Better Transport Futures

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Transport Planning & Engineering

Honeysuckle Central - Proposed Commercial Development, Honeysuckle Drive, Newcastle NSW, NSW

Traffic Impact Statement

December 2008

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Document History and Status

Issue	Rev.	Issued To	Qty	Date	Approved
Draft	Rev01	Suters Architects, Urbis Australia	1 (electronic)	4 / 12 / 2008	M Waugh
Final	Rev02	Suters Architects, Urbis Australia	1 (electronic)	12 / 12 / 2008	M Waugh

Printed:	15 December 2008
Last Saved:	15 December 2008
File Name:	P0560 Buildev Honeysuckle Central TIS Rev02.doc
Author:	Sean Morgan
Name of Organisation:	Buildev Development (NSW) Pty Ltd
Name of Project:	Honeysuckle Central Commercial Development, Honeysuckle Drive, Newcastle
Name of Document:	Traffic and Parking Impact Statement
Document Version:	Final
Project Number:	P0560

1. Introduction

Background
Better Transport Futures has been commissioned by Buildev Development (NSW) Pty Ltd to prepare a Traffic Impact Assessment for the proposed commercial development to be known as Honeysuckle Central, off Honeysuckle Drive, Newcastle NSW. This work is required to support a Development Application for the proposal to Newcastle City Council.

Scope of Report
The scope of this report is to review the traffic and parking implications for the proposed development, a site plan is shown in Appendix A. The report will also provide advice on access issues, internal site layout and issues relating to service vehicles.

Issues and Objectives of the study
The issues relative to the proposal are:

- Assess impact on the arterial and local road network due to the additional traffic flows;
- Assess the impact of the additional parking generated by the proposed development;
- Review the access arrangements for the development;
- Review the internal site layout and the car park access arrangements;
- Review the service arrangement for the development; and
- Assess any other transport impacts associated with the development.

The objective of the report is to document the impacts of the proposed development and provide advice on any infrastructure work required as part of the development.

Planning Context
In preparing this document, the following guides and publications were used:

- RTA Guide to Traffic Generating Developments, Version 2.2 Dated October 2002;
- Newcastle City Council DCP 2005 Parking and Access Guidelines;
- Australian / New Zealand Standard – Parking Facilities Part 1 : off-street car parking (AS2890.1:2004);

2. Existing Situation

2.1 Site Description and Proposed Activity

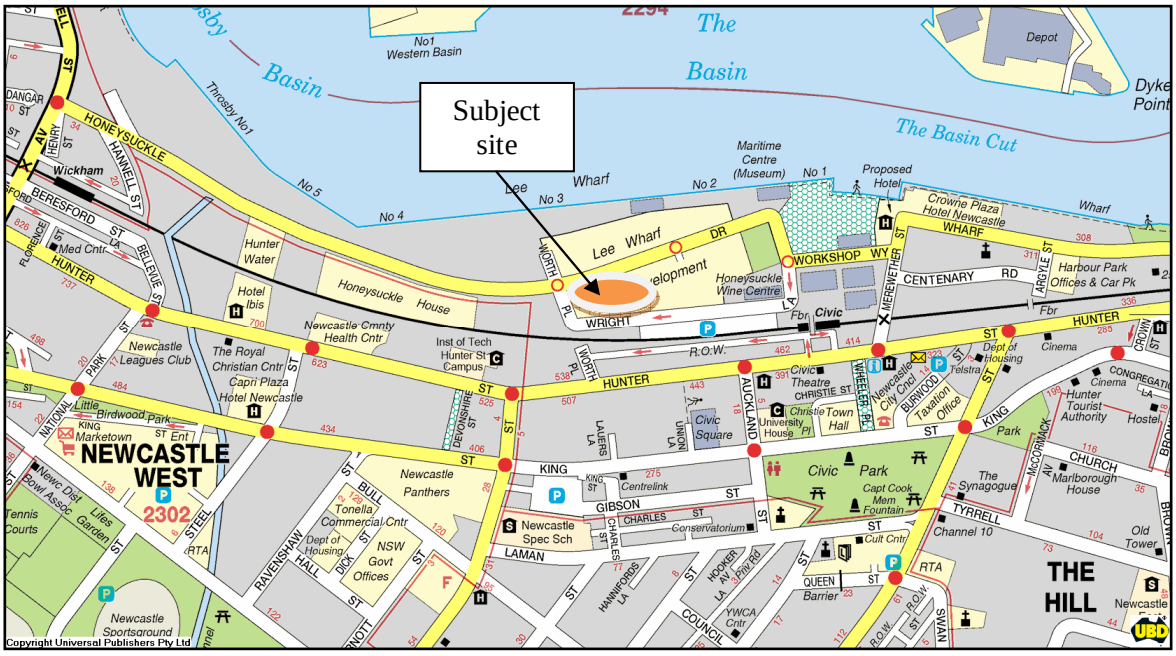
2.1.1 Site Location and Access

The subject site is located between Wright Lane and Honeysuckle Drive within the Honeysuckle Precinct, Newcastle. The site has road frontage to Honeysuckle Drive and Wright Lane, as well as the laneways to the east and west. Currently, all vehicle access to the site is via Wright Lane.

The site is currently vacant with no buildings on it.

The proposal for the site is to provide a new commercial development consisting of a mixture of retail and office space. Basement and above ground parking levels will be provided with access off Wright Lane in accordance with the Council DCP.

The location of the site is shown below in Figure 2.1.



Source: Waugh Pty Ltd. Map reproduced with permission of UBD. Copyright Universal Publishers Pty. Ltd. DG 11/05

■ **Figure 2-1 - Site Location**

The site is currently zoned for urban development. Existing land use adjacent to the site is generally mixed commercial development, comprising of specialist retail outlets, restaurants and bars and office space. There are also a number of residential unit developments within the general locality.

2.2 Existing Traffic Conditions

2.2.1 Road Hierarchy

The major road through the locality is Honeysuckle Drive. Honeysuckle Drive runs in an east to west direction, providing an important link between the Newcastle CBD to the east and Hannell Street to the west. It provides the central spine road through the Honeysuckle Precinct and provides the key access route throughout the Honeysuckle Development.

