ACT Government
Major Projects Canberra

Our Ref: MCPFOI2022/17

Schedule 2 2(a)(ii)
via email: Schedule 2.2(a)(ii)

Dear Schedule 2.2(a)(ii)

FREEDOM OF INFORMATION REQUEST

I refer to your application under section 30 of the *Freedom of Information Act 2016* (the Act), received by Environment, Planning and Sustainable Development Directorate (EPSDD) on 17 July 2022, in which you agreed to the following scope:

"The report for another tender (38561-DOC-130) for a detailed traffic study of the Molonglo Valley area"

EPSDD referred your request to Major Projects Canberra (MPC) as we hold information relevant to your request. MPC advised you we were accepting a full transfer of your request on 24 August 2022.

Authority

I am an Information Officer appointed by the Chief Projects Officer under section 18 of the Act to deal with access application made under Part 5 of the Act.

Decision on access

Searches were completed for relevant documents and one (1) document was identified that falls within the scope of your request. This document is MPC's Project Brief for the tender. This is the most current report for this tender as the tender process is ongoing, and the final report has not been prepared.

I have decided to fully release the document relevant to your request

Statement of Reasons

In making my decision on disclosing government information, I must identify all relevant factors in schedule 2 of the FOI Act and determine, on balance, where the public interest lies. In reaching my access decision, I have taken the following into account:

Factors favouring disclosure in the public interest (Schedule 2, Section 2.1)

- Section 2.1(a)(i) - promote open discussion of public affairs and enhance the government's accountability; and
- Section 2.1(a) (ii) contribute to positive and informed debate on important issues or matters of public interest.

Charges

I have decided to waive any charges in relation to this Freedom of Information application.

Online Publishing – Disclosure Log

Under section 28 of the Act, MPC maintains an official online record of access applications called a disclosure log. Your original access application, my decision and documents released to you in

response to you access application will be published in the MPC disclosure log three (3) days after the date of the decision. Your personal contact details will not be published. You may view the MPC disclosure log at https://www.act.gov.au/majorprojectscanberra.

Ombudsman Review

My decision on your access request is a reviewable decision as identified in Schedule 3 of the Act. You have the right to seek Ombudsman review of this outcome under section 73 of the Act within 20 working days from the day that my decision is published in the MPC disclosure log, or a longer period allowed by the Ombudsman.

If you wish to request a review of my decision you may write to the Ombudsman at:

The ACT Ombudsman
GPO Box 442
CANBERRA ACT 2601
Via email: actfoi@ombudsman.gov.au

ACT Civil and Administrative Tribunal (ACAT) Review

Under section 84 of the Act, if a decision is made under section 82(1) on an Ombudsman review, you may apply to ACAT for review of the Ombudsman decision. Further information may be obtained from the ACAT at:

ACT Civil and Administrative Tribunal
Level 4, 1 Moore Street
GPO Box 370
CANBERRA CITY ACT 2601
Telephone: (02) 6207 1740
http://www.acat.act.gov.au

Should you have any queries in relation to you request, please contact me by telephone on (02) 6205 5288 or email MPCFOI@act.gov.au.

Yours sincerely,

Schedule 2.2(a)(ii)

Clare Guest
Information Officer
Major Project Canberra

15 September 2022

ACT Government
Major Projects Canberra

INFRASTRUCTURE DELIVERY PARTNERS

Traffic Modelling and Options Report for Parkes Way/ South West Corridors & Molonglo Valley Development

For

Transport Canberra and City Services Directorate and Environment, Planning & Sustainable Development Directorate

Project Brief

Final Version Dated: 30 July 2021

PROJECT NO: 38561.130

FILE NO: ……..

Infrastructure Delivery Partners
Callam Offices, Level 3, Pod B,
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www.act.gov.au

GPO Box 158, Canberra ACT 2601

Cleared by Client ……Date…….

Cleared by
IDP Civil Manager……..……..Date…….

CONTENTS

ENGINEERING PROJECT BRIEF

1.0 INTRODUCTION

The brief for this project comprises this Project Brief together with the Basic Brief for Construction Works.

The Project Brief details project specific requirements, the Basic Brief details the general requirements and administrative procedures (including content of submissions), and the Reference documents provide guidance on technical matters.

The following indicates how this document relates to other key documents used in the engagement of the Consultant:

Letters of Offer and Acceptance
Agent's Agreement
Project Brief
Basic Brief for Construction Works
STANDARDS AND GUIDELINES ACT Traffic Microsimulation Modelling Guidelines Trunk Road Infrastructure Standards (TRIS) Municipal Infrastructure Standards (MIS) Municipal Infrastructure Technical Specification (MITS) Trunk Road Infrastructure Technical Specifications (TRITS) and Standard Drawings Major Projects Canberra (MPC) Guidelines for the Production of Tenders and Contracts for Construction Projects using AS2124 1992 General Conditions of Contract Agents Circulars National standards and guidelines (eg Building Code of Australia, Australian Standards, AUSTROADS, Australian Transport Assessment and Planning etc)

2.0 PROJECT PURPOSE AND OBJECTIVES

Infrastructure Delivery Partners (IDP), on behalf of Infrastructure Planning (IP), Transport Canberra City Services Directorate (TCCS), seeks to engage a suitably qualified professional consultant to undertake a Traffic Modelling and Options Report for Parkes Way/ South West Corridors & Molonglo Valley Development as outlined in this Brief.

The overall objectives of the Project are to:

- Develop transport corridor upgrade concepts that provide short and medium term improvements and will help to achieve the **long-term vision** for the corridor including relieving traffic congestion and improving safety along:
  - the Parkes Way corridor, from the Glenloch interchange to Kings Avenue and
  - the South-West corridor, defined as the entire length of the Tuggeranong Parkway and Drakeford Drive.

Project Outline

This project brief contains two distinct elements that are being delivered under a single consultancy, to maximise value from the extensive traffic modelling required.

The two elements are:

- the development of a corridor plan including upgrade options for Parkes Way and the south west corridor (Tuggeranong Parkway and Drakeford Drive) and
- further planning and review of transport links to support continued development of the Molonglo Valley.

The corridor plan is intended to document investments required to progresss towards achieving the government's long-term vision for each of these corridors.

The corridor plan and upgrade options for Parkes Way and the south west corridor will assist in supporting the following broad government objectives for the corridor and surrounding areas, which is deemed as a strategic transport link:

1. City Renewal – Support and facilitate urban renewal opportunities for the city centre, including through the release of underutilised land that is available for development around Parkes Way and City Hill.
2. Connectivity – Facilitate City to the Lake and City to Commonwealth Park connectivity.
3. Transport Choice – Provide an integrated, convenient, reliable and efficient transport solution that facilitates the desired public realm, road and public transport outcomes for the Parkes Way corridor, supports efficient access to and from the city precinct including consideration of likely future transport trends and technologies, with no significant impact on current service levels or the important east-west function of the corridor.
4. Active Travel – Provide a safe and attractive active travel network that facilitates pedestrian and cyclist movements between the city centre, West Basin and Commonwealth Park.
5. Integration – Considers the impact of National Capital Authority plans and projects and Australian Government aspirations within the National Central Area and Territory projects outside the Central National Area.
6. Design Excellence – Provide infrastructure that is environmentally sustainable, economically viable, climate resilient and climate positive.

7. Road safety – Provide a transport network that is safe for all users and specifically aims to reduce serious and fatal crashes.

The overall approach to the Parkes Way and south west corridor projects is detailed in **Figure 1**.

The assessment of transport links in the Molonglo Valley will ensure the impact of traffic to and from this district is understood and integrated in the planning and design of the arterial road network surrounding and supporting this development.

