



Urban Transformation Manual

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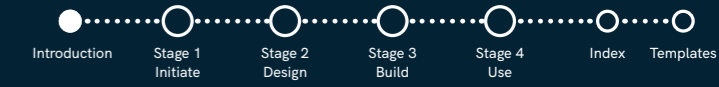
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Contents

Introduction	8		
STAGE 1		STAGE 3	
Initiate	26	Build	104
Envision	30	Implement.....	108
Define	42	Control.....	118
Involve.....	50	Handover	120
STAGE 2		STAGE 4	
Design	70	Use	126
Explore	74	Operate.....	130
Integrate	86	Program	140
Refine.....	100	Monitor	150
		Index	156
		Templates	160

Introduction



Foreword

The Architecture and Design Commission is mandated to regulate and uplift the sector. This wide remit allows it to influence and create positive impact across the value chain and work with many partners to achieve this.

The Built Environment has many stakeholders during its various steps of creation, delivery and use. Yet the process of the creation of public space is often one-sided and falls short of the aspirations of its users. Cities are comprised of buildings, infrastructure and public spaces. The quality of these places and spaces, and the processes that underpin their realization, has a profound impact on the quality of urban life, influencing the health, well-being, cultural and social life of citizens and visitors.

This manual is part of our advocacy and thought-leadership to change the culture of the creation and use of public spaces. The Manual is a value-driven process that will equip public and private entities with the knowledge and tools to embed 'best practice' of Urban Transformation in their projects and activities, to positively impact Saudi Arabia's built environment.

The Urban Transformation Manual will guide the process of creating high-quality public spaces in Saudi cities. Urban Transformation is achieved when spaces have a unique identity, realized through an inclusive process, and informed by local communities and stakeholders. Such inclusion and integration are of paramount importance to increase ownership, improve fit and create lovable places of distinct character.

Dr. Sumayah Al-Solaiman
Architecture and Design Commission CEO

Glossary

Building skills: Traditional and heritage-related skills in the built environment, such as stone-masonry, woodwork, etc. These are often under threat of disappearing.

Entity: An entity is a public, private or non-profit organization charged with carrying out governmental, institutional, or business functions. It will have a robust structure outlining its role and lines of accountability.

Placemaking: An approach to the planning, design and management of public spaces that capitalizes on a local community’s assets, culture, and aspirations, with the intention of creating public spaces that improve urban vitality and promote health, happiness, and well-being.

Circular economy: A sustainable model intentionally designed for restoration and regeneration, with the objective of disconnecting economic growth from the depletion of finite resources.

Meanwhile Use: A temporary use that activates a site for a period of time before being developed into a more permanent end state. It may ‘seed’ the longer-term permanent use or activity.

Public participation: Also known as ‘Community Engagement’. The inclusion of citizens in determining aspects of the future of their neighborhood; diverse methods of community engagement allow people to express their needs, values and aspirations for a space or place.

Community: A group of people who come together around a place, activity or set of values. They tend to live or work in the same area.

Modular design: The use of a repeatable element, component or module in a physical design; a module tends to be of a simple form itself so that it is inherently flexible and adaptable and, therefore, usable across diverse situations.

Public space: An open space that is accessible to the general public. The public use of space does not itself require public ownership, but it is fundamental that it can host activities, events and other collective activities open to all members of society.

Ecosystem: A complex network or interconnected system where the members of that system must work with and around each other to keep the system stable, ideally optimizing the collective benefit.

Regeneration: Physical improvements, underpinned by economic, policy or social initiatives, to an area or space that helps to revitalize areas of economic or social decline to benefit new and existing communities.

Stewardship: The long-term care and management of a place or space, ensuring the ongoing work of repair and operations management, while listening to the local community’s evolving needs and cultivating thriving places.

Resilience: The capacity of individuals, communities, institutions, businesses and systems within a city to survive, adapt, and grow no matter what kinds of chronic stresses and acute shocks they experience.

Urban Development: The physical development of a piece of city that takes into account social, cultural, and economic factors. A major focus is on strategic policy and built form alongside land use.

Stakeholders: A stakeholder is a person, group or organization with a vested interest, or stake, in the decision-making and activities of a business, organization or project. Stakeholders can be members of the organization they have a stake in, or they can have no official affiliation.

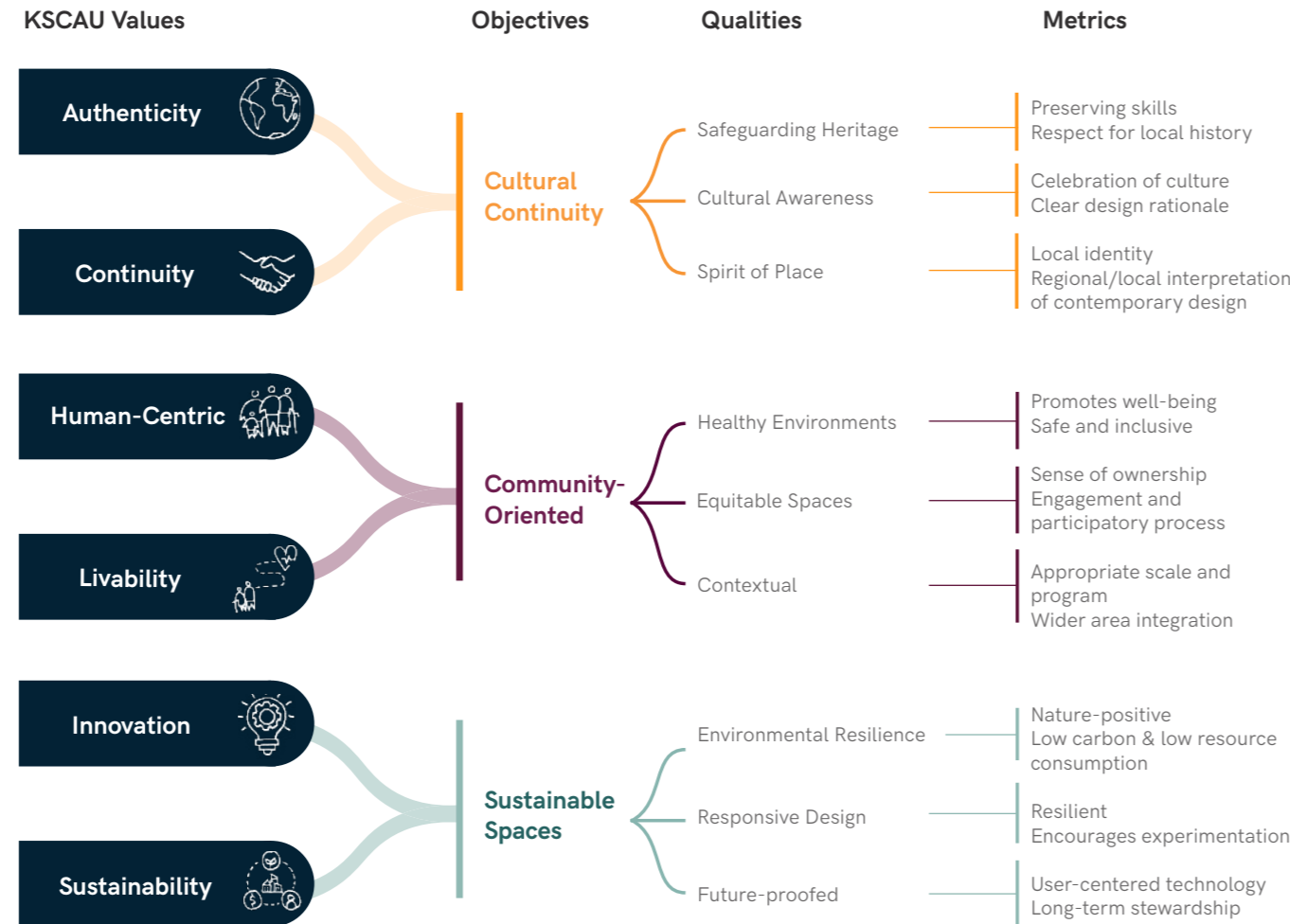
Urban Transformation (UT): Re-imagining urban spaces to meet the needs of diverse communities and future generations. The design-led transformation process must consider safety, health, well-being, environmental conditions and the impact of climate change; it must reflect the needs of all stakeholders.

INTRODUCTION

Urban Transformation Initiative

Urban Transformation (UT) is an initiative that was initiated by the Architecture and Design Commission (ADC) to guide the transformation and activation of public spaces in Saudi Arabia. The Urban Transformation initiative aims to bring forward more inclusive, multi-functional and social places in Saudi cities.

Guided by the King Salman Charter for Architecture and Urbanism (KSCAU), three core objectives were developed to create high-quality public spaces: Cultural Continuity, Community-oriented, and Sustainable Spaces.



Urban Transformation objectives

Cultural Continuity

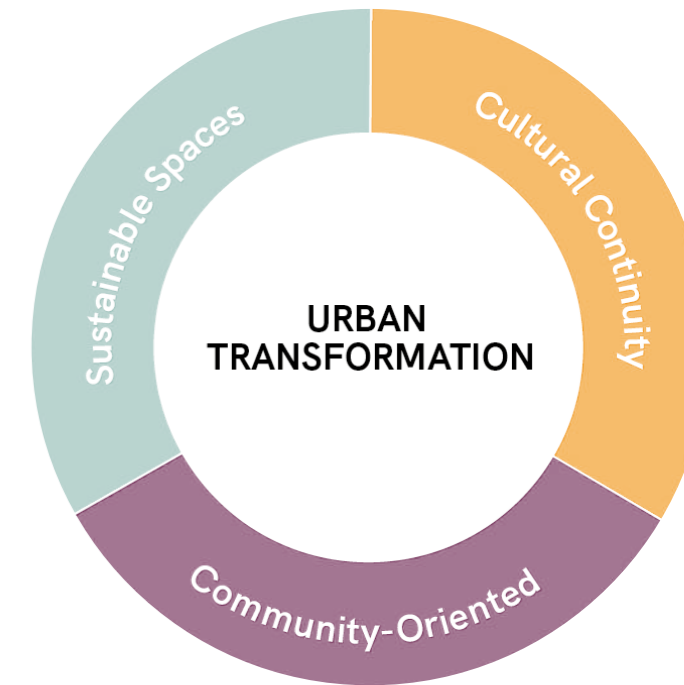
The design and activation of a public space can articulate and tell stories about its local context, values and identity. Successful Cultural Continuity will reference physical elements of the history of the space as well as its future. These spaces will play a positive role in preserving skills and enhancing the local economy, respecting historical artifacts and creating vibrant loved places that celebrate local art and culture.

Community-oriented

Public spaces can enhance the quality of life and enrich one's well-being through multi-sensory experiences. Success will ensure that safety, comfort and accessibility are paramount so that everyone feels included and welcomed; thereafter, they can find or create their own spaces where they feel a sense of belonging. Ensuring this is realized is the optimal way to build spaces that people want to occupy and return to regularly.

Sustainable Spaces

Public spaces can, and should, play a significant role in climate resilience through embedding social, economic and environmental solutions that center people and the planet. Success in Sustainable Spaces means leveraging well-tested technologies, and experimenting with traditional ones, to reduce our carbon footprint. Doing so is a step in the right direction so that every public space can inspire and enable people to lead more sustainable lives.

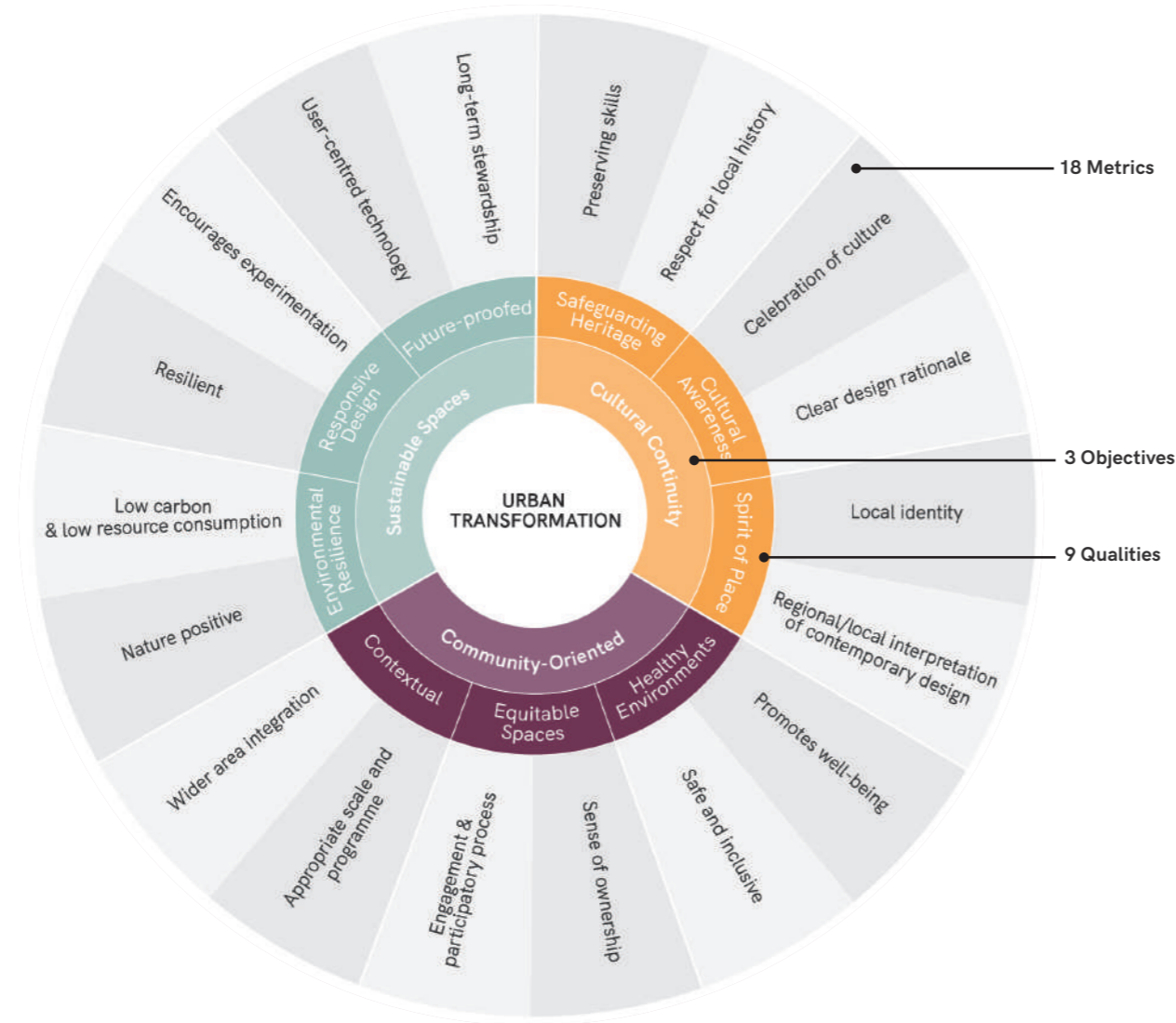


INTRODUCTION

Urban Transformation Assessment Wheel

The Urban Transformation metrics have been integrated to develop an assessment framework, designed to assess the performance of existing and newly transformed public spaces.

Nine qualities are derived from the three objectives, which are further broken down into eighteen metrics. Each of these metrics is defined on the following page. Inevitably, they are interconnected and interdependent, and together they define successful Urban Transformation.



Urban Transformation Metrics

CULTURAL CONTINUITY

- 1 Preserving skills**
Supports local communities in maintaining and transferring traditional skills, craftsmanship, and knowledge.
- 2 Respect for local history**
Incorporates meaningful elements, structures, and narratives from the past to foster a sense of continuity.
- 3 Celebration of culture**
Incorporates culturally significant elements, symbols, and traditions of the area and its people.
- 4 Clear design rationale**
Ensures that all aspects of the design are purposeful, align with a project's objectives and enhance functionality and aesthetics.
- 5 Local identity**
Reflects and honors the qualities, character and aspirations of local communities.
- 6 Regional / local interpretation of contemporary design**
Interprets traditional and local cultural design in a contemporary manner.

COMMUNITY-ORIENTED

- 7 Well-being**
Promotes more active lifestyles and seeks to enhance the physical and psychological health of its users.
- 8 Safe and accessible**
Delivers inclusive spaces that are safe, secure and accessible to all individuals, e.g. regardless of age or ability.
- 9 Sense of ownership**
Cultivates a sense of collective pride, belonging and shared responsibility amongst its users.
- 10 Engagement and participatory design**
Embraces the voices and agency of local communities and challenges traditional notions of expertise.
- 11 Appropriate scale and program**
Designed around people's needs, spaces create a harmonious relationship between buildings, infrastructure, and nature.
- 12 Wider area Integration**
Connected to the wider environmental, socio-economic and spatial context, including infrastructure and communities.

SUSTAINABLE SPACES

- 13 Nature Positive**
Designs that generate ecological value and increase biodiversity, and ecosystem restoration to combat climate change.
- 14 Low carbon & low resource consumption**
Delivers design solutions that minimize resource consumption and carbon emissions over the lifecycle of the space.
- 15 Resilient**
The design is economically, environmentally and socially adaptable and responsive to an ever-changing context.
- 16 Encourages Experimentation**
Promotes experimentation and testing in the design and use of the space to inform decision-making and improve outcomes.
- 17 User-Centered Technology**
Responsibly applies technology to enhance the experience and the performance of public spaces.
- 18 Long-Term Stewardship**
Establishes effective governance models that ensure the space is collectively managed and sustained for the long-term.

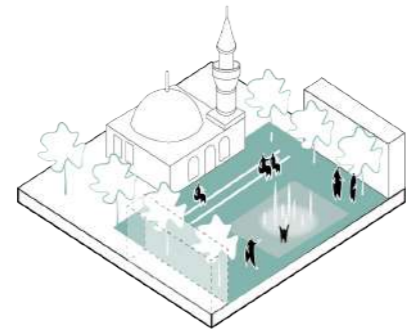
INTRODUCTION

Urban Transformation Manual

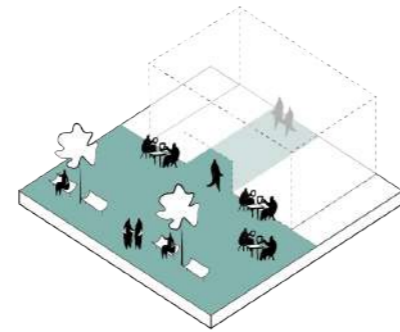
The Urban Transformation Manual is a comprehensive guide for planning and executing projects that bring forward more inclusive, multi-functional social spaces in Saudi cities. This manual will ensure more consistency, efficiency, and knowledge of best practices for entities engaged in the process and delivery of the transformation of public spaces.

Urban Transformation focuses on six typologies of public space: civic squares and plazas, indoor public spaces, natural open spaces, parks and gardens, play and sports, and streets and promenades.

This manual applies to all sizes and scales of projects that fall under these typologies, whether they are small, medium or large.



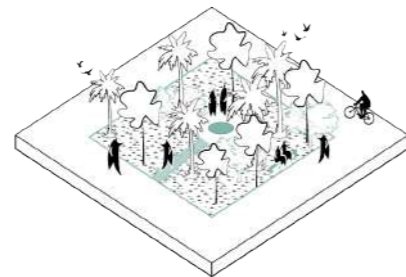
Civic squares and plazas



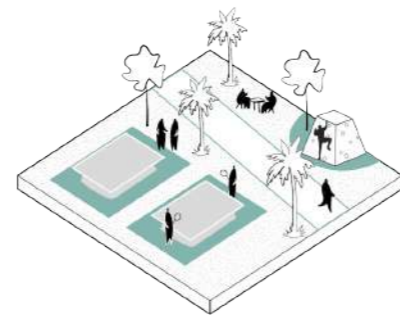
Indoor public spaces



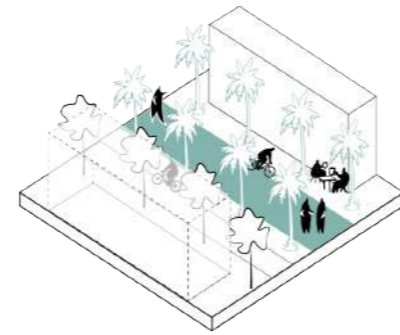
Natural open spaces



Parks and gardens



Play and sports



Streets and promenades

Who is this manual for?

A diverse range of stakeholders working in the built environment that can lead urban transformations from initiation through to implementation.



Amanahs and Municipalities



Development Authorities



Design Consultants



Institutions and Non-profits



Architecture and Design Students



Real Estate Developers

INTRODUCTION

Urban Transformation Process

The manual is divided into four stages, each is a critical phase in the urban transformation of a public space. Each step is sequential, building on the previous step. However, each chapter contains useful information that can be applied at any point in a project. Therefore, an entity can use this manual starting from any stage they are currently in. The headings of each stage have been kept intentionally simple, to assist the user in locating themselves in the process and making use of the relevant tools.

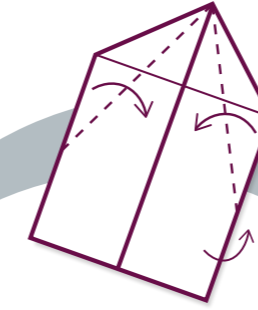
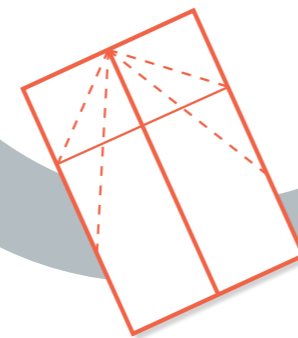


Stage 1: Initiate

The Initiate stage is the foundation. It is fundamental for effectively embedding participation, resilience and stewardship into the process. At this stage, support is provided to envision the project, define its purpose and parameters and involve the community and other stakeholders in the process. This culminates in a design brief and procurement process.

Stage 2: Design

Once aligned around a common goal, the readers are given specialist support to explore ideas, synthesize these into a tangible narrative that speaks to all the stakeholders and refine the concept so that it is ready for implementation.

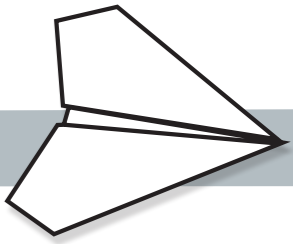


Stage 3: Build

When the design comes to be built, it is time to check that the original objectives around resilience and social value are embedded in the implementation process. This will require strong stewardship during handover - the moment when the Urban Transformation project is launched and ready to be occupied.

Stage 4: Use

This stage provides support regarding the long-term operation, including management and programming, of the space. Sustainable solutions and models are outlined that reduce the burden of operation while ensuring the space utilization rate is high. The performance of the space must be carefully monitored, referencing robust benchmarks.



INTRODUCTION

How to read this manual

Stage introduction

Each stage is defined and introduced. The four stages comprise the main chapters of the manual. They will each include a summary and indicate where you are in the process.

Stage name: STAGE 1 Initiate

Sub-stage: Stage 1 Overview

Navigation bar: Introduction, Stage 1, Stage 2, Stage 3, Stage 4, Index, Templates

Learning outcomes:

- Set a vision
- Define expectations
- Be a good client
- Develop the design brief
- Map your stakeholders
- Draft an engagement plan

List of tools:

- 11 Engagement Discovery Tool
- 12 Stakeholder Mapping
- 13 Stakeholder Collaboration Canvas
- 14 Visioning
- 15 Collaborative Planning
- 16 Design Charrette
- 17 Community Engagement Model
- 18 Public Participation

Stage roadmap

Each stage is outlined in a step-by-step format titled 'Roadmap'. The roadmap serves as an overview of the sub-stages, guidance and tools that will be included in this stage.

Sub-stage: ENVISION, DEFINE, INVOLVE

Guidance:

- ENVISION:** Assess your capability for or design and see which option you need more support in.
 - Review your own capabilities
 - Identify your own strengths and weaknesses
 - Identify your own resources
 - Identify your own constraints
 - Identify your own opportunities
 - Identify your own risks
 - Identify your own challenges
 - Identify your own strengths
 - Identify your own weaknesses
 - Identify your own resources
 - Identify your own constraints
 - Identify your own opportunities
 - Identify your own risks
 - Identify your own challenges

Process:

- Learn the critical principles of community engagement.
- Draft a public participatory strategy.
- Identify all stakeholders who will be affected by the project and assess their power and influence.
- Map the scope of your insights through different channels.
- Engage with stakeholders and activate.
- Understand the barriers that exist between the engagement process and insights.
- Develop your engagement strategy.

Guidance pages

These include the main guidance text, which describes new concepts, sub-stages or ideas in the UT process in detail. They often include local or international case studies to inspire your work.

Page title: Water-conscious design

Key point: What? We have now completed Stage 1. Ready to start designing?

Case study: A case study image showing a water-conscious design project.

Tool pages

Interactive activities recommended to get specific outputs and progress in your UT process. They will include instructions and toolkits to use either in group activities or smaller focused sessions.

Tool name: 7:1 Neighbourhood Discovery Walk

Tool aim: To unlock stories, narratives, features and perspectives that provide insights, context and inspiration for new project goals.

Tool template: A template image showing the structure of the discovery walk.

Benefits and limitations:

- Benefits:** Provides a practical, structured and participatory approach to gathering insights and perspectives from a diverse range of stakeholders.
- Limitations:** Requires a group of participants and a facilitator. It may be time-consuming and requires a clear focus for the walk.

Tool preparation and method:

- 1. Prepare your group.
- 2. Prepare your walk.
- 3. Prepare your walk.
- 4. Prepare your walk.
- 5. Prepare your walk.
- 6. Prepare your walk.
- 7. Prepare your walk.
- 8. Prepare your walk.
- 9. Prepare your walk.
- 10. Prepare your walk.

Templates

Most tools should be read in conjunction with their corresponding template(s), and be printed for use during the tool sessions. The templates also offer greater detail on the tool's method and offer tips.

Template name: TS.1 Power-Interest Matrix

Instructions:

- 1. Plot your stakeholders on the matrix.
- 2. Identify high power, high interest stakeholders.
- 3. Identify high power, low interest stakeholders.
- 4. Identify low power, high interest stakeholders.
- 5. Identify low power, low interest stakeholders.

Workspace: A grid area for plotting stakeholders.

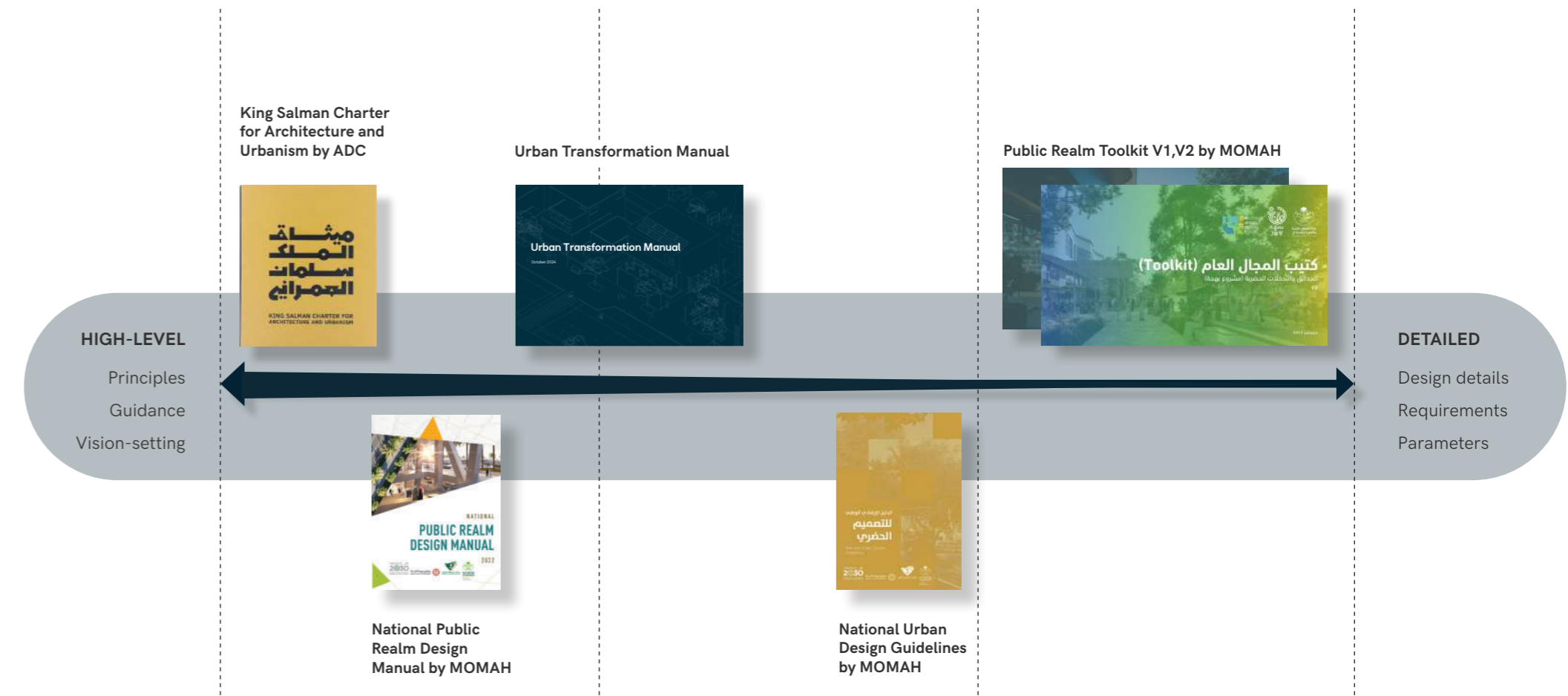
INTRODUCTION

Positioning the Urban Transformation Manual on a national level

A number of guidance documents and toolkits have recently been developed in the Kingdom across a wide array of government entities and project initiatives. ADC has engaged several Saudi ministries and entities to forge productive partnerships and complementary roles to implement Urban Transformation in KSA.

In order to align efforts, ADC and other Saudi government entities have collaborated on a series of workshops to ensure alignment on efforts that will ultimately enhance and advance urban spaces in Saudi cities.

In light of this and through close coordination, ADC's Urban Transformation Core Values and the Urban Transformation Manual have been drafted as a process-driven manual focusing on themes such as social value, community engagement, resilience, and stewardship that will complement and support other national guidelines.



The Urban Transformation Manual provides process-oriented guidance in contrast to the detailed design parameters found in MOMAH's Public Realm Toolkit, and the high-level vision-setting guidance found in the ADC's King Salman Charter for Architecture and Urbanism.

STAGE 1

Initiate



The project kicks off by agreeing on a Vision Statement, setting aspirations, and understanding the overarching objectives for the project. This stage also defines the pragmatic aspects of the project, such as national targets, governance structure, program, budget and procurement strategy.

In this stage, you will learn how to:



- Set a vision**
- Define aspirations**
- Be a good client**
- Develop the design brief**
- Map your stakeholders**
- Draft an engagement plan**

Stage 1 Overview

The Initiate process is segmented into three sub-stages that, once applied correctly, will act as a strong foundation for the Urban Transformation project.

Envision

As the first step, the project kick-starts by defining project aspirations and vision, establishing a governance structure, building a team, setting aspirations and agreeing on the overarching objectives for the project.

Tools:

- ▶ [T1 Neighbourhood Discovery Walk](#)
- ▶ [T2 Future Project Headlines](#)
- ▶ [T3 Mapping your Co-design Capability](#)

Define

This step includes understanding the project's physical parameters and essential elements, including the local context, identified challenges and expected outcomes.

Tools:

There are no tools in Define.

Involve

The step articulates the involvement of diverse disciplines and engaging the community and stakeholders in the process, with a strong focus on local knowledge and diverse perspectives.

Tools:

- ▶ [T4 Ecosystem Mapping](#)
- ▶ [T5 Power-Interest Matrix](#)
- ▶ [T6 Community Engagement Strategy](#)
- ▶ [T7 Affinity diagramming](#)

Roadmap: Stage 1 - Initiate

ENVISION

Start by familiarising yourself and your team with the **Urban Transformation process**, to make sure you understand what a good Urban Transformation entails.

Set ambitious targets for your new project and **appoint champions**.

Go on a **Neighbourhood Discovery Walk** with your team to gather insights for your project.

Find out how to do this on: [T1 - Neighborhood Discovery Walk](#)

Scan for opportunities to **regenerate, re-use, retrofit** and learn the **value of urban preservation**.

Assess your **capability for co-design** and see which areas you need more support in.

Find out how to do this on: [T3 - Mapping your Co-design Capability](#)

Hold a workshop to **spark creative thinking towards future scenarios**.

Find out how to do this on: [T2 - Future Project Headlines](#)

Is there anyone in your team who is not supporting your Urban Transformation approach? **Learn how to advocate for the Urban Transformation process**.

Start to think of your end goals for **stewardship and placemaking**. Learn about the diverse **stewardship models** and find the best one for your entity.

DEFINE

Learn and define the **climate risks, and environmental hazards** that affect your site.

Think about the **national targets and policies** that are relevant to Urban Transformation. This will help you link your own targets to wider policies and start to understand the context of your project.

INVOLVE

Learn the **ethical principles of community engagement**.

Craft a **public participatory strategy!**

Identify all stakeholders with a vested interest in the project and assess their power and influence

Find out how to do this on: [T4 - Ecosystem Mapping](#) [T5 - Power-Interest Matrix](#)

Continue developing your participation strategy. Focus on the **why, when, where and how**.

Select the right **communication channel** to listen to your community's needs and aspirations.

Develop your engagement strategy.

Find out how to do this on: [T6 - Community engagement strategy](#)

Nice one! You have now completed Stage 1. **Ready to start designing?**

Make **sense of your insights** through Affinity diagrams

Find out how to do this on: [T7 - Affinity diagramming](#)

Talk to **local craftspeople and artisans**.

Understand the **barriers that limit people from the engagement process**.

Learn to **manage your engagement insights**.

Unlock **intangible assets that communities value**.

