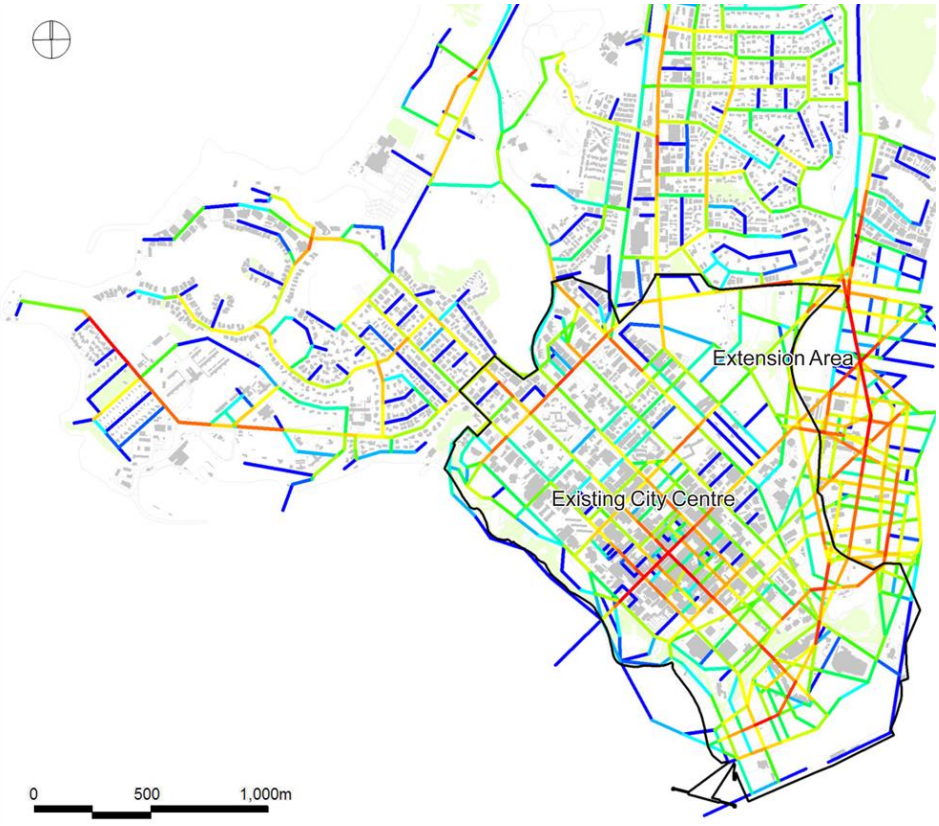
Case study Darwin City Centre
Creation of an Urban Masterplan

A



B

A
Darwin City Centre Masterplan highlighting existing structures in grey and proposed development in purple. © Design Urban

B
Spatial Accessibility Model of the proposed Masterplan, demonstrating how its layout reinforces the Existing City Centre while creating a local centre in the new Extension Area.

Client
City of Darwin
Northern Territory Government
Australian Government

Year
2013 – 2014

Professional team
Design Urban
Urbacity
Michels Warren Munday
Clouston Associates

Our role
Urban Planning and Design Advisor

Key Features
Urban Baseline Study
Urban Design Strategy
Urban Performance and Forecast Model
3D Modelling

The opportunity
In 2012 the City of Darwin secured a grant from the Commonwealth Government of Australia to produce a Masterplan for the City Centre of Darwin. The purpose of this plan was to provide a road map for the development of the city for the next twenty years. To accommodate growth, the City Centre needed to be reinforced and extended. Space Syntax was asked to join a design team led by Design Urban. Our role was to provide comprehensive urban analysis and strategic design input to support the creation of the Masterplan. A key aim of the project was to facilitate private sector investment and population growth through the production of high quality public realm.

Our contribution
Space Syntax provided an evidence-based platform for the creation of a spatial strategy. Our input had five work streams:

Urban Data Collective
Data related to Urban Form (eg land use, transport and spatial form) and urban Performance (eg pedestrian and vehicle movement, land value) were collected and analysed using Spatial Accessibility Modelling to measure properties of their location and interconnectivity.

Urban Performance Model
Associations between Urban Performance and Urban Form were analysed in order to provide an Urban Diagnosis from a number of perspectives: spatial, physical, economic and human behavioural.

Space Syntax

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C
Night-time rendering of the 3D model created by Space Syntax.

C

Spatial Design Strategy

Opportunities and constraints analysis was undertaken using the Urban Performance Model to develop the Urban Plan. This strategy, including a set of design objectives and principles, has guided the development of the Spatial Design Strategy.

Option testing using Spatial Accessibility Models played an essential role in the design development process not only to assess design outcomes quantitatively but also to generate new design ideas and options. Frequent and direct communications with the design team, including attendance at workshops in Darwin were key to maintaining a dynamic design process and ensuring an integration between the baseline analysis and the development of the Urban Plan.

Urban Forecast Model

Forecast models for pedestrian movement and for land value were constructed to quantitatively evaluate the impacts of the proposed designs. The outcomes provided useful indicators of the social and economic performance of the Urban Plan.

Urban Design 3D Modelling

3D visualisation of the Urban Plan in static and animated formats were created by Space Syntax and used in the stakeholder engagement process. Such visual representations of the Urban Plan were effective in engaging the widest possible audience.

The outcome

Space Syntax's work has underpinned the creation of the Darwin City Centre Urban Plan. Quantified indications of its social and economic impacts have facilitated meaningful discussions between different disciplines, bringing architects, transport engineers, planners and politicians together with a wide stakeholder base.