Smart Design for Resilient Futures

Enhancing resilience through stakeholder engagement and biophilic interventions

October 2024

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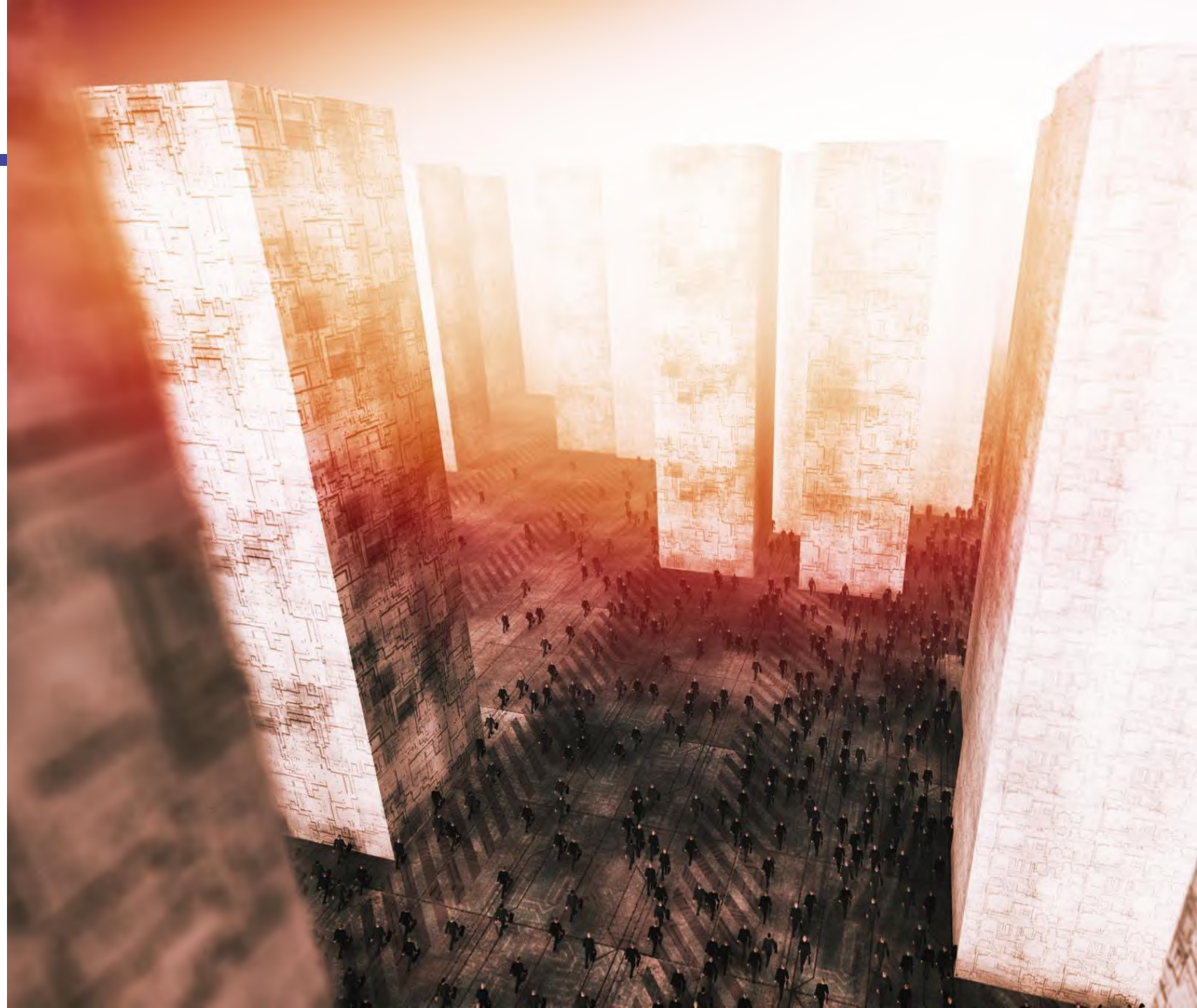
Agenda

- Introduction
- Definitions
- Importance
- Significance
- Why we need Smarter, Resilient Design
- Key Principles of Smart Design
- Case studies
  - ✓ Wolverhampton
  - ✓ Wednesfield
  - ✓ Goole
- Conclusion



