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PRELIMINARY CONSTRUCTION MANAGEMENT PLAN

Warehouse and Logistics Hub, Orchard Hills

State Significant Development Application (SSD 7173)

March 2016

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1. INTRODUCTION

Hansen Yuncken on behalf of ALTIS Property Partners have prepared a Preliminary Construction Management Plan (CMP) for the infrastructure and earthworks of the site known as 585-649 Mamre Road, Orchard Hills and the three warehouses that form stage 1 of the SSDA. The site is located in the South East corner of the Mamre West Land Investigation Area fronting Mamre Road and is within the Penrith Local Government Area. The CMP will form part of the State Significant Development (SSD) application for which the Secretary's Environmental Assessment Requirements (SEARs) were issued on 11 September 2015, identifying the application number for the project as 'SSD 7173'.

Specifically, the SEARs requests a "*Construction Management Plan, inclusive of a Construction Traffic Management Plan and construction methodology*" which is provided for the Department of Planning and Environment (DP&E) as part of the planning application. The proposed Warehouse and Logistics Hub at 585-649 Mamre Road, Orchard Hills is approximately 49 hectares and the scope of the application (and hence this CMP) includes the following:

- Subdivision;
- Land Clearing;
- Bulk and detailed earthworks;
- Construction of estate infrastructure;
- Estate landscaping; and
- Built form to lots 7, 8A and 8B

The final development is proposed to be a warehouse and logistics hub with industrial type uses which will require additional planning approvals separate to the SSD application.

This Preliminary CMP will serve as a reference document for the selected contractor of the infrastructure upgrade works and a Final Construction Management Plan will be finalised. Both CMP's will ensure the impacts of construction works on the public domain are accounted for, particularly impacts on traffic, health, safety, amenity and the environment.

The CMP will also include a preliminary Construction Traffic Management Plan (CTMP) which similar to the CMP, will be finalised by the Contractor selected for the infrastructure upgrade and earthworks when further detail is progressed. The CTMP will consider temporary interruptions to vehicular and pedestrian traffic during the construction works and amplification of services and ensure public safety is maintained and any interruption to the use of public space is minimised.

2. PRE-CONSTRUCTION

In the initial site assessment and in preparation of the planning application for DP&E as a State Significant Development (SSD), extensive reporting has been completed for the proposed Warehouse and Logistics Hub. The following assessments are among those completed for the proposed development:

- Environmental Impact Statement
- Phase 1 Environmental Site Assessment
- Geotechnical Investigation Report
- Detailed Site Survey
- Architectural Plans and Landscaping Plans
- Earthworks and Stormwater Management Plans
- Traffic Impact Assessment
- Noise and Vibration Assessment
- Waste Management Plan
- Air and Odour Assessment
- Biodiversity Assessment
- Contamination Assessment
- Aboriginal Cultural Heritage Impact Assessment
- Non-Aboriginal Heritage Impact Assessment
- Bushfire Assessment
- Ecologically Sustainable Development Report
- Economic Impact Assessment
- Consultation Report
- Construction Traffic Management Plan

These reports will be factored into the both the preliminary and final CMPs.

3. CONSTRUCTION

a. Scope of works

The planning application for the proposed Warehouse and Logistics Hub and CMP relate to the following works for proposed development:

- Subdivision;
- Land Clearing;
- Bulk and detailed earthworks;
- Construction of estate infrastructure;
- Estate landscaping; and
- Built form to lots 7, 8A and 8B

The CMP addresses the broad principles and methodologies which will be utilised to control impacts on items such as environmental and traffic aspects which arise as a result of the construction works.

