. The existing leisure centre and ice arena will retained and refurbished. A preliminary ecological survey undertaken in April 2022 does not predict impacts to priority habitats.	stands that can eliminate other plants and can also damage structural integrity of buildings. Buddleja is not listed among the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act, however for any INNS, controlling and stopping the spread is the advised strategy to implement. Therefore, a management plan for the control of Buddleja should be devised. • It would be advisable to avoid further planting of non-native species as native species benefit the nativi wildlife more and are complementary with the natural surroundings.	 commuting and nesting opportunities within the sit utilising the surrounding habitats and to comply w Woodlands . Suggested species include: Hawthorn (<i>Crategus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Holly (<i>Ilex aguifolium</i>)
	To what extent will the site enhance biodiversity? (added - NatureScot response)	√ S-M-L	The Beachfront Development Framework aims to preserve natural habitat and promote biodiversity as a key aim. Habitats and species described in the baseline ecological survey undertaken in April 2022 are likely to be enhanced, with the creation of habitats associated with blue/green infrastructure, planting and improved connectivity. The new football stadium is to be located on the cricket pitch with which is of low ecological value. Existing leisure centre, ice arena and Beach Ballroom are to be retained and refurbished. The proposed boardwalk structure extends out to the North Sea a short distance as will the slipway which provides access to the Beachfront below the Esplanade. Coastal natural heritage is likely to be subject to protection and enhancement measures through improvements to natural flood defence capacity and promotion of environmental education and "green tourism"/ recreational opportunities. Neither of the two structures encroach upon the boundary of The Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) which is located 100m to the east of the site, or The River Dee Special Area of Conservation (SAC) located 1.5km south of the site.	 International of the proteins operation operation operation of the protected species on site and in the wird landscape via a tool box talk (i.e. bats, otter, badger, red squirrel, hedgehog, birds and marine mammals). Any vegetation clearance should be scheduled to occur outside of the nesting bird season, a nesting bird season whe possible (March to August inclusive). Where vegetation removal cannot be completed outside of the nesting bird season, a nesting birds are found then a suitable exclusion zone will be set up to avoid nest destruction and disturbance. A watching brief and /or fingertip search will need to be undertaken before any works commence, scrub habitats require removal during hedgehog hibernation period (October-April). Maximum 15mph speed restriction to avoid RTAs with protected species which may be present in tarea should be implaneented during and post works. Measures should be in place to preserve water quality and prevent pollution of North Sea followin SEPA Guidelines for Pollution Prevention (GPPs). Any works causing high levels of noise or vibration should be limited to daylight hours to reduct disturbance to nocturnal or diurnal species. Works should be limited to daylight hours within 30m of the North Sea, woodland and trees/building with PRFs to reduce disturbance to nocturnal or diurnal species use abats, otter and badger Temporary lighting required during works should not illuminate the adjacent habitats (woodland scattered trees, standing water and running water), which can affect the foraging of nocturnal and diurnal species. Fox dens should be monitored to confirm that they are empty prior to removal under the audit of troject ecologist and should be undertaken out with any sensitive time period (i.e. during breeding season - Auarch-July inclusive) if required. Any works and and should be undertaken out with any sensitive time period (i.e. during breeding season - Auarch-July inclusive) if r	 Hazel (Corylus avellana) Elder (Sambucus nigra) Rowan (Sorbus aucuparia) Scot's pine (Pinus sylvestris) To offer increased roosting and nesting opportunibird boxes are recommended to be installed on the Aberdeen City Policy NE8 – Natural Heritage. Green roofs could be incorporated to improve st for birds and bats on any buildings associated with be found here: https://www.rspb.org.uk/thebirds/roofs-for-wildlife/green-roofs/

e been recommended based on the current

e site seeks to maintain and enhance existin bitat connectivity to the wider landscape to Space Network and Policy NE8 – Natural the sites and along the boundaries would source, for bats, badger, otter and squirrel also) of local provenance is key to achieving

ver meadows is recommended to encourag e and enhance connectivity to comply with k, NE3 Urban Greenspace and Policy NE4 – Seed mixes should include native plants

vertebrate species in the UK as priorities fo neasures include creating log piles and y Policy NE8 – Natural Heritage.

rees is recommended to provide a sheltere sites and food source for birds and mammals with Aberdeen City Policy NE5 – Trees and

unities for bats and birds, a variety of bat ar trees and existing buildings to comply with

storm water management and provide habita n the development. Further information can birds-and-wildlife/advice/how-you-can-help-

		To what extent will the site connect to the local path network? (Question amended at request of NatureScot)	√ S-M-L	There Development Framework promotes a hierarchical ne extending down from Beach Boulevard and opening up tov framework has the potential to improve human health and range of outdoor and recreational attractions and encoura
 •Improve human health and community wellbeing, while promoting a range of outdoor and recreational attractions. •Encourage physical activity. •Creation of community facilities. 	How does the site relate to areas with high SIMD?	√ S-M-L	The promotion of sustainable alternative modes of transpor centre Low Emission Zone. The Development Framework area is located partly within S deprived 20% data zones in Aberdeen City. The southern a located in Hanover South. As such the Framework has the The Development Framework proposals will provide potent for the area that will arise through the provision of high-qua stadium within 500m of the existing stadium retaining econ area. The development principle is to develop a world class spor would revitalise the Beachfront area and reconnect it to the The health benefits associated with physical activity are act Development Framework. The refurbishment of the ice arena is based on a light touc replacement of seats, fixtures and fittings, and dealing with fabric and building services installations. This will not there Preferred Option. The refurbishment of the existing leisure centre is based on Aberdeen with the aim of improving the condition and utilis provide new revenue streams and to create a destination v facility as compared to Preferred Option. Benefits will potentially include the provision of employment transport links and environmental improvements. This will of community are looked at holistically. The proposed new stadium would provide a new stand alou stadium would seek to support the local, national, and inter Trust are involved with that address the importance of incre- such as poverty, inequalities, and wellbeing. The Beachfront Development Framework also locates the the	
		To what extent will the site impact access to open space? (Question amended at request of NatureScot)	√ S-M-L	original home and maintains its heritage where it can also be Development would lead to the loss of open space. Open space is a key consideration of Option 1 and will be a reconfiguration of the Development Framework area will re- provision within the masterplan area. These spaces have be different characters and opportunities for people to enjoy the promenade surrounded the proposed dune landforms, a vi- Ballroom Plaza; the overall masterplan design aims to prov- experiences. The new stand alone stadium will be build on the site of the open space., while the leisure, ice arena and Beach Ballroom
	Water			
				Fluvial Flooding (River)
		Is the site at risk of flooding?	√ /x	The SEPA Flood Map indicates that site doesn't experience or 1:200 year (0.5%) return periods. A small area, associate to be at risk of flooding from the Den Burn during the 1:100 The river Don is shown to be prone to flooding during all re- the Development Framework site the extent of flood water Pluvial Flooding (Surface Water) No flooding is indicated during the 1:10 year (10%) return periokets of surface water flooding, associated with existing buildings and the low point of beach boulevard are indicated year (0.1%) return period events. Coastal Flooding Review of the SEPA Flood Maps shows that areas of coast Esplanade seawall, with no coastal flood risk shown for the
		Is the site at risk of flooding? Are there water courses within the site or which would be affected by increased levels of flooding resulting from development of the site?	√/x 0	The SEPA Flood Map indicates that site doesn't experience or 1:200 year (0.5%) return periods. A small area, associat to be at risk of flooding from the Den Burn during the 1:100 The river Don is shown to be prone to flooding during all re the Development Framework site the extent of flood water Pluvial Flooding (Surface Water) No flooding is indicated during the 1:10 year (10%) return p Pockets of surface water flooding, associated with existing buildings and the low point of beach boulevard are indicate year (0.1%) return period events. Coastal Flooding Review of the SEPA Flood Maps shows that areas of coast Esplanade seawall, with no coastal flood risk shown for the

etwork of footpaths and desire routes, wards the heart of the Masterplan. The community wellbeing, while promoting a ge physical activity. rt also support the health goals of the city	Promote outdoor recreation utilising new facilities and ensure that development increases opportunities are for people of all ages, backgrounds and abilities to participate. Promote active travel to reduce emissions which can affect the population with health problems.	
r also support the nearth goals of the only		
Seaton (north) which is one of the most area of the Development Framework is potential to meet all SEA objectives. tial long term significant economic benefits ality amenities and relocation of the Football omic activity within the city centre./ local		
t, leisure and tourism destination which e city centre. tively supported by the Beachfront		
h refresh focusing on redecoration, outstanding maintenance to the building fore be a new facility as compared to the		Raise awareness of the health benefits of outdoor re
n work already undertaken by Sport ation of the facility, to increase participation, enue. This will not therefore be a new		new activities. Ensure that development incorporate footpath and cycle network. Ensure that potential C recreation/ exercise opportunities to suit a range of p ages.
at and community facilities, integrated ensure the key elements of a sustainable		
ne home for Aberdeen Football Club. The mational strategies that the Aberdeen FC easing physical activity, and tackling issues		
16,000 seater stadium in the city, close to its penefit city centre businesses.		
retained where practicable. The proposed esult in a reorganisation of the open space een developed with the aim of creating he site. Whether this be a walking along the sit play park or arriving at the Beach ide a variety of characters and spatial e existing cricket ground with the loss of om will all be refurbished.	Apply policy requiring all new development provide open space	
fluxial flag din a durin a tha 1,10 years (100()	Earthworks, temporary bunding or material stockpiles may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats; and New drainage systems, temporary or permanent, may alter runoff, hydrology or morphology of water	
ed with the low point of Links Road is shown D0 year (0.1%) return period event. Eturn period events, but within the vicinity of	features resulting in changes to flood risk or habitats. Changes in volume and rate of surface runoff from impermeable surfaces such as roofs, car parking	
is limited. period event. hard-standings serving the existing	Changes to the permeability of surface cover may impact on the underlying hydraulic regime and groundwater recharge	
ed for the 1:200 year (0.5%) and 1:1000	Surface drainage schemes may alter the flow characteristics of nearby watercourses and flooding characteristics	
al flood risk are located east of the proposed beachfront development area.	Review national planning policy on flooding and specific ACC Local Plan policy on flooding.	
	Undertake a flood risk assessment for the Aberdeen Beachfront area to identify key sources of flooding and mitigation measures e.g. development of new coastal flood defences, protection and enhancement of existing natural flood defences e.g. wetlands/ dunes.	
	Ensure that new development complies or betters planning requirements for provision of drainage infrastructure/ SuDS/ blue-green infrastructure.	
	Given the topography of the site and the prevailing ground conditions, it is likely that run-off from the undeveloped parts of the development site drain to the natural water environment through groundwater percolation towards the North Sea.	
	Review drainage capacity and develop new infrastructure if required. Develop management plan, in conjunction with relevant statutory bodies, to minimise impacts on biodiversity. Ensure compliance or caphenesement of evicting planning requirements for water efficiency in all new developments. Where	
	practicable, minimise hydromorphological changes to reduce impact on natural water processes.	
	The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Framework. This will be assessed prior to project development stage	
	The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Framework. This will be assessed prior to project development stage Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate	
	The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Framework. This will be assessed prior to project development stage Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate Ensure development which can potentially impact coastal erosion adheres to best practice and potential effects are modelled.	

recreation and exercise to increase uptake of ates measures to integrate/ enhance existing Coastal Projects feature a range of outdoor f participants of all backgrounds, abilities and

Are there water courses within the site or which would be affected by increased levels of pollution, or other pressures, from development within the site?	0	There are no natural surface water features within the proposed development boundary, the nearest watercourse being the River Don – which lies approximately 2km to the north of the site The site forms part of the Aberdeen Beach Front and is separated from the North Sea by the Esplanade. Consequently, it forms part of the catchment of the River Don/North Sea Confluence.	Given the topography of the site and the prevailing ground conditions, it is likely that run-off from the undeveloped parts of the development site drain to the natural water environment through groundwater percolation towards the North Sea.	
Are there opportunities to improve the status of water courses?	√ S-M-L	The Development Framework surface water management strategy will be based on the principles of Sustainable Urban Drainage Systems (SUDs) and blue/green infrastructure to incorporate best management practices for the treatment of surface water.	Review drainage capacity and develop new infrastructure if required. Develop management plan, in conjunction with relevant statutory bodies, to minimise impacts on biodiversity. Ensure compliance or enhancement of existing planning requirements for water efficiency in all new developments. Where practicable, minimise hydromorphological changes to reduce impact on natural water processes. The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Development Framework.	
Will the Beachfront Development Framework increase geomorphology and morphological erosion pressures.	?	It is unknown if the proposed boardwalk and slipway will increase geomorphology and morphological erosion pressures.	Potential impacts on geomorphology and morphology will be assessed once detailed information becomes available.	
Are flooding/water & foul drainage issues addressed including in relation to ACC & Scottish Water infrastructure? (Question added at request of SEPA)	?	The relocation of stadium is likely to have significant effect on the water environment and will require assessment prior to submission of a planning application. Beachfront Development Framework activities, during construction and operational phases, may have potential to cause an increase in diffuse source water pollution. Goodson Associates are currently assessing flooding/water & foul drainage issues. This is being assessed taking cognisance of ACC & Scottish Water infrastructure. A combined sewer runs north south through the centre of the site with a number of attributing sewers connecting into it. Points of connection and available capacity will need to be confirmed with Scottish Water.	Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate. Once completed outputs from the Aberdeen Integrated Catchment Study should be considered prior to planning applications to take account of culverted water courses, take a comprehensive approach to flood risk management, surface water management etc.	
To what extent will the site impact the ecological status of water bodies? (Question added at request of NatureScot)	√ S-M-L	It is unlikely that there will be impacts on the ecological status of water bodies. The provision of SUDs and blue/green infrastructure has been proposed which will provide opportunities for biodiversity gain.	Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate. Once completed outputs from the Aberdeen Integrated Catchment Study should be considered prior to planning applications to take account of culverted water courses, take a comprehensive approach to flood risk management, surface water management etc.	
Does the site include areas of vacant or derelict land?	0	The site does not include areas of vacant or derelict land as identified by ACC.		
Is the site prime agricultural land?	0	There is no prime agricultural land within the boundary of the Development Framework area. With respect to land capability considerations the majority of the Development Framework area is identified as having an agricultural capability of 4.1 (Land capable of producing a narrow range of crops, primarily grassland with short arable breaks of forage crops and cereal). Broad Hill comprises area of 5.2 (Land capable of use as improved grassland. Few problems with pasture establishment but may be difficult to maintain.) There is also an area in the north east having an agricultural capability of 6.2 (Land capable of use as rough grazings with moderate quality plants). The remainder is classified as		
Does the site include carbon rich soil?	O	The Scotland's Soil Website indicates that the majority of the Development Framework area incorporates immature soils with the dominant soil group being regosols formed of windblown sand. The western portion of the Development Framework area does not have an identified classification. The soil is identified as mineral soil with no peatland vegetation.		
To what extent will the site impact soil quality? (Question added at request of NatureScot)	√/x	With reference to the Engineering Site Appraisal prepared by Goodson Associates, the site was previously used as a rifle range and rocket battery. In addition there is made ground and ashy waste and a gravel pit. The site is located on the edge of an area which has former industrial uses including chemical, gas, iron, rope and granite works. All of these have the potential to leach contaminants into the surrounding areas. Without knowing how contaminated material, if any, was dealt with when the site was first developed, it is not possible to discount the possibility that contaminated material will be encountered on site. Existing features such as car parking areas could contain localised contamination and therefore any made ground encountered should be tested for chemical contaminants and dealt with accordingly. There is some potential for significant positive and negative effects to arise, mainly through increases/ decreases in soil sealing, soil loss and erosion (e.g. building new car parks to accommodate increased visitor numbers), soil compaction (e.g. increased visitor numbers at sensitive areas. Secondary effects of increased uptake of sustainable transport options may result in less requirement for new car parking facilities at key attractions.	Some developments are likely to require remediation of contaminated land to secure development consent. The overall effect is likely to be a net reduction in contaminated sites in the Beachfront area. Additional vegetation cover in the area as a result of tree planting activities may reduce soil erosion. Ensure that development incorporates areas of both hard and soft end uses to minimise the effects of soil sealing. For example, include provision for significant areas of green space to avoid large areas of impermeable ground-cover. Minimise removal of vegetation during development. Additional vegetation cover in the area as a result of tree planting activities, for example, may reduce soil erosion Use optimal mix of tree planting in any new woodland areas to protect soils. To reduce soil erosion risk all open spaces should not be left as bare soil through the winter. Measures should be in place to ensure that possible contamination from construction will be properly remediated and not affect the quality of the soil. Re-use of soil in local area where practicable.	
Is the site easily accessible by the core path network	√	Existing pedestrian links in the vicinity of the Esplanade, including the lower promenade, form part of		
Is the site easily accessible by the core path network, and provide access to settlements and services? Does the site lie within an area where levels of air pollution are close to current limit values?	S-M-L ✓ S-M-L	Existing pedestrian links in the vicinity of the Esplanade, including the lower promenade, form part of the local Core Path network and are of generous width. Aberdeen City Centre AQMA is located west of the main Development Framework site at the roundabout of Beach Boulevard. Following approval from Scottish Ministers, Aberdeen City Council is introducing a Low Emission Zone (LEZ) in Aberdeen City Centre. The LEZ is an area of Aberdeen City Centre where the driving of vehicles which do not meet the specified emissions standards is prohibited. The aim of the LEZ is to improve air quality within the City Centre Air Quality Management Area (AQMA) to ensure compliance with the Scottish Government's air quality objectives, particularly for the pollutant nitrogen dioxide (NO2). The LEZ came into effect from 30th May 2022 and will operate for 365 days a year, 24 hours a day. A 2-year grace period (during which enforcement of the LEZ will not take place) for both residents and non-residents of the LEZ area and for all non-exempt vehicle types will commence from this date, meaning that enforcement will take place from 1st June 2024. The promotion of sustainable alternatives to car travel within the Beachfront Development Framework, the promotion of energy efficient technology and the implementation of the LEZ demonstrates that the Council is considering an integrated approach to dealing with environmental issues such as climate change, transport, noise, health, and energy etc.	New development should consider sustainable travel methods and sustainable construction methods in line with LDP transport and air quality policies. This will help mitigate against negative impacts on air quality. Limit provision of new car parking facility where practicable. Pedestrian and cycling infrastructure to promote active travel. Promote public transport use. Use	
	Are there water courses within the site or which would be affected by increased levels of pollution, or other pressures, from development within the site? Are there opportunities to improve the status of water courses? Will the Beachfront Development Framework increase geomorphology and morphological erosion pressures. Are flooding/water & foul drainage issues addressed infrastructure? (Question added at request of SEPA) To what extent will the site impact the ecological status of water bodies? (Question added at request of NatureScot) Does the site include areas of vacant or derelict land? Is the site prime agricultural land? Does the site include carbon rich soil? To what extent will the site impact soil quality? (Question added at request of NatureScot) Is the site easily accessible by the core path network, and provide access to settlements and services? Does the site lie within an area where levels of air pollution are close to current limit values?	Are there water courses within the site or which would be affected by increased levels of pollution. or other pressures, from development within the site? 0 Are there opportunities to improve the status of water courses? S.M.L Will the Beachfront Development Framework increase geomorphology and morphological erosion pressures. ? Are flooding/water & foul drainage issues addressed including in relation to ACC & Scotther Water infrastructure? (Question added at request of SEPA) ? To what extent will the site impact the ecological status of water bodies? (Question added at request of SEPA) S.M.L Dees the site include areas of vacant or derelict land? 0 Is the site prime agricultural land? 0 Dees the site include carbon rich soil? 0 Is the site nolude carbon rich soil? 0 Dees the site include carbon rich soil quality? (Question added at request of NatureScot) To what extent will the site impact soil quality? (Question added at request of NatureScot) Dees the site is used to settlements and services? SM-L Does the site lie within an area where levels	An line we can also a built to the orders water minuted by conservations of the all to the orders water minuted by conservations of the all to the orders water minuted by conservations of the all to the orders water minuted by conservations of the all to the orders water minuted by conservations of the all to the orders water minuted by conservations of the all to the orders water minuted by conservations of the orders by the orders water management through all to back an the principles of minuted by conservations of the orders water management through all to back an the principles of minuted by conservations of the orders water minuted by conservations of the orders water management through all to back an the principles of minuted by conservations of the orders water management through all to back an the principles of minuted by conservations of the orders water minuted by conservations of the orders water management through all to back an the principles of minuted by conservations of the orders water minuted by conservations of the orders water management through all to back an the principles of minuted by conservations of the orders water management through all to back and the orders water minuted by conservations of the orders water management through all to back and the orders water minuted by conservations of the orders water management through a the order water management through and the orders water minuted by conservations of the orders water management through a the order water water management through a the order water water management through a the order water wat	Are the second state due has to a capacity due has to capacity due has to a capacity due has to capacity due

Maintain and improve air quality and reduce emissions of key pollutants.	Would development on the site contribute to higher traffic flows along transport routes or at key junctions where levels of air pollution are close to current limit values	✓ S-M-L	Through delivery of the Beachfront Masterplan, key transpor Centre Masterplan and associated corridor studies will be a Beach Boulevard and the Esplanade. These measures will e who already make trips in the area while strongly influencing visit the area in the future. A Low Emission Zone (LEZ), covering the city centre was in comply with specified emissions standards may enter the LE city centre. Active and sustainable travel modes are prioritis which is defined by the A956 / East North Street. Proposed between the city centre and the Beachfront contribute towa
	Does the development reduce the need to travel? (Question added at request of SEPA)	√ S-M-L	The Development Framework has an aspiration to grow rate public transport. Promoting sustainable and active travel is I having a positive effect on climatic factors and air quality. It promoting healthy lifestyles. The current AFC stadium at Pittodrie is around 400m away. Beachfront and the transportation demands associated with For most supporters, their journey to a new stadium at the E given how close the new stadium would be to Pittodrie. This disruption caused by infrequent stadium events. There will g surrounding area.
Climatic Factors	Does the location of the development reduce the need to travel?	✓ S-M-L	Increased jobs, recreational/leisure facilities, commercial, fo increased GHG emissions (both through increased car use principles of the Beachfront Development Framework are to the Beachfront and City Centre. Transport studies are ongoing to ensure infrastructure, inclu- impact of the existing road network and promotes alternativ cycling, whilst improving the public realm which is a key cor
	Is the site at risk of increased flooding or instability as a result of climate change?	? M-L	As outlined in SEPA climate change guidance, future climat 0.87 m in the North-East river basin region by 2100, based beach and esplanade area are therefore being developed in Operations / Coastal / Flooding Teams.
	Does the framework promote efficient use of energy?	≁ S-M-L	Alternative Option A includes restoration of the Beach Ballro The refurbishment of the ice arena is based on a light touch replacement of seats, fixtures and fittings, and dealing with fabric and building services installations. The proposals do r and ice arena to share reception, management offices and fi The refurbishment of the existing leisure centre is based on Aberdeen with the aim of improving the condition and utilisa provide new revenue streams and to create a destination ve The restoration proposals could be less energy efficient tha within the buildings.
	Does the framework promote efficient use of water?	?	At this stage it is too early to assess the water demand for the facilities. It is reasonable to assume that the service provide demand and a new connection is likely to be local, however assessment would need to be carried out to determine infra connection point on to the existing Scottish Water Network.
•Reduce emissions of greenhouses in line with Scottish Government targets.	Does the framework increase resilience of people, material assets and natural environment	✓ S-M-L	The refurbishment of the Beach Ballroom, leisure facilities a stadium is unlikely to increase resilience of people, material opportunities for improvement will likely be similar to the cu
Scottish Government targets. •Promote active travel and sustainable transport. •Reduce risks from climate change problems in the Aberdeen City Council area include increased flood risk of coastal and fluvial sources. •Promote renewable energy sources.	Does the framework include mitigation and adaptation measures in light of a changing climate and local environment? (Question added at request of SEPA).	√ S-M-L	The refurbishment of the Beach Ballroom, leisure facilities a stadium could include mitigation and adaptation measures i environment, however, the proposals mean opportunities for current situation. The refurbishment of the ice arena is based on a light touch replacement of seats, fixtures and fittings, and dealing with fabric and building services installations. This will not therefore Preferred Option and will unlikely include the most effective mitigating CO_2 emissions The refurbishment of the existing leisure centre is based on Aberdeen with the aim of improving the condition and utilisation provide new revenue streams and to create a destination vertication technology capable of mitigating CO_2 emissions. There is scope to include effective energy efficient technologi into the design of the new stadium.
	Does the framework seek to protect, create or enhance natural resources for carbon capture? (Question added at request of SEPA)	✓ S-M-L	The Beachfront Development Framework indicates that tree throughout the site. The Core Play Park, for example, will be landform/tree planting to help create a suitable micro-climat space. The planting regime for the Development Framework the Woodland trust suggest a young wood with mixed native per hectare.
	To what extent will the site promote nature-based solution provision? (Question added at request of NatureScot)	✓ S-M-L	As above
	Does the framework increase the resilience of people, infrastructure and the natural environment to the impacts of climate change (including flood risk, extreme weather, heat and cold)? (Question added at request of SEPA)	√⁄× S-M-L	Futureproofing is a key consideration of the Beachfront Devisolution will need to meet the requirements of Aberdeen Cit Towards a Net Zero and Climate Resilient Council. The Plan actions towards net zero and climate resilient Council assets efficient designs will be incorporated alongside renewable a consideration provided on how further decarbonisation cour may not reach its full potential due to the renovation of the new build, which potentially reduces "economies of scale" for and measures. There will be a carbon impact from renovation of existing build decisions—such as new construction versus upgrading, build and floor-space flexibility—can have a significant impact on
Cultural Heritage			and neer space nonibility—can have a significant impact off

