



Parliamentary Standing Committee on Public Works

REPORT

relating to the proposed

CSIRO COLLOCATION WITH QUEENSLAND GOVERNMENT ON THE ECOSCIENCES AND HEALTH & FOOD SCIENCES PRECINCTS BRISBANE QUEENSLAND

(Tenth Report of 2007)

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA
2007

The Parliament of the Commonwealth of Australia

**CSIRO Collocation with
Queensland Government on
the Ecosciences and Health
& Food Sciences Precincts,
Brisbane, Queensland**

Parliamentary Standing Committee on Public Works

September 2007
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Membership of the Committee

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List of Abbreviations

The Act	the <i>Public Works Committee Act 1969</i>
CENTO	Entomology
CLW	Land and Water
CMAR	Marine and Atmospheric Research
CMIS	Mathematical Information Systems
CSE	Sustainable Ecosystems
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSIROSEC	Science Education Centre
DM&E	Queensland Department of Mining and Energy
DPI&F	Queensland Department of Primary Industries and Fisheries
EPA	Queensland Environmental Protection Agency
EPBC Act	Environmental Protection and Biodiversity Conservation Act 1999
FSA	Food Science Australia
GFA	Gross Floor Area
KBRB	Knowledge Based Research and Business

MC	Managing Contractor
MCU	Material Change of Use
QBP	Queensland Bioscience Precinct
QHSS	Queensland Health Scientific Services



Extract from the Votes and Proceedings of the House of Representatives

No. 164 dated Thursday, 29 March 2007

7 PUBLIC WORKS – PARLIAMENTARY STANDING COMMITTEE –
REFERENCE OF WORK – PROPOSED CSIRO CO-LOCATION WITH
QUEENSLAND GOVERNMENT ON THE ECO-SCIENCES AND HEALTH AND
FOOD SCIENCES PRECINCTS IN BRISBANE

Mr Nairn (Special Minister of State), pursuant to notice, moved – That, in accordance with the provisions of the *Public Works Committee Act 1969*, the following proposed work be referred to the Parliamentary Standing Committee on Public Works for consideration and report: Proposed CSIRO co-location with Queensland Government on the Eco-Sciences and Health and Food Sciences precincts in Brisbane.

Question – put and passed.



List of recommendations

3 Issues and Conclusions

Recommendation 1

The Committee recommends that CSIRO provide the Committee with the details of the finalised project and lease agreements.

Recommendation 2

The Committee recommends that CSIRO provide the Committee with the final plans for the proposed fume stacks.

Recommendation 3

The Committee recommends that CSIRO continues its consultation with the local community and relevant stakeholders.

Recommendation 4

The Committee recommends that the proposed CSIRO collocation with Queensland Government on the Ecosciences and Health and Food Sciences Precincts, Brisbane, Queensland, proceed at the estimated cost of \$85 million.

Introduction

Referral of Work

- 1.1 On 10 May 2007 the proposal for CSIRO collocation with Queensland Government on the Ecosciences and Health and Food Sciences Precincts, Brisbane, Queensland, was referred to the Public Works Committee for consideration and report to the Parliament in accordance with the provisions of the *Public Works Committee Act 1969* (the Act)¹. The proponent agency for this work is the Commonwealth Scientific and Industrial Research Organisation (CSIRO).
- 1.2 The Hon Gary Nairn MP, Special Minister of State, advised the House that the estimated total capital cost of the estimated completion cost for the two developments is \$375 million, of which the CSIRO component is \$85 million. Subject to parliamentary approval, it is anticipated that early packages will be let to allow site establishment works to commence in February 2008 for the Boggo Road site and at the same time for the main works on the Coopers Plains site.

¹ Extract from the *Votes and Proceedings of the House of Representatives*, No. 167, 10 May 2007.

Background

CSIRO

- 1.3 CSIRO is Australia's premier research organisation which delivers science and innovative solutions for industry, society and the environment. CSIRO's primary functions are:
- To carry out scientific research for the purpose of assisting Australian industry, furthering the interests of the Australian community, contributing to the achievement of national objectives or the performance of national and international responsibilities;
 - To encourage or facilitate the application or utilisation of the results of scientific research; and
 - To carry out services and make available facilities, in relation to science.²
- 1.4 The proposed Knowledge Based Research and Business (KBRB) Project will house approximately 1200 scientists from the Queensland State Government departments of Primary Industries and Fisheries, Natural Resources and Water; and the Environmental Protection Agency with the CSIRO Divisions and National Flagships.³

Site Locations

- 1.5 The KBRB project proposes to have facilities in two locations in Brisbane. An Ecosciences Precinct at Boggo Road Urban Village, Dutton Park, will accommodate 754 State and approximately 260 CSIRO scientists and support staff including visitors and students. A Health and Food Sciences Precinct on the Queensland Health Scientific Services (QHSS) Campus at Coopers Plains will accommodate 153 State and 37 CSIRO staff.⁴

Ecosciences Precinct

- 1.6 The Ecosciences precinct is densely occupied by the proposed building which addresses the Boggo Road frontage with the ground level entry

2 Appendix C, Submission No. 1, paragraphs 12 and 14.

3 *ibid.*, paragraph 2.

4 *ibid.*, paragraph 3.

from the north-west corner also opening onto the pedestrian spine to the west. The three blocks orientate to the north for optimal solar orientation. The three basement levels link the three blocks into an integrated whole. Space for a future block is provided at the southern end of the site.⁵

Health and Food Sciences Precinct

- 1.7 Site Planning has been driven by the optimal location of facilities for scientific, collaboration between QHSS and KBRB. Block 10 is linked at upper levels to Block 2 for direct sharing with QHSS chemistry groups and to access the QHSS shared facilities. Block 10 is opposite the entry to the campus and will be the most prominent building on the campus.
- 1.8 Block 11 as a semi-industrial building connects directly into Block 10 to facilitate ease movement between the pilot plant and office and lab facilities.
- 1.9 Block 12 connects with Block 8 virology labs to allow direct interface of the microbiology laboratories and containment facilities.⁶

Inquiry Process

- 1.10 The Committee is required by the Act to consider public works over \$15 million⁷ and report to Parliament on:
 - the purpose of the work and its suitability for that purpose;
 - the need for, or the advisability of, carrying out the work;
 - whether the money to be expended on the work is being spent in the most cost effective manner;
 - the amount of revenue the work will generate for the Commonwealth, if that is its purpose; and
 - the present and prospective public value of the work.⁸
- 1.11 The Committee called for submissions by advertising the inquiry in the *Courier Mail* on Saturday, 19 May 2007. The Committee also sought submissions from relevant government agencies, local government, private

5 Appendix C, Submission No. 1, paragraph 105.

6 *ibid.*, paragraphs 106-108.

7 *Public Works Committee Act 1969*, Part III, Section 18 (8).

8 *ibid.*, Section 17.

organisations and individuals, who may be materially affected by or have an interest in the proposed work. The Committee subsequently placed submissions and other information relating to the inquiry on its web site in order to encourage further public participation.

Inspection and Hearing

- 1.12 On Monday, 23 July 2007 the Committee inspected the site and environs of the proposed works. A confidential briefing from officers of CSIRO and a public hearing were held at the University of Queensland, Brisbane, later that day.⁹

⁹ See Appendix D for the official Hansard transcript of the evidence taken by the Committee at the public hearing on Monday 23 July at the University of Queensland, Brisbane.

The Proposed Works

Purpose

- 2.1 The proposed facilities will replace existing substandard or outdated buildings as part of CSIRO's continuing program to provide high quality, modern facilities appropriate for conducting current and anticipated scientific research and development activities to meet Australia's national research priorities.¹
- 2.2 The opportunity to collocate with Queensland Government science agencies will generate significant strategic benefits through increased scientific interactions and project collaborations, along with savings from the sharing of equipment and other physical and human resources.²

Need

- 2.3 The need for the proposed facilities has four main drivers:

1 Appendix C, Submission No. 1, paragraph 4.

2 *ibid.*, paragraph 5.

- physical obsolescence, inadequacy and geographical separation of current research facilities;
- scattered location of CSIRO and Queensland government agencies involved in closely related activities;
- compliance with the Government's objectives to rationalise, consolidate and collocate with universities and other research agencies; and
- continuation of CSIRO's strategy of rationalising and consolidating its research activities at major cities.³

Project Scope

Ecosciences Precinct

2.4 The Ecosciences Precinct will comprise a new nine level laboratory complex of three interlinked blocks with a total gross floor area of 51,200 square metres of which approximately 13,000 square metres gross floor area will comprise the following CSIRO components:

- laboratories for ecology, biology, microbiology and chemistry;
- plant and insect science facilities including greenhouses, insectaries, head house support facilities and a QC3 level quarantine containment facility;
- marine science facilities including boat storage, sample processing, freezers, dive store, aquaculture tanks and workshops;
- field support facilities including workshops, field gear storage and 4WD parking facilities;
- office space for modelling based research, staff and administrative support;
- shared staff support facilities include a library, seminar rooms, meeting rooms, interaction areas, bicycle store and showers, and ICT;
- shared central support facilities including wash-up, media prep, stores and goods receipt; and
- car parking for 50 CSIRO fleet vehicles inclusive of 4WD field vehicles.⁴

3 Appendix C, Submission No. 1, paragraph 28.

4 *ibid.*, paragraph 98.

Health and Food Sciences Precinct

- 2.5 The Health and Food Sciences Precinct facilities will comprise three blocks connected to the QHSS laboratories to optimise sharing of facilities and scientific collaboration. KBRB will benefit from the use of existing QHSS facilities including auditorium, seminar rooms, and café. KBRB will contribute to the upgrade of the existing QHSS facilities to enable capacity to support KBRB including central wash-up, library, and central goods receipt. External car parking will be provided for 30 CSIRO vehicles. CSIRO will occupy approximately 2,700 square metres GFA within the new development.
- Block 10 comprises a four level laboratory building with:
 - ⇒ laboratories for food product development, microbiology and chemistry;
 - ⇒ sensory testing booths and kitchen; and
 - ⇒ support facilities including stores, bicycles, shower and lockers.
 - Block 11 comprises a single level Food Manufacturing Pilot Plant with mezzanine plant. This will be operated as a managed shared facility with DPI&F; and
 - Block 12 comprises a single level microbiology lab that has no CSIRO occupancy.⁵

Project Delivery

- 2.6 A Managing Contractor (MC), along with key trade contractors, is expected to be appointed during the 'design development' phase of the project to provide design and construction management services.⁶
- 2.7 The Queensland Department of Public Works will manage the MC for the project, and it is the MC who is responsible for and carries the risk of delivering the project at an agreed sum.⁷
- 2.8 Subject to Parliamentary approval it is proposed that early works packages be implemented for the Ecosciences Precinct to allow site establishment works to commence early in 2008.⁸

5 Appendix C, Submission No. 1, paragraph 100.

6 *ibid.*, paragraph 147.

7 *ibid.*, paragraph 148.

8 *ibid.*, paragraph 151.

Cost

2.9 The estimated cost of the proposed fit-out is \$85 million at March 2006, excluding GST. This amount includes:

- escalation costs;
- contingencies;
- all professional fees; and
- authorities' charges.⁹

⁹ Appendix C, Submission No. 1, paragraph 144.

Issues and Conclusions

Amendments to Statement of Evidence

3.1 The following amendments to CSIRO's Statement of Evidence were tabled during the Public Hearing held on 23 July 2007:

- Paragraph 1: delete "Mathematical Information Systems"; substitute "Mathematical and Information Sciences";
- Paragraph 19: delete "19"; substitute "17";
- Paragraph 80: delete "1300"; substitute "13,000";
- Paragraph 125: delete "Heritage"; substitute "Water Resources";
- Paragraph 144: delete "2006"; substitute "2007";
- Paragraph 174: eighth dot point: delete "distributed Central"; and
- Annexure B – Associated Drawings: general changes to scale and legend.¹

¹ Exhibit No. 1, *Amendments to Statement of Evidence*, CSIRO.

Relationship between Commonwealth and State

- 3.2 As the proposed project represents a collaboration between CSIRO and the Queensland State Government, the Committee enquired as to whether there was a form of agreement established, and which bodies were signatories to the agreement.
- 3.3 CSIRO responded that the signatories to the agreement are CSIRO and the State of Queensland represented by the Department of State Development and the Department of Public Works. The role of the Department of State Development is to coordinate the project, with the Department of Public Works being responsible for the construction works and ownership of the land.²
- 3.4 CSIRO assured the Committee that it is confident that there is a process in place whereby all bodies involved with the proposed project will be able to resolve any outstanding differences. CSIRO added that the current arrangements ensure the Commonwealth's interests are preserved and that there is a longstanding history of cooperation between CSIRO and the state, supported by appropriate committees and government mechanisms.³

Project Management

Managing Contractor

- 3.5 CSIRO stated in its main submission that the Queensland Department of Public Works would manage the Managing Contractor (MC) who would be responsible for, and carries the risk of, delivering the project at an agreed sum.⁴ CSIRO continued that an MC had not yet been appointed, however it anticipated going to tender in August, with an MC entering into a contract in February 2008.⁵
- 3.6 CSIRO further explained that a two-stage Expression of Interest (EOI) process had been undertaken. The first stage was a briefing to industry

2 Appendix D, Official Transcript of Evidence, page 5.

3 loc.cit.

4 Appendix C, Submission No. 1, paragraph 148.

5 Appendix D, Official Transcript of Evidence, page 18.

and general registration of interest, with companies pre-qualified for government work the only companies eligible for consideration. The second stage was a formal EOI against a set of criteria and assessed by the Queensland Department of Public Works.⁶

Project Delivery

- 3.7 According to CSIRO, and subject to the project receiving parliamentary approval, construction would begin for both sites in 2008 with completion scheduled for 2009 for the Health and Food Sciences Precinct, and 2010 for the Ecosciences Precinct.⁷ Further to the scheduled project delivery timeline, the Committee sought further information on when CSIRO proposed to move staff.
- 3.8 As regards the transition of staff to the new precinct, CSIRO informed the Committee that staff would move immediately after construction is completed. Staff from Cannon Hill will relocate to the Coopers Plain site from mid 2009; and staff from Indooroopilly, Cleveland and the Queensland Bioscience Precinct, from August 2010.⁸ Both the CSIRO and the Queensland Government are confident that the forecasted timeline and estimated budget for the project will be met.⁹

Memorandum of Understanding

- 3.9 During the public hearing CSIRO provided the Committee with a copy of the Memorandum of Understanding (MOU) between Queensland and CSIRO.¹⁰ The Committee sought clarification on the MOU and the arrangements that it covers.
- 3.10 CSIRO explained that the MOU, as it stands, is primarily for the planning and design of the facility, with a more formal project agreement currently being finalised.

6 loc. cit.

7 Appendix C, paragraph 152.

8 Appendix D, page 18.

9 *ibid.*, page 19.

10 See *Memorandum of Understanding between the State of Queensland and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) – To establish a collaborative planning framework for joint building projects between CSIRO and Queensland State agencies at the Boggo Road Ecosciences Precinct and the Coopers Plains Health and Food Sciences Precinct.*

The project agreement also makes reference to two other agreements, one being a building management agreement and the other being a lease agreement. Both of those will be in place prior to completion of the facility, and that will govern the ongoing operations and leasing arrangements for the facility.¹¹

- 3.11 CSIRO confirmed that the project agreement, as stated within the MOU, was to be completed by 2006 and admitted that the project is behind the original schedule.

Recommendation 1

The Committee recommends that CSIRO provide the Committee with the details of the finalised project and lease agreements.

Lease Arrangements

- 3.12 One of the issues highlighted by CSIRO's proposal to collocate and collaborate with the State of Queensland related to the lease arrangements between the State and the Commonwealth. The Committee sought clarification on what would occur, for example, should the Commonwealth leave before the end of the lease term of 99 years. CSIRO responded that the project agreement will have clauses in it covering the relationship between the State and the Commonwealth if CSIRO were to withdraw.¹²

- 3.13 Further, the Committee sought clarification on the section of the MOU that indicated that the State could, after a 30 year lease, provide five years notification of withdrawal. In response CSIRO stated that:

...if the state ceases its ownership of the Boggo Road ecoscience precinct or ceases to use that precinct principally for ecoscience research, CSIRO may surrender the Boggo Road ecoscience precinct lease and, if it does so, the state will be liable to pay CSIRO reasonable compensation interest for the surrendered component part. That might give a bit of comfort that we will be dealing effectively, efficiently and also equitably with the partner.¹³

11 Appendix D, page 6.

12 *ibid.*, page 7.

13 *ibid.*, page 8.

Options Considered

- 3.14 In its main submission, CSIRO listed the four main options considered for the proposed project.¹⁴ In the interest of best use of available resources and not duplicating existing facilities, the Committee asked if CSIRO had considered other locations within Australia.
- 3.15 CSIRO explained that an important part of conducting successful research and development is to have scientists as close as possible to the research being undertaken. According to CSIRO, most of this work is geographically located within the Queensland region ruling out alternative sites elsewhere in Australia. CSIRO believe that the preferred project option represents the most efficient deployment of its staff.
- 3.16 It is not unusual that staff from other CSIRO laboratories in other Australian locations work in Queensland as a project may require specific scientific knowledge or skill set. CSIRO proposed that it is endeavouring to combine the scientific capacity of both the Queensland government and CSIRO staff to address national issues in the Queensland context.¹⁵

Facility Design

Greenhouse Location

- 3.17 Annexure B of CSIRO's main submission displays the building plans for the proposed works.¹⁶ Upon further examination of the building plans and a concern for safety, the Committee sought further information regarding the decision to locate the facility's greenhouses on the roof of the Boggo Road building.
- 3.18 In responding, CSIRO informed the Committee that the ground level greenhouses that the Committee saw during the site inspection of the Indooroopilly site are experiencing problems with eucalyptus trees overshadowing these facilities. The agency also added that:

The key characteristic of a greenhouse for research purposes is that it needs 100 per cent solar exposure, so they need to be able to get full solar exposure from the first thing in the morning until late

14 Appendix C, paragraphs 31 – 43.

15 Appendix D, page 9.

16 Appendix C, Annexure B – Associated Drawings.

afternoon. That should not be impeded by trees or other buildings... To get consistency in your research results, you need that constant and regular sunshade input.¹⁷

- 3.19 CSIRO acknowledged that the greenhouses will need to take into account issues such as wind loads and weather damage, however it maintained that the roof was the preferred location for the greenhouses.

Fire Safety

- 3.20 In addition to what was outlined in CSIRO's main submission¹⁸, the Committee sought further information on the fire safety and evacuation procedures for the facilities. CSIRO assured the Committee that the flammable chemicals that are held on site fall within the guidelines for laboratory projects. Also:

We are following part 10 of the Australian Standard 2243 in terms of how those flammable goods are managed and distributed across laboratory floors. The loadings are relatively low compared to what the capacity could be under those guidelines for a building of this type.¹⁹

- 3.21 CSIRO have consulted with the Queensland Fire and Rescue Service and with CSIRO's building certifier in respect to the Building Code of Australia. Consultation is also being undertaken with OH&S representatives to ensure that buildings comply with safety and egress procedures.²⁰

Access Equity

- 3.22 During the hearing CSIRO commented that all buildings will be designed to meet the requirements of the relevant Australian standards and the BCA and which will ensure access equity for employees and visitors to the facility.²¹

17 Appendix D, page 14.

18 Appendix C, paragraphs 180-181.

19 Appendix D, page 12.

20 *ibid.*

21 *ibid.*, page 13.

Maintenance of Facilities

- 3.23 During the site inspections the Committee was able to inspect existing facilities at various sites. The Committee noted, though was unable to inspect, that the Coopers Plains site had existing state government infrastructure on-site. In this regard, the Committee enquired as to the condition of the existing state infrastructure and the program incorporated for the maintenance of the facility.
- 3.24 The representative from the Queensland Department of Public Works responded that the Queensland Health Scientific Services (QHSS) facility was in 'reasonably good condition'. The facility comes under the Department of Public Works maintenance arrangements and is fully maintained as a government asset. Furthermore, the representative assured the Committee that there would be no cost to the Commonwealth in the undertaking of 'additional work' or 'capital improvement' to the existing state facility in the proposed development.²²

Environmental Considerations

Ecologically Sustainable Design

- 3.25 In its main submission CSIRO listed Ecologically Sustainable Design (ESD) initiatives that have been incorporated into the project design and added that the project took into consideration the principles of the *Energy Efficiency in Government Operations* (EEGO) Policy.²³ In reviewing the list of ESD initiatives, the Committee sought further information on the benefits of 'direct digital building management'.
- 3.26 CSIRO explained that 'direct digital control' is a computerised building management system that enables direct control of all service systems within the building. The ability to fully program and monitor energy consumption provides the capacity to tailor and manage optimal energy usage. CSIRO provided the example of fume cupboards where an alarm can be set to alert users in the event that a fume cupboard sash is inadvertently left open.²⁴

22 Appendix D, page 7.

23 Appendix C, paragraphs 124-134.

24 Appendix D, page 10.

- 3.27 The Committee also requested CSIRO to further explain the 'daylight compensation lighting control system'²⁵ as listed in its main submission. CSIRO responded that part of the lighting control system are lights that will be motion detection activated ensuring that areas where there is no activity for a period of time are not unnecessarily lit. In addition, some lighting will be programmed to turn off in areas where there is an acceptable natural lighting level. There would be a range of energy saving lighting measures that could be implemented depending on the operation requirements of the specific work areas.²⁶
- 3.28 CSIRO reported that after installing building management systems on more recent developments, it achieved energy savings in the order of 15 to 20 per cent.²⁷
- 3.29 The Committee highlighted the importance it places on the reduction of energy consumption and the emphasis for Commonwealth government buildings to lead in this respect. Further, the Committee commended CSIRO on the attention paid to ESD and working towards designing environmentally friendly buildings.²⁸

Water Sustainability

- 3.30 In CSIRO's main submission it makes mention of water saving initiatives such as the collection of rainwater and the use of water saving devices.²⁹ With the issue of water conservation being of major concern to the Committee, it asked for further detail on the water saving initiatives being employed at the sites.
- 3.31 CSIRO informed the Committee that it is proposing significant volumes of water storage at Boggo Road and Coopers Plains, approximately 420,000 and 300,000 litres of water storage respectively. CSIRO explained that:

Not only will we be collecting rainwater but also we are collecting the water that is required for testing the fire apparatus in the building – which, on its own, constitutes 250,000 litres a year – as well as our recycling of the RO waterways. We are looking at, wherever possible, focusing on water consumption in terms of not only savings but also capture of whatever sources we can on site.³⁰

25 Appendix C, paragraph 132.

26 Appendix D, page 11.

27 *ibid.*, page 10.

