Application Details - IDAS form 1

(*Sustainable Planning Act 2009* version 1.0 effective 18 December 2009)

You **MUST** complete **ALL** questions unless the form indicates otherwise. Incomplete forms or forms without all necessary information and documentation will result in your application not being a properly made application.

For all development applications, you must:

- complete this form (*Application details - IDAS form 1)*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

Applicant details (note: the applicant is the person responsible for making the application and need not be the owner of the land. The applicant is responsible for ensuring the information provided on all IDAS application forms is correct. Any development permit or preliminary approval that may be issued as a consequence of this application will be issued to the applicant.)

Please note: If there is more than one applicant, provide additional applicant details by clicking the "Add another applicant" button below.

Name/s (individual or company name in full)	**Town & Country LTD**
For companies, contact name	**Mr Stuart Lovell**
Postal address	**PO Box 100 Mossman Q 4873**
Contact phone number	**4084 1800**
Mobile number (non-mandatory)	
Fax number (non-mandatory)	**4098 2233**
e-mail address (non-mandatory)	

1. What is the nature of development proposed? (tick all applicable boxes)

- ☐ material change of use of premises
- ☐ building work
- ☒ operational work
- ☐ reconfiguring a lot

☐☐☐

2. What type of approval is being sought?

☒ development permit

☐ preliminary approval

☐ both - provide details below

3. Is the application for a mobile and temporary environmentally relevant activity (ERA)?

☒ No

☐ Yes - complete table A and then go to question 5

4. Location of the premises (complete table B and/or table C as applicable. Identify each lot in a separate row)

Table B - street address/lot for the premises or street address/lot on plan for the land adjoining or adjacent to the premises

	Street Address				Lot on plan description		Local government area (e.g. Logan,Cairns)
	Unit No.	Street No.	Street name and official suburb/locality name	Post code	Lot No.	Plan type and plan no.	
1		63	Front Street, Mossman	4873	101	SP186233	CRC

☒ Street address / lot on plan

☐ Street address / lot on plan for the land adjoining or adjacent to the premises (appropriate for development in water e.g. jetty, pontoon)

Table C - premises coordinates (appropriate for development in remote areas, over part of a lot or in water e.g. channel dredging in Moreton Bay)

	Coordinates (note: place each set of coordinates in a separate row)				Zone reference	Datum	Local government area (If applicable)
	Easting	Northing	Latitude	Longitude			
1						☐ GDA94 ☐ WGS84 ☐ other	

5. Total area of the premises on which the development is proposed (indicate hectares or m²)

2.38 hectares

6. Current use/s of the premises (e.g. vacant land, house, apartment building, cane farm, etc.)

1	Vacant

7. Provide a brief description of the proposal (e.g. six unit apartment building, 30 lot residential subdivision etc.)

Commercial Development

☐☐☐

8. Is owner's consent required for this application? (refer to notes at the end of this form for more information)

☒ No

☐ Yes - complete either table D, table E or table F as applicable

9. Does the application involve a state resource? (e.g. the application involves state land, or taking quarry materials. Refer to the notes at the end of this form for more information)

☒ No ☐ Yes - complete table G

10. Identify if any of the following apply to the premises (tick applicable box/es)

☐ adjacent to a water body, watercourse or aquifer (e.g creek, river, lake, canal) - complete table H

☐ on strategic port land under the *Transport Infrastructure Act 1994* - complete table I

☐ in a tidal water area - complete table J

11. Are there any existing easements on the premises? (e.g. for vehicular access, electricity, overland flow, water, etc.)

☒ No ☐ Yes - ensure the type, location and dimension of each easement is included in the plans submitted

12. Does the proposal include new building work or operational work on the premises? (including any services)

☐ No ☒ Yes - ensure the nature, location and dimensions of proposed works are included in plans submitted

13. Is the payment of a portable long service leave levy applicable to this application? (refer to the notes at the end of this form for more information)

☐ No - Go to question 15 ☐ Yes

15. Has the local government agreed to apply a superseded planning scheme to this application under section 96 of the *Sustainable Planning Act 2009*?

☒ No

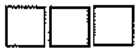
☐ Yes - provide details below

16. List below all of the forms and supporting information that accompany this application (include all IDAS forms, checklists, mandatory supporting information etc. that will be submitted as part of this application. Note: this question does not apply for applications made online using Smart eDA)

	Description of attachment or title of attachment	Method of lodgement to assessment manager
1		

17. Applicant's declaration

☒ By making this application, I declare that all information in this application is true and correct (note: it is unlawful to provide false or misleading information).



Notes for completing this form

Question 8:

- Section 263 of the *Sustainable Planning Act 2009* sets out when the consent of the owner of the land is required for an application. Section 260(1)(e) of the *Sustainable Planning Act 2009* provides that if the owner's consent is required under section 263, then an application must contain, or be accompanied by, the written consent of the owner, or include a declaration by the applicant that the owner has given written consent to the making of the application.
- Owner's consent is not required for a mobile and temporary ERA.

Question 9:

- Section 264 of the *Sustainable Planning Act 2009* provides that if a development involves a state resource, a regulation may require the application to be supported by certain evidence prescribed under the regulation. Schedule 14 of the *Sustainable Planning Regulation 2009* prescribes the state resources for which evidence is required to be given, and the evidence required, to support the application.

Question 13:

- *The Building and Construction Industry (Portable Long Service Leave) Act 1991* prescribes when the portable long service leave levy is payable.
- The portable long service leave levy amount and other prescribed percentages and rates for calculating the levy are prescribed in the *Building and Construction Industry (Portable Long Service Leave) Regulation 2002.*

Question 14:

- The portable long service leave levy need not be paid when the application is made, but the *Building and Construction Industry (Portable Long Service Leave) Act 1991* requires the levy to be paid before a development permit is issued.
- Building and Construction Industry Notification and Payment Forms are available from any Queensland post office or agency, on request from QLeave, or can be completed on the QLeave website at www.qleave.qld.gov. au. For further information contact QLeave on 1800 803 481 or www.qleave.qld.gov.au.

Privacy -the information collected in this form will be used by the Department of Infrastructure and Planning (DIP) in accordance with the processing and assessment of your application. Your personal details will not be disclosed for a purpose outside of the IDAS process, except where required by legislation (including the *Right to Information Act 2009*) or as required by Parliament. This information may be stored in a departmental database. The information collected will be retained as required by the *Public Records Act 2002*.

OFFICE USE ONLY

Date received		Reference numbers	

NOTIFICATION OF ENGAGEMENT OF A PRIVATE CERTIFIER

To: _____ Council. I have been engaged as the private certifier for the building work referred to in this application.

Date of engagement	Name	BSA Certification license number	Building classification/s

☐☐☐

QLEAVE NOTIFICATION AND PAYMENT (for completion by assessment manager or private certifier if applicable)

	Description of the work	QLeave Project Number	Amount paid ($)	Date paid	Date receipted form sighted by assessment manager	Name of officer who sighted the form
1						

The *Sustainable Planning Act 2009* (SPA) is administered by the Department of Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agencies.

Building or operational work assessable against a planning scheme - IDAS form 6

(*Sustainable Planning Act 2009* version 1.0 effective 18 December 2009)

This form must be completed for development applications for building works or operational work assessable against a planning scheme.

You **MUST** complete **ALL** questions unless the form indicates otherwise. Incomplete forms or forms without all necessary information and documentation will result in your application not being a properly made application.

For all development applications, you must:

- complete *Applicant details - IDAS form 1*
- complete any other forms relevant to your application
- provide any mandatory supporting information identified on the forms as being required to accompany your application.

All terms used on this form have the meaning given in the *Sustainable Planning Act 2009* or the *Sustainable Planning Regulation 2009*.

This form can also be used for development on strategic portland under the *Transport Infrastructure Act 1994*.

1. What is the nature of the work that requires assessment against a planning scheme? (tick applicable box/es)

☐ building work - complete table A ☒ operational work - complete table B

Table B

What is the nature of the operational work made assessable in the planning scheme? (tick applicable box/es)

☐ road works ☒ stormwater ☒ water infrastructure
☒ drainage Works ☐ earthworks ☒ sewerage infrastructure
☐ landscaping ☐ signage ☐ clearing vegetation under the planning scheme
☐ other - please specify below

What type of approval is being sought? (if you have indicated multiple works in the above question, please use an attachment to this form to detail each approval request)

☒ development permit ☐ preliminary approval ☐ both - specify below

Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)

☒ No ☐ Yes - specify the number of lots being created

Are there any current approvals associated with this application? (e.g. material change of use)

☐ No ☒ Yes - provide details below

☐☐☐

	List of approval reference/s	Date approved	Date approval lapses
1	MCU 8/38/2	12 MAY 2009	12 MAY 2013

2. What is the dollar value of the proposed building work? (inc GST, materials and labour)	$ N/A

☐☐☐

3. Confirm the following mandatory supporting information accompanies this application		
	Confirmation of lodgement	**Method of lodgement**
All applications for operational works		
site plans drawn to scale which show the following: • the location and site area of the land to which the application relates *(relevant land)* • the north point • the boundaries of the relevant land • the allotment layout showing existing lots, any proposed lots (including the dimensions of those lots), existing or proposed road reserves, building envelopes and existing or proposed open space (note: numbering is required for all lots) • any existing or proposed easements on the relevant land and their function • any access limitation strips • all existing and proposed roads and access points on the relevant land	☒ confirmed	over the counter
a statement about how the proposed development addresses the local government's planning schemes and any other planning documents relevant to the application	☒ confirmed	over the counter
Applications for operational works involving earthworks (filling and excavating)		
drawings showing: • existing and proposed contours • areas to be cut and filled • the location and level of any permanent survey marks or reference stations used as datum for the works • the location of any proposed retaining walls on the relevant land and their height • the defined flood level (if applicable) • the defined fill level (if applicable)	☐ confirmed	
Applications for operational works involving roadworks		
drawings showing: • existing and proposed contours • the centreline or construction line showing chainages, bearings, offsets if the construction line is not the centreline of the road and all intersection points • information for each curve including tangent point chainages and offsets, curve radii, arc length, tangent length, superelevation (if applicable) and curve widening (if applicable) • kerb lines including kerb radii (where not parallel to centreline) and tangent point changes (where not parallel to centreline) • edge of pavement where kerb is not constructed • position and extent of channelisation • location and details of all traffic signs, guideposts, guardrail and other street furniture • pavement markings including details on raised pavement markers • catchpit, manhole and pipeline locations • drainage details (if applicable) • cross road drainage culverts (if applicable) • concrete footpaths and cycle paths • location and details for access points, ramps and invert crossings • changes in surfacing material	☐ confirmed	