The proposition of the propositi	ed energy strategy can result in energy efficiency and aims to minimise emissions. It must at Alternative Option A includes the refurbishment of the leisure centre and ice arena, and fuce energy efficiency and carbon reduction options on of new car parking facility where practicable.	
 use and energy use). However, the core re to improve access and connectivity between including traffic management reduces the native forms of travel, including walking and consideration of the Development Framework. mate change may cause a sea level rise of sed on UKCP18 outputs. Proposals in the ed in partnership /consultation with ACC sallroom, the leisure centre and the ice arena. Buch refresh focusing on redecoration, ith outstanding maintenance to the building do not seek to link the existing leisure centre and food & beverage provision. d on work already undertaken by Sport tilisation of the facility, to increase participation, n venue. than new build due to existing constraints A proposed the heat of includes the existing would meet most of the aver a Predevelopment/ Water impact infrastructure upgrades and identify the likely ork. es and ice arena and inclusion of the new reial assets and natural environment as the set of inprovement will likely be similar to the building erefore be a new facility as compared to the trive energy efficient technology capable of the facility, to increase participation, n venue. This will not therefore be a new likely include the most effective energy s. buod ny wak already undertaken by Sport tilisation of the facility, to increase participation, n venue. This will not therefore be a new likely include the most effective energy s. buod ny carbon energy sources, with cology capable of mitigating CO2 emissions tree/ woodland planting is proposed il be enclosed to some degree by imate and provide a comfortable year-round work area has yet to be determined, however ative species can lock up 400+ tonnes carbon Development Framework. The energy centre n City Council Climate Change Plan 2021-25: Plan sets out the approach, pathway, and ssets and operations, by 2045. As such, energy-le and low carbon energy sources, with could be achieved in the future. However, it the leisure centr	there are options to reduce the need to travel. energy strategy which results in energy efficiency and minimises GHG emission is to be at the design and decision making process. It must be noted that Alternative Option A reduction options lings must install low and zero carbon generating technologies to reduce the predicted arating technologies to reduce the predicted carbon dioxide emissions. ancourages waste minimisation and sustainable and active travel. facilities to develop a 'Travel Plan/ Sustainable Urban Mobility Plan' for their employees and new and refurbished facilities are within walking distance of public transport options (bus, welops sustainable transport options for accessing new facilities. on of new car parking facilities where practicable. Assessments and Drainage Impact Assessments will be required, along with provision of a appropriate. to require all new buildings to install low and zero carbon generating technologies to redicted carbon dioxide emissions	The Energy Strategy has the potential to identify eni



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Protect, conserve and enhance the historic environment.	Would development impact on the integrity of sites, monuments, buildings or areas designated for their cultural heritage value?	√ S-M-L	Based on the initial review of the relevant historic environment designations there is one Listed Building within the area (the Beach Ballroom LB20314 a Category B listed building) and a small section of the City Centre Conservation Area. Given the boundary of the proposed development area uses a series of urban street edges, there are expected to be a number of Listed Buildings immediately adjacent to the area. No other designated assets have been identified at this time nor sites where protection would flow from their inherent characteristics (e.g. characteristics affording protection through the Protection of Military Remains Act 1986). Constructional/ operational impacts of potential development may result in negative effects on previously unknown archaeological features. Central to the Beachfront Development framework is the sympathetic restoration of the Beach Ballroom which has the potential to enhance heritage in the area. A cultural heritage assessment will be undertaken of the wider development framework area to identify cultural heritage assests. The design principles indicate that heritage will be protected, and people's understanding and enjoyment of it enhanced through the new developments. However, there will inevitably be some impact on their setting as a result of large-scale new development. Aberdeen Football club would like to position the proposed 16,000 seater stadium in the city, close to its original home and maintain its heritage and local community while benefiting the economy of the city centre.	Raise awareness of the areas heritage to encourage ownership/ sense of place. Ensure that improvements to surroundings are in-fitting with local Landscape Character Types, the areas natural and cultural heritage and in compliance with national and local planning policy. Develop design briefs, in conjunction with Aberdeen City Council and Historic Environment Scotland to provide developers with clear guidelines on approach to development, ensuring that site and setting of cultural heritage is protected. Prior to commencement of work, discussions will take place with Aberdeen City Council's Archaeological service to determine whether the ground breaking locations require any mitigation	Ensure that improvements to surroundings are features and are compliant with national and local pl
	Would development impact on the setting of sites, monuments, buildings or areas designated for their	0	A review of publicly available information indicates there would be no impact on known assets. Cultural Heritage and Historic Environment could be considered within a supporting study to be submitted as		
	cultural heritage value? Would development within the site impact on	?	Potential impact on Cultural Heritage and Historic Environment could be considered within a		
Landroano	archaeological remains?		supporting study to be submitted as part of the planning application.		
			The Site is not covered by any national landscape planning designations associated with its scenic or		
	To what extent will the site impact landscape designations? (Question amended at request of NatureScot)	0	historic character. Nor does the Site contain a Garden and Designed Landscape ("GDL") or locally designated Special Landscape Area ("SLA"). The Beach Ballroom (category B listed) is the sole listed structure within the Site.		
Protect and enhance landscape character, local	To what extent will the site impact settlement setting and identity? (Question amended at request of NatureScot)	√ /x	There will be a permanent change to the landform in the area as a result of the Development Framework proposals. Coastal developments may cause significant visual impact. The longer-term landscape impacts will be determined by the nature, scale and extent of development submitted as part of future planning applications. There will, however, also be enhancement of existing habitats and creation of open spaces within the development framework area.	Mitigation seeks first to avoid adverse impacts and where impacts are unavoidable to reduce the significance of residual effects to an acceptable level. It also seeks enhancement and compensation where possible to provide the best practicable option.	Identify opportunities for enhancing and protecting sensitive new and re-development.
distinctiveness, visual amenity and promote access to the wider environment.	To what extent will the site impact on visual amenity and key views (Question amended at request of NatureScot)	√/x	There will be an overall impact on visual amenity which will range from disturbance of an already changing urban environment, enhancement of existing habitats and creation of open spaces within the development framework area.	 Promote sympathetic design principles and ensure siting of development fully recognises the sensitivity of the landscape. Use tree planting of mixed native species to mitigate potential negative landscape effects. Consider using urban park project to increase viability and connectivity of key 	Use mixed native species appropriate to specific Lar planting.
	To what extent will the site impact on landscape character? (Question added at request of NatureScot)	√ /x	 Construction Phase Short term, temporary effects on landscape features (grassland, trees and hedgerows), landscape character and visual amenity. Operational Phase Long term, permanent effects on landscape features (grassland, trees and hedgerows), landscape character and visual amenity. There will also be enhancement of existing habitats and creation of open spaces within the development framework area. 	 existing habitats Planting and open space provision within the proposed development (and wider Development Framework) will limit adverse effects arising from the introduction of additional built form within the Site. Consideration of built development scale, form and orientation in order to reduce or remove effects. 	the area, particularly where there are existing streng Ensure that improvements to surroundings are com features and are compliant with national and local pl
Material Assets		-			
	Is the site located close to existing transport, services, water and energy infrastructure?	✓ S-M-L	The site is located close to existing transport, services, water and energy infrastructure.	Promote active travel to reduce emissions which can affect the population with health problems. Develop promotional material for the facilities on site promoting the health and environmental benefits of using sustainable transport modes to access them e.g. walk, bike, bus, train	Ensure that development incorporates measures to cycle network.
•Promote the sustainable use of community assets, natural resources and material assets.	Is the site located to make best use of shelter, solar gain and reduce the need to travel?	Imp	The Beachfront Development Framework is subject to a coherent overarching strategy for the area which includes aims and proposals to reduce travel. Further work is required to determine the best use of shelter and solar gain which would be dependent upon development layout.	Determine the best use of shelter and solar gain which would be dependent upon development layout.	
•Bromote quality urban design. •Promote sustainable waste management and the circular economy	Does the site reduce waste generation and promote waste recovery, recycling and composting?	√ /x	Beachfront Development Framework development is likely to increase production of waste. There will be a carbon impact from refurbishment of existing buildings. Waste from the development would be directed to the local Material Energy Recycling Facility. Composting isn't specifically discussed as part of the Beachfront Development Framework.	Potential for significant positive effects through increased uptake of sustainable waste management practices developed through advice/ guidance in awareness raising programmes. Promote Stie Waste Management Plans during refurbishment and construction. Development will be required to provide sufficient space for the storage of general waste, recyclable materials and compostable wastes where appropriate.	Potential for significant positive effects through management practices/ circular economy develope raising programmes
Summary score	•	8	1	•	•
Overall, the proposals are likely to have a general	ly positive effect on the environment There are areas of p	otentially posi	tive effects in relation to population and human health, biodiversity, water. soil air. cultural heritage clima	atic factors, material assets, and soil. There is potential for significant negative effects, mainly related to wa	ater, soil, landscape and material assets. Other effect
		, , ,			

compatible with the historic environment planning policy.

the Beachfront areas strengths through

andscape Character Areas in any tree

y the quality and connectivity of woodland in ngths e.g. Broad Hill.

npatible with the historic environment planning policy.

to integrate/ enhance existing footpath and

h increased uptake of sustainable waste ped through advice/ guidance in awareness

ts are uncertain and/ or neutral.

Кеу	
\checkmark	Major positive effect
✓	Positive effect
0	Neutral effect
×	Negative effect
××	Major negative effect
√√/x √/×× etc.	Mixed effect
?	Uncertain effect
S	Short term effect
М	Medium term effect
L	Long term effect
Imp	Effect will depend on how the Beachfront Development Framework is implemented

Alternative Option B- New leisure centre and ice arena, football stadium excluded SEA Objective(s) Score Comments Questions Biodiversity, flora and fauna A preliminary ecological survey undertaken in A designated sites are located within the site bour 0 The Ythan Estuary, Sands of Forvie and Meikle Does the site impact on designated sites? located 100m to the east of the site. The River Dee Special Area of Conservation is I Beachfront Development Framework activities h impacts on biodiversity during both construction \checkmark ecological survey undertaken in April 2022 does Does the site impact on priority habitats or species? S-M-L An outlier badger sett with two entrances was in (location is confidential). The Beachfront Develo from future development. The development framework seeks to retains h creation will be encouraged where developmen Broad Hill is one of the most biodiverse parts of To what extent will the site promote green network \checkmark however the aim will be to further look for ecolo provision and habitat connectivity? (Question amended S-M-L planting especially along the leeward side of the at request of NatureScot) grassland management and providing a nature eroding east slopes. This enhancement of the e biodiverse catalyst and generator for the rest of creation of wider green networks. The Beachfront Development Framework indica To what extent will the site impact wider biodiversity habitats will be retained and enhanced. The are Question added at request of NatureScot) S-M-L an area which is not proposed for development Protect or conserve and, where possible, restore and enhance biodiversity and valued nature conservation habitats and species The Beachfront Development Framework aims biodiversity as a key aim. Habitats and species described in the baseline are likely to be enhanced, with the creation of h infrastructure, planting and improved connectivi The Beach Ballroom, leisure centre and ice are The proposed boardwalk structure follows the s To what extent will the site enhance biodiversity? (added and extends out to the North Sea a short distar S-M-L - NatureScot response) to the Beachfront below the Esplanade. Coasta protection and enhancement measures through capacity and promotion of environmental educa opportunities. Neither of the two structures are Sands of Forvie and Meikle Loch Special Prote the east of the site, or The River Dee Special A south of the site. Population and human health The Beachfront Development Framework prom desire routes, extending down from Beach Bou To what extent will the site connect to the local path the Masterplan area. The framework has the po 1 network? (Question amended at request community wellbeing, while promoting a range S-M-L NatureScot) encourage physical activity There are core paths within and surrounding th

Comments	Mitigation	Enhancement
A preliminary ecological survey undertaken in April 2022 indicates that there are no designated sites are located within the site boundary. The Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) is located 100m to the east of the site. The River Dee Special Area of Conservation is located 1.5km south of the site.		Opportunities for Biodiversity The following general enhanceme information: •It is recommended that future lan encourage long term habitat com Network and Policy NES – Nature
Beachfront Development Framework activities have potential to result in disturbance impacts on biodiversity during both construction and operational phases. A preliminary ecological survey undertaken in April 2022 does not predict impacts to priotity habitats. An outlier badger sett with two entrances was identified during the ecological survey (location is confidential). The Beachfront Development Framework aims to protect this area from future development.	The area with the badger set is not earmarked for development and will be retained.	further enhance this commuting a (seeds and plants also) of local pl •The creation of species rich grass biodiversity on the site and enhar Urban Greenspace and Policy NE appropriate to the local area. •The SBL has identified over 400 enhancement measures include o
The development framework seeks to retains habitat to the west at Broad Hill, and habitat creation will be encouraged where development is proposed to ensure connectivity. Broad Hill is one of the most biodiverse parts of the Development Framework area, however the aim will be to further look for ecological enhancements through additional tree planting especially along the leeward side of the hill, expanding the pine woodland, grassland management and providing a nature led stabilisation program for the steeper eroding east slopes. This enhancement of the ecological resource will offer a key biodiverse catalyst and generator for the rest of the Development Framework area and the creation of wider green networks.	 The following good practice mitigation is recommended based on the current level of available site information: Retention and protection of woodland, grassland, scattered trees, scrub and beach habitats wherever possible to maintai existing ecological connectivity to the wider landscape and to retain important habitat features. Buitable tree root protection areas should be determined and fenced off prior to any works commencing. Compensatory planting should be provided where areas of woodland and scattered trees are removed to facilitat development. Buddleja is widely planted across the UK and is a favoured nectar source for many pollinator species, known as the 'Butterfl Bush'. However, Buddleja is a vigorously growing plant which can form dense stands that can eliminate other plants and can also damage structural integrity of buildings. Buddleja is not listed among the wild invasive non-native plants listed on Schedule 9 of the Wildlife and Countryside Act, however for any INNS, controlling and stopping the spread is the advised strategy to implement. Therefore, a management plan for the control of Buddleja should be devised. It would be advisable to avoid further planting of non-native species as native species benefit the native wildlife more and are 	Natural Heritage. •The planting of berry producing opportunities within the sites and Aberdeen City Policy NE5 – Tree - Hawthorn (Crategus monogy - Blackthorn (Prunus spinosa) - Holly (Ilex aquifolium) - Hazel (Corylus avellana) - Elder (Sambucus nigra) - Rowan (Sorbus aucuparia) - Scot's pine (Pinus sylvestris) •To offer increased roosting and u
The Beachfront Development Framework indicates that areas of woodland and various habitats will be retained and enhanced. The area identified as being used by badgers is in an area which is not proposed for development.	complementary with the natural surroundings. • A pre-works check of the site for protected species should be completed prior to any site works, by a suitably qualifier ecologist or ECoW.	be installed on trees and existing • Breen roofs could be incorporate buildings associated with the dev
The Beachfront Development Framework aims to preserve natural habitat and promote biodiversity as a key aim. Habitats and species described in the baseline ecological survey undertaken in April 2022 are likely to be enhanced, with the creation of habitats associated with blue/green infrastructure, planting and improved connectivity . The Beach Ballroom, leisure centre and ice arena are to be retained and refurbished. The proposed boardwalk structure follows the sinuous route of the Rope Works and extends out to the North Sea a short distance as will the slipway which provides access to the Beachfront below the Esplanade. Coastal natural heritage is likely to be subject to protection and enhancement measures through improvements to natural flood defence capacity and promotion of environmental education and "green tourism"/ recreational opportunities. Neither of the two structures are likely to encroach upon the Ythan Estuary, Sands of Forvie and Meikle Loch Special Protection Area (SPA) which is located 100m to the east of the site, or The River Dee Special Area of Conservation (SAC) located 1.5km south of the site.	 Any vegetation clearance should be inder aware on the presence on protected species on since and in the wider landscape via a tool bo talk (i.e. bats, otter, badger, red squirrel, hedgelog, birds and marine mammals). Any vegetation clearance should be scheduled to occur outside of the nesting bird season, a nesting bird check will be require within 48 hours of the works by a suitably qualified ecologist or ECoW. If nesting birds are found then a suitable exclusion zone will be set up to avoid nest destruction and disturbance. A watching brief and for fingertip search will need to be undertaken before any works commence, if scrub habitats require removal during hedgehog hibernation period (October-April). Maximum 15mph speed restriction to avoid RTAs with protected species which may be present in the area should be implemented during and post works. Measures should be in place to preserve water quality and prevent pollution of North Sea following SEPA Guidelines for Pollution Prevention (GPPs). Any works causing high levels of noise or vibration should be limited to daylight hours to reduce disturbance nocturnal or diurnal species. Works should be limited to daylight hours within 30m of the North Sea, woodland and trees/buildings with PRFs to reduce disturbance to nocturnal and diurnal species. Fox dens should be monitored to confirm that they are empty prior to removal under the audit of the project ecologist an should be undertaken out with any sensitive time period (i.e. during breading season – January-July inclusive) if required. Any vecavations created during works should not be left open for mammans to become form of ramp should be placed in the excavations to allow any animals to climb out. Yany ermanent lighting should be designed to be 'animal friendly' and should not illuminate habitats including scattered trees should be undertaken out with any sensitive time period (i.e. during breeding season – January-July in	
The Beachfront Development Framework promotes a hierarchical network of footpaths and desire routes, extending down from Beach Boulevard and opening up towards the heart of the Masterplan area. The framework has the potential to improve human health and community wellbeing, while promoting a range of outdoor and recreational attractions and encourage physical activity There are core paths within and surrounding the Beachfront area which will not be restricted as a result of the Beachfront Development Framework.	Develop promotional material for the facilities on site promoting the health and environmental benefits of using sustainable transport modes to access them e.g. walk, bike, bus, train,. Promote outdoor recreation utilising new facilities and ensure that development increases opportunities are for people of all ages, backgrounds and abilities to participate. Promote active travel to reduce emissions which can affect the population with health problems.	

