



# GATTON CAMPUS SITE DEVELOPMENT PLAN 2012

Cover Photo: Aerial view over UQ Gatton Campus looking north with lake Clarendon in the distance

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# ILLUSTRATIONS

#### **FIGURES**

Figure 1.1	UQ Major Campuses	9
Figure 1.2	Aerial View over Gatton Campus and Surrounds	9
Figure 2.1	Oblique Aerial View Looking West Toward the Town of Gatton	11
Figure 2.2	Aerial Photo of Land Holdings	11
Figure 2.3	Core Area Activities, Services and Amenity	15
Figure 3.1	Built Environment	16
Figure 3.2	Landscape and Ecology	16
Figure 3.3	Terrain, Flood Plain, Water Catchment and Soils	16
Figure 3.4	Land Use	16
Figure 3.5	Views and Vistas	20
Figure 3.6	Structure Diagram	21
Figure 3.7	Volumetric Model of the Core Area	22
Figure 3.8	Landscape Structure Diagram Core Area	24
Figure 3.9	Heritage Boundary	25
Figure 3.10	Core Area Heritage Precincts and Significant Features	25
Figure 3.11	Local Structure Support	37
Figure 4.1	Layout of Property Allotments	45
Figure 4.2	Process to Obtain Planning Approval for a New Facility	45

#### **PLANS**

Plan 1	Key Planning Strategies	
Plan 2	Site Arrangement	12
Plan 3	Terrain, Runoff, 2011 Flooding, Soils and Geology	14
Plan 4	Land Use and Landscape	17
Plan 5	Land Use and Landscape (North)	18
Plan 6	Land Use and Landscape (South)	19
Plan 7	Core Illustrative Plan	21
Plan 8	Precinct 1: Main Entry	26
Plan 9	Precinct 2: Foundation	28
Plan 10	Precinct 3: Recreational and Residential	30
Plan 11	Precinct 4: Farm Square	31
Plan 12	Precinct 5: Environmental Park	32
Plan 13	Precinct 6: CAAS	33
Plan 14	Central Walkway Plan	34
Plan 15	Residential Precincts	36
Plan 16	External Access Beyond the Core Area	38
Plan 17	Access, Transport, Circulation and Parking (Core Area)	39
Plan 18	Warrego Highway Entrance	40
Plan 19	Gatton-Laidley Road Entrance	40
Plan 20	Services Infrastructure	42
Plan 21	Services Infrastructure (Core Area)	43

#### **SECTIONS**

0	F	_
Section 1	East-West Site Section across Core Area	
Section 2	Through Central Walkway and Main Core Area	
Section 3	North-South along the Central Walkway Axis	. 20
Section 4	Typical Cross Section Through Core Area	. 34
SKETCHES		
Sketch 1	Model View Enhanced Entry to Central Walkway	
Sketch 2	Model View over Proposed Main Entrance	.2
Sketch 3	View along Inner Ring Road with G-VEC Redevelopment	. 29
Sketch 4	Reinstatement of Entry Loggia and "Re-opening" the Entrance Vista	. 3!
Sketch 5	Improve Dining and Social Amenity in Front of Walkway Café	
Sketch 6	Enhancement of the 'Campus Heart' Retail, Eating and Social Gathering	
Sketch 7	View Looking South over Northern End of the Walkway.	
Sketch 8	Possible Doubling of South Ridge Accommodation by Attached House Extensions	
Sketch 9	Typical Extension/Upgrade of Existing South Ridge Residence	
TABLES		
Table 2.1	UQ Gatton EFTSL Projections	. 1(
Table 2.2	UQ Gatton Space Projections	. 1(
Table 2.3	Land Holdings	
Table 4.1	Campus Lands, Tenure and Relevant	
	Approval Agencies for Developments	. 4
VIEWS		
View 1	Eastern Approach along Warrego Highway	. 20
View 2	Looking South from Crop Research Area	
View 3	Western Approach along Warrego Highway	20

# CONTENTS

FOREWO	ORD	5
EXECUT	IVE SUMMARY	6
1. INT	RODUCTION	
1.1 1.2 1.3 1.4 2. PLA	Planning Purpose  Planning Intent  Planning Process  The Plan Structure  ANNING ANALYSIS	9
2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8	The University and Gatton Campus  Use of Campus  Strategic Direction  Campus Capacity, Space Projections  Infrastructure  Site Description  Site Arrangement  Natural Features  Climate  Flooding  Soils and Geology  Ecology  Rainfall  Activities, Services and Amenity  Campus Core Activities  Educational Experience  Social Experience  Social Experience  Eating and Meeting Facilities  Passive Recreation  Active Recreation  Childare Facilities and Preschool  Services Provision	10 10 10 11 12 13 13 13 15 15 15 15 15 15

#### : 3. DEVELOPMENT GUIDELINES

Plan Overlays	16
Primary Overlays	16
Secondary Overlays	16
Tertiary Overlays	16
Land Use, Landscape	17
Built Environment	20
Built Form	20
Image	20
The Core Area Structure	21
Character	22
Architectural Vocabulary	23
Core Area Landscape Vocabulary	24
Heritage	25
Precincts	26
Precinct 1 – Main Entry	26
Precinct 2 – Foundation	28
Precinct 3 – Recreational and Residential	30
Precinct 4 – Farm Square	31
Precinct 5 – Environmental Park	32
Precinct 6 – CAAS	33
Central Core	34
A Campus Heart	34
Central Walkway	34
Residential Facilities	36
Halls Precinct	36
Residential Accommodation Strategy	36
Access, Transport, Circulation and Parking	37
Public Transport	37
Roads	38
Footpaths	38
Bycicle Paths	39
Car Parking	39
Campus Entrances	40
	Primary Overlays

	3.8	Services and Infrastructure	41
		Water Supply	41
		Fire Service	41
		Sewerage	41
		Electricity	41
		Communications	42
		Data	42
		Heating, Ventilation and Air Conditioning	43
		Service Planning Guidelines	43
4.	IMP	PLEMENTATION	
	4.1	The Design and Approval of Campus Projects	44
	4.2	Planning Provisions	45
		Senate Approval	45
5.	APF	PENDIX	
	5.1	Appendix A:	
		Ministerial Designation	46
	5.2	Appendix B: Planning Checklist for Individual Developments	47
	5.3	Appendix C: Heritage Register Entry	48
	5.4	Appendix D: Department of Environment and Resource Management (DERM) Maps	52
	5.5	Appendix E: Acknowledgements and References	58















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# **FOREWORD**

The process of preparing a Site Development Plan for the Gatton Campus is an opportunity to illustrate the aspirations for the current and future use of the site and present guidelines for achieving an environment that contributes positively to the academic, research, social, cultural and economic objectives of the University of Queensland.

University planning is a continual process that must respond to the constantly changing demands of curriculum, space, and budgets. The last review of the Gatton Campus was conducted in 2003 and it is timely to examine the current state of the physical infrastructure and confirm a planning framework that supports future development.

It is acknowledged that the campus has a rich history as a place used for educational purposes and the University as custodian of the place is determined to retain the significance of the place that is now listed on the Queensland Heritage Register. The heritage values add to the complexity of site planning although these values offer unique challenges for achieving sustainable outcomes by adaptation of facilities.

The University of Queensland aspires to leadership in teaching and research and to facilitate this the Campus Site Development Plan is flexible and capable of responding to the transformation of the academic and research environment.

The contribution by many people within the University to the preparation of this Site Development Plan is gratefully acknowledged.

Finally, thanks go to my fellow Site Planning Committee members:

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The University of Queensland













UNIQUE BLEND OF MODERN AND HISTORIC BUILDINGS

STATE-OF-THE-ART LABORATORIES AND TEACHING FACILITIES

# EXECUTIVE SUMMARY

The 2012 Gatton Campus Site Development Plan embraces the University of Queensland's responsibility for the ongoing stewardship of the campus and establishes planning principles and objectives to support environmental, economic and social development for the present and future University community.

The aspiration held for the campus is to enhance the experience and unique sense of place built on traditional values and heritage with that of a forward thinking community. The campus will continue to develop an identity as a place of innovation and specialised study of land, plant and animal sciences that gain both an international and local reputation as a *Centre of Excellence*.

The campus has recently undergone significant transformation in terms of how it functions on a day-to-day basis and how the land is used. This transformation will continue as the University moves to increase postgraduate courses and research initiatives. In the broader context of the University strategic planning it is timely to review the current 2003 Plan, examine site issues, consult with the campus community and prepare site development principles and objectives to support the University Mission.

The 2012 Site Development Plan provides a framework and develops strategies for enhancing the quality of life on campus generally and guiding growth beyond 2020

#### KEY PLANNING PRINCIPLES

#### **Integrate Environments**

The Campus will be a place of innovation and specialised studies of natural systems, animal and plant production with environmental, social and economic integration that combine to form a prosperous knowledge based community.



#### **Sustain Natural Resources**

The use of the Campus' natural resources shall be an exemplar of biodiversity applied to the primary purposes of teaching, research, farms and supporting facilities including the built and natural environment.



#### Site Location, Orientation and Conservation

Land use arrangement and facilities shall be located to provide efficient and effective operational use of resources in an ecologically sustainable manner. The Heritage significance shall be preserved.



#### Design for Renewable Energy Systems and a Clean Atmosphere

Solar, bio-fuel and other carbon reducing strategies shall be applied with the aim of achieving a carbon neutral environment. Sustainable practices shall be applied to base load electricity, heating – cooling central plant and thermal storage reticulation to core, ventilation systems, transport and active transport and recycling.



### KEY PLANNING OBJECTIVES

- Establish a framework with distinct centres or precinct areas that facilitate change, growth and integration of the education and research environment whilst retaining individual identity.
- Preserve areas of natural environment or heritage significance to enhance the site biodiversity and sustainability.
- Create a place that offers a unique and positive experience with a high level of cultural and social exchange both at an intellectual and informal level.
- Provide a centre for community and regional engagement through key alliances between vocation, education and research.
- Provide a safe and accessible campus for the functioning of the academic and research activities.
- Provide a large residential component on campus and enhance the facilities for the mature students and short duration stays.
- Ensure that the academic and research activities are supported with an efficient and effective farms resource.



▶ Sketch 1: Model View Enhanced Entry to Central Walkway



# EXECUTIVE SUMMARY (continued)

#### **KEY PLANNING ISSUES**

The Site Development Plan aims to confirm certain trends in the development of the campus and identify issues for consideration at this review stage. The plans provided at this stage are guides only and intended to initiate working group discussion and advice.

### Site Capacity

The 900+ hectare campus requires land management to ensure that the strategic objectives of teaching and research are not compromised. Increase in animal holdings at the site for teaching and research appear to be the major impact on the land resource capability. The capacity of the site requires an overall water management, crop and animal rotation strategy. Combining natural flora and fauna habitats, carbon offset strategies and large scale alternative energy infrastructure require an overall strategic decision on land use.

#### Core Area Expansion and Use

A planning principle of the 2003 Site Development Plan identified a site limit for central teaching space (lecture theatres, etc.). The model adopts the 10 minute walk or 400 metre radius as the outer limits for central activities. Adoption of this model achieves a number of operational efficiencies including reduced infrastructure reticulation and the ability to optimise teaching space use.

#### Campus 'Place Making'

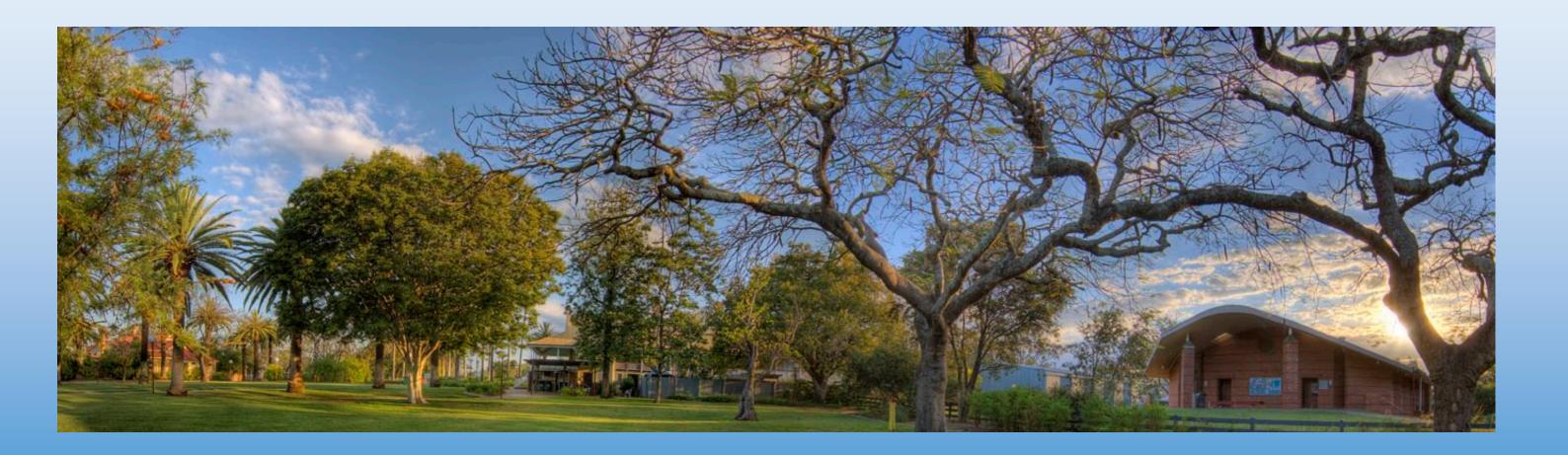
Opportunities to socialise and interact or contemplate are necessary to create a university atmosphere which can be nurtured and further developed. Indeed, to attract significant investment and world class researchers, it is insufficient to provide solely a building or precinct for the purpose of conducting research. A "Campus Heart" with a variety of community facilities and services offerings such as eating and greeting choices, retail convenience for the 'live on campus' and day visitors, health and medical facilities, post office, banking (ATM's), bookshop and associated services, etc. As population growth on the site continues the increased services on Campus will reduce the requirement to leave the Campus thereby encouraging a campus of convenience and discourse with more people socialising and interacting on the site contributing to the idea of a 'university'.

### **Space Utilisation**

The expansion of building areas has continued over recent years. At the same time substantial building space remains underutilised (particularly old stock). There is an apparent shortage of suitable teaching facilities. Site planning of the campus illustrates substantial additional new building opportunities in the core area, however, before adding more space to the campus, the distribution of activities and effectiveness of space utilisation requires review. A review conducted pre the School of Veterinary Science move indicated substantial underutilisation of space although it was recognised that to achieve improved utilisation will require a major renovation program and timetable review. Existing and future program requirements need to be identified.

### **Population**

The relocation of the School of Veterinary Science to UQ Gatton has resulted in a significant increase in population with the anticipated demands on residential accommodation and car parking returning to capacity. Indications are that population will continue to rise over the next 10 years and the University will need to plan for additional investment in capital infrastructure to be delivered gradually. An incremental increase in population will contribute to revitalising the site and assist in the realisation of a more extensive and inclusive campus community.



# 1. INTRODUCTION

# 1.1 Planning Purpose

The Site Development Plan provides guidelines for site use, the form and location of physical facilities, infrastructure, amenities and services to facilitate the academic, research, social, and cultural requirements of the University of Queensland in an environmentally responsible manner. The plan establishes a framework in which the physical components can be developed over the long term, permit change and facilitate growth without disruption to the whole structure. The framework and structure planning principles assist with providing the most efficient and effective facilities while maintaining an integrated environment that caters for the academic and research interface between natural systems, animal and plant production.

The Gatton Campus is a unique environment with a distinct rural sense of place and rich heritage. The relaxed and friendly atmosphere is supported by an underlying vision in the plan to preserve and enhance the campus' uniqueness.

# 1.2 Planning Intent

In the broader context of University strategic planning, the plan is a review of the physical assets and a statement of intent to provide for the academic, research, social and cultural aspirations of the University and general community. UQ Gatton is one of the four major campuses of the University including UQ Ipswich, UQ St Lucia and UQ Herston. The rural location and large land holding for agricultural purposes stand UQ Gatton apart from the three city based campuses. These characteristics require an appreciation of the rural environment and animal and crop production.

The campus is located approximately 90 kilometres west of Brisbane and 40 kilometres east of Toowoomba in the rich agricultural plain lands of the Lockyer Valley. The main Lawes campus is 5 kilometres east of the town of Gatton. Darbalara is 10 kilometres south east of Gatton. UQ Gatton Campus is identified as a specialist knowledge hub in the South East Queensland Regional Plan and contributes to the regional growth strategy and economy. The campus has a current population of approximately 2,450 and the plan assumes an increase to 3000 by 2020.



Figure 1.1 UQ Major Campuses

Established for education purposes in 1897 as the Queensland Agricultural College and merged with The University of Queensland in 1990 the campus heritage is acknowledged in the planning and development.



Figure 1.2: Aerial View over Gatton Campus and Surrounds

# 1.3 Planning Process

The campus is a well established and fully functioning university campus with an ongoing agenda of operational and program changes and developments. The planning process has sought to gain an understanding and appreciation of site capacity, various ideas for change and expansion capability. Natural assets are redefined and assessed to understand the consequences of a changing environment, site use and development.

Stakeholder input has been encouraged with an initial public briefing, stakeholder interviews and community consultation and display of the plan intent.

The 2012 Site Development Plan is intended as a strategic approach to site development. This may challenge current decision making and provoke further consideration to achieve longer term objectives.

The Site Development Plan is neither the beginning nor the end of the planning process and there will be many questions unanswered and many beginnings to pursue. The summary of planning principles and key objectives is a framework for guidance of further detailed planning studies. These further studies are expected to focus on the identified campus development strategies.

## 1.4 The Plan Structure

The Site Development Plan supports the University Mission and Goals set out in its Strategic Plan.

The plan also acknowledges that the University operates within a framework of statutory compliance obligations and University Policies. This plan supports or is supported by:

- Land Use Strategy
- Heritage Protocols
- Environmental Management Plan
- Landscape Management Plan
- Design Guidelines
- · The University Strategic Plan

The 2012 Site Development Plan is divided into four parts:

Introduction Section 1
Planning Analysis Section 2
Planning Guidelines Section 3
Implementation Section 4

# 2. PLANNING ANALYSIS

# 2.1 The University and Gatton Campus

The University of Queensland amalgamated with the Gatton Agricultural College in 1990 and assumed responsibility for the ongoing operation and development of the campus. The campus is now known as "The University of Queensland Gatton Campus" and is headquarters for the Faculty of Science's School of Veterinary Science and School of Agriculture and Food Sciences.

The site commenced as a College for Agricultural Education in 1897 and has a significant history as a place for teaching and research related to agricultural science, land and environmental management, plant and animal food technology and rural production techniques.

During the past 20 years the University has undergone significant organisational transformation with the establishment of a Faculty of Natural Resources, Agriculture and Veterinary Science at Gatton in 1999 which became part of the Faculty of Science in 2010. The Campus has experienced significant growth in students, staff and animal holdings over the last two years with major capital developments for Veterinary Science, Centre for Advanced Animal Science (CAAS) and Dairy Research.

# 2.2 Use of Campus

- Faculty of Science teaching and research with the site providing the home for the School of Agriculture and Food Sciences and the School of Veterinary Science
- Research entities including CAAS, CSIRO and the Queensland Alliance for Agriculture and Food Industries (QAAFI)
- Gatton Vocational Education Centre (G-VEC)
- · Residential accommodation, sport, recreation and social activities
- Farm uses including animal holdings and cropping
- Various supporting infrastructure uses, and uses ancillary to the core teaching and research activities
- The Gatton Campus will continue to serve as the major site for the University of Queensland's School of Agriculture and Food Sciences and School of Veterinary Science activities
- The overall impression is that the campus is at capacity and experiences some teaching space problems



The School of Agriculture and Food Sciences is located at UQ Gatton Campus

# 2.3 Strategic Direction

In 2009 the University announced changes in undergraduate to postgraduate mix (80/20 in 2010 to 60/40 in 2020) with an increase in EFTSL. The impact of these projections for UQ Gatton by applying the changes to ratios is illustrated in Table 2.1.

Table 2.1: UQ Gatton EFTSL Projections

YEAR Ratio	2010 80/20	2015 70/30	2020 60/40
Total EFTSL Gatton Campus	1707	*2500	*3000
Gatton U/G	*1550	*1750	*1900
Gatton PGCW	*100	*300	*600
Gatton RHD	*60	*150	*500

<sup>\*</sup> The figures are an assumption made at this stage and require verification.

# 2.4 Campus Capacity, Space Projections

Gatton has site and space demands that require specific analysis due to the unique nature of activities. This is particularly relevant to the requirements of crop and animal teaching and research and the farms infrastructure required to support the teaching and research activities.

Table 2.2: UQ Gatton Space Projections

	Existing Development	Proposed Development
Gross Floor Area (GFA)	111,751m <sup>2</sup>	136,000m <sup>2</sup>
Usable Floor Area (UFA)	63,841m <sup>2</sup>	80,000m <sup>2</sup>
Pasture	192hA	254hA
Crop	480hA	480hA
Car parks	1049	1350
Residential	500	750

Usable floor area increase by developing all the identified core sites is estimated at 20,000 m2 and represents approximately a 30% growth potential in the campus floor area. There is underutilised space spread around the campus, however most of this space requires refurbishment to meet current teaching and research requirements.

There is potential to improve utilisation of the older "timber and tin" buildings within the Foundation Precinct which requires a creative approach to adapt heritage listed buildings.

### 2.5 Infrastructure

Operation of a university campus in today's competitive and hightech environment requires 'state of the art' facilities. It is essential that future development incorporates provisions for high quality and world class teaching and research facilities.

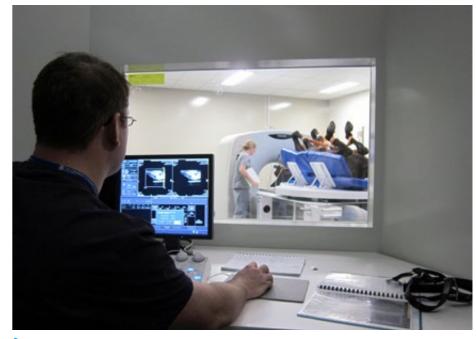
Several initiatives are being investigated or implemented that are aimed at reducing or stabilising the rising cost of energy and rising carbon footprint of the University generally.

Several areas for action have been identified for the Gatton Campus including:

- Strategic Plan for campus heating/cooling central plant, thermal storage, reticulation to academic core
- Large scale PV roof mounted versus ground mounted
- Animal waste (methane)
- Fertiliser management
- Solid waste management
- Manure management
- Wastewater management

Site planning implications include equitable access, appropriate separation or isolation of incompatible land uses and activities. Bio-security issues and actions arising from enforceable undertakings need to be confirmed. Water availability over the longer term is a major issue for the sustainability of the campus. A comprehensive strategy is required for the maintenance and supply for non-domestic use.

The flood plain offers a mix of premium agricultural land and good agricultural land less suitable for root crops. A substantial proportion of the site is used for cropping and is to remain under that use. Areas of flood plain, toe slopes near the central ridge are natural pasture used for grazing. Pasture use is expanding across the flood plain.



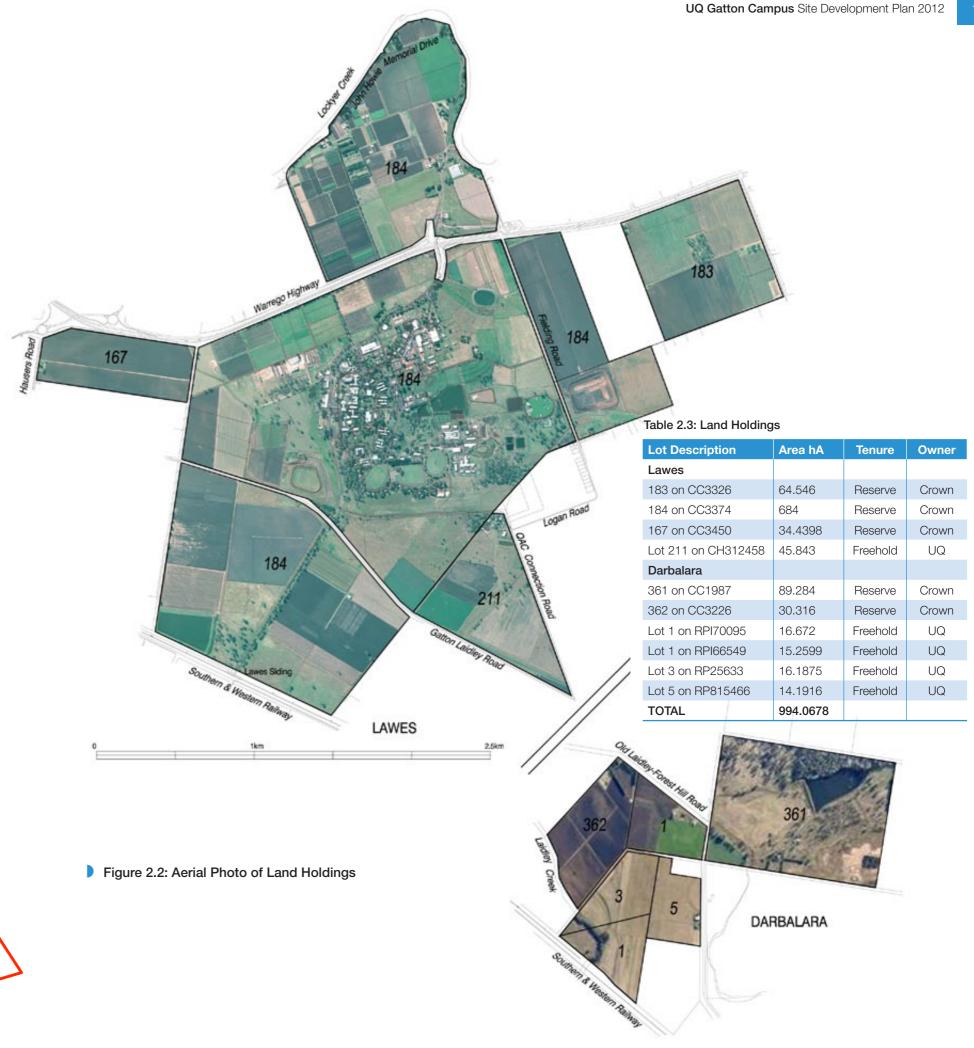
Sate-of-the-Art facilities at the UQ Gatton Campus School of Veterinary Science

# 2.6 Site Description

The site comprises a main campus (Lawes) with an academic core and residential facilities on a low sandstone ridge on Lot 184 south of the Warrego Highway. Beyond the core area and environs the site is pasture and cultivated land lying in the rich fertile flood plain of the Lockyer Valley. The Lawes Campus is made up of several allotments with frontage to the Warrego Highway, the Gatton Laidley Road, Lockyer Creek and the Southern and Western Railway corridor. The campus includes additional flood plain allotments at Darbalara approximately 5 kilometres south of the main campus located on the Old Laidley-Forest Hill Road. The built form of the core has evolved into a spacious landscaped complex of buildings that have been developed during more than 100 years of educational use. Minor remnant native vegetation exists on the slopes rising above the creek flood plain. The broad acreage resembles a typical working farm.



