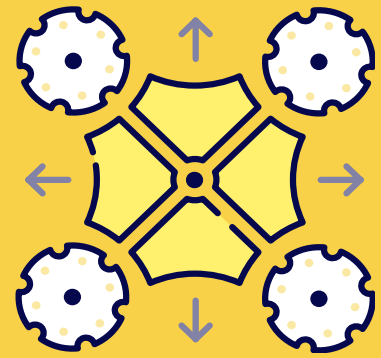




**Creating a
Plan for Growth**

Step 2

Key Concepts

STEP 1

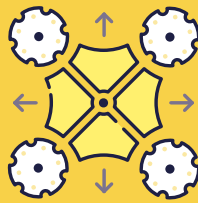
Writing a Charter for Growth



- 1A** Making the case for the 'Rapid Plan'
- 1B** The Charter workshop
- 1C** Consulting the public on the Charter

STEP 2

Creating a Plan for Growth



- 2A** Preliminary mapping
- 2B** Creating a Rapid Growth Plan
- 2C** Structuring the growth areas

STEP 3

Implementing the Plan



- 3A** Identifying landowners & occupants
- 3B** Finalising the plan
- 3C** Demarcating the plan on the ground

STEP 4

Building the Neighbourhoods



- 4A** Preparing for the workshops
- 4B** Neighbourhood workshop
- 4C** Concept designs workshop

STEP 2

Creating a Plan for Growth



Through a series of workshops involving mapping exercises, Step 2 will help you to create a Rapid Growth Plan, identifying where growth can take place and guiding future development to meet the requirements set out in Charter.

At the end of Step 2 you will have a **Rapid Growth Plan** that identifies potential growth areas around your city, and a **Key Fixes Plan** to develop one growth area in Step 3

2A

Preliminary Mapping

- Create a coordinated series of maps that will provide a detailed picture of your city's assets and constraints.

2B

WORKSHOP

Creating a Rapid Growth Plan

- identify potential areas for expansion of your city, ensuring enough land to meet the projected population growth,
- Create a Growth Area Options Plan that will guide how your city expands over the next 20 years.

2C

WORKSHOP

Structuring the growth areas

- Understand the assets and constraints in detail for one growth area,
- Undertake a site visit and design workshop,
- Structure the growth area into neighbourhoods centred around an urban core.

Step 2

Key Concepts

Introduction & Aims

The Key Concepts section provides additional information that may help you to implement the activities and tasks in Step 2 of the Rapid Planning Toolkit.

You can revisit these topics at any point during implementation.

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Key Concepts for Creating a Plan for Growth

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References and further reading

Key Concepts

Section i

Section i

The basics of mapping

Mapping is an important tool to visually illustrate information about your town or city and plans for future development.

In Step 2 of the Rapid Planning Toolkit, you will be required to create several maps at different scales, from the city level to the neighbourhood level, so it is important that you have a basic understanding of how to read and interpret maps.

Step 2A, 2B and 2C will guide you through a series of mapping activities. This section, however, will provide a more foundational introduction to mapping, to help you prepare for the Step 2 implementing activities, if you require it.

This section will help you to:

- Recognise how to read maps to scale,
- Interpret mapping layers,
- Identify where to obtain information for mapping.

This section has three parts:

1. How to read maps and spatial plans
2. Mapping layers
3. Where and how to obtain information

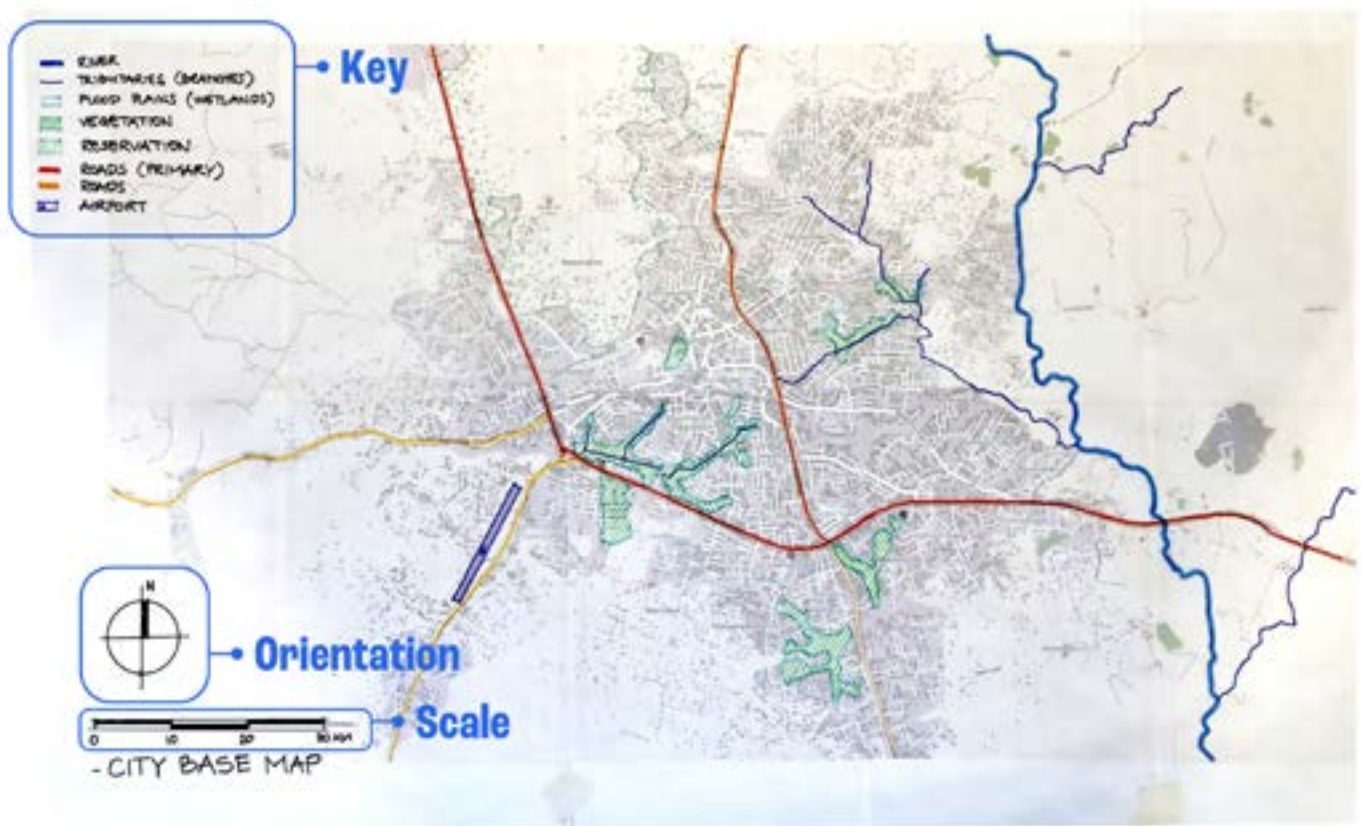
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Step 2 Key Concepts - Section i - **Part 1**

How to read maps and spatial plans

Maps and plans can be used to convey information about a city or urban area, and will often accompany planning documents. The basic elements to read, understand and convey information in a map or spatial plan are outlined here.



Step 2 will involve producing a number of maps and plans to understand and display key elements of information in your city. If you are unfamiliar with reading and producing maps, you will need to understand these basic components of maps and plans.

The image shows an example of a completed mapping exercise for Step 2, with the essential components needed to read and understand a map: a key, orientation, and scale.

Orientation

A map should always indicate its orientation, and this is typically done using a North point arrow. Most maps will be orientated due north, but if they are aligned differently, which may be the case simply to fit better onto a page, an arrow should be drawn directing North, and labelled with an 'N' to clarify its orientation.

Although the North arrow is a near universal symbol used on modern maps, there may be some instances where it is appropriate to orientate using other points of direction that are of significance in your culture, such as Mecca.

Key and Labels

In addition to a map title, which should indicate the location and the type of information displayed on the map, a key, or legend, should be used to explain any colours, hatches or lines. Road names, place names and buildings of significance may be labelled in the map.

Scale

It is important that plans are drawn to scale so that distances and areas on the plan accurately correspond to distances and areas on the ground.

The printing process may distort the scale used, hence it is particularly important that the scale of the plan is clearly marked.

