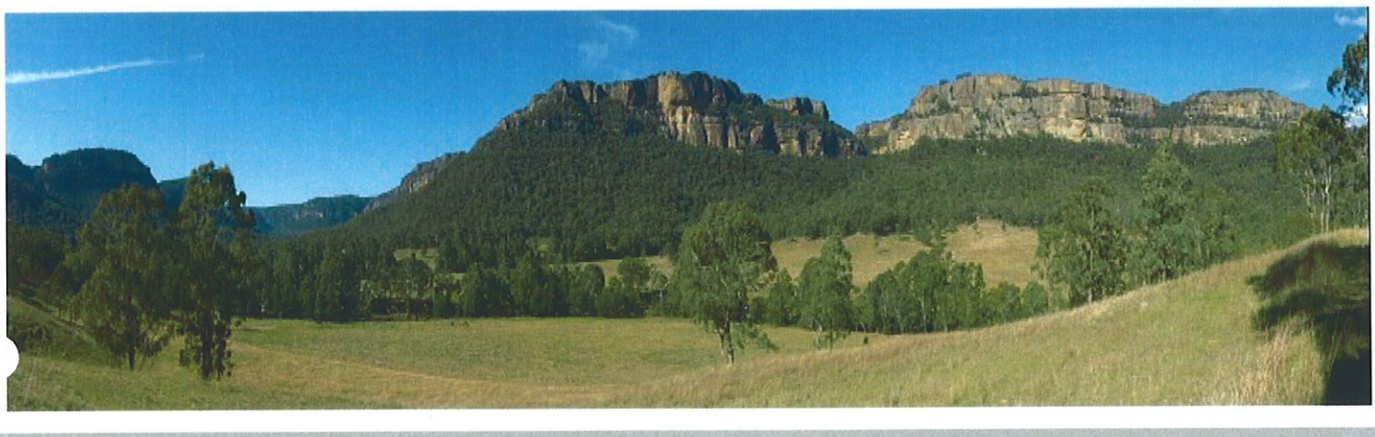

CMP – CONSTRUCTION TRAFFIC MANAGEMENT PLAN

EMIRATES WOLGAN VALLEY RESORT DEVELOPMENT

Date: November 2006

Clifton Coney Group

Redefining Project Management

a Coffey International Limited company

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CONSTRUCTION TRAFFIC MANAGEMENT PLAN (CTMP)

Purpose and Procedure

The purpose of a CTMP is to ensure that the impacts of construction works on the public domain, in particular with respect to temporary interruptions to vehicular and pedestrian traffic, are considered by the proponent and reviewed by the Department of Planning. The CTMP must ensure that public safety is maintained at all times and that wherever possible interruption to the use of public space is minimised.

Description of the Building Works

The Emirates Resort is a tourist facility that includes:

- 40 villas, with an average floor area of 115m2
- Ancillary facilities, including:
    - a main reception building with administration, gift shop, lounges, library, restaurant, bar and conference rooms
    - a spa building with a gym, change rooms, spa, sauna, pools and various treatment rooms;
- Staff accommodation for up to 90 people
- Workshops and vehicles maintenance area
- Associated infrastructure, including:
    - Road and internal access works
    - Utility works, including on-site sewage treatment and disposal works; and
    - A helipad
- Landscaping the site in 5 precincts;
- Conserving the existing slab homestead and wattle and daub hut; and
- Parking
- Horse stables
- Security Gatehouse

Duration of Construction

The preliminary construction program forecasts the following milestones:

- Award of Building Works Tender Late April 2007
- Site Establishment Early May 2007
- Construction Period of 12 months
- Practical Completion Late May 2008
- Resort Opening Late June 2008

Site Location and Existing Use

The site is located 190km (approximately 3 hours drive) north-west of the Sydney Central Business District and The Sydney International Airport on the western escarpment of the Blue Mountains. It is 35 kilometres north of the town Lithgow, and 8 kilometres south of the former industrial town of Newnes, within the Lithgow Local Government Area.

