















Quality Safety Environment



CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

CONSTRUCTION TRAFFIC MANAGEMENT PLAN

Jordan Springs Stage 1 & 2 – DA18/0655 & DA18/0678

JORDAN SPRINGS RETIREMENT LIVING, STAGE 1 & 2 Construction Traffic Management Plan

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1. INTRODUCTION

1.1. APPLICATION

The conditions of consent for DA18/0655 and DA18/0678 require the preparation of a Construction Traffic Management Plan (CTMP) prior to the issue of a Construction Certificate. This CTMP has been prepared by J. Wyndham Prince to satisfy the conditions of consent.

The preparation of a CTMP is generally the responsibility of the principal contractor who is responsible for all matters relating to Workplace Health and Safety, and the contractor will be required to prepare his own detailed CTMP before the commencement of any works on site.

This CTMP has been prepared for Jordan Springs Stages 1 & 2 as a guideline for a contractor (yet to be appointed) to manage health, safety and environmental risks posed by external traffic to workers and other persons (including travelling public) while construction or maintenance work is occurring on, or adjacent to, roads. A Vehicle Movement Plan must be developed for projects with internal traffic, and plant-people interactions.

1.2. SCOPE

The use of an integrated management approach aims to produce work to a high quality, in an environmentally conscientious manner and, with the health and safety of all staff and public considered.

2. PROJECT OVERVIEW

2.1. PROJECT OVERVIEW

This document has been prepared for contract Jordan Springs Stages 1 & 2.

Project Start: May 2019

Project Completion: December 2019

2.2. DESCRIPTION OF WORKS

Works will be carried out by the contractor to produce 31 residential lots (Stage 1) and 51 retirement villas (Stage 2) within the areas shown on the site plan in Annexure A.

The works include but are not limited to:

- Site clearing.
- Bulk earthworks.
- Intersection works on Jordan Springs Boulevard.
- Subdivision roads and drainage works.
- Utility services potable water, sewer, electrical reticulation, telecommunications and gas.
- Concrete footpaths.
- Landscaping works to road verges.

Regarding the above works, the Contractor shall make allowance for all requirements associated with the relevant Authorities, including Penrith City Council, Jemena, Sydney Water and Endeavour Energy.

3. MANAGEMENT

Position	Name	Contact Number	Email
Project Manager	TBA		
Project Engineer	TBA		
Site Safety Representative	TBA		
Site Supervisor/Foreman	TBA		
Superintendent	ТВА		

3.1. TRAFFIC CONTROL PROVIDER

For this project the nominated Traffic Control Provider will be (TBA) who will have qualifications in Traffic Management Design for the design of Traffic Control Plans (TCPs), traffic control devices and competent and accredited traffic controllers.

Company	Name	Role	Contact details
ТВА		Supervisor	

3.2. SITE CONTACTS AND OUT OF HOURS REPRESENTATIVES

The following personnel will be available to address traffic management issues outside of normal working hours:

Position	Name	Contact Number	E-mail
Superintendent	ТВА		
Senior Foreman	ТВА		

When required, an account will be set up with a local tow truck removal (including the provision for removal of heavy vehicles) company, who will be on 24 hour standby notice. This number and details will be explained to all site personnel and passed on for display in the crib shed and site offices.

4. ROLES AND RESPONSIBILITIES

This section outlines the responsibilities of the contractor's staff members in the development and implementation of the traffic management strategies detailed in this document. All site Subcontractors will be required to safely work to the requirements of this document within their specific scope of works.

