

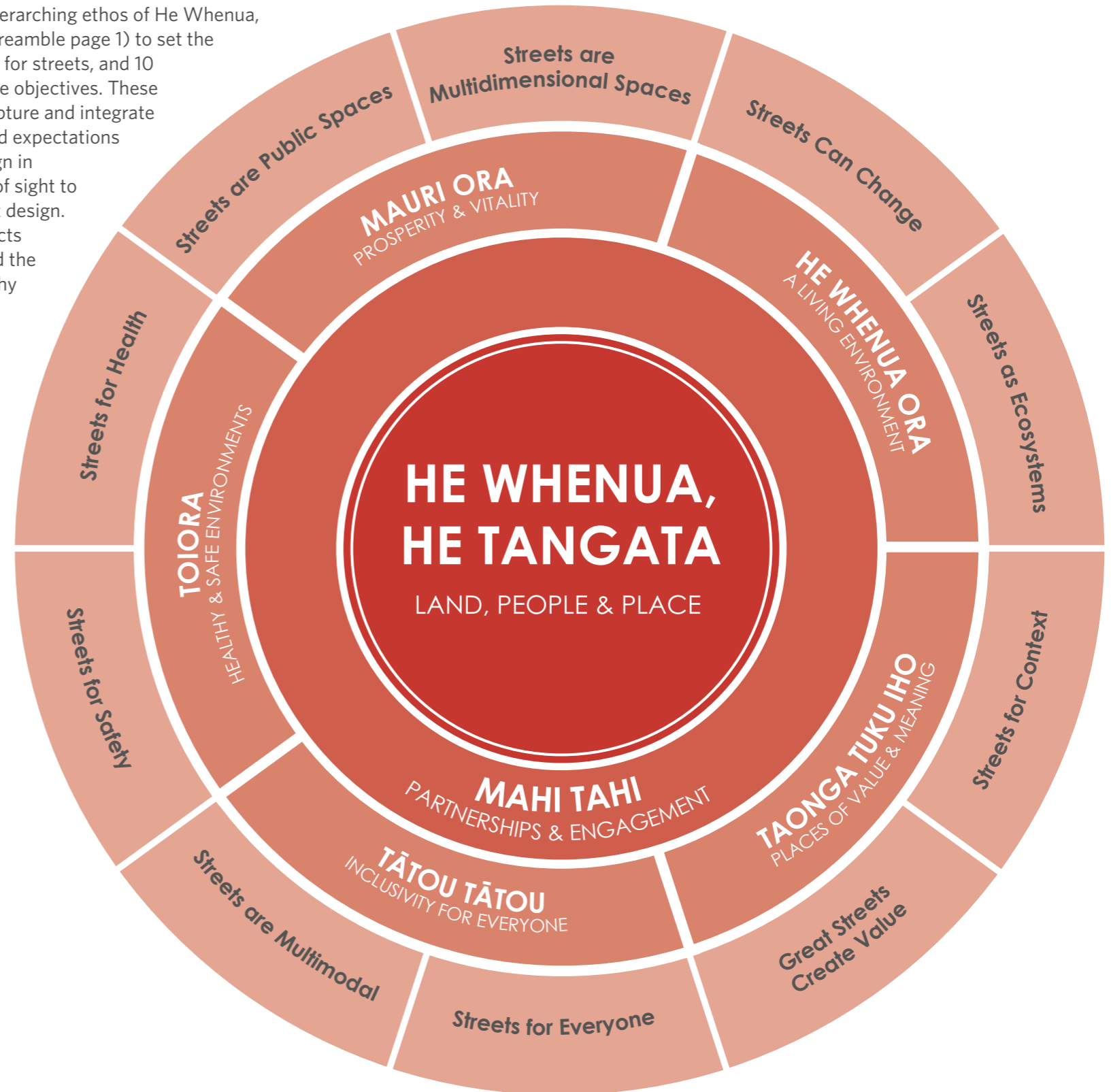