ABOUT ME

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Qualifications

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DEFINITIONS

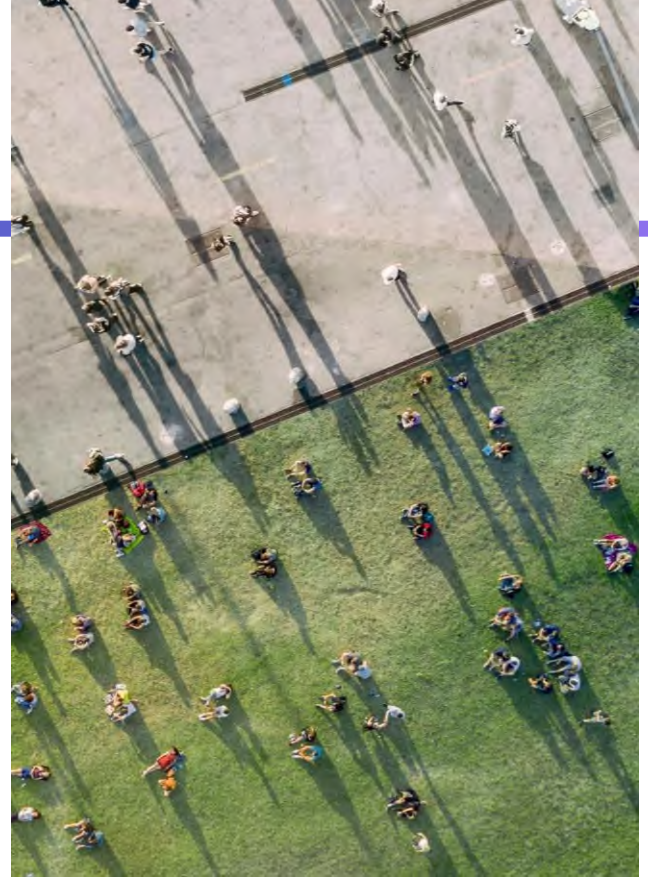
RESILIENCE

URBAN REGEN

BIOPHILIC

Significance of Urban Regeneration

- Urban realm refers to the freely accessible spaces in a city that are open to everyone, such as streets, parks, and plazas. It is a vital component of urban infrastructure, providing opportunities for social interaction, physical activity, and access to services and amenities.
- Urban realm has a rich history that dates back to ancient civilizations. Ancient Greeks, Romans, and Egyptians created public spaces such as amphitheatres, forums, and temples, which served as a centre for community gatherings and civic activities
- Our Urban realm has evolved over time, reflecting changes in society, technology, and culture. Urbanization, industrialization, and globalization have transformed public spaces, creating new challenges and opportunities for public realm regeneration



WHY WE NEED SMARTER, RESILIENT DESIGN

Currently, 55% of the world’s population lives in urban areas, projected to increase to 68% by 2050.

KEY PRINCIPLES OF SMART DESIGN

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SUSTAINABILITY

Smart design considers sustainability as a key principle, ensuring that solutions are environmentally responsible and energy-efficient.

ACCESSIBILITY

Smart design aims to create accessible solutions, ensuring that everyone can use and benefit from them regardless of their physical ability.

STAKEHOLDER ENGAGEMENT

Stakeholder engagement is a critical aspect of collaborative design processes. Working with stakeholders early in the process helps ensure that the design solutions developed meet their needs and preferences.

INNOVATION

Smart design encourages innovation, aiming for creative solutions that are both functional and aesthetically pleasing.

FLEXIBILITY AND MODULARITY

Smart design principles include flexibility and modularity, creating solutions that can adapt to changing needs and can be easily modified or expanded.

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ENHANCING PHYSICAL AND MENTAL HEALTH

Biophilic interventions have been found to improve physical and mental health by reducing stress and promoting relaxation, providing a sense of wellbeing and improving air quality.

INCREASING BIODIVERSITY

Biophilic interventions can increase biodiversity in urban areas by providing habitats for birds, insects, and other wildlife, which are essential for maintaining healthy ecosystems.

REDUCING HEAT ISLAND EFFECT

Biophilic interventions such as green roofs, living walls, and urban forests can help reduce the heat island effect in cities by providing shade and cooling, which can reduce energy use and improve air quality.

SOCIAL BENEFITS

Biophilic design has many social benefits, including promoting community engagement and creating inclusive and accessible spaces. These benefits help to create a sense of community and improve the well-being of people.

ACCESSIBILITY

ACCESSIBILITY & RESILIENCE

Accessibility in public realm design can contribute to resilience by ensuring that public spaces are usable and adaptable for people of all abilities, including those with disabilities, the elderly, and families with young children, during times of normalcy and crisis.