The site is contained within the 'Wolgan Valley' which is surrounded by spectacular rock outcrops and sheer cliff faces. The Wolgan Valley borders the Gardens of Stone National Park to the north and south and the Wollemi National Park to the east. These parks form part of the Greater Blue Mountains World Heritage area. Ben Bullen State Forest is located to the west and Newnes States Forest to the south-east.

Current access to the site is via Wolgan Road at the town of Lidsdale. Wolgan Road is partially tar sealed, and generally in poor state of repair. Wolgan Road is unsealed from approximately the Wolgan Gap to Newnes and beyond. The road surface from the foot of the pass is generally sub grade and slippery when wet. Caution is required on the decent into the Valley due to the narrow and winding nature of the road.

The development site itself comprises a gently sloping valley floor and is currently cleared for grazing, with interspersed blue gum trees. Two intersecting watercourses (Wolgan River and Carnes Creeks) traverse the site. Road access is available via a single road through the narrow valley to the west.

SECTION 1: WOLGAN ROAD

Existing Traffic Conditions

Wolgan Road is best described as a local collector road which serves a combination of urban residences near the town of Lidsdale, Collieries, garbage tip and rural acreage properties. The overall distance from the Castlereagh Highway to the site is approximately 25.8 kilometres. The section of Wolgan Road from Castlereagh Highway to the top of the descent into the Wolgan Valley is generally constructed as a variable width (4-6m) sealed roadway. This measures some 8.94 kilometres. Over the 2.46km length from the top to the bottom of the descent into the valley the road width varies from 3.2 to 5m. The remaining 14.4 kilometres along the valley floor to the site is constructed as formation with very little gravel pavement.

Identification if Affected Areas

The Traffic Report prepared by McLaren Traffic Engineering for the Concept Plan provided the following date for vehicles movements along the Wolgan Road.

- In the order of 22 to 61 vehicles travel along Wolgan Road between the bottom of the pass and the site during weekdays, increasing to 77 to 99 on the weekend days recorded.
- The peak hour flow along Wolgan Road along the step declines into the valley is in the order to 16 to 20 vehicles per hour with up to 99 to 111 vehicles on the weekend days recorded. On weekdays the peak hour flow on the steep section is in the order of 5 to 8 vehicles per hours with up to 60 to 70 vehicles on the week days recorded.
- The majority of traffic travelling along Wolgan Road are light vehicles (i.e cars, sedans, utes etc).
- There is also some articulated vehicles use of the Wolgan Road corridor typically 0 to 3 semi-trailer vehicles per day.

Using the data in the Traffic Engineering Report, the estimated traffic generation for the construction and operational phases of the project are outlined below:

Construction Phase

It is expected that the following vehicles numbers per day for a 40 week work program:

1. Delivery trucks (2 to 4 axle medium size) -2 to 3 on average (to be confirmed)
2. Construction staff 13 by 15 seater mini buses.
3. Construction staff 25 private vans/utes
4. Total of 40 to 45 vehicle visits or 80 to 90 vehicles trips per day

Hence a total of some 40 to 45 construction vehicles are expected to enter the site between 6am to 8am on weekdays and some Saturday mornings, and leave the site between 2pm to 4pm on weekdays or around 1pm to 3pm on some Saturday afternoons.

It is expected that no construction activity would occur during public holidays.

Construction Traffic Management

The Building Works Contract requires the Contractor to limit the number of construction vehicles on the Wolgan Road during construction by:

1. Maximising the use of minibus (15 seater) transport of construction staff to and from the site.
2. Maximise the use of smaller delivery vehicles, given the condition of the steep and narrow descent along the Wolgan Road corridor into the Valley from the south.
3. Implement a traffic regime at the top and bottom of Wolgan Gap which involves all contractors and subcontractors in the regulation of truck flows on the Wolgan Road through the use of two-way radios. Contact between vehicles wishing to utilise the Wolgan Road along the length of the Wolgan Gap is to be maintained so that only one large vehicle is permitted along the road section at any one time. The gap distance is 2.48 kilometres.
4. Trucks serving the construction period are to be limited to 12.5m in length.