Hannell Street to the west forms part of the major arterial road network and provides an important north-south linkage through the centre of Newcastle. It connects with Charlestown to the south and through to the Pacific and New England highways to the north.

Hunter Street to the south of the site provides an important link to the centre of the Newcastle CBD. It forms part of the arterial road network.

The remaining roads in the general locality of the subject site are all local roads under the control of Newcastle City Council. These include Workshop Way and Worth Place.

Honeysuckle Drive
Honeysuckle Drive in the vicinity of the site provides a single lane of travel in both directions with an additional kerb side lane for parking. There is a raised central median between the opposing lanes of travel, with an overall width to both sides of approximately 6 metres. There are kerbs and gutters to both sides, with kerb side parking permitted for the majority of its length, controlled by parking meters. The posted speed limit is 50 km/h. There are footways provided along both sides of Honeysuckle Drive

Photo 1 View east along Honeysuckle Drive showing typical cross section adjacent to site.

Wright Lane

Wright Lane runs along the southern boundary of the site and forms part of the local road network. It provides an overall width in the order of 7 metres with a single lane of travel allowing for one-way travel only (east to west). There are no footpaths provided, with kerb and gutter to both sides. As a local residential road, it should operate under a limit of 50 km/h. Whilst this road is owned by Honeysuckle Development Corporation, it operates as a public road and has full access rights. Parking is permissible along the northern edge of the road only, subject to normal parking controls at driveways and side roads.

- **Photo 2 View east along Wright Lane showing typical cross section.**

2.2.2 Roadworks

There are no road works currently occurring in the general vicinity of the subject site. It is noted that the roads within the general locality have been upgraded over the last few years as part of the on-going development of the Honeysuckle Precinct. Recent upgrades have included the provision of a roundabout at the intersection of Workshop Way / Honeysuckle Drive / Wright Lane. Other works are also progressing associated with the development on the corner of Centenary Road and Merewether Street.

From discussions with the RTA and Council it is understood that other than routine maintenance by the road authorities there are no plans for any major road network changes in the immediate vicinity of the subject site currently envisaged.

2.2.3 Traffic Management Works

It is understood that there are no planned traffic management works in the general locality of the subject site.

2.2.4 Pedestrian and Cycling Facilities

There are minimal pedestrian and cycling facilities within the general locality of the subject site. Cyclists can use the shoulders of Honeysuckle Drive, as there is a marked parking lane / cyclelane provided along the majority of its length. There is a pedestrian pathway provided along the northern edge of Honeysuckle Drive, as well as the water side promenade. There are no footpaths along Wright Lane, as pedestrians are encouraged to use the main walk ways along the side of Honeysuckle Drive and along the water front.

2.2.5 Public Transport

There is a single bus service that provides a connection along Honeysuckle Drive. Route number 106 / 107 provides a link from Jesmond via Warabrook and Mayfield via Honeysuckle to the Newcastle CBD bus terminus. This route provides a half hour service during the week and less frequent at the weekend.

The site is located approximately 500 metres from bus stops located on Hunter Street. These bus stops provide access to the majority of bus routes within Newcastle, providing access to a number of regional centres as well as the majority of residential areas within the Newcastle area. The bus services to these bus stops provide a high frequency of service, especially during the traditional commuter times within the Newcastle CBD district.

The site is located approximately 250 metres from Civic train station. Civic train station provides a regular service to a number of local centres, including Maitland and the outer suburbs of Newcastle.

2.3 Traffic Flows

The proposed development is for a commercial development, providing retail and possible cafe outlets on the ground floor with office space located on the upper levels. The peak flows will be in the morning and afternoon peaks, associated with work trips. It is expected there will be a high inbound flow in the AM peak with a corresponding high outbound flow in the PM peak. Flows during the day would be lower and at night especially will be very low.

The key roads affected by the development will be Wright Lane and to a lesser extent Honeysuckle Drive/Workshop Way.

2.3.1 Daily Traffic Flows

Traffic flow data has been sourced from the RTA publication "Traffic Volumes in the Lower Hunter Region, 2004" as well as traffic data collected by Better Transport Futures. This RTA publication contains details of traffic volumes around the Lower Hunter Region and The Newcastle CBD. The RTA data provides the two-way traffic flow on Hannell Street to the west of the site and Hunter Street. The publication shows that in 2004 the Annual Average Daily Traffic flow (AADT) on Hannell Street to the north-west of the site was in the order of 21,558 vehicles. Allowing for a typical annual growth in the order of 2% this would indicate the current AADT on Hannell Street is in the order of 23,300. The corresponding data from the RTA indicates that in 2004 the AADT on Hunter Street to the immediate east of Merewether Street was 18,213 in 2004. Allowing for background growth this would indicate the current flows could be in the order of 21,800 per day.

Surveys completed by Better Transport Futures in July 2006 indicate that the two-way traffic flow along Workshop Way is in the order of 1,161 during the peak hours. Allowing for a typical value of 10% of daily flows representing the peak flows, this would indicate the daily flows along Workshop Way are in the order of 11,600 per day. Again, these flows have increased since this time, due to on-going developments etc. It is expected that the current daily flows could be in the order of 14,000 vehicles per day.

As part of the project work, traffic flows have been collected during the morning and afternoon peak periods on Honeysuckle Drive. These surveys show that the two-way traffic flow in the morning peak is in the order of 1150 vehicles per hour. This indicates daily volumes in the order of 11,000 vehicles per day.

Traffic flows along Wright Lane are much lower, as this road provides access to a number of parking spaces and is not typically used for through traffic movements. Peak traffic movements associated with commuter travel are in the order of 150-200 vehicles per hour one-way. Outside of the peak hours, the traffic movements are low.

2.3.2 Daily Traffic Flow Distribution

There is limited data available from the RTA publication for the daily variation in traffic flows. However, given the location of the site close to the Newcastle CBD, it is reasonable to assume that there would be considerable peak hour traffic movements associated with commuter movements, with reduced flows through the day. At night time, the flows would be very low, as there are limited night time activities in the general vicinity of the subject site.