The scale may be communicated with a labelled scale bar or indicated on the document as a ratio such as 1:X e.g. 1:500. This means that every 1 unit of measurement on the plan represents 500 units on the ground. So a distance of 1mm on the plan represents an actual distance of 500mm. Different scales are used to display different levels of information, from strategic masterplans to building plans.

- **1:250,000 – 1:10,000** This scale may be used to show a plan of entire regions and cities.
- **1:50,000 – 1:1,000** This scale may be used for plans of cities, districts and neighbourhoods.
- **1:2,000 – 1:500** This scale may be used to show site layouts and plots.
- **1:250 – 1:100** This scale may be used to show interior layouts of buildings and landscaping features.
- Smaller scales are more likely to be used for detail and technical drawings.

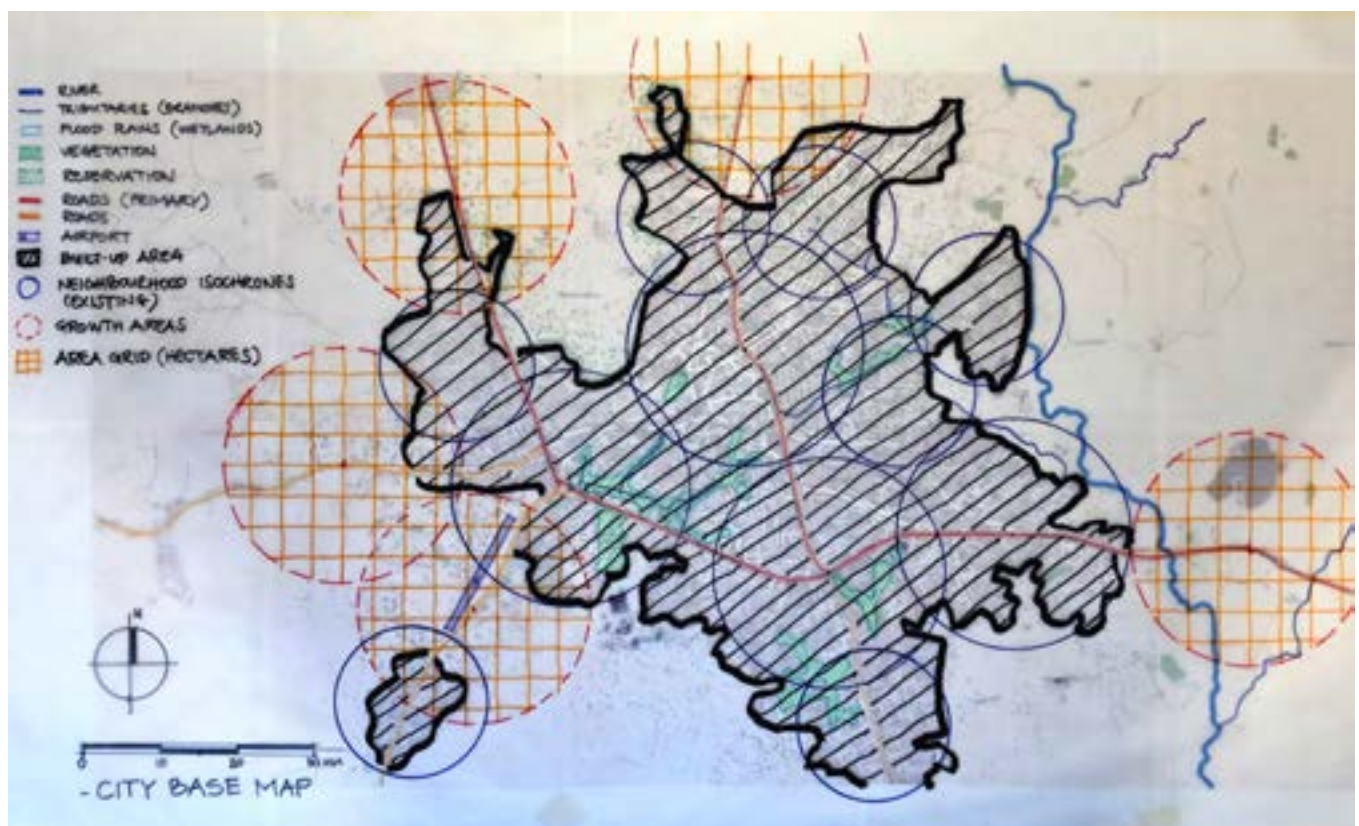
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Step 2 Key Concepts - Section i - **Part 2**

Mapping layers

An important feature of a map is that it allows us to view different 'layers' of information together, which helps us to understand the many different functions and activities of a place. In order to be able to read these layers at the same time without confusion, it is necessary to somehow differentiate one layer from another.