INCLUSIVE DESIGN

Inclusive design is a design approach that considers the diverse needs of people with different abilities, backgrounds, and ages in the design process, contributing to the creation of more resilient public spaces.

BEST PRACTICES FOR ACCESSIBLE PUBLIC REALM DESIGN

Designing public spaces that are accessible and inclusive is essential for ensuring that all members of the community can participate fully in public life. Best practices include taking into account the needs of all users, such as those with disabilities or limited mobility, and providing accommodations like ramps, curb cuts, and accessible seating.

STAKEHOLDER ENGAGEMENT

INVOLVING THE COMMUNITY IN THE DESIGN PROCESS

Robust stakeholder engagement is essential in modern public realm design. Bringing together diverse voices—from community members to local businesses and policymakers—to create inclusive designs that reflect community aspirations.

BUILDING OWNERSHIP AND RESPONSIBILITY

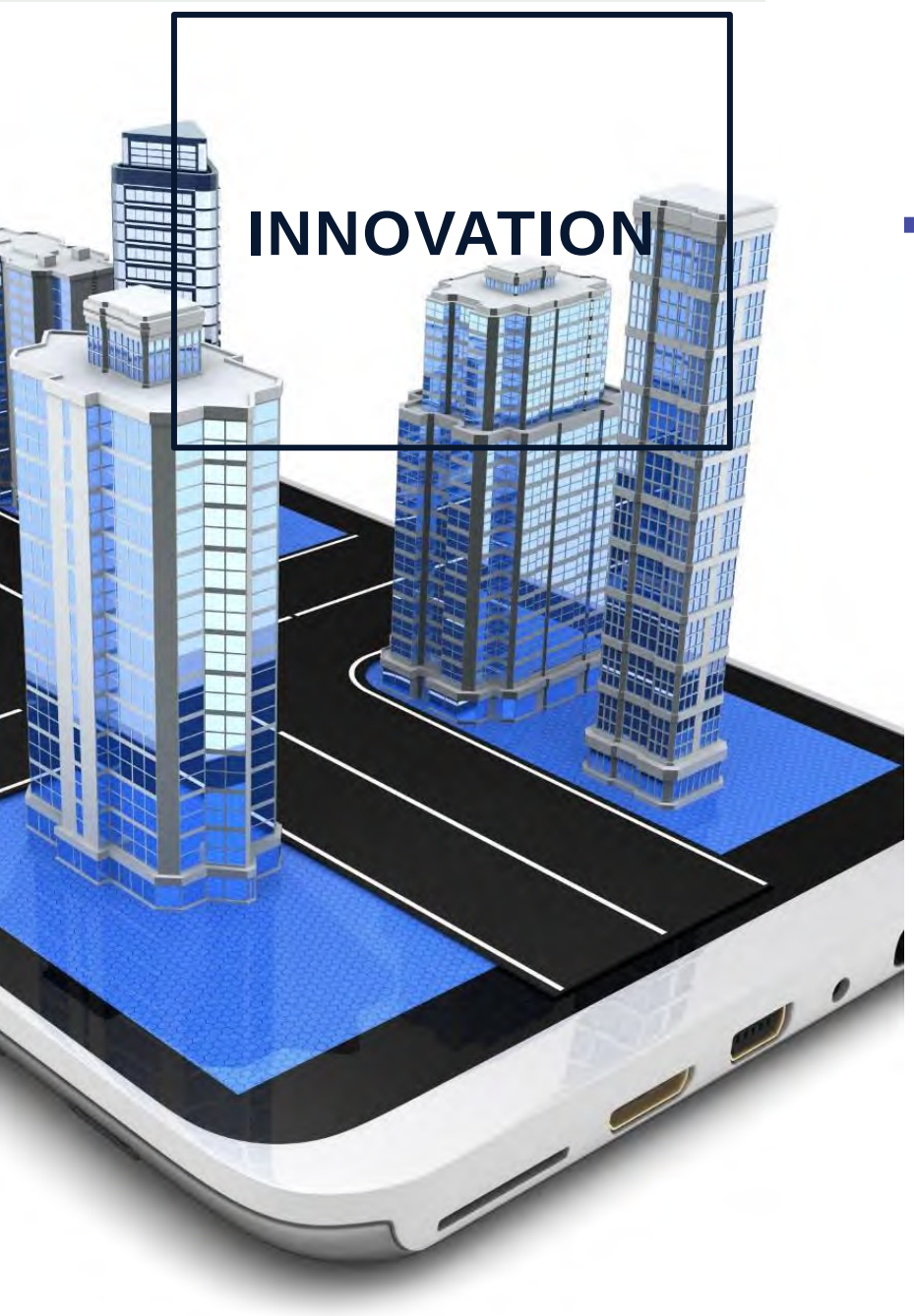
Active engagement nurtures a sense of ownership among residents, fostering a deeper connection between people and the spaces they inhabit. By prioritizing collaboration and open dialogue, we can enhance the developmental process and ensure designs meet genuine community needs.