Figure 2.1: Oblique Aerial View Looking West Toward the Town of Gatton



# 2. PLANNING ANALYSIS (continued)

# 2.7 Site Arrangement

Land use allocations shall achieve operational efficiencies and effectiveness The flood plain offers a mix of premium agricultural land and good agricultural land. A substantial proportion of the site is used for cropping and is to remain under that use. Areas of flood plain, toe slopes near the central ridge and the river bank are natural pasture used for grazing. A large proportion of the site is defined as field and production area and is compatible with the agricultural uses on adjacent lands. The habitable spaces have been located on the low sandstone ridge above flood level and has evolved as the academic and residential core of the campus.

The 'Lawes' site features four distinctive areas making up the major campus as follows:

Academic Core An area of concentrated teaching, research and staff office

space with supporting social and cultural facilities for the campus

population.

Core Environs A large area on the fringe of the core where teaching,

demonstration and research is conducted in a farm environment.

Residential Consisting of student accommodation in Halls of Residence and

single dwellings for staff and students, and recreation facilities.

Field and Production Consisting of broad acre fields and paddocks for agriculture and animals.

The Gatton Campus has all the hallmarks of an academic village lying within a working



UQ Gatton Campus Aerial View



### 2.8 Natural Features

#### Climate

The geographic location of latitude 27 degrees 33 minutes south and longitude 152 degrees 20 minutes east places the campus in a sub-tropical region although frosts are normal during July and August with some extending from May to September. Temperature varies as low as 5–6 C degrees in the months of June, July and August to over 30 degrees during November to February. The open plains around the site expose it to winds and severe wind storms from the west and east with hail storms from the south and south west in Summer.

Summer azimuth readings: December 22nd - 78 deg; June -21.31deg; September 23 and March 31 - 65 deg.

Climate change forecasts indicate that the region will see a rise in average day time temperatures and extreme weather conditions such as heat waves (40 C degrees +) and violent storms.

## Flooding

The campus was affected by the January 2011 floods and sustained loss of soils along the Lockyer Creek and inundation to low lying flood plain parts. Flood events are distinguished between those where the Lockyer Creek breaks its banks and those when the floodplain becomes a wetland during prolonged rain. The core area of the campus is on a low sandstone ridge which in an extreme flood event can become an 'island' in the Lockyer Creek floodplain. The major campus facilities and residential areas are located on this high ground not influenced by flooding. The lower areas of the site are affected by periodic flooding as experienced earlier this year. A 'major' flood event is known to have occurred in 1893, 1911, 1928, 1950, 1959, 1974,1996 and 2011. Flood height records are not reliable and it is known that the 1893 flood level was approximately three metres at the old entrance from the Warrego Highway and one metre over the highway in 1959.

Access to and from the site would be maintained via the Warrego Highway which has been improved by raising and installing numerous culverts to deal with flood run off.

### Soils and Geology

The main campus (Lawes) is described generally as consisting of a central ridge of Mesozoic sandstone on which the academic administration, central teaching facilities and residential buildings are located, overlooking alluvial soils of the Lockyer Valley floodplain.

The lower parts of the site, in the Lockyer Creek floodplain, comprise rich alluvial soil. Soil-geomorphic relationships typical of the floodplain sequence consist of a gentle levee bank extending 100–200 metres away from the creek which gradually flattens out into a back plain.

The core area is situated on a ridge composed of Gatton sandstone overlain by Winwill conglomerates on the higher crest. Both layers of sandstone are considered to be relatively impermeable and free of salt. The quarry on the south east escarpment displays Winwill conglomerates. The central ridge elevation follows the 100 metre contour, rising to a crest of 105 metres on the south western edge and sloping to the flood plain in the west and 90 metres to the east.

Rising above the surrounding flood plain the ridge provides good foundation material for buildings. Land management techniques are employed to ensure the site is not subjected to erosion.

The campus soils formed on the central ridge of Mesozoic sandstone are duplex textured, densely compacted clays over poorly drained subsoils. Fertility is low ph 6.0-7.5. The soil largely disturbed during building and other works occur in varying thicknesses over generally impervious sandstone. The lower level Gatton sandstone soils are better draining.

The black earths formed in the flood plain of the valley floor are generally fertile uniform textured soils with high soil water capacity which become sticky when wet and crack when dry. Gilgai variants occur in the back plain. Alluvial soil adjacent to the Lockyer Creek Levee is light friable, cloddy or crusty clay loams. Soils are generally fertile.

The Department of Environment and Resource Management (DERM) advised that the site is not affected by Acid Sulphate soil.

### **Ecology**

At the regional scale the Campus forms a part of the larger Lockyer Creek eco system that has major primary production and human settlement replacing most of the original natural environment. Local eco systems exist within the Campus boundaries and some of these are mapped on Plan 3 (page 14).

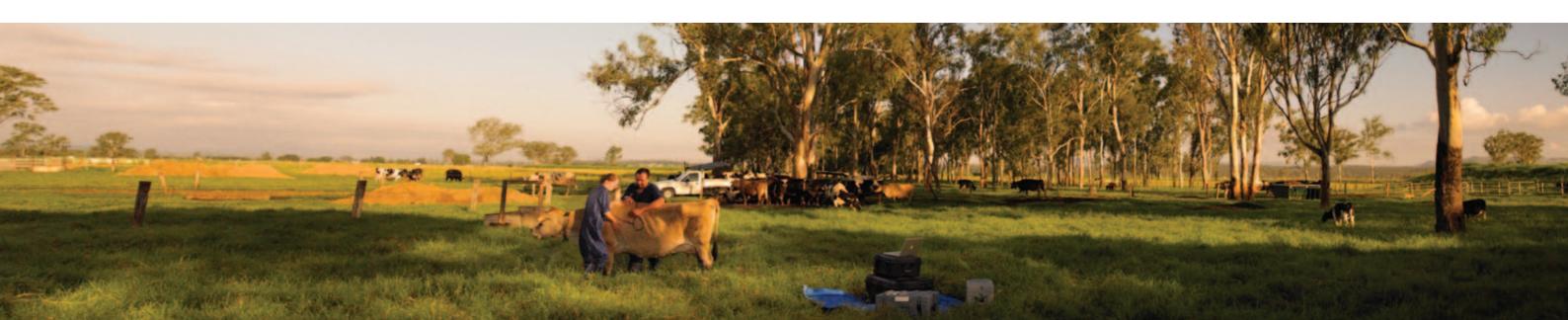
Before European settlement two explorers, Edmund Lockyer in 1825 and Alan Cunningham in 1829 described the environment around Gatton. Lockyer explored the creek named after him which is a tributary of the Brisbane River and which forms the northern boundary of the Campus. Both Lockyer and Cunningham identified the richness of the plain land soil and the practice of burning by aborigines as major influences on the landscape discovered. Cunningham observed water fowl and large crane on Lake Clarendon situated north of the site and emu on the grassy plain land on either side of Lockyer Creek.

The original vegetation on the site was dominated by the narrow leafed iron bark (*Eucalyptus crebra*) on the central sandstone ridge and the blue gum (*Eucalyptus tereticornis*) along the creek flood plain.

#### Rainfall

The long term average rainfall is 780 mm/yr. Rainfall from year to year, however can be extremely variable, and rainfall data collected over more that 100 years shows the driest decile is 554 mm/yr and the wettest decile is 1020 mm/yr. Rainfall also varies seasonally, it is heaviest in summer, with 70 % of the average yearly total falling between October and March. In the heavier falls, or in periods of prolonged rain, some water is lost to surface run-off and the usable fraction of rainfall is reduced. The campus has a system of ring tanks and dams to allow harvesting and storage of some of the surface run-off.

For the 948 ha area of campus land and considering little rainfall variability across the campus, the annual supply of water from rainfall is calculated as 7,410 ML. However, rainfall average is only 80% of evaporation which means the campus is extremely reliant on other sources of water. It is also extremely important to understand that prolonged periods of drought have been recorded with annual rainfall averages of 650mm/yr (1991–1995).



2. PLANNING ANALYSIS (continued)

Site use and development is controlled or limited by the following:

#### Vegetation

The fertile plain land has been substantially cleared for agricultural purposes. Remnant native trees remain with small areas of native regrowth around the ridge slopes. Exotic plantings are common throughout the core and around outlying farm houses. Strategies for an increase of native species for improved biodiversity, and carbon offset requirements are evident. Areas of endangered regional ecosystems, remnant vegetation and regrowth vegetation have been identified. These areas are controlled by the Queensland Vegetation Management Act.

#### Referable Wetlands

The Lockyer Creek forming the site northern boundary and a strip of the campus land approximately 50 metres wide along the creek is a State Wetland Management Area. The flood damaged Sir Leslie Wilson Weir and creek bank erosion is subject to the referable wetlands policies.

#### Flooding

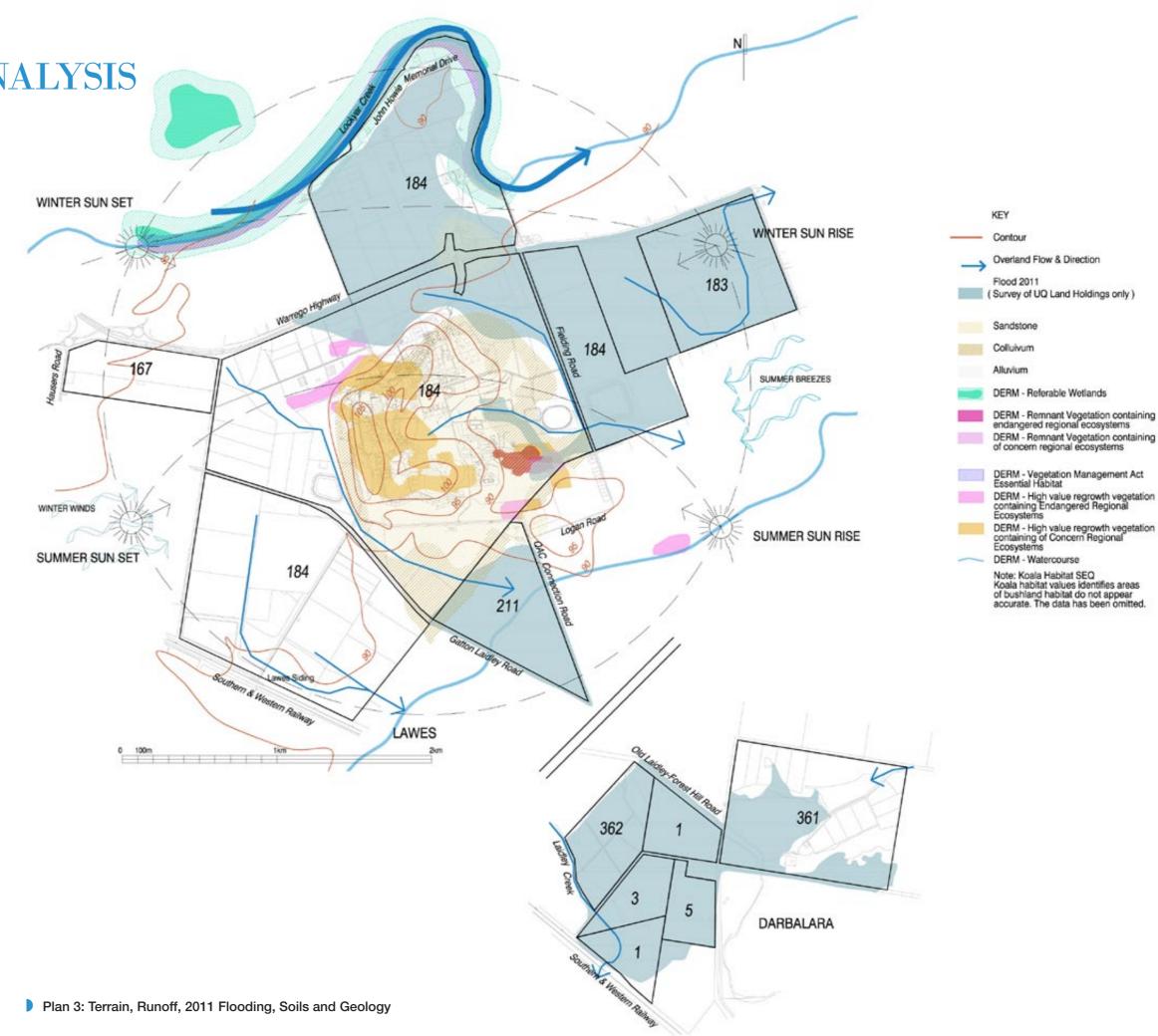
The 2011 flood level was well below the central ridge and did not reach habitable floors of outlying farm houses built in the early 1900's. The plain land areas experience 'flash' flooding during severe rain events resulting in overland flows and loss of some rainwater.

#### **Water Conservation**

Evaporation drives water usage at Gatton with crops and pastures losing more water through evaporation than rainfall can replenish. The recent dairy expansion has added significantly to demand and two new ring tanks have been added bringing total water storage to 650ML. Recycled water is piped to the site from Gatton to assist with water supplied from ring tanks, dams, bores and water taken directly from Lockyer Creek.

#### **Ecology**

The University activities represent a relatively recent addition to the natural ecosystem with a high concentration of people, crops, pasture, livestock, dams and ring tanks. Remnant natural ecosystems have been identified for protection with native vegetation replanting.



# 2.9 Activities, Services and Amenity

## **Campus Core Activities**

The central core area resembles a conventional academic institution with facilities for teaching, research, student accommodation, recreation and ancillary uses. Beyond the core is the 'living lab' with animal holding yards and out buildings and controlled environment areas such as glass houses for plant studies. The Gatton Campus is a specialised centre with a daytime population exceeding 2,500 people. At night the academic core empties as students and staff return to their places of living. For some 436 students on the campus, home is the Halls of Residence and for another 50, home is the detached houses on campus. The remainder of the students travel daily from surrounding towns and the Brisbane area.

### **Educational Experience**

The Gatton Campus has a rich history as an educational institution pre-dating UQ with many of its former College graduates also achieving leadership roles. The campus supports a diversity of learning styles and it is essential that future development incorporates provisions for high quality and world class teaching and research facilities and spaces.

## Social Experience

The lifestyle on campus has a relaxed country feel and is accommodated in a site with a mix of modern and historic facilities. Social experience is impacted by the following:

- The quality of the human environment for both staff and students
- Safety both personal and property
- Attractiveness of social amenities
- Catering for special needs groups
- Accessibility
- The provision of amenities and facilities
- Change in emphasis from largely undergraduate to a postgraduate and research institution
- Internationalisation of the campus (multiculturalism, overseas students, increase in postgraduate students)

## **Eating and Meeting Facilities**

The campus operates with one central eating and meeting place combining a dining room and café.

There is a coffee cart operating outside the NW Briton Building. Various venues are available for self catered gatherings. A licensed club (Lawes Club) operates on Wednesday nights.

Future growth must consider the improvement of new eating and meeting facilities at strategic locations within nodal centres and improve the interpersonal relationship between individuals and departments.

#### **Passive Recreation**

The Central Walkway and adjacent spaces provide the main passive area on campus.

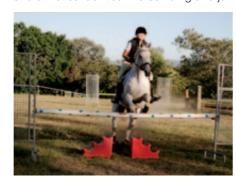
It is essential that:

The Central Walkway and connected greens remain

Mature trees and landscape are considered valuable and important elements of amenity.

#### **Active Recreation**

Active cultural and recreational amenities available at the campus include the UQ Sport swimming pool and gymnasium, tennis courts, various other sporting playing fields, and athletics facilities. Horse riding and jumping is also catered for.





## Child Care Facilities and Preschool

The Nyamul Centre provides 35 places. The trend to a higher ratio of research and postgraduate students with increased staffing will inevitably require an increase in child care places.

#### **Services Provision**

Campus life is supported with a health service, post office, book shop, and a printery.

As the Gatton Campus grows, provision of such services must also grow in order to provide a 'convenient' environment for its users as well as an aesthetic and interactive one. Reducing the amount of trips away from the campus leaves more time available to recreate before work/class, during breaks and after work/class. Indeed, improved service provision is considered a vital component to aiding the liveability for both day and live-on campus students.

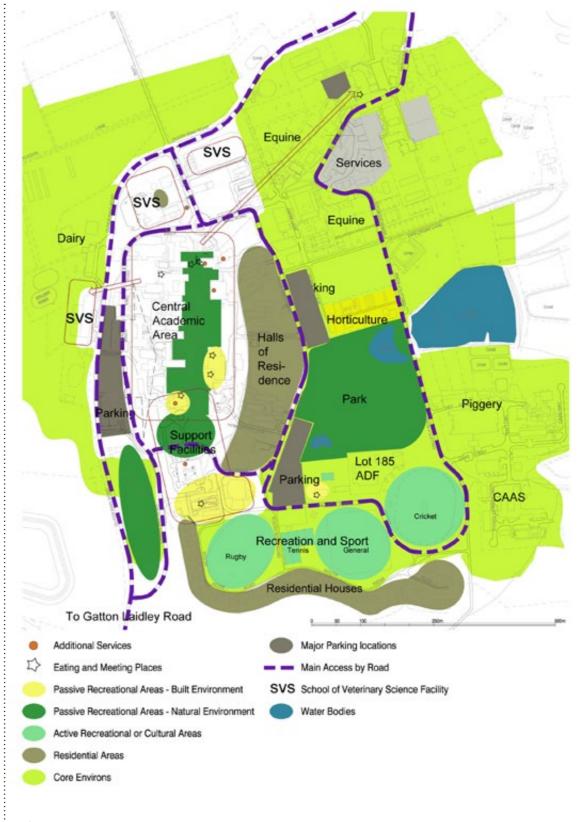


Figure 2.3: Core Area Activities, Services and Amenity

# 3. DEVELOPMENT GUIDELINES

# 3.1 Plan Overlays

Planning for the use and development of the campus will generally involve consideration of several factors including natural features, existing built environment, existing use patterns and infrastructure systems.

The development guidelines form a set of planning overlays dealing with particular components of the campus environment. Using the overlays assists with identifying opportunities and constraints, integration or isolation of uses and co-ordinating infrastructure.

## **Primary Overlays**

The natural assets present opportunities and constraints and form the primary overlays. These include:

Soil, terrain, water run off, flooding Solar orientation, temperature, rainfall, prevailing winds Natural ecology

The soil quality and permanent water supply are fundamental to crop and animal production. The site has been substantially cleared of natural vegetation and only small areas of indigenous planting remain. Elements of natural assets are protected under Government regulations identified as **Department of Environment and Resource Management (DERM)** overlays.

### **Secondary Overlays**

Land uses and the built environment for academic, research, cultural and social requirements of the University form the secondary overlays.

These include:

The core academic precincts
The cropping and pasture areas
Residential areas

Areas set aside for conservation and landscape

Areas for promoting biodiversity, native flora and fauna and migrating fauna have been identified without compromising the site areas required for University core business. The secondary overlays are the major guides to sustainable land use and development.

### **Tertiary Overlays**

The site uses require supporting infrastructure to function effectively and this produces overlays as follows:

Services infrastructure

Pedestrian and vehicle circulation



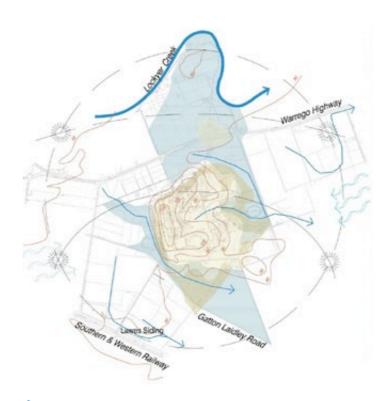
#### Figure 3.1: Built Environment

- Concentrate core activities along central spine
- Retain low density built form with generous landscape spaces
- Adapt significant heritage elements and preserve key buildings and spaces.



#### Figure 3.2: Landscape and Ecology

Little remains of the original site vegetation and the introduced cultural landscape is the dominant landscape with areas of original regrowth now being identified and protected.



# Figure 3.3: Terrain, Flood Plain, Water Catchment and Soils

The flood plain location with a low central ridge is an established and proven location for agricultural teaching and research with water catchment infrastructure capable of holding 650ML.



#### Figure 3.4: Land Use

A substantial proportion of the site is used for cropping and grazing. The academic and residential core is located on the central ridge.

# 3.2 Land Use, Landscape

"It is important in considerations for future development of the Gatton Campus to appreciate the intrinsic quality of its landscape and understand the constraints and opportunities related to the site for coherent and rational land use planning." B. Wilson, 1993 landscape Report

The predominant landscape is typical of the Lockyer Valley evolution as a major agricultural region where land not yielding high crop returns has been spared and left in a semi natural state with some clearing for pasture. The sandstone ridge that accommodates the Gatton Campus core has typically been identified and used as the place for buildings around which has evolved the cultural and exotic landscape. Gatton Campus is recognised by the spaciousness of the campus and the quality of landscape developed within the core area, along entrance roads, and particularly the distinctive Central Walkway. The campus displays a combination of exotic and native species in and around buildings.

A unique feature of the campus landscape is the interface between agricultural land use and the passive open space. This provides an integration of the themes of a functional, working productive landscape with the theme of comfort, quiet contemplation, sensory experience. Whilst it appears to the lay person that there is an abundance of land it is apparent that the University's growing demands for a broad range of activities will require land use priorities to be agreed.

Another unique feature of the campus is the integration of agricultural land use around a central campus village containing the teaching, research, accommodation, social and recreation uses of a conventional university campus. This uniqueness shall continue to demonstrate how the 'working' agricultural landscape can co-exist with other park and house garden landscape of the built areas of the campus.

The key Landscape and Land Use objectives are as follows;

- Objective 1 "To advance the campus's value as a managed resource which both promotes and demonstrates the sustainable and balanced use of land, water, and biological resources."
- Objective 2 "To create a campus with intrinsic character which establishes an overall identity within the context of its regional landscape."
- Objective 3 "To create habitats within the campus which can contribute to the biological value of the region."



Policies to support key landscape and land use strategies proposed in this Plan are summarised as follows:

Plant trees in grazing units to provide shade and shelter

• Plant shelter belts for grazing, cropping units.

for animals.

 Plant blocks of vegetation for linkage between existing plantings for visual amenity and to create corridors for movement of wildlife.

 Plant vegetation for educational purposes and to promote the benefits of a sustainable environment.

 Preserve and enhance the visual quality of the ridge landscape that identifies the Campus above the agricultural landscape of the flood plain.

Create specific wildlife habitats, particularly around the lake.

 Enhance the visual quality and identity of place and way finding by distinctive avenue planting and enhanced highway boundary and entrances design.

highway boundary and entrances design.

Typical Site Landscape View Across Cropped Plain Land and Tree Planting on Slopes Rising to Core Area

167







Avenue Planting Along Original Warrego Highway Entrance

KEY

Cropping
Grazing

Crop Research Unit
Existing Native Vegetation
Existing Introduced Vegetation
Proposed Shade Tree Planting
Proposed Riparian Re-Planting
Proposed Highway Planting
DERM Overlay Areas
Potential New Building Sites
Investigation Area for Solar

Energy Harvesting

Creek Bank Stabilisation

and Rehabilitation

Grazing Cropping Units

Avenue Planting

Residential House

Protected Vegetation

Tree Planting (grove)

Adaptive Reuse of Farm House Site

Investigation Area
 (Solar Thermal)



Plan 5: Land Use and Landscape (North)

Refer Plan 7 on page 21 for Core Area Details



Following clearing and construction of buildings and roads the cultural landscape emerged. This includes many exotics and ornamental trees and shrubs planted in traditional and fashionable ways as avenues defining edges and movement corridors, screens gardens and house gardens.