Further specification will be provided in the Final CMP regarding the following key sites issues:

- Ingress and egress of vehicles to the subject site;
- Loading and unloading, including construction zones;
- Construction traffic and construction car parking arrangements;
- Pedestrian management methods;
- Site Security;
- Site Inductions;
- Construction Zones;
- Erosion and Sediment Controls;
- Emergency Management.

b. Project Programme

Ultimately the timing of the works will be dictated by planning approvals and the demand for lots of the market. The infrastructure of the project will be staged subject to market demand.

c. Hours of work

Hours of work for the proposed site development will be restricted to the following (subject to approval from Penrith City Council):

- Monday to Friday 7:00am to 6:00pm
- Saturday 7:00am to 1:00pm
- Sunday & Public Holidays No work

The Contractor can apply to ALTIS Property Partners the proposed working hours if necessary.

d. Subdivision

The project team has completed various assessments which impact on the proposed design of the lot layout including earthworks, existing title boundaries, stormwater drainage, geotechnical investigation and others. All factors have been considered in preparation of the layout and a registered surveyor has prepared a draft Plan of subdivision as part of the planning application.

e. Bulk and detailed earthworks

The detailed survey shows that earthworks including importation of fill will be required to provide the separate pads and levels as proposed at 585-649 Mamre Road, Orchard Hills. A full investigation of earthworks and retaining is included in the Civil and Environmental Engineering Report and Plans.

f. Construction of estate infrastructure

The Public Utility Infrastructure Servicing Report details the utilities amplifications required to service the site based on capacities generated by the proposed uses. In summary:

- Potable water: Potable water can be supplied to the subject development from Erskine Park Elevated reservoir. An Existing (250mm) water main is available at Mamre Road
- Sewer: Waste water reticulation lead in mains can be constructed along Mamre Road from the existing (750mm) trunk sewer main (Mamre Road carrier) to the site.
- Power: Endeavour Energy formally responded that the electrical feeder adjacent to the precinct, and within Mamre Road corridor, can supply electrical services to the development.
- Gas: Existing Jemena network main (110mm) system is adjacent to the site within Mamre Road. This main will provide reticulation services to the Mamre West Precinct.
- Telecommunications: Substantial telecommunications asset exist in the immediate area supplying the surrounding industrial developments. Extensions of these systems to service the Mamre West precinct will occur. Existing fibre-optic and copper cables are adjacent to the site within the Mamre Road corridor

Access will be provided by temporary intersection arrangements at Mamre Road.

g. Estate landscaping

Although much of the landscaping will be addressed on a lot-development basis, ALTIS has endeavoured to provide a detailed assessment upfront for the estate. Included in the planning application is a Landscape Concept Plan which addresses the landscaping works which will be completed with the infrastructure upgrades and earthworks such as treatment along Mamre Road, estate boundaries and the internal access road.

4. ENVIRONMENTAL

The purpose of the Preliminary CMP is to provide a reference document and outline key items which must be addressed in the final version. This document is specific to Orchard Hills Warehouse and Logistics Estate and will assist DPE and Penrith City Council (PCC) to assess the planning application.

a. Sedimentation

Due to the extent of the proposed bulk earthworks at 585-649 Mamre Road, Orchard Hills, the Contractor will be required to manage the volume of sedimentation created as a result of construction-associated works and avoid sedimentation entering the local stormwater system. Sedimentation control will be measured by:

- Visual inspection of the sedimentation control measures utilised and the volume of silt trapped.
- Regular audits conducted by the Contractor of the sedimentation control procedures and practices.
- Relevant authorities including PCC, the Environmental Protection Authority (EPA), and the Soil Conservation Service.

To reduce the environmental effects of erosion and sedimentation the following measures may be utilised by the Contractor (or the respective sub-contractor):

- Silt fences are to be placed around the perimeter of the work area.
- Sand, hay bales or gravel bags require being used to protect inlets and direct flow.
- Sediment collected on silt fences or around sandbags will be disposed within site landscaping or in other suitable locations.
- Vehicles must enter and leave the site on the access driveway to limit the tracking of mud and/or soil on to public roads.
- Muddy or dirty vehicles must go through the site washout bay before leaving site to limit the tracking of mud and/or soil on to public roads.
- Preserve as much grassed or vegetated area as possible to filter sedimentation from stormwater runoff.
- All soil, sand and cement stockpiles should be placed wholly on the construction site and behind a sediment barrier. These stockpiles should also be covered at the end of each day if rain or excessive wind is likely.
- Activities that generate surplus wastewater with sediment (such as masonry cutting) must only be carried out on site. This wastewater should be recycled or discharged into a contained area for drying by soakage.
- Should dirt and/or mud traffic onto public roads and footpaths, site staff must sweep rather than hose off the sediment.
- Undertake dewatering of trenches, excavations (etc.) when necessary, ensuring that the water is taken away from site and disposed at a location approved by the EPA and/or relevant authorities. This water cannot be deposited into the local stormwater system.

b. Dust Control Plan (DCP)

The DCP will aim to minimise the amount of dust generated, reduce the nuisance that dust may cause to the community and site personnel and ensure the dust is controlled in accordance with the EPA guidelines so as to minimise the impact on air quality.