CREATIVE SOLUTIONS

Balancing diverse interests and needs requires creative solutions that meet the needs of all stakeholders, by finding a common ground

INCREASED TRANSPARENCY

Stakeholder engagement increases transparency, providing a clear view of stakeholders' concerns and expectations, and ensures all parties have a say in the decision-making process.



INNOVATION

SMARTER URBAN REGENERATION DESIGN

Smarter urban regeneration design focuses on the integration of technology, sustainability, and community engagement to create more livable, resilient, and equitable cities.

USE OF MOBILE DATA TO INFORM DESIGN

The use of mobile data can inform smarter urban regeneration design by providing real-time information on traffic, air quality, energy consumption, and other key indicators of urban life.

CREATIVE SOLUTIONS

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FLEXIBILITY

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GREEN INFRASTRUCTURE

Green infrastructure is a modern approach to public realm regeneration that involves the use of natural systems to manage stormwater, conserve energy, and promote biodiversity.

PLACEMAKING

Placemaking is an innovative approach to public realm regeneration that aims to create vibrant, people-centered public spaces that reflect the needs and preferences of the local community.

TACTICAL URBANISM

Tactical urbanism is an innovative approach to public realm regeneration that involves using low-cost, temporary interventions to transform underutilized public spaces into vibrant and functional places.

PARTICIPATORY DESIGN METHODS

Participatory design methods, such as co-design workshops and community charrettes, provide designers and stakeholders with a way to engage in a collaborative design process that is inclusive and responsive to diverse perspectives and needs.

Lessons learned from recent public realm regeneration schemes

STAKEHOLDER ENGAGEMENT

Stakeholder engagement has proven to be a cornerstone of success in our public realm regeneration and biophilic projects. By involving local communities, businesses, and organizations in the design and implementation phases, we have fostered a sense of ownership and pride in the final outcomes.

INNOVATIVE DESIGN SOLUTIONS

The use of innovative design solutions has been instrumental in creating functional, aesthetically pleasing, and environmentally sustainable spaces. These designs not only attract visitors but also enhance the quality of life for local communities, showcasing the true potential of thoughtful and creative planning.

FLEXIBLE AND ADAPTABLE APPROACHES

Lastly, the flexibility and adaptability of our approaches have allowed our projects to evolve over time. This adaptability ensures that we can respond to the changing needs of local communities, environmental conditions, and technological advancements, thereby maintaining the relevance and impact of our interventions.


Wolverhampton

OPTION B - CYCLE ONLY *(Restricted Loading Access)*

Option B offers a cycle only option along Queen Square and the eastern stretch of Lichfield Street, this provides placemaking opportunities at key landmarks within the city centre as well as providing opportunities for flexible event spaces and promoting active travel through Wolverhampton.

Pros

+ New Taxi rank (Darlington Street)
+ Additional street furniture / resting places
+ Reduced traffic and emissions
+ Increased public realm and event spaces
+ Promoting active travel

