

City Centre Master Plan
May 2015

DARWIN



Inclusive

Engaging

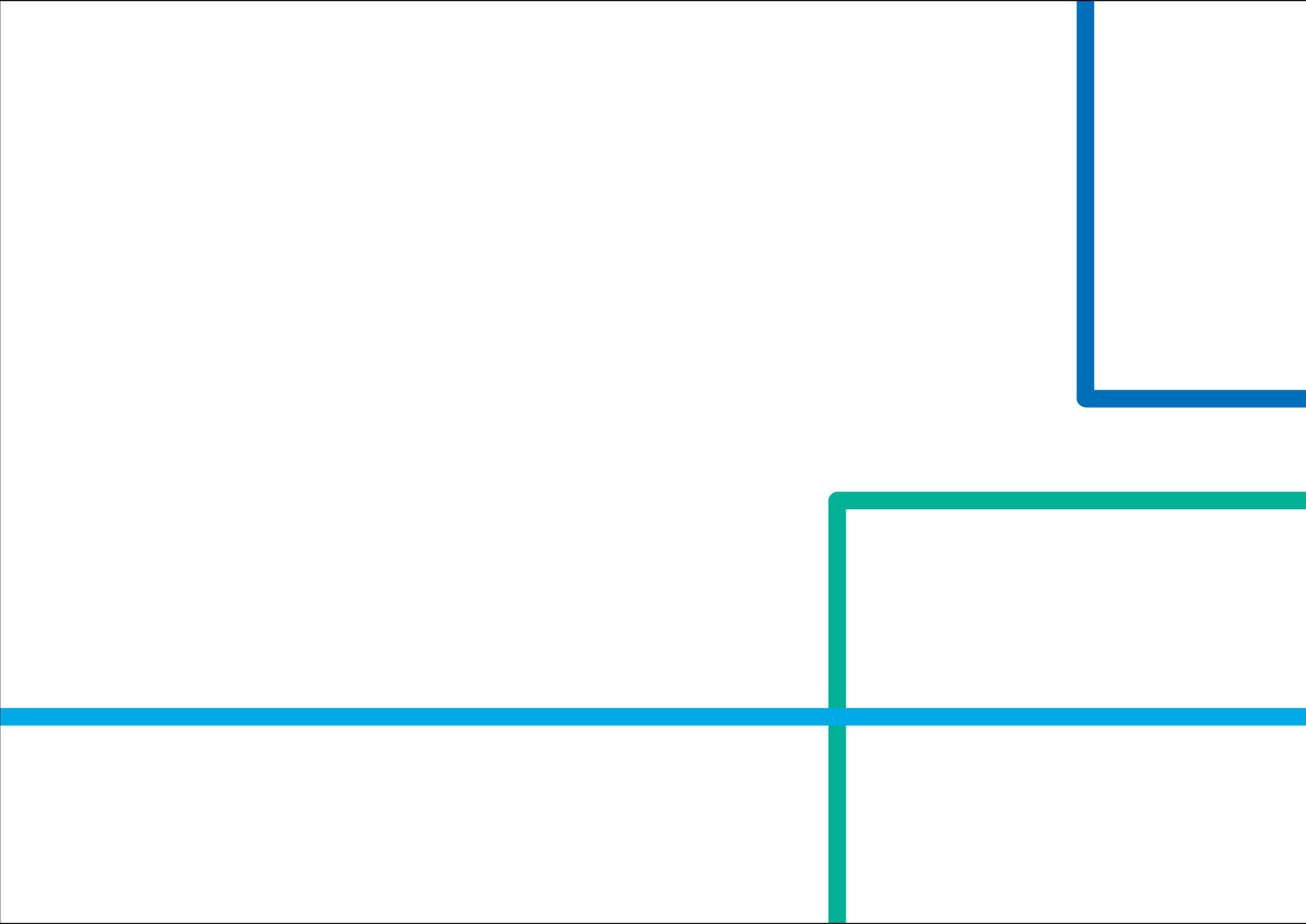
Tropical

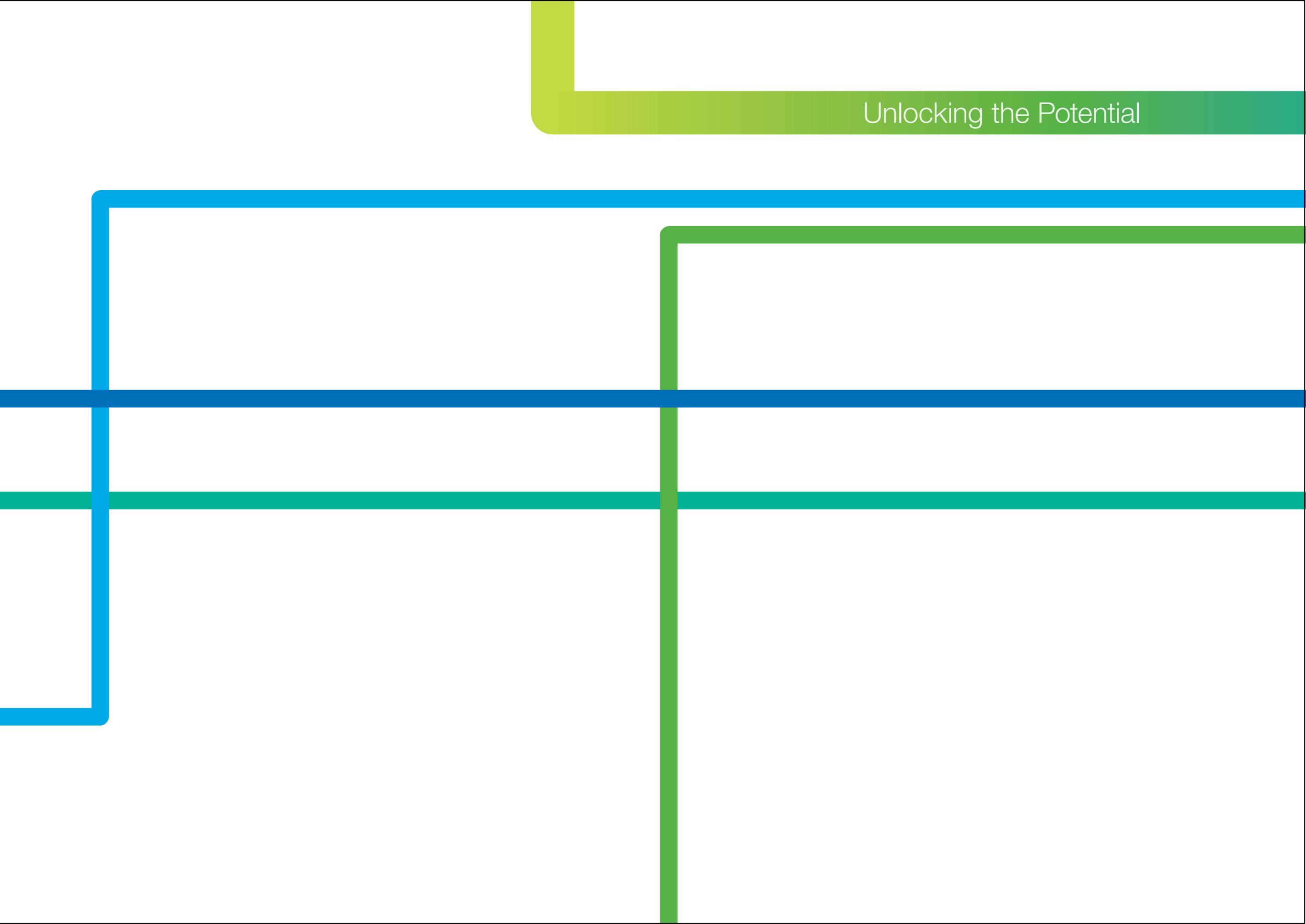
City Centre Master Plan
Unlocking the potential

DARWIN



Australian Government



The image features a white background with several overlapping, thick lines in blue, green, and yellow. The lines are arranged in a way that suggests a path or a process. A yellow line starts at the top center, goes down, then right, then down again. A blue line starts from the left edge, goes right, then down, then right. A green line starts from the left edge, goes right, then down, then right. The text "Unlocking the Potential" is written in white on the yellow line.

Unlocking the Potential

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Lord Mayor's Message



The City of Darwin is proud to present this Darwin City Centre Master Plan.

The plan has been shaped by extensive consultation combined with a professional evidence base.

So what we bring to you now is a plan that incorporates both vision and logic, a plan that imagines what our city could look like in 20 or 30 years, its roads, parks and future neighbourhoods, then makes the case for how to get us there.

So for everyone who added their energy, professional wisdom and community knowledge to this plan, thank you.

I hope you can see the vision of our youth group, who asked for a city that was 'tropical, inclusive and engaging'; the Larrakia people who wanted a city that respects their culture and connections to the salt water, fresh springs and land; those who contributed ideas about biodiversity corridors, sustainability and living in harmony with our climate; residents and workers who want to retain our heritage, thriving arts, alfresco dining and small town charm; and developers who want certainty and a commercial case to invest in the city's future.

The Darwin City Centre Master Plan project began when Council was considering the long-term future of the Cavenagh Street car park next to the Post Office. It became clear that we needed a better understanding of the traffic and pedestrian movements and how the various elements of the city worked, how a growing population could be accommodated and how investment could be encouraged and supported.

What we needed was a master plan for the city centre.

The Northern Territory Government was quick to support our application for Australian Government funding under the Liveable Cities Program, set up to improve planning and design in cities facing population and growth pressures. We were also supported in our application by the Northern Territory Chamber of Commerce and the Property Council of Australia's NT Division.

The successful funding application was the start of an extraordinary partnership between the three levels of government and the private sector, reporting to the Northern Australia Capital City Committee and guided by a Project Control Group drawn from the City of Darwin and Northern Territory Departments of Transport and Lands, Planning and Environment.

We need to stay the course. Our beautiful city has to be a place that people are drawn to because it's fun and interesting, well-planned, accessible and comfortable.

If we can get that right, Darwin will define the Territory and our unique lifestyle. Our capital city will be our signature piece that is a premium address, a tourist drawcard and the region's government and commercial hub.

That will be a legacy for our children, an amazing legacy.

Katrina Fong Lim

LORD MAYOR

Chief Minister's Message



The time has arrived for Darwin to realise its full potential.

It is Australia's northernmost capital city with an engaging and cosmopolitan community.

It has a spectacular waterfront, a deep water port and room to grow.

Darwin is a critical hub for the country's north but also an important link for Asia into Australia.

Two-thirds of the world's middle class is expected to live in Asia by 2030 and the demand for our gas, minerals, services and fresh food will be unprecedented.

To meet this growth, the Giles Government has embarked on a bold strategy to promote the Territory as the linchpin of Northern Australia.

We have a rail link to the rest of the country, a deep water port without the complication of surrounding coral reefs, an abundance of natural resources and we have well-established connections to Asia's biggest trading centres.

This will be the Northern Territory's century and we need our biggest city to be ready for the growth ahead.

With careful planning Darwin will become the jewel at the top of Australia's crown, with economic prosperity, new business opportunities, more jobs and a promising future for all. We can build a thriving city that will become an example to the rest of the world of life in the tropics.

We are planning for a Darwin that is safe and relaxed where everyone can enjoy the tropical lifestyle. We want to build a liveable city where people want to stay long-term and put down roots for the future.

Most importantly we want to build a city that people are proud of.

There will be challenges and bold decisions will be required.

If we think big and plan well, we can be Australia's gateway to Asia and enjoy a lifestyle that is the envy of the world.

Adam Giles

CHIEF MINISTER

Executive Summary

DARWIN CITY CENTRE MASTER PLAN

Towards a Plan to *Unlock the Potential* of the Darwin City Centre

Introduction

The Darwin City Centre Master Plan was funded by the Australian Government (\$250,000), the Northern Territory Government (\$125,000) and the City of Darwin (\$125,000).

Darwin City Centre Master Plan

First and foremost, the Darwin City Centre Master Plan is about people, and the plan is an attempt to improve the quality of life of people by improving the range of choices people have in the City Centre of Darwin. The plan aims to build human capital by providing capital investment in infrastructure, built form and facilities. If this is achieved there will be economic and environmental benefits as well as the obvious social benefits. For Darwin to be more liveable, it has to have affordable living and housing, appropriate housing, easy access to jobs, mobility options and comfort (including walking) and adequate services.

The Purpose of the Darwin City Centre Master Plan

The purpose of the Darwin City Centre Master Plan is to provide a roadmap for the development of the Darwin City Centre for the next 20 to 30 years. The Master Plan will let governments plan for new infrastructure, upgrade the existing Public Realm and create certainty for private sector investment and growth. In facilitating growth, the plan identifies opportunities for broader community benefit by providing new education, arts and cultural facilities which will improve quality of life and the attraction of Darwin as a place to live, work and play.

A Process of Stakeholder engagement and Involvement

The process to develop a Master Plan for the Darwin City Centre has been as important as the final Master Plan itself because the intent was to maximise local ownership. We have held more than 120 workshops, stakeholder meetings and discussions in Darwin to ensure that local input was received and reflected in the final Master Plan. In addition to an online survey, which provided the opportunity for anyone submit input to the Master Plan, a sequence of four workshops ensured that local input was provided and incorporated into the master plan. Initial research and mapping of the city centre was done jointly by staff of the City of Darwin and the Northern Territory Government, working with the consultant team. This was completed prior to Workshop One where the findings were presented. Background papers were then prepared and made available through the City of Darwin website.

Workshop 2 involved two interactive design exercises where attendees were able to provide ideas and plan their own city.

This information was collated and provided as input to a technical master planning workshop, where the government and consultant team drafted options for a master plan based on stakeholder information and the team's own background research.

A draft Master Plan with eight design rationales and multiple draft conceptual ideas were presented at a third workshop, where attendees were asked to test

and evaluate the plan. There was general acceptance of the draft master plan with some stakeholders putting their thoughts in writing. Examples of these are as follows:

I thought I would write to thank you for a fantastic CBD master plan process thus far. I have really been impressed and inspired by your efforts in consultation, and in drawing together everyone's visions into a coherent logical plan. It is not often that NGO groups like ours feel "engaged" up here, let alone end up happy with the outcome, so that alone is a great achievement!
-Rob Law, Environment Centre, NT.

The consultation process has been exhaustive and highly professional. The term "world class" comes to mind, and the effectiveness of the consultation is demonstrated by the high level of acceptance of the draft Master Plan by various community sectors.
-Graeme Suckling, CEO, Urban Development Institute of Australia.

Since then stakeholders comments have been taken on board and the Master Plan has been slightly adjusted. Adjustments were more significant in the One Mile Dam area where key infrastructure was avoided through redesign, and in the Frances Bay precinct where investigations into subsoil conditions necessitated design refinement.



Figure I: A sequence of Workshops

The Structure of the Darwin City Centre Master Plan

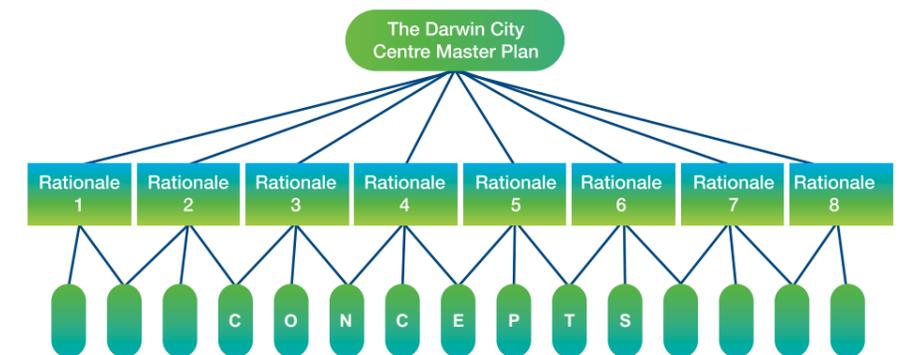


Figure II: Master Plan structure

Eight Design Rationales for the Master Plan

The Darwin City Centre Master Plan is underpinned by eight "Design Rationales". These are the major thematic streams which have driven the design of the Master Plan. These are:

1. Base the Future on the Past
2. Link the Green and Blue Networks
3. Make New Connections and Links
4. Make a Resource-Efficient Walkable City
5. Cool the City
6. Integrate Parking, Shopping and Moving Around
7. Plan for a Smart, Cultural City
8. Clarify the Urban Structure – Centres, Precincts and Neighbourhoods

The Design Rationales are implemented through a number of proposed concepts intended to ensure that the Master Plan is delivered progressively. The "deliverability" of the Master Plan has been a key determinant of its structure and content. Key qualities of the plan are that it is "evidence-based" and "project-oriented".

Significant research and mapping forms the background to the Master Plan which is founded on "what is" rather than on a theory. The process followed has informed the design team as to stakeholder perceptions, needs and desires for the future of the Darwin City Centre. This "evidence-based" approach underpins the proposals and informs the Design Rationales of the Darwin City Centre Master Plan. It is believed that this anchors the Master Plan in reality.

The Value of the Master Plan

In addition to gathering evidence, including current land value, an urban value model informs the Master Plan. It shows that future value is highly influenced by spatial attraction and land use zoning. It predicts that if the Master Plan was implemented, that there would be an uplift in land value of approximately \$3.7 billion in the study area. This is a clear indication that the Master Plan will add value and enable government investment in infrastructure to go hand in hand with private sector investment and delivery. The Master Plan provides the certainty that the private sector has been asking for to ensure a stable planning context for investment. It should be noted that this value uplift is directly related to the spatial configuration contained in the Master Plan, and that if there are future deviations from the spatial layout, then the induced value will change. For this reason, any deviation should be tested by the Urban Value Model created through this process.

To retain its relevance it is important that the Master Plan is reviewed regularly. It is recommended that this review is held every five years.

Goals and Principles

A number of urban design goals and principles form an “underlay” to the Master Plan. These relate directly to the goals and design principles of the National Urban Design Protocol which fulfil Criterion 8 of the Council of Australian Governments (COAG) Criteria for Australian Capital Cities.

The Goals are:

- Prosperity** – Enhancing economic prosperity and living affordability
- Sustainability** – Fostering environmental responsibility
- Liveability** – Cultivating healthy and cohesive communities
- Leadership** – Demonstrating visionary leadership and strong governance
- Design** – Integrating design processes and embracing design excellence

While the Design Principles are to:

- Design for People** - to make them feel comfortable and welcome, create places that are vibrant and make people feel safe, and to make places that are enjoyable and easy to walk and cycle around.
- Design for Place** – to create places that are connected, that offer a variety of experiences, to make places that endure and are of quality, and to make places which enhance the local economy, environment and community.

These require **Leadership and Governance** to ensure that places are developed within the strategic planning and physical context, which consider the whole life-cycle of a place, which foster a culture of excellence, innovation and leadership in design and management, and which engage with relevant stakeholders.

The Master Plan will have a short life if all levels of government do not commit to implementing projects. For this reason, the partnerships which have been formed to develop the Master Plan need to remain in place to ensure a partnership approach to project delivery. Governance arrangements between all three levels of government have successfully managed this study.

The management and reporting structure is as follows:

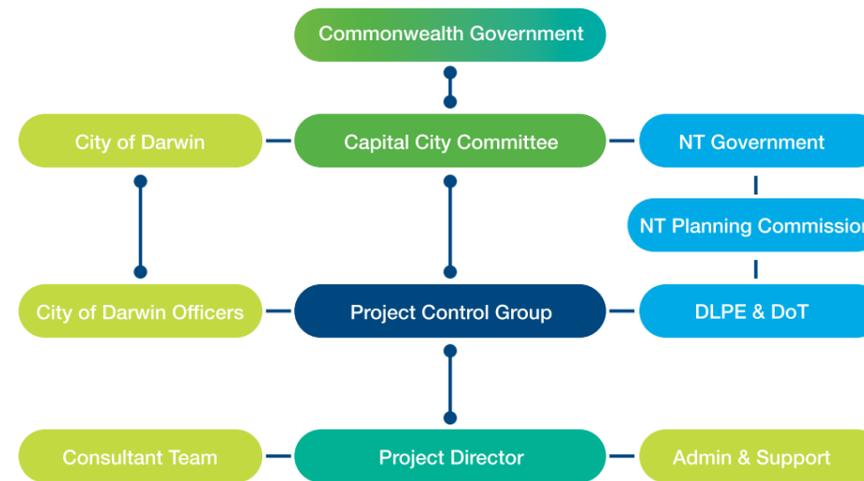


Figure III: Governance arrangements

Creating an Environment of Investment Certainty

A key message from the private sector has been that the Master Plan needs to deliver certainty and a strategic direction. This is fundamental to creating a confident investment environment. Landowners have also sought a clear policy regarding the government’s position on Darwin as the prime location for office-based employment, which would contribute to investment uncertainty. A bipartisan policy to retain the Darwin City Centre as the prime office location would achieve further investment in the city. This is important not only for investor confidence, but also to facilitate the planning of an efficient public transport system.

An Integrated City Centre

Darwin City Centre has been regarded as somewhat separate from the rest of the city owing to its location on a peninsula. Growing the city back towards existing areas such as Stuart Park makes sense as the city would be more connected and integrated. As a result of stakeholder consultation it became clear that the Master Plan needed to address the future of Frances Bay.



Figure IV: Showing the Darwin CBD Study Area (Red line) and the Zone of Influence (Green line)

Status of Concepts and Cost Estimates

The 72 project concepts identified and described in the Darwin City Centre Master Plan are preliminary and at their early stages of development and evaluation by stakeholders. These have yet to be tested in terms of either feasibility or deliverability. Concepts are described as Short Term (1 to 5 years) Medium Term (3 to 10 years) or Long Term (more than 10 years). Experience shows that development plans can often be difficult to implement because, at the time of design, costs are not fully understood and the benefits are not fully defined. Most of the proposals are not funded and there still needs to be a process to ensure stakeholder buy-in. This is beyond the scope of this plan. The tasks still ahead are to prepare full value analyses of each concept; determine the economic costs and benefits and the financial costs and benefits along with an implementation model incorporating governance arrangements and delivery vehicles. Only then will it be known if they deliver the required outcomes and/or fit the delivery model. Only at this point will an evidence base be fully known to be able to describe the investment logic to various authorities and potential funders including private investors, developers, the City of Darwin, the NT Government and the Australian Government.

Policies

The Darwin City Centre Master Plan contains policies which relate to employment and design guidance.

Background

DARWIN CITY CENTRE MASTER PLAN

Towards a Plan to *Unlock the Potential* of the Darwin City Centre

Background

In July 2012, The City of Darwin successfully applied for Australian Government funding to prepare a Darwin CBD Study and Precinct-based Master Plan. This funding was from the Australian Government's Department of Infrastructure and Transport and fell under the Liveable Cities Program, which aimed to improve planning and design in capital cities and major regional cities that were experiencing population growth pressures and housing and transport affordability cost pressures. This funding was matched by the NT Government and the City of Darwin who each contributed \$125,000. Letters of support for the funding application were received from the NT Chamber of Commerce and the Property Council of Australia, NT Division.

The Liveable Cities Program was established by the former Australian Government to improve the quality of life in Australian cities. The program sought to foster innovative solutions to address issues of poor urban design and the need for improved quality open space and public places; high levels of car dependency and traffic congestion; and rising carbon emissions.

The Australian Government released its National Urban Policy – Our Cities, Our Future – in May 2011. The Policy represented an important contribution by the Australian Government to COAG's cities reform agenda. The Liveable Cities program was part of the Government's commitment to make the largest of our cities and regional centres more productive, sustainable and liveable.

Objectives

The Liveable Cities program sought projects that achieved:

- improved alignment of urban planning and design with the National Urban Policy, National Urban Design Protocol and COAG principles;
- partnerships for action or planning where these have not previously existed;
- governance arrangements resulting in lasting partnerships between levels of government, parts of government, and government and private interests;
- lessons or successful outcomes that can be transferred or applied to other partnership projects;
- planning approaches that break down specialist silos;
- enhanced collaboration resulting in improved outcomes in urban planning and delivery.

The submission from the City of Darwin stated:

"A Precinct Based Master Plan for the Darwin CBD will identify how we will accommodate a growing and changing population and how we can build our economy. The Plan will highlight key strategic planning areas within the CBD to enable further development of precinct areas. The City of Darwin (CoD) and the Northern Territory Government (NTG) want future development to follow strategic plans which address challenges and opportunities such as; an ageing population, global warming, climate change and a globalised economy.

Without a Master Plan for the Darwin CBD there is a risk of future development failing to address important principles for building a productive, sustainable and liveable city. The CoD and NTG are working to develop a hierarchy of strategic planning to shape the future of Darwin and the Greater Darwin Region. The strategic plans will align with the objectives of the National Urban Policy and the COAG National Criteria for Cities. The planning hierarchy will contribute to the Northern Territory building a planning structure consistent with the National Planning 'Line of Sight' program. A key component to achieving this planning hierarchy is the development of a CBD Master Plan.

Darwin is known for its unique, relaxed, tropical lifestyle and diverse culture. The aim of the Master Plan is to maintain this tropical lifestyle and deliver a city that is also productive and sustainable. Darwin has major projects planned for the near future, including the increased US Marine Base, the INPEX oil and gas project and new mines. Darwin is also a popular tourism destination and was named as one of the top 10 destinations to visit in 2012 by the renowned travel guide Lonely Planet. The future is bright for Darwin but the growing economic industries and population require long term strategic planning to ensure the sustainability and liveability of the area."

The application demonstrated that this project would meet the COAG National Criteria for Cities requirements. It is a joint project between all levels of government.

COAG Criteria for Capital Cities

The Council of Australian Governments (COAG) released a set of criteria and principles for the strategic planning of Australian capital cities. These form the policy framework for the preparation of the Darwin City Centre Master Plan and are as follows:

Capital city strategic planning systems should:

1. Be integrated:
 - a. across functions, including land-use and transport planning, economic and infrastructure development, environmental assessment and urban development; and

- b. across government agencies;
2. Provide for a consistent hierarchy of future-oriented and publicly available plans, including:
 - a. long term (for example, 15-30 year) integrated strategic plans,
 - b. medium term (for example, 5-15 year) prioritised infrastructure and land-use plans, and
 - c. near term prioritised infrastructure project pipeline backed by appropriately detailed project plans.
 3. Provide for nationally-significant economic infrastructure (both new and upgrade of existing) including:
 - a. transport corridors,
 - b. international gateways,
 - c. intermodal connections,
 - d. major communications and utilities infrastructure, and
 - e. reservation of appropriate lands to support future expansion.
 4. Address nationally-significant policy issues including:
 - a. population growth and demographic change,
 - b. productivity and global competitiveness,
 - c. climate change mitigation and adaptation,
 - d. efficient development and use of existing and new infrastructure and other public assets,
 - e. connectivity of people to jobs and businesses to markets,
 - f. development of major urban corridors,
 - g. social inclusion,
 - h. health, liveability, and community wellbeing,
 - i. housing affordability, and
 - j. matters of national environmental significance.
 5. Consider and strengthen the networks between capital cities, major regional centres, and other important domestic and international connections.
 6. Provide for planned, sequenced and evidence-based land release and an appropriate balance of infill and greenfields development.
 7. Clearly identify priorities for investment and policy effort by governments, and provide an effective framework for private sector investment and innovation.
 8. Encourage world-class urban design and architecture.
 9. Provide effective implementation arrangements and supporting mechanisms, including:
 - a. clear accountabilities, timelines and appropriate performance measures,
 - b. coordination between all three levels of government, with opportunities

for Commonwealth and Local Government input, and linked, streamlined and efficient approval processes including under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*,

- c. evaluation and review cycles that support the need for balance between flexibility and certainty, including trigger points that identify the need for change in policy settings, and
- d. appropriate consultation and engagement with external stakeholders, experts and the wider community.

Evidence-Based Analysis

In order to produce baseline information and achieve a broad level of understanding as to how the Darwin City Centre was performing, the consultants adopted an evidence-based approach and did a number of studies of the City Centre. These studies are recorded in the Background Papers produced by the Master Planning team and made available to the general public and stakeholders via the City of Darwin's website. The evidence-based studies included the following:

- An Urban Design Audit
- An Audit of Retail and Commercial Performance
- A Tree Audit
- A Landscape Framework
- A Community Engagement Strategy
- A Spatial Performance Analysis

These studies were supported by parking and traffic studies by the City of Darwin.

From this analysis it became clear that retail trade was heavily dependent on visitors, and that the number of visitors had dropped significantly over the past year. It was also evident that the climatic conditions in Darwin were having a detrimental impact on retail, relative to other internal and climate-controlled retail centres such as Casuarina and Palmerston.

Urban design analysis demonstrated that the City Centre was performing poorly in terms of the degree of active frontage buildings provided to the streets, parks and public realm. It was also clear that residential land use was potentially displacing space for office development, and that there was a real danger that the City Centre could effectively be reduced to a "suburb in the sky" if this trend continued.

Spatial analysis of the whole of the urban spatial system of Greater Darwin demonstrated clearly that, despite being on a peninsula, the Darwin City Centre was the most spatially integrated part of Darwin and that the intersection of Smith and Knuckey Streets was the most spatially accessible place in the whole city. A spatial model was built of the whole city, and then verified through a comprehensive observation study which measured actual pedestrian and

vehicle movements. A high level of correlation was found between the observed movements and the movements predicted by the model.

The background evidence was then provided to stakeholders who took part in two design exercises to design the future city they imagined. These design responses as well as responses to online surveys and multiple stakeholder meetings were provided as input to the "technical master planning process". Once a draft Master Plan had been produced it was tested and evaluated by the broad stakeholder group.

Stakeholder Designs for Darwin City Centre

Diagrams accompanying are examples of many drawings produced by stakeholders in workshops intended to give local people the opportunity to contribute to the draft Darwin City Centre Master Plan.



Figure V: Workshop participants

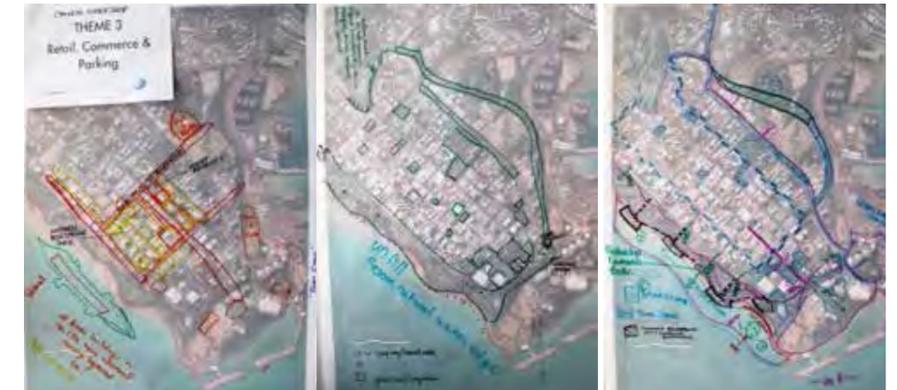


Figure VI: A sample of the many drawings produced by stakeholders

The Design Rationales

From all of the input which had been gathered over the past year, several clear themes emerged. These themes formed the basis for the eight Design Rationales which underpin the Master Plan. In many respects the Design Rationales relate to the goals and design principles of the National Urban Design Protocol. This close correlation is demonstrated below.

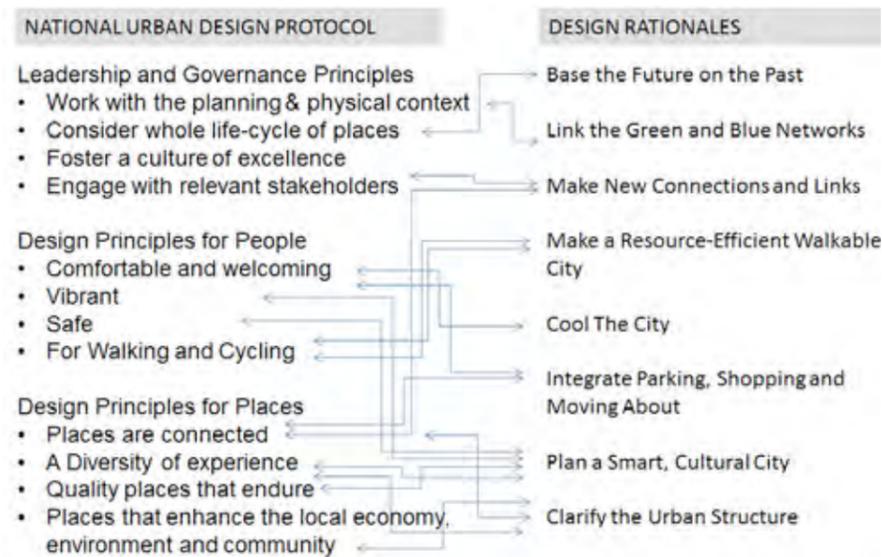


Figure: Vii – Response to National Urban Design Protocol

The eight Design Rationales will be implemented through multiple concepts. The concepts and their relationship to the design rationales are set out below and the individual project sheets follow in this document. Many concepts are at an embryonic stage, and will need to be fully scoped and tested in terms of their costs and benefits.

Concepts to realise the goals of the Design Rationales

The Master Plan is intentionally project-oriented, so that the plan is “actionable” rather than a theoretical approach to the strategic planning of the City Centre. The project concepts are identified as satisfying or contributing to the achievement of the goals and principles of the eight Design Rationales. It is acknowledged that many of these concepts will take longer than others to complete, but these are included to ensure that initial planning and potential budget considerations can start earlier rather than later. Many concepts identified as being “medium term” still have to be evaluated in terms of their costs and benefits. This discipline will apply to all concepts, however the planning and scoping of medium term project concepts should start as soon as practically possible. Concepts identified as achievable in the short-term are a mixture of policy decisions required and physical project concepts which can be underway in a relatively short timeframe.

Rationale 1 – Base the Future on the Past

001	Extend the City Grid	Medium term
002	Smith Street / Esplanade intersection	Short term
003	Doctor’s Gully Beach Repair	Medium term
004	Damoe-Ra Park Restoration	Short term
005	Darwin Central Park	Short term
006	Central Park Restoration & Stormwater Mng’ment	Medium term

Rationale 2 – Link the Green and Blue Networks

007	Daly Street Upgrade	Medium term
008	Bicentennial Park Foreshore Boardwalk	Medium term
009	Bicentennial Park Playground	Short term
010	Bicentennial Park View Corridors	Short term
011	Genotaph Upgrade	Medium term
012	Esplanade Parade	Short term
013	Smith Street Upgrade	Medium term

Rationale 3 – Make New Connections and Links

014	Barneson Boulevard	Medium term
015	Knuckey Street Extension	Medium term
016	Fisherman’s Wharf Redevelopment	Long term
017	Knuckey Street Public Transport Node	Long term
018	Stuart Highway Realignment	Medium term
019	Transit Corridor	Medium term
020	McMinn Street Upgrade	Medium term
021	Tiger Brennan Boulevard	Medium term
022	Frog Hollow Park expansion	Short term
023	Multi-storey School Project	Medium term
024	Cavenagh Street Car Park Redevelopment	Medium term
025	Bennett Street Pedestrian Link	Medium term
026	Review of Bennett Street Link to The Esplanade	Medium term
027	Parliament car park on Bennett Street	Medium term
028	Herbert Street Development	Medium term

Rationale 4 – Make a Resource Efficient and Walkable City

029	Mitchell Street/ Waterfront Link	Short term
030	Smith Street / Waterfront Connection	Medium term
031	Sextant Park & Sadgrove Creek front Park	Medium term
032	Smith/Daly Street Intersection	Short term
033	Harriet Place Revitalisation	Medium term
034	Mitchell Street Redevelopment	Long term
035	Smith Street North upgrade	Medium term
036	Smith - Bennett Street Intersection	Short term
037	Tamarind Park Upgrade	Short term
038	Chapel Lane/ West Lane improvement	Short term
039	West Lane Direction change	Short term
040	Star Arcade/ Austin Lane improvement	Short term
041	Bus Interchange Location Investigation	Medium term
042	Integrated Public Transport Plan	Medium term
043	Potential Loop Bus Service	Medium term

Rationale 5 – Cool the City

044	Cooling weather protection prototype	Short term
045	The Mall Living Room	Medium term
046	Urban Forest Project	Medium term

Rationale 6 – Integrate Parking, Shopping and Moving Around

047	Integrating Parking, Walking & Shopping	Short term
048	Alfresco Dining Policy Review	Short term

Rationale 7 – Plan a Smart, Cultural City

049	Charles Darwin Court Development	Medium term
050	Art, Culture and Youth Precinct	Medium term
051	Skate-able landscape	Medium term
052	Library Extension	Short term
053	Civic Centre Carpark redevelopment	Short term
054	Fish Trap Cultural Centre	Medium term
055	Civic and State Square Master Plan	Medium term
056	State Square Underground Carpark	Medium term

057	Federal Court Building	Long term
058	Lameroo Swimming Beach	Long term
059	Lameroo Beach Facilities	Long term
060	Bike Network	Medium term
061	Social History of Darwin's families	Short term
Rationale 8 – Clarify the Urban Structure		
062	Clear Urban Structure	Short term
063	Clear Hierarchy of Streets	Short term
064	56 Smith Street Redevelopment	Medium term
065	Daly Street Gateway Project	Medium term
066	Stuart Park South Development	Medium term
067	Frances Bay Development	Long term
068	Daly/Smith Urban Centre	Medium term
069	Former Railway Station Site	Medium term
070	Waterfront Master Plan	Short term
071	Hughes Avenue Improvement	Short term
072	City Centre North Development	Medium term

Roles and Responsibilities

There are a variety of Northern Territory and Local Government authorities which have roles and responsibility for a variety of aspects of the Darwin City Centre. When addressing development and management issues in the study area it may be necessary to seek advice and/or approval from multiple departments and authorities. Amongst these departments are the following:

City of Darwin - The City of Darwin is the owner of the Public Realm in the Darwin City Centre. The public realm includes the streets, parks, plazas, malls and all other public spaces. As such it controls what occurs on its land including streetscapes, parking, bike and pedestrian networks, outdoor dining, tree planting and maintenance, amongst others.

The Northern Territory Government (NT Government)

Department of Lands Planning and the Environment - The Department leads land development for the Northern Territory by providing Government with strategic plans and policies to meet current and emerging needs for land and infrastructure, while ensuring developmental and regulatory control. The agency also provides support to statutory bodies including the Development Consent Authority.

Development Consent Authority (DCA) - The DCA is responsible for determining development applications where consent is required under the Northern Territory Planning Scheme. The DCA also has a role in conducting hearings in relation to Planning Scheme Amendments and providing reports to the Minister for Lands, Planning and the Environment about submissions to a Planning Scheme Amendment and the Hearing.

The Department of Transport - This department provides safe, efficient and ecologically sustainable transport systems to meet community and NT Government needs. It is responsible for:

- Public transport
- Road transport
- Transport safety
- Road network management
- Transport assets
- Transport policy

The Department of Infrastructure - This department plays a lead role in planning, constructing and maintaining government infrastructure across the Territory.

Darwin City Centre

Urban Value

The Value & Delivery of the Darwin City Centre Master Plan

As part of testing and evaluating the design of the Darwin City Centre Master Plan, an Urban Value Model was created. This enables the design team to assess the potential of design proposals and maximise the social and economic benefit. The Urban Value Model enables designers to quantify the potential the designs will have. This in turn will enable potential investors, landowners, developers and governments to make informed decisions as the strategies of delivery of the Darwin City Centre Master Plan.