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ncement measures have been recommended based on the current level of available site

ure landscaping of the site seeks to maintain and enhance existing green infrastructure and at connectivity to the wider landscape to comply with Aberdeen City Policy NE1 - Green Space Natural Heritage . Additional planting of trees throughout the sites and along the boundaries would uting and foraging resource, for bats, badger, otter and squirrel within the locale. Sourcing trees bcal provenance is key to achieving the best biodiversity outcome. grasslands or flower meadows is recommended to encourage pollinators, improve insect enhance connectivity to comply with Aberdeen City Policy NE1 – Green Space Network, NE3 licy NE4 – Open Space Provision in New Development. Seed mixes should include native plants

r 400 terrestrial invertebrate species in the UK as priorities for conservation action. Suitable lude creating log piles and invertebrate mounds, to comply with Aberdeen City Policy NE8 –

ucing shrubs and trees is recommended to provide a sheltered commuting and nesting s and food source for birds and mammals utilising the surrounding habitats and to comply with - Trees and Woodlands . Suggested species include: onogyna) osa)

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and nesting opportunities for bats and birds, a variety of bat and bird boxes are recommended to isting buildings to comply with Aberdeen City Policy NE8 – Natural Heritage. porated to improve storm water management and provide habitat for birds and bats on any e development. Further information can be found here: https://www.rspb.org.uk/birds-andhelp-birds/roofs-for-wildlife/green-roofs/

 Improve human health and community wellbeing, while promoting a range of outdoor and recreational attractions. Incourage physical activity. Icreation of community facilities. 	How does the site relate to areas with high SIMD?	√⁄× S-M-L	The Development Framework area is located the most deprived 20% data zones in Aberde Development Framework is located in Hanove potential to meet all SEA objectives. The Development Framework proposals will p area that will arise through the provision of hig principle is to develop a world class sport, leis revitalise the Beachfront area and reconnect Other benefits include the provision of employ transport links, environmental improvements, related areas. However, employment opportu exclusion of the stadium. Alternative Option B removes the new footbal to a new stadium elsewhere within Aberdeen. effect(s) on city centre businesses and the log opportunities
	To what extent will the site impact access to open space? (Question amended at request of NatureScot)	✓ S-M-L	Development would lead to the loss of open s Open space is a key consideration of Alternat practicable. The new stadium would be remo
Water	Is the site at risk of flooding?	√/x	Fluvial Flooding (River) The SEPA Flood Map indicates that site does year (10%) or 1:200 year (0.5%) return period of Links Road is shown to be at risk of floodin (0.1%) return period event. The river Don is shown to be prone to floodin the vicinity of the Development Framework site Pluvial Flooding (Surface Water) No flooding is indicated during the 1:10 year of Pockets of surface water flooding, associated existing buildings and the low point of beach for (0.5%) and 1:1000 year (0.1%) return period of Coastal Flooding Review of the SEPA Flood Maps shows that a the Esplanade seawall, with no coastal flood re development area.
revent deterioration, protect and enhance water quality d ecological status. educe risk of flooding. rovide adequate drainage and sewerage	Are there water courses within the site or which would be affected by increased levels of flooding resulting from development of the site?	0	As above
	Are there water courses within the site or which would be affected by increased levels of pollution, or other pressures, from development within the site?	0	There are no natural surface water features we the nearest watercourse being the River Don the site. The site forms part of the Aberdeer Sea by the Esplanade. Consequently, it forms Sea Confluence.
	Are there opportunities to improve the status of water courses?	✓ S-M-L	The Development Framework surface water r principles of Sustainable Urban Drainage Sys incorporate best management practices for th
	Will the Beachfront Development Framework increase geomorphology and morphological erosion pressures	?	It is unknown if the proposed boardwalk and a morphological erosion pressures.
	Are flooding/water & foul drainage issues addressed including in relation to ACC & Scottish Water infrastructure? (Question added at request of SEPA)	?	Beachfront Development Framework activitie phases, may have potential to cause an incre Goodson Associates are currently assessing being assessed taking cognisance of ACC & sewer runs north south through the centre of connecting into it. Points of connection and a with Scottish Water.
Soil	To what extent will the site impact the ecological status of water bodies? (Question added at request of NatureScot)	√ S-M-L	It is unlikely that there will be impacts on the provision of SUDs and blue/green infrastructu opportunities for biodiversity gain.
	Does the site include areas of vacant or derelict land?	0	The site does not include areas of vacant or o
	Is the site prime agricultural land?	0	I he Scotland's Soil Website indicates there is boundary of the Development Framework are considerations the majority of the Developme agricultural capability of 4.1 (Land capable of grassland with short arable breaks of forage of of 5.2 (Land capable of use as improved grass establishment but may be difficult to maintain having an agricultural capability of 6.2 (Land moderate quality plants). The remainder is cla

partly within Seaton (north) which is one of en City. The southern area of the er South. As such the Framework has the		
rovide long term significant benefits for the gh-quality amenities. The development sure and tourism destination which would t to the city centre.		Raise awareness of the healt development incorporates m Projects feature a range of o
ment and community facilities, integrated and contributions to the regeneration of nities are potentially reduced due to the		abilities and ages.
l stadium and could see Aberdeen FC move This could have detrimental socio/economic cal community including employment		
pace.		
ive Option B and will be retained where ved and relocated elsewhere in the city.	Apply policy requiring all new developments provide open space	
	Earthworks, temporary bunding or material stockpiles may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats; and	
n't experience fluvial flooding during the 1:10 ls. A small area, associated with the low point	New drainage systems, temporary or permanent, may alter runoff, hydrology or morphology of water features resulting in changes to flood risk or habitats.	
g during all return period events, but within	Changes in volume and rate of surface runoff from impermeable surfaces such as roofs, car parking areas and access roads may effect flow characteristics resulting in changes to flood risk.	
	Changes to the permeability of surface cover may impact on the underlying hydraulic regime and groundwater recharge	
with existing hard-standings serving the	Surface drainage schemes may alter the flow characteristics of nearby watercourses and flooding characteristics	
events.	Review national planning policy on flooding and specific ACC Local Plan policy on flooding.	
areas of coastal flood risk are located east of sk shown for the proposed beachfront	Undertake a flood risk assessment for the Aberdeen Beachfront area to identify key sources of flooding and mitigation measures e.g. development of new coastal flood defences, protection and enhancement of existing natural flood defences e.g. wetlands/ dunes.	
	Ensure that new development complies or betters planning requirements for provision of drainage infrastructure/ SuDS/ blue- green infrastructure.	
	Given the topography of the site and the prevailing ground conditions, it is likely that run-off from the undeveloped parts of the development site drain to the natural water environment through groundwater percolation towards the North Sea.	
	Review drainage capacity and develop new infrastructure if required. Develop management plan, in conjunction with relevant statutory bodies, to minimise impacts on biodiversity. Ensure compliance or enhancement of existing planning requirements for water efficiency in all new developments. Where practicable, minimise hydromorphological changes to reduce impact on natural water processes.	
	The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Framework. This will be assessed prior to project development stage	
	Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate	
	Ensure development which can potentially impact coastal erosion adheres to best practice and potential effects are modelled.	
ithin the proposed development boundary, – which lies approximately 2km to the north of Beachfront and is separated from the North part of the catchment of the River Don/North	Given the topography of the site and the prevailing ground conditions, it is likely that run-off from the undeveloped parts of the development site drain to the natural water environment through groundwater percolation towards the North Sea.	
nanagement strategy will be based on the tems (SUDs) and blue/green infrastructure to e treatment of surface water.	The design of the SUDs scheme and green infrastructure will be developed closely with the environmental engineers and landscape architects to ensure that, as well as creating an efficient and sustainable drainage system, the landscape quality and opportunity for habitat enhancements in the area form an integral part of the Beachfront Development Framework.	
lipway will increase geomorphology and	Potential impacts on geomorphology and morphology will be assessed once detailed information becomes available.	
s, during construction and operational ase in diffuse source water pollution. looding/water & foul drainage issues. This is Scottish Water infrastructure. A combined	Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate.	
the site with a number of attributing sewers vailable capacity will need to be confirmed	Once completed outputs from the Aberdeen Integrated Catchment Study should be considered prior to planning applications to take account of culverted water courses, take a comprehensive approach to flood risk management, surface water management etc.	
ecological status of water bodies. The	Drainage Impact Assessments will be required to be submitted with planning application, with provision for SUDS made where appropriate.	
re has been proposed which will provide	Once completed outputs from the Aberdeen Integrated Catchment Study should be considered prior to planning applications to take account of culverted water courses, take a comprehensive approach to flood risk management, surface water management etc.	
erelict land as identified by ACC.		
no prime agricultural land within the a. With respect to land capability		
nt Framework area is identified as having an producing a narrow range of crops, primarily		
rops and cereal). Broad Hill comprises area sland. Few problems with pasture) There is also an area in the north east capable of use as rough grazings with		
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alth benefits of outdoor recreation and exercise to increase uptake of new activities. Ensure that measures to integrate/ enhance existing footpath and cycle network. Ensure that potential Coastal f outdoor recreation/ exercise opportunities to suit a range of participants of all backgrounds,

 Protect and enhance soil quality and prevent any further degradation of soils. Reduce the amount of Vacant and Derelict Land in the Aberdeen Beachfront boundary area. 	Does the site include carbon rich soil?	0	The Scotland's Soil Website indicates that the incorporates immature soils with the dominant windblown sand. The western portion of the D an identified classification. The soil is identified
	To what extent will the site impact soil quality? (Question added at request of NatureScot)	√ / ×	With reference to the Engineering Site Apprais was previously used as a rifle range and rocke and ashy waste and a gravel pit. The site is located on the edge of an area whi chemical, gas, iron, rope and granite works. A contaminants into the surrounding areas. With any, was dealt with when the site was first dev possibility that contaminated material will be e Existing features such as car parking areas co therefore any made ground encountered shou dealt with accordingly. There is some potential for significant positive increases/ decreases in soil sealing, soil loss a accommodate increased visitor numbers), soil at sensitive areas. Secondary effects of increas may result in less requirement for new car par
Air	Is the site easily accessible by the core path network, and provide access to settlements and services?	√ S-M-L	Existing pedestrian links in the vicinity of the E form part of the local Core Path network and a
Maintain and improve air quality and reduce emissions of key pollutants.	Does the site lie within an area where levels of air pollution are close to current limit values?	✓ S-M-L	Aberdeen City Centre AQMA is located west of the roundabout of Beach Boulevard. Following approval from Scottish Ministers, At Emission Zone (LEZ) in Aberdeen City Centre The LEZ is an area of Aberdeen City Centre w meet the specified emissions standards is pro quality within the City Centre Air Quality Mana with the Scottish Government's air quality obje dioxide (NO2). The LEZ came into effect from 30th May 2022 hours a day. A 2-year grace period (during wh place) for both residents and non-residents of types will commence from this date, meaning June 2024. The promotion of sustainable alternatives car Framework, the promotion of energy efficient LEZ demonstrates that the Council is consider environmental issues such as climate change,
key pollutants.	Would development on the site contribute to higher traffic flows along transport routes or at key junctions where levels of air pollution are close to current limit values	√ S-M-L	Through delivery of the Beachfront Masterplan underpin the City Centre Masterplan and asso extends between Castlegate, Beach Boulevar enhance trip making opportunities for those w strongly influencing the travel choices of those A Low Emission Zone (LEZ), covering the city which comply with specified emissions standa pollution in the city centre. Active and sustaina LEZ, the eastern extent of which is defined by enhancements to active travel connections be contribute towards LEZ objectives.
	Does the development reduce the need to travel? (Question added at request of SEPA)	√ S-M-L	The Development Framework has an aspiratic promote effective public transport. Promoting reduce greenhouse gases, thereby having a p quality. It will also have a positive effect on he The removal of a new stadium option from the will being transferred to another area within th new stadium, within the city, would potentially
Climatic Factors			Increased jobs, recreational/leisure facilities, o
	Does the location of the development reduce the need to travel?	√ S-M-L	However, the core principles of the Beachfron access and connectivity between the Beachfron Transport studies are ongoing to ensure infras reduces the impact of the existing road netwo including walking and cycling, whilst improving consideration of the Development Framework The removal of the stadium and locating it else car travel elsewhere within the city, depending alternatives
	Is the site at risk of increased flooding or instability as a result of climate change?	? M-L	The preference to site development on or in c increase vulnerability to climate changes inclu and sea level rise. As outlined in SEPA climate may cause a sea level rise of 0.87 m in the No UKCP18 outputs. Proposals in the beach and developed in partnership /consultation with AC
	Does the framework promote efficient use of energy?	√ S-M-L	Beachfront Development Framework assumes are demolished and could be replaced with a ice arena uses as part of the development. Th could potentially reduce energy efficiency opp Opportunities for renewable energy provision explored during the implementation of the Bea include small scale renewables/ micro generation.
	Does the framework promote efficient use of water?	?	At this stage it is too early to assess the water ice arena facilities. It is reasonable to assume would meet most of the demand and a new co Predevelopment/ Water impact assessment w infrastructure upgrades are required and iden existing Scottish Water Network.
•Reduce emissions of greenhouses in line with Scottish Government targets.	Does the framework increase resilience of people, material assets and natural environment	✓ S-M-L	The refurbishment of the Beach Ballroom, new of a new stadium could include mitigation and climate and local environment, however, the p will likely be lower than for the Preferred Optic

majority of the Development Framework area		
soil group being regosols formed of evelopment Framework area does not have I as mineral soil with no peatland vegetation.		
al prepared by Goodson Associates, the site t battery. In addition there is made ground	Some developments are likely to require remediation of contaminated land to secure development consent. The overall effect is likely to be a net reduction in contaminated areas in the Beachfront area. Additional vegetation cover in the area as a result of tree planting activities may reduce soil erosion.	
ch has former industrial uses including Il of these have the potential to leach out knowing how contaminated material, if eloped, it is not possible to discount the ncountered on site.	Ensure that development incorporates areas of both hard and soft end uses to minimise the effects of soil sealing. For example, include provision for significant areas of green space to avoid large areas of impermeable ground-cover. Minimise removal of vegetation during development. Additional vegetation cover in the area as a result of tree planting activities, for example, may reduce soil erosion.	
uld contain localised contamination and Id be tested for chemical contaminants and	To reduce soil erosion risk all open spaces should not be left as bare soil through the winter.	
and negative effects to arise, mainly through	Use optimal mix of tree planting in any new woodland areas to protect soils.	
compaction (e.g. increased visitor numbers sed uptake of sustainable transport options	Measures should be in place to ensure that possible contamination from construction will be properly remediated and not affect the quality of the soil.	
king facilities at key attractions.	Re-use of soil in local area where practicable.	
splanade, including the lower promenade,		
re of generous width.		
erdeen City Council is introducing a Low		
here the driving of vehicles which do not		
nibited. The aim of the LEZ is to improve air gement Area (AQMA) to ensure compliance ectives, particularly for the pollutant nitrogen		
and will operate for 365 days a year, 24 ich enforcement of the LEZ will not take the LEZ area and for all non-exempt vehicle		
that enforcement will take place from 1st	New development should consider sustainable travel methods and sustainable construction methods in line with LDP transport and air quality policies. This will help mitigate against negative impacts on air quality.	
echnology and the implementation of the	Pedestrian and cycling infrastructure to promote active travel. Promote public transport use. Use signage to promote access	
transport, noise, health, and energy etc.	routes to Beachfront facilities that will minimise city centre air quality issues.	
n, key transportation principles which ciated corridor studies will be applied which	The proposed energy strategy can result in energy efficiency and aims to minimise emissions. It must be noted that Alternative Option B excludes the stadium option, and this may reduce energy efficiency and carbon reduction options	
d and the Esplanade. These measures will ho already make trips in the area while	Limit provision of new car parking facility where practicable.	
who choose to visit the area in the future. centre was introduced in 2022. Only vehicles		
rds may enter the LEZ, helping to address air ble travel modes are prioritised within the		
the A956 / East North Street. Proposed tween the city centre and the Beachfront		
n to grow rates of active travel and to		
sustainable and active travel is likely to ositive effect on climatic factors and air alth by promoting healthy lifestyles.		
Beachfront and the transportation demands e city. For most supporters, their journey to a		
shift traffic elsewhere.		
ommercial, football stadium etc. has potential ough increased car use and energy use).		
t Development Framework are to improve ont and City Centre;		
rk and promotes alternative forms of travel,		
where within Aberdeen and may increase		
on the availability of sustainable transport		
lose proximity to the coast has potential to		
change guidance , future climate change rth-East river basin region by 2100, based on		
esplanade area are therefore being CC Operations / Coastal / Flooding Teams.		
that the existing leisure centre and ice arena		
new tacility that integrates leisure centre and e removal of the stadium from this option		
and low/zero carbon technologies are being		
ion and the identification of sites for local		
demand for the Beach Ballroom, leisure and		
nnactine service provided to the existing nnection is likely to be local, however a	A proposed energy strategy which results in energy efficiency and minimises GHG emission is to be at the heart of the design and decision making process. It must be noted that Alternative Option B excludes the stadium and this may reduce energy	
tify the likely connection point on to the	efficiency and carbon reduction options	
v leisure facilities and ice arena and exclusion	Ensure that there are options to reduce the need to travel.	
adaptation measures in light of a changing roposals mean opportunities for improvement	All new buildings must install low and zero carbon generating technologies to reduce the predicted carbon generating technologies to reduce the predicted	
n.	carbon dioxide emissions.	



 Promote active travel and sustainable transport. Reduce risks from climate change problems in the Aberdeen City Council area include increased flood risk of coastal and fluvial sources. Promote renewable energy sources. 	Does the framework include mitigation and adaptation measures in light of a changing climate and local environment? (Question added at request of SEPA).	✓ S-M-L	The Plan sets out the approach, pathway, and climate resilient Council assets and operation will be incorporated alongside renewable and consideration provided on how further decard Given the scale and importance of the facilitie demands could be significant and critical to fu given to added robustness and security of en- should incorporate a degree of redundancy a renewables-powered electrolysis or CHP (Co support hydrogen, either partially or as the so Nevertheless, Alternative Option B involves the leisure facilities and ice arena and exclusion of Option A the scale of the proposals mitigation be lower than for the Preferred Option.
	Does the framework seek to protect, create or enhance natural resources for carbon capture? (Question added at request of SEPA)	✓ S-M-L	The Beachfront Development Framework ind proposed throughout the site. The Core Play degree by landform/tree planting to help crea comfortable year-round space. The planting thas has yet to be determined, however the Wood native species can lock up 400+ tonnes carb
	To what extent will the site promote nature-based solution provision? (Question added at request of NatureScot)	✓ S-M-L	As above
	Does the framework increase the resilience of people, infrastructure and the natural environment to the impacts of climate change (including flood risk, extreme weather, heat and cold)? (Question added at request of SEPA)	√⁄× S-M-L	Futureproofing is a key consideration of the E energy centre solution will need to meet the r Climate Change Plan 2021-25: Towards a Ne sets out the approach, pathway, and actions assets and operations, by 2045. As such, energy alongside renewable and low carbon energy further decarbonisation could be achieved in potential due to the removal of the stadium fr "economies of scale" for energy effiency and There will be a carbon impact from renovatio decisions—such as new construction versus insulation, and floor-space flexibility—can hav decades to come. Note- there are existing connections to district rink
Cultural Heritage			
Protect, conserve and enhance the historic environment.	Would development impact on the integrity of sites, monuments, buildings or areas designated for their cultural heritage value?	√/× S-M-L	Based on the initial review of the relevant hist Listed Building within the area (the Beach Ba and a small section of the City Centre Conset Given the boundary of the proposed develop there are expected to be a number of Listed No other designated assets have been identifi would flow from their inherent characteristics through the Protection of Military Remains Ac potential development may result in negative features. Central to the Beachfront Development frame Beach Ballroom which has the potential to en assessment will be undertaken of the wider of heritage assets. The design principles indicate that heritage w and enjoyment of it enhanced through the ne inevitably be some impact on their setting as Removal of the proposed stadium from the B Aberdeen FC elsewhere within the city. Impo its heritage i.e., the close connection it has w with the local community. Pittodrie Stadium v been the home of Aberdeen FC. It could also centre businesses and local employment opp
	Would development impact on the setting of sites, monuments, buildings or areas designated for their cultural beritage value?	0	A review of publicly avaialbel information indi assets. Cultural Heritage and Historic Enviror study to be submitted as part of the planning
	Would development within the site impact on archaeological remains?	?	Potential impact on Cultural Heritage and His a supprting study to be submitted as part of t
Landscape	To what extent will the site impact landscape designations? (Question amended at request of NatureScot)	0	The Site is not covered by any national lands scenic or historic character. Nor does the Sit ("GDL") or locally designated Special Landso (category B listed) is the sole listed structure
	To what extent will the site impact settlement setting and identity? (Question amended at request of NatureScot)	√ /x	There will be a permanent change to the land Development Framework proposals. Coastal impact. The longer-term landscape impacts we extent of development submitted as part of fur There will, however, also be enhancement of within the development framework area.
distinctiveness, visual amenity and promote access to the wider environment.	To what extent will the site impact on visual amenity and key views (Question amended at request of NatureScot)	√/×	There will be an overall impact on visual ame already changing urban environment, enhance open spaces within the development framework
	To what extent will the site impact on landscape character? (Question added at request of NatureScot)	√ /×	Construction Phase Short term, temporary effects on landscape f landscape character and visual amenity. Operational Phase Long term, permanent effects on landscape f landscape character and visual amenity. There will also be enhancement of existing ha
Material Assets			development framework area.
	Is the site located close to existing transport, services, water and energy infrastructure?	✓ S-M-L	The site is located close to existing transport
•Promote the sustainable use of community assets, natural resources and material assets.	Is the site located to make best use of shelter, solar gain and reduce the need to travel?	Imp	The Beachfront Development Framework is s the area which includes aims and proposals determine the best use of shelter and solar g development layout.

d actions towards meeting NetZero and s by 2045. As such, energy-efficient designs low carbon energy sources, with ponisation could be achieved in the future. es planned within the development, the energy unction. Consideration should therefore be ergy supplies so the energy centre solution nd back-up. This integrates smoothly with mbined Heat and Power) units adapted to ble fuel source. The refurbishment of the Beach Ballroom, new of a new stadium, and similar to Alternative and adaptation opportunities will potentially icates that tree/ woodland planting is Park, for example, will be enclosed to some the a suitable micro-climate and provide a regime for the Development Framework area	LDP Policy encourages waste minimisation and sustainable and active travel. Encourage facilities to develop a 'Travel Plan/ Sustainable Urban Mobility Plan' for their employees and visitors. Ensure that new facilities are within walking distance of public transport options (bus, rail or both). Limit provision of new car parking facilities where practicable. Flood Risk Assessments and Drainage Impact Assessments will be required, along with provision of SUDS where appropriate. Apply policy to require all new buildings to install low and zero carbon generating technologies to reduce the predicted carbon dioxide emissions.	
Aregime for the Development Framework area land trust suggest a young wood with mixed on per hectare. Beachfront Development Framework. The requirements of Aberdeen City Council t Zero and Climate Resilient Council. The Plan towards net zero and climate resilient Council ergy-efficient designs will be incorporated sources, with consideration provided on how the future. However, it may not reach its full om this option which potentially reduces climate options and measues. In of existing buildings. Fundamental design upgrading, building size and shape, level of <i>y</i> a significant impact on emissions for at heating for the beach leisure centre and ice		
oric environment designations there is one Ilroom LB20314 a Category B listed building) vation Area.		
ment area uses a series of urban street edges, Buildings immediately adjacent to the area.		
ied at this time nor sites where protection (e.g. characteristics affording protection t 1986). Constructional/ operational impacts of effects on previously unknown archaeological	Raise awareness of the areas heritage to encourage ownership/ sense of place.	
ework is the sympathetic restoration of the hance heritage in the area. A cultural heritage evelopment framework area to identify cultural	Ensure that improvements to surroundings are in-fitting with local Landscape Character Types, the areas natural and cultural heritage and in compliance with national and local planning policy. Develop design briefs, in conjunction with Aberdeen City Council and Historic Environment Scotland to provide developers	Ensure that improvement
ill be protected, and people's understanding w developments. However, there will a result of large-scale new development.	with clear guidelines on approach to development, ensuring that site and setting of cultural heritage is protected. Prior to commencement of work, discussions will take place with Aberdeen City Council's Archaeological service to determine whether the ground breaking locations require any mitigation	
eachfront area could result in the relocation of rtantly the club could lose an important part of th the local area and break a longstanding tie vas first used in 1899 and, from 1903, has have a detrimental economic impact on city ortunities should the club move elsewhere		
cates there would be no impact on known ment could be considered within a supprting application. toric Environment could be considered within he planning application.		
cape planning designations associated with its e contain a Garden and Designed Landscape		
ape Area ("SLA"). The Beach Ballroom within the Site. Iform in the area as a result of the		
developments may cause significant visual vill be determined by the nature, scale and iture planning applications. existing habitats and creation of open spaces	Mitigation seeks first to avoid adverse impacts and where impacts are unavoidable to reduce the significance of residual effects to an acceptable level. It also seeks enhancement and compensation where possible to provide the best practicable option.	
nity which will range from disturbance of an ement of existing habitats and creation of ork area.	 Potential landscape and visual mitigation measures include: Promote sympathetic design principles and ensure siting of development fully recognises the sensitivity of the landscape. Use tree planting of mixed native species to mitigate potential negative landscape effects. Consider using urban park project and open space created by the exclusion of the stadium option to increase viability and connectivity of key existing babitats. 	
eatures (grassland, trees and hedgerows),	 Planting and open space provision within the proposed development (and wider Development Framework), will limit 	
eatures (grassland, trees and hedgerows),	 adverse effects arising from the introduction of additional built form within the Site. Consideration of built development scale, form and orientation in order to reduce or remove effects. 	
abitats and creation of open spaces within the		
services, water and energy infrastructure.	Promote active travel to reduce emissions which can affect the population with health problems. Develop promotional material for the facilities on site promoting the health and environmental benefits of using sustainable transport modes to access them e.g. walk bike bus train	Ensure that development i
ubject to a coherent overarching strategy for o reduce travel. Further work is required to ain which would be dependent upon	Determine the best use of shelter and solar gain which would be dependent upon development layout.	
		L

ents to surroundings are compatible with the historic environment features and are compliant with g policy. t incorporates measures to integrate/ enhance existing footpath and cycle network.