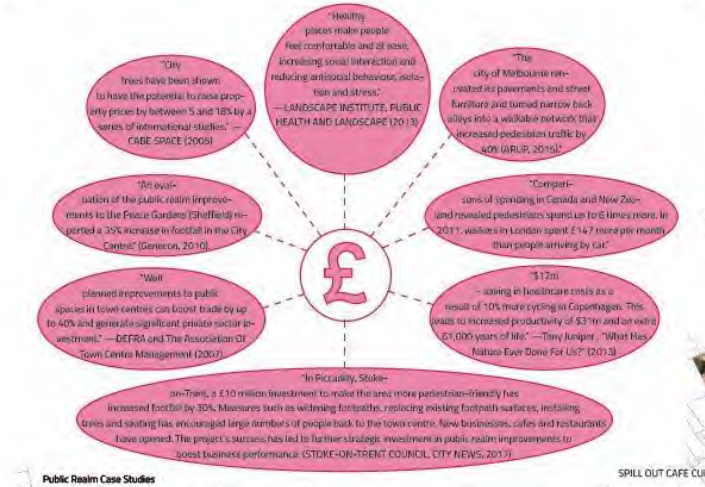
Cons

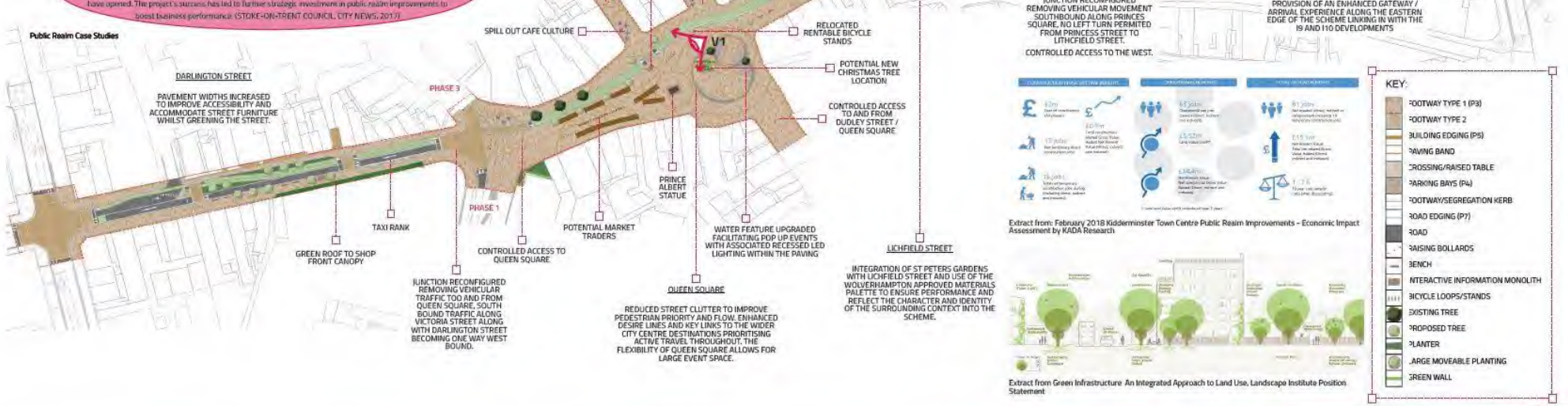
- No Taxi access from Princes Square to Victoria Street
- Buses requiring re-routing, extra100m to walk (from Princes Sq bus stop)

Sauchiehall Street, Glasgow - Segregated Cycle Way

Church Street, Liverpool - Pedestrian Highstreet

V1 - Pedestrianised Queen Square with Cycle Way





Extract from: February 2018 Kidderminster Town Centre Public Realm Improvements – Economic Impact Assessment by KADA Research

Extract from Green Infrastructure An Integrated Approach to Land Use, Landscape Institute Position Statement

WOLVERHAMPTON PHASE 2 PUBLIC REALM CONCEPT DESIGN
OPTION B - CYCLE ONLY

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20/01/22

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EMPOWER | ENGAGE | EXCEL

CITY OF WOLVERHAMPTON COUNCIL

OPTION C2 - BUS AND CYCLE WITH BUS STOPS ON LICHFIELD STREET

Option C2 offers vehicular movement for both bus and cyclists, similar to that of the temporary works currently in place. This offers widened footways to accommodate people waiting for the bus, access for all vehicles and a contraflow cycle lane. The bus routing is maintained however there is some loss of public realm and green infrastructure when compared to option C1.