As part of gathering initial evidence, land values were plotted and mapped. Two factors were found to have a significant effect on land value, and these were Land Use Zoning and Spatial Attraction. Both were mapped.

A multitude of spatial layout options were tested during the master planning process. These were evaluated against a number of criteria including the potential land value uplift of each layout. The final Master Plan is the most effective in terms of the potential spatial attraction generated and land value uplift potential. This indicates that it is likely to generate a vibrant, engaging and successful city centre.

NB - Value outcomes are closely linked to the proposed layout of the City Centre. Deviations from the Master Plan should be tested against the Urban Value Model so that the values are not diminished by less successful layouts.

The increase in spatial integration is forecast to not only grow the social and economic potential of new areas, but significantly improve the performance of the existing city centre. For example, pedestrian movement is predicted to increase by more than 30% in the core of the City Centre. This will have a profound effect on retail performance as increased "footfall" increases potential retail sales.

From the Urban Value Model, the increase in land value as a direct result of implementing this particular Master Plan will be approximately \$3.7 billion in today's value. It is strongly recommended that the Northern Territory Government and the City of Darwin draw up a Development Contribution Plan or similar vehicle to ensure that infrastructure is delivered through development. As most governments are currently challenged to find sources of project funding, the land value result from the Darwin City Centre Master Plan is an obvious source of funding. It is in landowner and developer's interests for governments to fund infrastructure from contributions so the plan can be implemented.

It is estimated that once developed, that new existing areas could house up to 50,000 people in the Darwin City Centre.

Fig. 1

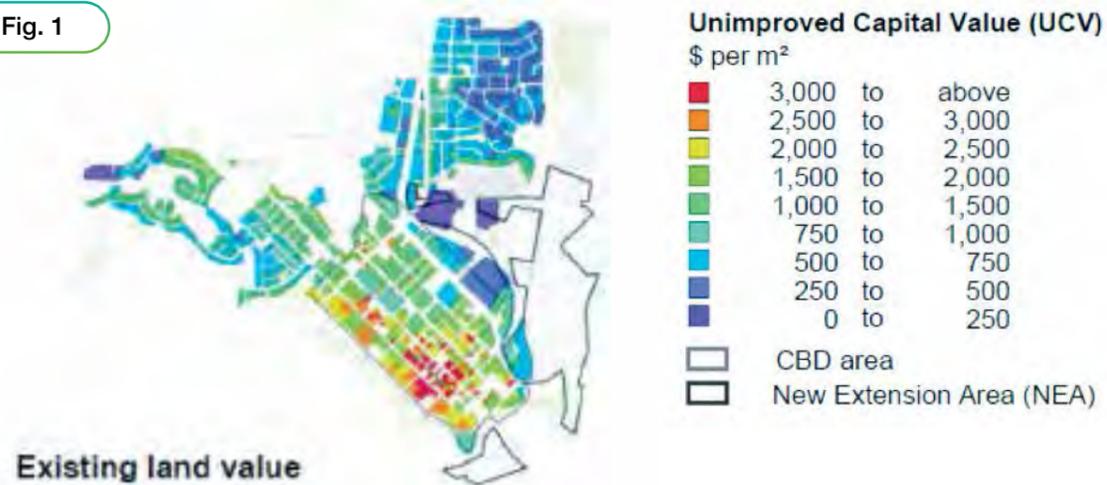


Fig. 2

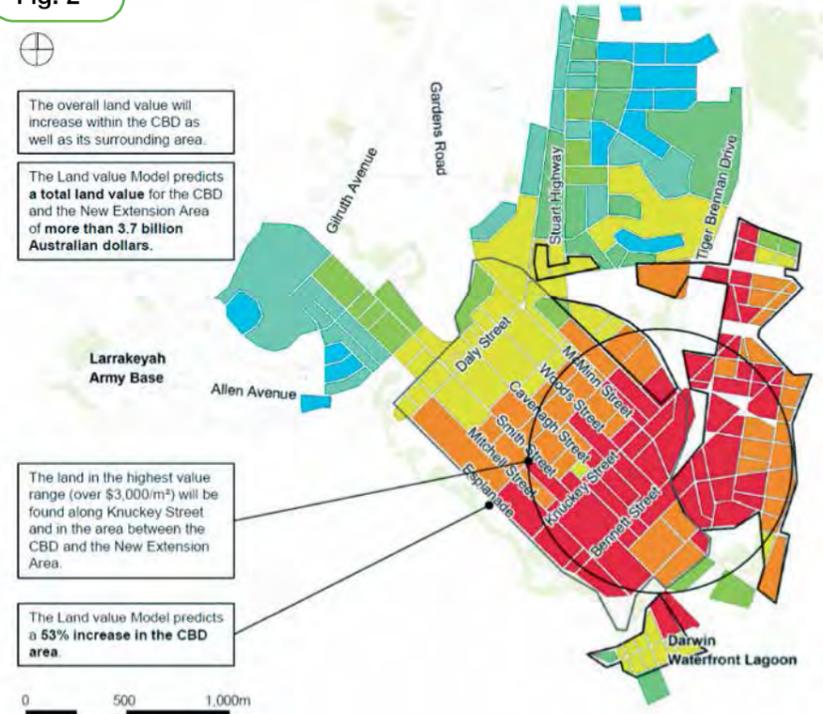


Fig. 3



Figure 1 – Existing Land Values (Space Syntax Limited, 2013)

Figure 2 – Proposed Spatial Integration derived from the final Master Plan (Space Syntax Limited, 2013)

Figure 3 – Predicted Land Value increase (Space Syntax Limited, 2013)

A Vision for Darwin City Centre

Darwin is Australia's northern gateway capital city

Darwin City Centre is the primary urban place in Darwin

It is a great place to live, work, play and shop and is the priority setting for office-based employment

It is an exciting, engaging and inclusive place

Darwin City Centre clearly expresses the relaxed tropical lifestyle of Darwin



DARWIN City Centre Master Plan
Unlocking the Potential





DARWIN City Centre Master Plan
Unlocking the Potential



Goals of the Design Rationales

The Goals of the Design Rationales are:

1. Base the Future on the Past:

- To recognise and protect sacred and significant sites
- To acknowledge and build upon the City's "good bones" set down by George Goyder
- To acknowledge the heritage, culture and traditions of Darwin.

2. Link the Green and Blue Networks:

- To expand the parks and open spaces
- To link green spaces to form networks of open space
- To connect the City to the Harbour.

3. Make New Connections and Links:

- To unlock the potential of the city by creating new links
- To design new Connections for all users
- To ensure new Connections maximise land value and social & economic potential of the land.

4. Make a Resource-Efficient Walkable City:

- To prioritise walking in the city
- To reduce car dependence
- To support walking and encourage alternative transport.

5. Cool the City:

- To reduce the effects of heat and climate
- To increase pedestrian comfort
- To improve the attraction of the City.

6. Integrate Parking, Shopping and Moving About:

- To connect public parking and shopping with comfortable footpaths
- To provide weather protection for pedestrians
- To increase the number of people walking & biking in Darwin
- To support outdoor dining and improve social and economic transactions.

7. Plan a Smart, Cultural City:

- To elevate life-long learning as a key growth factor
- To plan facilities for art, culture and education
- To include art in buildings and streetscapes as part of the social, cultural and economic development of Darwin City Centre.

8. Clarify the Urban Structure:

- To agree upon the urban structure of the City Centre
- To ensure that land uses support the urban structure
- To maintain the roles of precincts in the City Centre.

Darwin City Centre

Putting it all Together

Creating a Walkable City

Darwin City Centre is relatively compact and potentially walkable. New links and comfortable walking routes will become possible with increased residential density, employment and mixed use development in the City Centre. Higher levels of walking will support improved retail performance, reduce reliance on private vehicles and enhance the social and economic performance of the City Centre.

Increasing pedestrian comfort through street tree planting, in combination with cooling awnings, is essential to creating a walkable city. Good pedestrian connections create vibrant streets that encourage interaction and diminish crime and social problems. The streets become places for social interaction as well as promoting 'footfall' to retail businesses – a proven economic value in city centres.

The walkable city incorporates the following elements:

- Weather protection along main thoroughfares and between pedestrian destinations such as car parking facilities and retail zones along Knuckey, Cavenagh, Mitchell and Smith Streets
- Enhanced pedestrian comfort through street tree planting within the verges and parking lanes (details depend on individual situations). Often reorganising of parking can release areas for street tree planting with little impact to on-street parking.
- Provision for seating and shelter throughout the city to provide pedestrians with informal meeting places, socialising and rest areas.
- A city recreational network – this network is on off-road shared paths, with minimal road crossings and suitable for all ages. It is made up of multi-loops and sub-loops and will be of great value to local residents, visitors and workers in the Darwin City Centre and surrounding areas.



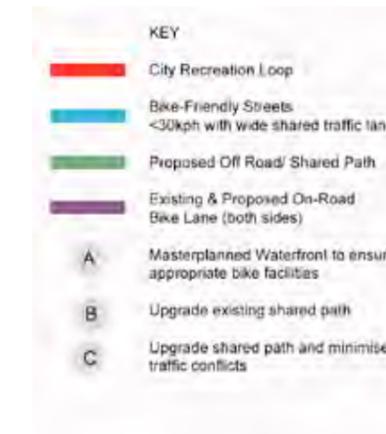
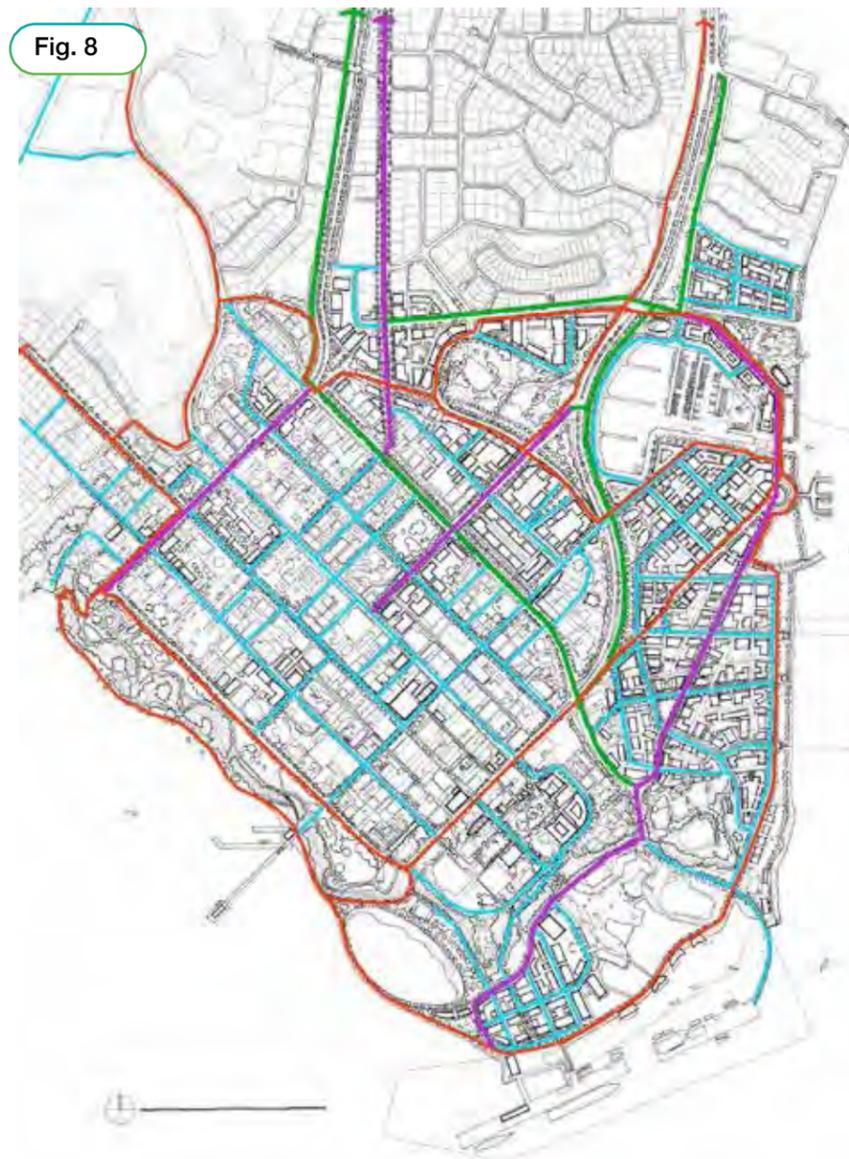
Creating a City Centre for Bike Riding

Darwin already enjoys the highest per capita percentage of bike riders of all Australian cities. The combination of climate, topography, existing cycling facilities and compact urban structure provides the ideal conditions for expanded and improved bike riding.

Bike riding includes all types of travel – commuting, recreation, short trips, sports/ health. It is also a transport mode of choice for a wide range of ages. Investment in bike riding provides significant physical and mental health benefits, is non-polluting, affordable, and reduces congestion on roads and the need for expansive car park facilities. Bike riding provides excellent door to door access.

The proposed bike riding network will include the following:

- A city recreational network – this network will be on off-road shared paths, with minimal road crossings and suitable for all ages. It will comprise multi-loop and sub-loops and be of great value to locals, visitors and workers;
- On-road bike lanes – where space permits and there are high vehicle volumes, on road bike lanes are provided;
- Bike friendly streets – all streets designed to be bike friendly from the outset. Actual treatments will vary depending on vehicle speeds, volumes and numbers of heavy vehicles. Ideally low vehicle speeds, low traffic volumes and few heavy vehicles allow safe sharing of most roads;
- End of trip facilities – both public and private facilities including bike racks, lockers, showers;
- Links to the broader bike network entering the city and providing connections to Larrakeyah, The Gardens and Stuart Park.



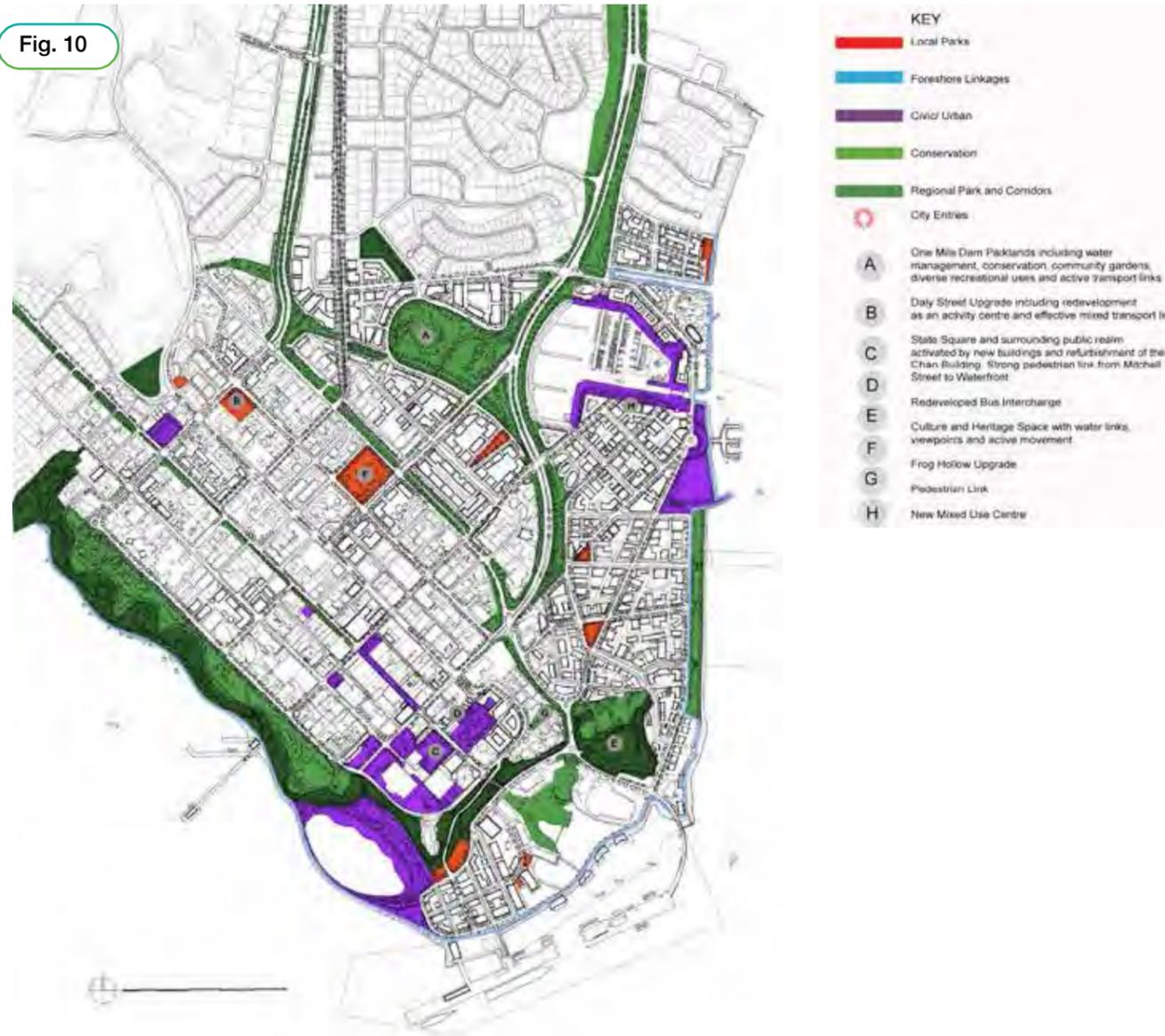
Putting it all Together

Creating a Network of Open Spaces

The landscape and open space is a defining quality of the modern, developing City of Darwin. The table below summarises how the various identified community values have been recognised as part of the new Master Plan.

Community Value/ Issue	Physical and Planning Outcome in the Master Plan
Tropical and spacious	Shady and extensive landscaped areas are a major component of the urban environment with new parks and reserves
Laid back and relaxed outdoor lifestyle	Outdoor areas close to places of work and home with flexible spaces suitable for social and community functions and gatherings
The Larrakia story, as the original inhabitants of Darwin region, is not visible	Protection and recognition of cultural sites, remnant bush and a pristine harbour environment
Inclusive, multi-cultural and friendly	Safe and flexible spaces that promote a social city where people can feel connected
Engaging and exciting	Streets and public spaces become the stage for diverse and dynamic activities – theatre of life
Services for elderly	Universal access, safe and well lit public areas
Spaces for youth	Youth activity area, spaces that allow events and gatherings, with smaller quiet spaces and links between active and creative pursuits
Connections to the harbour – part of our heritage and a great asset	Access to and along the foreshore, improved views to the harbour from the plateau, direct contact with foreshore edge
Wild and undeveloped areas that are easily accessed	Protected and enhanced remnant bushland areas with improved access
Hot climate and heavy rainfall in wet season can limit attractiveness of walking	Shade and weather protection in Streets
Severe weather and risks associated with trees	Improved tree planning establishment and management based on the principles of Urban Forestry (refer associated project)
Increased population and increasing densities will need access to open space and recreation resources	Take long term view to increased and changing needs for open space and recreation in the CBD. Large areas set aside to meet future needs
Protection of the environment – remnant vegetation and harbour water quality	Recognition of the role of Green Infrastructure as the basis for improved environmental outcomes
Health and well-being of the community as a whole	Landscape, trees, natural areas, social spaces outdoors, streets designed for walking and bike riding have a major influence on the health and well-being of the community

Fig. 10

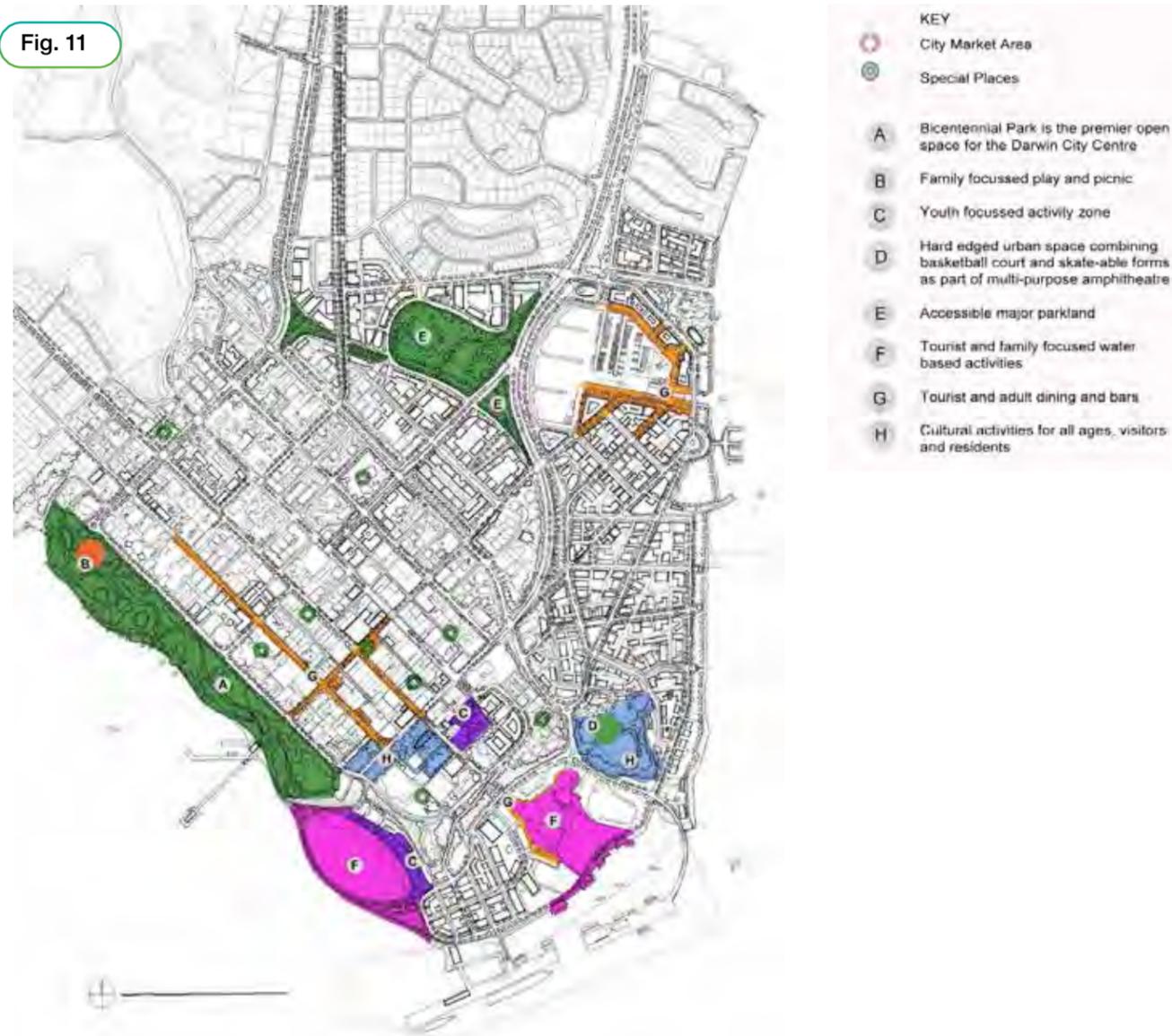


Creating a Cultural & Social City

The Darwin City Centre Master Plan identifies places where arts, culture and education can establish a presence in the Darwin City Centre. The Design Guidelines suggest the widespread use of artists in streetscape projects, building design and in the making of urban infrastructure. In this way art and culture will be viewed as legitimate components of the economic development of the City as the City is rendered attractive and a living cultural artefact. This will boost tourism.

The Master Plan outlines and identifies important social needs and places and recognises that there is a diversity of activities and different needs for various ages, mobility and interests which need to be catered for. In addition to providing diverse open space areas, the social city encourages people to be out and about, walking, bike riding and relaxing with other people. The Master Plan is a plan to maximise social and economic transaction, exchange and interaction.

Fig. 11



Putting it all Together

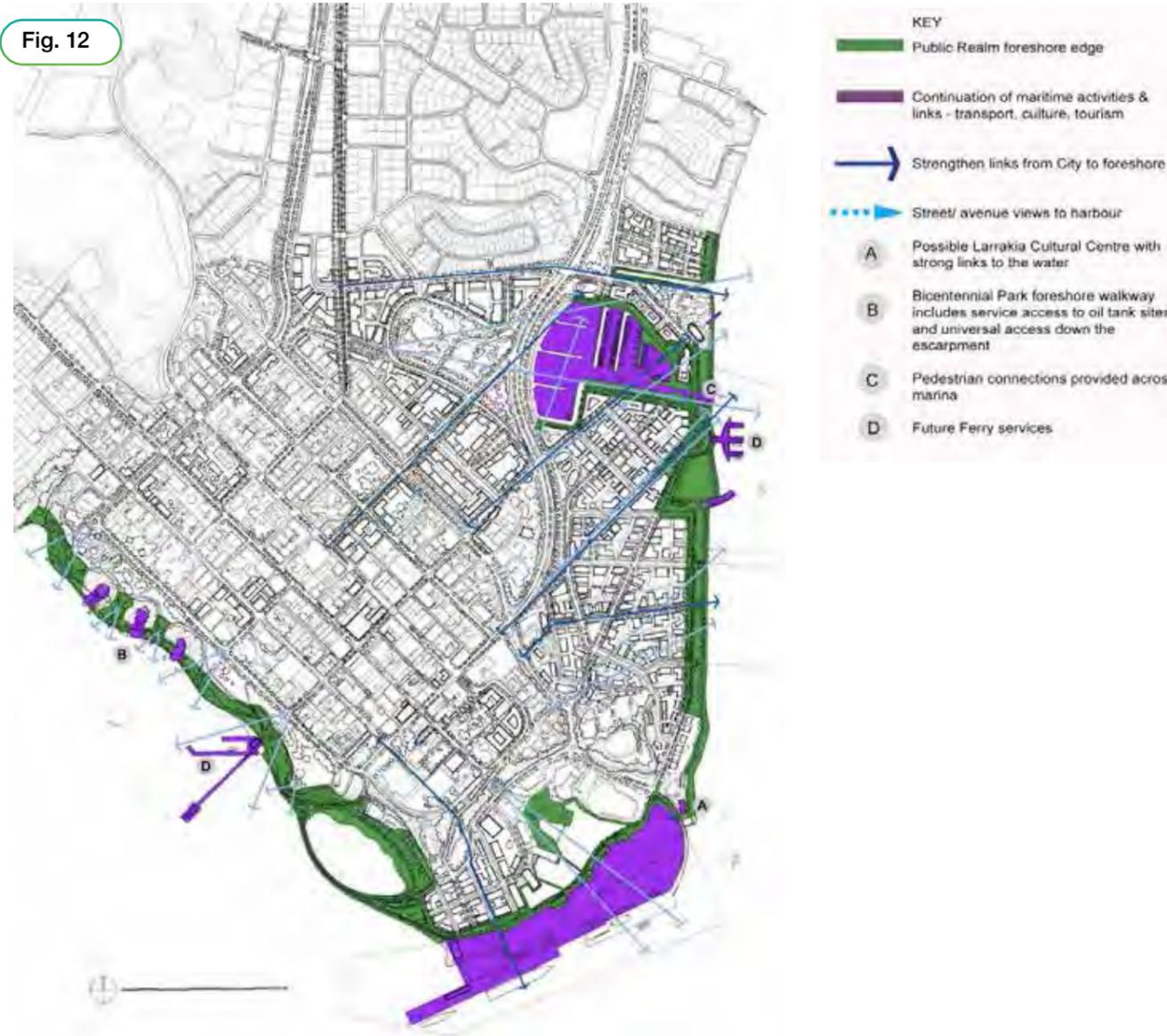
Connecting the City to the Harbour

The City Centre is on a peninsula. At high tide, less than a kilometre separates Ludmilla Creek from Sadgroves Creek. The Darwin peninsula has a total area of 15 km² and a total coastline of 24 km. The original inhabitants, the Larrakia, identify themselves as “saltwater people”. All early arrivals were by sea, from Macassan traders to early European settlers. The City’s heritage is intimately linked to the connections with the harbour and the sea, yet today the harbour and the water’s edge are not accessible, visible or celebrated from the City.

The Master Plan builds on the unique qualities of the harbour and foreshore through the following :

- new physical and visual connections
- expanded residential and mixed use developments that capitalise on the harbour setting
- new recreational, social and cultural uses along the foreshore
- expanded and improved public access
- infrastructure developments that release commercial opportunities and improved community facilities.

The harbour has always been integral to Darwin’s unique lifestyle, and the Darwin City Centre Master Plan delivers projects to capitalise on this natural asset.



Essential Urban Structure

The Urban Value Model shows that some connections are essential if the Darwin City Centre is to perform at optimal level, (socially, economically and environmentally). While other linkages are important the following direct links are essential to the future of Darwin.

- The extension of Knuckey Street to Frances bay in as straight a line as is physically possible. It is essential that a line of sight from the city centre to Frances Bay be maintained along this alignment;
- The extension of Barneson Street to Tiger Brennan Drive in as straight a line as possible without deviations;
- The extension of Bennett Street as both a pedestrian path, and in Frances Bay as a street, in as straight a line as possible;
- A connection from the existing roundabout at the intersection of McMinn Street and Frances Bay Drive to meet the extension of Bennett Street near the creek edge;
- A new creek fronting street linking from the existing convention centre in the Darwin Waterfront and extending as far north as possible before connecting to the intersection of Dinah Beach Road and Tiger Brennan Drive;
- The extension of Dinah Beach Road to the Stuart Highway, and;
- The extension of the existing Stuart Highway in a southerly direction to connect to the intersection of McMinn Street and MacLachlan Street.



Darwin City Centre

Design Guidelines

Introduction

These guidelines refer to the overall structure and land use mix of the Darwin City Centre. These Guidelines apply to the Darwin City Centre.

The Guidelines are place-based in that they respond to specific conditions found in the Darwin City Centre.

The Guidelines are not prescriptive in terms of architecture and provide opportunities for designers to innovate. However they do require architects and other designers of the built environment to recognise that buildings are to form a cohesive whole along street edges. The Guidelines therefore require buildings to contribute to an overall townscape and become “space-making objects” in Darwin’s most urban place, the City Centre. The individual building’s contribution to defining a comprehensive “Public Realm” is critical to improving streetscapes in the Darwin City Centre. The role of individual buildings is therefore to combine with other buildings to create great streets, as they do in all good cities and towns.

The Guidelines are a reflection of the relative importance of buildings in the Darwin City Centre, and represent a planning emphasis based on built form rather than land use to ensure that buildings work harmoniously together to improve the quality of the City Centre and encourage increased walking to and within the Darwin City Centre.

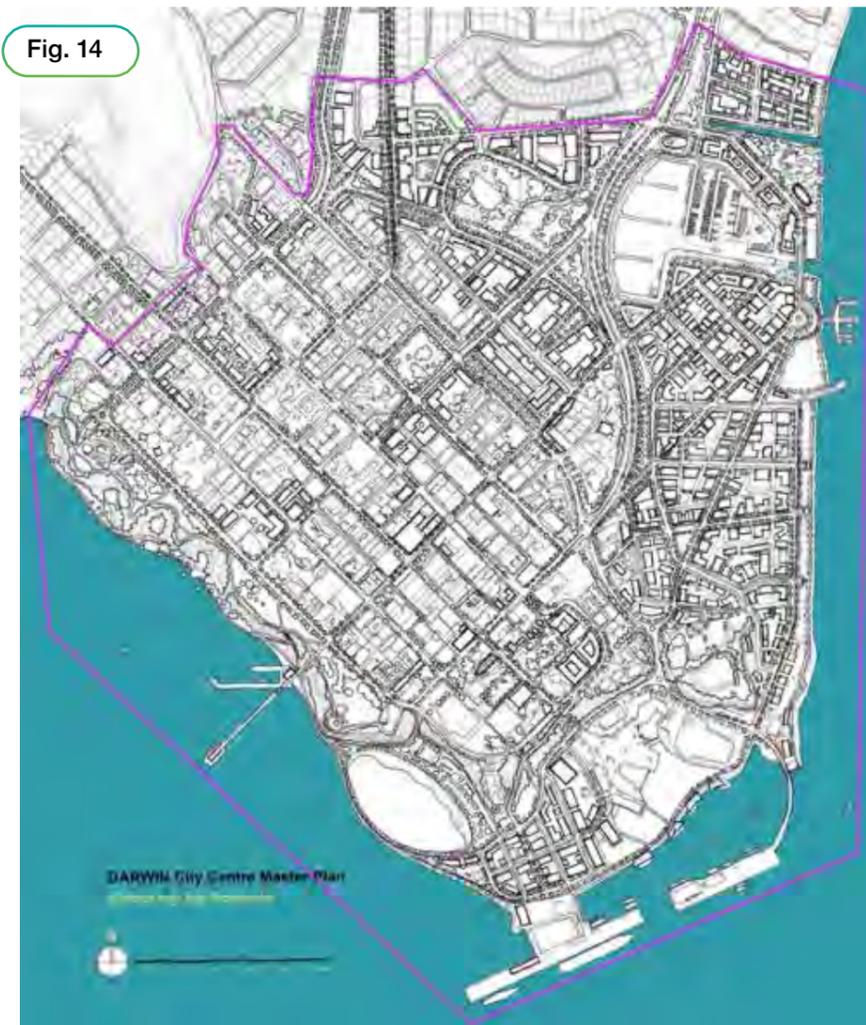
Pedestrian amenity is a key objective of the Guidelines. This is in line with the Northern Territory Planning Scheme, where the Central Business Zone (Zone CB) states, “Building form and design is expected to be sensitive to the needs of pedestrian movement and facilitate the creation of safe and active street frontages and public places and a vibrant commercial precinct”. An urban design audit of Darwin indicates that these objectives are not being met through the application of zoning controls alone, hence the need for these Guidelines.

The Darwin City Centre is made up of several elements which combine to give character to Darwin. These are:

- The Urban Structure;
- Streets;
- Buildings, and;
- Landscape

These Guidelines are intended to provide designers, builders, governments and approval authorities with the tools to design, build and evaluate development in Darwin City Centre so that the preferred future character is delivered over time. This future character is based upon improved social, economic, cultural and environmental performance.

Where do these guidelines apply?



Area where the Design Guidelines apply

How are these guidelines organised?

These Design Guidelines form the minimum standard of urban design for the Darwin City Centre. The Guidelines are grouped into the Public Realm and Building Design, with Elements contained in each:

A - Public Realm Elements

- A1 Urban Structure
- A2 Streets
- A3 Landscape

B - Building Elements

- B1 Buildings
- B2 Parking
- B3 Privacy and Noise
- B4 Environmentally Sensitive Design

How are these guidelines applied?

Each of these Elements is described in terms of:

- Purpose
Setting the overarching objectives
- Requirements

Requirements which are to be met to satisfy the Purpose. Alternative responses that vary from these Requirements may be submitted and judged on their merits against the Purpose statements.

- Guidance

This section demonstrates additional suggestions in which the Purpose could be met or enhanced.

Section A - The Public Realm

A1 Darwin's Urban Structure

Purpose

The spatial arrangement of the Darwin City Centre has a significant impact on its social, economic and environmental performance. For this reason the city's urban structure should remain integrated via a network of coherent and well-connected streets, public open spaces and parks.

The urban structure of the city should also positively contribute to and respect the heritage value and structure of Darwin's Goyder Grid.

Requirements

- R1. The key linkages identified in the Darwin City Centre Master Plan are to be reserved.

Guidance

- G1. Artists should be included in the design process of streets, parks and public open spaces.

A2 Streets

Purpose

Streets are the most important public spaces in the Darwin City Centre. They perform a wide range of functions including the movement of pedestrians, cyclists, motorists, tourists and public transport users.

In addition, streets are key social and economic spaces where social and economic interaction and exchange occur on a daily basis. For this reason streets should function as social places and not just as conduits of traffic.

Streets and the buildings around streets should carry strong cultural messages and values, and heritage buildings add significantly to a strong sense of place in streets.

Streets should be designed to ensure movement along and across streets is safe and easy, and pedestrians are given priority.

Requirements

- R1. Footpaths must be constructed on both sides of every street.
- R2. Design intersections to make pedestrian crossings convenient and safe. Avoid splitter islands and left turn lanes if possible so that pedestrian crossings follow desire lines and are short.
- R3. Achieve minimum feasible and practical kerb radii at corners to support pedestrian safety and convenience as a priority.
- R4. To design streets which balance the needs of all street users through designs which create safe, high amenity spaces for all users.
- R5. Design intersections so that the needs of pedestrians are met as a priority.

Guidance

- G1. On-street parking should be encouraged in all streets to provide a physical barrier between moving traffic and pedestrian paths.
- G2. Where possible new medians should be introduced and have trees incorporated into their design to provide shade and cool the general street environment.
- G3. Provide as much public seating in well protected and shaded places in streets.
- G4. Where practical, plant additional street trees in parking lanes throughout the city centre to increase the tree canopy and provide additional shade

for pedestrians.

A3 Landscape

Purpose

The tropical context for Darwin could be significantly enhanced through the development of landscape. Landscape enhancement would add to the tropical character of Darwin while also providing shade and cooling the City Centre.

Therefore, landscaping should provide shade, visual amenity, and comfort for users. Landscaping should achieve a tropical feel, whilst supporting the urban character of the Darwin City Centre.

Requirements

- R1. Street trees should be selected to be "fit for purpose". The following are performance criteria for street trees:
- Trees to be non-fruiting, but may produce flowers.
 - For public safety reasons species to be non-allergic, and not in the habit of dropping boughs, or producing fruit.
 - Trees to be "architectural" and regular in their form.
 - Street trees to produce deep shade.
 - Trees to have clear trunks to 2.0m at maturity to maintain visibility at pedestrian level.
 - Trees to have a non-invasive root system.
 - Trees to have an urban scale, growing up to four storeys in height where appropriate.
- R2. No plants or shrubs should be planted to block the field of vision between 700mm and 2000mm above ground level in Darwin City Centre streets.

Guidance

Streets

- G1. Where practical, street trees should be planted in all City Centre streets at approximately 9.0m to 12.0m centres in order to provide a shade canopy for pedestrians and parked cars and to cool the City Centre.

Plazas or Squares

- G2. Squares to be landscaped and paved with durable natural materials to facilitate a wide range of uses over time.
- G3. The planting of trees in squares to provide shade and break up the large scale of spaces is encouraged.
- G4. Seating in and around squares should be provided.

Section B - Building Elements

Parks

- G5. Landscaping in parks should not block views of paths and open spaces from streets and surrounding houses/ offices.
- G6. Landscaping should approximate natural conditions.
- G7. Essential paths in parks should be well lit with lighting that is consistent along the path, and at a higher level shining down, not at eye level to avoid “blinding” pedestrians.
- G8. Lighting should illuminate each side of pathways to provide a greater sense of safety for users at night.

Street Furniture

- G9. Seating should be provided in streets, squares, parks and along shared paths.
- G10. Seating and lighting should be provided in streets near bus stops and in the future; bus rapid transit, tram or light rail stops.
- G11. Waste bins and ashtrays should be located in areas where anticipated pedestrian volumes are high, near shops, and near public transport stops.
- G12. Drinking fountains should be provided in or adjacent to squares.
- G13. Public lighting should be provided in streets, footpaths through parks, near public telephones and public transport stops, squares, and any public spaces likely to be well used at night to assist in providing safe passage for pedestrians, cyclists and motorists.

B1 Buildings

Purpose

The relationship between buildings and the Public Realm is fundamentally important. How buildings relate to the street has a direct impact on the social, economic and environmental performance of the city centre. For these reasons buildings should contribute positively to creating a well-defined and active Public Realm.