In Step 2, you will map different layers of information for your city and growth area, that include:

- Geographical features such as waterways, forests, swamps etc,
- Constraints such as conservation or protected areas;
- Transport and utility networks;
- Existing urbanised areas;
- Potential growth areas.

The image shows an example of a Rapid Growth Plan, the output of Step 2B, and how numerous layers of information have been communicated in one image.

Here are some suggestions of how you could differentiate layers of information on the maps and plans you will produce in Step 2.

Line type and thickness

Variation of line type and thickness can convey a large amount of detail using a single colour, and can differentiate major, permanent, physical objects from minor, temporary or non-physical attributes.

For example, a building outline may be shown in a thick solid outline, whereas a building canopy or underground structure may be shown in a dashed line to show that it is hidden or on a different level. A much thinner solid line might indicate finer detail, such as a level difference or road outline, and a thin dashed or dot-dashed line might be used to show a non-physical entity such as a plot boundary.

Colour

Colour is a good way to highlight particular elements of information. Commonly, blue is used to identify bodies of water and green to identify areas of greenery and landscape.

Within this, shades and strengths of colours can differentiate further within these layers, for example to identify different types of green spaces.

Contrasting colours, along with a key, can communicate large amounts of information, for example a network of roads with highways, residential streets and footways differentiated.

Any combination of colours available can be used, but generally speaking, shades of red will stand out the most and provide the most opportunity for contrast.

Fills and hatches

Areas filled with colour or hatches, made up of lines, dots or other patterns, can be layered over lines to identify and differentiate different areas, for example in a land use plan.

Where areas are large and a block colour would be to overwhelming, a hatch may be more appropriate, and save on ink.

Icons and symbols

Some universally recognisable icons are often used to identify particular buildings or facilities, for example, an airplane, train or boat icon to denote a particular transport facility.

In addition, it may be common to use a letter, such as 'P' to denote parking. Where icons and symbols are not clearly identifiable, a key can be used to explain its meaning.

Labels

In some instances, labelling a place name is appropriate. For example, providing road names and some place names can help the reader better orientate themselves.

Labelling an item also helps to communicate a key element, or simply to avoid confusion. When labels are used, it is important that they are large enough to read, but not so large that they cover or block other important information.

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Step 2 Key Concepts - Section i - **Part 3**

Where and how to obtain information

When creating maps, you will need to find information that is up to date and complete for the area in question. Depending on where you are located, the availability of up to date mapped information will vary, so you may need to explore a variety of potential sources.

Online desk research

You can begin with some online research, which may yield helpful information. Data from Google maps or Open Street Map or other online maps may help you identify basic components of your city, such as the road network and distribution of buildings.

If available, aerial or satellite view can also help to identify geographical features, outdoor public spaces or key sites. In some locations, there may also be detailed information regarding building use, facilities and services in your city.

Online research, along with your local knowledge may be enough information to start mapping. Make informed estimations where necessary, and verify these as you go along and gain further information.

Libraries or archives

Libraries and local authority archives may have mapped information available, and this may be particularly useful to identify details of infrastructure and utility information. They may also have Ordnance Survey data, with detailed geographical and topographical information.

The maps that you will create in Step 2 may not need to be as detailed as these, but if these are available, they would be useful resource to check and verify information.

Service providers

Some operators or service providers may produce informational packages, such as bus routes or train maps. Utility providers may also be able to provide information on servicable areas. If these are available, they will help to build up the picture of what services are available in your area.

In person research

When in doubt, the most useful course of action may be to conduct a site visit, taking pictures to document the area, or interviewing local people.

You would not be required to do this for the entirety of your city, but you may find it useful to do in some strategic areas if information is missing or severely outdated.

A site visit will be done as part of Step 2C to find out information before completing the planning and design activities in this workshop.