Dominant trees of the cultural landscape include Canary Island Palms (*Phoenix canariensis*), with other palms including *Livistona australis*, *Butia capitata*, and *Arecastrum romanzoffianum*. Large shade trees include *Ficus macrophylla*, *Ficus hillii*, *Jacaranda acutifolia*, *Delonix regia*, *Athel Tree* (*Tamarix aphylla*), *Harpullia pendula* and *Eucalyptus torelliana*. Creek bank: *Jacaranda acutifolia*, *Eucalyptus tereticornis*, *Castenospermum australe*, *Neolitsea dealbata*.



Ironbark regrowth on the western edge of the core area

Plan 6: Land Use and Landscape (South)

### 3.3 Built Environment

#### **Built Form**

Approaching the campus along the Warrego Highway the view of flat plain land is disrupted by the sandstone ridge on which the major built form of the campus is located. The tree line around the core area is broken by silos and buildings on the perimeter that can be seen through the foreground landscape. Within the campus many views and vistas are revealed out across the plain land to the distant ranges. The central walkway opens up a memorable vista which forms the major circulation spine.

The campus buildings comprise a collection of conventional teaching and support buildings in the core dating back more than 100 years. A variety of 'agricultural' buildings surround the core and are located in outlying locations.

The scale and massing of the built form is a unique characteristic of the Campus providing a relaxed low density character with strong aesthetic links to the rural environment

The development of future built form shall retain the low density environment with building heights from one to four levels arranged with a limit of two stories adjacent to the central walkway.

The central academic 'village' shall be contained to a core development on the low ridge, below the tree top line and spaced to retain views and vistas beyond the core.

#### **Image**

The Gatton Campus is a place where social and cultural attributes of rural Queensland merge with a place of innovation, with teaching and research programs linked to professional and industry needs. The place retains significant heritage links to the history of agricultural education in Queensland whilst displaying contemporary methods of agricultural science with practice.

External appearance and demonstrating sustainable land management are the elements that will contribute to a positive visual perception of place. The spreadout nature of residential, recreation and academic facilities provides a variety of venues for social interaction with gathering places extending from the Morrison Hall/Sports Precinct along the Central Walkway.

The open, low density character with large landscaped spaces, particularly the Central Walkway, contribute to the Campus uniqueness and shall be maintained.

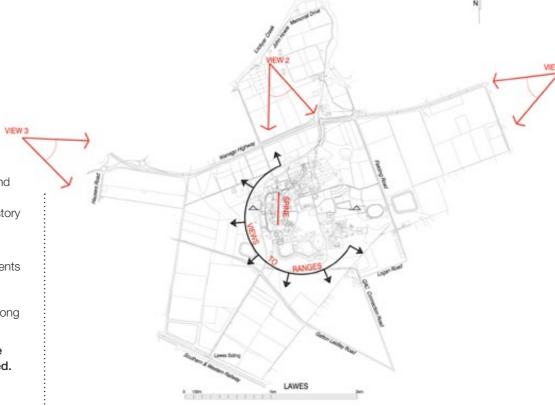


Figure 3.5 Views and Vistas



View 1: Eastern approach along Warrego Highway



View 2: Looking south from crop research area



View 3: Western approach along Warrego Highway



Section 1: East-West Site Section across Core Area
The Campus built form is low density with the Central Walkway providing the guiding principle for two story height limit with higher buildings stepping down along the western core edge as demonstrated with the recent Veterinary Science Building.

#### The Core Area Structure

The structure of the Campus core has evolved with incremental development on the ridge starting with the original foundation precinct buildings facing south and farm square to the north. The linking of the north and south of the core is by the central walkway (once a road) and the complex of post second world war buildings that address the walkway. The master planning dating back to the 1960's established the ring road system with the aim of containing core activities to the inside of the ring. This classic Campus planning arrangement with pedestrian and vehicle movement segregated, car parking placed on the perimeter and all general accommodation located within the ideal ten minute walking distance was maintained. Facilities established outside of the core were primarily animal holding facilities requiring basic services. Recent campus development has expanded beyond the 'contained' core area and beyond the ring road. This expansion has resulted in a large core area footprint resulting in the need to expand infrastructure and walking distances between facilities.

A university campus core is an area of concentrated teaching, research, and staff office space with supporting services and the Gatton Campus has the potential to increase core activity without expanding outside the footprint. Therefore the Campus development principles are as follows:

To achieve long term sustainable development the expansion of core activities shall be contained. The linear urban form shall be limited between Main Entrance and Morrison Hall.

Comprehensively serviced 'satellite' areas shall be limited to specialised research or support facilities that have reduced reliance on core infrastructure and low level student and staff access.

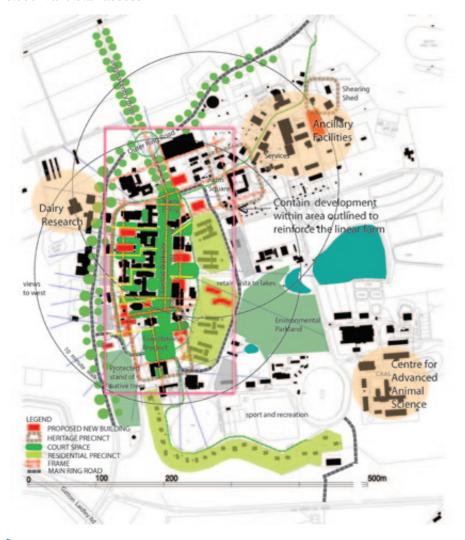
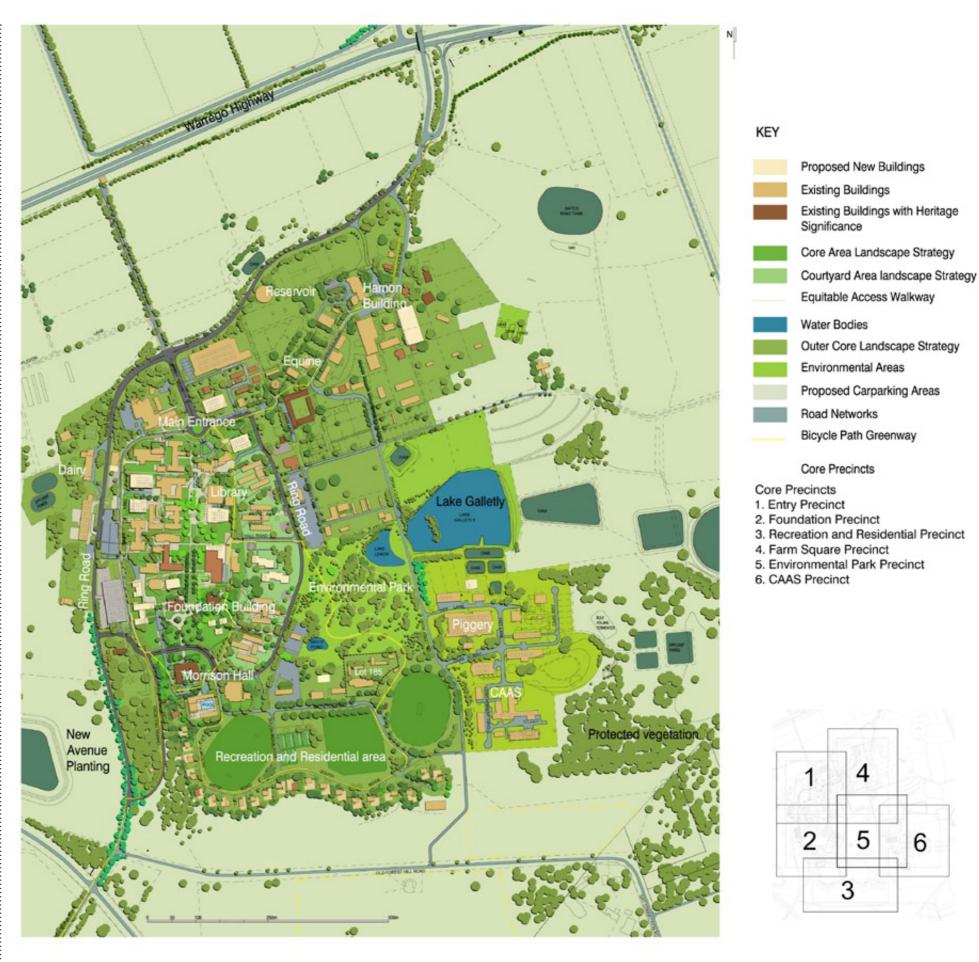


Figure 3.6 Structure Diagram



Plan 7: Core Illustrative Plan

#### Character

The Gatton Campus is a place where social and cultural attributes of rural Queensland merge with a place of innovation, with a strong research program linked to professional and industry needs. The place conveys heritage links to the history of agricultural education in Queensland by retention and adaptation of significant buildings and spaces.

The spreadout nature of gathering places from the Morrison Hall/Sports Precinct along the Central Walkway to the Main Entry provides a variety of venues, dispersing the population. The scale and massing of the built form is a unique characteristic of the campus and provides a casual, low density, spread out feeling which has strong aesthetic links to the rural environment.

The campus buildings comprise a collection of conventional teaching and support buildings in the core with a variety of farm buildings surrounding the core and in outlying locations. The campus landscape provides the underlying coherence to an ensemble of buildings reflecting over 100 years of architecture for educational purposes.

The open, low density character with large landscaped spaces, particularly the Central Walkway, contribute to the campus uniqueness and shall be maintained. This can be achieved by applying a design principle where open space is given priority and defines the edges or extent of built space.

The main guide for uniqueness and character on the campus is to reinforce the elements that contribute to a rewarding cultural and social experience for staff and students.



▶ The UQ Gatton Campus Fitness and Aquatic Centre



The Central Walkway at UQ Gatton



Veterinary Medical Centre



Farm Square



Library



Figure 3.7: Volumetric Model of the Core Area



Veterinary Science Building



NRSM Building



Foundation Building

## **Architectural Vocabulary**

The campus architecture consists of the farm vernacular in locations beyond the core. The campus core built form is low density with the Central Walkway providing the guiding principle for two storey height limit with higher buildings stepping down along the western core edge as demonstrated with the recent Veterinary Science Building. The predominant buildings in the core area are brick and concrete buildings with low pitched metal deck roofs built during the 1960s and 1970s. Several buildings remain from the foundation years in the traditional 'timber and tin' vernacular style.

#### General architectural principles include:

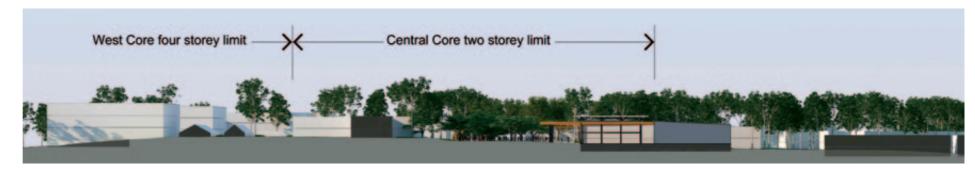
- Height restrictions.
- Orientation of building form in response to natural environmental conditions.
- Deep shading of walls by generous overhanging eaves along north, east and west walls.
- Light coloured roofs to reflect heat.
- Shaded outdoor linkage between buildings and assembly areas.
- Materials that are in context with the existing palette.



Example of controlled height and set back on recent building in the Central Walkway



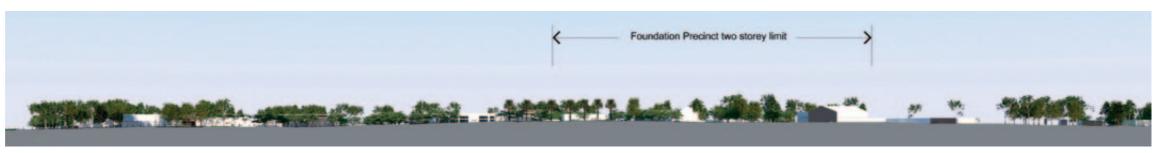
Example of simple 'farm building' architecture beyond central core area



Section 2: Through Central Walkway and Main Core Area



The architecture shall be contemporary in design and adopt a contexuality through scale, materials and colours



Section 3: North-South along the Central Walkway Axis

#### Core Area Landscape Vocabulary

Landscape of the site generally has been conveyed in a previous section. This section deals primarily with the core area outdoor spaces. The core area is characterised by formal and informal planting, avenue planting along some roads and walkways, a wide landscaped central walkway, with linkage spaces extending from the Central Walkway to secondary court forms along the western core, wide open spaces with native vegetation across the Halls of Residence Precinct and recent dense native planting around the lake and ponds east of the Halls. The transition slopes between the elevated core area and cultivated plain lands contain native plantings with grass under storey.

The overall core area landscape concept is a wide Central Walkway with linked court spaces containing legible path connections and shaded areas for outdoor use shall be maintained.

Tree species used in the core area include the native and introduced exotics. An inventory of over 1000 trees with 300 mm+ diameter girth has been documented providing botanical description and condition. Tree condition is monitored yearly and maintained in a safe condition.





Landscape shall be designed with the climatic variations and seasonal changes of the natural landscape. A sustainable landscape that endures drought and requires little maintenance is preferred.





Avenue planting to distinguish the main entrance drive and along selected link paths.

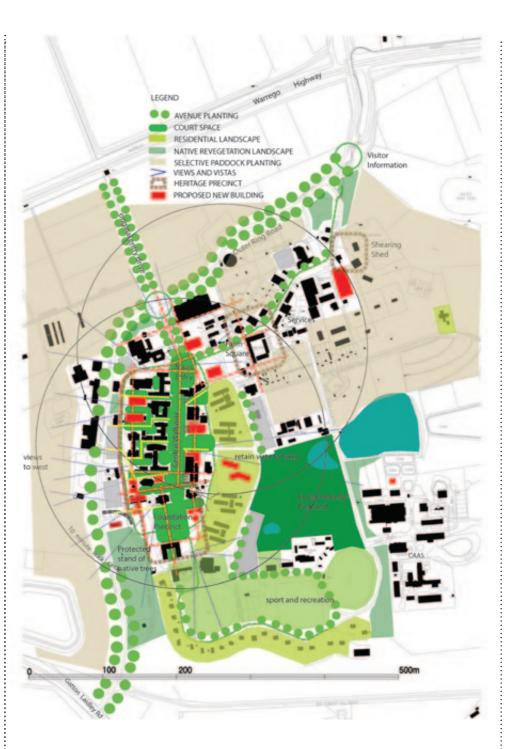


Figure 3.8: Landscape Structure Diagram Core Area





The core perimeter shall be planted with native species that sustain long periods without water in the well drained slopes.





The formality and exotic species of the heritage significant parts shall be maintained not extended.





Landscape that has the characteristics of self sustaining natives shall be used in combination with ground covers that reduce soil moisture loss





Outdoor pergola structures, covered ways between buildings are important elements to complement landscape and provide shelter

### Heritage

The site Lot 184 is included in the Queensland Government Heritage Register (ref 601672) as a place of cultural heritage significance. Refer Appendix C. The Listing comprises a variety of buildings, spaces and elements that are regarded as evidence of the cultural heritage significance. Whilst the listing refers to only one allotment (Lot 184) the development on allotments adjacent to Lot 184 are notifiable in terms of the *Queensland Heritage Act 1992*. The whole of site listing means that heritage significance extends beyond buildings and in some cases combine in an ensemble with outdoor areas and landscape elements to create the significance. The Gatton Campus has a history of use as a College for Agricultural Education, 1897–1923, an Agricultural High School and College 1923–1967, a College of Advanced Education 1967–1989, and in 1990 the College amalgamated with, and became part of, The University of Queensland. From July 1942 to June 1944 during the Second World War the College was used as a US Army hospital base.

As a place of heritage significance the campus is rich in aesthetic, historic, scientific, and social value. The development of the campus recognises these values and has incorporated a strategy of conservation and adaptation of listed assets where they can be utilised for the ongoing use of the site. To guide development within the heritage listed place the University has a Heritage Management Protocol (Ladlay 2007). This document assists with identification of significance and should be used to support more extensive assessment. It is noted that the Protocol is a guide and does not remove the requirements under the *Queensland Heritage Act 1992*.

To recognise heritage significance the site development plan has identified several elements within the core area that are retained and in several cases require adaptation for University purposes.

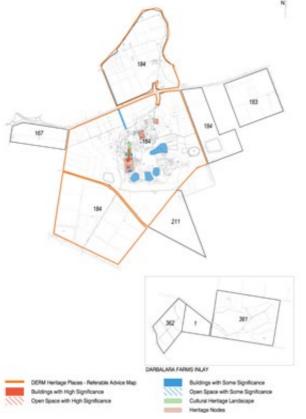




Figure 3.10 Core Area Heritage Precincts and Significant Features



Foundation Building and residential buildings ca 1897 (above) ca 1990 (below)





Original entrance avenue from Warrego Highway



Shearing Shed ca 1941



Crow's Silo ca 1941

Figure 3.9 Heritage Boundary

# 3.4 Precincts

## Precinct 1 – Main Entry



The Veterinary Science Medical Centre displays the low height built form preferred at the core edge

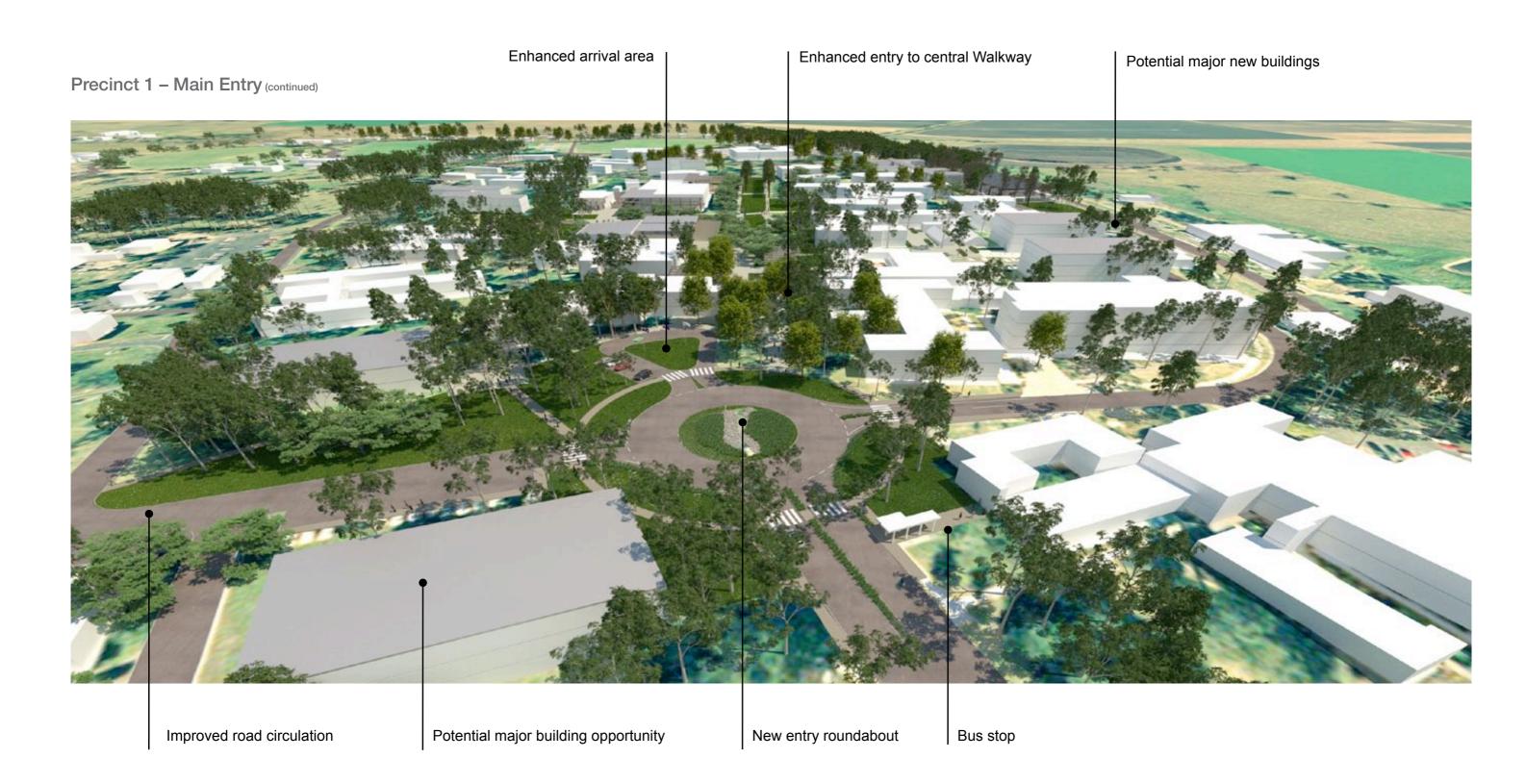


The Veterinary Science Building illustrates the four story height limit preferred along the western side of the core area

Glasshouses retained in core area

Inner Ring Road reduced to limited access with improved pedestrian access and bicycle path





Refer plan 14 page 34

Precinct 2 – Foundation



 Existing link path network to be improved between Central Walkway and main western car parking



Foundation Building and water tower



Plan 9: Precinct 2 - Foundation

#### Precinct 2 – West of Foundation



#### Precinct 3 - Recreational and Residential

The Campus caters for many indoor and outdoor sports in a dedicated precinct.

The facilities have recently been enhanced with a new aquatic and fitness centre.

Continued enhancement of the facilities will add to the attractiveness of the Campus for students, staff and the community generally.



The New 25 metre-heated Pool at the UQ Gatton Aquatic and Fitness Centre



The Heritage-listed
Tom Graham Oval Grandstand



Plan 10: Precinct 3 – Residential and Recreation

# Precinct 4 – Farm Square



UQ Gatton Farm Square

Improve access between core and Hamon Centre now used as central teaching space.



WP Hamon Memorial Centre



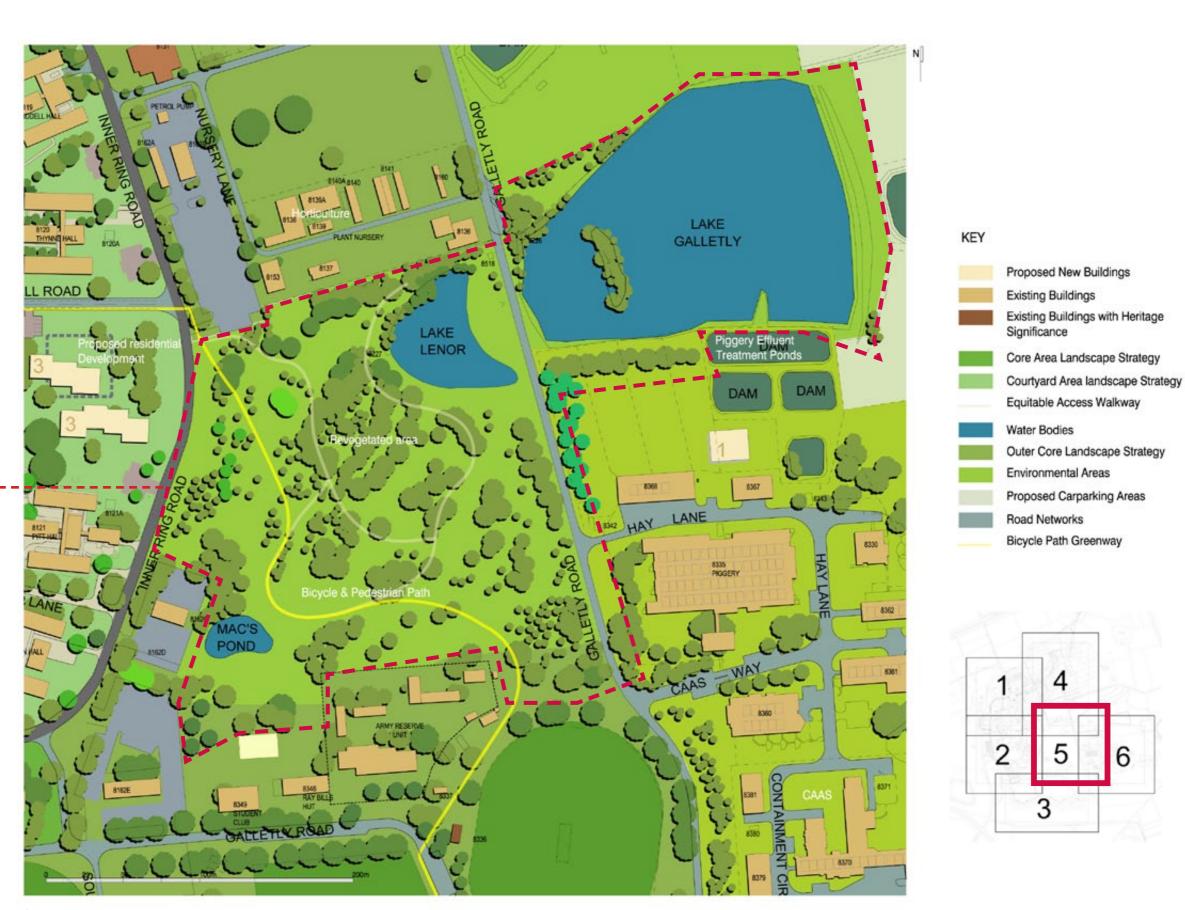
Plan 11: Precinct 4 – Farm Square

Precinct 5 -**Environmental Park** 



Lake Galletly

Extent of Campus land under development as Environmental Park



Plan 12: Precinct 5 – Environmental Park

Precinct 6 – CAAS



Plan 13: Precinct 6 – CAAS

## 3.5 Central Core

## A Campus Heart

The 'Campus Heart' is the 'village' centre and by concentrating major lecture facilities, 'eat and meet,' service, social interaction and events generates a quality of life/ work balance for its visitors, staff and their families. This consolidation of activities along the walkway will contribute to a sustainable Campus, economically, socially and environmentally. The plan respects the unique environment created by the landscape, low density height and set backs, and the scale of court spaces.