☐☐☐

	Confirmation of lodgement	Method of lodgement
Applications for operational works involving stormwater drainage		
drawings showing: • existing and proposed contours • drainage locations, diameters and class of pipe, open drains and easements • manhole location, chainage and offset or co-ordinates and inlet and outlet invert levels • inlet pit locations, chainage and offset or co-ordinates and invert and kerb levels	☑ confirmed	over the counter
Applications for operational works involving water reticulation		
drawings showing: • kerb lines or edge of pavement where kerb is not constructed • location and levels of other utility services where affected by water reticulation works • pipe diameter, type of pipe and pipe alignment • water main alignments • water supply pump station details (if applicable) • minor reservoir details (if applicable) • conduits • location of valves and fire hydrants • location of house connections (if applicable) • location of bench marks and reference pegs	☑ confirmed	over the counter
Applications for operational works involving sewerage reticulation		
drawings showing: • location of all existing and proposed services • location of all existing and proposed sewer lines and manhole locations • location of all house connection branches • kerb lines or edge of pavement where kerb is not constructed • chainages • design sewer invert levels • design top of manhole levels • type of manhole and manhole cover • pipe diameter, type of pipe and pipe alignment • location of house connections (if applicable) • sewer pump station details (if applicable)	☑ confirmed	over the counter
Applications for operational works involving street lighting		
drawings showing: • location of all light poles and service conduits • location of all other cross road conduits • type of wattage and lighting • any traffic calming devices • additional plans for roundabouts and major roads (if applicable) • details of any variations to normal alignment • details of lighting levels	☐ confirmed	

	Confirmation of lodgement	Method of lodgement
Applications for operational works involving public utility services		
drawings showing: • any existing light poles and power poles • any existing underground services • details of proposed services • alternation to existing services	☐ confirmed	
Applications for operational works involving landscaping works		
drawings showing: • the location of proposed plant species • a plant schedule indicating common and botanical names, pot sizes and numbers of plants • planting bed preparation details including topsoil depth, subgrade preparation, mulch type and depth, type of turf, pebble, paving and garden edge • the location and type of any existing trees to be retained • construction details of planter boxes, retaining walls and fences • the proposed maintenance period • irrigation system details	☐ confirmed	

Notes for completing this form:

- This form can also be used for development applications for building works or operational works assessable against the land use plan for Cairns airport land or Mackay airport land. Whenever a planning scheme is mentioned, take it to mean the land use plan for the airport land.

Privacy -please refer to your assessment manager for further details on the use of information recorded in this form.

OFFICE USE ONLY

Date Received | | Reference Numbers | |

The *Sustainable Planning Act 2009* is administered by the Department of Infrastructure and Planning. This form and all other required application materials should be sent to your assessment manager and any referral agencies.

GMA Certification Group Pty Ltd

BUILDING SURVEYORS

Queensland's leaders in Building Certification Services

PORT DOUGLAS OFFICE

PHONE: (07) 4098 5150
FAX: (07) 4098 5180

Lot 9 Unit 5
Craiglie Business Park
Owen Street
CRAIGLIE QLD 4877

POSTAL:
P.O. Box 831,
PORT DOUGLAS QLD 4877

E-Mail: adminfn@geoffmitchell.com.au
Web: www.geoffmitchell.com.au

18 April 2010

Cairns Regional Council
PO Box 359
CAIRNS Q 4870

Attention: Development Assessment

Dear Sir,

Re: Operational Works Application
Mossman Gateway Shopping Centre
Lot 101 SP186233 Front Street, Mossman

GMA Certification Group Pty Ltd has been engaged to provide building certification services for the above project. Additionally, the owner has requested we submit the Operational Works application on their behalf.

Accordingly, please find enclosed an application for Operational Works for the abovementioned property, which includes:

1. IDAS Forms 1 & 6
2. Copies of plans including an electronic copy on disc
3. Geotechnical report
4. Statement of Compliance, and,
5. 1 x copy of MCU approval

Please advise the schedule fee for the application.

Should you require any further information or wish to discuss the application, please contact me on 4098 5150 or by email jevans@gmacert.com.au

Kind Regards,

GMA Certification Group P/L
Encl.

GILBOY HYDRAULIC SOLUTIONS

GJ & TL GILBOY PTY LTD / ACN: 105 215 432 / ABN: 85 105 215 432

4/131 Scott Street, Bungalow.
PO Box 857N, North Cairns. 4870
Phone: (07) 4051 5116 Fax: (07) 4051 5016 Mobile: 0439 664623
Email: greg@gilboy.com.au

FIRE HYDRANT FLOW AND PRESSURE TEST CERTIFICATE

PROPERTY LOCATION:	**TOWN & COUNTRY SHOPPING CENTRE CARPARK, FRONT STREET, MOSSMAN**
HYDRANT LOCATION NO: 3	**DUAL HEADED ABOVE GROUND HYDRANT IN LANDSCAPING OF TOWN & COUNTRY SHOPPING CENTRE, MOSSMAN**
SIZE OF MAIN:	**Assumed 100mm diameter**
TEST CONDUCTED FOR:	**LINCOLNE SCOTT - BRISBANE**
DATE:	**19th June 2009**
TIME:	**12.00 pm**
TEST RESULTS	
FIRE HYDRANT NO: 3	**DUAL HEADED ABOVE GROUND HYDRANT IN LANDSCAPING OF TOWN & COUNTRY SHOPPING CENTRE, MOSSMAN**
STATIC PRESSURE:	**850 KPa**
FLOW RATE ACHIEVED WITH 1 HYDRANT OPERATING:	**Full Flow = 30 Litres/second** **Residual Pressure @ 20 lit/sec = 600 Kpa** **Residual Pressure @ 10 lit/sec = 750 KPa**

Comments:

Name of Person Signing: **Gregory Gilboy** **A.H.S.C.A. Certificate No: 48 / F.P.C.R.B.Q No. 1262**

Position: **Manager**

Signature: Date: 19th June 2009

Cairns Regional COUNCIL

ENQUIRIES: Luke Jackson
PHONE: (07) 4044 3240
FAX: (07) 4044 3836
YOUR REF: 62830/BCS/NAC/L65095
OUR REF: 8/38/2 (2051791)

12 May 2009

Town & Country Limited
C/- CONICS Pty Ltd
PO BOX 355
MOSSMAN QLD 4873

15 MAY 2009

Dear Sir/Madam

DECISION NOTICE TO CHANGE AN EXISTING APPROVAL FOR DEVELOPMENT APPLICATION FOR 63 FRONT STREET MOSSMAN

With reference to the above request to Change an Existing Approval, please find attached the relevant Decision Notice which was determined under Instrument of Delegation on 12 May 2009.

The notice includes extracts from the Act with respect to making representations about conditions, negotiated decisions, suspension of the appeal period, and lodging an Appeal.

Should you have any enquires in relation to this Decision Notice, please contact Luke Jackson of Council's Development Assessment Team on telephone number (07) 4044 3240.

Yours faithfully

Simon Clarke
Manager Development Assessment

Att.

40.2009.3102
1/19

Cairns Regional COUNCIL

DECISION NOTICE DETAILS
(SECTION 3.5.15 INTEGRATED PLANNING ACT 1997)

APPLICANT DETAILS
Town & Country Limited
C/- Conics Pty Ltd
PO BOX 355 MOSSMAN QLD 4870

ADDRESS
63 Front Street MOSSMAN

REAL PROPERTY DESCRIPTION
Lot 101 on SP186233

PROPOSAL
Shopping Facilities& Business Facilities - Request for Minor Change to Conditions of Approval

DECISION
Approved subject to conditions (refer to approval package below).

DECISION DATE
12 May 2009

TYPE
Material Change of Use (Development Permit)

REFERRAL AGENCIES

Department of Main Roads
Cairns District
PO Box 6185
CAIRNS QLD 4870

SUBMISSIONS
There were no submissions for this application.

FURTHER DEVELOPMENT PERMITS REQUIRED
Development Permit for Building Works
Development Permit for Plumbing Works
Development Permit for Operational Works

CODES TO COMPLY WITH FOR SELF-ASSESSABLE DEVELOPMENT
None

40.2009.3102
2/19

DECISION NOTICE DETAILS
(SECTION 3.5.15 INTEGRATED PLANNING ACT 1997)

DOES THE ASSESSMENT MANAGER CONSIDER THE APPLICATION TO BE IN CONFLICT WITH APPLICABLE CODES, PLANNING SCHEME, STATE PLANNING POLICIES OR PRIORITY INFRASTRUCTURE PLAN (IF YES, INCLUDE STATEMENT OF REASONS)
Not in conflict

That Council approve the development application for a Material Change of Use (Code) for the purpose of Shopping Facilities and Business Facilities over land described as Lot 101 SP186233, located at 63 Front Street, Mossman, subject to the following conditions:

1. That Condition 1 be amended to read as follows:

Plan of Development

1. The approved development and the conduct of the approved use, the carrying out of any works on the premises and the construction of any buildings on the premises associated with the development must generally be in accordance with the details of the application and the following approved Plan/s of Development:

Title	Plan No.	Date
~~Site Plan~~ Proposed Site Plan	~~CO650-DA01~~ 07125-DA100B	~~Jan 2007~~ Jan 2009
~~Elevations~~ Proposed Elevations	~~CO650~~ 07125 – DA101B	~~Jan 2007~~ Jan 2009
Main Roads Concept Layout	GCS06 - 194	06/05/07
DMR Option Concept Layout	GCS06 - 194	06/05/07

Except where such plans are modified by the terms of this approval.