To ensure that all site personnel adequately control the creation and spread of dust, the Contractor may monitor the site workers by:

- Visually viewing site works and utilising digital photos to record and witness dust control procedures during random site inspections.
- Undertaking audits on a regular basis to review dust control procedures and practices.
- Reporting on a monthly basis to the Project Control Group. Such reports to include:
    - Relevant Trade Contractor reports for the period.
    - Other Important information / events that generated dust and how it was controlled (if not covered by the Trade Contractor reports).
    - Overall assessment of dust control practices and procedures for the month.

During dry conditions, on-site construction activities have the potential to generate dust. The following activities are those identified as a specific potential source of dust generation:

- Earthmoving activities including clearing of topsoil;
- Movement of vehicles and construction machinery;
- Stockpiling of materials; and
- Build-up of material around erosion and sedimentation controls.

To reduce the environmental nuisance of dust generation, Trade Contractor's and site staff should implement the following measures:

- In the event of dust levels on site becoming a nuisance or unacceptable, introduce controls such as ground watering.
- Cover trucks transporting material from the site immediately after loading to prevent wind-blown dust.
- Where or whenever necessary, erect appropriate barriers to control dust generated as a result of construction-associated works.

c. Noise Control Plan (NCP)

585-649 Mamre Road, Orchard Hills is generally located in amongst open fields and rural residential holdings however the Contractor will ensure construction noise impacts from the site are managed so as to minimise the disturbance to surrounding property owners, in accordance with EPA guidelines.

Acoustic Logic Consulting has prepared a "Noise and Vibration Impact Assessment" as requested in the SEAR's which should be consulted prior to commencement.

d. Water Management Control Plan

The Contractor is to implement water-saving practices and technologies to ensure on-site water consumption is minimised. This will be monitored through visual inspection by the Contractor to ensure measures are being actively utilised by sub-contractors.

To ensure that all site personnel adequately control the consumption of water, the Contractor will monitor site staff by:

- Visually viewing site works and utilising digital photos to record and witness water management procedures during random site inspections.
- Undertaking audits on a regular basis to review water control procedures and practices.
- Reporting on a monthly basis to the Project Control Group. Such reports to include:
    - Relevant Trade Contractor reports for the period.
    - Other Important information / events that reduced water consumption (if not covered by the Trade Contractor reports).
    - Overall assessment of water management practices and procedures for the month.

To increase the environmental benefits of reducing water consumption and recycling water, the following measures should be undertaken by the Contractor and sub-contractors as a minimum during the construction works:

- Introduce waterless urinals to the site amenities.
- Educate site workers about water consumption and simple measures to save water (e.g. utilise collected rainwater for cleaning equipment, ensure taps are not left running etc.)

e. Waste Management Control Plan

In order to reduce onsite waste during the construction process due to waste water recycling and re-use practices plus to minimise the project's contribution to landfill, the Contractor implement an assessment strategy which measures the volume of materials recycled, re-used or taken to landfill and carry out inspections to ensure waste management procedures are being implemented by site staff.

To ensure that all site personnel adequately control waste, the Contractor will monitor site staff by:

- Visually viewing site works and utilising digital photos to record and witness waste management procedures during random site inspections.
- Undertaking audits on a regular basis to review waste management procedures and practices.
- Reporting on a monthly basis to the Project Control Group.

To increase the environmental benefits of reducing waste, the following measures should be undertaken by the Contractor and site staff:

- Separate waste generated during the construction process into the appropriate recycling containers / bins provided.
- Return unnecessary and/or unwanted packaging back to the supplier so as they become aware that such packaging is not required.
- Promote participation in local and state authority waste reduction policies.