It is important to control the building height to two stories and set backs that retain the rhythm of court space and building form along the walkway edges. An increase of building height to three/four levels following the fall of the land away from the walkway is achievable.

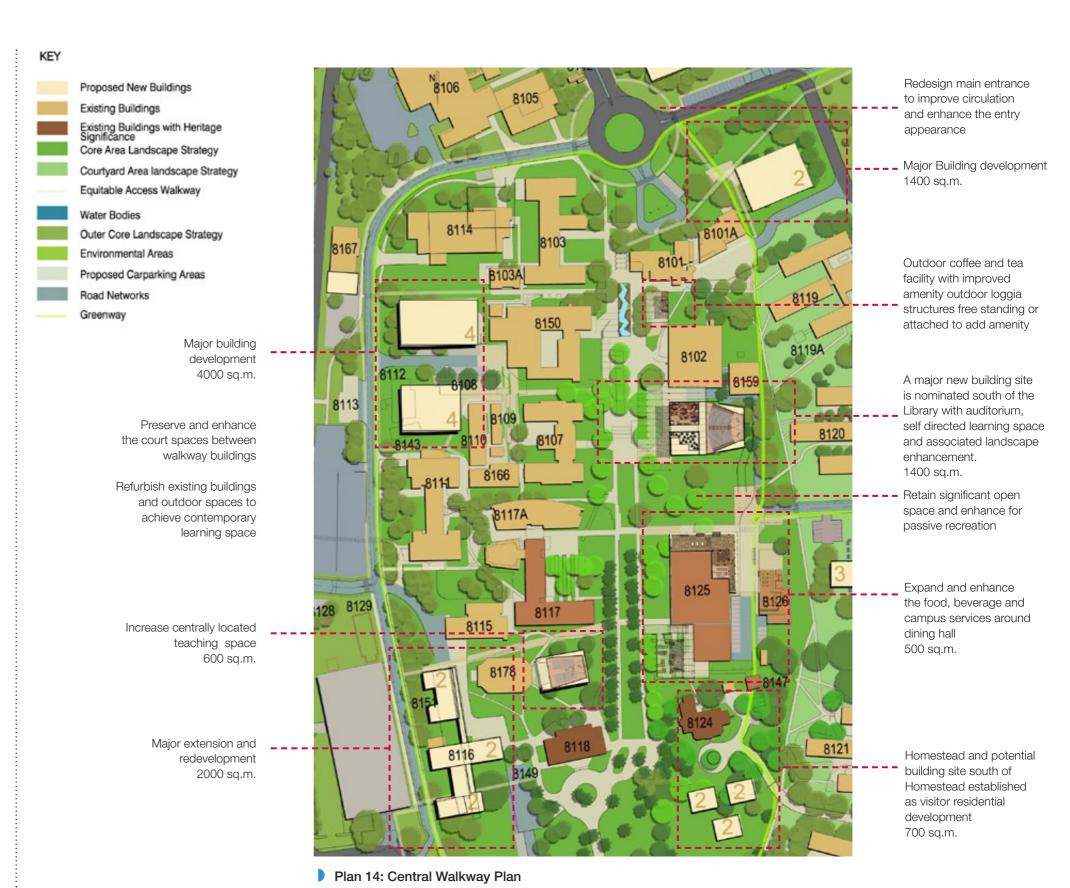


Section 4: Typical Cross Section Through Core

#### **Central Walkway**

The central walkway opens up a memorable vista which forms the major circulation spine linking the Foundation Precinct to the Main Entrance Precinct. The arrangement of academic buildings along the walkway resembles the linear campus form where , ideally, major teaching spaces, school nuclei, group centres and campus resource facilities would be located. The linear form is the simplest urban system used in human settlement and the central spine becomes the main means of movement. Growth is usually achieved by attaching activities to the spine and expanding outwards at right angles.

The linear form shall be adopted and the walkway shall be enhanced as part of the 'Campus heart'.





Sketch 4: Reinstatement of Entry Loggia and "Re-opening" the Entrance Vista

The distinctive landscaped central walkway has become the centre point of the campus landscape and the character of the central walkway is extended beyond toward Morrison Hall and beyond the N W Briton building. The formal avenue planting of Cocos Island palms in the southern half of the walkway has heritage significance and is a unique part of the Campus.

The sense of open 'park like' character is to be retained and enhanced as the major public domain of the Campus.



The significant planting in the Walkway are the Canary Island palms



Sketch 5: Improve Dining and Social Amenity in Front of Walkway Café



Sketch 6: Enhancement of the 'Campus Heart' Retail, Eating and Social Gathering



Sketch 7: View Looking South over Northern End of the Walkway. The northern end of the walkway has extensive pavement and limited shade areas.

# 3. DEVELOPMENT GUIDELINES (continued)

# 3.6 Residential Facilities

Approximately 500 students and a few staff live on campus.

Undergraduate accommodation for 436 students is provided in the Halls of Residence located east of the Central Walkway. Detached dwellings along south ridge accommodate postgraduate and international students and some staff. The campus has several isolated farm houses no longer required for residential purposes. The demand for postgraduate and undergraduate student accommodation catering for domestic and international students is expected to continue and a strategy to increase accommodation is proposed in this section.

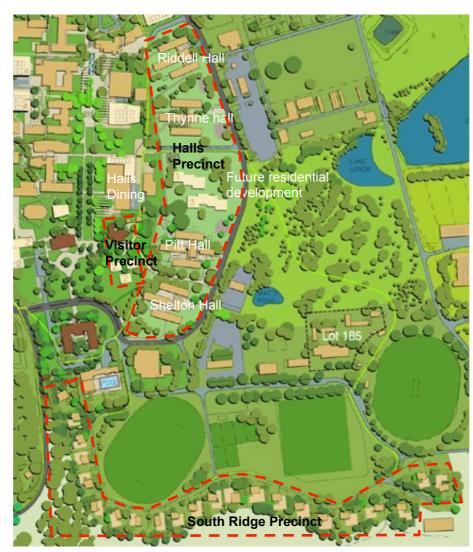
### **Halls Precinct**

The existing Halls of Residence are named Shelton, Riddell, Thynne and Pitt after individuals who played a leading role in the development of the original agricultural education institution. The Halls model of dormitory style rooms with shared internal amenities and a central dining hall has undergone upgrade programs over recent years within the constraints of the existing building envelopes. Expansion of the Halls precinct is proposed on a site east of the dining hall.





Existing Halls of Residence



Plan 15: Residential Precincts

# Residential Accommodation Strategy

### **Halls Precinct**

Increase undergraduate student accommodation by development on the site east of the Dining Hall. The site is suitable for 2–3 storey shared facility type of development and would add 100 bedrooms to the Halls Precinct.

### **South Ridge Precinct**

The potential exists for re-modelling and extending these houses to create a modern low density self contained residential accommodation for groups of 6-8 students.

### Visitor Accommodation

Development of motel/self contained style rooms south of the homestead. The homestead would be included in the complex and provide self directed learning facilities, reading space and small conference/seminar facilities.

### South Ridge Precinct

The single detached housing along South Ridge established originally as staff accommodation is now utilised for student accommodation.



Existing south ridge housing built between 1920 and 1960



Sketch 8: Possible Doubling of South Ridge Accommodation by Attached House Extensions



Sketch 9: Typical Extension/Upgrade of Existing South Ridge Residence

# 3.7 Access, Transport, Circulation and Parking

The campus is located some distance from major population centres in the South East Queensland Region. The regional location of the site coupled with the widely dispersed day commuter population results in the private car being the dominant travel mode. The high ratio of car ownership in the on-campus population also demonstrates society's preference for the convenience of the private car.

The history of the campus and the early development of the site with early buildings and campus approach oriented towards the south and rail corridor convey evidence of a campus once accessed by rail. The campus' main entrance is now oriented toward the Warrego Highway which is the major western arterial from Ipswich and Toowoomba with settlement concentrated along this corridor. The Warrego Highway caters for approximately half the vehicle access to campus with the other half using the Gatton-Laidley Road access from the south.

The Gatton-Laidley Road provides a convenient link to Gatton, Forest Hill, Laidley and beyond where many students and staff live. The TRANSlink operated public transport network connects to the campus via the Gatton Laidley Road entrance.

### **Public Transport**

The TRANSlink operated bus service connects to the urban rail network at Rosewood. Enhancement of rail services between Rosewood and Toowoomba combined with enhanced local bus services would clearly improve the public transport accessibility.

Translink bus route 539 services the one Campus bus stop. The service runs between Rosewood railway station and Gatton via Gatton Laidley Road. Weekday departures from Gatton are as follows:

Rosewood direction 5.36am, 6.12am, 6.34am, 8.14am, 11.09am, 1.14pm, 2.25pm, 2.54pm, 5.12pm, 6.14pm, 6.59pm.

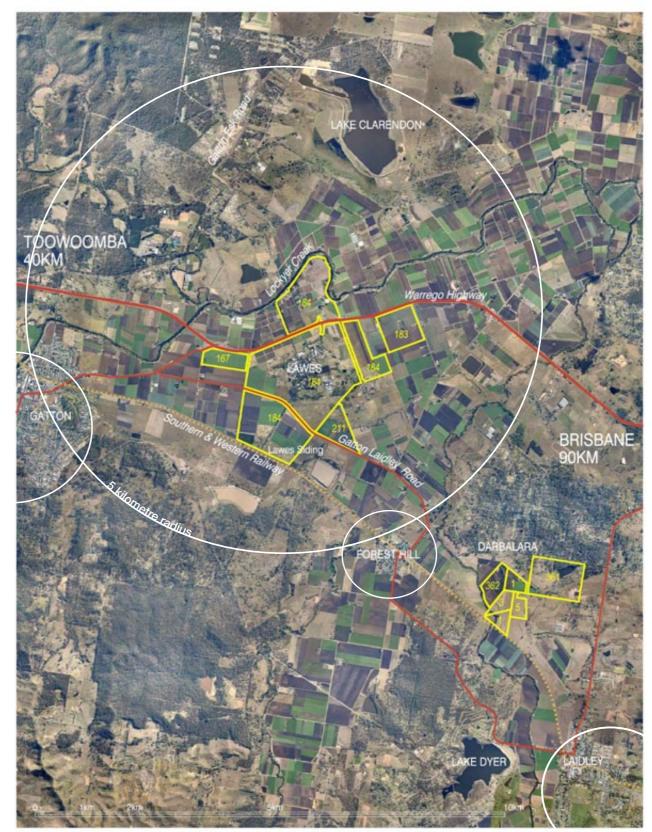
Gatton direction 7.40am, 8.40am, 9.10am, 9.44am, 12.40pm, 2.40pm, 2.40pm, 4.49pm, 5.44pm, 6.44pm, 7.44pm, and 8.44pm.

The Queensland Government released a document in 2011 "Connecting SEQ 2031- An Integrated Regional Transport Plan for South East Queensland". There is no mention in the document about extension of the commuter rail network west of Rosewood.

The University operates an inter-campus bus service between Gatton, Ipswich and St Lucia with services running 5 times a day (see the intercampus bus schedule on www.pf.uq.edu.au/buses).

Journey time and timetable frequency are a distinct disadvantage for the public transport choice, however attention should be given to improving public transport and active transport networks. This will ensure that the site connectivity improves and sustainable transport strategy can be developed.

The Plan proposes that future enhancement of bus services include a second oncampus stop near Morrison Hall increasing availability and accessibility to this transport mode. Gatton Town is the Lockyer region's principal economic social and cultural centre. It provides service support and amenities for the Campus community



The Warrego Highway is the major access from the east and west.

Forest Hill is a popular centre for off Campus living

Figure 3.11: Local Structure Support

# 3.7 Access, Transport, Circulation and Parking (continued)

### Roads

The campus has an extensive road network including fully sealed main access roads without kerb and channel and with stock grids, sealed with kerb and channel to core areas and restricted gravel surfaces. The campus is not gated allowing direct connection to major arterials that pass the campus.

A 30km/hour speed limit has been set for campus roads. To control this limit the installation of speed humps has been introduced. A major issue is the transition from the 100km/hour speed on the connecting highway to a 30km/hour limit on campus. It is also important to have appropriate deceleration and exit/entry ramping at the campus

It is proposed that the inner ring road west of the core be downgraded to one way and has limited access. Lake Galletly road is also recommended for restricted access to CAAS and piggery.



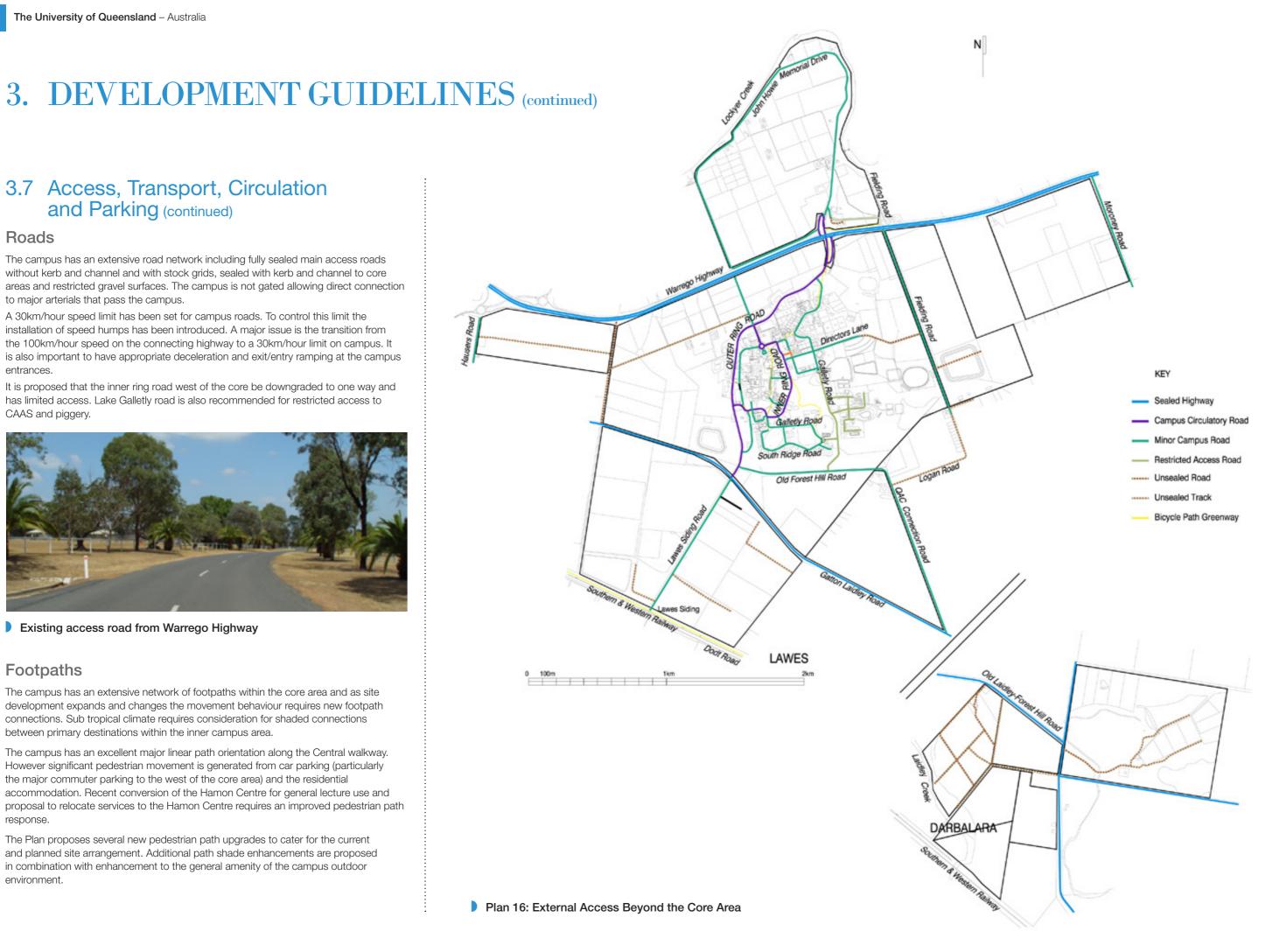
Existing access road from Warrego Highway

### **Footpaths**

The campus has an extensive network of footpaths within the core area and as site development expands and changes the movement behaviour requires new footpath connections. Sub tropical climate requires consideration for shaded connections between primary destinations within the inner campus area.

The campus has an excellent major linear path orientation along the Central walkway. However significant pedestrian movement is generated from car parking (particularly the major commuter parking to the west of the core area) and the residential accommodation. Recent conversion of the Hamon Centre for general lecture use and proposal to relocate services to the Hamon Centre requires an improved pedestrian path response.

The Plan proposes several new pedestrian path upgrades to cater for the current and planned site arrangement. Additional path shade enhancements are proposed in combination with enhancement to the general amenity of the campus outdoor environment.



## **Bicycle Paths**

The campus has a small cyclist population at present using the existing pedestrian and road networks. A dedicated bicycle and pedestrian path links the campus to the McDonalds/BP Roadhouse via the Warrego Highway overpass.

The dispersed nature of the campus and the relatively flat site makes bicycle transport an ideal on-campus transport mode. Therefore, as the campus continues to develop, the presence of the bicycle on campus should be encouraged with improved bicycle infrastructure. The Plan proposes the following initiatives:

- A clearly defined bicycle path network for moving between campus destinations and for recreation cycling.
- Bicycle parking and secure storage infrastructure.



Pedestrian and bicycle path to McDonalds



 Outer Ring Road design standard with provision for cyclist

# Car Parking

Formed car parking is provided in the core area for 1145 vehicles. Parking surveys on a normal semester Tuesday and Wednesday peaked at 884 cars. Of the 884 peak 228 parked in gravel or temporary grass parking areas.

Any growth in parking capacity can be achieved by increasing space to the west along the outer Ring Road. Concentration of commuter parking to the west of the core area reduces the impact of vehicles circulating to other parts of the campus.

In 2003, 1049 parking spaces were provided for 1570 EFTSL and approximately 250 staff. This produced a parking/EFTSL ratio of .69.

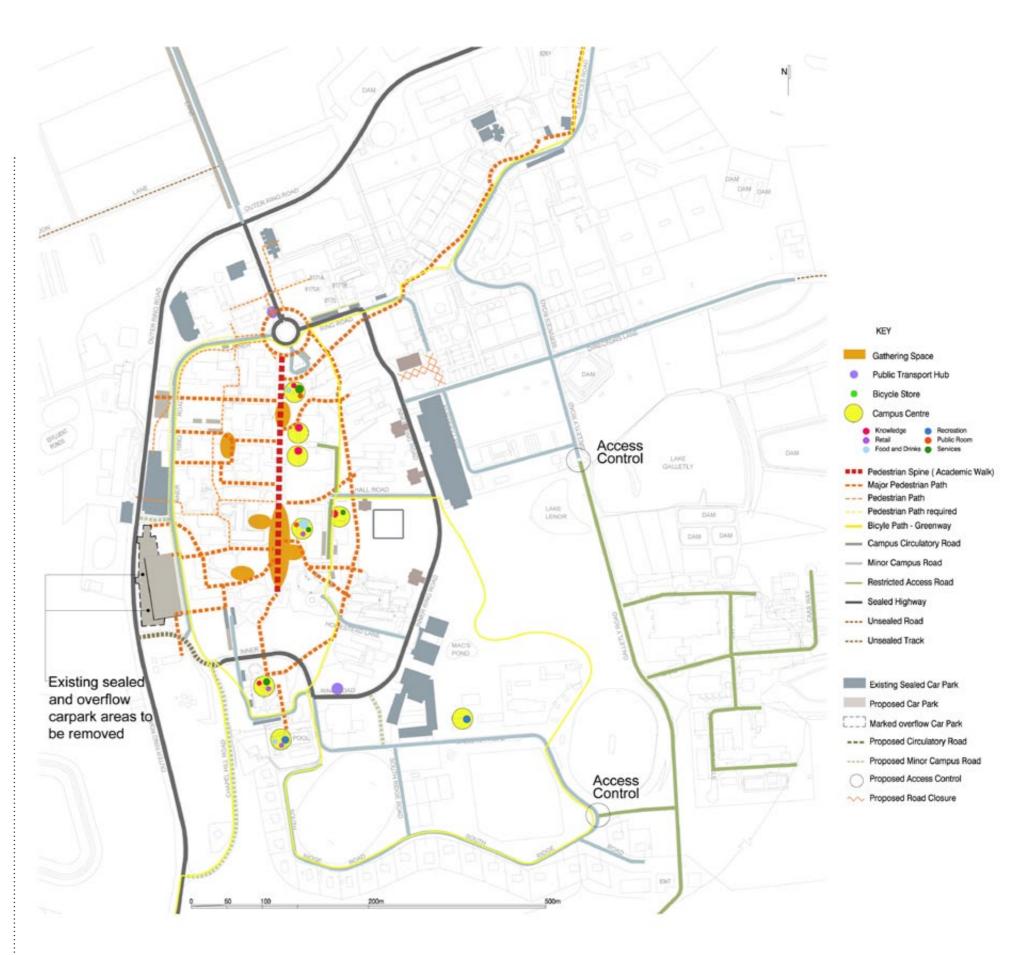
It is recommended that the parking space/EFTSL ratio be progressively reduced for future car park planning. This strategy would retain a relatively high parking provision for a regional based campus and would establish targets for improved sustainable transport options.

The projected car parking would therefore be as follows:

2015 1250 spaces for 2500 EFTSL or a ratio of .5

2020 350 spaces for 3000 EFTSL or a ratio of .45

Apart from the proposal for additional parking on the western side of the core area, additional short term/visitor parking is proposed in small lots close to the core.



Plan 17: Access, Transport, Circulation and Parking (Core Area)

# 3. DEVELOPMENT GUIDELINES (continued)

# 3.7 Access, Transport, Circulation and Parking (continued)

# **Campus Entrances**

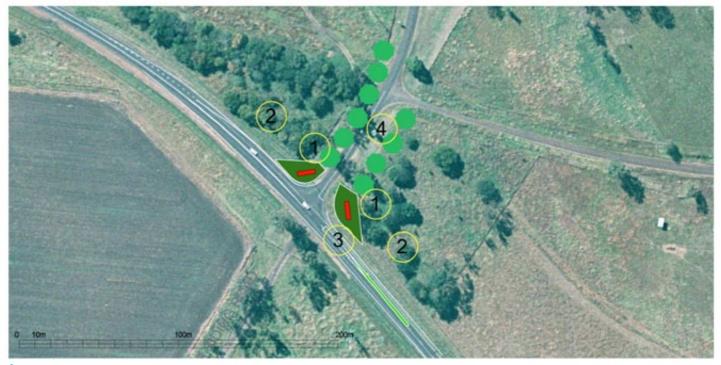
The rural setting of the Campus with main entrances on major road corridors provide an opportunity to promote the campus with entrance design that conveys a strong corporate image to passing traffic and visitors. Upgrading of the Warrego Highway and Gatton-Laidley Road entrances are proposed as follows:

- Provide a distinctive 'gateway' that increases the campus legibility and assists with identity and approach way finding
- Road design that provides appropriate deceleration and acceleration from a highway speed of 100km/hr to the speed limit of 30km/hr
- Include a campus identification sign that conveys a distinctive corporate image as a campus of 'The University of Queensland'.
- Incorporate signature trees and under planting existing eucalypts with prolific flowering native shrubs to function as visually recognisable entrances to the site.
- Place all other essential site information on secondary signage placed within the campus boundary following the main site entry.
- The design of the entrance signage shall be arranged to be visible from sufficient distance taking into account the 100km/hr speed.
- Consult with the Queensland Government Department of Main Roads to achieve best practice in external road and entry design.

The entrance diagrams on this page identify key elements for enhancement.



Plan 18: Warrego Highway Entrance



Plan 19: Gatton-Laidley Road Entrance

- Ground plane low grass height planting to ensure site entrance and signage visibility
- Signature trees defining campus edge and entry. Accent flowering native shrubs as under storey
- Improve deceleration and turning safety
- Outer Ring Road avenue planting
- 5 Bicycle path
- 6 BP Service Station and McDonalds Roadhouse

# 3.8 Services and Infrastructure

A site with a history dating back to 1897 carries with it services and infrastructure that can be as old. The campus has been subjected to significant site services and infrastructure upgrades in the last 20 years and has several initiatives under consideration that will contribute to water conservation, energy cost reduction and carbon emissions reduction.

### Water Supply

The campus is supplied water from SEQ Water. The main follows the Warrego Highway reserve and enters the site on the north side of the highway near the overpass. The incoming main supplies the 4.5 ML ground level storage reservoir, located at the north end of the core area. Water is circulated by two methods:

- Pumped to a gravity system via the 135 kL tower located next to the Foundation Building.
- Pressure pumped direct from the main ground level reservoir.

The pressurised system will be progressively extended to the entire core area to ensure a reliable water service.