28 *loc.cit.*

29 Appendix C paragraph 134.

30 Appendix D, page 14.

Building Materials

3.32 With regard to building materials used in the project, CSIRO proposes to incorporate a 'selection of materials with low volatile organic compound emissions and those of a proven sustainable manufacture'³¹ about which the Committee sought further information.

3.33 CSIRO responded that:

There is quite a body of evidence that indoor air quality has a significant effect on the wellbeing of the occupants of buildings. So we are increasingly focussed on trying to make sure that the materials that are used have minimal off-gassing in relation to compounds that might affect health.³²

Hazardous Materials

3.34 During the site inspection of CSIRO facilities the Committee observed different types of work environments which later raised the issue of CSIRO operations that may be of a hazardous nature or use hazardous materials. Specifically the Committee sought details as to what hazardous works are likely to be undertaken at the proposed facilities, and what measures have been taken by CSIRO to protect employees and the environment.

3.35 CSIRO stated that whilst hazardous materials may be used, it assured the Committee that:

All contaminated waste and normal routine waste that is generated from laboratory buildings will be contained in a secure facilities on site that will meet all regulatory requirements. That waste will be disposed of by approved contractors. Any airborne contaminants...will also be contained using filter systems and such which...will meet regulatory requirements to ensure that any hazardous substances will not be discharged.³³

3.36 During the hearing CSIRO explained the use of fume stacks that are planned for both precincts, with the exact specifications being developed and the study of the impacts of the fume stacks are yet to be finalised. The

31 Appendix C, paragraph 134.

32 Appendix D, page 11.

33 *ibid.*, page 12.

Committee requested to be kept informed with regard to the proposed fume stacks.³⁴

Recommendation 2

The Committee recommends that CSIRO provide the Committee with the final plans for the proposed fume stacks.

Site Contamination and Remediation

- 3.37 Given that there may be hazardous materials used in, or derived from, activities at the proposed facilities, the Committee asked whether there was any likelihood of soil or water contamination that would need to be removed.
- 3.38 CSIRO admitted that while there may be 'soil and water materials on-site' it will put in place necessary measures to ensure materials are contained on-site, or removed following appropriate protocols.
- 3.39 CSIRO assured the Committee that in the event that it disposes of any of its sites, all necessary steps will be taken to ensure that the sites are properly remediated. As part of the collocation proposal, CSIRO stated that it intended to sell three of its existing sites, where two stage environmental audits would be undertaken at each site. Results from the first stage of the environmental assessments indicated that there was minimal contamination on the sites, and the second stage of assessment will determine what remedial action is required.³⁵

Consultation

- 3.40 At Annexure C of its main submission, CSIRO listed the authorities and departments consulted in the preparation of its statement of evidence.³⁶ CSIRO also stated that the proposal had been publicly supported by the Premier of Queensland.³⁷ The Committee sought further information as to whether there had been any particular issues raised in opposition to the proposed facility.

34 Appendix D, page 11.

35 *ibid*, page 12.

36 Appendix C, Annexure C - Consultations.

37 *ibid.*, paragraph 140.

3.41 CSIRO indicated that the main concern, of which it was aware, was raised by the parents and citizens of the Dutton Park School. The Queensland Department of State Development added that as the school located close to the Boggo Road development, there was a concern of disturbance during the construction period and the affect on the Dutton Park School. The Department assured the Committee that it has kept the school and other such community groups fully informed through its public consultative process and associated mechanisms such as letter drops, newsletters and public meetings.³⁸

3.42 Some of the concerns are centred on the urban renewal of the Boggo Road area, or the Boggo Road Urban Village project. The Department explained that:

Generally there has been excellent support for what has been identified today as parts of that village, which includes not only the science precinct but also a residential component and a commercial precinct.

A major bus-rail interchange and connectivity through to the University of Queensland is proposed as part of the urban renewal of the area.

3.43 The Department believes that, via its consultative processes it has allayed community concerns and also understands that:

There is a requirement that the public look to that development as it occurs to ensure that commitments given today are maintained.³⁹

Recommendation 3

The Committee recommends that CSIRO continues its consultation with the local community and relevant stakeholders.

Staff Consultation

3.44 The Committee sought further information regarding the extent of staff consultation undertaken by CSIRO and how it had addressed any feedback regarding the proposed works. CSIRO responded that it: distributes a staff newsletter that provides project updates; and also conducted personal briefings. There is also a CSIRO project control group which has staff

38 Appendix D, page 9.

39 loc. cit.

and union representation. CSIRO continued that there had been a lot of staff input in the design of laboratories and office spaces.⁴⁰

- 3.45 One concern for CSIRO is the possible impact on travel times and staff movements and, in this regard, CSIRO has undertaken a transport study to gauge the impact on staff so as to minimise staff disruption. CSIRO has recognised that the proposed project may have a material impact on staff with longer travel times to get to work, and are working closely with affected staff to address this issue. CSIRO assured the Committee that it is treating all staff concerns seriously and is working with staff to achieve the best outcome for all involved.⁴¹

Childcare Provisions

- 3.46 In its main submission CSIRO states that the Queensland Government supports the establishment of a private sector childcare centre within the Boggo Road Urban Village, since none are currently available on the QHSS precinct.⁴² As there was no further reference to childcare facilities in CSIRO's main submission, the Committee sought further information on the provision of childcare on-site or in the area.
- 3.47 According to CSIRO, it would be permissible to have a childcare facility on the proposed site but the provision and operation of this would be the responsibility of the private sector. Whilst CSIRO would support the provision of onsite childcare, a social amenity and impact assessment identified that there were:

...approximately 12 facilities offering childcare services including before and after school care, vacation care and long day care in the suburbs immediately surrounding the ecosciences precinct... and our view is that there will be ample opportunity for staff members who have children requiring care to take advantage of local facilities.⁴³

40 Appendix D, page 16.

41 *ibid.*, page 18.

42 Appendix C, paragraph 138.

43 Appendix D, page 16.

University Involvement

- 3.48 Given the nature and significance of the research to be carried out at the proposed facilities, the Committee enquired as to whether any Queensland universities had a financial interest in the proposed collocation project. CSIRO responded that whilst there is a strong interest from universities from a research perspective, there are no universities with a financial interest in the project.⁴⁴
- 3.49 However CSIRO added that:
- ...it is within CSIRO's broader strategic interest to collaborate with the universities, and in particular we have an important role in the national innovation system in the training and development of scientists through joint supervision of students.⁴⁵
- 3.50 Students enrolled at universities, such as the University of Queensland and Griffith University, would be physically located at both precincts, but have no 'material interest' in the facilities.

Traffic Management

- 3.51 Given the increase in the number of people on both of the sites, the Committee enquired how CSIRO proposed to manage the possible increase in traffic. CSIRO responded that the design philosophy for the project was to minimise the number of vehicles entering and exiting the site, estimating that there will be 174 vehicles on site which will all be related to work (such as for the transport of field equipment). In line with ESD, and conscious that one site will be an ecoscience precinct, CSIRO stated that it will not provide staff parking on-site.⁴⁶
- 3.52 CSIRO further supported its traffic management proposal by informing the Committee that one of the sites is adjacent to major bus and rail interchanges which, combined with no on-site staff parking, would hopefully encourage staff to utilise public transport. CSIRO indicated that there will be a small number of parking spaces for individuals who, in particular circumstances, may require private vehicle access, and there will also be some visitor parking spaces provided. There are also two hour parking areas near the Boggo Road site. Through CSIRO's traffic

44 *ibid.*, page 8.

45 *loc.cit.*

46 *ibid.*, page 13.

management plan, it hopes to minimise impact on the respective local areas and encourage the use of public transport.⁴⁷

Future Works

- 3.53 CSIRO stated in its main submission that at the Boggo Road site there is 'space for a future block at the southern end of the site' and as such the Committee asked CSIRO of the plan for future development of the site that has not been highlighted in the current proposal.
- 3.54 In clarifying the statement, CSIRO stated that there is flexibility on-site should CSIRO work necessitate additional staffing levels that are beyond the current building capacity. There is no planned expansion in the foreseeable future.⁴⁸

Recommendation 4

The Committee recommends that the proposed CSIRO collocation with Queensland Government on the Ecosciences and Health and Food Sciences Precincts, Brisbane, Queensland, proceed at the estimated cost of \$85 million.

Hon Judi Moylan MP

Chair

13 September 2007

47 loc.cit.

48 ibid., page 15.



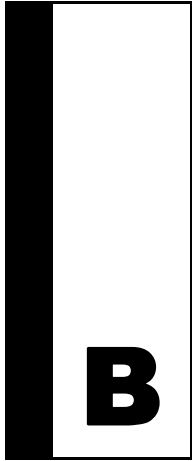
Appendix A – List of Submissions and Exhibits

Submissions

1. CSIRO
2. Queensland Department of Health
3. Queensland Environmental Protection Agency
4. Queensland Department of Primary Industries and Fisheries

Exhibits

1. *Memorandum of Understanding between the State of Queensland and Commonwealth Scientific and Industrial Research Organisation, CSIRO.*
2. *Amendments to Statement of Evidence, CSIRO.*



Appendix B – List of Witnesses

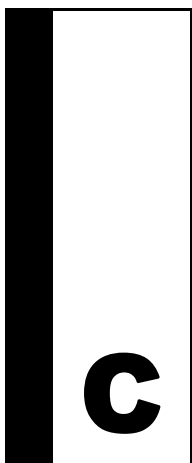
Mr Brian Ankar, Deputy Director General, Science, Technology and Innovation,
Queensland Government Department of State Development

Dr Andrew Johnson, Group Executive, Environment, Commonwealth Scientific
and Industrial Research Organisation

Mr Trevor Moody, General Manager, Property Services, Commonwealth Scientific
and Industrial Research Organisation

Mr Peter Robertson, Principal Project Manager, Major Project, Project Services,
Department of Public Works

Mr Mark Roehrs, Principal, Hassell Ltd



**Appendix C – Submission No. 1 from the
CSIRO**

**STATEMENT OF EVIDENCE TO
THE PARLIAMENTARY STANDING COMMITTEE
ON PUBLIC WORKS**

**CSIRO Collocation with Queensland
Government
on the
Ecosciences and Health & Food Sciences
Precincts**

Brisbane Queensland

23 July 2007

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1.0 INTRODUCTION

1. The proposal presented in this submission to the Parliamentary Joint Committee on Public Works ("PWC") is for the construction of two new research complexes for six CSIRO Divisions including Entomology (CENTO), Food Sciences Australia (FSA), Land and Water (CLW), Marine and Atmospheric Research (CMAR), Mathematical and Information Sciences (CMIS), Sustainable Ecosystems (CSE), four National Research Flagships including Wealth from Oceans, Water for a Healthy Country, Food Futures and Climate Adaptation together with facilities for the education group CSIROSEC.
2. The proposed CSIRO facilities will be an integral part of the Knowledge Based Research and Business (KBRB) Project that will house approximately 1200 scientists from the Queensland State Government departments of Primary Industries and Fisheries, Natural Resources and Water and the Environmental Protection Agency with the CSIRO Divisions and National Research Flagships.
3. The KBRB proposes to have facilities in two locations in Brisbane. An Ecosciences Precinct at the Boggo Road Urban Village, Dutton Park will accommodate 754 State and approximately 260 CSIRO scientists and support staff, including visitors and students. A Health and Food Sciences Precinct on the Queensland Health Scientific Services (QHSS) Campus at Coopers Plains will accommodate 153 State and 37 CSIRO staff.
4. The proposed CSIRO facilities will replace existing substandard or outdated buildings as part of CSIRO's continuing program to provide high quality, modern facilities appropriate for conducting current and anticipated scientific research and development activities to meet Australia's National Research Priorities.
5. The unique opportunity to collocate with Queensland Government science agencies will generate significant strategic benefits through increased scientific interactions and project collaborations, along with savings from the sharing of equipment and other physical and human resources.
6. The total of 297 CSIRO research and support staff and visitors who will be accommodated in the CSIRO facilities are currently located at the Queensland Bioscience Precinct (QBP) with CSE, CSIRO Long Pocket Laboratories at Indooroopilly (CLW, CENTO + CSIROSEC), CSIRO Laboratories at Cannon Hill (FSA) and CSIRO Laboratories at Cleveland (CMAR).
7. The CSIRO facilities will comprise modern research laboratories, laboratory support areas, service and equipment rooms, management and administration offices, staff support areas, field operation support areas including sample processing areas, boat and field gear storage, workshops aquaculture tanks, glasshouse facilities and food manufacturing pilot plant – a majority of which will be shared amongst the participating CSIRO and State agencies.
8. The Ecosciences Precinct will also provide amenity and support facilities to be shared with the State. These facilities will include a cafe, reception, staff amenities, seminar and meeting rooms, centralised stores; wash up facilities and information technology support. CSIRO and State scientists will be co-located in laboratory and office space to optimise the potential for sharing of equipment and the exchange of ideas. This will provide economies in capital and operating costs as well as science synergies.
9. The complete proposal will include associated site and road works, official car parking, site engineering services and landscaping.

2.0 BACKGROUND

10. Science and technology and the application of knowledge underpin much of Australia's current and future prosperity. The infrastructure needs of the science and technology platform, however, are continually evolving. Firstly, facilities that were State-of-the-art 20 or 30 years ago are no longer adequate for current and particularly future needs. Secondly, the biophysical, economic, and social disciplines are increasingly realising their inter-dependence and are seeking to work more closely together. Thirdly, physically separate and competing agencies are appreciating the need to collocate and collaborate more closely in order to address pressure from Governments and the community for greater and more cost-effective returns from their investments in science and technology. Finally, it is becoming increasingly clear that the fastest progress in addressing major problems is made where a critical mass of scientists and technologists is assembled in one location.
11. This submission addresses all these issues as they apply to the work of six CSIRO Divisions and four National Research Flagships currently located in south-east Queensland by replacing old with new facilities at modest net cost.

3.0 OVERVIEW OF CSIRO

3.1 General

12. CSIRO is Australia's premier research organisation which delivers science and innovative solutions for industry, society and the environment. With an annual turnover of about \$900 million, it is one of the largest and most diverse scientific research organisations in the world.
13. Since its inception in 1926, CSIRO has played a vital role in shaping Australia and generating the nation's wealth. The organisation and its scientists have established an international reputation for excellence and achievement in basic and applied research. Its work contributes to the ongoing prosperity and sustainability of Australia's primary and secondary industries and to the creation of new technologies, products and techniques for the continuing development of our manufacturing and service-based industries
14. CSIRO's primary functions are:
 - to carry out scientific research for the purpose of assisting Australian industry, furthering the interests of the Australian community, contributing to the achievement of national objectives or the performance of national and international responsibilities;
 - to encourage or facilitate the application or utilisation of the results of scientific research; and
 - to carry out services and make available facilities, in relation to science.
15. CSIRO is also involved in over 740 international research activities, working with leading scientific organisations in more than 80 countries with partners and customers ranging from foreign governments to small companies, large multi-nationals, and international foundations.
16. CSIRO has a total staff of about 6500, approximately 55% of whom are research scientists. Collectively they provide expertise in almost every major scientific discipline allowing the organisation to draw on a large and diverse pool of individual skills to meet almost any scientific or technological challenge.
17. In order to fulfil its role, CSIRO consults and collaborates extensively with industry and maintains close and mutually beneficial relationships with universities and Research and Development (R&D) agencies of the various State governments.

3.2 Organisational Structure

18. CSIRO has been structured to respond to Australia's needs and to ensure that its research effort and scientific resources are focused on areas of national priority. Frequent and extensive interaction with government, industry, and the general community assist it in identifying and prioritising R&D opportunities.
19. CSIRO is organised into 17 Divisions ranging across the full science spectrum from Industrial Physics through Minerals and Energy Technology to Plant Industry to Marine and Atmospheric Research to Entomology. Two Divisions, Ensis and Food Science Australia, are joint ventures with other agencies. Food Science Australia (FSA), a joint venture between CSIRO and the Victorian Government is included within the proposed Health and Food Sciences Precinct.
20. CSIRO's Divisions are seen as the "homes" of the disciplinary capabilities and skills that are available for addressing major problems as required. The delivery of CSIRO's outcomes and impacts are, however, organised through Themes that focus on problems or issues of high national or scientific importance.
21. CSIRO is currently addressing approximately 100 themes, with Divisions each supplying staff with appropriate disciplines and skills.
22. A number of themes are focused on Australia's most significant challenges and opportunities are delivered as part of the National Flagship Program. The current National Research Flagships are Energy Transformed, Food Futures, Light Metals, Preventative Health, Water for a Healthy Country, Wealth from Oceans, Climate Adaptation, Niche Manufacturing and Minerals Down Under.
23. CSIRO is managed by an Executive Team led by the Chief Executive Officer that is responsible for the development and implementation of organisational strategy. The Chief Executive is a member of the 10-person CSIRO Board and is accountable to the Minister for Science, Education and Training for the organisation's performance.

4.0 THE PROPOSAL

4.1 Science Challenges – The Key Issues

24. The future of northern Australia, the Asia-Pacific region, and indeed the whole world is being reshaped by profound forces such as new enabling technologies, trade reform, natural resource quality and security, climate change and variability, biosecurity, poverty alleviation, and cultural and religious disharmony. Capitalising on systems thinking, innovation, the use of new technologies and the development of entrepreneurial capacity will allow CSIRO and its partners to meet these challenges and develop totally new industries, new employment opportunities and new capabilities for managing ecosystems and improving our health. These will increasingly shape the Australian economy and determine our future standard of living.
25. Dealing with these challenging forces and their interactions will require CSIRO to marshal all of its knowledge and skills and to create the environments where innovation can flourish. This proposal will assemble the critical mass of expertise required for the tasks shown below and house them in modern multi-use and shared facilities.
26. A number of key challenges that are already impacting on Australia's growth potential are emerging; they will be the main research thrusts for the Precincts outlined in this proposal. These can be classified into five broad areas – sustainable rural industries, healthy coastal and marine ecosystems, climate change and climate variability, biosecurity, and food and health. Aspects of all of these are prominent in the Australian Government's National Research Priorities.

- *Sustainable industries.* Agricultural and marine industries are faced with the ongoing challenge to achieve economic, ecological and social sustainability. National and international marketplaces are becoming increasingly competitive as consumers demand ever-safer products derived from sustainable production systems. Water security and water allocation issues are intensifying as the demand for environmental flows and alternative use of our river systems is recognised and addressed. In coastal regions, competition with urban communities for land and water resources is increasing rapidly. In the Great Barrier Reef region, the conflict between agricultural and marine and adjacent users of the resource base (tourism, conservation, fisheries) is intensifying. In the dryland cropping and pastoral regions, producers and governments are grappling with a wide range of other issues such as soil erosion, dryland salinity, tree clearing, land tenure, and the development of multiple use systems. Similarly, in the mining regions, industry and the community faced significant challenges in ensuring long-term environmental and social viability
 - *Health of Coastal and Marine Ecosystems.* The rapid growth of urban areas in southeast Queensland is pointing to the development of a “200 km city” from Noosa to the Tweed. This will increasingly bring a range of associated challenges such as burgeoning demand for water, energy and transport, adverse impacts on coastal and marine ecosystems, declining economies of traditional rural industries (e.g. the sugar, horticultural and fisheries industries), and a general deterioration of the quality of life for people living in the region.
 - *Climate Change and Climate variability.* It is becoming increasingly clear that climate change and climate variability will have serious impacts on virtually every facet of our lives. While the global and continental effects of climate change have been known for some time, its impacts on particular regions, industries, and ecosystems are only now beginning to be understood. As it is likely that the global community will take 50 years or more to effectively address the causes of climate change, a range of innovative responses and adaptations will have to be developed to cope with the expected changes and, where possible, to convert adversity into opportunity.
 - *Biosecurity.* Biosecurity has long been an important issue for the plant, animal and marine-based industries of northern Australia. Increasingly, invasive species have become a threat to biodiversity conservation and natural ecosystems as well. In the past the threats have been mainly from accidental introductions, or from introductions for use in one industry escaping to threaten another industry or ecosystem. More recently, however, the risks from deliberate introductions of harmful organisms have increased sharply. Dealing with these traditional and new threats will require much better tools for determining the introduction route, assessing the potential for damage, and prioritising the various threats. It will also require contingency plans for the high priority threats, involving more sophisticated responses, to be developed and tested.
 - *Food and Health.* There is an increasing demand from domestic and international consumers for higher standards of food safety, new high-quality and differentiated products (particularly from tropical plant and animal species), and new processes in the food and related human health arena. This will require a concerted and coordinated effort from the current R&D providers if the new opportunities (e.g. in the globally expanding functional foods and ingredients market) are to be capitalised on and the public health benefits achieved.
27. Currently, the science and technology capability in southeast Queensland to undertake the relevant R&D to address these daunting challenges is fragmented and operating with aged and inappropriate infrastructure. This proposal brings together the critical mass of expertise required and houses them in modern, safe, efficient, multi-use and shared facilities.