2. That Condition 14 be amended to read as follows:

Car Parking

14. A Car parking area with a minimum of ~~three hundred and thirty (330) spaces~~ two hundred and eighty-five (285) shall be constructed, sealed, drained and line marked in accordance with the relevant Australian Standard and the approved plan of development and maintained thereafter.

3. That condition 15 be deleted.

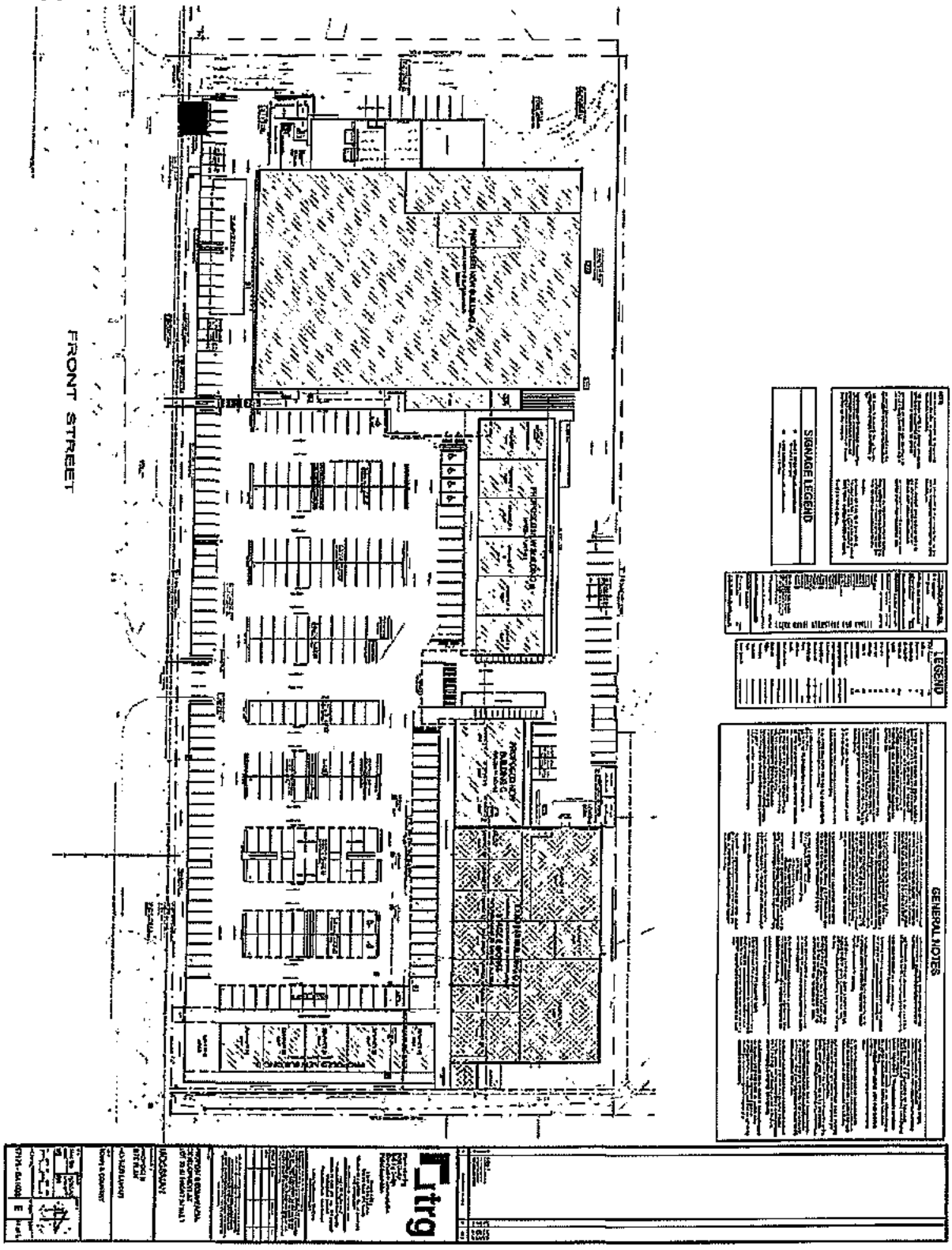
4. All other conditions of the Decision Notice approved by Council on 8 August 2007 remain unchanged.

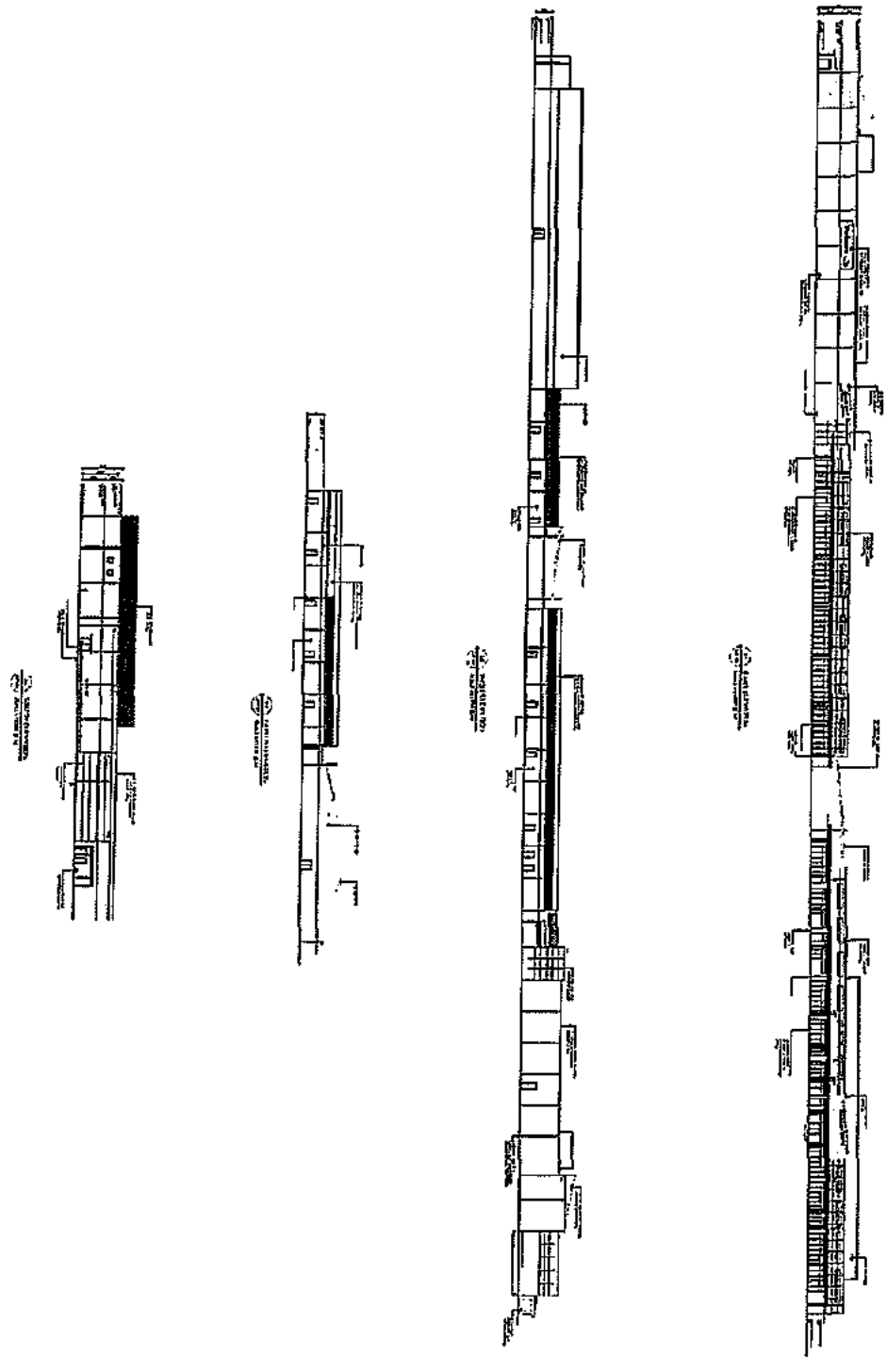
Note: This decision does not include the proposed licensed dining area which requires a separate development assessment.

RIGHTS OF APPEAL
Attached

End of Decision Notice

Appendix 1





Appendix 2

Mrs Natalie Clark – Planning Officer
Planning Services Section - ☎ (07) 4099 9456
planning@dsc.qld.gov.au

MCUC 007/07

Town & Country Limited
C/- Jenny Elphinstone Pty Ltd
PO Box 1098
MOSSMAN QLD 4873

8 August 2007

INTEGRATED PLANNING ACT
DECISION NOTICE

DEVELOPMENT APPLICATION

Applicant's Name	:	Town & Country Limited
Owner's Name	:	Town & Country Limited
Proposal	:	Material Change of Use for the purpose of Shopping Facilities and Business Facilities
Application Number	:	MCUC 007/07
Site Address	:	63 Front Street, Mossman
Property Description	:	Lot 101 on SP186233, Parish of Victory, County of Solander

A. Decision: **Decision Date:** 2 August 2007

Approved subject to Conditions

B. Type of Development Approval:

Material Change of Use Development Permit

.../2.