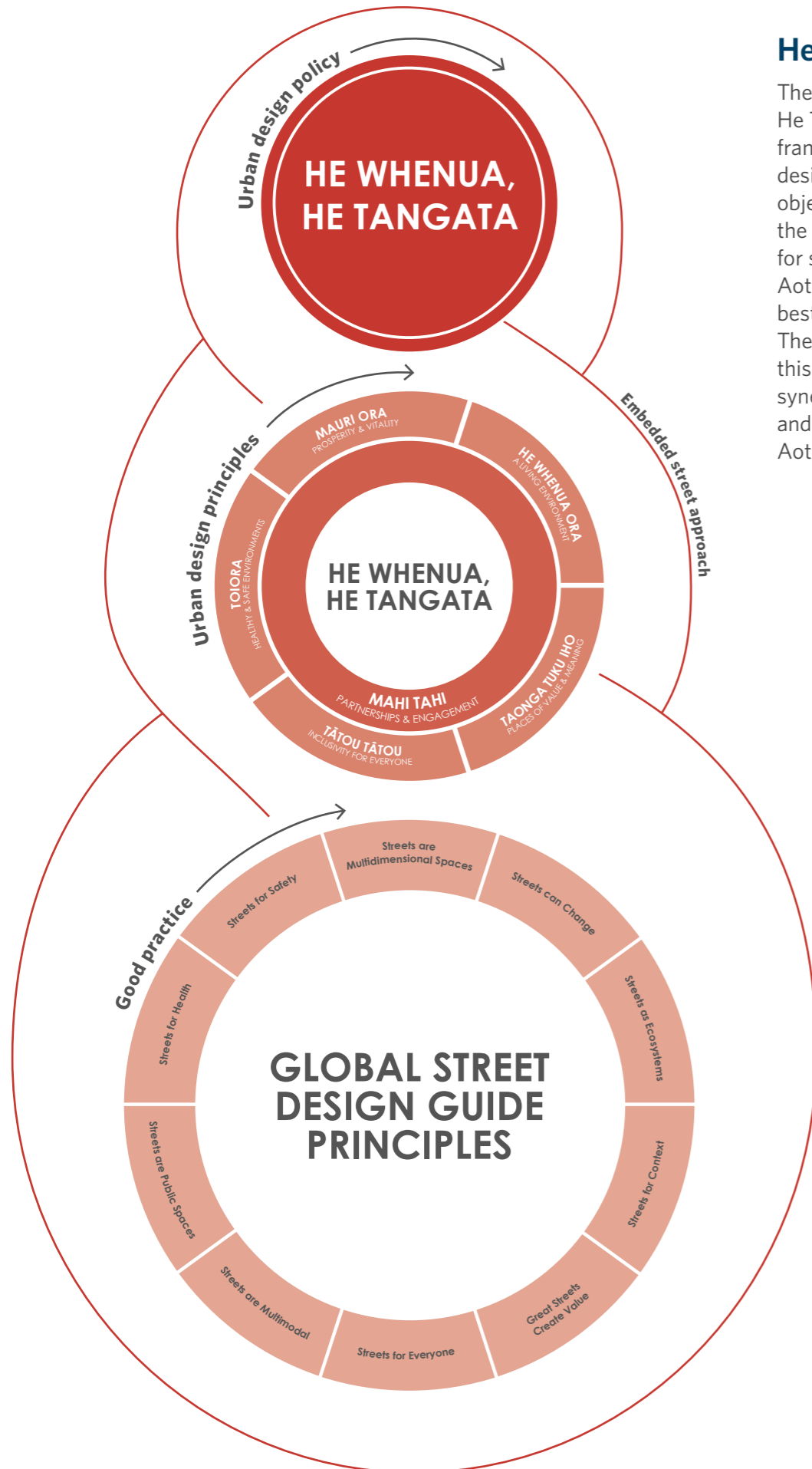