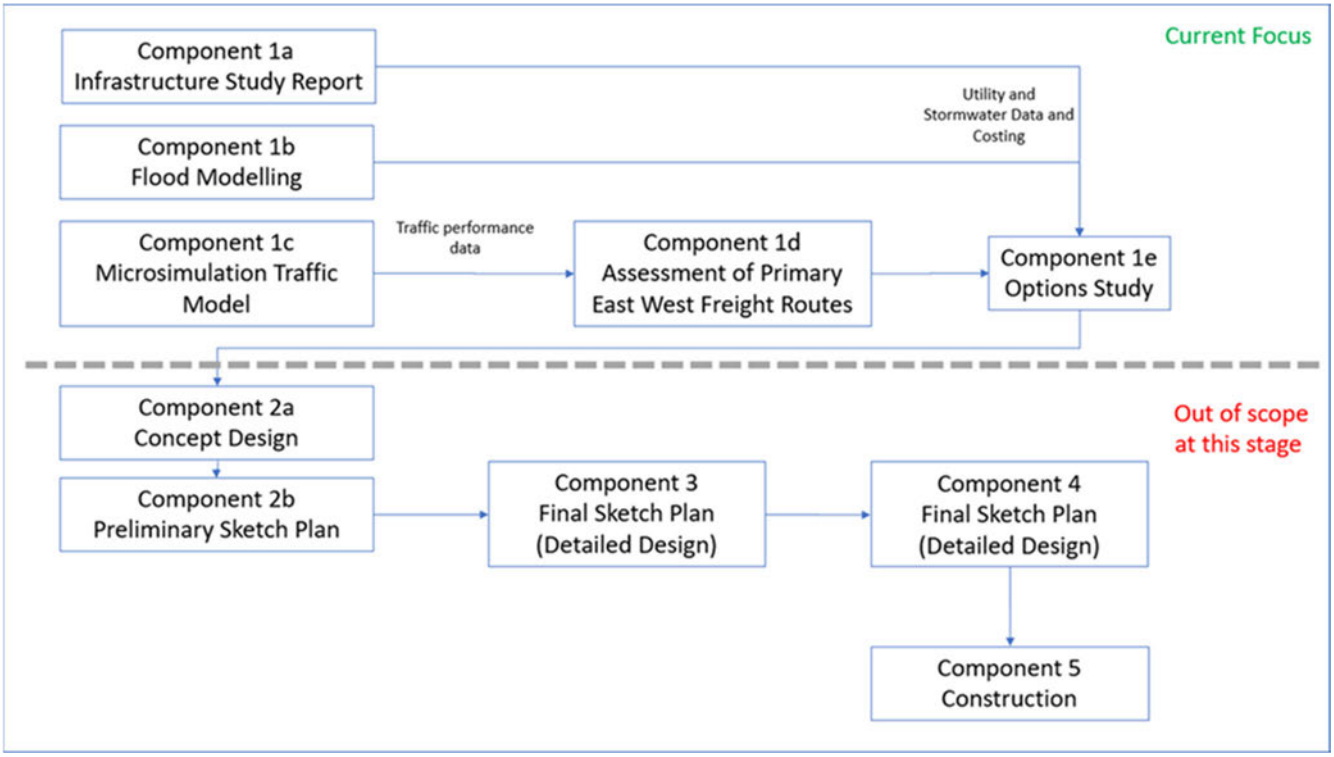

Figure 1: Parkes Way and south west corridor project approach

Component 1a – Infrastructure Study consultancy is presently underway. The purpose of this consultancy is to document existing infrastructure assets for road and utility conditions, constraints, data gaps and report on the findings.

Component 1b – flood modelling consultancy is presently underway. The purpose of this consultancy is to collate relevant catchment information along the transport corridors and map the current capacity of the stormwater infrastructure, identify likely deficiencies and impacts for use in options and design preparation.

TCCS will provide outputs from both the above consultancies to the successful tenderer as they become available during this engagement.

Whilst the objective of this Project is to develop transport corridor upgrade concepts that address short and medium term objectives and contribute to achieving the long term vision for the corridor, the he **specific objectives** for the consultancy are to:

1. Prepare mesoscopic and microscopic traffic models for the Parkes Way and Tuggeranong Parkway corridors, and the key roads within the Molonglo Valley development using AIMSUN which will consider future planned developmentand the implementation of the Light Rail Stage 2 (City to Woden).
2. Identify and provide road/network intervention options, tested via traffic modelling, to increase safety for all road users, support land release while improving travel efficiency for both public

transport, individual road users and improve freight efficiency and reduce current and future congestion along the corridors.

3. Develop and document a corridor strategy for Parkes Way and the south west corridor.
4. Molonglo Development – ensure the impact of traffic to and from this district is understood and integrated in the planning and design of the arterial road network surrounding and supporting this development.
5. Provide cost estimates and project staging to determine optimal timing and scope of works to inform and reduce potential community impacts from works delivery.

3.0. BACKGROUND

Tuggeranong Parkway is part of the ACT Orbital Freight Network and is a key north-south arterial transport corridor connecting northern and southern suburbs of Canberra. The Glenloch Interchange, where Caswell Drive, William Hovell Drive, Parkes Way and the Tuggeranong Parkway meet, is one of the most significant strategic transport interchanges in the ACT transport network, facilitating both north-south and east-west movements. During peak times over 4,000 vehicles per hour utilise the Tuggeranong Parkway and over 40,000 vehicles use the road daily.

Congestion along Parkes Way is a major concern due to high traffic volumes, particularly during AM and PM peaks, as commuters from the outer suburbs travel to the job centres in the east including the Canberra Airport/Brindabella Business Park, freight precincts in Fyshwick and Hume and to the industrialised areas through Queanbeyan – Palerang and beyond the ACT border. Traffic volumes on Parkes Way are anticipated to continue increasing due to ongoing land releases and associated population growth in the west of Canberra combined with the densification of our city centres.

Traffic volumes are forecast to further increase as ongoing development occurs in the Molonglo Valley, with an additional northbound lane between Cotter Road and the Glenloch Interchange and provision of the Molonglo East/West arterial identified through the Canberra Strategic Transport Model as needed in the future to avoid traffic demand exceeding the road capacity.

The three overall stages of Molonglo Valley development (Molonglo 1, 2 and 3) are planned to accommodate approximately 55,000 people in total. Molonglo 1, comprising the suburbs of Wright and Coombs is largely complete. Molonglo 2 comprises Denman Prospect and the future suburb of Molonglo, which will include the Molonglo district's principle commercial centre (Molonglo 2 group centre). Molonglo 3 forms the third stage of urban development in Molonglo Valley and is likely to include three to four suburbs, including the new suburb of Whitlam. The suburbs of Molonglo 3 East (east of Whitlam) are yet to be named. The Molonglo district area is shown on the Territory Plan and development intentions are shown indicatively in **Figure 2.**