•Promote sustainable waste management and the circular economy	Does the site reduce waste generation and promote waste recovery, recycling and composting?	√ / ×	Beachfront Development Framework development is likely to increase production of waste. There will be a carbon impact from demolition of existing buildings. Waste from the development would be directed to the local Material Energy Recycling Facility. Composting isn't specifically discussed as part of the Beachfront Development Framework.	Potential for significant positive effects through increased uptake of sustainable waste management practices develope through advice/ guidance in awareness raising programmes. Promote Stie Waste Management Plans during construction. New development will be required to provide sufficient space for the storage of general waste, recyclable materials an compostable wastes where appropriate.	d Potential for significant pos economy developed through
Summary score					
Overall, the proposals are likely to have a similar effect on t	he environment as Prefered Option and Alternative Option	A, with gene	rally positive effects. There are areas of potentially positive effects in relation to population a	and human health, biodiversity, water, soil, air, cultural heritage climatic factors, material assets, and soil. There is potential fo	r significant negative effects, r

, mainly related to water, soil, cultural heritage, landscape and material assets. Other effects are

positive effects through increased uptake of sustainable waste management practices/ circular gh advice/ guidance in awareness raising programmes
F BEACHFRONT DEVELOPMENT FRAMEWORK

Beachfront Development Framework June Draft

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SECTION	SECTION	CHANGES MADE TO DRAFT DEVELOPMENT FRAMEWORK CONTENT	
NO.			
1	INTRODUCTION		
	Vision & Objectives	Vision statement simplified and reflective of earlier Council decision.	
1.1	Development Framework	 Additional content to explain Development Framework Phases 1 & 2 following Council decision. Images updated to reflect updated text i.e. Development Framework Phase 1 & 2 boundaries 	
1.2	Strategic Environmental Assessment	Text added that SEA Report is available separately on Council website.	
1.3	Habitat Regulation Assessment	Text updated to reflect HRA process commencing and likely Appropriate Assessments required.	
2	POLICY CONTEXT		
2.2	Net Zero & Sustainability Policies	Aberdeen's Net Zero and Sustainability Routemap front cover now added to page.	
2.3	City Centre Masterplan Context	 Text and content updated to reflect decisions in relation to City Centre and Beachfront Masterplan. Organogram diagram added to show relationships and highlight relevance between projects in the city. 	
2.4	Aberdeen Local Development Plan 2023	Text content updated to reflect LDP 2023 and condensed.	
2.5	National Planning Framework 4	New section to cover NPF4 relevant content.	
2.6	Other Key Policies, Guidance & Information	• Text condensed and simplified.	
2.7	Relevant Transport Projects	• New sub-section added and moved from elsewhere in document, to highlight relevant transport projects in more detail.	
3	CONSULTATION & ENGAGEMENT		
3.1-3.6	Entire Section	 Section updated to reflect consultation processes undertaken in September and October 2022, and to reflect papers previously submitted to Council relating to outcomes and feedback received. Specific reference added in relation to the drop-in sessions at the Beach Ballroom, Children & Young People engagement at local schools, and questionnaires. Photos added from the children and young people engagement and drop-in consultation events at the Beach Ballroom. 	
4	THE SITE		
4.1 - 4.6	Full Section	• Full reorganisation of section. Section 4 now covers: site description, approach to site, setting & existing landscape areas, site inventory & analysis, site constraints, and existing transport networks.	
4.1	Site Description	 Revised aerial map of Aberdeen's beachfront area with Development Framework red line boundary highlighted. References to Development Framework here now mention Phase 1. 	

4.2	Approach to Site	• Selection of photos revisited to construct a more 'approach to site' orientated narrative, renamed from 'Site Images' to 'Approach to Site'.	
4.3	Setting & Existing Landscape Areas	Graphical updates to plans and diagrams for clarity and consistency.	
4.4	Site Inventory & Analysis	 Former Section 4.4 'Environmental Baseline' section removed as is covered in SEA available separately. Former Section 4.5 'Existing Drainage' removed as is covered in SEA. Former Section 4.6 'Existing Utilities & Infrastructure' removed as is covered in SEA. All site analysis imagery updated to have a consistent aerial underlay. Topographical map updated to be clearer and show wider site boundary area. Additional sub-section added relating to existing Leisure and Ice Arena. 	
4.5	Constraints	 'Visual Analysis' diagram updated to show location of the existing buildings. Section moved from 4.9 to 4.5. Text updated to reflect wider section changes. Diagram updated for clarity and consistency with information added/removed. Redline boundary added to diagram to show extents of the Development Framework Phase 1 area. 	
4.6	Existing Movement Network	 Formerly Section 4.7. All site analysis imagery updated to have a consistent aerial underlay. Text condensed and clarified following feedback received at consultation events. 	
4.6.1	Existing Pedestrian Situations	 Formerly Section 4.7.1. All site analysis imagery updated to have a consistent aerial underlay. New image added to show existing pedestrian situation at Justice Street roundabout and its severance/constraints. Text condensed and clarified following feedback received at consultation events. 	
4.6.2	Existing Cycling Situation	 Formerly Section 4.7.2. All site analysis imagery updated to have a consistent aerial underlay. Locations of ShareBike now added to diagram and mentioned in text. Text condensed and clarified following feedback received at consultation events. 	
4.6.3	Existing Parking Situation	 Text condensed and refined following on from information received at consultation events. The text and diagram explain in further detail the existing parking provision at Aberdeen's beachfront. 	
4.6.4	Existing Public Transport, Services, and Facilities	 Formerly Section 4.7.3. Former Section 4.7.4 'Traffic Modelling' now removed and information merged into Existing Public Transport, Services and Facilities. Text condensed and clarified following feedback received at consultation events. Additional map detail added, and travel distances added. Former Section 4.7.5 'Associated Transport Projects' removed and any relevant text moved to Section 2.7 Relevant Transport Projects. 	

5	VISION, OPPORTUNITIES & DESIGN	
5.1	Vision	• Leisure/Stadium reworded to 'Leisure Facilities and Potential New Stadium' (and throughout doc).
5.2	Approach	 CGI of potential development removed as too early in document. Additional text added relating to public space and lighting strategy, and information on the inclusive design approach (with accompanying images). Drainage, Utilities, and NZC text moved from Appendices into 5.2.
5.3	Opportunities	 Diagram updated as text was not previously clear and easy to read. Aerial underlay added to maintain consistency in diagrams. Redline boundary added to diagram to show extents of the Development Framework area. Anything outwith the proposed redline boundary has been removed from the diagram. Diagram updated to highlight water usage by sporting activities and now shows the preferred Leisure and Potential New Stadium option.
5.4	Initial Design Concepts	Masterplan concept sketches - red line boundaries corrected.
5.6	Rope Works - Design Development	 Section 5.6 & 5.7 condensed to one page to simplify. Diagram updated to show preferred Leisure and Potential Stadium option, and optioneering re continuity of ice provision for the city while replacement facilities are constructed. Text adjusted to suit the diagram change relating to preferred options and options re continuity of ice provision.
5.8	Rope Works - Leisure and Potential New Stadium	 Diagram updated to show preferred Leisure and Potential Stadium option, and optioneering re continuity of ice provision for the city while replacement facilities are constructed. Text adjusted to suit the diagram change relating to preferred options and options re continuity of ice provision.
6	THE DEVELOPMENT FRAMEWORK	
6.1	Introduction & Purpose	 Minor text updates. Proposed Development Framework plan changed to illustrative aerial image to maintain consistency in imagery throughout the document.
6.2	Development Structure	 Aerial underlay added to all diagrams to maintain consistency throughout document. Reorganisation, renaming and condensing of sections within 6.2. 'Potential Enhanced Connection to Beach' added to Arrival & Connections diagram. Arrival points updated following review of transport section. Text added to 6.2.3 Architectural Interventions that notes potential uses for proposed buildings. Additional text relating to the potential for satellite changing and W/C facilities in the Phase 2 development. Blue Network details and illustration updated relation to surface water.

6.3	Active Travel Strategy	 Reworking and reordering of previous 6.5 Proposed Transport Network section, and consolidating other transport-related pages/info into one section. Consolidation and updating of images to ensure consistency of approach. Active Travel Strategy removed and replaced with separate diagrams re 6.3.1 Pedestrian Network and 6.3.2 Cycling Network. Section 6.2.5 Cycling Network added to identify the proposed cycling strategy in direct response to ecisting network provided earlier. Additional text and annotations added to reflect Council's instructions for segregated cycle lanes. Further clarity added to Section 6.3.3 Public Transport Strategy regarding potential location for bus layover/turning area at beachfront and potential reconnecting to Footdee
		 Text and image within Section 6.3.5 Traffic and Network Interventions refreshed for additional clarity. Text amended in Section 6.3.5 Future Parking Situation to reflect feedback provided at consultation events. Clarity added to acknowledge that that a number of trips to the area will continue to be made by car and that some users. will find it impractical to make their trip by other means. Clarity provided that there will be some minor adjustments to parking arrangements immediately adjacent to the Urban Park, but the overall supply of parking spaces throughout the Beachfront area will remain largely unchanged, including committment to increase number of accessible bays in the area.
6.3	Active Travel Strategy	 Section 6.3.6 'Site Servicing Strategy' has now become 'Delivery, Servicing and Emergency Access'. Text/diagram updates to explain the emergency service and controlled routes throughout the proposed development, plus committment to contonue to working with all relevant services and idenitification of suitable exemptions. Section 6.3.8 'Traffic Modelling Outcomes' removed - too detailed and ongoing process. Update to various graphics to remove through road (Links Road to Esplanade) adjacent to Codonas site boundary due to design/levels constraints. Active travel route to remain. Potential Stadium Strategy now moved to Section 6.12 Leisure and Potential New Stadium Character Area. Additional paragraph added here to discuss ticket discount for fans travelling to Aberdeen FC games.
6.5	Landscape, Ecology, Nature & Conservation	Section expanded to provide additional detail relating to proposals and wider ACC policies and projects.
6.6	Proposed Character Areas	• Character Area sections condensed and reorganised, and images updated, to provide further clarity and simplicity to the content. Early indicative design detail removed as Development Framework to remain high level.
6.9	The Beach and Esplanade	 Text added in reference to future studies and surveys to be undertaken as part of sea defences considerations. Additional text also explains potential future development of satellite interventions located along the beachfront esplanade. Note in text that any future proposals for the Boardwalk will need to be designed with awareness of locations of concern for suicide risk.

6.1	Beach Boulevard	 More detail added in Section 6.10 (Beach Boulevard Character Area) to include reference to segregated cycle lanes. Beach Boulevard Roundabout section moved and condensed into 6.10.2. Updates to images and sections for Active Travel proposals.
6.11	Broad Hill	• Text and diagrams refined to reference potential for three viewing platforms and to ensure that woodland is permeable and safe to travel through.
6.12	Leisure and Potential New Stadium	 Text update to reference Potential New Stadium. Design concepts have been updated to reflect updated discussions and potential for stand-alone developments. Shells concept retained and alternative Sails concept introduced with accompanying text and concept sketches. Precedents updated to suit new concept proposals. Design concepts updated to accommodate optioneering re continuity of ice provision for the city while replacement facilities are constructed.
6.13	Beach Village	• Section condensed and simplified. Additional text has been added to highlight ongoing discussions stakeholders and considerations of Satellite facilities as part of a Phase 2 of the Development Framework.
7	PHASING & DELIVERY	
N/A	N/A	No changes
	APPENDICES	
N/A	Moved within body of DF	Moved within body of DF.

Page 476

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A956/BEACH BOULEVARD JUNCTION – OPTION APPRAISAL REPORT EXECUTIVE SUMMARY





Page 477

EXECUTIVE SUMMARY

Introduction

An objective-led appraisal of options for improving walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade at the A956/Beach Boulevard roundabout has been undertaken and has identified a preferred option to be progressed to Outline Business Case (OBC).

The major city centre junction is the key connection point between Aberdeen's City Centre Masterplan (CCMP) and Beachfront Development Framework (BDF) and its future operation is critical to facilitating better connections between each masterplan area.

The appraisal was an objective-led study based on Scottish Transport Appraisal Guidance (STAG) principles. The appraisal was structured as follows:

- Review of Existing Conditions
- Objective Setting
- Option Generation
- Option Development
- Option Model Assessment
- O DMRB Stage 2 Assessment
- Option Appraisal & Identification of Preferred Option

Throughout the commission, the SYSTRA project team were supported by an ACC study team of project officers.

Summary of Problems and Constraints

To inform the objective setting and option generation, the review of existing conditions highlighted the following key problems and constraints at the junction:

- A traffic-led junction with a large footprint
- Walking, wheeling and cycling connectivity is indirect and unattractive
- Formal crossing points are dislocated from desire lines
- Pedestrian environment is constrained and may feel intimidating or unsafe to some users
- There are no formal cycle facilities through or on any approaches to the junction
- The junction is a key freight route, it facilities access to and from Aberdeen Harbour and is the designated Abnormal Load Route

Objective Setting

Before beginning the option development process, it is crucial to set the study objectives to assist in the appraisal of options. STAG outlines that options should be appraised against Transport Planning Objectives (TPOs) and that these are typically identified at the start of the STAG process.

To inform the objective setting therefore, a review of the aims and objectives of the <u>City</u> <u>Centre and Beach Masterplan</u> was undertaken. Following this review and discussions with the ACC study team an agreed set of SMART Objective were identified. These are presented in Table 1 alongside the measurement of option performance and the proposed method of analysis during the option appraisal.

Objective			Measure	Method of Analysis
1	Improve pedestrian, wheeling and cycling connectivity	1A	Reduce walk distances through the junction	Total distance comparisons
		1B	Reduce walk time between City Centre and Beach through junction	Point to point journey time comparison
		1C	Optimise greentime/frequency of non- motorised movements through junction	Total cycle green time comparisons
		1D	Increase segregated cycle crossings	No. of arms connected by seg. cycle crossings
		2A	Reduce walk distances through the junction	Total distance comparisons
2	Improve access for all	2B	Reduce required level changes	Comparison against existing provision
		2C	Reduce the number of remote pedestrian crossings	Comparison against existing provision
	Improve public transport connectivity	3A	Reduce bus journey times between Union Street (CCMP) and Beachfront	Existing vs Option
3		3B	Improve journey time reliability between Union Street (CCMP) and Beachfront	analysis)
		3C	Accommodate future bus movement between Justice Street and Beach Boulevard	Suitability for potential bus routes through Justice Street
4	Optimise the traffic network performance	4A	Assessment of journey times on key routes through the junction	Existing us Option
		4B	Assessment of any localised congestion on approaches to the junction	(Paramics model
		4C	Assessment of general network wide journey times and delay	anaiysisj
5	Optimise Network Resilience	5A	Public transport resilience (e.g. displacement of buses on to harbour route)	Informed by Paramics model analysis on
		5B	General traffic resilience (e.g. accommodate incident in traffic network)	network performance and wider considerations
		5C	Provide emergency vehicle access in all directions	on Option Design

Table 1. A956/Beach Boulevard Study Objective

Option Generation and Development

Option Generation & Initial Sifting

The first step in identifying a preferred option is to derive a 'Long List' of options that could satisfy the study's objectives, alleviate the identified problems and address the outlined opportunities.

In line with STAG, the options for this 'Long List' were generated through a number of methods, including:

- consideration of previous studies, in this case the wider CCMP and BDF
- consideration of other adopted ACC policies and strategies
- consideration of existing conditions (problems and opportunities)
- analysis of the existing transport network and committed measures
- current design standards and guidelines
- professional judgement flowing from a structured decision making process by the study team.

Option generation was also informed by both the Sustainable Investment Hierarchy and the Sustainable Travel Hierarchy (Figure 1). In doing so, as noted in the <u>National Transport</u> <u>Strategy 2</u>, transport options that focus on reducing inequalities and reducing the need to travel unsustainably will then be prioritised.



Figure 1. Sustainable Investment Hierarchy and the Sustainable Travel Hierarchy

This commission does not develop options to detailed design but importantly took cognisance of relevant design policy and guidance such as <u>Designing Streets</u>, <u>Roads for All</u> and <u>Cycling by Design</u> from the option generation stage right through to identification of the final preferred option.

Several concept options were identified through a high-level visioning as part of the BDF:

- **1.** an at-grade option
- 2. a pedestrian and cycle overbridge option
- **3.** a road tunnel option
- 4. an option that improves the existing pedestrian bridge connection between Virginia Court and Castlehill

Developing the options identified above and combining them with further options identified the methods outlined in STAG, resulted in 15 Options being considered for initial sifting. The options identified consisted of both at-grade and grade-separated solutions. For each option, an approximate sketch was made and key pedestrian, wheeling, cycling and vehicular movements identified. Each option was then scored against the identified study Objectives on a simple positive (+), neutral(/) and negative(-) scale.

Following discussion of the initial sifting results with the ACC Study Team, 11 of the 15 options progressed to the Option Development stage.

Option Development

Following the Option Generation and initial sifting exercise, eight at-grade solutions and three grade-separated solutions remained. The next step, in line with STAG, was to confirm that the options to be appraised were broadly feasible.

The feasibility assessment of the three grade-separated solutions (and a generic at-grade solution) were removed from this objective-led appraisal at this stage and examined in further engineering detail through a DMRB Stage 2 Engineering Assessment. This engineering-led assessment concluded that an at-grade solution is the most suitable proposal and therefore the focus on the appraisal from this stage is on identifying a suitable at-grade solution.

The eight at-grade options were first assessed for:

- Operational Capacity
- O Design Feasibility

Following discussions with the ACC study team, the agreed outcome from this initial feasibility assessment was that two option concepts should be developed further before progressing to modelling and appraisal:

- **1.** Retain the existing roundabout, in some form, and provide enhanced walking, wheeling and cycling connectivity.
- 2. Change the roundabout to a signalised junction and separate out key movements where possible and explore removing some movements completely to improve operational capacity and help facilitate active travel and public transport enhancements.

Taking the two options concepts, an iterative exercise of option development and assessment was undertaken. This iterative exercise considered 20 permutations of the two option concepts and concluded there to be four viable options to be progressed to Option Appraisal and Modelling, as set out in Table 2.

For the signalised junction options, the operational capacity assessment gave a clear indication that to release junction capacity to improve connections for walking, wheeling, cycling and public transport, some vehicular movements currently available would have to be restricted or removed. Analysis of turning movement volumes and operational capacity signal timings highlighted:

- Only one movement can be separated from the junction using a slip lane, namely East North Street to Beach Boulevard
- The right turn from Commerce Street to Beach Boulevard (City South to Beachfront) is a key movement for junction capacity. Removing this frees significant capacity.
- The left turn from Beach Boulevard to Commerce Street can also be removed to free capacity but is not crucial to junction operational capacity

Option	Option Concept	Option Summary
	Retain a roundabout	-Reduce the size of the roundabout and shift footprint to the north west
Option 1		-This change facilitates improved pedestrian and cycling connections between Justice St & Beach Boulevard
		-Enhanced crossings can also be provided on all arms
	Signalised Junction	-Signalised junction with all existing movements maintained with the exception of Park St (NB only from East North St)
Option 2		-Enhanced pedestrian and cycling connections through the junction with segregated cycle lanes connecting Justice St & Beach Blvd, with possible provision to other arms
	Signalised Junction	-Signalised junction with banned right turn from Commerce St to Beach Blvd and Park St NB only (from East North St)
		-Vehicles from the south of the city travelling to the beach area signed to route via Hanover Street, with Hanover St changed to NB only
Option 3		-No access from Justice Street to Beach Blvd (achieved via Hanover St)
		-Enhanced pedestrian and cycling connections through the junction with segregated cycle lanes connecting Justice St & Beach Blvd, with possible provision to other arms
	n 4 Signalised Junction	-Signalised junction with banned right turn from Commerce St to Beach Blvd and Park St NB only (from East North St)
		-Vehicles from the south of the city travelling to the beach area only signed to route via Cotton St/Miller St
Option 4		-No access from Justice Street to Beach Blvd (achieved via Cotton St/Miller St)
		-Enhanced pedestrian and cycling connections through the junction with segregated cycle lanes connecting Justice St & Beach Blvd, with possible provision to other arms

Table 2. At-grade junction options for modelling and appraisal

Option Appraisal

The four options were then subject to detailed appraisal against:

- Study Objectives
- STAG criteria (Environment; Climate Change; Health, Safety & Wellbeing, Economy, Equality & Accessibility)
- Established Policy Directives
- Feasibility and Affordability

In line with STAG, the appraisal of options was undertaken using a seven-point assessment scale, as set out in Table 3, with the results appraisal outcomes presented in Table 4.

Table 3. STAG 7-Point Scale		
STAG 7-Point Scale		
$\checkmark \checkmark \checkmark$	Option has major positive impact	
$\checkmark\checkmark$	Option has moderate positive impact	
✓	Option has minor positive impact	
- Option has neutral or no impact		
×	Option has minor negative impact	
xx	Option has moderate negative impact	
xxx	Option has major negative impact	

Table 4. Options Appraisal Summary

Option Appraisal	Option 1	Option 2	Option 3	Option 4
Study Objectives				
Improve pedestrian, wheeling and cycling connectivity	$\checkmark \checkmark \checkmark$	✓	$\checkmark \checkmark \checkmark$	$\checkmark \checkmark \checkmark$
Improve access for all	$\checkmark\checkmark$	√ √	√√	√√
Improve public transport connectivity	$\checkmark\checkmark$	xx	√√	√√
Optimise traffic network performance	✓	×	✓	✓
Optimise Network Resilience	$\checkmark\checkmark$	xx	√√	√ √
STAG Criteria & Wider Considerations				
Environment	\checkmark	×	✓	✓
Climate Change	\checkmark	×	✓	\checkmark
Health, Safety & Wellbeing	$\checkmark\checkmark$	$\checkmark\checkmark$	xx	$\checkmark\checkmark$
Economy	✓	-	✓	✓
Equality and Accessibility	✓	✓	✓	✓
Established Policy Objectives	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$	$\checkmark\checkmark$
Feasability	-	-	-	-
Affordability	-	-	-	-
Public Acceptability	-	-	-	-

Following the above Option Appraisal outcomes and discussion with the ACC study team, the following conclusions were reached:

There are significant concerns around the ability for the proposed Option 2 measures to operate without significant congestion and impact to journey times through the junction. As such, Option 2 performs poorly against 3 of the study objectives and it is not recommended this option progresses in the appraisal process.

Option 3 generally performs well against most criteria but there are significant concerns around the proposed use of Hanover Street as an alternative route for vehicles travelling to the beachfront from south of the city. Model analysis shows a significant increase in traffic flows outside the Hanover Street School, with Hanover Street currently a low volume access road. Such an increase is likely to risk health, from a potential increase in vehicle emissions, and safety, from a potential increase in the likelihood of accidents. Option 4, which proposes the same junction setup and provides the same overall benefits to walking, wheeling and cycling, provides an alternative routeing to the beachfront from the south away from the primary school and is therefore a preferable option to Option 3. As such, Option 3 is not recommended to progress in the appraisal process.

Option 1 and Option 4 receive similar scores against all appraisal criteria with both expected to deliver significant positive benefits against the study objectives. It is recommended that both Option 1 and Option 4 are presented to ACC for further consideration and identification as a preferred option.

Option 1 proposes a roundabout is retained at the junction but with a smaller overall footprint to allow improved walking, wheeling and cycle connections. Option 1 is shown in Figure 2 with a summary of key benefits and potential issues provided in Table 5.