2.0 **Design principles**

Aotearoa Urban Street Planning & Design Guide Principles

He Whenua, He Tangata design principles

The street guide uses the overarching ethos of He Whenua, He Tangata (introduced in preamble page 1) to set the framework for six objectives for streets, and 10 design principles under these objectives. These objectives and principles capture and integrate the collective aspirations and expectations for street planning and design in Aotearoa, and create a line of sight to best practice in global street design. The diagram to the left reflects this integrated approach and the synergies to designing healthy and liveable streets within Aotearoa.



Objectives

This guide defines six objectives for streets in Aotearoa. These objectives create a clear direction for delivering good practice outcomes that support the land transport system and strategies and action plans such as those for Road to Zero (and the Safe System approach [\[3\]](#)), mode shift, and the environment and sustainability.

The objectives give effect to overarching policy, planning and investment drivers, transport planning (recognising movement and place functions) and urban integration. In addition, National Land Transport Fund investment decisions must also give effect to the strategic direction provided by the Government Policy Statement on land transport. The street objectives are unique to Aotearoa so our streets are fit for context in the places where we

work, live and play. Street design is informed by mātauranga Māori and is context specific. The formation of an iwi working group is critical for advice on implementing design based on mātauranga Māori. The unique relationship of iwi with the natural environment is celebrated and also informs the design of streets in Aotearoa, so streets look and feel like places of Aotearoa and reflect the unique identity.

He Whenua, He Tangata



MAHI TAHI PARTNERSHIP & ENGAGEMENT

Transport affects the daily lives of all New Zealanders. Mahi tahi refers to working together in collaboration to achieve shared outcomes and visions. This means both informing communities and stakeholders about proposed projects and decisions that have been made, and engaging with them as part of the Waka Kotahi decision-making process. In addition to engaging, 'Mahi tahi' is about partnering in a collaborative relationship with multiple organisations. Partnerships can unlock more comprehensive investment that considers all aspects of street form and function and how they affect people.



HE WHENUA ORA A LIVING ENVIRONMENT

As towns and cities change we adapt our living environments, and work with living systems and the natural environment. Spatial and system thinking is needed to connect the street to its neighbourhood and buildings, the neighbourhood to its city, and the city to its region.

Street planning and design optimises relationships between natural and built environments activating streets for activities and transport networks. It also recognises that towns and cities are part of a constantly evolving relationship between people, land, culture and the wider environment.



TAONGA TUKU IHO PLACES OF VALUE

All environments have specific and unique contexts and value. Recognising these unique layers offer opportunities to connect our past with new relationships within our environments. Places of value reflect and enhance the distinctive character and culture of our urban environments.

Street planning and design recognises that character is dynamic and evolving, but also protects and manages our heritage, including buildings, landmarks, places and landscapes.



TĀTOU TĀTOU INCLUSIVITY FOR EVERYONE

Inclusive street environments cater for all ages, abilities and cultures. It is about recognising through 'Taonga Tuku Iho' that place provides context and value, and 'Tātou Tātou' provides inclusive access.

Connectivity and access is a positive way to foster this inclusivity and diversity, and offers people choice in the way they move in our towns and cities. This is reflected in the urban form, the transport choices provided, and in the form of streets. Providing flexible and adaptable design which meets the needs of all and anticipates future uses connecting to the past. Support distinctive place identity that is rooted in history to create resilient and robust urban places for everyone.



TOIORA HEALTHY & SAFE ENVIRONMENTS

The built environment needs to support safe and healthy communities. This expands on 'Tātou Tātou' which ensures that environments are inclusive. 'Toiora' is a safe system approach which supports the street design of peoples' physical, mental, spiritual, community and family wellbeing (Te Whare Tapa Wha).

Safe streets reduce harm, risks and help create enjoyable and public spaces and quality environments that are cared for, and a sense of ownership and responsibility in all residents and visitors.



MAURI ORA PROSPERITY & VITALITY

Understanding that streets are multidimensional and that 'Toiora' - a safe, efficient street network is essential to 'Mauri Ora' the vibrancy, social, cultural and economic health of a town, city or region. Street planning and design plays a role in facilitating access to formal and informal commerce and employment, and the movement of goods and services. During business case development, both during optioneering and detailed design, the benefits and whole of life costs of a street design should be considered.