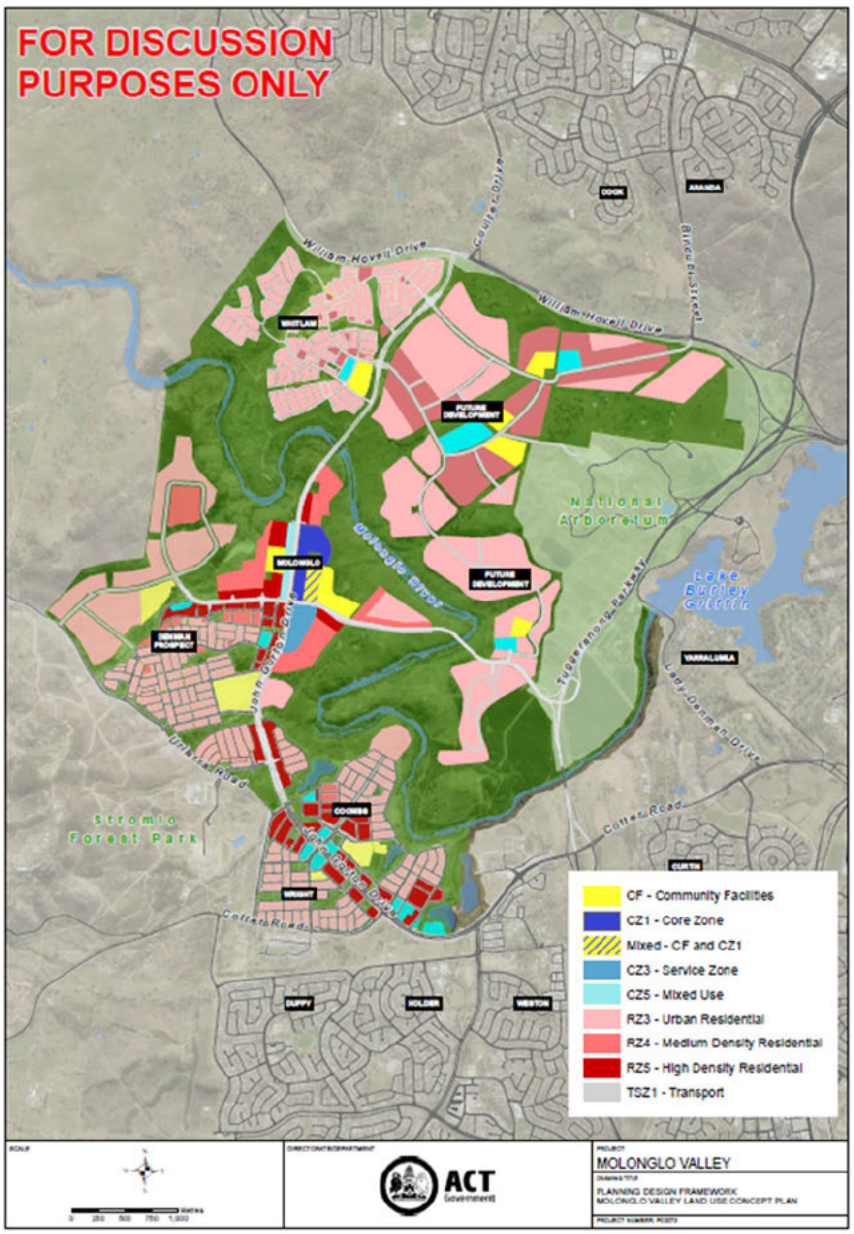

Figure 2 - Molonglo District Concept Plan

3.1 Previously Completed Design/Studies

There are several previously completed design studies for the area as noted below.

The following studies are publicly available:

	Study Name	File Name
1.	PW Options Assessment (ARUP 2014)	Parkes Way Options Assessment (ARUP 2014)
2.	PW Feasibility Study (SMEC 2014)	PW Feasibility Study (SMEC2014)
3.	PW Tunnel Environment and Safety Risk Assessment and Design Furniture Operational Requirements (ARUP 2015)	PW Tunnel Environment and Safety Risk Assesment (ARUP 2015)
4.	PW Route Study (ARUP 2015)	PW Route Study (ARUP 2015)

5.	Molonglo East-West Arterial Road Feasibility Study and Molonglo Strategic Traffic Study, SMEC for EPSDD, April 2021	3002754 EWA – Options Report – Rev 01
6.	Molonglo 3 East Planning and Infrastructure Study, Phase 1 Planning and Infrastructure Outcomes Report, WSP/Roberts Day for EPSDD, March 2021	Molonglo 3 East Planning and Infrastructure Study, Phase 1 Planning and Infrastructure Outcomes Report, WSP/Roberts Day for EPSDD, March 2021
7.	Molonglo 3 East Transport Planning and Modelling reviews, SMEC for EPSDD, March 2021	3002666.114 M3 East Peer Review – Modelling Review Rev 0 3002666.114 M3 East Peer Review – Reporting Review Rev 0 3002666.114M3 East Peer Review – Transport Planning Review Rev 0
8.	Molonglo 3 East Planning and Infrastructure Study, Transport Modelling Report, WSP/Roberts Day for EPSDD, January 2021	Molonglo 3 East Planning and Infrastructure Study, Transport Modelling Report, WSP/Roberts Day for EPSDD, January 2021
9.	Bindubi Street grade separated intersection with William Hovell Drive – Preliminary Sketch Plan, AECOM for EPSDD, July 2019	60588975_Bindubi St-William Hovell Drive_Feasibility Report_Rev.B
10.	Molonglo Arterial Roads Feasibility Study, SMEC, 2013	3002301 MARFS Rev2 Final Report
11.	ACT Transport Corridors Study, AECOM, 2018	ACT-TC part 5 TransCAD Model Report Rev 3 (final) 23.10.2018 P6C ACT Transport Corridors – Traffic Microsimulation Modelling Report_1 P9 ACT Transport Corridors – Final Report v3_

The following studies are confidential. A signed Deed of confidentiality will be required for the release of these reports. It is intended that the use of these documents is for the sole purpose of pricing the tender works.

- PW Definition and Scoping Design (ARUP 2018).

3.2 Existing Reference Models

The following reference model information will be made available to the successful tenderer:

- City and Inner North Reference Model (CINRM) base model files (Aimsum).
- Canberra Strategic Transport Model (CSTM) base model files (TransCAD).
- Woden Valley Reference Model (WVRM) (Aimsum) - will be provided to preferred tenderer upon completion of works.

Figure 3 provides the extents of the mesoscopic and microscopic areas for both the WVRM and the CINRM.