Option 4 proposes changing the junction to a signalised junction with improved walking, wheeling and cycle connections between all arms. Option 4 is shown in Figure 3 with a summary of key benefits and potential issues provided in Table 6.



Table 5. Option 1 Summary

Option 1: Roundabout			
Benefits	Potential Risks		
Provides improved walking and wheeling connections on all arms, with reduced walk distances and times	Departure from design standards expected, particularly on entry/exit radii. Potential detailed design risk if required departures impact on the safety of users.		
Remote crossings (closer to desire lines than existing situation) are activated by the user giving short wait times and improving user experience	Detailed design may highlight issues for current Abnormal Load route		
Pedestrian crossing dwell areas are larger than existing provision to provide safer, more comfortable space to wait (and cater for high volume pedestrian events)	Access to and from Justice Street for some larger vehicles may be restricted		
Crossing points on Commerce St and East North St are traversed in one single movement - no need for pedestrians or cyclists to wait in a central reserve.	Does not enhance control of the junction to provide additional network resilience (e.g. traffic incident, high volume pedestrian event)		
New segregated cycle connections provided between all arms. New cycle infrastructure connects CCMP and BDF segregated cycle lanes through the junction.	Does not provide the ability to prioritise bus movements through the junction (e.g. bus transponders at signalised junction)		
Likely to lower speeds of vehicular traffic and improve overall safety experience for non- motorised users.			
Performs well against the policy objectives to prioritise active travel over vehicular movements			
Bus journey times and journey time reliability maintained.			
Accommodates future bus route improvements (e.g. through Justice Street/Castlegate)			
Little impact on general traffic queueing or journey times (retains optimum capacity of a roundabout)			
Maintains access to/from all arms for general traffic			
Maintains access to/from Aberdeen Harbour			
Capital and Revenue Costs limited to junction area i.e. no wider network implications			



Table 6. Option 1 Summary

Option 4: Signalised Junction

Benefits	Potential Risks
Provides improved walking and wheeling connections on all arms, with reduced walk distances and times	Removes a key movement from the junction (Commerce St to Beach Blvd). Vehicles from the South signed to the Beach area via Cotton St/Miller St.
4 stage signalised junction with all round pedestrian stage with a significant % of proposed 96s cycle time attributed to pedestrian stage. All crossing contained within junction	Wider deliverability risks and considerations: E.g. Virginia St/Castle St junction, Cotton St/Links Rd junction, use of wider network a requirement to deliver option and knock-on effects
New segregated cycle connections provided between all arms. New cycle infrastructure connects CCMP and BDF segregated cycle lanes through the junction.	Capital and Revenue costs wider than junction itself e.g. Cotton St/Links Rd if signalised, maintenance of road surfaces/lighting/parking enforcement if traffic volumes increase
Performs well against the policy objectives to prioritise active travel over vehicular movements	Signing private cars from the south to arrive at the Beachfront at Cotton St/Links Rd may impact wider planned BDF proposals
Bus journey times and journey time reliability maintained	Justice St to Beach Blvd movement also removed (low volume movement) with route also via Cotton St/Miller St.
Accommodates future bus route improvements for westbound bus movements on Justice Street/Castlegate.	Access to Park St from the junction restricted. Only accessible via East North St. This restricts direct access from south to the Healthcare Village on Frederick St (other routing available).
Little impact on general traffic queueing or journey times (minimal impact of signalising junction)	
Enhances control of the junction to provide additional network resilience (e.g. traffic incident, high volume pedestrian event)	
Maintains access to/from Aberdeen Harbour	
Maintains Abnormal Load route	

IDENTIFICATION TABLE		
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Version	Name		Position	Date	Modifications
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2					

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Corporate Project Management Toolkit

N Outline Business Case

Project Name	Beach Boulevard/Justice Street Roundabout Improvements Outline Business Case		
Author	David Murtagh (SYSTRA Ltd)	Date	18/04/23
Sponsoring Cluster		Version	1

Contents

	(Press F9 function key to update table of contents after completion of Busin	ess Case)
1.	Introduction and Project Overview	2
2.	Executive Summary	3
3.	Strategic Fit	7
4.	Business Aims, Needs & Constraints	9
5.	Objectives	11
6.	Scope 6.1 Out of Scope	12 13
7.	Options Appraisal	15 15 16 19 22 23
8.	Benefits 8.1 Customer Benefits 8.2 Staff Benefits 8.3 Resources Benefits (Financial)	25 25 26 26
9.	Costs 9.1 Project Capital Expenditure & Income 9.2 Project Revenue Expenditure & Income 9.3 Post- Project Capital Expenditure & Income 9.4 Post- Project Revenue Expenditure & Income	26 27 28 28 29
10.	Key Risks	30
11.	Procurement Approach	30
12.	Time 12.1 Time Constraints & Aspirations 12.2 Key Milestones	31 31 31
13.	Governance	32
14.	Resources	32
15.	Environmental Management	32
16.	Preserving Our Heritage	33
17.	Stakeholders	34
18.	Assumptions	35
19.	Dependencies	37
20.	Constraints	37
21.	ICT Hardware, Software or Network infrastructure	38
22.	Change Controls Issued by the Project - None	38
23.	Support Services Consulted	38
24.	Document Revision History	40
25.	Decision by Capital Board	41

Find further guidance in the ACC Project Management Toolkit online

1. Introduction and Project Overview

Briefly describe the basic project concept. Describe the current business situation as it relates to the problem or opportunity that gave rise to the idea, including any other drivers such as regulatory or legal compliance requirements

If taking no action may have a negative effect on the organisation, then also describe what will happen if the project is **not** undertaken.

This Outline Business Case (OBC) sets out the preferred option for junction improvements at the A956/Beach Boulevard/Justice Street roundabout to facilitate improved walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade.

Summary of Aberdeen City Council Committee Instruction

On 12th November 2021, Aberdeen City Council's (ACC's) City Growth and Resources Committee considered a <u>report</u> on the outcomes of a review of the Aberdeen City Centre Masterplan (CCMP) and Beach Development Framework (BDF).

Relevant principles of the BDF for this OBC are:

- Improved Access and Connectivity between the Beachfront and City Centre;
- Infrastructure, including traffic management that reduces the impact of the existing road network to promote alternative forms of travel, including walking and cycling, whilst improving public realm

The Committee approved the Rope Works Masterplan concept which allows the route from Castlegate to flow down the Beach Boulevard and transition from a formal character to a more natural, softer and playful form. A central concept of the masterplan is the development of a largely car-free core to encourage active travel and provide a destination for people to enjoy safe leisure and recreational time.

On 28th February 2022, ACC considered a <u>report</u> on Beach Masterplan Progress. The Committee recommendations included the following:

• to instruct the Head of Commercial and Procurement and the Chief Officer - Strategic Place Planning - to develop an Outline Business Case to improve the connectivity between the city centre and the beach and report back progress to the June 2022 meeting of Full Council

In terms of connectivity between the City Centre and beach, the report identified the following aims:

- Increasing pedestrian and cycle connectivity between the City and the Beach
- Improving the appearance and experience of walking or cycling to the beach
- Improving legibility of the journey
- Providing a segregated cycle route
- Increasing soft landscape and biodiversity

In addition to the above, enhancing public transport connectivity between the City Centre and the Beach is also a key aspiration.

Further progress, including a <u>Draft Beach Development Framework</u>, was <u>reported</u> to Council in June 2022. The Council agreements included the following:

(i) to instruct the Chief Officer - Commercial and Procurement to provide further updates on all longer-term interventions to OBC: **Beach Boulevard**, Surf Village, Beach Ballroom, New Stadium, New Leisure Facility, Boardwalk, New Slipway, Energy Centre, **Justice Street Roundabout**, and report progress to December 2022 Council

In August 2022, ACC approved an overarching <u>City Centre and Beach Masterplan</u> document. This strategic document did not replace the CCMP or the BDF, but rather it sits above these site-specific plans as a strategic, place-led, project focused, overview.

Summary of Outline Business Case Development

Following the above Committee instruction, ACC engaged consultancy support (SYSTRA Ltd) to undertake a proportionate STAG (Scottish Transport Appraisal Guidance) appraisal of options for improving walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade, and to progress the recommended improvements to Outline Business Case (OBC).

This builds upon and enhances work currently underway to develop and deliver the Aberdeen City Centre Masterplan (CCMP) and Beachfront Development Framework (BDF).

2. Executive Summary

Provide a clear, concise summary of the key features of the business case, briefly describing what the project will deliver, any key decisions associated with it, the expected costs and the funding position (showing any budgets already identified/ expected and the ask of Capital). Include an outline of the benefits, and any dis-benefits, what risks and assumptions are associated with the project, and summarise planned or agreed dates and time constraints. Indicate who is the project sponsor and how the project will be owned and governed and what form the project board will take.

<u>Purpose</u>

This OBC sets out the preferred option for junction improvements at the A956/Beach Boulevard/Justice Street roundabout to facilitate improved walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade.

This builds upon and enhances work currently underway to develop and deliver the Aberdeen City Centre Masterplan (CCMP) and Beachfront Development Framework (BDF). The junction is a key connection point between Aberdeen's CCMP and BDF and its future operation is critical to facilitating better connections between the city centre and beachfront. Successful delivery of junction improvements will contribute the success of the wider masterplans.

Strategic Fit

The <u>Aberdeen City Centre and Beach Masterplan</u> (CCBMP) is a regeneration blueprint that is transforming the city while conserving its proud heritage. The goal is greater prosperity, a

better quality of life for all, and encouraging people to walk or cycle more. Successful delivery of junction improvements will positively contribute to several outcomes and objectives of adopted ACC policies and strategies, in particular:

- Local Outcome Improvement Plan
- Regional Economic Strategy
- Strategic and Local Development Plan
- National, Regional and Local Transport Strategies
- Sustainable Urban Mobility Plan
- Roads Hierarchy
- Net Zero Vision and Routemap for Aberdeen
- Net Zero Mobility Strategy

Project Objectives

The final OBC objectives were devised to align with wider CCMP and BDF objectives and are:

- 1. Improve pedestrian, wheeling and cycling connectivity
- 2. Improve access for all
- 3. Improve public transport connectivity
- 4. Optimise the traffic network performance
- 5. Optimise Network Resilience

Project Overview

The preferred option proposes to reduce the size of the existing roundabout and shift the footprint to the north-west. This change facilitates opportunities to provide improved pedestrian and segregated cycling connections between all arms of the existing junction, as shown below.



The benefits of this option are:

- Provision of improved walking and wheeling connections on all arms, with reduced walk distances and times
- Remote crossings (closer to desire lines than existing situation) that are activated by the user, giving short wait times and improving user experience
- Pedestrian crossing dwell areas larger than existing provision to provide safer, more comfortable space to wait (and cater for high volume pedestrian events)
- Crossing points on Commerce Street and East North Steet are traversed in one single movement no need for pedestrians or cyclists to wait in a central reserve
- Reduced road space requirements allow for opportunities for public realm improvements (planting, seating, etc.)
- New segregated cycle connections provided between all arms
- New cycle infrastructure connects the proposed CCMP/Justice Street and BDF/Beach Boulevard segregated cycle lanes through the junction
- The design is likely to lower speeds of vehicular traffic and improve overall safety and experience for non-motorised users
- Performs well against the policy objectives to prioritise active travel over vehicular movements
- Bus journey times and journey time reliability maintained
- Accommodates future bus route improvements (e.g. through Justice Street/Castlegate)

- Little impact on general traffic queueing or journey times (retains optimum capacity of a roundabout)
- Maintains access to/from all arms for general traffic
- Maintains access to/from Aberdeen Harbour
- Capital and Revenue Costs contained to junction area i.e. no wider network implications expected

The possible disadvantages of this options are:

- It may be considered confusing for some users. For example, pedestrians crossing multiple cycle lanes
- There may be short to medium-term disruption to local access for residents and businesses

Project Costs

Total project construction costs are estimated to be £12,282,000.

The cost estimates were derived through a Design Manual for Roads and Bridges (DMRB) Stage 2 Engineering Assessment and are considered high-level at this stage with a range of estimates provided due to uncertainties at this early stage of design. Assumptions on these costs are provided in Section 18.

Project Risks

Risk:

Departure from design standards expected, particularly on entry/exit radii of Commerce Street, Justice Street and East North Street. There is a potential detailed design risk if required departures impact on the safety of users.

Mitigation:

Cognisance taken of design standards during detailed design and their impact on the use of the junction for all modes. For example, a departure from standards may enforce lower traffic speeds which could have positive benefits for other non-motorised users

Risk:

The reduces roundabout size may cause issues for current Abnormal Load route on East North Street and Commerce Street.

Mitigation:

Overrun areas expected for some larger vehicles. The use of the junction by abnormal loads to be carefully assessed and managed during detailed design.

Risk:

Access to and from Justice Street for some larger vehicles may be restricted. Access challenges for Heavy Goods Vehicles (HGVs) (uncommon) and buses to be confirmed at detailed design stages.

Mitigation:

Preliminary design checks suggest a viable solution is likely to be identified at detailed design stage. Checks also confirmed access for smaller vans and refuse vehicles (more common vehicle types) will be maintained.

Dates & Time Constraints

This project will be delivered as part of the Beachfront Masterplan. Assuming this OBC is approved in April 2023, a Full Business Case (FBC) will be prepared by April 2024 as part of the wider public realm delivery programme.

Project Sponsor

The project sponsor is Craig Innes, Chief Officer – Commercial & Procurement.

3. Strategic Fit

This section will consider how the project fits with the list of projects identified in the Local Outcome Improvement Plan). Firstly, state if the project is identified within the LOIP. If it is not, how does it work with the Council's strategic objectives such as:

- Prosperous Economy
- Prosperous People (Children & Young People)
- Prosperous People (Adults)
- Prosperous Place

The <u>Aberdeen City Centre and Beach Masterplan</u> (CCBMP) is a regeneration blueprint that is transforming the city while conserving its proud heritage. The goal is greater prosperity, a better quality of life for all, and encouraging people to walk or cycle more.

This project – the connection between the CCMP and BDF – while not directly referenced within the LOIP, will contribute to the delivery of the LOIP strategic objectives. By delivering a package of junction changes that improve connectivity for walking, wheeling and cycling between the city centre and the beachfront and allowing for optimal public transport and shared transport networks (as set out in the study objectives in Section 5), the project will contribute to:

• **Prosperous People (Children & Young People)** by becoming a more child friendly city with active travel connections to key leisure facilities and opportunities that open through the delivery of the CCBMP

Relevant Stretch Outcome:

- Child friendly city where all decisions which impact on children and young people are informed by them by 2026
- **Prosperous People (Adults)** by supporting wellbeing, good health choices and adoption of healthier lifestyles through improved active travel connections between the city centre and the beachfront

Relevant Stretch Outcome:

• Healthy life expectancy (time lived in good health) is five years longer by 2026

• **Prosperous Place** by promoting mode changes and in turn, increasing sustainable travel, increasing green spaces and reducing carbon emissions

Relevant Stretch Outcome:

- Addressing climate change by reducing Aberdeen's carbon emissions by at least 61% by 2026 and adapting to the impacts of our changing climate
- Increase sustainable travel: 38% of people walking and 5% of people cycling as main mode of travel by 2026

As part of the options appraisal, an assessment on how the proposed option performed against current local and national policy objectives was undertaken and concluded the preferred option to positively contribute to several outcomes and objectives of adopted ACC policies and strategies. This includes:

- Local Outcome Improvement Plan
- Regional Economic Strategy
- Strategic and Local Development Plan
- National, Regional and Local Transport Strategies
- Sustainable Urban Mobility Plan
- Roads Hierarchy
- Net Zero Vision and Routemap for Aberdeen
- Net Zero Mobility Strategy

The option generation process was also informed by both the Sustainable Investment Hierarchy and the Sustainable Travel Hierarchy. In doing so, as noted in **National Transport Strategy 2**, transport options that focus on reducing inequalities and reducing the need to travel unsustainably will then be prioritised.



Cycling by Design, and Designing Streets.

4. Business Aims, Needs & Constraints

Provide an overview of the sponsoring organisation and explain how the project supports the existing policies and strategies, and how it will assist in achieving the business goals, aims and business plans of the organisation. Include any relevant information about the current business situation, such as the organisational structures, business model, buildings, processes, teams and technology currently in place.

Aberdeen City Council is the sponsoring organisation for this project. The project's contribution to the Council's aims and objectives are set out in the response to question 3, and details of the current business situation are set out in the responses below.

Describe the purpose of the project, why it is needed, establishing a compelling case for change based on business needs, e.g. demand for services, deficiencies in existing provision etc. Where are we now and where do we need to get to.

The focus of this OBC is a five-arm roundabout in Aberdeen city centre connecting the key routes of East North Street (A956), Commerce Street and Beach Boulevard while also incorporating Justice Street to the south-west (and links to Castlegate/city centre) and Park Street to the north.

The junction is a key connection point between Aberdeen's CCMP and BDF and its future operation is critical to facilitating better connections between the city centre and beachfront.

The CCMP aims to transform Aberdeen city centre while conserving its proud heritage. The goal is greater prosperity and a better quality of life for all. The BDF sets a vision and key design principles for a world class sport, leisure and tourism destination which would revitalise the Beachfront area and reconnect it to the city centre. The transport proposals in the BDF are designed to aid a city-wide move towards more sustainable travel. They aim to create a space which feels like more of a natural extension of the city centre with walking, cycling and public transport use at the heart of the design.

The BDF also identifies current constraints for pedestrian and active travel crossings at the A956/Beach Boulevard roundabout and shows how the road infrastructure dominates this part of the city, creating a sense that, for those walking, cycling and wheeling, the Beachfront is detached from the city centre. Initial concept options for the roundabout aimed to show that the junction could be transformed by:

- Improving pedestrian and cycle connectivity
- Extending the character of the city centre
- Creating a new entry into a new public space

Following the initial concept options, an objective-led appraisal of options for improving walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach Esplanade at the A956/Beach Boulevard roundabout has been undertaken. To begin the Appraisal process, the existing situation was examined to identify how all users currently utilise the junction. The existing problems and constraints for users can be summarised as follows:

- A motorised traffic focussed junction with a large footprint
- Walking, wheeling and cycling connectivity is indirect and unattractive
- Formal crossing points are dislocated from desire lines
- Pedestrian environment is constrained and may feel intimidating or unsafe to some users

- There are limited formal cycle facilities at the junction, with only mandatory on-road cycle lanes on Beach Boulevard
- The junction is a key freight route, it facilities access to the Harbour and is the designated Abnormal Load Route

Identify any constraints, e.g. timing issues, legal requirements, professional standards, planning constraints. What assumptions have been made, and any linkages and interdependencies with other programmes and projects should be explained, especially where the proposed project is intended to contribute to shared outcomes across multiple Clusters.

As noted above, the future operation of the junction is crucial to facilitating better connections between the City Centre and Beach Masterplans and therefore successful delivery of junction improvements will contribute to the success of the wider masterplans. Improvements at the roundabout however are also intrinsically linked to the programmed delivery and future success of both masterplans, in particular the BDF, and cognisance must be taken of the planned delivery programmes to ensure one does not impact on the delivery of the other.

The junction improvements are interdependent on the proposed Justice Street segregated cycle lane and the Beach Boulevard segregated cycle lane to provide an uninterrupted cycle link between the city centre and beachfront.

Physical constraints have been identified in the accompanying Design Manual for Roads and Bridges (DMRB) Stage 2 Engineering Assessment. This assessment concluded there to be no significant constraints to deliverability from:

- Engineering constraints
- Vertical & horizontal alignments
- Drainage & SUDS (Sustainable Urban Drainage System)
- Structures
- Ground Conditions & Earthworks
- Utilities
- Constructability

The design would be subject to further consideration of issues relating to construction, use, maintenance and demolition throughout its development. Within this study area, there are elements which pose constructability challenges as listed below. All of these are typical of an urban transport project and good practice traffic and construction management would minimise the impacts

- Intrusive construction activities within a built-up urban environment
- Intensive traffic management measures to keep vehicular movement flowing to a degree through the junction during the works
- Intrusive construction works around local businesses and residential properties
- Issues with respect to access for businesses and property owners
- Working in and around existing retaining structures

Further consideration of construction phasing and maintenance of existing access arrangements during the construction period would be undertaken during DMRB Stage 3 Engineering Assessment and a constructability audit would also be undertaken.

State what impact the project will have on business as usual, e.g. temporarily reduce capacity or divert resources.

The nature of the proposals are such that disruption to the area is to be expected during construction with most impacts felt on the surrounding properties, businesses and the existing road network. Disruption would be expected on the local traffic network as well as the wider Aberdeen area due to the traffic management measures required to maintain movement of traffic through the city centre during any construction works. Again, this is typical of an urban transport project and suitable traffic and construction management would minimise the impacts.

The initial constraints highlighted include:

- Business Access This includes numerous businesses on the western side of Justice Street, businesses to the north and south of Beach Boulevard and businesses to the east and west of Park Street
- Property Access Marischal Court accessed via Justice Street/Virginia Court and various surrounding property accesses
- Connection to surrounding amenities Such as Hanover Street Primary School, Aberdeen Community Health and Care Village, Frederick Street Car Park, Aberdeen Mosque and Islamic Centre
- The broader local road network such as the existing roundabout, Commerce Street, Park Street, Justice Street, Beach Boulevard, East North Street and King Street

On completion of the junction improvements, the option will maintain existing access to all business, property, amenities.

5. Objectives

List the project's objectives. Make these tangible and clear as they will influence which option is recommended and will be used to monitor project progress and success.

To inform the objective setting, the aims and objectives of the CCMP and BDF were reviewed. The final OBC objectives are therefore informed by, and enablers for, the wider CCMP and BDF objectives.

The project objectives are:

- 1. Improve pedestrian, wheeling and cycling connectivity
- 2. Improve access for all
- 3. Improve public transport connectivity
- 4. Optimise the traffic network performance
- 5. Optimise Network Resilience

	SMART Performance Measure		
Objective	Measure	Method of Analysis	
	Reduce walk distances through the junction	Total distance comparisons	
Improve pedestrian,	Reduce walk time between City Centre and Beach through junction	Point to point journey time comparison	
1 wheeling and cycling connectivity	Optimise greentime/frequency of non- motorised movements through junction	Total cycle green time comparisons	
	Increase segregated cycle crossings	No. of arms connected by seg. cycle crossings	
	Reduce walk distances through the junction	Total distance comparisons	
2 Improve access for all	Reduce required level changes	Comparison against existing provision	
	Reduce the number of remote pedestrian crossings	Comparison against existing provision	
	Reduce bus journey times between Union Street (CCMP) and Beachfront	Existing vs Option (Paramics model analysis)	
3 Improve public transport	Improve journey time reliability between Union Street (CCMP) and Beachfront		
connectivity	Accommodate future bus movement between Justice Street and Beach Boulevard	Suitability for potential bus routes through Justice Street	
Optimise the	Assessment of journey times on key routes through the junction	Existing vs Option (Paramics model analysis)	
4 traffic network	Assessment of any localised congestion on approaches to the junction		
performance	Assessment of general network wide journey times and delay		
Ontimico	Public transport resilience (e.g. displacement of buses on to harbour route)	Informed by Paramics model analysis on network performance and wider considerations on Option Design	
5 Network Resilience	General traffic resilience (e.g. accommodate incident in traffic network)		
	Provide emergency vehicle access in all		

The performance of all assessed options against the SMART objectives can be found in *A956 Beach Boulevard Roundabout Option Appraisal Report (SYSTRA Ref: GB01T22C81/011222, March 2023*), with the final appraisal score set out in Section 7.

