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York Street Interchange

Placemaking & Active Travel Review

Summary Report

October 2022

York Street Interchange

Placemaking and Active Travel Review
Stage 3 Report

Department for Infrastructure

October 2022

Quality information

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Revision History

Revision	Revision date	Details	Authorised	Name	Position
1	13/12/2021	Draft Issue	PC	P Clarke	Director
2	17/12/2021	Draft Issue	PC	P Clarke	Director
3	25/03/2022	Draft Issue	PC	P Clarke	Director
4	22/09/2022	Final Report	PC	P Clarke	Director

Distribution List

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1. Introduction

In April 2021 the Department for Infrastructure (DfI) commissioned AECOM to undertake an Active Travel Review and Placemaking Analysis of the York Street Interchange (YSI) project, in Belfast. This followed the Infrastructure Minister’s announcement on 26 March 2021 <https://www.infrastructure-ni.gov.uk/news/mallon-announces-outcome-review-york-street-interchange-scheme>.

The purpose and objectives for the work are therefore as follows:

- To undertake further analysis around placemaking and active travel to identify opportunities to deliver benefits for communities, particularly in terms of connectivity and the wider living places agenda; and
- To consider how we can maximise the social, economic and environmental benefits of the project and its contribution to the future development of Belfast.

The overall objective of the study is therefore to ensure that the scheme is consistent with the Minister's priorities and to maximise placemaking opportunities for the benefit of those living in the area and using the area. This did not include revisiting the strategic objectives of the scheme, which were examined as part of the public inquiry.

The work has been undertaken by AECOM’s Active Travel, Masterplanning and Landscape Architecture teams as a separate commission from AECOM’s design role on the YSI project and overseen by a DfI Steering Group chaired by the Department’s Director of Transport Policy.

The boxes in **Figure 1** highlight the overall scope and main stages of the work undertaken as part of this commission.

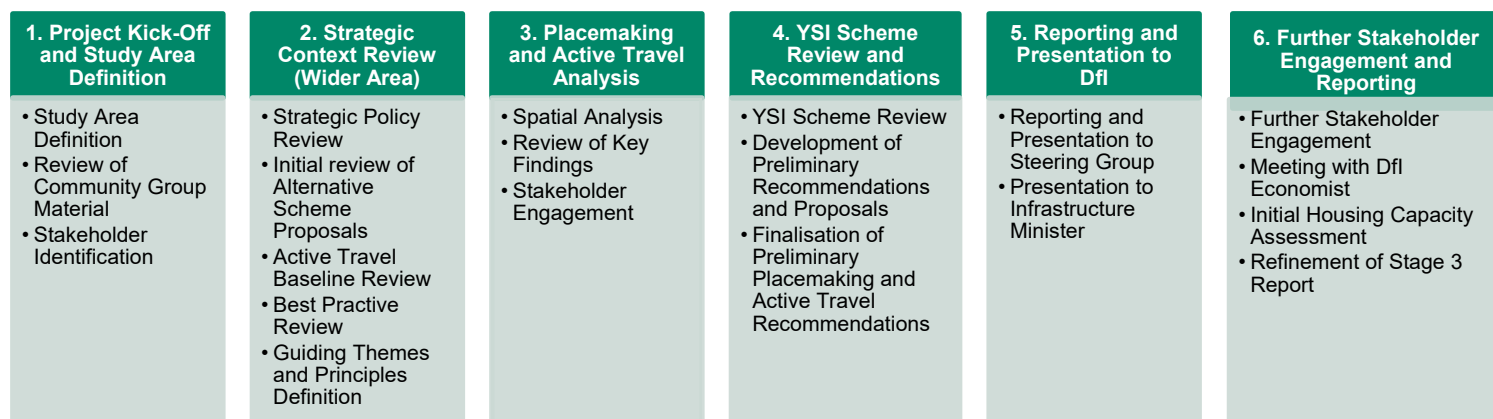


Figure 1. The scope and methodology agreed between AECOM and DfI to undertake the Active Travel Review and Placemaking Analysis.

This report is presented in three further sections as follows:

- Active Travel Review;
- Placemaking Review; and
- Conclusions and Recommendations.

The report is supported by a series of Technical Annexes which are introduced throughout the report.

2. Active Travel Review

2.1 Staged Approach

An AECOM independent team of Active Travel specialists were commissioned to review the YSI scheme and identify opportunities to enhance provision for cyclists to comply with guidance set out within Local Transport Note (LTN) 1/20. The review also considered provision for pedestrians including those with mobility impairments. Three key work stages were undertaken as summarised in **Table 1** below and detailed in the subsequent sections:

Table 1. Staged approach to Active Travel Review.

Stage	Key Activities
1 - Audit existing layout (Baseline review)	<ul style="list-style-type: none"> Undertake Cycle Level of Service (CLoS) + Junction Assessments (JAT) of existing cycle network against LTN 1/20. Undertake pedestrian comfort and mobility impaired review of existing network.
2 - Proposed design amendments to YSI scheme (YSI+)	<ul style="list-style-type: none"> Amend YSI proposed highway scheme design to incorporate largely segregated cycle facilities in accordance with LTN 1/20 + enhanced pedestrian facilities.
3 - Audit and cost proposed YSI+ scheme	<ul style="list-style-type: none"> Repeat CLoS, JAT, pedestrian comfort and mobility impaired review of proposed YSI+ scheme. Estimate cost of proposed Active Travel enhancements.

Figure 2. Cover of Local Transport Note.



The extent of the study network spanning nine key corridors is shown in **Figure 3** below.

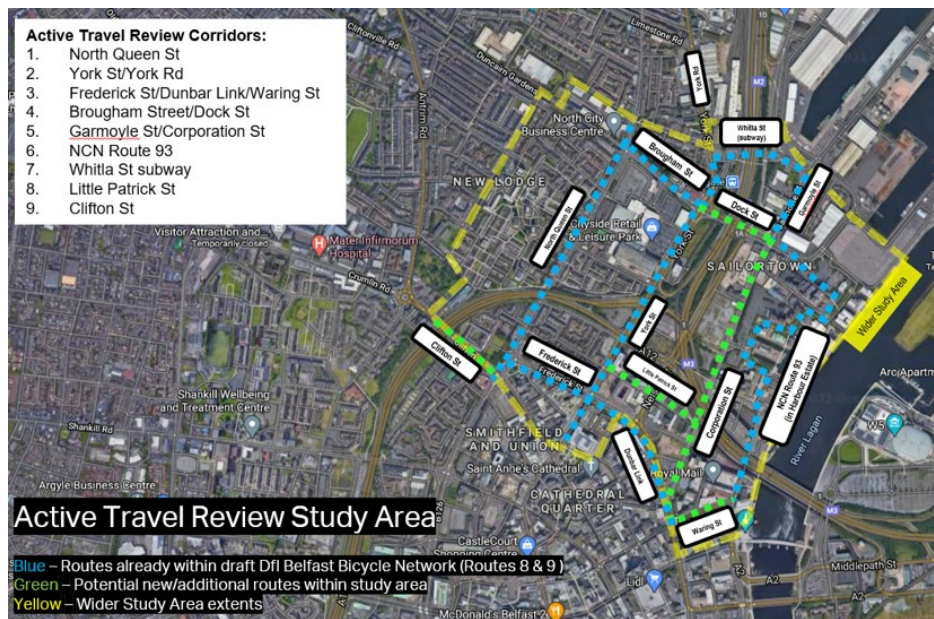


Figure 3. Active Travel Study Area Network.

2.2 Stage 1 - Audit existing layout (Baseline review)

An extended report was issued to DfI in July 2021 detailing the outcome of the Stage 1 baseline review and is included as **Annex A** to this report (Active Travel | Baseline Review). Summary findings from this baseline review are provided below by key theme, namely Cycle Level of Service (CLOs) Assessment; Junction Assessment; and Pedestrian Comfort & Mobility Impaired Review.

It is noted that following ongoing discussions with DfI during successive stages, some link sections and associated junctions initially reviewed during the baseline review were then subsequently discounted / removed from the scope of the YSI scheme as they were/are being considered as part of other adjacent schemes. The removed sections are shown as black in both the existing and proposed summary tables below to enable a comparable (like-for-like) assessment between the baseline and proposed reviews.

Baseline Cycle Level of Service (CLOs) Assessment

Each of the nine study area corridors depicted in Figure 3 were sub-divided into link sections reflecting changes in characteristics. For example, Corridor 1 (North Queen Street) was subdivided into link sections A & B as shown in **Figure 4** below. A CLOs assessment was then undertaken for each link section for the existing (baseline) provision for cyclists. A total of 21 link sections were assessed using the CLOs tool contained in Appendix A of LTN 1/20. The results of the baseline assessment are summarised below in Figure 4, indicating 18 out of the 21 link sections reviewed were classified as a dark grey 'critical fail' due to not satisfying key safety requirements. The remaining 3 link sections (numbered 18, 19 and 20 below) were classified as red meaning baseline YSI scheme provision is below the minimum 70% threshold level, resulting in an overall 'fail'.

Discounted corridor link sections no longer in the YSI scope and highlighted in black are Section E in Corridor 3 (Frederick Street/Dunbar Link); Sections A & B in Corridor 6 (NCN Route 93); and Section A in Corridor 8 (Little Patrick Street).

Link Section	C1 - North Queen St	C2 - York St/York Rd	C3- Frederick St/Dunbar Link	C4 - Brougham St/Dock St	C5 - Garmoyle St/Corporation St	C6 - NCN Route 93	C7 - Whitlea St-subway	C8 - Little Patrick St	C9 - Clifton St
A	1	3	8	14	16		20		21
B	2	4	9	15	17				
C		5	10		18	19			
D		6	11						
E		7							
F			12						
G			13						

Critical Fail	1 or more
Fail	<70%
Pass	≥70-100%
Removed from Scope	

Figure 4. Cycle Level of Service – Baseline summary results.

Baseline Junction Assessments

A total of 20 junctions were assessed across the nine route corridors using the Junction Assessment Tool (JAT) contained in Appendix B of LTN 1/20. The results of the assessment are summarised below in **Figure 5**, noting some junction locations are at the intersection between two corridors and are therefore numbered the same. Figure 5 indicates 19 out of the 20 junctions reviewed were classified as red is the baseline assessment whereby the lowest scoring movement at the junction was suitable only for confident existing cyclists.

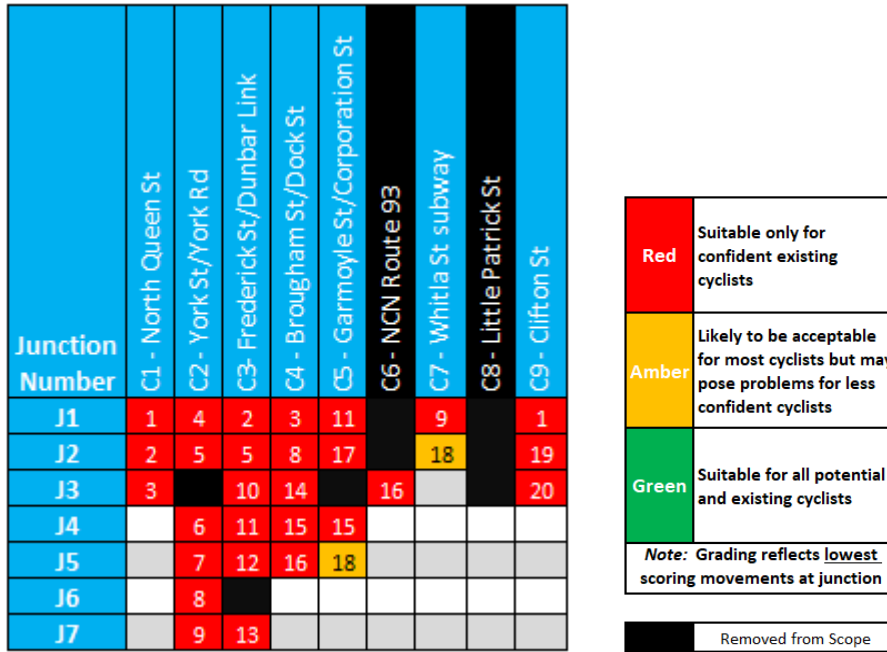


Figure 5. Junction Assessment – Baseline summary results.

Baseline Pedestrian Comfort & Mobility Impaired Review

The Pedestrian Comfort Guidance for London (TfL, 2010) provides an assessment framework for acceptable levels of pedestrian comfort across different urban settings. This assessment is based on effective footway width and the volume of pedestrians, with a combination of flow categorisation, presence of street furniture, and area type dictating the required footway width. Footway width and pedestrian flow were assessed at ten locations on each corridor and on footways on both sides of the road. Where >80% of the readings satisfied the required width for the pedestrian flow, this link was categorised as green. Where <80% of the readings satisfied the required width for the pedestrian flow, this link was categorised as red. The results of the baseline pedestrian comfort review are shown in Figure 6 below.