KEY

- Sub-stages
- Guidance
- Tools

ENVISION

This first step is where you develop a bold vision and describe your aspirations. It is useful to think about the end-state of your project, how you imagine it to look and feel, and then work backwards from there.

You have a new project, an idea, or maybe just want to understand the approach of Urban Transformation, this is the first step to getting you started in the process.

What does a good Urban Transformation entail?

Creating a vibrant community involves weaving cultural, spatial, and social connections that provide seamless integration with the surrounding area. This page introduces the Urban Transformation objectives to help you decide if this manual is right for your project.

Why does Urban Transformation matter?

- Puts people first and formalizes community engagement in public spaces.
- Promotes urban regeneration in Saudi cities.
- Strengthens resilience to climate change.
- Develops unique Saudi public spaces, that celebrate culture and are activated by local communities.



Setting ambitious targets

It is important to have clarity around where and how the idea for the Urban Transformation project originated. This will assist in the understanding and articulation of the aims and objectives, and the identification of stakeholders.

At the project kick-off, having ambitious targets is key to establishing a robust vision. Aim to push the boundaries to achieve a successful transformation in your city.

- How can your project reinforce or reflect wider national targets?
- What are its ambitions for social and environmental change?


Most importantly, strong leadership enables the vision to become a reality. This is core to achieving positive outcomes.



Joshua David and Robert Hammond founded Friends of the High Line, to advocate for the reuse of a disused railway line as a public space.

Key point

Looking for creative ways to establish a robust, ambitious vision? Consider how to use imaginative exercises, like T2 Future Project Headlines, to inspire the project team to think ambitiously about the future.




Cheonggyecheon Stream was covered with an elevated highway after the Korean War but was restored in 2005 to become a linear public space with a revitalized river.

STAGE 1: INITIATE / ENVISION

Assigning champions


Once the project's targets have been established, it is pivotal to appoint and embed champions into the team as early as possible. The champions are tasked with ensuring that sustainability and engagement outcomes are achieved throughout the process by providing guidance, resources, and expertise to the team, ensuring the successful implementation and long-term sustainability.

The role and responsibilities of a champion are expected to be tailored to fit the project's vision, scale, and site context from the outset, and should be updated as necessary. This page outlines some of the responsibilities of the Sustainability and Engagement Champions.

Sustainability Champion	Engagement Champion
Leads the coordination and application of sustainability tools, principles and objectives across all stages.	Leads the coordination and application of engagement tools, principles and objectives across all stages.
Sets up monitoring mechanisms to report and track targets and progress, fostering transparency and accountability around sustainability goals.	Key stakeholder identification and relationship building.
Ensures the project complies with relevant sustainability standards and advocates for meeting requirements for sustainability certifications.	Establishes and fosters a culture of trust and collaboration between the project team and the local stakeholders, including community members, interest groups and local authorities.
Liaises with regulatory bodies on project targets and national benchmarks.	Monitors and reports on the success and effectiveness of engagement and feeds back to the project team, showcasing the importance of meaningful engagement.
	Seeks opportunities to up-skill or promote employment opportunities for the community arising from the project, increasing social value beyond the project's completion.

Key point

Throughout the manual both Engagement and Sustainability Champions are referenced, but you may choose to appoint others if relevant to your project aspirations, such as a regeneration champion, or a public health champion.



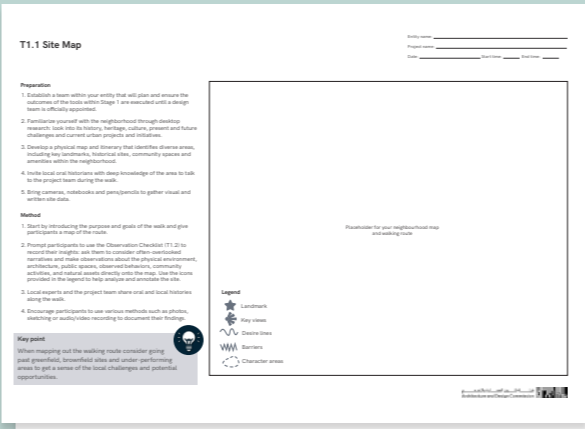
Tools in action
T1 Neighbourhood Discovery Walk

 **Duration**
2 hrs

 **Group size**
3-5 people

Aim:
To unlock stories, narratives, features and perspectives that provide insights, context and inspiration for new project goals.

Templates:



Preparation

1. Evaluate and assess your site that will clear and ensure the outcomes of the tools within Stage 1 are included until a stage here is clearly apparent.
2. Familiarize yourself with the neighborhood through desktop research, walk visits to identify challenges, current project and future challenges and current or future projects and initiatives.
3. Develop a preliminary map and identify key identified issues areas, including key landmarks, historical sites, community spaces and amenities within the neighborhood.
4. Invite local oral historians with deep knowledge of the area to talk to the project team during the walk.
5. Bring cameras, notebooks and participants to gather visual and verbal data.

Method

1. Start by introducing the purpose and goals of the walk and give participants a map of the site.
2. Prompt participants to use the Observation Checklist (T1.2) to record their findings and then to consider other contextual narratives and other observations about the physical environment, architecture, public spaces, environmental, community activities, and social assets directly onto the map. Use the icons provided in the legend to help categorize and describe the site.
3. Local experts and the project team share oral and local histories along the walk.
4. Encourage participants to use various methods such as photos, sketching or audio/video recording to document their findings.

Key point

When mapping out the walking route consider going past greenfield, brownfield sites and under performing areas to get a sense of the local challenges and potential opportunities.

Legend

- ★ Landmark
- 🏠 Key uses
- 🌳 Green lines
- WM Barriers
- 🗺️ Character areas

- ▶ [Go to T1.1 Site Map template](#)
- ▶ [Go to T1.2 Observation Checklist template](#)
- ▶ [Go to T1.3 Informal interview template](#)

Who is involved?
Project team

Outputs

- Notes, conceptual diagrams/sketches and annotated maps that provide spatial, social and historical information of your site including insights and new information about the neighborhood.

Preparation

1. Familiarize yourself with the neighborhood through desktop research. Develop a physical map and itinerary for the walk.
2. Invite local experts/oral historians to attend the walk if possible.

Method

1. Start by introducing the purpose and goals of the walk and give participants a map of the route.
2. Conduct informal interviews with site users/stakeholders along the walk.
3. Ask participants to make observations and record their findings, through writing and sketching or through photography and video/audio recording.

Benefits

- Identify emerging opportunities and challenges, through observation and analysis of the physical environment, user behavior and oral histories.
- Uncover cultural nuances and diverse user perspectives.

Limitations / be aware of

- Make sure you don't jump into design thinking just yet. At this step, it's all about listening and rediscovering the site.
- Consider the accessibility of the walk tour for participants with health impairments or in neighborhoods with a lack of pedestrian infrastructure.

STAGE 1: INITIATE / ENVISION

Scanning for opportunities

Regenerate and unlock the potential of existing assets

Once you have envisioned and initiated an Urban Transformation project, staying open-minded and scanning for regeneration opportunities is vital for envisioning a unique place.

Identify historical, cultural and heritage sensitivities and opportunities. Is there an opportunity to reuse or retrofit an existing structure or feature? Considering retrofit is timely at this stage as it can unlock further urban regeneration value. This also allows the place to highlight its unique identity, celebrating the features that already exist. At the same time, this approach will reduce carbon emissions by embracing circular economy principles and minimizing embodied carbon.

Case study



PECKHAM LEVELS, LONDON | 2017

Peckham's crime-ridden reputation drove out investment, which led to disused assets such as the seven 'empty levels' of a multi-storey car park.

In 2017 this car park was redesigned and transformed into a cultural hub and innovative workplace campus with 50 creative studios (20% of which are subsidised), 8 offices, event spaces, a play area, co-working spaces and a food court. Peckham Levels and Bold Tendencies, the not-for-profit arts organisation on the rooftop, have listened to their local communities and the opportunities, making it a hub for empowering locals to craft the place they would like to see.



© Turner Works Architects



Peckham Levels

Strive to preserve and enhance

Demolishing buildings and neighborhoods shatters social cohesion, increases a city's carbon footprint and energy demand and erases the collective memory of the city, which over time eliminates its character.

Instead, there are many ways to address decaying buildings and infrastructure through revitalization, retrofit, repurpose and re-use. Regeneration is proven to improve the local economy through creating new jobs and enhances opportunities for economic growth. It also increases citizens' satisfaction and sense of belonging to their city.

Case study



Before

© Al Madinah Development Authority



After

© Al Madinah Development Authority

ALMUGHAI SLAH NEIGHBORHOOD REGENERATION, AL MADINAH | 2022

To improve the conditions of this historic neighborhood, the Al Madinah Region Development Authority (MRDA) vowed not to demolish any buildings but instead to renew and restore what exists. This project's objectives were centered on improving socio-economics by generating job opportunities, restoring the old social system in Madinah by recreating Al Ahwash, re-paving the street network, improving facilities and enhancing the visitor experience. This provides a high-impact and cost-effective example for Saudi cities to revitalize historic neighborhoods without demolishing buildings or relocating residents.



© Al Madinah Development Authority

Al Mughaislah Neighborhood located approximately 900m away from the prophet's mosque in Al Madinah

STAGE 1: INITIATE / ENVISION

Diverse stewardship models: Finding the best fit for your entity

It's not too early to start thinking about your end goals for stewardship. Who will take responsibility for the long-term management, maintenance and programming of the space? Do you envision a newly established foundation or non-profit being set up to act as a steward of the space? Do you see a grassroots neighborhood association group managing the place and running the program? Are there existing cultural spaces and venues that are nearby which might be included in the stewardship plan or be suitable partners?

Public sector

Every public sector entity is slightly different in terms of skills and available resources. You need to determine whether you have the capacity and ability to guide the project from inception through to the development of the design brief, including close collaboration with the design team. In the case where the project is being executed by you as the entity, the process can be quite seamless as you are the client and the design team. If you are procuring a design team, then the guidance listed below, under 'private sector', is to be followed.

Private sector

Similar to the public sector, whether or not you take on project stewardship will depend on the skills and capacity of your internal teams. Ideally, you will have people in the team who can speak the same 'language' as the design team. They may come from design disciplinary backgrounds and/or have deep experience guiding the design and delivery process.

In the case where the entity does not have in-house resources to steward the project, an external firm may be engaged to take on some or part of that role. For example, if procurement is through a design competition, a firm that specialize in running competitions may be hired; a third party may be better equipped to take on longer-term stewardship, such as maintenance and programming.

Business Improvement District (BID)

A BID is a specially formed entity that brings together businesses and institutions in a specific location to create, manage and maintain the transformation of a public space. It is an international stewardship model, that recognises that it is in the interest of all BID members to ensure the public realm around their business is of a high-quality and well-maintained. To fund improvements and maintenance each business is charge a levy, or additional tax. This levy is used to develop projects and ensure, maintenance of the space, which will benefit businesses in the local area.



Al Bujairi Terrace is a public space managed by a Private Sector entity, Diriyah Company.



Jeddah's Northern Corniche is a public space managed by a Public Sector entity, Jeddah Amanah.

A similar form of a BID in Saudi Arabia is 'Mullak', a model launched by the Real Estate General Authority, which allows the establishment of funds for homeowners in a specific location to manage shared facilities with the aim of improving public value and enhancing the culture of co-living.

Cultural institutions

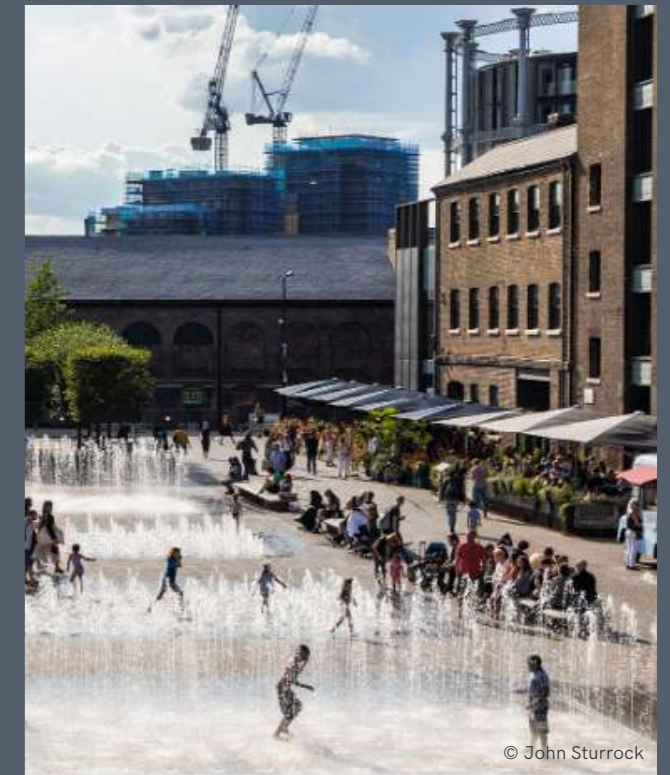
Often, cultural institutions and museums are ideal stakeholders to involve and engage with as stewards for Urban Transformation projects. They can program events, exhibitions, screenings and other community gatherings in the public spaces nearby, which creates a strong sense of place and can help to ensure successful placemaking.

Case study

GRANARY SQUARE, LONDON | 2014

Granary Square, with its 1,000 flush-mounted fountains, is the focal point for visitors to King's Cross. The space is framed by cafés, restaurants, street furniture and greenery. This is a space for children to play, teenagers to meet and adults to have lunch. Granary Square was an intentional effort by its key entities (King Cross Central Limited Partnership and developer Argent) to create a high-quality public realm. This placemaking strategy started at the "Initiate" stage of the project.

Volunteering opportunities for the local community were offered through charities such as Global Generation. The site allows for use by local fitness groups when the fountains are turned off; also, Nike, a tenant of the development, provides free fitness classes in the square. Having a clear placemaking and stewardship strategy, this development has built important local bonds and leverages tenants to create a strong sense of place.



People enjoying the various amenities - fountains, outdoor dining at Granary Square

Key point

In some cases, a public space would have multiple models of stewardship. For example, a municipality-managed park, might have an agreement with a local well-being centre that runs public health programmes in the space.



STAGE 1: INITIATE / ENVISION

Advocating for Urban Transformation

As an Urban Transformation advocate, you will have to challenge many myths and negative attitudes to Urban Transformation, from stakeholders, community groups and even from within your entity. This page outlines some of the greatest and most damaging myths about Urban Transformation. The answers and approaches provided seek to empower built environment professionals to catalyze organizational change and attitudes within their organizations for the Urban Transformation agenda.

Key point



Decision-makers may resist adopting new attitudes or approaches such as Urban Transformation, particularly if there is a long-standing organisational culture or resistance to change - they may need supplementary resources or opportunities for further exploration.

MYTH

"Good Urban Transformation is too expensive, so we have to settle for lower-quality spaces and places due to cost."

RESPONSE

High quality does not have to cost more; good results can be achieved with inexpensive resources. In addition, with successful Urban Transformation you will see improved community well-being, increased property values and economic growth that attracts residents, visitors and new businesses!

"Urban Transformation takes too much time. We need to get the job done and don't have time to engage the public."

With digital platforms, social media and other listening and data-gathering tools, engagement can be time efficient. In addition, the success, popularity and longevity of a space will be greater if the upfront time investment is made with local communities and stakeholders.

"Good Urban Transformation is an extra-added value and not necessary for the majority of built public spaces in our cities."

Good Urban Transformation is a fundamental necessity for the continued sustainable development of Saudi cities; at its core, Urban Transformation enhances the liveability, functionality and resilience of public spaces.

Debunking common myths about climate resilience

The same applies to climate resilience and the role that architects and designers can play to build a resilient city. This page outlines a few myths and excuses about climate resilience. The suggested answers equip built environment professionals with ways to respond to these myths and debunk them.



MYTH

"Public projects such as parks and beaches don't have a carbon footprint. They are natural spaces and therefore have no negative effects on climate change."

RESPONSE

Every development project, even parks and green areas, has a carbon footprint. This is important to know and measure since it has wider implications on climate change and national targets. Saudi Arabia has announced plans to cut greenhouse gases (GHG) by 278 million tonnes of CO2 equivalent by 2030 and to net-zero by 2060. Do you know how to measure or assess the carbon footprint of your project? What are some ways to reduce carbon emissions in your design or construction practices?

"The climate has changed before, and therefore there's nothing we could do about it."

While the climate has indeed changed in the past, it's essential to note that humans are now the leading force driving these changes. The climate is changing faster than humans, plants and animals can adapt, and it is a major threat to people's health globally.

STAGE 1: INITIATE / ENVISION

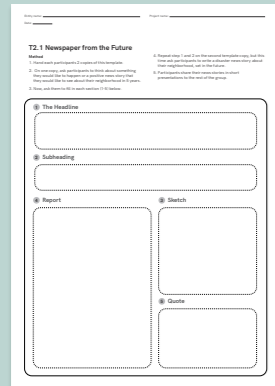
Tools in action

T2 Future Project Headlines

 Duration 1 hr  Group size 3-5 people

Aim:
Spark creative thinking around different ideas and opportunities for the projects' future, that can help address the vision.

Templates:



► [Go to T2.1Newspaper from the Future template](#)

Who is involved?

Project director and project team.

Outputs

- Common themes and collective desired outcomes which will help define the project direction

Preparation

1. Provide participants with summary of insights from T1 Neighborhood Discovery Walk.
2. Refer to your Entity's organizational Mission, Vision and Values to guide you as you run this activity.
3. Research existing national and local policies and plans that your project aspirations must align with.

Method

1. Ask participants to think about something they would like to happen or a positive story that they would like to see in the news that relates to this public space in 5 years.
 - The headline
 - A subheading
 - A quote
 - A sketch or collage
2. Now, ask them to produce:

3. Repeat step 1 and 2, but this time ask participants to write a disaster news story about the same place, set in the future. This allows them to exaggerate their fears and imagine worst-case scenarios related to environmental, economic or social disasters that might happen in this place.
4. Participants share their news stories in short presentations to the rest of the group. They summaries the key aspirations and key concerns.

Benefits

- Fosters shared alignment on future aspirations and underlying concerns and fears.
- Creates a fun and interactive atmosphere that encourages exploration of inspirational ideas as well as risks and challenges.
- This tool can be used as an engagement activity with the local community that helps in creating a positive attitude towards the future, while helping you understand the community's key concerns and fears about the project.

Limitations / be aware of

- Ensure participants are aware of project parameters (e.g. budget and time constraints).

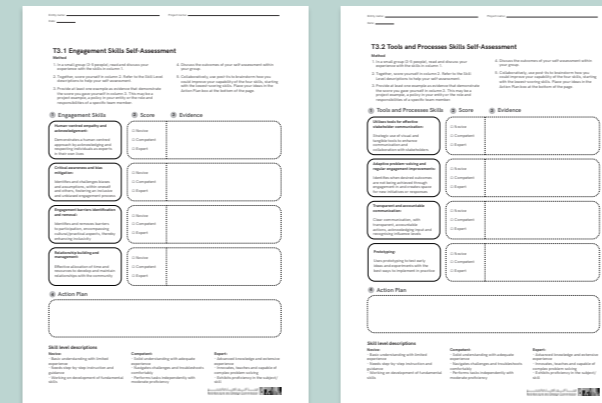
Tools in action

T3 Mapping Your Co-design Capability

 Duration 1 hr  Group size 3-5 people

Aim:
Assess your current organization capabilities for co-design engagement.

Templates:



- [Go to T3.1 Engagement skills self-assessment](#)
- [Go to T3.2 Tools and processes skills self-assessment](#)
- [Go to T3.3 Funding skills self-assessment](#)

Who is involved?

Project team, lead by Engagement Champion.

Outputs

- List of actionable initiatives to improve existing capability and skills in co-design, to be embedded into project brief and/or internal training plans.

Preparation

1. Clarify the intent of this tool: who needs to be involved and how? use the template to ensure you have participants who can answer questions across three key areas:
 - Engagement skills
 - Tools and processes
 - Funding
2. Prepare findings and analysis across the three key areas to date.

Method

1. Present existing findings and analysis of internal capabilities and skills.
2. In groups of 3 to 5, begin with the Engagement Skills Self-Assessment template and collaboratively score your capability in each skill (a-d) from novice to expert.
3. Describe an example that showcases your current capability within each skill.
4. Discuss the outcomes of your Engagement Skills self-assessment with the wider group.

5. Collaboratively, use post-its to brainstorm how you could improve your capability within each skill as a starting point for your action plan.
6. Repeat steps 2 to 5 for the Tools and Process and Funding Skills Self-Assessment.
7. Discuss and prioritize the items under each action plan.

Benefits

- Supports entities in exploring and mapping their capabilities and conditions needed to generate change through co-design.
- Helps entities decide their aspirations for co-design and define their own good practice goals.

Limitations / be aware of

- You may not need to build capability in all three areas.
- Different team members may score themselves differently across the three areas depending on their experience and skills.

References

- An Introduction to Co-Design Principles and Practice, The Auckland Co-Design Lab.

DEFINE

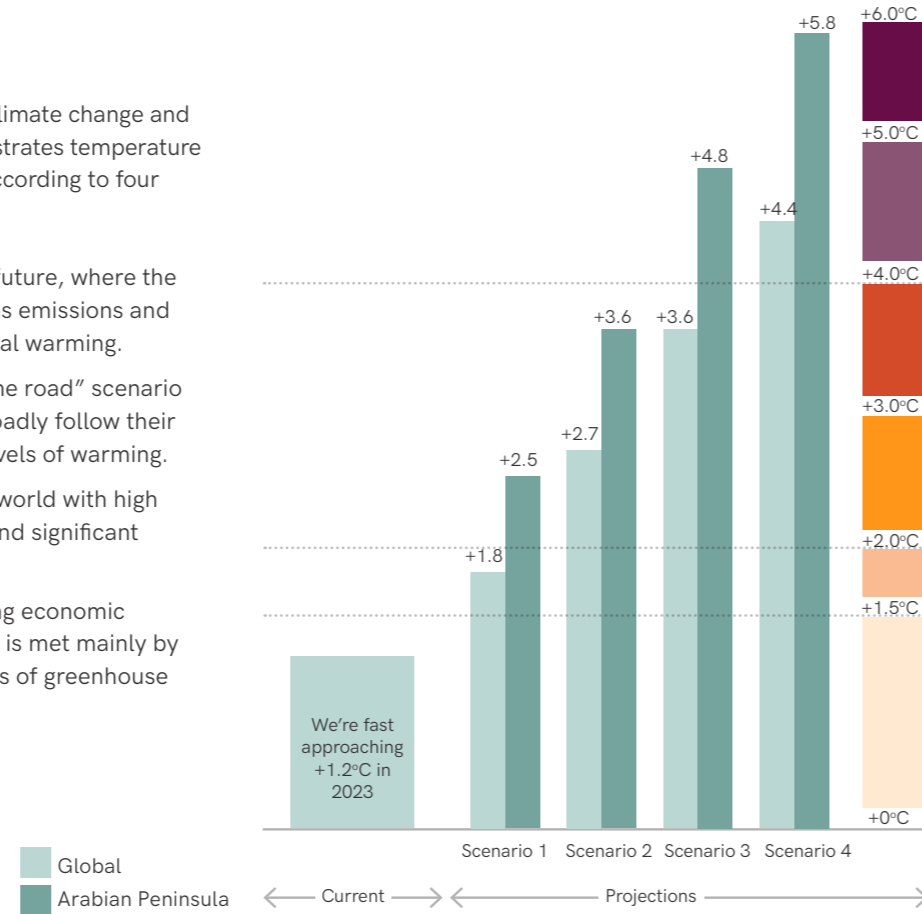
After completing the process under Envision, you are now ready to begin identifying the spatial challenges and vulnerabilities related to resilience, which will enable you to define your project's goals, assemble a project team, and develop a suitable design brief.

This next step involves identifying climate risks and environmental hazards, which will guide the selection of the appropriate team to develop the project brief.

Defining project climate risks and hazards

Saudi is grappling with the realities of climate change and rising temperatures. This graph demonstrates temperature increase globally and in Saudi Arabia according to four scenarios:

- Scenario 1 represents a sustainable future, where the world rapidly reduces greenhouse gas emissions and achieves a relatively low level of global warming.
- Scenario 2 represents a "middle of the road" scenario reflecting a world in which trends broadly follow their historical patterns, with moderate levels of warming.
- Scenario 3 represents a fragmented world with high levels of greenhouse gas emissions and significant global warming.
- Scenario 4 depicts a world with strong economic growth and high energy demand that is met mainly by fossil fuels, leading to very high levels of greenhouse gas emissions and global warming.



Global and Saudi Arabia warming projections: temperature increase by 2100. Warming projections for 2071-2100 relative to 1850-1900. (Source: Climate Futures Report: Saudi Arabia in a 3-degrees warmer world; (2023) KAUST, AEON Collective, KAPSARC)

Key environmental hazards



EXTREME HEAT STRESS
Increased heatwaves and urban heat island effects pose health risks to vulnerable populations and strain energy systems.



AIR POLLUTION
Rising temperatures worsen air quality, leading to health issues and necessitating stringent emission controls.



VECTOR-BORNE DISEASES
Altered climate patterns expand the range of diseases like malaria and dengue, affecting urban populations.



ENERGY DEMAND
Higher cooling needs amplified energy consumption, requiring efficient measures and renewable energy integration.



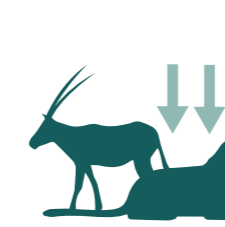
WATER SCARCITY
Diminished groundwater recharge and reliance on desalination impacts water security and ecosystem health.



SEA LEVEL RISE AND STORMS
Coastal cities face threats of inundation, saltwater intrusion, and intensified storm impacts.



EXTREME WEATHER EVENTS
Increased frequency of sandstorms and floods causes ecological destruction and threatens existing infrastructure and human health.



LOSS OF BIODIVERSITY
Biodiversity loss undermines essential ecosystem services, leading to disruptions in agriculture, water resources, and environmental equilibrium.



INFRASTRUCTURE RESILIENCE
Extreme weather events strain power and water networks, requiring upgrades and redundancies.

STAGE 1: INITIATE / DEFINE

National targets and policies relevant to Urban Transformation



Achieve net-zero GHG emissions by 2060



CO₂

Reduce, avoid, and remove GHG emissions by 278 million tonnes of CO₂eq annually by 2030.



10 billion trees

- Rehabilitate 40 million hectares of land and restore Saudi Arabia's natural greenery
- Protecting 30% of Saudi Arabia's Land & Sea by 2030 and providing habitats for indigenous flora and fauna.



3 Saudi cities in the Top 100 livable cities in the world by 2030.

- 900 hobby clubs by 2030.
- 1 million volunteers per year.
- Lowering the rate of unemployment from 11.6% to 7%.



40% percentage of people practicing sports on a weekly basis by 2030.



100 million tourist visits by 2030.



Increase SME contribution to GDP from 20% to 35%.

- Increase Average residents share of public spaces.
- Increase residents' satisfaction with cities cleanliness and infrastructure.
- Increase the percentage of inhabited areas coverage with rainwater drainage networks.

Infographic shows relevant targets for public space in the Kingdom, focusing on achieving resilient design in Urban Transformation.

How to be a good client

Whether you are hiring a design consultant or you are designing the project in-house, it is important to develop a clear governance structure so that you can be a good client.

Governance structures

Clear project leadership is essential to guide Urban Transformation from inception through to delivery. Your design team will need to understand to whom they must report, to, what the key projects milestones are and how best to engage with you as the client. You must establish your preferred way of interacting with the team, at what frequency and how. This can vary throughout the life of project development. For example, it may include meetings (face-to-face/online), workshops, site visits, etc.

Stakeholders

Entity stakeholders, may include people responsible for:

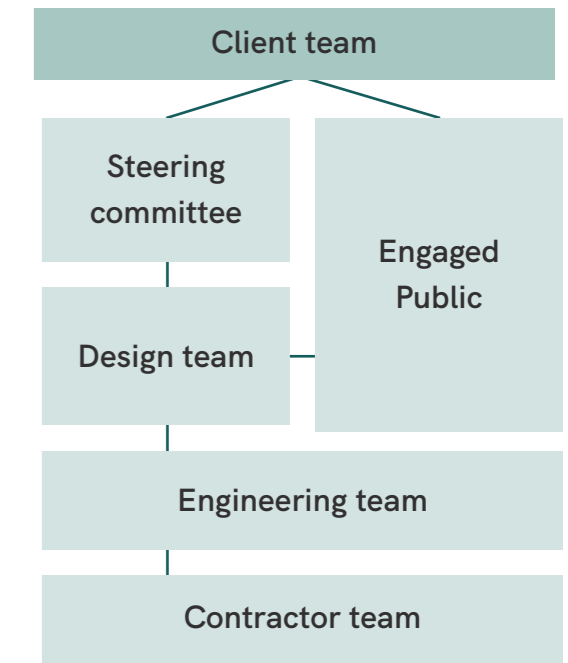
- Design and planning
- Development and regeneration
- Transport and streets
- Utilities infrastructure
- Land ownership

Other potential stakeholders:

- Utilities companies
- Local residents
- Local businesses and institutions

Steering committee

It is recommended that a Steering Committee is specifically tasked with responsibility for the project. They will be the main liaison with the design team. The Steering Committee will set protocols, provide base information and vet the project as it develops, providing clear responses to proposals in a timely manner. They may also take on the long-term stewardship of the project, ensuring resilience by having a management and maintenance regime in place once it is implemented. Takeaways from Public Engagement are directly feeding into the client team and are informing the design team's work.



Organogram example

STAGE 1: INITIATE / DEFINE

Building the project team

Getting the right people with the right expertise

The composition of the team significantly influences the fulfilment of the brief. At this stage of the project, it is crucial that you consider what skills and expertise are required. No two projects are going to be identical, as each will need its own set of experts to shape it. At this stage, you want to identify the required expertise to ensure that the design brief will help you appoint the right project team.

The value of local consultants

While you are identifying the needed skills and expertise, it is also worth investigating the availability of local specialists. Will any of the specialists in the team be local to the area of the project? It is important to involve local specialists in the team, as they have invaluable and inherent knowledge of the place that will serve the project well in the end.

Team qualifications

It is important to consider the team's professional qualifications, whether they are in-house or external. Do they have professional associations that allow them to practice planning, landscape architecture or urban design? How do these qualifications relate to the scope and nature of your project? Are they qualified and licensed to practice in Saudi Arabia? Please check the the local regulations in relation to professional licenses and qualifications when assigning your team.

Key point

Hiring local experts boosts the local economy. Local consultants and experts not only have significant knowledge and understand the local identity and existing challenges, but commissioning them also helps boost the local economy, which is an important aspect of Urban Transformation.



Mumbai-based designers StudioPOD transformed a neglected urban void in the bustling financial district of Mumbai into a thriving public space. With their understanding of local cultural dynamics and valuing local planting, One Hive was designed to serve as a calm and lush plaza within a commercial mixed-use campus.

Defining the minimum disciplines needed to achieve successful Urban Transformation

In these checklists, you will find the core specialties and professions that are recommended to be involved in Urban Transformation projects. This is by no means an exhaustive list; however, it covers the basics. For each project, there will be additional specialisms that are unique and bespoke to that project.

NON-NEGOTIABLE CHECKLIST	
	Disciplines needed
<input type="checkbox"/>	Community engagement specialist
<input type="checkbox"/>	Landscape architect / urban designer
<input type="checkbox"/>	Sustainability specialist
<input type="checkbox"/>	Transport planner
<input type="checkbox"/>	Health and well-being specialist

SPECIALIST CHECKLIST (ADAPT IT TO MATCH YOUR PROJECT NEEDS)		
	Key climate risks and hazards	Suggestions for experts that can address this climate risk
<input type="checkbox"/>	Flash floods	Flood management engineer, landscape architect
<input type="checkbox"/>	Drought	Ecologist, fire engineer, landscape architect
<input type="checkbox"/>	Dust storms	Environmental engineer
<input type="checkbox"/>	Water scarcity	Hydrological and environmental engineer
<input type="checkbox"/>	Increasing temperatures	Micro-climate specialist, urban designer, climate scientists
<input type="checkbox"/>	Energy blackouts	Renewable energy engineer
<input type="checkbox"/>	Loss of biodiversity	Ecologist and biodiversity specialist
<input type="checkbox"/>	Urban Heat Islands	Micro-climate specialist, urban designer
<input type="checkbox"/>	Sea level rise	Coastal engineer
<input type="checkbox"/>	Poor air quality	Sustainability specialist

A list of the typical hazards that are threatening Saudi cities will directly inform the experts needed in your project to tackle resilience challenges.

STAGE 1: INITIATE / DEFINE

The value of a good design brief

A design brief is a concise document that outlines the ambitions and main considerations for your project. It is a critical part of the design process, as it sets clear expectations and goals for everyone involved. It illustrates the geographic location and boundaries of the project. Creating a design brief will give you, chance to consider and discuss all the important design issues before you actually commission a designer to start work. From a financial management point of view, thinking about future placemaking operations, maintenance costs and start to ring-fence a part of the budget for your operational expenses (OpEx) needed.

A clearly written brief is crucial to bringing the project to life. It will help define goals, avoid misunderstandings, set standards and act as a reference point for all parties involved throughout the project. A brief should be a point of reference at all stages of your design process. It should clarify what you want to achieve, what you expect from the working relationship and when, and if any limitations apply.

All the tools and ideas that have been or will be discussed such as the Neighborhood Discovery Walk, Project Aspirations, Ecosystem Mapping, Checklist of Disciplines Needed, Governance Structure, will inform a singular brief that holistically covers the information, and background material, that will be provided to the design team.

A good design brief is invaluable, regardless of whether this project will be designed in-house or through procured consultants.

Key points to consider:

- A good brief will help develop trust and understanding between you and your design team.
- Length of the brief: while a brief should be concise, more information is better than not enough.
- Encourage exploration: do not provide all the answers in the brief unless there are requirements that can only be resolved in a specific manner.
- Program: ensure adequate time to allow for public/ stakeholder consultation; be aware of other projects occurring in the same time frame and geography.