C. **Referral Agency:**

Department of Main Roads
Peninsular District
PO Box 6185
CAIRNS QLD 4870

D. **Conditions**

Plan of Development

1. The approved development and the conduct of the approved use, the carrying out of any works on the premises and the construction of any buildings on the premises associated with the development must generally be in accordance with the details of the application and the following approved Plan/s of Development:

Title	Plan No.	Date
Site Plan	CO650 – DA 01	Jan 2007
Elevations	CO650	Jan 2007
Main Roads Concept Layout	GCS06 – 194	06/05/07
DMR Option Concept Layout	GCS06 – 194	06/05/07

Except where such plans are modified by the terms of this approval.

Currency Period

2 This development approval lapses four (4) years after the day that the development approval takes effect, unless extended under Section 3.5.22 of the Integrated Planning Act 1997.

Landscaping

3. The following amendments are to be made to the landscaping plan, titled Landscape Concept Planting Design, numbered LCPP-0001 and dated 7 Feb 2007, submitted with the proposed development:

(a) The landscaping area along the rear western boundary is to be increased to 1.5 m wide to allow for dense screening vegetation;

(b) Golden Penda's or a similar native shade tree is to be incorporated into the landscaped area along the road frontage at 4 metre centres to provide shade to the car parking area directly adjacent.

.../3.

The amended plan is to be submitted to Council prior to obtaining a building permit/operational works permit.

4. A Landscaping Maintenance Schedule for a period of three (3) years is to be provided to Council with the amended landscaping plan. The Maintenance Schedule is to be accompanied by a $10,000.00 performance bond. The bond is refundable at the completion of the scheduled period on the provision the landscaping is established and maintained in accordance with the Schedule.

5. The owner/developer shall be responsible for all maintenance work for a period of three (3) years. Council will not accept the landscaping off maintenance until it meets the requirements of Council's Engineering Services.

6. Irrigation for external landscaping shall be transferred to Council's reticulated water system prior to landscaping being accepted as off maintenance.

Water Supply

7. The plans and specifications of the internal water supply must be submitted to Council at Operational Works application stage for this development for review.

This system must make provision for services to the boundaries of all lots, including main works; enveloper pipes at cross street services and valve and hydrant markers and be designed in accordance with the requirements of Planning Policy No.6 "Planning Scheme Policy No.6 "FNQROC Development Manual".

Sewerage

8. No additional external structural loads are permitted to be applied to Council's existing sewer as a consequence of the approved development. Plans and specifications for the internal sewer and connection to Council's sewerage system are to be submitted to Council with the application for Operational Works.

Electricity and Telephone Services

9. All electrical lines along the full frontages of the subject site (Front Street) are to be placed underground. These works are to be undertaken by Ergon Energy at the developers/owners expense and are to be completed prior to commencement of the approved use.

.../4.

Stormwater

10. All stormwater run-off from non-permeable surfaces and roof areas occurring on the site must be collected within the premises and discharged to the legal and practical point of discharge which has been nominated as Front Street. The applicant is required to extend the existing underground stormwater (from the existing surge pit located adjacent current entrance) for the full frontage of the allotment. In addition the applicant is to extend the existing kerb and channel for the full frontage of the allotment and undertake the necessary widening of Front Street. Plans and specifications for the control of stormwater (including design of discharge outlet, layout of kerb and channel and widening of Front Street) must be submitted to Council with the application for Operational Works. The approved use must not:

a) Interfere with the natural flow of stormwater;
b) Cause ponding of stormwater on adjoining properties.

11. The developer/owner is required to place pollution control devices in stormwater drains in accordance with the requirements of Planning Policy No.6 "Planning Scheme Policy No.6 "FNQROC Development Manual". The design and location of these devices must be submitted at Operational Works application stage.

Contributions

12. The developer/owner shall pay to the Council headworks contributions for water supply and sewerage in accordance with Council's Planning Scheme Policy No. 11 – Water Supply and Sewerage Headworks and Works External Contributions (The Policy). The contribution shall be calculated at the rate per Equivalent Domestic Connection (EDC) applicable at the time of payment in accordance with the policy.

The current number of EDC's for the approved use are:

Water Supply	21.8
Sewerage	21.8

.../5.

Flooding and Drainage

13. Plans of the filling and excavation are to be designed in accordance with the FNQROC Development Manual and be submitted at Building Work stage and must not:

(a) Pond water on the site, adjacent site or impact on the adjacent State-controlled road;
(b) Result in an increase in the flow of water across a site or any other land or the adjacent State-controlled road; and
(c) In an increase in the volume of water or concentration of water in a watercourse and overland flow paths;

Car parking

14. A car parking area with a minimum of three hundred and thirty (330) spaces shall be constructed, sealed, drained and line marked in accordance with the relevant Australian Standard and the approved plan of development and maintained thereafter.

15. The developer/owner is to provide an amended plan of development prior to obtaining a Building Permit, showing nine (9) designated Disabled Car Parking spaces in accordance with the provisions of the Douglas Shire Planning Scheme.

Refuse

16. There is to be provided within the development an area for the storage and washing of all refuse containers in accordance with the *Environmental protection (Interim Waste) Regulation 1996.* Such area is to be:

a) sufficient in size to be able to house all mobile garbage (wheelie) bins including recycling bins
b) situated so as not to cause an odour nuisance to any adjacent properties: and
c) imperviously paved and drained to a suitable silt trap; and
d) discharged to sewer to the satisfaction of the General Manager Engineering Services; and
e) provided with a suitable hose cock with backflow prevention device and hose ; and
f) roofed or provided with a suitable automatic diversion valve (or other approved method) designed to prevent the ingress of stormwater to sewer.

.../6.

Advertising Devices

18. The developer/owner is to provide each Business/Shopping Facility with a blank "Below Awning Sign" with the following dimensions:

(a) Maximum height of 0.6 metres;
(b) Maximum width of 0.3 metres;
(c) Maximum length of 2.5 metres and does not project beyond the awning.

The blank sign can then be designed by the occupant of the facility when confirmed.

Environmental Management Plan

19. The Developer is to submit with the application for approval of Operational Works, an Environmental Management Plan (EMP) in accordance with the requirements of Planning Scheme Policy No.10 *"Reports and Information the Council may Request"*. This EMP must detail the controls to be utilised to ensure that no environmental harm or nuisance is caused from the construction of the works and must include a Stormwater Management Plan.

Compliance

20. All conditions shall be complied with prior to the occupancy of the building for the approved use or commencement of the approved use on the land. Any developer security, associated with this approval will not be released until all conditions of approval are complied with.

Security

21. To guarantee the satisfactory completion of the landscaping and to ensure payment of headworks contributions, the developer shall lodge with the Council a Cash Bond or Guarantee to the value of $194,957.00. Such guarantee shall be lodged prior to the issue of a Building Work Permit. The Council may call up this Guarantee to complete all or any part of the works mentioned herein in accordance with the conditions of this approval, should the developer fail to do so prior to issuing a permit for Building Work.

.../7.

Advice

Should any future business wish to utilise a Chalk Board or A Frame Advertising Device; registration is required through Council's Environmental Health Services.

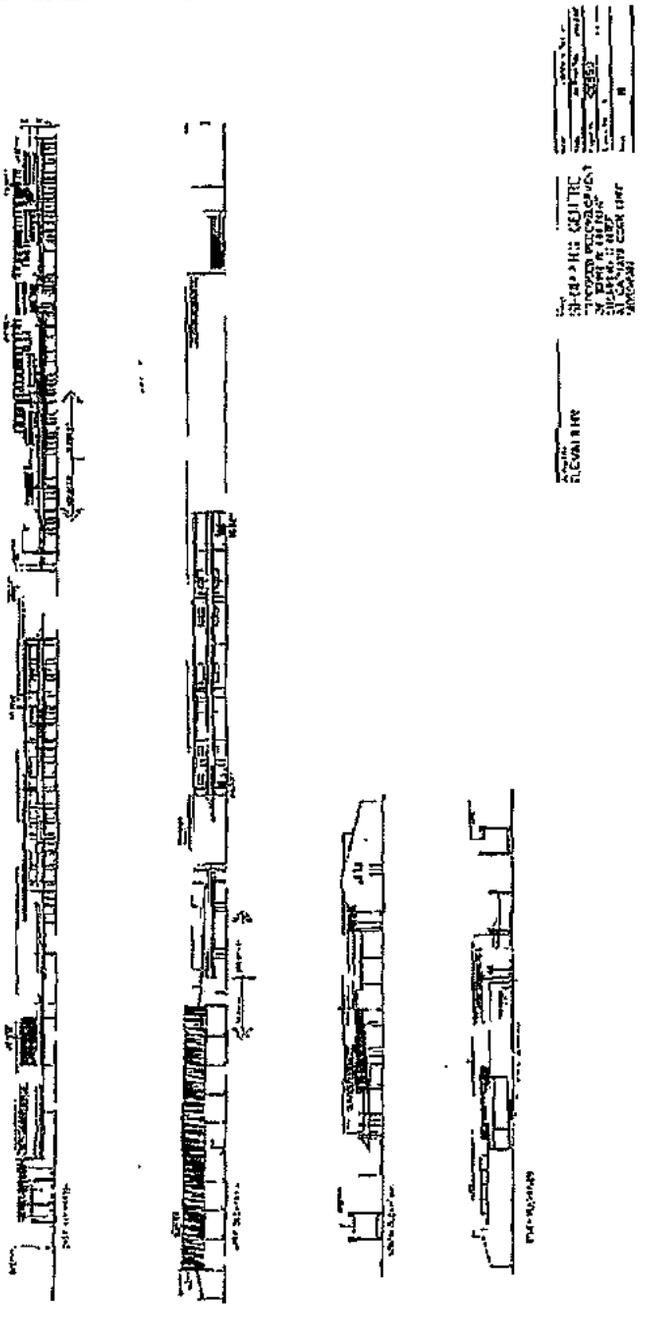
An application for an Operational Works Permit for an Advertising Device will be required to be submitted and approved by Council prior to the installation of any proposed Tenancy Sign or other advertising sign assessable against the Planning Scheme.