Project Manager Ensure traffic management operations are risk assessed prior to project commencement and at task level. Risk assessment to be detailed in the project's risk register; Ensure a Traffic Management Plan, Vehicle Movement Plan – or both – is developed and implemented on the project; Ensure compliance is maintained across the project in relation to requirements of this Traffic Management Plan; Ensure competent and qualified Traffic Personnel (internal or external) are appointed for the development and implementation of the Traffic Management Plan, placement of signage, and controlling of traffic; Implement processes to ensure adequate records are maintained of the completed Daily Traffic Management Checklist; Develop an audit schedule to ensure audits are conducted of the approved Traffic Management Plan and or traffic management operations; Ensure all traffic incidents are reported and recorded as per the Incident and Accident Management Standard: and • Liaise with identified stakeholders during the project construction. **Project Traffic Representative (as delegated by Project Manager)** Develop, implement and review the Traffic Management Plan, Construction Staging Diagrams and . Traffic Control Plans (TCP) Full awareness of all traffic management issues and planned control measures; . Provide technical additional expertise to improve safety and investigate innovative ideas to improve • staging and develop complex Traffic Control Plans as required; Obtain and manage required permits and approvals. Liaise with all relevant stakeholders; • Take responsibility for monitoring and quantifying delays, measuring queue lengths and maintaining . and adjusting traffic control /devices to assist prevailing traffic flows for the duration of the construction phase; Must hold a relevant (State) Traffic Management gualification to enable the development and . implementation of the project traffic management plan and Traffic Control Plans; Organise Road Safety Audits (internally or externally) as required for the project; . Ensure relevant persons complete the Daily Traffic Management Checklist including details of any non-. conformances and corrective actions, details of any changes to traffic control devices, details of traffic controllers on site, etc.; Ensure all changes are documented during inspections, with the relevant control drawings updated as soon as practicable.

Site Foreman/Supervisor

- Review and implement the Traffic Management Plan, Vehicle Movement Plan, or both;
- · Full awareness of all traffic management issues and planned control measures;
- Ensure adequate management of dust control of the site works, so that no nuisance is caused to the Client/Stakeholders;
- Provide construction support to the Traffic Representative during development of the project TMP and associated TCP;
- Input into the development of the project's Vehicle Movement Plan (VMP) and progressive updates as required;
- Regular site inspections to ensure all traffic management measures including signage, fencing etc. are installed as per the relevant plan and in good working order;
- · Report all observed inadequacies in management measures to relevant staff for action;
- Ensuring all relevant site employees and Subcontractors are aware of the traffic management strategies recorded in this Traffic Management Plan by method of <u>Toolbox Talks</u>.
- Liaison with the Traffic Representative on <u>Corrective and Improvement Actions</u> in response to noncompliance.
- · Daily inspections of traffic control devices and coordination of maintenance as required;
- Monitor the correct implementation of TCPs and the requirements of this document on a day-to-day basis.
- Ensure relevant persons complete the <u>Daily Traffic Management Checklist</u> including details of any nonconformances and corrective actions, details of any changes to traffic control devices, details of any traffic controllers onsite etc and;
- Ensure relevant persons complete the Road Safety Barrier Checklist on a weekly basis, where required.

HSE Personnel

- Ensure all traffic management operations conform with local legislative requirements and national standards;
- Ensure daily inspections of traffic management operations are conducted and recorded on the <u>Daily</u> <u>Traffic Management Checklist;</u>
- Ensure all competent workers involved in traffic management operations are recorded in the <u>Project</u> <u>Training and Competency Registers</u>

Traffic Controller

- Must hold appropriate state/territory issued accreditation to perform traffic control duties.
- Implement and monitor approved Traffic Control Plans as required
- Maintain records of implemented traffic control devices including regular check including before, during and after implementation. Regular checks are to be performed throughout the duration of the shift.
- Ensure the Traffic Controller Ahead/PREPARE TO STOP sign is removed when work is suspended throughout a shift, or completed for the day.

All Other Employees

- Adherence to this document requirements at all times.
- Adoption of a responsible and safety conscious attitude towards traffic management issues at all times.
- Report to relevant staff the effectiveness of, and suggested improvement to, non-compliant traffic management practices.
- General safety maintenance and monitoring of all public interfaces throughout the works.
- Comply with all traffic management requirements and procedures.

-

 Ensure work is not conducted that requires a competent person under the standard, or interfere or alter traffic control device.