Once the brief is written and the expertise required is identified, you are ready to commission the consultant team. You will have many ways to procure the team. However you select the team, it is key to keep in mind that a good project from the bottom up is about getting the right skills involved to meet the project's vision.

Key point

A design brief is crucial for setting clear project expectations and goals while also considering future placemaking operational and maintenance costs in budget planning.



Introduction	Background information	Logistical information
Project info <ul style="list-style-type: none"> • Name • Entity name • Address • Contact details 	Location and physical site parameters	External benchmarking <ul style="list-style-type: none"> • Environmental, social and governance (ESG) • Social Value • UN Sustainability Development Goals
Entity <ul style="list-style-type: none"> • Background • Principles • Objectives 	Project stakeholders	Timescale <ul style="list-style-type: none"> • Milestones and deadlines
Project vision statement	Constraints and risks	Fees budget <ul style="list-style-type: none"> • Consultant fees (if applicable)
	Project targets and identified challenges	Project budget <ul style="list-style-type: none"> • Capital costs
	Planning considerations	Project governance <ul style="list-style-type: none"> • Protocols • Approval process
	Stakeholder engagement	

Brief components

While every brief will have its own particular requirements and contextual issues, the above outlines the essential information that should be delineated.

INVOLVE

Once you are done with the process under Define, involve the right stakeholders in the design process. You should have a strong focus on local knowledge and diverse perspectives, ensuring a well-informed decision-making process that balances specialist expertise with community contributions.

Urban Transformation is collaborative, it is a process that will allow each project to become truly unique through co-design, participation and community engagement.

Public participation principles

Public Participation is the inclusion of the local community and stakeholders in determining aspects of the future of their neighborhood; diverse methods of community engagement allow people to express their requirements and aspirations for a place.

Meaningful engagement can take shape in a variety of ways and requires time and flexibility. Building trusting relationships with people and finding ways to enable their contribution requires sustained effort. Here are the key six principles to follow while creating your public participation plan:

PRINCIPLE 1



Be transparent

Be transparent to foster trust.

PRINCIPLE 2



Be inclusive

Be inclusive of diverse perspectives and ensure representation of the local community.

PRINCIPLE 3



Be timely

Start early enough in the project and engage regularly and consistently throughout.

PRINCIPLE 4



Be organized

Be organized to facilitate meaningful participation that results in efficient and realistic outcomes.

PRINCIPLE 5



Be accountable

Be accountable by providing key information and findings in an accessible manner.

PRINCIPLE 6



Be open-minded

Be open-minded to support mutual learning and promote a culture of knowledge exchange.

Craft your public participation strategy

A bespoke public participation strategy covers the following five elements:

WHO
Stakeholder map



WHY
Purpose of participation



WHEN
Project stage and frequency



WHERE
Location and format

HOW
Communication channel



STAGE 1: INITIATE / INVOLVE



WHO
Stakeholder map

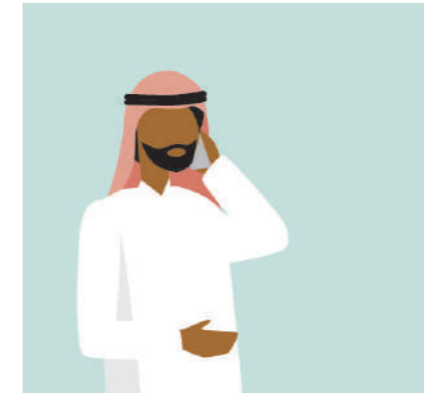
It is important to identify the stakeholders to engage with and 'win' from the start, as they will form an integral part of your engagement's success, and ultimately act as stewards once the public space is delivered.

A diverse group of stakeholders and community members can provide deep insights into the Urban Transformation project. This is the first step to charting your engagement strategy.

Support the inclusivity of your community engagement by considering the following:

1. Start by understanding what constitutes an inclusive community.
2. Identify major community groups and study their history, including residential situation, migration, and socio-economic changes.
3. Utilize multiple sources by contacting local government entities, planning groups, insights from the latest census data, and neighborhood websites.
4. Run community outreach activities to crowd-source data if needed.
5. Connect or invite the Community Center (Markaz Al Hayy - if found) in the neighborhood of your project to this workshop. They could help you understand the local demographics and provide valuable insights.

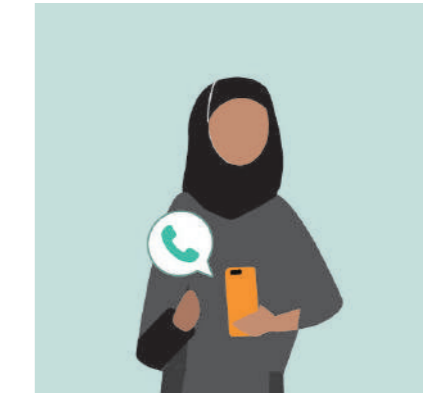
Land owner



Youth group representative



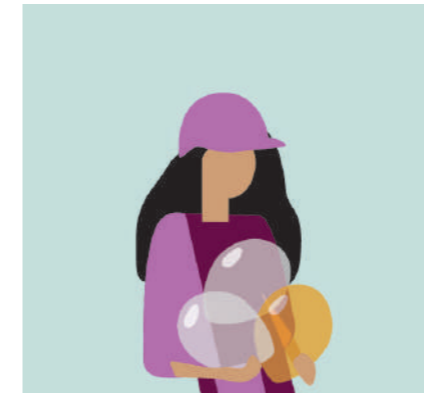
Neighborhood group admin



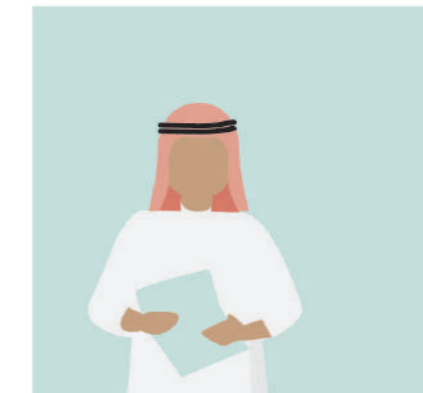
Local farmers market manager



Volunteer manager



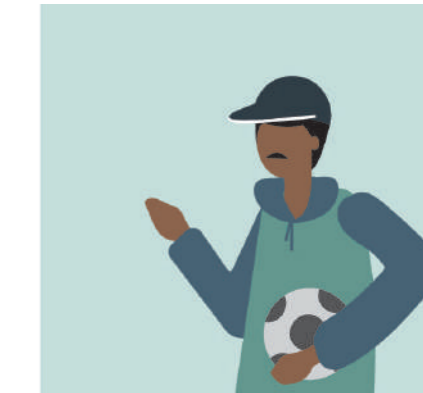
Municipality representative



Local coffee shop owner



School's football team coach



A representative example of stakeholders for a particular neighborhood project.

STAGE 1: INITIATE / INVOLVE

Tools in action

T4 Ecosystem mapping



Duration
1 hr



Group size
4-6 people

Aim:
To identify all stakeholders, both people and organizations, who have interest in the project, and any relevant initiatives.

Templates:



► [Go to T4.1 Ecosystem Mapping template](#)

Who is involved?

Project team, lead by Engagement Champion.

Output

- Visual stakeholder ecosystem map identifying people, groups and local initiatives.

Preparation

1. Facilitation team needs to research the local demographics of the site to inform this activity. Pay special attention to marginalized or hard-to-reach groups.
2. Provide workshop stationary i.e. pens/ markers and post-it notes.

Method

1. Brainstorm all the existing and future stakeholders.
2. Brainstorm existing or future initiatives.
3. Share back results with the wider group.
4. Take a photo of the activity page to document the results.

Benefits


- Visualise stakeholders and existing initiatives/ projects to develop engagement efforts and begin an engagement strategy.

Limitations/ be aware of


- Stakeholder dynamics may change, so regularly update the map to keep the findings up-to-date.
- Remember to validate your findings with follow-up discussions with stakeholders who were identified.
- After this session, remember to update your data management system with the gathered information.

Tools in action

T5 Power-Interest Matrix



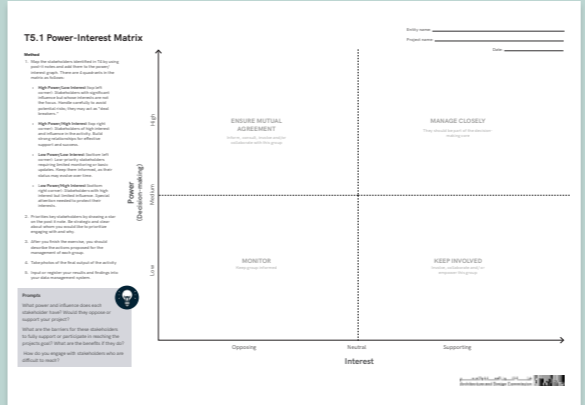
Duration
1 hr



Group size
4-6 people

Aim:
To map the power and influence that stakeholders hold on project outcomes, and how to motivate and manage them to ensure successful engagement.

Templates:



► [Go to T5.1 Power-Interest matrix template](#)

Who is involved?

Project team, lead by Engagement Champion.

Output

- Information about stakeholders to develop an approach on how to plan engagement with them.

Preparation

1. T4 Ecosystem Mapping has to be completed before commencing with this activity.
2. Have a list of the stakeholders identified in T4 accessible.
3. T5 template in A0 printed/ (or online) version.
4. Provide Post-it notes and markers.

Method

1. Read the detailed method for this activity on T5 template to understand the instructions and terminology before commencing (5 minutes).
2. Use the prompt questions on the template to initiate ideas.
3. Add the stakeholders identified in the T4 Ecosystem Mapping into the relevant quadrant on the template.
4. Be strategic and clear about whom you would like to prioritize engaging with and why.

Benefits

Visualize the power dynamics that exist amongst your stakeholders.

- Identify key stakeholders that can have the biggest impact on the project.
- Begin to understand what actions are required per stakeholder.

Limitations/ be aware of:

- Stakeholder dynamics may change, so regularly update the matrix to keep the findings up-to-date.
- Use the results of this tool to develop your tailor-made effective community engagement plan (T6 on page 62).
- Remember to validate your findings with follow-up discussions with stakeholders who were identified.
- After this session, remember to update your data management system with the gathered information.

STAGE 1: INITIATE / INVOLVE



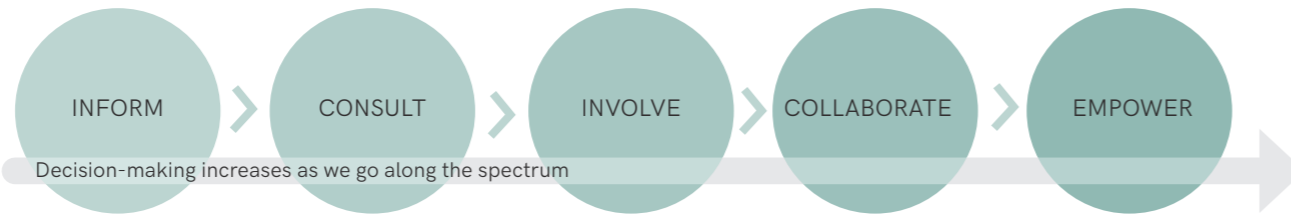
WHY
Purpose of participation

After you have mapped your stakeholders, it is recommended that you assign the right method of engagement based on the International Association for Public Participation's (IAP²) spectrum. IAP²'s Spectrum of Public Participation was designed to assist with the selection of the level of participation that defines the public's role in any public participation process. The Spectrum is used internationally, and it is found in public participation plans around the world.

The level and purpose of your engagement will vary throughout the process and will be depending on the type of project you are doing, the current stage it is at and the type of stakeholders you are engaging with.

This is applied further in Tool T6 (page 62).

The International Association for Public Participation's (IAP²) spectrum:



Public participation goal	To provide stakeholders with balanced and objective information To assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain stakeholder feedback on analysis, alternatives and/or decisions.	To work directly with stakeholders throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with stakeholders in each aspect of the decision, including the development of alternatives and the identification of the preferred solution.	To place final decision-making in the hands of stakeholders.
Promise to the public	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how stakeholder input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how stakeholders input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.



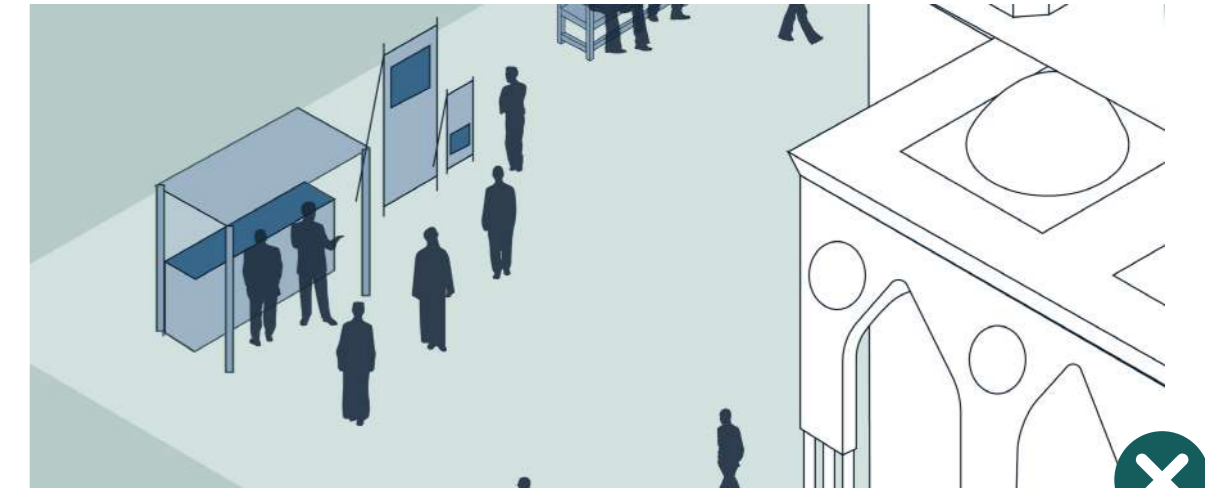
WHEN
Project stage and frequency

Choosing the right participatory channel is dependent on the time and how that aligns with the Urban Transformation process. For example, listening to the community's needs and aspirations is relevant at the start, not after the design has been locked. On the other hand, collaborating with stakeholders is ideal during the design stages. While planning the frequency of engagement activities, ensure you have a balanced and realistic schedule.



WHERE
Location and format

Selecting the right location depends on the audience and stakeholder groups you are aiming to engage with. For example, if the engagement event is focused on children, then schools, playgrounds and public spaces are ideal. Otherwise, if the engagement event is focused on listening to elderly women, then it is necessary to find places where older women meet and congregate in the community.



Although the male entrance of the mosque is a busy location with a lot of community members, this location excludes women and children. It also might cause you to encounter people who are in a rush, and don't have time to engage in dialogue.



Locating your engagement activities in a public space outside a community center or in a public park allows for a more inclusive engagement session, and ample time for reflection and discussion from participants.

STAGE 1: INITIATE / INVOLVE

HOW
Communication channel

The community always knows best

Some practitioners are apprehensive about community engagement because of the fear that the community will put forward ideas that are deemed not as good as their own. However, the quality of your answers almost always depends on the quality of the questions you ask.

Asking open and generic questions to non-design professionals often leads to low-quality answers. Non-designers don't realize the opportunities available to design a space and the multitude of options available to transform the space into something new. Therefore, it's best to avoid open questions during engagement sessions.

On the other hand, asking more specific value-oriented questions leads to a better understanding of the stakeholder and the state they would like to reach. In this example, a child was asked about how he would like to feel, and that led to a more meaningful answer that can lead to a more fulfilling design.



Selecting the right Communication channel for the job

COMMUNICATION CHANNELS	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
Analogue	<ul style="list-style-type: none"> Guided walks (shared walk) Learning events Information centres Personal communication Newsletters and fact sheets Newspaper articles Project progress reporting 	<ul style="list-style-type: none"> Community council Public inquiries/hearings Informal conversations Advisory panel Feedback kiosks Surveys / opinion polls 1:1 interviews Field observation 	<ul style="list-style-type: none"> Community workshops Map-making Focus groups meetings Crowd-sourcing ideas Deliberate polling Walking audits Creative workshops including art and photography 	<ul style="list-style-type: none"> Design competitions Design Charette City week festival Co-design workshops 	<ul style="list-style-type: none"> Referendums Crowd-funding Participatory budget Citizen juries Tactical urbanism Youth empowerment initiatives
Digital	<ul style="list-style-type: none"> Mass communication Websites and social media posts 	<ul style="list-style-type: none"> Transcriptions of audio recordings Hotline/ phone in Online surveys Digital data analysis Social media opinion polls 	<ul style="list-style-type: none"> Gamification Digital map-making platforms that capture citizen-created data, stories, etc.. Digital crowd-sourcing for name ideas Grievance mechanisms (online complaints to Municipality) 	<ul style="list-style-type: none"> Games Planning for Real Virtual reality and augmented reality pop-ups 	<ul style="list-style-type: none"> Virtual training and capacity building workshops

This table includes a non-exhaustive list of analogue and digital communication channels, based on the purpose of participation.

STAGE 1: INITIATE / INVOLVE

Ideas for Channels of Communication

TYPE OF COMMUNICATION CHANNEL

Feedback kiosks

Kiosks are usually physical booths with touch screens which users interact with. They are distributed across entire cities or throughout specific neighborhoods. Feedback received can be used to capture public opinion on a single matter or a on range of issues. They can also be used to monitor performance and measure changes in opinion over time.



City of Edwardsville

STAGE: All four stages

OBJECTIVE: Raise awareness, Feedback, Data gathering

TYPE OF COMMUNICATION CHANNEL

Games

Serious games solve problems through game-based methods, fostering collaboration and decision-making. Games simplify reality, aiding skill development. They unite decision makers and stakeholders, promoting collaboration in a jargon-free environment. Players engage with problems and each other, yielding collaborative outcomes.



Play the City, Amsterdam

STAGE: All four stages

OBJECTIVE: Build ownership, Generate interaction, Resolve conflicts

TYPE OF COMMUNICATION CHANNEL

Digital mapping

Digital mapping engages people in mapping social, ecological, and economic assets, including history, fostering dialogue and planning. It offers graphic insights into perceptions, aiding visioning. This method documents community aspects, strengths, weaknesses, and service locations, often integrating collaborative mapping by breaking large groups into smaller circles.



Khobar Memories Digital Map

STAGE: Initiate, Design

OBJECTIVE: Feedback, Data gathering, Resolve conflicts

TYPE OF COMMUNICATION CHANNEL

Social media outreach

Social media outreach is aimed at creating a culture of participation and overcoming cultural and social barriers to formal participation channels by targeting youth through social media. Various activities and campaigns could be designed to focus on a certain topic, to raise awareness, encourage further participation and knowledge sharing.



#PublicSediment Cut-outs, Alameda Creek, San Francisco

STAGE: Initiate, Design

OBJECTIVE: Data gathering, Build ownership

TYPE OF COMMUNICATION CHANNEL

Data-gathering pop-ups

Crowdsourcing gathers public ideas and knowledge to meet local authority goals, inviting the public to share insights and data to solve problems. It typically operates as an open call, encouraging diverse contributions and innovation. Incentives, like those offered by a local authority, motivate public engagement. This boosts manpower and encourages participation in the process, fostering community involvement.



Community Shopfront Hassell+, South San Francisco

STAGE: Initiate, Design

OBJECTIVE: Data gathering, Build ownership

TYPE OF COMMUNICATION CHANNEL

City week festivals

A City Week Festival brings together city residents to explore, discuss and ideate the future of the city together, through a range of workshops, panel discussions, hackathons, and intensive consultation activities over consecutive days. A City Week Festival may occur as a one-off event around a major upcoming project, or may be hosted as an annual event.



Melbourne Knowledge Week

STAGE: Initiate, Design, Build

OBJECTIVE: Raise awareness, Build consensus, Generate interaction

TYPE OF COMMUNICATION CHANNEL

Informal conversation

Informal conversations are a form of facilitated engagement on a topic that allows participants to have a free flowing dialogue about topics surrounding the project. The goal is to improve and create a shared understanding of an issue. This method is suitable from an inclusive perspective since dialogue encourages people to tell stories, which can compel the elderly, women, migrants, refugees and even children.



MiMedellin informal conversations

STAGE: All four stages

OBJECTIVE: Feedback, Data gathering

TYPE OF COMMUNICATION CHANNEL

Advisory panels

Advisory panels facilitate ongoing dialogue between local authorities and diverse community representatives, enhancing outcomes. They ensure fair representation, typically with 10-30 members nominated or appointed. Panels advise councils on various strategies, policies, or community-relevant plans, and allow councils to address community needs effectively, fostering inclusive decision-making.



Auckland Youth Advisory Panel

STAGE: All four stages

OBJECTIVE: Build ownership, Generate interaction, Feedback

STAGE 1: INITIATE / INVOLVE

Tools in action
T6 Community engagement strategy

Duration
2 hrs

Resources
3-5 people

Aim:
Develop an effective and bespoke community engagement strategy that ensures the community is participating throughout your project's life cycle.

Templates:

► [Go to T6.1 Community Engagement Framework template](#)

Who is involved?
Project team, led by Engagement Champion.

Output
A clear engagement plan that indicates how and when to engage with stakeholders from project start to finish.

- Preparation**
1. Have the results and analysis from T4 Ecosystem Mapping and T5 Power-Interest Matrix at hand.
 2. Have the project timeline and program at hand.

- Method**
1. Write the name of a key stakeholder.
 2. Which power-interest quadrant does this stakeholder fall under.
 3. Select all the Engagement Levels to best engage with this stakeholder.
 4. Select all Communication Channels associated to the Engagement Levels you selected above.
 5. Select the Project Stage/s of when these Communication Channels occur.
 6. Select the Frequency in which the Communication Channel should happen within the Project Stages.

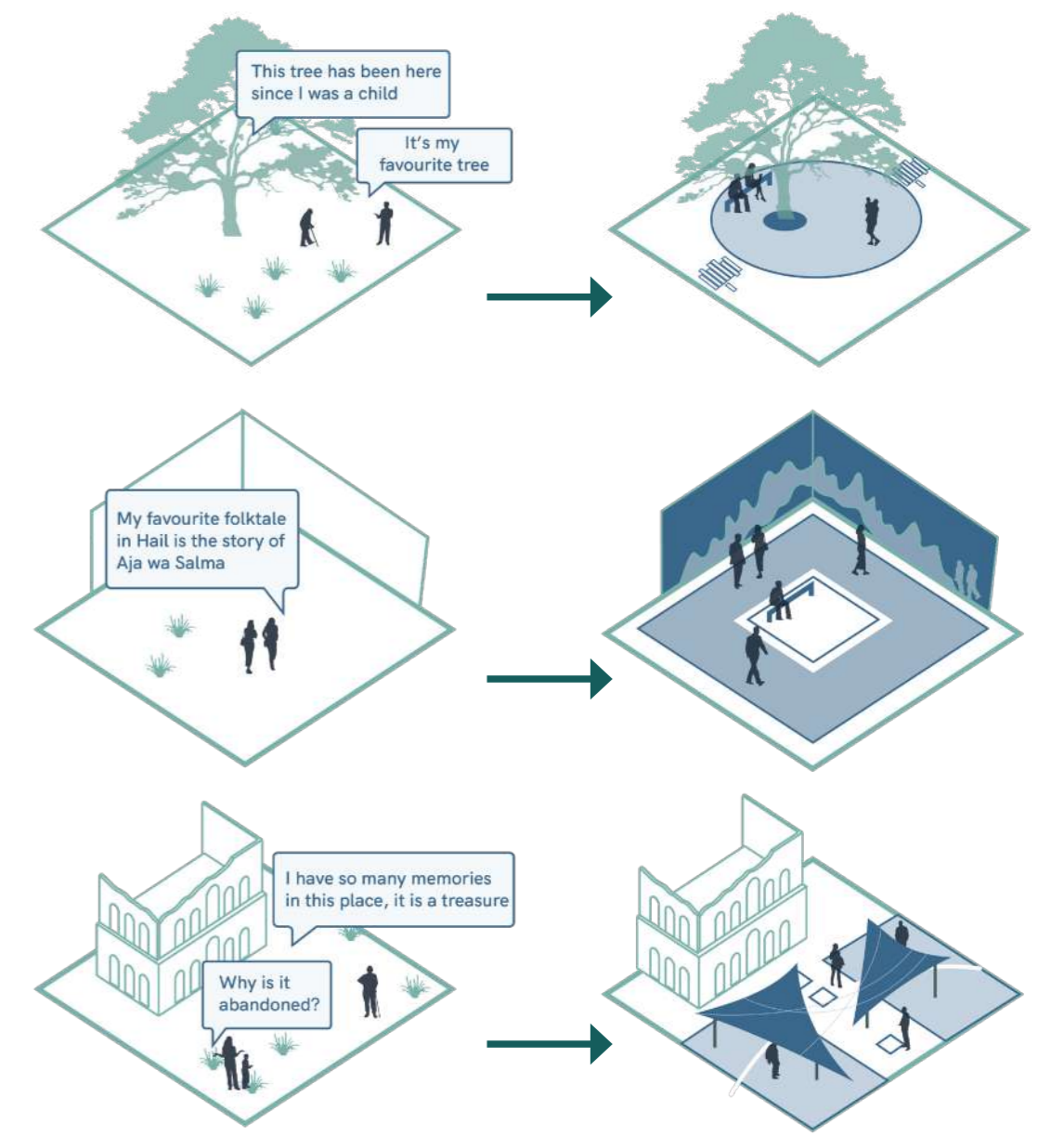
Benefits
Improves the project's acceptance, minimises risks, enhances transparency, fosters trust, nurtures positive relations, and promotes the long-term sustainability of the project.

- Limitations / be aware of**
- It is crucial to prioritize inclusive and equitable community engagement strategies by intentionally involving diverse voices and considering the needs of all stakeholders.
 - Revise the community engagement plan regularly to accommodate changes in the project, context and/or stakeholder dynamics.

Defining the hidden assets and landmarks that the community cares about

While it's important to identify needs and what's lacking in terms of functionality, it is equally important to unlock the hidden assets that the communities value that are unseen or unnoticed by others. This could begin with a self-mapping exercise to unearth what is valuable to the community.

Every community has its own set of unique skills, stories, artefacts, landmarks and other resources on both the individual and collective levels that can prove invaluable to a design project's success.



Diagrams show examples of tangible and intangible assets that the community cares about, such as a mature tree, local folklore and an abandoned ruin, that have then been featured as focal points in public realm designs.

STAGE 1: INITIATE / INVOLVE

Manage your engagement insights

A good Urban Transformation project relies on good project documentation and knowledge management. The following points should help you set up best-practice approaches to data management across the project life-cycle:

- Ensure you have established a comprehensive project documentation system from the start of your project.
- Decide on a structured categorization system to ensure you can easily find the data you need - this may be based on project stages and disciplines.
- Pick a platform that supports collaboration with multiple users in real-time.

The suggestions above are not exhaustive, and it is recommended that you engage with your entity's internal project management teams to ensure your data management approach is the best it can be.

Category	Stakeholder	Link	Information	Location	Contact	Topic / Thematic Area
PUBLIC	Ministério do trabalho, emprego e segurança social	Ministry of Labor, Employment and Social Security				Employment
	Ministry of Agriculture	Ministry of Agriculture and Rural Development (Mozambique)				Energy, Water, Food system, Agriculture Policy
	INEFP- Instituto Nacional de emprego e Formação Profissional	The National Institute for Employment and Vocational Training (INEFP) is the government body responsible for promoting measures that ensure the creation of balanced employment and vocational training opportunities, with adequate capacities to improve the				Capacity building

The Matrix tool in 'Co-creating Urban Transformation' developed by Agirre Lehendakaria Centre is an example of a management database for community engagement, that neatly groups the outcomes of the engagement process.

Key point

Some of the data you gather through your communication channels with stakeholders and the local community may be sensitive. Ensure you develop clear guidelines for collecting any personal data throughout the project. Remember, you must comply with data protection regulations and always get consent from any members of the public whose data you intend to use.



Understanding the barriers that affect the public's willingness to engage

Each community has its own experience and history with engagement and may have various reasons for avoiding engagement. The typical barriers are:

- Not knowing about the engagement events.
- Too busy to attend.
- Believing they have nothing to say.
- Engagement fatigue.

Each one of these barriers will have different ways to address them, but it all starts by listening to the community and their concerns very attentively. Generally, it is always possible to design around the barriers. The goal is to maximize engagement so that you broaden the sense of ownership.

It is important to also examine who may be under-represented and understand why.

Tap into your local community center

Now is a good time to talk to your local community center about your new project and share with them your community engagement plan. Community centers are welfare organizations in the Kingdom, they fall under the Ministry of Human Resources and Social Development and operate under the cap of non-profit entities.

In addition, there are non-profit organizations in the country like Al Ahya that work with the objective of enhancing social leadership in human and place development.

Their targeted groups are women, girls, children, youth, and urban communities. The stakeholders vary, namely, the public and private sectors, donor institutions, and citizens. A network of similar organizations exists across the country. An example of this is the Al Ahya Organization in Makkah.



Key point

Engagement Fatigue: Over the life of a project, there is a risk of reaching a point called 'Engagement Fatigue' when stakeholders and communities are asked to participate in multiple repetitive and duplicative engagements, without seeing any results. This should be taken into consideration and avoided while developing your engagement plans.



STAGE 1: INITIATE / INVOLVE

Talking to local craftspeople and artisans: Identifying skills to be preserved

At this stage, it is a good time to speak to local artisans and practitioners to get to know in more detail the skills related to the built environment that need preserving. These may include plastering techniques, woodwork, mud bricks, carvings etc.

In many cases, these skills are threatened to disappear if there is no demand for them. It is important to ensure that we bring back these skills into the everyday spaces, in order to:

- Preserve tangible heritage.
- Support the local economy.
- Create memorable places with a unique identity.

Each region and each city will have its own unique skills. Refer to the urban codes for your region, if applicable.

Ensure these skills and crafts are highlighted and embedded in the design from Day #1, they can then come into place in the stewardship of the place. If relevant, request the incorporation of local skills into the project in the design brief.

Case study

HERITAGE-LED REGENERATION IN AL BALAD, JEDDAH

A new Traditional Building Arts and Crafts Diploma is ensuring that Al Balad’s traditional architectural skills are passed down to future generations through education and hands-on experience working on restoring the buildings of Jeddah’s historic city center. The program was established through a partnership between The King’s Foundation School of Traditional Arts in London, The Royal Institute of Traditional Arts and the Jeddah Historic District.

The diploma focuses on using the architectural heritage of Al Balad as an educational and training resource through analysis and research, with courses on woodwork, gypsum carving, architectural drawing and decorative painting. It offers its students and graduates hands-on practical training as an opportunity to get involved in the Ministry of Culture’s restoration projects in Jeddah’s Al Balad. Preserving traditional architectural skills is an important aspect of Urban Transformation, as it allows the creation of meaningful regeneration projects that enhance the urban, economic, social and environmental value of Saudi cities.



© Turki Jedan | photography



© Arab News \ Nada Hameed

Images showing Al Balad’s Traditional Building Arts Exhibition

Case study

AL NASEEJ TEXTILE FACTORY, BAHRAIN | 2022

Al Naseej Textile Factory is a newly transformed textile weaving facility and social space for the local craftspeople of Bani Jamrah in Bahrain. It is a part of a broader effort by the Bahrain Authority for Culture and Antiquities to redefine and reinvigorate traditional crafts and industries across Bahrain.

Throughout the building, there are odes to, and artifacts from, the local craftspeople such as Arish - a traditional building technique weaving dry date palms leaves into a strong surface to create walls and shading structures. Locally-sourced building materials; sunken pits for weavers to sit while using the loom or filled with water; and well-shaded areas with palm trees all reinforce the low-carbon, resource-efficient, people-centered approach for a culturally rich space that celebrates heritage and preserves skills in a contemporary way.

This space captures the past and future through a clear design rationale that is thoughtful and informed, and economically sustains local craftspeople.



© Dylan Perrenoud



© Dylan Perrenoud

Al Naseej Textile Factory, designed by Swiss firm Leopold Banchini Architects, incorporates traditional building methods with contemporary materials.

Tools in action

T7 Affinity Diagramming



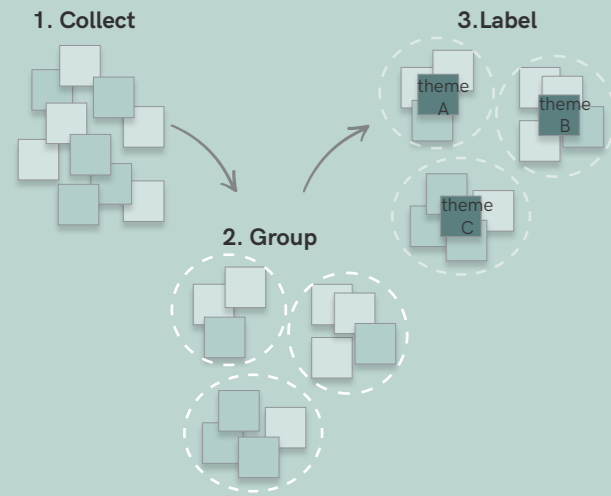
Duration
1-3 hrs



Resources
2-10 people

Aim:

Organise and cluster diverse opinions from stakeholders to reveal patterns, relationships and deeper meaningful insights.



Who is involved?

Project team, led by Engagement Champion.

Outputs

- Organized observations and insights that begin to identify emerging themes around the challenges, needs and aspirations of the community.
- Insights and emerging themes to be validated by community.

Preparation

- Gather and analyses all existing data and insights from Communication Channels applied so far.
- Condense and prepare your findings to be presented to the wider team.