4.2 Need for the Facilities

28. The proposal has four main drivers:

- physical obsolescence, inadequacy and geographical separation of current research facilities;
 - scattered location of CSIRO and Queensland government agencies involved in closely related activities;
 - compliance with the Government's objectives to rationalise, consolidate and collocate with universities and other research agencies; and
 - continuation of CSIRO's strategy of rationalising and consolidating its research activities at major centres.
29. Facilities at three CSIRO Laboratories which would be vacated (Food Science Australia Laboratory at Cannon Hill, CSIRO's Long Pocket Laboratories at Indooroopilly and Marine Laboratory at Cleveland) are outdated, inefficient, near the end of their useful life, and located on valuable sites. Facilities at the fourth site (the QBP) where CSE is currently accommodated will be utilised by other CSIRO Divisions and sub-leased to Queensland Government agencies whose activities are complementary with the remaining CSIRO and University occupants of QBP.

4.3 Options Considered

30. In developing the KBRB Proposal consideration was given to four options:

Option A: Do Nothing.

31. The scientific research activities performed on the three existing sites of Indooroopilly, Cannon Hill and Cleveland have a necessity to be continued on a long term basis. However, all of the existing facilities are in the order of 40 years old and will require significant refurbishment and modification within 5-6 years to meet the basic scientific and safety requirements of the Organisation. Normal maintenance will not be sufficient to bring the facilities to an acceptable standard with the facilities at risk of becoming unsafe and redundant.
32. The sites are spread across the Brisbane metropolitan area and buildings are fragmented across the individual sites thereby precluding the opportunity to realise benefits from critical mass created through collocation of CSIRO Divisions and Collaborator organisations.

Option B: Remain in situ, Affect Major Refurbishments over 5-6 years.

33. The issue of ageing facilities identified in Option A would theoretically be addressed by a major refurbishment of the existing facilities at Indooroopilly, Cannon Hill and Cleveland. The refurbishment of existing buildings and site infrastructure on each site would need to incorporate significant modifications to existing buildings and construction of additional facilities to accommodate new research activities and staff currently housed in temporary transportable buildings. This would provide updated scientific facilities but the required functionality and benefits from collocation and consolidation would not be achieved through reuse of refurbished or converted existing buildings.
34. The Indooroopilly, Canon Hill and Cleveland sites have high underlying value which CSIRO cannot utilise while occupied. By remaining on the existing sites CSIRO will be required to invest substantial additional capital into less optimal older facilities in order to perform necessary science into the future. This option would also not support integrated collaboration with the Queensland State government or other research entities.

Option C: Consolidate on an existing CSIRO site.

35. This option is based on two assumptions, being (1) vacate and divest Cleveland and Cannon Hill sites and consolidate at Indooroopilly; and (2) leave CSE at the Queensland Bioscience Precinct at Queensland University, St Lucia.

36. While supporting consolidation of CSIRO's activities to a major site it does not provide for collocation of CSIRO's ecological research groups including CSE. It also does not provide for collocation with Queensland government scientific agencies who will relocate to the Ecosciences Precinct at Boggo Road as a major part of their planned consolidation of research groups currently dispersed through the Brisbane metropolitan area. This Queensland government consolidation includes relocation of the current Queensland research complex neighbouring the CSIRO Indooroopilly site. This will reduce the extent of ongoing and potential collaboration.
37. Consolidation of CSIRO sites at Indooroopilly would also preclude the benefits arising from Food Science Australia collocation with the Queensland State Food and Health agency at Coopers Plains.
38. This option would allow CSIRO to divest the Cannon Hill and Cleveland sites to fund some of the refurbishment and construction works that would be needed at Indooroopilly. However, the proceeds of sale would not be sufficient to cover all costs of consolidation and CSE would need to remain at QBP. The Indooroopilly site is the most valuable of the three sites and represents 60% of their combined land value. By not being able to realise the land value at Indooroopilly significantly reduces the available capital to fund any works.

Option D: Co-locate at Boggo Road and Coopers Plains Precincts – Preferred Option.

39. The option of collocating at Boggo Road and Coopers Plain precincts is the preferred option, as it allows CSIRO to move from its ageing, outdated and inefficient scientific facilities to a modern complex specifically designed and built to meet the ongoing scientific and collaboration needs of both CSIRO and the Queensland government.
40. The collocation achieves two critical objectives by (1) providing a vehicle to promote collaboration through partnering, collocation and sharing, consistent with CSIRO, Commonwealth and Queensland State policies; and (2) providing a critical mass to focus on science that underpins the continued development of the Australian economy.
41. The new facilities are further enhanced by being closely located to Universities, hospitals and other research entities in the Brisbane area and CSIRO's other research groups located at QBP.
42. By relocating to the Boggo Road and Coopers Plain sites, CSIRO is released from the need to upgrade and add to dispersed and close to obsolete facilities at Indooroopilly, Cannon Hill and Cleveland; can achieve long term capital and operating cost economies; and can release the land value from its three sites to substantially fund the project.
43. In choosing Option D, CSIRO achieves new world class facilities collocated with a critical mass of researchers on both precincts for the best return on investment. It rationalises the existing sites with their redundant facilities and releases significant metropolitan in-fill sites for private reuse and development, realising the full value of the properties. Rather than a compromised solution, that would be realised if the existing facilities were refurbished and/or converted, it allows CSIRO to develop (with the Queensland Government) a modern facility that will meet ongoing scientific requirements.

5.0 RESEARCH PARTNERS AND THEIR CAPABILITIES

44. The following CSIRO and State Government groups are those identified for collocation at the respective sites.

5.1 Ecosciences Precinct

CSIRO Sustainable Ecosystems (CSE)

45. CSE is concerned with the complex challenges of social, economic, and environmental sustainability in urban, regional, and rural Australia. The groups involved in this proposal are conducting R&D in support of sustainable regional development, the health of terrestrial

ecosystems, the design of future cities, and the sustainability of Australia's agricultural industries.

CSIRO Land and Water (CLW)

46. CLW creates options and solutions for more productive and sustainable use of Australia's land and water resources. While global and national water shortages demand innovative methods to increase water productivity, our rivers, estuaries and coastal environments also need attention as they are under increasing pressure from development and climate change. The group involved in this proposal are concerned with understanding how water allocation, irrigation practices and water recycling influence water use efficiency and quality; how to manage the health of aquatic ecosystems; and how to use remote sensing technology and spatial analysis to help us predict, evaluate and plan the use of our land and water resources.

CSIRO Entomology (CENTO)

47. CENTO is concerned with R&D into invertebrates and invasive species and their management to generate economic, social, and environmental benefits for all Australians. The groups involved in this proposal are particularly concerned with biosecurity preparedness, analysis of biosecurity risks, and the design of appropriate responses; understanding the science of invasion, particularly the invasion of undesirable plants; and the management of ecosystem services at the landscape scale.

CSIRO Marine and Atmospheric Research (CMAR)

48. Australia's large marine jurisdiction offers an enormous range of economic and recreational opportunities, while playing a major role in controlling climate. CMAR conduct R&D on these topics with the broader aim of advancing Australian climate, marine, and earth systems science. The groups involved in this proposal are particularly concerned with sustainable Australian fisheries and ecosystems, marine conservation and biodiversity management, and the Wealth from Oceans Marine National Flagship program.

CSIRO Mathematical and Information Sciences (CMIS)

49. CMIS is concerned with applying mathematics and statistics to answer important questions across the spectrum from medical research to environmental monitoring and industrial processing. The groups involved in this proposal are developing innovative statistical and mathematical methodologies for use by natural resource policy makers who are concerned with environmental stewardship.

CSIRO Science Education Centre (CSIROSEC)

50. CSIRO operates a collection of nine Science Education Centres around Australia which are designed to alert school students, their families and teachers to the contribution of CSIRO and other scientific research to our community; encourage students to take up careers in science, engineering and technology; and engage, enthuse and educate students, teachers and the wider community about science and its applications. The purpose-built facilities proposed at the Ecosciences precinct will enable CSIROSEC's Brisbane Centre to achieve these objectives for young Queenslanders within its catchment area.

51. The above Divisions have significant involvement in the fulfilment of the objectives of the CSIRO National Research Flagships.

Queensland Department of Primary Industries and Fisheries (DPI&F)

52. DPI&F will transfer to the Ecosciences Precinct its groups concerned with Animal Sciences, Fisheries and Aquaculture; Bio-pesticides; Entomology; Forest Technologies; Horticulture/Forestry Management; Innovative Forest Products; Integrated Parasite Management; Management Groups (Animal Sciences) Market Access; Plant Pathology; Profitable Beef and Sheep Systems; Profitable Dairy, Pork and Poultry; Supply Chain; and Sustainable Intensive Systems.

Queensland Department of Natural Resources and Water (DNR&W)

53. NRW will transfer to the Ecosciences Precinct its groups concerned with Biocontrol; Pest Management Research; RCT Water Quality and Monitoring; Resource Condition and Trend;

Resource Processes; Resource Processes – Sustainable Land Management; Resource Processes PMR; Sciences Chemistry Centre and Sustainable Land Management; Management Groups; Water Quality and Monitoring.

Queensland Environmental Protection Agency (EPA)

54. The EPA is concerned with environmental planning and research that helps improve the environment and lessens the effects of people, their industries and their activities. It deals with a wide range of environmental matters including protecting air, water and soil quality, managing waste, preventing or controlling pollution, managing the State's coastline, and promoting sustainable industries. EPA will transfer to the Ecosciences Precinct its groups concerned with Air Sciences; Water Science; and Wildlife Ecology.

Queensland Department of Mines and Energy (DM&E)

55. DME will transfer to the Ecosciences Precinct its Queensland Geological Survey group.

5.2 Health and Food Sciences Precinct

Food Science Australia (FSA)

56. This joint-venture between CSIRO and the Victorian government is concerned with finding innovative solutions for the food industry in Australia and overseas. It seeks to support the profitability and sustainability of the industry and the well-being of the community, and to be the industry's principal source of expertise, objective opinion and knowledge. The group involved in this proposal is particularly concerned with beneficial and harmful micro-organisms associated with foods, with the biochemistry of muscle foods (meats and seafoods), and with the development of new food products and sensing and manufacturing technologies (utilising its pilot plant).

Department of Primary Industries and Fisheries

57. DPI&F will transfer its Innovative Food Technology group from a laboratory in Hamilton to the Precinct. The interests of this group are closely aligned with those of the Food Science Australia, with which it will be collocated. Negotiations are underway for Queensland DPI&F to join FSA

58. DPI&F will also transfer groups concerned with Animal Biosecurity to the Coopers Plains Precinct, namely DPI&F Corporate Support; Profitable Dairy, Pork and Poultry Nutrition and Biochemistry; Biosecurity Management/Inspectors; Biosecurity (Animal Health Pathology); Biosecurity Science Laboratory; Natural Toxin and Chemical Residue Laboratory; and Beef Breeding Services Bacteriology (Biosecurity)

Queensland Health

59. Queensland Health's groups concerned with animal microbiology, virology, and organic and product chemistry are likely to be the most directly involved in the activities of the Health and Food Sciences Precinct.

6.0 RESEARCH BENEFITS FROM CSIRO PARTICIPATION IN THE PROPOSAL

60. The research benefits of CSIRO participating in the proposal are seen to be as follows:

61. *Capitalising on Enabling Technologies.* The collocation of various CSIRO groups with their Queensland government partners will present new opportunities to share enabling technologies to revolutionise our capacity to deal with previously intractable challenges. Examples include developments in:

- the capability and affordability of instrumentation for sensing the physical and chemical environment (either remotely by satellite or by a network of ground or marine-based sensors);
- robotic, sensor web and other information and communication technologies;
- computing power and data storage capacity;

- the transmission and processing of the vastly increased flow of data in real time;
 - extracting knowledge and increased understanding from the new data;
 - simulating the performance of entire ecosystems rather than individual components or species through advanced spatial capability; and
 - condensing the results for web-based transmission to decision makers.
62. *Working Together.* The collaboration imperative underpins the development of science generally and that encompassed by this proposal. The complexity of the many challenges requires that individuals, groups, disciplines, and entire organisations collaborate more closely in order to make progress. At the same time, working together addresses the expressed needs of governments, industry, and the wider community to maximise the effectiveness of, and the returns from, their investments in knowledge and innovation systems. Collaboration is recognised as a crucial contributor to these objectives. Successful collaboration between CSIRO and its partners will result in a more internationally competitive Queensland and Australia.
63. *Focusing Effort and Harnessing Synergies.* As a comparatively small player on the global economic stage, Australia must focus its R&D collectively to positively affect the most important economic issues for the nation. Collocation of CSIRO and its partners will act as a catalyst for greater integration of planning and investment activities amongst key research providers of knowledge services. The synergy, and cost efficiency opportunities that will be provided by the proposed collocation of CSIRO groups and Queensland Government agencies are highly significant. The proposal will bring together a wider range and greater number of such groups than any other recent Australian collocation initiative.
64. *Opening New Science Frontiers.* The combination of significant and diverse intellectual capital within the two proposed precincts is also likely to result in further development of new science frontiers that will underpin the economic, environmental, and social future of Australia.
65. Although it is difficult at this point in time to predict what these fields will be, the harnessing of new synergies between the players in order to develop new capabilities could, for example, result in:
- multi-modal capture and integration of data (e.g. numerical, text, audio, image, and video data) to extract new information and understanding of system performance;
 - multi-scale modelling to relate phenomena that occur over a hierarchy of interconnected systems; and
 - modelling and optimising of complex non-linear and dynamic systems in real-time to provide essential predictive capacity and management support at the landscape scale.
66. In supporting Australia's pursuit of long-term prosperity, CSIRO needs to capitalise on the impressive list of benefits offered by this exciting proposal.

7.0 COLLABORATION AND SYNERGY

67. There are three principal ways in which physical collocation and sharing of facilities fosters innovation, focuses effort, increases cost effectiveness, and harnesses synergies. The first is concerned with chance. For example, a chance meeting in the lunch room with a scientist from another agency or disciplinary area can lead to a new line of investigation of an intractable problem or new collaboration across a disciplinary boundary. The two Precincts in this proposal have been specifically designed to maximise the opportunities for such productive chance interactions to occur. Hence, space for intellectual exchange and social encounter will be provided around the primary circulation systems of the buildings. This will draw staff from their workplace communities into a more public domain where settings ranging from informal (interaction areas, library and café) to more formal (meeting and seminar rooms) will be available.

68. The second is concerned with proximity. It is a well known fact that interaction between scientists is much greater where the distance between their offices is just a walk along a corridor rather than a car trip across several suburbs. Despite the ready availability of electronic communication, face-to-face interaction is generally superior to other forms, particularly at the early stages of development of a new idea or approach when serendipity may occur. Proximity is also an issue in the design of the Precincts. Collocation of scientists undertaking similar research and having similar laboratory needs, regardless of their parent organisation, is clearly both architecturally efficient and conducive to fostering collaboration.
69. The third way is concerned with participation in cross-cutting mechanisms such as Co-operative Research Centres, networks, partnerships and groupings. While each of the organisations and agencies that are coming together to collocate and share the facilities outlined in this proposal has its own internal organisational structures, their scientists are already involved in a multitude of collaborative and unifying mechanisms both within- and particularly across-organisations and agencies. Examples of such mechanisms and networks include:
- Australian Collaborative Rangeland Information System;
 - Biosecurity Queensland;
 - Cooperative Research Centres for Future Farm Industries, e-Water, and Australian Weed Management;
 - National Collaborative Ecosystem Research Network;
 - Queensland Centre for New Foods;
 - Queensland Climate Change Centre of Excellence;
 - South-east Queensland Water Alliance;
 - Terrestrial Ecosystem Research Network; and
 - Water Resources Observation Network.
70. Working together or collaborating is therefore a core concept in the design of both Precincts. Inter-agency laboratory workgroups have been identified and subdivided into functional scientific clusters based on chemistry, biology, and microbiology laboratory types. These would collocate scientists who are undertaking similar research and who have compatible laboratory requirements into a generic laboratory unit in which sharing of space and equipment is optimised. The workgroups of inter-agency participants are the basic organising unit for the Precincts as follows:

<i>Ecosciences Precinct Work Groups</i>	<i>Participants</i>
Plant and Insect Production/ Biosecurity	CENTO, NRW, DPI+F
Marine and Estuarine	CMAR, CLW, CSE, CMIS, DPI+F, NRW
Terrestrial computer modelling	CSE, CLW, EPA, NRW
Terrestrial laboratory-based	DPI+F, NRW
<i>Health and Food Precinct Work Groups</i>	<i>Participants</i>
Animal Biosecurity	DPI+F, QHSS
Health and Food	FSA, DPI+F, QHSS

8.0 CONSULTATION

71. CSIRO and the Queensland Government have agreed, as part of the arrangements for the KBRB Project, that Project Services within the Queensland Department of Public Works will manage the consultation procedures for the project.
72. The authorities and Departments listed in Annexure C have been contacted and/or consulted by CSIRO and its consultants during the preparation of this submission.

9.0 SITE

9.1 Proposed Sites and Facilities

73. The proposed CSIRO facilities will be an integral part of the Ecosciences Precinct (at Boggo Road) and Health and Food Science Precinct (at Coopers Plains) that will be established in conjunction with Queensland Government Agencies (Department of Primary Industries and Fisheries, Department of Natural Resources and Water, Department of Mines and Energy, Environment Protection Agency and Queensland Health).
74. The proposed CSIRO facilities will replace existing, substandard or outdated buildings scattered across 3 CSIRO sites in southeast Queensland, as part of CSIRO's continuing program to provide high-quality, modern accommodation appropriate for conducting current and anticipated scientific research and development activities.
75. The overall proposal is part of a major collocation of scientific and technological capabilities of CSIRO and Queensland Government groups, currently dispersed across 10 sites. This will achieve economies of scale and critical mass to focus on science that underpins the continued development of the Australian and Queensland economies.
76. The proposed Ecosciences Precinct (at Boggo Road) and Health and Food Science Precinct (at Coopers Plains) will be constructed and owned by the Queensland Government. CSIRO's Capital contribution will secure a 99 year lease within the facility.

9.2 Precinct Descriptions

77. The Ecosciences Precinct is to be located on Lot 3 of the proposed Boggo Road Urban Village in Dutton Park, South Brisbane, a site being redeveloped by the Queensland Government to include a mixture of residential, retail, commercial, and community uses. The Urban Village is optimally placed for public transport access, being adjacent to Park Road Railway Station which will be an integrated bus/train facility. This station is at the juncture of the Cleveland and Robina lines and is a Busway stop on the Green Bridge link between the city and The University of Queensland. The Urban Village is strategically located near the University of Queensland and the Princess Alexandra Hospital which are developing as major centres of scientific research.
78. The Ecosciences Precinct will house a total of approximately 1000 scientific, technical and support staff including approximately 260 CSIRO staff focussed on environmental issues. It will provide offices, laboratories, specialist facilities (including collections, and greenhouses, insectaries, quarantine containment and aquaculture facilities) and support facilities for the field and laboratory-based activity (including sample, boat and field gear storage, and central shared support facilities).
79. The Health and Food Precinct at Coopers Plains is located on the existing 550 person campus of Queensland Health Scientific Services, which comprises laboratory and support service buildings primarily in forensic and health sciences. It is adjacent to the QEII Hospital and Griffith University and is well serviced by major arterial roads. The proposal will locate an additional 218 persons including approximately 37 from CSIRO, focused on Health and Food, and Animal Biosecurity issues on the Coopers Plains campus. It will provide offices, laboratories and specialist facilities including PC3 laboratories, large animal necropsy laboratories and a food manufacturing pilot plant.
80. Current facilities at the Coopers Plains site consist of a complex of 6 internally connected blocks ranging from single to three level occupancies. A separate Police Annex and Bone Bank are located to the eastern end of the site. The primary site entry is from the north off Kessels Road with a secondary entry off the southern residential Middle Street. The site rises over 20m from the western end to the southeast corner. A Brisbane City Council designated waterway occupies the northern edge of the site. The combined additional facilities proposed for this site include 13,000m² GFA of structures and with additional carparking on grade.

81. The proposed facilities at both Precincts will also include amenity and support facilities to be shared with the various Queensland Government agencies. These will include a café at the Ecosciences site, reception, staff amenities, board rooms, conference and meeting room facilities, and information technology support.