2.3.3 Vehicle Speeds

No vehicle speed measurements have been taken as part of the study work. Observations on site would indicate that traffic appears to travel within the posted speed limits, with no obvious signs of excessive speed. The alignment of Honeysuckle Drive, together with the various intersection controls, helps to contain vehicle speeds appropriately.

2.3.4 Existing Site Flows

The site is currently vacant and therefore does not generate any existing traffic movements.

2.3.5 Heavy Vehicle Flows

Minimal heavy goods vehicles were observed during the afternoon / evening peak period. The only vehicles observed were associated with construction work in the general locality of the site.

The Honeysuckle Drive route is not generally used by heavy goods vehicles accessing the Newcastle CBD for deliveries.

2.3.6 Current Road Network Operation

Observations on site show that the current traffic flows well along Honeysuckle Drive during the peak periods. However, the observations confirm that during the afternoon peak in particular, traffic exiting Honeysuckle Drive onto Hannell Street suffers from delays, due to the high traffic flows along the arterial road network. The traffic movements along Hannell Street are exacerbated by the delays created by the at-grade level crossing on Stewart Avenue. This often creates delays for traffic exiting Honeysuckle Drive, due to queues blocking back along Hannell Street through the intersection.

The eastern end of Honeysuckle Drive suffers from minor delays, as a significant portion of the through traffic movements are using Wharf Road and therefore suffer from minimal delays.

2.4 Traffic Safety and Accident History

Honeysuckle Drive provides a relatively straight alignment with a raised median to separate the opposing traffic movements. The only points of conflict are at the intersections and conflicts created by kerb side vehicles manoeuvring in and out of parking spaces.

A review of the accident data provided by the RTA shows that there have been some 13 accidents along the length of Honeysuckle Drive. There were a number of injuries, but the accidents do not show any particular pattern nor were they concentrated on a particular intersection. It is considered that overall the layout of the roads and the accident history indicate that the existing road layout provides an acceptable layout for road users.

2.5 Parking Supply and Demand

2.5.1 On-street Parking Provision

Currently, there is a high demand for vehicles to park in the general vicinity of the subject site, in a mixture of on-street and off-street parking areas. There are a number of private car parks associated with adjacent developments as well as a public car park located on the southern side of Wright Lane.

Parking is also available along both sides of Honeysuckle Drive as well as the northern side of Wright Lane.

2.5.2 Off-Street Parking Provision

There is a significant volume of off-street parking in the general locality of the subject site. There is in the order of 200 spaces located within the public car park off Wright Lane, supplemented by the on-street parking provision.

2.5.3 Parking Demand and Utilisation

Observations on site indicate that the current parking demand is high in the general locality of the subject site. This may be exacerbated by the current construction work occurring in the locality. It is noted that there is a high demand for commuter parking in this location, associated with business users on the opposite side of the railway line, along Hunter Street.

2.5.4 Set down or pick up areas

There are no designated set down or pick up areas in the locality of the site.

2.6 Public Transport

2.6.1 Rail Station Locations

The closest railway station to the subject site is at Civic. This station provides access to a regular train service that provides access to the outer suburbs of Newcastle as well as areas such as Maitland and trains to suburbs towards Sydney along the western side of Lake Macquarie.

2.6.2 Bus Stops and Associated Facilities

There are bus stops located on Honeysuckle Drive within 400 metres of the site. These provide access to the limited bus service that runs along Honeysuckle Drive. There are bus stops located on Hunter Street that provide access to the bus services that provide access to the wider network that serves the greater Newcastle district.

2.6.3 Pedestrians

There is a pedestrian footpath provided along the northern side of Honeysuckle Drive. There is also a pedestrian walkway provided along the harbour foreshore. There are no pedestrian footpaths provided along Wright Lane to the rear of the subject site.

2.7 Other Proposed Developments

It is understood that there are a number of other developments that could occur within the Honeysuckle Precinct. There are some construction works on-going with new development as well as a number of developments still being planned for future development.

3. Proposed Development

3.1 The Development

The proposed development will allow for approximately 21,370 m^2 (GFA) of commercial development. It will front Honeysuckle Drive with all vehicle access via Wright Lane to the rear of the site. The Site Plans are included in Appendix A to this report.

3.1.1 Nature of Development

The proposal is to provide a mixed use commercial development. Above this ground floor, there will be four levels of commercial office space. The traffic flows associated with this type of development are typical commuter trips, with peak periods during the morning and afternoon peak periods, associated with trips to and from work. Flows outside of the peaks and at night would be much lower, as well as reduced flows over the weekends.

3.1.2 Access and Circulation Requirements

The development will need to accommodate light vehicles only within the building envelopes. There will be no internal access for delivery vehicles, due to the height restrictions imposed by the building design. All vehicles will access the car parks via 3 separate access points on Wright Lane, to the rear of the site.

3.2 Access

3.2.1 Driveway Location

All vehicle access to the subject site will be via three new access points on Wright Lane. There will be no vehicle access off Honeysuckle Drive. The three driveway access points have been provided due to the construction of three separate buildings on the site.

3.2.2 Sight Distances

All vehicles will access Wright Lane via the three new driveways. Wright Lane provides a straight alignment in this location, ensuring maximum visibility for vehicles travelling along Wright Lane as well as for drivers exiting the subject site.

The operational speed on Wright Lane is 50 km/h. For the speed limit of 50 km/h, the required visibility splay is some 80 metres (source: RTA Road Design Guide). Given the straight alignment of Wright Lane it is considered that the access for the development can be safely provided with regard to visibility for drivers. Driver's forward visibility to the driveway locations for the development exceeds 80 metres. From the Australian Standard for Off street car parks (AS2890) the minimum safe stopping sight distance for the 50 km/h speed limit is 45 metres. This distance is comfortably exceeded for the three driveways.