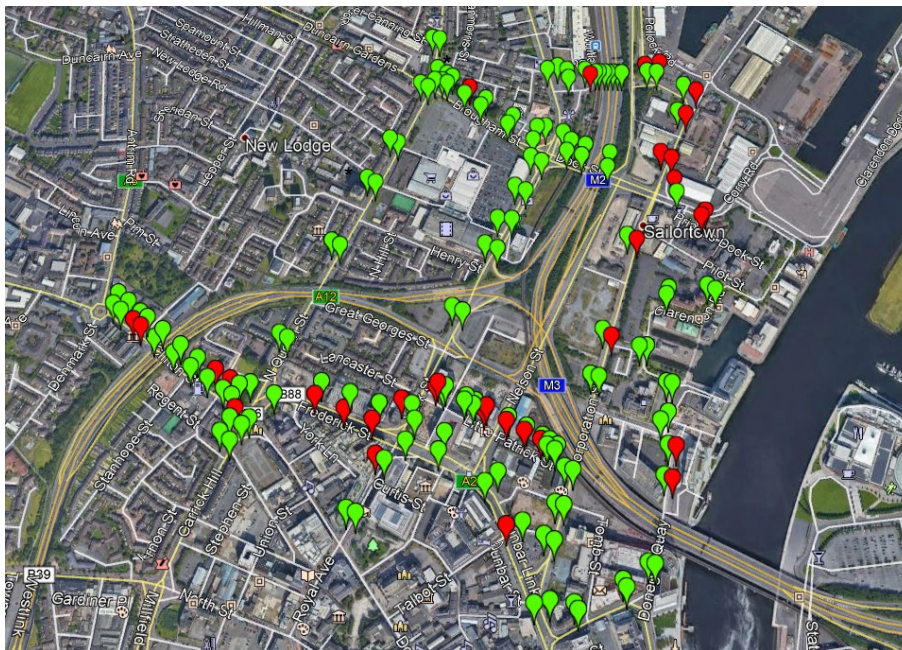


Figure 6. Pedestrian Comfort – Baseline summary results.

However, it is recognised that width alone does not capture the overall experience and quality of environment for pedestrians. As such the quantitative framework described above was supplemented with a qualitative review of

the general pedestrian environment in terms of characteristics/ambience; access/connections; and surface quality/obstructions. This qualitative review is summarised in **Figure 31** as part of the Spatial Analysis reported in Section 3.5 and shows that the core study area has some unattractive walking routes with some sections rated as 'very undesirable' due to a range of challenging conditions including fast moving vehicular traffic, the need for multiple crossings of each main road, lack of active frontages, underpasses, and other unsafe characteristics.

In addition to the quantitative and qualitative assessment of the pedestrian environment, an independent review of baseline conditions for pedestrians was undertaken by People Friendly Ltd, a mobility impaired specialist. A number of key themes for mobility impaired pedestrians across the network emerged from this baseline assessment including:

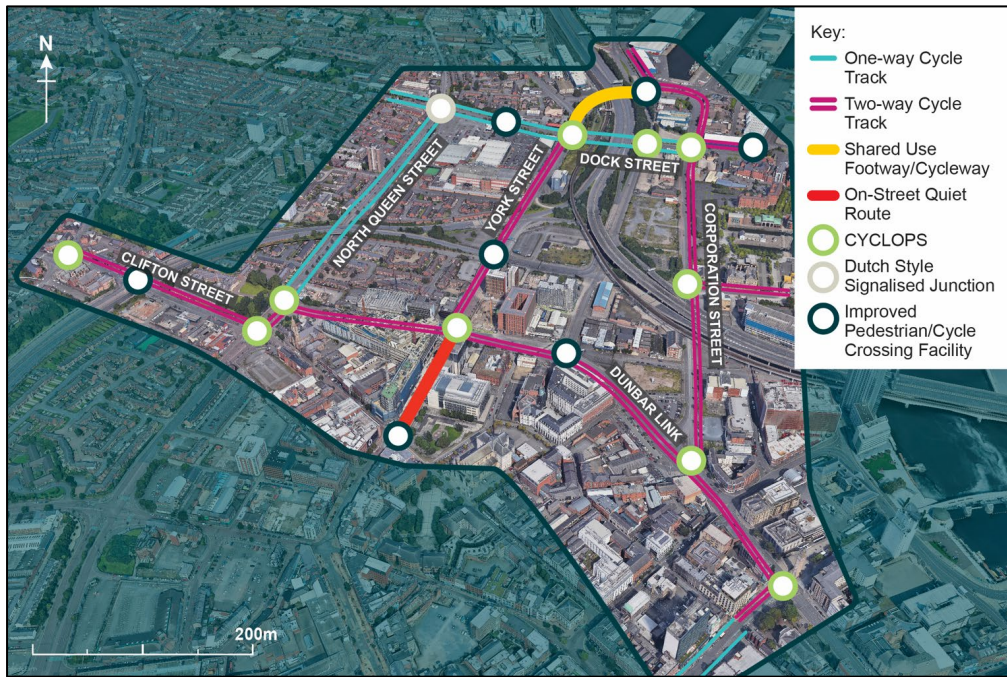
- Typically poor / cracked surfacing or uneven surfaces;
- Street furniture causing obstruction to the footway;
- Poor passive surveillance at underpasses / subways;
- Confusing and inconsistent tactile arrangements;
- Kerb upstands greater than 6mm; and
- A mixture of controlled and uncontrolled crossing facilities at major junctions.

2.3 Stage 2 - Proposed design amendments to YSI scheme (YSI+)

A guiding principle set out in Chapter 1 of LTN 1/20 is that "*cyclists must be physically separated and protected from high volume motor traffic, both at junctions and on the stretches of road between them.*" Given the high volumes of motor traffic within the YSI study area, proposed design amendments to enhance provision for cyclists and pedestrians were therefore focussed on providing physical separation on links and at junctions along each of the corridors.

Key component elements of the proposed design amendments to the YSI scheme are summarised in **Figure 7** below and include:

- **3.2 km of two-way cycle track** on York Street (west side); Corporation Street (east side); Dunbar link / Great Patrick Street / Frederick Street (south side); and Clifton Street (north side);
- **1.4 km of one-way cycle track** on both sides of North Queen Street, Brougham Street and Dock Street;
- **0.2 km of 'Quiet Route'** treatment on York Street (south) with restricted access for general traffic and urban realm treatment to enhance the environment for pedestrians and cyclists outside the University; and
- Separation of cyclists from motor vehicles and pedestrians at **18 key junctions** across the study network ranging from improved pedestrian/cycle crossing facilities to fully segregated CYCLE Optimised (CYCLOP) junction treatment.



Note: Shared Use footway/cycleway to be progressed and delivered as part of York Gate station development.

Figure 7. Summary of Proposed YSI+ Scheme (with Active Travel Enhancements).

A suite of feasibility design drawings has been prepared providing further details on the proposed scheme and these are included within **Annex B** (Active Travel | Feasibility Scheme Drawings). Scheme development was informed by weekly design workshops attended by both the Active Travel team and the Placemaking team to ensure a common understanding and to ensure proposed active travel scheme detail did not diminish placemaking opportunities and vice-versa. Three visualisations were also prepared to help communicate the proposed active travel scheme enhancements together with complementary placemaking interventions. These visualisations are provided below as **Figure 8** to **Figure 10**.



Figure 8. Visualisation #1 – Great Georges St. and York St. Junction.

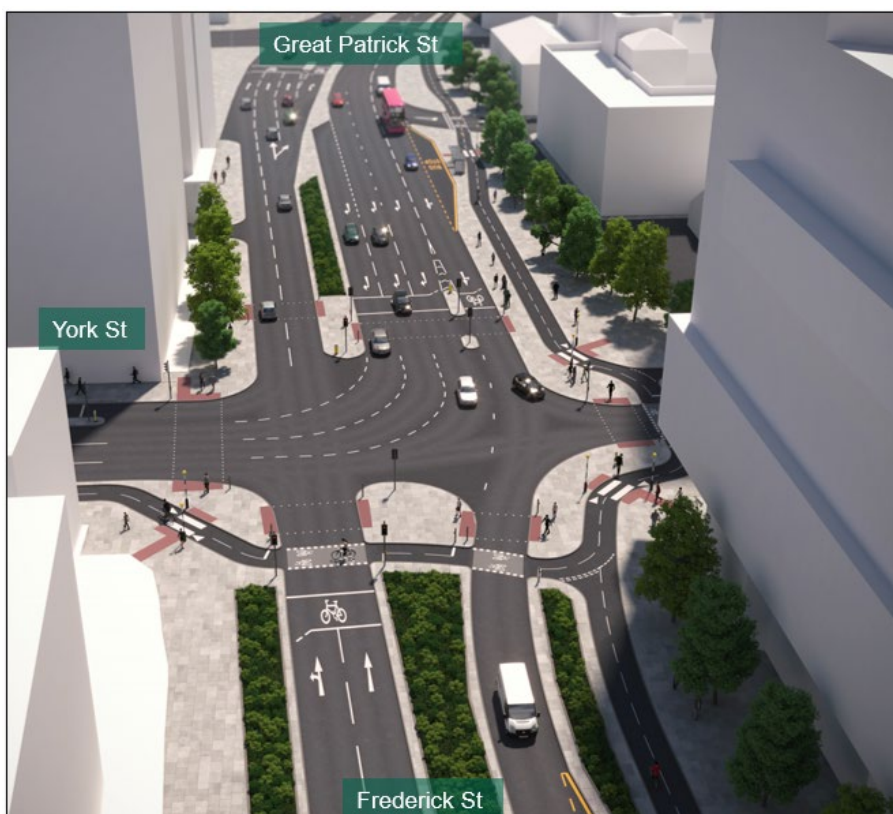


Figure 9. Visualisation #2 – York St. looking towards Great Patrick St.



Figure 10. Visualisation #3 – North Queen St. looking south towards Westlink Bridge.

2.4 Stage 3 – Audit and cost estimation of proposed YSI+ scheme

An extended report detailing the outcome of the proposed scheme design and assessments undertaken in Stages 2 and 3 is included in **Annex C** (Active Travel | Design Proposals & Audit). Summary findings are provided below by key theme, repeating the assessment presented in Stage 1 above.

Proposed YSI+ Scheme Cycle Level of Service Assessment

As can be seen in **Figure 11**, all 21 link sections assessed using the CLoS tool across the study area YSI+ scheme corridors ‘passed’ with CLoS scores >70% indicating a high level of provision for cyclists, satisfying the principles set out in LTN 1/20. To clarify, there are no critical fails; the cells highlighted black have been removed from scope.

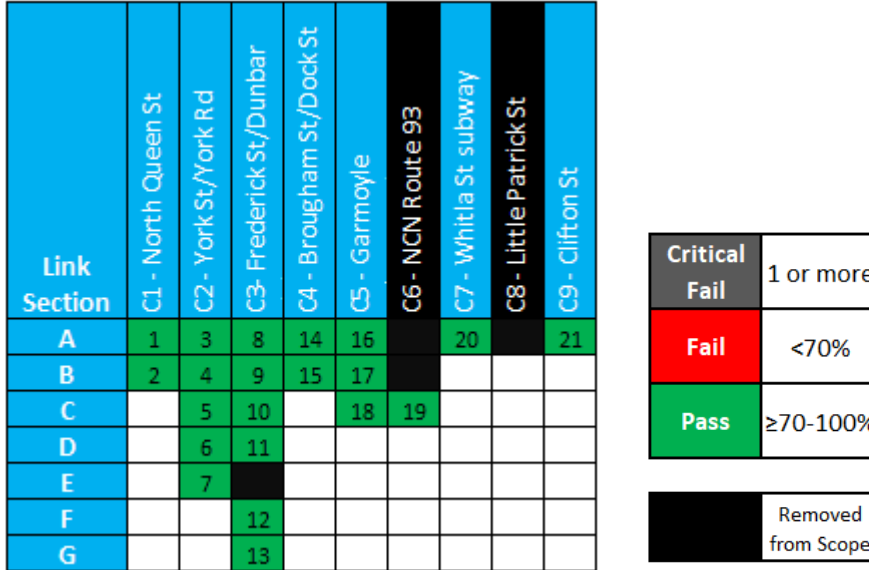


Figure 11. Cycle Level of Service – YSI+ summary results.

Proposed YSI+ Scheme Junction Assessments

Repeating the methodology applied in the baseline review, a total of 20 junctions were assessed across the YSI+ scheme using the Junction Assessment Tool, with a particular focus on the key cycle movements in the Belfast Bicycle Network. The results are summarised below in **Figure 12**, again noting some junction locations are at the intersection between two corridors and are therefore numbered the same. **Figure 12** indicates 15 of the 20 junctions were classified as ‘green’ whereby the lowest scoring movement at the junction in the Belfast Bicycle Network was suitable for all potential and existing cyclists. The remaining 5 junctions were classified as ‘amber’ meaning the YSI+ scheme interventions are likely to be acceptable for most cyclists but may pose problems for less confident cyclists. Amber scoring movements are associated with onward connections to links not included within the study area or movements to/from areas of shared footway/cycleway. Further detail on the assessment is provided within the extended report for **Annexes A, B and C**.