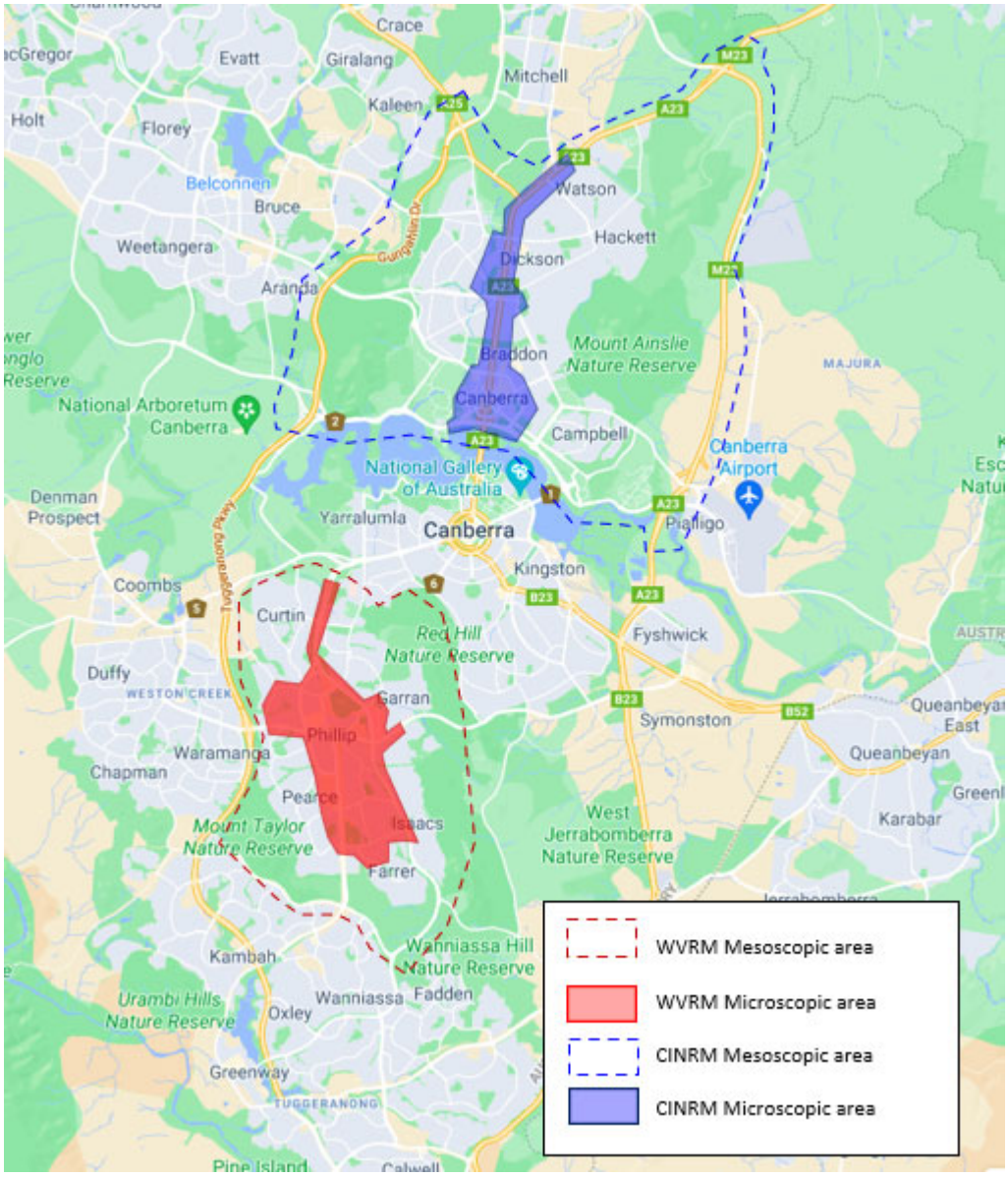

Figure 3 – CINRM and WVRM Mesoscopic and Microscopic model areas

3.3 Other Key References

Planning & Environment

- Molonglo Valley planning - https://www.planning.act.gov.au/planning-our-city/planning-studies/molonglo-valley
- Molonglo Valley Stage 3 Planning and Design Framework 2019- https://www.planning.act.gov.au/__data/assets/pdf_file/0003/1348005/Molonglo-Planning-and-Design-Framework-Stage3-ACCESS.pdf
- Molonglo River Reserve Management Plan 2019 DI2019-192 - https://www.legislation.act.gov.au/di/2019-192
- National Arboretum - Canberra Master Plan 2018 - https://www.nca.gov.au/sites/default/files/consultation/National%20Arboretum%20-%20Canberra%20Master%20Plan%202018.pdf
- City and Gateway Urban Design Framework, ACT Government, 2018

https://www.planning.act.gov.au/__data/assets/pdf_file/0005/1296986/CITY-AND-GATEWAY-Urban-Design-Framework.pdf

Transport

- ACT Transport Strategy 2020 - https://www.transport.act.gov.au/__data/assets/pdf_file/0016/1613302/200601-ACT-Transport-Strategy_web.pdf
- Light rail network plan - https://www.cityservices.act.gov.au/__data/assets/pdf_file/0011/984638/Transport-Canberra-Light-Rail-Network.PDF - the successful tenderer will be briefed on the currency of previously completed studies in relation to light rail.

3.4 Concurrent Consultancies and Capital Works Projects

There are several adjacent design and construction projects being progressed that may have some impact on works to be undertaken in this consultancy. These include:

- Light Rail Stage 2A and associated investigations in traffic impact mitigation measures;
- Raising London Circuit;
- Infrastructure Study report and flood modelling report for Parkes Way and south west corridor (presently being prepared); and
- Molonglo 3 East Preliminary Roads Design, Earthworks, Urban Water Strategy and Concept Plans.

Following tender award, the successful tenderer will be provided with relevant current background documents for these projects (as they become available).

The Molonglo Valley Traffic study should be undertaken in concert with the Molonglo 3 East (M3E) Preliminary Roads Design study being undertaken by EPSDD. The M3E Civil Consultant will work closely with the Traffic Consultant (this project) to advise the location and details of the key M3E roads in the development of the strategic and mesoscopic transport models for the combined Parkes Way-Tuggeranong Parkway-Molonglo study area.

It is intended that the Infrastructure Study report for Parkes Way and the south west corridor will be used to aid in the identification of constraints and issues within the transport network that will inform the development of road network intervention options, to ensure that known constraints are considered at an early stage of the assessment.

Quality Management

At the project inception meeting, the Consultant shall present to the project working group the key aspects of the Consultant's Quality Management System and how this system shall be applied throughout the project delivery.

Liaison and co-ordination with adjacent or associated projects and approving authorities may include but is not limited to:

- Light Rail Stage 2 design by MPC
- Raising London Circuit project by MPC
- Future land releases within Acton Waterfront by City Renewal Authority (CRA)
- Future land releases in the city including section 100 block 40, further releases of section 63 by CRA
- Molonglo Valley Development by EPSDD
- UNSW Canberra development
- East west arterial by EPSDD

- Civic Stadium by EPSDD
- The National Capital Authority
- Other relevant ACT Government Directorates

4.0 PROJECT DESCRIPTION

Parkes Way is Canberra's central east-west corridor for freight movement (partially) and passenger travel.

In 2018 a 'definition and scoping design' was completed for potential improvements along Parkes Way. However, with Light Rail Stage 2A alignment being finalised in late 2019, it was soon realised that assumptions used to inform decision making in 2018, were outdated or were no longer applicable. This will have implications on deciding the scope of future improvements in the Parkes Way corridor. With the changes being mostly a retainment of capacity of Commonwealth Avenue, and hence, a reduced pressure on Parkes Way in the short term, it is likely that improvements required in the short to medium term may be different to previous assumptions.

The works proposed under this consultancy will develop a hybrid mesoscopic/microscopic traffic model of the area, identify and test a range of potential upgrades and augmentations to the road network to address capacity and safety issues, selection of preferred upgrades, refinement of options and identification of preferred upgrades.

The works include an assessment of traffic in the Molonglo Valley to address medium and long-term issues associated with the release of remaining land in this area. Remaining land releases include further areas in Denman Prospect and Whitlam, new releases in the suburb of Molonglo (including the group centre, residential and other uses) and Molonglo 3 East comprising 2-3 unnamed suburbs to the east of Whitlam and on the north side of the Molonglo River.

The traffic assessment aims to identify the impact on the arterial road network within and around the Molonglo Valley and establish likely solutions to address these and to confirm the adquacy of the proposed internal road network in Molonglo developments to address future growth.

The works will be documented in a combined corridor strategy for Parkes Way and the southwest corridor, setting out the function, long-term objectives, constraints and actions required to achieve the long-term corridor objectives.

4.1 Site Description

The site has two distinct components:

- Parkes Way (extends from Kings Avenue, west through the Glenloch interchange) and the south west corridor which comprises the Tuggeranong Parkway and the full length of Drakeford Drive (including the Glenloch interchange and all approaches), and:
- Molonglo district comprising all three stages of Molonglo Valley development

Refer to **Figure 4** for the indicative corridor and area extents.

Parts of the Parkes Way and south west corridors are on designated land, for which the National Capital Authority is the planning approval entity. Accordingly, consultation with the NCA for projects in these locations will be required. Refer to ACTMapI for exact extents of Designated land.

Figure 4: Corridor locations

4.2 Description of Work

The project will generally follow the Australian Transport Assessment and Planning framework and guidelines (https://www.atap.gov.au/). The corridor strategy will identify and document corridor level objectives and then identify problems and impediments to achieving these objectives. This will lead to the identification and testing of options to address these problems.

In line with the specific objectives for the consultancy and to be consistent with the project outline, as identified in section 2 of this Brief, the consultant is to prepare and submit hybrid mesoscopic/microsimulation models of the corridors (years 2021, 2031, 2041 for the whole corridors and 2051 for the sub area of Parkes Way between Commonwealth Avenue and Kings Avenue) utilising the ACT Government's *City and Inner North Reference Traffic Model* (CINRM) and extending this to cover the Tuggeranong Parkway, Drakeford Drive and the Molonglo Valley.

The consultant may use the microsimulation model developed as part of the East West Arterial feasibility study and the Woden Valley Reference Model to support this.

The Woden Valley Reference model is yet to be completed but will be provided to the successful tenderer, upon completion.

The modelling will consider future planned development and the implementation of Light Rail Stage 2 (City to Woden), future land releases in the city, the Acton Waterfront development, UNSW Canberra development, raising of London Circuit at Commonwealth Avenue, potential future development of the Western edge area, potential future development of the Civic Stadium, potential future changes to the classification of Northbourne Avenue and any other potential future scenarios that may have a material impact on the operation of the corridors.

The models will be used to test infrastructure upgrade options, aimed at improving traffic efficiency in the corridors in the short, medium and long-term.

4.3 Scope of services

The scope of this brief is the provision (in accordance with the Standard Agreement between the Territory and the consultant) of the following services relating to the works described in section 4.2 to meet the specific objectives outlined in Section 2 and as described below.

The Consultant is expected to lead a multi-disciplinary team of engineers and planners to deliver this consultancy and the scope of services are divided into two components as set out below.

- Component 1: Traffic Modelling
- Component 2: Option Study and Corridor Strategy

The successful consultant will be required to undertake the scope of services to respond to the specific objectives of this consultancy with the client approval to proceed to different parts as identified in Program Dates (Section 6.5) of this Brief.