3.2.3 Service Vehicle Access

The development will require service vehicle access for each of the three buildings. Due to height restrictions within the site, it will not be possible for service vehicles to enter any of the building car park areas. It is proposed that a loading bay be provided on Wright Lane to the rear of the site, that can be used for normal service vehicle access e.g. courier and small vans, etc. The on-street parking bays along the site frontage can also be used for deliveries, as and when required. Other service vehicle access will include refuse trucks (12.5 m rigid) and this will involve the use of large wheelie bins serving each of the buildings. This will require on-site management and to

avoid pick-ups during busy periods. As per normal practice, it is expected that refuse collection will occur early in the morning, prior to traffic demands for entering the site.

3.2.4 Queuing at entrance to site

Given the low overall traffic flows along Wright Lane, it is considered that there will be minimal queuing associated with the traffic movements in and out of the subject site. The design of ramp access points provides priority for inbound traffic movements. With the use of three separate access points, the traffic movements are dissipated reasonably evenly between the three driveways, thereby reducing any delays at each of the access points.

3.2.5 Comparison with existing site access

Vehicle access to the subject site will be improved with the construction of new driveways and a number of internal access roads to serve the development. There is currently no vehicle access on Wright Lane to the subject site.

3.2.6 Access to Public Transport

It is considered that access will be required to the bus stops on Honeysuckle Drive as well as on Hunter Street. There will also be a demand for access to the train services at Civic station. Pedestrian links will be provided within the site to allow for safe and appropriate connection to the existing pedestrian paths in the locality of the site. The design of the pedestrian paths within the site direct traffic away from the three access points on Wright Lane. Pedestrians will be guided along Honeysuckle Drive as well as the existing paths to the east of the site that connect with the pedestrian linkage across the railway line to Hunter Street. The pedestrian linkages will include allowances for ramps for disabled and pram use.

3.3 Circulation

3.3.1 Pattern of circulation

All traffic will use Wright Lane to access the site. The design of the ramp access points and the car parks will allow for vehicles to turn around and exit the site in a forward direction. All vehicle movements at the three access points will require right in and right out movements only, due to Wright Lane being one-way operational only.

3.3.2 Road width

The width of the ramp access roads will be in accordance with the relevant Australian Standard (AS2890). This standard indicates that the ramps to the car parks need to provide a minimum width of 3.9 metres, with a central median to separate entry and exit movements.

3.3.3 Internal Bus Movements

It is considered that there will be no internal bus movements nor a requirement for a bus to travel within the development.

3.3.4 Service Area Layout

The proposed site does not allow for off-street provision for service vehicles. It is proposed to provide a kerb-side loading bay to the rear of the site on Wright Lane that can be used for the three separate buildings. A ramp will be provided from this loading bay to allow for ease of movement of goods between the loading bay and the buildings.

3.4 Parking

3.4.1 Proposed Supply

All parking for the proposed development will be provided within the basement parking and upper levels of the building. The parking provision for the development has been assessed against the requirement of the Council DCP 2005.

The plans for the development indicate a total of 356 parking spaces will be provided. This is split between the three separate buildings proposed on the subject site. Parking will be provided within a basement level for each building, together with three above ground floor levels located to the rear of the site on Wright Lane.

3.4.2 Authority Parking Requirements

Newcastle Council Parking Requirements

The Council DCP 2005 indicates the following parking requirements for commercial and retail developments such as those within the subject development:

- Commercial development – 1 space per 60 m^2

The plans for the development indicate a total commercial floor area for the three buildings of 21,370 m^2 giving a requirement for some 356 spaces. Thus the total parking requirement under the Council DCP is for some 356 parking spaces, compared with the provision on site of 356 spaces. The on-site provision thus complies with Council requirement.

It should be noted that the development allows for three separate buildings to be provided. The parking provision for each of the three buildings has been provided, to ensure that each building can be constructed with adequate parking. This will ensure that there is no external parking demand associated with any or all of the buildings on the site.

A summary of the parking by building and against the Council code is provided below in Table 1 below:

Table 1 – Future parking Demand by Building

Item	West Building	Central Building	East Building	Total
GFA	5006	6734	9629	21,370
Council requirement	84	112	160	356
Provision	85	110	161	356

Overall, it is considered that the provision of 356 spaces is acceptable and will accommodate the parking requirements for the proposed development.

3.4.3 Parking Layout

The proposed parking required for the development will be contained within the off street car park. The design of the car park within the site has been designed in accordance with Newcastle Council Design requirements as well as the Australian Standard for Off-street parking.

In particular, the design of the ramp access system has been designed in accordance with the Australian Standard, to allow for safe and appropriate two-way movements. There will be a raised central median on the ramps, to ensure there are no conflicts between the opposing traffic movements. Walls will not be provided between the inbound and outbound movements at ground level, to ensure that visibility for drivers entering and exiting the building can be maintained. The entry/exit point has been designed to allow for priority for vehicles entering the site.

The parking bay dimensions will be provided in accordance with the Council DCP and all parking aisles will allow for two-way traffic movements. There will be three horizontally stacked parking spaces provided within the basement. These spaces will be allocated together with the front spaces to ensure these spaces can operate in an efficient manner.

Note that the vast majority of the parking spaces will be allocated, which will reduce or eliminate the requirement for drivers to circulate looking for a vacant parking space. In particular, the basement parking will be fully allocated, ensuring all vehicles entering and exiting the basement level of parking will have a particular destination. This will reduce the demand for traffic movements in and out of the basement. This also ensures that all drivers entering and exiting the basement will be fully familiar with the layout of the access ramps, helping to reduce any potential conflicts for the traffic movements in and out and between the separate ramps.

3.4.4 Parking Demand

The peak parking demand for the proposed development will be during the day, associated with the demands created by the commercial element on the site. At night there will be a very low demand. The retail elements may generate some use in the evening, although this is considered to be very low.

3.4.5 Service Vehicle Parking

The largest service vehicle will be a 12.5 m refuse truck, however this will not require a parking area on site. Other service vehicles will be smaller vehicles such as delivery vans and courier vehicles, which are similar in size to a car. The loading zone for the development will be located on Wright Lane and will be able to cater for this size of vehicle.