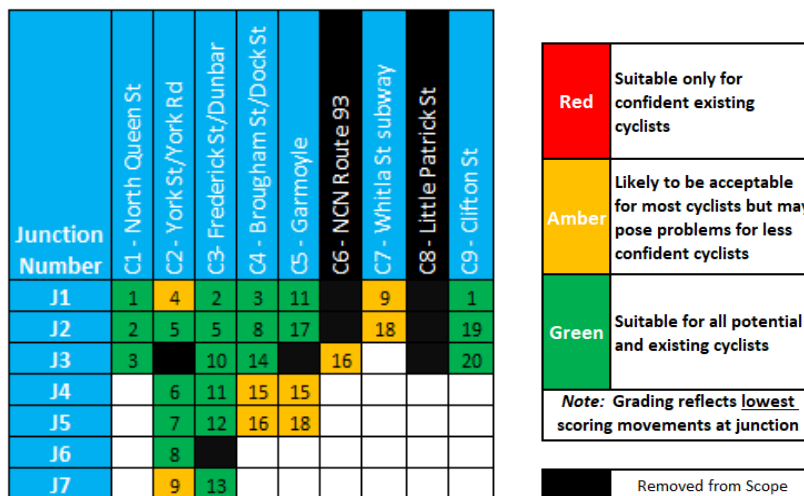


Figure 12. Junction Assessment – YSI+ summary result.

Proposed YSI+ Scheme Pedestrian Comfort & Mobility Impaired Review

The results of the YSI+ pedestrian comfort review are shown in **Figure 13**. This indicates that all but one location of the 70 assessed points (10 per corridor) across the proposed YSI+ scheme were categorised as ‘green’ whereby there is sufficient footway width for proposed pedestrian flows. The single red location is a pinch point along the western footway of Garmoyle Street. Changes to the kerb line in this location are not proposed, with enhancements focused along the eastern footway. However, this could be revisited at the next stage of design if considered appropriate.

A full review of footway surfaces, materials, obstructions, street lights and street furniture would be required at detailed design stage in order to provide the highest quality facilities for pedestrians.

Following an independent review of the YSI+ scheme undertaken by People Friendly Ltd, a mobility impaired specialist, key themes include:

- Proposals are “arguably better than current provision; however more complex, which may be problematic for visually impaired users”. **Required action** - early engagement required during next stage of design to maximise legibility and promote user familiarity;
- Zebra crossings to / from pedestrian islands likely to be problematic for visually impaired persons. **Required action** - to be developed at next stage of design with approval from DfI / Belfast City Council;
- Review blue-badge parking and vehicle set down / pick up points near key amenities and potential access requirements impacted due to proposals. **Required action** – review blue badge parking and set down / pick up locations at next stage of design;
- Grade separation between pedestrians and cyclists should be maximised at uncontrolled crossing. **Required action** - YSI+ scheme proposals to be designed to meet the latest LTN 1/20 and pedestrian design guidance.



Figure 13. Pedestrian Comfort – YSI+ summary results.

Proposed YSI+ Scheme Cost Estimate

An initial high-level scheme costing exercise has been undertaken as an indication of potential construction cost of the proposed YSI+ scheme with Active Travel enhancements. A summary of this cost estimate with suggested packaging is presented in **Figure 14** below, totalling **£19.5 Million**. Reflecting the current stage in design, this includes a 44% risk and ancillary cost uplift (annotated as OB in Figure 14), but excludes Placemaking interventions. At this early stage in the design process, cost estimates reflect previous scheme delivery experience and are based on an assumed £1 Million per km for link sections and varying junction costs reflecting the scale of intervention. A further detailed costing exercise would be required at the next stage of design.

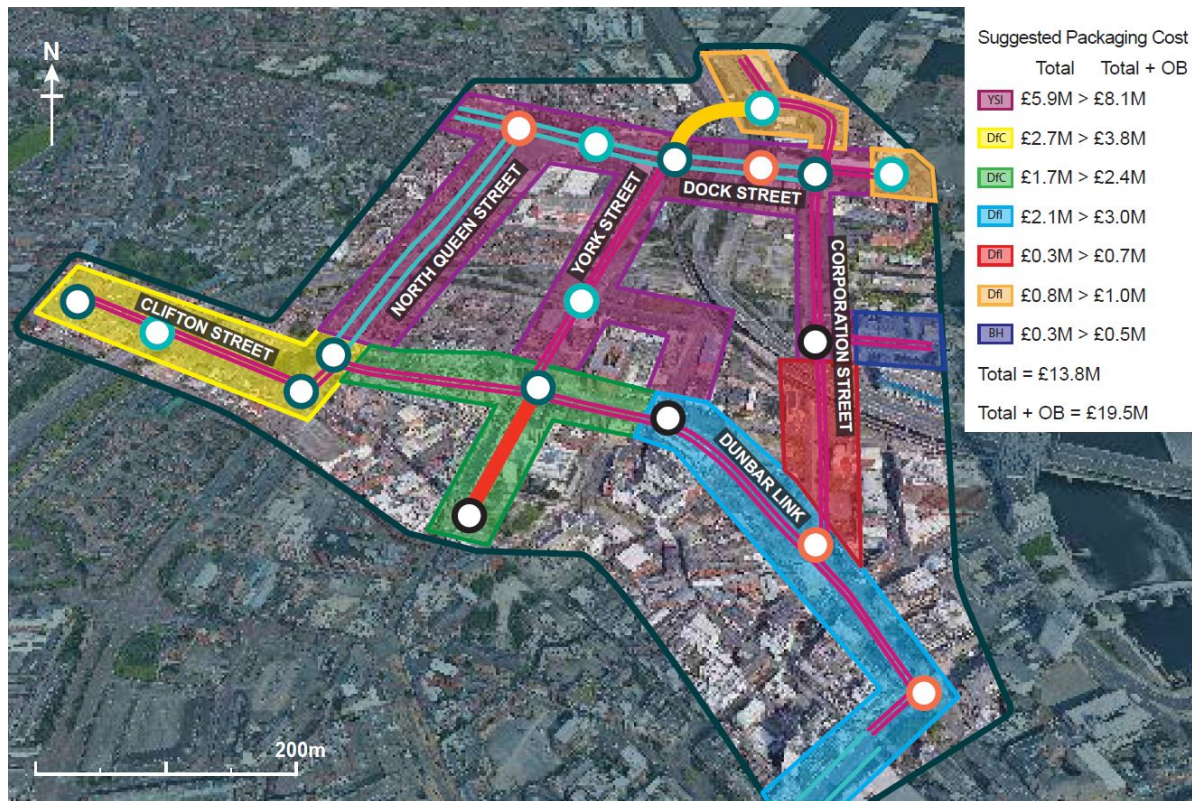


Figure 14. YSI+ Scheme Active Travel cost estimate with suggested packaging.

3. Placemaking Review

3.1 Placemaking and Its Importance

WHAT MAKES A GREAT PLACE?

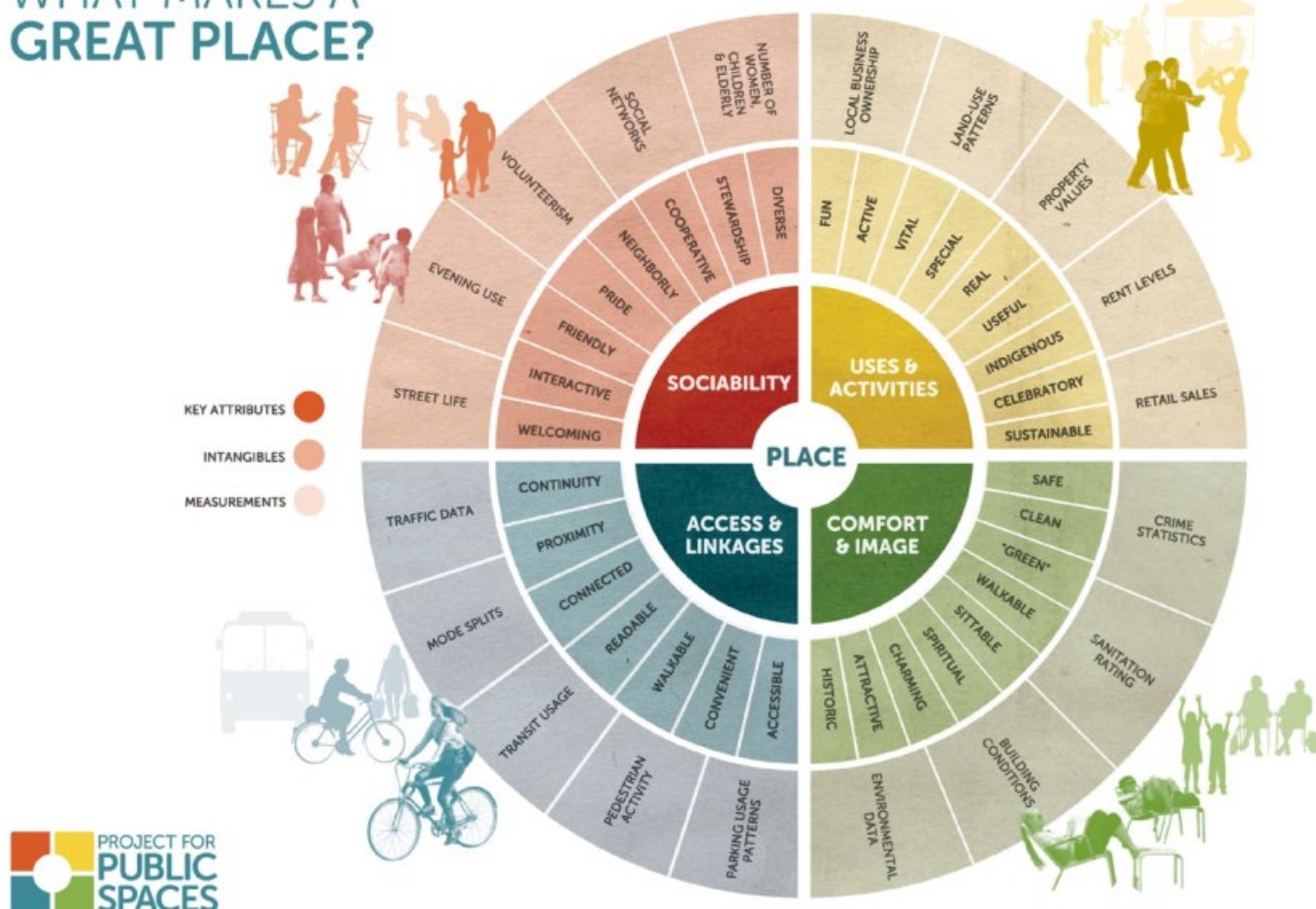


Figure15. Project for Public Space (PPS) 'What makes a great place?' concept diagram.

The Project for Public Space (PPS) is a globally recognised organisation dedicated to sustainable public places that build and support communities through 'placemaking'. PPS describe placemaking as 'more than just better urban design; it facilitates creative patterns of use, paying particular attention to the physical, cultural and social identities that define a place and support its ongoing evolution.' Placemaking is a process that requires collaboration between a wide range of private, public, and voluntary community stakeholders. A key part of it includes the effective curation of shared spaces to encourage a wide range of uses and activities.

The Living Places Report by DfI also defines 'Placemaking' as creating somewhere with a distinct identity through urban design. It is the collaborative and multi-disciplinary process of shaping the physical setting for life in cities, towns, and villages.

DfI's Planning for the Future of Transport: Time for Change document highlights the Department's placemaking ambitions in relation to the future of transport over the next 10-15 years. These include:

- Carbon reduction using existing policy tools and emerging technology;
- Proactive planning and design by taking direct steps towards desired outcomes; and
- Integrate land use and transport planning to secure short, medium, and longer-term changes.

3.2 Summary of Strategic Context Review

A review of key national, city-wide, and local policies and plans (listed in **Annex D – Placemaking Appendices | Appendix A**) was conducted to piece together the collective ambition and to establish key placemaking and active travel issues relevant to our consideration of the York Street Interchange project. The local strategies and masterplans formed a particularly important part of this review as they include considered area analysis and the development of placemaking concepts for the area that have not been delivered to date, but which continue to hold potential.

A summary of this review revealed a key focus on green and blue infrastructure and the prioritisation of active travel corridors at a city-wide scale linking to the waterfront regeneration along City Quays and Titanic Quarter (**Figures 16-18**). The key points are summarised under each of the Figures shown on the following pages.

City-wide policy and plans review summary:

- Poor air quality around the Westlink;
- Underutilised sites due to severance by roads and infrastructure;
- A focus on green and active corridors;
- A focus on waterfront regeneration; and
- A focus on improving public realm quality.