E. Further Development Approvals Required:

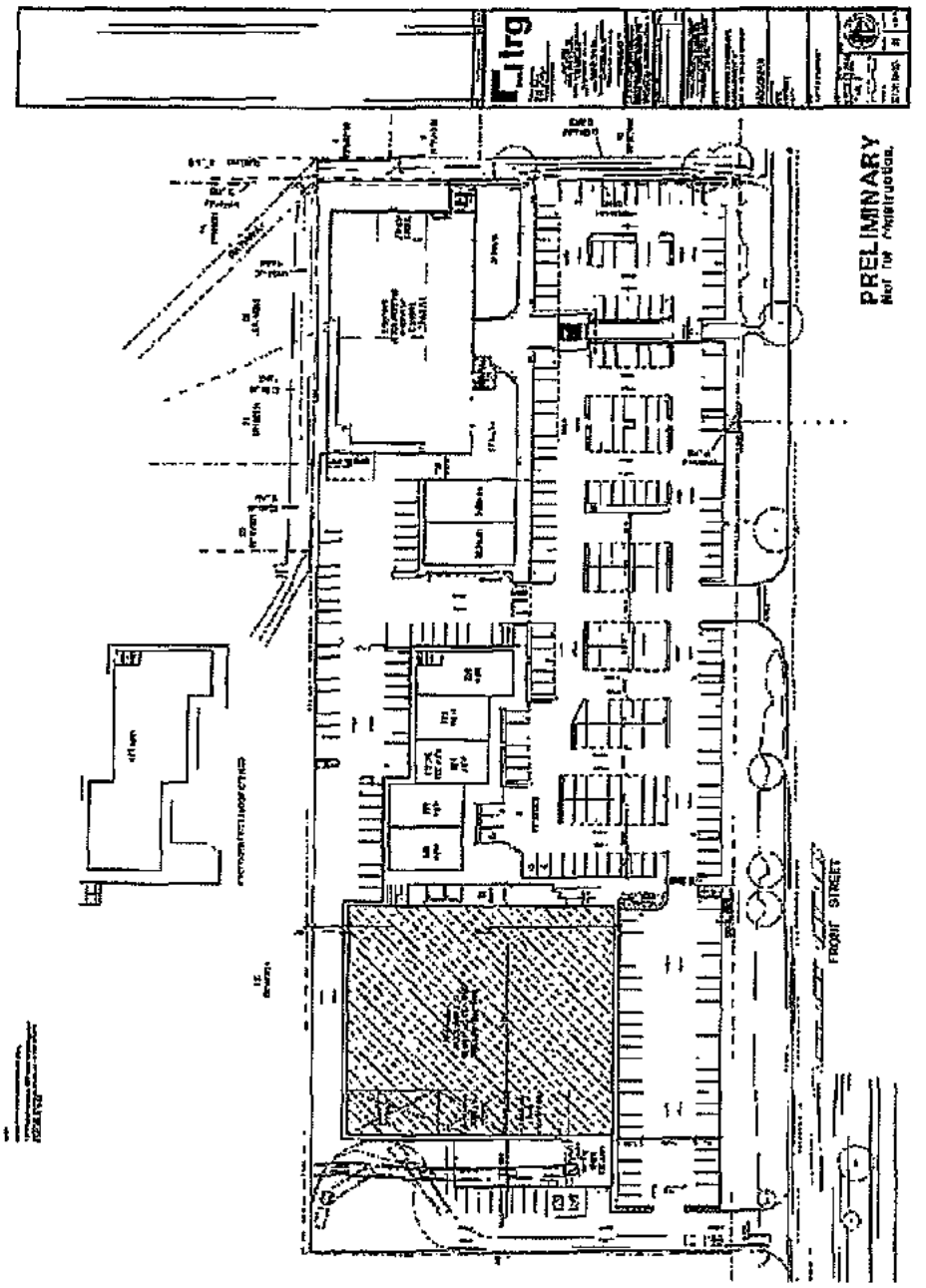
Operational Work	Development Permit
Building Permit	Development Permit

Paul Trotman
General Manager – Development & Environment

Appendix A – Plans of Development



DECISION NOTICE DETAILS
(SECTION 3.5.15 INTEGRATED PLANNING ACT 1997)



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15/19

Appendix B – Department of Main Roads conditions

Queensland Government

Department of Main Roads

18 June 2007

Ms Julie Lau
A/ Chief Executive Officer
Douglas Shire Council
PO Box 357
Mossman Qld 4873

Dear Ms Lau

Douglas Shire : Captain Cook Highway (Front Street)
Situated at Town & Country Shopping Centre, Front Street, Mossman
Lot 101 on SP 156133, Parish of Victory
Town & Country Limited
Proposed Material Change of Use (Shopping Facilities & Business Facilities) Application
Concurrence Agency's Response (conditions apply)

I refer to the above application received at the Department 15 February 2007, 20 February 2007 and 11 May 2007 requesting consideration of the above development.

A. CONDITIONS OF DEVELOPMENT

Pursuant to the *Integrated Planning Act 1997*, the Queensland Department of Main Roads, as a Concurrence Agency, has assessed the impact of the proposed development on the State-controlled road network and requires that Council include the following conditions of development for the subject application:

1. Permitted Road Access Location

(i) Access between Front Street and the proposed development shall be via:
- the existing access located opposite the Harper Street intersection, and
- a new access located at the southern side boundary of the subject land.

(ii) No additional direct access between Front Street and the proposed development is permitted.

2. Road Access Works

(i) Road access works at the permitted road access locations are required, and shall be constructed in accordance with:
- the Department of Main Roads *Road Planning and Design Manual* and
- current Department of Main Roads standards.

Office of the Deputy Director-General
Peninsula District
Level 4, Cairns Corporate Tower, 15 Lake Street
Cairns, Queensland 4870
PO Box [illegible] Cairns Queensland 4870
ABN [illegible]

Our ref [illegible]
Your ref [illegible]
Enquiries [illegible]
Telephone [illegible]
Facsimile [illegible]
Website [illegible]

A recent site inspection indicates that the required road access works are as follows:

- a channelised right turn treatment (CHR) at the new access,
- an auxiliary left turn treatment (AUL) at the new access,
- provision of a concrete splitter median in the new access
- concrete island left in, left out only, arrangement at the existing access,
- an auxiliary left turn treatment with a short turn slot [AUL(S)] at the existing access
- a channelised right turn treatment with a short turn slot [CHR(S)] into Harper Street,
- a concrete pedestrian refuge in Front Street north of Harper Street

Category V3 lighting is required for this project.

Lighting standards have changed in recent times. The lighting installation will need to comply with the following:

- The Electrical Safety Act and regulations 2002
- Australian Standards (AS1158.1.1 2005 Lighting for roads and public spaces, AS3000 2000 Australian wiring rules for electrical installations)
- DMR Road Planning & Design Manual (RP&DM) Chapter 17
- MR specifications MRS11.91, MRS11.92, MRS11.94 and MRS11.95
- MR Standard Drawings
- District specific standards, notes and drawing details (made available on request)

RPEQ (electrical) certification is mandatory.

Any necessary relocation of Council water mains, Telstra and electrical services are to be undertaken at no cost to DMR and works completed to the service provider's satisfaction. No existing water mains within 3.0 m. of the new sealed shoulder edge shall be permitted.

(ii) The landowner/ applicant shall submit design drawings prepared by a suitably qualified Registered Professional Engineer Queensland (RPEQ) for approval of the Cairns office of the Department of Main Roads prior to commencing works within the State-controlled road reserve (i.e. Front Street).

(iii) All required road access works shall be completed to the satisfaction of the Director-General of the Department of Main Roads prior to the commencement of the approved use on the subject land.

3. Hydraulic Considerations

To protect the existing flood immunity of the State-controlled road (i.e. Front Street), the landowner/ applicant shall seek the approval of the Director-General of the Department of Main Roads prior to any works commencing on the subject land which may result in changes to the existing water flows, afflux levels and/ or hydraulic structures along, under or over Front Street.

4. Visual Amenity Treatments

The applicant/ landowner shall provide a minimum 3m wide landscaped strip and building alignment setback along the subject land's frontage to Front Street to screen the onsite carparking provision and vehicular circulation. The landscaping shall be designed and planted such that when the landscaping matures, it provides a minimum 1m high screening and complementary screen trees approximately 6m tall at 7m spacings.

The species of plants used in the landscaping works shall be in accordance with Council's standards. If Council does not have standards, then the only requirements are that the species are native, low maintenance species that are effective at providing the necessary screening specified above and do not create a safety risk (i.e. no thorns, poisonous fruits or berries or large nuts).

All landscaping works shall be completed prior to the commencement of the approved use, to the satisfaction of the Director-General of the Department of Main Roads and the Douglas Shire Council.

5. Provision of Pedestrian/ Bicycle Path

(i) The applicant/landowner shall provide a 2m wide concrete pedestrian/ bicycle path along the full Front Street frontage, with links into the proposed development north and south of the existing road access location, subject to the approval of the Department of Main Roads.

(ii) The applicant/landowner shall construct the pedestrian/ bicycle path to the requirements of the Douglas Shire Council prior to the commencement of the approved use on the subject land.

6. Parking

When calculating carparking requirements associated with the proposed development, no allowance shall be made for parking within the State-controlled road reserves (i.e. Front Street).

7. Advertising

No advertising device for the proposed development on the subject land is permitted within the State-controlled road reserves (i.e. Front Street).

Reasons

The reasons and information used in the setting of conditions detailed above include:

- Department of Main Roads Access Policy;
- Department of Main Roads Involvement in Development Application Referrals and Assessment Guide; and
- Douglas Shire Planning Scheme.

B. GENERAL DISCUSSION

Council is requested to reflect the above conditions on its Rates Record, to ensure that the planning intentions of the conditions are secured.