The details of the Components are outlined below.

Component 1: Traffic Modelling

This section has been split into the following five parts:

Part 1 – CSTM adjustments

- Develop two (2) scenarios that account for differing growth patterns with and without Western Edge development in consultation with TCCS and EPSDD. Report the traffic network outcomes from the revised CSTM including revised outputs and diagrams of V/C, LOS, flow difference and other metrics.
- Development of a 2051 scenario for the CSTM including identification and agreement with TCCS, NCA and EPSDD of the road network upgrade assumptions for this scenario.

Part 2 – Base Model development/calibration/validation

- The CINRM model including 2021, 2026 and 2031 of the Canberra Inner North Refence Model has been completed. This is a key ACT Government input that is to be used by the consultant in the microsimulation modelling phase of the project and will be provided to the successful tenderer.
- Prepare models for the years 2021, 2031 and 2041 (AM and PM peak periods) including light vehicles, heavy vehicles, buses, light rail (where applicable), cyclists and pedestrians. The inclusion of cyclists and pedestrians would be to model the impact of interactions between road and cyclists and pedestrians, for example, at crossings.
- Use the traffic demands and distribution from the revised CSTM.
- Prepare 2021 (sub-area) peak hour models including re-calibration and validation of the sub-area model. Refer to **Figure 5** and the list of microsimulation extents below to guide selection of the sub-areas.
- Develop future year reference (sub-area) models for 2031, 2041 and 2051 models. Note that the extent of the 2051 model differs from the other future year reference models. Refer dot point below.

- Prepare a sub area mesoscopic model for the section of Parkes Way between Commonwealth Avenue and Kings Avenue for the year 2051 to establish long-term upgrade requirements. This will require:
    - Liaison with EPSDD and the NCA to develop appropriate land use assumptions for this scenario
    - Utilise the demands from the 2051 CSTM scenario developed in Part 1.
- Consistent with the existing CINRM model it will be a hybrid microsimulation/mesoscopic model. The proposed extents for the microsimulation and mesoscopic model are shown in **Figure 5** (microsim extent in red, mesoscopic extent in blue). Review the proposed extents and extend the model as needed to achieve the objectives of this consultancy.
- The extent of the mesoscopic model should include (refer to **Figure 5**):
    - The full length of Drakeford Drive, down to and including the intersection with Tharwa Drive.
    - A suitable distance beyond the intersections on Parkes Way, Tuggeranong Parkway and Drakeford Drive to ensure that any upgrades proposed to address congestion identified in the models can be suitably tested and evaluated for performance.

The microsimulation model area is to include, at a minimum (refer to **Figure 5**):

- Parkes Way from Glenloch interchange to the Kings Ave interchange (inclusive).
- Tuggeranong Parkway from Glenloch interchange to south of the Hindmarsh Drive intersection.
- City West precinct, excluding the ANU.
- William Hovell Drive to west of the Bindubi Street intersection
- The East-West Arterial (for future year scenarios)
- Intersections of:
    - Parkes Way/Clunies Ross St
    - Parkes Way/Edinburgh Ave
    - Parkes Way/Commonwealth Ave
    - Parkes Way/Corranderrk St
    - Corranderrk St/Constitution Ave
    - Parkes Way/Anzac Pde
    - Anzac Pde/Constitution Ave
    - Parkes Way/Kings Ave
    - Morshead Drive/Russell Dr
    - Barry Drive/Clunies Ross St
    - Barry Drive/Marcus Clarke St
    - Parkes Way/Tuggeranong Parkway/William Hovell Drive/Caswell Drive (Glenloch interchange)
    - Tuggeranong Parkway/Lady Denman Drive
    - Tuggeranong Parkway/Cotter Road
    - East-west Arterial/ Tuggeranong Parkway (in future scenarios)
    - Tuggeranong Parkway/Hindmarsh Drive
- Calibrate and validate the models in accordance with the ACT Traffic Microsimulation Modelling Guidelines.
- Identify the appropriate data requirements, locations, and time periods (including accounting for any COVID-19 related impacts). Draft a data collection strategy along with costs associated. It is

highly desirable for the successful tender to show innovation in data collection techniques that would potentially result in cost or time savings for the territory (eg use of various data sources aggregated together such as Addinsight data, SCATS data, tube counts, connected vehicle data, use of drones and/or AI for intersection counts etc).

- The Territory will provide SCATS data, Adinsight data from the Bluetooth travel time system and available tube counts on request. The Territory does not guarantee the completeness or accuracy of these data sets, and the Conusultant shall review and validate the quality and accuracy of this data prior to adopting it for use in the modelling process.

Model Software

The consultant will use AIMSUN software to produce the modelling outputs.

Model Calibration(s)

- Model inputs and assumptions are to be agreed with TCCS prior to modelling and in accordance with the hold points identified within the ACT Traffic Microsimulation Modelling guidelines.

Part 3 – Molonglo Valley modelling component

The mesoscopic area of the model is to extend to cover:

- All of the Molonglo Valley including the following intersections (refer to **Figure 6** for road network layout): note intersection configurations will be provided to the successful tenderer
    - John Gorton Drive/William Hovell Drive/Coulter Drive
    - Streeton Drive/Cotter Road
    - Cotter Road/ John Gorton Drive
    - East-west Arterial/ John Gorton Drive
    - Northern Collector/ John Gorton Drive
    - Northern Collector/ ‘Slow Collector’ (between Northern and Southern Collector at the group centre)
    - Southern Collector/ John Gorton Drive
    - Southern Collector/‘Slow Collector’
    - Southern Collector/ East-west Arterial
    - East-west Arterial/ Access road into the southern residential precinct

The microscopic area of the model in the Molonglo Valley is to cover:

- William Hovell Drive to west of the Bindubi Street intersection
- The East-West Arterial (for future year scenarios)

- Assess the capacity and performance for key roads and intersections in and around the Molonglo area for the future year scenarios (2031, 2041 and 2051). The modelling in the Molonglo area is to consider the planned public transport network including the location of rapid routes, the future function of William Hovell Drive, specifically:
    - will it be to parkway standards or not; and
    - appropriate land use assumptions for the initial stages of the Western Edge Investigation Area.

  These aspects are to be agreed with EPSDD and TCCS prior to progressing modelling.

- Where traffic issues are identified in the Molonglo Valley, develop and test in the model options to address these issues.

Part 4 – Options development and Testing

The consultant is to review the current corridor functions, use of the corridor for all travel modes (private vehicles, freight/business, active travel, public transit etc) and the long-term vision and objectives for the corridors. Note that the long-term vision and objectives for the corridor are to be developed by the consultant in consultation with TCCS and EPSDD and will be documented in the corridor strategies (refer to Component 2 part 3).

The consultant is required to review the findings of the the Infrastructure Study Report and flood modelling report (when available), as part of the modelling process, in relation to the design requirements in this corridor for utility services, stormwater and potential road infrastructure upgrades will be reviewed and tested in this project. It is critical these requirements and their inter-relationships within the corridor are clearly understood to inform the subsequent development of options under this engagement.

The Infrastructure Study and flood modelling reports will highlight potential issues in relation to the existing infrastructure and utility services that should be considered during the modelling and options development components of the consultancy, which will be used to assist with defining the scope for future detail design and construction projects.