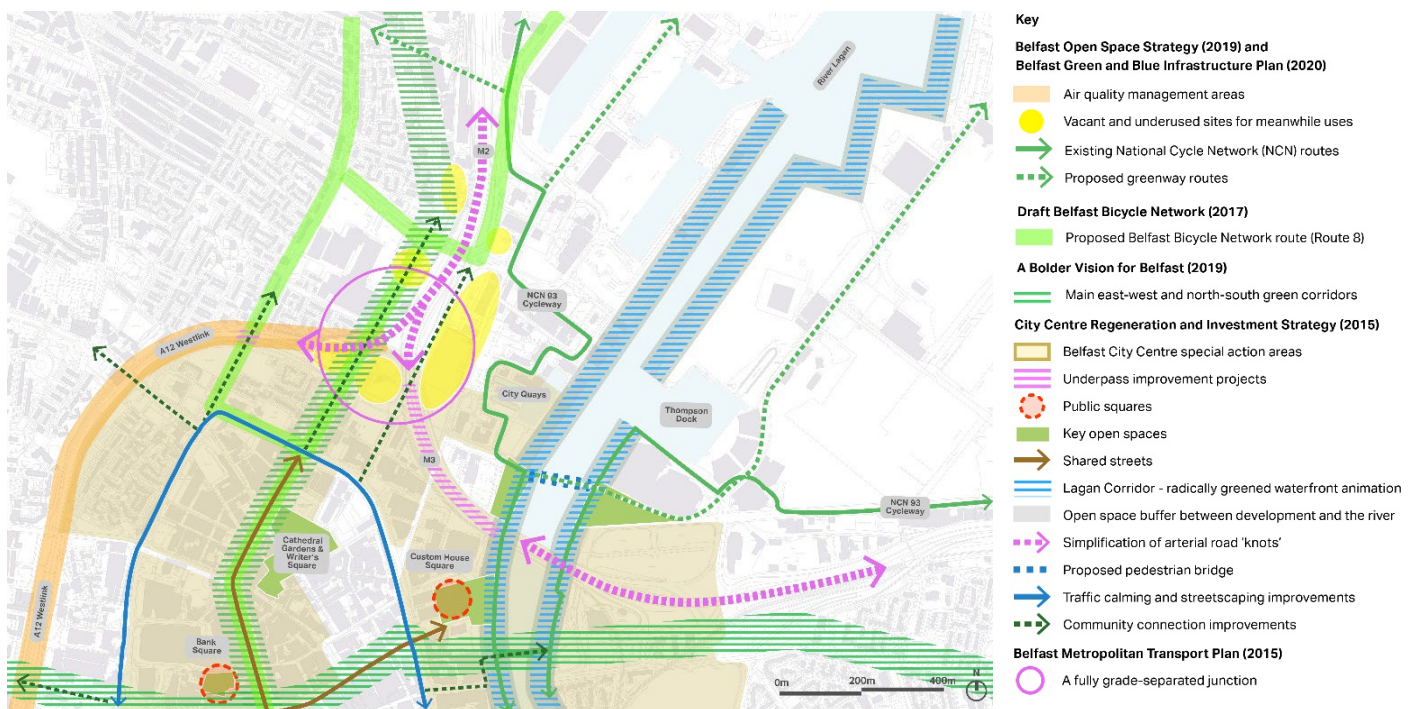


Figure 16. Composite plan of main city-wide policy objectives.

Wider study-area policy and plans review summary:

- A focus on key attractors at the City Centre and Titanic Quarter;
- A focus on activating gateways around transport hubs and key walking routes;
- A focus on overall urban quality enhancements; and
- A focus on active routes throughout the city;

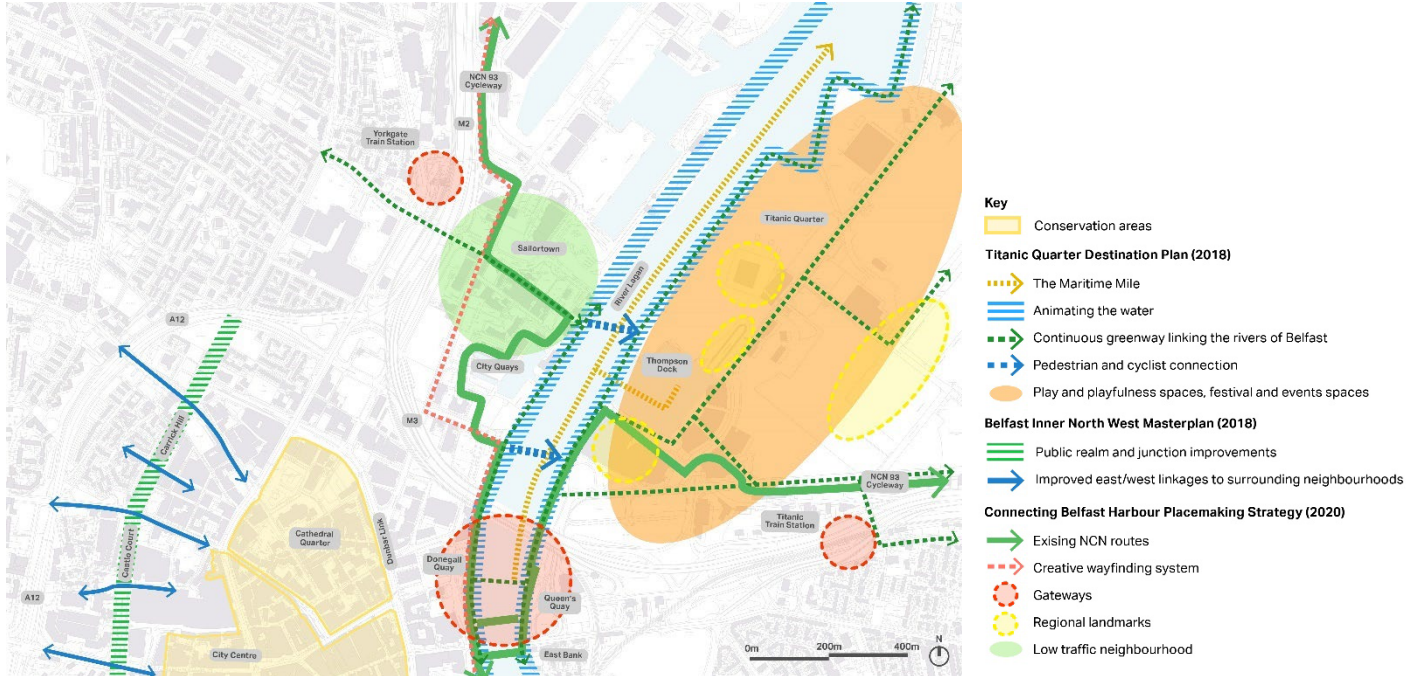


Figure 17. Composite plan of wider study area policy objectives.

Core study area policy and plans review summary:

- The waterfront is a key attractor for the Sailortown & Greater Clarendon area;
- A focus on reviving the historic city-grid of smaller blocks and higher permeability for better connectivity;
- A focus on new pedestrian connections connecting east and west Belfast;
- A focus on urban quality enhancements through green corridors and new public squares;
- A focus on activation of underutilised spaces; and
- A focus on key entrances to the City Centre and waterfront.

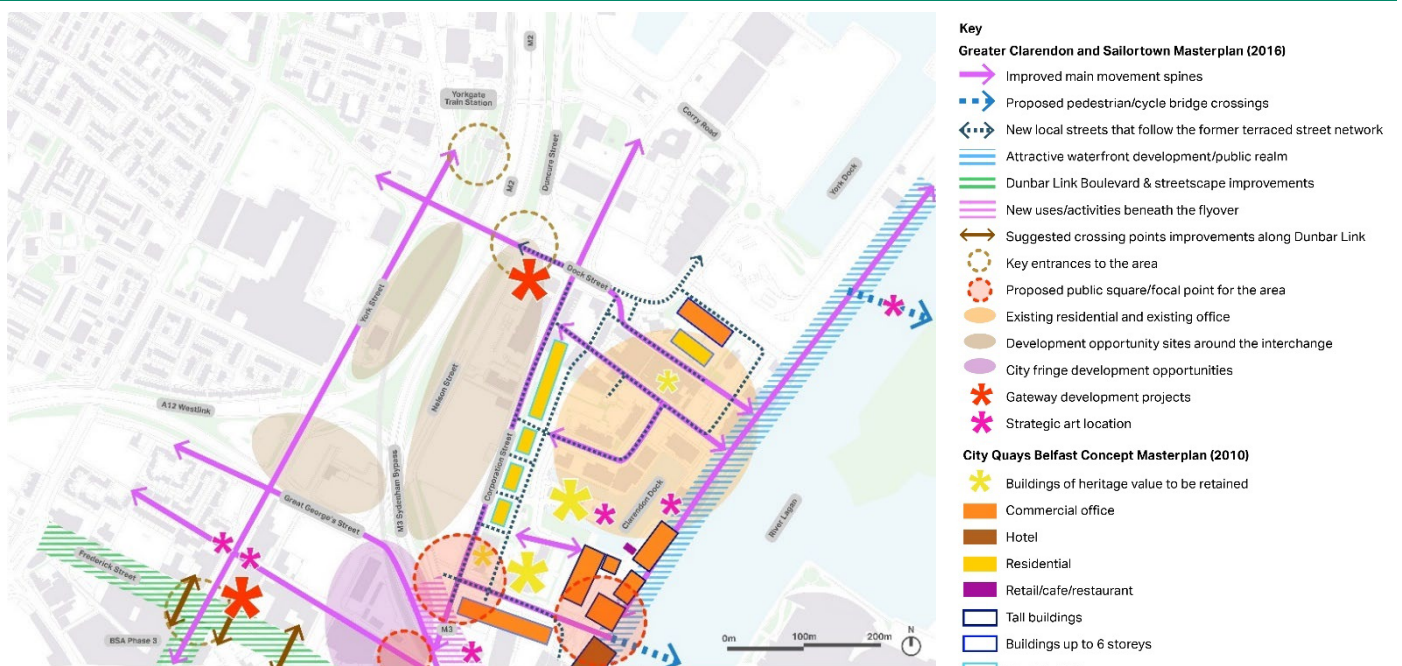


Figure 18. Composite plan of core study area policy objectives.

Taken together, this review highlighted the following key placemaking objectives and aspirations for Belfast and the York Street area:

- Removing severances, improving connectivity, and accessibility;
- Improving the quality and attractiveness of the built environment;
- Encouraging a mix of uses and activities;
- Encouraging active and sustainable travel;
- Celebrating local heritage;
- Using greenery to deliver health, biodiversity, and climate adaptation benefits; and
- Fostering inclusiveness in economic growth, the design of public spaces, and decision-making.

3.3 Summary of Best Practice Review

In parallel with the work described in **Section 3.2**, a review of national and international best practice approaches to placemaking was undertaken to identify precedents relevant to the YSI context. Seven different categories of placemaking intervention were considered along with examples of best practice for each (shown in **Figures 19-29** and **Annex D – Placemaking Appendices | Appendix B**):

Overcoming severances:



Figure 19. Luchtsingel pedestrian bridge, Rotterdam

Reallocation of road space:



Figure 20. Hudson River Greenway, New York.

Decking over strategic highways:



Figure 21. Decking over the A7 autobahn, Hamburg.



Figure 22. Klyde Warren Park decking over highway, Dallas.

Spaces under elevated infrastructure



Figure 23. Bay 20, London.



Figure 24. A8ern8, Zaanstad.

Activation of spaces:



Figure 25. Platform Park, Culvert City, California.



Figure 26. Tunnelen, Ammerud.

Creating vibrant neighbourhoods:



Figure 27. St. George's Market, Belfast.



Figure 28. Ormeau Road Parklet, Belfast.

Urban greening:



Figure 29. Dutch Kills, New York (before and after).

3.4 Guiding Placemaking Themes, Principles and Desired Outcomes

Drawing on the review of policies, plans and best practice and our analysis of the area we developed a hierarchy of Guiding Themes, Guiding Principles and Desired Outcomes to provide a bespoke placemaking vision for the area. These Guiding Themes and Principles and the more detailed Desired Outcomes are listed in **Figure 32** on **Page 24**.