Implementation of the above requirements will be effected by placing conditions in the building works contract thus placing the onus on the successful contractor to comply. The Contract Conditions will be managed by the Superintendent of the Contract.

SECTION 2: THE RESORT PRECINCT

Civil Drawings

The Project Engineer has completed a detailed set of construction drawings and supporting guidelines for the construction of the Civil Works requirements and management of construction traffic on the site. The Document Register, which identifies each drawing by Title and Number, is located at the conclusion of the Plan. A complete set of the drawings is contained in the Volume marked "Civil Drawings".

This plan must be read with reference to the drawings.

In summary the drawings are as follows:

Description	Drawing Reference
Internal Site Roads and Drainage	C00 to C12
Water Storage Dam (capacity of 116 ML)	C18
Internal Site Bridges	C19-C20 and C80-C81
Flooding Extents Plan	C21
Overall Road Layout	C22
Resort and Staff Site Drainage and Access	C50 to C54
Erosion and Sediment Control Measures and Methods	C56 to C58
Disturbance Zone of the Proposed Development	C70 to C72
Flood Analysis Report	Separate Report appended to CMP

Site Access, Flood Extents and Water Supply Storage Locations

Refer to Drawings C00 to C23. The overall road layout is detailed on C22. These plans describe the access road route to accommodate the proposed traffic loading. The design provides a stable and safe access in the event of storms up to the 100-year flood level and provides suitable access for fire fighting vehicles. The plans describe:

- The internal site roads
- The flood extent;
- The location and form of bridges;
- The location and form of the water supply storage dam.

Resort Site Access Layout

Refer to Drawings C50 to C54. These plans detail the design measures, devices and practices to manage overland flow in a manner that minimises erosion, sediment and pollutant loads and hydrological impacts. Development is limited inside the required 50m buffers adjacent to any waterway or wetland to act as a protection buffer for the adjacent waterway.

Fish passage will be maintained along waterways. Bridge crossings are designed to clear the stream flow zone up to the 1 in 5 year storm flood flow as a minimum. The proposed development is planned to achieve no net increase in runoff or reduction in water quality.

Disturbance Zone of the Proposed Development - Construction and Traffic Limits

Refer to Drawings C70 to C72. These plans detail pavements and earthworks for the proposed resort, the staff and maintenance precinct, horse stables, gatehouse, water supply dam location and access roads. These plans are the basis for the proposed construction plans.

The Contractor is advised that parts of the total site are of medium to high Aboriginal Archaeological importance and the Contractor must remain within the approved Disturbance areas. The site is surrounded by National Park lands including the Greater Blue Mountains World Heritage area and no building activities, including storage of materials or the parking of vehicles are permitted on this land. For the purposes of construction, the builder's site is contained within the disturbance areas.

In relation to the Heritage Management Plan, no activities inclusive of traffic and parking are permitted in the Heritage Precinct. Restoration of the Heritage Precinct is work by others.

Included in this Construction Management Plan are the following plans:

- Aboriginal Heritage Management Plan
- Landscape (Flora and Fauna) Management Plan
- Conservation Management Plan for the Heritage Precinct (Non Aboriginal)

Prior to the award of the Building Works Tender, a detailed Aboriginal Archaeology Assessment will have been completed of the disturbed area. The Contractor must be fully aware of the contents of these plans and ensure compliance with the recommendations.

The Contractors Site Establishment area and parking must be contained within the disturbed area.

Building Works Construction Requirements

The successful building works contractor will be required to liaise with and comply with the requirements of the approved Concept Plan issued by the Department of Planning and Lithgow City Council. The Construction Contract contains clauses, which require the Contractor to comply with these requirements and implement a responsible Environmental Management Plan. The Contractor is required to implement the works in accordance with the following controls that form part of the Civil Drawings set.