The Campus is protected by the existing water supply from the water tower

### **Farms Water Supply**

The water required for the farms activities is supplied by a combination of site catchment, recycling, bore and creek pumping. A total storage capacity on site of 650MIL in dams and ring tanks will be reached following completion of current ring tank expansion in Boussingault and Harvey paddocks.

A comprehensive water use strategy is required including:

- Infrastructure associated with water supply, distribution and treatment systems,
- A water balance structure,
- Determining or estimating the flow rates of the component streams

### Fire Service

The campus has a dedicated fire main service covering the majority of the campus core. The service has a dual fuel fire pump set located beside the ground level storage reservoir. The expanded core area has been progressively upgraded to coincide with major developments. The remaining stage is to complete the southwest portion of the campus core. The dedicated fire main service is designed to provide 700Pa pressure at 20 L/s flow to comply with the BCA and Australian Standards.

The buildings connected to the dedicated fire main service are protected by a combination of external dual pillar hydrants and internal fire hose reels. Internal fire hydrants and sprinklers have been installed as part of the construction of the new research building for the School of Veterinary Science.

The remainder of the campus is protected by the existing water supply from the water tower.

### Sewerage

The campus is served by a gravity system with pumping stations to a sewage treatment plant located north of the Warrego Highway. The treatment plant has a capacity of 1,900 equivalent persons (EP) and is running at 44% of the hydraulic capacity. The system receives trade waste and is operating at 80% of this capacity.

A development approval limits the plant capacity to 4,000 EP and EP is 200I/d. Day time only site users are measured as half an EP.

Therefore current capacity can be determined as follows:

Live in Population = 500

Plus Day only Population = 2800 (1400 Live in equivalent)

This means the system has capacity for a total daytime population of 3300. Increased residential population will reduce the total day time capacity. The campus has a system of gravity sewer pipes, manholes, pump stations and rising mains. Pump stations are currently located at Post Harvest, CSIRO and BP MacDonalds on the north side of the Warrego Highway.

Pump stations are located at former Aerodrome No 1 behind Thynne Hall of Residence, No 2 near ground level water storage reservoir, Muslim Prayer House, Research Green House, Grounds Shed, CAAS and Bosworth Club.



Treatment Plant

The treatment plant was constructed during the Second World War and is reaching the end of its life. It is an option to replace the treatment plant with a pump station and rising main to the Gatton waste water treatment plant operated by Lockyer Valley Regional Council.

### **Electricity**

The campus is supplied by Energex from the Gatton zone Substation (GTN) via GTN5B 11kV feeder. This enters the campus from the Warrego Highway. There is a second, lower capacity service from the Forest Hill Road which is normally open, i.e. disconnected.

The expected load increase due to expansion of the campus will necessitate the construction of the new Energex 33/11kV susbstation on the campus. The site needs to be flood free and located near the existing route of 33kV overhead network on the southern side of the Warrego Highway reserve. A possible location is on the northern side of the Warrego Highway adjacent to the overpass. This is expected to be required in approximately 10 years based on current growth forecasts.

The University is a HV consumer and operates a restricted 11kV network including transformers, ring main units and switching gear. The majority of this reticulation is via an overhead network. The electricity supply is being converted to underground in stages. Two stages of this conversion has been completed as part of the CAAS development and the School of Veterinary Science development. Underground reticulation will be progressively extended in stages to cover the entire campus core providing a modern and reliable electricity service.

A new substation has been constructed as part of the School of Veterinary Science project. This substation has the first solar photo voltaic system with a 25kW installation on the roof. Emergency power is installed comprising 1000kVA diesel generator to service the School of Veterinary Science buildings.

Future development of the campus will require further upgrades to the HV network to supply the increase loads.

Solar and other forms of energy supply are being investigated.



Solar photo voltaic system on the substation building west of Veterinary Science

# 3. DEVELOPMENT GUIDELINES (continued)

# 3.8 Services and Infrastructure (continued)

### Communications

A main conduit runs through the core area and can cater for future requirements within the core-defined area. The existing PABX requires expansion/replacement to cater for additional buildings. Any new building will require a branch conduit and new cable from the PABX, computer room and library.

### Data

The Information Technology Infrastructure is comprised of the following key elements:

- Wide Area Network (WAN) connectivity to St Lucia
- Data Centre
- Horizontal in building cabling, inter building fibre, pit and pipe infrastructure wide Area Network (WAN) primary link is a 1 Gigabit Managed Ethernet service provided by AAPT. The backup 34 megabit per second (mbps) microwave link exists between Gatton and St Lucia. The backup link capacity is under investigation to be replaced with an upgraded link via USQ at Toowoomba.

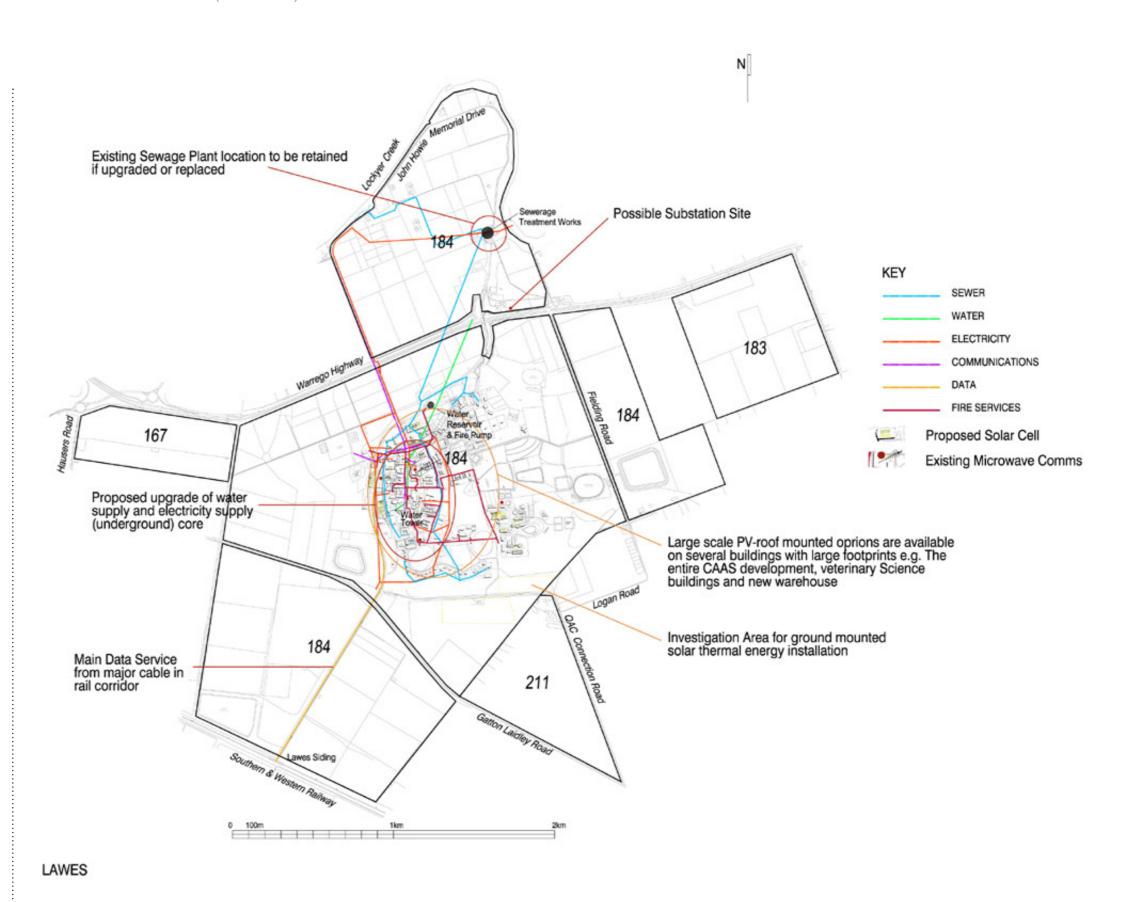
The campus has a single data centre in the Library Building (8102). A second data centre is proposed to be located in the Gymnasium Building (8144).

Future developments are required to have pit and pipe infrastructure connected using armoured single mode fibre capable of supporting up to 240 gigabit.

The campus is served by an enhanced wireless coverage.



Students have the availability of an enhanced wireless network



Plan 20: Services Infrastructure

## Heating, Ventilation and Air Conditioning

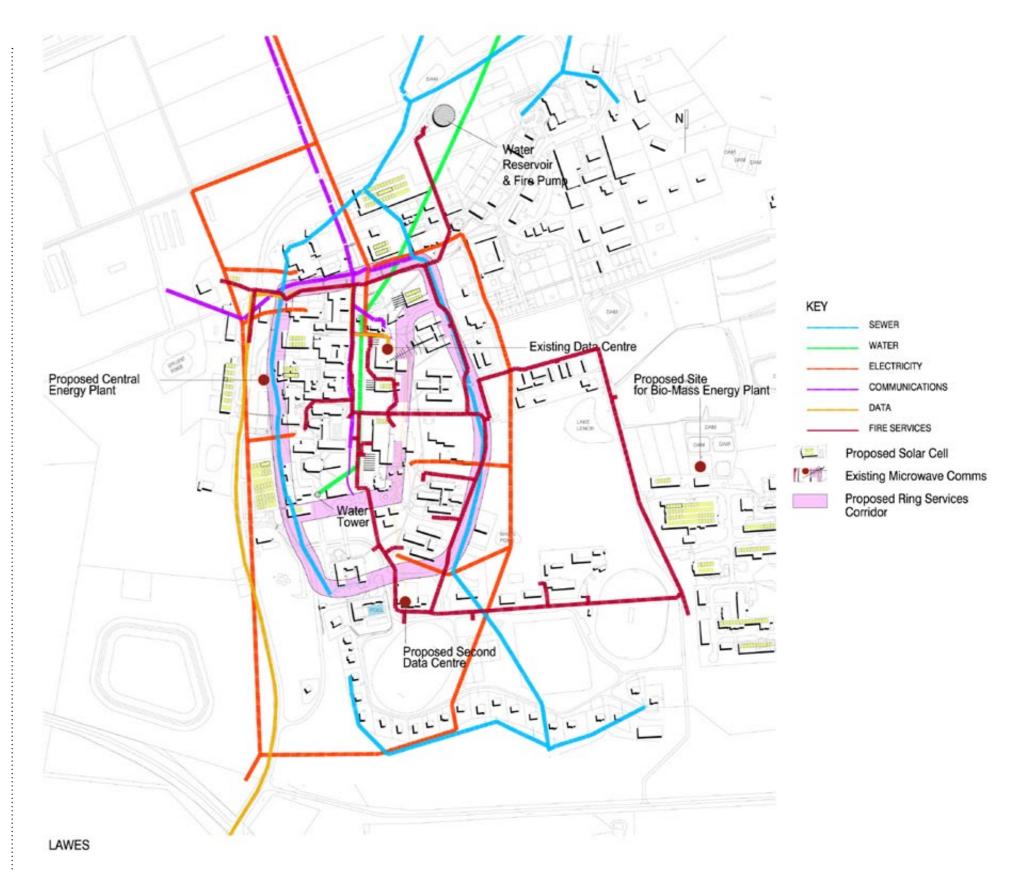
Heating, ventilation and air conditioning services infrastructure is currently undergoing a review to develop a comprehensive strategy for the future delivery and operation of these services. Current campus installations consist of building based systems. It is proposed that the future development of a central station utilising sustainable energy concepts and efficient distribution to buildings be implemented.

The Plan proposes sites for new central services buildings with a defined site corridor for reticulation.

# Service Planning Guidelines

Implementation of new technologies and innovative solutions as a whole of campus approach will require site interventions. Guidelines are proposed for a logical and ordered approach to integrate new services initiatives as follows:

- Services infrastructure planning shall be undertaken to achieve a combination of service reliability, cost efficiency and sustainable outcomes.
- Overlaying new site infrastructure on the existing site uses shall consider impacts on existing site operations, amenity and environment. The Planning Checklist (Appendix B) shall be used when determining development locations.
- Distribution of services infrastructure shall be arranged in engineered underground service corridors and conduits with capacity for expansion and redundant loops.
- Existing aerial services shall be replaced by undergrounding. Where retrofitting
  of services below ground encounters existing pavement or landscape
  elements the development shall include removal and reconstruction of
  surfaces and landscape elements leaving no trace of the intervention.
  (Random saw cutting through pavements is not permitted and pavement must
  be removed and replaced to achieve a designed joint pattern.)



Plan 21: Services Infrastructure (Core Area)

# 4. IMPLEMENTATION

# 4.1 The Design and Approval of **Campus Projects**

Development proposals for Gatton Campus require the approval of Senate and approval by other relevant authorities administering legislation controlling development in Queensland.

The Site Development Plan for Gatton Campus is the Senate approved guiding document to control development, and compliance with the plan will ensure a logical and coherent development of the campus.

Project design is normally preceded by precinct studies, which shall analyse the impact of a proposal and establish specific quidelines for a development. An application for development shall be authorised by the Gatton Campus Executive at project inception. Individual projects generally involve the particular interests of the project user group and to ensure the broader campus stakeholders are considered, the following steps are recommended:

- 1. Prepare a precinct study in terms of the Planning Checklist (Appendix B) for the approval of the University. The precinct study can be a part of the project brief or included as a planning analysis with the project design report.
- 2. Obtain advice and agreement in principles with the Property and Facilities planning authorities by consultation with the Planning Cell. It is advisable to seek this advice at the commencement of a project.
- 3. Prepare a submission to Buildings and Grounds Committee for recommendation to Senate for approval. The submission will take the form of an application for Development approval (DA) and will include design drawings and information that describe the architectural/landscape solution and environmental assessment.

### Sustainable Planning Act 2009

A Community Infrastructure Ministerial Designation was granted pursuant to Section 2.6.7 and Schedule 6 to the Integrated Planning Act 1997 (now Sustainable Planning Act 2009) and gazetted 20 April 2000.

A Certificate of Designation No 00.0038 approved by the Minister for Education applies to the Gatton Campus (Appendix A). The current Designation permits a continuation of the University teaching and research activities with development generally in accordance with the 2003 Site Development Plan and subject to a number of conditions including:

"The University's Site Development Plan, as approved by the Senate after a process of community consultation and consideration of the overall urban form of the campus, shall be used as a guide for all development proposals." The Ministerial Designation provides for site development in accordance with a Site Development Plan approved by Senate. The Designation does not include land acquired after Designation, e.g.

Designation does not exempt the University from any legislation. It allows the University to self assess development that conforms with the designated purpose. Non designated purposes will be subject to the approval of the Lockyer Valley

Property not included under the Designation will require developments to be approved by the Lockyer Valley Regional Council. This applies to Lot 211 (Langmuir) and Lot 1 (Darbalara).

### Heritage Act

Lot 184 is on the Queensland Heritage Register and subject to the provisions of the Heritage Act 1993.

Development on allotments adjoining Lot 184 require notification under the Act. To assist with heritage applications a Heritage Protocol has been prepared to assist with interpretation of legislation and determination of significance.

#### Land Act

The Reserve Tenure of the major campus lands requires approval for development by the Department of Environment and Resource Management (DERM). This is called Resource Entitlement.

### • Environmental Protection Act 1994

Development or disposal of the site is subject to requirements of the Environmental Protection Act 1994.

**Environmental Management Register** – The site is listed on the register and has several activities subject to notification and approval under the Environmental Protection Act. Hazardous contaminants are located in certain parts of the site. The University will deal with contamination in an appropriate manner through consultation and approval by the Environmental Protection Agency.

### South East Queensland Regional Plan 2009-2031

Principle 6.1 – Leading regional growth

Use infrastructure to lead and support desired regional growth and help create a more compact urban pattern, cohesive urban and rural communities and regional economic

- identify and prioritise key infrastructure projects to support the Regional Plan, shape the preferred settlement pattern and provide greater certainty for development; and
- identify areas having access to surplus infrastructure capacity to assist in identifying infill and redevelopment opportunities.

Principle 6.11 – Community infrastructure and services

Planning and coordination of community infrastructure and services will provide effective and timely access to community facilities and services in green field and infill growth

- · establish community infrastructure and service needs in growth areas in advance of
- identify sites for community services, including co-location opportunities as an integral part of structure planning for new communities; and
- ensure all developments make adequate provision for essential community infrastructure in planning, design and development.



# 4.2 Planning Provisions

## Senate Approval

All development requires Senate approval whether subject to other authorities or not.

Senate approval is preceded by a submission to the Buildings and Grounds Committee.

The Buildings and Grounds Committee is a standing Committee of Senate and recommends projects to Senate for approval.

The Senate approval will achieve the self assessment of development required in terms of the Ministerial Designation.

Lockyer Planning Scheme – has a Community Use Classification for the designated site. Lot 211 (Langmuir) and Lot 1, 1, 3 and 5 (Darbalara) are classified Rural Production and development is subject to assessment in accordance with the Lockyer Valley Regional Council Planning Scheme.

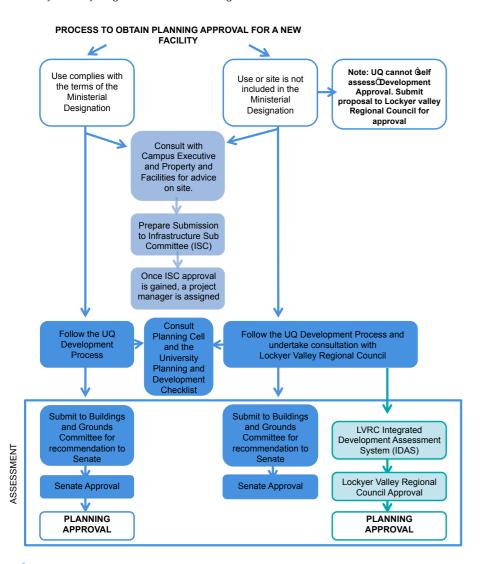


Figure 4.2: Process to Obtain Planning Approval for a New Facility

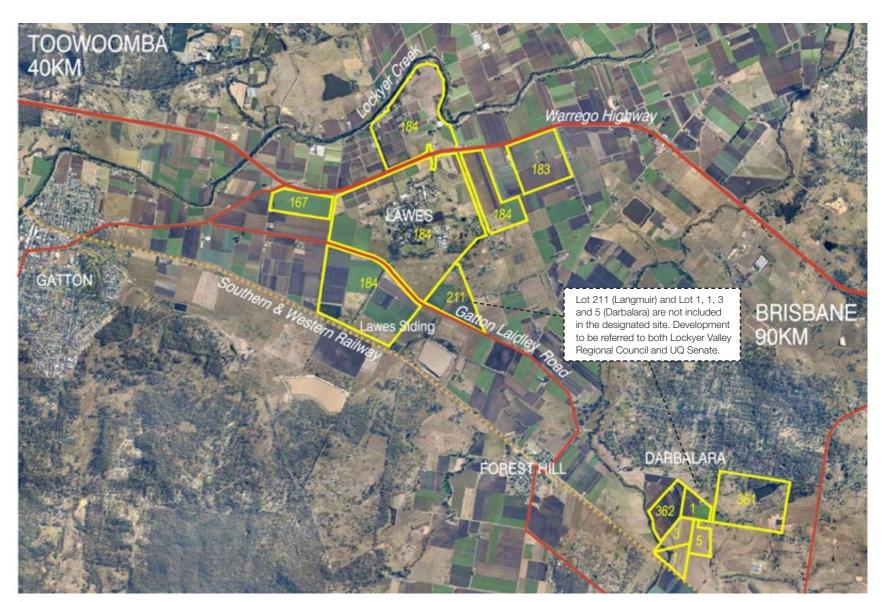


Figure 4.1: Layout of Property Allotments

Table 4.1: Campus Lands, Tenure and Relevant Approval Agencies for Developments

Lot Description	Tenure	Owner	Ministerial Designation	Heritage Register	Senate Approval Required	Lockyer Valley Regional Council Approval	DERM Land Act	DERM Environmental Protection Act	DERM Heritage Act Impact
Lawes									
183 on CC33264	Reserve	Crown	yes	no	yes		yes	to be determined	yes
184 on CC3374	Reserve	Crown	yes	yes	yes		yes	to be determined	yes
167 on CC3450	Reserve	Crown	yes	no	yes		yes	to be determined	yes
Lot 211 on CH312458	Freehold	UQ	no	no	yes	yes	no	to be determined	yes
Darbalara									
361 on CC1987	Reserve	Crown	yes	no	yes		yes	to be determined	no
362 on CC3226	Reserve	Crown	yes	no	yes		yes	to be determined	no
Lot 1 on RPI70095	Freehold	UQ	no	no	yes	yes	no	to be determined	no
Lot 1 on RPI66549	Freehold	UQ	no	no	yes	yes	no	to be determined	no
Lot 3 on RP25633	Freehold	UQ	no	no	yes	yes	no	to be determined	no
Lot 5 on RP815466	Freehold	UQ	no	no	yes	yes	no	to be determined	no

46

# 5. APPENDICES

# 5.1 Appendix A

**Ministerial Designation** 

 $\overline{\phantom{a}}$ Department of Designation No. 00.0038 Public Works Certificate of Designation for UNIVERSITY OF QUEENSLAND - GATTON CAMPUS PURSUANT TO THE INTEGRATED PLANNING ACT 1997 The land is currently located in two parts, the main campus on the Warrego Highway is 5km east of the Gatton township described as Lot 183 on CC3326, the balance of Lot 184 on CC3374, both Parish of Blenheim together with Lot 167 on CC3450 Part Reserve 2645 and Lot 14 on RP199638. The second part is Darbalara Farm A, at Forrest Hill described as Lot 361 on CC1987 Part Reserve 355, Parish of Laidley and Darbalara Farm B, at Forrest Hill, described as Lot 362 on CC3226 Part Reserve 2645 Parish of Laidley. Being a facility intended primarily as an Educational Facility described as: "A Campus for higher education with the associated teaching, research, social and public support functions, including carparking, cultural and sporting facilities, residential and conference accommodation, together with a range of agricultural activities carried out on adjacent University controlled land which includes farm machinery storage and fuel store, research and extension facilities, animal husbandry facilities, irrigation dams and equipment, and an airstrip". Subject to the following conditions: The University's Site Development Plan, as approved by the Senate after a process of community consultation and consideration of the overall urban form of the Campus, shall be used as a guide for all development proposals. Normal planning and development guidelines, including the preparation, in consultation with relevant authorities, of an Environment Assessment Report, shall be used for developments which might affect local communities, particularly on the boundaries of the Campus. Specific public consultation processes be established for large projects which have the potential to impact on our neighbours. All projects which would normally require code assessment in terms of the Building Act 1975 and the Building Code of Australia should be certified by qualified assessors. It has been designated by the HON. DEAN MACMILLAN WELLS, MLA, Minister for Education, and was published in the Government Gazette dated 20th April 2000.

Designation No. 00.0038

Page 2

Before development is undertaken upon this site, the following should receive further consideration:

At the time of designation:

- Native Title: The University of Queensland was not aware of any native title claim in respect of any of its land.
- (ii) Flood Level: Gatton Shire Council does not hold any flood records for the Gatton Campus. Local knowledge advises that flooding occurs on the campus. There is no clear pattern to the flooding as it varies depending on the locality within which rain occurs.

Flooding also occurs on the Darbalara farms and access is generally denied during these periods.

- (iii) Tidal Surges: Because of its height above sea level, it is most unlikely that the site will be subject to tidal surges.
- (iv) Environmentally relevant activities:
  - Sewerage treatment;
  - · Pig effluent pond;
  - Dairy effluent pond;
  - Bulk fertiliser unit discharging into a ring tank;
  - Scientific laboratories;
  - · Feed lots;
  - · Bulk chemical store;
  - Bore:
  - Water treatment;
  - · Bio-degradation of animal carcasses;
  - Dump.
- (v) No Lots are included on the Contaminated Land Register.
- (vi) No Lots are included on the Environmental Management Register.
- (vii) Lot 184 on CC3374 has been nominated for inclusion on the Qld Heritage Register. Enquiries should be made to the E.P.A. concerning this RPD.

Aymond Burke, Minager, I.P.A. Unit

Department of Public Works

# 5.2 Appendix B

Planning Checklist for Individual Developments

Development	Check		
Building or Space Functions	School issues Central facilities		
Location	address site definition edges of space (ie junctions with adjacent buildings pedestrian routes)		
Building Height and Floor Levels	linkages – ground levels clearances for vehicles junctions with natural grade views created and blocked obstructions to existing outlooks		
Form and Materials	character of precinct relationship to adjacent buildings compactness/site cover		
Orientation	solar access shadowing effects prevailing breezes natural lighting requirements		
Future Expansion	directions of growth linkage potentials		
Population Density	people oriented plant oriented escape requirements lifts and hoists		
Service Vehicle Access	covered unloading services lanes/deliveries and dock area garbage area and trash – industrial bin location emergency vehicles access routes fire brigade vehicles access to two sides of building		
Car Parking Effects	generation of parking displacement existing parking special parking needs: staff requirements special departmental vehicles after hours parking covered parking		
Security	number and type of exits restricted zones in building after hours usage fenced outdoor areas		
Roof Scape	building profile and silhouette roof materials roof access outdoor space potential		
Noise/Vibration	internal acoustic requirements noise generators: internally externally vibration generators: internally externally		

Development	Check		
Hazards	volatile substances storage smoke and fume generation wastes (industrial and chemical) odours		
Electro-magnetic Radiation	adjacent magnetic fields instrument sensitivity radiation		
Setbacks	road setbacks building to building setback main footpath setback		
New Services	Telstra, Campus Data Network (computer cabling), water supply, sewerage, electricity service corridors		
Existing Site	extent of site stormwater drainage effects existing trees and shrubs		
Topography and Terrain	site levels obstruction to site access		
Flood Levels	1974 and 2011 flood		
Existing Road System	road capacity flood free access linkages/blockages		
Geology and Subsurface Conditions	geological data presence of ground water was the site filled		
Landscape Work	shading effects character extent of external works paving and driveway materials fences and screen walls		
Pedestrian Flows	major pedestrian flows minor flows opportunities hazards		
Existing Underground Services	movement of any underground services required		
Views and Vistas	impact on existing views and vistas		

# 5. APPENDICES (continued)

# 5.3 Appendix C

### Heritage Register Entry

From the DERM website, Queensland Heritage Register

© The State of Queensland (Department of Environment and Resource Management) 2009.