10.0 ENVIRONMENTAL AND HERITAGE MANAGEMENT

82. The Ecosciences Precinct, as part of the Boggo Road Urban Village, has been the subject of detailed environmental and heritage assessments as part of the State Government and Brisbane City Council planning approvals process. No impediments have been identified for this site.
83. The Health & Food Precinct has also required detailed environmental and heritage evaluations through the relevant authorities. No impediments were identified at this site.
84. Consultation will continue with all levels of Queensland State Government authorities including the Environmental Protection Agency, Queensland Health (Radiation Health) and the Brisbane City Council to ensure all issues of environmental management are properly evaluated and implemented.
85. Contractor/s will be required to implement Environmental Management Plans during the construction phase to manage waste, noise, airborne pollutants and dust, erosion and storm-water control.
86. Environmental Management Plans consistent with AS/NZS ISO 14001:1996 will be developed for the post-occupancy management of the facilities.
87. Specific environmental management actions to be implemented will include:
- appropriate tree planting and landscaping adjacent to the building;
 - filtering and control of all storm water run-off to prevent any potential pollutants from reaching the adjacent rivers and water courses;
 - sound attenuation and vibration isolation within the new facilities to maintain acceptable noise and vibration limits on the site;
 - the dilution and treatment of non toxic, isotopic and liquid waste prior to discharge to sewer;
 - collection of wastes such as flammable liquids, oils and toxic liquids at the point of use in waste containers. The containers will be collected for disposal by a licensed industrial waste collector;
 - storage of hazardous goods in accordance with respective codes and standards; and
 - evaluation of airborne exhaust discharges to avoid impact on the environment.
88. A formal application under the EPBC Act will be lodged with the Environment Minister.

11.0 FACILITY CONCEPT

89. The proposal recognises the diversity of science to be undertaken and proposes a best-practice approach to laboratory design in the provision of a range of flexible and adaptable spaces that will facilitate future changes in research focus, group configuration, instrumentation and technology. Laboratories will be open, flexible and generic in nature with support laboratory facilities provided to meet specific functional requirements. Spaces will only be enclosed and separated where contamination, containment, quality or performance expectations demand it.
90. In the project-based research environment, interaction is vital to provide the stimulus and cooperation necessary for effective collaboration. The design will offer a working environment

that functions as a whole, encouraging interaction and formal and informal communications between individuals and research teams.

91. Large areas of glass between laboratories and circulation corridors, interaction areas clustered around nodes of movement or activity, open and light stairways, and spaces for display all promote the feeling of belonging to a collegiate community and encourage regular interaction and exchange of ideas.

11.1 Ambience in the Working Environment

92. The majority of non-laboratory accommodation will be located on an external wall to offer natural light and outlook. Profiled ceilings rising to outside walls and glazed internal laboratory walls will allow outlook from deep within the interior of the floor and maximise natural light within the buildings.
93. Extensive sun shading to laboratories will exclude direct sunlight and moderate glare. Internally glazed partitions will be used to enhance the sense of openness of the laboratories. Offices clustered along the edge of each lab unit will give adjacency to laboratories whilst encouraging interaction amongst staff.

11.2 Flexibility, Adaptability and Durability

94. Laboratory units will offer flexibility, with modular benching and shelving provided to respond to the particular organisations or user group preferences. Service spines will be separated from furnishings to allow ease of re-configuration of benches or mobile equipment trolley location.
95. The laboratory unit has been structured to allow adaptability to accommodate various laboratory, support core and office configurations. Non-structural partitioning will allow ease of laboratory unit re-configuration. The design is approached as a series of clearly articulated structural, circulatory and servicing systems to accommodate future change.

12.0 TECHNICAL SOLUTION

12.1 General

96. The Ecosciences Precinct forms part of the Boggo Road Urban Village that is currently the subject of an Application for a Preliminary Approval of a Material Change of Use (MCU) for a Structure Plan and Development Permit for Reconfiguration of a Lot to the Brisbane City Council. The Ecosciences Precinct will comprise Lot 3 within the development. A Town Planning application is required to be lodged once the MCU is approved. This process is in accordance with the Queensland Government *"Integrated Planning Act 1997"*.
97. The State has commenced the process of designating the Queensland Health Scientific Services campus as "Community Infrastructure" under the Queensland Integrated Planning Act 1997. Community meetings have been held as part of this process.
98. The Ecosciences Precinct will comprise a new 9 level Laboratory Complex of 3 interlinked blocks with a total gross floor area of 51,200m² of which approximately 13,000m² GFA will comprise the following CSIRO components:
- laboratories for ecology, biology, microbiology and chemistry;
 - plant and insect science facilities including greenhouses, insectaries, head house support facilities and a QC3 level quarantine containment facility;
 - marine science facilities including boat storage, sample processing, freezers, dive store, aquaculture tanks and workshops;
 - field support facilities including workshops, field gear storage and 4WD parking facilities;

- office space for modelling based research, staff and administrative support;
 - shared staff support facilities include a library, seminar rooms, meeting rooms, interaction areas, bicycle store and showers, and ICT;
 - shared central support facilities including wash-up, media prep, stores and goods receipt; and
 - car parking for 50 CSIRO fleet vehicles inclusive of 4WD field vehicles.
99. Associated site works include pot plots, ponds and a host garden for plant rearing and research together with landscaping a 3 level car park, independent of the building and site works, together with service infrastructure upgrades, road works and landscaping.
100. The Health and Food Sciences Precinct facilities will comprise 3 blocks connected to the QHSS laboratories to optimise sharing of facilities and scientific collaboration. KBRB will benefit from the use of existing QHSS facilities including auditorium, seminar rooms, and café. KBRB will contribute to the upgrade of the existing QHSS facilities to enable capacity to support KBRB including central wash-up, library, and central goods receipt. External car parking will be provided for 30 CSIRO vehicles. CSIRO will occupy approximately 2700m² GFA within the new development.
- Block 10 comprises a 4 level laboratory building with:
 - laboratories for food product development, microbiology and chemistry;
 - sensory testing booths and kitchen; and
 - support facilities including stores, bicycles, shower and lockers.
 - Block 11 comprises a single level Food Manufacturing Pilot Plant with mezzanine plant. This will be operated as a managed shared facility with DPI+F.
 - Block 12 comprises a single level microbiology lab that has no CSIRO occupancy.
101. The building designs will maximise opportunities for collaboration and interaction between resident and visiting scientists and provide flexibility in the use of the space, whilst maintaining efficiency in area and operation. Where possible laboratories are generic facilities to maximise flexibility and encourage integration of research scientists from the participating organisations.

12.2 Design and Construction Standards

102. Design of the facilities will be consistent with the general design philosophy for all CSIRO research accommodation, i.e. long term flexibility (multiple use of space), adaptability (easy conversion of layout) and simplicity of maintenance (with easily accessible services).
103. All buildings, services and external infrastructure shall comply with all relevant town planning, Commonwealth and State building, health and safety regulations and Acts, the Building Code of Australia and all relevant Australian Standards.
104. All contracts on the project will comply with the National Code of Practice for the Construction Industry, 1997 and the associated Industry Guidelines as well as the Federal Safety Commissioner.

12.3 Site Planning

Ecosciences Precinct

105. The Precinct is densely occupied by the proposed building which addresses the Boggo Rd frontage with the ground level entry from the north–west corner also opening onto the pedestrian spine to the west. The 3 blocks orientate to the north for optimal solar orientation.

The 3 basement levels link the 3 blocks into an integrated whole. Space for a future block is provided at the southern end of the site

Health and Food Sciences Precinct

106. Site Planning has been driven by the optimal location of facilities for scientific collaboration between QHSS and KBRB. Block 10 is linked to Block 1 at ground level to provide connection to the campus point of entry and security. It is also linked at upper levels to Block 2 for direct sharing with QHSS chemistry groups and to access the QHSS shared facilities. Block 10 is opposite the entry to the campus and will be the most prominent building on the campus.
107. Block 11 as a semi-industrial building connects directly into Block 10 to facilitate ease of movement between the pilot plant and office and lab facilities.
108. Block 12 connects with the Block 8 virology labs to allow direct interface of the microbiology laboratories and containment facilities.

12.4 Building Design Concept

Ecosciences Precinct

109. The following key points outline the building design concept.
- The 3 blocks are separated by courtyards that are protected by an enclosing perforated screen. The screen filters light, reduces glare and suspends the thermal load at high level off the facades as a key sustainability initiative. This will allow clear glass to be used in offices to maintain a high degree of transparency between blocks.
 - A Main Street from which all of the office and lab neighbourhoods are addressed links the 3 blocks internally. The Main Street is the interactive hub with kitchen and informal meeting and seating facilities on 3 levels to encourage staff out of their work areas into a collaborative interface with their peers. The staff support shopfront activities of bookable meeting rooms, library and ICT are also on the main street.
 - The foyer collects the publicly accessible areas of Café, Seminar Rooms and CSIROSEC. Beyond the secure barrier are the central passenger lifts and open stairs connecting the lab/office levels.
 - The laboratories are located to the north and south with offices focussed towards the centre. Circulation can occur between all office areas without passing through a laboratory.
 - Organisation of the research space is thematically based with scientists from different organisations collocated to optimise exchange of ideas and the sharing of equipment.
 - Basement levels are connected to the research floors by the goods lifts allowing goods distribution without passing through office levels.
 - A single roof datum holds all the greenhouses to ensure an efficient and integrated operation.

Health and Food Sciences Precinct

110. The following key points outline the building design concept:
- Building blocks are arranged to optimise functional connectivity to QHSS labs and support facilities;
 - Labs orientate to the south for optimal solar performance;
 - Offices are accessed without passing through laboratory spaces; and
 - Interaction space is located at the juncture of QHSS and KBRB circulation systems to encourage engagement between the scientific communities.

12.5 Geotechnical Conditions

111. The Ecosciences Precinct site geotechnical information available for the precinct indicates that at foundation level the ground conditions will allow the use of high level strip and pad footings over much of the building footprint, with a need for bored piers in the southeast corner of the site.
112. The Health and Food Sciences Precinct geotechnical information indicates that rock levels underlying the site dip downwards in a north westerly direction which will allow the use of high level strip and pad footings towards the southeast corner of the site for Block 12 whilst piled foundations or pads on mass concrete footings are likely to be required for Block 10, the three level laboratory and office building located adjacent to existing QHSS Block 2.

12.6 Structure, Services and Environment

113. For more detailed data on Structure, Engineering and Services – refer ANNEXURE A

12.7 Engineering Services Strategy

114. Each Precinct will be independent in its provision of central energy with chiller plant cooling towers, substations and generators. Vertical risers served by an upper level air handling plant will be a constant relative to the flexibility of internal partitioning systems in all occupied areas.
115. Roof level plant will be restricted to extraction systems, smoke spill, and cooling towers. Extraction fans will be located internally with space provision for future fume cupboards.
116. The major air handling plant elements will be located on an upper plant room level with risers supplying air to, and exhausts from, the serviced levels. Location of the risers at end of the blocks and centrally around the goods lift cores maximises flexibility of the floor plate planning and ensures outlook across the floor plate.
117. The servicing approach will establish clear and accessible pathways for distribution, maintenance and modification/addition of services. Ring main distribution systems above corridors to laboratory floors will facilitate ease of access and adaptability.

12.8 Building Form and Character

118. *Ecosciences Precinct*: The building expression comprises 3 blocks enveloped by a veil of protective sun-screening and separated by cool and shaded courtyards. The expression will be uniquely sub-tropical, reinforcing the commitment to sustainability.
119. *Health and Food Science Precinct*. The KBRB buildings are consistent with the scale and form of the existing campus. The expression will be of a contemporary research institution utilising contemporary materials with extensive use of glass protected by sunshading.

12.9 Facades and Sun Screening

120. Laboratory facades will comprise an expressed concrete frame with infill glazed wall system. This will be overlaid with a sunshading system designed to suit the orientation of each facade to exclude direct sunlight as required by laboratory codes. Extensive glazing will allow light penetration deep within the floor plate whilst the extent of shading will optimise thermal performance. A walkway system or roof based abseiling rail will be integrated with the sun shading to allow external window cleaning.
121. Office facades will also be sun-shaded but not to the same exclusion criteria as the laboratories.

12.10 Material, Finish and Fitting Selection

122. Materials, finishes and fittings will be selected for their life cycle cost efficiency, durability and minimisation of maintenance.

123. A concrete or masonry base will be used for the base of each building with a lightweight metallic panel and glazing system above.

13.0 ECOLOGICALLY SUSTAINABLE DESIGN AND ENERGY

124. In considering the design efficiencies of this building the principles espoused in the “*Energy Efficiency In Government Operations (EEGO) Policy*” have been considered.
125. The Department of the Environment and Water Resources Australian Greenhouse Office’s “*PWC - Submission Review Form*” has been submitted to the Australian Greenhouse Office.

Ecosciences Precinct and Health and Food Sciences Precinct.

126. *Energy Conservation Initiatives and Concepts:* The building concept supports ecologically sustainable design, based on a combination of passive and active design strategies.
127. *Passive Design Initiatives:* Generally both precincts’ passive design initiatives will be coordinated to minimise the quantum of energy that the buildings absorb from the environment, and thereby minimise the utilisation of electricity in removing that energy.
128. Primary passive solutions will be encompassed in the building form and orientation.
129. The mainly east-west axes will minimise exposure to major solar exposure. Large shaded glazed wall areas to the north and south will optimise outlook and the use of natural daylight for lighting in lieu of artificial light sources.
130. Facade construction will observe principles of high thermal resistance through concrete mass, or by using insulated lighter weight construction materials with insulation of air spaces. The facade will be a reactive device providing not only solar control and high thermal resistance, but also a well sealed system to avoid any air infiltration, which can have adverse affects on maintaining containment pressurisation levels in laboratories.
131. In the Ecosciences proposal the iconic Queensland verandah concept has been extended in the use of a series of external “rooms” between the tall building blocks where a horizontal and vertical drape of perforated screen mesh is being considered to allow the passage of light whilst limiting the intensity of the sun’s rays. The screen will allow rain to penetrate into the courtyards to water the landscape.
132. *Active Design Initiatives:* The design of plant will be based on optimum efficiency, sized and stepped in size to closely match the thermal response characteristics of the building, thereby allowing plant to operate at its most efficient operational positions.

The range of active engineering devices proposed are extensive, and include:

- high efficiency central chiller plant;
- low velocity multi zone air handling systems;
- direct digital building management system with external monitoring and control;
- highly zoned plant to allow “switching off” of unoccupied spaces as well as localised temperature setback zones;
- rainwater tanks for the collection of roof water run off;
- energy efficient lighting systems;
- daylight compensation lighting control systems around the perimeter of the building to reduce the reliance on artificial lighting systems;
- variable speed drives of fluid handling plant, such as fume cupboards, cooling towers, etc;
- high efficiency gas hot water systems;

- inherent flexibility and adaptability of building systems including logical and accessible servicing strategies, will be balanced against the objective of minimising capital cost; and
- life cycle cost and flexibility cost benefit evaluations will be undertaken on detailed elements through the design process.

133. These initiatives and measures are consistent with a continuing commitment by the Queensland Government and CSIRO to reduce energy use through the adaptation of more efficient energy management practices in the design and operation of facilities.

134. The new facilities will incorporate initiatives to minimise the impact on the environment. Such initiative will include:

- selection of materials with low volatile organic compound emissions and those of a proven sustainable manufacture;
- selection of materials of consideration of their embodied energy;
- module selection of building materials to minimise wastage;
- incorporation of water saving devices on hydraulic fittings and fixtures to reduce water consumption; and
- collection of roof rainwater.

14.0 BARRIER FREE ACCESS

135. All buildings will be designed to ensure equitable access for all persons with disabilities to meet the requirements of the relevant Australian Standards and the Building Code of Australia.

136. The provisioning of ramps, gradients and lifts will allow barrier free access to all areas, both for public and staff. The facility will be well serviced with accessible amenities to each level, the use of hearing loops and visual identifications will further enhance compliance.

15.0 OCCUPATIONAL HEALTH AND SAFETY

137. CSIRO pursues an active Health, Safety and Environment policy within the workplace and this will be extended to include all new facilities. Compliance with the Federal Safety Commissioner will be adhered to in all construction work, utilising accredited contractors as well as the implementation of safe design.

16.0 CHILD CARE PROVISIONS

138. The Queensland Government supports establishment of a private sector childcare centre within the Boggo Road Urban Village.

139. No childcare facilities are located on the Queensland Health Scientific Services campus.

17.0 LOCAL IMPACT

140. The proposal has been publicly supported by the Queensland Premier. The Ecosciences Precinct is in the electorate of the Queensland Deputy Premier and Minister for Infrastructure.

141. Construction activity will generate some noise which will be limited by statutory requirement at various stages such as ground works where earthmoving plant will be involved.

142. Traffic movement effects adjacent both precincts will be minimised through limitation on public/staff vehicular access with a significant increase in road and rail public transport facilities, and in the case of the Ecosciences Precinct direct access to University of Queensland via the Eleanor Schonnell Bridge (a "Green Bridge" providing bus, pedestrian and bicycle access).

143. The proposed Complex will have a positive effect on the local economy as:
- During the construction period, construction and associated industries will benefit with up to 700 persons working on the project at any one time (up to 2000 over the life of the project);
 - Post-construction benefits will result from the research and development opportunities generated through collaborative and technology transfer initiatives within the precincts; and
 - Opportunities will be provided for student interaction with the adjacent Universities.

18.0 COST

144. The indicative cost, exclusive of GST, for the CSIRO component of this proposal is \$85 million at March 2007 prices, inclusive of escalation costs, contingencies, all professional fees and authorities' charges.

19.0 FUNDING

145. Funding will be derived from the sale of 3 CSIRO sites with the balance of funding coming from CSIRO capital funds.
146. It is intended to dispose of three CSIRO Brisbane sites, being Indooroopilly, Cleveland and Cannon Hill to contribute to the funding of the Ecosciences and Food Sciences Precincts.

20.0 PROJECT DELIVERY

147. A Managing Contractor (MC) is expected to be appointed during the Design Development phase of the project to provide Design and Construction Management services, design and buildability expertise to the Design Development phase of the project.
148. The Queensland Department of Public Works will manage the MC on behalf of the project. The MC is responsible for and carries the risk of delivering the project at an agreed sum.
149. As the MC will arrange commencement of early trade packages and calling of competitive tenders, construction is able to be programmed to run in parallel with latter stage design packages, taking advantage of shorter construction time and defraying its associated escalation costs.
150. Tenders will be required to comply with the National Code of Practice (a Commonwealth Act pertaining to procedures and practices in the Building Industry) along with being accredited with the Federal Safety Commissioner.

21.0 PROGRAMME

151. Subject to Parliamentary approval (following examination by the Public Works Committee) it is proposed that early works packages be implemented for the Ecosciences Precinct to allow site establishment works to commence early in 2008.
152. Completion of construction is expected in 2009 for the Health and Food Sciences Precinct and in 2010 for the Ecosciences Precinct

22.0 CONCLUSION

153. CSIRO believes that collocation with the State government by way of the proposed works as described in this submission is the most appropriate, timely and cost effective way to provide consolidated accommodation for CSIRO in Brisbane.
154. The design properly reflects the CSIRO functional brief and will cater for future changes in research activities and priorities. The accommodation will provide safe and comfortable working conditions for CSIRO Research personnel, students and collaborator personnel.

155. CSIRO's consolidation within the Ecosciences and Food Sciences Precincts will secure its future within Queensland and provide solid foundation for CSIRO's capability nationally.

ANNEXURE A – STRUCTURE & SERVICES

A.1 Structure

Ecosciences Precinct.

156. Structure for the typical floor framing comprises post tension band beams spanning across the North and South Blocks with slabs in the transverse direction spanning across a typical 6.6 metre column grid which accommodates two 3.3 metre laboratory planning modules. For the Central Block, the proposed floor framing system comprises reinforced or post-tensioned slabs in the office area spanning between post-tensioned band beams on an 8.4 metre grid. An in-situ reinforced concrete beam and slab floor framing system is proposed in the interaction areas as well as near lift and stair shafts.
157. Stairs, lift and mechanical riser walls provide the lateral stability of the building. The proposed structural system is relatively stiff to minimise vibration to sensitive analytical equipment.
158. Pour strips are proposed in the north/south direction to break the post tensioned sections of the floor slab into lengths suitable for individual pours and stressing; and to separate post tensioned zones from stiff structural elements. This approach will allow elastic shortening to occur before connecting the floor to the core walls, thus minimising the effects of shrinkage and temperature induced movements.
159. Penetration provisions near column supports are included in the design of band beams to provide flexibility for services running in the laboratory area.

Health and Food Sciences Precinct.

160. The ground level floors will be largely slab on ground. Suspended floors will typically be either reinforced concrete, or post tensioned concrete band beams and slabs, flat slabs or flat plates.
161. Lateral stability of buildings is provided by stairs, lift and mechanical riser walls. The proposed structural system is relatively stiff to minimise vibration to sensitive analytical equipment.

A.2 Stormwater Drainage

Ecosciences Precinct.

162. In accordance with best drainage and environmental control practice, it is proposed that downstream defenders be installed where stormwater run-off from a car park is captured, prior to discharging from the piped network.
163. Rainwater harvesting tanks are proposed on Basement Level 3 on the western side of the building.
164. All proposed piped networks have been designed to cater for a Q10 (ten year) event.

Health and Food Sciences Precinct.

165. The existing stormwater pipes located under the proposed Precinct Block 10 and Block 11 will be relocated piped under the proposed road alignment and into the main swale to the north.
166. All proposed piped networks have been designed to cater for a Q10 (ten year) event.
167. Proposed rainwater tanks are to be installed on the site for collection of roof water run-off from Blocks 2, 10, 11 and 12.
168. It is proposed that downstream defenders be installed where stormwater run-off from a car park is captured, prior to discharging from the piped network in order to preserve water quality.

A.3 Sewer

Ecosciences Precinct.

169. Sewer is provided to the boundary of the site with capacity for the KBRB development.

Health and Food Sciences Precinct.

170. The existing Queensland Bone Bank is serviced by a 225mm diameter sewer main and connects to the existing system to the east of Block 2. This network is then piped to an existing treatment plant located to the west of Block 6.