5. ROAD USERS

The following is a list of road users that are considered in the preparation of this document:

- Local traffic, including employers, employees, their clients and general public.
- Emergency Vehicles.
- Local Stakeholders and their visitors.
- Heavy vehicle's transporting goods.
- Personnel working on site.
- Delivery vehicles.
- Pedestrians.
- Cyclists.
- Public Transport.
- Blind, wheelchair bound and aged persons.
- Subcontractor works.

6. TRAFFIC MANAGEMENT

6.1. DOCUMENTS FOR REFERENCE

The following documents are available for all workers on site for information. These documents contain information such as where category drivers can travel and further information on driving. They are listed as follows:

6.2. TRAFFIC CONTROL PLANS

Traffic Control Plans (TCPs) are to be prepared by a suitably qualified Roads and Maritime Services accredited work site traffic designer and submitted to the Principal/Superintendent for approval, for each individual traffic arrangement, rearrangement, configuration and sequence duration required as the job progresses. TCPs are to be prepared and submitted for approval prior to works, on an ongoing basis.

All TCPs have incorporated the following principles:

- On-site communication is detailed in the <u>Safety Management Plan</u>
- Access will remain to all businesses.
- Provision will be made to ensure safe access for pedestrians through the works.
- Emergency Vehicles will be given free uninterrupted access through the work area at all times.
- All TCPs will be designed and staged to ensure minimum disruption to existing road users.
- All TCPs adopted will ensure that the safety of workers is maintained.
- Maintenance of a safe workplace will be carried out in accordance with the (relevant state/territory manual, e.g. Manual of Uniform Traffic Control Devices (MUTCD): Part 3) and the contract.
- Traffic control devices will be designed and installed in accordance with the requirements of Roads and Maritime Services.
- Traffic control devices are to provide adequate advance warning and guidance to road users through the work area and past the work area.
- All signage and delineation will conform to the requirements of the Roads and Maritime Services.

- Capacity will be provided on site to provide basic emergency traffic control that may be required at an incident. Such items will include cones and signs.
- Dry absorbent materials and a Spill Kit will be available on site to clean up spills from work and traffic incidents.
- All temporary barriers will be selected considering the <u>Road Safety Barrier Guidelines</u>. Locations of these barriers will be outlined in the TCPs.
- The haul routes will be maintained by a road sweeper and water cart where necessary to prevent foreign object damage (FOD) on the routes.
- Emergency escape routes for traffic controllers.

6.3. PERIOD OF LANE CLOSURES

No traffic or parking lanes are envisaged to be closed. If circumstances arise where this will have to occur, the contractor will discuss this with the client prior to completing the works.

6.4. SHORT TERM UNPLANNED AND EMERGENCY TRAFFIC CONTROL

There are many instances where implementation of emergency traffic controls may be required on site, these include but are not limited to:

- Vehicle break down/accident;
- Immediate rectification of a hazard and documentation of change. Where the risk of leaving the hazard until the next regularly available opportunity (e.g. under lane closure permit at night time) is deemed too great by the safety and/or traffic representative.

Such works should still be planned prior to implementation onsite. All emergency traffic control must be approved the Safety and/or Traffic representative. The client and road authority must be informed prior to implementation.

The works must be planned in advance by the Site Superintendent or Foreman and all works incorporated into the TCP. The Foreman / Engineer are to communicate on a regular basis with the Traffic Representative to ensure that the TCP accounts for all activities. In the case that this is not possible, the Site Superintendent or Foreman is to implement the following procedure to safely accommodate the short-term works/unplanned activity. The person responsible for implementation of the short-term works traffic control needs to be appropriately qualified.

6.4.1. RISK ASSESSMENT

In all cases, a risk assessment needs to be conducted to identify risks and establish control measures and an effective traffic control strategy. The <u>Work Method Statement</u> (WMS) for short term works must be used in conjunction with a <u>JHA Card</u> for addition of any risks specific to the task. Common factors considered are inclement weather, traffic volumes, road geometry, speed of vehicles, peak hour, visibility, existing traffic control in place, number of controllers available and pedestrians. This risk assessment is to be carried out in accordance with the <u>Risk Management Standard</u> and the results recorded in the <u>Risk Register</u>.