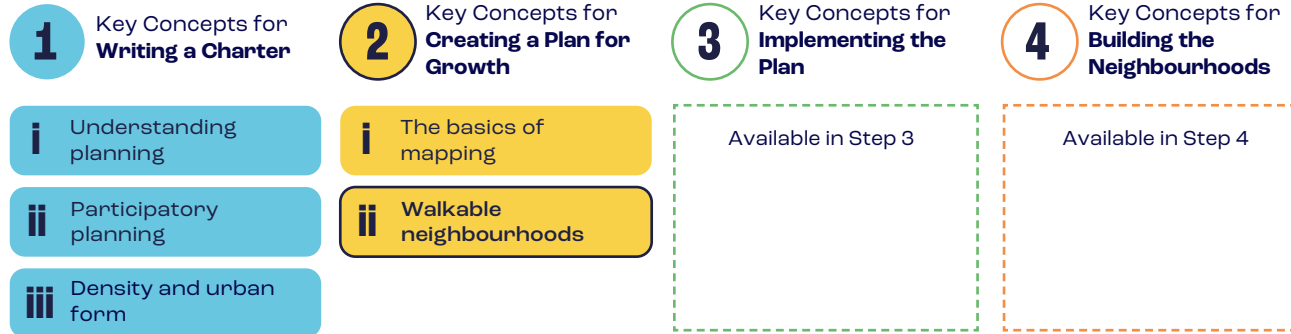
Creating a Plan for Growth

Step 2 Key Concepts



Images: Workshop participants conducting a site visit in Sierra Leone.

Key Concepts



2

Key Concepts for Creating a Plan for Growth

i

The basics of mapping

ii

Walkable neighbourhoods

- Part 1: What is a walkable neighbourhood?
- Part 2: What are the benefits of a walkable neighbourhood?
- Part 3: How to achieve a walkable neighbourhood



Additional resources

Key Concepts

Section ii

Section ii

Walkable neighbourhoods

In Step 2B and 2C, following a series of mapping tasks, you will determine potential growth areas to accommodate the population increase that you calculated in Step 1, and you will proceed to structure one of these growth areas into neighbourhoods.

The activities in Step 2B and 2C will guide you in planning for walkable, mixed use neighbourhoods.

This section of the Key Concepts will provide background information about what we mean when we refer to a walkable neighbourhood, why they are important and how you can plan for healthy neighbourhoods in your city as part of your Rapid Plan.

Completing this section should help you to:

- Describe what a walkable neighbourhood is,
- Identify the benefits of a walkable neighbourhood,
- Recognise how a walkable neighbourhood could be achieved.

This section has three parts:

1. What is a walkable neighbourhood?
2. What are the benefits of a walkable neighbourhood?
3. How to achieve a walkable neighbourhood

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Step 2 Key Concepts - Section ii - **Part 1**

What is a walkable neighbourhood?

Walkable neighbourhoods are compact urban settlements centred around core community facilities and mixed use areas, ensuring that the needs of citizens are provided for within their local area.

Creating walkable neighbourhoods involve planning for an appropriate mix of uses and facilities, and designing safe routes for pedestrian and cyclist travel, as well as routes for vehicles and public transport.



Sprawling settlements

- Zoned single uses
- Lack of pedestrian connections creating car dependency

versus

Walkable neighbourhood

- Integrated uses
- Formation of streets to encourage walking

Historically, urban settlements have been designed at a scale that is well suited for pedestrians, as, until recent times, walking has been the most common method of travel for citizens.

Since automotive technology has advanced, allowing vehicle travel options to become commonplace and affordable, this has been reflected in the greater size, scale and distance of new development, which is no longer designed around walking as the dominant means of travel. Sprawling cities and urban settlements mean that citizens are dependent on using vehicles to meet their daily needs.

The negative consequences of urban sprawl include:

- Citizens are required to travel much further distances on a regular basis, which is costly and unfairly disadvantages poorer citizens that may not own private vehicles.
- Globally, there is an environmental cost of using petrol and diesel, as well as the resultant effect of an increase in air pollution locally.
- Streets, which play an important role as part of the public realm and place of community mixing, are instead used predominantly for the movement of traffic and can be hostile and dangerous spaces for those not using vehicles.
- Large quantities of land are required for vehicle parking, which can dominate city centres and streets.
- Highways and busy roads create barriers that divide communities and neighbourhoods.
- Rapid expansion is perpetuated, using more and more land, less efficiently than compact walkable neighbourhoods.