Buildings should also contribute to the safety of the street by achieving high levels of passive surveillance, which is achieved by avoiding blank walls and poor visibility between buildings and the street.

Buildings are also to contribute to the creation of a high quality public realm by providing weather protection for the pedestrian, and by providing a strong sense of continuity and containment to streets.

Requirements

- R1. Buildings in the Darwin City Centre are to be oriented to the primary and secondary street and be entered from the street.
- R2. Active frontages for buildings in Darwin City Centre are to use such treatments as:
 - a. provide frequent, operable, direct and legible pedestrian entrances from the pedestrian footpath to:
 - I. each individual ground floor commercial premises that abuts a primary or secondary street;
 - II. foyers that allow access to either large format retail stores or upper floors; and
 - III. any mid-block pedestrian linkage.
 - b. Providing a “sleeve” of shops around large format retail stores;
 - c. Locating active commercial uses at the ground floor along the primary and secondary streets of new development as far as practical.
 - d. Clear glass windows with views to and from the street that avoid the use of darkened or highly reflective glazing or coatings, floor to ceiling advertising, painted finishes or posters which obscure views.
 - e. the use of canopies, awnings, planting or verandahs to provide weather protection and shading
- R3. The design of buildings in the Darwin City Centre is to provide 75% of the length of the street boundary at ground level as active street frontage. Blank walls facing a primary or secondary street are not to exceed 3.0m in length.

R4. Buildings in the Darwin City Centre are to:

- a. provide floor to ceiling heights which allow for a change of use over time, and;
- b. locate plumbing and toilets away from a primary and secondary street boundaries.

R5. Buildings in the Darwin City Centre are to:

- a. address street corners by providing an active frontage, entrances and weather protection to both primary and secondary street frontages as well as any splay where the lot boundary meets the road reservation.
- b. Soften the appearance of rooftops by using techniques such as roof gardens or roof top terraces.

R6. Where private open space is provided for ground floor residences adjoining a primary or secondary street, the private open space should be raised sufficiently to ensure that the eye level of seated occupants of the private open space is above that of passers-by on the footpath. Views to adjacent streets and public open spaces from the private open space must be maintained while still maintaining privacy for the private open space.

R7. The proportions of buildings and building elements in the Darwin City Centre should generally be more vertical than horizontal.

R8. At ground level no more than 70% of the building frontage may be glazed.

R9. The structure and materials of the upper levels of the building should be “brought to the ground” visually, so that the building appears not to “float” on a glazed ground floor level.

R10. Provide windows in buildings for overlooking streets and other public spaces.

R11. Ensure that new development responds sensitively to and reduces negative impact on significant heritage places.

Guidance

- G1. Consider providing seating as part of the design of the base of the building.
- G2. To promote continuity and compatibility between buildings, buildings may respond to design features such as materials, string courses, fenestration, etc., of surrounding buildings. This will support a sense of continuity and a sense of place in Darwin.
- G3. Consider including artists in the design of buildings.
- G4. Design buildings which promote health and flexibility of use by reducing the reliance on artificially modified air temperatures.

- G5. Design windows which are capable of being opened by building occupants.
- G6. Where residences have ground level verandahs or patios these should be accessed directly from a living space within the building.

B2 Parking

Purpose

Parking areas can significantly reduce amenity and the visual attraction of the city centre. These guidelines are intended to reduce the visual impact of parking areas, whilst also ensuring that parking areas do not obstruct the achievement of active street frontages. This involves the removal of car parking from the front of buildings in the Darwin City Centre and the accommodation of larger public parking areas in basements or within buildings.

Requirements

- R1. Parking should be provided either in basements, in buildings above ground floor level or behind buildings. Parking should not be provided in front of buildings other than on the street.
- R2. Provide vehicle access points to parking areas from secondary streets rather than the primary street where practical.
- R3. Introduce innovative ways of providing parking, such as stacked parking arrangements.

B3 Privacy and Noise

Purpose

Living in the City Centre is noisier than living in a suburb, therefore measures should be taken to ensure that City Centre residents can enjoy privacy and relative quiet. This is achieved by ensuring that the design of buildings provides reasonable levels of visual and acoustic privacy for residents.

Requirements

- R1. Locate and orient residential development to limit adverse amenity impacts from existing building and activities, such as noise from loading bays, cooking exhausts, service plants, waste collection and bin storage.
- R2. Maximise privacy between internal living areas of opposing dwellings through:
 - Site and building layout
 - Utilising screening devices such as louvers, balustrades, planter boxes and landscaping.

B3 Environmentally Sustainable Design

Purpose

The design of buildings should incorporate energy conservation measures through appropriate orientation, technology, detailing and material specification. Building design should aim to preserve the environment by minimising the use of non-renewable resources, reduce the use of potable water, minimise greenhouse emissions, reducing demand on energy consumption, minimise waste and improving comfort for residents, visitors, shoppers, workers and all other users.

Guidance

- G1. The use of solar power for energy requirements, especially water heating is recommended.
- G2. New buildings should incorporate water conservation measures which minimise the use of potable water and maximise water reuse for internal and external use.

Definitions

Active Frontage

Refers to street frontages where there is an active engagement between those in the street and those on the ground floors of buildings. Making building edges “active” to the street adds interest, life and vitality to the Public Realm.

This means:

- Frequent doors and windows with few blank walls;
- Narrow frontage buildings giving vertical rhythm to the street scene;
- Articulation of facades with projections such as bays and porches providing a welcoming feeling;
- Lively internal uses visible from the outside, or spilling onto the street;
- Landscaped or patterned blank walls are not active frontage.

Natural Surveillance

“Eyes on the street” provided by people as they go about their daily activities or through the design of buildings which suggest occupation by people and human activity – this can deter anti-social behaviour and make places “feel” safer.

Robust Buildings

Buildings which are designed to be able to change use over time are referred to as “robust”. These buildings are wide enough to allow natural light to penetrate most of the interior and are accessible and flexible to allow a range of uses over time.

Darwin City Centre

Qualities of the Public Realm

The Public Realm and the Darwin City Centre

The Darwin City Centre is focussed on the idea of supporting the Citizen, where most shopping centres are all about support for the Consumer. This is a fundamental difference which distinguishes the City Centre. It is structured around an interconnected network of public spaces including streets, parks, squares and malls. This is referred to as the Public Realm. These spaces are unambiguously public, are not semiprivate or even able to be closed off to public access at any time. The City Centre has a coherent and well established Public Realm which makes it unique within the context of the Darwin Metropolitan area. The Darwin City Centre is the most urban place in the city, and this is a precious resource which should be protected and enhanced.

Public and Private Interaction

There is a strong inter-relationship between the public and private space in the City Centre. The Public Realm is supported by adjacent buildings within which land use is mixed both horizontally and vertically. This mixture is important to maintain activity and vibrancy in the public spaces for extended periods of the day and night. A good Public Realm is lined by buildings which have a positive and supportive relationship to it, with frequent doors and windows to allow people to come and go, and to provide “natural surveillance” of the Public Realm. Analysis shows that Darwin has a way to go to achieve this as many buildings turn away from the Public Realm.

The Importance of the Public Realm

The Public Environment or Public Realm defines a community. It carries with it significant images and symbols which are derived from the history of the place and the people who have been in this area.

The Public Realm also plays a significant role in supporting retail in an urban context. Retail is heavily dependent on good pedestrian flows and access for its economic viability. “Footfall” is a critical success factor in generating retail revenue.

Urban areas induce pedestrian activity through a high level of perceived safety and amenity. Those parts of the City Centre which have a superior Public Realm which is well connected and integrated with other parts of the city, are likely to induce increased pedestrian activity, and therefore potential retail activity and revenue. This is clear in Mitchell Street, Cavenagh Street, Knuckey Street and The Mall.

What makes a good Public Realm?

The Qualities which make a good Public Realm include the following:

Connected – By definition, the Public Realm is accessible to everyone. However the degree of connection within the spatial system is equally important to allow for uninterrupted, intricate and variable movement patterns. This includes visual connection as well as physical mobility. Visual connections are enhanced by direct lines of sight allowing confidence in mobility, and a sense of experience where there are gradually unfolding views. Visual cues attract interest, just as informal surveillance engenders a sense of personal safety. High quality connections that are safe and offer convenient access can greatly increase the likelihood of people walking or cycling to the City Centre. Many aspects of the Master Plan relate to improving these links and connections.

The Public Realm should allow unimpeded access for all users regardless of physical mobility, vision or mental acuity. Universal access includes provision for mobility and visual impairments, with clear paths along building lines and traversable level changes.

Diverse – The City Centre offers a broad range of experiences and opportunities. The intensity and variety of experiences are part of the cities attraction. The diverse community of Darwin has a variety of needs and differing sets of cultural meanings about use of space. Good urban design supports a mix of activities because of the many benefits in mixing uses rather than separating them. Mixed use increases opportunities of interaction and exchange between a diversity of people and provides an everyday experience of visual and social variety resulting from coexisting and interacting uses. Points of social contact will help foster community spirit and engagement. While the stimuli supplied by most public spaces are biased towards the visual, more attention should be paid to textures, odours and “soundscape”. A truly engaging Public Realm will exploit the senses to create a vivid experience and enhance the sense of place on all levels of experience.

Urban design that supports mixed use offers people convenience, choice and opportunity, which leads to a sense of personal and community wellbeing. This includes increased personal safety and social equity. An accessible mix of complementary uses in close proximity will help promote local employment and residential growth in the city.

Animated – “Animation” encompasses the social life of public places and occurs in several forms. To a large extent, the animation of the city’s public spaces happens quite naturally because people attract people. Many activities in the City Centre need little more than a suitable micro-climate, somewhere to sit and a little extra space. This includes reading the paper, watching other people, interacting socially. In other circumstances invitations and inducements can be necessary to attract people to under-utilised public places. Here, careful design and “stage management” can be important where informal activity is supported and triggered by orchestrated events. Animated social spaces are exciting when the social life of a place becomes self-sustaining. Despite this no matter how busy a place becomes, monitoring and adjustment may be required to optimise the use and fit between the activities and the physical settings.

Responds to Climate

Darwin is a tropical city. Temperatures are high and rainfall is heavy. The Public Realm should be a place where people walking and using the city should be protected from strong sunshine and rainfall. Weather protection afforded by buildings which line the Public Realm is highly desirable. Buildings should also shade hot streets wherever possible, by being close to streets without excessive setbacks. Landscape and vegetation should be designed to provide shade and a degree of weather protection. This maintains the essential tropical character of Darwin.

Expresses Time and Space – The Public Realm should locate people in time as well as in space. Whereas some elements of the city’s structure and character give people a clear “map” of the city, other elements provide a chronological record of its development. The Public Realm should contain some constants which remind us of our origins and evolution, and are recognisably continuous from one generation to the next. This includes responding to and reinforcing locally distinctive patterns of development and culture in built and natural fabric of the city. The interplay between climate, vegetation, and buildings is significant in enhancing a strong sense of place, both in time and space.

The Public Realm should also introduce new concepts or prototypes that differentiate themselves from the status quo, and indicate possible new directions. The City Centre should also incorporate strong new design which crafts distinctive use of space, form and materials in order to foster local pride, civic engagement and confidence, and stimulate innovation, creativity and economic opportunities.

Authentic – The authenticity of the City Centre is derived from many sources including its underlying natural landforms, the variety of natural systems it contains, and the ongoing interaction as that landscape is modified through the process of historical and contemporary development. It also embodies the culture, activities and other elements that contain the “spirit” of a place or setting that transcends its objects or spaces.

By understanding the city centre as a series of interrelated but differentiated precincts, good urban design seeks to uncover, articulate and strengthen the organic character of each area. It has a responsibility to strengthen the positive physical characteristics that make each place distinct by looking to their own particular latent characteristics. However this does not mean that new development should imitate its immediate surroundings or replicate existing conditions that are perceived to contribute to distinctiveness. New buildings, spaces, and functions should respond to underlying patterns such as recurring dimensions, “grain”, orientation, scale, vital textures, local culture and the distribution of activities. And they should do this with wit and intelligence to provide joy and a strong sense of the authentic Darwin character.

Equality – In public places, people meet one another as fellow citizens. Provided they respect others, everyone has the right to use and enjoy public space regardless of mobility, age, permanence or transience or socio-economic status.

The Darwin community is made up of students, families, older people, professionals, visitors, residents, people with disabilities, and people with other special needs – all with legitimate expectations that public places are available to them.

The Public Realm is increasingly under pressure from privatisation. The users of public space are subject to commercial messages and are pressured to consume. An appropriate balance is required between the recognised contribution that commercial activity brings to life in public places, and the invitation for people to linger in the city without obligation to spend. The proliferation of signs and advertisements needs to be tempered to maintain the quality of experience in the Public Realm in the Darwin City Centre.

Aligns with People's Intentions – This describes the extent to which the physical setting enables people to feel comfortable and safe, and allows them to achieve their objectives. Urban amenity relies on respectful and supportive relationships between individual developments, nearby places and the Public Realm. Individual spaces need to accommodate a wide range of events, rather than one specialised activity. Exclusivity tends to exclude some groups of people. This should be avoided by not over-designing spaces for limited and very specific uses. Different activities may co-exist side-by-side, or succeed one another in daily or seasonal cycles.

If the Darwin Public Realm is to remain viable over long periods, it needs to be flexible enough to attract new uses and cultures not imagined when the space was first created, or to be available for adaptive re-use as social needs or cultural values change over time.

Facilitates Interaction and Exchange – Cities are “transaction machines” which facilitate interaction and exchange of a whole variety of qualities and commodities while minimising travel. In order for this interaction and exchange to occur, there needs to be a good and positive relationship between buildings and the Public Realm. This means that connections should be positive without excessive blank walls, obscured glass and the like. These create separation between private and public spaces. As a priority, all development should seek to support people walking. This implies that excessive interruption to the pedestrian pathways should be avoided and minimised. Balance in streets between the needs of all users should be achieved through careful design. No one mode of transport should dominate the others. A good city centre will create balance and equity between users, and this in turn will encourage use, interaction and exchange between citizens in the City Centre.

Darwin City Centre

Supporting Policy

Parking Strategy

The City of Darwin has produced a Parking Strategy for the Darwin City Centre. As part of this Strategy there is an Implementation Plan which documents the actions required for each Goal and associated Policy Statements that should be taken to bring the overall Strategy to fruition.

Many of the actions and triggers will be outside of Council's immediate control and will rely upon an ongoing working partnership between the City of Darwin, various Departments within the Northern Territory Government, private industry and the community.

The Implementation Plan clearly identifies those actions that rest in the control of Council (for example possible changes to the current on-street parking zones A, B and C), and other actions that will require Government agencies to implement (e.g. changes to the Northern Territory Planning Scheme, the setting and assessment of which is outside the powers of Council). In these instances, Council's role will be one of advocacy for change.

The Parking Strategy has been based on an incremental approach to change, recognising that the supply and management of parking has an inter-relationship with various other strategies being developed for the Darwin City and surrounding areas.

During the Darwin City Centre Master Plan stakeholder engagement process, many stakeholders expressed the view that they did not support the idea of "Darwin City Centre becoming a giant car park", and that they were looking for support for alternative means of access to the city, and the reduction of car dependence.

The Darwin City Centre Master Plan does not include the development of Parking Policy, but is very supportive of the direction currently being taken by the Northern Territory Government, the Northern Territory Planning Commission and the City of Darwin.

Employment & the Darwin City Centre

According to the Property Council of Australia and real estate sales and leasing firms, Darwin City Centre's office market suffers from lack of A Grade office stock. Darwin's vacancy rates in A Class office are at present the lowest in Australia.

Darwin's office vacancy rate across all grades was 8% as at January 2013, but A Grade office space had a vacancy rate of 2.3%.

The City Centre office market is largely dependent on government services at present. Growth in the wider Darwin region and the long term prospects for the energy and mining sectors in Darwin suggest that demand will increase for office space and that government space will decline as a percentage of all space.

The level to which economic and population growth will create demand for City Centre office space is subject of a study undertaken on behalf of the Department of Lands, Planning and the Environment by Macroplan Dimasi. Based on population growth in the next 40-50 years, an increase in office space in the Darwin City Centre in the order of 160,000 square metres to 180,000 square metres will be required. The Master Plan is "employment capable" as it is simply a plan with development capacity and improved networks (not a land use plan).

Office development in the City Centre requires both strategic and spatial settings in the Planning Scheme. Without such settings the City Centre could become a mere "suburb in the sky".

Whilst government has expressed a desire for decentralisation of services out of the City Centre, the benefits of the City Centre as a marketable and vibrant centre of commerce and exchange at the top of Australia and the edge of Asia are obvious. Decentralisation may have cost and service benefits to government for some business units but represents an identified (by business) threat to City Centre K performance.

The economic benefits of agglomeration are an accepted component of well performing cities. Thickness of jobs markets within and across industry sectors is a typical economic factor that can produce agglomeration (increased productivity) benefits. Agglomeration also assumes the ability to exchange ideas and generate social capital, which is in part a function of density and diversity in a city. Agglomeration therefore requires an urban condition that promotes social exchange. The Darwin City Centre Master Plan is intended to be a device to create the settings for optimum economic and social exchange. Such exchange is the true purpose of cities.

Having established the nexus between a well performing retail sector, the urban condition and non-retail employment, it is necessary for government to prioritise employment at least in policy terms in the City Centre. This is despite the fact that for high value jobs the opportunities in Darwin are mostly limited to the City Centre and a small range of business parks. Palmerston and Casuarina do not have the urban qualities that are attractive to high value businesses.

However the narrow range of business settings for metropolitan Darwin creates

both an opportunity for Darwin City Centre and a problem. In the context of this opportunity, it is key that the City Centre be prioritised as the key location for office development. The Darwin Regional Land use Plan 2014 identifies the Darwin City Centre as "performing the critical capital city role and higher order function as the Northern Territory's dominant commercial, cultural, administrative, tourist and civic centre". This implies a strong view about the relative values or economic, social, cultural and environmental benefits of the City Centre compared with any other place.

The separate study on employment in the metropolitan area undertaken by Macroplan Dimasi for the Department of Lands, Planning and the Environment, should appropriately recognise the role of Darwin City Centre as the flagship location for businesses in the region. This role is unable to be taken by any other place in the region but inappropriate development could leave the city without the capacity to accommodate not only the likely increase in demand coming from population growth, but also likely "tipping point" growth coming from business - especially those in the resources sector. That said, Darwin at present lacks infrastructure that would make Darwin an attractive place for high paid workers and their families such as:

- high quality and private schools.
- high quality, comprehensive range of specialists in medicine and surgery.
- wider and deeper range of university courses.
- high quality mobility options

This is not the fault of anyone; it is an issue of critical mass of population. At double the population, many of these facilities and opportunities are likely to be in Darwin but there needs to be recognition that the City Centre needs to bank capacity to accommodate the employment requirements of the future mix of workers. The future business environment of the City Centre needs to be seen in both incremental (same linear path) and differential (off the linear path) terms. The incremental path is aligned with population growth and are plotted in Macroplan's work as a demand profile for the City Centre.

The differential path to attracting new employers is not obvious in policies and regulations affecting the City Centre despite many political statements about the strong economic future of Darwin. The economic characteristic of the current energy and mining boom in Darwin suggests a relatively long term resource and not a boom bust outcome.

Some potential "new" employers will already have workers in Darwin, but in shared office arrangements or "fly in fly out" (FIFO) in nature. Converting these arrangements to domiciled workers will require a greater range of office accommodation. However there is a material difference between a domiciled FIFO worker and a formal office address in the City Centre. The important issue for the City Centre is the recognition of the need to grow office accommodation in the City Centre and the profile and shape of that space. The Macroplan work covered this requirement and suggests mechanisms for dealing with it.

In summary a successful, urban retail environment in the City Centre is a major catalyst for a successful, vibrant business centre.

01 Design Rationale

Base the Future on the Past

Local identity is derived from geology. The colours and materials of the soils and rocks lend themselves to local identity, and the geology determines what is able to grow in that place. This has a direct impact on landscape and character.

As part of the Darwin City Centre Master Plan, a key rationale is to examine the natural systems and repair those places which have suffered environmental damage over time. Many of these are sacred and significant places which should have their intrinsic value restored.

Darwin City Centre has inherited “good bones” from its original designer, George Woodroffe Goyder. In 1869 to 1870 Goyder and his team of surveyors sited and set out the urban grid of streets and lots which have stood Darwin in good stead ever since. He named Frances Bay after his wife. Despite many alterations to the original urban grid, Darwin City Centre remains the only urban place in Greater Darwin and is a precious resource which should be protected and extended.

The grid enables a high level of social and economic interaction and exchange to occur.

Local character in Darwin is significantly enhanced by heritage places, buildings and their settings. These should continue to be protected to maintain a strong sense of identity in the Darwin City Centre.

Fig. 15



Fig. 16



Fig. 17



Figure 15 - Repaired, protected & revitalised sacred & significant sites in the Darwin City Centre.

A - One Mile Dam, B - Frog Hollow, C - Stokes Hill, D - Damoe-Ra Park, E - Doctors Gully

Figure 16 - George Woodroffe Goyder

Figure 17 - Where Darwin started – Goyder's Camp

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 001	Extend the City Grid	NT Government	Critical Desirable Discretionary	Medium Term
				<i>Unlocking the potential</i>

Description

The grid of streets and plots laid out by Goyder has stood Darwin in good stead for over 140 years. As the city expands, it makes sense to build upon that structure and grain of streets to ensure that new parts of the city relate directly to the existing “Goyder Grid”.

Key parts of the grid should be extended and over time connected back to the original grid. These include:

- Connecting Knuckey Street to the north-east
- Linking Mitchell Street to the Darwin Waterfront
- Linking Barneson Street to The Esplanade via Peel Street
- Extending Lindsay Street to the north-east
- Re-Connecting Bennett Street to The Esplanade
- Linking Fisherman’s Wharf to Bennett Street
- Linking the Stuart Highway to Harvey Street
- Connecting One Mile Dam to the City Centre via Barneson Boulevard
- Extending Harvey Street to Knuckey Street

These extensions to the grid have been tested in the Urban Value Model and require further investigations regarding their physical design and implementation and their transport function.



Figure 18 – Linking new areas back to Goyder’s Grid

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 002	Smith Street/ Esplanade Intersection	City of Darwin	Critical Desirable Discretionary	Short Term
				<i>Unlocking the potential</i>

Description

At present the pedestrian crossing of The Esplanade at the intersection with Smith Street is not performing well. There is confusion as to who has priority, and the driving conditions do not signal that there is a pedestrian-priority crossing.

To improve this intersection, it is proposed to raise the level of the road surface at the intersection, and improve driver awareness of the pedestrian crossing. This will be achieved through a combination of level changes and road markings. The purpose of the project is to improve the pedestrian environment in The Esplanade, and facilitate safe crossing to Hughes Avenue in this important heritage precinct.

Improved pedestrian safety will encourage increased visitation to this significant precinct. As part of the project the construction of a pedestrian shelter incorporating cooling fans is proposed along the eastern edge of this intersection and above the footpath. This will also provide a more appealing point of entry to the Darwin Waterfront.

Fig. 19



Figure 19 – Proposed intersection treatment

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 003	Doctors Gully Beach Repair	NT Government	Critical Desirable Discretionary	Medium Term
				<i>Unlocking the potential</i>

Description

This proposal forms part of the overall concept of developing a boardwalk along the lower extent of Bicentennial Park, linking from Doctors Gully to the Deckchair Cinema.

The area at Doctors Gully may include landfill and a seawall to extend the open space in this area and provide sufficient space for a general purpose park area by the foreshore with links to the Gully itself, fish feeding and the rock climbing facility.

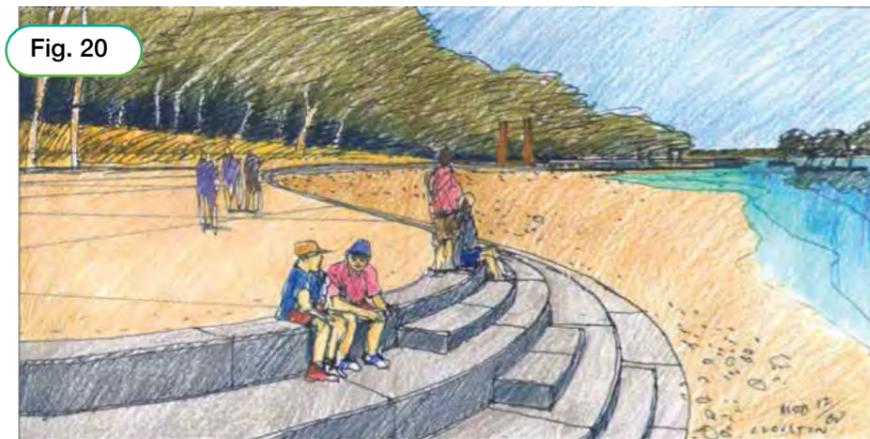


Fig. 20

Figure 20 – Image of a reconstituted beach and walkway at Doctors Gully

Fig. 21



Figure 21 – Location

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 004	Damoe-Ra Park Restoration	City of Darwin	Critical Desirable Discretionary	Short Term

Description

Damoe-Ra Park is a shady park located below the escarpment on the coastal side of Parliament House. It is identified as a women's commemorative park, and the site is a sacred site as it holds great significance to the Larrakia people. Access to the park is via a well-lit stair from The Esplanade and/or from the Deckchair Cinema car park.

The site has many significant natural features, including a sacred fresh water spring which was a source of drinking water for Aboriginal people and early European settlers. The well associated with the spring was reported to have been filled in 1941. There is an opportunity to enhance the value of this resource, by restoring the spring to its natural condition.

Next to the park are the entrances to tunnels built below the city during the Second World War. These were built between 1943 and 1945 after above ground storage was destroyed by Japanese bombing in 1942.

The significance of Damoe-Ra Park as a women's commemorative park is evidenced by small artworks commemorating the role women have played in the development of Darwin and the Northern Territory. Many of these works of art are in need of restoration.

Signs have been placed to explain the significance of the site, however these have become degraded over the years and are in need of replacement and relocation as pedestrian access to read the signs is almost impossible given the boggy nature of soil around the signs.

The stair leading down from the escarpment to Damoe-Ra Park has been enclosed with sturdy handrails on each side of the narrow stairway. This has caused a potential entrapment risk, and consideration should be given to widening the stairs and removing one of the handrails.



Figure 22 – The stair leading from the escarpment to Damoe-Ra Park

Figure 23 – The underground spring makes access to signs difficult.

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 005	Darwin Central Park	NT Government	Critical Desirable Discretionary	Part 1 - Short Term Part 2 - Long Term <i>Unlocking the potential</i>

Description

One Mile Dam, also known as Railway Dam, is a significant site and water feature close to the Darwin City Centre. The original fresh water spring is a sacred site and the place of an important dreaming story for the Larrakia people. Since the spring was dug out and dammed in 1887, it became an important railway site as a source of water for steam trains on the Palmerston to Pine Creek railway line which was officially opened in 1889.

For many years the future of the spring and surrounding area has been debated. The Darwin City Centre Master Plan takes cognisance of past plans, and stakeholder aspirations for a Central Park in the City Centre. In designing the park, reference has been made to the original alignment of the Palmerston to Pine Creek railway line. The shape of the proposed park reflects the curve of the railway line.

A key principle in the design of the park is to ensure that surveillance of the park from adjacent development is optimised to ensure a strong sense of safety for users of the park. This is a principle already successfully implemented in The Esplanade, where buildings face the park from across a street. The proposed new central park is lined by “edge” streets which ensure that buildings will face the park.

George Goyder’s original plan for Darwin showed a street north-east of Harvey Street. This street was named on paper as “Greene Street”. It is felt that given that the new park will be defined by a new residential street, that the name should be resurrected and applied to this new street along the edge of the new central park. This will need approval from the Place Names Committee.

The uses in and around the new Central Park will need to be the subject of a process of discussion and negotiation between the residents of the One Mile Dam community and the Larrakia people. The Master Plan does not prescribe uses within the park nor indeed around the park, but makes the space both physically and in terms of process, subject to the commencement of discussion and for detailed plans to be drawn up beyond the Master Plan.

The advantages of the new park are many. Stakeholders attending the Master Plan workshops referred to the park as “the lungs of the city” which would allow “the city to breathe”. The park is a big opportunity to clearly express the tropical character of Darwin through planting and management of the landscape. The gentle curve of the new edge street, Greene Street, is an opportunity to respect and reflect the railway and those who created and worked on the railway. It is also an opportunity to create a new and elegant tree-lined residential street facing the park.

The new park also offers a significant opportunity to manage storm water quality and runoff. This is covered in more detail in Project MP006.

This concept will have two components. In the short term the land needs to be reserved as a park, while the rehabilitation and landscaping of the park is likely to be completed in the medium term.

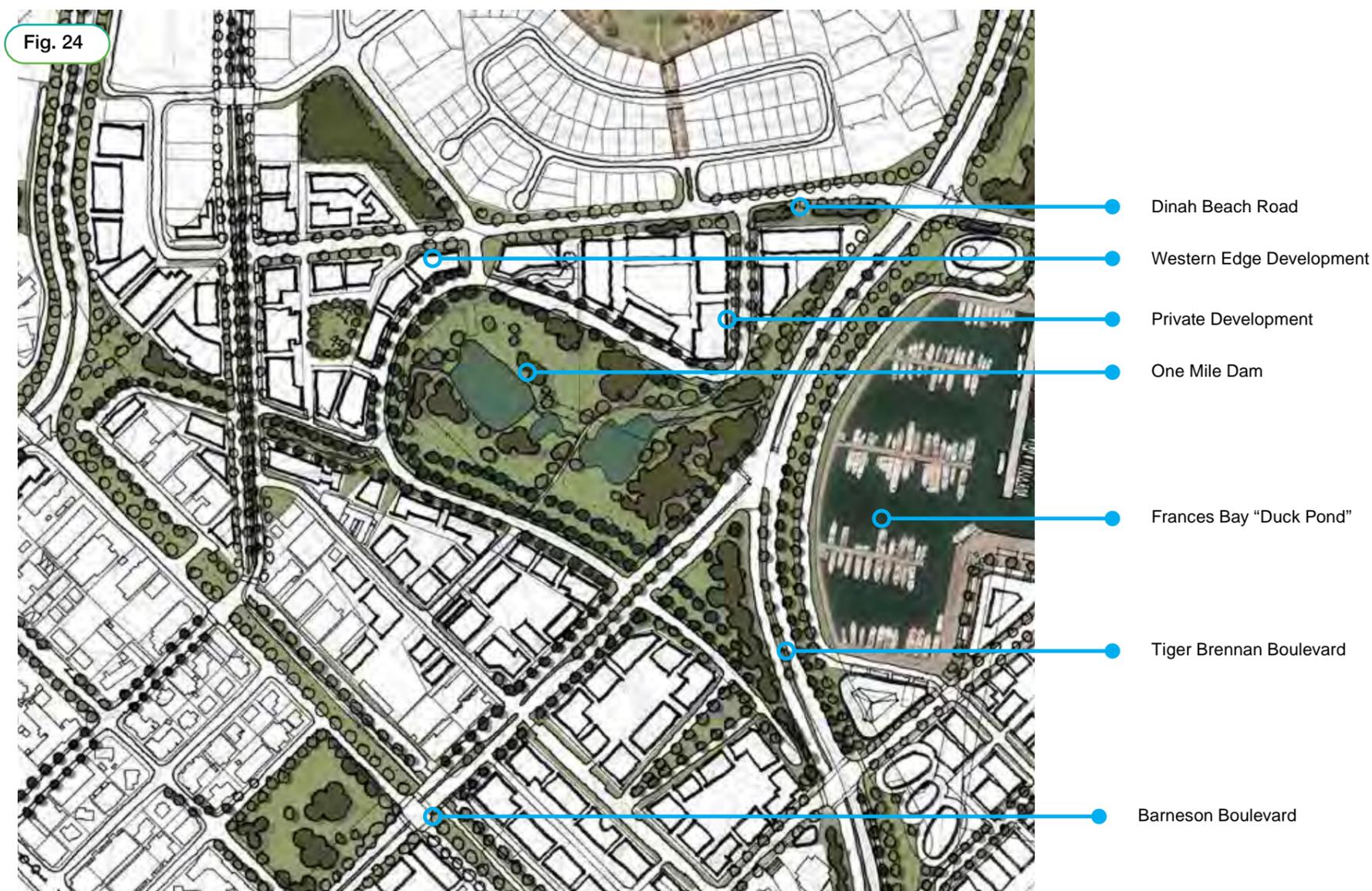


Figure 24 – A new Central Park for Darwin

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 006	Central Park Restoration & Stormwater Management	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

For many decades stormwater runoff from the City Centre has run via Frog Hollow to pollute the One Mile Dam area. With the proposed creation of a new Central Park around One Mile Dam, there is an opportunity to capture stormwater, clean it through filtration in wetlands, and store clean water. Water captured and cleaned during the wet months can be reused during the Dry to ensure the park remains green and watered.

Any excess water will be cleaned through filtration and returned to Darwin Harbour as clean water. This project will need to be designed and implemented as part of the design and implementation of project MP005, the Darwin Central Park. As One Mile Dam began as a natural spring with good quality water, it seems appropriate to use the area not just as a park, but also as a place for “telling the story” of water and water management through the process of cleaning and storing stormwater and runoff from the City Centre.

Similar projects have been designed and implemented in Melbourne where wetlands have been constructed above large water storage facilities so that through the efficient use of space, stormwater is cleaned and stored for later reuse. Images of one of these projects is shown below as an example of what can be achieved.



Figure 25 – Subterranean Storage under construction



Figure 26 – Preparation of water storage facility
Img Src: Banyule City Council

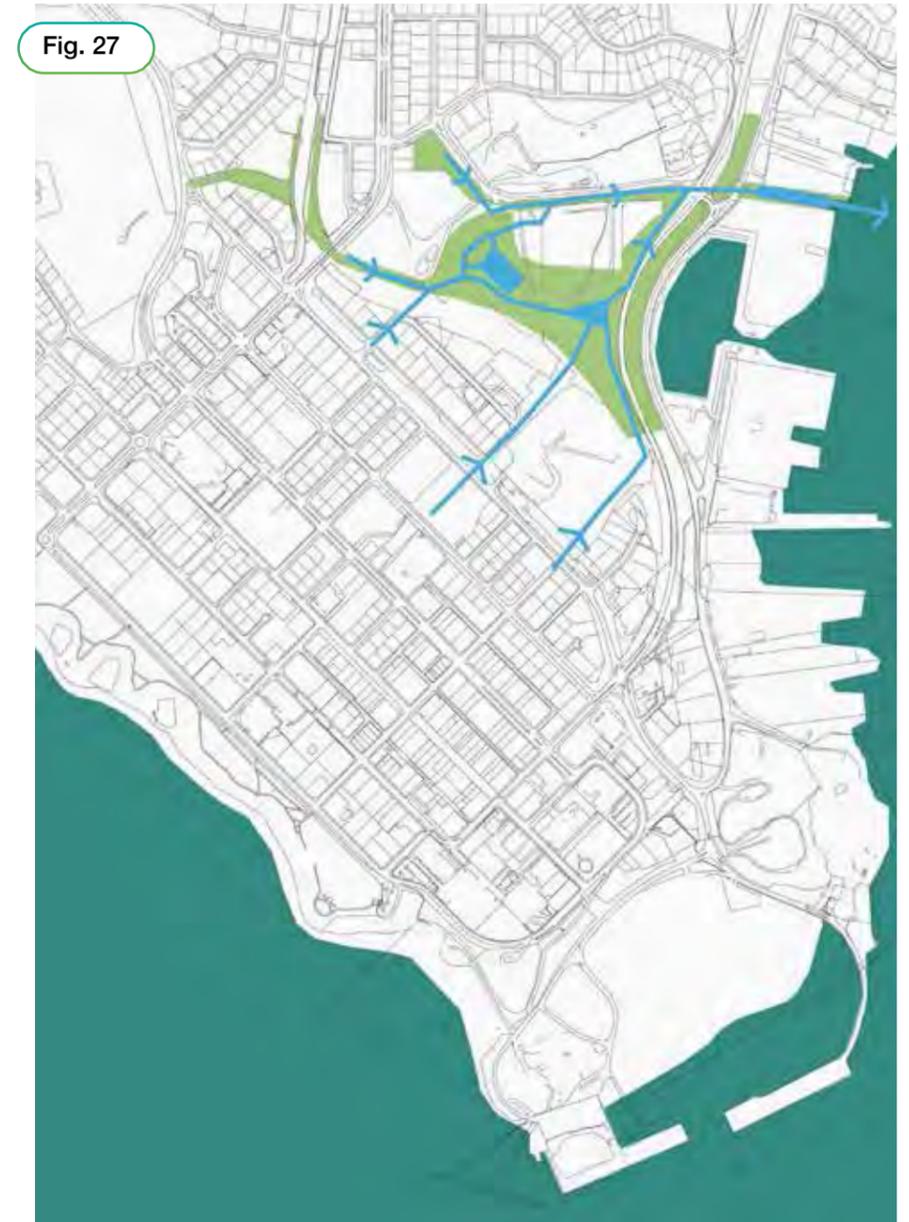


Figure 27 – Potential Catchment Concept design

Figure 28 – Diagrammatic representation of stormwater capture and filtration through wetlands in the new central park
Img Src: Banyule City Council

02 Design Rationale

Link the Green & Blue Networks

Natural systems work best when in continuous corridors so wildlife such as birds, insects and small animals can move from area to area in relative safety. If biodiversity in the Darwin City Centre is to be improved then networks of more or less continuous open space and vegetation are important.

The Darwin City Centre Master Plan includes proposals for new open spaces and enhancement of existing open spaces to create recreation opportunities for an expanding population, spaces in which the tropical character of Darwin can be expressed through the planting of appropriately tropical species and relatively continuous natural corridors and networks to support biodiversity and a wide range of birds, insects and animals. Not only are these important as natural corridors, but they support the quality of life of humans and form important “human-habitat corridors”, allowing people to have contact with natural places and open spaces.

Concepts to enhance the open space network and create linkages between open spaces include:

- Daly Street upgrade
- Smith Street upgrade
- Enhancement of Bicentennial Park
- A new central park at One Mile Dam
- New marina and foreshore parks in Frances Bay
- Expanded park at Frog Hollow

Fig. 29



Figure 29 – The existing and proposed open space network

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 007	Daly Street Upgrade	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

Daly Street is a key point of arrival into the Darwin City Centre. The Daly Street entrance to the city tells an important story to visitors and provides a main transport route for commuters into the city. Daly Street is the termination of the Stuart Highway and the journey along the Explorers Highway from Adelaide through the centre of Australia. The nature of Daly Street is changing rapidly owing to new residential, commercial and retail development. This has generated an increase in pedestrian and cyclist movements. Traffic volumes have increased to 25,000 vehicles a day during the wet months, rising to 28,000 vehicles a day during the dry.

The upgrade of Daly Street will provide a green boulevard entrance to the city as well as improve the walkability of this street with increased pedestrian comfort and amenity from the provision of generous pavements separated from traffic.

The proposal includes:

- reduction of central median along Daly Street to free up space for pedestrians and bike riders
- tree replacement strategy through the central median that will deliver large shade trees in place of senescent and failing trees
- increased verge width on both sides to provide opportunities for alfresco activities (in conjunction with building setbacks at ground floor) and adequate space for awnings and street trees
- bike lanes included on both sides to provide clearly delineated space for all road corridor users
- indented in and outbound bus stops at parks to provide enhanced services with no traffic delays (subject to final bus route agreement)
- signalisation of the Smith Street intersection will greatly improve pedestrian and bike rider safety and amenity, and enable safe crossing at this important intersection.