Waste Avoidance Measures:
The Construction Site Manager will identify opportunities for waste avoidance by:

- Minimising site disturbance and eliminating unnecessary excavation;
- Stripping topsoil from areas subject to excavation and storing it on site for re-use;

- Selecting construction materials taking into consideration to their long lifespan and potential for reuse;
- Identifying likely waste amounts generated and incorporating these volumes into a purchasing policy so that the correct quantities are purchased;
- Ordering materials to size and ordering pre-cut and prefabricated materials;
- Reuse of formwork (where possible);
- Planned work staging and delivery arrangements of materials so materials are delivered as needed;
- Co-ordination and sequencing of various trades;
- Careful on-site storage and source separation;
- Ensuring that separated materials are kept uncontaminated to guarantee the highest possible reuse value; and
- Subcontractors informed of site waste management procedures.

The following procedures are to be implemented:

- Appropriate sorting and segregation of site preparatory and construction wastes to ensure efficient reuse and recycling of wastes;
- Concrete, tiles (where applicable) and bricks will be reused or recycled off-site;
- Steel will be recycled off-site, all other metals will be recycled where economically viable;
- Framing timber will be reused on-site or recycled off-site;
- Windows, doors and joinery will be recycled off-site (where possible);
- Waste oil will be recycled or disposed of in an appropriate manner;
- All used crates will be stored for reuse unless damaged;
- All glass that can be economically recycling will be;
- All solid waste timber, brick, concrete, rock that cannot be reused or recycled will be taken to an appropriate landfill site and disposed of in an approved manner;
- All asbestos, hazardous and/or intractable wastes are to be disposed of in accordance with WorkCover Authority and EPA requirements;
- Provision for the collection of batteries and other recyclable resources will be provided on site;
- Beverage container and paper/cardboard recycling will be provided on-site for employee use or these items will be sorted recycling at an appropriately licensed facility;
- All garbage will be disposed of via a council approved system;
- Wash-down of equipment / plant / machinery and concrete delivery trucks will occur within a specified, appropriately bunded bay (or concrete delivery trucks will return to the batching plant before washing out). Liquid waste is often produced from the washing down of plant and apparatus. There may be a local sewer that this waste water can be connected to; alternatively, this could be transferred into a localised waste water treatment facility or plant;
- Refuelling activities will be undertaken in designated areas with appropriate spill containment measures to avoid overspill to sensitive areas; and
- Portable, self-contained toilet and washroom facilities will be provided at the site ensuring these units are regularly emptied and serviced by a suitably licensed contractor.

5. TRAFFIC

This section of the Preliminary CMP and the attached Preliminary Traffic Management Plan (*Appendix A*) are provided as reference for preparation of final management plans to be completed prior to approval of any construction certificates. This report should be considered in conjunction with the Traffic Impact Assessment completed by 'Ason Group' for the Warehouse and Logistics Hub project.

The Final Traffic Management Plan should provide detailed assessment of the following:

- Access and egress to the proposed Warehouse and Logistics Hub at a designated and assessed location.
- Pedestrian access in vicinity of the site.
- Safety measures for public road users and pedestrians.
- Entry of vehicles onto the public road network (e.g. washed so as to not spread mud over roads).
- Effect of the construction works on local residents and their expected vehicle movements and the impact on the existing road network.
- Parking spaces on-site to cater for essential personnel and services

APPENDIX A: Preliminary Traffic Management Plan

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1 INTRODUCTION

Scope of this report
This document covers the traffic management details as requested in the Secretary's Environmental Assessment Requirements

ALTIS Property Partners is proposing to sub develop the site located at 585-649 Mamre Road, Orchard Hills as shown on Figure 1, below. Earthworks are described separately in documentation by Costin Roe Consultants.

Figure 1 Site Location

2 DEFINITIONS & ABBREVIATIONS

The following definitions and abbreviations have been used in this Traffic Management Plan. Further definitions and abbreviations are provided in referenced procedures and plans.

CORP	Hansen Yuncken Corporate
HSE	Health, Safety & Environment
HY	Hansen Yuncken Pty Ltd
PLN	HY Plan

PPE	Personal Protective Equipment
PR	Procedure
S/C	Subcontract(s) or Subcontractor(s) as the context requires
OHS	Occupational Health and Safety

3 LEGISLATION, STANDARDS AND CODES OF PRACTICE

Traffic shall be controlled in accordance with either of the following, depending on the contract or site conditions and requirements.