The walkable neighbourhood aims to tackle these issues by ensuring a pedestrian-friendly approach to development, whilst planning appropriate movement and access routes for vehicles.

A walkable neighbourhood is designed to be compact, rather than sprawling, and centred around hubs of local activity, workplaces, retail and community uses. This means that it should be possible for residents to meet most of their daily requirements and activities without the need to travel long distances using a private vehicle.

Reflection questions

- Take a moment to think about whether you can undertake most of your daily requirements and activities within a 15-minute walk or bike ride. Can you walk to work/school/a park/shops/doctor/dentist, etc.?
- Make a list of your daily travel habits, and reflect on what this means for your day-to-day life, your finances and your health.
- Do you know of areas in your city or in other cities where there are walkable neighbourhoods? If so, how might you learn from them?

Step 2 Key Concepts - Section ii - Part 2

What are the benefits of a walkable neighbourhood?

Developing compact, mixed-use, walkable neighbourhoods can have many tangible benefits for individuals, communities and economies. Careful planning, design and investment can help to generate these benefits in your community.

The benefits of creating a walkable neighbourhood could include:

A healthy population

There is established research that shows that walking provides benefits to physical and mental health, particularly in sedentary societies. The health implications of urban environments are explored in '[Walkability, Accessibility & Health: Evidence Supporting the Benefits of Walkable Neighbourhoods](#)'.

Better social mobility & community involvement

Compact, walkable neighbourhoods form closer communities, where all citizens, regardless of income levels, can access opportunities for education, employment, healthcare and other basic needs easily and inexpensively. This can promote greater levels of social mobility and foster greater community interaction.

Economic activity

Designing space for pedestrians on streets can lead to greater footfall for businesses and retailers. Businesses are more viable in locations that are in proximity to public spaces and well-used routes. This can create opportunities for employment, entrepreneurship and can revitalise parts of the city.

Reduction in traffic congestion

Walkable neighbourhoods are designed to reduce short car journeys and daily commutes where they are not necessary. This can result in less traffic and congestion overall, which can lead to improvements in local air quality, reduce noise pollution and create more pleasant urban environments.

Lower carbon footprint

Designing for walkability provides citizens with the opportunity to make more carbon-efficient choices, travelling shorter distances and relying less on vehicle travel.

More usable street and floorspace

High levels of private vehicle use require a high capacity of parking space in central locations, either in buildings and purpose-built car parks or on streets. Walkable neighbourhoods seek to lessen the requirement for parking and prioritise other uses such as public space, community facilities and commercial and retail uses.

You can read more about mixed use neighbourhoods and how to create them here: [C40 Knowledge Hub: How to Create Complete Neighbourhoods](#).¹

Reflection questions

- What do you think the benefits of a walkable neighbourhood could be for your city and local area?
- How would a more walkable neighbourhood impact your daily life and that of your family?
- How might you present the case for designing walkable neighbourhoods to your leaders, stakeholders and citizens?

References

- ¹ **C40 Knowledge Hub** (2021) *15-minute cities: How to create 'complete' neighbourhoods*
www.c40knowledgehub.org/s/article/15-minute-cities-How-to-create-complete-neighbourhoods?language=en_US

Creating a Plan for Growth

Step 2 Key Concepts



Image: Diagram for a 15-minute City by Paris en Commun

The Rapid Planning Toolkit

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Step 2 Key Concepts - Section ii - Part 3

How to achieve a walkable neighbourhood

The following factors are key elements to create a walkable neighbourhood. When selecting potential growth areas and structuring neighbourhoods in Steps 2B and 2C, consider how you could include these aspects of walkable neighbourhoods.