3.4.6 Pedestrian and Bicycle Facilities

There will be a number of pedestrian and bicycle facilities provided as part of the development. For pedestrians, there will be connections to the street frontage on Honeysuckle Drive as well as connections to the east of the site to allow for connections through to the existing pedestrian facilities to access Civic railway station as well as the pedestrian crossing facilities across the railway line. All of the pedestrian access points will provide a ramp to allow for disabled and pram use.

Cyclists parking provisions will be included within the car park layout. This will ensure cyclists can park their bikes in a safe and secure location. Provision will also be made within the building for showers for use by cyclists commuting to the site for work purposes. This will help to improve the number of people commuting to the development by bike and thereby reduce the parking demand.

4. Impact of Proposed Development

4.1 Traffic Generation

4.1.1 Daily and Seasonal Factors

The commercial nature of the development will lead to typical morning and evening peak hour traffic generation. It is unlikely to be affected by seasonal factors, although there would be some reduced flows over peak holiday periods due to staff being away e.g. Christmas / New Year period.

The level of traffic generated by the proposed development has been assessed in accordance with the RTA Guide to Traffic Generating Developments. The following peak hour traffic movements could be generated by the proposed development:

Commercial : 2 trips per 100 m^2 during the afternoon / evening peak. Assumed similar in the morning peak period. This gives some 427 vehicles per hour two-way.

Outside of the peak hours, the flows would be much lower. The rates above are for the afternoon (and morning) peak hour, when the RTA Guide indicates there is peak use associated with the commercial development. The rates above are considered to be the absolute worst case scenario. It can be seen that as the parking rate for the development is lower than normal commercial rates ie 1 per 60 m^2 as opposed to 1 per 40 m^2 (a reduction of 33%) the traffic flows would also reduce by a similar amount. Thus the peak flows would be in the order of 284 vehicles per hour two-way.

4.1.2 Pedestrian Movements

Pedestrian access to the site will be available using the existing facilities in the vicinity of the subject site. Access will be provided on the site to connect with these existing external pedestrian facilities.

4.2 Traffic Distribution and Assignments

4.2.1 Origin / destinations assignment

Traffic movements to and from the site will access the major road network via Honeysuckle Drive. Traffic wishing to head to major centres along the New England Highway e.g. Thornton, Maitland etc will travel west along Honeysuckle Drive, and then use Hannell Street. Traffic heading towards Charlestown can either use Honeysuckle Drive and then Stewart Avenue or can use Merewether Street to avoid the delays over the level crossing at Stewart Avenue.

Previous work completed by Better Transport Futures for the redevelopment of the whole of the Honeysuckle Precinct shows that the alternative route via Merewether Street will be popular, especially for developments closer to Merewether Street such as the subject site.

It can also be seen that traffic wishing to head south of the site towards places such as Merewether, The Junction etc will use the access via Merewether Street.

4.3 Impact on Road Safety

It is considered that the additional traffic flows associated with the development of the subject site will have a minimal impact upon traffic safety. All vehicle access will be via Wright Lane to the rear of the site, a one-way roadway. The one-way operation reduces the vehicle turning movements helping to maintain safety for road users along this road. It can also be seen that the vast majority of users of Wright Lane have an origin / destination on Wright Lane, with limited through traffic movements on this road.

The three separate driveway locations on Wright Lane allow for dissipation of traffic movements, reducing the conflicts at any one driveway. The volume of traffic movements at each of these driveways is relatively low and will not create any road safety issues. The design of the ramps within the car park allow for priority for inbound traffic movements, further reducing conflicts on the road network.

It can be seen that there is no pedestrian footpath provided along the northern edge of Wright Lane adjacent to the subject site. This means that there will be little (if any) pedestrians crossing these driveways. There will therefore be no safety issues associated with vehicles using these crossing points conflicting with pedestrian movements.

The traffic will enter and exit the main road network (Honeysuckle Drive) via existing roundabout controlled intersections. The roundabout helps to contain vehicle speeds and allows for safe movements onto and off the main road network. It is considered that the additional traffic movements associated with the proposed development will not impact upon the overall safety of these intersections as they have been designed in accordance with the relevant standards and have been previously approved by the road authorities for construction.

4.4 Impact of Generated Traffic

4.4.1 Impact on daily Traffic Flows

The RTA Guide gives the following advice on daily traffic flows associated with the various elements of the proposed development:

Commercial : 2 trips per 100 m^2 during the afternoon / evening peak. Assumed similar in the morning peak period. This gives some 427 vehicles per hour. Applying the reduction detailed above, this gives a two-way flow of 284 vehicles per hour.

The existing daily traffic flows are well within acceptable limits for their classifications. Honeysuckle Drive in the locality of the subject site is classified as a major collector road and is carrying some 650 vehicles per hour one way maximum. An urban single lane road is capable of carrying some 1000 vehicles per hour one-way (Source Table 4.3 Peak Hour Flow on Urban Road, mid block divided carriageway). The ultimate one-way capacity is some 1,400 vehicles per hour for this type of road. The additional 284 vehicles associated with the development will maintain the existing operations with minimal impact for the existing road users.

Similarly, Wright Lane is carrying very low traffic flows and considerably less than the maximum capacity of 1400 vehicles per hour. With the additional traffic movements associated with the subject development, the future flows will continue to be considerably less than this.

It can be seen that the majority of traffic associated with the development will only impact on the operation of Honeysuckle Drive and its connections with the arterial road network.

4.4.2 Peak Hour Impacts on Intersections

As part of the redevelopment of the Honeysuckle Precinct, Mark Waugh Pty Ltd (Honeysuckle Traffic and Parking Study, 2007 PARAMICS model Supplementary report, dated August 2008) completed a transport review for the whole of the Honeysuckle Precinct. As part of this review, the future floor areas and land use assumptions for the whole of the Honeysuckle Precinct were documented and included within the modelling work prepared for the precinct.

