

PART 3: INITIAL PROJECT SUBMISSIONS

M4 Extension

NSW GOVERNMENT

SUBMISSION TO INFRASTRUCTURE AUSTRALIA

**TEMPLATE FOR SUMMARIES OF FURTHER PRIORITY
PROJECTS**

JULY 2010

Project Summary (2 pages, excluding attachments)

Initiative Name:	M4 Extension
Location (State/Region(or City)/ Locality):	Sydney, NSW
Name of Proponent Entity:	Roads and Traffic Authority of NSW
Contact (Name, Position, phone/e-mail):	Paul Goldsmith General Manager, Motorway Projects Phone: 8588 5710 or 0413 368 241 Paul_Goldsmith@rta.nsw.gov.au

Project Description:

- Provide a description of the initiative and the capability it will provide. The description needs to provide a concise, but clear description of the initiative's scope. (*approx 3 paragraphs*)

A motorway connection, mainly in tunnel, from the eastern end of the Western Freeway (M4) at North Strathfield to the western outskirts of the Sydney CBD and the road network near Sydney Airport. It would link M4 to the eastern section of the Sydney Orbital via the Cross City Tunnel and Sydney Harbour Bridge. The eastern section of the M4 (east of Parramatta) would be widened/upgraded. A twin tube tunnel is proposed from North Strathfield to just south of Campbell Road at St Peters with connections to the City West Link at Lilyfield/Rozelle and Parramatta Road/Broadway at Glebe/ Chippendale. A bus only connection at Parramatta Road, Haberfield is also possible. A further tunnel is proposed to connect Victoria Road near Gladesville Bridge to the main tunnel in the Leichhardt area.

There is a proposed surface motorway link from just south of Campbell Road to the road network around Sydney Airport probably connecting to Canal Road and Qantas Drive (the latter subject to M5 East Expansion planning and Sydney Airport Corp Ltd agreement) with a potential link to M5 at Arncliffe.

This project would significantly improve connectivity between the western part of Sydney/the second major centre in the Sydney Area (Parramatta) and the Sydney CBD and Airport/Port Botany area and reduce traffic intrusion into local residential areas in Sydney's inner western suburbs.

- State how the project would address Infrastructure Australia's National Infrastructure Priorities. (*1 para.*)

The proposal would assist in meeting the following priorities/themes: Competitive international gateways (improve access to Port Botany/Sydney Airport area), a national freight network (road freight access to/from Port Botany/Sydney Airport area via a high quality route) and transform our cities (improve amenity in inner west suburbs of Sydney). The M4 Extension in conjunction with new rail lines and intermodal terminals offers a superior, multi modal solution to the challenge of moving freight between Port Botany and Sydney Airport and the industrial areas in Sydney's west and north-west.

- State how the project would efficiently address infrastructure needs. (*1 paragraph*):

There is a lack of high quality road connections between the mid western part of Sydney/the second major centre in the Sydney Region (Parramatta) and the Sydney CBD and Airport. The use of arterial and sub-arterial roads in Sydney's inner western suburbs, many of which pass through residential areas, causes delays and congestion. Some vehicles, especially freight, use longer, less direct routes to travel (such as the M5) and congestion on these has increased to the extent that upgrading is proposed. Whilst these routes require upgrading even if an M4 Extension is provided, congestion on these routes would be alleviated for a longer period. It also provides an alternate route during major incidents.

- State the project's history and milestones and the extent to which planning and implementation has occurred. (*approx 3 paragraphs*)

The project arose out of a commitment by the then Ministers for Planning and Roads to examine the needs of the wider network between the eastern end of the M4 and the Sydney Airport/Port Botany area. The November 2006 *Urban Transport Statement* committed to the commissioning of studies the output of which would include preferred route strategy, broad project concept, product concepts and anticipated

sequencing of delivery.

Broad route options have been examined and an indicative preferred option has been selected. A preliminary environmental assessment and concept design were completed in 2008 and would need to be revisited prior to commencing community consultation regarding the proposal. On the basis that the project would be funded by the private sector and a toll would apply to users, financial analysis has been undertaken and this has confirmed that a substantial government contribution would be required. To reduce the contribution and enable the project to deliver substantial developments a staging strategy has been developed. An environmental assessment could proceed once the preferred option is confirmed following community involvement.

Assuming funds are available a substantial start of work within four (4) years from the start of community involvement would appear possible.