6. Scope

What will the project produce? What are its outputs?

Consider what business services, processes, people and environments will be delivered, affected or changed by the project.

Also define the work the project will carry out to make the transition from the project to 'business as usual' – the handover period.

State the project success criteria.

The focus of this OBC is a five-arm roundabout in Aberdeen city centre connecting the key routes of East North Street (A956), Commerce Street and Beach Boulevard while also incorporating Justice Street to the south-west (and links to Castlegate/city centre) and Park Street to the north.

The OBC sets out the preferred option that delivers a range of junction improvements to provide better walking, wheeling, cycling and public transport connectivity between Aberdeen City Centre and the Beach. This in turn has the potential to deliver a shift to more sustainable modes of transport for journeys between the city centre and beachfront with associated air quality improvements and carbon reduction benefits.

Preliminary design has been undertaken as part of the OBC development. Further engineering assessments and detailed design will follow, subject to approval of the OBC, and will provide further information on benefits, risks and challenges of delivering the preferred option.

A successful preferred option will deliver against the 5 study objectives (listed in Box 5).

6.1 Out of Scope

List any notable exclusions, those areas that may be viewed as associated with the project or the affected business area, but which are excluded from the scope of the project.

The sole focus of this OBC is the A956/Beach Boulevard/Justice Street Roundabout. While cognisance was taken of ongoing CCMP and BDF proposal, any such proposals are not in the scope of this OBC.

In considering viable options to improve the roundabout, the DMRB Stage 2 Engineering Assessment examined four possible options:

- An at-grade solution
- A new pedestrian and cycle overbridge connecting Justice Street and Beach Boulevard
- A tunnel option to move general traffic to below ground-level
- Upgrading of existing footbridge (over Commerce Street)

The assessment concluded an at-grade solution to be the most favourable solution to meet the needs and objectives for junction improvements.

The new overbridge and tunnel options would include significant constructability challenges presented through drainage, groundworks, pavement design and utilities and would incur significant costs.

While a lower cost option, enhancements to the exiting overbridge present some similar constructability challenges and would deliver an option that fails to meet the majority of study objectives.
7. Options App	raisal
7.1 Do Nothing	
Description	Do nothing
 7. Options Ap 7.1 Do Nothing Description Expected Costs Expected Benefits Risks Specific to this Option 	£0 additional capital cost. Road maintenance costs will continue to be covered through existing budget.
	No cost option.
Expected Benefits	Range of disbenefits including continued disconnect, particularly for walking, wheeling and cycling, between the City Centre and the Beachfront.
	As noted above, the future operation of the junction is crucial to facilitating better connections between the City Centre and Beach Masterplans and therefore without appropriate intervention the full benefits of the wider CCBMPs are unlikely to be realised.
to this Option	Reputational risk to the Council if this particular link (identified as a problem through consultation and engagement) is not addressed and, more widely, if the Council is seen not to be pursuing improvements to encourage more active and sustainable travel, enhance accessibility and support carbon reduction targets.
	Advantage - There is significant cost avoidance and disruption.
Advantages & Disadvantages	Disadvantage – Missed opportunity to support the achievement of the City Centre and Beach Masterplan objectives. Challenges around limited pedestrian/cycle connections and accessibility will not be addressed.
Viability	No new actions required and is therefore viable.
Other Points	Not only does this option not fit with CCBPM objectives, it also does not align to wider local, regional and national polices and strategies adopted by ACC.



	Departure from design standards possible
	 Potential detailed design risk if required departures impact on the safety of users
Risks Specific	 Detailed design may also highlight issues for current Abnormal Load route
	 Quality risks - including insufficient ACC resource to deliver the project
	 Traffic management issues including short to medium-term disruption to businesses and displacement of traffic flows
	Advantages
	 Provides improved walking and wheeling connections on all arms, with reduced walk distances and times
	 Remote crossings (closer to desire lines than existing situation) are activated by the user, giving short wait times and improving user experience
	• Pedestrian crossing dwell areas are larger than existing provision to provide safer, more comfortable space to wait (and cater for high volume pedestrian events)
	 Crossing points on Commerce St and East North St are traversed in one single movement - no need for pedestrians or cyclists to wait in a central reserve
	 New segregated cycle connections provided between all arms.
	 New cycle infrastructure connects CCMP and BDF segregated cycle lanes through the junction
	 Likely to lower speeds of vehicular traffic and improve overall safety and experience for non-motorised users
Advantages & Disadvantages	 Performs well against the policy objectives to prioritise active travel over vehicular movements
	 Bus journey times and journey time reliability maintained
	 Accommodates future bus route improvements (e.g. through Justice Street/Castlegate)
	 Little impact on general traffic queueing or journey times (retains optimum capacity of a roundabout)
	 Maintains access to/from all arms for general traffic
	 Maintains access to/from Aberdeen Harbour
	 Capital and Revenue Costs contained to junction area i.e. no wider network implications expected
	Disadvantages
	 It may be considered confusing for some users. For example, pedestrians crossing multiple cycle lanes
	 Access to Justice Street for delivery vehicles or service vehicles may be limited and impact businesses/residents
	Short to medium-term disruption to local access

Viability	A DMRB Stage 2 Engineering Assessment has been undertaken and concluded a new at-grade solution at this location to be viable, subject to detailed design standards. The DMRB St2 Assessment included assessment of: • Engineering constraints • Vertical & horizontal alignments • Drainage & SUDS • Structures • Ground Conditions & Earthworks • Utilities • Constructability
Other Points	 Delivery Timeline: Construction Q2 2024 – Q2-2026 Assumptions: The traffic and economic modelling assumptions are detailed in supporting appendices and Section 18. Constraints include: Material availability sufficient manpower in terms of deliverability consideration of utilities maintained service, emergency, and delivery vehicle access Business continuity & resident access

7.3 Option 4 – S	Signalised Junction
Description	 Signalised outcion Signalised junction with banned right turn from Commerce St to Beach Blvd and Park St NB only (from East North St) Vehicles from the south of the city travelling to the beach area signed to route via Cotton St/Miller St No vehicular access from Justice Street to Beach Blvd (achieved via Cotton St/Miller St) Enhanced pedestrian and cycling connections through the junction with segregated cycle lanes connecting Justice St & Beach Blvd, with possible provision to other arms
Expected Costs	A total cost estimate is set at £12,282,000. At this stage, the cost estimate is the same as Option 1 given the uncertainties as set out in Section 18. It should be borne in mind however, that this does not include costs for any wider network improvements that may be requires as a result of this option, as these have not been fully identified at this stage of the assessment. The costs of such works may considerably increase the overall costs to deliver this option.
Expected Benefits	Non-monetised benefits are set out in Section 8.

Risks Specific	 Wider deliverability risks and considerations: E.g. impacts on the Virginia St/Castle Terrace junction and Cotton St/Links Rd junction, likely to require additional junction upgrades at these locations; the use of wider network a requirement to deliver option Capital and Revenue costs wider than junction itself: E.g. Cotton St/Links Rd if signalised, maintenance of road surfaces / lighting / parking enforcement if traffic volumes increase
to this Option	 Signing private cars from the south to arrive at the Beachfront at Cotton St/Links Rd may impact planned BDF proposals: E.g. increase in traffic arriving at Urban Park
	 Quality risks - including insufficient ACC resource to deliver the project
	 Traffic management issues including short to medium-term disruption to businesses and displacement of traffic flows.
	Advantages
	 Provides improved walking and wheeling connections on all arms, with reduced walk distances and times
	 4 stage signalised junction with all round pedestrian stage with a significant % of proposed cycle time attributed to pedestrian stage.
	 All crossing contained within junction
	 New segregated cycle connections provided between all arms
	 New cycle infrastructure connects CCMP and BDF segregated cycle lanes through the junction
	 Performs well against the policy objectives to prioritise active travel over vehicular movements
	 Bus journey times and journey time reliability maintained
Advantages & Disadvantages	 Accommodates future bus route improvements for westbound bus movements on Justice Street/Castlegate
Diodavantagoo	 Little impact on general traffic queueing or journey times (minimal impact of signalising junction)
	 Maintains access to/from Aberdeen Harbour
	 Maintains Abnormal Load route
	Disadvantages
	 The option requires the use of wider transport network and therefore introduces several associated risks as listed above
	 Justice St to Beach Blvd movement also removed (low volume movement) with route also via Cotton St/Miller St
	 Access to Park St from the junction restricted. Only accessible via East North St. This restricts direct access from south to the Healthcare Village on Frederick St (other routing available)

Viability	A DMRB Stage 2 Engineering Assessment has been undertaken and concluded a new at-grade solution at this location to be viable, subject to detailed design standards. The DMRB St2 Assessment included assessment of: • Engineering constraints • Vertical & horizontal alignments • Drainage & SUDS • Structures • Ground Conditions & Earthworks • Utilities • Constructability
Other Points	 Delivery Timeline: Construction – Q2 2024 – Q2 2026 Assumptions: The traffic and economic modelling assumptions are detailed in supporting appendices and Section 18. Constraints include: Material availability sufficient manpower in terms of deliverability consideration of utilities maintained service, emergency, and delivery vehicle access Business continuity & resident access

7.4 Scoring of Options Against Objectives

Use the table below to score options against the objectives in order to create a shortlist of options to be considered.

Objectives	Options Scoring Against Objectives								
Objectives	Do Nothing	1	4						
Improve pedestrian, wheeling and cycling connectivity	0	3	3						
Improve access for all	0	2	2						
Improve public transport connectivity	0	2	2						
Optimise the traffic network performance	0	1	1						
Optimise Network Resilience	0	2	2						
						·			
Total	0	10	10						
(use F9 function key on each total to add the numbers in th	e column <highlight< td=""><td>t 0 in Total</td><td>column before p</td><td>pressing to update>)</td><td></td><td>-</td></highlight<>	t 0 in Total	column before p	pressing to update>)		-			
Ranking	2	1=	1=						

Page 512

Scoring

Fully Delivers = 3Mostly Delivers = 2Delivers to a Limited Extent = 1 Does not Deliver = 0Will have a negative impact on objective = -1

7.5 Recommendation

Using evidence based on the options appraisal and the objectives scoring, clearly articulate the recommended option, showing the best fit against the project's stated objectives, and balancing cost, benefits and risk. Note, if an option fails to deliver any essential objective then it must be discounted as unsuitable. The recommendation should not be made on objectives scoring alone but the table can be used to eliminate those options that score poorly as a first stage, with the second stage being a more detailed analysis of the remaining options. Bear in mind:

- Investment Appraisal •
- Assumptions ٠
- Constraints •
- Dependencies •

Option 1 and Option 4 achieved comparable scores against all appraisal criteria with both expected to deliver significant positive benefits against the study objectives. The full option appraisal and testing process is detailed within the supporting STAG report.

Following a consideration of both options and their appraisal outcomes, the CCMP Board recommended Option 1 be progressed as the final preferred option to Outline Business Case (OBC).

On consideration of the benefits and potential risks of each option, as set out above, the risks associated with Option 4 are considered to be more significant than those seen in Option 1. In particular:

• Longer-term deliverability risk associated with Option 4

The successful delivery of Option 4is dependent on the wider road network, particularly the area to the south and east of Beach Boulevard and Commerce Street. The option proposes the use of Cotton Street and/or Miller Street as alternative routes to the beachfront area for vehicles travelling from southern areas of the city (or wider). To deliver this, each new route would have to be improved (e.g. junction access, local access, carriageway standards, parking provision, signage etc.). The existing junction of Commerce Street/Virginia Street/Castle Terrace and the new requirements for a junction at Cotton Street/Links Road in particular are highlighted as key risks to deliverability.

Conversely, the footprint of Option 1 is solely contained within the existing junction area. Its delivery is not dependent on wider network use and the challenges this may bring.

• Higher Capital and Revenue Costs of Option 4

Through use of the wider network and above considerations, Option 4 is likely to have higher Capital costs than Option 1. Revenue costs would also be expected to be higher for Option 4 due the ongoing maintenance requirements of the alternative routes and junctions. These additional costs have not been quantified at this stage of the assessment, hence why the options are assigned similar high-level costs in section 7 (based on DMRB assessment of a generic at-grade solution), but could be significant.

• Potential impact on BDF redline boundary at Cotton Street/Links Road

The use of Cotton Street as an alternative route to the beach in Option 4 would require the Cotton Street/Links Road junction to be upgraded. The appraisal and modelling to date has assumed a solution is likely to be feasible (e.g. new roundabout or signalised junction). However, it is addition to a feasible solution, it is likely that any solution would encroach the red line boundary of the BDF at a location in the heart of the proposed urban park (i.e. Links Road).

8. Benefits

In the tables below, identify the key benefits the project will deliver.

All benefits need to be measurable, realistic and have a baseline or comparable starting point. These benefits will be monitored during and after the project close to gauge project success and value for money. If a benefit is more subjective, then that should be supported by, for example, staff or customer surveys taken **before and after** the project.

Give an idea of the total financial benefits, if these exist.

List any dis-benefits where appropriate, e.g. the loss of a disposal receipt where it is proposed to utilise a surplus building instead of selling it.

8.1 Customer Benefits										
Benefit	Measures	Source	Baseline	Expected Benefit	Expected Date	Measure Frequency				
Improvement in conditions for walking, wheeling and cycling journeys through the A956/Beach Boulevard Junction	Number of people walking and wheeling through the junction. Number of people cycling through the junction.	Automatic pedestrian and cycle counters	To be benchmarked during detailed design stage	Increase in numbers walking and cycling through the junction	Upon Scheme Delivery	Annual				
Improvements to accident rates at the A956/Beach Boulevard Junction	Accident Assessment: Reduction in volume of accidents in and around the junction rather	Department for Transport's Cost and Benefit to Accidents (COBALT), CrashMap	To be benchmarked during detailed design stage	Reduction in the number of accidents	Upon Scheme delivery	Annual				

A956-Beach Bouelvard Roundabout Outline Business Case.docx

Better place to live, work and	Not quantifiable.			
invest. Improvements in physical				
health and wellbeing				

8.2 Staff Benefits									
Benefit	Measures	Source	Baseline	Expected Benefit	Expected Date	Measure Frequency			
Improvements to quality of active travel connections between the city centre and beachfront. Potential to improve commuting journey and increase health benefits for Council staff.	An increase in the proportion of staff walking to work. An increase in the proportion of staff cycling to work.	Staff travel survey	Walk to work – 11.4% Cycle to work – 4.1%	Increase in the proportion of staff walking and cycling to work.	Upon scheme completion	Biannually			

8.3 Resources Benefits (Financial)										
Benefit	Measures	Source	Capital or Revenue?	Baseline (£'000)	Saving (£'000)	Expected Date	Measure Frequency			
Not applicable										

9. Costs

Use the tables below to provide cost information. Costs must include capital investment and where relevant any ongoing revenue costs incurred by the project or as a result of the project.

The source/basis of any estimates should be clearly identified.

Refer to the Government Green Book and the Supplementary Guidance on Optimism Bias for information on determining costs. Outline any assumptions in estimating costs in Section 17, **and** confirm in the Checklist that you have followed this guidance.

Green Book Supplementary Guidance Optimism Bias

The Green Book 2022 (HM Treasury Guidance)

To improve the design development process for capital projects there is a need to consider full life cycle costs, including maintenance. Therefore, costs should be considered at least over a 5-year period. It is an estimate of the resources and capabilities (people, physical resources, and funding) needed to deliver the project and sustain the benefits. The estimates need to cover both the direct project costs and the ongoing (business as usual) costs for the lifetime over which the benefits are to be considered.

Include information on where the budget will come from.

Full costs breakdown to be included.

Any impact on business as usual or service delivery.

9.1 Project Capital Expenditure & Income											
(£'000)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Staffing Resources											
Land Acquisitions											
New Vehicles, Plant or Equipment											
Construction Costs	12,282										
Capital Receipts and Grants											

	Sub-Total	12,282									
--	-----------	--------	--	--	--	--	--	--	--	--	--

High-level cost estimates of Year 1 Project Capital Expenditure & Income. To be fully identified during detailed design. All costs subject to assumptions set out in Section 17.

9.2 Project Revenue Expenditure & Income											
(£'000)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Staffing Resources											
<add cost="" each="" heading="" items="" under=""></add>											
Non-Staffing Resources											
Revenue Receipts and Grants											
Sub-Total											

No costs associated with Project Revenue Expenditure & Income identified at this stage. To be identified during detailed design

9.3 Post- Project Capital Expenditure & Income												
	(£'000)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Staffing Resources												
<add cost="" each<br="" items="" under="">heading></add>	I											
Land Acquisitions												
New Vehicles, Plant or Equipment												

-

Page 518

A956-Beach Bouelvard Roundabout Outline Business Case.docx

Construction Costs				
Capital Receipts and Grants				
Sub-Total				

No costs associated with Post- Project Capital Expenditure expected. To be confirmed during detailed design

9.4 Post- Project Revenue Expenditure & Income											
(£'000)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Staffing Resources											
Add cost items under each heading											
Non-Staffing Resources											
Revenue Receipts and Grants											
Sub-Total											

No additional costs associated with Post- Project Revenue Expenditure expected. To be confirmed during detailed design

10. Key Risks	
Description	Mitigation
Fully explain any significant risks to the project that you are aware of, especially those which could affect the decision on whether and in what form the project goes ahead. Append your full Risk Log if available.	Details of any mitigating action already taken or suggested.
Departure from design standards expected, particularly on entry/exit radii of Commerce Street, Justice Street and East North Street. Departures expected due to reduced size of the roundabout and limited space for the three arms noted above. Potential detailed design risk if required departures impact on the safety of users.	Cognisance of design standards during detailed design and their impact on the use of the junction for all modes. For example, a departure from standards may enforce lower traffic speeds which could have positive benefits for other non-motorised users
Detailed design may highlight issues for current Abnormal Load route	Overrun areas expected for some larger vehicles. The use of the junction by abnormal loads to be carefully managed during detailed design.
Access to and from Justice Street for some larger vehicles may be restricted	Access challenges for HGVs (uncommon) and Buses to be confirmed at detailed design stage. Preliminary design checks suggest a viable solution can be found. Checks also confirmed access for smaller vans and refuse vehicles (more common vehicle types) will be maintained.
Project costs/inflation escalating over and above available funding. Consequences - Financial risk to ACC with the possibility of an undeliverable project	Have regular budget reviews at client and design team level, ensure clear briefs are issued to the project team and ensure a robust project management structure is in place. Include an appropriate inflation allowance
Unforeseen buried services and structures	Risk transfer through surveys to identify buried services and structures
Cost and time over-runs	Diligence and project management arrangements

11. Procurement Approach

If this project will involve the procurement of products or services, describe the approach that will be taken based upon the recommended option.

The Design Teams must conduct a check on the Health & Safety track record on tender documentation and submission prior to award and confirm this has been done.

The project will be delivered by hub North Scotland Ltd, ACC's strategic development partner for the planning, procurement and delivery of community-based infrastructure projects across the north of Scotland. Hub North Scotland comprises 16 public sector organisations, the Scottish Futures Trust and private sector partners in a joint venture company known as a hubCo with the purpose of working collaboratively to deliver inspiring projects for communities and best value for participants. Aberdeen City Council are one of these public sector organisations and have been part of the hub initiative since 2011.

The key purpose of the hub initiative is to establish a long-term partnering relationship between hubCo and Aberdeen City Council and to procure the provision of appropriate infrastructure and related services involved in providing Community Services with the aim of: a) improving the efficiency of delivery of community-based facilities; b) delivering economies of scale through shared facilities; c) making the best use of public resources; and d) providing continuous improvement in both cost and quality in public procurement.

Hub North Scotland's dedicated supply chain members are working collaboratively with Aberdeen City Council to develop, design and deliver all projects within the ACC City & Beach Vision programme. All procurement is carried out in strict compliance with Hub North Scotland's Project Delivery Method Statement with a completely open book approach to project costs which is continually benchmarked and reviewed to maximise efficiency, accountability and demonstrate continuously improving value for money. The Hub North Scotland supply chain is structured to include both local and national partners maximising economies of scale whilst providing opportunities to local companies. Project development plans have specific focus on community and stakeholder engagement to maximise outcomes for end users.

12. Time

12.1 Time Constraints & Aspirations

Detail any planned or agreed dates, any time constraints on the project or the affected business areas and any other known timescales.

This project is planned to achieve OBC in April 2023 following which it will follow the same delivery timelines as the Phase B elements of the Public Realm Beachfront Projects, an FBC is planned for April 2024 and construction from Q2 2024 to Q2 2026.

12.2 Key Milestones

Outline Business Case.docx

De	scription	Target Date			
OBC		April 2023			
FBC		April 2024			
Contract Close		April 2024			
A956-Beach Bouelvard Roundabout	Project Stage: OBC	Page 31 of 41			

Construction	Q2 2024- Q2 2026

13. Governance Include any plans around the ownership and governance of the project and identify the people in the key project roles in the table below. Role Service Name **Project Sponsor** Chief Officer – Commercial & Craig Innes Procurement **Project Manager** Crawford Ferguson Hub North / MML Load Designer David Murtagh Hub North/ SVSTDA

Leau Designer	Daviu Murtayn	
Landscape Designer	Pol MacDonald	Hub North/Open

14. Resources

List the staff resources and expertise required to implement the project. Ensure support services are included, such as Project Management, Legal, Procurement and Communications.

Task	Responsible Service/Team	Start Date	End Date
N/A			

15. Environmental Management

Fully explain any impacts the project will have on the environment (this could include, eg, carbon dioxide emissions, waste, water, natural environment, air quality and adaptation). Include both positive and negative effects and how these will be managed. Include details on how this has been assessed, giving an idea of the cost implication if this exists.

The DMRB Stage 2 Assessment included an environmental assessment, in accordance with DMRB LA 104, with a requirement to:

- Identify environmental factors which are likely to result in significant environmental effects
- Establish where sufficient uncertainty for significant environmental effects remains
- Provide recommendations for potential mitigation measures to minimise negative environmental effects, where required.

The following environmental factors were considered:

- Air quality
- Cultural heritage
- Landscape and visual effects
- Biodiversity

Project Stage: OBC

- Geology and soils
- Material assets and wastes
- Noise and vibration
- Population and human health
- Road drainage and the water environment
- Climate.

No significant environmental effect was identified for any criteria, but it was noted that a more detailed assessment is required as the option progresses through design and on to construction. Full details can be found in *Aberdeen Beach Boulevard Ecological Appraisal Desk Study (Mabbett for SYSTRA, Mabbett Ref: 3122221, March 23).*

	Yes	No
Is a Buildings Checklist being completed for this project?		\mathbb{X}
If No, what is the reason for this?		
Project does not involve the construction of a new building		

16. Preserving Our Heritage

Describe fully any impacts the project will have on the heritage of the city or more widely in the region or nationally. This could include but is not exclusive to the following examples:

- Specific historical items of interest;
- Features of significant local or regional importance/interest;
- Granite elements of existing structures.

Include both positive and negative effects and how these will be managed.

Include details on how this has been assessed, giving an idea of the cost implication if this exists.

The CCMP aims to transform Aberdeen city centre while conserving its proud heritage. The goal is greater prosperity and a better quality of life for all. The BDF sets a vision and key design principles for a world class sport, leisure and tourism destination which would revitalise the historic Beachfront area and reconnect it to the city centre.