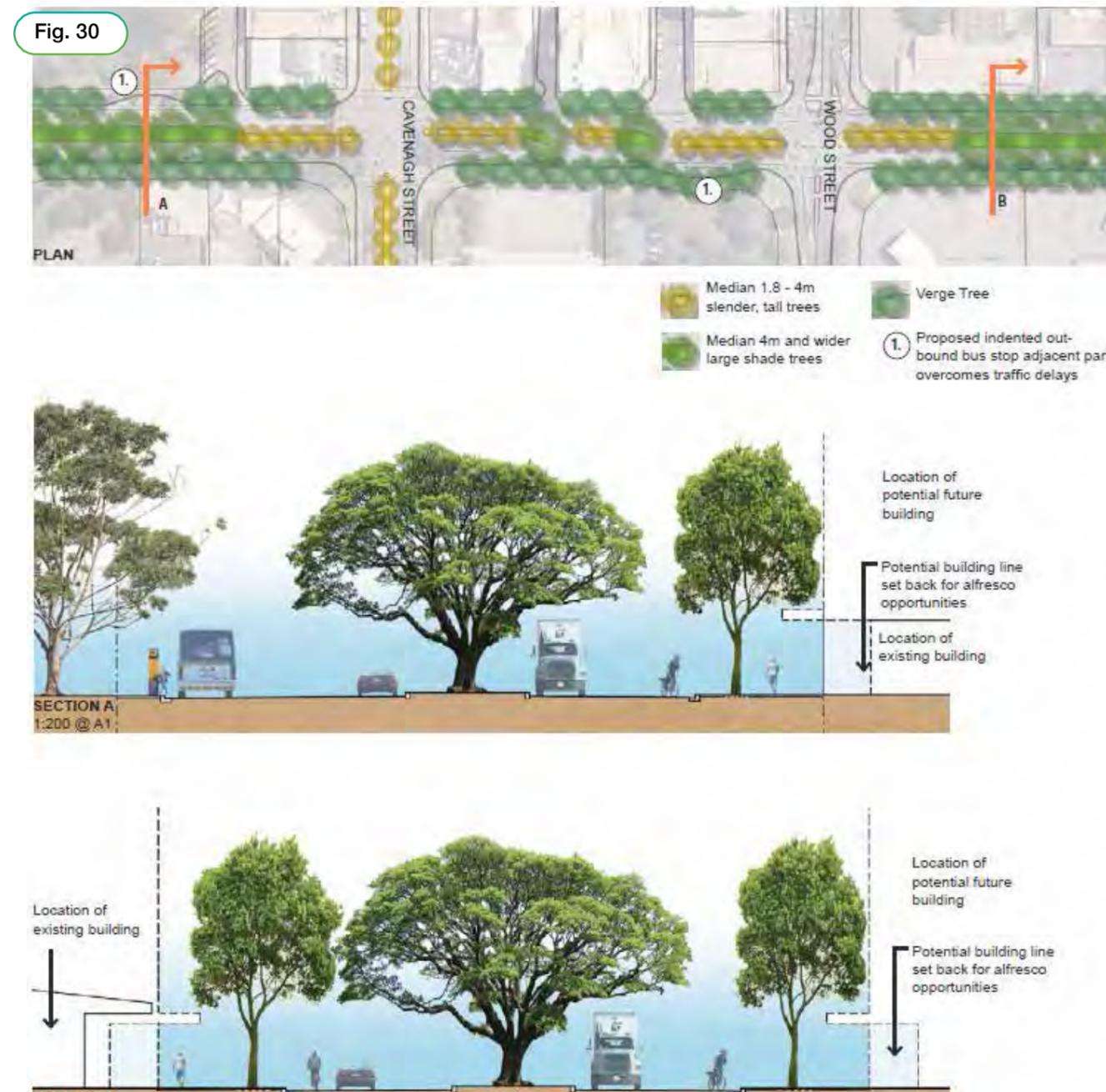


Figure 30 – Daly Street Upgrade, Plans and Sections

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 008	Bicentennial Park Foreshore Boardwalk	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The proposed foreshore walkway below Bicentennial Park would be an important component in opening up access to and along the foreshore.

The proposal includes:

- a continuous linking walkway between the Waterfront and Doctor's Gully
- service/ maintenance vehicle access from Doctor's Gully to the three oil tank sites – this is critical in activating them as potential future development sites
- beach access at selected locations
- fully accessible links between the foreshore and Bicentennial Park at Lameroo Beach, Doctors Gully and Damoe-ra Park, plus other links at selected locations
- education and interpretation opportunities.

The area of Doctors Gully may include landfill and a sea wall to extend the open space in this area and provide sufficient space for a general purpose park area by the foreshore and with links to the gully itself, fish feeding and the rock climbing facility.

The walkway will be a key link in the City's recreational loop pathway network, and would be designed to cater for a high volume of both pedestrians and recreational bike riders.

Issues to be resolved include implications of sea level rise and risks associated with storm events, ongoing maintenance, user management and safety.



Fig. 31



Fig. 32



Fig. 33

Figure 31 – Project Location Map

Figure 32 – Perspective Sketch of the Proposed Boardwalk

Figure 33 – Perspective Sketch of the Proposed Boardwalk

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 009	Bicentennial Park Playground	City of Darwin	Critical Desirable Discretionary	Short Term
				<i>Unlocking the potential</i>

Description

The proposed playground and family activity area in the north-western end of the park would cater for the increasing city residential population as well as visitors.

It is close to residential growth in this part of the city, as well as being co-located with key visitor and recreation attractions of Fish Feeding and The Rock climbing facility.

The playground should comprise a range of play options to suit all ages and abilities, with water play, riding circuits and natural play areas. Support facilities would include shade, seating and shelters, barbecues and lighting. The playground would have direct links to the main path network within Bicentennial Park, as well as the proposed Esplanade Parade path and landscape (See Project MP012).

Sustainable aspects would be built into the facility such as solar powered lighting, high efficiency light fittings, re-use of water and low maintenance equipment.



Figure 34– Perspective Sketch

Figure 35 – Project Location

Figure 36 – Schematic Plan of the proposed playground and family activity area

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 010	Bicentennial Park View Corridors	City of Darwin	Critical Desirable Discretionary	Short Term

Description

The elevated position of Bicentennial Park running along the edge of the peninsula provides an ideal opportunity to strengthen the city's visual link with the harbour. Improved visual links are possible from the park and along the alignment of the adjoining cross streets.

In many instances, wide views to the harbour are already in place – from *USS Peary* Memorial site, the lookout structure, Lameroo Beach Lookout and the cliff edge adjoining the Cenotaph. A long avenue view was previously established along Daly Street.

Two types of treatments are proposed:

Maintain Existing View Corridors – This applies to a number of sites and involves ongoing vegetation management to retain clear and open views. This requires selective pruning and tree management.

New, improved View Corridors – Two new view corridors are proposed.

A long view from the termination of Peel Street would open up views from the edge of the park. In this location the topography assists the view point and the vegetation to be managed, including possible tree removal, is a severely affected community that requires increased management for conservation and habitat reasons anyway.

A new view corridor from the area of the Cenotaph looking towards the proposed Waterfront Beach and Cruise Ship Terminal would involve weed removal, selective pruning and tree management to open up filtered views from the escarpment edge footpath.

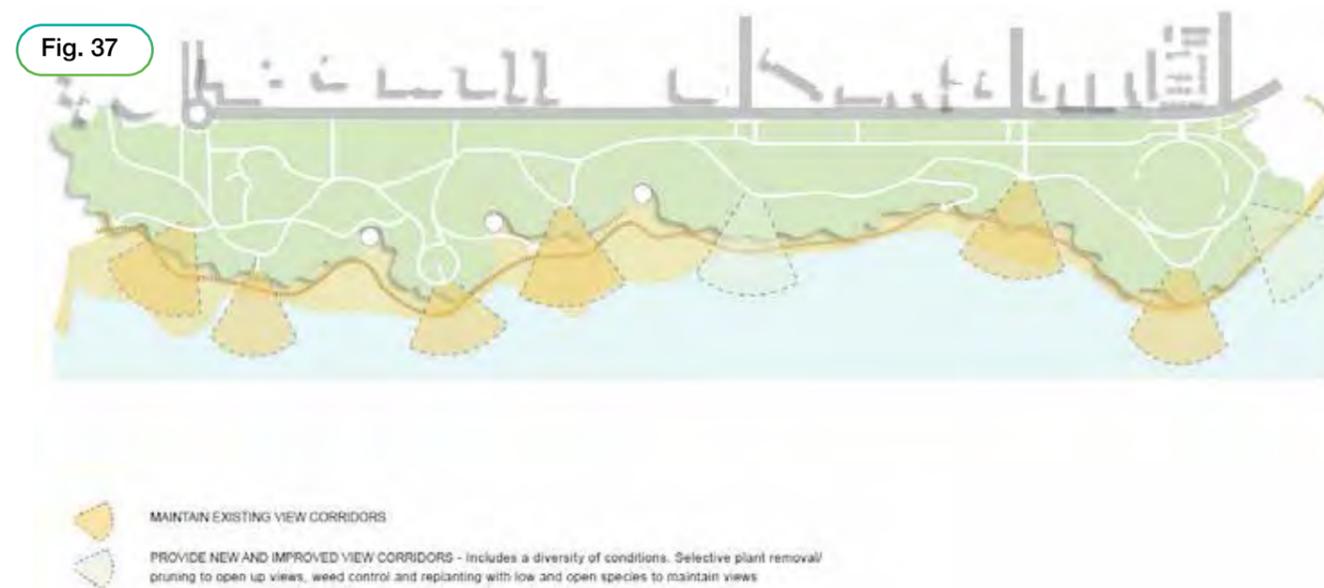


Figure 37 – View opportunities

Figure 38 – View of the harbour

Figure 39 – View of the harbour

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 011	Cenotaph Upgrade	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The Cenotaph area will continue to provide the setting for further defence focussed memorial plaques, events and commemorations. There is a need for flexibility to grow and cater for these new demands, while retaining the existing infrastructure.

The proposal formalises the central, open meeting space, which also references the historic connection of this locality with the original Darwin Oval. The 'oval' is flanked by low hedges and the combination of seating and large shade trees provides a deeply shaded perimeter.

A framework to greatly extend the plaques and memorials within the existing layout is suggested. The simple elements and arrangement retain the formal, solemn character of the area.

Services infrastructure, in particular power, may require upgrading. Improved night-time lighting and enhanced edge treatments to The Esplanade will also be required.



Figure 40 – Sketch of the proposal

Figure 41 – Sketch of the proposal

Figure 42 – Project Location

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 012	Esplanade Parade	City of Darwin	Critical Desirable Discretionary	Short Term

Description

Bicentennial Park has a number of paths running through it, most of which hug the harbour edge of the park. The area immediately next to The Esplanade, where people park their cars and where most people sit, has no path. Many parks such as Bicentennial Park have paths where people are able to wander at all times of the day in safety because they are near other activities. The most active part of Bicentennial Park is in The Esplanade and buildings along The Esplanade. There is an opportunity to create a proper path along the edge of The Esplanade, to introduce a significant number of shade trees, and to increase seating along the path. This would encourage an increase in informal use of the park, especially early and late in the day.

The design of the pathway is an opportunity to engage artists to design a distinctly Darwin paving pattern, one which can be repeated throughout the city to enhance the local character of Darwin. This has occurred in many other places such as Rio de Janeiro, Singapore and Wellington.

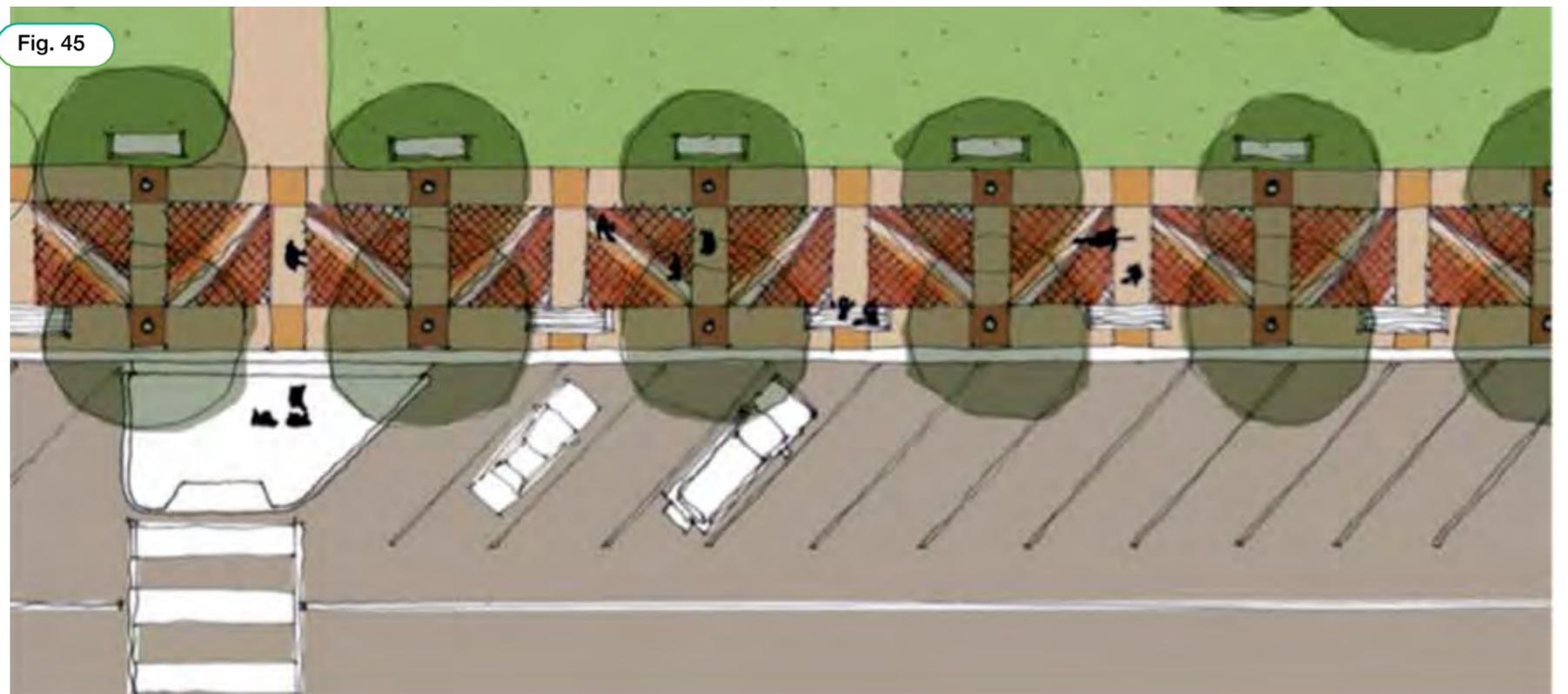


Figure 43 – Bicentennial Park with no path near The Esplanade

Figure 44 – Distinctive paving in Rio de Janeiro

Figure 45 – Possible path, seating and tree planting adjacent to The Esplanade

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 013	Smith Street Upgrade	City of Darwin	Critical Desirable Discretionary	Medium Term
<i>Unlocking the potential</i>				

Description

Space Syntax analysis shows the importance of Smith Street in the overall network of streets in Darwin. Because of its high connectivity and integration it is popular with pedestrians. It is Darwin's prime street and major ceremonial street. Upgrading of Smith Street demonstrates how the combination of extended street tree planting and awnings greatly enhances the walkability of the city. Increased walking is a major driver of increased economic activity and street improvements should be seen as economic strategies. If more people walk in the street because of increased comfort, the city centre will be more active and vibrant.

The purpose of this project is to provide excellent connections between parking and shopping areas while also establishing a street for people to meet and socialise. The same principles can be applied to other streets in the city, adapted to reflect the individual needs and road corridor width.

The proposal includes narrowing Smith Street road carriage and widening the northern verge. The result is generous space for awning weather protection as well as a continuous canopy cover with no loss of on street parking or traffic capacity of the road itself.

The proposal includes the consideration of:

- Increased verge width along the northern side to provide opportunities for alfresco activities (in conjunction with building setbacks at ground floor) and adequate space for awnings and street tree plantings;
- New and extended street tree planting along the northern verge;
- Reduce the road width to the Australian Standard to retain traffic flow in both directions and parallel parking both sides;
- Reduced speed environment (perceived) as a result of design interventions that supports shared streets for bike riders and vehicles;
- Additional tree planting along the southern side of Smith Street to establish extended and continuous canopy cover.

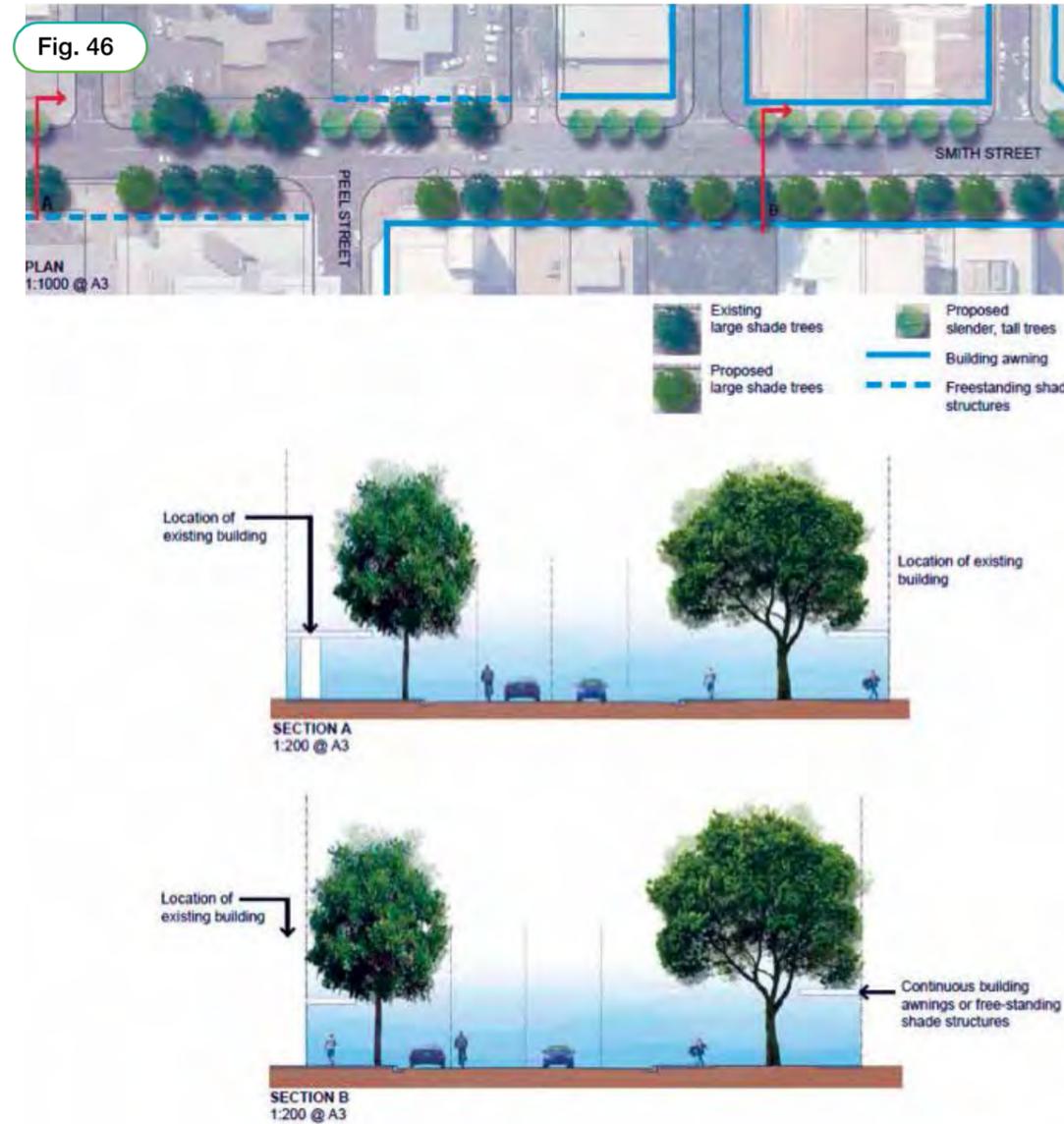


Figure 46 – Smith Street Upgrade, Plans and Sections

Figure 47 – Observation Study of Pedestrian movement

Figure 48 – Spatial Integration in Darwin



03 Design Rationale

Making New Connections & Links

If movement is the lifeblood of a city, then street, road and open space linkages are the veins and arteries which facilitate that movement. As the city centre expands to the north and east, an expanded street network is essential to ensure that ease of movement is enhanced, and that new land is opened up for development. The land around One Mile Dam and the former tank farms has very few connections to or through it, and if this land is to be developed, then new and effective connections are essential. The investment in new connections will have a direct impact on potential land values and the development potential of the land.

Frances Bay is close to the Darwin City Centre, yet is “another place” which is disconnected from the City Centre because of the physical barriers and the low level of development between the City Centre and Frances Bay. New and direct connections are required to connect the two places, and integrate them into one urban place, albeit with different characters.

Several key linkages are proposed in the Darwin City Centre Master Plan.

These include:

- Barneson Boulevard, linking Tiger Brennan Drive to Cavenagh Street
- Knuckey Street Extension, linking the City Centre to Frances Bay
- Bennett Street link, linking a pedestrian pathway to Frances Bay
- Stuart Highway realignment
- Bennett Street extension to The Esplanade
- Mitchell Street pedestrian link to the Darwin Waterfront
- Coastal shared path
- Dinah Beach Road link to the new Stuart Highway.
- Frances Bay Drive to the extended Bennett Street.

Fig. 49



Figure 49 – New linkages proposed in the Darwin City Centre Master Plan

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 014	Barneson Boulevard	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The Darwin City Centre suffers from a lack of links and connections midway between Daly and Bennett Streets. This has the effect of causing congestion along these two streets, especially at intersections.

For many years a connection into the city centre along the Barneson Street alignment has been planned. Proposals included a tunnel linking from Tiger Brennan Drive to Cavenagh Street. Initial economic and financial evaluation shows that not only is a tunnel a very expensive option (four to six times the cost of a street), but it does little to open up the development potential of land to the north-east of McMinn Street. The former oil tank farms clearly have great development potential which will go unrealised without better access to these sites.

For this reason a new urban boulevard is proposed, one which not only creates a four-lane link for vehicles, but which supports pedestrians and encourages walking. It is proposed to have dedicated cycle paths and on-street parking to support potential economic activity such as shops and showrooms.

A new boulevard link at Barneson could allow for dispersal of traffic while providing access to development. Significant street tree planting could be used to express the tropical Darwin landscape. The aim should be to create a great urban street, not just a transport route. A cross-section of the proposed urban boulevard is shown at right:

The NT Government will consider the transport and development implications of the Barneson Boulevard in the ongoing planning for arterial transport access to the City Centre.

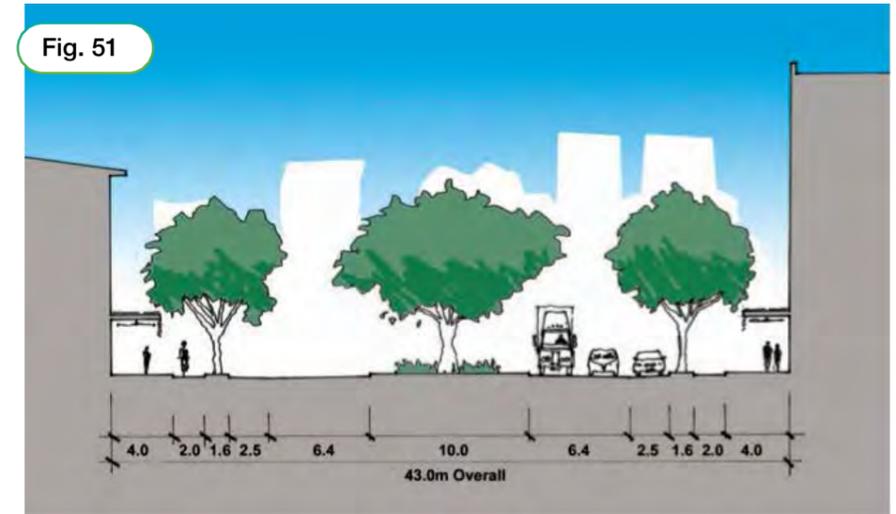


Figure 50 – Plan of the Barneson Boulevard connection and sites which are opened up for potential development

Figure 51 – Cross Section of the proposed Barneson Boulevard

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 015	Knuckey Street Extension	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The diagram below indicates the forecast pedestrian and vehicle movement if the Darwin City Centre Master Plan is implemented. From this it is clear to see that an extension of Knuckey Street to Frances Bay is a critical link within the overall proposed spatial system. It is also critical that this link is as direct and as straight as possible, as modelling indicates that a less direct route would severely detract from the spatial integration of these two areas, reduce potential land value, and reduce the viability of an active centre at Frances Bay. If there is to be a strategy to optimise economic growth and social interaction in the Darwin City Centre, then a direct and straight extension to Knuckey Street is essential and should not be compromised.

It is conceded that there are physical challenges to this link, however it is achievable. The Master Plan also indicates that it is achievable to get new buildings either side of this new link to ensure activity and surveillance to make it a safe street for pedestrians and other users.

The design of the intersection with Tiger Brennan Boulevard is a critical aspect of this new link. A pedestrian-friendly intersection is essential, one which avoids the use of dedicated left turn lanes and splitter islands. The intersection must be designed to be like a regular City Centre intersection where all modes of movement have equal priority.



Figure 52 – Night view showing the importance of the Knuckey Street extension from the city centre to Frances Bay

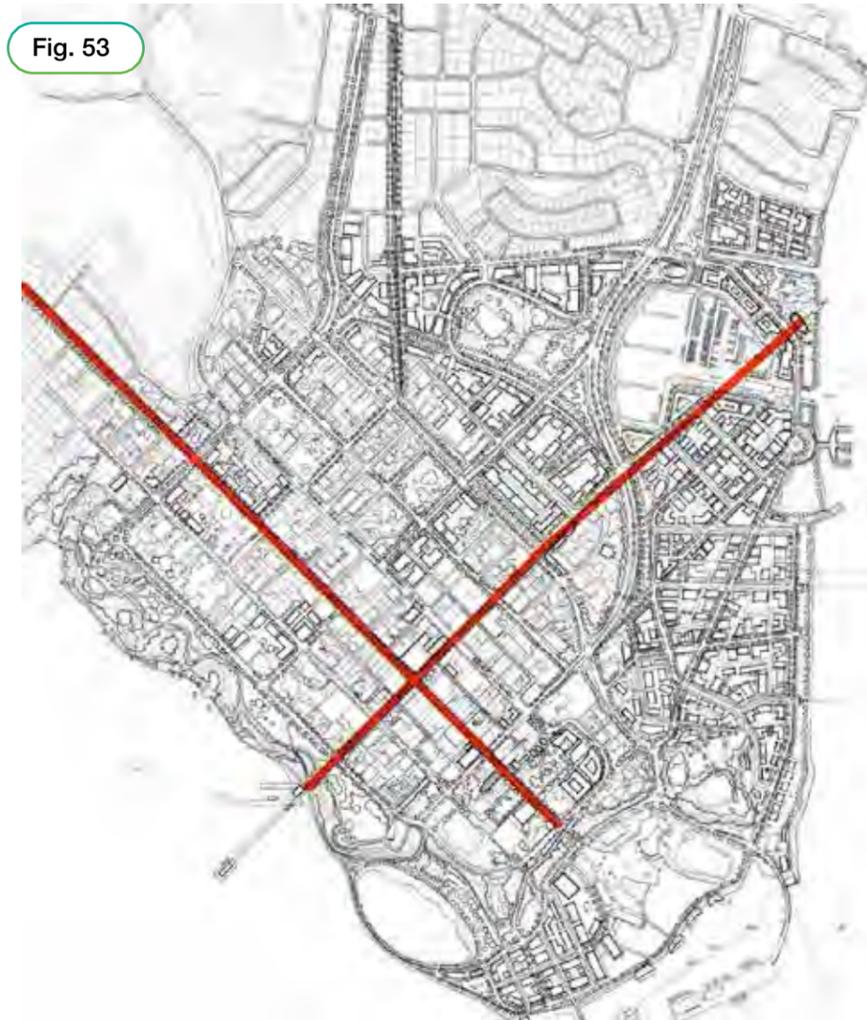


Fig. 53



Fig. 54



Fig. 55

Figure 53 – Key structuring streets

Figure 54 – Development potential along an extended Knuckey Street

Figure 55 – Forecast Model of movement and potential for the growth of centres

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 016	Fisherman's Wharf Redevelopment	NT Government	Critical Desirable Discretionary	Long Term
				<i>Unlocking the potential</i>

Description

Internationally, waterfront and fishermen wharf developments have proved to be popular and successful. The activities associated with commercial fishing and fish markets generate a sense of vitality and energy which supports employment generation resulting from local and inter-state tourism. There is an opportunity to animate Frances Bay redevelopment with a Fisherman's Wharf development with a variety of fishing related activities and attractions.

Fishermen Wharf is situated close to the Darwin City Centre, yet connections to this area are difficult, especially for pedestrians. The extension of Knuckey Street would go a long way to changing this, as would a direct pathway along the Bennett Street alignment. These would effectively connect the City Centre to Frances Bay and reduce the psychological distance between the two. With the Knuckey Street connection there is the potential to develop a fish market where fish would be delivered directly from the Duck Pond marina. At wharf level the fish market could be connected under Knuckey Street to a second market or set of retail outlets.



Fig. 56

Figure 56 – Darwin City Centre from Frances Bay

Figure 57 – Potential Fisherman's Wharf development

Figure 58 – Fisherman's Wharf market San Francisco
 Img Src-images.mapsofworld.com/travel-blog/2013/08/Fishermans-Wharf2-603x452.jpg

Figure 59 – Picturesque fishing fleet as an attraction
 Img Src. Frank Kehren - www.flickr.com/photos/fkehren/2662386341/

Figure 60 – Fisherman's Wharf market, San Francisco
 Img Src. Adam Brower - http://hungryinhouston.com/2010/11/24/fisherman-wharf/



Fig. 57



Fig. 59



Fig. 58



Fig. 60

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 017	Knuckey Street Public Transport Node	NT Government	Critical Desirable Discretionary	Long Term <i>Unlocking the potential</i>

Description

There are few places in Darwin to view the city from the water without a boat, and yet this attractive city looks good from the water. The view from Fannie Bay is one of the great views across water towards the City.

As the city moves to embrace the harbour, it will develop around the water's edge and develop the transport options the harbour offers. Transport planning for the Darwin region in the short and medium term is unlikely to include a significantly expanded transport role for ferries. In the longer term ferries may provide a greater contribution to an integrated public transport system and delivering ferry users to the heart of the city is important if ferries are to be used to their maximum potential. As Knuckey Street is such an important street in terms of connection to the rest of the city, it makes sense to target Knuckey Street as a potential future intermodal public transport node. For this reason a potential ferry terminal near Knuckey Street is shown.

A ferry terminal would create the opportunity to build a pier and enable a closer connection between the city and the harbour. This could be designed as a contemporary structure with café or restaurant facilities. The pier would clearly have to cope with the high tidal range, potentially rising sea levels and storm surges. This would form part of the design brief. An example of a contemporary pier designed by Project A01 Architects for Vienna is shown as an example of what is possible.



Figure 61 – View from the harbour facing Knuckey Street

Figure 62 – Proposed ferry terminal and pier linking to Knuckey Street

Figure 63 – Contemporary pier design (Project A01 Architects)

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 018	Stuart Highway Realignment	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

When the railway was still running, there was a dangerous level crossing over the Stuart Highway near Salonika Street in Stuart Park. This was one of two level crossings, the other being near Daly Street where a bridge was built to reduce the potential conflict between trains and cars.

Many stakeholders have raised the prospect of light rail or a tram being a future solution for public transport in Darwin. Transport planning for the Darwin region by the NT Government confirms that a frequent high quality bus network will continue to provide the public transport system in the short to medium term. In the longer term rapid transit options such as light rail or bus rapid transit may become viable. The Master Plan anticipates and plans for this by including a potential tram, light rail or bus rapid transit corridor along the Stuart Highway through Stuart Park. This transit corridor would complement the road traffic capacity along this important link to the City Centre, while maintaining good access and on-street parking for existing and future businesses. Long term planning for Darwin has previously identified the former rail corridor at Stuart park as a future road corridor. Additional traffic capacity through Stuart Park could potentially be accommodated by a realignment of the Stuart highway along the former rail corridor.

The potential realignment provides the opportunity to improve vehicle access to the city. The Northern Territory Government will undertake further transport studies and land use investigations in Stuart Park to explore options for improving movement in and around Stuart Park.

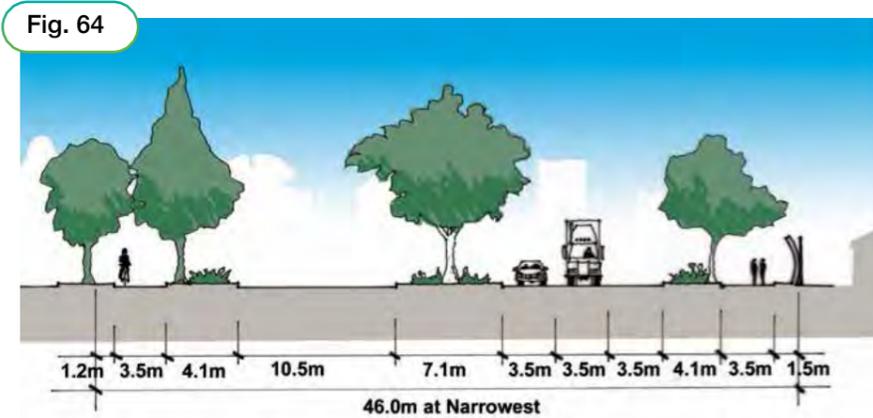


Figure 64 – Potential cross section of the new Stuart Highway



Figure 65 – Possible plan of the Stuart Highway realignment



Figure 66 –Quality Streetscape as a result of high quality landscaping

Figure 67 –Salonika level crossing circa 1972 Img Src: Wikipedia

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 019	Transit Corridor	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

Many stakeholders have raised the question of the future of public transport in Darwin. Many have also suggested a light rail or tram system to link the City, Palmerston and Casuarina, and that the Darwin City Centre Master Plan should anticipate this potential public transport infrastructure. Transport planning by the NT Government confirms that a high quality bus network will continue to provide public transport in the short to medium term, and that in the longer term the feasibility of rapid transit options should also be explored. Land use planning for the Darwin region includes a rapid transit corridor along Tiger Brennan Drive. The potential of this corridor to support light rail, tram or bus rapid transit is being reviewed by the NT Government and potential alternative corridor options are being investigated.

Within the city centre, provision for a future public transport corridor needs to be considered. The Darwin City Centre Master Plan proposes that the public transport system including potential for tram, light rail or rapid transport, connects from Stuart Highway to Day Street, then along McMinn Street, under the new Barneson Boulevard, and into Knuckey Street. Further investigation is required to test whether McMinn Street can accommodate a transit corridor and other potential alignments will be tested.

The NT Government has previously investigated the costs and benefits of developing light rail for the Darwin region and has determined that in the short to medium term that light rail is unlikely to be a viable option. Ongoing planning and investigation for rapid transit corridors will continue and in the medium term corridor reservation and review will be undertaken.

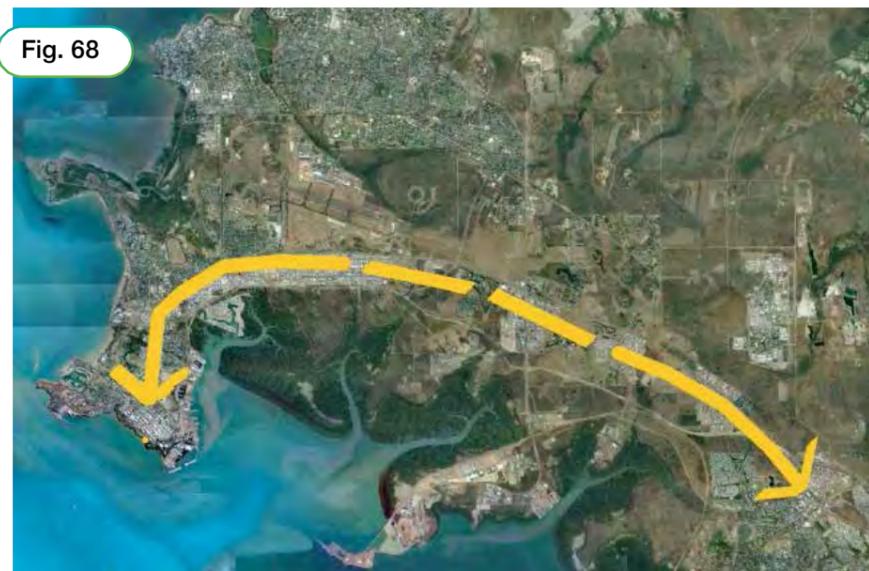


Fig. 68 - Indicative rapid transit corridor linking Darwin to Palmerston

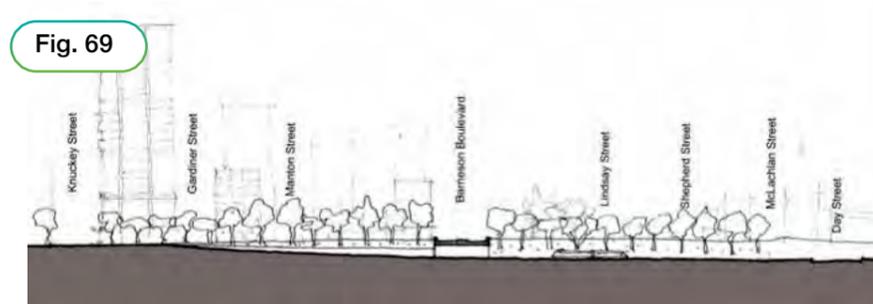


Figure 69 – Indicative rapid transit corridor cross-section along McMinn Street looking south-west.

Unlike trams in other Australian capital cities, it is proposed that the new infrastructure avoid overhead cables, and provide electric supply through the rails, as has been done in Bordeaux, France.