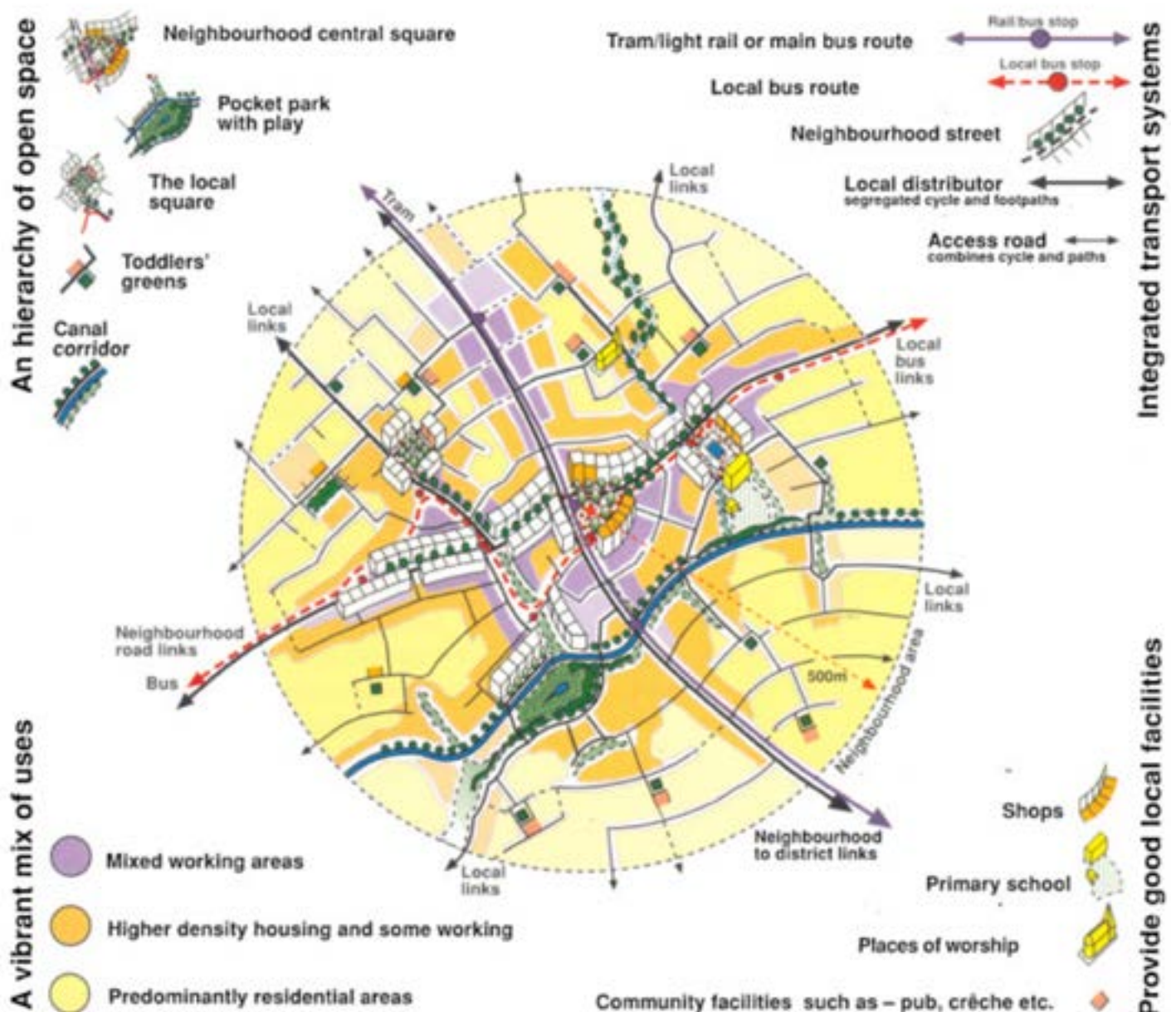


Image: Diagram of components of a walkable neighbourhood

Local centres

Each walkable neighbourhood should be clustered around a local centre. The local centre should be within 1 - 1.5km of all residences in the neighbourhood, or less where the climate or context are less favourable to walking.

The local centre should act as a node that attracts high footfall, and provides key functions for residents, such as retail options, transport connections to wider areas, and public spaces for meeting and gathering. The centralised location may also be well positioned to provide other complementary uses, such as offices, leisure facilities and other community facilities.

The local centre should be well connected to other parts of the city, potentially along a key route or at a strategic junction, or located in proximity to a transport interchange such as a train station.