171. Relocation of the existing pipework under the proposed Block 10 and Block 11 is required as the sewer conflicts with the proposed building locations. The relocation will provide multiple points for future connections from Block 10 and Block 11.

A.4 Mechanical Services

Ecosciences Precinct.

172. The Mechanical Services scope will include:
- air conditioning for comfort conditions in laboratories, support spaces, offices, meeting rooms, seminar rooms and interaction spaces;
 - general laboratory, laboratory support and office areas will utilise Variable Air Volume (VAV) systems;
 - cold and Freezer rooms and associated refrigeration plant;
 - central chilled water plant;
 - exhaust ventilation of toilets, stores, plant spaces, workshops, fume cupboards, hoods and specific laboratory equipment, central wash-up facility, miscellaneous stores;
 - laboratory exhausts from AQIS rated rooms;
 - sterilising equipment including steam generation plant;
 - laboratory gases systems, including compressed air and vacuum plant, natural gas, and other laboratory gas services;
 - reverse osmosis water to the laboratory sinks and central wash-up;
 - laboratory cooling water systems;
 - building management system incorporating automatic controls for the mechanical services systems; and
 - electrical works associated with the mechanical services systems.

Health and Food Sciences Precinct.

173. The Mechanical Services scope will include:
- air conditioning for comfort conditions in laboratories, support spaces, offices, meeting rooms and interaction spaces;
 - general laboratory support and office areas will utilise VAV systems;
 - air conditioning for specific conditions in controlled environment rooms, pilot plant areas and other specialised laboratory spaces;
 - cold and freezer rooms and associated refrigeration plant;
 - central chilled water plant;
 - exhaust ventilation of toilets, stores, plant spaces, fume cupboards, hoods and specific laboratory equipment;

- laboratory exhausts from PC3 areas will include HEPA filtration in accordance with code requirements;
- sterilising equipment including steam generation plant;
- laboratory gases systems, including compressed air and vacuum plant, natural gas, and other laboratory gas services;
- reverse osmosis water to the Pilot Plant Areas;
- building management system incorporating automatic controls for the mechanical services systems; and
- electrical works associated with the mechanical services systems.

A.5 Electrical Services

Ecosciences Precinct.

174. The Electrical Services for the development will include the following:
- incoming HV Supply cabling from the Energex HV network;
 - indoor high voltage substations by Energex;
 - low voltage switch rooms;
 - standby diesel generator system;
 - low voltage main switchboards;
 - essential and non-essential sub-main distribution;
 - essential and non-essential distribution boards;
 - Uninterruptible Power Supply (UPS);
 - dedicated ICT Data Centre Uninterruptible Power Supply for critical equipment;
 - filtering and surge suppression;
 - final sub-circuits;
 - lighting;
 - specialist lighting in some research areas, security and the landscape;
 - emergency and exit lighting;
 - general power;
 - earthing;
 - lightning protection;
 - electromagnetic interface;
 - circuit referencing; and
 - interface with the building management system (BMS).

Health and Food Sciences Precinct.

175. The electrical services for the development will include the following:
- incoming HV Supply cabling from the QHSS Energex HV switch room;
 - QHSS HV system modifications;
 - high voltage incoming supply;
 - indoor high voltage substation;

- low voltage switch rooms;
- standby diesel generator system provision;
- low voltage main switchboards;
- essential, non-essential and UPS sub main distribution;
- essential, non-essential and UPS distribution boards;
- dedicated central uninterruptible power supplies (UPS);
- filtering and surge suppression;
- final sub-circuits;
- lighting;
- specialist lighting in some research areas;
- emergency and exit lighting;
- general power;
- earthing;
- lightning protection;
- electromagnetic interface;
- circuit referencing; and
- interface with the building management system (BMS).

A.6 Lift Services

Ecosciences Precinct

176. At the Ecosciences Precinct, the building configuration of two laboratory blocks, communicating with a central administration block is ideally planned to incorporate central passenger lifts at the pivot point of traffic flow and the provision of goods lifts within the laboratory blocks.

Health and Food Sciences Precinct.

177. The lift services solution for the Health and Food Sciences Precinct has been based on serving the low rise building Block 10 with a passenger lift and a goods lift to provide for the vertical transportation needs of the building occupants.

A.7 Hydraulic Services

Ecosciences Precinct & Health and Food Sciences Precinct.

178. The hydraulic services works will include:

- house drainage and sanitary plumbing;
- laboratory waste house drainage and laboratory waste sanitary plumbing;
- treatment of laboratory waste as required;
- downpipes both internal and external to the building;
- stormwater drainage from the base of downpipes to Civil trunk mains connection;
- cold water service reticulation including potable and non-potable water supplies; and
- hot water service including potable and non-potable reticulation and required heating plant.

179. At the Health and Food Sciences Precinct the treatment of PC3 laboratory waste will be undertaken in accordance with building standards and regulatory compliances.

A.8 Fire Services

Ecosciences Precinct.

180. The fire services for the redevelopment will include the following:
- fire services water supply to the site;
 - fire services pumps;
 - fire brigade booster facilities;
 - connection to site fire alarm monitoring system;
 - automatic fire sprinkler system;
 - fire detection system;
 - emergency warning and intercommunication system;
 - fire hydrant and hose reel system;
 - portable fire extinguishers; and
 - gaseous fire suppression system to specialist research facilities.

Health and Food Sciences Precinct.

181. The fire services for the redevelopment will include the following:
- fire services water reticulation modifications, demolition and diversions;
 - connection of new sub fire indicator panels to existing site fire alarm monitoring system;
 - fire detection system to new buildings 10, 11 and 12;
 - emergency warning and intercommunication system;
 - fire hydrant and hose reel system additions and modifications; and
 - portable fire extinguishers to new buildings 10, 11 and 12.

A.9 Communications and Security

Ecosciences Precinct & Health and Food Sciences Precinct.

182. The communications and security works for the Ecosciences Precinct at Boggo Road and the Health and Food Sciences Precinct at Coopers Plains are inclusive of the following services elements:
- communications cabling infrastructure;
 - wireless technologies;
 - paging and public address systems;
 - MATV systems;
 - electronic access control systems;
 - duress alarm systems;
 - CCTV surveillance systems;
 - intercommunications systems; and
 - audio visual systems for seminar and meeting rooms.

183. Design Principles: The design principles for the sites are based upon common infrastructure that can be utilised by all agencies and encouraging collaboration.
184. Electronic Security, Duress, Access Control:
- Electronic Security shall be provided throughout the facility for the purposes of:
 - staff safety;
 - preventing unauthorised access;
 - monitoring access;
 - incident recording;
 - prevention of damage to property; and
 - security of expensive or sensitive material.
 - Access Control: Electronic Proximity Card Readers and Electric Door Locking will be provided to staff only areas to prevent unauthorised access
 - Duress Alarms: Duress points will be provided at public/staff interface points and at locations where staff may be isolated and vulnerable.
 - The security systems to be provided for the Health and Food Sciences Precinct shall be of a type to match the existing facilities and allow integration of the buildings into the campus strategy for security services and management.

A.10 Roadworks and Carparking

Ecosciences Precinct.

185. Access to the site will be from East St. Swept path analyses have been carried out to verify that the proposed basement, loading dock, manoeuvring areas and access driveways are geometrically suitable for the various design vehicles.

Health and Food Sciences Precinct.

186. The proposed internal road and carpark configuration is designed to provide efficient vehicular circulation within the site whilst providing car park spaces on grade for staff.

A.11 Landscaping

Ecosciences Precinct.

187. The Ecosciences Precinct will sit within and relate to the plan for the adjacent areas which will contain landscape elements comprising a paved boulevard contiguous to the west of the Ecosciences Precinct and with streetscape and plantings proposed on the south east and north of the site.
188. Site Landscape: The site landscape comprises:
- landscape on structure (building courtyards);
 - general perimeter landscape; and
 - plantings of host and other plants for use by science research personnel with provision for storage of individual pots and ponds.

Health and Food Sciences Precinct.

189. The landscape component for the proposed development comprises:
- retention and protection of the existing forest and other vegetation;
 - revegetation of areas disturbed by the construction and the realigned road and new car parks;
 - transplantation of specified existing plants within the site to be redeveloped; and

- development of the landscape court between the new Building 10 and existing Building Block 2, together with the redevelopment of the planting to the front entrance of the facility.

A.12 Acoustic Considerations

Ecosciences Precinct.

190. The design of the building will ensure that the following conditions are achieved:
- environmental noise emissions from the building will be controlled to meet the noise criteria established in the site development application;
 - the building envelope will be designed to control noise intrusion from rain, traffic, and wind;
 - the internal partitions, floors, and ceilings, will be designed to control internal noise transfer from plant rooms to occupied spaces, and to achieve appropriate levels of speech privacy; and
 - the vibration isolation for mechanical and electrical plant will be designed to meet the vibration requirements of the electron microscope.

Health and Food Sciences Precinct.

191. The design of the building will ensure that the following conditions are achieved:
- environmental noise emissions from the building will be controlled to meet the noise criteria applicable to the site, which were established in accordance with Brisbane City Council requirements;
 - the building envelope will be designed to control noise intrusion from rain, traffic, and wind; and
 - the internal partitions, floors, and ceilings, will be designed to control internal noise transfer from plant rooms to occupied spaces, and to achieve appropriate levels of speech privacy.

ANNEXURE B - ASSOCIATED DRAWINGS

Region

Regional Location Plan (Sheet 1-29)

Ecosciences Precinct Drawings

Site Plan (Sheet 2-29)

Aerial View from Boggo Road (Sheet 3-29)

Basement 3 (Sheet 4-29)

Basement 2 (Sheet 5-29)

Basement 1 (Sheet 6-29)

Ground – Floor Plan (Sheet 7-29)

Level 1 – Floor Plan (Sheet 8-29)

Level 2 – Floor Plan (Sheet 9-29)

Level 3 – Floor Plan (Sheet 10-29)

Level 4 – Floor Plan (Sheet 11-29)

Level 5 – Floor Plan (Sheet 12-29)

Elevations – North, East (Sheet 13-29)

Elevations – South, West (Sheet 14-29)

Section C, Section D, (Sheet 15-29)

Section F, Section G, (Sheet 16-29)

South East Courtyard View (Sheet 17-29)

Perspective View from North-East (Sheet 18-29)

Health and Food Sciences Precinct Drawings

Site Plan (Sheet 19-29)

View from NE Corner of Site (Sheet 20-29)

Level 0 – Floor Plan (Sheet 21-29)

Level 1 – Floor Plan (Sheet 22-29)

Level 2 – Floor Plan (Sheet 23-29)

Level 3 – Floor Plan (Sheet 24-29)

Elevations – Block 10 - North, South, East, West (Sheet 25-29)

Sections – Block 10 - A, B, C (Sheet 26-29)

Elevations and Sections – Block 11 (Sheet 27-29)

View from NW Corner (Sheet 28-29)

Perspective from North East Corner of Site (Sheet 29-29)

ANNEXURE C - CONSULTATIONS

Commonwealth Government

Department of Agriculture, Fisheries and Forestry	The Secretary, Ms Joanna Hewitt
Department of Communications, Information Technology and the Arts	The Secretary, Ms Helen Williams
Department of Education Science and Training	The Secretary, Ms Lisa Paul
Department of Employment and Workplace Relations	The Secretary, Mr Peter Boxall
Department of Families, Community Services and Indigenous Affairs	The Secretary, Dr Jeff Harmer
Department of Foreign Affairs and Trade	The Secretary, Mr Michael L'Estrange
Department of Industry, Tourism and Resources	The Secretary, Mr Mark Peterson
Department of Environment and Water Resources	The Secretary, Mr David Borthwick
Department of Transport and Regional Development	The Secretary, Mr Michael Taylor
Department of Environment and Water Resources: Building Energy Efficiency and Sustainability Australian Greenhouse Office	The Director, Dr Tony Marker
Department of Health and Ageing Office of the Gene Technology Regulator (OGTR)	The Regulator, Dr Sue Meek
Department of Agriculture, Fisheries and Forestry Australian Quarantine and Inspection Service (AQIS)	The Deputy Secretary & Executive Director, Mr Steven Hunter

State and Local Government

Workplace Health and Safety Queensland Queensland Department of Health	The General Manager, Ms Judy Bertram Office of the Director-General, Ms Uschi Schreiber
Queensland Fire and Rescue Service	The Commissioner, Mr Lee Johnson
Queensland Transport	Office of the Director-General, Mr Bruce Wilson
Queensland Department of Public Works - Project Services	The General Manager, Mr Don Rivers

Federal, State and Local Members

LOCAL MEMBERS:

Brisbane City Council
Dutton Park Ward Office

Mr Campbell Newman, Lord Mayor
Cr Helen Abrahams

STATE MEMBERS:

Member for South Brisbane
Member for Cleveland
Member for Indooroopilly
Member for Bulimba

The Hon Anna Bligh, MP
Mr Phillip Weightman, MP
Mr Ronan Lee, MP
The Hon Patrick Purcell, MP

FEDERAL MEMBERS:

Member for Griffith
Member for Moreton
Member for Ryan
Member for Brisbane

Mr Kevin Rudd, MP
The Hon Gary Hardgrave, MP
Mr Michael Johnson, MP
The Hon Arch Bevis, MP

Universities

The University of Queensland

Office of the Vice-Chancellor, Professor John Hay

Queensland University of Technology

Vice Chancellor's Office, Professor Peter Coaldrake

Griffith University

Office of the Vice Chancellor, Professor Ian O'Connor

Other Organisations

Energex Ltd

The Chief Executive Officer

Telstra Corporation Ltd

The Chief Executive Officer

Queensland Master Builders Association

The Chief Executive Officer

CSIRO Division of Community Public Sector Union (CPSU)

The Regional Director, Mr Bill Marklew

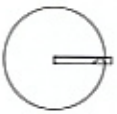
Various local resident groups for both the Ecosciences and Health & Food Precincts.



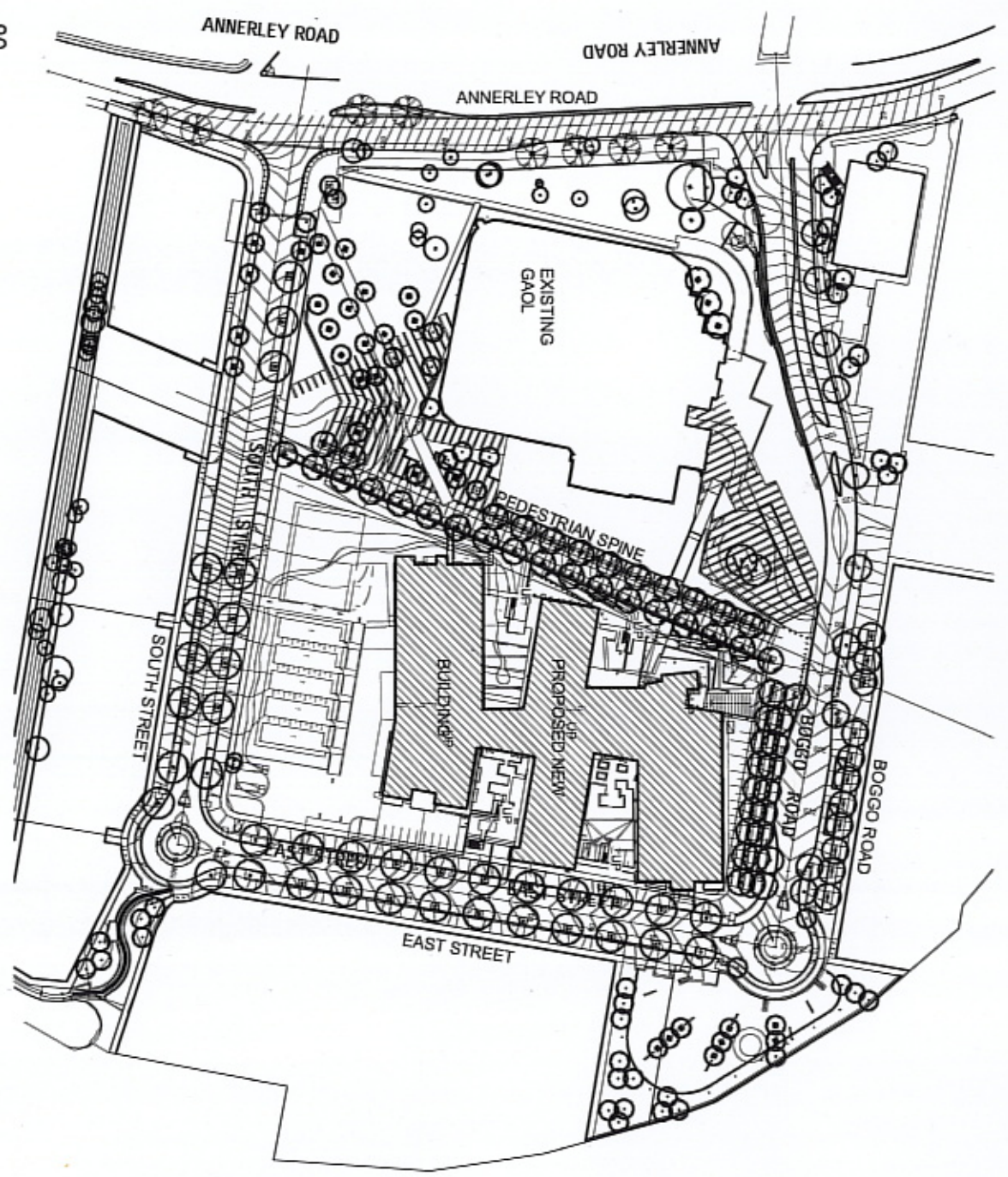
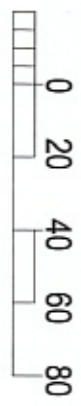
REGIONAL LOCATION PLAN