It is expected that long-term vision for the corridor will guide the development and selection of options to be tested by:

- Review traffic models (refer following list), crash data and ANRAM reports, the flood modelling and infrastructure study reports and any other pertinent information sources to identify problems in the transport network, with regard to the long-term objectives for the corridor.
    - Canberra Strategic Transport Model (CSTM).
    - Canberra Inner North Reference Traffic Model (CINRM) – includes work done for planning of stage 2 of Light Rail.
    - Molonglo East West Arterial microsimulation model.
    - Woden Valley Reference Model – will be made available to the successful tenderer upon its completion.
- Develop a comprehensive list of options to address the identified problems in the network. This comprehensive list should be refined to a shortlist using the Strategic Merit Test as outlined in the ATAP guidelines. Consider previous work and upgrades contemplated in the background studies to develop the comprehensive list. Also consider other interventions not previously considered that may address the identified network issues. The range of options may include but should not be limited to new connections for movements not currently provided for in the network, provision of additional capacity at intersections, interchanges and mid block sections, adjustments to the network to eliminate safety issues, implementation of new or expansion of existing ITS infrastructure, such as variable speed limit systems, ramp metering, etc. and grade separation of existing at grade intersections.
- Test the 18 shortlisted potential upgrade options for the Parkes Way and Tuggeranong Parkway/Drakeford Drive corridors to address the problems identified through the development of base models and long-term objectives of the corridor. Agree with TCCS the future model years the options are to be tested against.
- Include in the base 2041 model the impacts of partially reclassifying Northbourne Avenue from an arterial road to a transit boulevard as identified in the City and Gateway Urban Design Framework. Identify the transport network upgrades required to Parkes Way and the southwest corridor to affect this transition. Provide a discussion of the broader network impacts of this change in the report.

- Identify a list of upgrade combinations, and shortlist up to four 'suites' of upgrades for assessment in the model.
- Investigate and assess potential staging of infrastructure upgrades. Identify and document the triggers for the works e.g. traffic volumes, notable large proposed developments being completed. Identify expected timeframes (range) for the triggers to eventuate.

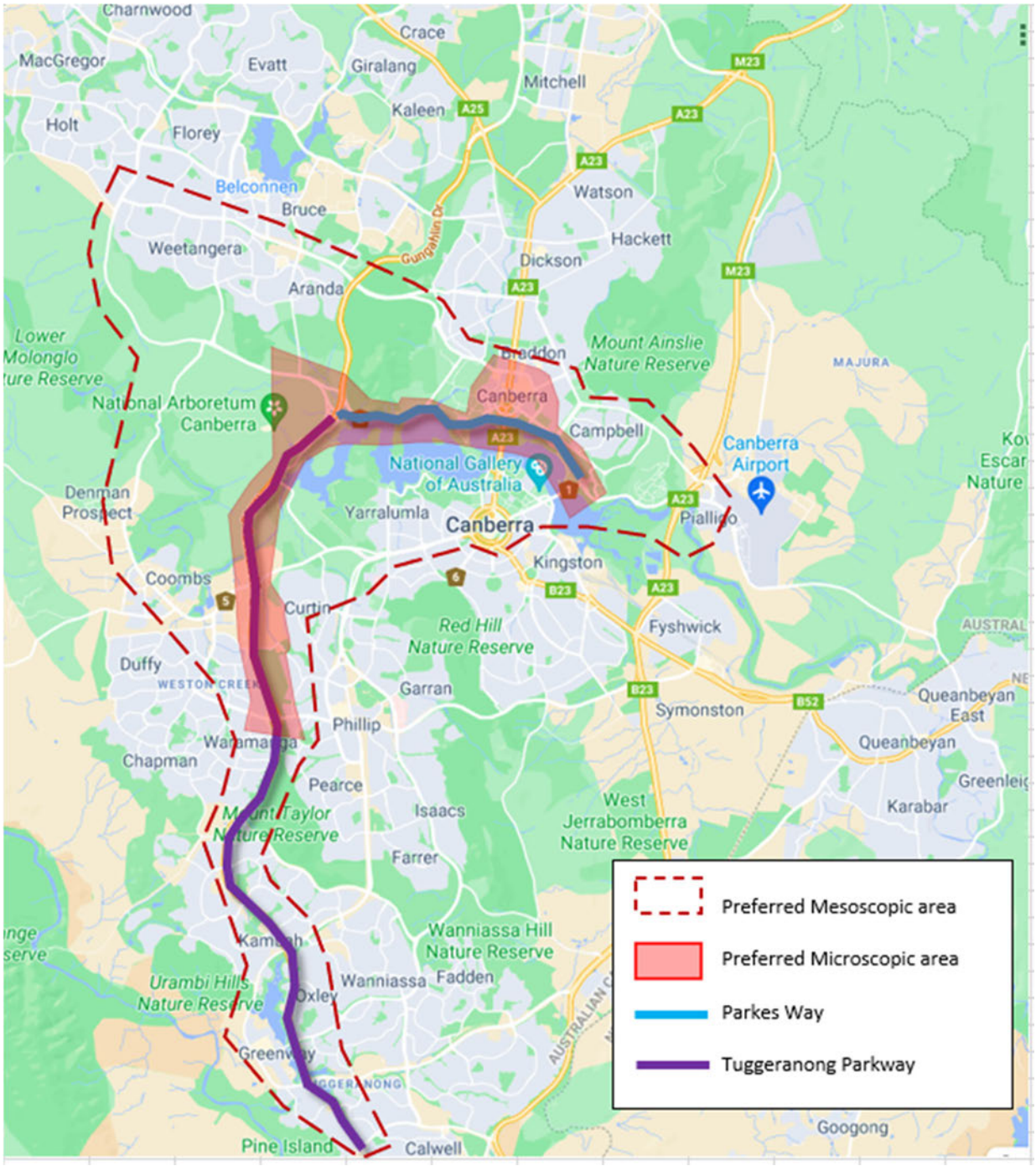

Figure 5: Preferred Study Area Extents (to be confirmed by consultant)

* Note this map is a diagramical representation only. Refer to exact areas for microsimulation in Component 1, part 2: Base Model Development.

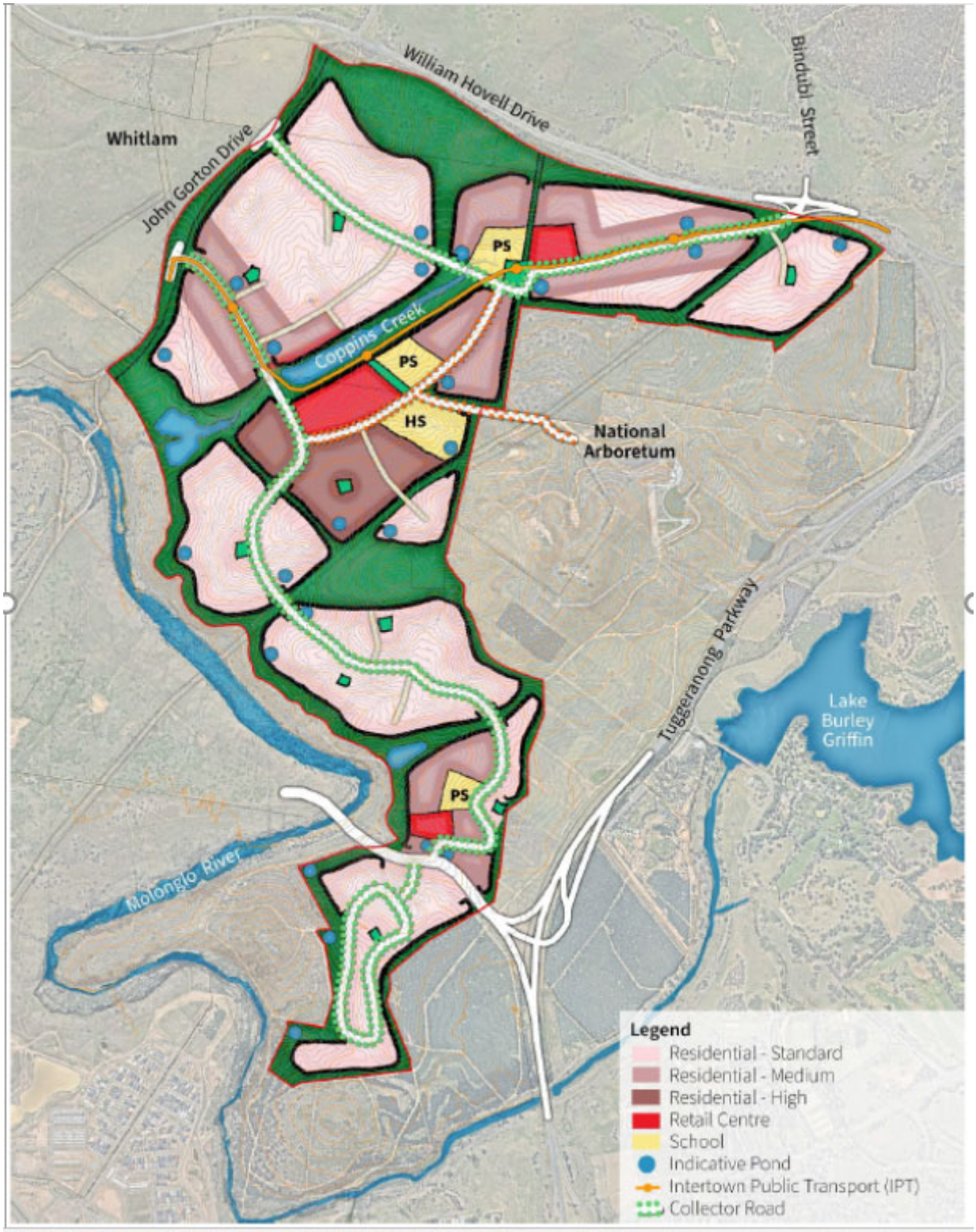

Figure 6: Indicative Road Network Layout Plan for Molonglo 3 East.