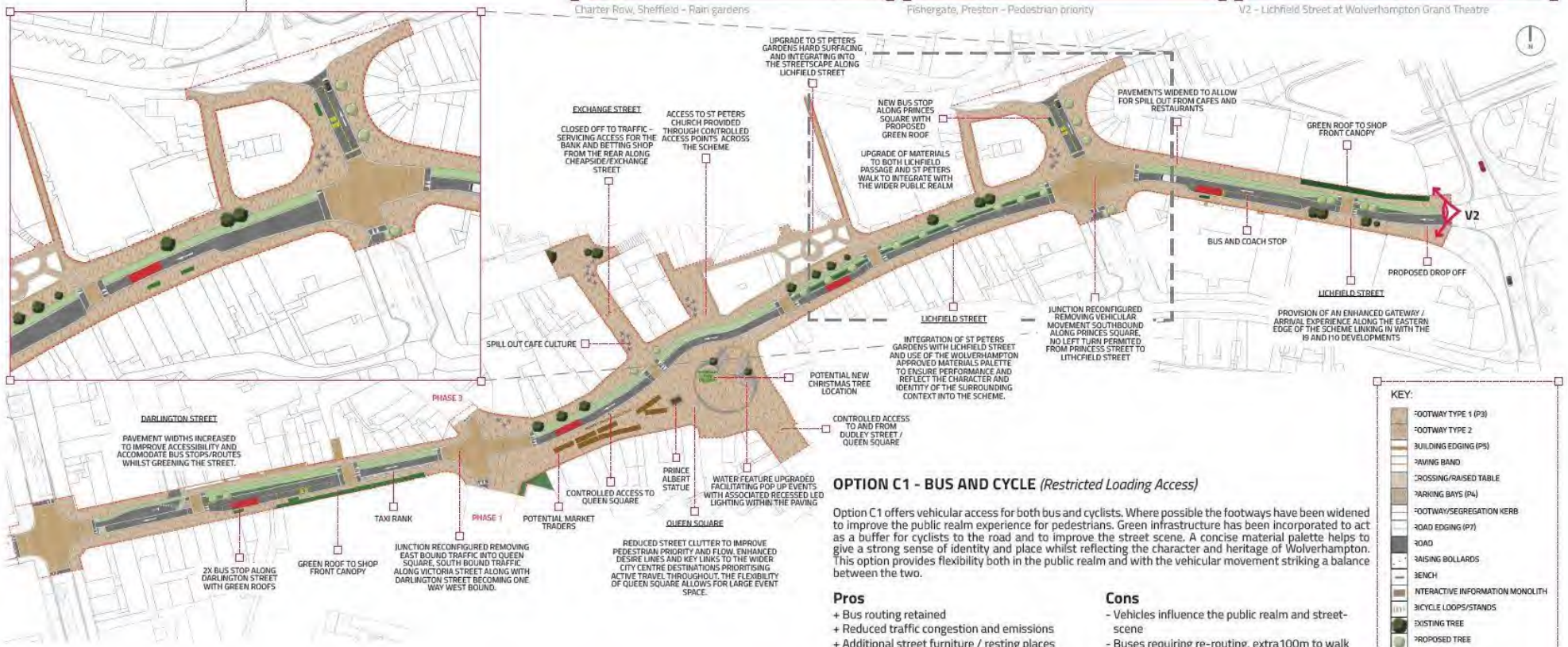
Pros
+ Bus routing retained
+ Footpath extended on southern side of Lichfield Street.

Cons
- Excess bus stops
- Loss of public realm, reduced green infrastructure
- Single cycle lane
- No safe passing of vehicles

Charter Row, Sheffield - Rain gardens


Fishergate, Preston - Pedestrian priority


V2 - Lichfield Street at Wolverhampton Grand Theatre



OPTION C1 - BUS AND CYCLE *(Restricted Loading Access)*

Option C1 offers vehicular access for both bus and cyclists. Where possible the footways have been widened to improve the public realm experience for pedestrians. Green infrastructure has been incorporated to act as a buffer for cyclists to the road and to improve the street scene. A concise material palette helps to give a strong sense of identity and place whilst reflecting the character and heritage of Wolverhampton. This option provides flexibility both in the public realm and with the vehicular movement striking a balance between the two.

Pros
+ Bus routing retained
+ Reduced traffic congestion and emissions
+ Additional street furniture / resting places
+ Segregated cycleway
+ Green infrastructure improving street scene
+ Increased public realm

Cons
- Vehicles influence the public realm and street-scene
- Buses requiring re-routing, extra100m to walk (from Princes Sq bus stop)
- Limited access along Lichfield Street and Queen Sq
- No Taxi access from Princes Square to Victoria Street