KBRB Ecoscience Precinct - BOGGGO RD





SITE PLAN



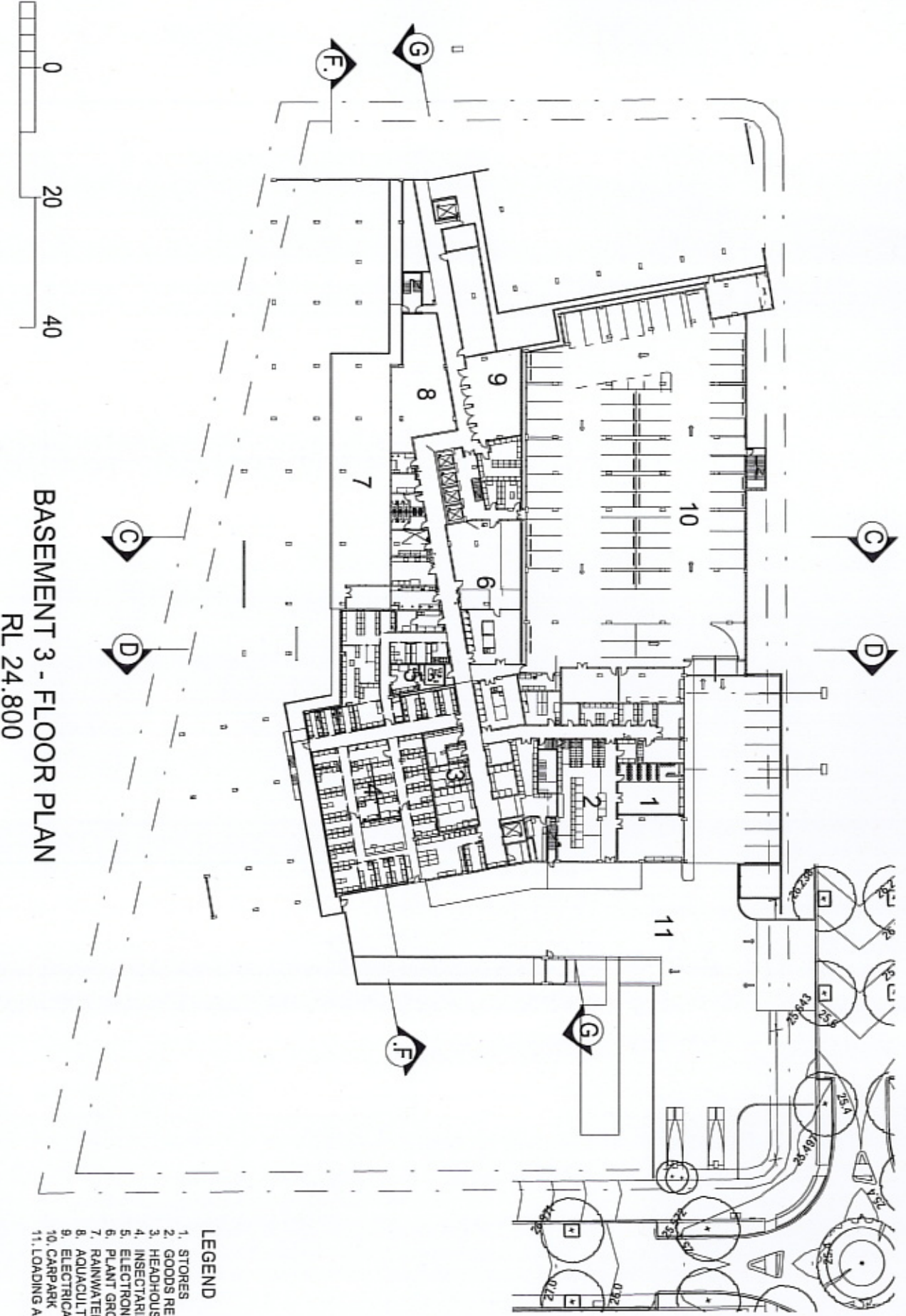


AERIAL VIEW FROM BOGGO ROAD



KBRB Ecosciences Precinct - BOGGO RD





BASEMENT 3 - FLOOR PLAN
RL 24.800

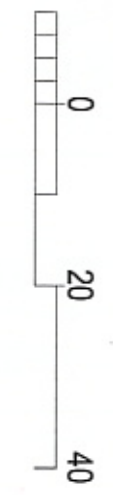
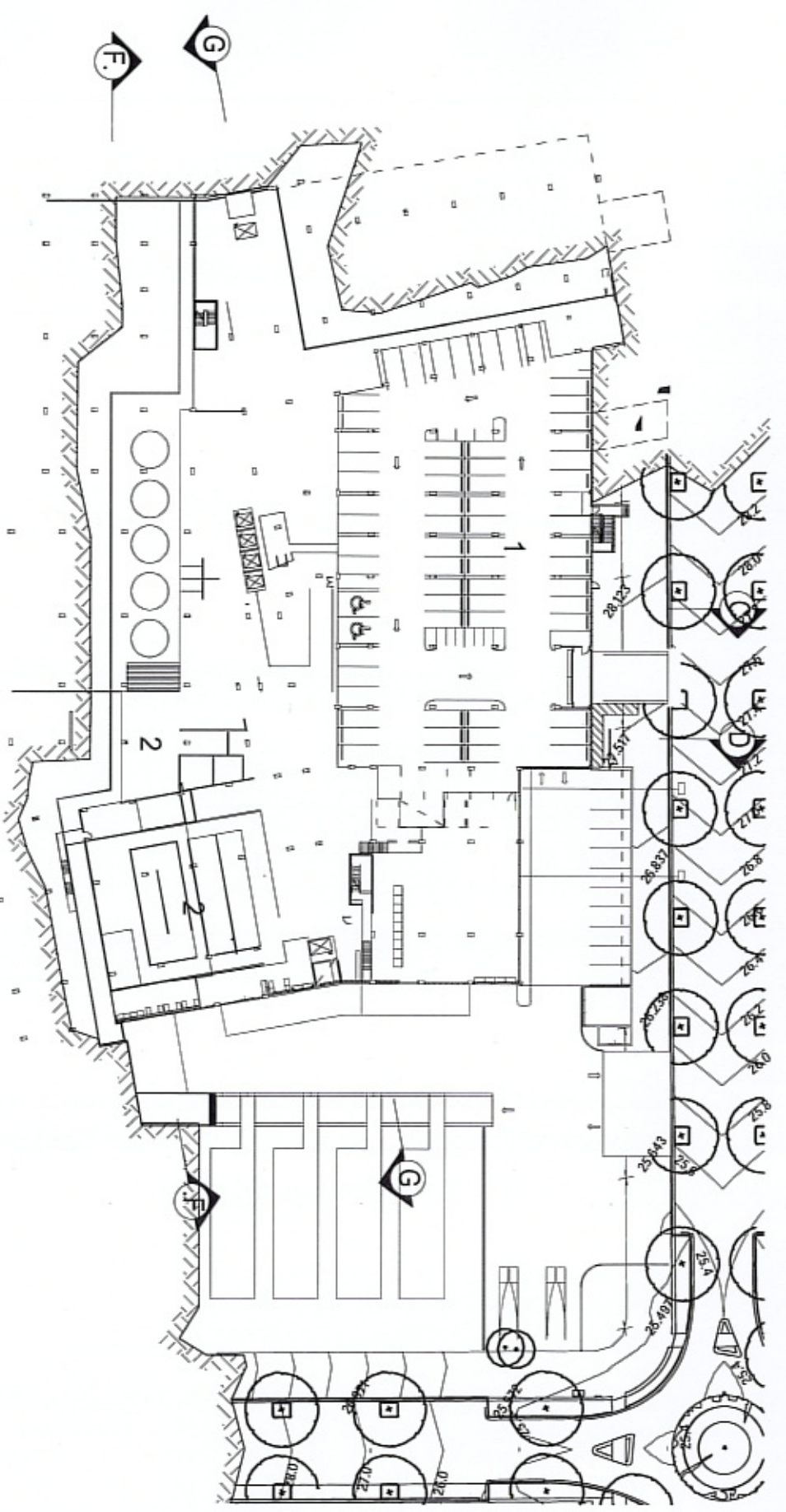
- LEGEND**
- 1. STORES
 - 2. GOODS RECEIPT
 - 3. HEADHOUSE
 - 4. INSECTARIES
 - 5. ELECTRON MICROSCOPE
 - 6. PLANT GROWTH CABINETS
 - 7. RAINWATER STORAGE TANKS
 - 8. AQUACULTURE PLANT
 - 9. ELECTRICAL PLANT
 - 10. CARPARK
 - 11. LOADING AREA



KBRB Ecosciences Precinct - BOGGGO RD



Sheet 4-29



BASEMENT 2 - FLOOR PLAN
RL 27.500

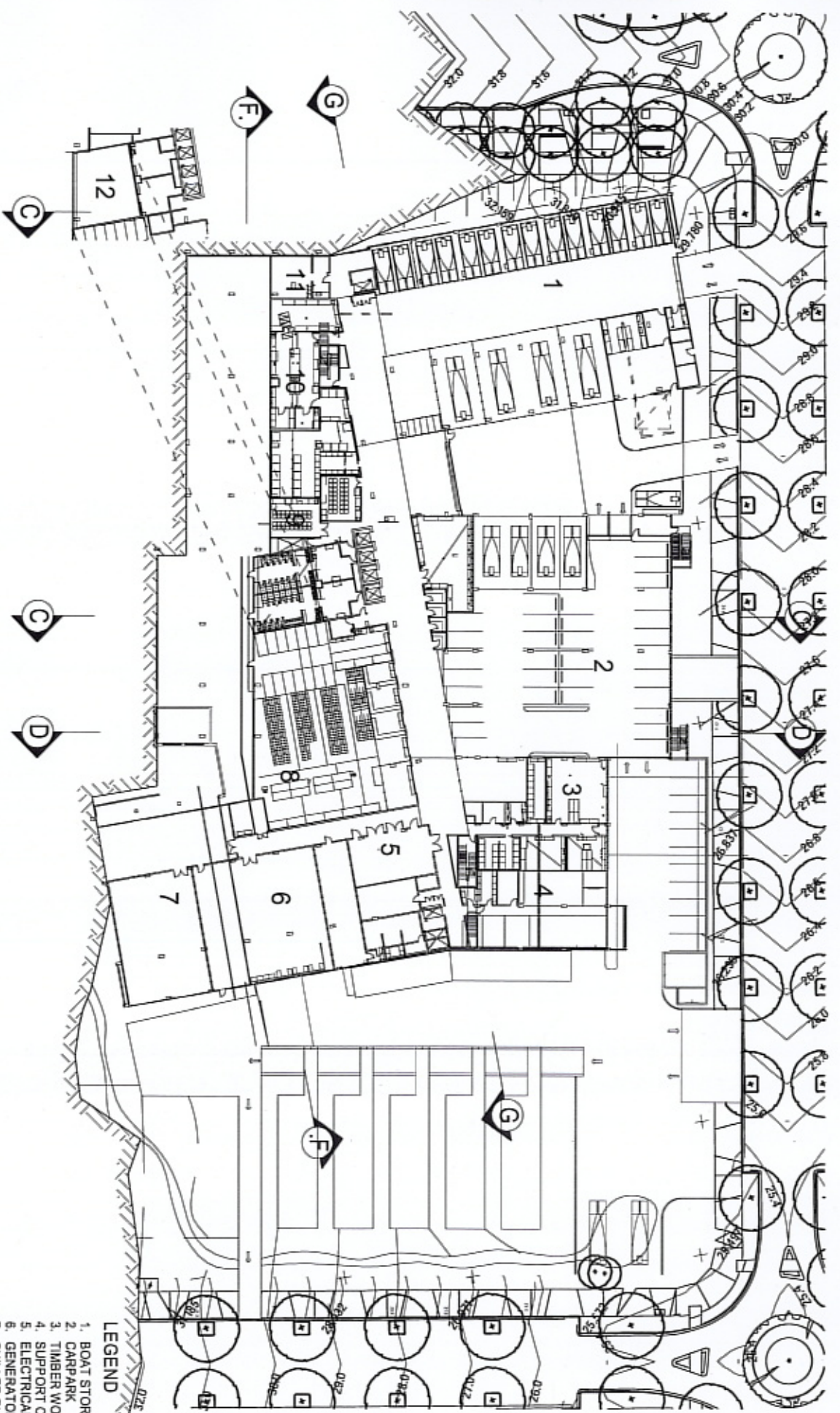


- LEGEND
- 1. CARPARK
 - 2. MECHANICAL PLANT TO PLATFORM ABOVE



KBRB Ecosciences Precinct - BOGGO RD





BASEMENT 1 - FLOOR PLAN
 RL 30.200

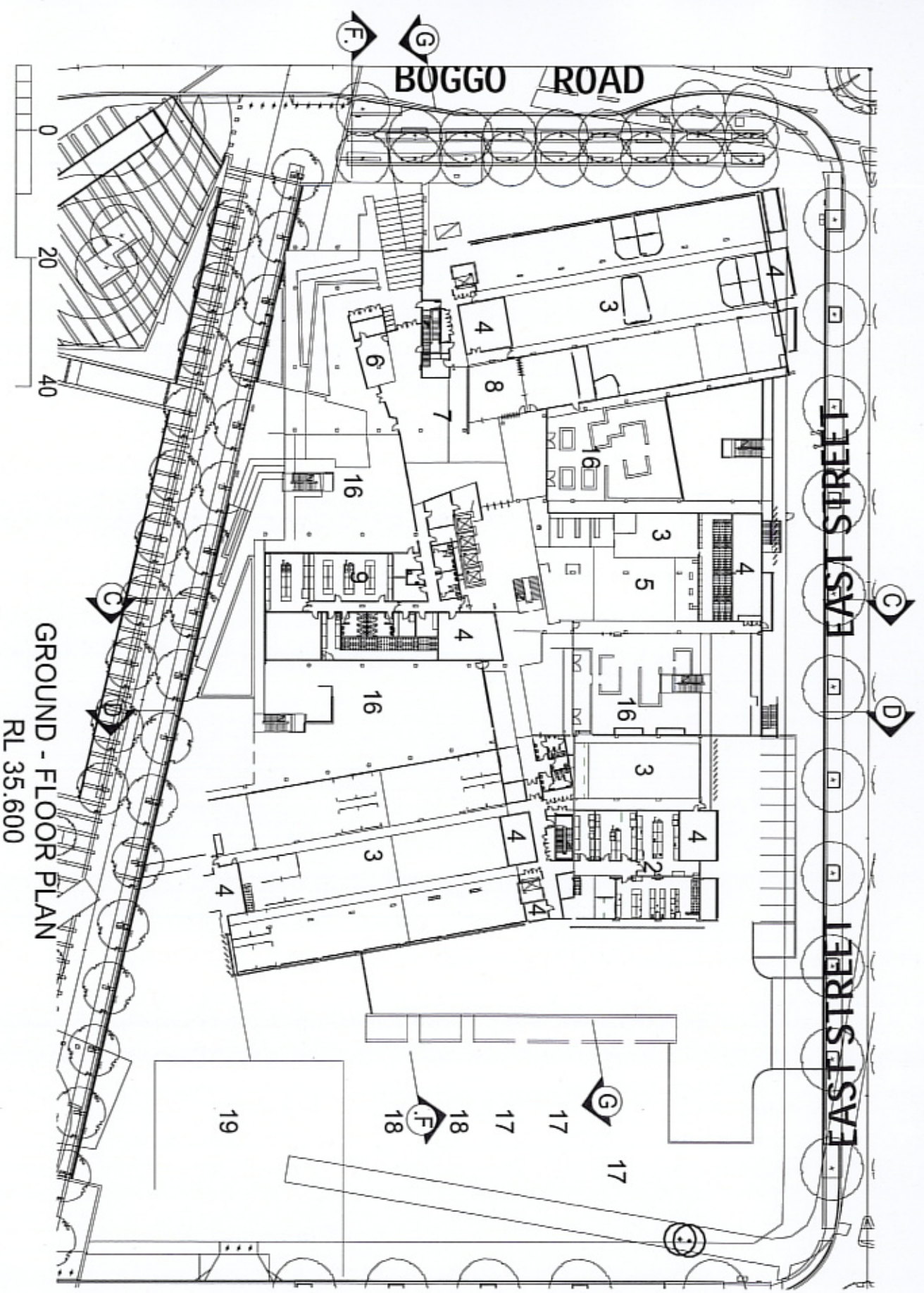
- LEGEND**
- 1. BOAT STORAGE
 - 2. CARPARK
 - 3. TIMBER WORKSHOP
 - 4. SUPPORT OFFICES
 - 5. ELECTRICAL PLANT
 - 6. GENERATORS
 - 7. CHILLER PLANT
 - 8. FIELD GEAR STORE
 - 9. AQUACULTURE TANKS
 - 10. MARINE PROCESSING
 - 11. DIVING STORE
 - 12. SERVICES PLANT ON MEZZANINE



KBRB Ecosciences Precinct - BOGGO RD



Sheet 6-29



GROUND - FLOOR PLAN
RL 35.600

- LEGEND**
- 1. CENTRAL SUPPORT
 - 2. LAB
 - 3. OFFICE
 - 4. SERVICES
 - 5. LIBRARY
 - 6. CAFE
 - 7. FOYER
 - 8. SEMINAR
 - 9. CSIROSEC
 - 10. INTERACTION MEETING ROOM
 - 11. ICT
 - 12. WASH UP
 - 13. MEDIA PREPERATION
 - 14. LIBRARY STORE
 - 15. ARCHIVE
 - 16. COURTYARD
 - 17. POT PLOTS
 - 18. PONDS
 - 19. HOST GARDEN
 - 20. GLASS HOUSES
 - 21. SHADE HOUSE



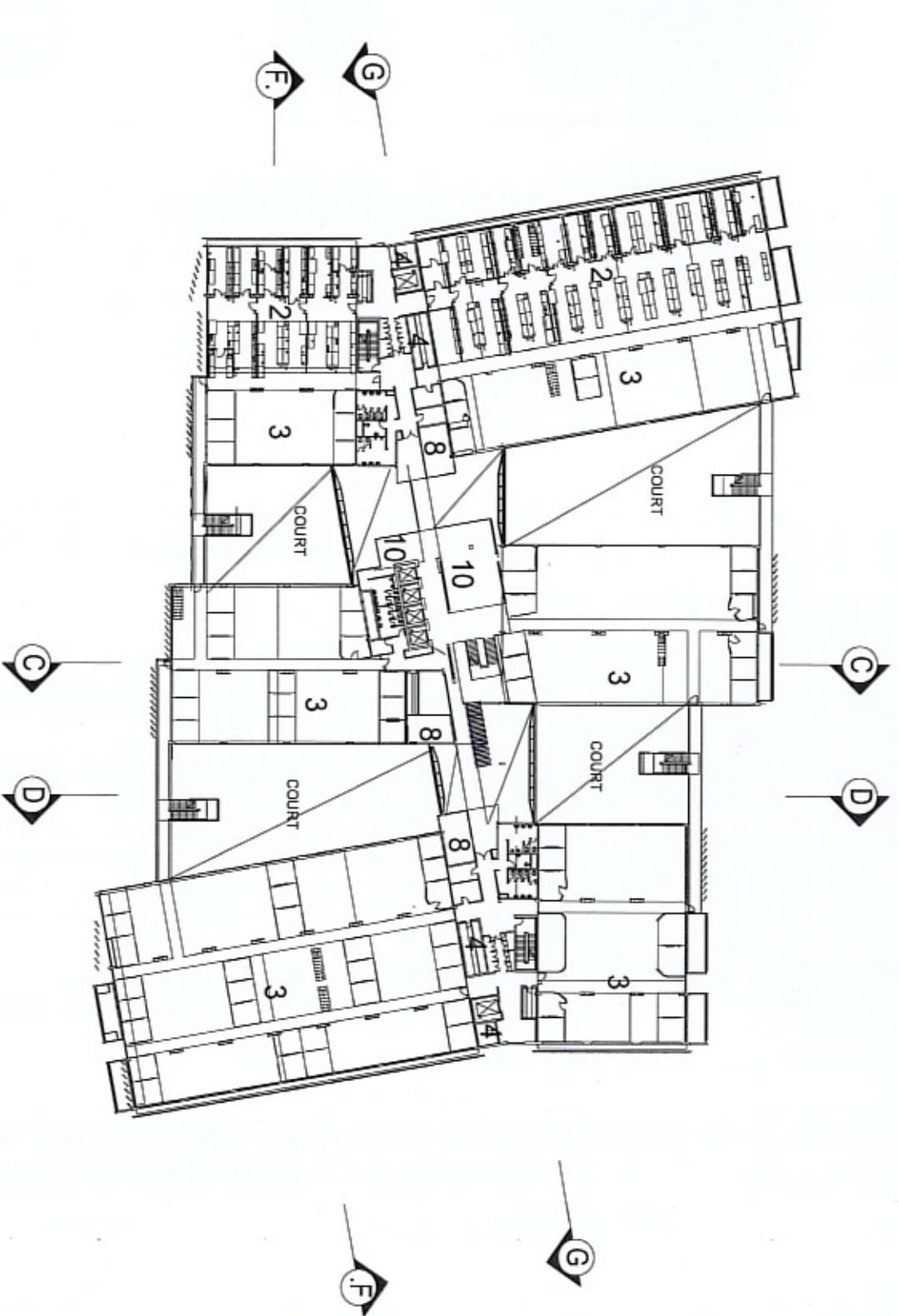
Queensland
Government

KBRB Ecosciences Precinct - BOGGGO RD



CSIRO

Sheet 7-29



LEVEL 1 - FLOOR PLAN
RL 40.100

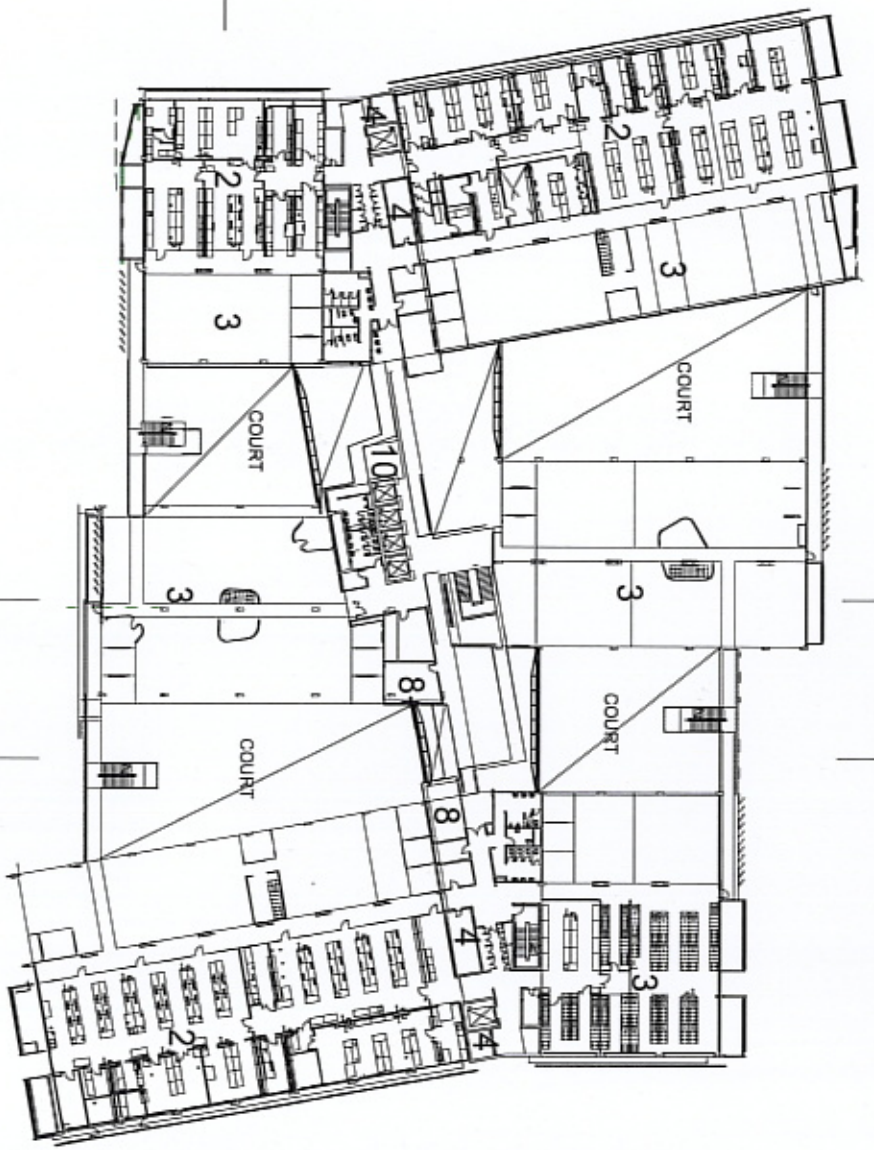
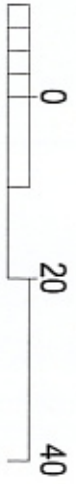