For information only, a Multimodel Network Plan (MNP) may be developed under a separate future consultancy (timing yet to be determined). Dependant on timing of this work, the successful tender for this consultancy may be provided with the relevant information for the MNP and requested to ensure consistency in objectives and outcomes for both projects. This element is not required to be priced in the tender. If the need for this work arises, TCCS will issue a scope change through the contract.

Part 5 – Review and Reporting requirement

- Prepare a standalone report detailing the process of modelling the Molonglo Valley (Part 1 and 3), traffic capacity and performance of the road network and intersections, issues identified, proposed treatments to address these issues and the resulting performance of the modelled road network incorporating identified treatments.
- Prepare a standalone report detailing the process of development of the models, summarising the calibration and validation results, options development process and outcomes of the assessment of options (Parts 2 and 4).
- Component 1 reporting is to include:
    - Illustration of traffic re-distribution.
    - Illustration of impact for all road users including pedestrians and cyclists.
- Liaison with key stakeholders, including relevant ACT Government Directorates and NCA.

Component 2: Option Study and Corridor Strategy

This component of the works has been broken down into two parts as follows:

Part 1 – Options Assessment for the Freight Corridors

1. Barton Highway/Gungahlin Drive/Caswell Drive/Glenloch Interchange/Parkes Way/Morshead Drive/Pialligo Avenue corridor;
2. Barton Highway/Gungahlin Drive/Caswell Drive/Tuggeranong Parkway/Hindmarsh Drive/Canberra Avenue corridor;
3. Barton Highway/Gungahlin Drive/Caswell Drive/Tuggeranong Parkway/Isabella Drive/Monaro Highway corridor; and
4. Barton Highway/Clarrie Hermes Drive/Horse Park Drive/ Majura Parkway corridor.

The assessment should consider a range of factors such as infrastructure changes required to support the proposed routes (and associated costs), suitability including proximity to sensitive land uses and potential impacts on amenity, technical impediments (excessive grades etc), current and future capacity to handle forecast increases in freight and heavy vehicle movements, current and expected future road function with respect to movement and place and any other pertinent factors and metrics.

Part 2 – Options Report

Once agreement is reached with TCCS on the number of options to detail, the consultant is to prepare a report showing the different improvement options including the selected ‘suites’ of upgrades and a cost benefit analysis. The document must include consistent costing of utilities relocation and construction as per the Infrastructure Study Report.

The Option Study is to include and document, as a minimum:

- A general arrangement plan of each option. This should not be detailed as it will only be used to provide a broad picture of what is involved in each option.
- Rapid cost benefit analysis of each option (in accordance with the ATAP Guidelines – Cost Benefit Analysis) including:
    - Preliminary cost estimate for each option – Note: costings for active travel elements within each option (if included) should be clearly highlighted. These costs will assist the ACT Government into the future for strategic transport investments in line with the Active Travel Network. Items to be included in active travel will include, but are not limited to, on-road cycle line, off road community (cycle) paths, identifying interventions at intersections to enable active travel and other items that enable active travel.
    - Numerical analysis (Benefit-cost ratio).
    - Commentary analysis stating the benefit and drawbacks of each option.

      The analysis should consider areas such as vehicle delays, safety, constructability, level of disruption during construction, level of maintenance, environmental sustainability and compatibility with the long-term vision for each corridor.
- Undertake a safe system assessment (SSA) of each upgrade option to assess the relative change in safety for the option when compared to the current state.
- Development of a method for assessing the shortlisted options and suites of network upgrade options and determining preferred options for each corridor.
- Development of a staging and prioritisation program based on the preferred options or suites of upgrade options to assist the Territory in determining future works.

It is intended that further design development of options will be progressed in a subsequent consultancy.

Part 3 – Corridor Strategy

This element of the project will involve documenting and consolidating outcomes and data from earlier stages of this engagement into a corridor plan covering both of the corridors. The corridor plan is to include:

- Details of the current and future corridor functions within the transport network.
- Current and future intended use of the corridor for all travel modes (private vehicles, freight/business, active travel, public transit etc).
- Develop and present a long-term vision and objectives for each of the corridors, to be agreed by TCCS. Consider relevant Government Policy (ACT Planning Strategy, ACT Climate Change Strategy, Transport Strategy etc) in developing this.
- Current corridor performance including traffic, road safety, road geometry and pavements. This should include reviewing and updating as necessary the AusRAP star ratings for the whole corridor.
- Corridor challenges and priorities covering, short, medium and long-term actions and response to the challenges. Include the outcomes determined in component 2 part 2 in the corridor strategy reports. This should include consideration of ITS applicable for use in the corridor. Refer to https://www.transport.nsw.gov.au/projects/current-projects/road-network-corridor-planning for an indication of expected content and detail.

4.4 Project Assumptions

At the time of tender release, the following project assumptions are to be considered:

- That the current plan for light rail stage 2 (alignment down the median of Commonwealth Avenue) will not change.
- That the proposed raising of London Circuit to provide an at grade intersection with Commonwealth Avenue will not change.
- That the Acton Waterfront development progresses the works for the proposed cut and cover tunnel for the westbound Commonwealth Avenue to Parkes Way ramp.
- Land release in the Molonglo Valley progresses as is currently planned as per the ACT Government Land Release Program.

The project team will update the successful tenderer regarding relevant assumptions at the inception meeting.

4.5 Special Requirements

- The Consultant shall make an allowance for all reports, technical memos and traffic modelling to be amended following reviews by the ACT Government and reviewer(s) appointed by the ACT Government.
- The Territory may separately engage the services of a suitably qualified independent reviewer(s) to undertake technical and reviews of all documentation, including reports, d, memos and modelling. The Consultant is expected to review and address the findings of any independent review(s).
- Note that the Territory intends to undertake an Infrastructure Sustainability Assessment as the design progresses for the identified/preferred upgrades. The consultant should be aware of this intent as they develop options and progress this consultancy.

5.0 DELIVERABLES

The deliverables shall include:

- Component 1:
    - Molonglo Valley Traffic Report;
    - Base Model Development Report;
    - Traffic Modelling Report;
    - AIMSUN model files;
    - Presentation slides; and
    - Other reports as required to meet the project objectives of the Brief (Consultant is to list the details, as applicable)
- Component 2:
    - Freight corridor Assessment Report;
    - Options Study including preliminary costings, rapid BCA. Safe System Assessment results and sketch plans, options report including staging and prioritisation information; and
    - Corridor Strategy Reports including Star Ratings for the whole corridor.