AS 1742.3	Manual for uniform traffic control devices, Part 3 – Traffic control devices for works on roads
SAA HB81.1 to HB81.6	Field guides for traffic control at works on roads. Part 1 to Part 6 cover various examples of work on different roads and under different conditions

4 SIGNS

The purpose of road signing or work site protection is:

- to provide a safe work area to work within; and
- to safely move traffic through, around and past a work site with minimum inconvenience.

4.1 Workers OHS

Any worker setting up temporary traffic control or modifying permanent traffic controls or directing traffic shall be suitably trained and will be issued with and use suitable PPE.

4.2 Temporary Sign Placement

HY Site Manager is responsible for the placement of temporary signs and their location. The Site Manager shall observe the following guidelines:

- be placed at least 1 metre clear of traffic paths wherever possible;
- be mounted securely;
- be placed in the driver's line of sight;
- not be obscured by parked cars, trees, etc;
- not obscure the driver's view of other signs or other traffic; and
- not be a hazard to workers, pedestrians or other road users.

4.3 Existing Signs

Any existing signs that do not apply shall be covered.

5 PEDESTRIAN PATHS

Paths shall be safe and at least 1.2 metres wide free of any obstruction to pedestrians.

6 MAINTENANCE OF EXISTING TRAFFIC FLOW

Existing traffic flows shall be maintained and only modified for short periods when other alternatives have been exhausted.

7 ROAD TEMPORARY SIGNAGE & TRAFFIC CONTROLS

The access points into the project will be indicated on a Traffic Control Plan along with Traffic Control Devices which will be put in place for the duration of the project. Temporary Traffic controls will take place from time to time to bring in long or wide loads via Mamre Road entry such as Structural Steel and Roof Sheeting.

7.1 Site Access

The main entrance and exit at the site shall be from Mamre Road, via a temporary drive way formed to access the site. This access will remain in place until completion of the internal estate road and intersection works to Mamre Road. The location of this entry and exit will ease any potential congestion of trucks exiting the site onto public roads.
Warning signs will be placed along Mamre Road in both directions at approximately 150m from the Mamre Site entry.

7.1.1 Entering Site

All vehicle drivers/operators are to enter the site compound in a slow and controlled manner. The drivers/operators are to observe the road regulations and give way to all passing traffic and pedestrians. Upon visual confirmation that all traffic and pedestrians have passed, the drivers/operators shall slowly proceed to enter the site. In instances when onsite production is slowed down, the trucks will enter and safely park on site until it is unloaded.

7.1.2 Exiting Site

All vehicle drivers/operators are to come to a complete stop at the site gate before exiting the site compound. The drivers/operators are to observe the road regulations and give way to all passing traffic and pedestrians. Upon visual confirmation that all traffic and pedestrians have passed, the driver/operator is to slowly proceed on to the roadway.

7.1.3 Truck Routes

The import fill will be transported from the source site via main roads and arterial roads such as:

- Western Sydney Motorway (M4)

- Westlink (M7)
- Mamre Road
- Erskine Park Road
- Elizabeth Drive

7.1.4 Hours of Operation

The proposed hours of onsite operation are:

- Monday to Friday 7:00am to 6:00pm
- Saturday 7:00am to 1:00pm
- Sunday and Public Holidays No work

7.2 Traffic Management Report

Whilst traffic management is in operation, the traffic controller shall complete a Traffic Management Report daily and provide a copy to the Site Manager.

8 SPECIAL DELIVERIES

Any trucks that contain long or wide loads with additional RMS requirements will have specific traffic management in place to control traffic on Mamre Road.

9 IMPORT FILL DELIVERY DETAILS

Import fill material will be sourced from a number of local sites to ease traffic congestion. The deliveries will consist of truck and trailer carting approximately 14M³. Our anticipated delivery quantity is 35 trucks per hour during the early phase of the import fill activity. This will be confirmed following detailed planning and design during the final Traffic Management Plan.