KBRB Ecosciences Precinct - BOGGO RD

LEGEND

1. CENTRAL SUPPORT
2. LAB
3. OFFICE
4. SERVICES
5. LIBRARY
6. CAFE
7. FOYER
8. SEMINAR
9. CSIROSEC
10. INTERACTION MEETING ROOM
11. ICT
12. WASH UP
13. MEDIA PREPERATION
14. LIBRARY STORE
15. ARCHIVE
16. COURTYARD
17. POTT PLOTS
18. PONDS
19. HOST GARDEN
20. GLASS HOUSES
21. SHADE HOUSE



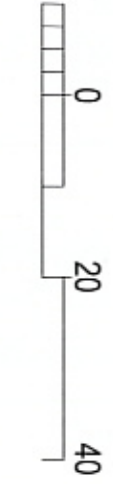
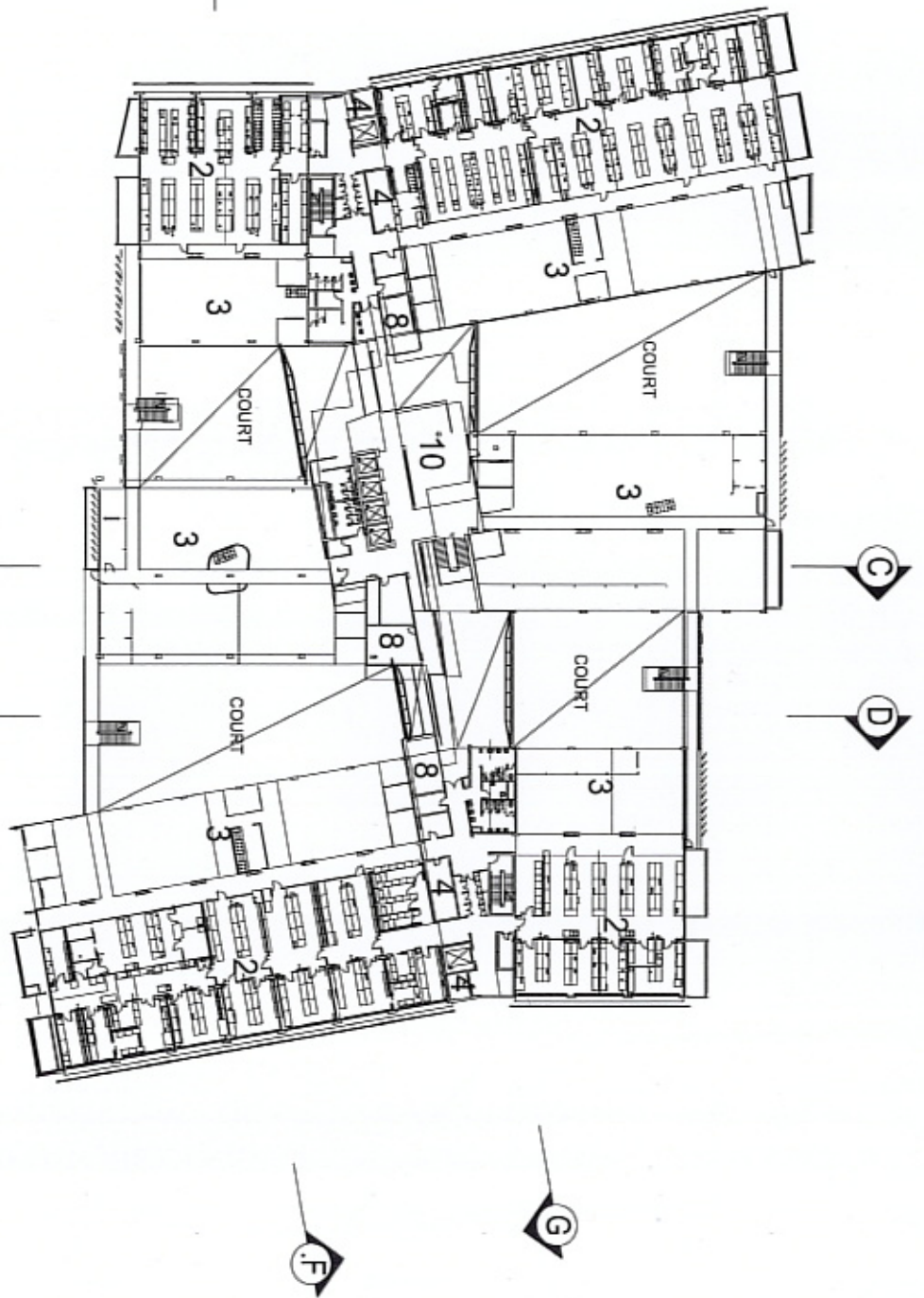


LEVEL 2 - FLOOR PLAN
RL 44.600

KBRB Ecosciences Precinct - BOGGO RD

- LEGEND**
- 1. CENTRAL SUPPORT
 - 2. LAB
 - 3. OFFICE
 - 4. SERVICES
 - 5. LIBRARY
 - 6. CAFE
 - 7. FOYER
 - 8. SEMINAR
 - 9. CSIROSEC
 - 10. INTERACTION MEETING ROOM
 - 11. ICT
 - 12. WASH UP
 - 13. MEDIA PREPERATION
 - 14. LIBRARY STORE
 - 15. ARCHIVE
 - 16. COURTYARD
 - 17. POT PLOTS
 - 18. PONDS
 - 19. HOST GARDEN
 - 20. GLASS HOUSES
 - 21. SHADE HOUSE





LEVEL 3 - FLOOR PLAN
RL 49.100

KBRB Ecosciences Precinct - BOGGO RD

LEGEND

- 1. CENTRAL SUPPORT
- 2. LAB
- 3. OFFICE
- 4. SERVICES
- 5. LIBRARY
- 6. CAFE
- 7. FOYER
- 8. SEMINAR
- 9. CSIROSEC
- 10. INTERACTION MEETING ROOM
- 11. ICT
- 12. WASH UP
- 13. MEDIA PREPERATION
- 14. LIBRARY STORE
- 15. ARCHIVE
- 16. COURTYARD
- 17. POT PLOTS
- 18. PONDS
- 19. HOST GARDEN
- 20. GLASS HOUSES
- 21. SHADE HOUSE

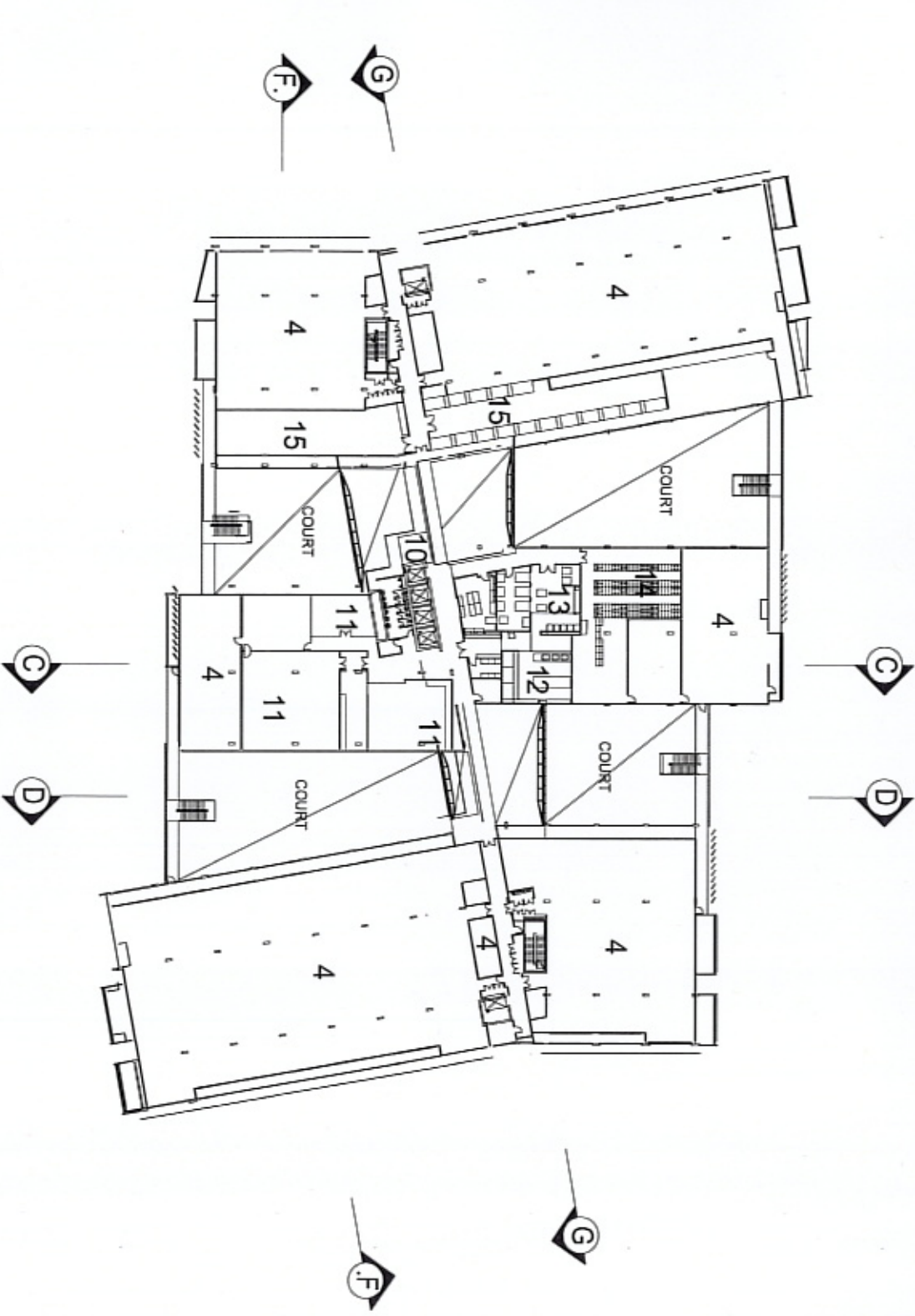


CSIRO

Sheet 10-29



Queensland
Government



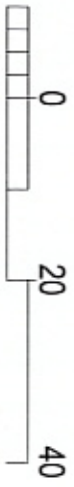
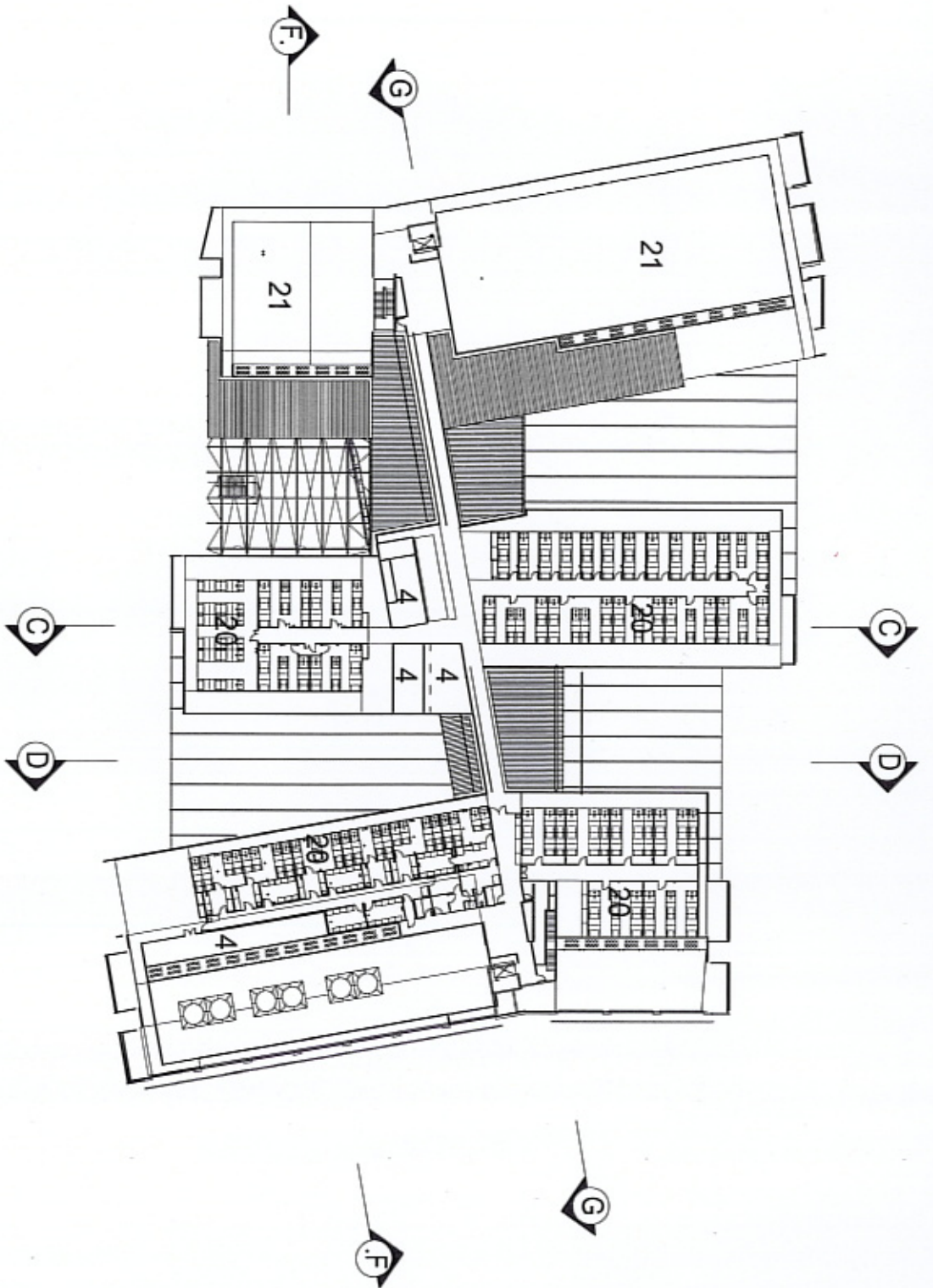
LEVEL 4 - FLOOR PLAN
RL 53.600



KBRB Ecosciences Precinct - BOGGO RD

- LEGEND**
- 1. CENTRAL SUPPORT
 - 2. LAB
 - 3. OFFICE
 - 4. SERVICES
 - 5. LIBRARY
 - 6. CAFE
 - 7. FOYER
 - 8. SEMINAR
 - 9. CSIROSEC
 - 10. INTERACTION MEETING ROOM
 - 11. ICT
 - 12. WASH UP
 - 13. MEDIA PREPERATION
 - 14. LIBRARY STORE
 - 15. ARCHIVE
 - 16. COURTYARD
 - 17. POT PLOTS
 - 18. PONDS
 - 19. HOST GARDEN
 - 20. GLASS HOUSES
 - 21. SHADE HOUSE





LEVEL 5 - FLOOR PLAN (ROOF)
RL 58.100

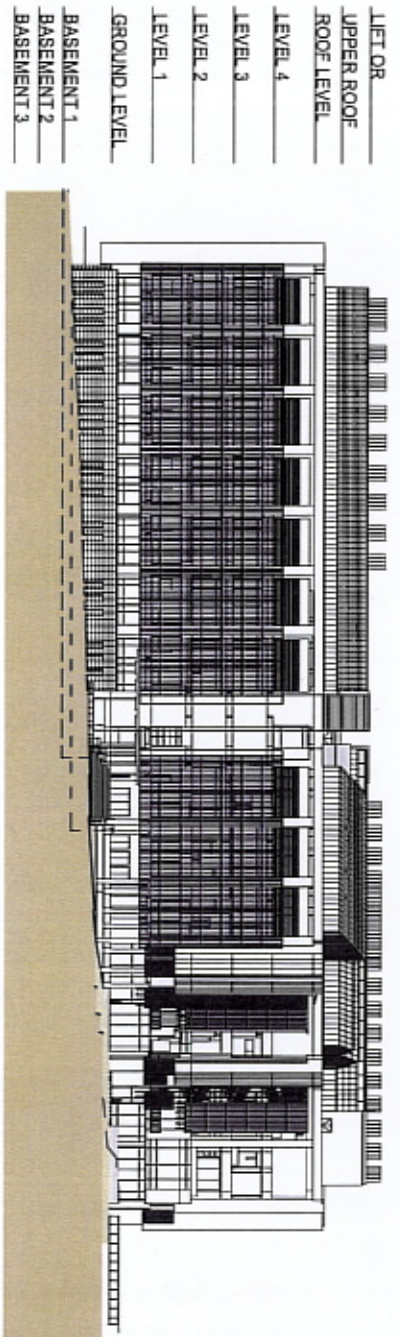
- LEGEND**
1. CENTRAL SUPPORT
 2. LAB
 3. OFFICE
 4. SERVICES
 5. LIBRARY
 6. CAFE
 7. FOYER
 8. SEMINAR
 9. CSIROSEC
 10. INTERACTION MEETING ROOM
 11. ICT
 12. WASH UP
 13. MEDIA PREPERATION
 14. LIBRARY STORE
 15. ARCHIVE
 16. COURTYARD
 17. POT PLOTS
 18. PONDS
 19. HOST GARDEN
 20. GLASS HOUSES
 21. SHADE HOUSE