- Show key steps, e.g. planning, project development, business case consideration, environmental approvals, procurement, and construction, with potential start and end dates. (*approx 3 paragraphs*)

Confirm preferred option following release of information on route options. Seek requirements for environmental assessment from NSW Department of Planning. Undertake environmental assessment, exhibit for comment, consider submissions and seek planning approval from the Minister for Planning.

During the environmental assessment phase invite registration of interest (ROI) from the private sector to finance, design, build, maintain and operate the proposal. Assess ROIs and short-list proponents. Once the environmental assessment has been exhibited seek detailed proposals from short listed proponents. Assess the detailed proposals. Find a government funding solution.

Following environmental approval, select a preferred proponent, begin detailed negotiations and enter into a contract. Work would take around 4 years from start of substantial construction to opening to traffic. Assuming a start in 2013 opening to traffic would be in 2017/18.

- State whether the project has been referenced in the Metropolitan Transport Plan and/or how it would contribute to the transport infrastructure projects already included and funded in the Plan. (*1 paragraph*)

It is mentioned in the Metropolitan Transport Plan as a project beyond the 10 year funding guarantee that could be brought forward if additional funding becomes available. It would link the M4 to the eastern section of the Sydney Orbital

Current Status

- State the current status of the project. (*2 paragraphs*)

A submission was made to Infrastructure Australia in late 2008. As no funds were provided for the project in the 2009 Federal Budget there has been little further work done on the project. The southern part of the route would overlay with the proposed M5 East Expansion project and further work would be required to ensure project compatibility.

Estimated Cost, Staging and Funding Options

- State the Capital Cost of the project (\$M, nominal, undiscounted) and staging and funding options (if appropriate). (*1 paragraph*)

Preliminary cost estimates undertaken by the RTA indicate that the total cost of the project is expected to be approximately \$9.1 billion (\$2008 without staging) depending on the configuration of the connections with the existing road network, particularly in the vicinity of Sydney Airport. The proposal could be constructed in two or more stages. Staging would allow benefits of the project to be realised earlier and ensure a more feasible allocation of construction resources. Sketch Plans of the full M4E and a potential first stage are attached. The assumed toll level incorporated into the financial analysis is 33 cents/km for cars and 83 cents/km for trucks including this toll on the upgraded M4 Motorway from Church Street, Parramatta to North Strathfield. This toll rate is considered reasonable, compared to other existing Sydney toll roads in tunnel.

The high cost of tunnelling results in a situation whereby the capital costs of the project are not forecast to be fully funded by the tolls collected. The financial model has estimated the following government contributions (\$2008) would be required assuming a PPP form of procurement: Full Project: around \$6 Billion; Stage 1: around \$3.5 Billion.

Attachments

- Two maps (in pdf format).
- Description of the Project (indicative preferred option)
- Strategic Assessment
- Project Definition Report
- Construction Staging Feasibility Study

Confidentiality

- Indicate which part(s) of the submission have been submitted to Infrastructure Australia on a confidential basis, and provide a brief explanation of the reason(s) for the confidentiality request. (*1 paragraph*)
The 2008 submission to IA was considered confidential as it was prepared for the Cabinet of the NSW Government.

ATTACHMENT 2

PROJECT DESCRIPTION

The current indicative preferred option incorporates four key components:

- Widening/upgrading of the M4 Motorway from west of Church Street (near Pitt Street at Merrylands) to Concord Road at North Strathfield.
- A tunnel from North Strathfield to just south of Campbell Road at St Peters with ramp connections to the City West Link at Lilyfield/Rozelle and Parramatta Road/Broadway at Glebe/Chippendale. A bus only connection at Parramatta Road, Haberfield is also possible.
- A surface motorway link from just south of Campbell Road to the road network around Sydney Airport probably connecting to Canal Road and Qantas Drive (the latter subject to M5 East Expansion planning and Sydney Airport Corp Ltd agreement).
- Northern motorway tunnel connecting Victoria Road near Gladesville Bridge to the main tunnel in the Leichhardt area.

The indicative scope of work for the full M4 Extension is summarised in the Table below (described from west to east/south) as well as shown in the following map.