WOLVERHAMPTON PHASE 2 PUBLIC REALM CONCEPT DESIGN
OPTION C1 & C2 - BUS AND CYCLE

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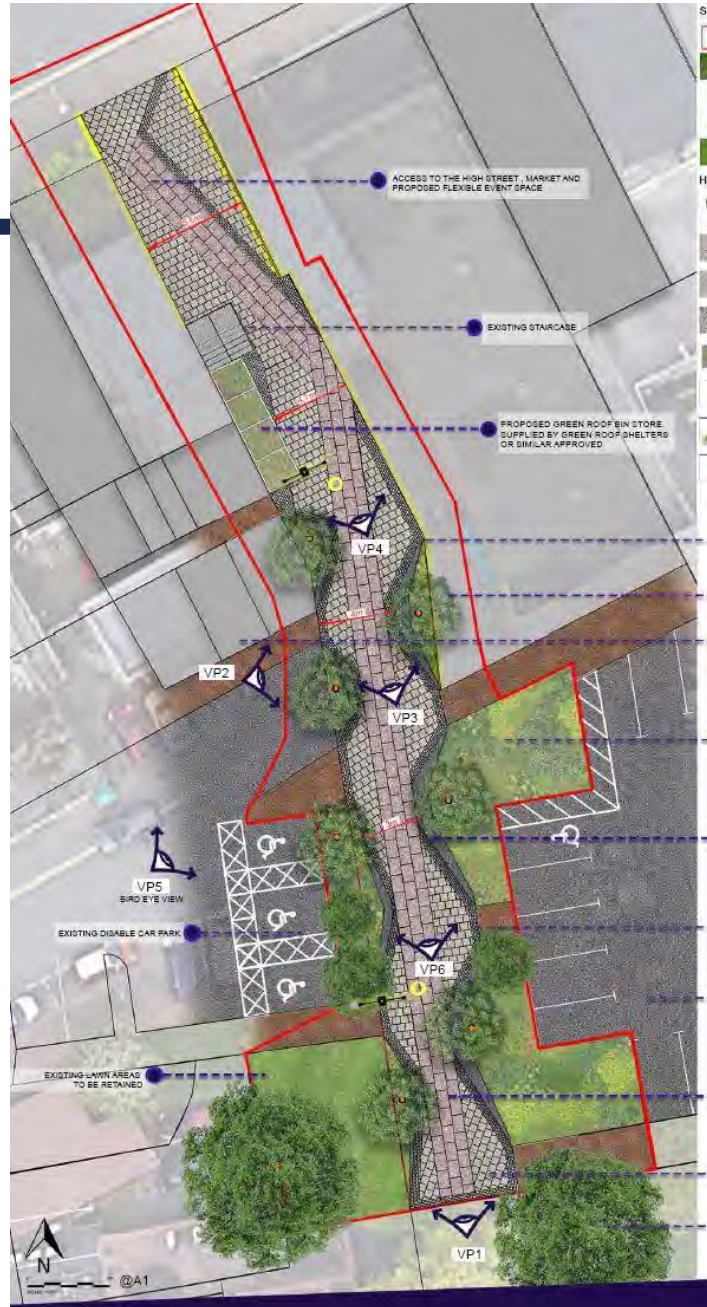
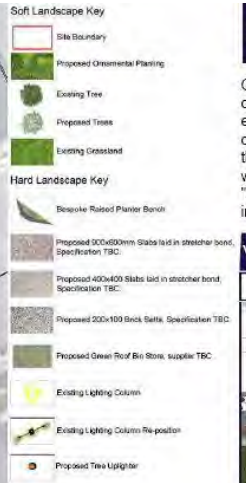
Wednesfield

BEALEYS FOLD RIBA STAGE 3 LANDSCAPE DESIGN

Our vision for Bealeys Fold is to foster a seamless connection between Alfred Squire Road and the Nicholls Fold/Woodhouse Fold car parks, enhancing the overall experience for pedestrians. By strategically reducing street clutter and introducing new trees, we aim to extend the inviting tree-lined boulevard. Key elements of our proposal include the installation of bespoke raised seating and planters on the right-hand side as you approach High Street. These thoughtfully designed features will not only provide comfortable resting spots but also create vibrant planting beds that effectively screen the existing car parks, enhancing the visual appeal of the space. To celebrate local culture and enhance wayfinding, we envision the inclusion of an artwork by a local artist that will serve as a welcoming signpost for residents heading towards High Street. The paving design and street furniture will embody a playful, modern interpretation of the name "Bealeys Fold," offering a unique sense of identity and place. Through this design, we aspire to create an urban environment that prioritises connectivity, green infrastructure, and community engagement to create a welcoming transitional place leading onto the improved High Street.





VISUALIZATION

EXAMPLE IMAGES

BEALEYS FOLD RIBA STAGE 3 LANDSCAPE DESIGN

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08/08/2024

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PROJECT BACKGROUND

Amey as lead consultants with a Landscape Architecture Lead Designer are currently delivering RIBA Stages 1 to 5, for East Riding of Yorkshire Council (ERYC).