Method

- Present existing data and findings from stakeholder and community Communication Channels.
- Using post-its, ask participants to write down the range of perceived challenges, needs and aspirations based on the presented data / findings.
- Collaboratively, sort the insights into clusters (or affinity groups) that share a similar theme or category on a whiteboard or wall.
- Ideas without a clear category can be placed into a separate cluster.
- Groups of post-its under certain themes can then be moved into larger groupings if the themes are linked.

- Label each affinity group with a title that encompasses the common insight within each cluster.
- Discuss the identified themes as a group and record your findings.

Benefits

- Overarching themes and shared thinking are revealed through visual clustering.
- Efficiently organizes large volumes of information.
- Facilitates a deeper understanding of stakeholder and community's lived experience.
- Provides a structured foundation for decision-making and/or problem solving in future project stages, e.g.: supports and grounds design team with data needed to make design decisions.

Limitations / be aware of

- Affinity diagrams can be messy and may take time for everyone to understand them.
- Themes derived from this tool must be fed back to the community for validation.

Key point

Publishing information on the engagement process and project at key stages regularly and pro-actively is essential. This fosters transparency, which in turn builds trust within communities and encourages greater participation in future sessions.



Reflect on your community engagement strategy

As a commitment to effective and fair community engagement, remind yourself of the principles to abide by.

Please review each one and check that your tools and community engagement strategy are in line with these principles.

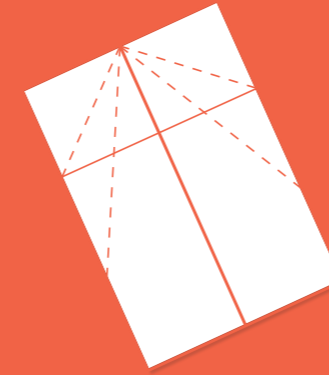
CHECKLIST

	Make sure your community engagement is...
<input type="checkbox"/>	Transparent: to foster trust and empower residents.
<input type="checkbox"/>	Inclusive: of diverse perspectives and representative of the local community.
<input type="checkbox"/>	Timely: early enough in the process and regular throughout.
<input type="checkbox"/>	Organised: to facilitate meaningful participation and efficient communication channels.
<input type="checkbox"/>	Accountable: providing all key information in an accessible manner.
<input type="checkbox"/>	Open-minded: to support mutual learning and promote a culture of knowledge exchange.

STAGE 2

Design

Explore the design process and outcomes while aligning specialized stakeholders around the common goals set during the initiation stage. You will be guided through connecting and building relationships for community engagement, trailblazing for innovative sustainable design solutions, and programming for effective decision-making.



In this stage, you will learn how to:

- Apply design principles**
- Embed nature-positive design solutions**
- Co-design with your stakeholders**



Stage 2 Overview

The Design process is segmented into three sub-stages that will enable a logical and incremental progression through the design process.

Explore

Innovation is embraced through co-design with the local community, fostering a participatory design approach and incorporating feedback for iterative design refinement. Design concepts are tested for resilience, usability, and functionality.

Tools:

- ▶ [T8 High-level Climate-Risk Assessment](#)

Integrate

Design is integrated with best practice design principles, ensuring alignment of design priorities, and incorporating insights acquired from community engagement. This process culminates in the selection of a preferred design option with the Stakeholders.

Tools:

There are no tools in Integrate.

Refine

Technical drawings and specifications are developed for submission of a regulatory application and a construction phasing plan. Construction contractor are appointed and specialists are engaged to ensure compliance with sustainable practices.

Tools:

There are no tools in Refine.

Roadmap: Stage 2 - Design

Before beginning the Design Stage, let's take a moment to check if your vision is in place:

- Project aspirations defined
- Engagement plan prepared

EXPLORE

Kick-off this sub-stage by exploring your site through **site analysis**, looking at existing data, and using digital tools.

Identify the existing and potential **climate change-related risks** and threats to your site and community.

Find out how to do this on: [T8 High-level Climate-risk Assessment](#)

Explore the wider benefits of harnessing **nature-positive design**.

Plan **design reviews** into your project programme, to help you test ideas and refine your design.

Embed **co-design** and use your communication channels to mitigate the conflicting community needs.

Understand **urban integration** and ensure your site is well-integrated into its context.

Explore how you may integrate **flexibility and adaptability** into your concept design.

Incorporate **well-being, accessibility and inclusivity** principles early on.

INTEGRATE

Synthesise your site analysis, co-design outcomes and the wider context. Don't forget to think about the project brief and budget!

Learn about **climate-resilient and adaptive design strategies** in the context of Saudi Arabia.

Discover best-practice design approaches to **designing for a hotter planet**.

Learn how to **design for biodiversity** in urban environments.

Test how creating **immersive experiences with digital elements** may improve the user experience and support creating a sense of place.

Learn all about **SuDS and designing for floods** in urban settings.

Integrate **water-conscious design** strategies into your project.

Discover how you can **mitigate poor air quality** through your design for greener Saudi cities with cleaner air.

REFINE

Begin the shift towards detail design: get ready to **engage with specialists** to support you in this process!

Don't forget to think long-term, by considering and planning for an **appropriate stewardship model**.

Check that **robust procedures are in place** to accommodate possible changes, while maintaining design aspirations.

Learn about the benefits of **testing with meanwhile interventions**, ahead of permanent construction.

Well done! You're officially done with Stage 2. Ready to start building your project?

EXPLORE

Here you will learn how your design can address key themes like climate resilience and social value, link to National targets and consider spatial risks for successful Urban Transformation.

Embrace the possibility of innovation through co-design and climate resilience. Trust the community's insight and feedback, and do your best to truly understand their concerns and aspirations.

Analyze your site

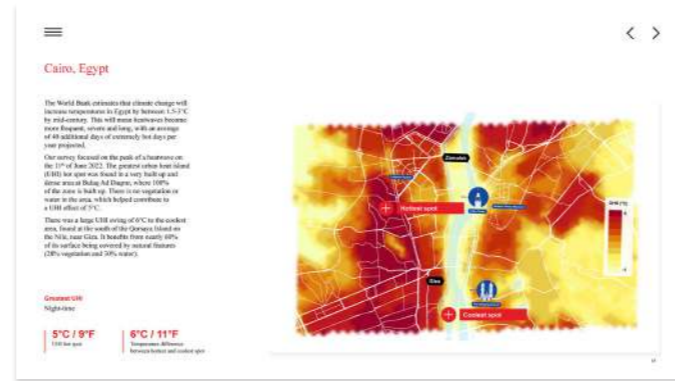
Rigorous site analysis is key to producing a contextually responsive, resilient and innovative design. Your site analysis should promote the integration of key areas of your site, while connecting outwards to the wider context. Topics to cover in your analysis include:

- Known natural hazards or growing risk areas due to climate change.
- Existing and planned green infrastructure, open spaces, and existing target or protected species/habitats on or nearby your site.
- Existing and planned circulation and access routes to your site, including pedestrian networks or public transport hubs.
- Health and well-being concerns, such as urban heat islands, air quality and noise quality data.
- Stakeholder demographics including exercise barriers and deprivation rates, education, gender and age groups.
- Scale, land use and massing of surrounding built form.

Combine the above with previously mapped information, such as historical and culturally-significant landmarks, hidden community assets and traditional practices, to build a holistic understanding of your site and its use.

Key point

Using existing data and GIS processes can help you understand the existing flows, connections and systems that have shaped your site. Some GIS programmes can also be adapted to become data collection tools further along in the design process, and could support your digital communication channels.



UHeat is a digital tool that uses open source climate data and satellite imagery to identify urban heat island hotspots. © Arup

Tools in action

T8 High-Level Climate-Risk Assessment



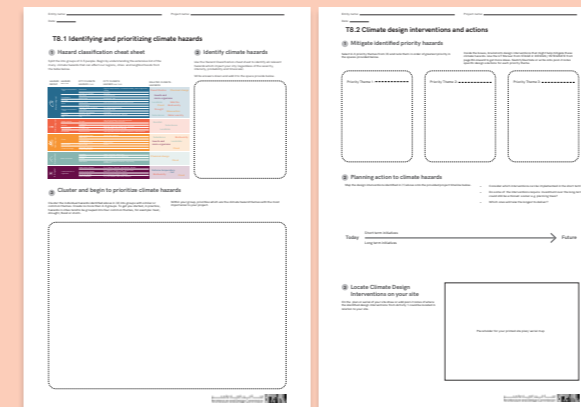
Duration
1 hr



Group size
3-5 people

Aim:
Help identify and prioritise key climate risks for design stage consideration, mitigating extreme future climate events.

Templates:



- ▶ [Go to T8.1 Identifying and Prioritising Climate Hazards template](#)
- ▶ [Go to T8.2 Climate Design Interventions and Actions template](#)

Who is involved?

- Project team, led by sustainability experts.

Outputs

- Climate hazards that affect your project and interventions to mitigate future impact.

Preparation

1. Understand glossary terms and climate change adaptation terms.
2. Conduct desktop studies, scan news articles, and collect historical weather data from the internet and libraries for example. Identify key climate risks in your city and analyze the patterns.
3. Understand the variety of climate hazards that can affect our regions, cities and neighborhoods from the Hazard Classification Cheat Sheet.
4. Print an aerial site plan and embed it into T8.2.

Method

T8.1 Identifying and prioritizing Climate Hazards

1. Identify climate hazards and add all relevant climate hazards that affect your site / neighborhood.
2. Cluster individual climate hazards into similar themes.
3. Prioritize the climate hazard themes with the most relevance to your site.

T8.2 Climate design interventions and actions template

1. Brainstorm design solutions to mitigate top 3 priority hazards.
2. Map the design interventions identified onto a project timeline.
3. Locate possible areas for design Interventions on your site plan.

Benefits

- A rapid climate assessment tool that supports a low climate science knowledge base. Designed for entities with limited resources.

Limitations / be aware of

- Keep in mind, this is a high-level tool to raise awareness on the likely impacts of climate change on projects. Conducting a more comprehensive climate risk assessment is highly encouraged.

References

City Climate Hazard Taxonomy - ARUP and C40, n.d.

STAGE 2: DESIGN / EXPLORE


Nature-Positive Design

Nature-positive design places nature and biodiversity at the center of decision-making, and ultimately seek a net-positive impact on our environment. Unlike simply mitigating or reducing emissions on the environment, nature-positive designs are proactive and restorative.

Nature-based solutions can help projects become nature-positive, while providing other wider benefits, such as natural cooling, low carbon, ecosystem restoration and improved health and well-being, consider how you can integrate:



- Design elements that improve biodiversity, such as native habitat creation, urban forests, biodiverse green roofs, or enhanced wildlife corridors that support existing ecosystems.
- Natural systems through ecosystem creation and restoration within the site, such as wetlands, woodlands or grasslands for climate adaptation.
- Water-sensitive design principles and elements, such as water harvesting and permeable paving, to support management and conservation of water resources.

Key point



Nature-based solutions is a term used to describe a diverse range of techniques using nature, rather than man-made materials, to increase our resilience to climate impacts (e.g overheating or drought), while supporting the regeneration of ecosystems. Nature-based solutions go hand-in-hand with reducing CO2 emissions.

Case study

AL FAY PARK, ABU DHABI | 2021

Transformed from a vacant plot, this park redefines what a contemporary urban park in an arid climate could look and feel like. It is designed to naturally cool the micro-climate through introducing a desert forest of Ghaf trees and native species - hence the name Al Fay - which surrounds a series of sports and play areas. By celebrating Abu Dhabi's nature and culture and improving climate-resilience, this example provides a benchmark for nature-positive design in the Gulf.



NATURE-POSITIVE DESIGN INTERVENTIONS

- 1 Biodiverse green roof
- 2 Water harvesting
- 3 Permeable soft surfaces
- 4 Retention basin
- 5 Permeable paving
- 6 Native habitat planting
- 7 Insect hotels

STAGE 2: DESIGN / EXPLORE

Designing for Well-being

Well-designed spaces positively correlate to physical and mental health. A good Urban Transformation can reduce stress levels, provide connections to nature and community, and promote physical activity. Well-being is also linked to inclusivity. Spaces must be welcoming to all people at all times of the day and allow people to feel safe. Initiatives that foster well-being may include:

- Shade along key routes and open spaces.
- Universal design; barrier free and comfortable ramp access for all ages and disabilities.
- Clear and legible wayfinding strategies.
- Regular points of seating under shade.
- Drinking water fountains (Sabeel water stations).
- Clean amenities, such as toilets and cafés.
- Integrated and incidental play for various age groups.
- Safe and comfortable lighting features.
- Clear sight lines and natural surveillance strategies.


Contextual considerations

In designing safe and inclusive spaces, it is critical to consider the built form, uses and activities framing that space and in close proximity. A public space is part of a wider social and spatial ecosystem. To that end, understanding the wider area context (the destinations, landmarks, routes and 'hotspots') is critical.

Engaging stakeholders, particularly those representing disabled communities, is crucial in the planning phase to ensure their needs are met. Selecting contractors with a strong track record in creating accessible environments in later stages is vital, alongside implementing regular accessibility audits for compliance.

Key point

A comprehensive procurement strategy must integrate global accessibility standards, like the Americans with Disabilities Act (ADA) and Web Content Accessibility Guidelines (WCAG), as well as the Saudi Building Code tailored to the Saudi context.



Case study



NORTHERN CORNICHE, JEDDAH | 2017

Once an inaccessible stretch of coastline, the Northern Corniche is now one of Jeddah's liveliest public spaces. The range of amenities arranged across the site serve a diverse group of users, from a segregated walking, running and cycling track, to dynamic play areas and outdoor gyms, to shaded spaces to enjoy views of the Red Sea. Inclusive access, amenities and a clear focus on outdoor exercise demonstrates the genuine efforts to promote well-being and healthy lifestyles in public spaces.



- HEALTH AND WELL-BEING IN THE PUBLIC REALM**
- 1 Shade trellises and awnings
 - 2 Water fountain (Sabeel)
 - 3 Seating areas
 - 4 Step-free access
 - 5 Accessible amenities
 - 6 Natural surveillance
 - 7 Accessible wayfinding signage
 - 8 Sufficient lighting

STAGE 2: DESIGN / EXPLORE

Flexible Design Approaches

All sites are constantly impacted by change. These may be social, or environmental and could occur daily, such as stark temperature differences between day and night; or annually, such as during school holidays when children’s programming becomes more important.

Flexible design approaches that will help ensure your project is adaptable to daily or seasonal change include:

- Dynamic design elements such as shading systems and night-time lighting that enable uninterrupted use during hot days and cool evenings.
- Modular and movable furniture that can adapt to suit programming and user needs.
- Pilot programming and meanwhile use strategies that will help test how a certain element or program functions and is accepted by the community.

Case study



SOMERSET HOUSE, LONDON | 2013

The needs of users in the future are uncertain, but the need to connect, belong, play and learn rarely changes. The Somerset House Foundation (an internal stewardship body) took the opportunity to transform a car park into a space that could highlight existing amenities, exhibitions and events at Somerset House. This ever-evolving public space offers events that match the season and people’s needs.



Weekday lunchtime

Urban square showing a lunch-time pop-up food market, with movable furniture providing shaded areas to eat, beyond the fixed furniture. Nearby water fountains and toilet amenities ensure the comfort and well-being of visitors.



Weekend evenings

The same square hosts a music performance in the evening. A movable stage and spectator seating enable the event to take place, while a flexible lighting strategy creates an inviting and safe night-time atmosphere.

STAGE 2: DESIGN / EXPLORE

Integrating into the wider context

The success of public spaces is often contingent on their relationship to, and integration with, the wider context. Integration should be both spatial and perceptual, facilitating a seamless and inviting transition between the space, the neighborhood and the wider city.

Analyze visitor patterns

Document existing visitor use and movement patterns, and profiles, e.g.:

- Visiting times, including seasonal use.
- Visitor hotspots and spatial distribution of use.
- Types of users and demographic trends.

Mobility infrastructure

Document circulation systems and modes of mobility, including connections to local and wider area networks, including, e.g.:

- Pedestrian routes and street crossings
- Cycle routes (dedicated or shared).
- Parking provision.
- Public transport nodes.

Mapping land uses

Document land uses within a 200m, 400m or 800m catchment, specifically focus on key destinations, e.g.:

- Cultural, community and institutional use.
- Outdoor amenities and natural features.
- Retail and F&B.

Scale comparison

The scale of the public space in relation to the surrounding buildings:

- Ensure that there are views to and from the space that aid way-finding.
- The space should feel well-framed by existing buildings or by elements integrated within the perimeter of the space.

Case study



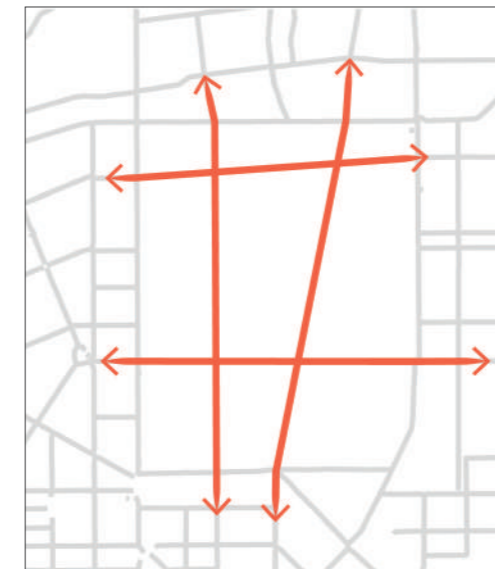
CITY CENTRE INTEGRATION, KHOBAR

Al Khobar Al Shamaliyah, the first planned neighbourhood in Saudi, has retained its popularity due to its unique grid network, gentle density, and mixed uses. The Sharqia Development Authority (SDA) is revitalising the city core to restore value and enhance its quality of life. The new masterplan re-establishes it as a walkable neighbourhood through shading, green areas, and pedestrian bridges that re-integrate it into surrounding neighbourhoods, parks and retail zones. Therefore creating a human-centred urban experience.

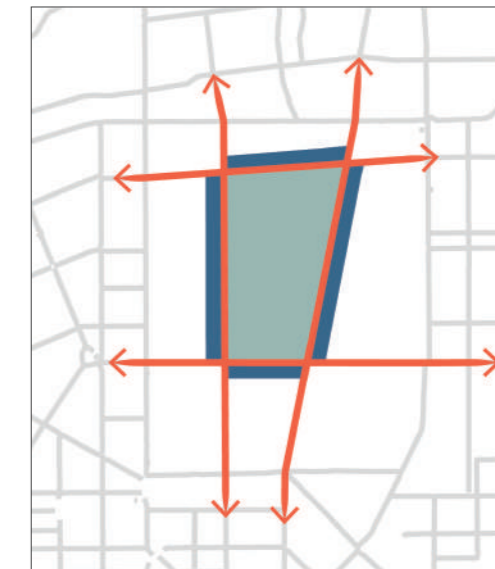
Example of a good urban integration process



1. The neighborhood 'hosting' the public space should be well integrated with its wider urban context.



2. Consider how the neighborhood and public space can connect to, and reinforce, street, pedestrian/cycle routes and public transport in the wider area.



3. Design the public space such that it is clearly framed by activity and well-overlooked.



4. Understand how the public space can improve access to local destinations, create short-cuts and clear sightlines, ultimately seamlessly connecting to the surrounding routes and other usable spaces.

STAGE 2: DESIGN / EXPLORE

Embedding co-design into your process

Based on your engagement with the community in Stage 1, where you gained insight on their perspectives and views of the project challenges through your selected communication channels, you can now shift towards including the community in the design stage.


Refer back to your strategy and use the design stage to build a sense of ownership and contribution in the community: this should be a mix of some or all of the participation goals - inform, consult, involve, collaborate or empower.

Conflicting needs and requirements

In any given project, it is common to encounter conflicting requirements from within the same community. Imagine two neighbors living on the same street: one wants additional parking, while the other advocates for wider pavements. These types of dilemmas are often inevitable.


Your communication channels should serve as tools for mitigating these tensions and implementing democratic principles, ensuring every voice is acknowledged. Remember to refer back to these channels when needed.

Case studies



RUFAIDA PARK, DAMMAM

Rufaida Park is a community park which promotes the health and well-being of older communities. 60% of Saudis are currently under the age of 30, which means that the older community is often overlooked in urban planning. Developed and financed by a private health education entity, Mohammad Almana College for Health Sciences, the local community was engaged through older residents' focus group sessions led by a local clinic (Eastern Health Cluster). The preferred design was then selected through an online voting platform, empowering the local community to create the public spaces and program that they want and need.



CENTRE FOR LOCAL GOVERNANCE, RIYADH

Workshops are an effective way to navigate challenges and conflicts within the community. Advocates from the Centre for Local Governance believe that workshops offer a great opportunity to educate residents about democratic values. Amanat Al Riyadh and the Centre for Local Governance held workshops when redesigning community parks in Riyadh's Al Wadi neighbourhood, illustrating how workshops could achieve this goal of co-design and balancing community needs through outreach and awareness.

Design Reviews

Projects always benefit from everyone pausing, stepping back, and taking a fresh look at how the concept design has evolved. Build design reviews into your program. They are an opportunity to debate, test ideas and refine your narrative.

The aim of design reviews is to ensure that best practices is being applied and that is alignment in the conceptual design. The key participants include the internal project team, from the project director to the junior team members, as well as entity/consultant staff members from relevant disciplines. Design reviews can be internal (including just the design team) or external (including the client or other sub-consultants).

On the right are some top tips to ensure you get the most out of your design reviews.



Scheduling design reviews

- Schedule regular internal design reviews into the program, agreeing on their frequency in advance.
- Ensure reviews occur prior to project milestones, allowing time to incorporate revisions.



Invited participants

- Invite uninvolved colleagues from your organization for a fresh perspective.
- Ideally, the client should attend some of these reviews to hear constructive criticism.
- Include experts from various disciplines, such as sustainability, public engagement, and engineering.



Creating the right atmosphere

- Keep internal design review sessions informal and empowering, fostering a collaborative spirit that enhances the design and promotes cross-pollination of ideas.
- As the project nears client sign-off, use reviews to rehearse presentations.



Managing design reviews

- Issue a briefing pack for both internal and external reviews to save time on explaining the brief and context.
- Document advice received in review minutes or notes for future reference.

INTEGRATE

When synthesizing your work, it's important to interrogate the options for your concept design with the design team and the community. This must be balanced with the pragmatic aspects of the project without losing sight of how this new project interacts with the wider context.

Your goal is to find the right balance between the community's needs, your understanding of the site and wider context, and the project brief and budget, as you select a preferred option.

Synthesis of inputs

You will now begin to consolidate all the inputs you have gathered so far to help you select a preferred design option, which you will then develop further and eventually build. As you progress towards achieving a holistic and well-informed Urban Transformation design project, you must take into account what you have learned about your site through site analysis, your insights from the community and the outcome of ongoing communication channels.

The preferred option should be tested to be sure it is feasible from both an engineering and cost perspective. You must constantly ensure your outline specification meets the project budget.

Most importantly, you should ensure the project is going to be responsive, sustainable and aligned to the specific and unique characteristics of the site, which could be exasperated by the changing climate.

Case study



MAKING SPACE IN DALSTON, LONDON | 2009

Over 200 residents, students, parents and local groups worked together to identify 76 projects across 10 themes; some of these were permanent, others temporary, but all centred community-led change. Consultations with local residents and cultural bodies were held consistently: including photography workshops with young people, an exhibition and several steering group meetings. These communication channels helped generate the site-specific proposals, including: pedestrianising of streets, wayfinding improvements, new green routes and a new pocket park.

Design for resilience

To achieve successful Urban Transformation, it is important to adopt design strategies in the public realm that can help Saudi cities adapt to climate change and build resilient urban environments.

Every region and city in Saudi Arabia will have different environmental conditions. However, the overarching strategies listed in the adjacent table will help provide a framework for designing resilient public spaces that are specific to the Saudi context and the Saudi urban and environmental challenges.

Be reminded of your climate risk analysis - you should have already identified key climate risks that relate to this table. The column on the right illustrates strategies to tackle them and are further detailed in the upcoming pages:

- Designing for a hotter planet
- Designing with and for nature
- Greener cities, cleaner air
- Water-conscious design
- Designing for urban floods

	CLIMATE-RELATED HAZARDS IN KSA	DESIGN STRATEGIES TO MITIGATE AND ADAPT TO CLIMATE CHALLENGES
Meteorological	<ul style="list-style-type: none"> • Rising temperatures • Heat waves • Increasing humidity • Urban Heat Island • Shifts in rainfall patterns • Dust storms 	<ul style="list-style-type: none"> • Increase native tree planting • Increase shaded surfaces • Eliminate artificial grass areas • Increase drinking water fountains • Regenerate landscapes and ecosystems • Enhance soil
Climatological	<ul style="list-style-type: none"> • Water scarcity • Biodiversity loss • Land degradation • Soil damage • Desertification • Degraded marine systems/coral bleaching • Reduced food security 	<ul style="list-style-type: none"> • Eliminate exotic species, reduce irrigation • Employ sustainable water sourcing (TSE) • Source local and adaptive planting palettes • Improve local habitats and ecosystems • Introduce green infrastructure networks • Engage in wildlife restoration (mangroves, deserts, wadis, coastal areas) • Practice sustainable agriculture
Hydrological	<ul style="list-style-type: none"> • Increase in storms • Seasonal flash floods • Sea level rise • Shoreline erosion 	<ul style="list-style-type: none"> • Introduce SUDS • Rehabilitate wadis • Introduce permeable paving • Restore natural coastlines, mangroves
Geophysical	<ul style="list-style-type: none"> • Landslides • Rockfall • Subsidence 	<ul style="list-style-type: none"> • Green belts to protect cities and residential areas • Select the right type of planting for the right location • Soil selection and stabilisation
Biological	<ul style="list-style-type: none"> • Water-borne disease • Vector-borne disease • Insect infestation 	<ul style="list-style-type: none"> • Introduce nature-based water management • Improve soil fertility • Increase vegetation cover and plant species diversity to balance ecology • Select insect tolerant plants and crops

STAGE 2: DESIGN / INTEGRATE

Designing for a hotter planet

The following pages cover best practice approaches to creating public spaces that ensure the comfort and well-being of their users during heatwaves through climate adaptation measures while actively mitigating the urban heat island effect.

Providing shade

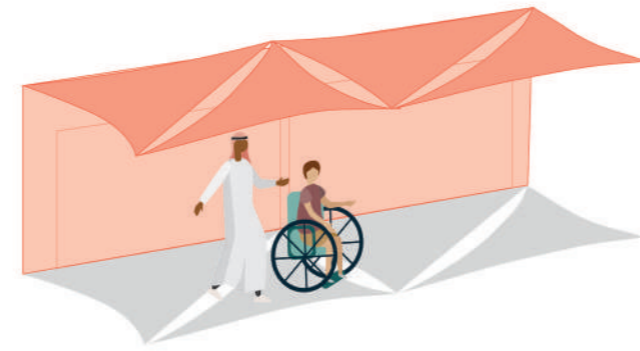
- Use planting to provide shade, where possible. In the longer-term, trees provide wider ecological benefits, while reducing temperatures and improving air quality.
- Canopies, sails and trellises can be incorporated to provide shade when integrated as architectural elements. They can be partly planted, and should integrate permanent seating, and areas for movable seating.

Cool surfaces

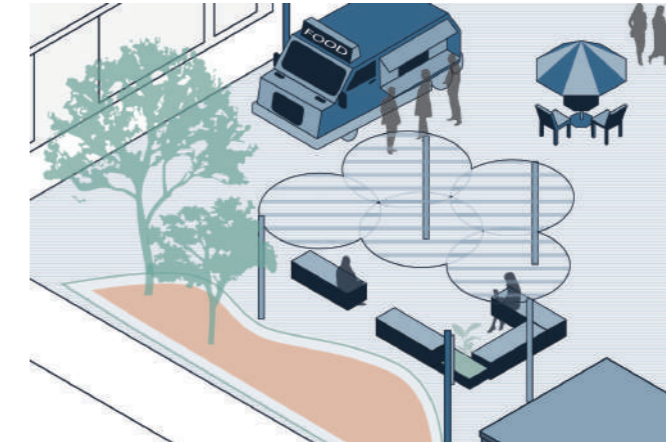
- Lighter colors on surfaces, increased areas of planting, gravel or other porous materials will absorb less heat and reduce temperatures across your site.
- Large exposed water features should be avoided in this region, as water will evaporate too quickly. Water use, such as irrigation or fountains, should be kept to a minimum and ideally concentrated during the evenings.

Furniture and elements

- Movable or flexible furniture allows for dynamic arrangements, which can adapt according to site uses, programming and the weather. Furniture can be moved daily, by site users or stewards, as the shade cast by structures or trees changes throughout the day.
- Solar energy is abundant in Saudi Arabia, and thus solar power could be harnessed by integrating solar-powered lighting features, parking meters or phone charging stations.
- Permeable surfaces play a role in decreasing local temperatures. Avoid impermeable surfaces such as artificial grass on your site: it is unsafe for children and pets due to its high surface temperatures during summer.



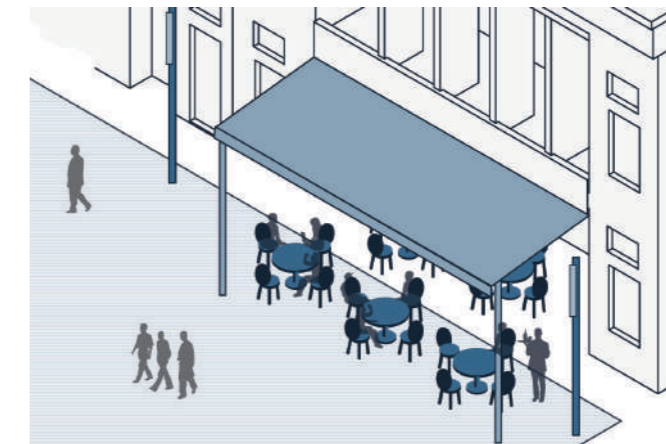
Trees: trees provide shade and contribute to the local biodiversity.



Planted trellis: trellises provide structures for planting to grow that, in turn, provide shade.



Sails: fabric (or ETF) sails can provide shade in alleyways and contribute to the activation and definition of the space.



Canopies: simple shade structures provide cool places to sit and can help define the space.



Cool roofs: if possible, roofs to be green (partially or completely covered with plants) or brown (roofs where the final layer is left as raw material for plants and insects to form a vegetative layer); and if that is not possible, they should be light in color.



Green walls: when correctly oriented, planting on walls can help cool buildings and spaces.

STAGE 2: DESIGN / INTEGRATE

Designing for biodiversity

Land degradation and desertification are key environmental challenges for Saudi Arabia, as they negatively impact ecosystem services and accelerate the loss of biodiversity. This affects native habitats, keystone species as well as wildlife such as migratory birds.

For successful Urban Transformation it is important to restore and enhance natural systems in public spaces. Ways to mitigate the challenge of loss of biodiversity in the urban realm include the following:

1. Increase the footprint of high quality green spaces in cities.
2. Restore existing terrestrial habitats and ecosystems and wildlife restoration (deserts, wadis, mountains).
3. Restore existing coastal habitats and ecosystems (mangroves, wetlands, lagoons).
4. Create new habitats in high density urban areas, such as desert forests.
5. Develop connected green infrastructure networks and corridors.

6. Source local and adaptive planting palettes.
7. Provide brown roofs.
8. Find a food supply chain closer to the source.
9. Minimize night light pollution.
10. Incorporate homes for wildlife.
11. Restore wadi systems and wadi catchments.

Key point

Biodiversity does not only apply to terrestrial ecologies, but also to marine ecologies, home to vibrant coral reefs and diverse marine life. Several large cities in Saudi Arabia are on the coast, which are currently under threat of loosing biodiversity and the devastating impacts of coral bleaching due to rising temperatures.



Al Fayy Park in Abu Dhabi creates a park with a desert forest using native trees such as al Ghaf.



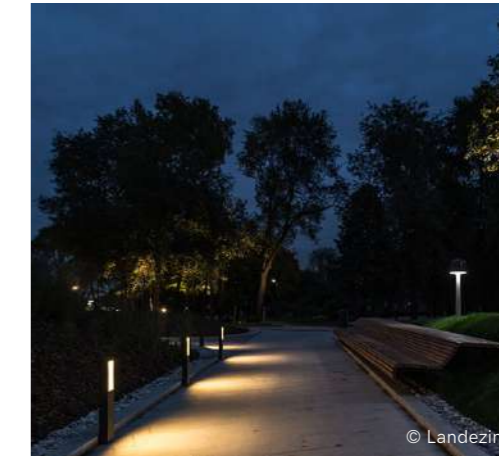
Native trees and planting palettes in the Diplomatic Quarter in Riyadh increase biodiversity.



Restored wetlands in urban areas in Oman; Al Ansab Wetlands is a haven for 290 migratory birds.



Green networks and ecological corridors in Qianhai Water City's First Waterway Promenade Park.



Reducing light pollution in green spaces improves conditions for wildlife such as birds and bats.



Native trees and planting palettes are always encouraged as shown in Dubai Expo.



Insect hotel at Parc Vallmora in Barcelona, Spain, for vulnerable species such as the solitary bee.



Restoring wadi systems in Riyadh also provides recreational public space.

STAGE 2: DESIGN / INTEGRATE

Greener cities, cleaner air

Saudi cities are vulnerable to regular and intense dust storms. Due to the increase in desertification and overgrazing, these dust storms are increasing, leading to poorer quality air in cities. Pollution from oil and gas facilities, especially gas flaring, has increased air pollution. There are also high amounts of polluting particles generated by the high dependency on private vehicles and road congestion.

This deterioration of the quality of air, which is concentrated in cities, poses threats to people's health and affects local habitats for wildlife and local flora and fauna.

There are a variety of ways to mitigate poor air quality, and improve conditions in the urban realm:

1. Reduce car usage by increasing walkable neighborhoods.
2. Implement and safeguard green belts to protect cities and residential areas.
3. Restore landscapes and natural habitats.
4. Increase green spaces and native tree planting.
5. Apply careful green infrastructure principles.