Fig. 70 - Light rail without overhead cables. Bordeaux, France, servicing a population of 200,000 people

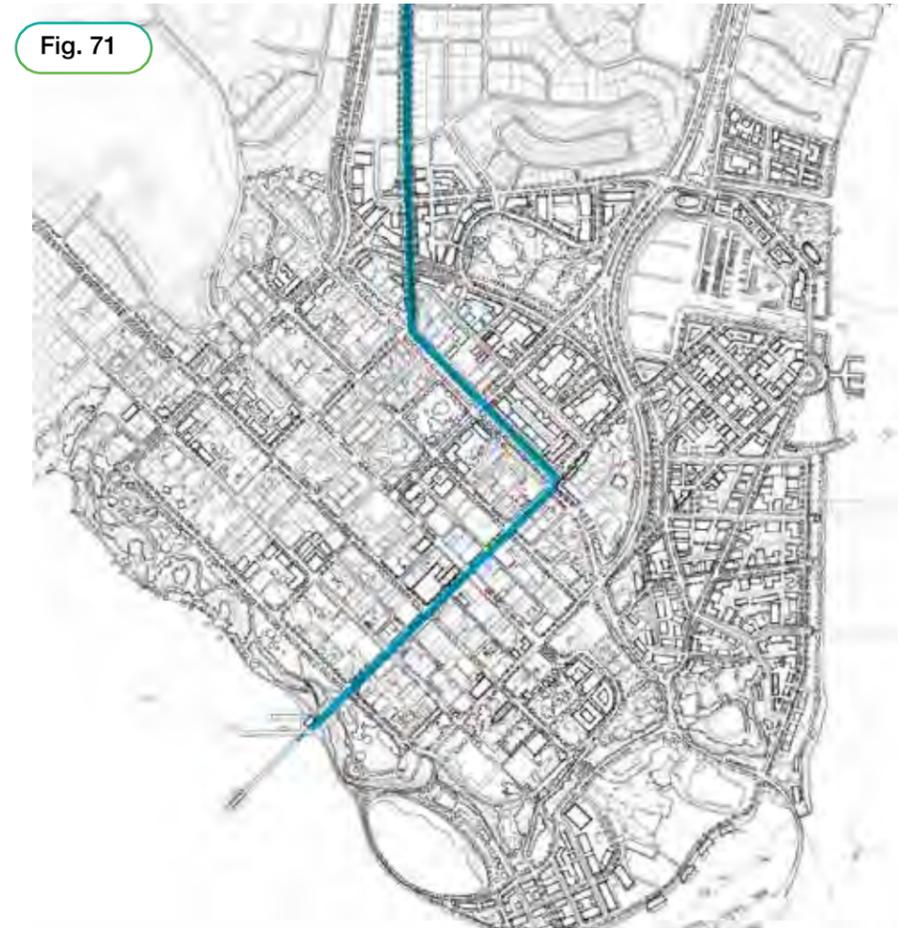


Figure 71 – Indicative rapid transit corridor in the Darwin City Centre

The next steps to determine the viability of a tram system would be a full analysis of the costs and benefits along the entire route of the tram. This is a very important analysis which needs to examine the potential benefits, including land value uplift, such infrastructure would generate. These benefits, both economic and financial, need to be balanced against the costs of infrastructure. It may well be that the costs and benefits are such that the system could be delivered through private sector development. This needs to be analysed in the short term. In the medium term the whole corridor needs to be reserved. The NT Government is currently undertaking an integrated transport and land use study in Stuart Park to investigate options.

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 020	McMinn St Upgrade	NT Governemnt	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

McMinn Street is a key entry and distribution street in the Darwin network. Currently it is dominated by traffic, car parking and high voltage powerlines and it segregates areas of the City Centre. There is an opportunity to improve the appearance and function of McMinn Street. This would include the following:

- Widening the footpath on the south-western side of McMinn Street to enable street tree planting and wider pedestrian footpaths;
- Improving the intersection at Stuart Highway;
- Replacing overhead powerlines with underground powerlines;
- Improving the landscape quality of the McMinn Street road reserve
- Investigating the potential for incorporating a future public transport corridor;
- Removing surface car parking areas, and constructing new public basement parking stations at Cavenagh Street and under new development north-east of McMinn Street;
- Linking parking stations with a new bus loop and tram in the future.

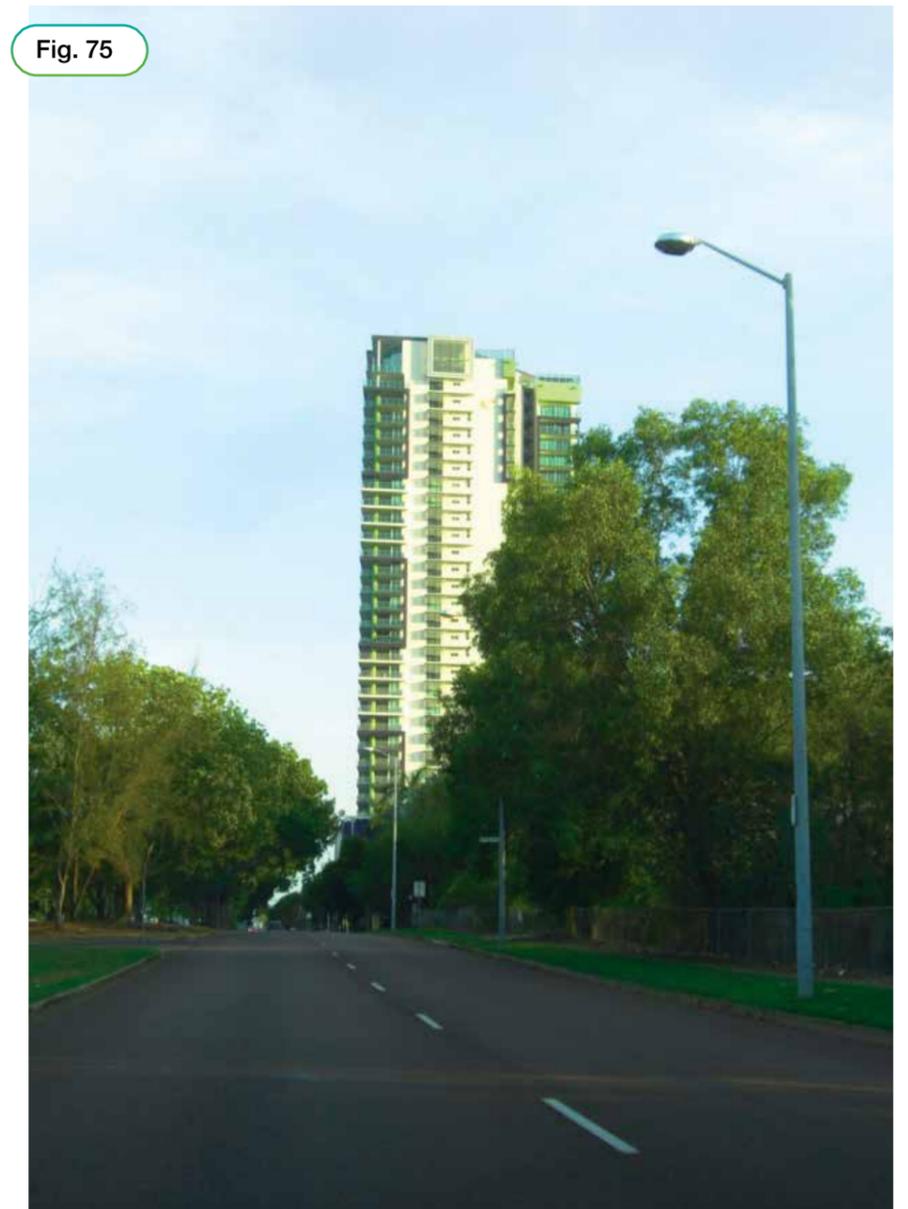


Figure 72 – Landscaped and improved McMinn Street

Figure 73 – McMinn Street dominated by surface parking, powerlines and traffic

Figure 74 – McMinn Street Car park

Figure 75 – McMinn Street today



NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 021	Tiger Brennan Boulevard	NT Government	Critical Desirable Discretionary	Medium Term
<i>Unlocking the potential</i>				

Description

Tiger Brennan Boulevard has been designed to freeway standards to maximise traffic flow and volume from Palmerston to the Darwin City Centre. The Darwin City Centre however is likely to expand over the next 20 or 30 years and the direction of that expansion will be to the north and to the east, towards Stuart Park and Frances Bay. If meaningful connections between an expanded City Centre and Frances Bay are to be achieved where people have mobility choices, then it is essential that Tiger Brennan becomes a linking road rather than a barrier to linkage. As it goes nowhere beyond the City Centre, it is appropriate to question whether or not it should continue as a freeway all the way to Bennett Street, or whether it should transition from a freeway to become more of an urban boulevard from Dinah Beach Road to Bennett Street. This should maintain its role as a key entry/exit point to the City Centre.

The properties of such a road would be as follows:

- Maximum 60 kilometres per hour design speed limit
- Dedicated bike paths next to the road
- Pedestrian paths along both sides
- Provision for on-street parking
- Potential for frontage development along the length of the road
- Significant landscape treatment including wide median for large shade tree planting
- Intersection designs which balance the needs of all users, including the avoidance of dedicated left turn lanes with splitter islands
- At-grade intersections.

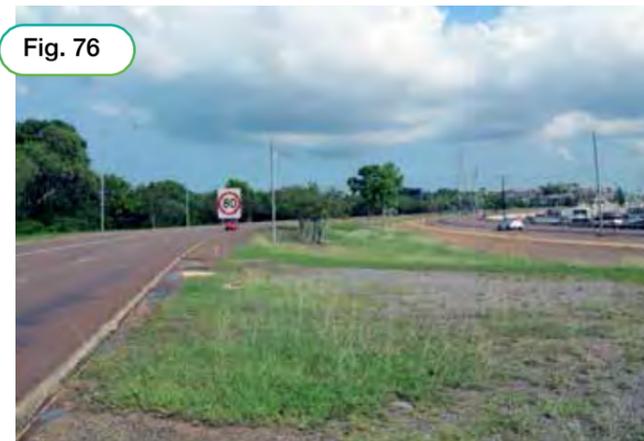


Fig. 76

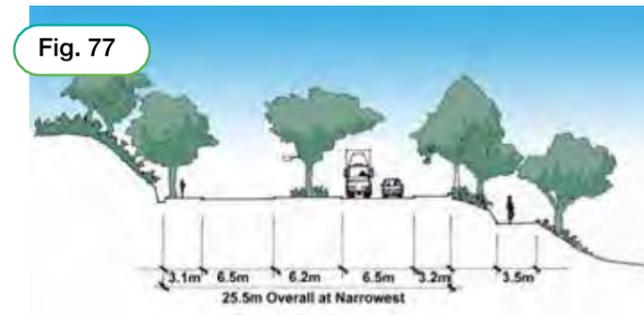


Fig. 77



Fig. 78



Fig. 79



Fig. 80

Figure 76 – Tiger Brennan today characterised by poor landscaping

Figure 77– Tiger Brennan Boulevard at its narrowest point

Figure 78 – Tiger Brennan Boulevard Section

Figure 79 – Extent of Tiger Brennan Boulevard

Figure 80– Tiger Brennan Boulevard Plan

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME	
MP 022	Frog Hollow Park expansion	NT Government	Critical Desirable Discretionary	Part 1 - Short Term Part 2 - Long Term	<i>Unlocking the potential</i>

Description

At present the area of Frog Hollow which is zoned as parkland is relatively small. This area is also a significant site with great meaning for the Larrakia people. The proposed Barneson Boulevard provides an opportunity to extend the parkland. The park would be increased in area by about 25 percent.

The increase in the size of the park provides an opportunity to improve the quality of the landscape and increase its potential use. This would include removal of the surrounding cyclone fencing which prevents access.

The concept would be completed in two parts. In the short term an increased park reserve should accompany the completion of the reserve of Barneson Boulevard. In the medium term the park should be master planned, landscaped and improved. Investigations are required to ascertain requirements for Barneson Boulevard prior to potentially expanding the park.

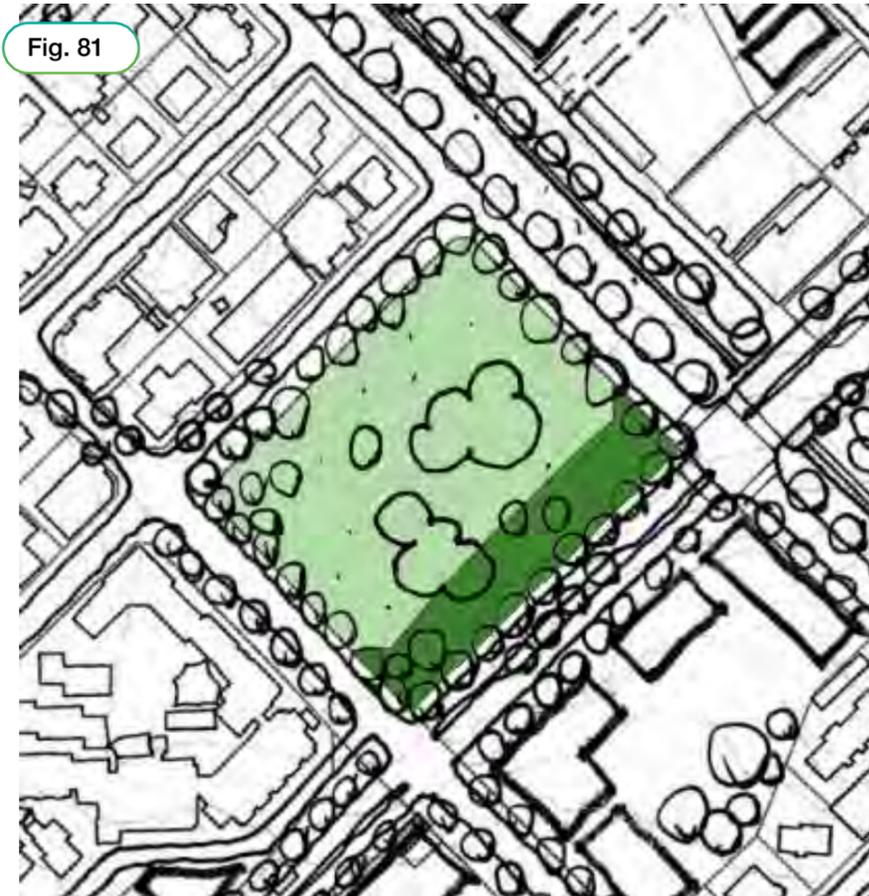


Figure 81 – The area in light green indicates the park today, while the dark green colour shows the potential to increase the size of the park.

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 023	Multi-storey School Project	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

As the residential population of the Darwin city centre increases over time (estimated to grow by approximately 20,000 to 30,000 people in the next 20-30 years) there will be an increased pressure to provide a new school.

The former school site adjacent to Frog Hollow provides a logical site for a school which would take the form of an urban or multi-storey school being more high rise than the traditional suburban model which requires many hectares of space, space which in the city centre is neither available nor affordable.



Figure 82 – Redeveloped school site with new multi-storey school serving the new residential population

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 024	Cavenagh Street Car Park Redevelopment	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The site owned by the City of Darwin on Cavenagh Street includes surface parking which is an under-use of this important city centre site. The proposed Barneson Boulevard connection to Tiger Brennan Drive will provide the logic to develop this strategic site. The City of Darwin has nominated the site as a potential public parking station. This should form only a part of the development rationale and scope. The site is indeed a good location for public parking as it is within convenient walking distance from the prime retail area of the city, however it has potential for a significant mixed use development. The site is considered suitable for a multi-level carpark only if Barneson Boulevard goes ahead.

The site has two distinctive trees which give it character, and clues for future use. One of these trees is heritage listed and a high priority should be given to conserving the trees and ensuring their longevity. An arcade, covered or open, linking from Woods Street to Cavenagh Street could include these trees as part of the design. This would be distinctive and provide character and identity to the development, as well as protect the trees.

From an urban design perspective it is important to continue Litchfield Street to the proposed Barneson Boulevard, as this is a chance to service the site and provide access to basement and potential above ground parking. This is an urban pattern already established further to the south on Litchfield Street. Rear servicing of the site provides the opportunity to achieve “active frontage” to Cavenagh Street, Barneson Boulevard and Woods Street which is highly desirable as it supports pedestrian safety and amenity. This would mean frequent doors and windows facing these streets providing passive surveillance and activity on the street. Cafe’s, shops and restaurants as well as hotel lobbies and residential lobbies, would provide active frontage to streets.

Potential yield on these sites should be maximised and there is potential to mix land use vertically. Ground floor shops are to provide active frontage, while the lower levels of the building provide an opportunity for offices. In order to sustain employment in the City Centre, it is essential to provide significant office space. Upper floors with great views would be ideal for hotels and apartments. Swimming pools and other leisure facilities on the roof of podiums would provide amenity for residents and visitors.

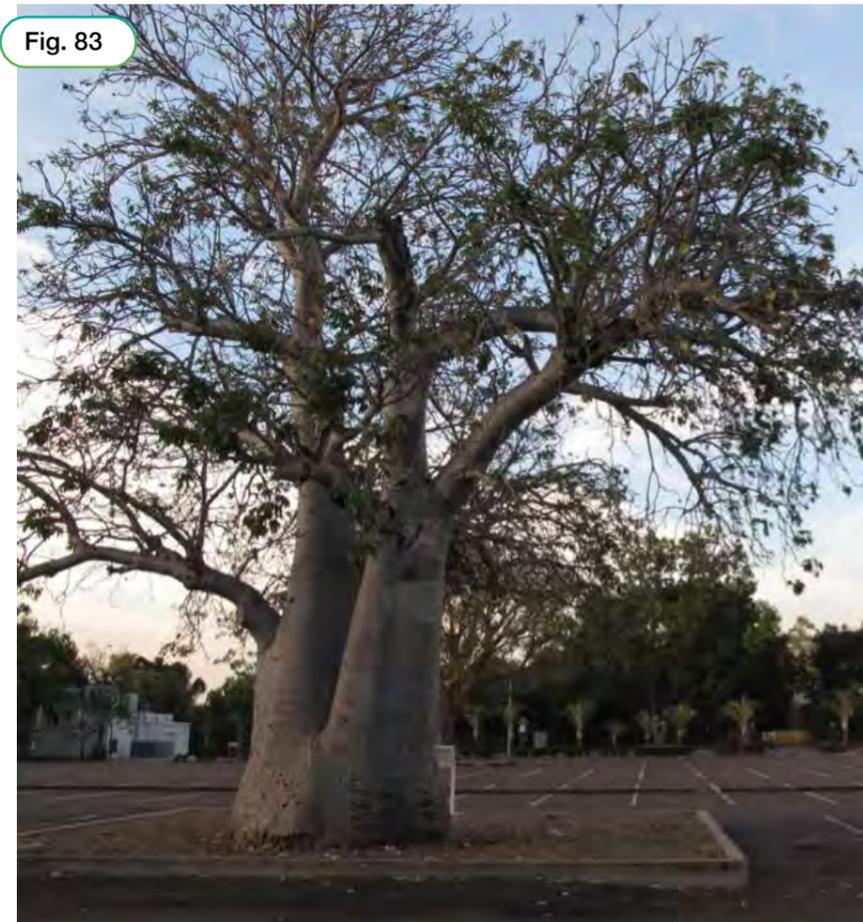


Fig. 83

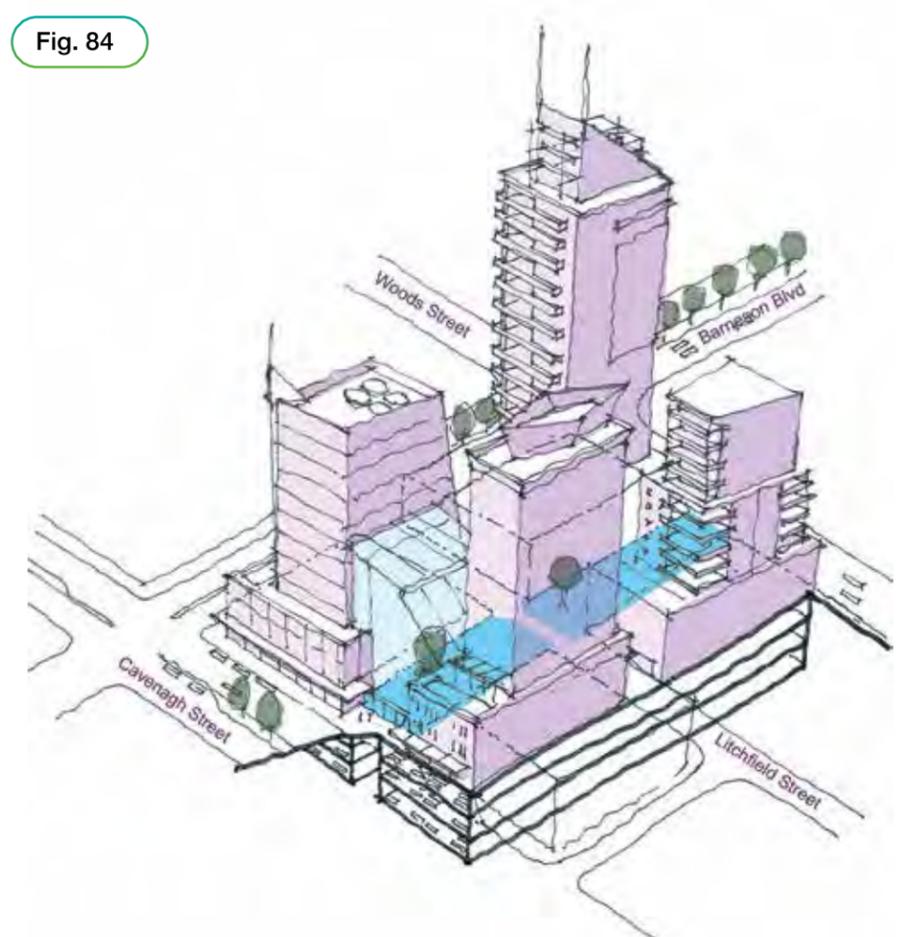


Fig. 84

Figure 83 – Ancient Boab tree on the site – a design opportunity not a constraint

Figure 84 – Potential mixed use development of the Cavenagh Street car park.

NUMBER	NAME	LEAD AGENCY	CATEGORY			TIME FRAME
MP 025	Bennett Street Pedestrian Link	City of Darwin	Critical	Desirable	Discretionary	Medium Term
<i>Unlocking the potential</i>						

Description

Pedestrian links between Frances Bay and the Darwin City Centre are poor. There is an opportunity to create a new and direct pedestrian link to Frances Bay along the Bennett Street alignment. This involves the continuation of the footpath on the southern side of Bennett Street to a new staircase/ ramp leading to Frances Bay Drive. This would require land acquisition which would be offset by the design and development of new roads giving new access to adjacent sites. This would improve the developability of these sites.

These new roads would link Leydin Court to Frances Bay Drive, creating increased access to undeveloped land.



Fig. 85

Figure 85 – View to the south-west indicating the position of a potential pedestrian link to Frances Bay along the Bennett Street alignment.



Fig. 86

- Pedestrian stair and path
- New access road
- Extended Leydin Court
- New development

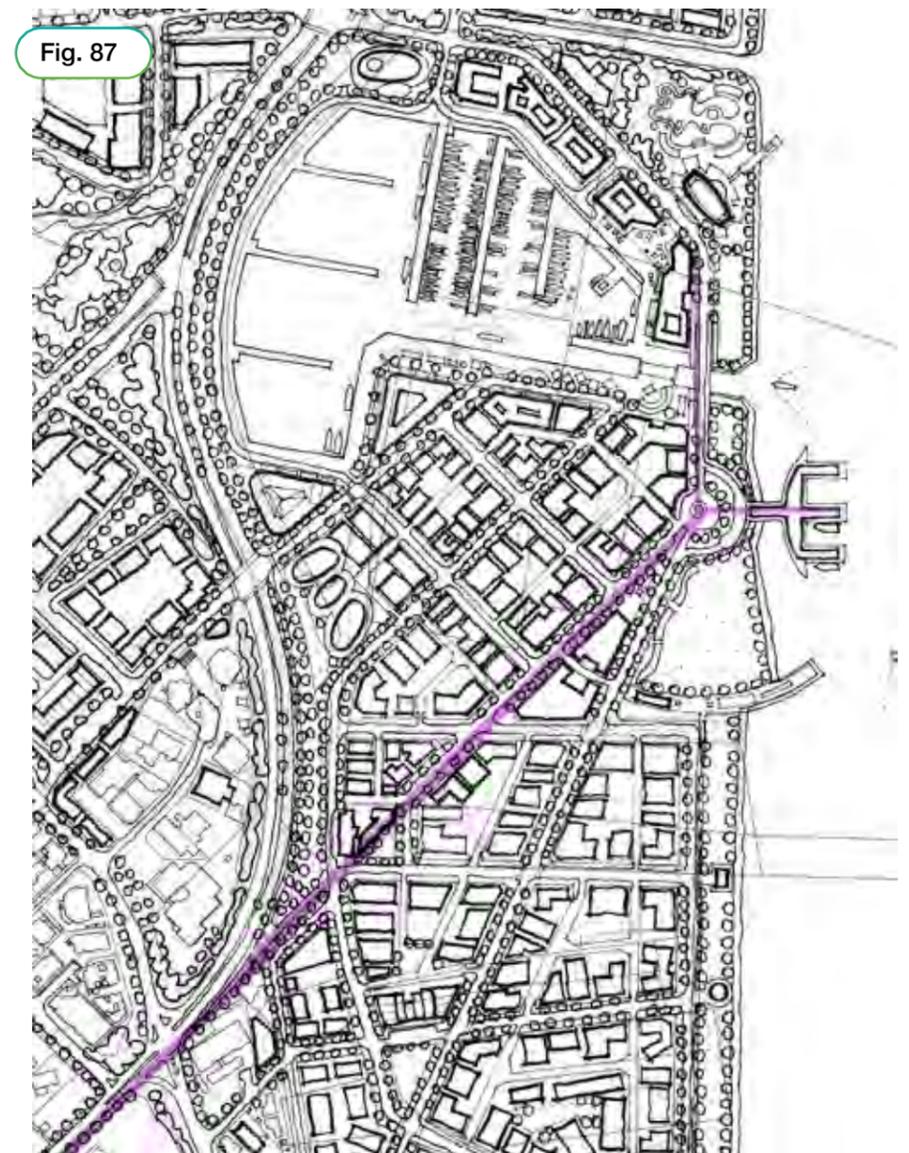


Fig. 87

Figure 86 – Potential Urban Structure near Leydin Court

Figure 87– Extension of Bennett Street into Frances Bay

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 026	Review of Bennett Street Link to The Esplanade	City of Darwin NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

Historical photographs and maps indicate that the original alignment of Bennett Street extended as far as The Esplanade with a standard city intersection with Mitchell Street. At some point this was changed resulting in an awkward intersection, high speed sweeping corner at Mitchell Street with low visibility around the corner, and a potentially dangerous intersection at Herbert Street and Mitchell Street. Right turning out of Mitchell Street into Herbert Street is potentially dangerous for motorists and makes pedestrian crossing of both streets hazardous.

This Concept requires a review of the street layouts with further traffic and pedestrian safety investigations to determine whether the street configuration should be returned to its original alignment. A possible solution is to return the intersection to the way it was in the past, and extend Bennett Street in a straight line to The Esplanade. This solution could improve safety and create several potential development sites and potentially improve the surrounds to Parliament House by removing unsightly surface car parking lots. New lawns could be introduced to replace the surface parking lots. This would be a more appropriate and dignified foreground to this important building.



Fig. 88



Fig. 89



Fig. 90



Fig. 91

Figure 88 – Historical photograph of the Bennett – Mitchell Street intersection

Figure 89 – The old alignment of Bennett Street at the intersection with Mitchell Street.

Figure 90 – Reconstituted intersection of Bennett and Mitchell Streets

Figure 91 – Historical map showing the street grid with Bennett St running to The Esplanade

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 027	Parliament Car Park on Bennett Street	NT Government	Critical Desirable Discretionary	Medium Term
				<i>Unlocking the potential</i>

Description

If, as shown in MP026, the traffic safety review of the alignment of the Mitchell and Bennett Street intersection results in a return to the original alignment and connection to The Esplanade, the existing surface parking lot will be displaced. The surface parking lot is a poor visual foreground to the Parliament building, one of the most significant buildings in the Northern Territory. It would be desirable if the foreground to this building was a landscaped garden rather than a car park.

By realigning Bennett Street an opportunity arises to create a secure and shaded basement parking area for government officials and at the same time create a cyclone shelter near Parliament to add to the existing shelter beneath the Supreme Court building.



New lawns replacing surface parking lots



Figure 92 – Improved surrounding to Parliament House

Figure 93 – Cross Section through new basement parking/ cyclone shelter and surface garden with Parliament House in the background and Bennett Street connecting to The Esplanade

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 028	Herbert Street Development	NT Government	Critical Desirable Discretionary	Medium Term
				<i>Unlocking the potential</i>

Description

If, (following the review concept outlined in MP026), Bennett Street is returned to its original alignment and reconnected to The Esplanade, Herbert Street becomes “excess to requirements” in terms of road access in this precinct. The road reserve could become a development site in conjunction with a new basement parking area under the existing surface parking lot between Herbert Street and Parliament House.

This development would create the appropriate foreground to Parliament House, returning it to lawns and landscaped gardens while the parking is located in a basement. The basement could double as a cyclone shelter, while the building could provide future accommodation in the heart of the Darwin City Centre. The use of the building will be determined in time by market forces, and could include government offices, an up-market hotel, and/or residences. The building should be relatively low rise to prevent overshadowing of the important Parliament building.

A new lane is suggested along part of Herbert Street to maintain access to existing adjacent sites and possibly to the new development and basement parking.



Figure 94 – Plan showing the realigned Bennett Street, new lawns and new development facing onto gardens and Parliament House

Design Rationale

04 Make a Resource Efficient & Walkable City

Why is a more walkable city important? If cities exist to bring things together to facilitate interaction and exchange, then allowing people to connect and interact has real social, economic and environmental benefits. A priority of the Darwin Master Plan is to make the City more walkable so that it performs better socially, economically and environmentally. This is the essence of sustainable development and a walkable and engaging city is the objective of the Master Plan.

Making a city walkable is dependent on a number of factors. To feel safe and comfortable for walking, the streets need to be safe and comfortable for pedestrians. It is the quality of the streets which determines how walkable the city will be. It is critical that the buildings along streets engage with streets in a positive manner, with “active frontage” to all buildings. Making building edges “active” to the street adds interest, life and vitality to the street. Streets which have active frontage have:

- frequent doors and windows with few blank walls
- narrow frontage buildings giving vertical rhythm to the street scene
- articulation of facades with projections such as bays and porches providing a welcoming feeling
- lively internal uses visible from the outside, or spilling onto the street.

Walkable streets ensure the needs of all users, including pedestrians, are balanced. Streets should be much more than just conduits for cars. It should be acknowledged that increasing traffic capacity in streets increases traffic, and not the other way around. The design of streets and junctions is therefore fundamental in achieving a walkable city.

If people aren't comfortable in parks, they won't use them. This in turn reduces the safety and amenity of parks. It is essential that parks enjoy a high level of “natural surveillance” from adjoining streets and buildings. Buildings should face parks across a public street and not back onto parks.

Walkability benefits from good public transport, and public transport is totally dependent on good walkability in the city centre. It is important that walking and public transport stops and routes are completely integrated. The Darwin City Centre Master Plan proposes ways in which this integration is possible today and into the future as new public transport modes become viable.

Darwin is a hot place to walk and passive cooling should be achieved through planting of street trees to shade pedestrians. This is an economic success factor as pedestrian traffic brings the city to life.

Parking and car traffic need to be balanced with walking and biking. Currently parking generation rates are too high for the city centre, resulting in induced demand. As the city centre is at the end of a peninsula the need for traffic flow through the city centre is diminished. Greater balance between modes should form the basis of street design in the future. Small incremental improvements to the walking environment will help make walking a pleasure and not just a necessity.

Walking and bike riding are synonymous. Creating a well-connected network of bike and walking paths in and around the city centre will go a long way to reducing car-dependence, and improve the environmental performance of the city.

Fig. 95

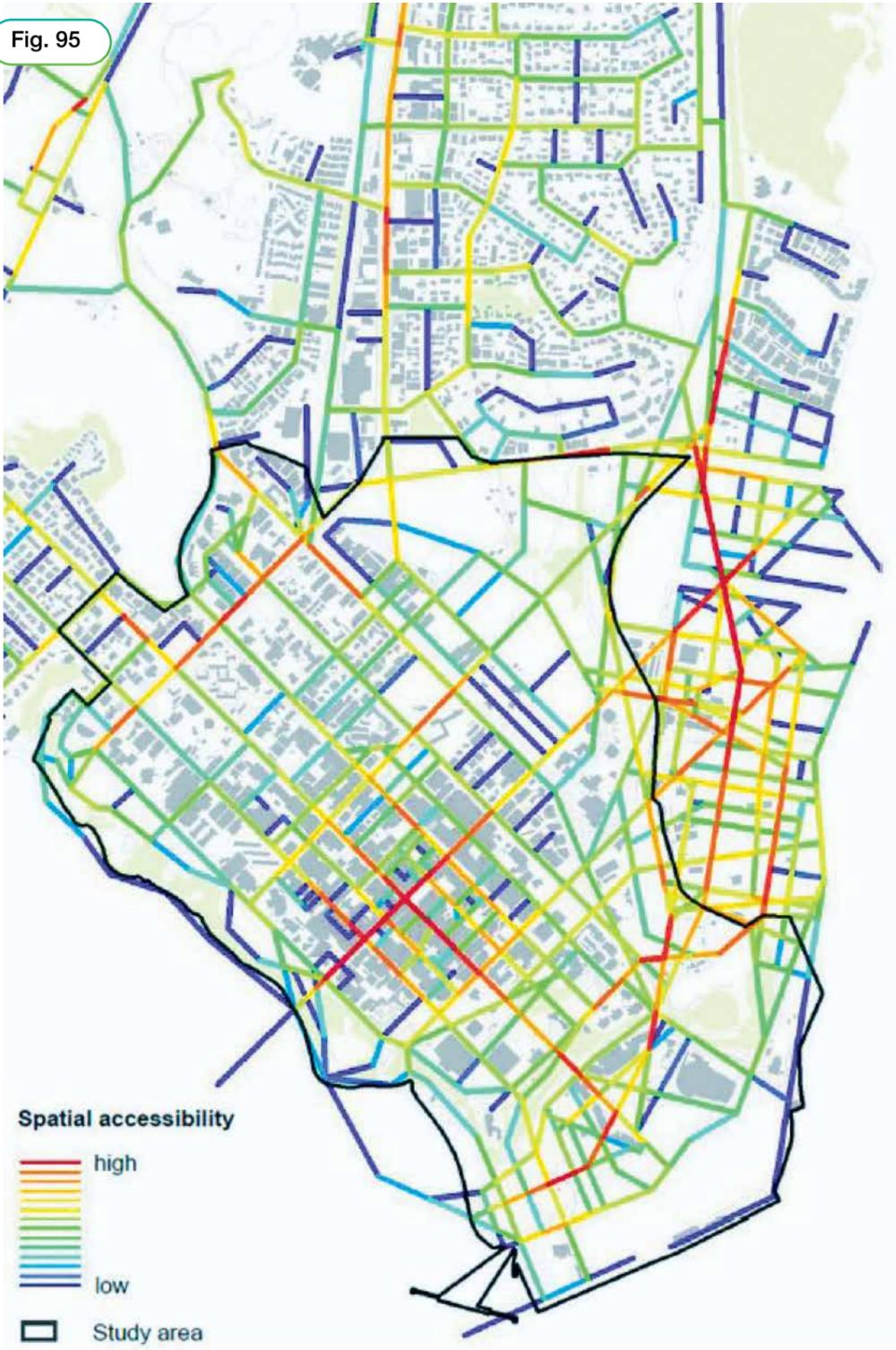


Figure 95 – Model forecasting walkability based on spatial accessibility and walking evidence (Space Syntax Limited)

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 029	Mitchell Street / Waterfront Link	Darwin Waterfront Corporation	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

As the Darwin Waterfront continues to develop, it will be important to increase the number of pedestrian connections between the Darwin City Centre and the Waterfront.

A key connection will be a pedestrian link between the later stages of the Darwin Waterfront and Mitchell Street. A path from Mitchell Street past Parliament House and the Supreme Court, connects to The Esplanade. It is proposed that a new stair and/or escalator be introduced to connect from the Waterfront to meet this existing path. This could link passengers from the cruise ship terminal to Darwin's prime entertainment street, Mitchell Street.

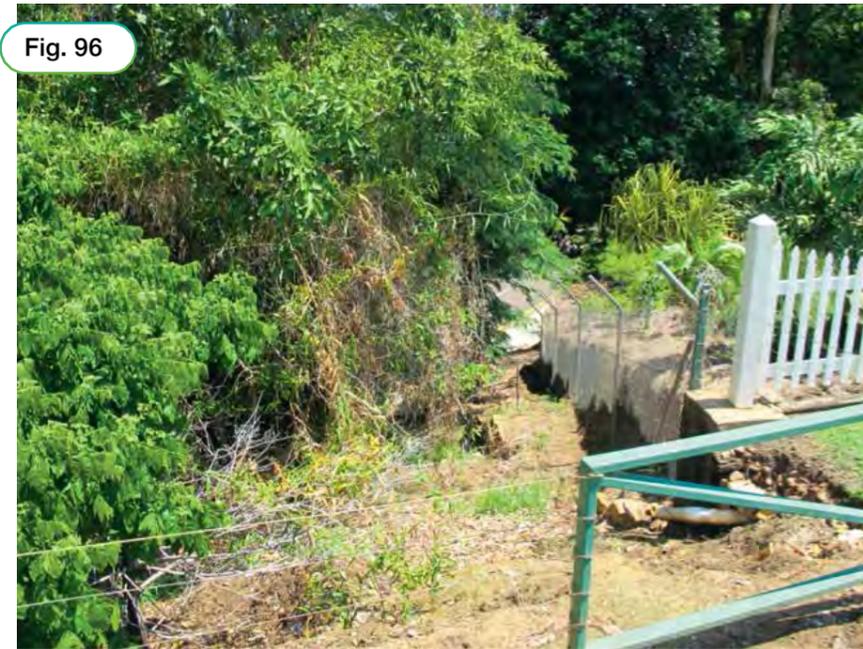


Figure 96 – Position of potential new stair/escalator next to Government House perimeter fence linking from Hughes Avenue to Harry Chan Avenue



Figure 97 – Alignment of a new pedestrian link between the Darwin City Centre and the Darwin Waterfront

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 030	Smith Street / Waterfront Connection	Darwin Waterfront Corporation	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

A connection to the Darwin Waterfront has been made via the pedestrian bridge and lifts which take pedestrians from the end of Smith Street down to the Waterfront 10 metres below. The escarpment is a significant barrier to connection and, while the bridge and lifts are adequate, the connection could be significantly improved. The link via the bridge is made in three parts, first from Smith Street across The Esplanade and down to Hughes Avenue. There is no direct line of sight from Smith Street to the waterfront, just a sign and a rather confusing pedestrian crossing across The Esplanade. Once across Hughes Avenue it is totally unclear as to how one gets down to the Waterfront as the lifts are out of the line of sight from the pedestrian bridge. This visual connection needs to be clearer.

A solution to improve this link would be to build a grand staircase which leads directly from Hughes Avenue to Kitchener Drive, so that the path is clear and evident. No large trees would need to be displaced, as there is a clearing next to the existing pedestrian bridge. It is desirable that all large shade trees be retained to shade pedestrians and provide a level of weather protection.



Fig. 98



Fig. 99

Figure 98 – Position for a possible grand staircase linking the Darwin City Centre to the Darwin Waterfront

Figure 99 – Urban Forecast Model showing the importance of the Smith Street link to the Waterfront

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 031	Sextant Park and Sadgrove Creek Park	NT Government	Critical Desirable Discretionary	Medium Term
				<i>Unlocking the potential</i>

Description

As Frances Bay is transformed from being a service area for the fishing and pearling fleet to becoming an urban renewal area, it is essential to create usable public open spaces which are highly accessible and take advantage of cooling breezes. This is especially important along the banks of the reconfigured Sadgroves Creek. The banks of the creek are likely to be reconfigured and stabilised to accommodate new development.