A review of the previous study work for the Honeysuckle Precinct shows that the subject site falls within the previous assumptions for the site. The site has been identified for commercial development, with an element of retail within the overall floor area. The study completed by Mark Waugh Pty Ltd assumed a commercial floor area of some 22,000 m^2 for the subject site. This compares with the plans that indicates a total of 21,370 m^2 will be provided within the development.

Thus it can be seen that the development will provide a reduced development floor area compared with that previously provided and therefore there will be no additional impacts created by the development over and above those previously identified and documented by the report prepared by Mark Waugh Pty Ltd. The traffic report prepared by Mark Waugh Pty Ltd reviewed the full development for the Honeysuckle Precinct and allowed for some 882 residential units and 69,671 m^2 commercial. The floor area for the commercial development and the number of residential units for the full development of the precinct have been capped and whilst the spread of use could vary by building, the overall development size will not change.

Accordingly, no specific traffic impact assessment is required for the subject development.

4.4.3 Impact of Construction Traffic

The construction work will require a number of trucks to deliver materials, including concrete, to the site. This will occur over a number of months and could be staged if the buildings are not all constructed at once. There will also be a number of construction workers on the site, but typically the work will commence on site at 7.30 AM so that the workers arrive before the peak periods on the adjacent road network. Similarly, the workers will typically finish at around 3.30 PM, again before the traditional peak period on the adjacent road network.

The site has direct access to Wright Lane and the majority of the building footprint is located to the rear of the site. It is therefore considered that all construction access should be provided via Wright Lane and that no construction access will be required generally via Honeysuckle Drove. This will ensure that Honeysuckle Drive and Worth Place will not need to be closed for construction works. It is noted that there is a parking lane along the site frontage on Honeysuckle Drive that could be used for parking a construction vehicle on if necessary e.g. crane, without impacting on the through traffic movements along Honeysuckle Drive.

All works on site will be governed by the relevant EP&A rules and as stipulated within the development consent granted. This will include hours of work.

4.4.4 Other Developments

There are a number of projects currently being constructed within the Honeysuckle Precinct and others at the planning stage. These have all been identified as part of the redevelopment of the Honeysuckle

Precinct and have been accounted for within the traffic study completed by Mark Waugh Pty Ltd for the redevelopment of the whole precinct.

4.4.5 Assessment of Traffic Noise

An assessment of traffic noise is beyond the scope of work and expertise of Better Transport Futures.

4.5 Public Transport

4.5.1 Options for improving services

Given the location of the site, within close proximity to the Civic railway station and the bus routes along Hunter Street (and to a lesser extent along Honeysuckle Drive) it is considered that no additional public transport facilities are required.

As part of the development of the site, pedestrian linkages within the site will ensure that all pedestrians will have a high quality access route to aid ease of movements between the subject site and the existing public transport facilities.

4.5.2 Pedestrian Access to Bus Stops

No additional off-site pedestrian facilities are required as part of the development of the site. Pedestrian linkages within the site will ensure that all pedestrians will have a high quality access route to aid ease of movements between the subject site and the existing bus stops.

4.6 Recommended Works

4.6.1 Improvements to Access and Circulation

It is considered that the proposed site access and circulation will provide a safe and appropriate access arrangement for the proposal. The access arrangements will be designed and constructed in accordance with Council Design Standards.

4.6.2 Improvements to External Road Network

It is considered that there are no external road works required as part of the subject development.

4.6.3 Improvements to Pedestrian Facilities

It is considered that there are no requirements to upgrade pedestrian facilities in the general locality of the site.

4.6.4 Effect of Recommended Works on Adjacent Developments

It is considered that the proposed works will not have any impact on the adjacent developments in the general locality of the subject site.

4.6.5 Effect of Recommended Works on Public Transport Services

The recommended works associated with the development will have no adverse impact upon the public transport services in the locality. With the provision of good pedestrian links on the site it is expected that the development will encourage access via the adjacent public transport facilities.

4.6.6 Provision of LATM Measures

There are no other LATM measures required as part of this development.

4.6.7 Funding

All works associated with the development will be wholly funded by the proponent.

4.6.8 Noise Attenuation

Any noise attenuation measures will be assessed by others.

5. Conclusions

The following conclusions are drawn from the investigations into the proposed commercial development off Honeysuckle Drive, know as Honeysuckle Central, within the Honeysuckle Development Precinct, Newcastle, NSW:

1. The proposed development is a commercial development providing some 21,370 m^2 of gross floor area. Parking will be provided over a number of levels providing a total of 356 spaces. The site is currently vacant.

2. The site is bounded by Honeysuckle Drive to the north and Wright Lane to the south. All vehicle access is via Wright Lane only. Honeysuckle Drive provides the spine road through the centre of Honeysuckle Precinct and connects with Hannell Street to the west and Merewether Street to the east.

3. Traffic data collected by Better Transport Futures as part of the development of the Paramics traffic model for the Honeysuckle Precinct Development, shows that the existing road network is carrying traffic well within acceptable limits.

4. The additional traffic flows generated by the development could be in the order of 284 vehicles during the morning and afternoon peak hours, due to the constrained parking regime within the Honeysuckle Precinct. The impact of these additional traffic flows has been previously assessed by Mark Waugh Pty Ltd as part of their work for the redevelopment of the Honeysuckle Precinct.

5. All parking will be accommodated within each of the three individual buildings on site. The total parking provision on site is for 356 spaces, split between basement and above ground parking spaces. The parking provision on site complies with the requirements of the Council DCP and it is considered that overall the parking provision is adequate, taking into the location of the site relative to public transport and the ease of access for pedestrians and cyclists.