Case study



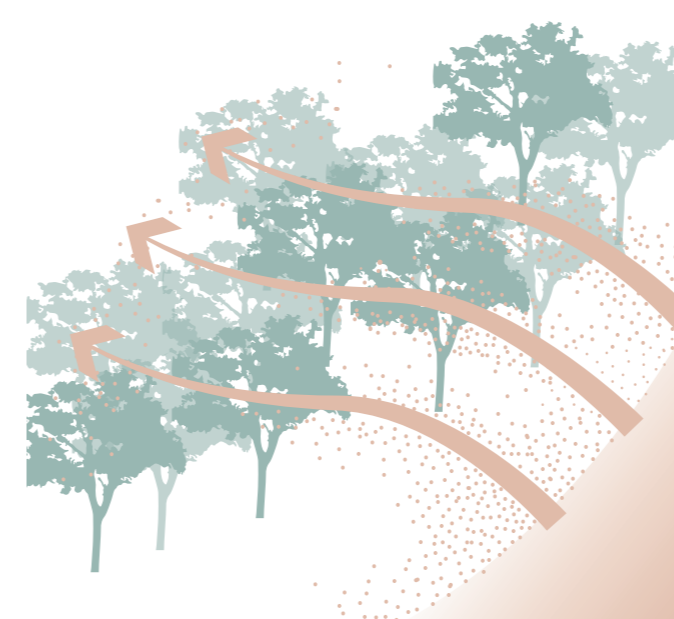
© Albanian International School



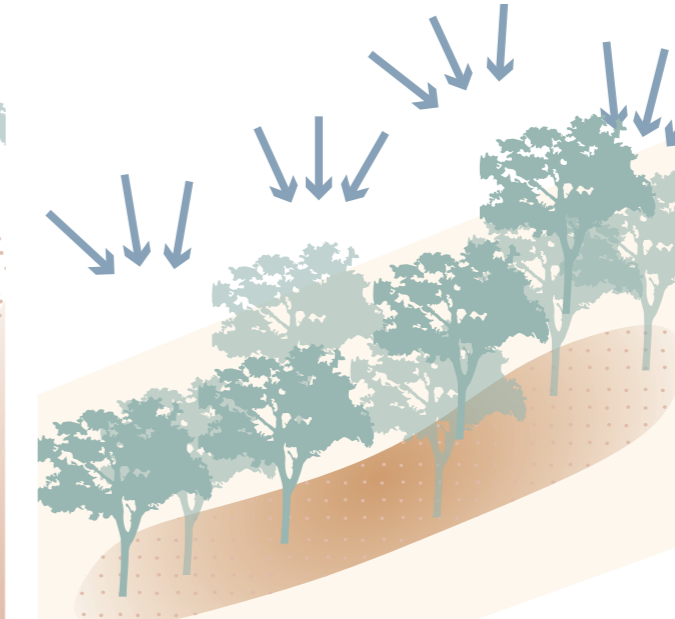
© Stefano Boeri Architects' General Local Plan

TIRANA'S ORBITAL FOREST, ALBANIA

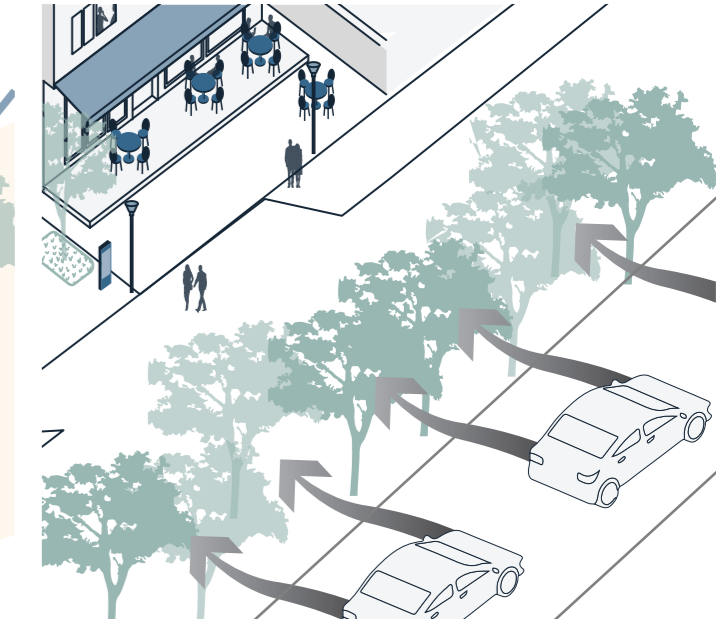
The first strategic objective in Boeri's General Local Plan 2030 proposes an "Orbital Forest" of 2 million trees encircling the capital city of Tirana, acting as a green belt to improve air quality and prevent urban sprawl. "Don't underestimate the power of children," says Tirana's mayor, Erion Veliaj, "A city for our kids, is a city for all." The forest ring is populated by children's "birthday trees", planted by families. Children are stewards that have been involved in this major urban greening scheme to ensure they will keep Tirana's future safe, healthy and resilient.



Dust particle filtration through green belts in urban areas.



Carbon sequestration and soil enrichment.



Reducing air pollutants from vehicles through urban greening schemes.

Key point

Sometimes, due to factors such as the size of a certain road, prevailing wind direction, density and road congestion, increased urban greening may have adverse effects on pollution in the street level due to the emission of Volatile Organic Compounds by vegetation.

Using Green Infrastructure To Protect People From Air Pollution is a guide by the Mayor of London summarizes the current best practices for how green infrastructure can reduce public exposure to air pollution in the urban environment.



STAGE 2: DESIGN / INTEGRATE

Water-conscious design

Saudi Arabia is already characterized by a dry and arid climate in most of its regions. However, expectations of increased drought length, intensity, higher temperatures and enhanced atmospheric evaporation will negatively impact water availability. Estimates predict a loss of up to 26 liters per square meter per year by the end of the century.

Ways to mitigate drought and increase adaptation to water scarcity in the urban realm include:

1. Rainwater harvesting for irrigation.
2. Celebrating native trees and planting palettes, eliminating the use of exotic species.
3. Re-using greywater from mosques and schools.
4. Using treated Sewage Effluent (TSE) water, eliminating use of groundwater.
5. Propagating drought-tolerant varieties of trees.
6. Soil enrichment to enhance water retention.
7. Employing discreet water features underneath shade to avoid evaporation.

Key point



The National Centre for Vegetation Cover and Combating Desertification (NCVC) in KSA is developing initiatives, programs and projects to increase vegetation cover and monitor their implementation. For more insights, it's recommended to review their initiatives and visit their website.

Case study



© Bill Timmerman



© Robert Reck

UNDERWOOD FAMILY SONORAN LANDSCAPE LABORATORY, TUCSON, ARIZONA | 2007

This Laboratory is a high-performance outdoor space at the University of Arizona. It exemplifies sustainable strategies of water harvesting, climate regulation, air and water cleansing, recycling, and wildlife habitat creation, all while increasing well-being. The former greyfield is now a thriving habitat that shades the southern facade of a new building with a vine-covered screen. A 11,600-gallon tank collects grey-water to irrigate the native garden.



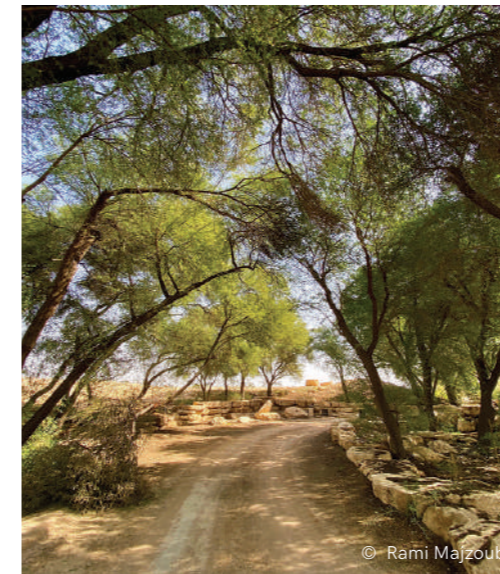
© Leonardo Finotti

Rainwater harvesting shade canopy in Rio de Janeiro's Olympic Games in Brazil.



© Bill Timmerman

Irrigation cistern seat walls and runnels in Arizona State University Polytechnic campus.



© Rami Majzoub

Native trees and drought-resistant planting in the Diplomatic Quarter in Riyadh.



© Anthony Browell

Water harvesting cisterns connected to building roofs, used for irrigation in New South Wales, Australia.



© Office of James Burnett

Small discreet water features under full shade to avoid evaporation, as seen at the Brochstein pavilion at Rice University in Houston TX.

STAGE 2: DESIGN / INTEGRATE

Designing for urban floods

In recent years, Saudi Arabia has seen a significant change in stormwater events with prolonged rainfall, particularly during winter. This challenges the infrastructure of most Saudi cities, as it was not built to attenuate, store or recycle high volumes of stormwater.

Therefore, Quality of Life National targets require a significant increase in rainwater drainage by 2030 in inhabited areas. The examples of SuDS in the following pages will aid in designing for flood resilience, especially if the site analysis revealed flood risks on your site.

Before you integrate SuDS, consider:

1. Site characteristics: Assess the site topography, soil composition and the drainage patterns. Use existing vegetation, watercourses, or depressions to enhance SuDS effectiveness.
2. Extreme events: Design arid SuDS to withstand prolonged drought in the summer and flash floods in the winter. Signage and wayfinding could help explain the concepts and value of SuDS to the wider public.
3. Materials: Assess what local materials, both hard and soft, can be used in your SuDS. Existing rocks can be crushed and used in filter drains or dry swales; native plants that are resilient in wet conditions will be best suited during rain events, and while increasing biodiversity.

Case study



© City of West Torrens



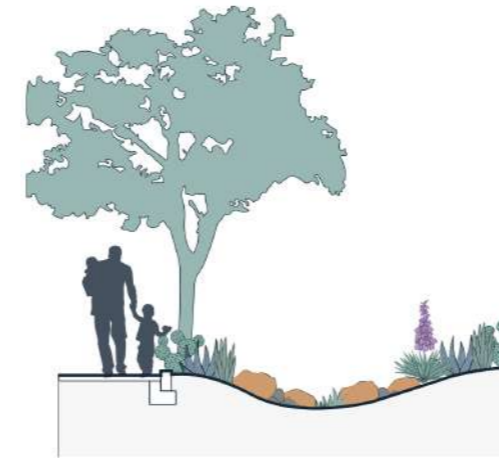
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HOLLAND STREET, ADELAIDE | 2023

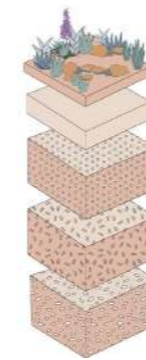
The project revitalises a street through incorporating sustainable drainage features into an arid urban landscape. Integrating SuDS was a key design principle: a major stormwater harvesting system was built underneath the central plaza, which collects stormwater run-off from hard surfaces and is used to irrigate the planted areas, reducing the need for traditional irrigation.

Key point

Sustainable drainage systems (SuDS) are designed to manage stormwater as close to its source as possible, to mimic natural drainage and encourage its infiltration, attenuation and passive treatment.



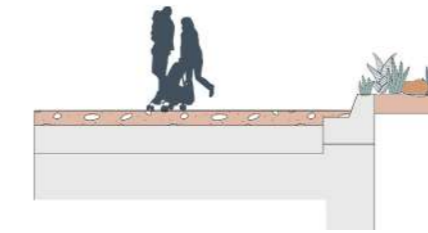
Arid swales: Low-lying dry, meandering planted areas that serve as natural drainage pathways for rainwater during stormwater events.



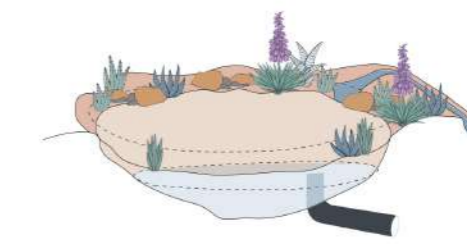
Soft permeable surfaces: Native grasses, or areas with extensive low-growing ground covers allow filtration, while providing cooling.



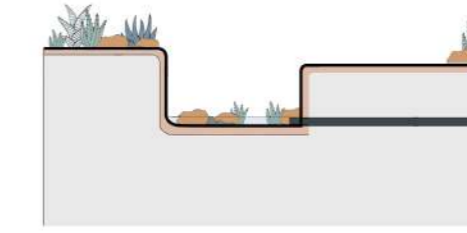
Dry rain garden: Shallow, planted depressions designed to absorb runoff from impervious surfaces such as roofs and pavements or roads.



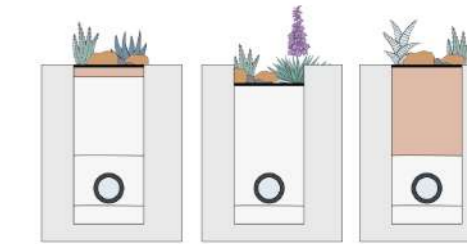
Hard permeable surfaces: Certain types of paving, gravel or wood-chips allow filtration, while remaining fully accessible.



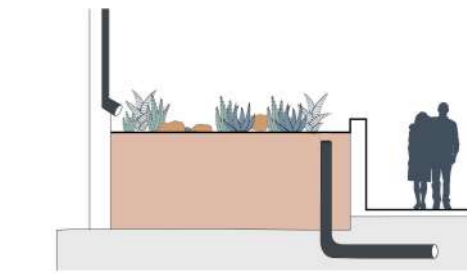
Detention basin: Shallow depressions, often covered with planting, which capture water and soak water into the ground, slowing down runoff.



Urban falaj system: A traditional below-ground irrigation method to channel ground water for domestic or agricultural use in urban areas.



Filter drains: Stone-filled trenches with perforated pipes at the base, which collect water runoff from surrounding impermeable surfaces.



Rain planters: Downpipes connected to planters which capture, store and slow water runoff from buildings.

Key point

As illustrated below, SuDS take many different shapes and forms, and offer value all year long. During dry seasons, SuDS can provide biodiversity value, reduced temperatures, or amenities such as football pitches, and thus increase the social value of your project.



STAGE 2: DESIGN / INTEGRATE

Digital Elements and Creating Immersive Experiences

New approaches that leverage digital solutions can help you meet your environmental goals, while also enhancing visitor and user experience. These may include:

- Exploring how smart technologies can help you reach energy and water efficiency and environmental targets, by introducing monitoring stations to measure air quality, noise pollution or temperature.
- Integrating green technologies, like energy-efficient lighting and solar-powered amenities, as part of your design principles.
- Incorporating digital experience platforms into your design, such as virtual tours, or interactive experiences through augmented reality (AR). Many of these platforms could have educational outcomes, which could relate back to your nature-positive design.

Case study

TATE DRAW, LONDON, UK | 2022

At Tate Modern, a public entry gallery, there is a space that allows visitors inspired by the public exhibitions to get creative and bring their ideas to life on touch screens. These sessions are age-friendly and are simultaneously shared with everyone in the room, creating a sense of awe and ownership of the space, where everyone is welcome to create. Visitors can choose to put their own or others' designs on t-shirts, creating unique economic avenues for the gallery.



REFINE

At this stage, you should have all you need to continue to focus on developing your design studies into technical drawings.

Specialists in nature-based solutions, such as arboriculturalists, soil specialists or ecologists, will ensure your technical designs meet their intended targets.

Engaging with the right specialist at the right time, will ensure the success of your technical design.

Moving towards detail design

Take stock of all the design principles you learnt in the previous steps. Did you integrate new digital features to enhance visitor experience? Or perhaps you've incorporated a range of SuDS elements to mitigate flooding? What did you decide to do to increase shaded areas and reduce temperatures on your site?

A few important points to consider as you shift towards detail design include:

- Your team should ensure they have the right support from experts in delivering new, or unusual features specific to your site. Check in with them and find the resources needed to guarantee the detail works.
- You may need to revisit the same detail several times before it is right. Working closely with a range of disciplines to ensure the drawings are coordinated – this is part of the process, and will reduce the risk of experiencing issues during construction.
- All of your design principles and concepts should come together through careful detail design of each of your design elements. For example, an interface details will show how a SuDS feature interacts with a wide pedestrian path.

Key point

Every site is different, and no two details will be the same. If you are unfamiliar with resilience features such as SuDS or water efficiency measures, make sure you have specialists on hand. Some of these features are not yet commonplace in Saudi Arabia and you'll benefit from having the direct support of an expert while you develop your site-specific detail drawings. Don't be afraid to trailblaze new resilient design elements not seen in Saudi Arabia before – be bold, it will pay off!



Thinking long-term

As you move towards detailed design, don't forget to continue developing the project's proposed stewardship model. Thinking and working towards long-term sustainable stewardship should be the goal. Consider the following questions:

- How will this new design be collectively managed?
- What type of stewardship models are best suited for this context and community?

Your robust and consistent stakeholder engagement and co-design efforts will have fostered a sense of ownership and encouraged connection among the community members. Ensuring the selected design option is the one preferred by your community and stakeholders, will lay strong foundations for community-led care and stewardship of the built project.

Stages 3 and 4 will offer further support in establishing a defined stewardship model, that aligns with the proposed maintenance, operations and programming strategies.



Case study



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COMUNE DI MILANO, ITALY | 2019 - 2021

At times, long-term stewardship requires top-down support to catalyse communities and neighbourhoods into action, especially communities that have felt neglected. Top-down support can be delivered in various ways, such as through funding, training or spaces. By designing pilot projects for neighbourhoods to take on board and own over time, the on-street parking in this part of Milan has turned into public plazas for neighbourhoods with limited green spaces.

STAGE 2: DESIGN / REFINE

Accommodating change while maintaining design aspirations

Change can occur at any point during the Design process. This can be the result of community input, revised client requirements, materials availability, and other factors.

If these changes are not simply part of the design development and differ significantly from the approved design concept or the project brief, it is recommended that you have a change control procedure in place. This ensures full documentation of the process and protects all parties concerned from being put in a vulnerable financial or legal position. Process will also ensure that the impact of any changes is considered before being implemented. Change generally comes at a price, whether related to information and specification revisions or late procurement of materials.

Most importantly, make a final check to ensure your design aligns with national policy and targets. There are occasionally tensions between regulation and design ambition. This is the moment to resolve those issues.

Finally, as a sense check, the team should reflect on:

- What are the non-negotiable aspects of the design?
- What must the designers and builders achieve for it to be considered a high-quality urban transformation?
- How are national targets achieved or surpassed?

Key point



Remember to keep the local community engaged and represented even as you move towards finalising your technical designs. Refer back to your engagement strategy and see what communication channels you planned to apply at this stage.

Meanwhile schemes

Testing your designs ahead of permanent construction can help assess the success of your project. Temporary uses allow long-term propositions to be explored with minimal investment. Meanwhile schemes can test land use, spatial configuration, aesthetics, and target users. As illustrated in the upcoming Build Stage, meanwhile uses also help activate a place, mitigating the negative impact of an area under construction.

Community involvement and stewardship

Meanwhile uses enable early community engagement, acting on the desire to show immediate transformation. Meanwhile uses are often entity-led, to support local small enterprises to gain exposure. They can assist in early community cohesion, enabling future long-term tenants.

Monitoring and evaluation

Meanwhile uses allow entities and the design team to observe public behavior and interaction with a public space. This provides clues that inform the final proposal both in terms of design and operation. Therefore, consistent monitoring is key to make the most out of a meanwhile use.

Case studies



BOSTON ROAD DIET

A new 'road diet' was recently introduced on Toutine Crescent in Boston, USA. This approach involved transforming the street with a painted 'floor', the addition of planters, comfortable outdoor seating, and a dedicated cycle lane. The aim of this intervention was to explore the feasibility of reducing the roadway width without compromising its functionality. Additionally, it sought to investigate if such a setup would encourage people to spend more time outdoors downtown.



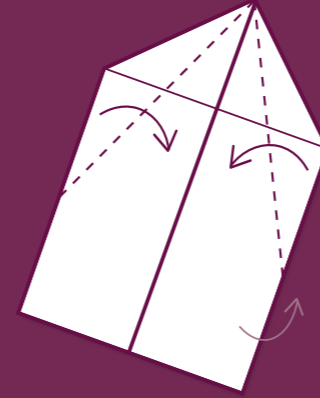
LAWN ON D, BOSTON

The Lawn on D, an outdoor event space in Boston's Innovation District, reflects the unique and changing character of the surrounding neighborhood. The 2.7-acre public space is owned and operated by the Massachusetts Convention Center Authority (MCCA), who will eventually expand their facilities and programming into the space permanently. In the meantime, they are testing possible interventions with Project for Public Spaces that will facilitate community engagement and nurture local arts.

STAGE 3

Build

In this stage, you will learn how to deliver sustainably and collaborate with partners to guarantee quality and integrity in construction. Ahead of the grand opening, you'll engage the community, setting the stage for a vibrant launch.



Stage 3 Overview

The Build process is segmented into three sub-stages that will enable a smooth transition from design to construction, in a logical and incremental progression.

In this stage, you will learn how to:



- Engage the community during construction for long-term engagement**
- Reduce the environmental impact of your construction**
- Monitor safety and accessibility**
- Plan an opening celebration**

Implement

The transition from design to delivery is managed by a dedicated implementation team, ensuring construction methods, materials and practices align with the project's vision.

Tools:
There are no tools in Implement.

Control

Design excellence is monitored to ensure the final space reflects the design intent and high quality, embedding durability, sustainability and maintenance requirements.

Tools:
There are no tools in Control.

Handover

A maintenance plan is developed, maintenance contractors are appointed, and the community is invited to celebrate the project's completion, fostering a sense of ownership and pride.

Tools:
There are no tools in Handover.

Roadmap: Stage 3 - Build

Before beginning the Build Stage, let's take a moment to check if your project is in place:

- Concept design approved
- Detail design complete

IMPLEMENT

Integrate **local skills and materials** sustainably during the construction.

Involve your community through various methods during construction.

Explore **meanwhile uses** during construction.

Embed circular economy with **smart infrastructure**.

Utilise **site-won materials** for construction.

Minimise the **environmental impact** of your construction.

Create a seamless human experience through **wider area integration**.

CONTROL

Implement **quality control procedures** across the construction site.

Create a **safe and accessible** construction site.

HANDOVER

Learn various pathways to a **successful handover**.

Establish **long-term landscape management** protocols during handover.

Prioritise **safety and accessibility** through maintenance and management.

Prepare the **maintenance guidance**, reflecting best practices and respect for **traditional skills**.

Plan an **inclusive opening celebration**.

Great! You're all done with Stage 3. Ready for the community to start using the site?

IMPLEMENT

As you transition from design to delivery, the beginning of the Build Stage may overlap with the end of the Design Stage. This stage will guide you through community involvement; give support if you are integrating meanwhile use during construction; and help you think of ways to minimize environmental impact.

The focus is now on your construction team. Together with the design team, your role is to ensure the necessary information is in place to deliver a high quality space.

Integrating Local Skills and Materials for Sustainable Construction

Past work done by the contractor will reflect their skills and capability to complete the designs specified in the technical drawings. Alongside past examples, referrals from those project teams will provide evidence that they are the right contractor for your designs.

If your design incorporates retained or refurbished structures and artefacts, local artisans will ensure the best restoration practices.

Local artisans working with international contractors can enable cross-team knowledge sharing, which can support contemporary interpretations of local heritage. This will promote the continuity and preservation of tangible heritage.

Case study



KRUSHI BHAWAN, ODISHA, INDIA | 2018

This government building of Agriculture & Farmers' Empowerment is office to 600 people and three public spaces that hosts exhibitions, workshops, weekly markets and lectures (i.e., Best agriculture practices on the urban farm at the rooftop). Krushi Bhawan's visual identity is derived from regional materials (laterite and khondalite stone) and vernacular narratives. Over 100 highly-skilled artisans came together to hand craft a vibrant and contemporary narrative of traditional Odia craft depicting agricultural folklore and mythological stories on the building's facade.

Community Involvement in Construction

Refining your engagement strategy and keeping track of it during the build phase will help you navigate through people's changing needs. Come best-practice approaches for involving the community during construction:

- Re-enforce the role of your Engagement Champion during this stage. Open the listening channels to hear how people are feeling and what support they might need. Communicating through established channels with local stakeholders and communities will reduce the likelihood of community push back.
- Conduct community site visits, tours and open houses throughout the construction program. This demonstrates transparency and reduces misunderstanding and anxiety amongst the community.
- The community enjoys feeling like they are part of the transformation. Allow them to participate in safe and easy ways, like painting a mural or during milestone celebrations.

Capacity building

Work experience or building apprenticeships are a great way to up-skill members of the local community, while fostering a sense of ownership and pride.

You could promote short-term involvement with the design and implementation teams through educational programs in partnership with local educational institutions, possibly as a way to share traditional and sustainable building practices.

Case study



REGENT PARK, TORONTO

\$26 million of the \$1-billion redevelopment plan for Regent Park is set aside for the Community Benefits Agreement. This agreement legally binds Toronto Community Housing to ensure the developer and community co-develop parts of the construction phase. This is Canada's oldest and largest social housing community being transformed into a mixed-income community for 5,100 households, ensuring that the Communities Priorities Report developed by the Regent Park Neighbourhood Association provides a voice that is listened to is vital for this transformation.

Meanwhile use activation

Meanwhile use programs

As discussed in Stage 2, meanwhile use is a great way to reshape the perception of a place and help people envision and experiment with the long-term permanent uses. Meanwhile uses can involve the community at every phase, from conception to construction to management.

Meanwhile use can mitigate the disruption of project construction by providing short to long term activities and amenities that meet the needs and desires of the local community. They can also provide short-term revenue.

Meanwhile use may be instigated and managed by the entity responsible for delivering the public space or by an independent formal or informal group.

Meanwhile use can be of diverse durations, from a weekend to several months. The local community typically knows what types of events they want to have, so letting them lead you and your entity is invaluable.

Community-led meanwhile activation

There are multiple ways to engage community members to support the development and implementation of meanwhile activation events. Points to consider are:

- Work closely with the Engagement Champion to figure out and engage groups (i.e., families, youth groups, cultural groups) that might benefit from temporary activation.
- Identify groups and businesses that could have long-term investment in the space upon completion.
- Test out how the cultural programming process might work, consider the interface between the public and entity for event planning and management.
- Consider how successful different events are and which groups attended and enjoyed their time.
- Ensure that the health and safety of your attendants is well looked after.



Examples of meanwhile use activation

1. Mariahilfer Strasse in Vienna - the longest shopping boulevard in Central Europe - is transformed to meet the needs of pedestrians based on stakeholder consultation and a referendum to have the design of the boulevard changed.
2. A market at Les Grans Voisins in Paris, formerly the Saint-Vincent-de-Paul hospital - Old, disused buildings in France are temporarily handed over to community groups and start-ups for meanwhile use, which now attracts over 1,000 visitors a day as they experiment with different uses (i.e., cafés, live music and flea markets).
3. Blue House Yard - Temporary buildings house local artisans and chefs, towards early placemaking in a new neighborhood development in London.
4. During Kings Cross' construction phase, the first man-made natural swimming pond was installed as part of the public art program from May 2015 to October 2016. The plants surrounding the pond cleaned and enriched the soil.



STAGE 3: BUILD / IMPLEMENT

Wider-area integration and future uses

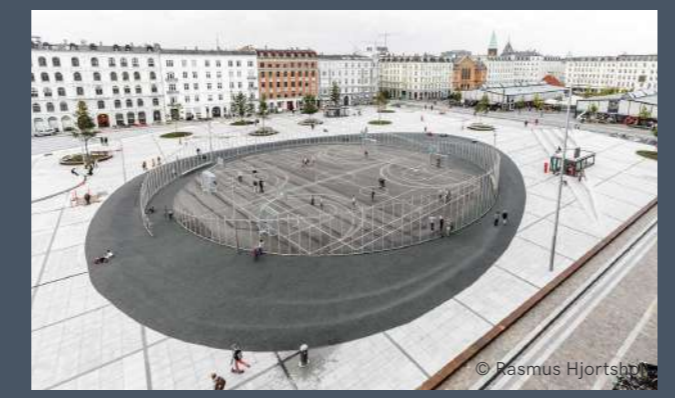
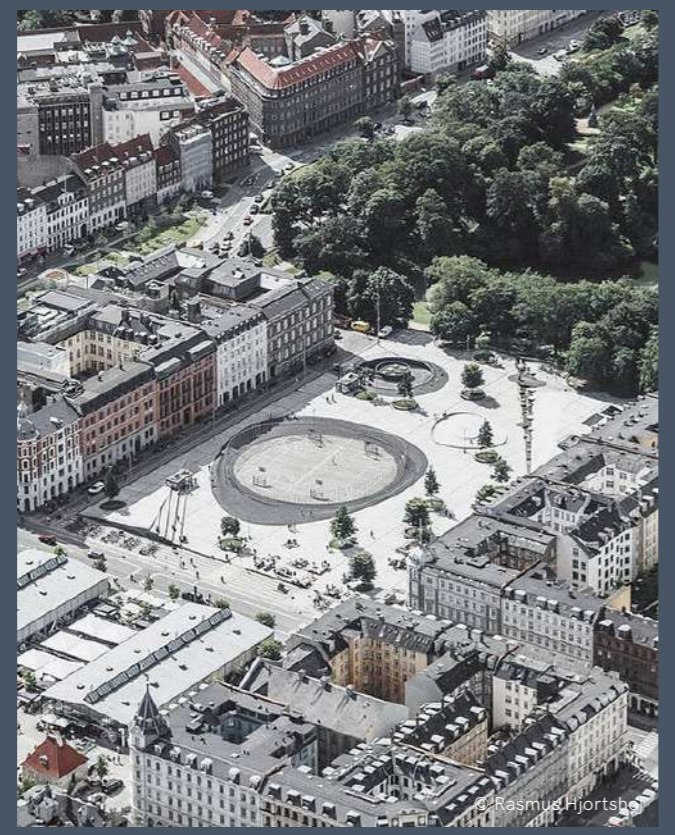
Your design choices and decisions are vital to your project's successful adaptation to future change and integration into a wider area.

Your local municipality should have guidance on approved materials and furniture palettes; however, if not available, take clues from the wider context to ensure cohesion. You can do this by striking a balance between celebrating the site's unique sense of place, and ensuring the project palette ties in with the wider-area, particularly along its site boundaries.

Future-proofing ideas may include:

- Employing modular materials that can be easily disassembled and reused, support adaptability, future uses and minimise waste.
- Building partnerships with local suppliers and manufacturers, contributing to the local economy.
- Prioritizing high-quality, durable materials that will withstand the intended use over the long-term.

Case study



HUNDETORVET, COPENHAGEN | 2014
 This plaza is seen as an 'urban carpet' that ties its surrounding spaces together like an outdoor living room. With an adjacent market hall, school, restaurants residences and a park, this plaza is a multi-functional public space that meets the diverse needs of its users. Design decisions such as including Nordic cobblestone are an ode to the city's past. The plaza's design also integrates flood resilience measures and a water capture system that conveys stormwater to the adjacent park, reinforcing the plaza's wider integration.



- FLEXIBLE CONSTRUCTION FOR WIDER-AREA INTEGRATION AND FUTURE USES**
- 1 Street level cycle track
 - 2 Flood resilient football fields
 - 3 Permeable soft surfaces
 - 4 Active edges
 - 5 Permeable paving
 - 6 Native habitats
 - 7 Micro habitats

STAGE 3: BUILD / IMPLEMENT

Minimizing the environmental impact of construction

Reducing your carbon footprint

A holistic approach that considers multiple aspects of the construction process simultaneously, will enable you to make meaningful contributions to lowering your carbon footprint. Depending on your design, you should consider:

- Choosing materials with lower embodied and operational carbon across their entire life cycle, from extraction to disposal.
- Using locally available materials, which have lower environmental impact and transportation costs.
- Opting for prefabrication off site as it leads to reduced waste, energy use, and accidents.
- Using renewable energy where possible, to power any aspects of site construction. Use of electric construction vehicles and machinery is growing, reducing reliance on fossil fuels.
- Planning to minimize waste produced by construction. Aim for deconstruction, reuse and recycling, instead of demolition and disposal of any existing elements. Consider wider circular economy opportunities as materials are discarded and equipment used on site.

Measuring carbon

There are multiple ways to quantify carbon use in construction. The most common approaches include:

- Life Cycle Assessments (LCA), which quantify the environmental impact of your project, including the embodied carbon of your materials, construction, use and even demolition.
- Carbon footprint calculators for construction projects can help provide estimates of the carbon emissions of specific activities, but they are less holistic than a LCA.
- Environmental product declarations (EPD) are documents which provide information about carbon emissions and environmental impact of a product. They are not mandatory, but are gaining traction in many countries, and are useful when comparing products.

Case study

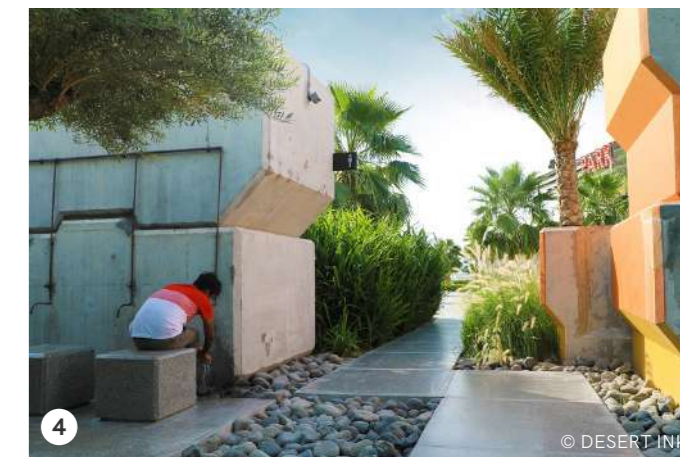


WADI AL AQEEQ, AL MADINAH | 2019

This regenerative landscape celebrates the natural heritage of the culturally significant Wadi, while committing to environmental resilience, through low-carbon designs and nature based solutions. Permeable paving, use of site-won materials and a native planting palette demonstrate a sensitive understanding of context, generating a strong sense of place while reducing carbon consumption.