6.4.2. TRAFFIC CONTROL PLAN CONTROL MEASURES

The current TCPs must be marked up with the control measures to be implemented and used as a tool in briefing all concerned with the works regarding the traffic control devices and control measures to be used. In some cases, a generic plan from the AS 1742 of NSW, which is appended to the short term works <u>WMS</u>, may be implemented.

For small short term traffic diversions (e.g. constructing local access points, etc.) this will be agreed and managed in accordance with the AS 1742 of NSW, with a TCP documenting this traffic deviation.

6.5. TRAFFIC CONTROL DEVICES

Traffic Control Device (TCD) conditions are listed as follows:

- All temporary signage will be manufactured and installed in accordance with the AS 1742 of NSW and specifications.
- Temporary pavement markings will be installed in accordance with the AS 1742 of NSW and consist of marking paint, tape or temporary raised pavement markers as approved by the Administrator.
- All traffic control devices will be maintained on a regular basis (both day and night), securely fixed in the correct position. Inspections of all devices will be carried out daily to monitor their effectiveness.

6.6. TRAFFIC SPEEDS

Traffic speed through the construction works will be maintained as normal where possible but due to the methodologies and activities that will need to take place within or adjacent to the existing corridor traffic speeds reductions will be implemented to manage the safety of the worksite, workers and road users. The speed limits in each direction shall be maintained. Where required lateral shifts, temporary line marking and/or delineation shall be used to maintain the lane widths and allow the construction adjacent to the road.

The traffic speeds implemented for the construction works will be as per the AS 1742 of NSW and implemented by qualified traffic controllers.

Traffic devices utilised for the areas of works, protection of site hazards/obstruction, or to provide a clear path of travel for road users will be based on a risk assessment which will be captured within a TCP for the specific area identifying the devices to be utilised for e.g., bollards, road safety barriers, barrier boards etc.

6.7. TEMPORARY PAVEMENTS

All temporary pavements will be constructed to a standard suitable (as per the Client's specifications) to provide safe, all weather access for the full period that the temporary pavement will be in use.

7. SITE MANAGEMENT

7.1. SITE ACCESS AND EGRESS

All construction traffic will use approved access and egress points. A Heavy Vehicle Movement Plan designates routes for heavy vehicles arriving at and departing from the site and is appended in Annexure B. This plan needs to be communicated to all heavy vehicles driven accessing the site.

This will be communicated to all workers through the <u>Site Induction</u>, regular <u>Toolbox Talks</u> and all suppliers and drivers will be informed at the time of placing the order via the delivery driver's induction. Entry and exit protocols will also be outlined and communicated to personnel via approved work method statements

There are a number of controls that have been utilised to assist co-ordinate vehicle movements inside the work areas:

- Site speed limits and signage.
- Gate keepers/spotter.
- UHF communications.
- Toolbox and Prestart talks.
- Site and delivery inductions.
- Vehicle movement as identified for work areas.
- Clear routes on blind corners and/or crests.

Site access and egress will be closed up during no work period to prevent unauthorised entry or access of road users.

7.2. CONSTRUCTION VEHICLES

All work vehicles including subcontractor and delivery vehicles must operate in a safe and law-abiding manner at all times. Flashing lights mounted on construction related vehicles shall be turned off when travelling on public roads. Vehicles will not unnecessarily delay traffic at any time;

Vehicles must comply with all legislative requirements including being roadworthy, complying with load limits (width, length, height and mass unless permitted otherwise), be legally registered and meet all no-parking or no- standing requirements;

As per the Vehicle Movement Plan, approved haul routes will be communicated and enforced to minimise disruption to motorists, and facilitate road safety. All delivery drivers must comply with the NSW Chain of Responsibility legislation, report to site office prior to proceeding on site. Deliveries of materials will be undertaken outside peak hours where practical. Appropriate warning and advisory signage will be installed along the project route particularly where site access is required.

All construction traffic will use approved gates for access to the construction site, as approved through the TMP, TCP and VMP process. This will be communicated to all workers through the Site Induction, regular Toolbox Talks and all suppliers and deliveries will be informed at the time of placing the orders or delivery driver's induction.