This Department would appreciate a copy of Council's decision notice regarding the application.

A copy of this letter has been sent to the applicant.

Yours sincerely

David Hubner
MANAGER (TRANSPORT PLANNING) PENINSULA

FNQROC DEVELOPMENT MANUAL

Council CAIRNS REGIONAL COUNCIL
(INSERT COUNCIL NAME)

STATEMENT OF COMPLIANCE
OPERATIONAL WORKS DESIGN

This form duly completed and signed by an authorised agent of the Designer shall be submitted with the Operational Works Application for Council Approval.

Name of Development MOSSMAN GATEWAY SHOPPING CENTRE

Compliance with the requirements of the Operational Works Design Guidelines	Non-Compliance refer to non-compliance report / drawing number
Plan Presentation	SITE PLAN ATTACHED
Geotechnical requirements	GEOTECHNICAL REPORT ATTACHED
Geometric Road Design	N/A
Pavements	N/A
Structures / Bridges	N/A
Subsurface Drainage	N/A
Stormwater Drainage	STORMWATER DESIGN PLANS ATTACHED
Site Re-grading	N/A
Erosion Control and Stormwater Management	UNDER SEPARATE COVER
Pest Plant Management	N/A
Cycleway / Pathways	N/A
Landscaping	LANDSCAPING PREVIOUSLY APPROVED
Water Source and Disinfection/Treatment Infrastructure (if applicable)	N/A
Water Reticulation and Pump Stations	WATER SUPPLY PLANS ATTACHED
Sewer Reticulation and Pump Stations	PLUMBING APPROVAL HAS BEEN ISSUED
Electrical Reticulation and Street Lighting	N/A
Public Transport	N/A
Associated Documentation/ Specification	N/A.
Priced Schedule of Quantities	N/A
Referral Agency Conditions	N/A
Other	

APPLICATION PROCEDURES

Location of Development 63 FRONT STREET, MOSSMAN

Applicant TOWN & COUNTRY LTD

Designer TRG

It is hereby certified that the Calculations, Drawings, Specifications and related documents submitted herewith have been prepared, checked and amended in accordance with the requirements of the FNQROC Development Manual and that the competed works comply with the requirements therein, **except** as noted below.

Conscientiously believing the above statements to be true and correct, signed on behalf of:

Designer ..... **RPEQ No** .....

Name in Full .....

Signature ..... **Date** .....

OPERATIONAL WORKS RECEIPTING CHECKLIST

(To be completed by Consulting Engineer making the application)

Name of Council: **CAIRNS REGIONAL COUNCIL**

Development Name and Location: MOSSMAN GATEWAY SHOPPING CENTRE – 63 FRONT STREET, MOSSMAN

Planning Permit No/Council File No: 8/1381/2

DESIGN SUBMISSION	CHECK	COMMENT
1. Completed 'Statement of Compliance' form. (FNQROC - AP1 – Appendix A)	☑	
2. IDAS Forms A ,E & IDAS Assessment Checklist (Available from www.ipa.qld.gov.au)	☑	
3. Payment of Engineering Application Fees (Copy of receipt to be attached) (Available from www.cairns.qld.gov.au)	☐	
4. Copy of Decision Notice for Development Application Conditions, inc. explanation of how each condition is to be addressed (Statement of Compliance)	☑	
5. Engineering Design drawings - Complete sets (1 x A1 set, 2 x A3 sets and 1 x electronic copy on compact disc in 'PDF' format)	☑	
6. One copy of Design and Standard Specifications (Unbound Copy Preferable)	☐	
7. Written consent from adjoining property owners authorising any works on their property	☐	
8. Water reticulation network in electronic format (Engineer to confirm system requirements and compatibility with Cairns Water)	☑	
9. Landscape drawings - Complete set (1 x A1 set, 2 x A3 sets and 1 x electronic copy on compact disc in 'PDF' format) These must be accompanied by elements of the stormwater & street ltg. layout design, to avoid conflicts.	☐	PREVIOUSLY APPROVED
10. Overall network drawings (for staged development) for:		
• Water	☑	
• Stormwater	☑	
• Sewer	☑	
• Pathways and roads	☑	
• Street Lighting	☐	

OPERATIONAL WORKS RECEIPTING CHECKLIST (Continued)

DESIGN SUBMISSION	CHECK	COMMENT

10. Overall network drawings (for staged development) Continued.

- Electrical ☐
- Gas ☐
- Public Transport ☐
- Park Reserves ☐
- Drainage Reserves ☐

11. Pavement design criteria ☐

12. Geotechnical reports for proposed Earthworks ☑

13. Structural and geotechnical certificates for retaining walls etc. ☐

14. Water supply/sewerage pump station design parameters ☐

15. Stormwater drainage calculations ☐

16. Erosion and Sediment Control Strategy (ESCS) ☐

17. Declared Pest Management Plan (if applicable) ☐

18. The approval of any other Authorities & concurrence agencies likely to be affected by the works. ☐

19. Contact details of the Consulting Engineer who is submitting the Application:

Name of Engineer	TO BE ADVISED	
Name of Company		
Telephone Number (s)	Office:	Mobile:
Email address		
RPEQ No.		

20. Date of submission of application 19 / 4 / 2010

(For further information on all of the above refer to the FNQROC Development Manual Section AP1)

PLEASE RETURN THIS FORM AND ALL ASSOCIATED DOCUMENTS TO 'PLANNER OF THE DAY', CUSTOMER SERVICES DESK, CAIRNS CITY COUNCIL, 119-145 SPENCE ST. CAIRNS, QLD, 4870

GEOTECHNICAL &
MATERIALS TESTING

Engineering Testing Services
(Cairns) Pty Ltd
Unit 1, 220 Scott St
Cairns Qld 4870
Telephone: 07 4047 8600
Facsimile: 07 4047 8699
Nata Accred. No: 1833
PO Box 252 Bungalow Qld 4870

Engineering Testing Services
(Townsville) Pty Ltd
Unit D 26-30 Loma Court
Bohle Qld 4818
Telephone: 07 4774 4135
Facsimile: 07 4774 4357
Nata Accred. No: 2694

Advice no. TE07-178-003L
15 February 2008

Town and Country
PO Box 100
MOSSMAN QLD 4873

Attention: Mr Stuart Lovell

Dear Stuart,

RE: ADVICE REGARDING PROPOSED SHOPPING CENTRE CAPTAIN COOK HIGHWAY, MOSSMAN

1.0 INTRODUCTION

Engineering Testing Services (Townsville) Pty Ltd (ETS) has conducted a geotechnical investigation for a proposed shopping centre redevelopment at Mossman. The works were commissioned by Stuart Lovell of Town and Country, November 2007.

The current document presents revised design recommendations for proposed footings at the shopping centre site based on new design information supplied subsequent to the issuing of ETS previous report TE07-178-002R. The additional design drawings for the existing complex were supplied to ETS by DEQ Consulting Engineers (on behalf of Town and Country). Initial design recommendations for footings are presented in TE07-178-002R issued early January 2008.

2.0 ENGINEERING ASSESSMENT

Due to the variability in shopping centre layouts, a suspended slab is not a preferred footing option. Proposed footing options were supplied to ETS on 25 January 2008. This document is to supplement the previous report issued and provide design recommendations for a slab-on-ground footing scenario based on the loads supplied by DEQ Consulting Engineers.

The following have been assumed for the assessment of total and differential settlements:

Engineering Testing Services (Cairns) Pty Ltd
Unit 1, 220 Scott St
Cairns Qld 4870
Telephone: 07 4047 8600
Facsimile: 07 4047 8699
Nata Accred. No: 1833
PO Box 252 Bungalow Qld 4870

Engineering Testing Services (Townsville) Pty Ltd
Unit D 28-30 Loma Court
Bohle Qld 4818
Telephone: 07 4774 4135
Facsimile: 07 4774 4357
Nata Accred. No: 2694

- The upper 1m (approximately) of soil is to be removed and replaced with controlled fill as per recommendation supplied in Section 3.0 of this document. All subsurface material containing organic materials should be removed prior to fill be placed on site. It is considered unlikely that the current upper 1m of soil in the profile could be reused as controlled fill.

- The ultimate limit state design load for the proposed supermarket is ≤30kPa. Additionally the width of the supermarket is approximately 60m.

- The ultimate limit state design load for the proposed retail store is ≤10kPa. Additionally the width of the retail store is approximately 30m.

- Fill material is assumed to have a unit weight of approximately 20kN/m^3.

- Strip footings are proportioned using an allowable bearing capacity of 100kPa with >0.7m of controlled fill below the base of the footing.

- Pad footings are proportioned using an allowable bearing capacity of 150kPa with >1m of controlled fill below the base of the footing.

- An assessment settlement has been performed using Schmertmann's method in conjunction with generally accepted geotechnical engineering principles. Differential settlements are anticipated to be approximately 75% of the total settlements.

Based on the above assumptions total settlements of approximately 30mm are anticipated for the site, corresponding to differential settlements of approximately 20 – 25mm.

3.0 SITE FILLING AND SUBGRADE PREPARATION

Subgrade preparation should consist of complete removal of topsoil (upper layer of soil containing grass roots and organic matter) and fill material, followed by proof rolling and compaction to a minimum dry density ratio of 95% based on Standard compactive effort (for clayey soils). 'Soft', wet areas remaining after subgrade treatment should be excavated, backfilled and compacted with an approved select fill material. Backfill shall be placed and compacted in layers not exceeding 200mm loose thickness to the above density ratio.

Engineering Testing Services (Cairns) Pty Ltd
Unit 1, 220 Scott St
Cairns Qld 4870
Telephone: 07 4047 8600
Facsimile: 07 4047 8699
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PO Box 252 Bungalow Qld 4870

Engineering Testing Services (Townsville) Pty Ltd
Unit D 26-30 Loma Court
Bohle Qld 4818
Telephone: 07 4774 4135
Facsimile: 07 4774 4357
Nata Accred. No: 2694

Where filling it should be placed and compacted in a controlled manner. Controlled filling should be carried out as per the specifications of the works, and in the absence of specifications works should be conducted as per AS3798-2007 ("Guidelines on Earthworks for Commercial and Residential Developments").