Utilizing site-won materials

1. Old pallets can be reused to create new shade pavilions and bird watching observatories, as seen in the Tagus Linear Park in Portugal.
2. All existing materials were reused on-site in Barangaroo, Sydney, and recycled to form the headland, including the caissons and asphalt from the container port.
3. Site-won soil from excavations can be used in new landscape features, ensuring the soil is fit for purpose, depending on its condition. It may be suitable for planting, or as fill material. Stone and rocks can be reused as paving, aggregate or as fill in gabion baskets.
4. Existing structures can be transformed and adapted for new uses, whether decorative or functional. Over 700 surplus concrete quaystone blocks left on the site by the canal’s developers of Dubai Design District were stacked to create a multitude of features and play items in the skate park known as The Block.



STAGE 3: BUILD / IMPLEMENT

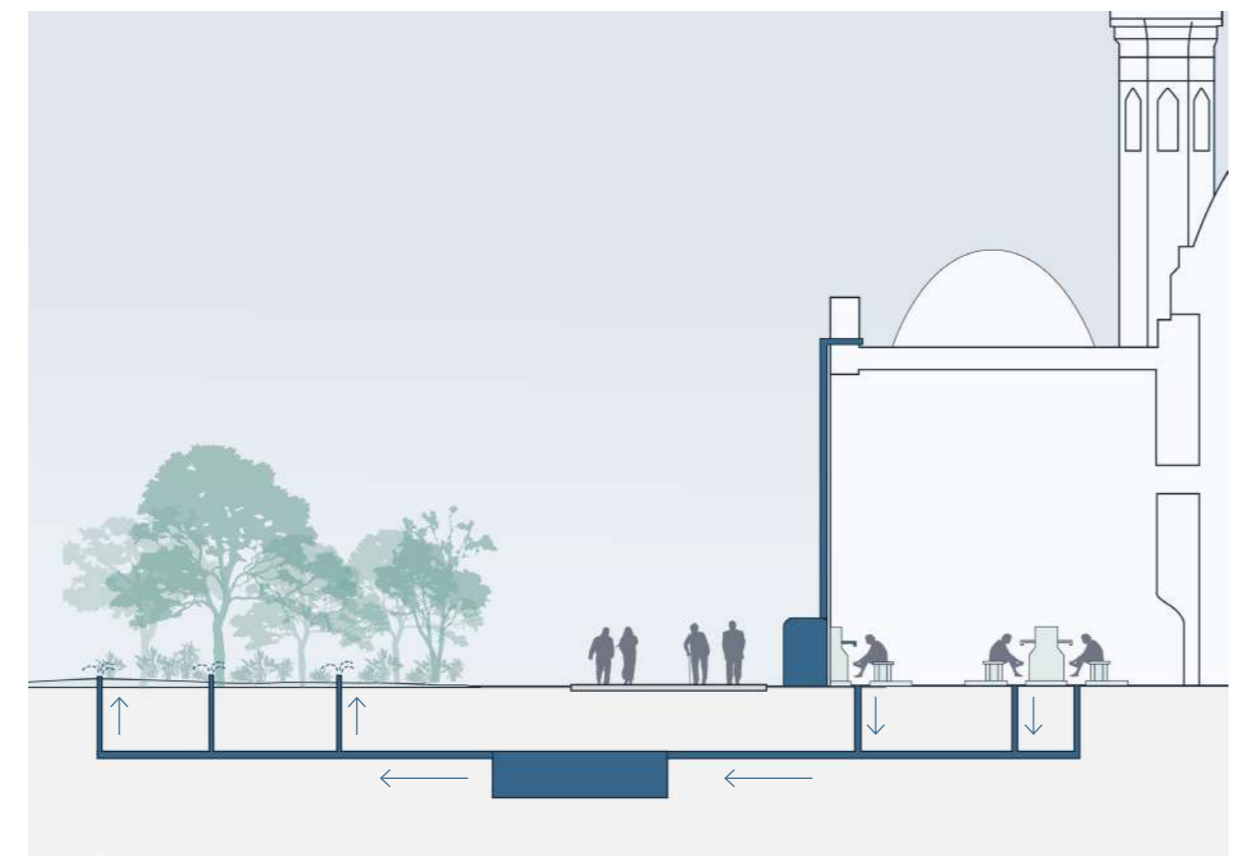
Embedding circular economy and smart infrastructure

Reducing your water footprint

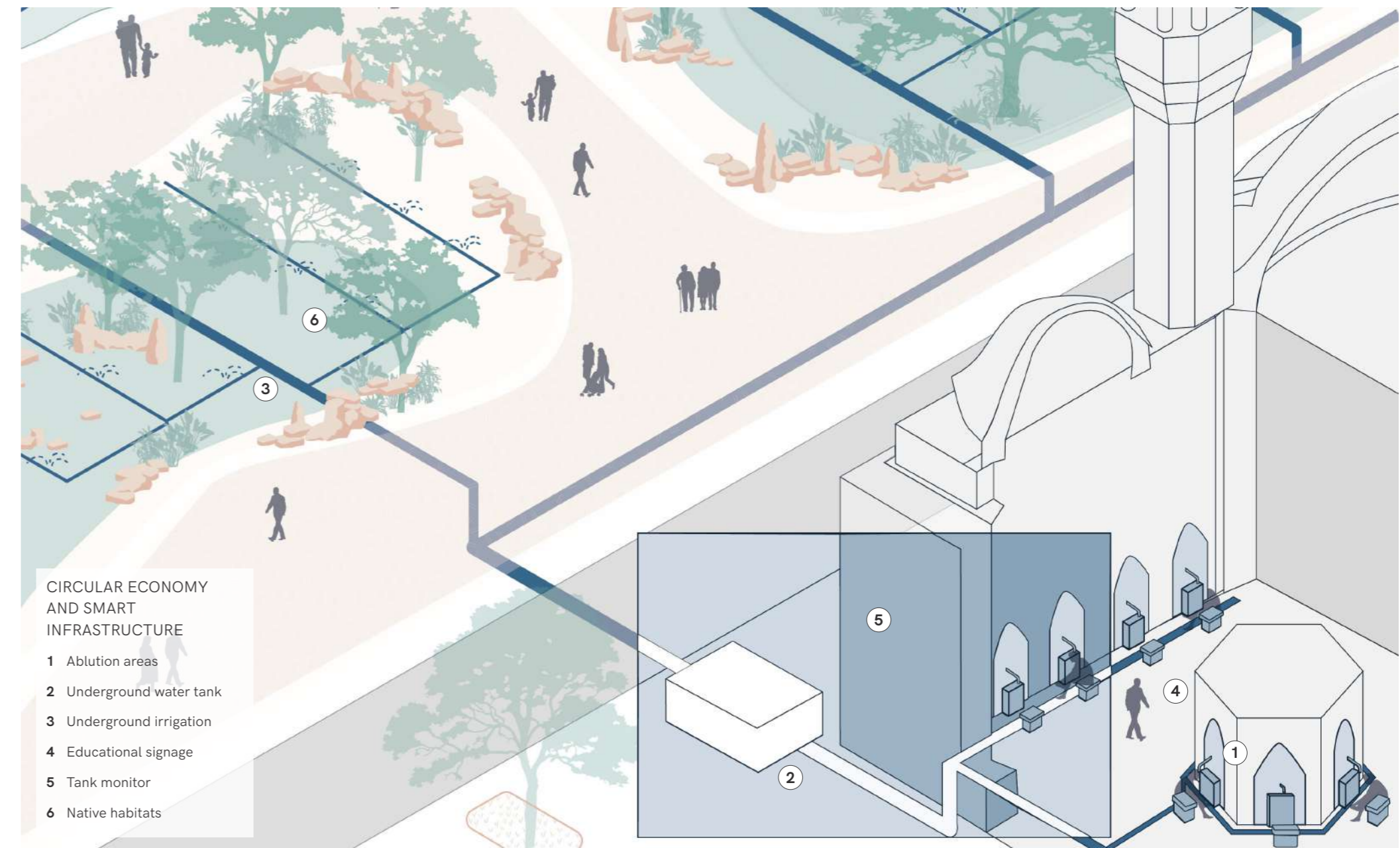
Most neighborhood community parks are located adjacent to mosques. This offers an opportunity to re-use the water from ablution and AC cooling to cover the irrigation needs of the park as seen in the diagrams. This provides multiple benefits such as:

- Reduced wastewater and higher efficiency in water consumption.
- Reduced demand on groundwater resources and Treated Sewage Effluent (TSE), therefore reducing energy demand.
- Educational signage embedding the values of re-use and recycle within community awareness, reinforcing Islamic values to reduce waste.

Use renewable energy where possible, to power any aspects of site construction. Electric construction vehicles and machinery are slowly being introduced, reducing reliance on fossil fuels.



Re-using greywater from mosques to irrigate adjacent parks.



- CIRCULAR ECONOMY AND SMART INFRASTRUCTURE**
- 1 Ablution areas
 - 2 Underground water tank
 - 3 Underground irrigation
 - 4 Educational signage
 - 5 Tank monitor
 - 6 Native habitats

CONTROL

It is critical that the project receive close and careful oversight during this process. Construction must be monitored to ensure methods and materials are not substituted for the original documentation and specifications that will compromise quality.

What gets built ideally should be what was designed.

Quality Control in Construction

Key point

Consider scheduling a site visit with your local authority. Seek their feedback on wider-area integration, and how your contractor is adhering to local codes.



COMMON CHALLENGES

"Is the construction team following the design rationale outlined in the technical drawings? Are they interpreting it properly?"

"Are changes to the budget compromising the designs, especially the climate resilient features?"

"Is new technology implemented correctly?"

WHAT TO CONSIDER?

- Regularly visiting the site with experts to assess the work against technical drawings and design specifications.
- Taking the right experts for site visits so that you can best assess the work.

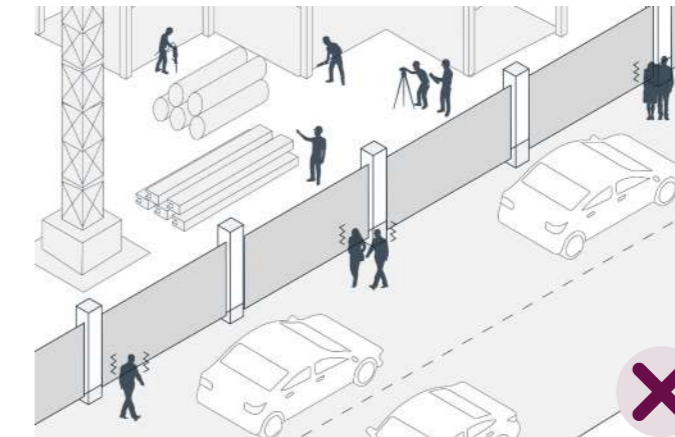
- Consider if the design choices are resourceful and if the value and design intent are clear to everyone involved at this stage.
- Evaluate the changes' effect on wider integration, future programming opportunities or the site's resilience.
- Make sure that the changes still adhere to the building code standards.

- Check if the supplier's technical team has a clear procurement and testing plan for the smart system that they are planning to implement.
- Ensure that your supplier's systems will meet your expectations once the space is occupied.

Safe and accessible construction sites

While your site is under construction, it will be important to adhere to local regulations regarding site safety. This will stipulate rules around access, appropriate personal protective equipment (PPE), lighting, perimeter fencing, etc.

It is also important to ensure the construction activities do not negatively affect or compromise walkability in the neighborhood. Obstructed sidewalks and pedestrian paths should be substituted with other safe comfortable paths for the public during the full construction period.



It's important to retain safe and comfortable public access around construction sites for pedestrians.

Key point

Gathering community feedback during construction can guide the project to continually meet people's needs and wants. Consider how you may collect feedback from community representatives during scheduled engagement days, and set up clear action plans to address any identified issues.



Case study



RIVERSIDE 2, LONDON

Hitachi Zosen Inova (HZI) has introduced a wellness garden at their construction project along the River Thames in London. The wellness garden features an array of shrubs, climbing plants, flowers and on-site recycled materials, providing a calming space to relax in whilst maintaining a waste-free approach. Beyond enhancing the construction environment, this community-driven endeavour symbolises a dedication to giving back to the community while creating a tranquil haven that promotes relaxation within an eco-conscious framework.

HANDOVER

Once construction is complete, you should have plans in place to ensure the design is sustained and well-maintained in the long-term.

Thanks to considering your stewardship plan from the start, your handover process should run smoothly.

Clear pathways to a successful handover

Identify a responsible maintenance team

Maintenance may be undertaken by an in-house team of the entity delivering the space or by a third party contracted to look after the space. Depending on the actual amenities provided, it may be necessary to have multiple specialized contracts for various elements, such as soft landscapes, play equipment, etc. In either instance, it is important to put a robust and clear maintenance plan in place.

Key points:

- Stipulate the frequency and time of day that each maintenance task should occur.
- Set clear maintenance priorities that respond to seasonal variation.
- Outline maintenance requirements in relation to day-to-day uses, as well as special occasional use, such as events.
- Monitor funding of specific maintenance tasks, and reassess funding and budget priorities at least yearly.

Maintenance of unfamiliar features

- Clear maintenance plans and detailed guidance on lesser known features (e.g. SuDS or drought tolerant planting, energy efficiency, resource conservation, habitat features) should be provided.
- Specialists to offer advice on management plans of new or unfamiliar features.
- Ensure relevant documentation, training or resources are handed over to the maintenance and management teams regarding any new digital features.
- If community members are very interested in certain features, they could help with the management and maintenance, for example, gardening a flower bed.



Landscape management during handover

Parks and natural open areas require a clear landscape management and maintenance plan to be agreed during handover. It is recommended that the original design team and/or local stakeholders are involved within the landscape management team.

A diverse discipline within the landscape management design team is vital for long-term success. Ecologists, landscape architects, horticulturists, and social scientists all bring unique perspectives, ensuring a comprehensive approach. This collaborative effort results in a resilient management strategy that adapts to environmental changes, community needs, and evolving landscapes years after project completion.

Case study



BROOKLYN BRIDGE PARK, NEW YORK | 2021

The unpredictability of plant growth underscores the need for maintenance teams to collaborate closely with horticulturists, arboriculturists and designers to extend their responsibility for long-term maintenance. Water, soil conditions, insects, surrounding plants, amounts of sunlight, weather, and a lot more affect their growth. Brooklyn Bridge Park, designed by Michael Van Valkenburgh Associates exemplifies innovative approaches by securing ongoing funding for maintenance with income from new adjacent real estate development

rather than from state and city funds and requiring landscape architects to predict and plan annual maintenance budgets for an extended period. This showcases a commitment to the enduring health and vibrancy of the landscape. The plans for Brooklyn Bridge Park showcase the growth and improvement of plants over the years, demonstrating that the role of landscape management extends well beyond opening day. Lead landscape architect Michael Van Valkenburgh reiterates this through expressing that perhaps “there should be two additional opening days [for a new park], one in five years and one in 10 years”.

STAGE 3: BUILD / HANDOVER

Priorities safety and accessibility through maintenance and management

Complying with the Saudi Building Code

Building codes are there to provide guidance within your project so that you align with and meet national standards. The Saudi Building Code includes the engineering standards required in design, construction, operation and maintenance of the project. All members of the project team must comply with these requirements.

In relation to safety and accessibility, these include:

- Gathering the requirements of those of special needs.
- Meeting safety requirements during construction.
- Placing signs and guiding boards.

Safety and accessibility

Your maintenance strategy should include clear protocols outlining regular inspection of accessibility and safety elements so that it has long-term use. An access consultant can guide best practices and detailed documents. These documents should include:

- Location and specifications of key features.
- Identifying risks with some of the features.
- Routine check-lists to ensure safety and accessibility are maintained.

It is also valuable to have disabled community users share their experience of the site's accessibility.



Maintenance for traditional skills

The efforts of the design team, the contractor and the skilled craftspeople involved in the project, will only be fully realized and cherished through regular and appropriate maintenance.

Your maintenance strategy for traditional features should:

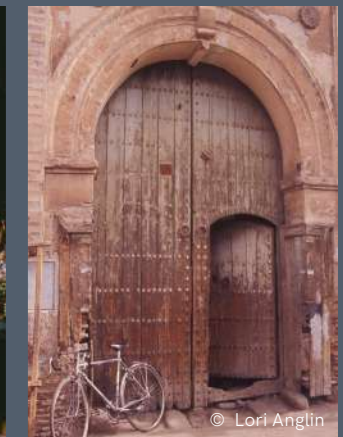
- Provide comprehensive guidance based on the advice from skilled craftspeople.
- Include periodic inspections led by skilled craftspeople or trained maintenance staff, with more frequent visits in the first year, to ensure any issues are caught early or prevented.
- Clearly outline replacement strategies with materials that comply with the original construction methods.
- Consider organizing training days led by craftspeople, and/or people familiar with new materials or methodologies that may have been employed for the proposed maintenance entity.

Key point

Try to implement maintenance strategies that allow traditional skills to be passed down to new individuals. Training days with craftspeople, or providing apprenticeships and work experience to younger generations, in relation to the maintenance strategy may mean forgotten crafts are celebrated and safeguarded through your project.



Case study



SOUK LAGHZEL AND CHERB OU CHOUF FOUNTAIN, MARRAKESH | 2000 - 2003

As part of the Urban Conservation Microproject Strategy and in cooperation with the Regional Inspection for Historic Monuments and Sites, the strategy uses the philosophy of minimum intervention (including repair, preservation, restoration) with local professionals and contractors.

The micro-projects were selected for their urban qualities and contributions to everyday life. Souk Ghazal

is the only medina marketplace dominated by women vendors. On the other hand, the Cherb ou Chouf Fountain is a decorative, historic façade of a public water source which was compromised after centuries of use with negligible maintenance. Work undertaken invited wood conservators to maintain the features, whilst training young craftsmen in the process. This collaboration has resulted in more people visiting the market and more female vendors feeling a sense of pride and ownership.

STAGE 3: BUILD / HANDOVER

Planning the opening celebration

An opening celebration is as much about the new site itself, as it is about celebrating those involved in the process.

Share the participation process

Showcase how the public’s efforts (e.g., workshop sketches, pictures and quotes) informed the final design. Encourage those who played key roles to join the proceedings.

This celebration will probably have more people than any single engagement session. For your site’s legacy, this is the most important marketing event and the start of your programming calendar. Embrace it, and use this event as a catalyst for future events.

Celebrate culture from Day One

Think of ways in which community-led cultural practices could be integrated into the program of activities. Is there a specific ceremony local to this site? Could you collaborate with local artists, musicians or storytellers to bring the site to life? Which activities could you put on that will engage people across different generations?

Key point

Highlighting climate-resilient features and encouraging sustainable behaviours in the opening celebration sets the tone for how you expect the space to be used.



Inclusive and safe celebrations

Your efforts in creating a safe, inclusive and accessible public space should be reflected in the opening ceremony. Your communication strategy surrounding the event should include how you are ensuring the event is accessible, and the communication or invitations themselves should adhere to accessibility standards. Offer potential attendees the opportunity to reach out in advance if they have any queries regarding accessibility.

Document the event

If available, use professional photography and videography to capture the event. This can be used in future promotions and as historical record to show others through thank you notes, social media and more about how the event was.



Case studies



TINDAL SQUARE | 2023

This launch event sought to showcase how this pedestrianized area and square could be used by performers for cultural programming. Showing the potential and bringing a mix of communities together can spark ideas and new connections.



SERPENTINE PAVILION, LONDON | 2022

The Serpentine Pavilion is an annual architectural commission in Hyde park, featuring a temporary structure designed by a different architect each year. The opening week usually includes events such as the pavilion’s official unveiling and various cultural and artistic programs. In 2022, the black chapel invited a local musician for an experimental piano performance.



LYCEUM SQUARE, CREWE, UK | 2023

Alongside activities for children, there were exciting performances from the renowned national dance circus company, Motion house, to launch this event and performance space in Crewe.

STAGE 4

Use

Now that you have a newly transformed public space, it is important to adopt the necessary mechanisms to look after the space over the long-term. This chapter will guide you through that, as well as address sustainable models and participatory processes to ensure the space reflects the collective needs and desires of the community.



In this stage you will learn how to:

- Adopt a stewardship model
- Be financially sustainable
- Create a placemaking strategy
- Assess the Urban Transformation



Stage 4 Overview

The Use process is segmented into three sub-stages that should enable a logical progression for long-term use and activation.

Operate

A stewardship model is formed and adopted. A governing committee, with clear financing streams, is established to support ongoing operations, that continue to support the project vision.

Tools:

There are no tools in Operate.

Programme

A programming strategy is developed to encourage active use of the space, celebrate local culture and promote sustainable practices.

Tools:

- ▶ [T9 Placemaking Strategy](#)

Monitor

Data is collected, evaluated, and analysed to ensure the space continues to meet objectives and community needs, with the project improved on a long-term basis.

Tools:

- ▶ [T10 Evaluate Your Place](#)
- ▶ [T11 User Observations and Contextual Interviews](#)

Roadmap: Stage 4 Use

Before beginning the Use Stage, let's take a moment to check if your project is in place:

Construction is complete

OPERATE

Kick off by understanding the **value of stewardship** and what it means in public space.

Learn about **common stewardship models** in the Saudi context.

Establish a committee with local representation to formally oversee and look after the new space.

Learn key principles on how to achieve **economic and financial sustainability** in the long-term.

Harness **circular economy principles and sustainable operations** in your project.

Leverage community members from the participation process to become stewards of the space.

PROGRAMME

Explore **programming as a form of placemaking** and learn about **participatory placemaking**.

Learn the value of choosing the **right event for the right place**.

Activate your space through **diverse programming**.

Produce a **Placemaking Strategy** to enable your community stewards to program & activate public events.

► Find out how to do this on: [T9 - Placemaking Strategy](#)

How to embed **art, resilience, health and education** events.

MONITOR

Learn more about **monitoring and evaluation**.

Evaluate your place according to the Urban Transformation Metrics.

► Find out how to do this on: [T10 - Evaluate Your Place](#)

Adapt **to the community's changing needs**, and pay attention to their well-being and safety concerns during operations.

The **Urban Transformation** process is now complete.
Enjoy your space!

Harness feedback to **continuously improve in the long-term**.

Do **field observations and contextual interviews** to analyse user behavior and satisfaction.

► Find out how to do this on: [T11 - User Observations and Contextual Interviews](#)

KEY

- Sub-stages
- Guidance
- Tools

Follow the airplane path

OPERATE

After the project is built, a plan for operations and maintenance gets put in place. If it does not exist, a formal entity is formed and adopts the space as a steward.

Governance and well-managed finances support ongoing operations over the long term to realize the project vision.

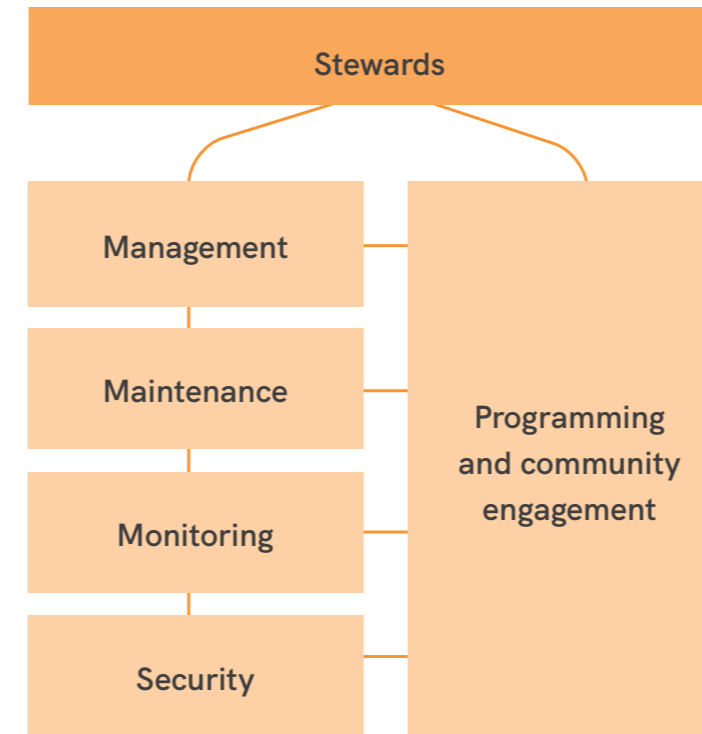
Becoming stewards

Urban stewardship is the long-term care and management of a place or space, ensuring the ongoing work of repair and operations management, while listening to the local community's evolving needs and cultivating thriving places. In Stage 1, you learnt about diverse stewardship models and finding the best fit for your entity. Now, following the completion of the construction of your space, the focus shifts towards mobilizing the right stewardship model.

Effective public space stewardship entails:

- Establishing a purpose-driven entity: creating an organization with a clear mission dedicated to the care, activation, programming and enhancement of the space.
- Securing sustainable funding: ensuring a stable funding stream to empower the entity to effectively maintain, operate, and program the space.
- Community engagement: actively listening to the community to understand its evolving needs and aspirations.
- Advocacy and adaptability: serving as advocates for the space, monitoring its usage patterns, and dynamically adapting and refining strategies based on the evolving dynamics of the community and the climate.

By embodying these principles, public space stewards play a pivotal role in transforming urban landscapes into vibrant, community-centric destinations that resonate with the diverse needs of the local community and stakeholders.



Stewardship operation structure

Key point

There is value in informal stewardship. Creating opportunities for informal stewardship of public spaces can reduce the need for dedicated security personnel. For example, baristas who are covering evening shifts in a cafe adjacent to a pocket park could also assume a supervisory function and oversee the space while they are there.



STAGE 4: USE / OPERATE

Stewardship models for public space

Most common models in Saudi

MODEL TYPE

Public stewardship

Funded and managed by a local authority or governmental organization.

EXAMPLE

Wadi Al Aqeeq, Al Madinah



© Arup

SUITABLE FOR TYPOLOGIES

Parks, natural open spaces, streets and promenades.

- ⊕ The model demonstrates the ability to manage multiple spaces within a locality.
- ⊖ It assumes an ongoing funding stream in a competitive context.

MODEL TYPE

Private stewardship

Funded and managed by a real-estate developer or private company, that often owns the land..

EXAMPLE

Bujairi Heritage Terrace, Riyadh



© Diriyah Gate Development Authority

SUITABLE FOR TYPOLOGIES

Parks, civic squares, streets and promenades.

- ⊕ The model often provides higher quality services and management.
- ⊖ Concerns about access and over-commercialization.

MODEL TYPE

Public stewardship

A partnership between the public and private sectors to develop a project.

EXAMPLE

Turki Square, Riyadh



© Riyadh Municipality

SUITABLE FOR TYPOLOGIES

Play and sports, parks, civic squares and plazas.

- ⊕ The model Combine public assets with private finances.
- ⊖ Can be complex and slow to mobilize, or replicate.

MODEL TYPE

Non profit

Often less formal model of philanthropy by family donations, CSR or Awqaf.

EXAMPLE

Friends of Jeddah Parks, Jeddah



© Friends of Jeddah Parks

SUITABLE FOR TYPOLOGIES

Parks and gardens, indoor public space.

- ⊕ The model fosters community presence and activation.
- ⊖ Often relies on key person / initiator.

Not common but worth considering

MODEL TYPE

Business Improvement District (BID)

Entity created specifically to look after space framed by businesses and institutions who pay a levy.

EXAMPLE

Northbank BID, London, UK



© Arup

SUITABLE FOR TYPOLOGIES

Civic squares and plazas, streets and promenades.

- ⊕ In this Model all members are interested in high quality maintenance and programming.
- ⊖ Risk of members defaulting on levy or refusing to contribute.

MODEL TYPE

Events-based

Promotes community- stewarded public spaces centered activating temporary social events/ gatherings.

EXAMPLE

Festival Street Program, Seattle, USA



© City of Seattle

SUITABLE FOR TYPOLOGIES

Civic squares and plazas, parks and gardens.

- ⊕ The model helps managers and stakeholders define clear roles and builds relationships with local businesses.
- ⊖ Activations are temporary, and event management is time and labour-intensive.

Key point

Harness your local businesses through a BID and think about involving local businesses in stewardship, as this may lead to improved social inclusion, environmental and financial outcomes.



STAGE 4: USE / OPERATE

Governance and local representation

Build the organizational capacity by establishing a committee (or a board) to formally oversee the management of the space. Identifying the right people to sit on this committee is critical to ensure successful governance. Here are some key principles to consider:

- Diversity of member experience: public / local authority, financial or accounting, community engagement, event programming, estate management, etc.
- Local representation: it is important to have adequate local presence-committee membership should include local resident and business representation.

Case study



FRIENDS OF THE UNDERLINE, MIAMI

Friends of The Underline is a non-profit organisation that looks after the transformed linear park, which was previously an underutilised land below Miami's Metrorail system. The organisation manages donations, maintains the space and promotes the park. They also ensure there is ongoing programming. Many residents and local users are volunteers within the organisation; they are involved in administration, surveying, fundraising, events, marketing and gardening.

Empowering community members to become site stewards

Members of the community can be some of the best advocates for a public space as they have a truly vested interest in its success and may be formally enlisted to help manage - steward - their local public space; this can take on one or more of these arrangements:

1. Formally acknowledge the leadership role(s) that one or more community members volunteer to take on.
2. Provide the community member(s) with remuneration that recognizes their role(s).
3. Provide the community member(s) with some sort of payment 'in kind' - i.e. free or priority access to local amenity.
4. Ensure that the community steward(s) are refreshed every 3 to 4 years, ideally retaining most.
5. Provide a clear line of reporting between the community steward(s) and the entity responsible for the public space transformation.

Case study



FRIENDS OF JEDDAH PARKS, JEDDAH

Friends of Jeddah Parks is a unique enterprise in Saudi Arabia that takes care of three parks in Jeddah. They are highly aware of what the local community needs and will often run campaigns with public and private organisations to deepen their knowledge. Importantly, they have a stewardship model that transforms community members into stewards. The operations and management system has funded the maintenance and programming of two out of their three parks. This tried-and-tested model could be replicated across the country as it demonstrates the power of listening to people.

Key point

Community organisations typically thrive as leaders of public space activation and programming.



STAGE 4: USE / OPERATE

Circular economy and sustainable operations

Circular economy principles have significant benefits for businesses, the environment and society. This systemic approach disconnects growth from the depletion of finite resources, offering a more sustainable and resilient path forward.



Economic

Increase resource efficiency through renewable energy, reusing grey-water and harvesting rain water which brings economic benefits.



Environmental

Apply nature-based solutions to restore and regenerate the natural environment while increasing climate resilience, human well-being and lowering maintenance costs.



Social

Create a societal shift that addresses the challenge of unsustainable consumption culture and lifestyles by bringing people closer towards sustainable practices and education.

Good practice for achieving economic sustainability

Below are some strategies that foster economic sustainability, community development, and the overall vitality of regenerated urban areas.

- Diversify revenue: explore partnerships, sponsorships, and grants beyond traditional funding.
- Capacity building: build capacity in financial skills within the entity overseeing.
- Long-term strategy: a governance framework for long-term planning and strategy.
- Innovation and sustainability: reduce waste, resourcefulness and smart technologies to reduce costs and increase efficiency.

The next page explores revenue streams to consider for public spaces.

Case study



PALM TREE DATE HARVESTING, RIYADH

Residents of Al Dhahia Compound in Riyadh harvest and package dates from the shared public spaces, streets and parks. This activity helps with maintenance while also generating revenue that goes back into maintenance and upkeep of these areas. The landowner association supports these practices and reflects a community initiative which fosters social cohesion while also having a strong financial case.

STAGE 4: USE / OPERATE

Principles and ideas for financial sustainability



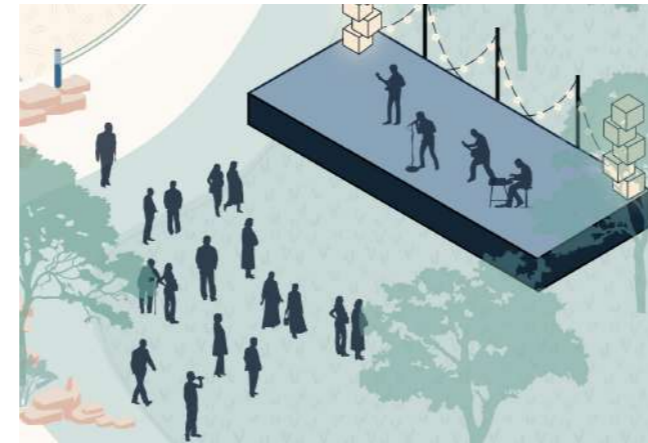
Public space with free entry

Public spaces should have free entry, and seek revenue through other means. This ensures open equitable access to all users of the public and provides access to amenities contained in the space.



Leased space for local businesses

Sources of revenue include leasing space to a local cafe, juice bar or ice cream stand. While revenue generation may be important, consider supporting local businesses when selecting a vendor, as this will boost local trust and patronage.



Public events

Events can also help to promote the use of the public space, which in turn leads to spending at other offers. Commercial activities and sponsorship can help meet running costs, but it is important that these are in line with the ethos of public space as just that - "public".



Parking meters and EV charging

Revenue generated from parking meters and electrical vehicle (EV) charging stations to support the ongoing maintenance of public spaces. Additionally, this financial contribution helps enhance visitor experiences and contributes to the space's long-term sustainability goals.



Volunteer groups and gardening clubs

Volunteer groups and gardening clubs can help reduce maintenance costs whilst providing various health benefits, educational opportunities and increased social cohesion—all of which contribute significantly to the strengthening of the local economy.



Smart technology for maintenance

Automated robotic systems can streamline routine inspections and data-driven algorithms enable predictive maintenance schedules, enhancing maintenance efficiency.

PROGRAMME

A programming strategy is developed to encourage active use of the space, celebrate local culture and promote sustainable practices.

Activation catalyzes further activation as people witness the potential uses of a space and get inspired to participate.