The Darwin City Centre Master Plan proposes a new linear park with shared path access and a street which provide access to the park. These paths link to the expanded Duck Pond and marina. To the north, where the new junction of Bennett Street and Frances Bay Drive meet, it is proposed to create a new public park where large events can be held. This is notionally named Sextant Park because of its shape and as a reference to the nautical past of Frances Bay.



Figure 100 – A linear park along the new banks of Sadgrove Creek and Sextant Park

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 032	Smith / Daly Street Intersection	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

Spatial analysis shows clearly that Smith Street has the potential to be a major pedestrian route into the Darwin City Centre. Observations and recording of pedestrian movement show that despite this potential, pedestrian numbers drop off significantly towards the Smith/Daly Streets intersection. Why is this? Does it have something to do with the traffic management and the difficulty it causes pedestrians (and bike riders)?

Daly Street has traffic volumes which range from 25,000 vehicles per day in the wet months, to 28,000 vehicles per day in the dry months. Research conducted by traffic engineers TTM Consulting indicates that at these traffic volumes, motorists waiting at the roundabout wait for a gap of 3.6 seconds, before filling that gap and driving into the roundabout. This means that downstream from the roundabout there are only gaps of less than 3.6 seconds.

The gaps needed for downstream movements are as follows:

- 4-5 seconds for vehicle right turn
- 4 seconds for vehicle left turn
- 7 seconds to back out of a driveway
- 10 seconds to walk across street.

This explains why pedestrians find this intersection difficult to cross, and so avoid the intersection. Observed and measured pedestrian movement shows evidence of this behaviour. It makes sense therefore to revise the traffic management and install traffic signals to balance the needs of all potential users of this intersection.

Safe navigation of this intersection will increase the economic viability of the potential Harriet Place urban centre. This will increase the potential for social and economic transaction, adding to the richness of the Darwin City Centre.

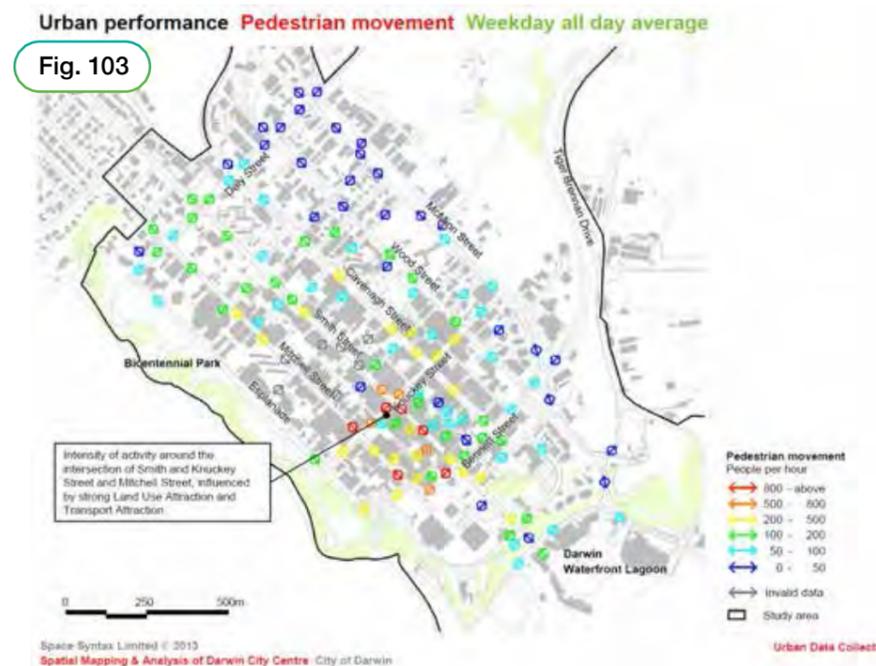


Figure 101 – Predicted pedestrian movement pattern

Figure 102 – Signalised intersection proposal

Figure 103 – Measured pedestrian activity

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 033	Harriet Place Revitalisation	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

While some initial work has been done to revitalise Harriet Place, a comprehensive master plan and implementation plan needs to be prepared for this important potential centre in the Darwin City Centre. This plan should be prepared in conjunction with a review of traffic management at the intersection of Daly and Smith Streets (See Project MP 032) and the upgrade of Daly Street (See project MP 007) and Smith Street (See Project MP 013).

Development around Harriet Place should support walking by providing “active frontage” at the ground floor of every building, by providing weather protection for pedestrians walking on footpaths and by reducing setbacks from streets, so that buildings engage with the street and overshadow streets to cool the walking environment. Additional planting of street trees is essential to improving the visual, comfort and economic performance of the Centre.

Harriet Place might be unified in terms of its appearance and performance through the introduction of an elegant colonnade. This may be combined with solar-powered cooling fans to improve pedestrian comfort and amenity.

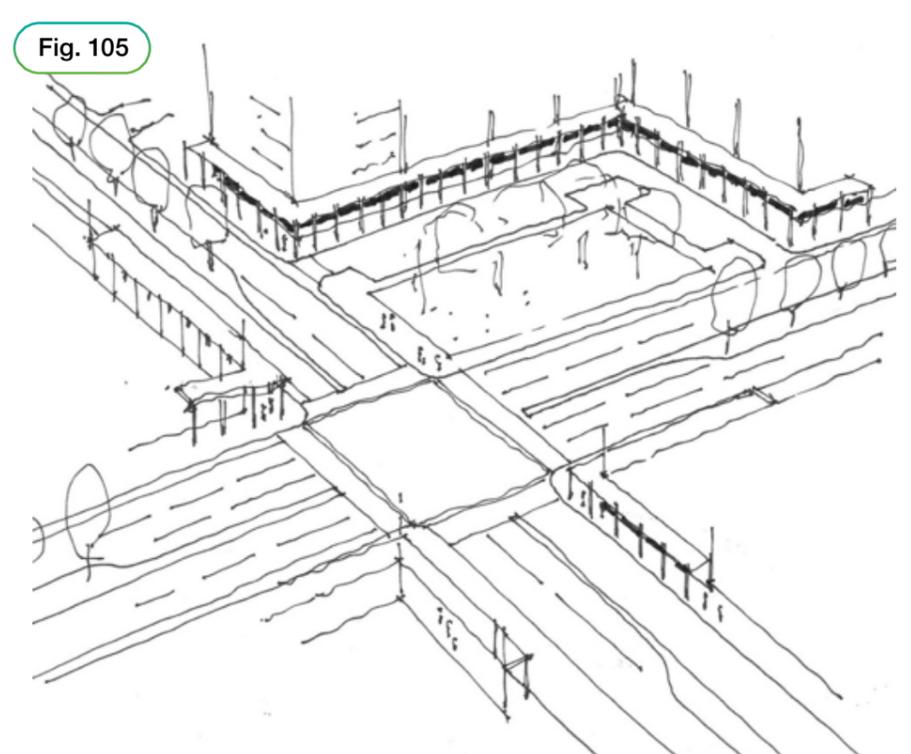


Figure 104 – Harriet Place – A new urban centre

Figure 105 – Possible colonnade unifying Harriet Place

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 034	Mitchell Street Redevelopment	City of Darwin	Critical Desirable Discretionary	Long Term
				<i>Unlocking the potential</i>

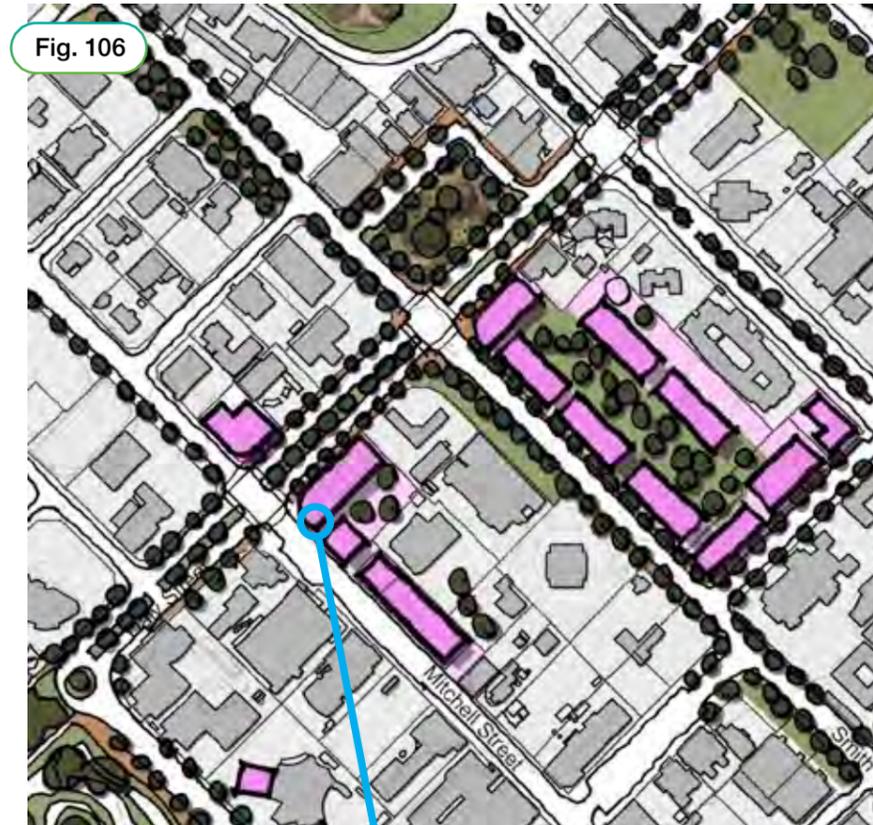
Description

Spatial Analysis has identified a potential centre of activity around Harriet Place, at the intersection of Daly and Smith Streets. There is a growing population in Larrakeyah to the north-west which would use this as a local centre. There are opportunities to increase the population catchment for this centre by developing under-utilised sites within walking distance (400m) of the centre. This includes a number of sites owned by the City of Darwin which are being used for surface car parking. The centre provides a rationale for development, and mixed uses with predominant residential use would support the emerging urban structure and centre at Harriet Place.

Buildings should be developed to the street boundary with weather protection above the public footpath.

Land Use

Ground floor level should be “retail capable” with slab to slab height a minimum of four metres. Ground floor slabs should enable shops to be developed when the market matures. Land uses above ground could include offices as well as residential apartments.



Potential development sites on Council-owned car parking sites



Figure 106 – Potential development to support emerging centre at Harriet Place

Figure 107 – Urban forecast model

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 035	Smith Street North upgrade	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

Stakeholders have identified the section of Smith Street which runs from Daly Street through Larrakeyah to Cullen Bay as a potential “biodiversity corridor”. Given that the street has a very wide verge on the southern side, it is conceivable that increased planting could augment the existing planting. A challenge would be to underground powerlines which currently detract from the visual appeal of the street.



Figure 108 – Smith Street as a possible “biodiversity corridor”

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 036	Smith – Bennett Street Intersection	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

One of the highest pedestrian volume intersections in the Darwin City Centre is that of Bennett and Smith Streets. Despite this the intersection is a challenge for pedestrians. Improved treatment which supports safe and convenient pedestrian crossing, while maintaining traffic flows and turning capacity, is the objective of this project. Pedestrian crossing at the moment is facilitated on the northern side of Smith Street, yet the walkway to the Darwin Waterfront is on the southern side of the street. Pedestrians have to make two crossing movements, or cross three traffic lanes at the wider section of Bennett Street at the southern side of Smith Street where there is no centre road refuge. This is an undesirable condition.

In order to improve pedestrian crossing safety and amenity on both sides of Smith Street, narrowing of the crossing distance is desirable. This will have an impact on traffic flow as right-turning vehicles and buses turning from Bennett Street into Smith Street and heading toward the bus terminus at Harry Chan Avenue would cause north-bound traffic to stop until the right turning traffic was cleared. This will be greatly alleviated if the bus terminus were relocated. (See Project MP 049).

It is proposed to introduce a patterned intersection treatment to enhance a “sense of place” and give pedestrians an improved opportunity to cross Bennett Street. In addition, the importance of “Banker’s Corner” will be emphasised as an important place in the City Centre. The intention of the pattern is to run it in all directions so that motorists approaching the intersection perceive the intersection as a long pedestrian crossing. The pattern has been inspired by local art, however does not copy this and is a unique expression with a traffic management function. In addition to creating this pattern, it is also proposed to “table” the intersection by raising the road level in the intersection to the level of the top of existing kerbs. Kerbs would remain in place to delineate footpaths from the road.

This concept requires ongoing investigation and input from traffic engineers to identify challenges and practicalities.



Figure 109 – Smith-Bennett Street intersection as it is today

Figure 110 – Proposed intersection treatment to create a “sense of place” and improve pedestrian crossing

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 037	Tamarind Park upgrade	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

Tamarind Park is an under-utilised public park in the heart of the Darwin City Centre. This is partly because it is surrounded by low walls which inhibit easy pedestrian crossing of the park.

The park is also surrounded by buildings with reflective glazing and/or blank walls or vacant retail premises. In order for the park to be enjoyed by a wide range of local people and visitors, it is recommended that the low walls be removed, a new diagonal path be built through the park and the tables and seating be upgraded with more contemporary street furniture. Lighting in the park is poor, and could be improved. Negotiations with adjacent building owners should focus on improving visibility from the buildings towards the park.

The car park in the eastern part of the park presents poorly and there is an opportunity to introduce a water wall or sculptural object to mask the car park structure and improve presentation and possibly introduce “white sound” into the park. This has been done successfully elsewhere, creating a restful atmosphere.



Figure 111 – Use of a wall of falling water in Paley Park, New York

Figure 112 – Proposed improvements to Tamarind Park

Figure 113 – Poor visibility between buildings and Tamarind Park

Figure 114 – Low walls preventing pedestrian access to the park

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 038	Chapel Lane/ West Lane improvement	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

During the morning peak, Chapel Lane is an important pedestrian path as bus passengers are discharged in Mitchell Street, then head towards the Smith Street Mall through the Galleria. This lane has no weather protection or shade, and is therefore very hot and offers no protection during the “Wet”. West Lane is a service lane providing access to car parking buildings, and loading to adjacent buildings.

There is a chance to enhance this intersection with overhead cover, cooling the path with overhead solar-powered fans and planting trees to create a sense of place and provide shade. Kerbs should be realigned to increase the area available for landscaping.

By cooling the lane and creating a stronger sense of place, it is possible that building owners and tenancies will face into the lane and increase activity, vitality and potential employment. The development of a “laneway culture” will become more likely through place-making initiatives.



Fig. 115

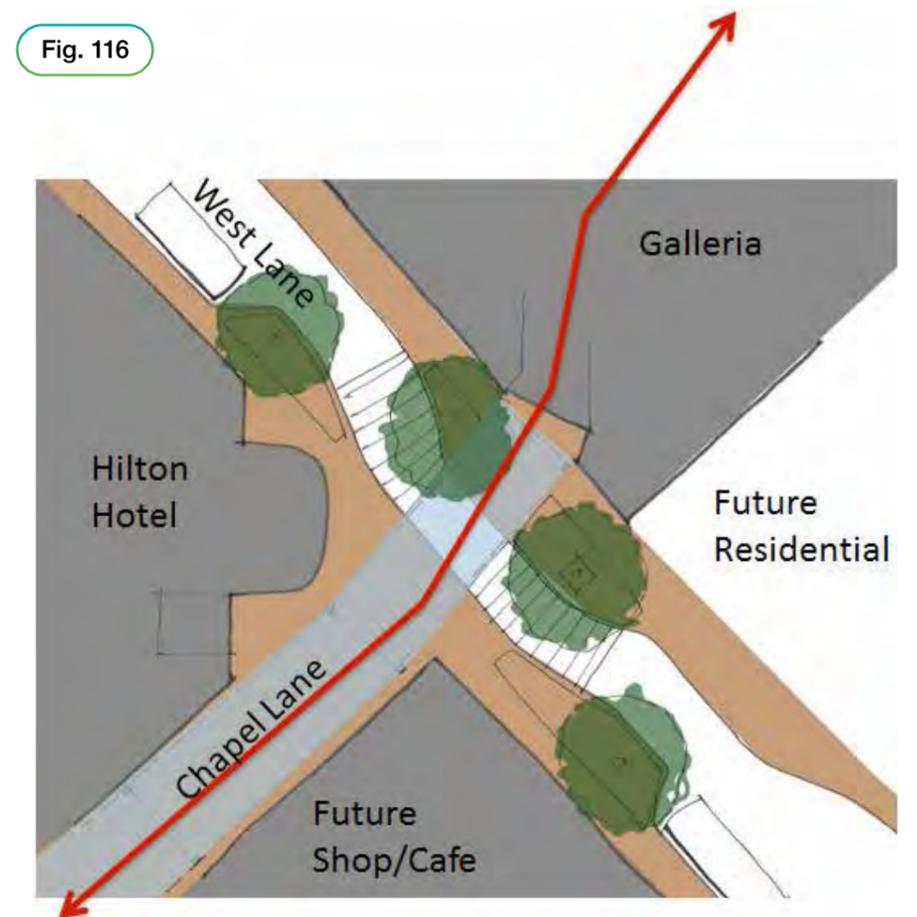


Fig. 116

Figure 115 – The intersection of Chapel and West Lanes

Figure 116 – Plan view of possible changes including weather protection, landscaping and planting trees

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 039	West Lane direction change	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

Right turning movements in Bennett Street and Knuckey Street in the morning peak cause disruption to vehicle flow in those narrow streets. There is no ability to pass turning vehicles, so traffic is held up until the right turn is completed. During the afternoon peak motorists leaving the West Lane car park have great difficulty entering Knuckey Street, and then try to make right turns into Mitchell Street.

A possible solution (which needs further testing and evaluation) is to reverse the direction of West Lane, so that entry is from Knuckey Street in a left turn movement and egress is into Bennett Street in a left turn motion. This is a smoother turning movement than turning right across oncoming traffic. The ramps in the West Lane car park would need to be evaluated in terms of their ability to reverse the flow into the parking garage.

This proposal might reduce congestion in the City Centre without much cost.

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 040	Star Arcade / Austin Lane improvement	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

Local people know the most direct routes for getting across the City Centre in Darwin. One of the most heavily used routes runs from Cavenagh Street through the arcade in the Carpentaria Building at 13 Cavenagh Street, across Austin Lane, through the Star Arcade, across The Mall, through the Vic Arcade and West Lane parking garage, down Chapel Lane to Mitchell Street.

Part of this route crosses Austin Lane. At this point pedestrians have to cross a busy lane with little or no shade or protection from weather. There is an opportunity to change this and develop a stronger sense of place in Austin Lane. Stakeholders identified Star Arcade as a favourite place because it is quirky and off the beaten track. There is an opportunity to extend Star Arcade, but it requires the owner's agreement to sacrifice two or three parking spaces in Austin Lane.

If this was achieved, a roof over the crossing could provide weather protection and shade, which could be cooled by solar-powered fans. Additional shade could be provided by planting shade trees. There is a business and employment opportunity as a small café could be established in the lane to animate the lane and improve activity. This in turn would increase safety and a sense of safety which would encourage more people to use this route across the City.



Figure 117 – Google Earth image of Austin Lane and the Star Arcade

Figure 118 – Linking Star Arcade to Austin Lane

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 041	Bus Interchange location investigation	NT Government	Critical Desirable Discretionary	Medium Term
				<i>Unlocking the potential</i>

Description

There is an opportunity to revitalise the southern end of Smith Street to make it a more vibrant part of the city. Historically the Darwin Bus Interchange was located to provide transport for the now removed Government office complex within the State Square precinct. The Northern Territory Government is investigating the current role and function of the Bus Interchange as part of a broader study of bus movements in and around the City Centre. While it may be possible to change the location of some of the interchange functions, it is still important to maintain public transport connections to the southern portion of the City Centre and a range of possible options will be investigated.

Changes to the function and/or location of the current bus interchange could allow for transformations of Harry Chan Avenue to support tourism, the Darwin Festival, Browns Mart and a more vibrant Smith Street. This is also a key strategy to improve the retail performance of The Mall. At the moment The Mall lacks an attractor at its southern end. A more vibrant precinct to the south will increase pedestrian movement through The Mall.

The Northern Territory Government is currently undertaking further work to investigate public transport corridors in the city in consultation with the City of Darwin and will use the Master Plan outcomes to guide the ongoing development of public transport planning for the City Centre.



Figure 119 – The existing bus terminus on Harry Chan Avenue

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 042	Integrated Public Transport Plan	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

While the Darwin City Centre Master Plan acknowledges the fundamental contribution of public transport to the City Centre, development of a public transport plan for the City is not within the scope of the Master Plan.

The NT Government is investigating public transport corridors in the City in consultation with the City of Darwin and will consider the Master Plan outcomes in the ongoing development of public transport planning for the City Centre.

Notwithstanding this, the Space Syntax analysis of the city provides the evidence base to target public transport to where people are likely to be. At the moment the bus terminus is relatively isolated and lacks supporting activity to make it feel safe and secure.

A clear message from stakeholders was that people feel the bus system is unsafe. This was a view clearly expressed by young people. However since consultation undertaken as part of the Master Planning process, the Northern Territory Government has implemented a number of measures to improve the safety of public transport in Darwin, including increasing security at bus interchanges and major bus stops. Passenger safety will continue to be a priority in the ongoing planning of public transport in the Darwin City Centre.

Stakeholders are also keen to see a rail-based public transport system. Light rail was raised as an aspiration in all workshops. Light rail services could run in a dedicated rail corridor, while trams could share street space with other traffic. Whether the solution is light rail, bus or a tram remains to be seen, but the Master Plan has identified possible routes into the city which would target where people are, and where they want to go.

The Master Plan takes all of these desires into consideration and proposes an integrated future network which integrates parking, park and ride, a bus loop, a ferry service, light rail and the suburban bus system. This indicative concept and proposal will need to be tested by the Northern Territory Government to align with broader networks and existing public transport systems.

It is likely, however, that the existing bus network will continue to provide the public transport system in Darwin in the short to medium term. In the longer term rapid transit options such as light rail, tram or bus rapid transit may also be feasible along established high quality and frequent bus routes. The Darwin City Centre Master Plan recognises short and medium terms plans for regional public transport and identifies potential corridors for development of possible light rail, tram or rapid bus transit in the longer term.



Fig. 120

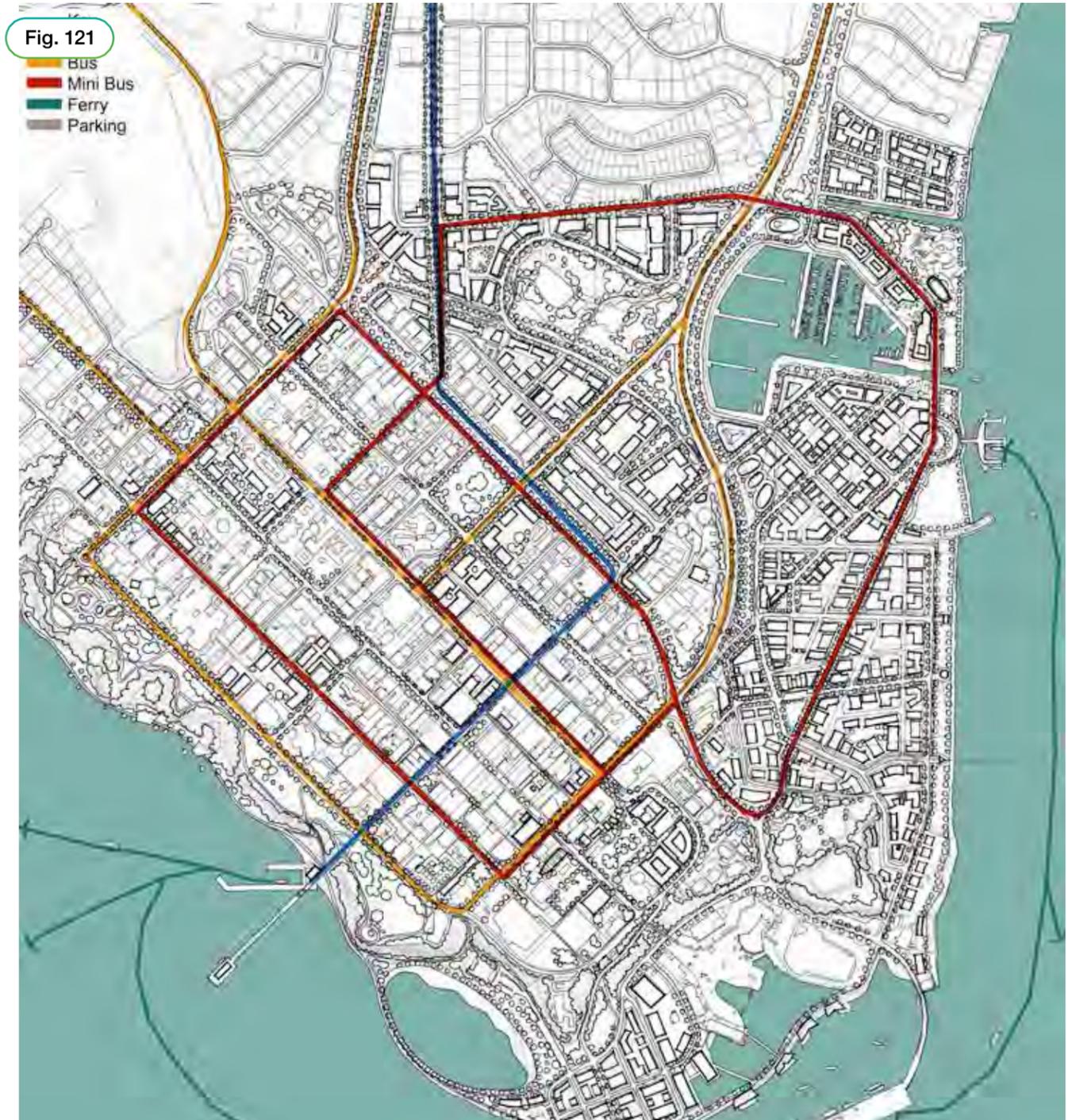


Fig. 121

Figure 120 – Small scale buses in Perth, the Perth CAT

Figure 121 – Some of the suggestions for public transport opportunities identified through stakeholder consultation.

NUMBER	NAME	LEAD AGENCY	CATEGORY			TIME FRAME
MP 043	Potential Loop Bus Service	NT Government	Critical	Desirable	Discretionary	Medium Term
						<i>Unlocking the potential</i>

Description

A strong feature of stakeholder response has been the desire for a small bus looping around the city centre linking to parking stations. A strong desire was for this service to be free along the lines of the Perth CAT bus system to encourage people to leave cars outside the city and reduce congestion. The potential for commuters to transfer from city boundary park and ride facilities to a city loop bus service (particularly in a hot, tropical climate) and the desirability of this approach in contrast to increasing public transport use for trips to the city, has yet to be tested. However, the potential for a city loop service will be considered as part of the Northern Territory Government's public transport investigations for the City Centre.

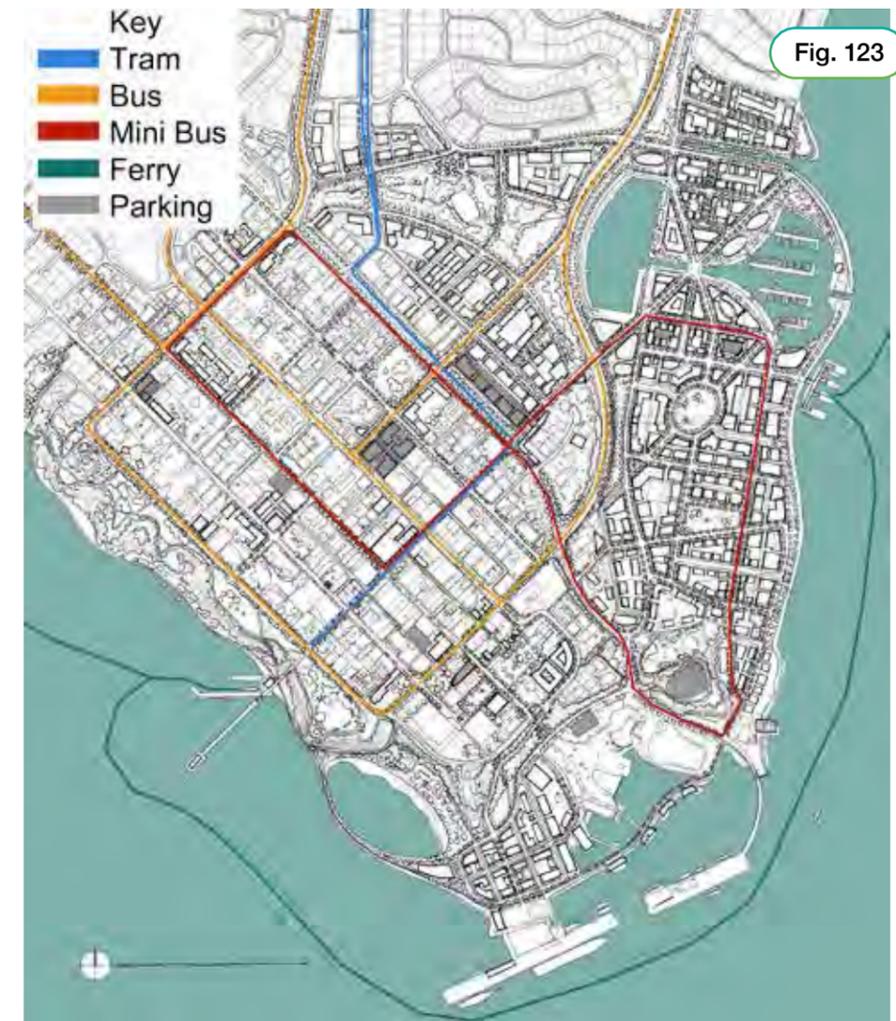


Figure 122 – Initial bus loop servicing the Darwin City Centre and Waterfront

Figure 123 – Ultimate bus loop including new development areas

05 Design Rationale

Cool the City

A key theme during stakeholder consultation was that the heat and rain inhibit walking and outdoor activity for much of the year. Cooling the city is an initiative which will have direct and lasting social economic and environmental benefit as more people are encouraged to walk and visit the city.

The concept has international implications for Australia in showcasing low energy cooling of an urban centre. A project of this scale has no international benchmark comparisons.

The rationale sets up a number of proposals. A key proposal is to the cool The Mall to create an “urban living room” in the heart of the city. Proposals include shading and cooling of footpaths between the core retail area and parking garages, to encourage people to use the streets and access multiple retail outlets, rather than parking directly outside one outlet. This will be achieved by the design and installation of weather protection and awnings over footpaths, with solar-powered fans keeping pedestrians cool.

Natural shading will be encouraged through a proposed Urban Forest project, which seeks to increase the tree canopy from current levels to covering 70% of street surfaces, thereby helping to cool the city.

Fig. 124



Figure 124 – Rationale is to Cool the City Centre starting with The Mall and creating cool footpaths and an urban forest to cool the streets and buildings

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 044	Cooling weather protection prototype	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

The Project has two main elements.

Element 1: A measurable pilot project using low energy cooling techniques to improve pedestrian comfort in and around the City Centre.

Element 2: A whole of City Centre approach to low energy design cooling, which includes a performance Brief for Element 2 (Pilot).

Under the objective of “cooling the city” there is an economic and social imperative to improve the desire and ability of people to walk around the City Centre in greater comfort. A part of this imperative is to cover and shade all pedestrian areas within the City Centre. The areas that do not have weather protection or cover have been mapped together with the surface and ambient air temperatures around the City Centre. A conclusion of this analysis is that full shade is the most important factor in pedestrian comfort around the City Centre. This is despite the fact that ambient air temperatures vary little between shaded and non-shaded areas. Also important to pedestrian comfort is air movement as it provides a cooling effect on the skin and reduces ambient temperature. So the three key factors in the work will be:

1. Shade (primary)
2. Air movement
3. Low energy cooling techniques for the public realm (including but not limited to geothermal heat transfer).

The concept has international implications for Australia to showcase low energy cooling of an urban centre. The project at this scale has no international benchmark comparisons.

Element 1:

The key driver for the pilot is the need to create a robust and sustainable low energy solution in the streets of the City Centre that materially improves pedestrian comfort and that is measurable in its effects.

Shade and weather protection structures which provide potential for energy harvesting from sunlight or natural light and power below-awning fans to cool pedestrians, and potentially draw cooler air from the sub-surface need to be designed constructed and tested to ensure the efficacy of the devices. Concept sketches have been prepared, but these are not yet design proposals as the design character has yet to be determined as well as the actual design of the units. There is a desire to create a modular system so that it can be applied to a variety of contexts and building rhythms.

Element 2:

The most effective approach to pedestrian comfort is a whole of City Centre approach that looks at all the elements that contribute to pedestrian comfort. This will likely include analysis of the following:

- consideration of planning controls that require buildings to permanently shade pedestrian areas (potential implications for the *Planning Scheme* and *Volumetric Controls*);
- a whole of City Centre, all year, sun path map (to determine the influence of sun angles at any time of the year) to determine effective year round performance solutions;
- a whole of City Centre, all year wind pattern map (to determine how natural wind patterns can assist with pedestrian comfort and what effect awnings, building design and location, and public realm design elements may have in promoting air movement);
- consideration of the City Centre as a geothermal resource that naturally moves hot and cool air around the City Centre;
- consideration of adiabatic systems/options in relation to Smith Street Mall (see Clarke Quay, Singapore description in MP 045);
- evaluation of performance criteria for a City Centre pilot and determination of location of pilot.



Fig. 125



Fig. 126

Figure 125 – Sketch of weather protection awning with below awning fans

Figure 126 – Sketch of potential weather protection awning with solar energy panels

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 045	The Mall Living Room	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The Mall has always been the retail heart of Darwin City Centre. There is an opportunity to effectively turn The Mall into the “comfortable living room” of the City Centre by providing additional weather protection and cooling and elements of entertainment. Similar projects have been attempted in other places, and in tropical climates. Clarke Quay in Singapore has been transformed by the introduction of weather protection and cooling devices designed by Alsop Architects. Flinders Street in Townsville has been transformed by additional shade structures to provide cooling and shade. The Mall has some shading, but this could be improved, with cantilevered weather protection structures incorporating cooling fans. This would create a “cool heart” of the City and enable retail to compete more effectively with internalised suburban shopping centres at Casuarina and Palmerston.

An overhead structure would enable projections to be displayed on the underside, enabling the stories of Darwin, its history and culture to be told adding a novelty element to The Mall Living Room.



Fig. 127

Figure 127 – Projections under weather protection devices adding entertainment to The Mall

Figure 128 – The Mall today



Fig. 128

Figure 129 – Potential weather protection and cooling of The Mall with central alfresco dining areas cooled by large fans above

Figure 130 – Clarke Quay Singapore
(Image source: wallpapers.brothersoft.com)

Figure 131 – Clarke Quay Singapore
(Image source: commons.wikimedia.org, user Sengkang)



Fig. 130

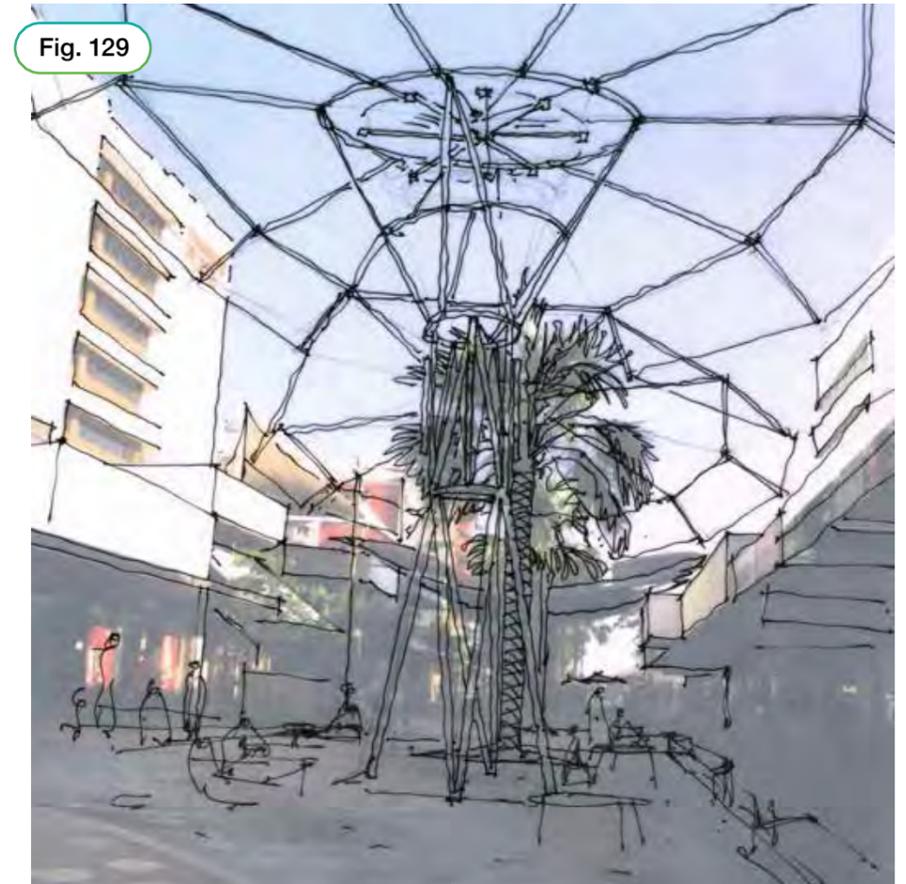


Fig. 129



Fig. 131

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 046	Urban Forest Project	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The Urban Forest comprises the trees and vegetation throughout the Darwin City Centre, inclusive of all tree types and irrespective of whether they are on streets, in parks or on private land. The Urban Forest, measured as a canopy cover percentage of the total land area, is recognised as a primary component of the urban ecosystem (LGA NSW 2003). It is one component of the complex built environment along with roads, car parks, buildings, footpaths and services.

Urban forests in and around urban communities provide physiological, sociological, economic and aesthetic benefits. They are one of the most effective means of cooling a city and have been shown to greatly reduce urban heat island effects.

Streetscapes and public realm open space will play a key role in the Urban Forest. It is important that adequate provision in terms of space (above ground and underground) is made for trees. In addition to the initial capital costs of installing trees, there should be realistic ongoing funding for tree maintenance and management to ensure the potential benefits are fully realised.

The development of individual sites by the private sector has an impact on the potential benefits of the urban forest through tree planting, green roofs, increased reflection of heat.

The following table recommends changes to the approach to urban trees in Darwin;



Fig. 132

Figure 132 – Tree Cover in a Darwin Street

Where we have been... Traditional Urban Tree Management	Where we need to be... Modern Urban Forestry Model
Trees as ornaments	Trees viewed as critical infrastructure
Focus on individual trees	Focus on overall canopy cover and forest
Trees treated with low priority	Trees have equal priority to other urban infrastructure such as roads and services
Trees have no monetary or economic value	Economic value of forest recognised and valued
Focus on smaller and ornamental species	Focus on larger longer lived canopy trees
Individual tree maintenance	Overall forest management
Aesthetic based design only	Ecological and aesthetic based design
Legal boundaries determine tree management	Urban forest seen as continuous resource regardless of ownership boundaries

Table: Traditional versus modern urban forest approach (North Sydney Council 2011)

The first priority in developing the Urban Forest would be to complete the tree audit utilising I-Trees for the entire Master Plan area. A street tree master plan should then be prepared. Such a plan should not be prescriptive in physically locating every tree, but will include:

- Generic street types and planting approaches
- Species selection and densities nominated for every street
- Typical cross-sections
- Planting guides and details.