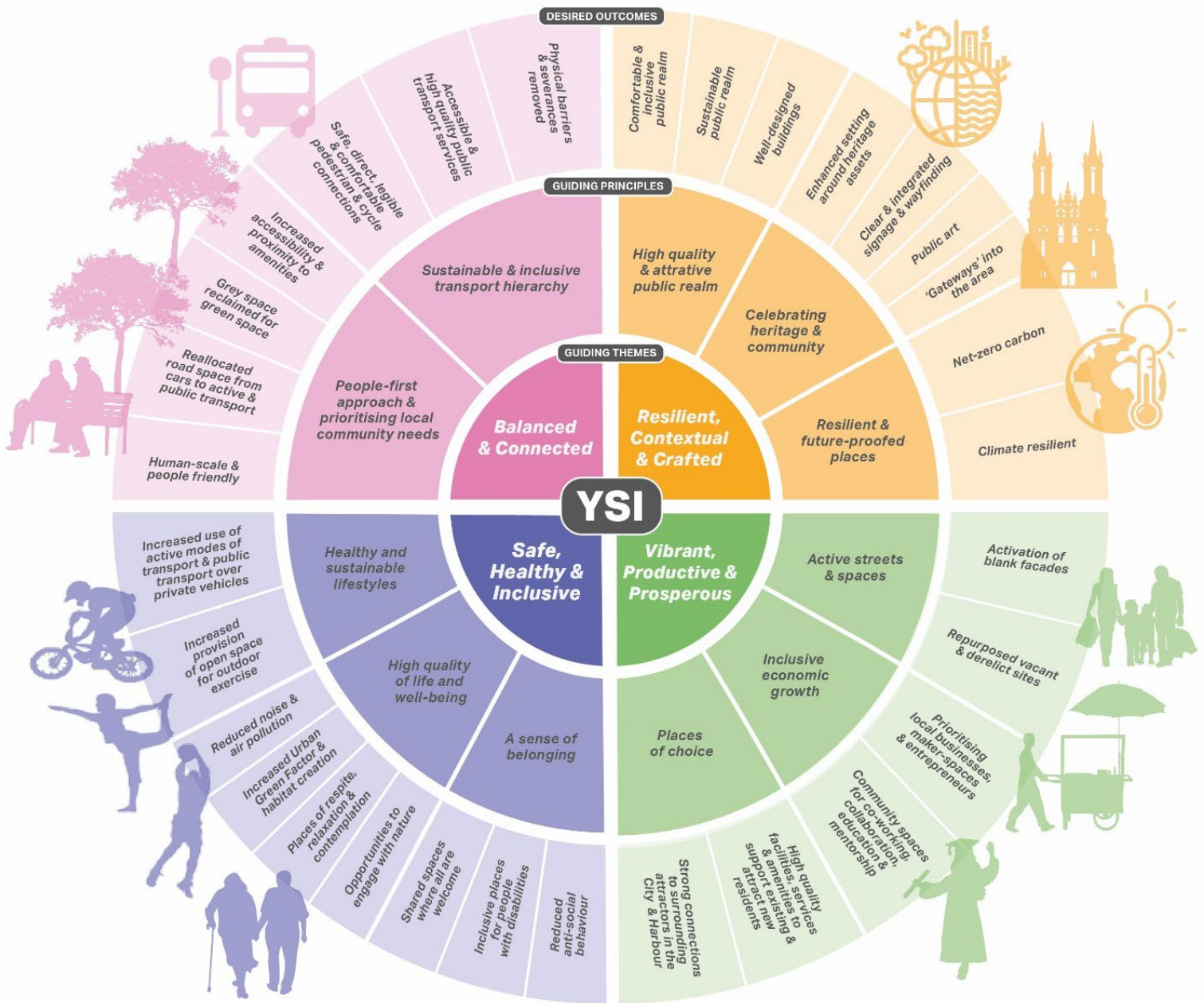


Figure 30. Diagram of YSI Guiding Themes, Principles and Desired

The same Guiding Themes, Principles and Desired Outcomes are shown conceptually above in **Figure 30** following a similar approach to that adopted by the Project for Public Space (see **Figure 15**). The 31 Desired Outcomes, shown in the outer ring of the diagram, provide more specific objectives against which the placemaking benefits of different interventions can be assessed (as described below). The assessment approach shown in **Section 3.7** also reflects the feedback received from stakeholders as part of the engagement process summarised in **Section 3.6** below.

3.5 Summary of Spatial Analysis

A spatial analysis of the wider study area was conducted through several different studies. These included an overall strengths, weaknesses, opportunities, and threats (SWOT) analysis of the wider study area, an origins-destinations desire lines analysis, street character analysis, and a distribution of functions and land use study. The detailed findings from each analysis can be found in **Annex D – Placemaking Appendices | Appendix C**.

The origins-destinations desire lines analysis indicated that the residents of Sailortown & Greater Clarendon are the most disconnected from the City Centre and other neighbourhoods to the west of York Street. It also indicated that neighbourhoods to the west of the Westlink such as Shankill, Falls and New Lodge are disconnected from the waterfront and City Centre.

The distribution of functions and land use study indicated that there is a severe lack of green space within the core study area with open space accounting for less than 1% of the overall land use distribution.

The heat map below synthesises the findings of the spatial analysis by converting urban environment conditions into negative or positive score contributors. Route sections from the desire lines analysis are evaluated according to the overall quality of the walking environment. A negative score indicates very poor walking conditions whilst a positive score indicates better walking conditions. **Figure 31** below shows that the core study area has the least attractive walking routes with some sections rated as ‘very undesirable’ due to a range of challenging conditions including fast moving vehicular traffic, the need for multiple crossings of each main road, lack of active frontages, underpasses, and other unsafe characteristics.

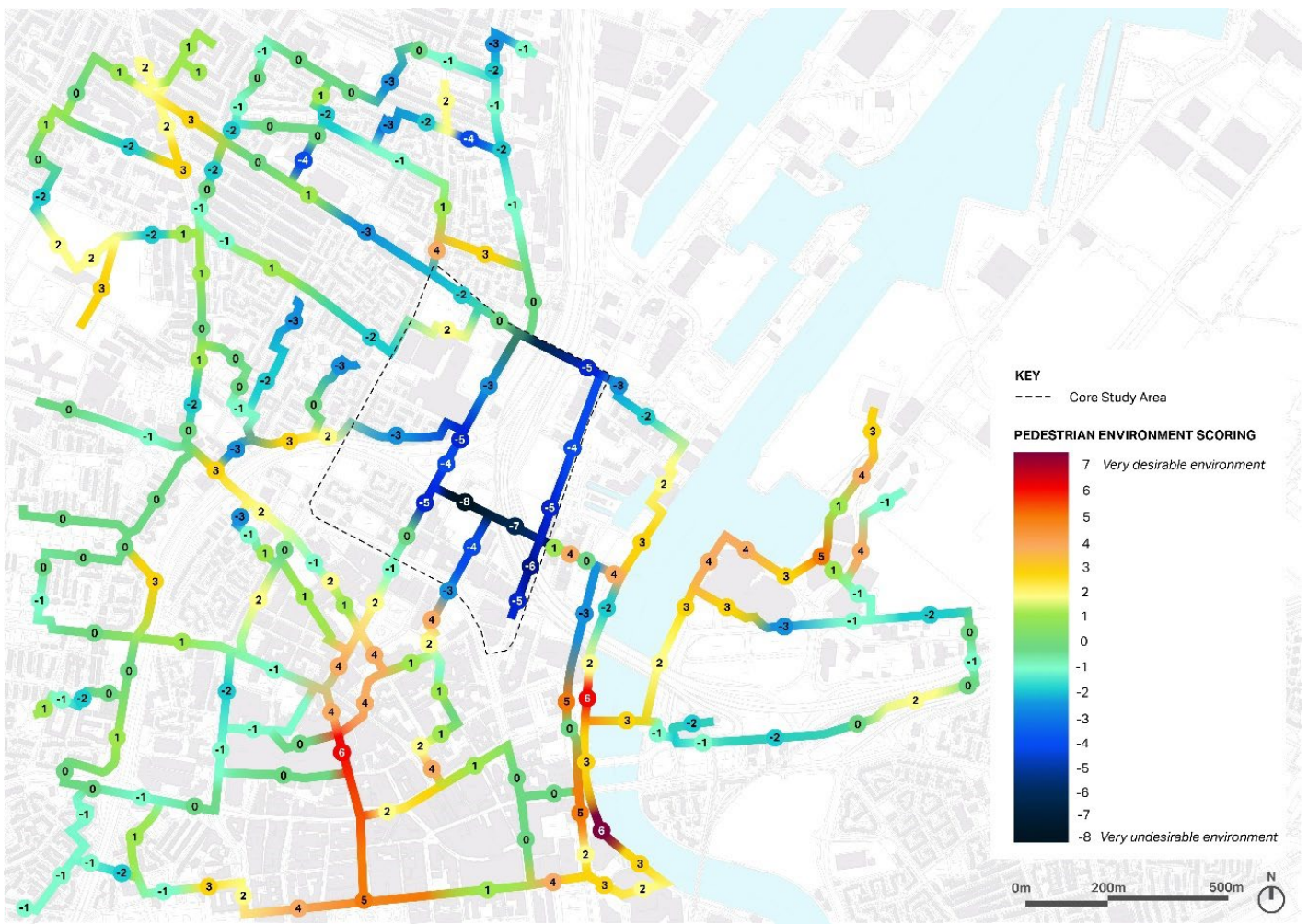


Figure 31. Heat map of the overall pedestrian environment conditions across the core and wider study areas.

3.6 Initial Stakeholder Engagement

An initial programme stakeholder engagement was undertaken in September and October 2021 to share the findings of the policy and strategy review and spatial analysis and to present the emerging Guiding Themes, Principles and Desired Outcomes. This provided an important opportunity to seek feedback on the first stages of work, to discuss the placemaking and active travel needs and aspirations for the area and the proposed approach to developing and evaluating the placemaking opportunities.

The stakeholders contributing to this process were:

- The Arts Council for Northern Ireland;
- Ashton Centre and Sailortown Regeneration Group;
- Belfast City Council (BCC) City Centre Regeneration;
- Belfast Harbour (BH);
- Belfast Healthy Cities (Care Zone);
- Department for Communities (DfC) Ministerial Advisory Group;
- Department for Communities (DfC) Urban Regeneration Department;
- Inclusive Mobility Transport Advisory Committee (IMTAC);
- Internal Department for Infrastructure (Dfi) Stakeholders;
- Sustrans;
- Translink; and
- Ulster University.

The meetings highlighted a strong level of support for a placemaking initiative and wide support for the first stages of the project summarised in **Sections 3.1 – 3.5**. There was a consensus around the significance of the connections between placemaking, health and wellbeing as well as a pressing need for a change in the priority given to different travel modes. However, some stakeholders acknowledged potential challenges in softening the impact of the proposed scheme and in delivering the proposals. A comprehensive summary of the series of stakeholder engagements is attached in **Annex D – Placemaking Appendices | Appendix D**.

The Ministerial Advisory Group (MAG) provided a Briefing Review Report which included a number of important observations and suggestions in relation to the approach to the study and the development and assessment of placemaking scenarios in particular. The MAG Briefing Review Report is included in **Annex D – Placemaking Appendices | Appendix E**.

Following feedback from the Stakeholder Engagement meetings we made a number of refinements to our approach to the study. In particular, AECOM:

- Reduced the number of Guiding Themes to the four shown in **Figure 30**, including more explicit reference to resilience to climate change;
- Sought to ensure consistency with the principles identified through the Bolder Belfast initiative;
- Supplemented AECOM's desk-based analysis of origins and destinations with a series of site visits to walk and cycle across the study area in order to appreciate the practical, day to day, issues and challenges facing pedestrians and cyclists; and
- Considered how the identified Desired Outcomes could best be used to evaluate different placemaking scenarios.

As part of the engagement process AECOM was also able to have a further face to face meeting and walkabout with representatives of the Ashton Centre and Sailortown Regeneration Group. This provided very valuable insights into the key issues identified by these community groups drawing on their extensive analysis and engagement with the wider community and external experts through a series of events held over a number of years.

3.7 Our Evaluation Approach

The Guiding Themes, Principles and Desired Outcomes described above and in **Figure 32** below were used as the basis for evaluating the alternative placemaking scenarios for the area. Consideration was given to the development of measurable metrics for the appraisal of each Desired Outcome as advocated by the MAG Review. This would have enabled the assessment process to be more objective, but the time required to develop and calibrate the measurable metrics was outside the scope and programme for the completion of the work. Given that the analysis is intended to inform strategic decision making around the relative performance of different approaches it was considered appropriate at this stage to undertake a more subjective placemaking appraisal using a seven-level assessment approach.

The results for each desired outcome were weighted accordingly to reflect the overall performance of each criteria against the guiding principles. The results of which were then plotted into a spider-web diagram and a bar graph as shown in **Section 3.8**.

GUIDING THEMES	GUIDING PRINCIPLES	DESIRED OUTCOMES	WEIGHTING
Balanced & Connected	People-first approach and prioritising local community needs	Human-scale & people friendly	(n) x 25%
		Reallocated road space from cars to active & public transport	
		Grey space reclaimed for green space	
		Increased accessibility & proximity to amenities	
	Sustainable and inclusive transport hierarchy	Safe, direct, legible & comfortable pedestrian & cycle connections	(n) x 33.3%
		Accessible & high quality public transport services	
Physical barriers & severances removed			
Resilient, Contextual & Crafted	High quality and attractive public realm	Comfortable & inclusive public realm	(n) x 33.3%
		Sustainable public realm	
		Well-designed buildings	
	Celebrating heritage and community	Enhanced setting around heritage assets	(n) x 25%
		Clear & integrated signage & wayfinding	
		Public art	
		'Gateways into the area'	
	Resilient and future-proofed places	Net-zero carbon	(n) x 50%
		Climate resilient	
	Vibrant, Productive & Prosperous	Active streets and spaces	Activation of blank facades
Repurposed vacant & derelict sites			
Inclusive economic growth		Prioritising local businesses, maker-spaces & entrepreneurs	(n) x 50%
		Community spaces for co-working, collaboration, education & mentorship	
Places of choice		High quality facilities, services & amenities to support existing residents & attract new residents	(n) x 50%
		Strong connections to surrounding attractors in the City & Harbour	
Safe, Healthy & Inclusive	Healthy and sustainable lifestyles	Increased use of active modes of transport & public transport over private vehicles	(n) x 50%
		Increased provision of open space for outdoor exercise	
	High quality of life and well-being	Reduced noise & air pollution	(n) x 25%
		Increased Urban Green Factor & habitat creation	
		Provision for places of respite, relaxation & contemplation	
		Opportunities to engage with nature	
	A sense of belonging	Shared spaces where all are welcome	(n) x 33.3%
		Inclusive places for people with disabilities	
		Reduced anti-social behaviour	

Figure 32. Diagram showing the desired outcomes and their relative weighting for the evaluation matrix – (n) = evaluation score %.