If fill material is to be imported it is recommended that the fill should comprise what is locally known as "CBR 15 material" and have a Plasticity Index less than 20. Further geotechnical advice should be sought if reactive fill is used.

In regard to the potential issue of workability of the cut surface of the replacement zone, it is anticipated that some construction difficulties may be possible in the ***soft to firm sandy clay material***, especially if the ground becomes saturated or wet. In the event that the workability of the cut surface is difficult the use of a bridging layer may be adopted, where a layer of geofabric is placed over the base and sides of the fill body and suitable compacted material is placed. ETS would be pleased to provide a detailed design of a suitable bridging layer platform if required. Alternatively, material difficult to handle may be excavated until a suitable founding layer is observed, the excavation may then be replaced with compacted fill.

It is also noted that if the clay soil on site becomes 'wet' it is likely to result in trafficability problems, and placement of material on site would become difficult.

4.0 CONCLUSION

Given the above it is recommended that the ground slab be reassessed from a structural viewpoint to ensure that adequate stiffness is provided to accommodate the assessed settlements discussed in previous sections.

We have prepared this report for the use of **Town and Country**, for design purposes in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has not been prepared for use by parties other than **Town and Country** or their design consultants, ie. Architect & Civil/Structural Engineers. It may not contain sufficient information for purposes of other parties or for other uses.

Your attention is drawn to the document - "Important Information About Your Geotechnical Engineering Report", which is attached to this advice. This document has been prepared by the ASFE (Professional Firms Practicing in the Geosciences). The statements presented in this document are intended to advise you of what your realistic expectations of this report should be, and to present you with

Engineering Testing Services
(Cairns) Pty Ltd
Unit 1, 220 Scott St
Cairns Qld 4870
Telephone: 07 4047 8600
Facsimile: 07 4047 8699
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Nata Accred. No: 2694

recommendations on how to minimise the risks associated with the groundworks for this project. The document is not intended to reduce the level of responsibility accepted by ETS, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.

Should you require clarification on any aspect of this proposal, please do not hesitate to contact Chris Pennisi at our Townsville Office.

Yours faithfully,
ENGINEERING TESTING SERVICES (Townsville) PTY LTD

M. Ganza

Michael Ganza (RPEQ 4449)
Director

Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfil the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one – not even you* – should apply the report for any purpose or project except the one originally contemplated.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include : the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was :

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical change that can erode the reliability of an existing geotechnical engineering report include those that affect :

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes – even minor ones – and request an assessment of their impact. *Geotechnical Engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by : the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions *only* at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgement to render an *opinion* about subsurface conditions throughout the site. Actual subsurface conditions may differ – sometimes significantly – from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgement and opinion. Geotechnical engineers can finalise their recommendations only by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for*

the report's recommendations if that engineer does not perform construction observation.

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognise that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognise that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce such risks, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labelled "limitations", many of these provisions indicate where geotechnical engineers responsibilities begin and end, to help others recognise their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Rely on Your Geotechnical Engineer for Additional Assistance

Membership in ASFE exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE member geotechnical engineer for more information.

ASFE PROFESSIONAL FIRMS PRACTICING IN THE GEOSCIENCES
8811 Colesville Road Suite G106 Silver Spring, MD 20910
Telephone: 301-565-2733 Facsimile: 301-589-2017
email: info@asfe.org www.asfe.org

GEOTECHNICAL & MATERIALS TESTING

GEOTECHNICAL INVESTIGATION

PROJECT NO: TE07-178

TOWN & COUNTRY
SHOPPING CENTRE REDEVELOPMENT
MOSSMAN

JANUARY 2008

PO Box 252, Bungalow Qld 4870
Ph: (07) 4774 4135 Fax: (07) 4774 4357 Mob: 0439 773 379
Email: info@engineeringtesting.com.au

REPORT ON

GEOTECHNICAL INVESTIGATION

PROPOSED SHOPPING CENTRE REDEVELOPMENT
MOSSMAN

Submitted to:

Town & Country
PO Box 100
MOSSMAN QLD 4873

DISTRIBUTION:

2 Copies -Town & Country
1 Copy - Engineering Testing Services (Townsville) Pty Ltd

January, 2008 TE07-178-002R

TABLE OF CONTENTS

SECTION **PAGE**

LIST OF APPENDICES

1.0 INTRODUCTION

Engineering Testing Services Pty Ltd (ETS) has conducted a geotechnical investigation for the proposed Town & Country shopping centre redevelopment. The works were commissioned by the customer in October 2007.

It is understood the proposed redevelopment involves an extension to the existing Town & Country shopping centre located on the Captain Cook Highway, Mossman. The redevelopment is to include construction of specialty shops, a new supermarket, offices and associated amenities. It is also understood that additional car parking facilities will be constructed to service the shopping centre patrons.

Based on the plans provided, it is likely that part of the extension will be two storeys. It is noted that design foundation loads for the proposed redevelopment have not been provided.

Based on the above information, the extent of works covered by ETS in this report is as follows:

- Provide a site classification in accordance with AS2870 – 1996 *"Residential Slab and Footing Construction"* to allow the selection of standard footing designs or for the design of footing systems by engineering principles.

- Provide an indication of materials which may be encountered on site by supplying detailed engineering logs and confirmatory classification testing to confirm material type observed in the field. Detailed logging of boreholes and test pits will be conducted in accordance with AS1726 *"Geotechnical Site Investigations"* and under the direction of an experienced Geotechnical Engineer.

- Provide advice on suitable founding options and subsequent allowable bearing capacities for expected founding materials. If piers are considered a feasible option, design parameters will be provided.

- Provide advice on methods of excavation for the material encountered.

- Provide advice on suitable methods for site preparation and earthworks.

- Provide quantitative California Bearing Ratio (CBR) values to facilitate pavement design.

2.0 FIELD WORK

Fieldwork was conducted on the 5, 11 and 12 December 2007 and included an assessment of the site and its surrounds, and subsurface investigation of material on site. Fieldwork was conducted by ETS Senior Geotechnician Darren Koch.

Four (4) boreholes were drilled to approximately 10.95m to 13.45m depth across the site to assess subsurface materials. Boreholes were drilled using a trailer mounted drilling rig equipped for geotechnical investigations. Insitu testing and sampling was conducted at approximately 1m to 1.5m intervals using Standard Penetration Testing (SPT) and/or thin wall U50 tubes, where appropriate.

Seven (7) test pits were excavated on site using a backhoe equipped for geotechnical investigations. Test pits were excavated to depths between 4.2m and 4.5m. Disturbed bulk samples were retrieved from test pits to facilitate CBR testing.

The approximate locations of each of the borehole and test pit can be viewed on the attached Figure 1.

Engineering logs for each of the boreholes may be seen in Appendix A.

Samples collected were sealed and transported to ETS NATA accredited Cairns laboratory for further classification and testing.

At the time of the fieldwork, groundwater inflow was observed in BH1 and BH2 at approximately 6.6m and 6.3m respectively, below the ground surface level. It is noted that higher groundwater levels may be possible due to rain, broken services, and/or other factors.

3.0 LABORATORY TESTING

The following laboratory testing was conducted in our NATA accredited laboratory on samples recovered during fieldwork:

- 7 Atterberg Limits to aid in site and soil classification.
- 10 Particle Size Distribution to aid in site and soil classification.
- 3 Standard Compaction and 4-Day Soaked CBR tests

The results for the laboratory testing are presented in Appendix B.

Please note that CBR results will included as part of a subsequent report.

4.0 SITE CONDITIONS AND OBSERVATIONS

4.1 Subsoil Conditions

Based on the four (4) boreholes and seven (7) test pits excavated on site, the general subsoil strata is as follows:

TABLE 1: General Subsoil Profile

Depth (m)	MATERIAL Description
Ground Level (0.0m)	**SANDY / SILTY CLAY** Soft to firm, orange, brown, pale yellow and pale grey
1.5m	**CLAYEY / SILTY SAND:** Loose to medium dense, yellow and brown **to** **SANDY /SILTY CLAY:** Firm to very stiff, yellow and brown.
3.5m	**SANDY / SILTY CLAY** Firm to very stiff yellow, orange, brown and grey. **to** **SILTY SAND** Medium dense, yellow, orange, brown and grey.
8.0m	**SILTY / CLAYEY /GRAVELLY SAND** Medium dense to dense, pale grey, cream and pale yellow
13.5m	

The subsoil profile each of the observed in boreholes BH1 to BH4 and TP1 to TP7 can be viewed in the engineering logs in Appendix A.

5.0 ENGINEERING ASSESSMENT

5.1 Footing Design

Given the very soft to soft clays and loose sands observed to depths of approximately 3.5m below the existing surface, it is considered that a suspended slab with piles is a feasible footing system. It is considered that shallow footings and stiffened rafts will be prone to significant settlements, and hence unlikely to be

feasible from a serviceability and strength viewpoint. ETS would be pleased to provide a more detailed assessed for shallow foundations if requested.

Design recommendations for piles and general earthworks are provided in the sections below. For completeness a site classification as also been provided in Section 5.1.1 below.

5.1.1 Site Classification

A site classification in accordance with AS2870 has been conducted below to aid in the design of the footings.

In assessment of site classification the following have been considered:

- The depth of suction change Hs has been taken as 1.5 metres based on the recently published work by Fox (2000) and in accordance with local practice, with a design suction change at ground surface of pF 0.8. A crack depth of 0.8m has been assumed as per AS2870.

- Typical shrink-swell parameters have been assessed by an empirical correlation with classification test (liquid limit and/or linear shrinkage).