The proposed junction measures will provide significant improvements to walking, wheeling and cycling connections between the city centre and the beachfront. Encouragement of sustainable modes of travel may reduce traffic and congestion in the city centre and elevate the future attractiveness of regionally significant sites such as Union Street and the Beach and help deliver transformational changes to Aberdeen.

As noted above the DMRB Stage 2 Assessment included an impact assessment on Cultural Heritage, with no significant impact anticipated. Full details are provided in *Aberdeen Beach Boulevard Ecological Appraisal Desk Study (Mabbett for SYSTRA, Mabbett Ref: 3122221, March 23).* The junction is outside of the City Centre Conservation Area but bounds it to the west of the study area. Care will need to be taken during construction to ensure assets are protected.

17. Stakeholders

List the key interested individuals, teams, groups or parties that may be affected by the project or have an interest in it, including those external to the organisation. Show what their interest would be and their level of responsibility. Also note any plans for how they will be engaged including the use of any existing communication channels, forums or mechanisms already in place.

In the event the Business Case projects a total capital expenditure of more than £10 Million, stakeholders should include "ACC Bond Investors" who may require to be communicated with through the London Stock Exchange.

Throughout the appraisal process to identify the preferred options, the ACC study team (officers) have been closely involved in all steps and at key decision points. Regular bi-weekly liaison meetings have also been held with the CCMP and BDF teams and these have included outcome reviews from the extensive public and stakeholder engagement undertaken in 2022 for each masterplan. Given this extensive body of engagement for the CCMP and BDF, it was decided that no formal consultation on the junction options would take place prior to the submission of the OBC.

However, as part of options appraisal process, a review of key consultation outcomes from the CCMP and BDF engagement exercises was undertaken, and this confirmed that no conflicts occurred between these outcomes and the preferred option proposals.

As the Full Business Case for the junction is developed, opportunities will be available for all to be informed and take part in consultation on current proposals for junction improvements at A956/Beach Boulevard roundabout.

Key stakeholders are:

- ACC
- Nestrans
- North-East Sensory Services (NESS)
- Disability Equity Partnership (DEP)
- Aberdeen Inspired
- Aberdeen and Grampian Chamber of Commerce
- First Aberdeen
- Stagecoach
- Freight Transport Association
- Road Haulage Association
- Aberdeen Cycle Forum (ACF)
- Grampian Cycle Partnership (GCP)
- Aberdeen Harbour Board
- Aberdeen Taxi Trade
- Police Scotland

Project Stage: OBC

- Scottish Fire and Rescue
- Scottish Ambulance Service
- Appropriate Community Councils
- Appropriate MPs and MSPs

18. Assumptions

Document the high-level assumptions that have been made during the development of the Business Case and any other unanswered questions that may be significant. Refer to the Supplementary Guidance on Optimism Bias and detail the assumptions you have made in constructing the costs and business case.

Green Book Supplementary Guidance Optimism Bias

Cost Estimate Assumptions

Element	Costs (£)
Civil Works	£5,000,000
Preliminaries	£1,500,000
Contingency Factor	£2,860,000
Fees (Design & Contractor)	£818,000
Indicative Construction Costs	£10,178,000
Other Development Costs	£1,054,000
Inflation	£1,050,000
Total Project Costs	£12,282,000

The cost estimate provided in Section 7 comprises the following:

The indicative construction cost estimates were derived through a DMRB Stage 2 Engineering Assessment, are still high-level at this stage with a range of estimates provided due to uncertainties at this stage. The high-level construction costs are derived from the following:

Civil Works

The civil works sub-total contains the estimated cost for the construction works. Examples of the types of costs accounted for, but not limited to, are site clearance, fencing, road restraint systems, drainage, earthworks, pavements, kerbs footways and paved areas, traffic signs and road markings.

Preliminaries

Allowances for preliminaries have been estimated using a standard cost multiplier of 30% applied to the civil works sub-total for each option. This 30% is to account for a range of indeterminable factors relating to on site specific overhead costs such as traffic management and the erection of offices.

Contingency Factor

Optimism Bias is added to cover (to an extent) the costs for potential works which we cannot realistically estimate currently based on the stage at which the options are.

A figure of 44% has been attributed to the civil works and preliminaries in line with Green Book Supplementary Guidance Optimism Bias (Table 1, Capital Expenditure, Upper OB)

Caveats

The cost estimates outlined attempt to portray realistic estimates from all available information, with costs extracted from industry standard construction rates (SPONS Civil Engineering and Highway Works Price Book). It would be prudent to note that the figures quoted are based on limited information and high-level concept stage proposals. There are several unknowns related to the schemes, namely the exact location/depths of buried services with the potential requirement for diversion, ground conditions, drainage/flood risk, environmental impacts, land ownership, structures/retention, accommodation works and traffic management procedures.

Other Development Costs & Inflation

In line with parallel OBCs proposed for CCBMP, allowances for other development costs (statutory & survey fees, management fees) and inflation (2Q2025 mid-point of construction assumed) have been made.

Additional Assumptions

The technical work to identify the preferred option involved extensive traffic modelling, supported by additional Economic and Accident model assessments. The following modelling software was utilised, with each associated technical report providing full details on the assumptions made:

- Aberdeen Sub Area Model (ASAM19, Strategic Transport Model) and Aberdeen City Centre Paramics Model (ACCPM, Microsimulation Traffic Model): *Beach Boulevard and Junction Appraisal Phase 1 Testing Report (SYSTRA Ref: GB01T22C81/011222, January 2023*)
- TUBA (DfT's tool for assessing the user impacts and benefits of transport schemes) and COBALT (DfT's tool for assessing the accident impacts and benefits of transport schemes): *Beach Boulevard Stage 2 Traffic & Economics (SYSTRA Ref: GB01T22C81/280323, March 2023*)

19. Dependencies

Document any projects, initiatives, policies, key decisions or other activities outside the control of the project that need to be considered or which may present a risk to the project's success, or on which this project depends.

As noted above, the delivery of junction improvements at the A956/Beach Boulevard/Justice Street roundabout is dependent on the delivery programmes for:

- BDF, in particular the Beach Boulevard proposals
- CCMP, in particular the Justice Street proposal

20. Constraints

Document any known pressures, limits or restrictions associated with the project.

Over and above the project specific constraints identified in Section 4 above, the following issues could create constraints for the implementation of the project:

- **Traffic regulation orders and road consents**: all appropriate consents must be in place before construction work can commence
- **Material availability**: road surfacing materials and lighting materials must be obtained for use in the project construction phase. The Council should also ensure that these materials can continue to be sourced into the future as and when replacement work is required. The materials used should be consistent where possible with those used elsewhere in the city centre to limit future inventory costs
- **Workforce**: The Council and its contractor will need to ensure that sufficient workforce is available to deliver the project within the planned timescales
- Service, emergency and delivery vehicle access: Access for service vehicles (including refuse collection) and for emergency and delivery vehicles will need to be maintained at all times

• **Business continuity & resident access**: access will need to be maintained for local residents and for local businesses and their customers.

21. ICT Hardware, Software or Network infrastructure

List any new ICT systems or changes likely as a result of the project. If there are no ICT changes, then record as 'none'.

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

22. Change Controls Issued by the Project - None			
Date	Change Ref ID	Approval Route	Change Description

23. Support Services Consulted

The minimum consultation period for Outline/Full 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 <u>Equality and Human Rights</u> <u>Impact Assessment (EHRIA)</u> 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 – <u>Support Services Consulted Circulation List</u>

A956-Beach Bouelvard Roundabout	Project Stage: OBC	Page 38 of 41
Outline Business Case.docx		

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 <u>VCuthbert@aberdeencity.gov.uk</u> jelawson@aberdeencity.gov.uk		
Place	Chief Officer, Strategic Place Planning DDunne@aberdeencity.gov.uk		
Place	Chief Officer, City Growth <u>rsweetnam@aberdeencity.gov.uk</u>	No comments.	04.04.23
Operations	Chief Officer, Operations and Protective Services mareilly@aberdeencity.gov.uk	There seems to be inconsistencies of the options. There are three options (including the "Do Nothing". Suggest that this amended to make clearer. I currently favour the Option at 7.2 (Option 2 or Option 1?) but have some concerns about the ability for abnormal loads to travel this route. Supportive of progressing to FBC so that more information is available.	03.04.23
Operations (Facilities)	Andy Campbell, Facilities Manager AnCampbell@aberdeencity.gov.uk	No comments.	30.03.23
PMO Finance	PMO Programme Manager <u>RMacTaggart@aberdeencity.gov.uk</u> Scott Paterson, Finance Partner		
Asset Management	Alastair Reid, Team Manager alareid@aberdeencity.gov.uk	Supportive of progressing to FBC stage.	
Legal (Property/ Planning & Environment)	Ross Campbell/Alan Thomson roscampbell@aberdeencity.gov.uk alathomson@aberdeencity.gov.uk	No comments. Proposed route should be subject to the usual title checks to confirm Council ownership (and no 3rd party conflict).	04.04.23
Legal (Commercial & Procurement)	Michele Pittendreigh, Team Leader MPittendreigh@aberdeencity.gov.uk		
Legal	Elena Plews/ Fiona Closs/Vicki Johnstone <u>EPlews@aberdeencity.gov.uk</u> <u>FCloss@aberdeencity.gov.uk</u> <u>VJohnstone@aberdeencity.gov.uk</u>	Tracked comments/suggested changes added to the document	12.04.23
Procurement	Gillian Ross giross@aberdeencity.gov.uk	No comments to make until further discussion on procurement route.	30.03.23
ICT – Digital & Technology	Steve Robertson, Digital & Transformation Manager sterobertson@aberdeencity.gov.uk		
Design – Public Buildings	Neil Esslemont, Team Leader nesslemont@aberdeencity.gov.uk		
Grounds Maintenance	Steven Shaw, Environmental Manager stevens@aberdeencity.gov.uk	Numbering of the options under consideration to be clearer, otherwise no further comments.	29.03.23

Service	Consultee	Comments	Date
Communications	David Ewen, Communication & Marketing Manager DaEwen@aberdeencity.gov.uk		
HR	Lindsay MacInnes, People & OD Manager Imacinnes@aberdeencity.gov.uk		
Transportation Strategy and Programmes	Joanna Murray, Team Leader joannamurray@aberdeencity.gov.uk		
Place – TSAP	Nicola Laird, Senior Project Officer NLaird@aberdeencity.gov.uk		
Roads Management	Stuart Allan, Team Leader Technical <u>StuAllan@aberdeencity.gov.uk</u> Vycki Ritson, Team Leader Engineering <u>vritson@aberdeencity.gov.uk</u>		
Roads Projects	Alan McKay, Team Leader AlanMcKay@aberdeencity.gov.uk		
Emergency Planning Officer	Fiona Mann FioMann@aberdeencity.gov.uk		

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	Property Estates Manager <u>Estates@aberdeencity.gov.uk</u>		
Environmental Policy	EPConsultations@aberdeencity.gov.uk	I am content the environmental factors listed under section 15 Environmental Management have been addressed in line with DMRB LA 104. As you have stated more detailed assessments of environmental impacts/effects will be required as the option progresses through further design and onto construction. I would be pleased to comment further in due course.	13.04.23
Equalities	Baldeep McGarry/ Faiza Nacef equality and diversity@aberdeencity.gov.uk		
Planning	Local Development Plan Team LDP@aberdeencity.gov.uk Development Management PI@aberdeencity.gov.uk	No comments at this time.	04.04.23

24. Document Revision History			
Version	Reason	Ву	Date
2			

A956-Beach Bouelvard Roundabout Outline Business Case.docx

3		
4		

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

* Insert approval decision from Capital Board.

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Strategic Outline Case

Project Name	Beachfront Phase C Works & Coastal Management		
Sponsoring Cluster	Aberdeen City Council		
Senior Responsible Officer	Steve Whyte		
Gateway Review by Sponsoring Cluster The Sponsoring Cluster must confirm their support for the project and, crucially, have the resources necessary to deliver the project to conclusion.	Strategic Outline Case agreed Project scope modified – further options? Pilot exercise to test assumptions Postpone or abandon	Yes Yes Yes Yes Yes Yes Yes Yes	No No No No No

ACC Project Management Toolkit online

Contents

(F9 Function key will update contents after completion of document)

1.	Project Overview	2
2.	Business Aims, Needs, Objectives & Constraints	5
3.	Stakeholder Issues	14
4.	Management & Implementation	15
5.	Consideration of Options	16
6.	Costs, Benefits & Risks	17
7.	Funding & Affordability	18
8.	Assumptions	19
9.	Support Services Consulted	19
10.	Decision by Capital Board	21
11.	Document Revision History	21

A Strategic Outline Case (SOC) is a very brief preliminary document designed to introduce the basic project concept and identify key issues at the earliest stages of project development. It helps to assess whether it is worth committing resources to developing a more detailed Outline Business Case.

This proforma is designed to help officers complete a SOC using *appropriate and proportionate effort*. There is flexibility over the amount of information to be included under each heading below but note that the SOC is intended to be a very short document and should rarely exceed 10 or 12 pages.

1. Project Overview

Briefly describe the basic project concept.

The proposed project relates to the Beachfront Phase C Projects including the consideration of the long-term coastal management of the Aberdeen City coastline frontage.

The Beach Masterplan forms a critical part of the City's vision of the future, with the preservation of the coastline frontage a critical aspect to the long-term protection of this investment. The Masterplan looks to draw the public down from City Centre to the beachfront area, with the integration between beachfront intervention and future coastal management/ defence measures a crucial item to ensure a coherent solution to the City Coastline. This item was identified as a key aspect to the Beachfront Vision brief, where it was highlighted the need for Co-ordination with potential flood/sea defence works planned for the area.

The Beachfront Phase C Projects will incorporate 6 key elements:

- 1. Esplanade an enhancement of the public realm to create an active frontage along the length of the coastline.
- Boardwalk/ Pier a new structure that will become a focal point at the Masterplan's periphery, forming a new key public space between the Beach Boulevard, the Esplanade and the North Sea. A viewing point out to the North Sea.
- 3. Beachfront Interface regrading of the existing levels, by building over the existing lower sea wall through the creation of a series of ramps and walkways, making the beach accessible to all.
- 4. Satellite Facilities a series of facilities located at key points along the length of the Esplanade will provide toilet, change and shower facilities for all beach and water users, whilst utilising the elevation of these structures to create satellite observation decks.
- 5. Beach Village, Pavilion & Slipway the slipway will provide access to the Beachfront below the Esplanade which could potentially be utilised by both the RNLI to launch in-shore lifeboats as well as Jet Skiers. The northern section of the Beachfront would be supported by a new Pavilion incorporating an observation deck and supporting facilities for water users.

6. New Footdee Club House - a new Footdee Club House located at the very South of the beach front where the water is safest and could provide facilities for the Surf Club, Wild Swimmers and Surf Life Saving Club. The facility could provide various amenities, providing education space for safe water usage, with opportunities for an elevated observation deck at the most used part of the water.

The project will further look to review the Phase C Projects in relation to future coastal management as a considered integrated solution. The social, economic and wider impact of the coastal protection will be considered as part of the project. The project providing the opportunity to assess the coastal management strategy for the City, with the view to consider the short to long term vulnerable areas of the City coastal frontage.

The project is anticipated to incorporate future monitoring of the condition of defences that have been installed, along with the need for monitoring of coastal processes and behaviour being experienced. This combined with consideration to the development approaches to coastal management, which will vary from shorter to longer term strategy to the coastal defences along the length of the coastline. Aberdeen City Council are aware through monitoring and recent consultant studies of various problems relating to the changing development of coastal behaviour and existing coastal defences such as:

- Lowering beach levels which threaten the stability of the existing seawall with the area between Footdee and the Queens Links being the area of most immediate concern and other areas around the leisure centre and to the north likely to be affected similarly into the future.
- Lowering beach levels impacting on safe access to the beach.
- Worsening condition of the seawall requiring repair/ replacement in places. Most urgent area of concern is Footdee to Queen's Links.
- These issues will likely be worsened by the effects of sea level rise.

Aberdeen City Council are working towards developing a strategy for responding to coastal behaviour with future coastal management measures. It is important that the coastal management strategy takes account of the requirements of the local stakeholders and community and that the Beach Masterplan project recognises the need for its beachfront interventions to work effectively in the existing and future developing coastal environments and along with coastal management measures deployed.

Executive Summary:

Purpose

This Strategic Outline Case (SOC) will allow readers to understand the key considerations regarding the Beachfront Masterplan Phase C Works and how this relates to future Coastal Management through to an Outline Business Case (OBC) which will explore the recommended options identified within this report.

Strategic Fit

The City Centre and Beach Masterplan (CCBMP) 2022 provides a framework of development and direction that demonstrates a significant change in the way the city operates, with the planned Beachfront Phase C works forming a key component to the masterplan vision.

Aberdeen City Council are aware through their monitoring and consultant studies of a need for coastal management with actions being required in the short, medium and longer term. ACC are working towards the development of a strategy for future coastal management and are currently looking to develop an options appraisal for various possible coastal management options in the various sections along the coastal frontage.

Conclusion/recommendation

It is recommended that the Council Committee approve the following:

- The content of this Strategic Outline Case; and,
- The recommendation to proceed and undertake an Outline Business Case (OBC), which will consider the concept design for the Beachfront Phase C Project and the Coastal Management Strategy.

Project Delivery

The project delivery is expected to be developed through two separate procurement routes. The Beachfront Phase C Projects are anticipated to be procured through an expansion of the existing PMO Hub model as this will accelerate the procurement process and help to secure best value by providing access to Hub North Scotland Limited's (HNSL) supply chain network and project management resources. The approach will ensure continuity across the Beach Masterplan to assist in creating a coherent concept design that integrates with the wider masterplan architectural themes and an overall efficiency in delivery. The extension would ensure that the existing team of designer and consultants are retained through the next stage of the project delivery.

Whilst the coastal management strategy will be led by ACC SFC (structures, flooding and coastal) engineering team with external specialist support on the coastal behaviour and review of existing coastal defence measures. This will provide continuity to the coastal management, whilst retaining existing knowledge and experience that has been gained through the commissioned works to date.

The Beachfront Phase C Projects and the coastal management teams will be work closely together to ensure a one design approach is adopted, with the overall coordination between the two teams to be managed through the PMO.

Risks

The key risks are:

- Construction cost inflation exceeds current allowances and makes the project unviable.
- Management of the construction costs of the Boardwalk/Pier due to the unique nature of the design and structure.

- Unknowns relating to the coastal monitoring and existing coastal defence integrity and condition.
- Neighbouring properties and businesses object to development proposals
- Finance and delivery costs.
- Timescale for coastal management strategy not yet defined.

Assumptions

The key assumptions for developing Beachfront and Coastal Management are:

- The programme timeline is based on the Beachfront Phase C Projects including the consideration of the Coastal Management obtaining the required coastal surveys and monitoring within reasonable time periods.
- The project programme and strategy outlined in this SOC is based on achieving approval at the April Committee to take forward the project to Outline Business Case.
- The project delivery can be achieved within budget.

Governance and Sponsor

Craig Innes Chief Officer for Commercial & Procurement.

2. Business Aims, Needs, Objectives & Constraints

Provide an overview of the sponsoring organisation and explain how the project is strategically placed to contribute to the delivery of organisational goals within the Local Outcome Improvement Plan (LOIP) and the Local Development Plan (LDP).

Sponsoring Organisation

Aberdeen City Council is the local authority leading on the City Centre and Beach Masterplan and responsible for Coastal Management to the City Coastal Frontage.

Strategic alignment

The City Centre and Beach Masterplan (CCBMP) 2022 provides a framework of development and direction that demonstrates a significant change in the way the city operates, with the planned Beachfront Phase C works forming a key component to the masterplan vision.

Aberdeen City Council are aware through their monitoring and consultant studies of a need for coastal management with actions being required in the short, medium and longer term. ACC are working towards the development of a strategy for future coastal management and are currently looking to develop an options appraisal for various possible coastal management options in the various sections along the coastal frontage.

Business Goals and Aims

ACC's goals and aims for City Coastline are to:

- Beachfront Masterplan and Development Framework to create a transformational new waterfront destination for the City of Aberdeen.
- An integrated design solution that protects our City's long-term coastline whilst enhancing the beachfront to encourage public use.
- A people-focussed environment will be inclusive for all, creating a real community asset and bringing the 'Wow' factor back to the Beachfront.
- Create facilities that support the local community group growth.
- A focal point that defines the Beachfront as a destination in the area.
- Define a strategy for future coastline management.
- Successful maintenance of the beach and continued provision of coastal protection against coastal erosion and flooding through effective coastal management planning and implementation and maintenance of existing and future coastal management measures in alignment with a coastal management strategy.

Constraints and Dependencies

The project delivery is dependent on working collaboratively to develop a coherent OBC which meets the Masterplan vision for the Beachfront and aligns with the coastal management strategy. The two works streams along the coastline will need to be coordinated to achieve a clear solution.

The development of the OBC will require a series of coastal monitoring, structural and environmental surveys to be undertaken as part of the preparation. The outcome of this analysis is currently unknown and may lead to constraints within the design.

The evolving nature of the sea and coastline will require the coastal management to be flexible and continually revisited in the future to meet the varying needs.

Explain how the project supports the existing policies and strategies of the organisation and will assist in achieving the business goals, strategic aims, and business plans of the organisation.

The recommendation to undertake an OBC for the Coastal Management Strategy in relation to the Beachfront Concept Masterplan Phase C projects, will support numerous existing local authorities and strategies.

With regards to the Local Outcome Improvement Plan the project will support the following Stretch Outcomes:

- **Prosperous Economy Stretch Outcome 2.2** *Increasing the number of people in Aberdeen in sustained, fair work* – The proposal to develop a Coastal Management Strategy for the beachfront is crucial to implement a successful Beachfront Masterplan, which will in turn create both construction job opportunities and long-term employment opportunities.
- **Prosperous People (Children & Young People) Stretch Outcome 8.2** Ensuring that children and young people receive accessible information and opportunities to

engage and participate in decision making. – The Beachfront Concept Masterplan design has been subject to extensive public consultation whereby all community groups and local education facilities were involved to inform the proposed design.

- Prosperous People (Children & Young People Stretch Outcome 9.3 Tackling antisocial behaviour in problem areas with appropriate and effective interventions.
 The proposal supports the development of the Beachfront Masterplan which considers areas subject to antisocial behaviour and seeks to reduce this behaviour through intelligent street-lighting and landscape design.
- **Prosperous Place Stretch Outcome 14** *Increase sustainable travel: 38% of people walking and 5% of people cycling as main mode of travel by 2026* This proposal seeks to improve the beachfront by maintaining beach access for active travel, improve accessibility and permeability throughout Aberdeen City.
- **Prosperous Place Stretch Outcome 15** Addressing the nature crisis by protecting/ managing 26% of Aberdeen's area for nature by 2026 The provision of an OBC to determine the Coastal Management Strategy for the beachfront will enable further protection of coastal habitats, aligning with national ambitions to protect 30% of land and water species by 2030.

With regards to the Aberdeen City-Centre and Beach Masterplan, the proposal will support the following:

- The preparation of a comprehensive Beachfront Development Framework, following the approval of the DRAFT Beachfront Development Framework and Executive Summary (by Full Council in June 2022)
- The short, medium and long-term interventions summarised within the Beachfront Concept Masterplan and outlined in Section 2.3 below.