Programming as a form of placemaking

To create an active and vibrant local destination, it's important to listen to the desires of the community. Therefore, amenities and programming should stem from community engagement, ideally incorporating local resources and expertise, for the most successful outcomes.

Desired Impacts

Implementing a placemaking strategy ensures the opportunity to give a place its unique DNA and make it truly inclusive. In this step, you will learn to guide the Placemaking Strategy (Tool T9) by understanding the desired impacts and user behaviors and co-creating activation ideas with the formal stewards and/or other interested stakeholders. This framework will help to align the project's values and objectives to deliver a place that resonates with the vibrancy and shared experiences of the local community and stakeholders, while providing a structured process for program planning and activation.

When programming a space, it's essential to plan ahead for at least a year, giving thoughtful consideration to inclusivity and targeting all members of the community throughout that time span.

Case study



BASTA, RIYADH

Basta is a lively open-air market held every Saturday at certain locations in Riyadh. The market promotes human-centred principles and prioritises pedestrians by closing certain roads from vehicular movement such as Tahlia Street. It showcases a variety of national products and creative arts, including traditional abayas, perfumes, and homemade treats. With over 200 small businesses participating across four different locations, the market encourages residents and visitors to enjoy the temporary activation of the streets and foster connections with one another.

Participatory Placemaking

Active listening

Participatory programming seeks to disrupt conventional planning techniques and attract ideas from a broad cross section of the community. It allows for uses of public spaces that conventional events event's organizers might not envision.

The key principles in participatory placemaking are observation and listening. Focus on observing and actively listening to the community's voices, and encouraging active participation from residents, visitors, and other stakeholders.


Also, develop creative and original ways to listen to the community's needs. People often 'vote with their feet' by attending the events they like, you can get a sense of what people want more of.

Naming rights

Participation is not only useful in programming but also in naming spaces through community suggestions and ideas. This fosters a higher sense of ownership and pride. This could be done physically through voting booths and post-it boards, or through polls on social media.

Key point

Consider how different events cater to specific age groups. Ensure this aligns with existing demographics to ensure the success of events and age-inclusive programming.



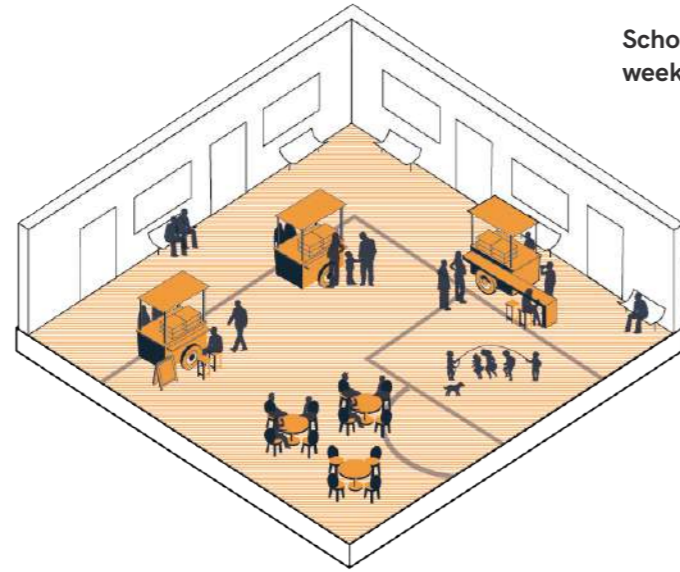

Naming rights is a method to incorporate participatory placemaking by allowing people to choose the names of the places they inhabit.

STAGE 4: USE / PROGRAMME

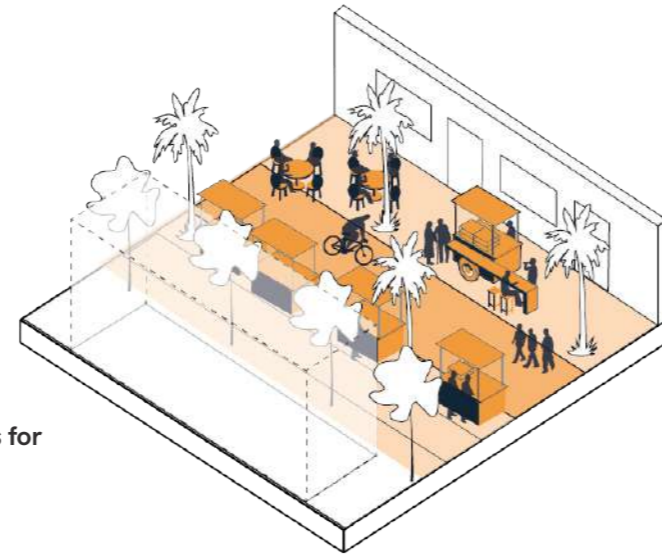
The right event for the right space

While planning events, it is important to link the right event to the right space. Consider the questions below

- Does the site 'welcome' the event layout and feel suitable for the program, or does the site prove too restricted?
- Does the event protect and physically enhance the space after it leaves? How do you ensure the event is a light visitor that leaves the space better than it was?
- Does the event enhance the local economy or does it compete with it?
- Is there a critical mass of people interested in the event in the immediate vicinity, that can visit by foot?



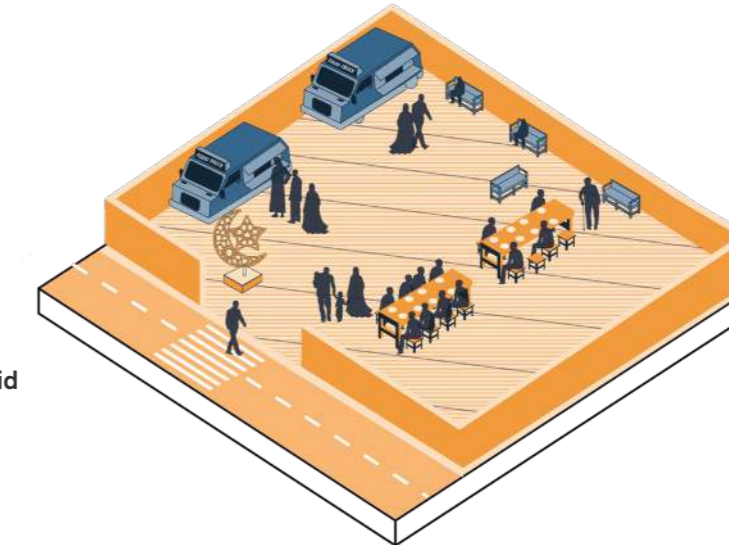
School yard used for weekend market



Street closures for family events



Seasonal programming of a park



Programming large Eid prayer spaces

Key point

Think about a multi-purpose programme to maximise use all year / all week / all day and create the most efficient use of space. This in turn increases walkability, density and efficiency of space in urban areas and improves traffic in major cities.



STAGE 4: USE / PROGRAMME

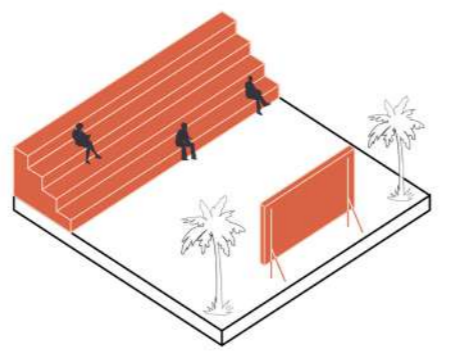
How to activate a space through diverse programming

This page illustrates a range of placemaking and programming ideas through the lens of three themes; arts and culture, climate resilience and health and education.

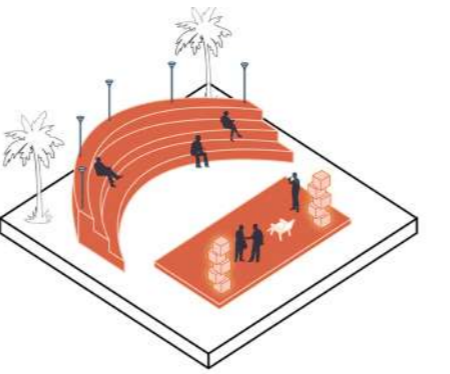
It is important to remember that events and activities should be in dialogue with, and respond to, the local community. Features that enable events to accommodate diverse needs, including age groups, abilities, and cultural backgrounds, are important at all times.

ARTS AND CULTURE EVENTS

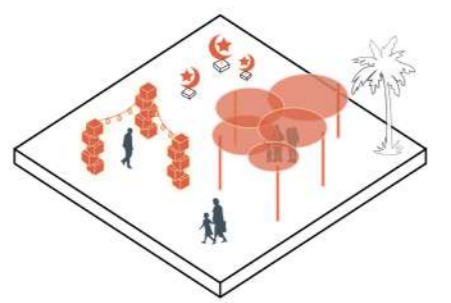
Film screenings



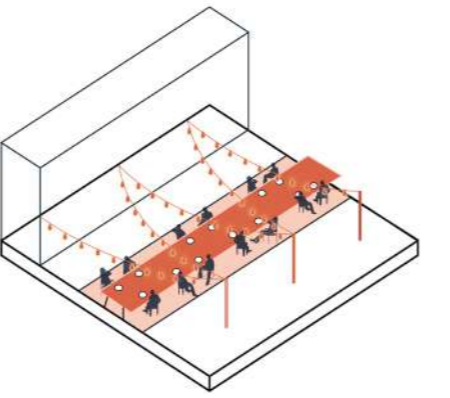
Outdoor concert and theatre



Art installation



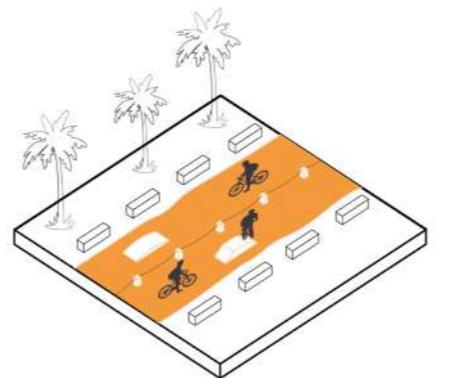
Ramadan Iftar Club



Diagrams demonstrating strategies for activating spaces through diverse temporary programming.

CLIMATE RESILIENT EVENTS

Learn-to-ride program



Library of Things - lending



Gardening classes

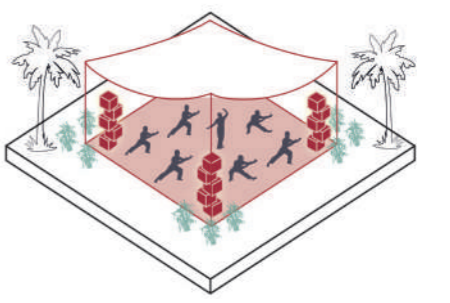


Temporary bike repair station

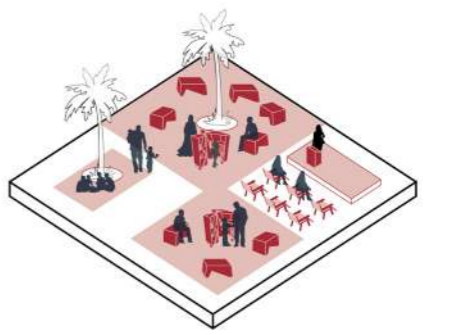


HEALTH AND EDUCATION EVENTS

Movement Therapy classes



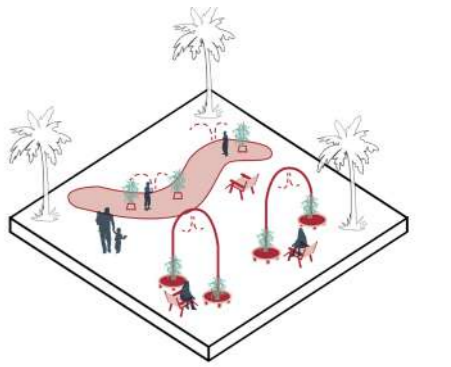
Literary festival



Educational games



Summer cooling station



STAGE 4: USE / PROGRAMME

Arts and culture programming

Arts and culture programming is a proven and established way to breathe life into public space and define an evolving identity for the community.

The principles for developing cultural events can be summarized as follows:

- Promote awareness and provide benefits to the community by engaging them with complex and current topics and debates through art.
- Consider partnering with a nearby institution, such as a museum, theatre association or a grassroots film community to run seasonal programs in your space.
- Showcase local creative talent, involving resident artists, performers, and collaborations with local galleries, theatres, and venues.
- Consider culture broadly, including theatre, music, visual arts, literature, film, fashion, and history.
- Avoid driving the program by a commercial imperative. The benefits will be centered around community cohesion, unity, awareness and dialogue.
- Events should be site-specific, ensuring relevance and appropriateness to the specific zone area.

Case study



© Royal Commission for AlUla



© Royal Commission for AlUla

OASIS OF STORIES, AL ULA | 2023
 Participatory methods extend beyond design and architecture. Saudi artist Manal Al Dowayan pioneers a new model by incorporating community voices into her artworks. This approach involves engaging and archiving community narratives, as exemplified in projects like "Oasis of Stories" in Wadi Al Fann, Al Ula, Saudi Arabia. Over several months in 2023, Manal conducted 18 workshops with 700 community members of all ages. Some were focused on institutions and associations, while others were open to the public. The insights, drawings and ideas gathered by the artist will shape her final artworks expected to be constructed in 2025 as permanent public art.



© Royal Commission for AlUla

Participatory workshops from Oasis of Stories by Saudi artist Manal AlDowayan for Wadi AlFann in Al Ula.

Climate-resilient programming

The diagram shows a spectrum of nature-positive events that vary according to typologies and time duration. These will give you some ideas, but you might wish to create your own events in line with the principles below:

- Events that align with project goals and wider national climate resilience targets.
- Events that reduce energy demand and resource use.
- Events that bring communities closer to their natural environment and local ecologies.
- Events that increase awareness on climate change, and the impacts of individual behavior on climate.

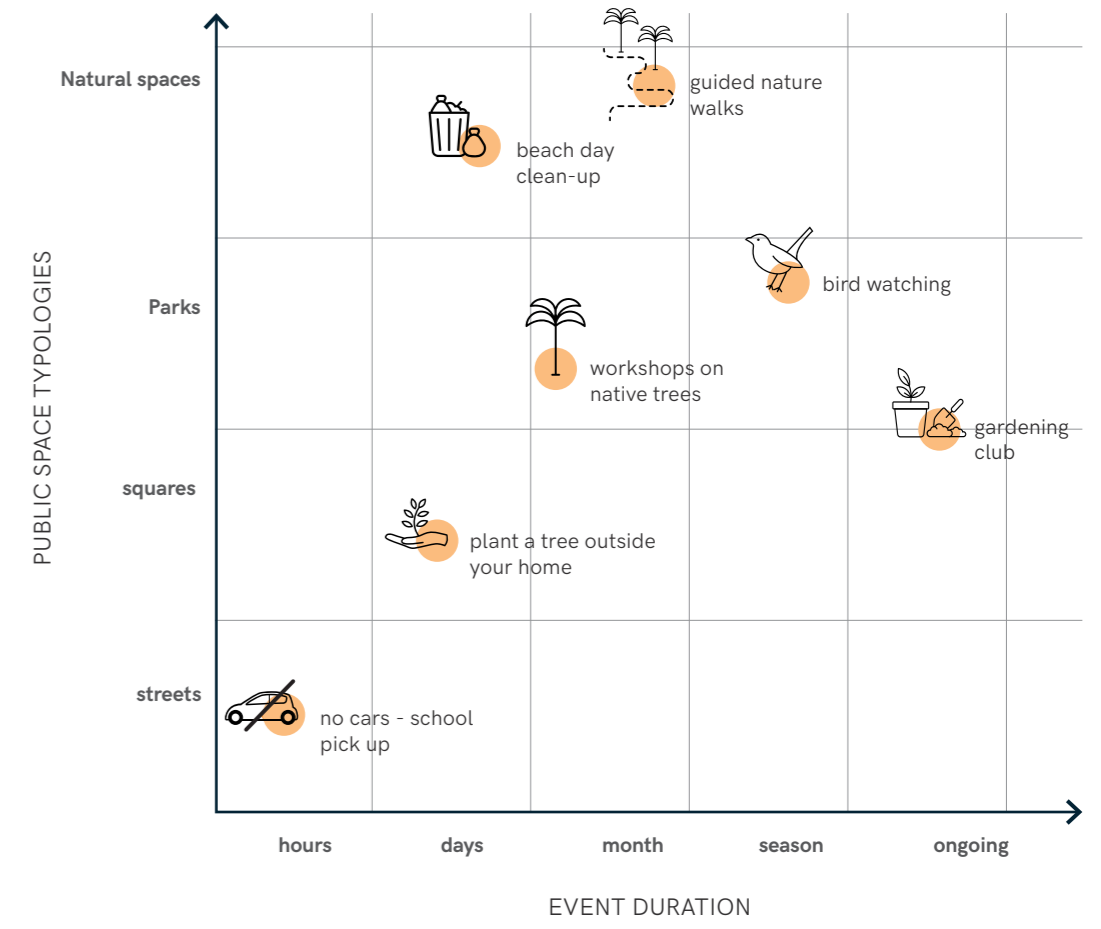


Diagram showing a range of nature-positive events across spatial typologies and event duration.

STAGE 4: USE / PROGRAMME

Health and education programming

Your stewards can help translate the desired impacts into the programming of events. Principles for developing health and education events can be summarized as follows:

- Promote events that contribute to the community's overall well-being and social cohesion.
- If relevant, prioritize programming that highlights the benefits of connecting with nature for health and well being e.g. incorporate activities like yoga, fitness classes, or wellness workshops in green spaces.
- Design events specifically tailored for children to move, refine motor skills and engage with nature. E.g. nature-themed play areas, educational workshops, or interactive installations that encourage exploration.
- Forge partnerships with local schools to leverage the benefits of engagement and learning in public spaces for teens and young adults.
- Host health awareness events or festivals and use these occasions to communicate public health messaging, fostering a higher sense of awareness and responsibility within the community.

Case study



© Beirut's RiverLESS Forest, Courtesy of SUGi



© Beirut's RiverLESS Forest, Courtesy of SUGi

BEIRUT'S RIVERLESS FOREST, BEIRUT

Sugi Project started in 2019 to build sustainable biodiverse urban forests around the world. This forest that was built in a landfill site along Beirut's river was developed over five incremental phases from 2019-2023 and is now self-sustaining. It includes 17 types of native species and a total of more than 4,000 trees in a 1,000 square meter area.

The local community has been and continues to be involved in all phases of the forest-making process. It's

been led by Adib Dada, who is the local forest maker. The site is now a lush ecosystem that is filled with the sights and sounds of nature. Through planting these native pocket forests, Sugi are actively reclaiming and restoring shared habitat and reversing the deteriorating conditions of the Beirut River.

"People have flocked to our Beirut Riverless project. You can feel the hunger for it. People who happened to walk by the site on planting days stop to put a sapling in the ground, some saying they had never really touched a plant before."

Tools in action

T9 Placemaking Strategy



Duration
1 day

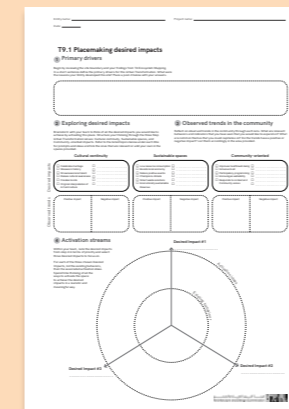


Group size
3-5 people

Aim:

A framework to enable your community stewards to programme and activate public events that shape a place.

Templates:



- ▶ [Go to T9.1 Placemaking Desired Impacts template](#)
- ▶ [Go to T9.2 Activation strategy template](#)

Who is involved?

Entity overseeing stewardship.

Output

Programming plan with activation ideas developed from evidence-based research on user behavior and the projects' desired impacts.

Preparation

1. Review your results from latest T4 Ecosystem Mapping.
2. Print a site plan showing clear project boundary.

Method

T9.1 Placemaking Desired Impacts

1. Review the site boundary and the results from T4 Ecosystem Mapping activity.
2. Identify Primary Drivers for Urban Transformation in one sentence.
3. Brainstorm the desired impacts using Cultural Continuity, Sustainable Spaces, and Community-Oriented lenses.
4. Reflect on community behaviors and indicators. Then identify themes to capitalize on.
5. Conduct further research to deepen your community understanding through contextual interviews or focus groups and use T5 Power-Interest Matrix for insights.

6. Rank Desired Impacts, then choose three to focus on.

7. List existing behaviors and activation ideas for each impact to develop a detailed plan.

T9.2 Programming Strategy

1. Fill in at least four Activation Streams to start, adding more as needed for your site.
2. Specify event times, frequency, partnerships, financing, and site location.
3. Create a sustainable strategy combining in-situ revenue, public funds, CSR, and community donations aligning with your space.
4. Draft project drivers, desired outcomes, key rules, values, and principles, and clearly communicate this with stakeholders and communities.

Benefits

Structures the planning, activation process and program run by stewards, improving clarity and consistency in values and objectives to deliver a place that responds to the local community and stakeholders.

Limitations/ be aware of

- Consider sustainability principles, ensuring events minimize environmental impact.
- Ensure that programming is inclusive and accessible to all members of the community listed under T4.

MONITOR

This step involves continuous tracking of indicators during the Use Stage, collecting and analyzing data to ensure alignment with project objectives, and transparently communicating findings for ongoing improvements.

Evaluation, as a strategic tool, further contributes by systematically assessing the project, measuring its impact, and facilitating continuous improvement for future programs.

What is monitoring?



- Continuous and systemic tracking of indicators.
- Provides real-time information on changes and progress.
- Aims to identify issues promptly for timely decision-making.
- Measures quantitative and qualitative data.

What is evaluation?



- Objective assessment conducted at specific project milestones.
- Assesses the project's design, implementation, and overall outcomes.
- Offers insights into the project's strengths, weaknesses, and recommendations for future improvements.

Key Point

Consider ways to measure the effectiveness and success of the stewardship model.



Monitor and evaluate the performance of your project

After project completion, refer to the Urban Transformation Assessment Wheel in the Introduction to assess your site according to the Urban Transformation objectives and metrics.

How is your space contributing to local ecological value and biodiversity? How is your space preserving local cultural heritage? Each one of the metrics may perform differently over time, so it is good practice to regularly check and monitor them on an annual or bi-annual basis.

Communicate your findings on a regular basis

Part of community engagement is allowing the community to be part of the monitoring and assessment process as well. To understand the findings of the assessment, it is important to be transparent, regular, accountable and honest.

Ideally, all monitoring and evaluation procedures should include reporting back to stakeholders, addressing their contributions and responding to raised concerns.

Reporting methods can include written feedback sessions, forums, or digital communication, with careful consideration of the diverse needs and capacities of stakeholders.

STAGE 4: USE / MONITOR

Tools in action

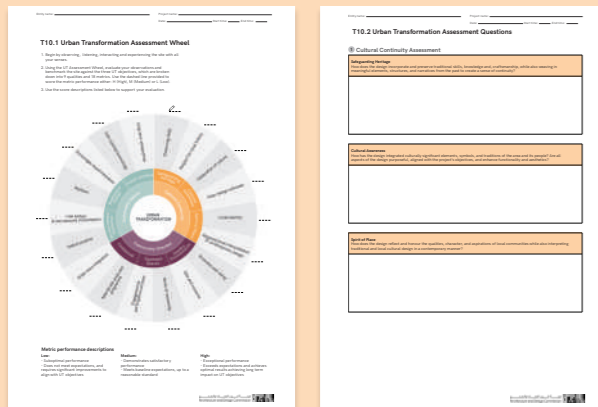
T10 Evaluate Your Place

Duration
1 day

Group size
3-5 people

Aim:
Evaluate the quality and performance of your public space using the Urban Transformation Assessment Wheel.

Templates:



- ▶ [Go to T10.1 Urban Transformation assessment wheel template](#)
- ▶ [Go to T10.2 Urban Transformation Assessment questions template](#)

Who is involved?

Entity overseeing stewardship

Outputs

- Evaluation of site performance in accordance to Urban Transformation metrics.

Preparation

1. Schedule multiple observation sessions on different weekdays and times of day, for 1 hour per session. Ensure the scheduled sessions take place during periods with average busyness (i.e. not during a planned event or during midday heat).

Method

1. Together with the participants, visit the site, observe, listen, interact and experience the space with all your senses.
2. Use the T10.1 Urban Transformation Assessment Wheel template to evaluate your observations and benchmark the site against the UT objectives by rating the performance of each metric as high, medium or low.
3. Use T10.2 to complete the assessment questions.
4. Validate the results with the stakeholders identified in T4 Ecosystem Mapping.

Benefits

- Offers a standard method for evaluating public spaces, promoting accountability and transparency.
- Identifies strengths and weaknesses for targeted enhancements.
- Provides data for informed decision-making and resource allocation.

Limitations / be aware of

- Observer and user biases, along with external influences, can affect the accuracy of evaluations.
- Relying solely on qualitative evaluations may hinder finding statistically significant trends; consider how this tool may combine with quantitative measures.
- The evaluation represents one moment in time and may not accurately portray how space and use change across the day or year.

T10 and T11 can be completed during the same site visits.

Adapting to a community's changing interests and needs

Maintain an open dialogue with the community on an ongoing basis to continue to listen to your community. Their valuable feedback can help you make future improvements that resonate with their voices. Remember to refer back to the tools and methods you learnt from Stage 1 to do this effectively.

Remember to:

- Get feedback from the community stewardship team, but ensure other voices are still heard.
- Support new experimental uses of the space, but ensure outcomes are reviewed and monitored to inform possible changes in future programming.
- Get feedback from the Engagement Champion who should have a close relationship with the local stakeholders.
- Exemplify ways in which spaces have changed following from feedback.

Tool 11 on the next page provides you with templates to get you started, but you can use a range of methods to gather user feedback, e.g. online surveys, targeted engagement events with co-design team, social media analytics, etc.

KEY CHARACTERISTICS OF QUALITATIVE AND QUANTITATIVE RESEARCH			
		Qualitative research	Quantitative research
<input type="checkbox"/>	Questions asked	Who, what, how, why?	How much, how many?
<input type="checkbox"/>	Question type	Open-ended	Closed
<input type="checkbox"/>	Interaction	Dialogue or observation	Question-answer
<input type="checkbox"/>	Form	Semi-or unstructured	Structured
<input type="checkbox"/>	To whom?	Purposeful sampling	Formal sampling
<input type="checkbox"/>	Level	In-depth	Surface-accessibility
<input type="checkbox"/>	Analysis	Interpretation	Formalisation and statistical analysis

Adapted from 'On Target. A guide to monitoring and evaluating community-based projects'.

STAGE 4: USE / MONITOR

Tools in action

T11 User Observations and Contextual Interviews

Duration
2 hrs

Group size
3-5 people

Aim:
Periodic observation of the daily lives of users in the space to understand users' activities, behaviour and satisfaction.

Templates:

- ▶ [Go to T11.1 User Observations template](#)
- ▶ [Go to T11.2 Contextual Interviews template](#)
- ▶ [Go to T11.3 Consent form template](#)

Who is involved?

Entity overseeing stewardship

Outputs

- Affinity diagram with emerging themes and insights.

Preparation

1. Schedule multiple observation sessions on different weekdays and times of day, for 1 hour per session. Ensure the scheduled sessions take place during periods with average busyness (i.e. not during a planned event or during midday heat).

Method

1. Use the T11.1 User Observation template to count site users and their activities.
2. Use the T11.2 Contextual Interviews to conduct informal interviews with different individuals, considering age, gender, ability and ethnicity.
3. Obtain consent before taking pictures with identifiable users, using the T11.3 Consent Form.
4. Take pictures and short videos to support the observation activity.
5. Complete an affinity diagram with the information recorded from Tool 7 in Stage 1.

Key point



Photography might be intrusive in some contexts. Before taking photos, try to build a good level of familiarity with the public and ask for consent.

Benefits

- Provides a method to analyze human satisfaction and overall experience of users in the physical space.
- Reveals patterns of behavior, preference and activity.
- Captures both positive and negative insights, contributing to realistic decision-making for future improvements.

Limitations / be aware of

- Field observations capture only a snapshot of user behavior and may not portray the daily or seasonal variations of the place.
- Subjectivity and bias from the observers which can influence the data and hamper objectivity.

T10 and T11 can be completed during the same site visits.

Capture improvements into the long-term strategy

Incorporating project improvements into the long-term strategy is integral to the success of the place.

Gathering feedback from site visitors, directing it towards the stewards and enhancing the space ensures a dynamic and responsive long-term plan. Assessing areas that need investment and further funding and phasing improvements over 5-year and 10-year plans is recommended.



The **Urban Transformation** process is now complete.
Enjoy your space!

Index

INDEX

The tools in relation to the three themes









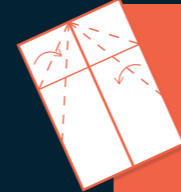











In order for the Urban Transformation Manual to add value and play a meaningful role in transforming Saudi public spaces, the manual is based on three themes that are foundational for this version. The themes have been carefully selected based on a thorough current state assessment of Urban Transformation in Saudi Arabia during 2023. These may change in the future based on future needs and gaps.

The three themes of the manual are as follows:

1. A manual that successfully guides the process of **public participation** to design inclusive and well-loved public places.
2. A manual that puts forward principles that achieve places that are integrated, sustainable and **resilient**.
3. A manual that advocates for models of **stewardship** of public space, and delineates the approach to long-term successful placemaking in creating active, lively and unique spaces true to their place.

The index shown on the following page demonstrates the three themes in relation to the tools and templates that are within this manual.

Index

	THEME A PUBLIC PARTICIPATION			THEME B RESILIENT DESIGN			THEME C STEWARDSHIP		
		Tools	Templates		Tools	Templates		Tools	Templates
 STAGE 1 INITIATE	Envision	T1 T2 T3		Envision	T1 T2		Envision	T1 T2	
	Define			Define			Define		
	Involve	T4 T5 T6 T7	  		Involve	T7		Involve	T4 T7
 STAGE 2 DESIGN	Explore			Explore	T8		Explore		
	Integrate			Integrate			Integrate		
	Refine			Refine			Refine		
 STAGE 3 BUILD	Implement			Implement			Implement		
	Control			Control			Control		
	Handover			Handover			Handover		
 STAGE 4 USE	Operate			Operate			Operate		
	Programme	T9		Programme	T9		Programme	T9	
	Monitor	T10 T11	 	Monitor	T10		Monitor	T10 T11	 

Templates

Here you will find all the printable tool templates and materials referenced in the Urban Transformation manual. This will support your process towards designing, delivering and operating a successful Urban Transformation project.

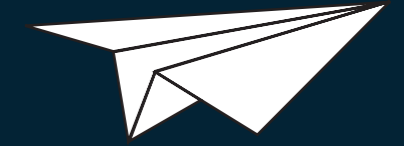


Table of tools

CODE	URBAN TRANSFORMATION TOOL	TEMPLATES	PRINT SIZE
STAGE 1: INITIATE			
T1	Neighbourhood Discovery Walk	T1.1 Site Map T1.2 Observation Checklist T1.3 Informal Interviews	A3 A4 A4
T2	Future Project Headlines	T2.1 Newspaper from the Future	A3
T3	Mapping Your Co-design Capability	T3.1 Engagement Skills Self-Assessment T3.2 Tools and Processes Skills Self-Assessment T3.3 Funding Skills Self-Assessment	A1 A1 A1
T4	Ecosystem Mapping	T4.1 Ecosystem Mapping	A1
T5	Power-Interest Matrix	T5.1 Power-Interest Matrix	A1
T6	Community Engagement Strategy	T6.1 Community Engagement Framework	A3
T7	Affinity Diagramming	N/A	N/A
STAGE 2: DESIGN			
T8	High-level Climate-risk Assessment	T8.1 Identifying and Prioritising Climate Hazards T8.2 Climate Design Interventions and Actions	A1 A1
STAGE 4: USE			
T9	Placemaking Strategy	T9.1 Placemaking Desired Impacts T9.2 Activation Strategy	A1 A1
T10	Evaluate Your Place	T10.1 Urban Transformation Assessment Wheel T10.2 Urban Transformation Assessment Questions	A4 A4
T11	User Observations and Contextual Interviews	T11.1 User Observations T11.2 Contextual Interviews T11.3 Consent Form	A4 A4 A4

Key point

Remember, you will generally only need pens, post-it notes and the printed templates to apply the tools (see table below for recommended print size). You are encouraged to use the materials that work best with your team - most tools and templates can also be easily adapted to be conducted digitally on-screen or on online platforms.



T1.1 Site Map

Preparation

1. Establish a team within your entity that will plan and ensure the outcomes of the tools within Stage 1 are executed until a design team is officially appointed.
2. Familiarize yourself with the neighborhood through desktop research: look into its history, heritage, culture, present and future challenges and current urban projects and initiatives.
3. Develop a physical map and itinerary that identifies diverse areas, including key landmarks, historical sites, community spaces and amenities within the neighborhood.
4. Invite local oral historians with deep knowledge of the area to talk to the project team during the walk.
5. Bring cameras, notebooks and pens/pencils to gather visual and written site data.

Method

1. Start by introducing the purpose and goals of the walk and give participants a map of the route.
2. Prompt participants to use the Observation Checklist (T1.2) to record their insights: ask them to consider often-overlooked narratives and make observations about the physical environment, architecture, public spaces, observed behaviors, community activities, and natural assets directly onto the map. Use the icons provided in the legend to help analyze and annotate the site.
3. Local experts and the project team share oral and local histories along the walk.
4. Encourage participants to use various methods such as photos, sketching or audio/video recording to document their findings.

Key point

When mapping out the walking route consider going past greenfield, brownfield sites and under-performing areas to get a sense of the local challenges and potential opportunities.