1. All work shall be generally carried out in accordance with
   a) Local authority requirements
   b) EPA - Pollution control manual for urban stormwater
   c) Department of conservation and land management manual - 'Urban Erosion and Sediment Control'
2. Minimise the area of site being disturbed at any one time
3. All construction vehicles shall enter and exit the site via the temporary construction entry/exit.
4. All vehicles leaving the site shall be cleaned and inspected before leaving.

Following engagement, the Contractor is to provide a Construction Management Plan which:

- Details the methodology for reducing the amount of traffic on site;
- Details the mechanism for advising staff and subcontractors of obligations to remain within the disturbance area;
- Details the location of all contractor parking within a defined precinct in the contractors site area;
- Details the internal site road network during construction.

Sequence of Works

Prior to commencement of construction, the Contractor is to provide a Construction Program that sequences the work. Whilst preparation of the Program is the responsibility of the Contractor, it is recommended that the Contractor give consideration to construction of the access roads, bridges, water tank and dam as priorities.

Additional Management Requirements

The Project Manager is responsible to ensure that the Contractor implements the works in accordance with the contract including the drawings and specifications. To ensure that the Contractor is aware of its obligations, the Project Manager will hold a Contractor Start Up Meeting immediately following appointment of the Contractor.

In addition, Council's Building Inspector and the Civil Engineer will regularly inspect the works. On completion of construction, the Civil Engineer will certify that the civil works are constructed in accordance with the plans and specifications.

The checklist below is provided for the guidance of the Contractor.

Element 6: Traffic Management

Objective

- Minimise disruption to traffic (vehicles, pedestrians and cyclists) caused by construction activities to ensure the safety of all road users.

Required Measures

	Traffic Management Requirements	Yes	No	N/A	Outline details	Shown on plan?
	General Matters					
1	Specify staging and timing of proposed construction works.				Provide details:	Yes / No
2	Provide details of any permanent or temporary vehicle crossing permit.				Permit No: ..... Permit Details:	Yes / No
3	Provide details of any construction zone permit.				Permit No: ..... Permit Details:	Yes / No
4	Has the location of the site and adjoining access been specified on the Plan?				Provide drawing and give details:	Yes / No
	Footpaths, Roads and Pedestrian Access					
5	Is pedestrian access and a crossing provided at the site?				Provide drawing and give details:	Yes / No
6	Provide details of any permit to occupy space on a road or footpath.				Permit No: ..... Permit Details:	Yes / No
7	Provide details of current road opening permit, if applicable.				Permit No: ..... Permit Details:	Yes / No
8	Has Council's Engineering Services Group - Civil Design been contacted for any road excavation?				Permit Approval Details:	Yes / No
9	Are works to occur on roads/footpaths which are managed by the RTA and are in accordance with the Road Management Act? If yes, has RTA approval been obtained?				Provide details:	Yes / No
	Cranes and lifts					

10	Provide details of any permit for a mobile crane, travel tower or lift.				Permit No: ..... Permit Details:	Yes / No
	Signage					
11	Has Council's Engineering Services Group been contacted for any signage changes?				Provide details:	Yes / No
	Traffic Flow and Public Impact					
12	Has the impact of construction site activity on surrounding traffic flows and public transport been considered?				Provide details:	Yes / No
13	Has a Traffic Management Plan been submitted to Council?				Provide details:	Yes / No
14	If traffic conditions are changed, has Council's Engineering Services Group - Traffic Engineering Branch been notified? Please include approval copy.				Permit Approval Details:	Yes / No
15	Have the general public or surrounding residents been informed of changes in traffic flows? (newspaper, leaflet, community liaison meetings etc)				Provide details:	Yes / No
16	Will traffic controllers be used to coordinate traffic flow around surrounding roads and footpaths?				Provide details:	Yes / No

I have read the Explanatory Guideline for Traffic Management. I am aware of the overall statutory and Council requirements and my responsibilities and obligations to such requirements.

Signed ..... Dated .....