Place Details	
Place ID	601672
Registration Type	State Heritage
Place Name	University of Queensland Gatton Campus (Queensland University)
Alternative Name	Foundation Precinct Gatton College Lawes Campus
Place Classification	Landscape Archaeological Built
Place Category	Education, Research, Scientific Facility
Place Type	College - student accomodation
Themes	9 Educating Queenslanders / 9.3 Educating adults 2 Exploiting, utilising and transforming the land / 2.4 Agricultural activities 2 Exploiting, utilising and transforming the land / 2.7 Experimenting, developing technologies and innovation 2 Exploiting, utilising and transforming the land / 2.3 Pastoral activities 9 Educating Queenslanders / 9.4 Providing tertiary education
Register Entry Date	06/01/2004

Location	
Address	Warrego Highway
Town/Suburb	LAWES
Post Code	4343
LGA	Lockyer Valley Regional Council

Cultural Heritage Significance

Principal Period of Significance

1890s, 1920s, 1940s (historical) 1890s-1940s (fabric) 1890s ongoing (social)

#### **Criterion A**

The University of Queensland Gatton Campus was established in 1897 by the Queensland Government as the Queensland Agricultural College. It is significant as Queensland's first agricultural vocational institution and demonstrates the Queensland government's commitment to agricultural education, reflecting the vital importance of primary production in the history of the State. It has significance as Queensland's principal agricultural training educational institution for over a century, contributing to generations of best-practice farming in this State. The University of Queensland Gatton Campus also has historical significance for its role in the development of agriculture and agricultural research in Queensland through its historical and continuing links with the Queensland Department of Agriculture (now Department of Primary Industries) and the CSIR (now CSIRO). In addition, the University of Queensland Gatton Campus is significant for its wartine use as a military hospital, and a number of buildings and structures survive associated with this period.

#### **Criterion C**

The University of Queensland Gatton Campus is significant for its wartime use as a military hospital, and a number of buildings and structures survive associated with this period. The dump associated with this use has the potential to yield information that will contribute to an understanding of Queensland's wartime history.

#### **Criterion D**

The University of Queensland Gatton Campus demonstrates the principal characteristics of a rural public educational institution, with the attributes of both a university campus and a working farm. The earlyestablished spatial relationships between the administrative, teaching, workshop, residential, recreational, and farming elements of the site survives, as does early infrastructure including Lawes Siding Road, the original Warrego Highway entrance road, and the 1928-29 water tower and water storage tanks near Lockyer Creek. The Foundation Building and the Homestead are evidence of the original collection of College buildings erected in 1897. Sir Leslie Wilson Hall, constructed as a gymnasium in 1899, demonstrates the recreational facilities that have been part of the campus from its establishment, and which include also a swimming hole in Lockyer Creek and an associated changing rooms building; a fine 1927 timber grandstand; ovals constructed in 1931, 1959-60 and 1965; a War Memorial Swimming Pool (1954); and an airfield (1966). Morrison Hall, constructed in 1936, is a fine example of an interwar Hall of Residence and demonstrates the principal characteristics of a timber dormitory building designed for the Queensland climate. The Farm Square precinct (which includes Farm Square (commenced 1899), the Hayshed (1923), the Merv Young Field Facilities Building [former Woolshed] (1913-15), the Weighbridge, the Blacksmith's Shop (1933), the former Dairy Factory [now the printery] (1912), Crow's Silo (1941); the Shearing Shed (1941); the Wool Classing Shed (c1940s); a number of other c1940s buildings; and an early residence (c1900) are important in illustrating the way in which a working farm is combined with facilities for the practical instruction of students. The Cooper Laboratories, a complex of brick and timber buildings purpose-constructed from 1941 for the CSIR seed research program, is important in illustrating the principal characteristics of a substantially intact, 1940s agricultural research facility. On the northern side of the Warrego Highway, the Sewerage Treatment Works and the nearby Pump House on Lockyer Creek are important in illustrating the principal characteristics of early 1940s facilities of this type, and important historically for their association with the presence of an American military hospital at the College during the Second World War. The timber Dressing Shed beside Lockyer Creek at the northwest end of the campus is a rare known surviving example of this type of recreational structure.

### Criterion E

The Foundation Precinct, which includes the Foundation Building, the Homestead, Morrison Hall, Sir Walter Leslie Hall, the water tower, a flagpole, a sandstone memorial, and plantings of Canary Island Date Palms [Phoenix canariensus], has aesthetic significance derived from the combination of impressive timber vernacular architecture, intact in both form and material, and striking formal landscape qualities. The campus generally has aesthetic value generated by its landscape qualities, which include: the treed sandstone ridge on which the core of the campus sits surrounded by farm paddocks; frontages to Lockyer and Laidley Creeks; planted avenues of trees along the central spine of the College core [Phoenix canariensus], along the original entrance road off the Warrego Highway, along Lawes Siding Road; and along the former Gatton-Forest Hill/Laidley Road alignment at the southern end of the campus; and water features such as the man-made Lake Galletly. There are mature exotic trees planted throughout the campus, including those in the house gardens to the north of the Warrego Highway and along Lockyer Creek near the Dressing Shed, which contribute significantly to the aesthetic values of the campus. Views to and from the central core are valued, and the water tower is a landmark, visible from the Warrego Highway and from the Main Range at Toowoomba, 50 kilometres to the west.

#### **Criterion G**

The University of Queensland Gatton Campus has a strong and special association for the University/
College community both past and present for its social and educational values. The place is well-known in
the Queensland community for its contribution to the development of agriculture in this State.

#### **History**

The University of Queensland Gatton Campus was established in 1897 as the Queensland Agricultural College. The College initially operated as a tertiary agricultural institution offering a basic practical and theoretical agricultural education for young men and short courses for farmers on specific topics, but from its inception, there was also an expectation that the College would be involved in agricultural research and experimentation. In 1922, it was re-structured as the Gatton Agricultural High School and College. From 1927, the College also took students from the University of Queensland for a year of practical experience. During the Second World War, the College was used as a field hospital by the United States Army from 1942 to 1944. After the war, it continued to operate as both a secondary and tertiary institution until the high school section was closed in 1962. In the 1960s the college began to diversify the courses on offer and the first women students enrolled in 1969. In 1990, the College merged with the University of Queensland. The need to establish an agricultural college was first raised in Queensland Parliament in 1874 by EW Pechey, MLA for the Darling Downs.

The development of scientific methods of agricultural production appropriate to Queensland was of both public and political concern and calls for a college and experimental farm continued to be made in Parliament for the next two decades. Unlike the debate over the establishment of a university which divided those in favour of practical, applied education from those supporting humanist education for its own sake, agricultural education was widely supported in recognition of the essential role of primary production in the colony. It was also seen as a means to attract more people to settle and cultivate the land and it was proposed that several colleges were required to investigate agricultural methods for the various regions and climatic conditions in Queensland. The Queensland Department of Agriculture was established in 1887 and teaching and research into agriculture was part of its early agenda. Following a request from the Queensland Government to the United States Government in 1889, Professor Edward Shelton of Kansas State Agricultural College was appointed as agricultural instructor for Queensland in 1890. After touring agricultural education institutions in other Australian colonies, Professor Shelton advocated the establishment of a local college in his first annual report.

The Australian-wide economic depression of the early 1890s frustrated attempts to utilise the £5000 allocated by the Queensland Parliament in 1891 to the founding of a college, and it was not until 1895 that the first 600 acres of land were purchased by Peter McLean, Under-Secretary of Agriculture. The land was part of the Rosewood Estate near Gatton, which the Government re-purchased under the provisions of the Agricultural Lands Purchase Act of 1894. A further 1092 acres were acquired in 1896 when the new Minister for Agriculture, Colonel Andrew Thynne, was determined to make the college a reality. The site was chosen both for its proximity by rail to Brisbane (and to the Department of Agriculture and Stock and its experts) and for its diversity of soil types. Three soil types were present on the site, providing scope for experimentation and wide cultivation experience for students. The Gatton site was also close to the greatest concentration of farmers in the colony. As the land was virgin forest, a contract was let in 1896 for the clearing and grubbing of 233 acres. Sketch plans for the college were prepared by architect John Smith Murdoch of the Queensland Department of Public Works in 1896. The scheme comprised seven buildings linked by elevated covered walkways, in design reflecting Queensland's timber rural vernacular architecture. JS Murdoch was a talented designer, whose body of work includes such notable works as the Maryborough Customs House, the Commonwealth Bank in Queen Street (now demolished). Commonwealth Government Offices at Anzac Square, Brisbane (600932), Stanthorpe Post Office (600831) and the provisional Parliament House in Canberra. The tender of £5079 by RW Roe was accepted in July 1896 and a Foundation Day ceremony, which attracted many notable public figures, was held on 22 August. Changes driven by budgetary considerations were made during construction, including the deletion of the network of covered walkways.

Professor Shelton was appointed as the first principal and the Queensland Agricultural College was officially opened by the Governor, Lord Lamington, on 9 July 1897. The College had an initial intake of twenty-three students and a staff of six men. The buildings comprised an administration and teaching block, two dormitories, a teacher's block, a dining room and kitchen, the Principal's residence and the Overseer's residence. The buildings were timber framed and clad, with cedar joinery and galvanised iron roofs. They were orientated to face south, in the direction of the Gatton-Forest Hill/Laidley Road and beyond this the Southern and Western Railway, where College Siding was established. The road to the siding was made all-weather proof in the early 1900s and served as the main entrance to the College until the mid-1920s, when the principal entrance was re-oriented to the north and the road from the Warrego Highway. In the first six months of operation a number of sheds, stables and a silo were constructed and machinery and livestock was purchased. Of the original buildings only the Foundation Building [the administrative and teaching block] and the Homestead [former Principal's residence] remain on the site. The establishment

and operation of Queensland Agricultural College was an important commitment by the Queensland Government to agricultural advancement. The development of the dairying industry was an early priority as was the introduction of new agricultural methods and technologies. For instance, in 1897, the first cutting of a crop with a 'Scientific Harvester' to produce ensilage was watched by a 200 strong crowd of farmers from as far away as Nanango. As well as providing a basic practical and theoretical agricultural education for young men, the college also offered short courses for farmers on specific topics such as cheese making, milk testing, bee-keeping and sugar farming. The college also held short courses for teachers who were then able to offer basic agricultural education in schools across the state. The college continued to expand, with a gymnasium constructed in 1899 (now Sir Leslie Wilson Hall) and a third residential hall expected in 1908

The first two Canary Island Date Palms [Phoenix canariensis], now a signature feature of the campus, were planted outside the Foundation Building in 1915. Also planted in the 1910s, during the First World War, was a double row of Eucalyptus sp.? trees along College Siding Road.

For the first 25 years of its existence the Queensland Agricultural College was the responsibility of the Department of Agriculture and Stock, and functioned in isolation from the mainstream Queensland public education system. The gap between leaving school at 12 to 14 years and entering college at age 16 meant that there were no 'feeder schools' to sustain the College, and the First World War [1914-1918] further reduced student and staff numbers. By the early 1920s, the College was threatened with closure, a 1921 report recommending that the property be sold as farms and the buildings removed and utilised elsewhere. A special committee appointed by the Governor-in-Council advised that rather than closure, the Queensland Agricultural College be reconfigured as an Agricultural High School and College under the control of the Department of Public Instruction. This was the first major change to the structure and purpose of the college, and was made possible with the passing of the Agricultural Education Act 1922 and the establishment of a Board of Agricultural Education. Agricultural subjects were incorporated into the state secondary education curriculum and the Queensland Agricultural College was re-structured as the Gatton Agricultural High School and College. Boys were accepted from age 14 for high school training and encouraged to continue at Gatton at diploma level in their third and fourth years. At this time, 629 acres of college land was under cultivation including 5 acres for research, 38 for field trials and 20 acres of orchard. Site improvements by this time included a substantial hay shed erected in 1922. The establishment of a Department of Agriculture at the University of Queensland at St. Lucia in 1927 also had an impact on the college at Gatton, as university students were required to complete a compulsory year of practical training at Gatton. Gatton College Principal, JK Murray, had been a representative on the Faculty of Science at the University since 1917, however, closer links were formed with the establishment of the new faculty. Murray, a trained agricultural scientist, was appointed as the University's first Professor of Agriculture whilst continuing as College principal. Murray strongly supported research, and collaboration between institutions continued with the establishment of a Council of Scientific and Industrial Research or CSIR (later the CSIRO) laboratory and field station at Gatton in 1930. [The CSIR was established in 1926 by the Commonwealth Government and in the 1930s established research laboratories throughout Australia to help develop Australian primary industry, including forest products, fisheries and food production.]

In 1928 the College paddocks were re-named in honour of famous agricultural scientists. In the 1920s the main Brisbane-Toowoomba Road through Tarampa [later Gatton] Shire was upgraded as one of Queensland's first Main Roads, and the farm road leading from the Brisbane-Toowoomba Road [later the Warrego Highway] to the College was upgraded as the principal entrance to the Gatton Agricultural High School and College, thus re-orienting the main entrance to the north. The avenue of Canary Island Date Palms [Phoenix canariensis] which extends along each side of the original roadway from the Warrego Highway and through the heart of the campus to the Foundation Building was planted in 1927. A 1936 military map, compiled from earlier aerial photographs and a 1934 ground survey, indicates that an avenue of trees extended along the road opposite the main entrance to the College, north of the Brisbane-Toowoomba Road to Lockyer Creek and a popular swimming hole. At an early period a timber changing rooms was constructed beside the swimming hole. A spate of building activity and infrastructure improvements barely kept pace with the growth of the College following its conversion to an agricultural high school and college. Along with their farm neighbours, one of the principal difficulties experienced by the College since its establishment had been the provision of an adequate water supply during periods of drought. After lobbying by successive Principals, a low-level weir was constructed in 1928-29 on Lockyer Creek, along with two 30,000 gallon (136,000 litres) reinforced concrete tanks on the creek bank, and a pump to force water to another 30,000 gallon (136,000 litres) capacity reinforced concrete main supply tank, or water tower, located in the campus core. The water tower has become a College landmark, visible from the Main Range at Toowoomba, 50 kilometres to the west. A substantial overhaul was made in 1997. Staff and students often worked together to build or improve college facilities during this period. Their work included formation of the Tom Graham Cricket Oval in 1931, and the 1930 relocation by students using horses and tractors, of a timber grandstand, erected in 1927 on a sports ground near the site of the present War Memorial Swimming Pool, to a more appropriate location overlooking the planned new oval. In the early 1930s the Gymnasium was lined with silky-oak and walnut milled and installed by students. In 1935 this building was extended in length, new dressing rooms were constructed either side of the

re-erected stage, and the interior was lined to match the existing hall. Used variously as a gymnasium, theatre, cinema (a cinematograph projector was installed in 1927, and replaced by a Movietown Sound Projector in 1931), assembly hall, recreation hall, chapel, and currently as a lecture room, the building was re-located in 1978 to a site between the inner and outer ring roads on the western edge of the campus. In 1935 College Siding was re-named Lawes Siding in honour of Sir John Bennett Lawes, who had endowed the world's first agricultural research station in England. Also in 1935 a flagpole, presented by the Bundaberg Branch of the 'Old Boys' Association, was erected in front of the Foundation Building, between the two Canary Island Date Palms planted in 1915. After the central road through the campus was closed, the flagpole was re-located in 1985 to the southern end of what is now the central walkway. Three more halls of residence were built in the 1930s. Thynne Hall was constructed in 1933 (sold for removal in 1973) and Morrison Hall, originally Shelton Hall, in 1936. Enrolments continued to grow, with 323 full-time students attending in 1938 when a third dormitory, Riddell Hall, was constructed. Residential facilities were stretched in the late 1930s when 106 unemployed young men took part in a year's training course conducted under the Unemployed Youths Training Scheme. With the outbreak of the Second World War in 1939 student enrolments declined, but the war initially impacted little on the functioning of the College, In 1941 a shearing shed, with drafting yards and dip, and Crow's Silo, were erected. Also constructed in 1941 was a new seed research unit, including offices, four laboratories and a glasshouse, barn and seed store, which were handed over to the CSIR. This facility was named the Cooper Laboratory.

The entry of the United States into the war in late 1941, however, brought a significant period of change to the College, with eighty-five acres of its land and the majority of its buildings being transferred in March 1942 to the United States Army for hospital purposes. The 153rd Station Hospital occupied the site briefly until July 1942, when replaced by the 105th General Hospital Unit. Only twenty-four students and a drastically reduced staff remained on campus. The College administration moved to the newly completed Cooper Laboratory and Riddell Dormitory was retained until September 1942 by which time temporary buildings had been constructed for the College by the Department of Public Works, in the northeast corner of the campus. The College also occupied the nearby College View State School as a laboratory from March 1942 to April 1943. In January 1943 more temporary buildings were erected for the College, which re-opened for enrolments in February 1943. College wartime work included the testing of alternative fuels and growing crops of opium poppy, urgently needed during war for the production of morphine. Extensive temporary facilities were erected by the Civil Construction Corps for the military hospital, including nearly two dozen large timber hospital wards, interconnected by covered walkways, on the eastern side of the campus core. A large 'tent city' was established to the south of the core, serving as living quarters for soldiers undergoing rehabilitation. Existing buildings were altered to serve a variety of wartime purposes. The Foundation Building was used as both the administrative headquarters for the US Army and as a laboratory and pharmacy, its verandahs enclosed to provide more space. Shelton Hall (now Morrison Hall) was used as the hospital, its dormitories well suited for use as hospital wards, with dental services. X-Ray facilities and operating theatres located on the ground floor. In 1943 a 'U'-shaped morgue was constructed, used for the examination and preparation of deceased soldiers for transportation back to their families in the United States. In 1944 the two most northerly wings of the building were removed prior to the Americans leaving the College, and from 1945 the remaining section was utilised as a residence and later a girls' change room before being converted into a small chapel in 1959. 19,000 patients from the battlefields of the Pacific and New Guinea were treated at Gatton during the period of occupation by the US Army. A number of more permanent facilities were also constructed during the period of military occupation, including a Sewerage Treatment Works and a Pump House on the northern side of the Warrego Highway. These are still in use. In 1944-45 the College repossessed the site for educational purposes. Many of the buildings needed to be re-adapted for college requirements, and this was paid for by the Commonwealth Government. Twenty buildings erected on campus during the war were acquired form the Commonwealth Disposals Commission including 8 former military hospital wards, which remained in use as dormitories to accommodate a postwar influx of students and staff. These dormitories, commonly known as the 'warrens', were destroyed by fire in August 1963. The morgue and the remnants of a rubbish dump established by the US Army about 50 metres southeast of the present piggery are the only surviving features associated with the American occupation of the campus. A cairn and plaque commemorating the use of the College by the United States Army 105th General Base Hospital between 1942 and 1944 was erected opposite the main dining hall and unveiled in 1968.

The late 1940s and 1950s was a period of recovery and consolidation for the College. Few new buildings were erected, but student enrolments increased significantly and College land holdings expanded with the purchase of a small farm in the Laidley area in 1945, an adjacent farm of 95 acres in 1948 and an additional 85 acres to the west, fronting the Brisbane-Toowoomba highway, in 1950. Teaching innovations introduced during this period included training of returned servicemen, Summer Agricultural Schools for primary school boys, Rotary-sponsored short farming courses for migrants and a course in butchering for indigenous students. In 1950 the former Crowley Vale State School, erected c1916 to a standard Queensland Works Department 'open-air' school plan, was moved onto the College grounds as a lunchroom for farm hands. and was re-located to its present position in 1995. In honour of students and staff from the College who had fought in the two world wars, an Olympic-sized War Memorial Swimming Pool was constructed in the early 1950s. Site excavation was carried out in 1950-52, largely by student

labour using farm machinery such as tractors and ploughs, but the post-war shortage of materials delayed construction until 1953-54. The pool was funded by a War Memorial Fund established by College staff and students. In 1958-59 dressing rooms and a spectator pavilion were constructed beside the pool, partly funded by State Government subsidy. In 1959 the main entrance from the Warrego Highway was improved with the construction of curved brick fences with ornamental steel work flanking the entrance. and a steel sign replacing the old wooden sign. The Hugh Courtney Oval was established in 1959-60, 1000 tons of ashes from the Bulimba Powerhouse were spread for drainage and the grass was cultivated by Gatton students. A dam was constructed to the east of the Foundation Precinct in the 1950s. In 1980, during a particularly dry season, it was re-designed as a wildlife sanctuary and named Lake Galletly after past student, long-serving staff member and nature conservationist, Jim Galletly. In contrast to the restricted building program of the 1950s, the 1960s and 1970s was a boom construction period for the college, reflecting in part the dominance of the Country/National Party in Queensland politics. The State Government made a commitment to upgrade facilities at the College and to replace the early timber buildings and Second World War timber and fibrous cement structures, with more substantial brick buildings. In 1962 the high school section was closed and the college reverted to a tertiary institution with around 900 students enrolled. Thirty overseas students enrolled in 1960 under the Colombo Plan. In 1966 a wide diversification of courses was initiated under the guidance of the newly-formed Queensland Agricultural Education Advisory Board, including rural-related subjects such as food technology, hospitality, tourism, real estate valuation and wildlife services. The College gained autonomy from the Department of Education in 1967 and commenced a major building program. Brisbane firm Bligh Jessup Brentnall was retained as architects and developed a site plan for the college, heralding the 'red brick' era of its development. Construction included halls of residence, lecture theatres and schools, a new administration block, and new animal facilities. A new gymnasium was erected in 1968, funded by the College Welfare Fund and State Government subsidy, and was dedicated in 1969 as the War Memorial Gymnasium. An airstrip was established in 1966 as a training ground for students interested in obtaining a private pilot's licence and has developed as a facility for the Air Training Corps and Army Cadets on campus, as well as for sports such as gliding, hot air ballooning and parachuting. In 1973 it was officially named the CH Francis Airstrip in honour of long-serving staff member Charles Francis who was instrumental its

In 1971 Gatton became a College of Advanced Education and control passed to a College Council. The then Director, Neil Briton, quoted Prime Minister John Gorton in declaring the aim of the College to be to produce a new end-product - a liberally-educated technologist. The first women students enrolled in 1969 on a non-residential basis, and residential women students were accepted in 1971. The College began to confer its own degrees in 1973 and continued to diversify the courses on offer. The next major change came as a result of new Commonwealth government education policy in 1988, which required tertiary institutions to have a minimum student population of 2000 full-time enrolments. Gatton did not meet the size criteria and like many other smaller colleges, consolidated with a larger institution. On 1 January 1990, it became part of the University of Queensland and is now known as The University of Queensland, Gatton Campus. There are currently around 1000 students enrolled.

### Description

The University of Queensland Gatton Campus is located on the Warrego Highway, just east of the town of Gatton. It comprises two distinct areas: the main campus at Lawes, approximately 6 kilometres east of Gatton; and the Darbalara Farms, located approximately 5 kilometres to the south east of the main campus. The focus of interest for the entry in the Queensland Heritage Register is the main campus at Lawes; the Darbalara Farms are not included in the heritage register boundary. The principal built portion of the main campus sits on an elevated sandstone ridge accessed via a ring road from the Warrego Highway; the remainder of the site is divided into paddocks with frontages to Laidley Creek to the east and Lockyer Creek to the north. The site has features of both a university campus and a working farm, with a mixture of teaching buildings, administration and research centres, residential halls and staff houses, recreational facilities, laboratories, buildings and structures associated with the working farms, and infrastructure such as the water tower and an early sewerage treatment plant. The earliest elements date from the establishment of the Queensland Agricultural College in 1897.