Based on the results of the Atterberg Limit and Particle Size Distribution testing the materials encountered on site is assessed to have a characteristic free surface movement of approximately 30 mm.

Due to the very soft to soft soils encountered during the investigation the Site may be classified **CLASS – P** for footings designed in accordance with Australian Standard 2870 "Residential Slabs and Footings – Construction" and advice should be sought from a Qualified Engineer (a professional engineer with academic qualifications in geotechnical or structural engineering who also has extensive experience in the design of footing systems for houses or similar structures).

Note: This classification is subject to review should any cut earthworks in excess of 0.5m or any filling be carried out.

5.1.2 Pier Footings

Piles may be adopted to support the structures forming this development. A number of pile types could be utilised for the proposed structure depending on constraints such as allowable vibration levels during construction and council approvals. To aid in preliminary design recommendations for bored and driven piles are provided in this report.

It is noted that driven then cast in-situ piles with an enlarged base (such as Frankipiles) generally have similar advantages and disadvantages as driven precast piles, but with the further advantage of higher bearing or tensile capacity due to the enlarged base.

For the current project, bored piles advanced from the base of the proposed excavation are likely to require use of liners to reduce difficulties with groundwater entry into the drilled boreholes.

It is noted that if some seepage may be expected in the bored pier holes. It is suggested that seepage water be pumped from the hole immediately prior to concrete being placed.

An alternative approach to using a liner for bored piles would be to use a CFA pile rig for which the hollow flight auger supports the borehole sides and permits concrete injection to the base of the hole.

For driven piles, the piles would need to be hammered to a sufficient depth to allow adequate skin friction to be achieved for the design against uplift loads due to pore water pressure.

Design parameters for non-displacement (i.e. bored) and displacement (i.e. driven) pile types are shown in Table 2 below. To obtain the assessed design parameters piles should be embedded at least three pile diameters into the soil layer. Greater founding depths may be required for large uplift or compression loads. The design should include assessment of both strength and serviceability limit states. A geotechnical reduction factor of Φ_g = 0.5 should be applied to the ultimate end bearing and shaft resistance values indicated in Table 2 when considering the ultimate strength limit state.

TABLE 2: Preliminary Ultimate Design Capacities for Boreholes BH1 – BH4

Soil Type	Depth (1)	Ultimate Bearing Capacity (MPa)		Ultimate Skin Friction			
				Non-displacement		Displacement	
		Non-displacement	Displacement	Compression (kPa)	Tension (kPa)(2)	Compression (kPa)	Tension (kPa)(2)
Sandy silty CLAY: Soft to firm	0 – 1.5m	Neglect	Neglect	Neglect		Neglect	
Clayey / silty SAND to sandy / silty CLAY: Loose to medium dense / firm to very stiff	1.5 – 3.5m	0.5	0.8	15	12	25	20
Sandy / silty CLAY to silty SAND: Firm to very stiff, medium dense	3.5 – 8.0m	0.8	1.0	30	25	40	35
Silty / clayey / gravelly SAND: Medium dense to dense	8.0 – 13.0m	2.0	3.5	35	30	60	45

1. Depths are below current ground surface level.
2. A factor of 0.8 (*ultimate skin friction compression) has been used to obtain the ultimate skin friction tension for sandy soils (Decourt, 1995).

The ultimate end bearing pressure and shaft resistance have been estimated based on the empirical method of Decourt (1995). For preliminary design the pile footings may be sized using the ultimate values given in this section. The final proposed pile sizes need to be checked by a Geotechnical Engineer from a serviceability point of view.

The footing excavations should be assessed before placement of concrete by a suitably qualified and experienced geotechnical engineer (or an experienced Geotechnician under direction of a geotechnical engineer), to confirm that founding conditions are consistent with those recommended above.

5.2 Site Filling and Subgrade Preparation

Subgrade preparation should consist of complete topsoil removal (upper layer of soil containing grass roots and organic matter), excavation to the depth of the trench, followed by compaction of the base of the trench to a minimum dry density ratio of 95% based on Standard compactive effort (for clayey soils). 'Soft', tree stump holes and/or wet areas remaining after subgrade treatment should be excavated, backfilled and compacted with an approved select fill material. Backfill shall be placed and compacted in layers not exceeding 200 mm loose thickness to the above density ratio.

Where filling it should be placed and compacted in a controlled manner. Controlled filling should be carried out as per the specifications of the works, and in the absence

of specifications works should be conducted as per AS3798-2007 ("Guidelines on Earthworks for Commercial and Residential Developments").

If fill material is to be imported it is recommended that the fill should comprise what is locally known as "CBR 15 material" and have a Plasticity Index less than 20. Further geotechnical advice should be sought if reactive fill is used.

It is also noted that if the clay soil on site becomes 'wet' it is likely to result in trafficability problems, and placement of material on site would become difficult.

6.0 LIMITATIONS

We have prepared this report for the use of **Town & Country** for design purposes in accordance with generally accepted geotechnical engineering practices. No other warranty, expressed or implied, is made as to the professional advice included in this report. This report has not been prepared for use by parties other than **Town & Country** or their design consultants, i.e. Architect & Civil/Structural Engineers. It may not contain sufficient information for purposes of other parties or for other uses.

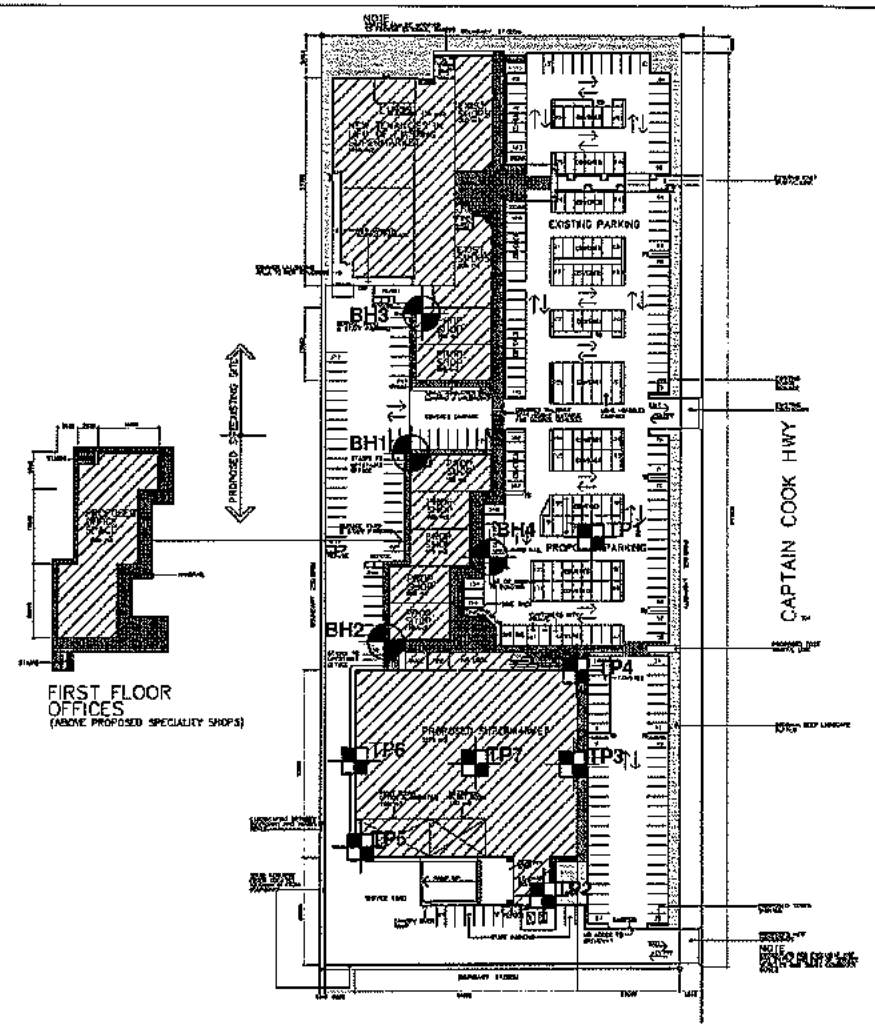
Your attention is drawn to the document - "Important Information About Your Geotechnical Engineering Report", which is included in Appendix C of this report. This document has been prepared by the ASFE (Professional Firms Practicing in the Geosciences). The statements presented in this document are intended to advise you of what your realistic expectations of this report should be, and to present you with recommendations on how to minimise the risks associated with the groundworks for this project. The document is not intended to reduce the level of responsibility accepted by ETS, but rather to ensure that all parties who may rely on this report are aware of the responsibilities each assumes in so doing.

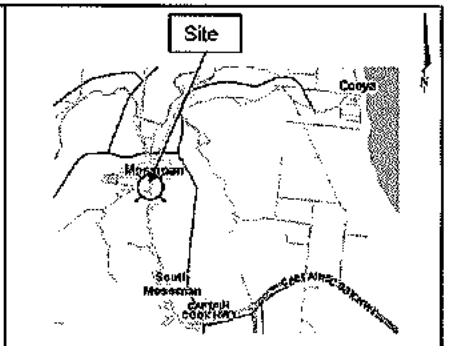
for and on behalf of
ENGINEERING TESTING SERVICES (Townsville) PTY LTD

Yours faithfully,

Chris Pennisi
Geotechnical Engineer

Kate Johnson
Senior Geotechnical Engineer





Legend:

- Borehole Location and Number
- Test Pit Location and Number

Notes:

1. Test locations are approximate only and are shown with reference to existing and proposed site features.
2. Drawing adapted from proposed site plan provided by client.

ETS GEOTECHNICAL & MATERIALS TESTING

Townsville

DRAWN BY: CP	DATE: 23/01/2008	Town & Country Mossman Shopping Centre Redevelopment	Figure No. 1
APPROVED BY: KJ	SCALE: NTS	Site and Fieldwork Locations	JOB NO. TE07-178