3.8 Placemaking Scenarios

The relative placemaking benefits of different approaches were explored through six different scenarios as follows:

- Scenario 0: Baseline condition;
- Scenario 1: Current YSI Scheme;
- Scenario 2: The alternative proposal developed by Mark Hackett on behalf of the Ashton Centre, hereafter referred to as the Alternative Proposal;
- Scenario 3: Refined YSI Scheme with active travel and placemaking enhancements;
- Scenario 3A: Scenario 3 with substantial refinements to YSI Scheme; and
- Scenario 4: Scenario 3A with wider area opportunities.

The composite plans of Scenarios 0, 1 and 2 are included in **Annex D – Placemaking Appendices | Appendix G**. As a precursor to the active travel and placemaking proposals, Scenarios 0, 1 and 2 were evaluated against the 31 Desired Outcomes set out in **Figure 30** to assess their strengths and weaknesses against the Guiding Principles. The relative performance of each of these scenarios is shown in **Figure 33** below and the overall conclusions from this assessment are as follows:

Scenario 0: Baseline conditions – An area that currently exemplifies some of the most challenging attributes of urban living but with the potential to achieve many of the best.

Scenario 1: Current YSI Scheme – A scheme that includes well considered placemaking proposals for landscape, public realm, and public art, which deliver improvements as compared to Scenario 0. However, it does not maximise the opportunities to deliver benefits for communities in terms of connectivity and the wider Living Places (DfI) agenda.

Scenario 2: Alternative Proposal – A scheme that delivers significantly greater placemaking benefits compared to the current YSI design and which highlights a number of important placemaking opportunities. However, it includes several areas that could be improved upon and it also (subject to further review of a new engineering report) does not meet the stated strategic transport objectives of the YSI scheme.

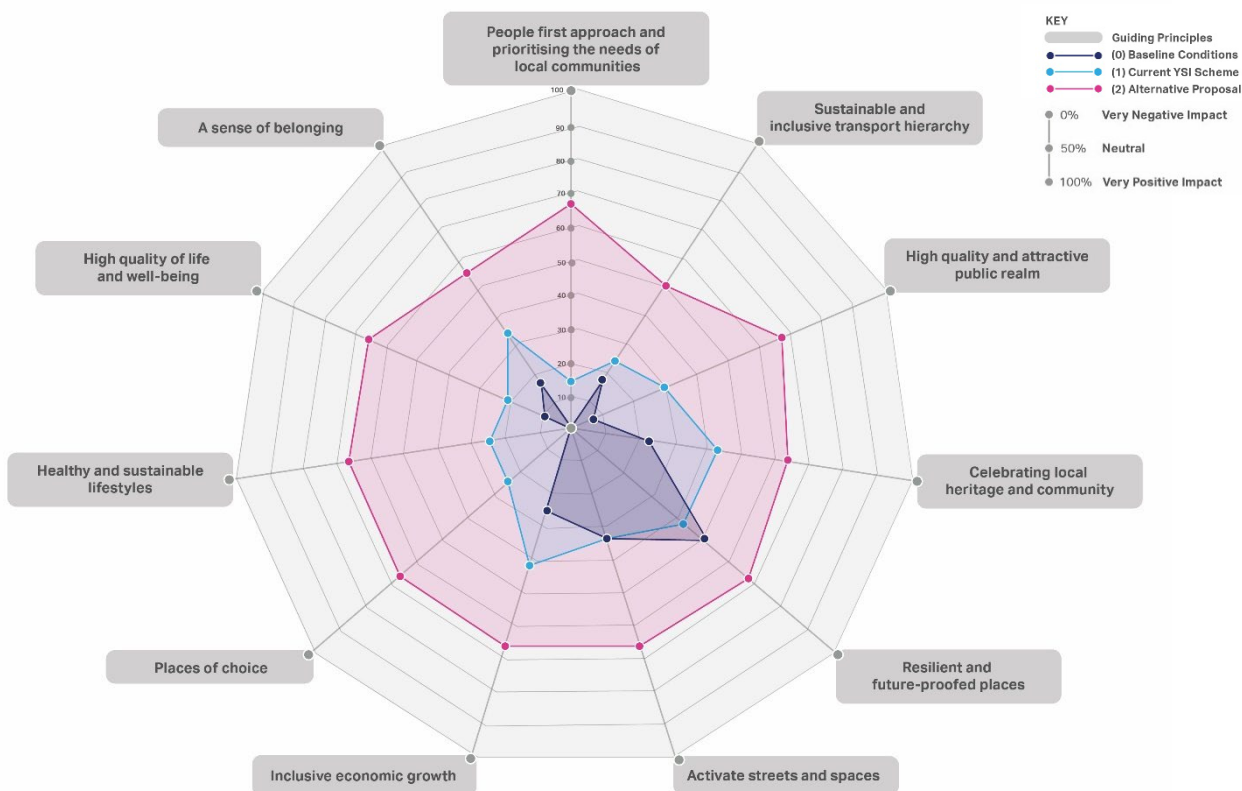


Figure 33. Evaluation spider-web diagram of Scenarios 0, 1 and 2 against the guiding principles.

Scenario 3: Refined YSI Scheme with active travel and placemaking enhancements – This scenario introduced a comprehensive package of Active Travel improvements as set out in **Section 2** (termed YSI+) as well as several placemaking enhancements. These included better pedestrian and cycle connections through the centre of the YSI scheme and improved access to the development parcel to the west of Corporation Street. This enabled a substantial uplift in placemaking benefits compared to Scenario 1 and is slightly better than Scenario 2 in terms of placemaking benefits in our assessment. The active travel and related placemaking elements are a key enabler of this up-lift in overall placemaking benefits. **Figure 34** below shows the interventions considered in Scenario 3, which is then evaluated against the guiding principles and Scenario 0 shown in **Figure 40**.

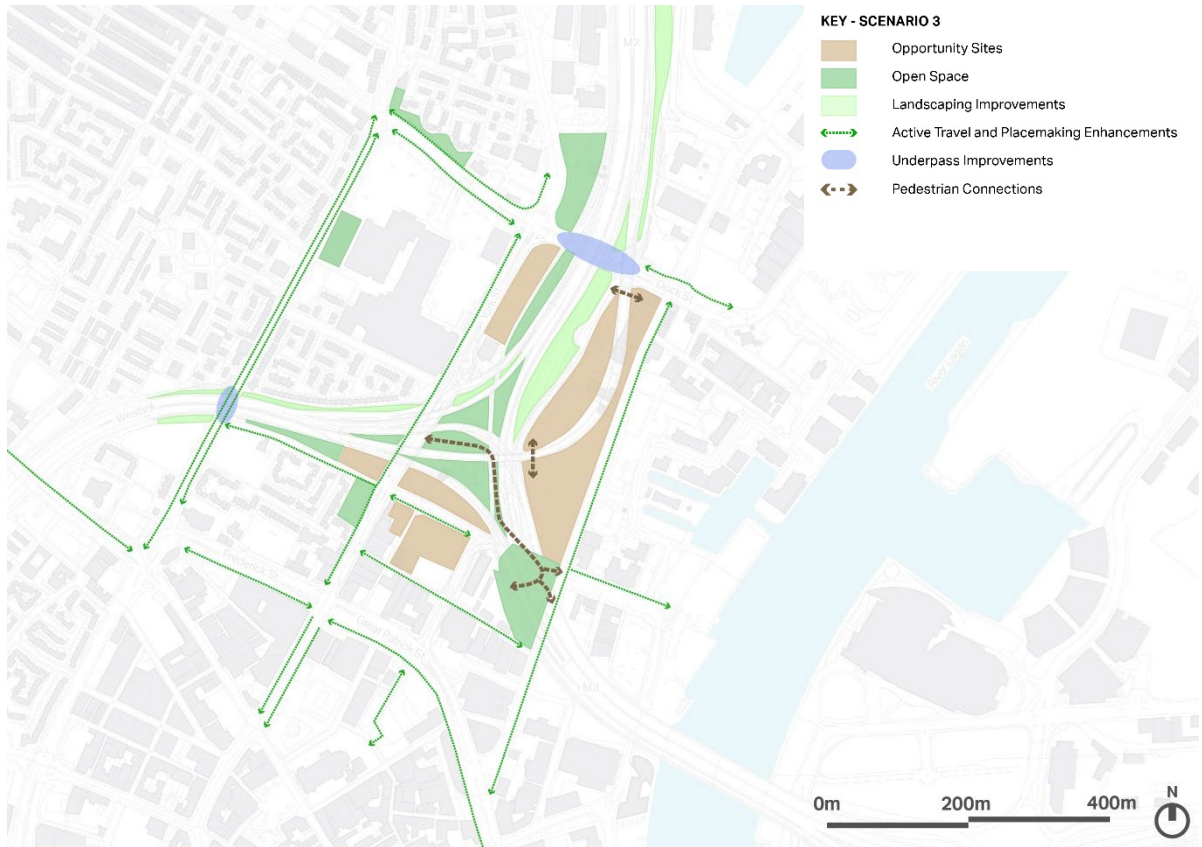


Figure 34. Composite plan of the interventions proposed in Scenario 3.



Figure 35. Illustrative sketch of new east-west pedestrian connection across YSI in Scenario 3.

Scenario 3A: Scenario 3 with substantial refinements to the YSI Scheme – This scenario includes further substantial refinements to the current YSI Scheme alongside the active travel proposals. The placemaking enhancements include the realignment of the M2 to Westlink slip road and the creation of a green landscape deck over the centre of the YSI. The assessment confirmed that this scenario has the potential to deliver a higher level of placemaking benefits than the alternative proposal and Scenario 3. Subject to further road design and cost assessment it is considered that this would also continue to meet the strategic transport objectives of the project.