For the purposes of the entry in the Queensland Heritage Register, a number of key buildings, structures, plantings, spaces and landscape features of cultural heritage significance within the Gatton Campus have been identified. This does not negate the need for a thorough cultural heritage survey of the whole of the campus, which may reveal other elements of particular cultural heritage significance. The buildings, structures, plantings, spaces and landscape features of cultural heritage significance within the Gatton Campus which have been identified to date are scattered across the site. For the purposes of this entry in the Queensland Heritage Register and for consistency with University site planning, these have been grouped within the areas and precincts identified in the Gatton Campus Site Development Plan 2003. In addition, the University's building numbering system has been employed for consistency of identification. Site Layout For site planning purposes, the University has divided the main campus at Lawes into four areas, some of which have been further divided into precincts: 1. The Core, located on the sandstone

ridge above the Lockyer Creek floodplain, contains the academic, social, and cultural heart of Gatton Campus. This area includes the Main Entry precinct, Central Precinct and the historic Foundation Precinct. 2. The Core Environs, a large area on the fringe of the Core where teaching, demonstration and research is conducted in a farm environment, includes the historic Farm Square Precinct and the CSIRO Cooper Laboratories. 3. The Residential Area, consisting of student accommodation in halls of residence, single dwellings for staff and students, and recreational facilities, is also identified as the Sport and Residential Precinct. 4. The Farms, broad acre fields with some outlying teaching, research, recreational and infrastrucutre facilities, surround the Core Environs and Residential Area. The above divisions reflect more than a planning pragmatism; they are important historically in illustrating the arrangement of administrative, teaching, training, farming, research, residential and recreational spaces within what has served for over a century as Queensland's most significant rural educational institution. Despite a massive building program from the 1960s onwards, and the re-orientation of the principal access road from the Lawes Railway Siding to the Warrego Highway, the Gatton Campus continues to demonstrate the principal site relationships established in the late 19th and early 20th centuries: a core teaching/administrative/residential centre located on the sandstone ridge; farm training, workshop and service areas to the north of this; recreational facilities to the south; and the whole surrounded by farm paddocks. Central Precinct This precinct encompasses the bulk of the academic teaching facilities, most of which have been constructed since the 1960s, and is centred around the walkway linking the northern and southern ends of the Core area. This walkway is of significance as evidence of the former central access road through the site, and is marked by an avenue of Canary Island Date Palms [Phoenix canariensis] planted in 1927. Also located in this precinct is a 1968 cairn and plaque commemorating the use of the College as an American army hospital during the Second World War. Foundation Precinct The Foundation Precinct, at the southern end of the Core area, contains elements of high cultural heritage value, including: the Foundation Building (1897) [Bldg 8118], The Homestead (1897) [Bldg 8124], the Water Tower (1928-29) [Bldg 8149], Morrison Hall (1936) [Bldg 8123], and paved and landscaped areas including plantings of Canary Island Date Palms (1915), a memorial flagpole (1935), and a recent sandstone war memorial. To the southwest of Morrison Hall is a Chapel (1943) [Bldg 8127], and to the west of the main Foundation Precinct is the former Gymnasium, now known as Sir Leslie Wilson Hall (1899) [Bldg 8129], which has been moved to this site from the ridge above. Sited just west of the Sir Leslie Wilson Hall are two small timber buildings [Bldgs 8128, 8130] which also have been moved to this location.

The Foundation Building (1897) [Bldg 8118] is a large timber building, purpose-designed as an administration and teaching facility, in the lightweight timber vernacular of the Federation era. It is single storey and high-set on substantial timber stumps which have been roughly finished by hand. The building has expansive verandahs (12 foot) on the southern and eastern sides with those on the west and north remaining enclosed with timber chamferboards, timber casement windows and aluminiumframed windows respectively. The building has prominent gabled and vented hip roofs clad in corrugated, colorbond steel and has two brick chimneys. There are four external timber stairways with dowel balusters and timber handrails. A projecting entrance porch and entry stair are centrally located on the southern elevation of the building, aligned with what was formerly the southern [main] approach to the Agricultural College from Lawes Railway Siding. The porch is decorated with a timber arch and other ornate timber detailing. The external walls are horizontal pine chamferboards and the verandah roofs are lined with tongue-in-groove beaded boards. The building has been partially restored. It has a central hallway. The front entrance hall and reception rooms on either side have been newly painted and have linoleum floors. Each of these rooms has a fireplace with timber mantel, and bay windows to the verandah. All internal walls are lined with tongue-in-groove beaded boards with timber joinery including ceiling vent panels and fanlights. A large reception room is located on the eastern side of the building. It has carpeted floors and groups of folding timber doors with multi-paned glass to the verandah. The north and western portions of the building remain un-restored and are currently occupied by a small kitchen area, a dining room, toilets and various unused rooms. Original fabric is evident throughout. The sub-floor has been partially enclosed with a variety of building materials including chamferboards, fibrous-cement sheeting and timber casement windows. A large cleaners' room is located on the southern side with an entry door and several windows in the southern wall. A staff recreation club is located on the western and northern side with an adjacent paved area enclosed with timber screens and pergola roof. The Homestead (1897) [Bldg 8124] is a low-set timber building, also Federation style, constructed as a residence for the principal of the college. It is single storey, high-set on timber stumps, and has wide verandahs with dowel balusters on the southern, eastern and western sides of the building, and a service wing to the north. The verandah to the west has been semi-enclosed with fixed vertical timber shutters. Some of the external walls are painted, horizontal pine chamferboards, whilst others are single-skin with exposed bracing and studs. The building has a multi-gabled, hipped roof, three brick chimneys and a decorative finial. Wide timber entry stairs, surmounted by a decorative gable roof, mark the entry to the building. It has substantial timber front and rear doors linked by a central hallway. A large reception room on the western side of the hall is divided by a decorative timber arch and has a skylight and a brick fireplace. The interior is lined in pine tongue-ingroove boards, the floors are carpeted and a number of the rooms are air-conditioned by window-mounted units. Multi-paned timber sliding sash windows and timber French doors are found throughout the building. Morrison Hall (1936) [Bldg 8123] is a substantial, two-level timber, brick and stucco building located to the south of the Foundation Building. Paving and a formal arrangement of Canary Island Date Palms create

a strong visual link between the two buildings. The front of the building is landscaped with raised lawn areas, low masonry retaining walls and mature Poinciana trees. The front (north) elevation of the building is dominated by a central projecting gable roof with decorative infill to the gable end, an impressive timber entry stair and substantial stucco pillars. Morrison Hall is a U-shaped building in plan. Each wing has a strip of central rooms (originally dormitories) with long verandahs to both sides. The front part of the building has a large central room, flanked by expansive internal verandah spaces to either side. This central room has a large arched brick fireplace and a series of French Doors onto the verandah spaces. All rooms on the first floor have timber floors and single-skin, timber walls. The ceilings of the verandahs are lined with horizontal, tongue-in-groove boards. The first floor has multi-paned timber casement and sliding sash windows, French doors and single leaf timber doors throughout. Offices and meeting rooms occupy the first floor. The ground floor has concrete and tiled floors. External walls are generally rendered brick with some concrete columns and multi-paned, timber in-fill doors and windows. Most of the ground floor is occupied by the Student Union with facilities including a cafeteria area, recreation room and some meeting rooms and offices which are enclosed with aluminium framed, glass partitions. The eastern wing of the ground floor is occupied by the bookshop which is also enclosed with aluminium framed, glass partitions. A large grassed courtyard area is located at the rear of the building. Sir Leslie Wilson Hall (1899 with 1935 extension) [Bldg 8129] is a large timber weatherboard building with a hipped, steel-trussed roof and a number of small, lean-to annexes. It has timber sash windows and is raised on concrete stumps. It is lined internally with fibrous-cement sheeting. The building was re-located in 1978 to a site between the inner and outer ring roads, a little to the northwest of the Core area's Foundation Precinct. The two small buildings to the west of Sir Leslie Wilson Hall [Bldgs 8128, 8130] are both timber framed, weatherboard clad, and high-set on concrete stumps. They are aligned in a north-south direction. The building to the north has a hipped roof; the building to the south a gable roofed. Both roofs are clad in corrugated steel sheeting. The building to the south has early double-hung sash windows, each sash being divided vertically into two panes. The northern building has later aluminium framed windows. To the southwest of Morrison Hall and situated beneath a tall Bunya Pine, is the Chapel (1943/1959) [Bldg 8127]. It is a small, timber-framed building with a corrugated steel sheeted gable roof, and is the remaining portion of a building erected as a morgue for the United States Army in 1943, and converted into a chapel in 1959. Externally the walls have weatherboards to sill height, with fibrous-cement sheeting above, and timber casement windows. Internally it has a concrete floor which is carpeted, and the walls are lined with fibrous cement sheeting. The Water Tower (1928-29) [Bldg 8149] is located to the west of the Foundation Building. It has a hollow cylindrical concrete base with internal access ladders, supporting a 136,000 litre capacity main water supply tank, also concrete and cylindrical but of wider diameter than the base. The whole is approximately 20 metres in height, and being located on the highest ground on the campus amidst low-scale buildings, is a landmark, visible from the Warrego Highway approaches and from the Main Range at Toowoomba, 50 kilometres

Farm Square Precinct [including Agricultural Place] The Farm Square Precinct is situated to the northeast of the central precinct, within the Core Environs area. Elements of cultural heritage significance within this precinct include: Farm Square (begun 1899) [Bldg 8216], Crow's Silo (1941) [Bldg 8217], the Weighbridge [Bldg 8215], the Merv Young Field Facilities Building (former Woolshed, 1913-15) [Bldg 8134], former Dairy Factory [now a Printery] (1912) [Bldg 8131], the Hayshed (1923) [Bldg 8213], a Blacksmith's Shed (1933) [Bldg 8208], a c1900 residence [Bldg 8258]; Shearing Shed (1941) [Bldg 8230], Wool Classing Shed (c1940s) [Bldg 8231], and 6 other c1940s buildings associated with the move of the College teaching and farm facilities to the northeast of the campus during the Second World War [Bldgs 8260, 8233-8237]. Of contributory significance is the former Crowley Vale School (1916) [Bldg 8158], which has been moved to a location on Services Road. Farm Square Precinct also contains a number of mature trees which contribute significantly to the aesthetic value of the campus, including a row of tall Bangalow Palms at the southern end of Services Road. Farm Square (1899-) [Bldg 8216] is a collection of structures containing stables, stalls, lofts and storage areas arranged around a large internal space - the square. The square has a bitumen floor and contains a horse-breaking ring and washing area. The buildings on the southern, eastern and western sides of the square contain stables, stalls, harness shed, and tool room. They are timber framed and clad in weatherboards with broad gabled roofs clad in corrugated, colorbond steel. The walls facing the square are generally half-height with a regular pattern of timber stable doors. The building on the northern side of Farm Square (1986) is constructed of concrete block and contains classrooms and office facilities. Vehicle access is provided via a gap between the buildings at the north-east corner. A second driveway is located at southern end, adjacent to a concrete silo known as Crow's Silo (1941) [Bldg 8217]. The silo is the oldest remaining silo on the campus and has a gabled steel roof. The Hayshed (1923) [Bldg 8213] is located to the north of Farm Square. It is a substantial timber weatherboard building built in the style of an American barn with a mansard roof which allows for the more efficient use of the upper roof space. The Weighbridge (c1940s) [Bldg 8215] is located west of Farm Square. It consists of a cast iron weighbridge set into the road and an adjacent small, timber-framed shed clad externally in fibrous cement sheeting. The Merv Young Field Facilities Building [former Woolshed] (1913-15) [Bldg 8134] is located across Farm Lane, to the southwest of Farm Square. It has an unorthodox two-storey design that accommodated sheep-shearing downstairs and pressing and classing wool upstairs. It is a tall timber building clad in weatherboards with a gabled corrugated steel roof. It has been renovated with a steel inner staircase and steel balcony located on the upper level. It now contains offices. The Printery Iformer

Dairy Factory] (1912 with extensions in 1932 & 1934) [Bldq 8131] is located on the corner of Printery Lane and Nursery Lane. It comprises a collection of timber buildings with corrugated steel gabled roofs. From the 1980s it has been occupied by the campus printery. Internal walls have been re-located and new ceiling and wall linings and internal toilets added. The Blacksmith's Shed (1933) [Bldg 8208] is located to the east of Farm Square in the Maintenance and Services section. It is a timber weatherboard shed with a hipped roof clad in corrugated steel. It is now sandwiched between recent large steel sheds. An Early Residence (c1900) [Bldg 8258] is located along Services Road in the northeast sector of the Farm Square precinct, near the Shearing Shed and Wool Classing Shed. Is is timber-framed and clad, and is high-set on concrete stumps. It has a half-gabled bungalow-style roof, with the roof of the core extending down over verandahs on the front and rear elevations and wrapping around the sides. The gable ends have weatherboard in-fill beneath wide eaves, decorative timber slats in front of the weatherboards, and tapered and shaped timber bargeboards. The verandahs are enclosed with weatherboards to sill height and a mix of multi-paned timber casement windows [on the western side and part of the front (north) elevation] and later metal-framed windows. There is an early, one-roomed wing with a hipped roof, on the eastern side of the rear (south) elevation. There is also a later (c1940s) gable-roofed extension attached to the western side of the rear elevation. This is clad externally in chamferboards and has a corrugated metal roof. The house sits within an open, grassed and fenced yard. A number of mature trees just outside the front and eastern fences contribute significantly to its aesthetic setting. The Shearing Shed (1941) [Bldg 8230] is located on the northeastern edge of the Farm Square Precinct. It contains a shearing shed, a lecture room for up to 60 students, wool room, a scour room, experting room and office. It is a large, low-set timber building with a broad gabled roof. It is clad with weatherboards, has timber sash windows and a corrugated steel roof. The Wool Classing Shed (c1940s) [Bldg 8231] is also located on the northeastern edge of the Farm Square Precinct, just south of the Shearing Shed, facing north/northwest. It is a large, low-set timber-framed building of three bays, with a complex roof clad in corrugated iron: hipped along each side bay, with a central high saw-tooth roof structure above the central bay. Externally the building is clad with weatherboards to sill height, with fibrous cement sheeting and timber cover strips above. A Temporary Dining Hall and Kitchen (1942) [Bldg 8260], now staff quarters, is situated on Services Road almost opposite the Shearing Shed. It is a small, rectangular, hipped-roof building, timber-framed, and clad externally with weatherboards to sill height, with fibrous cement sheeting and timber cover strips above. The roof is clad with corrugated metal sheeting. Verandahs on the north and south elevations have separate roofs to the core and are enclosed with fibrous cement sheeting to sill height and glass louvres above. Buildings 8233-8237 (c1940s) are located near the Poultry Unit area in the eastern sector of the Farm Square Precinct. The five buildings are all timber-framed and set on low stumps, with roofs clad in corrugated metal sheeting.

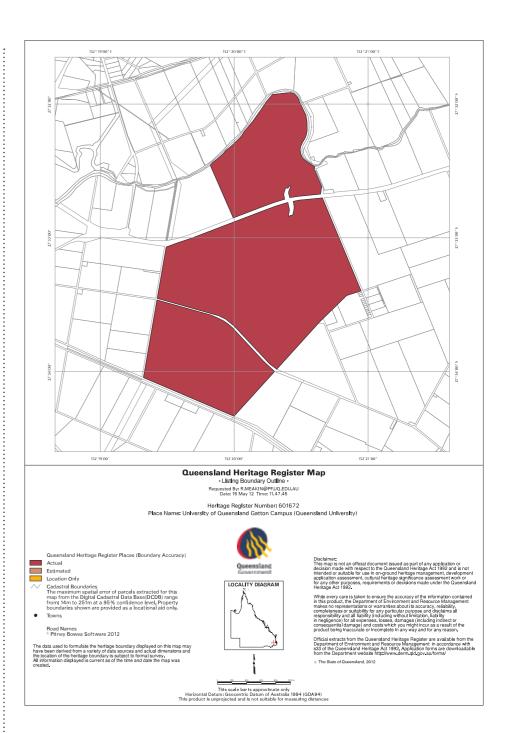
Building 8234 is the largest of the five. Rectangular in form, it has a hipped roof and is clad externally with weatherboards. On the north elevation the roof extends bungalow-fashion over an open verandah. Adjacent to the south elevation of this building are two small hip-roofed ancillary buildings [Bldgs 8235, 8236]. Building 8235 appears to be an ablutions block, and is set low on the ground. Building 8236 is set on stumps and is clad in weatherboards. The second largest building in ithis group is Building 8233, which is sited just west of Building 8234. It is rectangular in form with a hipped roof, and is clad mostly with weatherboards, with fibrous cement sheeting at the southern end. It has an open verandah along the west elevation. The fifth structure [Building 8237] is located to the northwest of Building 8234, across a gravel road. Is is a smaller building, square in form, set low on the ground and clad in fibrous-cement sheeting. It has a hipped roof which extends down over an enclosed verandah on the north elevation. A brick chimney rises above the roof on the western side. The Former Crowley Vale School (1916) [Bldg 8158] is a re-located building currently situated at the far northern end of the Farm Square Precinct, to the west of Services Road. It is a small, timber-framed building, square in form, which rests on low stumps. It has a hipped roof with a short ridge roof clad with corrugated steel sheeting, and has wide, overhanging eaves. It is a standard Queensland Works Department design, a modification of the earlier open-air school concept. Externally the building is clad with fibrous-cement sheeting to half wall height, with banks of windows above. CSIRO Cooper Laboratory The CSIRO Cooper Laboratory (1941) is located to the north of the Central Precinct, within the Core Environs and east of Main Drive. It comprises a complex of structures: four laboratories, eight offices, seed barns, sterile seed store, seed storage rooms and a glasshouse. The collection of low-set buildings are predominately constructed of orange-red brick with one or two timber sheds. All have hipped roofs with wide eaves, and are clad in corrugated steel. Sport and Residential Precinct This precinct is located to the south of the Foundation Precinct, within the Core Environs area. Of cultural heritage significance within this precinct are three sporting ovals constructed largely by staff and students, a grandstand (1927), the War Memorial Swimming Pool complex (1950s) and the War Memorial Gymnasium (1968). The Tom Graham Cricket Oval (1931) is located in the eastern third of this precinct. The Grandstand [Bldg 8336] is located on the western edge of the Tom Graham Cricket Oval. It is a small timber framed and weatherboard structure with tiered timber bench seating and a corrugated steel, timberframed roof with a small projecting, decorative gable roof over the access staircase. The Hugh Courtney Rugby Oval (1959-60) is located in the western third of the precinct, and the Ray McNamara Sports Oval (1965) is situated in the centre. Northwest of the ovals are the swimming pool and gymnasium. The War Memorial Swimming Pool Complex [Bldg 8145] comprises an Olympic-size swimming pool, spectator stand, and dressing rooms. To the south and west of the main sporting facilities are a number of pre-1950

staff houses along South Ridge Road. Of particular interest are nos.8 & 15, which are likely c1920s. At the northeastern end of the Sport and Residential Precinct is a small reserve on a separate lot on plan, occupied by Australian Defence Force Reservists. Farms Area There are a number of elements of cultural heritage significance located within the Farms Area. These are important in illustrating the evolution of the development of Gatton Campus. Elements identified to the south of the core area include: Lawes Siding Road (1897), the original principal access road to the Agricultural College, at the southern end of the campus. This road leads in a straight line in a northeasterly direction from the Lawes Railway Siding on the Southern and Western Railway, across the Gatton-Forest Hill/Laidley Road, to the Core Area of Gatton Campus. It is lined by an avenue of Eucalypts (planted in the 1910s) and other mature trees such as palm trees. Avenue of Trees [bean?], located south of the core area to the west of Lawes Siding Road, just north of, and at right angles to, the present Gatton-Forest Hill/Laidley Road. Between the trees is remnant asphalted roadway associated with the earlier alignment of the Gatton-Forest Hill/Laidley Road. Between the avenue and the present Gatton-Forest Hill/Laidley Road is a grove of less mature trees of the same species. The CH Francis Airstrip (1966), located to the south of the Sport and Recreational Precinct, east of Lawes Siding Road. The strip is aligned in an east-west direction, and has a grassed surface. Elements identified to the east of the core area include: Lake Galletly (1950s), an ornamental lake and wildlife refuge located to the east of the Core Environs. Elements identified to the immediate north of the core area include: The original Warrego Highway entrance road to the Agricultural College, leading in a straight line south/southeast from the highway to the northern end of the Core, and marked by an avenue of mature trees, including Leopard Trees (Caesalpinia ferrea), Poinciana (Delonix regia), Leptospermum spp. and Eucalyptus spp. Elements identified to the north of the Warrego Highway include: The Former College View State School and adjacent Residence [Bldgs 8411, 8412 & 8413], situated to the north of the Warrego Highway, east of the overpass. The school building is of contributory significance, having been moved to this site from the Tarampa Road. It is a small, timber framed, weatherboard clad building on low stumps, with a gable roof clad in corrugated metal sheeting. The residence is a high-set timber 'Queenslander' c1910s which is also understood to have been moved to this location. A Barn [Bldg 8431], located just east of the overpass road on the north side of Warrego Highway. The barn is a rectangular, timber-framed structure with a high gabled roof clad in corrugated iron, the whole high-set on timber stumps. There are double timber swing doors at each end of the building, the doors at the eastern end opening onto a small timber-framed loading dock.

The Sewerage Treatment Works (c1942) [Bldgs 8422-8426 & 8428-8429 & 8428], located along the ring road which follows Lockyer Creek around the northern farms. This complex remains remarkably intact, and comprises a number of sheds and water treatment facilities, including early circular concrete ponds. The Pump House (c1942) [Bldg 8427], located north of the Treatment Works, on the western bank of Lockyer Creek. It is a small, octagonal-shaped, one-roomed, concrete building with an octagonal-pitched roof clad with corrugated metal sheeting. The Potato Shed [no UQ number], located further north on the east side of the northern ring road. It is a timber-framed bunker with the above-ground structure clad in corrugated galvanized iron. c1930s Staff Houses and Gardens, and in some instances, just the gardens where houses have been removed, along the Lockyer Creek ring road. The mature trees in these gardens contribute significantly to the aesthetic values of the campus. The houses are all high-set weatherboard 'Queenslanders'. The main building in the Crop Research Unit (c1940s) [Bldg 8419], located at the northern end of the campus, on the southeast bank of Lockyer Creek. It is a long, narrow, low-set building with a concrete block base to sill height and timber-framing and weatherboards above. It has a hipped roof clad with corrugated sheeting. There is a brick chimney rising above the roof near the northeast end of the building. The whole rests on a concrete plinth. The Dressing Shed [Bldg 8441], located adjacent to Lockyer Creek at the northwest end of the campus, above a former popular swimming hole. It is a long, narrow, low-set, timber-framed structure comprised of three sections. The middle section has a gable roof and exposed external timber framing on three sides and weatherboard cladding on the fourth wall overlooking Lockyer Creek. The walls are lined with corrugated iron sheeting. Either side of this central section is a long, narrow dressing room with a skillion roof of corrugated iron and all walls clad externally with weatherboards and unlined internally. Floors throughout are concrete. Entrance doors to each section are in the northwest elevation overlooking the creek. Two concrete water storage tanks and generator/pump shed [no UQ number], located adjacent to the Dressing Shed above Lockyer Creek. These are associated with the early water supply to the campus established in the late 1920s. The tanks are circular, of moulded concrete construction, and highly intact. They stand approximately 2.5 to 3 metres above ground. The generator/pump shed adjacent to the tanks is a small, timber-framed, skillion-roofed structure clad externally with corrugated metal sheeting. The generator/pump has been removed but the concrete plinth on which it rested remains. A row of mature exotic trees along the ridge above Lockyer Creek, located just northeast of the dressing shed. These contribute significantly to the aesthetic values of the campus. A row of Eucalypt spp. trees on east side of the road which formerly led from the Warrego Highway opposite the earlier main College entrance, directly north to Lockyer Creek and the Dressing Shed.