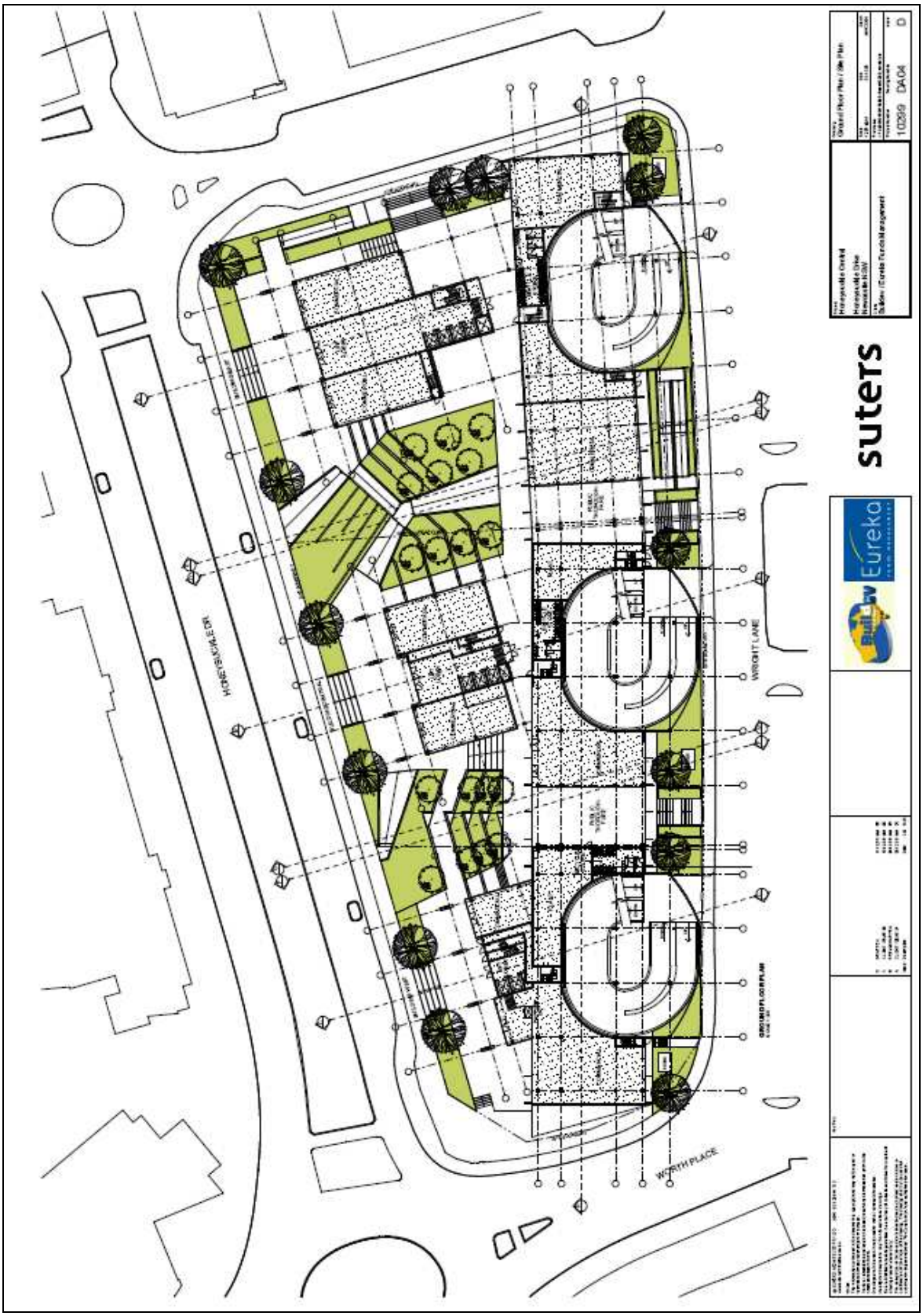
6. All traffic will access the site from the rear of the site via three separate driveways. The three separate driveways are required as the site will provide three separate buildings. The provision of three access points also ensures that traffic movements are split between three points, allowing for dispersement of vehicle movements.

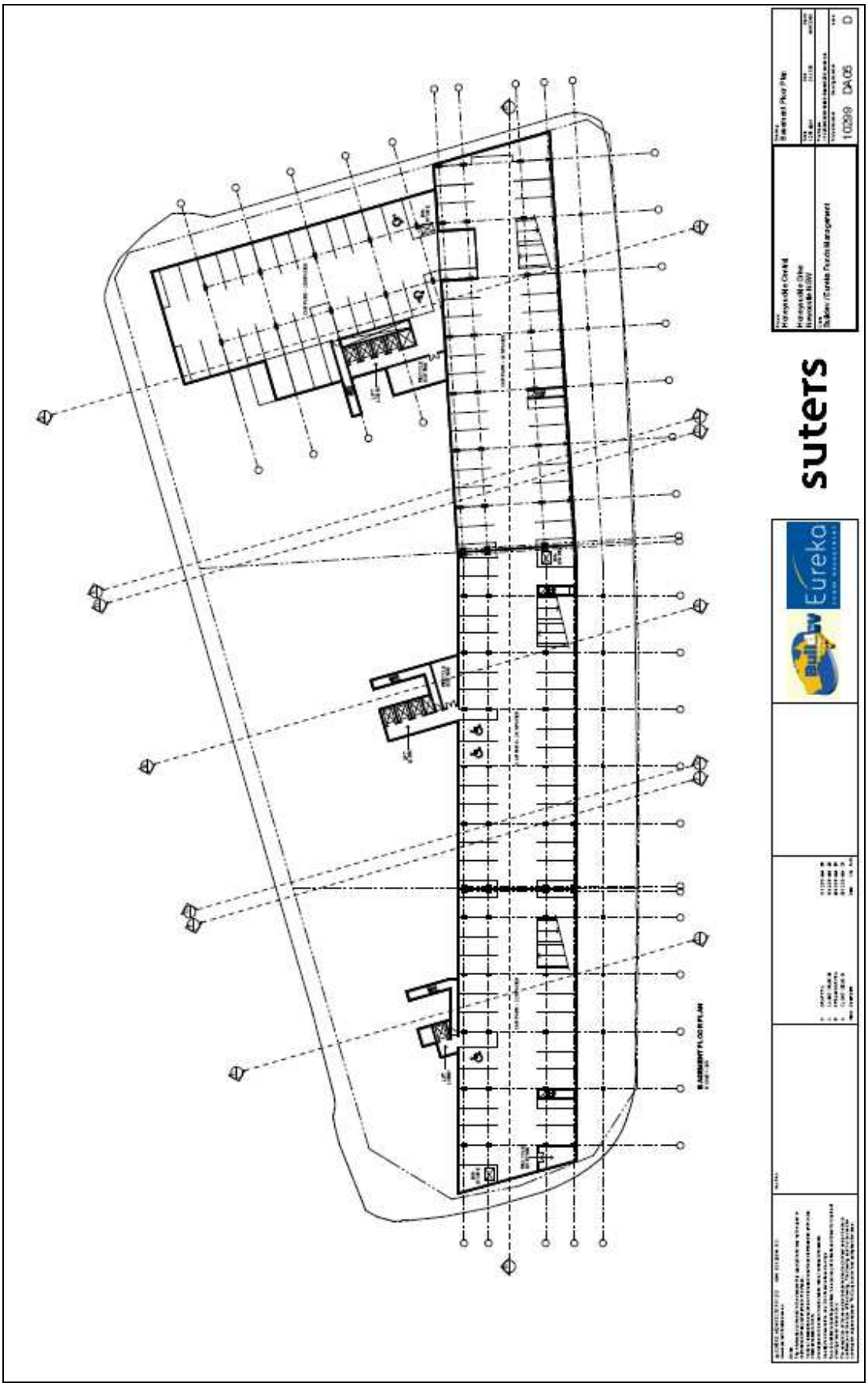
The following summary is provided, with reference to the Director General Requirements:

- The parking provision on site is in accordance with the Newcastle DCP 2005.
- As part of the construction work, neither Honeysuckle Drive nor Worth Place will need to closed to through traffic movements.
- This report has been prepared in accordance with the RTA Guide to Traffic Generating Developments.
- This development complies with the land use assumptions within the traffic report prepared for Honeysuckle Development Corporation by Mark Waugh Pty Ltd (August 2008). The traffic flows from this site were taken into account in the report prepared by Mark Waugh Pty Ltd.

The overall conclusion from the investigations is that traffic and parking arrangements for the development proposal are satisfactory and that there is no traffic or parking impediments to the development.

Appendix A Site Plans

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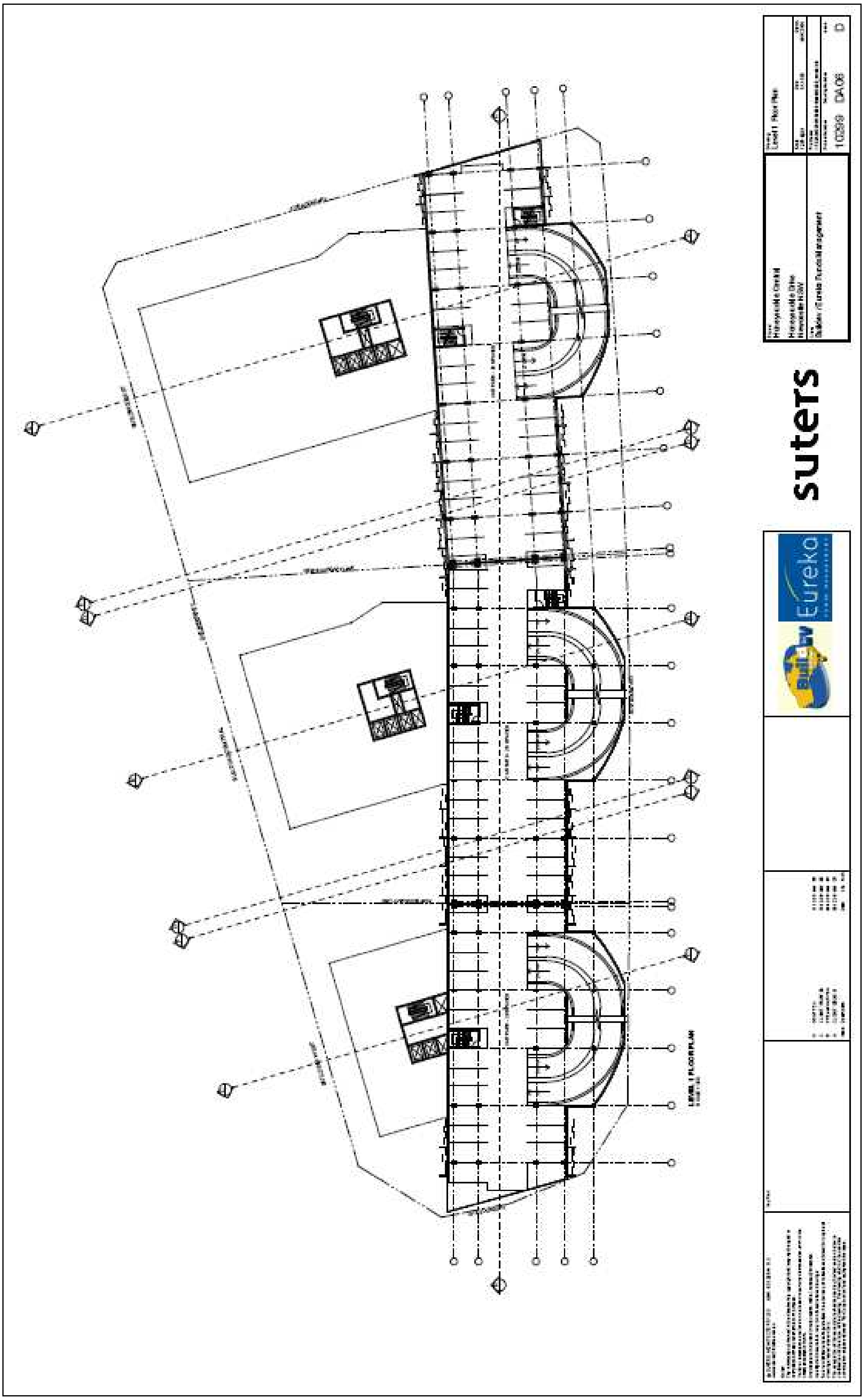
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