Mix of uses

The neighbourhood should consist of an appropriate and varied mix of building and land uses within the neighbourhood and its local centre. The walkable neighbourhood should aim to accommodate a mixed-demographic community and be able to provide for their daily uses within easy access.

- Core educational facilities such as a school and library,
- Healthcare provision such as a clinic or medical practice,
- Employment / office spaces,
- Retail and commerce options,
- Outdoor spaces for recreation and leisure,
- Facilities for common religious, community or cultural activities,
- Residential buildings in a variety of forms and sizes.

Medium - high density residential development

A medium to high density of residential units may be required to support the viability of core facilities in the local centre. Greater density of residents means that more facilities may be viable, such as more frequent bus services, more retail options etc. For this reason, the local centre and its immediate surroundings should have the highest density of residential units, and this may gradually decline further out, so that a variety of dwelling types and sizes can be provided.

Active travel routes and paths

Walking, cycling, or using public transport should be the primary method of transportation for residents who are fit and able in a walkable neighbourhood.

Safe and identifiable walking and cycling routes must be an integrated part of a connected street network throughout the neighbourhood and to key destinations.

The walking and cycling infrastructure can be improved with minimal cost with these measures:

- Busy roads should have pedestrian pavements that are clearly defined and protected from vehicle traffic.
- Ensure routes are well-lit, marked and shaded (if necessary for the climate).
- Cyclists should be given dedicated space on vehicle carriageways alongside key vehicle routes.
- Slowing vehicle traffic movement on busy central routes, using speed limits and street features, to make walking and cycling safer and more amenable.
- Restricting vehicle access to areas of high pedestrian activity, such as busy shopping streets, or childrens play areas.

Availability and access to public transport

Where travel by foot or cycle is difficult or unviable, it is essential that other public transport options are available as alternatives. Buses, local mini-buses, trams, and subway systems and other local offerings can provide convenient, affordable and efficient transport.

Reflection questions

- What elements of walkable neighbourhoods could be implemented to improve your city or local area?

Step 2

Additional Resources

The King's Foundation Resources

kings-foundation.org/resources

The King's Foundation, previously known as The Prince's Foundation, have a number of publications that review the evidence for better urban planning, developed in partnership with the Global Centre on Healthcare and Urbanisation at Kellogg College, Oxford.

- [Planning with Nature \(2023\)](#)
- [Walkability & Health Report \(2021\)](#)
- [Walkability & Mixed Use Report \(2020\)](#)
- [The Value of Community \(2019\)](#)

Essex Design Guide

essexdesignguide.co.uk

The Essex Design Guide was established in 1973 by Essex County Council, to be used as a reference guide to help create high quality places with an identity specific to its Essex context. The Layout Details section includes a number of explanations and diagrams to help layout out an urban plan.

- [Layout Details](#)
- [Permeability and Legibility](#)
- [Urban Grain](#)

C40 Knowledge Hub

c40knowledgehub.org

- [How to Create Complete Neighbourhoods](#)

Royal Town Planning Institute (RTPI) Resources

rtpi.org.uk/new-from-the-rtpi/?contentType=Research

The RTPI has a research library with a number of resources, some that are particularly related to the Rapid Planning Toolkit are as follows:

- Placed Based Approaches to Climate Change
- Urban Planning after COVID-19
- Plan the World We Need
- Worldwide Value of Planning

UN Habitat Resources

unhabitat.org

- **Urban Planning for City Leaders (publication):** unhabitat.org.mm/wp-content/uploads/2018/06/UN-Habitat-UPCL_English.pdf
- **Sustainable Neighborhood 5 Planning Principles (publication):** unhabitat.org/five-principles-of-neighbourhood-design
- **City Wide Public Space Strategies: A Guidebook for City Leaders:** unhabitat.org/city-wide-public-space-strategies-a-guidebook-for-city-leaders
- **Our City Plans Toolbox:** unhabitat.org/sites/default/files/2020/07/piup_toolbox_final.pdf
- **Tenure Responsive Land Use Planning:** unhabitat.org/sites/default/files/documents/2019-05/tenure-responsive-lup-a-guide-for-country-level-implementation_.pdf

Creating a Plan for Growth

Step 2 Key Concepts

Rapid Planning Toolkit

www.rapidplanningtoolkit.org