Components of the M4E indicative preferred option

Section	Indicative Scope of Work
M4: Pitt Street (west of Church Street) to just east of Duck River Bridge, Silverwater	<ul style="list-style-type: none"> • Widening to generally four lanes in each direction (additional one lane each way), mainly on structure/viaduct to remove several merges on M4
M4: Silverwater Road to Homebush Bay Drive	<ul style="list-style-type: none"> • Widening to four lanes in each direction (additional one lane each way) utilising the existing wide median
M4: Homebush Bay Drive to North Strathfield Portal	<ul style="list-style-type: none"> • Duplication of the Homebush Bay Drive to Concord Road section - a new four and five lane carriageway on the northern side of the existing motorway which becomes one way westbound. Includes new bridge/viaduct over Underwood Road, Powells Creek and Northern Railway • Adjustments to eastbound exit ramp to Concord Road
Main Tunnel - North Strathfield to just south of Campbell Road at St Peters	<ul style="list-style-type: none"> • Dual three lane tubes • Portal at M4 only accessed from M4 Motorway • Ramps between Main Tunnel and Parramatta Road Haberfield (bus only), City West Link Road at Rozelle, Parramatta Road/Broadway – see below for each • Portal just south of Campbell Road
Ramps at Haberfield (to be confirmed) but possibly bus + emergency vehicles only	<ul style="list-style-type: none"> • Entry to tunnel from Parramatta Road west of Wattle/Frederick Street intersection • Exit from tunnel to Parramatta Road west of Wattle/Frederick Street intersection

Section	Indicative Scope of Work
Ramps between Main Tunnel and City West Link Road at Lilyfield/Rozelle (south and west-facing ramps)	<ul style="list-style-type: none"> • Exit Ramp from main eastbound tunnel to eastbound City West Link Road • Exit Ramp from main northbound tunnel to eastbound City West Link Road • Entry Ramp from westbound City West Link Road to westbound main tunnel and southbound main tunnel • Surface works east of portal includes grade separation at The Crescent/Victoria Road/City West Link Road junctions so that through traffic between the portals and ANZAC Bridge would not be required to stop.
Ramps between Main Tunnel and Parramatta Road/ Broadway (east-facing) at Glebe/Chippendale	<ul style="list-style-type: none"> • Exit Ramp from main northbound and southbound tunnel to Parramatta Road at Glebe • Entry ramp from Broadway to northbound and southbound main tunnel • Minor surface works east of the portals
Surface Motorway south of the portal near Campbell Road to the Airport	<ul style="list-style-type: none"> • Dual carriageway, 3 lanes in each direction. • Ramps to Canal Road – see below • Connection to Qantas/ Airport Drive – see below <p><i>Note: Subject to M5 East Expansion planning</i></p>
Ramps between Motorway and Canal Road (north-facing) at St Peters	<ul style="list-style-type: none"> • Ramps to Canal Road (north-facing only) • Surface works/widening of Canal Road and duplicate bridge over Alexandra Canal. <p><i>Note: Subject to M5 East Expansion planning</i></p>
Connection to roads near Sydney Airport	<ul style="list-style-type: none"> • The surface motorway connects to Qantas/ Airport Drive giving access to both Domestic and International Terminals. <p><i>Note: Subject to M5 East Expansion planning</i></p>
Qantas/ Airport Drive surface works including works at the major access to Domestic Terminal	<ul style="list-style-type: none"> • Widening of Qantas/ Airport Drive to Robey Street to three lanes each way (additional one lane each way) ; • Grade separation of Qantas Drive/Joyce Drive/Sir Reginald Ansett Drive/O’Riordan Street (access to Domestic Terminal). <p><i>Note: Subject to M5 East Expansion planning</i></p>
Victoria Road Tunnel - just south of Gladesville Bridge in Drummoyne to main tunnel in Leichhardt area	<ul style="list-style-type: none"> • Dual two lane tubes connecting Victoria Road at Drummoyne (south of Gladesville Bridge) to main north-south tunnel in Leichhardt area; • Portal on Victoria Road – see below
Connection to Victoria Road, Drummoyne	<ul style="list-style-type: none"> • Widening of Victoria Road (southern side) from portal to the abutment of Gladesville Bridge. The Victoria Road/ Westbourne Street junction would be adjusted but would operate as per existing.

Other notable components:

- Air Filtration to reduce particulates and nitrous oxides would be considered, noting that tunnel air filtration is currently being trialled in the M5 East tunnel..
- Ventilation Stations: Up to six (6) outlets.
- Fully electronic tolling, generally distanced based.