Entity name: _____

Project name: _____

Date: _____ Start time: _____ End time: _____

Placeholder for your neighbourhood map and walking route

Legend

- Landmark
- Key views
- Desire lines
- Barriers
- Character areas

T1.2 Observation Checklist

Entity name: _____

Project name: _____

Date: _____ Start time: _____ End time: _____

Observations	Y/N	Comments
Do you think the public space reflects the values and identity of the local culture e.g. local art symbols, elements, architecture, public art, preserving traditional skills etc.?		
Are there unique cultural influences, architectural styles and materials that are specific to the locality or region?		
Is the site connected to the wider area in any way? Through environmental networks, infrastructure systems (cycle or walking paths, drainage etc) or socio-economics?		
Does the area have a sense of collective pride and belonging?		
Are there spaces that enhance the quality of life and enrich well-being e.g. recreational spaces, promote active travel such as cycling and walking? Is there access to public transport?		
Are there places that feel unsafe and/ or feel inaccessible to all individuals? Dangerous crossings, lack of lighting, anti-social behaviour etc.		
Are there places that feel well-maintained and governed well?		
Are there spaces that are flexible and adaptable to accommodate a variety of programmes/ activations and consider seasonality?		
Are there any signs of environmentally friendly solutions? Does nature and ecology feel considered?		

T1.3 Informal Interviews

Entity name: _____

Project name: _____

Date: _____ Start time: _____ End time: _____

Method

1. Ask participants to conduct informal interviews with site users/ stakeholders along the walk and record their answers. Ensure consent is obtained: you can find a sample consent form in T11.3

User details	
First name	
Surname:	
Age:	
Gender:	
Lives where?	
Works where?	

Key point

Acknowledge subjective narratives, watch for biases, and remember that site tours capture just one moment in time. Prioritise being cultural sensitivity, respect privacy, and seek consent to avoid unintended pitfalls.



Questions	Answers and notes
How do you feel about this neighbourhood/site?	_____
Could you share the main challenges you experience? How they impact your daily life?	_____
In this neighbourhood/site, where do you see opportunities for improvement?	_____
How do you envision the near future of the area, in terms of changes or developments?	_____
Quotes	_____

Entity name: _____

Project name: _____

Date: _____

T2.1 Newspaper from the Future

Method

1. Hand each participant 2 copies of this template.
2. On one copy, ask participants to think about something they would like to happen or a positive news story that they would like to see about their neighborhood in 5 years.
3. Now, ask them to fill in each section (1-5) below.

4. Repeat step 1 and 2 on the second template copy, but this time ask participants to write a disaster news story about their neighborhood, set in the future.

5. Participants share their news stories in short presentations to the rest of the group.

1 The Headline

2 Subheading

4 Report

3 Sketch

5 Quote



Entity name: _____

Project name: _____

Date: _____

T3.1 Engagement Skills Self-Assessment

Method

1. In a small group (3-5 people), read and discuss your experience with the skills in column 1.
2. Together, score yourself in column 2. Refer to the Skill Level descriptions to help your self-assessment.
3. Provide at least one example as evidence that demonstrate the score you gave yourself in column 3. This may be a project example, a policy in your entity or the role and responsibilities of a specific team member.

4. Discuss the outcomes of your self-assessment within your group.

5. Collaboratively, use post-its to brainstorm how you could improve your capability of the four skills, starting with the lowest-scoring skills. Place your ideas in the Action Plan box at the bottom of the page.

1 Engagement Skills

Human-centred empathy and acknowledgement:
Demonstrates a human centred approach by acknowledging and respecting individuals as experts in their own lives

2 Score

- Novice
- Competent
- Expert

3 Evidence

Critical awareness and bias mitigation:

Identifies and challenges biases and assumptions, within oneself and others, fostering an inclusive and unbiased engagement process

2 Score

- Novice
- Competent
- Expert

Engagement barriers identification and removal:

Identifies and removes barriers to participation, encompassing cultural/practical aspects, thereby enhancing inclusivity

2 Score

- Novice
- Competent
- Expert

Relationship building and management:

Effective allocation of time and resources to develop and maintain relationships with the community

2 Score

- Novice
- Competent
- Expert

4 Action Plan

Skill level descriptions

Novice:
 - Basic understanding with limited experience
 - Needs step-by-step instruction and guidance
 - Working on development of fundamental skills

Competent:
 - Solid understanding with adequate experience
 - Navigates challenges and troubleshoots comfortably
 - Performs tasks independently with moderate proficiency

Expert:
 - Advanced knowledge and extensive experience
 - Innovates, teaches and capable of complex problem solving
 - Exhibits proficiency in the subject/skill



Entity name: _____

Project name: _____

Date: _____

T3.2 Tools and Processes Skills Self-Assessment

Method

1. In a small group (3-5 people), read and discuss your experience with the skills in column 1.
2. Together, score yourself in column 2. Refer to the Skill Level descriptions to help your self-assessment.
3. Provide at least one example as evidence that demonstrate the score you gave yourself in column 3. This may be a project example, a policy in your entity or the role and responsibilities of a specific team member.
4. Discuss the outcomes of your self-assessment within your group.
5. Collaboratively, use post-its to brainstorm how you could improve your capability of the four skills, starting with the lowest-scoring skills. Place your ideas in the Action Plan box at the bottom of the page.

1 Tools and Processes Skills 2 Score 3 Evidence

Utilises tools for effective stakeholder communication:
Strategic use of visual and tangible tools to enhance communication and collaboration with stakeholders

- Novice
- Competent
- Expert

Adaptive problem-solving and regular engagement improvements:
Identifies when desired outcomes are not being achieved through engagement in and creates space for new initiatives or responses

- Novice
- Competent
- Expert

Transparent and accountable communication:
Clear communication, with transparent, accountable actions, acknowledging input and recognising influence levels

- Novice
- Competent
- Expert

Prototyping:
Uses prototyping to test early ideas and experiments with the best ways to implement in practice

- Novice
- Competent
- Expert

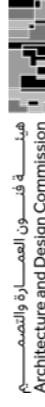
4 Action Plan

Skill level descriptions

Novice:
- Basic understanding with limited experience
- Needs step-by-step instruction and guidance
- Working on development of fundamental skills

Competent:
- Solid understanding with adequate experience
- Navigates challenges and troubleshoots comfortably
- Performs tasks independently with moderate proficiency

Expert:
- Advanced knowledge and extensive experience
- Innovates, teaches and capable of complex problem solving
- Exhibits proficiency in the subject/skill



هيئة فنون المعماري والتصميم
Architecture and Design Commission

Entity name: _____

Project name: _____

Date: _____

T3.3 Funding Skills Self-Assessment

Method

1. In a small group (3-5 people), read and discuss your experience with the skills in column 1.
2. Together, score yourself in column 2. Refer to the Skill Level descriptions to help your self-assessment.
3. Provide at least one example as evidence that demonstrate the score you gave yourself in column 3. This may be a project example, a policy in your entity or the role and responsibilities of a specific team member.
4. Discuss the outcomes of your self-assessment within your group.
5. Collaboratively, use post-its to brainstorm how you could improve your capability of the four skills, starting with the lowest-scoring skills. Place your ideas in the Action Plan box at the bottom of the page.

1 Funding Skills 2 Score 3 Evidence

Budget and funds management:
Secures funds and establishes resource structures to support safe, ethical, and inclusive engagement

- Novice
- Competent
- Expert

Fundraising for co-design outcomes:
Ensures that adequate funding is secured for both initial scoping and throughout the entire process to deliver outcomes

- Novice
- Competent
- Expert

Defining and measuring KPIs for success:
Incorporates stakeholder/community-defined positive impact metrics into the measurement of success

- Novice
- Competent
- Expert

Adherence to governance models:
Co-develops and continuously improves governance models and support structures for community participation, with the community

- Novice
- Competent
- Expert

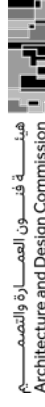
4 Action Plan

Skill level descriptions

Novice:
- Basic understanding with limited experience
- Needs step-by-step instruction and guidance
- Working on development of fundamental skills

Competent:
- Solid understanding with adequate experience
- Navigates challenges and troubleshoots comfortably
- Performs tasks independently with moderate proficiency

Expert:
- Advanced knowledge and extensive experience
- Innovates, teaches and capable of complex problem solving
- Exhibits proficiency in the subject/skill



هيئة فنون المعماري والتصميم
Architecture and Design Commission

T4.1 Ecosystem Mapping

Method

- The top half of the Ecosystem Mapping circle organizes potential stakeholders into 4 groups (i) Users of the space i.e. residents (ii) Non-profits/ charities (iii) Institutions and Businesses i.e. libraries and local businesses (iv) Governmental i.e. transport planning agency/ well-being agency.
- Write one potential stakeholder per post-it note that may have an interest or be impacted by your project in some way, then add names of organizations and individuals under each of the 4 groups.
- The bottom half of the circle represents four levels of interventions i.e. small vendors that are set up near your space or a large cultural festival that runs in the neighborhood. Write one current or future initiative per post-it note that may have influence or be of interest to your project. Assign each post-it to one of the four levels of intervention. It is important to consider local volunteer groups, or relevant events-based institutions such as museums, theatre, sports, etc. You will likely want to partner with them to activate your space later on.
- Share back results with the wider group to ensure all relevant stakeholders and initiatives have been captured.
- Take a photo of the activity page to document the result.

Prompts

What are the social structures in the neighborhood? Who are the most influential families?

Who can we collaborate with? Who can provide us with valuable ideas?

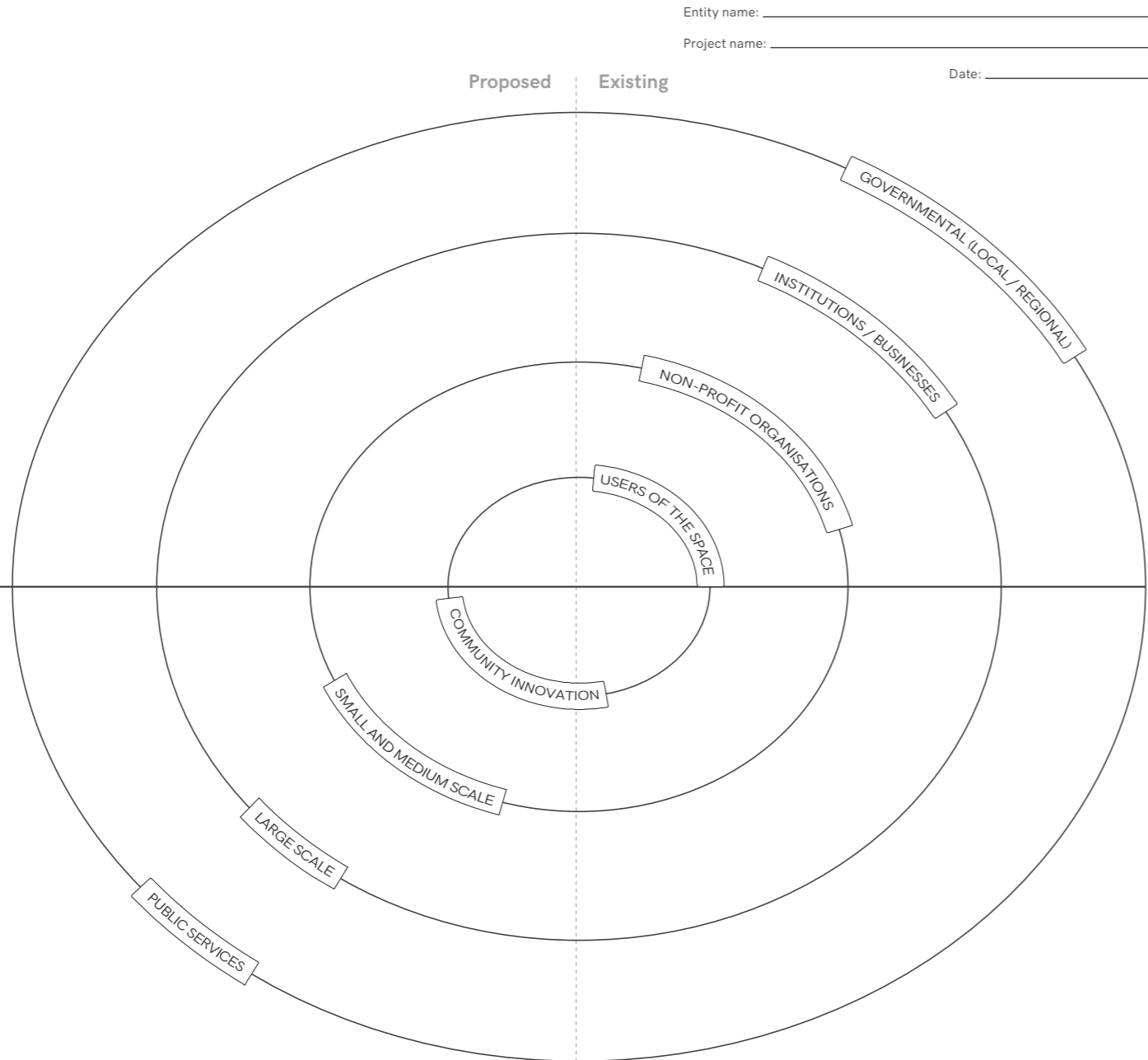
Who might block or resist the project, and for what reasons?

Who needs a voice on this project?

Consider local volunteer groups, or relevant events-based institutions such as museums, theatre, sports, a small vendor that is set up near your space or a large cultural festival that runs in the neighborhood.



Stakeholders
Initiatives



T5.1 Power-Interest Matrix

Method

- Map the stakeholders identified in T4 by using post-it notes and add them to the power/ interest graph. There are 4 quadrants in the matrix as follows:

- High Power/Low Interest** (top left corner): Stakeholders with significant influence but whose interests are not the focus. Handle carefully to avoid potential risks; they may act as "deal breakers."
- High Power/High Interest** (top right corner): Stakeholders of high interest and influence in the activity. Build strong relationships for effective support and success.
- Low Power/Low Interest** (bottom left corner): Low-priority stakeholders requiring limited monitoring or basic updates. Keep them informed, as their status may evolve over time.
- Low Power/High Interest** (bottom right corner): Stakeholders with high interest but limited influence. Special attention needed to protect their interests.

- Prioritize key stakeholders by drawing a star on the post-it note. Be strategic and clear about whom you would like to prioritize engaging with and why.
- After you finish the exercise, you should describe the actions proposed for the management of each group.
- Take photos of the final output of the activity
- Input or register your results and findings into your data management system.

Prompts

What power and influence does each stakeholder have? Would they oppose or support your project?

What are the barriers for these stakeholders to fully support or participate in reaching the projects goal? What are the benefits if they do?

How do you engage with stakeholders who are difficult to reach?



Power
(Decision-making)

High
Medium
Low



Entity name: _____

Project name: _____

Date: _____

T6.1 Community Engagement Framework

1 Power interest

Tick which power-interest quadrant this stakeholder/group of stakeholders fell under, as based on T5.1 results.

- Low Power-Low Interest
 Low Power-High Interest
 High Power-Low Interest
 High Power-High Interest

3 Stakeholder Participation Goal

Set out your commitment to your stakeholders to ensure transparency. Carefully choose the most appropriate goal for each stakeholder informed by the Participation Spectrum table (page 56) and refer to the results of T5.1 Power-Interest Matrix.

Then, tick all the Engagement Levels that apply to this particular stakeholder (tick as many as needed).

For each Engagement Level selected, tick the communication

Inform

To provide balanced and objective information to assist stakeholders in understanding the problem, alternatives, opportunities and/or solutions.

Consult

To obtain stakeholder feedback on analysis, alternatives and/or decisions.

Involve

To work directly with stakeholders throughout the process to ensure that stakeholder concerns and aspirations are consistently understood and considered.

Collaborate

To partner with stakeholders in each aspect of the decision including the development of alternatives and the identification of the preferred solution.

Empower

To place final decision-making in the hands of the public.

Guided walks (shared walk)
 Events (learning events)
 Learning events
 Information centres
 Personal communication
 Newsletters and fact sheets
 Newspaper articles
 Project progress reporting
 Mass communication
 Websites and social media posts
 Others: -----

Community council
 Public inquiries/hearings
 Informal conversations
 Advisory panel
 Feedback kiosks
 Surveys / opinion polls
 1:1 interviews
 Field observation
 Transcriptions of audio recordings
 Hotline/ phone in
 Online surveys
 Digital data analysis
 Social media opinion polls
 Others: -----

Community workshops
 Map-making
 Focus groups meetings
 Crowd-sourcing ideas
 Deliberate polling
 Walking audits
 Creative workshops including art and photography
 Gamification
 Digital map-making platforms that capture citizen-created data, stories, etc.
 Digital crowd-sourcing for name ideas
 Grievance mechanisms (online complaints to Municipality)
 Others: -----

Design competitions
 Design Charette
 City week festival
 Co-design workshops
 Games
 Planning for Real
 Virtual reality and augmented reality pop-ups
 Others: -----

Referendums
 Crowd-funding
 Participatory budget
 Citizen juries
 Tactical urbanism
 Youth empowerment initiatives
 Virtual training and capacity building workshops
 Others: -----

Stage: ---
 Stage: ---
 Stage: ---
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Stage: ---
 Stage: ---
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 Stage: ---
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 Stage: ---

Stage: ---
 Stage: ---
 Stage: ---
 Stage: ---

Once off
 Bi-weekly
 Monthly
 Quarterly
 Yearly
 At every project milestone
 Other: -----

Once off
 Bi-weekly
 Monthly
 Quarterly
 Yearly
 At every project milestone
 Other: -----

Once off
 Bi-weekly
 Monthly
 Quarterly
 Yearly
 At every project milestone
 Other: -----

Once off
 Bi-weekly
 Monthly
 Quarterly
 Yearly
 At every project milestone
 Other: -----

Once off
 Bi-weekly
 Monthly
 Quarterly
 Yearly
 At every project milestone
 Other: -----

Entity name: _____

Project name: _____

Date: _____

2 Stakeholder Name

Write the name of the stakeholder/grouped stakeholders on the dashed line below:

Entity name: _____

Date: _____

Project name: _____

T8.1 Identifying and prioritizing climate hazards

1 Hazard classification cheat sheet

Split the into groups of 3-5 people. Begin by understanding the extensive list of the many climate hazards that can affect our regions, cities and neighborhoods from the table below.

HAZARD GROUP	HAZARD (Abbrev)	CITY CLIMATE HAZARD (TYPE)	CITY CLIMATE HAZARD (SUB TYPE)	RELATED CLIMATE-HAZARDS
Meteorological	Extreme temperature - hot	Heat wave	High air temperature, increased humidity, lack of night time cooling	Desertification
	Wild fire	Extreme fire weather	High fire risk, low humidity, low wind, low cloud cover, tropical storms	Chemical change
	Wind	Storm surge	Storm surge, heavy snow	Insects and micro-organisms
	Lightning	Thunderstorm	Thunderstorm, hail	Wild fire
Climatological	Water scarcity	Drought	Lack of precipitation and excessive evaporation, low humidity, low cloud cover	Flood
	Wild fire	Forest fire	High fire risk, low humidity, low wind, low cloud cover	Drought
	Desertification	Soil erosion	Low precipitation, high evaporation, low cloud cover	Water scarcity
	Rockfall	Rockfall	High precipitation, high humidity, low cloud cover	Subsidence
Hydrological	Flood	Flashflood, river flood	High precipitation, high humidity, low cloud cover	Subsidence
	Wave action	Storm surge	Storm surge, heavy snow	Subsidence
	Chemical change	Acid rain	High precipitation, high humidity, low cloud cover	Subsidence
	Sea level rise	Sea level rise	High sea level, high humidity, low cloud cover	Subsidence
Geophysical	Mass movement	Rockfall	High precipitation, high humidity, low cloud cover	Subsidence
	Subsidence	Subsidence	High precipitation, high humidity, low cloud cover	Subsidence
Biological	Insects and micro-organisms	Insects and micro-organisms	High precipitation, high humidity, low cloud cover	Subsidence
	Extreme temperature - hot	Heat wave	High air temperature, increased humidity, lack of night time cooling	Subsidence

2 Identify climate hazards

Use the Hazard Classification cheat sheet to identify all relevant hazards which impact your city (regardless of the severity, intensity, probability and timescale).

Write answers down and add it to the space provide below.

3 Cluster and begin to prioritize climate hazards

Cluster the individual hazards identified above in (2) into groups with similar or common themes. Create no more than 2-3 groups. To get you started, in practice, hazards in cities tend to be grouped into four common themes, for example: heat, drought, flood or storm.

Within your group, prioritize which are the climate hazard themes with the most importance to your project.

Entity name: _____ Project name: _____

Date: _____

T8.2 Climate design interventions and actions

1 Mitigate identified priority hazards

Select 2-3 priority themes from (3) and rank them in order of greatest priority in the spaces provided below.

Inside the boxes, brainstorm design interventions that might help mitigate these climate hazards. Use the UT Manual from STAGE 2: DESIGN / INTEGRATE from page 86 onward to get more ideas. Sketch/illustrate or write onto post-it notes specific design solutions for each priority theme.

Priority Theme 1: _____

Priority Theme 2: _____

Priority Theme 3: _____

2 Planning action to climate hazards

Map the design interventions identified in (1) above onto the provided project timeline below.

- Consider which interventions can be implemented in the short term?
- Do some of the interventions require investment over the long-term but could still be actioned sooner e.g. planning trees?
- Which ones will take the longest to deliver?



3 Locate Climate Design Interventions on your site

On the plan or aerial of your site draw or add post-it notes of where the identified design interventions from Activity 1 could be located in relation to your site.

Placeholder for your printed site plan/ aerial map

Entity name: _____ Project name: _____

Date: _____

T9.1 Placemaking desired impacts

1 Primary drivers

Begin by reviewing the site boundary and your findings from T4 Ecosystem Mapping. In a short sentence define the primary drivers for this Urban Transformation. What were the reasons your Entity developed this site? Place a post-it below with your answers.

2 Exploring desired impacts

Brainstorm with your team to think of all the desired impacts you would like to achieve by activating this place. Structure your thinking through the three Step Urban Transformation lenses: Cultural continuity, Sustainable spaces, and Community-oriented impacts. Refer to the listed topics below under each title for prompts and ideas and tick the ones that are relevant or add your own in the spaces provided.

Desired impacts

Cultural continuity	Sustainable spaces	Community-oriented
<input type="checkbox"/> Celebrates heritage <input type="checkbox"/> Weaves in history <input type="checkbox"/> Showcases local talent <input type="checkbox"/> Raises cultural awareness <input type="checkbox"/> Creates bonds <input type="checkbox"/> Original interpretation of Art and culture	<input type="checkbox"/> Low resource consumption <input type="checkbox"/> Boosts local economy <input type="checkbox"/> Nature positive events <input type="checkbox"/> Champions climate <input type="checkbox"/> Smart waste solutions <input type="checkbox"/> Economically sustainable Revenue	<input type="checkbox"/> Improves health/well-being <input type="checkbox"/> Inclusive to all <input type="checkbox"/> Participatory programming <input type="checkbox"/> Encourages walkability <input type="checkbox"/> Responds to context and Community voices

Observed trends

Positive impact	Negative impact
_____	_____

3 Observed trends in the community

Reflect on observed trends in the community through each lens. What are relevant behaviors and indicators that you have seen that you would like to expand on? What are common themes that you could capitalize on? Do the trends have a positive or negative impact? List them accordingly in the area provided.

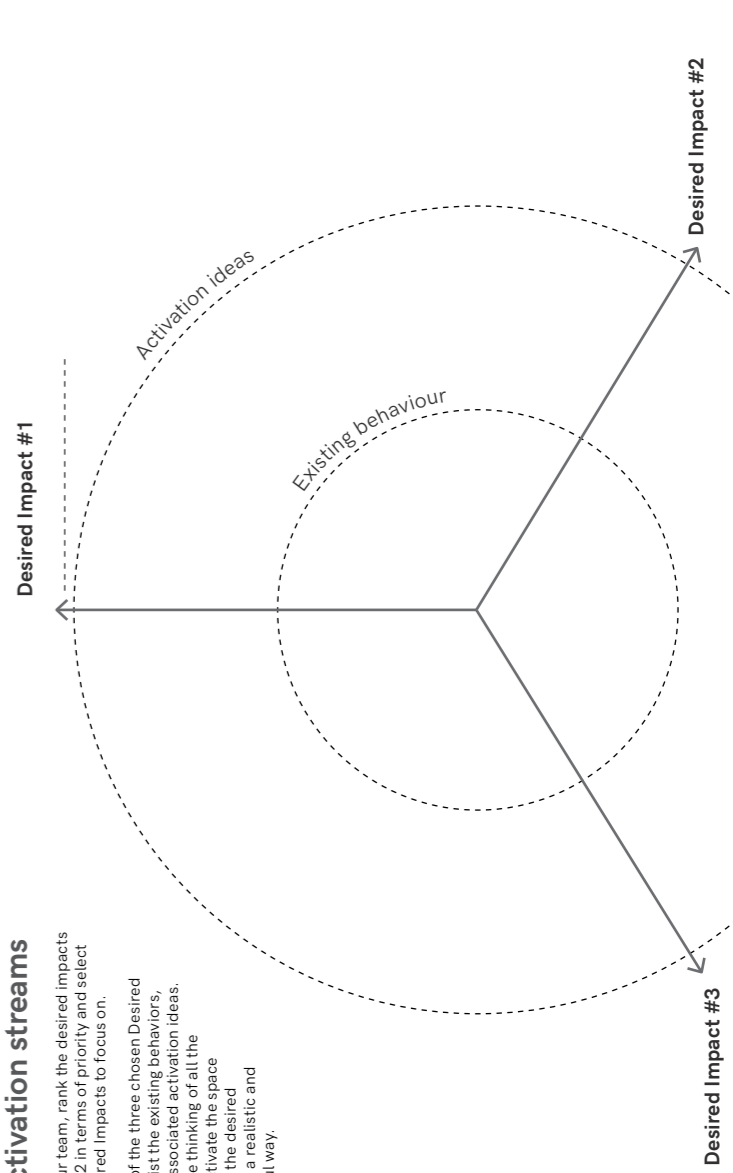
Positive impact	Negative impact
_____	_____

Positive impact	Negative impact
_____	_____

4 Activation streams

Within your team, rank the desired impacts from step 2, in terms of priority and select three Desired Impacts to focus on.

For each of the three chosen Desired Impacts, list the existing behaviors, then the associated activation ideas. Spend time thinking of all the ways to activate the space to achieve the desired impacts in a realistic and meaningful way.



Entity name: _____ Project name: _____

Date: _____

T9.2 Activation strategy

Once you've completed T9.1 and you have identified the Desired Impacts and the activation ideas, follow that with developing a bespoke programming strategy unique to your site.

1 Activation Streams

Fill in the programming sheet outlining the activation streams that you would like to focus on. These are the ones you came up with in the last task from T9.1. We recommend four Activation Streams as a minimum to start. You can always do more depending on your site.

2 Programming plan

Develop the programming plan to fill in event times, frequency, site location, partnerships and financing.

Activation Stream #1

Activation Stream #2

Activation Stream #3

Activation Stream #4

Timeframe & Frequency: How often will this event take place? When in the calendar year? Day or night? How frequent will they be?

Four empty rounded rectangular boxes for Timeframe & Frequency.

Target Audiences: Which groups or communities will be the focus of this event? Reflect on the communities you listed in T4.1 and ensure you have inclusively and comprehensively covered your communities in this Strategy.

Four empty rounded rectangular boxes for Target Audiences.

Site Activation: Which zones of your site will this event activate? Be specific in choosing locations that are suitable and accessible for the event. Refer to your site plan.

Four empty rounded rectangular boxes for Site Activation.

Partnerships: Which partnerships and relationships do you need to achieve this event successfully? Are there new relationships that you need to establish?

Four empty rounded rectangular boxes for Partnerships.

Financing Streams: What are the financing sources that will cover the costs of this event? How are they secured?

Four empty rounded rectangular boxes for Financing Streams.

3 Placemaking strategy

In the Placemaking Strategy, summarize your project drivers, key Desired Outcomes and Activation Streams, any placemaking guidelines and values and principles that are specific to your site. Communicate this clearly with your stakeholders and communities.

Project drivers

Placemaking guidelines, values and principles

Desired outcomes

Activation streams

Entity name: _____

Project name: _____

Date: _____

Date: _____ Start time: _____ End time: _____

T10.1 Urban Transformation Assessment Wheel

1. Begin by observing, listening, interacting and experiencing the site with all your senses.
2. Using the UT Assessment Wheel, evaluate your observations and benchmark the site against the three UT objectives, which are broken down into 9 qualities and 18 metrics. Use the dashed line provided to score the metric performance either: H (High), M (Medium) or L (Low).
3. Use the score descriptions listed below to support your evaluation.



Metric performance descriptions

Low:

- Suboptimal performance
- Does not meet expectations, and requires significant improvements to align with UT objectives

Medium:

- Demonstrates satisfactory performance
- Meets baseline expectations, up to a reasonable standard

High:

- Exceptional performance
- Exceeds expectations and achieves optimal results achieving long term impact on UT objectives

Entity name: _____

Project name: _____

Date: _____ Start time: _____ End time: _____

T10.2 Urban Transformation Assessment Questions

1 Cultural Continuity Assessment

Safeguarding Heritage

How does the design incorporate and preserve traditional skills, knowledge and ,craftsmanship, while also weaving in meaningful elements, structures, and narratives from the past to create a sense of continuity?

Cultural Awareness

How has the design integrated culturally significant elements, symbols, and traditions of the area and its people? Are all aspects of the design purposeful, aligned with the project's objectives, and enhance functionality and aesthetics?

Spirit of Place

How does the design reflect and honour the qualities, character, and aspirations of local communities while also interpreting traditional and local cultural design in a contemporary manner?

Entity name: _____

Project name: _____

Date: _____ Start time: _____ End time: _____

T10.2 Urban Transformation Assessment Questions (cont.)

2 Community-Oriented Assessment

Healthy Environments

How does the design promote active lifestyles, enhance the physical and psychological health of its users, and deliver inclusive spaces that are safe, secure, and accessible to all users, regardless of age or ability?

Equitable Spaces

How does the design cultivate a sense of collective pride, belonging, and shared responsibility amongst its users? To what extent has the project embraced the voices and agency of local communities, challenging traditional notions of expertise?

Contextual

How does the design integrate buildings, infrastructure, and nature? Does it successfully connect to the broader environmental, socio-economic, and spatial context, including infrastructure and communities? How and where is this demonstrated?

Entity name: _____

Project name: _____

Date: _____

Start time: _____

End time: _____

T10.2 Site Assessment (cont.)

3 Sustainable Spaces Assessment

Environmental Resilience

How does the design contribute to ecological value, biodiversity increase, and ecosystem restoration while also minimizing resource consumption and carbon emissions throughout the lifecycle of the space?

Responsive Design

How effectively does the design simultaneously demonstrate economic, environmental, and social adaptability while promoting experimentation, testing, and informed decision-making within an ever-evolving context?

Future-proofed

How does the design responsibly apply technology to enhance the experience and performance of the space? Is there evidence of an established, effective governance model for the collective management and long-term sustainability of the space?



Entity name: _____

Project name: _____

Date: _____

Start time: _____

End time: _____

T11.1 User Observation

1 Quantitative observation

Tick your approximations of the perceived utilisation, visitor types and gender of users.

Perceived utilisation of the space:

Low

Medium

Full

Main visitor types:

Couples

Families

Groups

Single visitors

Predominant gender:

Mostly women

Mixed

Mostly men

Circle your approximations of the activities and demographics, and their approximation in percentage.

Activities and demographics	Approximation in percentage					
% That are sitting	0	1-20	21-40	41-60	61-80	81-100
% That are standing	0	1-20	21-40	41-60	61-80	81-100
% That are walking	0	1-20	21-40	41-60	61-80	81-100
% That are children (under 13 years old)	0	1-20	21-40	41-60	61-80	81-100
% That are teenagers (13-19 years old)	0	1-20	21-40	41-60	61-80	81-100
% That are adults (20-60 years old)	0	1-20	21-40	41-60	61-80	81-100
% That are older adults (61+ years old)	0	1-20	21-40	41-60	61-80	81-100

2 Qualitative observation

Answer the questions below in the space provided.

1. What are people doing?

2. Which objects or items are people interacting with?



Entity name: _____

Project name: _____

Date: _____ Start time: _____ End time: _____

T11.1 User Observation (cont.)

3. What is the atmosphere like? What are the interactions like between people?

4. Where are people congregating at within this public space?

Entity name: _____

Project name: _____

Date: _____ Start time: _____ End time: _____

T11.2 Contextual Interviews

Introduce yourself. Describe the project. Ask for 5 minutes and apologize for any disruptions.

1. Can you tell me what you are doing here today?

2. Why did you choose to visit this place today?

3. How long do you plan to stay here for?

<1 hour 1 hour 1-3 hours 3+ hours

4. Which times of the day do you enjoy visiting this place?

Morning Afternoon Evening Doesn't matter

5. How often do you visit this place each month?

1x per month 2-4 times 5+ times First time

A. Which public spaces similar to this, do you visit?

6. If a foreigner was visiting the country, would you encourage them to visit this site?

Yes No Depends

7. What do you love about this public space?

8. What would you change about this public space?

Entity name: _____ Project name: _____

Date: _____ Start time: _____ End time: _____

T11.3 Consent form

Use the following template to request consent for pictures or quotes from site users, community members or stakeholders.

Interview / Photography Consent Form

This is a consent form for photos, film, voice recording or interviewing for the activities below.

To be filled by project team

Entity name: _____

Project name: _____

Location: _____

Date: _____

_____ **[Name of project lead]** produces a range of communications resources to share publicly the experiences of the participants, partners and stakeholders who are using our services. This helps to demonstrate the changes and the impact of _____'s **[Name of project leads]** work on the ground. By completing this form, you confirm that they can use your photo, interview, quotes, film and voice recording for research and communications activities.

To be filled by participant, partner or stakeholder

Participant's full name: _____

Signature: _____

Date: _____

[Optional: Parent/Guardian Signature for participants under 18 years old]

Parent/Guardian's full name: _____

Signature: _____

Date: _____

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