As part of the Town Deal, EYRC secured approximately £6.5m for the delivery of new public realm within the town centre. This investment is focussed around key interventions in the following key spaces, delivering a cohesive and high quality public realm for the town centre.

Station Plaza
The High Street
Paradise Place
Market Place
Church Street
North Road and Leisure Centre

North Street - RIBA 3 Design

Goole, North Street

Paradise Place - RIBA 3 Design

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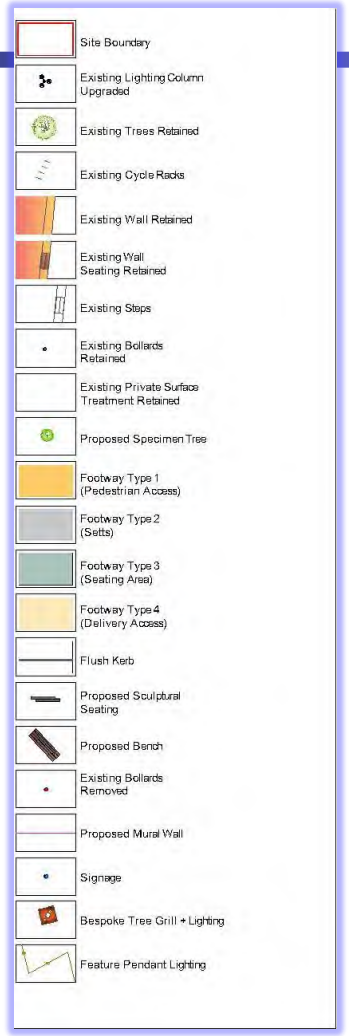

Goole, Paradise Place

Market Hall- RIBA 3 Design

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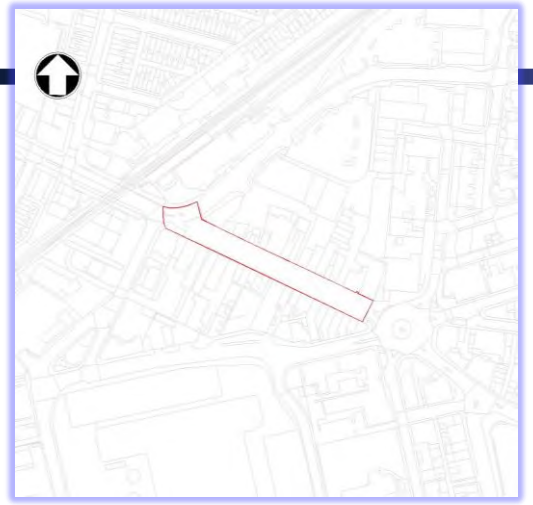
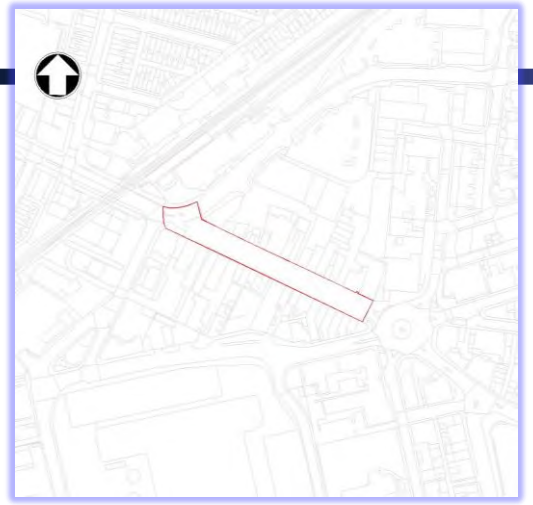
Goole, Market Hall

High Street Option One - RIBA 3 Design



Goole High Street- Option One

High Street Option Two - RIBA 3 Design



Goole High Street- Option Two

Station Plaza- RIBA 3 Design

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GOOLE STATION
Cycles
Save pennies and the planet.
Happy travels
STATION PLAZA


STATION PLAZA


Goole Video Flythrough

CONCLUSIONS AND SUMMARY

Building Sustainable Cities

Urban regeneration is a critical process for building sustainable cities. By using data-driven design and developing commercial opportunities, we can create spaces that are environmentally and socially responsible.

Resilient and Vibrant Cities

Urban regeneration can help build resilient and vibrant cities. By engaging stakeholders and developing commercial opportunities, we can create spaces that are adaptable to change and provide a positive environment for all.

THANK YOU

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2024