Element			
Element Name	University of Queensland Gatton Campus (Queensland University)		
Design Period	1870s - 1890s Late 19th century		
Construction Period	1897 - 1960s		
Place Components	School/School room Shed/s Sewage farm/Treatment site Trees/Plantings Shed - potato Dormitory Residential accommodation - headmaster's house Silo Science block Shop - blacksmith's Residential accommodation - caretaker's quarters Weighbridge/Weigh station Tower - water Swimming pool Gymnasium Oval/Sports field Sewage pump house/Pumping station Shed - wool classing Office/Administration building Shearing shed/Woolshed Hall - dining Laboratory Shed - hay Dairy/Creamery		

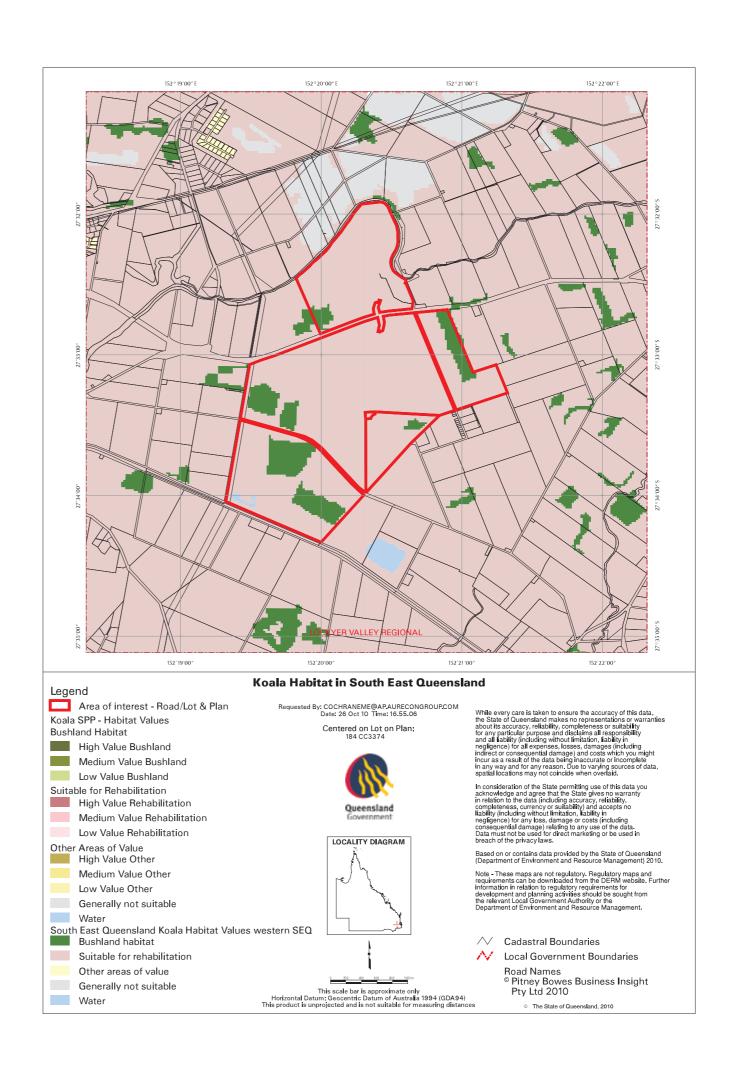
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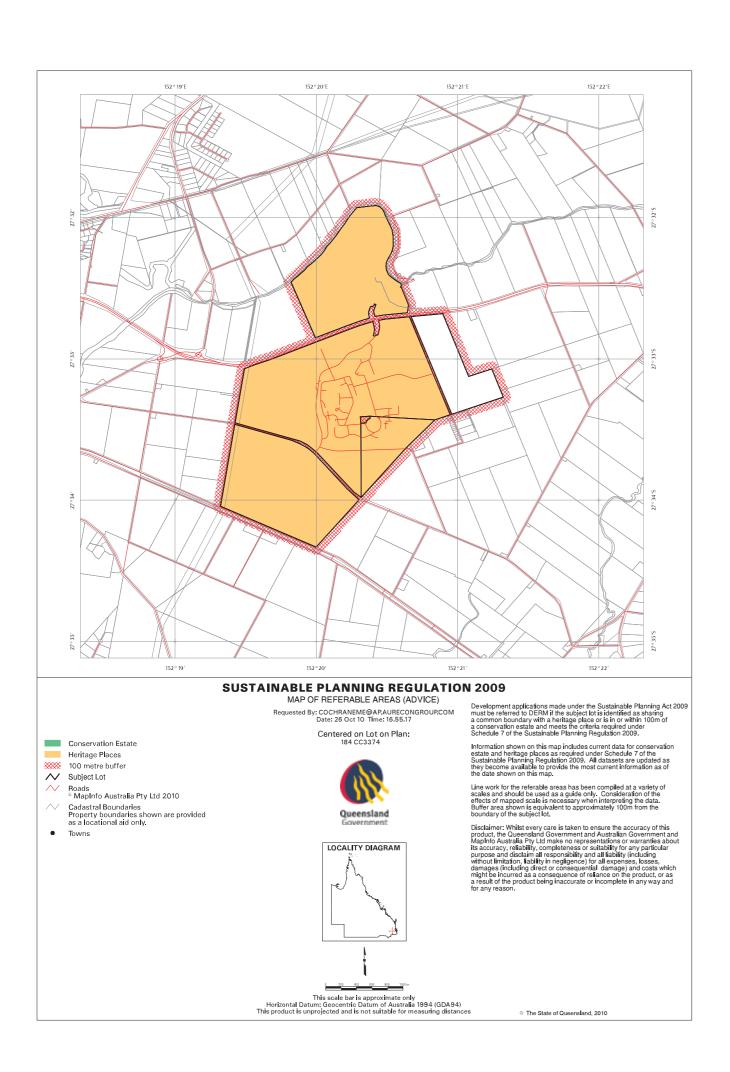


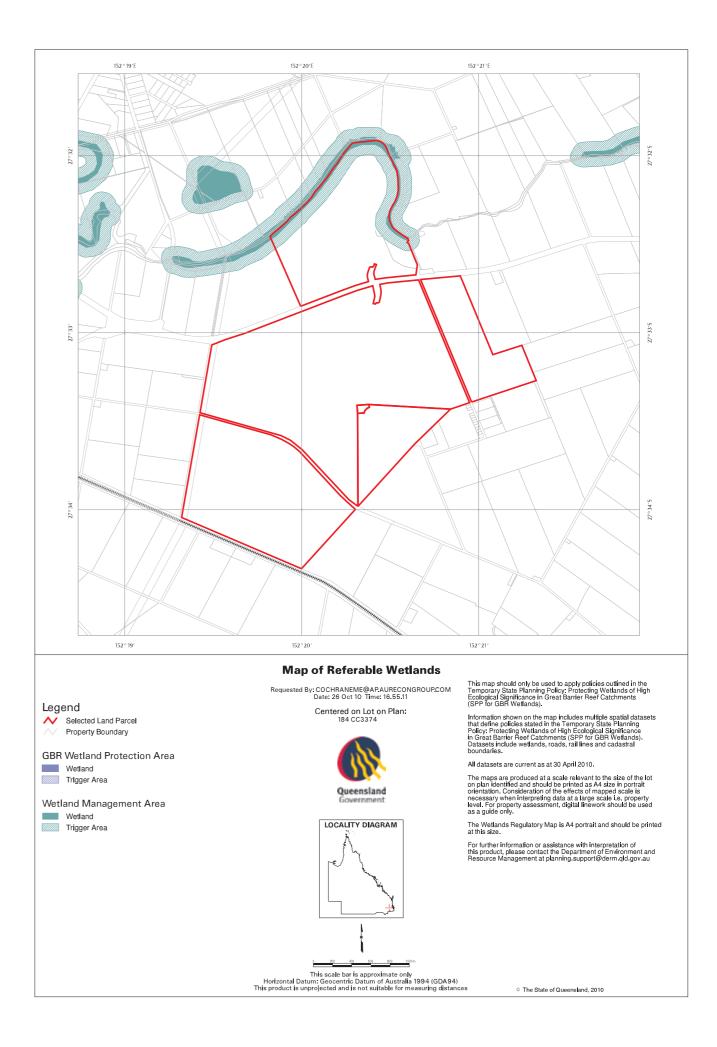
The University of Queensland – Australia

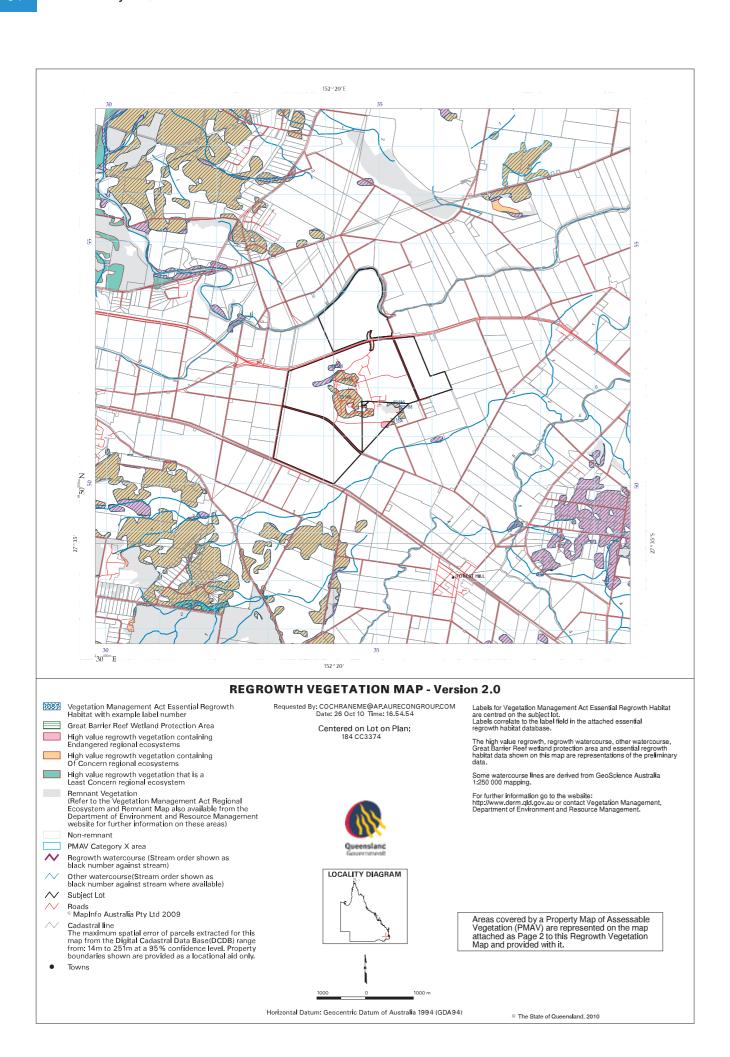
# 5.4 Appendix D

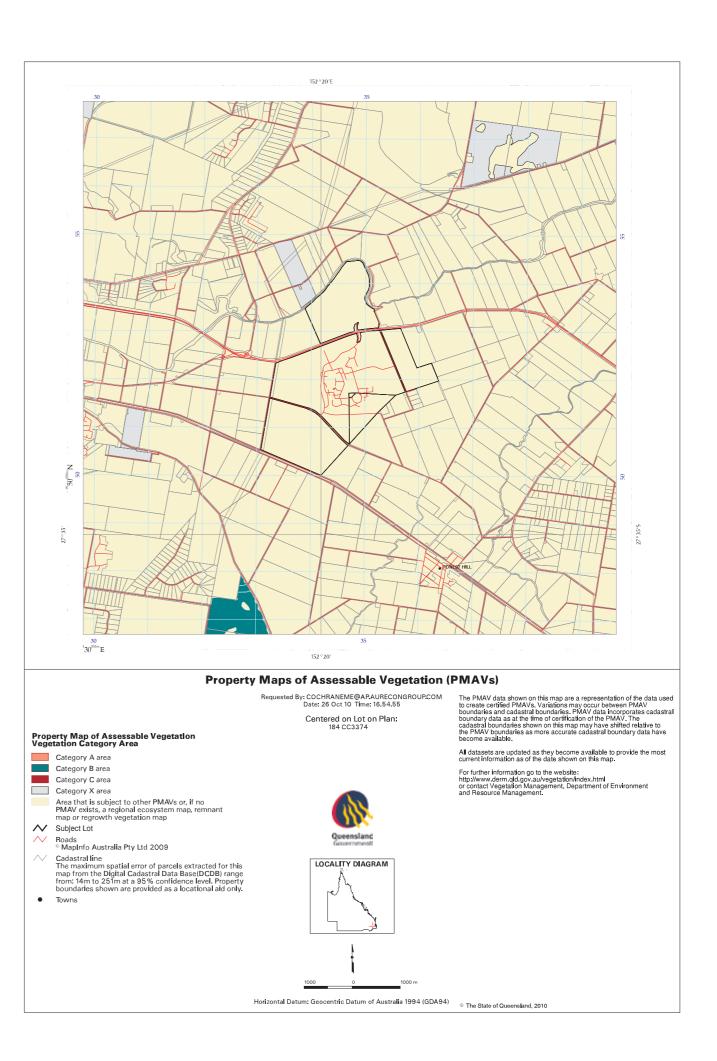
Department of Environment and Resource Management (DERM) Maps

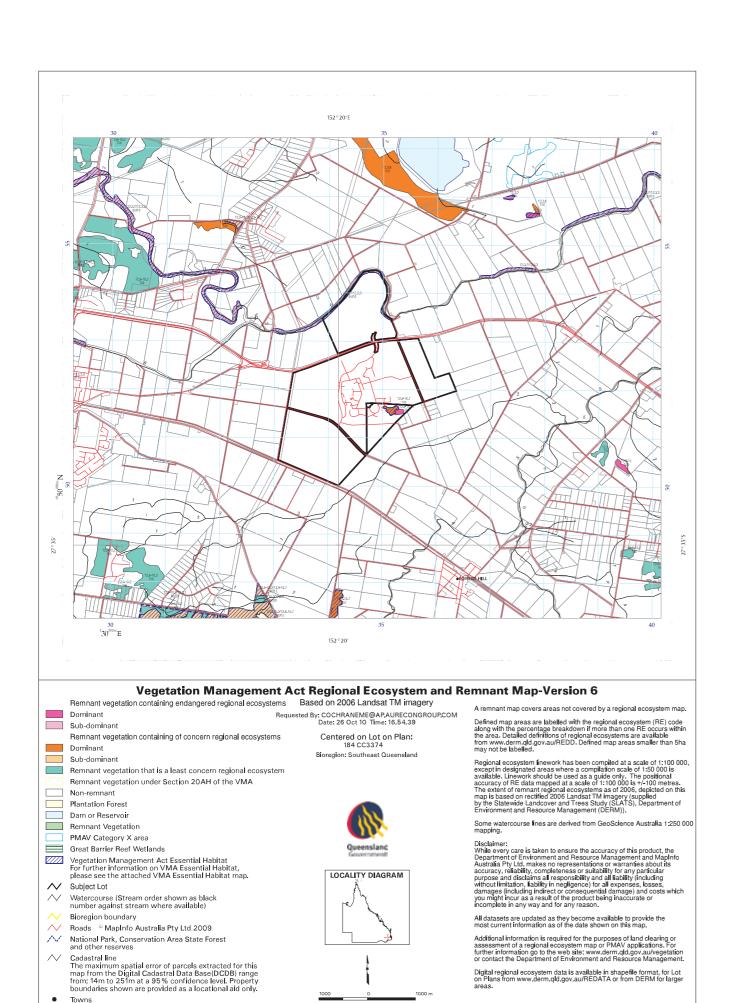




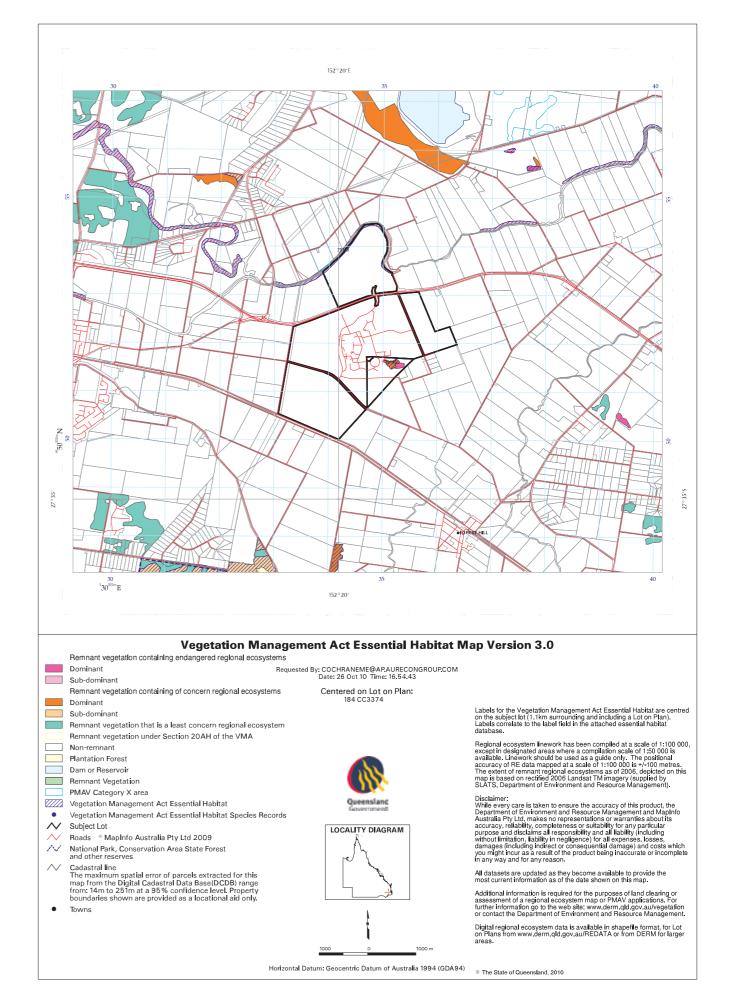


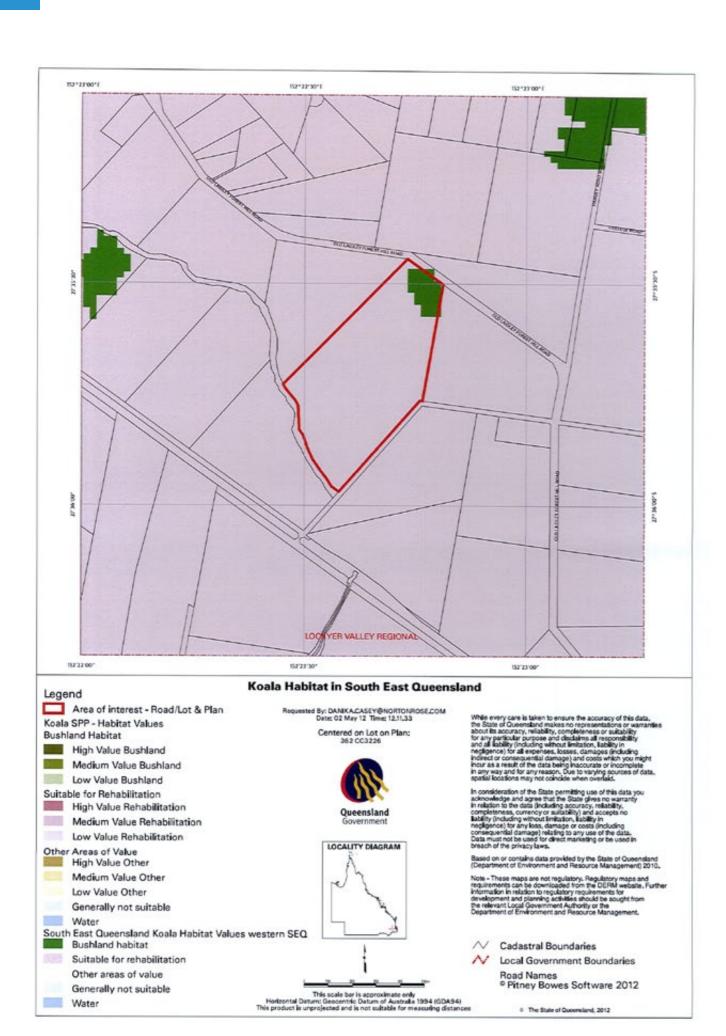


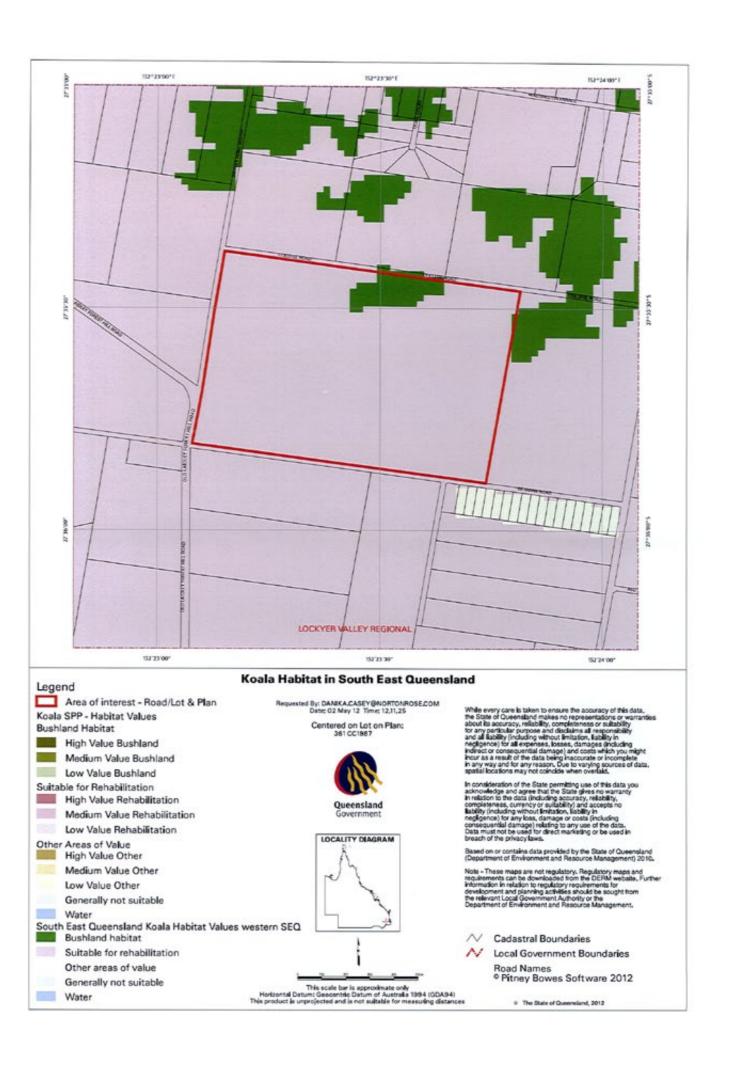


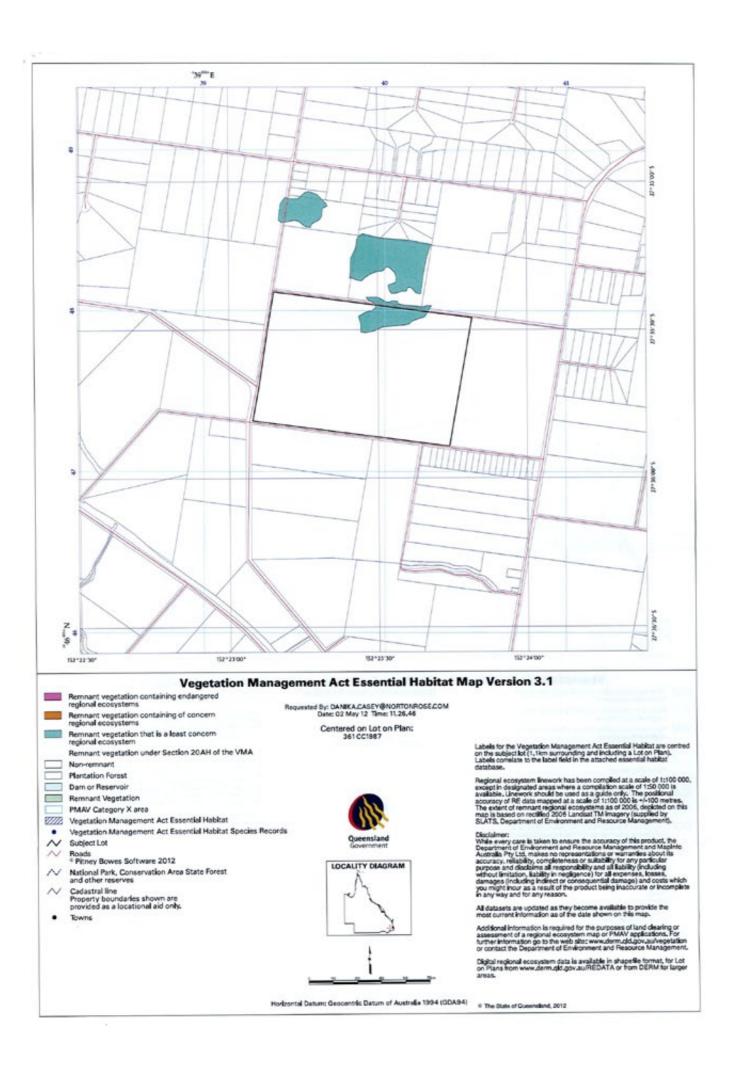


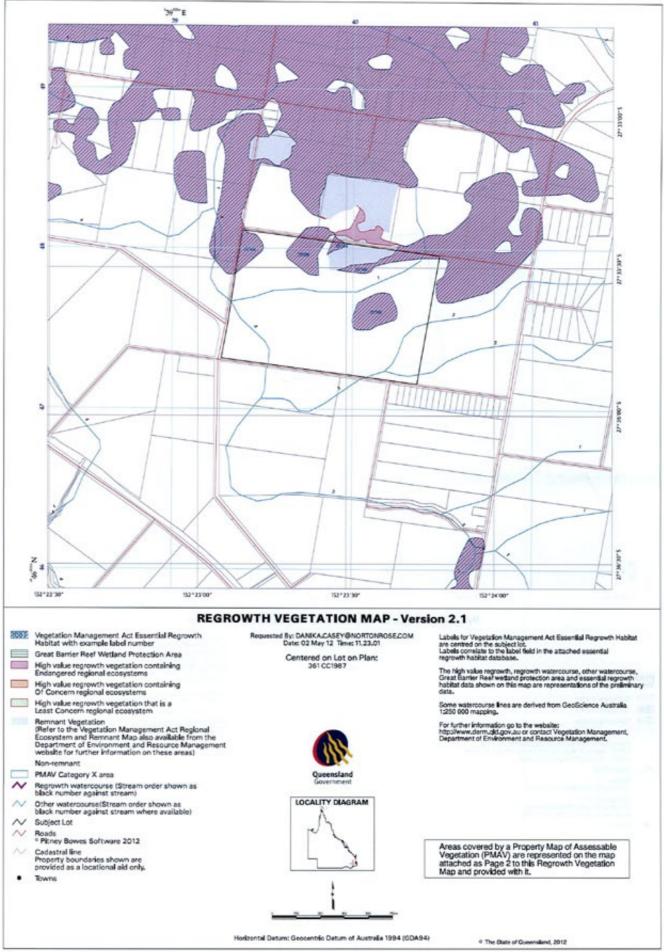
Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94) © The State of Queensland, 2010











# 5.5 Appendix E

## Acknowledgements

The review and preparation of a new Site Development Plan for the UQ Gatton Campus has been possible with assistance and contributions from many including:

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The School of Veterinary Science

The Faculty of Science

The Gatton Vocational Education Centre (G-VEC)

**UQ** Sport

UQ Gatton Halls of Residence

UQ Gatton Students Association

UQ Gatton Past Students Association

Lockyer Valley Regional Council

UQ Gatton Land Use Advisory Committee

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UQ Gatton Farms

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