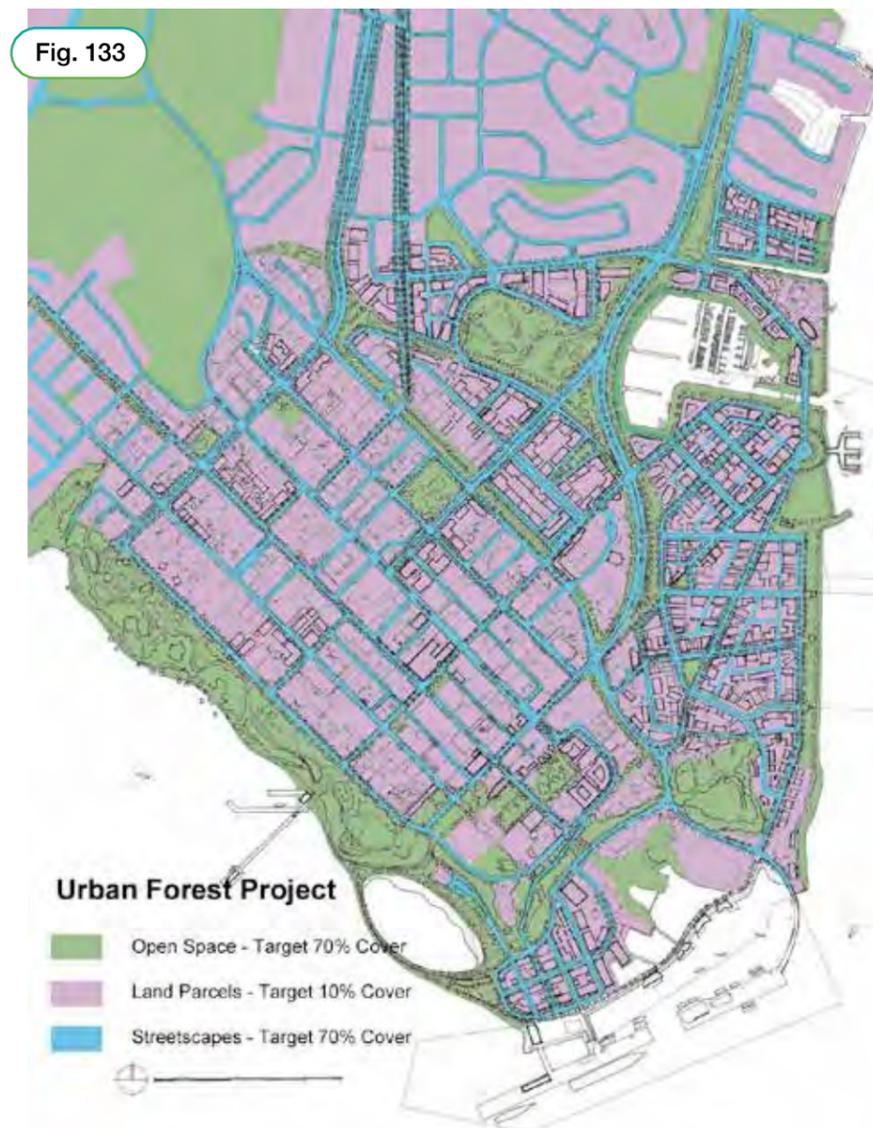


Fig. 133

Figure 133 – Urban Forest Targets

Design Rationale

06 Integrate Parking, Shopping & Moving Around

Parking is seen as the lifeblood of shopping, with traders believing that clients won't walk in the heat and rain, so convenient on-street parking is seen as critical. There is a strongly expressed view amongst traders that shoppers must be able to park directly outside their shop. The perception is it is too hot to walk a few metres, and that the walk is not pleasant therefore no-one will do it.

This comes at a cost to the retail sector in the whole of the Darwin City Centre as there are fewer pedestrians in streets, the streets appear less busy and so the Darwin City Centre is a less attractive place to visit than say Casuarina Shopping Centre.

If people are not coming to the Darwin City Centre because they can't park directly outside the shop they are visiting, it indicates that amenity is low (including climatic effects). If people can always park where they want to go, it suggests that there will be few pedestrians in streets, and if there are fewer pedestrians this indicates that there is a weak social and economic environment.

For Darwin to improve physically, socially and economically the street design and parking arrangements must be set up to encourage more walking, building design must improve so that people want to walk around town, and a pedestrian comfort strategy must be set up as part of an economic and social strategy.

Connecting parking garages to the core retail areas of Cavenagh, Smith, Knuckey and Mitchell Streets with shade and cooling is an essential part of improving the social and economic performance of the city centre.

Fig. 134

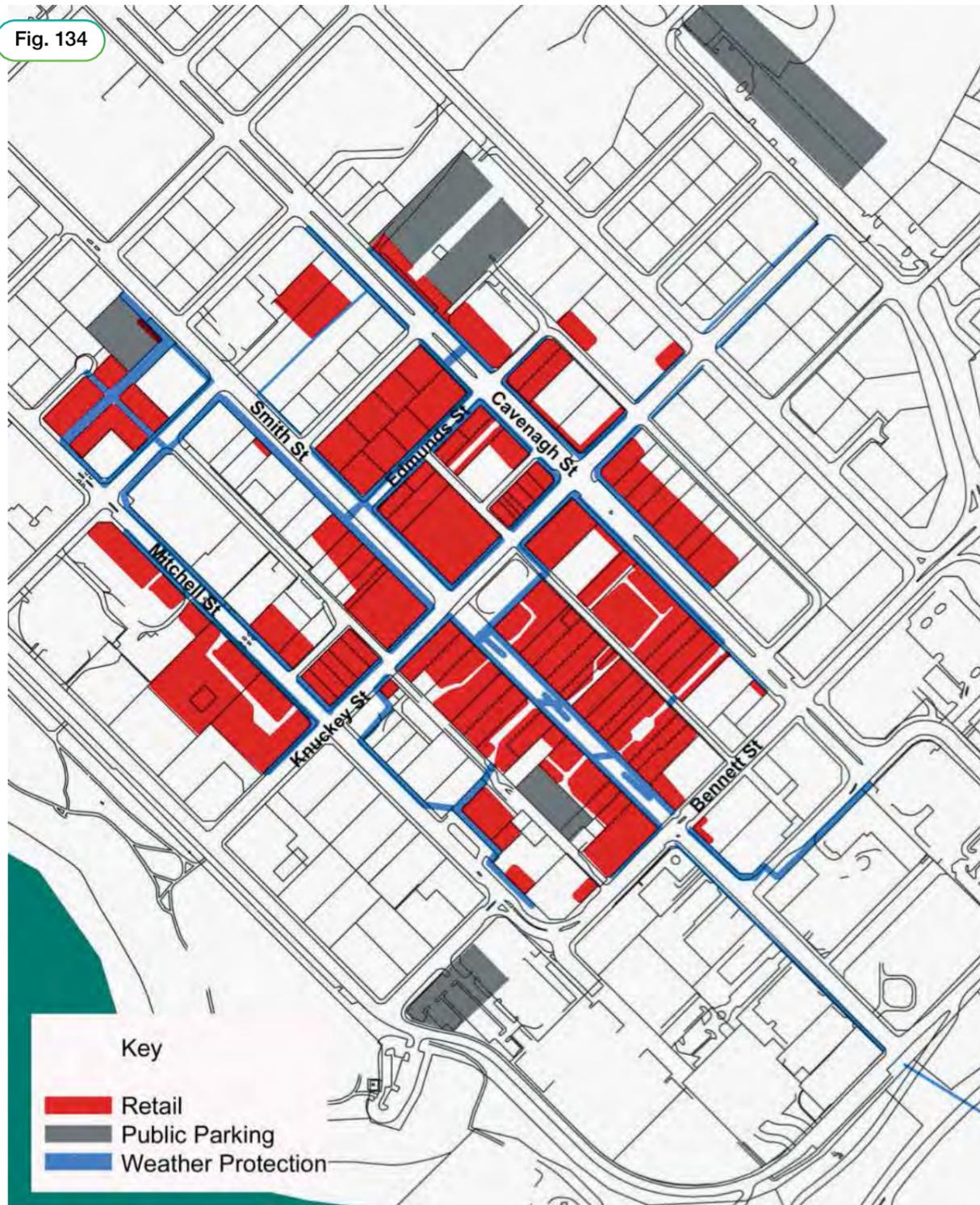


Fig. 135

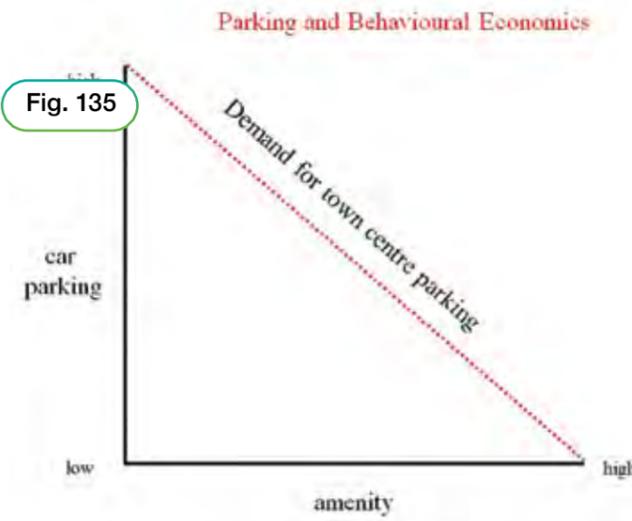


Figure 134 – The rationale is to link parking garages to the core retail areas by improving pedestrian comfort and amenity

Figure 135 – Parking and Behavioural Economics (Source: Urbacity Pty Ltd, 2013)

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 047	Integrate Parking, Walking and Shopping	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

If the streets in the Darwin City Centre are cooled (MP 044) through the introduction of street trees and weather protection awnings with fans, then the task is to integrate and connect parking garages to the retail core with these structures and trees. Cooling pedestrian paths and shading from the sun and rain are essential measures to improve human comfort so that people are encouraged to use and visit the city. This is a major economic success factor for the City Centre.

A priority therefore is to link the public parking garages to the core retail area by covering the footpaths with shade and shelter structures, and planting additional street trees to shade footpaths. The spatial analysis of the City and the forecast model of pedestrian movement provide the logic for an investment strategy to optimise investment to the greatest effect. As the intersection of Knuckey and Smith Streets is the place with most predicted pedestrian movement it makes sense to start producing cover from this point.

A prototype needs to be developed to test the efficacy of solar powered fans and the effect these have on cooling the pedestrian environment and increasing comfort in the city centre. (See MP 044). If the prototype has the expected cooling effects, then linking parking to shopping is a key strategy to making the City more walkable. This will also reduce the reliance traders have on parking being immediately outside their shop, and allow further cooling and shading from additional street tree planting. As most footpaths contain sub-surface services the logical place for street trees is in between parked cars. Not only will they shade footpaths and improve walking conditions, but cars too will be shaded. All of these factors will keep people longer in the City, and potentially improve the economic performance of the City, including retail performance.

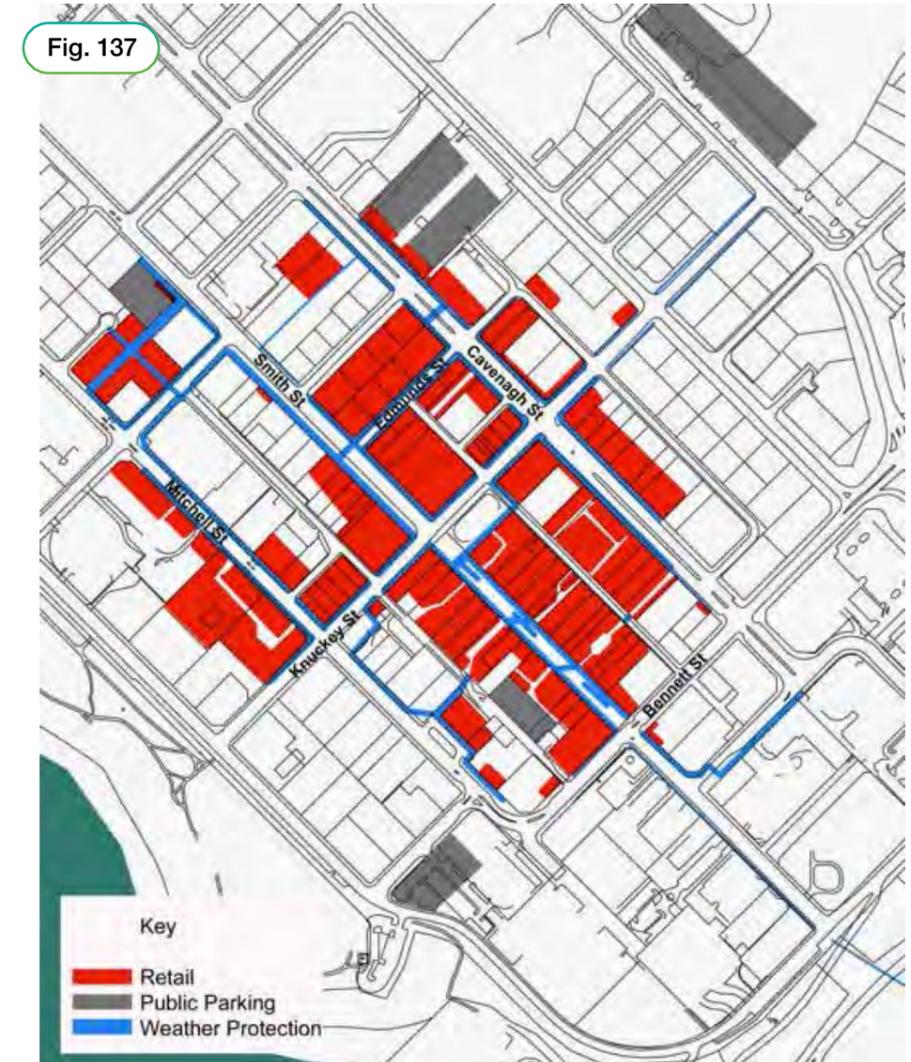
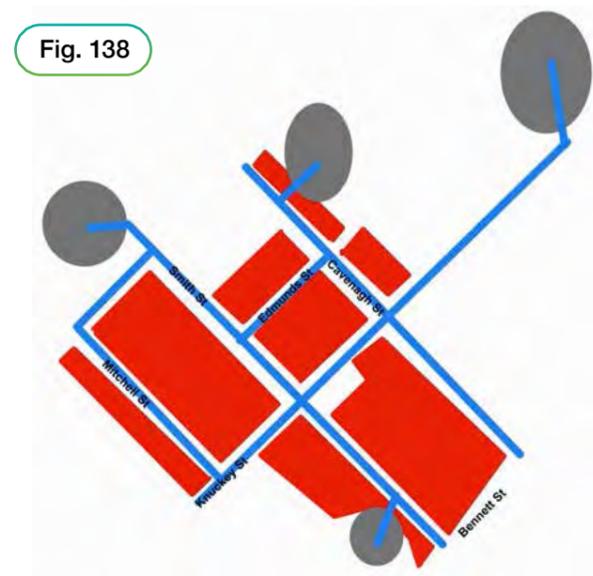


Figure 136 – Pedestrian movement in the Darwin City Centre

Figure 137 – A connected, cooled and comfortable retail core with effective links to parking

Figure 138 – Ideal ultimate model of linked public parking (grey) and retail (red) with weather protection and cooling structures (blue)

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 048	Alfresco Dining Policy Review	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

The City of Darwin has reviewed its outdoor dining policy in the context of growing commercial demand to use public outdoor space for residents, workers and visitors who wish to take advantage of the distinctive Darwin resource of urban street bars, cafes and restaurants in the City Centre.

There are 10 key objectives which characterise outdoor dining policies across Australia. These are:

1. To encourage outdoor dining in areas that are suited to purpose and in appropriate areas of the city;
2. To add vitality to the streets and public spaces of the city;
3. To protect and enhance the character of the surrounding streetscapes and built form, as well as the community functions of parks and other public spaces;
4. To ensure that the activity contributes to the amenity of adjoining and nearby properties;
5. To ensure that pedestrian traffic and safety is not compromised by outdoor dining activities;
6. To ensure that adequate, sheltered and safe space is maintained for pedestrian access and circulation;
7. To ensure equitable access for all including people with disabilities and that pedestrian dignity is maintained;
8. To ensure that outdoor dining areas are maintained in a clean, healthy and tidy manner and remain attractive elements of civic space;
9. To provide clear guidelines for applicants, staff, Council and the community with respect to Council's expectations in relation to outdoor dining;
10. To provide for performance monitoring to be used as part of the approval renewal process.

The policy review makes several general recommendations.

Outdoor dining is a distinguishing and beneficial feature of Darwin City Centre life. To this extent it should be encouraged and expanded as the city centre grows.

The current provisions are appropriate in intent, but possibly lack a level of enforcement rationale and some depth across matters relating to the design quality of these proposals. Enforcement is an issue of resourcing, ideally with staff monitoring the management of its public space by the businesses leasing the space.

New provisions should cover issues such as pedestrian safety, setbacks from kerb, design standards, materials, management plans (where appropriate) in the objectives and standards. A full design response should also be required from applicants which shows the proposed area of the lease, all existing and proposed new elements, locations of tables, chairs, setbacks and materials used.

The refreshed policy included a review and appropriate use of the provisions of Outdoor Dining Policies of numerous other Councils in Australia.

Outdoor dining throughout the City Centre is encouraged. Not only does it improve conditions for social and economic interaction and exchange but it contributes to a lively and active City Centre.

A key consideration is to avoid food preparation in permanent structures in public spaces such as The Mall. While seating and dining areas should be located in public places, food preparation should be in adjacent shops and buildings. There are examples where this highlights the problem, where adjacent and connected shops appearing vacant or underutilised. These shops are part of the same premises, yet appear vacant. This presents poorly and sends the wrong message about the health of retail in the City Centre.

The use of public places needs to accommodate emergency services. Structures which create obstructions for emergency service access should be avoided. Structures which are temporary and can easily be moved are favoured.

07 Design Rationale

Plan a Smart & Cultural City

Education, Art and Culture should form a significant component of expansion of facilities in the Darwin City Centre. A smart, inclusive and engaging tropical city is the objective. The Darwin City Centre Master Plan proposes a number of new facilities and clusters these so that they not only serve their immediate purpose, but collectively become attractors for locals and visitors.

“A good city is like a party – people stay much longer than really necessary because they are enjoying themselves”

-Jan Gehl

Fun and enjoyment as well as education and learning should form a significant component of public investment in the City Centre. Urban performance currently depends not only on the City’s endowment of hard infrastructure (physical capital), but also, and increasingly on the availability and quality of knowledge communication and social infrastructure (intellectual capital and social capital). The latter form of capital is decisive for urban competitiveness. Darwin needs to attract those people who can choose to live anywhere. These are the entrepreneurs who create employment as well as the families and employees of the large companies who are now investing heavily in the economy of the Northern Territory. Darwin has to compete with other capital cities to retain these people, and education, health, culture and art are part of making Darwin an attractive option.

Smart cities can be identified and ranked according to a range of criteria, including:

- A smart economy
- Smart mobility (public transport)
- A smart environment
- Smart people
- Smart living
- Smart governance.

Cities are for people, and people bring cities to life. The public realm – parks, streets, squares and walkways are where many activities occur. The Master Plan outlines how these spaces are important “people places” and recognises the diversity of activities, different needs, ages, mobility and interest. In addition to the provision of a diversity of open space areas, the social city needs people out and about, walking, bike riding and relaxing where other people are doing the same.

The truly social city serves the needs of residents of all ages with spaces that encourage multiple uses. Some specialised uses and functions have been planned and designed; a city swimming beach, events space and playgrounds. Other areas and venues should retain the flexibility to allow adaptation for different uses at different times. This includes general parklands that become market areas or informal sports areas; skate-able areas adaptable to events, exhibitions and lunchtime sitting; street verges and corners that cater for alfresco dining and impromptu meetings.

Charles Darwin University has recently opened a new hospitality campus at the Darwin Waterfront. More students in the City Centre will add to a sense of vibrancy and activity, as well as providing a valuable pool of hospitality and casual workers. Means should be found to accommodate students in the city centre in affordable and appropriate residences.

Fig. 139

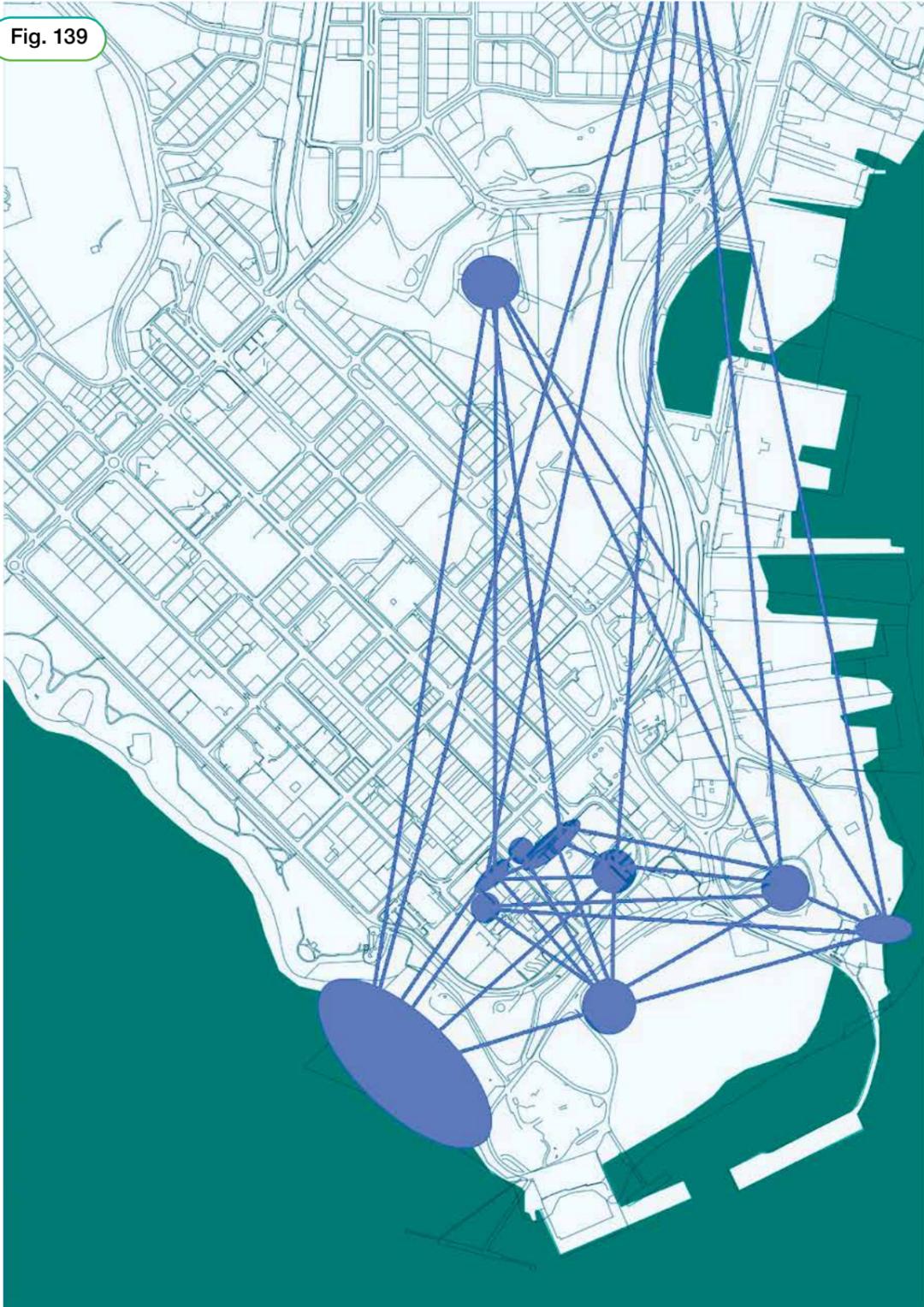


Figure 139 – A range of education, art and cultural venues and facilities clustered to create a more engaging city.

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 049	Charles Darwin Court Development	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

If it is agreed that the bus terminus should be removed from Harry Chan Avenue, there are exciting opportunities to cement this part of Smith Street as a vibrant arts-oriented precinct. Browns Mart Theatre is relatively isolated from the city centre as Harry Chan Avenue causes a break in continuity along the northern side of Smith Street.

Businessman Allan Garraway has developed a concept that would create an arts and culture precinct incorporating heritage elements of the existing precinct. This would complement the recreation of the old Mining Exchange which houses Mr Garraways offices and KPMG, and extend the Civic precinct. New buildings might be built to form a new public square, possibly named Charles Darwin Court, with vehicle access from the existing Yuen Place. New public spaces would provide additional venues for the Darwin Festival.

The concept might be more achievable if it avoids any new buildings in Civic Square, (as this is public parkland) and confines the new construction to Harry Chan Avenue. This would still achieve a new public square to be known as Charles Darwin Court. It will be important to maintain pedestrian access along both Yuen Place and the former Harry Chan Avenue. A modified concept might look something like the plan below.

As discussed in MP041, the retention of access to public transport as part of any redevelopment of Harry Chan Avenue will be essential to provide community access to the precinct as well as supporting the potential future development of Cavenagh Street as a public transport corridor. Options for incorporating public transport access will be explored in the ongoing development of concepts for Charles Darwin Court.

Fig. 140

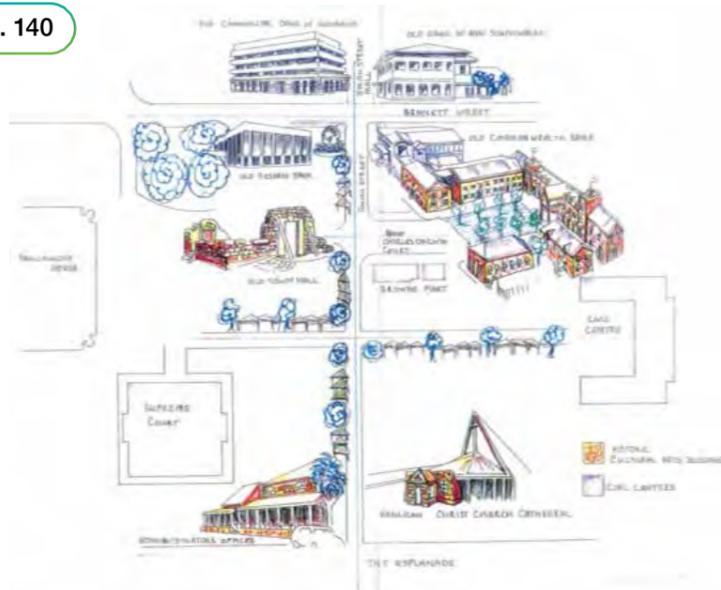


Fig. 141

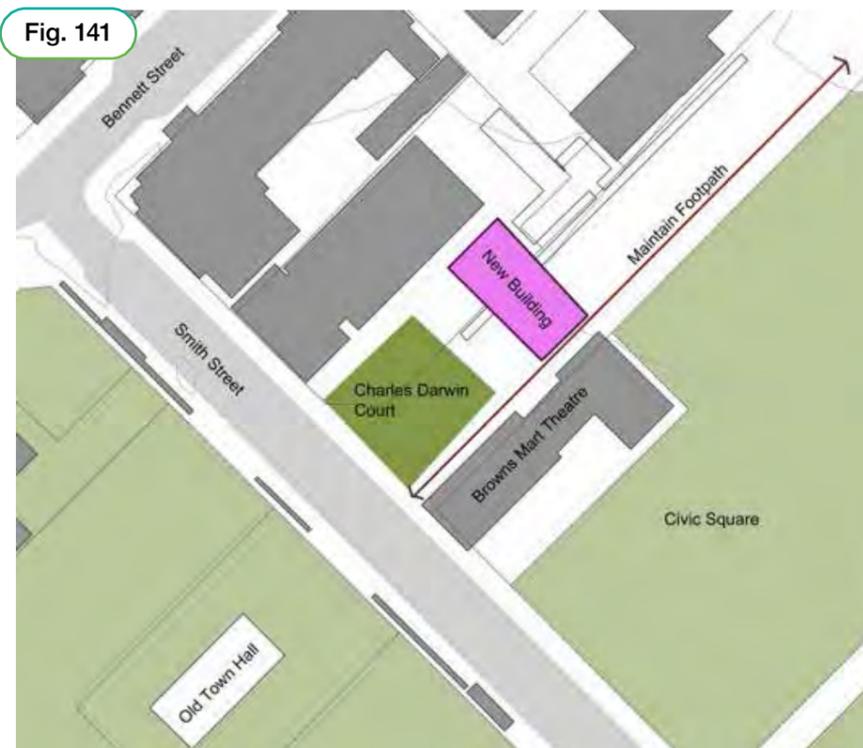


Fig. 142



Figure 140 – Concept for Charles Darwin Court courtesy of Allan Garraway

Figure 141 – Plan of Charles Darwin Court

Figure 142 – Charles Darwin Court from Smith Street

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 050	Art, culture and youth precinct	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

At Workshop One, during the stakeholder engagement process, a delegation of young people made a powerful presentation to the workshop setting out their hopes and ambitions for Darwin.

They distilled their collective aims into three values for a future Darwin which they hoped would be “inclusive, tropical and engaging”. They challenged the stakeholder group, governments and the consultant team to deliver this. There was physical form to these values, as they sought to establish a place where young people could meet, gather and engage in culture, the arts and follow their interests.

The Master Plan includes an area which might be dedicated to the arts, culture and youth groups. If the bus terminus is relocated or scrapped, Harry Chan Avenue could become a development site. It is proposed to construct elevated small-scale buildings which reference and reflect Darwin’s heritage of elevated buildings, with a tropical garden at ground floor level. This would effectively increase the size of Civic Square, and provide additional venues for the Darwin Festival. At ground floor level and potentially near the large African mahogany shade tree, there could be a café which would help animate Civic Square. It is also proposed to design a “skate-able landscape” of art forms that have an artistic and sculptural appeal.

Consultation with youth groups, prospective artists in residence and the City of Darwin would help determine the scope of work and potential occupancy of these buildings.

The desire for a safe and accessible public transport system was an integral part of the youth presentation at Stakeholder Workshop One. Direct access to safe and convenient public transport will be an essential component of an art culture and youth precinct. Further development of precinct concepts will include engaging with young people and the broader community to explore how their transport needs can be incorporated.

Fig. 143

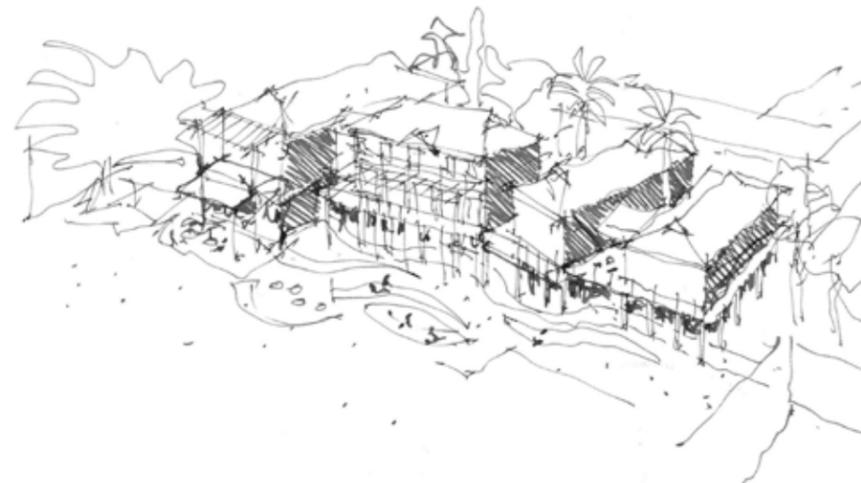


Fig. 144

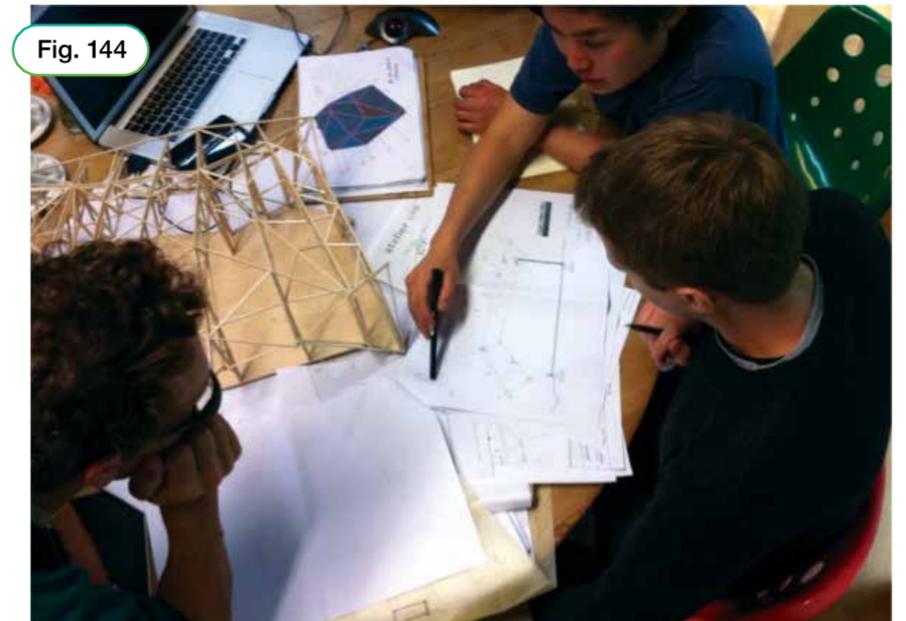


Fig. 145



Fig. 146



Fig. 147



Figure 143 – Human scaled, elevated buildings located in Harry Chan Ave

Figure 144 – A process of consultation with end users

Figure 145 – Create a tropical garden beneath the buildings

Figure 146 – Shady space, ideal for an outdoor café seating area

Figure 147 – Public art

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 051	A Skate-able Landscape	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

Apart from the wave pool at the Darwin Waterfront, the City of Darwin Youth Advisory Group could not identify any facility which would encourage youths to come into the City. A challenge for the Darwin City Centre Master Plan is to identify potential sites and facilities which would be attractive to young people, and encourage them to use the city centre, without having to spend money.

It is proposed that in conjunction with new arts and culture venues on the former bus terminus at Harry Chan Avenue, a landscape be designed and constructed which encourages skateboarding. A skateable landscape would remain attractive even when not in use if it is designed as a series of sculptural objects which have their own intrinsic attraction.



Fig. 148

Figure 148 – Skateboards in the city



Fig. 149

Figure 149 – Skateable landscape (Image: Lescaut Architectures)



Fig. 150

Figure 150 – Skating art.



Fig. 151

Figure 151 – Sculpture on which to skate



Fig. 152

Figure 152 – Location Plan

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 052	Library Extension	City of Darwin	Critical Desirable Discretionary	Short Term

Description

The library at the City of Darwin administrative offices offers a fantastic and well patronised service. There is an opportunity (as part of the refurbishment of the Civic Centre) to reconfigure the building with an expanded library service located in the north-western wing of the building, opening out to Cavenagh Street and Civic Square. This could either incorporate the Northern Territory Library or stand alone.

New architectural expression could refresh the image of the Civic Centre building by changing the façade and orientation of the building at the Cavenagh Street elevation. Locating of an expanded library at this side of the building would create synergies with the proposed art and culture precinct, and make the library more accessible for visitors. It is also appropriate that the library nestle beneath the shade of the Tree of Knowledge, and that a reading room be created to embrace the Tree of Knowledge. If the stone surround to the tree were removed, an outdoor seating area could be created which served the library and café. This could be cooled by large solar powered external fans

An extended library may include the following:

- meeting and training rooms
- seminar and conference facilities
- professional event support and promotion
- public library
- free wireless and internet access
- onsite café and catering
- art gallery and exhibition spaces
- outdoor event space
- latest audio-visual fit out
- access to public transport.
- an opportunity to learn about “Chinatown” which in the past, occupied this location.



Fig. 153



Fig. 154

The Tree of Knowledge dwarfs the Terminus Hotel and its patrons, c. 1915. Photo taken by Ted Ryko who rode a bicycle through much of the Top End in the early 1900s. Courtesy NT Library, Karilyn Brown Collection.

Figure 153 – Schematic Layout for a possible reconfigured Civic Centre

Figure 154 – The Tree of Knowledge circa 1915 (From the plaque at the Tree of Knowledge)

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 053	Civic Centre Car Park Redevelopment	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

The site on Harry Chan Avenue currently used for surface car parking is an under-use of the site as current zoning allows for at least a twelve storey building.

The City of Darwin does not have a town hall. The former town hall was destroyed during Cyclone Tracey in 1974, and has not been replaced. There is an opportunity for a City of Darwin development to achieve the following on the site adjacent to the Civic Centre.

- a new Town Hall
- potential for a new Council Chamber and meeting rooms
- basement parking
- a cyclone shelter
- a 12 storey hotel or apartment building.

A hotel in this location could serve a number of markets, including those people attending various courts, tourists in general and specifically those attending the Darwin festival and business visitors.

It may be that the development is self-sustaining in that the community facilities are delivered as part of an overall feasibility. This needs to be tested and a feasibility study commenced to determine whether this is achievable.



Figure 155 – Potential redevelopment of Council car park site

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 054	Fish Trap Cultural Centre	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The original inhabitants of the Darwin Peninsula, the Larrakia “salt water people” have no presence in the State or Civic Square in a fixed asset sense. While there is recognition in art works and in some installations, there is no one place where visitors or local people can go to interact with Larrakia people and learn about local Larrakia culture.

The Northern Territory Government’s “Tourism Vision 2020 – Northern Territory’s Strategy for Growth” cites the visitor economy as a significant part of economic growth in the Northern Territory. The visitor economy encompasses tourism’s contribution to employment, investment, infrastructure development, exports, provision of temporary labour and social vibrancy.

Key actions in the Tourism Vision 2020 strategy are to, “Increase Indigenous cultural representation and interpretation in the delivery of tourism experiences, events and key infrastructure developments,” and, “Develop Indigenous tourism experiences to meet with changing consumer preferences including short tour options; and tailored experiences for identified high growth segments such as cruise and business”.

A Larrakia Cultural Centre which celebrates the Saltwater People located in State Square on Smith Street would directly satisfy these objectives. A building which is iconic would serve as both a symbol for Darwin and the Northern Territory. One of the important artefacts of Larrakia culture is the fish trap, and a building designed to subtly reference the fish trap, designed with elegance, skill and wit, would tell the story of past Larrakia presence on the peninsula for tens of thousands of years.

If the cultural centre was positioned between the ruins of the old town hall and the visitor centre building (former Reserve Bank) with an entry on Smith Street, it could open out into Bennett Park and the proposed art gallery in the Chan Building alongside, creating a cluster of visitor experiences.

This proposal needs to be discussed with Larrakia people so that agreement is reached about the location and design of the cultural centre.