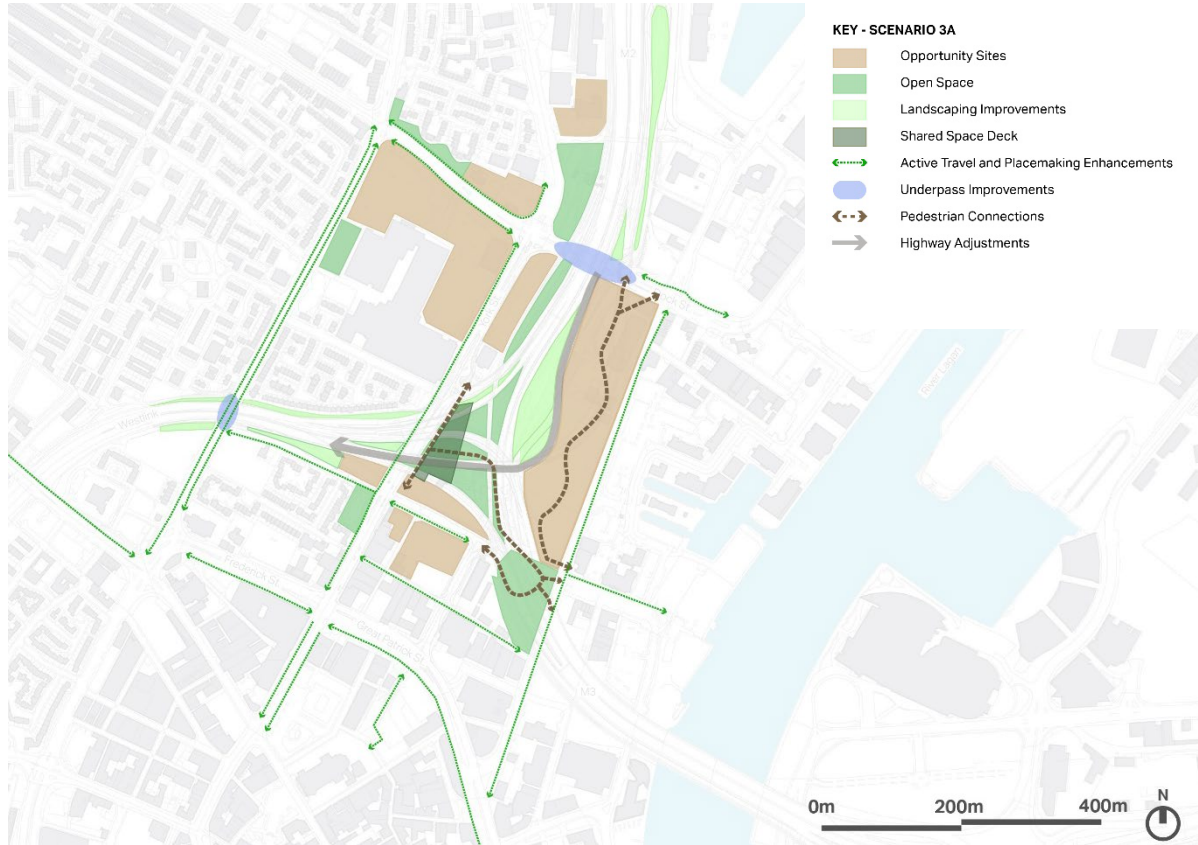


Figure 36. Composite plan of the interventions proposed in Scenario 3A

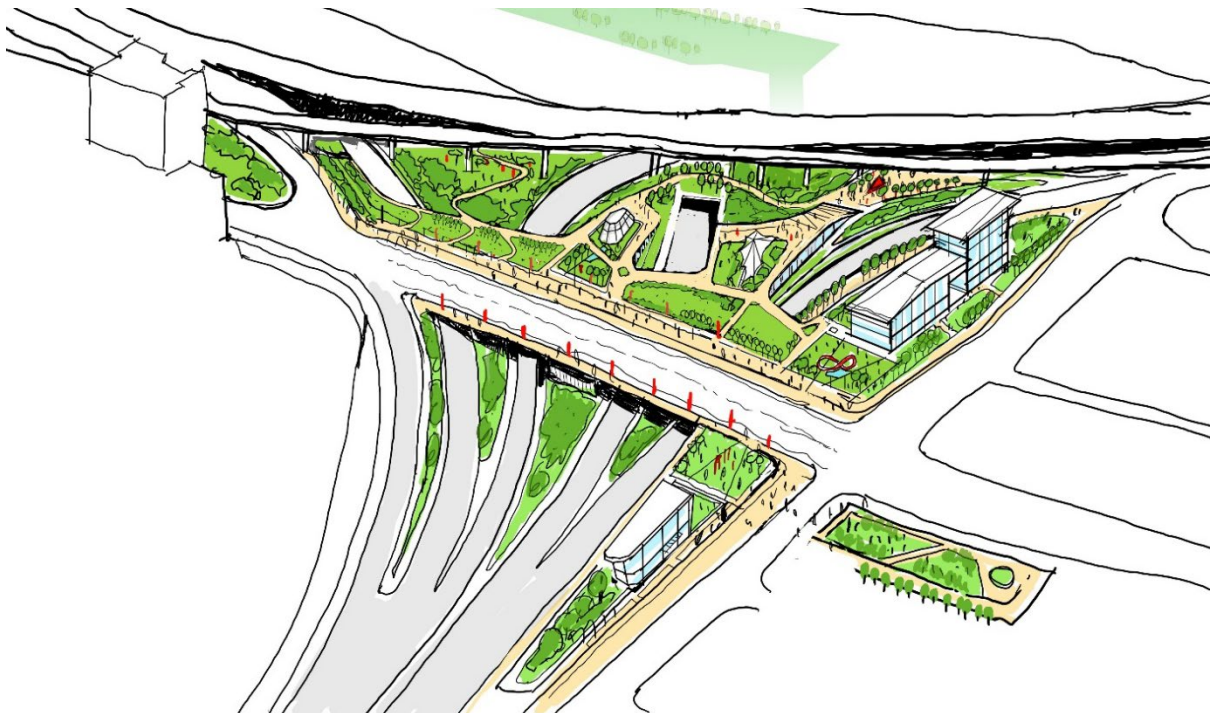


Figure 37. Illustrative sketch of green roof east of York St. in Scenario 3A.

Scenario 4: Scenario 3A with wider area opportunities – This scenario included all the elements considered in Scenario 3A but also introduced a wider set of placemaking interventions across the study area including new pedestrian and cycle bridges to Titanic Quarter. The assessment of this scenario shows significant potential to improve placemaking across the wider area. These wider opportunities are important in delivering the more strategic, city scale connectivity improvements identified and in enhancing the liveability and attractiveness of the area.

More illustrative materials for Scenarios 3, 3A and 4 can be found in **Annex D – Placemaking Appendices | Appendix H**.

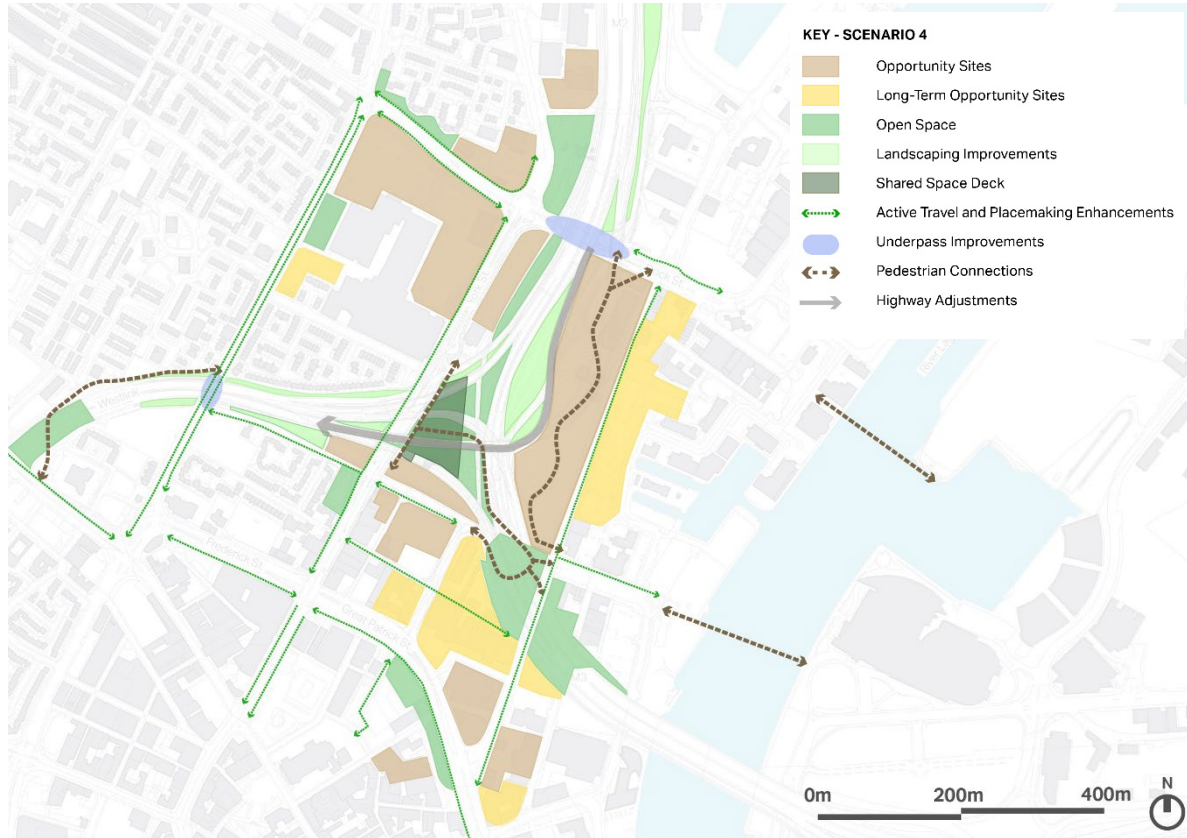


Figure 38. Composite plan of the interventions proposed in Scenario 4.

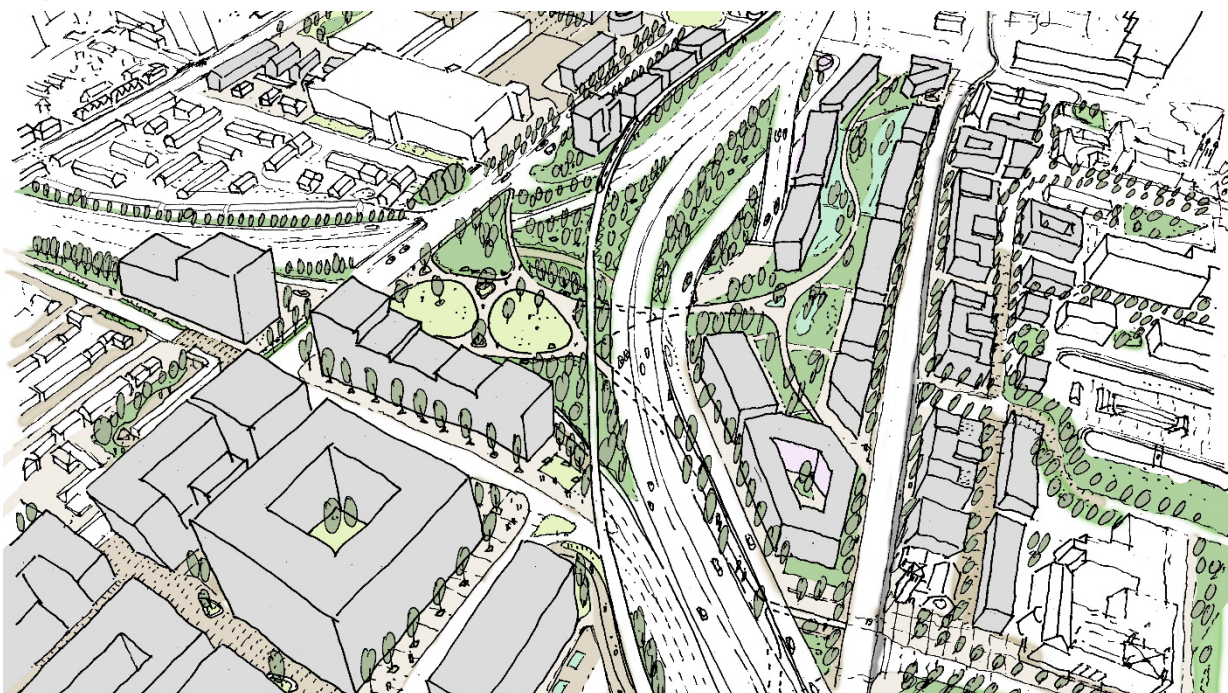


Figure 39. Illustrative sketch of extended green roof & potential connections to Corporation St. in Scenario 4.

Evaluation of Placemaking Scenarios

This section shows the overall performance of each scenario through direct comparisons. **Figure 40** highlights the weakest and strongest points of each scenario whilst **Figure 41** directly compares their relative contributions to placemaking improvements in the area. An in-depth table showing the assessment of the Scenarios against each Desired Outcome can be found in **Annex D – Placemaking Appendices | Appendix F**. It should be noted that these scenarios have been developed to inform this analysis and are not intended to be mutually exclusive. In particular, Scenarios 3A and 4 have sought to draw on the placemaking and connectivity opportunities identified in Scenario 2.

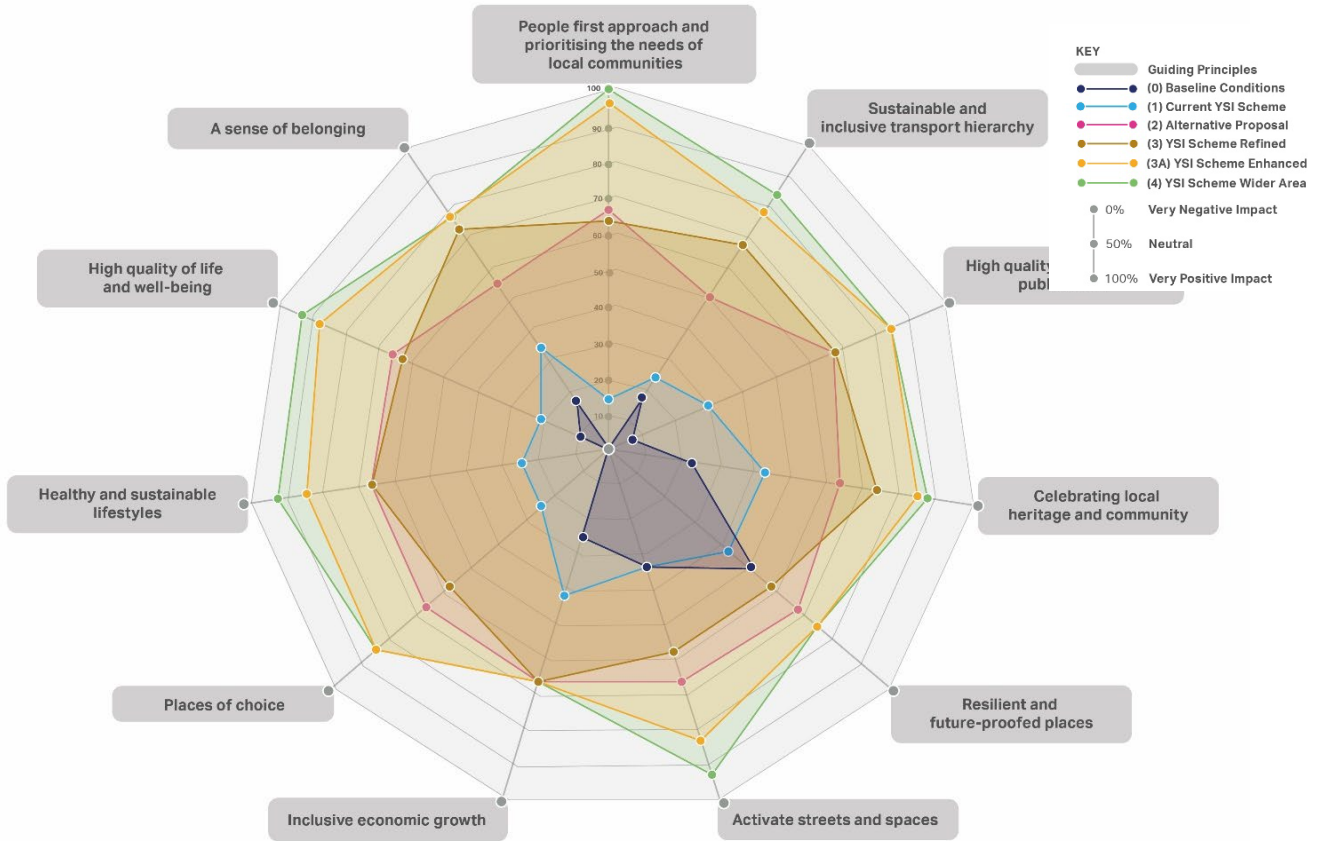


Figure 40. Spider-web diagram of the overall comparisons of Scenario 0 – 4 evaluations.