The project proposal to undertake a full OBC also aligns with the following Council policies/strategies:

- Aberdeen City Council Delivery Plan 23/24
- Local Development Plan

Establish a compelling case for change based on business needs, e.g., demand for services, deficiencies in existing provision etc. Where are we now and where do we need to get to?

Background

Previously the formed consultant team prepared a report to set out a high-level vision for developing Aberdeen Beachfront and inform the feasibility stage of the Aberdeen City Vision. A range of options for developing the Beachfront Concept Masterplan associated with Public Realm were previously presented to Aberdeen City Council Committee during 2021.

The Aberdeen City Vision project, including the development of the Aberdeen City Centre Masterplan and Beachfront Development Framework.

The Aberdeen Beachfront Development Framework is a companion document to the City Centre Masterplan and together they present an ambitious vision for the future of Aberdeen which will: "support a vibrant city centre and beach that respects and enhances Aberdeen's unique qualities and characteristics and puts people at its heart."

An option appraisal exercise was undertaken in late 2021 and the "Ropeworks" theme referencing the industrial heritage of Aberdeen Beachfront was selected. Further work was then undertaken to understand how this theme could deliver the facilities and venues desired by Aberdeen City Council and in February 2022 a report was presented confirming this. Following the February 2022 Council meeting, Officers were requested to begin development of the Beachfront based on this theme as part of a phased approach to project delivery.

The Phase C Projects form part of the phased interventions (projects highlighted in bold):

Short Term Interventions:

(1) New Urban Park: Play Park, Sports Area & Pump Track

- (2) Events Park: New Amphitheatre, Events Field, Gateway Building
- (3) Landscaping: Landscape Mounding
- (4) Broadhill: Public Realm & Landscaping
- (5) Reconfigured Beach Landscaping
- (6) Beach Pavilion Building

Medium Term Interventions:

- (7) New Canopy Features
- (8) Beach Ballroom Plaza
- (9) Broadhill (Structures)
- (10) Pedestrian Spine
- (11) Beach Boulevard

Longer Term Interventions:

(12) Beach Village

- (13) Beach Ballroom
- (14) New Stadium
- (15) New Leisure Facility
- (16) Boardwalk/Pier
- (17) New Slipway
- (18) Energy Centre
- (19) Justice Street Roundabout
- (20) Potential New Footdee Club House


Figure 1 – illustrates the Key Features of the Concept Masterplan

Aberdeen City Council recently engaged consultants HaskoningDHV to carry out a highlevel overview of the development of coastal behaviour and existing coastal management measures along the coastal frontage such as the ageing seawall, groynes and rock armour T-Heads installed at the Queen's Links Area in 2006.

The study, drawing principally on previous and available information, confirms the main conclusions from previous studies, identifying continued pressure and erosion on all sections of the Aberdeen coastal frontage. The most urgent area of concern is between Footdee and the 2026 rock armour groynes at Queen's Links. This area is suffering from continued erosion of the beach where low beach levels threaten the stability of the seawall structure. Erosion of the seawall itself is also a cause for concern in this area.

The rock groynes have been successful in maintaining beach level in this previously threatened area. However, the long-term outlook is of expected erosion and beach lowering which will be exacerbated by sea level rise with erosion issues likely become urgent in the Beach Ballroom/Leisure centre area and the northern frontage further into the future.

The report summarised several ways in which coastal management may be taken forward in future as follows:

- Reinforcement of the existing seawall with a rock revetment, or
- Through use of rock structures near the shoreline to modify the exposure, in conjunction with beach recharge. Further recharges may be required in the future.
- In the case of the leisure centre and northern frontages, another approach could be the use of a sand engine.

The report highlighted the need for a coastal management strategy as well as significant investment in future coastal management measures.

SFC intends to create a strategy for coastal management by means of a Coastal Change Adaptation Plan. SFC are currently scoping further consultancy services including an options appraisal to better develop and consider the feasibility of various coastal management approaches.

Progression of coastal management measures will require various statutory and public consultations in addition to outline and detailed design stages. Any options taken forward would also require committee approval and agreed funding.

SFC have recently engaged HaskoningDHV to provide a commentary on the initial design concepts for the beach masterplan coastal aspects including the boardwalk/pier, beach access, beach landscaping and potential future jetty to the north of this area. This will be shared with the masterplan design team.

Where are we now?

The Phase C Projects have been developed through to RIBA Stage 1 (Preparation and Briefing Stage), where the brief looks to build on the masterplan "Ropeworks" theme approved during the February 2022 Council meeting. The Report sets out the proposed Beachfront brief which has been developed in the line with the wider Masterplan and through a series of workshops with key stakeholders. The brief development looks to support the key objectives for the Beachfront.

In addition our SFC engineering team recently commissioned Royal HaskoningDHV as a specialist coastline and engineering consultancy company to provide a high-level overview past present and future of coastal behaviour and coastal management over the Aberdeen Coastal Frontage. The prepared Reports have considered the beneficial impact of the coastline defences including the works - that took place in 2006, whilst highlighting the need for future works to protect key areas of our City coastline.

This engagement has highlighted the benefits of a single approach, between the current and future projected coastal behaviour and management measures with the masterplan interventions, where the dual development in concept design, coastal survey works and monitoring will bring together a more coherent design solution along with a more economic and efficient process in development.



Figure 2 – Project Phasing Plan

Where do we need to get to?

As well as developing out a major key component of the City Centre and Beach Masterplan 2022 where Beachfront requires to integrate into the conceptual Masterplan which encourages a common architectural language across all development opportunities within the wider Masterplan area, creating a cohesive scheme that has been considered and designed as a whole. The project development will require to include a palette of durable and sustainable natural materials, with the use of locally sourced timber species native to Aberdeen, has been established throughout the previous Phase A Projects. The aesthetic of external materiality of the above Phase C projects will be in keeping with architectural language established in the developed Phase A Projects.

The Beachfront forms a key component of the masterplan, whilst it is important that this investment is aligned with the City's planned coastal management and long-term strategy. The project will seek to develop a strategy and concept design that coordinates the new interventions with the need for short to long term coastal management, the project will where appropriate, share coastal surveying and monitoring information to drive value for money in delivery and arrive at an efficient design solution.

As part of a coastal management strategy, the SFC engineering team will likely take the strategy forward in the form of a Coastal Change Adaptation Plan (CCAP) covering the full length of coast within the responsibility of ACC (i.e., Cove to Blackdog Burn). This will also include carry out options appraisals for short to long term coastal management at various sections of the coastal frontage, with the intend to progress through the outline and detailed design stages (including statutory and public consultation and consents stages) for coastal management in the most urgent area of concern, whilst considering the medium to long term management.

The proposed project delivery has been outlined to aid the development of a coordinated solution where the new Beachfront interventions will seek to support and where possible form part of the wider coastal management.

All the above opportunities will be addressed in more detail at Outline Business Case (OBC) stage.

Identify any constraints, e.g., timing issues, legal requirements, professional standards, planning constraints. Any linkages and interdependencies with other programmes and projects should be explained, especially where the proposed project is intended to contribute to shared outcomes across multiple Clusters.

The Beachfront Phase C Projects forms part of the Beach Masterplan and Development Framework, with the development of the design to be progressed within the parameters of these documents. An important aspect to ensure that Masterplan vision remains through, which will potentially lead to some budget or programme constraints.

Statutory planning and planning-related consents will be required for some of the Phase C works. While these are not required until the FBC stage of the project, their being required in the future means that they should be considered at the next OBC stage, including any early engagement with statutory authorities, in order to future-proof the process. As has previously been reported as part of the Aberdeen Beachfront Development Framework process and previous reports to City Growth and Resources Committee and Council, some of the works may either not constitute 'development' at all, or may benefit from 'permitted development' rights, falling under Part 12 'Development by a Local Authority' of the Town and Country Planning (General Permitted Development) (Scotland) Order 2011 (as amended). While design work will be progressed at the future OBC stage in order to further clarify the extent of development, the below seeks to set out the anticipated planning approval process for the constituent parts of the Phase C works.

Similar to the City Centre streetscape works, it has previously been agreed with Council planning officers that many public realm works do not constitute "development", for the purposes of the Town and Country Planning (Scotland) Act 1997 (as amended), Section 26 (2)(b) as they would be works carried out by the roads authority within the boundaries, and for the maintenance of improvement, of a public road, or where there would not be significant adverse effective on the environment. Where works did constitute 'development', it was also previously agreed that such public realm works would be 'permitted development' as they would fall under Class 31 of the General Permitted Development (Scotland) Order 2011 (as amended), which permits work by a roads authority for the maintenance or improvement of a road, or land adjoining the boundary of a road. This will likely be relevant to the anticipated public realm works within the '1 – Esplanade', and some elements of '3 - Beachfront Interface'.

Looking beyond public realm works and works to or adjacent existing public roads and footways, as previously reported, some other works would fall under Class 30 of the Order which permits:

The erection or construction and the maintenance, improvement or other alteration by a local authority of-

- (a) any building, works or equipment not exceeding 4 metres in height or 200 cubic metres in capacity on land belonging to or maintained by them, being building works or equipment required for the purposes of any function exercised by them on that land otherwise than as statutory undertakers;
- (b) lamp standards, refuse bins, public shelters and similar structures or works required in connection with the operation of any public service administered by them.

Given the provisions of Class 30 as above, a number of small-scale interventions along the Beachfront would fall under the terms of 'permitted development', where they are related to the improvement of that land for its retained purpose, which in this case would be open space and recreational activity related to the beach and water. This could particularly relate to '4 - Satellite Facilities' (e.g. Beach huts and associated changing facilities etc) where these are under 4m in height or 200 cubic metres.

The other elements of the Beachfront Phase C Projects are anticipated to require planning permission as they would constitute 'development' and would not be expected to fall under the 'permitted development' criteria outlined above, in relation to height or building volume. This would include '2 -Boardwalk/pier', '5 - Beach Village, Pavilion & Slipway', '6 - Footdee Club House' and items within '3 - Beachfront Interface' and '4 - Satellite Facilities' that don't fall under the 'permitted development' criteria noted above.

It should be noted that any developments greater than 5000m2 gfa (gross floor area) or a development area greater than 2ha would constitute Major development. While concept designs will come forward in the OBC stage, it is not anticipated that any of the 6 elements of the Beachfront Phase C Projects will breach these thresholds individually, and therefore it is not currently anticipated that any of these will be Major developments.

However, particular consideration is required of the Boardwalk/Pier and Slipway in relation to Marine Licensing in addition to planning permissions, given these are proposed for the 'intertidal zone'. As previously reported to Council, any works within Scottish waters of over 50m in length or 1000m2 are 'Licensable', which would include any Piers, marine construction works, or coastal protection works. Licensable works require a Pre-Application Consultation process similar to that required for Major planning applications, and require a Marine License consent from Marine Scotland Licensing Operations Team (MS-LOT). It would be the design team's intention to align any planning and licensing processes as much as possible. In addition, it has previously been discussed with Marine Scotland that the Boardwalk/Pier and Slipway would likely require an Environmental Impact Assessment (EIA) as part of both the planning and licensing processes. The consenting process and associated timescales and programming of these will need to be carefully considered as part of the future OBC process. As such, informal pre-application engagement with both Council Planning officers and Marine Scotland officers is strongly recommended during the OBC stage.

The table below outlines the currently-anticipated consents that would be required, or not as the case may be, for the six elements of the Beachfront Phase C Projects discussed within this paper. The detailed processes, requirements and programming of these will be further considered at OBC stage.

Not 'development'/	Planning Permission	Planning Permission &
'permitted development'		Marine License (likely
		including EIA)

1 - Esplanade 3 – Beachfront Interface (part) 4 – Satellite Facilities (part)	 3 – Beachfront Interface 4 – Satellite Facilities (part) 5 – Beach Village & Pavilion 6 – Footdee Club House 	2 – Boardwalk/ Pier 5 - Slipway	
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3. Stakeholder Issues

Identify the key stakeholders and explain their involvement. Indicate their level of commitment to the project as specifically as possible. Describe any consultations held or still required. Are there any outstanding stakeholder issues?

As part of the wider Beach Masterplan and Development Framework engagement, the Council has undertaking an engagement exercise involving local residents, community groups and businesses. This has included in early engagement with the key stakeholders within Aberdeen's Water Safety Group (AWSG).

The AWSG is formed with key groups including:

- Royal National Lifeboat Institution (RNLI),
- HM Coastguard, Royal Life Saving Society UK,
- Scottish Fire & Rescue Service,
- Police Scotland,
- Aberdeen Surf Life Saving Club (ASLSC) and,
- Sport Aberdeen.

The proposed Footdee Club House consideration has involved a series of engagement sessions with a variety of water sport groups included Free Swim Aberdeen (Wild Swimming), Granite City Surf Club, Scot Surf and Aberdeen Surf Life Saving Club as well as individuals for paddle boarding and kite surfing.

As part of the next phase this ongoing stakeholder engagement will continue to be a key focus in defining the concept design in more detail and ensure that the brief meets the needs of the public. In addition, we would anticipate the need for wider public consultation to be undertaken regarding the planned coastline defence works, with the extent and format to be defined as part of the OBC.



Figure 3 – Existing Water Usage Plan

Future coastal management measures along the Aberdeen coastal frontage have not yet been developed to a stage appropriate for consultation processes. Coastal Management schemes will have a significant impact on the beach, requiring a strong focus on consultation and statutory consents processes. Consultees could include the above and the following:

- Marine Scotland
- NatureScot
- Crown Estates Scotland
- Fisheries Groups

4. Management & Implementation

Give a preliminary indication of the proposed project management structure and key personnel. Is any consultancy support likely to be required? Identify accommodation, staff, and Trade Union issues. Describe any legal, contractual or procurement issues. Are there any important outstanding management/Implementation considerations?

The Phase C projects will be delivered by hub North Scotland Ltd (HNSL) who are a strategic development partner for the planning, procurement, and delivery of community-based infrastructure projects across the North of Scotland. HNSL comprises 16 public sector organisations, the Scottish Futures Trust and private sector partners in a joint venture with the purpose of working collaboratively to deliver inspiring projects for

communities and best value for participants. Aberdeen City Council are one of these public sector organisations and have been part of the hub initiative since 2011.

HNSL's dedicated supply chain members are working collaboratively with Aberdeen City Council to develop, design and deliver all projects within the City Centre and Beach Masterplan. All procurement will be carried out in strict compliance with its Project Delivery Method Statement with an open book approach to project costs which are continually benchmarked and reviewed to maximise efficiency, accountability and demonstrate continuously improving value for money. Hub's supply chain is structured to include both local and national partners maximising economies of scale whilst providing opportunities to local companies. Hub's project development plans have specific focus on community and stakeholder engagement to maximise outcomes for end users.

The coastal management strategy will be considered through our internal SFC engineering team with the support of a specialist marine engineer to assist. These services to date have been fulfilled by Royal HaskoningDHV.

Under the HNSL management, they will liaise with the SFC engineering team, to correlate a solution that meets the combined goals and aspirations for the City Coastline.

5. Consideration of Options

Provide an initial list of options identified that could meet the objectives and briefly describe their main features (consider variations in scale, quality, technique, location, timing etc).

NB: A preferred option should not be identified before options have been developed and appraised more fully at the Outline Business Case stage.

Detail any planned or agreed dates, milestones, completion dates, required delivery deadlines or other time constraints on the project or the affected business areas.

'Do Nothing'

The Beachfront Phase C Projects form an integral part of the Beach Masterplan, with the project elements forming a critical part of the City Vision which would detract from overall impact. The removal of the Project element would potentially lead to areas of redesign and revisiting of the masterplan design.

Project Proposal subject to this SOC

The Beach Masterplan has considered the brief options in relation to the Beach Masterplan Phase C Works through the preparation of a RIBA Stage 1 Report. The report considers the introduction of the several public realm interventions to the City Coastline including:

- 1. Esplanade, Boardwalk/Pier,
- 2. Beachfront Interface (Permanent works),
- 3. Satellite Facilities,
- 4. Beach Village,
- 5. Pavilion & Slipway and

6. Potential New Footdee Club House.

Refer to Figure 1 which illustrates the locations of each intervention.

The re-imagining of the Beach Esplanade creates an enhanced and inspiring public realm with the opportunity for active frontage along the length of the sea front. As an extension of this, the Boardwalk/Pier structure follows the sinuous route of the Rope Works concept and extends out to the North Sea. The aspiration to remove vehicular traffic along the section of the Esplanade between Codona's and Accommodation Road, creates a people-focused environment. To further enhance this approach, the intention of the Beachfront Interface is to regrade the existing levels, building over the existing lower sea wall through a series of ramps and walkways, making the beach accessible to all.

The potential Beach Village is envisaged as an area which can form a centre for a variety of Beachfront activities and includes areas for parking. With safety as a core objective, locating the Beach Pavilion at the centre of this area, offers an opportunity for an RNLI outstation to be strategically positioned here. This setting provides the opportunity to promote safe water usage, as well as creating an active frontage to the Beach Esplanade. The adjacent new Slipway provides access to the Beachfront below the Esplanade which could potentially be utilised by both the RNLI to launch in-shore lifeboats as well as Jet Skiers. Several Satellite Facilities located at key points along the length of the Esplanade will provide toilet, change and shower facilities for all beach and water users, with opportunities for integrated PV panels for solar energy collection. The opportunity to utilise the elevation of these structures to create satellite observation decks allows the beach to be monitored at more regular intervals, improving the overall safety of the beach.

The potential new Footdee Club House located at the very South of the beach front where the water is safest could provide facilities for the Surf Club, Wild Swimmers and Surf Life Saving Club. The facility could provide various amenities, providing education on safe water usage, with opportunities for an elevated observation deck at the most used part of the water.

6. Costs, Benefits & Risks

Cost

Do Nothing

- Cost saving on the capital cost of not undertaking the works.
- Lack of economic impact on the beachfront.

Project Proposal subject to this SOC

• Potential to attract new visit and increased spend within the area.

Benefits

Do Nothing

• No benefits have been identified.

Project Proposal subject to this SOC

- The Project would be a continuation and expansion of the Aberdeen City Vision and Beach Masterplan.
- The Beachfront Phase C Projects form an integral part of the wider Masterplan.

Risk

Do Nothing

- 'Do nothing' approach will see further deterioration to the existing coastal defences, increasing the risk of failure and increased cost in the future.
- Continuation of the health & safety risks currently being experienced along the Beachfront.
- City Coastal continues to experience further deterioration of the existing structure and defences, which lead to more costly and urgent remedials in the future.

Project Proposal subject to this SOC

• Failure to adopt a coordinated approach leads to the coastal defences or the masterplan works have a detrimental impact on each other.

7. Funding & Affordability

State the cost, and identify the budget, to develop the project to prepare an Outline Business Case.

The following consultancy services are anticipated being required to support the preparation of the OBC:

- Maritime Architect & Engineer
- Stakeholder Engagement
- Economic & Business Case Advisor
- Architect
- Landscape Architect
- Structural Engineer
- Mechanical & Electrical Engineer
- Cost Advisor
- Hub North PMO Support
- Maritime Modelling & Survey Work

8. Assumptions

Document the high-level assumptions that have been made during the development of the business case and any other unanswered questions that may be significant. Refer to the Supplementary Guidance on Optimism Bias and detail the assumptions you have made in constructing the costs and business case.

<u>Green Book Supplementary Guidance Optimism Bias (gov.uk webpage)</u> (under 'Other Guidance and Reference Documents')

Not applicable at this point.

9. Support Services Consulted

The minimum consultation period for Strategic Outline 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 with, this should be indicated in the Comments section, along with the reason why. All comments received should also be noted, or reasons for discounting them.
- At this early stage you should also be considering what impact implementing this
 proposal will have on employees, service users or other people who share
 characteristics protected by <u>The Equality Act 2010</u>.

Note: There is a copy and paste version of the consultation list below which you can use for circulating your Strategic Outline Case – <u>Support Services Consulted Circulation List</u>

Service	Name	Comments	Date
Resources	Chief Officer Finance		
	jbellord@aberdeencity.gov.uk		
Resources	Chief Officer Corporate Landlord		
100001000	stbooth@aberdeencity.gov.uk		
Governance	Chief Officer Governance		
	frbell@aberdeencity.gov.uk		
Place	Chief Officer Strategic Place Planning		
Flace	GALEB@aberdeencity.gov.uk		
Place	Chief Officer City Growth		
	rsweetnam@aberdeencity.gov.uk		
Operations	Chief Officer Operations and Protective		
	Services		
	mareilly@aberdeencity.gov.uk		

Service	Name	Comments	Date
РМО	PMO Programme Manager		
Finance	Scott Paterson spaterson@aberdeencity.gov.uk		
Asset Management	Alastair Reid alareid@aberdeencity.gov.uk		
Legal (Property/ Planning & Environment)	Sharon Wares/Alan Thomson swares@aberdeencity.gov.uk/ alathomson@aberdeencity.gov.uk		
Legal (Commercial & Procurement)	Michele Pittendreigh MPittendreigh@aberdeencity.gov.uk		
Procurement	Alison Gallacher algallacher@aberdeencity.gov.uk		
ICT – Digital & Technology	Steve Robertson sterobertson@aberdeencity.gov.uk		
Team Leader (Design) – Public Buildings	Neil Esslemont nesslemont@aberdeencity.gov.uk		
Grounds Maintenance	Steven Shaw stevens@aberdeencity.gov.uk		
Communications	ТВС		
HR	Lindsay MacInnes Imacinnes@aberdeencity.gov.uk		
Transportation	Joanna Murray joannamurray@aberdeencity.gov.uk		
Roads Management	Angus Maclver anmaciver@aberdeencity.gov.uk Vycki Ritson vritson@aberdeencity.gov.uk		
Team Leader – Roads Projects	Alan McKay <u>AlanMcKay@aberdeencity.gov.uk</u>		
Emergency Planning Lead	Fiona Mann FioMann@aberdeencity.gov.uk		

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	Property Estates Manager Estates@aberdeencity.gov.uk		
Environmental Policy	EPConsultations@aberdeencity.gov.uk		
Equalities	Baldeep McGarry/ Faiza Nacef equality and diversity@aberdeencity.gov.uk		
Planning	Local Development Plan Team <u>LDP@aberdeencity.gov.uk</u> Development Management <u>PI@aberdeencity.gov.uk</u>		

Project Stage: Define

10. Decision by Capital Board	Date
*Approved/Not Approved to prepare an Outline Business Case.	

*indicate whether approved, as well as any additional stipulations.

11. Document Revision History			
Version	Reason	Ву	Date
1.0	xxx		
2.0	XXX		

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GENERATION ABERDEEN

WORKING IN PARTNERSHIP FOR ABERDEEN



GENERATION ABERDEEN

A CITY OF OPPORTUNITY



1.

2.



GENERATION ABERDEEN

BUILDING A GREENER AND SUSTAINABLE CITY





GENERATION ABERDEEN

CARING FOR EACH OTHER

5.



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EMPOWERING ABERDEEN'S COMMUNITIES



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5.





EMPOWERING ABERDEEN'S COMMUNITIES



Rear Bus Ad





Shop front





Pitchside Banners









Construction Hoarding







ABERDEEN

A new Aberdeen Market Coming Soon...

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Sed tristique risus turpis, ac vulputate mi porta ac.

Integer dapibus sapien vehicula sem tempus commodo. Sed in velit varius lorem malesuada commodo a eget tellus In vulputate eleifend varius. Quisque finibus suscipit tempus.

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