6.0 DESIGN INFORMATION

6.1 Standards

Works are to be undertaken in accordance with the latest versions of the following standards:

- TCCS Municipal Infrastructure Standards (MIS)

- TCCS Municipal Infrastructure Technical Specification (MITS) and Standard Drawings
- TCCS Trunk Road Infrastructure Standards (TRIS)
- TCCS Trunk Road Infrastructure Technical Specification (TRITS) and Standard Drawings.
- Other relevant Australian Standards and Design Guidelines as appropriate (i.e. Austroads, ARR)
- Jemena Design Guides and Operator Rules
- Evoenergy Design Guides, Installation Requirementsand Roules
- Icon Water Supply and Sewerage Standards
- Telstra and other communication services Authorities Design Guides and Trenching requirements
- Australian Transport Assessment and Planning Framework and Guidelines
- Department of Infrastructure, Transport, Regional development and Communications Cost Estimation Guidance

The TCCS Design Standards, Jamena Guides and Roules, Evoenergy Guides and Roules, Telstra and other communication services Authorities Design Guides and Icon Water Standards reference other standards and guidelines. If the Consultant considers that the Standards are inappropriate, then the Consultant shall advise IDP and recommend alternative standards for acceptance.

6.4 Project Meetings

- All meetings shall be held at ACT Government offices, or virtually, unless prior agreement between the ACT Government and the Consultant.
- An Inception Meeting will be held 1 week after award.
- Project progress meetings - the consultant is to allow for regular fortnightly progress meetings to be attended by consultant's Project Manager and other relevant project team members as required.
- An agenda is to be prepared and circulated before each meeting by the consultant. Meeting minutes, prepared by the consultant, are to be circulated within 48 hours of each meeting.
- The Consultant is also to allow for up to three site visits with the IDP/ TCCS PMs (and possibly other ACT Government representatives) to discuss any site constraints details.

6.5 Program Dates

ACTIVITY	MILESTONES	INDICATIVE DATES
Issue brief		July 2021
Consultancy Appointed		September 2021
Start-Up Meeting		September 2021
Component 1 – Traffic Modelling Part 1 – CSTM adjustment Part 2 – Base model development **Hold Point 1:** Modelling scope confirmation with TCCS		February 2022
Hold Point 2: TCCS Review and approval of base model		February 2022
Part 3 – Molonglo Valley Modelling		February 2022
Part 4 – Options Development and Testing		May 2022
Part 5 – Review and Reporting Requirements		June 2022
Component 2 – Options Study and Corridor Strategy Part 1 – Assessment of Freight Corridor Options **Hold Point 3**: TCCS Review and acceptance of future year models		April 2022
Part 2 – Options Report draft		July 2022
Part 3 – Corridor Strategy report		August 2022

7.0 QUALITY ASSURANCE

The consultant shall establish and maintain a quality management system in accordance with ISO 9001:2000, as interpreted by the Australian Standard Publication HB90.3 – 2000 'The Construction Guide ISO 9001-2000'.

Independent Reviews and Auditing

- The Consultant shall make an allowance for all reports, technical memos and modelling to be amended following reviews by the ACT Government and/or reviewer(s) appointed by the ACT Government.
- The Territory may separately engage the services of a suitably qualified independent reviewer(s) to undertake technical reviews of all documentation, including reports, drawings, memos and modelling. The Consultant is expected to review and address the findings of any independent review(s). The Territory may also separately engage the services of a suitably qualified Quality Management System auditor to undertake an external review, or audit, of the Consultant's quality management system that relates to this specific project.

8.0 INFRASTRUCTURE PROCUREMENT REQUIREMENTS

General

The Consultant shall undertake the design in accordance with Quality Assurance requirements detailed in Attachment A (form USF944 tables 1 to 3). A Project Quality Plan for the Design Phase is required to be submitted within 2 weeks of award.

Verification

Consultant shall submit a verification plan in accordance with Quality Requirements - Document Submission Form USF960 (formerly USF945 - 956)-as applicable.

9.0 DOCUMENTATION AND DATA MANAGEMENT REQUIREMENTS

The following are the numbers of copies required for reports and plans:

- Word and PDF versions of all reports;
- PDF and DWG/DXF/shape files for all plans and spatial data; and
- Model files from the traffic modelling.

10.0 LIAISON

All liaison with Infrastructure Procurement is to be through the Project Officer:

Name: Milan StojanovTelephone: 02 62053845

Facsimile: Email: Milan.Stojanov@act.gov.au

Post tender award, the client for this consultancy will be Transport Canberra City Services (TCCS). TCCS will project manage the consultancy. The consultancy will be let and administered according to Act Government policies and procedures.

Contact details for the TCCS project manager will be provided to the successful tenderer.

Attachment A – Quality Requirements Tables

1. QUALITY REQUIREMENTS FORM USF944

PROJECT: Traffic Modelling and Options Report for Parkes Way/ South West Corridors & Molonglo Valley Development
CLIENT:___TCCS and EPSDD_ PROJECT No : 38561-200

SERVICE ROLE: Consultant _____ (insert as applicable)
[Project Director, Project/Construction/Works Manager, Consultant, Contractor]

QUALITY STANDARD: AS/NZS ISO 9001:2008 (as interpreted by HB90.3-2000)

QUALITY REQUIREMENTS INDEX

Where information is to be specified enter YES in Column 1

Details to be Specified	Table / Form Title
YES	Table 1 - Document Submission
YES	Table 2 - Verification Methods
YES	Table 3 - Review Points
YES	Table 4 - Measurement Data
	Table 5 - Notification of Intention to Commence Project Activities
YES	Table 6 - Traceability Requirements
YES	Table 7 - Processes Requiring Validation
	Table 8 - Witness / Hold Points
	Table 9 - Principal Supplied Products
	Table 10 - Servicing Work
YES	Table 11 - Quality Records
	USF957 - Certificate of Compliance

QUALITY REQUIREMENTS TABLE 1 (formerly USF945)

DOCUMENT SUBMISSION				
Document	No. of Copies	When to be Submitted	To be Available for Inspection on Request	Comments
Quality Plan Procedure	1	with proposal/tender.		
PQP	2	14 days after award of Consultancy.		
Quality Records (refer to specific table)		As requested in the Brief		

QUALITY REQUIREMENTS TABLE 2 (formerly USF946)

VERIFICATION METHODS	
The Consultant/Project Manager shall provide in the Verification Plan(s) to undertake design verification of the following components in accordance with the nominated method(s). (Refer ISO 9001:2008 Cl 7.3.5 and see HB90.3-2000 Page 60 for examples of design verification methods).	
Verification Components	Nominated Verification Method
Traffic modelling reports and other reports as identified in the project brief	Consultant to nominate

QUALITY REQUIREMENTS TABLE 3 (formerly USF947)

REVIEW POINTS

The Consultant/Project Manager shall include in their Verification Plan the following Reviews and the involvement of the parties nominated below. Such Reviews shall be arranged by the service provider and all parties are to be notified ten working days prior to the Review.

(Refer ISO 9001:2008 Cl 7.3.4 and HB90.3-2000 Pages 58-59 for guidance).

Design Component	Stage of Design	Nominated Parties to Participate in Design Review	Comments
All Deliverables / Report and Drawings	Draft and Final Report and Drawings	IDP, TCCS, EPSDD	Required following the Consultant's own design verification procedures.

QUALITY REQUIREMENTS TABLE 4 (formerly USF948)

MEASUREMENT DATA

The following measurements data are to be submitted for verification of adequacy.

Note: Such verification shall not relieve the Project Director / Consultant / Subconsultant / Specialist Consultant / Contractor (delete as applicable) of responsibility for providing design services/constructed works in accordance with the specification requirements.

(Refer ISO 9001:2008 Cl7.3.2 and HB90.3-2000 Pages 55-56 for guidance)

Required Data	Date to be Submitted	Entity to be submitted to
Consultant to identify in their submission		

QUALITY REQUIREMENTS TABLE 6 (formerly USF950)

TRACEABILITY REQUIREMENTS		
Enter details of items for which it is necessary to trace the history, application, or location by means of recorded identification. Refer to Quality Record Requirements (Table 11) for more specific requirements of Records of Traceability. (Refer ISO 9001:2008 Cl7.5.3 and HB90.3-2000 Page 72 for guidance).		
Item	Extent of Trace	
	Start	Finish
Consultant to identify in their submission		

QUALITY REQUIREMENTS TABLE 11 (formerly USF956)

QUALITY RECORDS					
Type of Record	No. of Copies	Submit		Retention	
		To Whom	Date Required	Retain By Whom	Minimum Period (Years)
report complete (soft copies only)	1	IDP, TCCS	June 2022		