All construction vehicle will be parked in a fundamentally stable position on the completion of a shift at a minimum of 9 metres from a trafficable lane. In situations where this is not achievable or practical approval

will be granted from the client's or authority's Administrator/Superintendent the construction vehicles will be delineated with adequate traffic devices for (e.g. bollards or barrier boards).

Where practical, deliveries of bulk materials will be brought in off-peak times to minimise the impacts to congested roads.

7.3. USE OF EXISTING ROADS

Use of existing roads will be generally between 6:00am and 6:30pm, Monday through to Saturday. Vehicle movements will be monitored by the contractor with site management and adjustments made as necessary to minimise disruption to local businesses.

7.4. ENTRANCES TO PRIVATE PROPERTY

Works must be carried out in a manner such that existing entrances to private properties shall be maintained in useable condition during the period of construction.

Any properties that will have unimpeded access, requiring new arrangements will be agreed in writing and communicated well before removing existing formations.

7.5. DUST CONTROL

During construction, particularly during earthworks activities dust will be managed with water carts, sweeper trucks and rumble grids if identified at exit points to public roads. Sweeper trucks will only be permitted to operate outside peak periods unless operating under an approved traffic management plan.

The Foreman will monitor vehicles egress points and if any issues are identified will arrange adequate action to be taken to correct the issue.

8. Monitoring and Recording

8.1. Traffic Control Plan Inspections

Nominated person will conduct regular inspection of all TCPs on a daily basis including before, during and after their implementation. This information will be documented in records and supplied to the Traffic Representative or nominated person for recording.

8.2. Daily Inspections

The Site Foreman or nominated person will be responsible for completing daily AM and PM inspections of long term traffic management arrangements against the approved (TCPs) and record the information using the <u>Daily Traffic Management Checklist.</u>

8.3. Weekly Inspections

The Traffic Representative will undertake weekly inspections of all road safety barriers and if any are damaged or missing, arrangements will be made for reinstatement immediately and documented appropriately. The information will be recorded in the <u>Road Safety Barrier Checklist</u>.

8.4. Complaints

All complaints relating to traffic management issues will be recorded in the <u>Corrective and Improvement</u> <u>Actions</u> <u>database</u> within 48 hours and promptly investigated as addressed in the <u>Integrated Project</u> <u>Management Plan</u> (IPMP).

8.5. Non-Conformances

The contractor employees shall be aware of the requirements of this document and be alert for any non- conformances. Non-conformances shall be reported in the <u>Corrective and Improvement Actions</u> <u>database</u>, which shall include details of the non-conformance, corrective actions proposed and details of preventative action to avoid a reoccurrence.

8.6. Road Safety Audits

A post traffic <u>Road Safety Audit Checklist</u> will be completed by the nominated Traffic Representative and a road safety audit will be completed by independent third party (where requested by the contract), before opening the road to traffic, or within 24hrs after the initial implementation of the TCP. Any high risk items identified will be rectified immediately (or within 24hrs). The audit and any identified audit findings and suggested actions are to be recorded within the Contractors Audit Database.

9. Accident and Incident Reporting and Investigation

Accidents involving vehicles and/or pedestrians within the boundaries of this project shall be reported and investigated by the contractor as soon as practicable. Incident/accident reporting and investigation will be conducted in accordance with the <u>Incident and Accident Management Standard</u> and the site

If required before emergency services take control of the site the nominated Incident Response Team Co-Ordinator will take charge of the site and will take the appropriate steps to manage identified issues in the below table:

Incident	Actions to be taken	
	1. /	Attend accident site if available.
	2. I	f necessary call 000.
		Assist any injured persons if safe to do so, movepersons away from any imminent danger i.e. Leaking fuel or fire.
		If possible use traffic controllers to direct traffic around the accident to keep traffic flowing.
Accident or breakdown	١	Contact the contractor's Traffic Representative who will notify the client's or authority's Administrator/Superintendent.
Accident or breakdown		Coordinate a light vehicle tow truck or the Heavy Vehicle Recovery Unit (HVRU) if required.
		Assist with directions to get emergency services to ocation of accident.