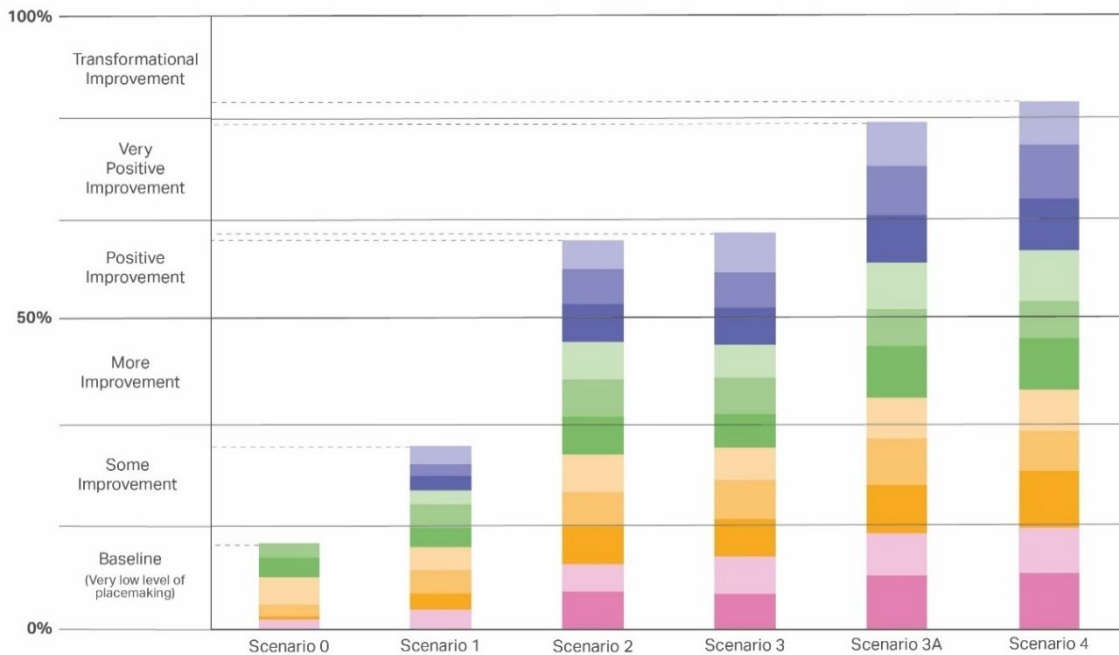


Figure 41. Bar graph of the overall placemaking impact of Scenarios 0 – 4 based. The colours match the Guiding Principles in Figure 30.

3.9 Costing Analysis

A preliminary cost analysis was undertaken to understand the broad order of costs across Scenarios 3, 3A, and 4 in order to provide an indication of how these could add to the cost of the project. This preliminary analysis found that the costs increased substantially from Scenario 3 to 3A and 4, reflecting the increasing level of ambition of the placemaking interventions and the spatial scale of the area considered in Scenario 4.

It should be noted that several of the placemaking interventions included in Scenarios 3A and 4 may already be under consideration or form part of investment programmes of other agencies. It is therefore expected that there will be opportunities to share costs across different agencies and funding programmes. More details on the costing analysis can be found in **Annex D – Placemaking Appendices | Appendix I**.

Moreover, as shown in **Figure 41**, the placemaking benefits of the scenarios increases significantly in line with the higher level of investment, and this should be reflected in any cost-benefit analysis as outlined in the following section.

3.10 Placemaking and Active Travel costs and benefits

The preliminary cost analysis shows an increasing level of investment to deliver higher levels of placemaking and active travel benefits. It is important that the wider benefits flowing from this investment are fully accounted for and recognised in any future Business Case or Cost Benefit Assessment. In this regard it should be noted that to address the Government's 'levelling up' objective, the updated Treasury Green Book allows projects which have a particular geographical focus to assess their place-based impact in order to consider differential impacts on different places. To support the new requirements, the updated Green Book provides further guidance on measuring local impacts which provides scheme promoters with an ability to quantify/monetise and recognise some of the local benefits of projects.

A meeting in March 2022 with DfI's Principal Economist confirmed that interventions should align with the updated Green Book approach. AECOM has identified a number of potential wider economic benefits that could be captured and monetised by the project or other related investment programmes and these are set out below:

- Community and cultural participation – the placemaking initiatives will enable greater opportunities for community and cultural related activities. Research shows that these activities can be associated with higher wellbeing placing a monetary value on individuals participating in activities.
- Distributional impacts – the updated Green Book now considers monetising distributional impacts to determine how an investment can benefit the most deprived communities in a project catchment area. The placemaking initiatives should generate some positive distributional impacts, especially given the socio-economic demography of the project's study area.
- Cycle and pedestrian routes – the placemaking initiatives will enable greater active travel opportunities for local communities which can lead to both quality of life and health-related benefits both of which can be monetised.
- Public realm – the provision of open space and benefits from this to local communities can be monetised placing a value on the benefits of new public realm.
- Crime – Research shows that there is a link between placemaking initiatives and a reduction in crime levels. This impact has the potential to be monetised through estimating the fall in number of crimes as a result of placemaking and determining appropriate benchmarks for the cost to society of different types of crime.
- Land value uplift/brownfield land remediation – Land value uplift is recognised as one of the core monetised benefits which can result from new interventions. Placemaking initiatives do have the potential to lead to an uplift in land values, the extent to which will be determined by the type and scale of initiative and the existing development context within the study area. If there is also a requirement to clean up and regenerate contaminated land, this is an additional benefit that can be monetised.

3.11 Further Stakeholder Engagement

A round of follow-up meetings was conducted in early 2022 with the set of stakeholders with whom the team engaged in 2021. The follow-up meeting presented a summary of the active travel and placemaking proposals,

for which it sought additional feedback. In particular, it provided a summary of the different placemaking scenarios that were presented to DfI in December 2021 and compared their potential placemaking benefits.

The project team met with all the stakeholders present in the initial 2021 engagement programme (a meeting with Belfast Healthy Cities is planned but not yet completed at the time of finalising this report). In addition, the team engaged with a new stakeholder, DfI Living with Water, to obtain additional feedback on integrated water management and resource issues.

There was an overall agreement that the study's analysis, vision, and recommendations aligned with those of the stakeholders. They recognised the need for co-designing with the local communities and stakeholders as the scheme progresses. More generally, they welcomed the broadening focus from a road project to one which recognises the importance of placemaking and the promotion of active travel. In particular, there was a consensus that realigning the M2 to Westlink slip road would make the parcel west of Corporation Street easier to develop and would create the opportunity for a higher-quality urban environment. In this regard, there was a preference for DfI to pursue the interventions outlined in Scenarios 3A and 4, which offer the most placemaking and active travel opportunities.

In addition, the meetings helped to identify additional considerations and potential challenges, including:

- The impact of the interventions on bus speed and reliability;
- The impact of the proposed junction designs on the mobility of visually impaired pedestrians and potential conflicts with cyclists;
- The maintenance, curation, and ownership of the newly created public spaces to prevent a cycle of disrepair that could attract anti-social behaviour;
- The safety of the proposed central green space at night;
- The continued inclusion of works to widen the Westlink next to residential properties;
- The inclusion of social, environmental, and health benefits in the cost-benefit assessment of the scheme;
- The extent of DfI's political and financial commitment to the proposed improvements, especially those that will be delivered by other partners; and
- The funding and means allocated to the community engagement and co-design process.

The Ministerial Advisory Group (MAG) shared a follow-up Design Review Report. The MAG's follow-up Design Review Report is included in **Annex D – Placemaking Appendices | Appendix J**. The MAG was receptive to the analysis and conclusions including the development of assessment criteria which are bespoke to the project, but raised the following questions and considerations:

- Did the project employ the appropriate traffic modelling methodology?
- The assessment approach while appropriate, is inevitably subjective and different stakeholder groups may assess the options differently.
- The design and long-term stewardship challenges around the creation and maintenance of spaces around and over infrastructure;
- Could the cost-benefit assessment account for non-monetary benefits?
- Should the engagement process include private stakeholders, including housing associations and contractors?
- Is one of the fundamental objectives of the project to increase road capacity, and if so, should this objective be challenged?

3.12 Initial Assessment of Housing Potential

It is clear from the illustrative design concepts in the placemaking scenarios that there is significant potential for new housing to be delivered through a proactive placemaking approach. This would be a significant benefit given the stakeholders' feedback in relation to the shortage of housing opportunities in the area.

In order to understand the broad scale of this potential, an initial estimate of housing potential was prepared for Scenarios 3, 3A, and 4. This shows the amount of housing potentially increasing from 500 homes in Scenario 3 to 1,100 homes in Scenario 3A and to 2,000 homes in Scenario 4.

4. Conclusions and Recommendations

The current YSI Scheme (Scenario 1) does not maximise placemaking benefits for communities or satisfy LTN 1/20 requirements for active travel. It falls short of the alternative proposal (Scenario 2) in terms of placemaking benefits, but it is understood that Scenario 2 fails to meet the stated transport objectives of the YSI project. It is recommended that DfI Roads instruct a review of the engineering report submitted for Scenario 2 to confirm that this remains the case.

The placemaking and active travel analysis undertaken in Scenario 3, 3A and 4 confirms that there are significant opportunities to increase the placemaking and active travel benefits of the YSI Scheme while meeting the stated transport objectives. The level of uplift in placemaking benefits is dependent on:

- The extent of refinement that can be made to the current YSI scheme design;
- Considerations of cost and value; and
- The ability to develop a deliverable vision for the scheme and wider area that all partners and stakeholders can support.

From a placemaking and active travel perspective it is recommended that DfI continue to take forward for further consideration Scenario 3, 3A and 4 at this stage.

Placemaking and Active Travel Interventions

Scenario 3 enables a substantial uplift in placemaking benefits compared to the current design and achieves a comparable level of placemaking benefits to the alternative proposal. The active travel and related placemaking elements are a key enabler of this uplift and should be prioritised.

The most significant aspect of the current design that depresses the placemaking benefits in Scenario 3 is the M2 to Westlink slip road. The placemaking analysis in Scenario 3A highlights the significant benefits that would flow from the on-slip realignment. It is recommended that a review of the design standards applied to this element of the project is undertaken as a priority. It is noted that any proposed change to the alignment would be subject to independent technical review and approval by DfI's technical approval authority.

The overall placemaking outcomes could be further enhanced through the addition of a green roof over the central part of the scheme in Scenario 3A. It is recommended that DfI undertakes further analysis to explore the extent of these benefits and associated costs and project risks in more detail.

Scenario 4 includes the widest area of intervention and includes land beyond the scheme and DfI ownership. The wider interventions considered in this Scenario are important to delivering the city scale improvements in connectivity. Scenario 4 could become particularly important if some or all of the identified refinements to the scheme in Scenario 3A cannot be delivered, particularly the proposed realignment of the M2 to Westlink link. It is recommended that DfI explore further the opportunities for strategic green infrastructure connections across the city that could be enabled by the project.

There was a strong consensus among the stakeholders that the placemaking benefits drawn from a combination of Scenarios 3, 3A, and 4 could provide the basis for very significant and important improvements to the quality of life and opportunity for people living, working, and studying in the area.

Developing a Delivery Strategy

The placemaking analysis has identified a wide range of potential interventions across the four overarching scenarios. These interventions need to be ordered in terms of priority, timing of delivery, dependencies, and other factors. It is also noted that a number of the placemaking interventions included in Scenarios 3A and 4 may already be under consideration or form part of investment programmes of other agencies. The responsibility for delivery and funding for each project should form part of a wider delivery strategy.

Placemaking and Active Travel costs and benefits

The preliminary cost analysis shows an increasing level of investment to deliver higher levels of placemaking and active travel benefits. It is important that the wider benefits flowing from this investment are fully accounted for

and recognised in any future Business Case or Cost Benefit Assessment. In this regard it should be noted that to address the Government's 'levelling up' objective, the updated Treasury Green Book allows projects which have a particular geographical focus to assess their place-based impact in order to consider differential impacts on places and communities. To support the new requirements, the updated Green Book provides further guidance on measuring local impacts which provides scheme promoters with an ability to quantify/monetise and recognise some of the local benefits of projects.

Stakeholder Engagement

This current commission has included two very productive rounds of consultation with stakeholders as well as a very positive and informative engagement with a wider group of stakeholders at the Healthy North Belfast seminar on 9th February 2022. It is clear from this engagement that there is widespread and strong support for the placemaking initiative and a widely shared commitment to delivering the project in a way that works for users of the scheme and the communities who live, work, and study within the area. It is recommended that an engagement strategy be developed so that the project can build on the positive engagement that has been developed through the placemaking and active travel review.

Effective placemaking needs to include active involvement from people who live, work or study in the area. This approach was recognised as being very important by the stakeholders during the engagement and it is recommended that consideration is given to the potential for a programme of stakeholder consultation, community involvement and co-design that could unlock further local insights, support buy-in and create long term social value.