Principles

The street guide reinforces the tactics and techniques being pioneered by the world's foremost urban engineers and designers¹, and adopts and endorses the Global Street Design Guide Principles of the National Association of City Transportation Officials (NACTO)². These principles reflect the shared challenges and opportunities Aotearoa shares with countries around the world in planning and designing for better urban streets. *Street design must meet the*

needs of people walking, cycling, taking public transport, lingering, playing, doing business, providing city services, and driving, all in a constrained space³. The principles help to shape and inform this challenge. As we develop the transport solutions we develop the places and spaces in which we live, work and play. As we develop our transport networks, we shape the urban form and function of streets. Therefore, streets provide a common point of reference for the

necessary integration of the transport and land use systems in urban areas. Waka Kotahi supports the use of quality street design principles to inform planning, design, implementation and management and the way we engage with communities on street programmes and projects.

He Whenua, He Tangata

MAHI TAHI PARTNERSHIP & ENGAGEMENT

HE WHENUA ORA A LIVING ENVIRONMENT

TAONGA TUKU IHO PLACES OF VALUE

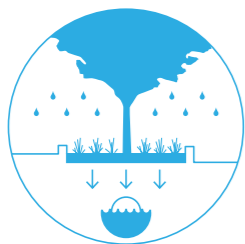
TĀTOU TĀTOU INCLUSIVITY FOR EVERYONE

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MAURI ORA PROSPERITY & VITALITY

GLOBAL STREET DESIGN GUIDE PRINCIPLES (GSDG-NACTO)

**Edited Global Street Design Guide Principle*



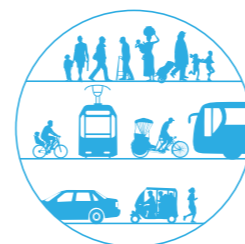
Streets as Ecosystems

Integrate contextual green infrastructure measures to improve the biodiversity and quality of the urban ecosystem. All designs should be informed by natural habitats, climate, topography, water bodies, and other natural features.



Streets for Context

Design streets to enhance and support the current and planned contexts at multiple scales. A street can traverse diverse urban environments, from low-density neighbourhoods to dense urban cores. As the context changes, land uses and densities place different pressures on the street, and inform the design priorities.



Streets are Multimodal

Design for a range of mobility choices, prioritizing active and sustainable modes of transport. Safe, efficient, and comfortable experiences for pedestrians, cyclists, and transit riders support access to critical services and destinations and increase the capacity of the street.

Recognise the role urban streets play in the freight network and provide appropriately for the wholesale movement of goods in ways that are safe and appropriate for all modes and urban context.



Streets for Health

Design streets to support healthy environments and lifestyle choices. Street designs that support active transportation and integrate green infrastructure strategies improve air and water quality, can reduce stress levels, and improve mental health.



Streets are Multidimensional Spaces

Design the street in space and time. Streets are multidimensional, dynamic spaces that people experience with all their senses. While the ground plane is critical, the edges and the canopy play a large role in shaping a great street environment.



Streets Can Change

Design streets to reflect a new set of priorities that ensures appropriate distribution of space among different users. Push boundaries, try new things, and think in creative ways. Implement projects quickly using low-cost materials to help inform public decision making, allowing people to experience and test the street in different ways.



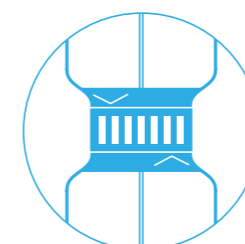
Great Streets Create Value

Design all streets to be *social, cultural and economic assets* as well as a functional element. Well designed streets create environments that entice people to stay and spend time, generating higher revenues for businesses and higher value for homeowners *as well as increasing value in ways every street user benefits.*



Streets for Everyone

Design streets to be equitable and inclusive, serving the needs and functions of diverse users with particular attention to people with disabilities, seniors, and children. Regardless of income, gender, culture, or language, whether one is moving or stationary, streets must always put people first.



Streets for Safety

Design streets to be safe and comfortable for all users. Prioritize the safety of pedestrians, cyclists, and the most vulnerable users among them: children, seniors, and people with disabilities. Safe streets have lower speeds to reduce conflicts, provide natural surveillance, and ensure spaces are safely lit and free of hazards.



Streets are Public Spaces

Design streets as quality public spaces, as well as pathways for movement. They play a big role in the public life of cities and communities, and should be designed as places for cultural expression, social interaction, celebration, and public demonstration.

Links

- [Key Design Principles, Global Designing Cities Initiative \(NACTO, 2016\)](#)