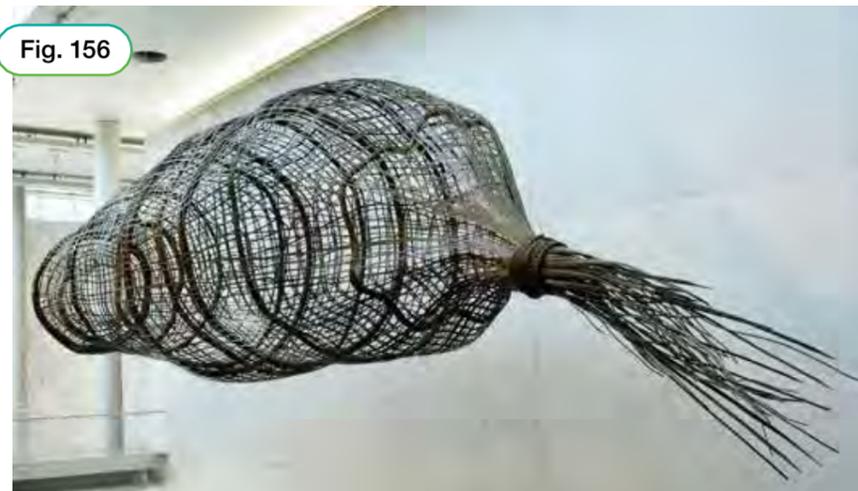


Fig. 156



Fig. 157

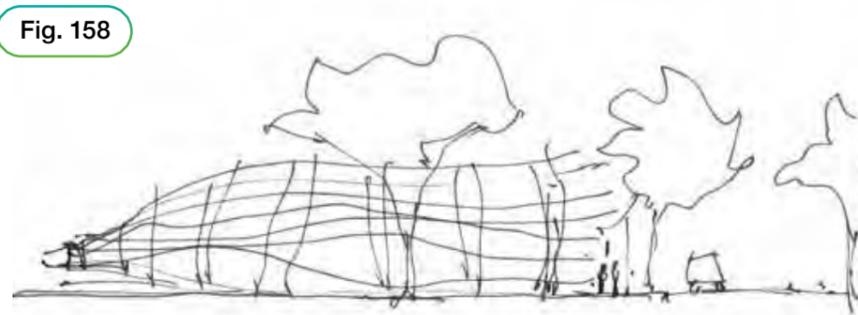


Fig. 158



Fig. 159



Fig. 160

Figure 156 – Typical Fish Trap

Figure 157 – Larrakia Fish Trap photographed in the Museum & Art Gallery of the Northern Territory

Figure 158 – Fish Trap Structure sketch

Figure 159 – Potential site for a Larrakia Cultural Centre

Figure 160 – Bennett Park today

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 055	Civic and State Square Master Plan	NT Government	Critical Desirable Discretionary	Medium Term

Description

Incremental development within State Square and Civic Square has diminished the quality and the dignity of this important precinct. This is mainly due to the increase in surface parking and hard surfaces in the precinct. There is an urgent need to produce a Master Plan for the precinct and for governments to agree to the plan as a blueprint for development.

There are wonderful opportunities to recreate the precinct as a formal square with a clear and dignified relationship between important buildings such as Parliament House, the Civic Centre and the Supreme Court. The opportunity should also be taken to enhance the setting and interpret the history of heritage places in this area. These include Christ Church Cathedral, the ruins of the Town Hall, the Administrator's Office, the former Reserve Bank, Brown's Mart, the Tree of Knowledge and the State Square Banyan Tree. New buildings might include a Federal Court building, education buildings, an art and culture set of buildings and a Larrakia cultural centre. Each of these would need to be agreed with relevant stakeholders.

While the Darwin City Centre Master Plan does not prescribe surrounding uses, it does identify State and Civic Squares as very important places within the City Centre and the need to agree a Master Plan for the area. A draft of a potential Master Plan is included in the Darwin City Centre Master Plan and is reflected at right.

The draft plan includes:

- a basement car park with lawns and gardens above ground at State Square
- a proposed Federal Court
- improvements to the support buildings at Christ Church Cathedral
- possible education buildings
- a new Town Hall and hotel on Council car park
- improvements to Council Administrative buildings
- an expanded and relocated City of Darwin library
- an Arts and Culture precinct
- a new Charles Darwin Court and associated buildings
- a Larrakia Cultural Centre
- an art gallery in the existing Chan Building
- a new Development in the former Herbert Street
- a cyclone shelter and basement parking on a realigned Bennett Street
- distinctive and attractive public toilets
- potential city market on new lawns.
- provision for convenient public transport access to key facilities and precincts.

Fig. 161

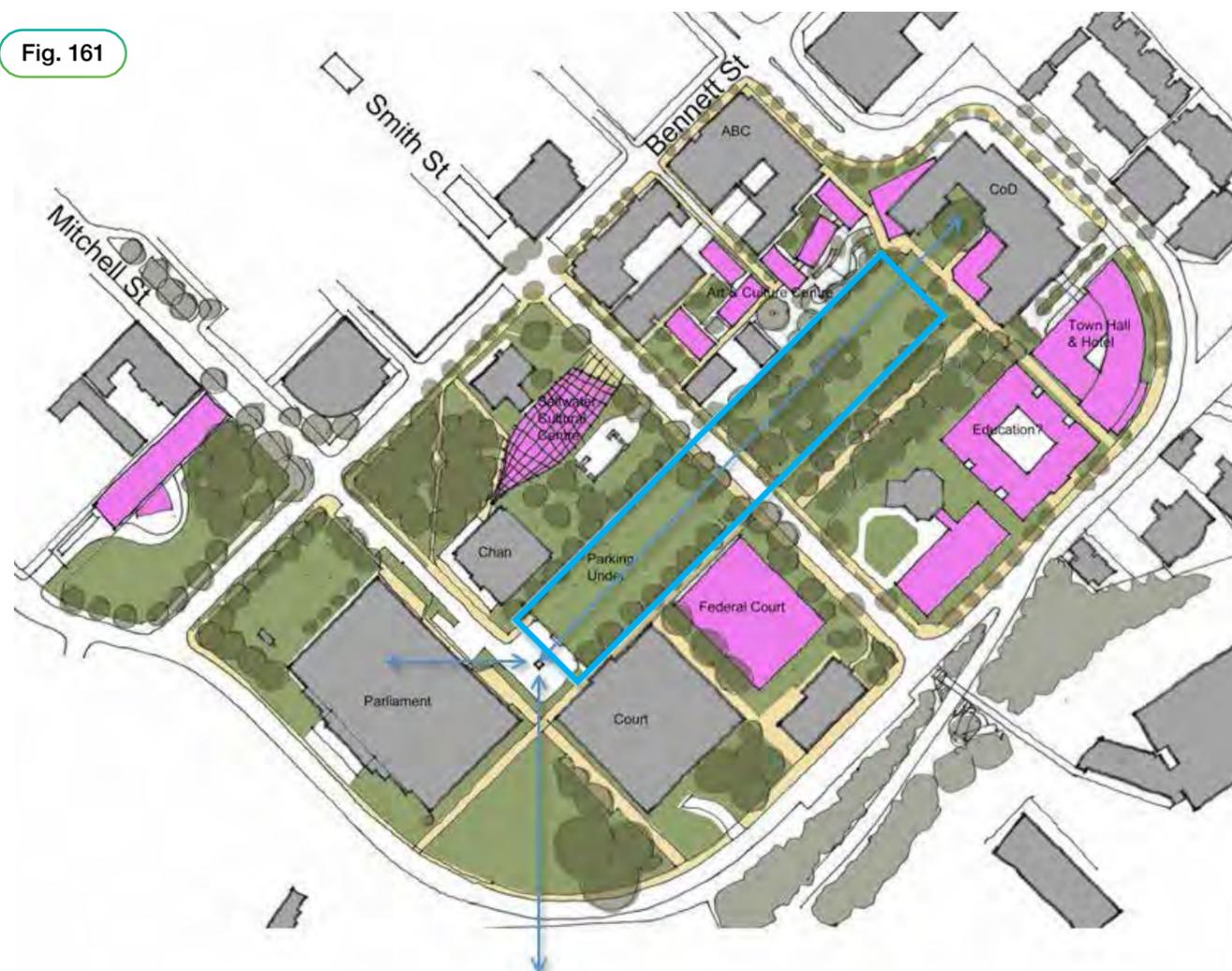


Figure 161 – Possible State and Civic Square Master Plan

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 056	State Square Underground Carpark	NT Government	Critical Desirable Discretionary	Medium Term

Description

Parliament House is one of the most important buildings in the Northern Territory. So too is the Supreme Court, yet both of these buildings have a surface parking lot as their forecourt. This is an undignified condition given the importance of these buildings.

It is suggested that parking be provided in a secure basement garage, and that the ground level be returned as a formal lawn and tropical garden to reflect the tropical context of these buildings. The lawns and garden could become a venue for the Darwin Festival. It could also accommodate a city market when combined with Civic Square across Smith Street.

When combined with MP 027, the result would be a dignified setting for Parliament House and the Supreme Court in a garden setting, which is more appropriate than a number of parking lots.

Fig. 162



Plan showing a garden and formal lawns above a new basement parking garage between the Supreme Court and Parliament House

Figure 162 – New Lawns - High Court & Parliament House

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME	
MP 057	Federal Court Building	NT Government	Critical Desirable Discretionary	Long Term	<i>Unlocking the potential</i>

Description

As Darwin's population increases, and the Capital City grows in importance because of its relationship to South-East Asia, it will become necessary to include a Federal Court building as part of the suite of courts in the Northern Territory. It is proposed that were this court building necessary, that it should be co-located with the Supreme Court in State Square. This is indicated on the draft Master Plan for this precinct.

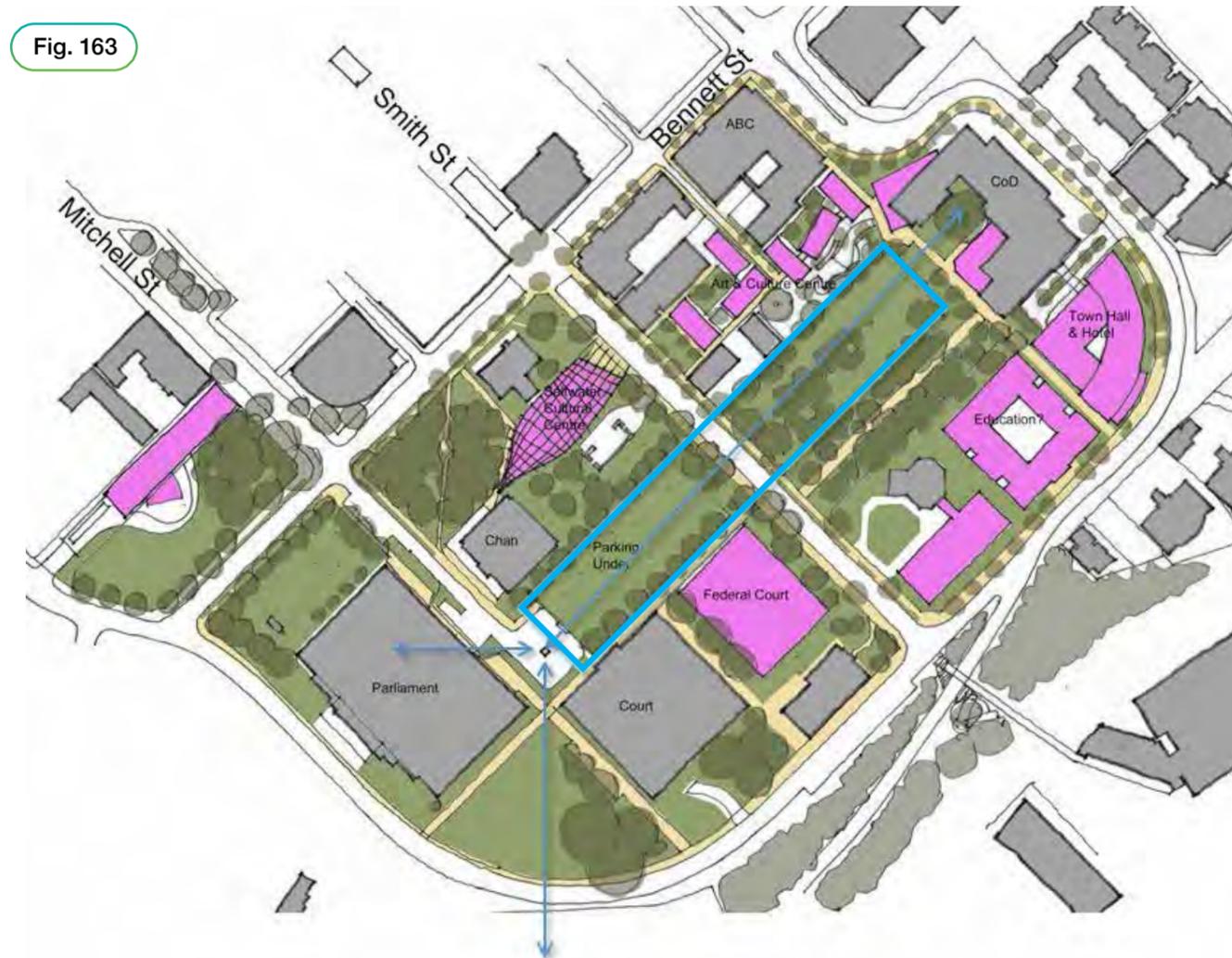


Figure 163 – Federal Court as part of State Square

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 058	Lameroo Swimming Beach	Darwin Waterfront Corporation	Critical Desirable Discretionary	Long Term

Description

For a harbour city there are few opportunities for safe swimming in Darwin. The Waterfront wave pool is very popular, however it is limited in size and capacity. There is an opportunity to create a large swimming beach in the cove below Parliament House. A sea wall would be required to keep poisonous jelly fish and stingers out of the swimming area, and to exclude large predators such as crocodiles and sharks.

Such a facility would encourage families and young people to frequent the city centre and its leisure facilities. The Deckchair Cinema would remain a prime entertainment venue and parking would be provided for beach goers. It will be important to maintain good viewing and screening conditions for the Deckchair Cinema at night, therefore minimal development is shown near the cinema.



Figure 164 – Proposed safe swimming beach at Lameroo Beach

Figure 165 – The bay as it exists today

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME	
MP 059	Lameroo Beach Facilities	Darwin Waterfront Corporation	Critical Desirable Discretionary	Long Term	<i>Unlocking the potential</i>

Description

As part of the final stages of development of the Darwin Waterfront, and in conjunction with the development of the swimming beach at Lameroo Beach, there is an opportunity to develop beachfront amenities in a facility near the new swimming beach. This facility may include public toilets, change rooms, surf lifesaving facilities, a cafe/restaurant and meeting rooms. This building should be iconic in its design.



Figure 166 – A beachfront amenities building for Darwin Waterfront

Figure 167– Proposed safe swimming beach at Lameroo Beach

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 060	Bike Network	City of Darwin	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

A number of bike paths and shared paths connect to the Darwin City Centre. There is an opportunity to expand this network and connect paths to form a coherent network of bike paths. This includes a recreation loop around the City Centre. Where dedicated bike paths are not practical given the narrowness of streets, design speeds are reduced to enable safe cycling to co-exist with motorised vehicles.

This project will occur in stages. In the short term a Bike Path Strategy, which is underway, needs to be completed prior to implementation in the medium term.



Fig. 168



Fig. 169

Figure 168 – Infrastructure for experienced bike riders

Figure 169 – Infrastructure for less experience and leisure bike riders

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 061	Social History of Darwin's families	City of Darwin	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

Engage a local historian to research the social history of Darwin, with a focus on the families who contributed to Darwin's growth and character and gathering photos that could be used in displays.

Outcomes of this project

A comprehensive social history that could be applied to various objectives including a book, interpretive signage at key sites in the city and multi-media applications such as interpretive displays and apps.

Details

One of the unique characteristics of Darwin is its rich multicultural heritage. This includes the Larrakia people and their interactions with neighbouring tribes, early traders such as the Macassans, the early pearling fleets, immigration by Chinese and Tamil workers as part of the 1880s Gold Rush and building of the North-South railway, European settlement as the Overland Telegraph opened up Australia's interior, cattlemen, Vestey's meatworks, wars, post-war settlement, refugees, cyclones, development and the general hardships of life in a remote, isolated, tropical town.

Many of the stories of these Greek, Japanese, Malay, Chinese, Italian, Filipino, Timorese, Vietnamese and English families have been told. Others have been passed from generation to generation without a lot of public fanfare or have been lost in the mists of oral history. Collectively, they have made Darwin the fascinating and unique town it is, even though the old China Town and Greek Town have disappeared.

The Darwin CBD Master Plan project was initiated by the City of Darwin and funded by the City of Darwin, Northern Territory Government and Australian Government.

The aim of the project was to define the city's precincts and plan for the growth of Darwin over the next 20 years.

It included eight key rationales with a number of supporting concepts.

There was substantial commentary during the project that Darwin has a unique history which is insufficiently celebrated. A better understanding of our history has many objectives:

- building the pride of our residents in their history
- celebrating the contributions of our pioneer families
- unlocking the character of the city's many precincts
- making Darwin a more interesting town for tourists
- contribution to signage and perhaps apps that provide access to the history of individual sites
- capturing our social history while it is still in the living memory of many families.

Proposed scope

The scope would require an historian to:

- research what material is already available on Darwin's multi-cultural families, with a focus on those who built the CBD;
- conduct interviews with those families willing to contribute oral histories;
- determine what photos are available and who owns the copyright;
- write a social history of Darwin to a point where it might be published or the material adapted for interpretive signage and other uses (separate funding would be required at this point).

Benefits/applications

- booklet on Darwin's social history
- material for interpretive signage
- complement work by National Trust, Historical Society on preserving architectural history, architectural heritage
- could be used for displays in tourist centres

- could be used for walking tours of the city
- material could be shared with the NT Library and NT Archives
- could be used by Darwin's families to celebrate their own history
- could be used for library and council displays.

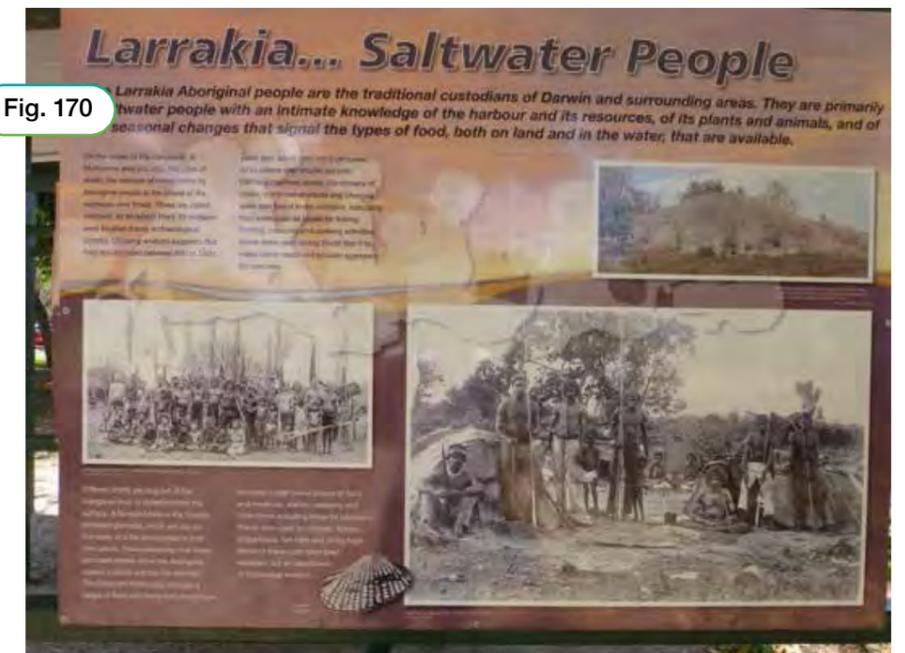


Figure 170 – Existing Cultural Information Sign

Design Rationale

08 Clarify the Urban Structure Centres, Precincts & Neighbourhoods

The Darwin City Centre Master Plan analyses and proposes changes to urban form and, as a result of these changes, measures and forecasts movement which will animate streets and improve the viability of some land uses such as retail. The analysis also identifies relatively quieter places with less movement, which are ideal for residential development.

The Master Plan does not propose making changes to existing land use zones. Most within the study area are zoned “CB” or City Centre Zone. What the Master Plan analysis does is identify where there will be areas of commercial and retail intensity, and where other areas will be better suited to residential land use. This does not imply blanket allocation of land uses, but a predominance of a particular land use. Precincts are identified based on their apparent character. The purpose of these precincts is not to exclude other land uses, but to give clues as to the potential or desirable dominant land use. This lets the City of Darwin develop a streetscape policy relating to that character, so that tree planting, the provision of street furniture and possible street art supports the associated land uses.

The core commercial area is where employment should be concentrated. Analysis shows that this should centre around the areas close to the intersection of Knuckey and Smith Streets.

The urban forecast model identifies three dominant centres, the largest being at the core of the City near the intersection of Knuckey and Smith Streets, the second being along Daly Street with a focus on Harriet Place, while a third is in Frances Bay along the extended Knuckey Street. These zones of urban intensity are where movement is forecast to be the highest. This predicted “footfall” is the factor which will maximise the potential for retail and commercial land use.

Areas which tend to be “quieter” in terms of predicted movement are likely to be more residential in character. For this reason parks have been concentrated in these areas, to allow for local recreation opportunities near where people live.

Fig. 171



Fig. 172



Figure 171 - Essential structuring components of the Master Plan

Figure 172 - The proposed urban structure - activity centres linked by urban corridors

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 062	Clear Urban Structure	NT Government	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

The Darwin City Centre Master Plan is intended to clarify the urban structure of the Darwin City Centre for the next 20 to 30 years of development.

From the analysis of the city as it is and analysis of the city's potential for growth and consolidation of centres, a clear urban structure emerges with precincts with unique character and identity. Despite this, the areas remain fully integrated and connected with each other.

This is the key principle of the Master Plan: despite areas having unique characteristics, they are not separate enclaves, but are joined together and completely integrated with each other.

Separate enclaves should be strongly avoided as this would have a negative impact on their social and economic performance, and on the performance of City as a whole. The Darwin City Centre is the only truly urban place in Darwin and this needs to be protected and enhanced rather than threatened. Exclusivity and exclusion are suburban values which are not appropriate for a city centre.

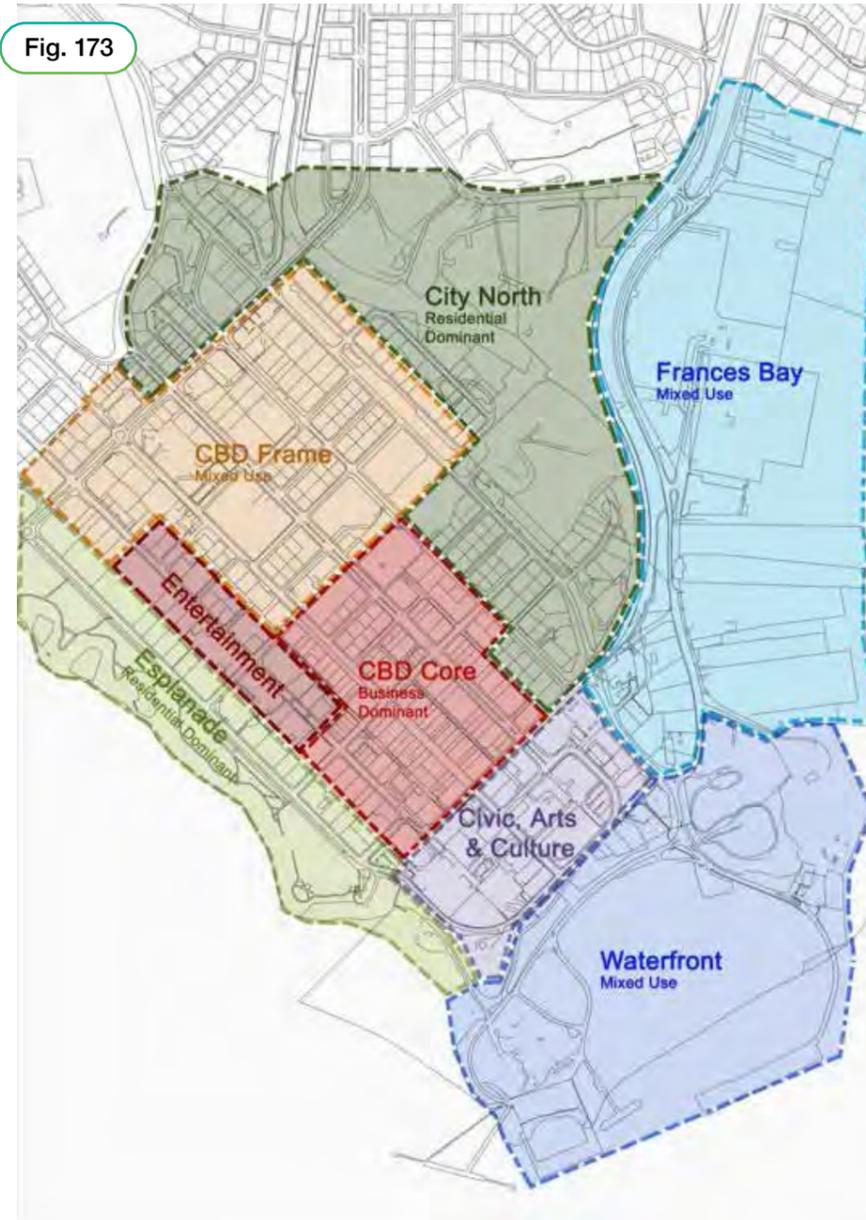


Figure 173 – Urban Precincts in the Darwin City Centre



Figure 174 – Zones of urban intensity linked by urban corridors

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 063	Clear Hierarchy of Streets	NT Government	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

In order to clarify urban structure it is also necessary to have clarity about the role and function of each street.

The Space Syntax analysis gives clues as to the predicted use of streets, and therefore their designation within a hierarchy of streets.

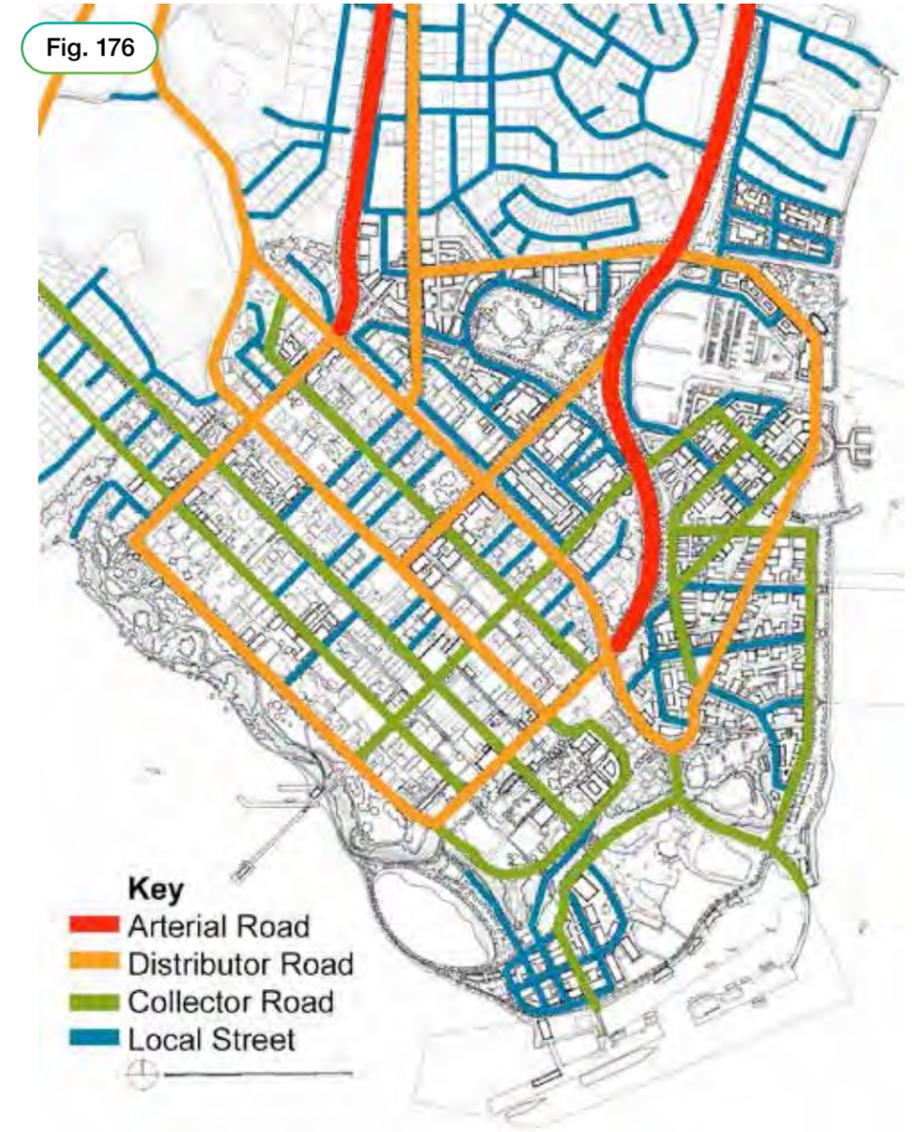


Figure 175 – Urban Forecast Model

Figure 176 – Possible Street Hierarchy

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 064	56 Smith Street Redevelopment	Private Developer	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The site of the former Woolworths supermarket on the corner of Knuckey and Smith Streets, is the prime position in the city. It is disused and derelict. This has a direct and negative impact on the reality and perception of the economic and social performance of the city centre. The site needs to be redeveloped as soon as practically possible.

The Space Syntax analysis shows clearly that this corner is the most integrated and connected place in the whole City, therefore carries with it enormous potential to be a significant retail corner. In addition to retail, the site is highly desirable as an address for businesses as it is also at the social and cultural heart of the city. It would therefore be an attractive place to live at upper floors. As part of the development of the site, the very fine grain of streets needs to be reconciled to ensure that there is “active frontage” to all streets. The lanes and streets which are there now prevent this being achieved because buildings are required to face in two different directions at the same time. There is no clarity between the “backs” and “fronts” of buildings. This is undesirable and poor urban form.



Fig. 177



Fig. 178

Figure 177 – Urban “dead” space

Figure 178 – Urban Forecast Model showing the strengthening of potential accessibility at the corner of Knuckey and Smith Streets

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 065	Daly Street Gateway Project	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The entry into the city centre along the realigned Stuart Highway will be a heavily landscaped experience, with large shade trees and a landscaped under-storey. The point of arrival into the city centre at the intersection with McMinn and Daly Streets should graduate from a landscaped to a very urban experience with strong built form signalling arrival in the city centre.

A number of potential development sites have been identified in the Darwin City Centre Master Plan which, when developed, could form a threshold and significant entry into the city centre. New parkland combined with tall signature buildings will enhance the experience of entry into the city.



Figure 179 – Sites identified as having the potential to collectively form an urban gateway into the Darwin City Centre

Figure 180 – Conceptual Model looking south at potential new buildings forming an entry gateway into the Darwin City Centre at the northern edge of the City Centre

Figure 181 – Conceptual Model looking north east

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 066	Stuart Park South Development	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

Land at the corner of Tiger Brennan Drive and Dinah Beach Road has been proposed for development which includes a proposal for a supermarket. While the site has good access to Tiger Brennan Drive, it does not enjoy good access by pedestrians or cyclists. This could be improved however the site is likely to be mainly accessible by car. This raises the potential for a very large surface parking area at this location, which would have a negative impact on the strategy to express the tropical nature of the city context, and the potential of a Central Park around One Mile Dam. Developers and approval authorities are strongly encouraged to ensure that parking is contained within buildings or in basements to avoid the visual intrusion of a surface parking lot.

Significant development potential exists on the site however this should be balanced against achieving very high quality urban design and architecture.



Figure 182 – Sites south of Stuart Park

Figure 183 – Sites to the south of Stuart Park developed to high urban design and architecture quality. View looking south

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 067	Frances Bay Development	NT Government	Critical Desirable Discretionary	Long Term

Description

As the new port expands at East Arm, many of the heavy industrial functions at Frances Bay are likely to relocate. This provides a great opportunity to create a significant new mixed use precinct at Frances Bay. Internationally, the best waterfront developments retain as much fishing and port activities as possible to animate the waterfront and provide visual interest and experience. This should be encouraged at Frances Bay.

It is recommended that a sea wall be built to make the shoreline regular and alleviate the threat of storm surge. This will create additional land for a substantial development site. It is estimated that at least 15,000 people could be accommodated in this new development in relatively low rise buildings. In addition to residences, the proposed extension of Knuckey and Bennett Streets into Frances Bay indicates that spatial integration would be achieved and a centre at Frances Bay would be viable. (MP 015 and MP 025). The centre would be the focus of the new neighbourhood community life. The diagram indicates in red the potential extent of the centre and its relationship to the Darwin City Centre.

In addition to a new neighbourhood centre, there is potential to develop a new large marina, while still retaining access to the “Duck Pond” marina. The street shown crossing the access channel might just be a pedestrian bridge with limited or no vehicular access, however a fully traffic-able bridge is desirable. At the end of the Knuckey Street axis it is proposed to locate a significant and iconic building which would terminate this vista. This building might incorporate an upper level café or restaurant as it would enjoy great views of the City and harbour.

As described in MP 016, there is potential for a fish market and a Fisherman’s Wharf type development as part of the Frances Bay redevelopment. This is proposed to be located on Knuckey Street extension at the intersection with Tiger Brennan Boulevard. This could only occur once the economic life of buildings at those sites had reached their end.

Parks and perimeter shared paths are proposed to provide recreation opportunities, not just for new residents, but for the broader Darwin community.



Figure 184 – Model of potential redevelopment of Frances Bay and its relationship to the Darwin City Centre

Figure 185 – Frances Bay redeveloped

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 068	Daly/Smith Urban Centre	NT Government	Critical Desirable Discretionary	Medium Term
				<i>Unlocking the potential</i>

Description

Daly Street is a street with high exposure, therefore commercial potential. If traffic conditions improve through better streetscape design (MP 007) and intersection management (MP 032) and on-street parking forms part of the final mix of inclusions, then commercial development will thrive along this important street. Daly Street could become the High Street for Larrakeyah and the northern part of the City Centre.

Larrakeyah has the highest concentration of residents in the Northern Territory and additional residential developments within walking distance of Daly Street would further improve the potential viability of businesses located along this and Smith Street.

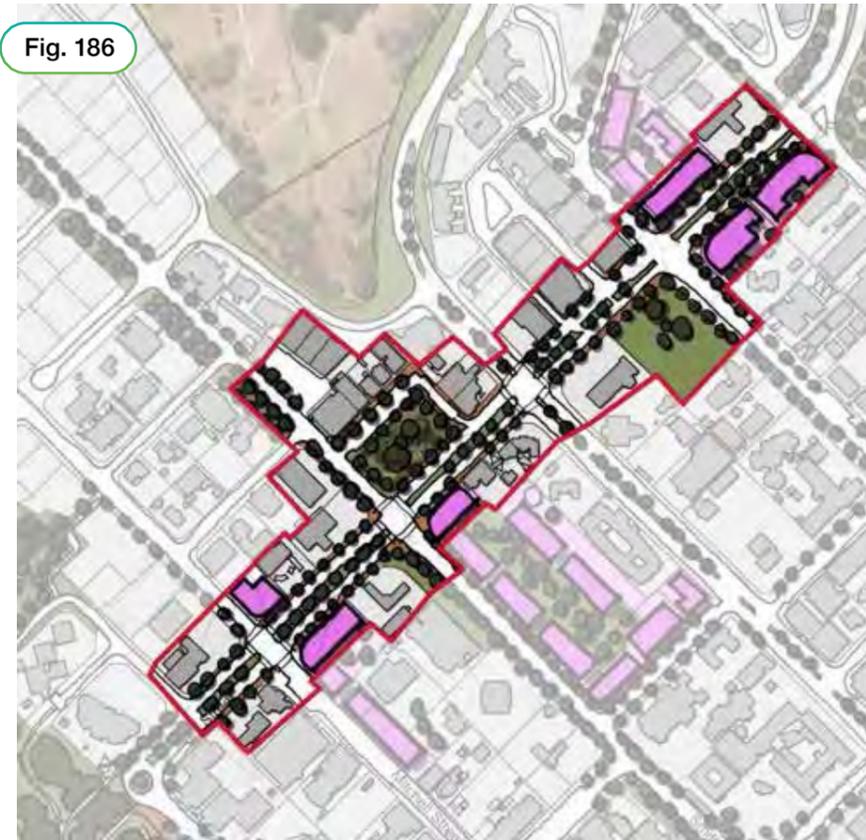


Figure 186 – Daly Street corridor

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 069	Former Railway Station Site	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

The area between McMinn Street and Frances Bay Drive remains relatively undeveloped. There is an opportunity to develop it for high quality residential development designed to link to Frances Bay development (See MP 067) and existing streets such as Leydin Court. Leydin Court could be extended into Frances Bay, and a mid-block street created to increase development yield thereby effectively creating four city blocks for development. The central street might be named Railway Street or Station Street in recognition of the former use of this land. Other opportunities might also be taken to reflect the former use of the land.



Figure 187 – Former Railway Station redevelopment site

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 070	Waterfront Master Plan	Darwin Waterfront Corporation	Critical Desirable Discretionary	Short Term
				<i>Unlocking the potential</i>

Description

A revised or updated Master Plan for the Darwin Waterfront is important to bring this development in line with current market trends and to re-evaluate the land use mix. This work is outside the scope of the Darwin City Centre Master Plan, however to date there has been close cooperation between the designers of the Waterfront Master Plan and the City Centre Master Plan team. The plan attached reflects the state of planning at the time of completion of the Darwin City Centre Master Plan. Work continues on refining the Darwin Waterfront master plan.



Figure 188 – Plan showing potential development of the next stages of the Darwin Waterfront

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 071	Hughes Avenue Improvement	Darwin Waterfront Corporation	Critical Desirable Discretionary	Short Term <i>Unlocking the potential</i>

Description

Hughes Avenue is Darwin's first road and of significant heritage value.

Despite this it has a difficult intersection with The Esplanade above the escarpment. A solution to resolve the relationship between these streets is being analysed by consultants to the Darwin Waterfront Corporation.

The Darwin City Centre Master Plan supports the project to resolve this intersection and improve the connection between the City Centre and the Darwin Waterfront.

NUMBER	NAME	LEAD AGENCY	CATEGORY	TIME FRAME
MP 072	City Centre North Development	NT Government	Critical Desirable Discretionary	Medium Term <i>Unlocking the potential</i>

Description

As land to the north of the City Centre is made accessible through the construction of new roads such as Barneson Boulevard and the extension of Knuckey Street, this area can be developed. It is expected that this area will become “residential dominant” in land use, with local convenience shops supporting the new residential population.

It is essential that the structure of this new area is completely integrated with that of the existing city. In other words this area should not be planned as an exclusive enclave, but as an extension of the existing city. The area should be well provided in terms of access with the proposed rapid transit system on McMinn Street providing public transport access to other places in Darwin.

Land Use

From the movement forecast, it is clear that this area will be an ideal location for residential development as it is relatively modestly connected to the overall spatial system, therefore will be a quiet place. It will also be an area with a high level of amenity as it will be located adjacent to the proposed Central Park at One Mile Dam. An extended park at Frog Hollow will add to the amount of locally accessible open space. Spatial analysis indicates the potential for convenience retail along Knuckey Street extension and along McMinn Street near the Daly Street intersection.



Figure 189 – Image of development potential north of the City Centre

Figure 190 – Movement forecast

Figure 191 – View towards the West showing the Central Park and City Centre North development with the Frances Bay Duck Pond in the foreground.



Space Syntax

Inclusive Engaging Tropical



Unlocking the potential