8. Provide assistance as directed by emergency services.
9. Record details of the incident as per Incident and
Accident Management Standard and provide report to
the contractor's Traffic Representative.
10. The contractor's Traffic Representative and Site
Superintendent to review incident and take appropriate
actions.

10. Staging

10.1. Traffic Control Plan

The project works will be constructed with the use of the Traffic Control Plans (TCP) as required.

10.2. Short Term Unplanned and Emergency Traffic Control

There are many instances where implementation of short term traffic controls may be required on site, these include but are not limited to:

- Vehicle break down.
- Works that are required to be done but have not been accounted in a TCP.
- Maintenance activities that arise as a result of wet weather etc.
- Materials delivery.

Implementation of short term works is a last resort measure. The works should be planned in advance by the Foreman and all works incorporated into the TCP. The Foreman / Engineer are to communicate on a regular basis with the Project Manager to ensure that the TCP accounts for all activities. In the case that this is not possible, the Foreman is to implement the following procedure to safely accommodate the short-term works/unplanned activity. The person responsible for implementation of the short-term works traffic control needs to be appropriately qualified. **ANNEXURE A – Site Plan**



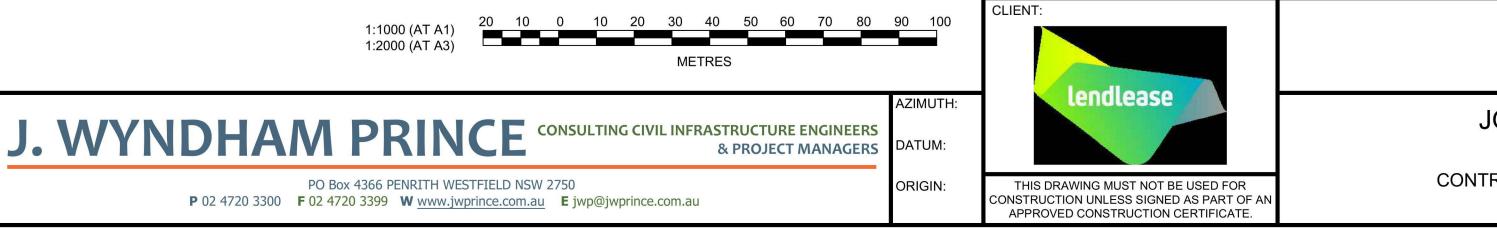
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LEGEND STAGE BOUNDARY

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STAGE 1
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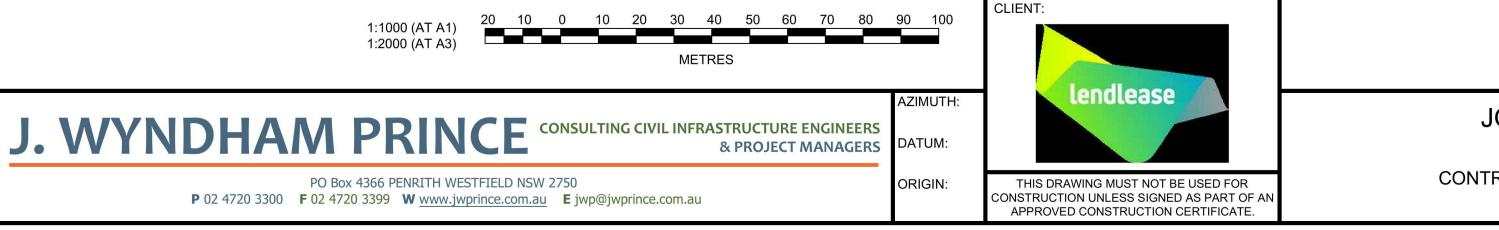
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STAGE 2		
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LEGEND

STAGE BOUNDARY

ANNEXURE B – Heavy Vehicle Movement Plan



6940—Jordan Springs Stage 1 Retirement Living Heavy Vehicle Movement Plan



Heavy Vehicle Arrival Heavy Vehicle Departure