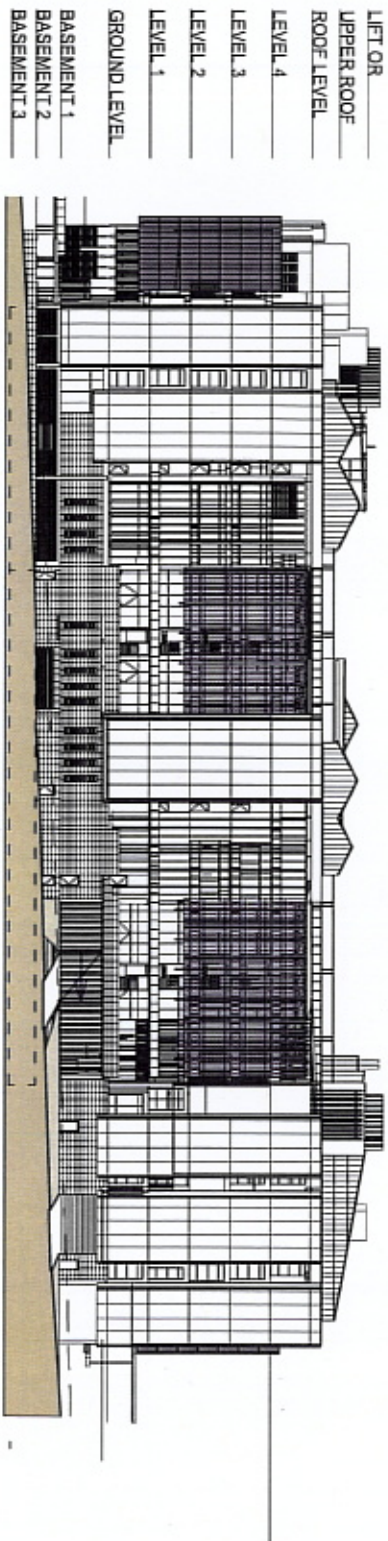
KBRB Ecosciences Precinct - BOGGO RD



Sheet 12-29

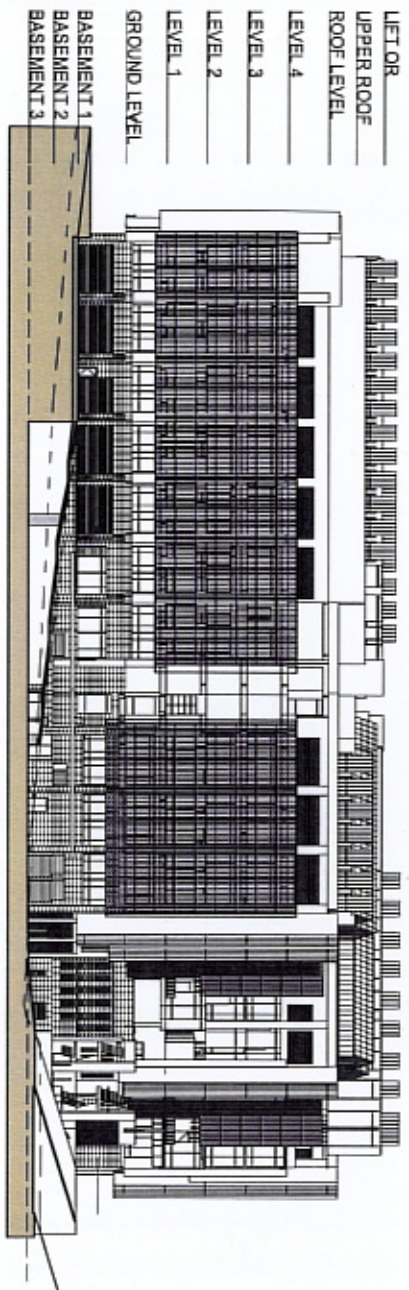


NORTH ELEVATION

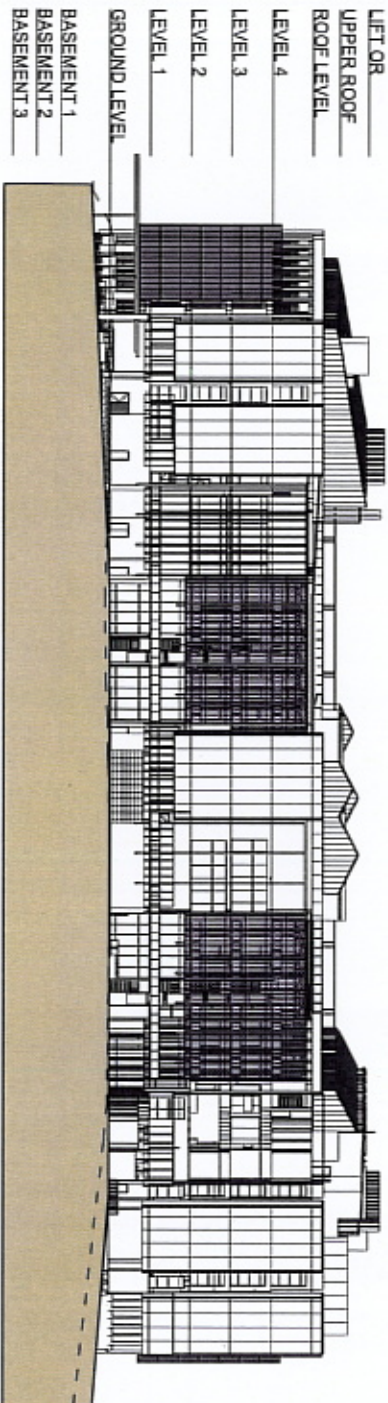


EAST ELEVATION

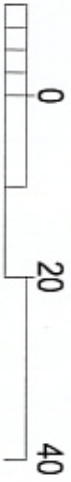


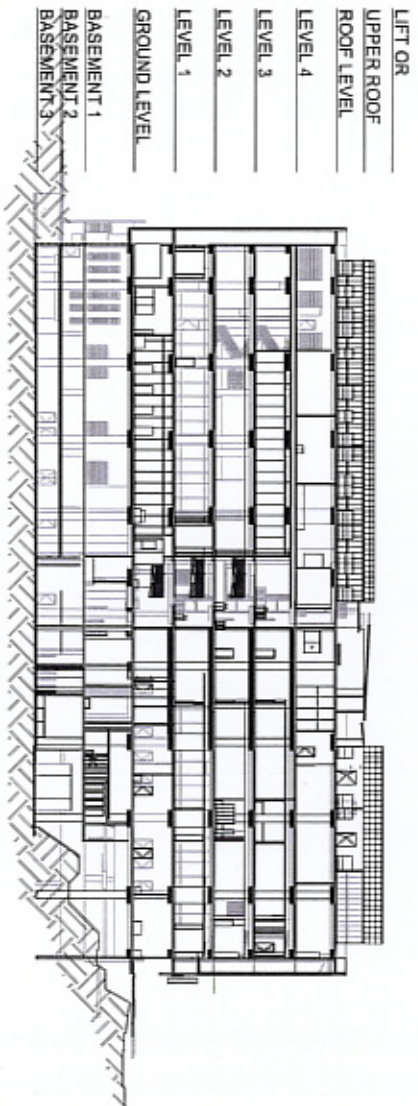


SOUTH ELEVATION

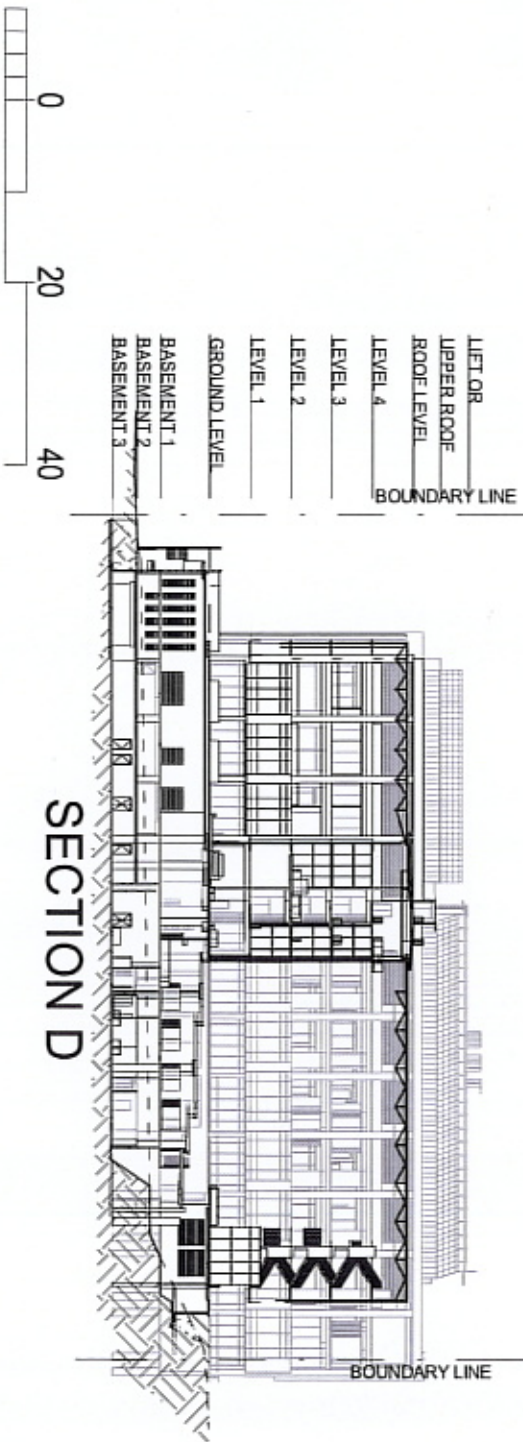


WEST ELEVATION

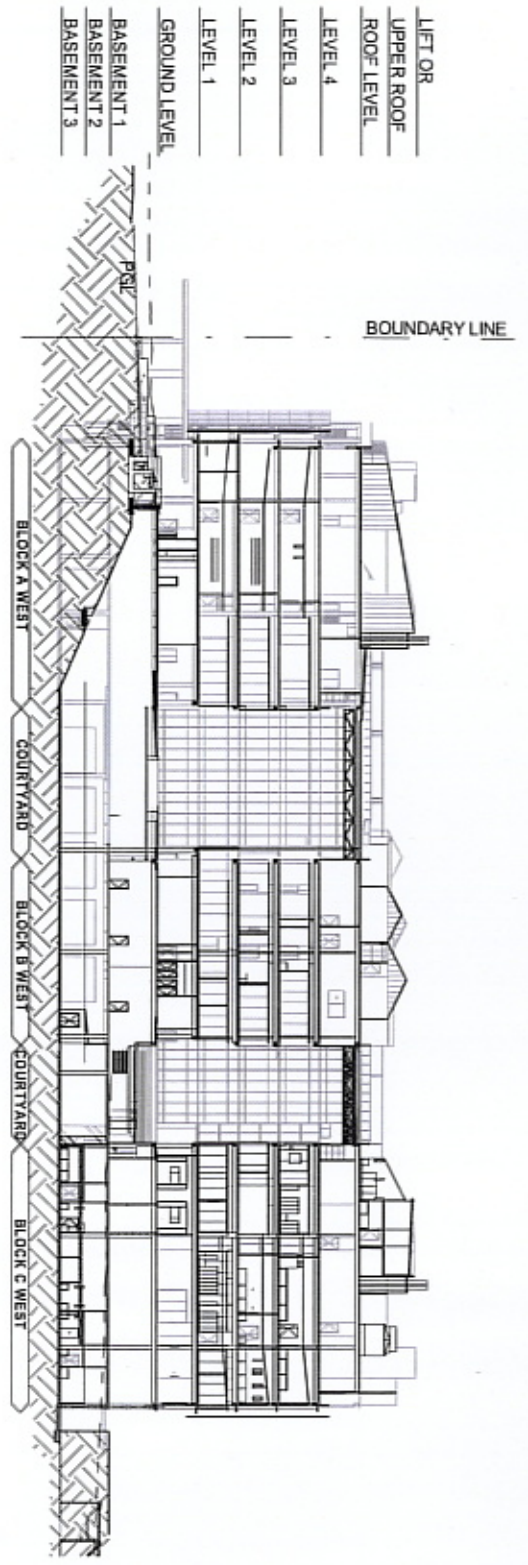




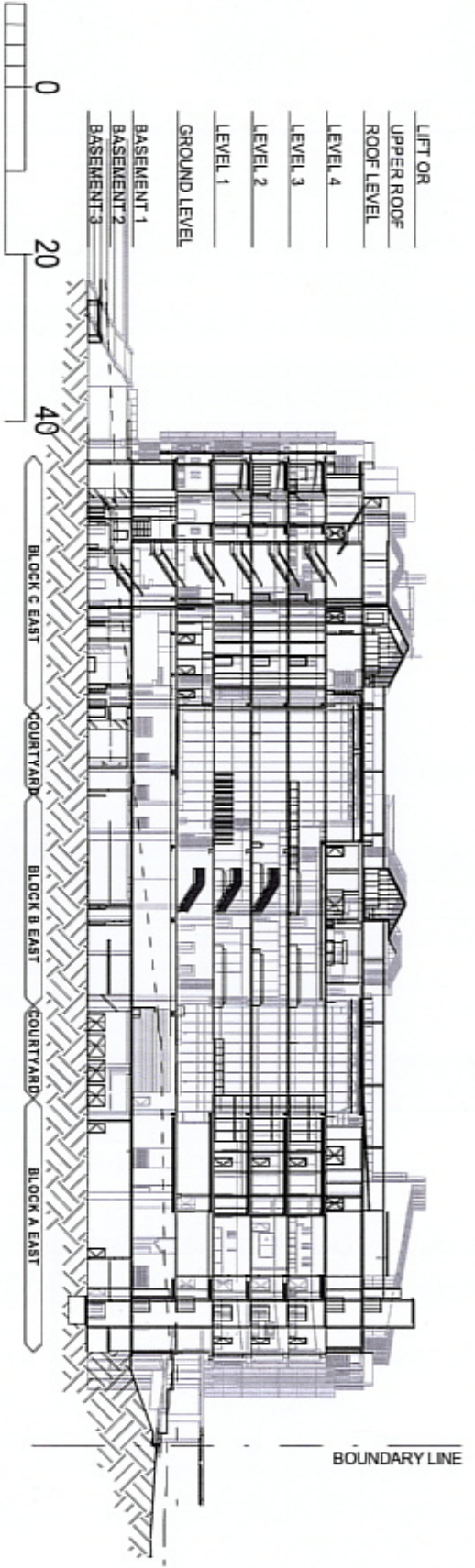
SECTION C



SECTION D



SECTION F

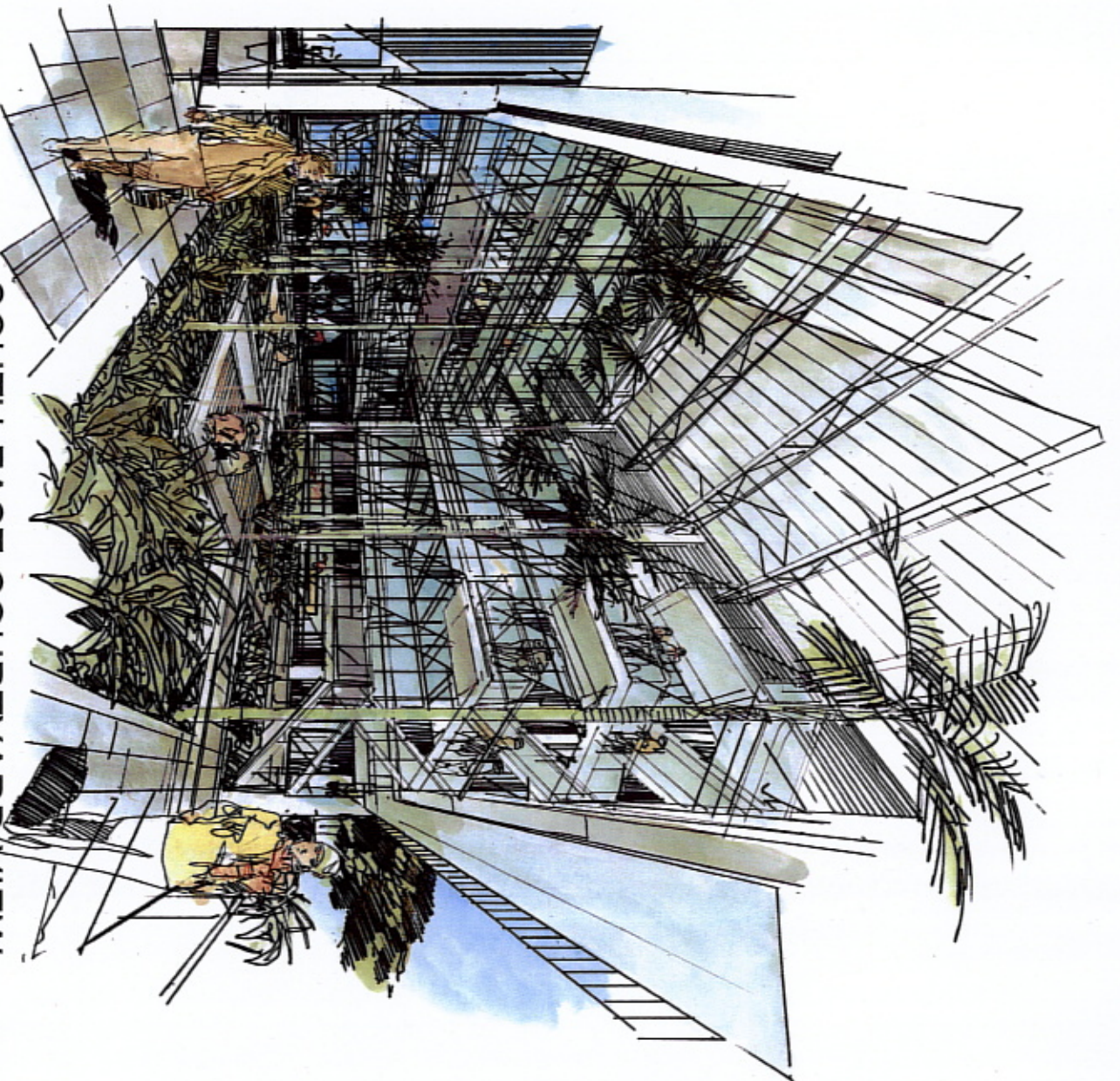


SECTION G

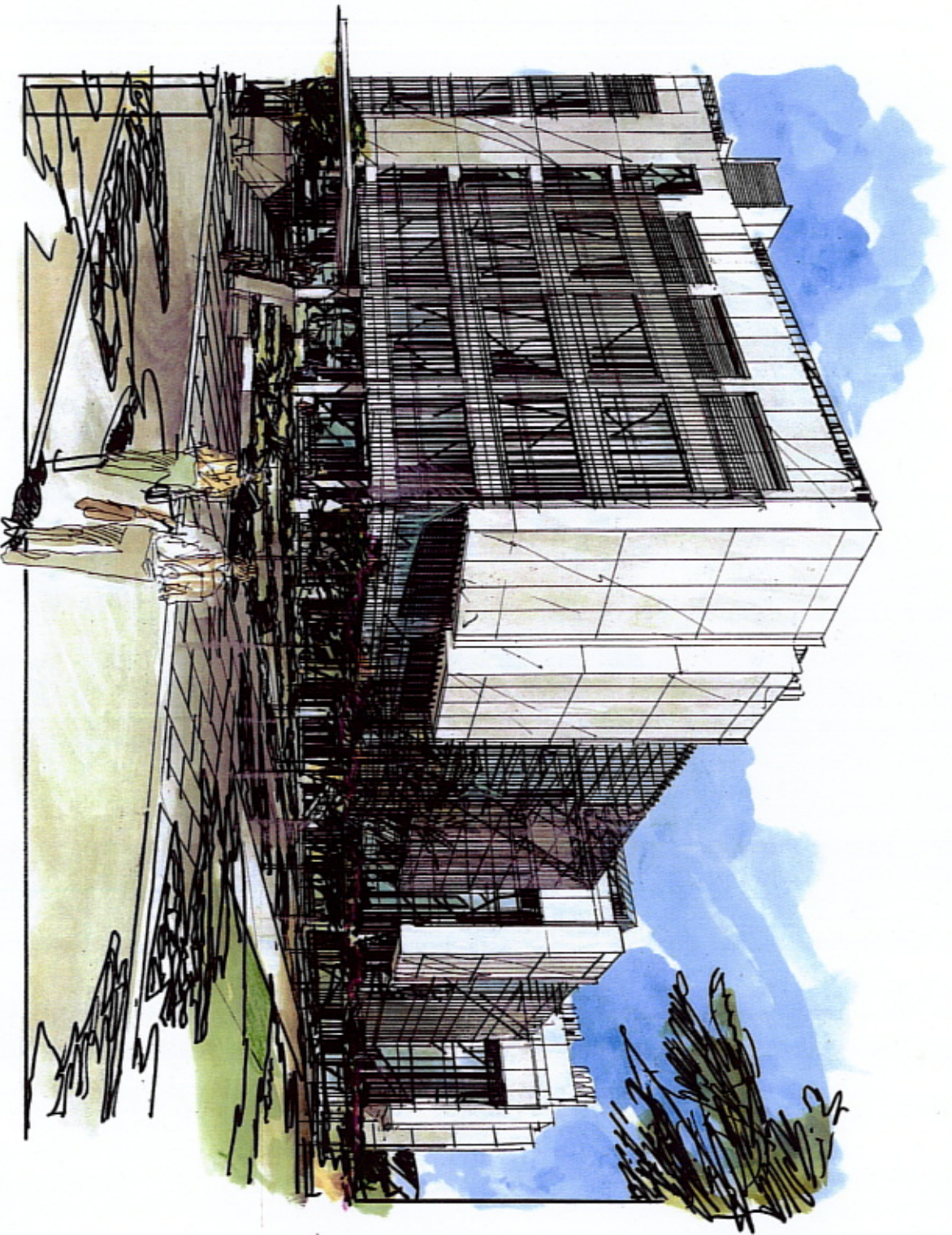


KBRB Ecosciences Precinct - BOGGO RD





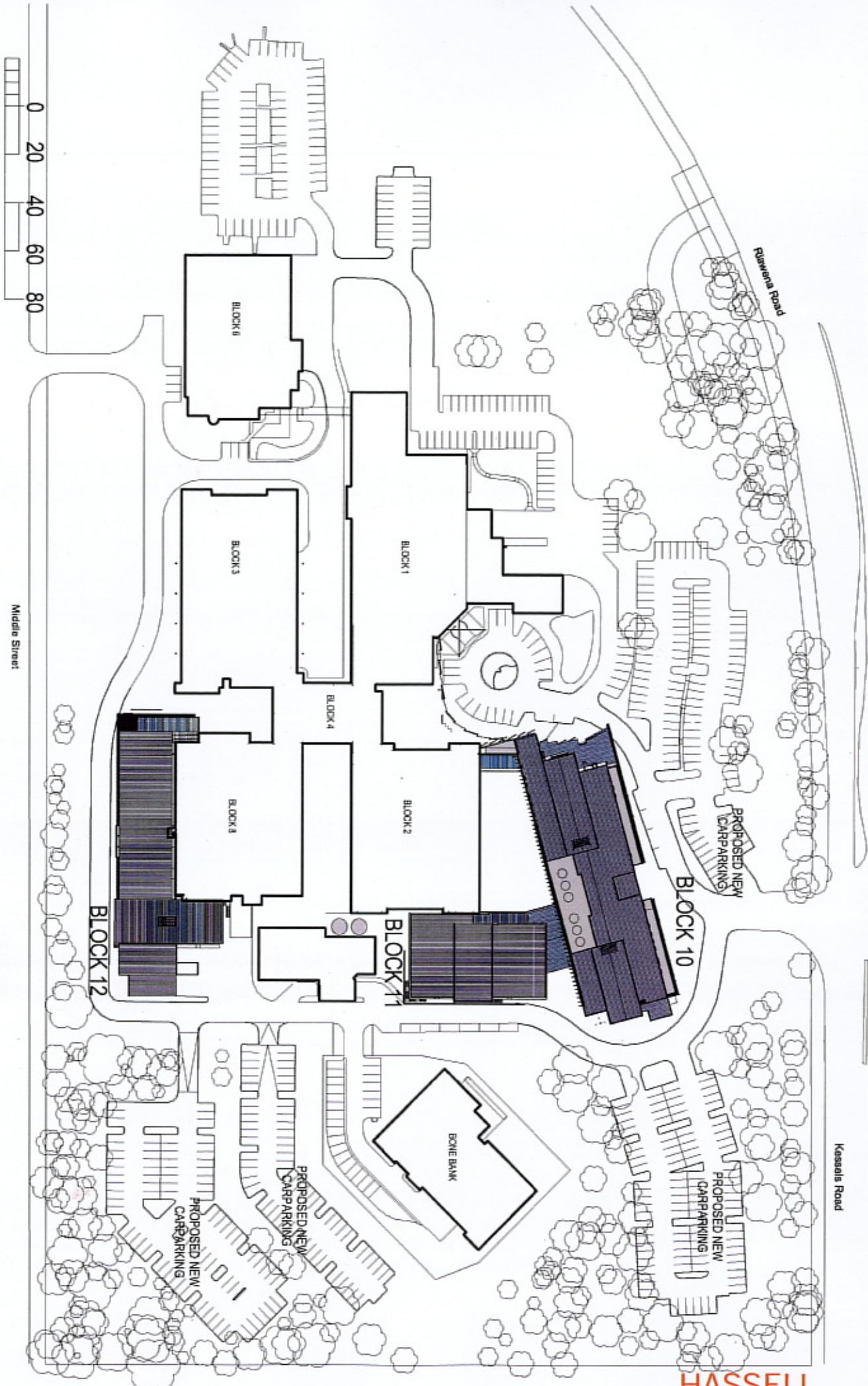
SOUTH-EAST COURTYARD VIEW
KBRB Ecosciences Precinct - BOGGGO RD



PERSPECTIVE VIEW FROM NORTH-EAST

KBRB Ecosciences Precinct - BOGGO RD





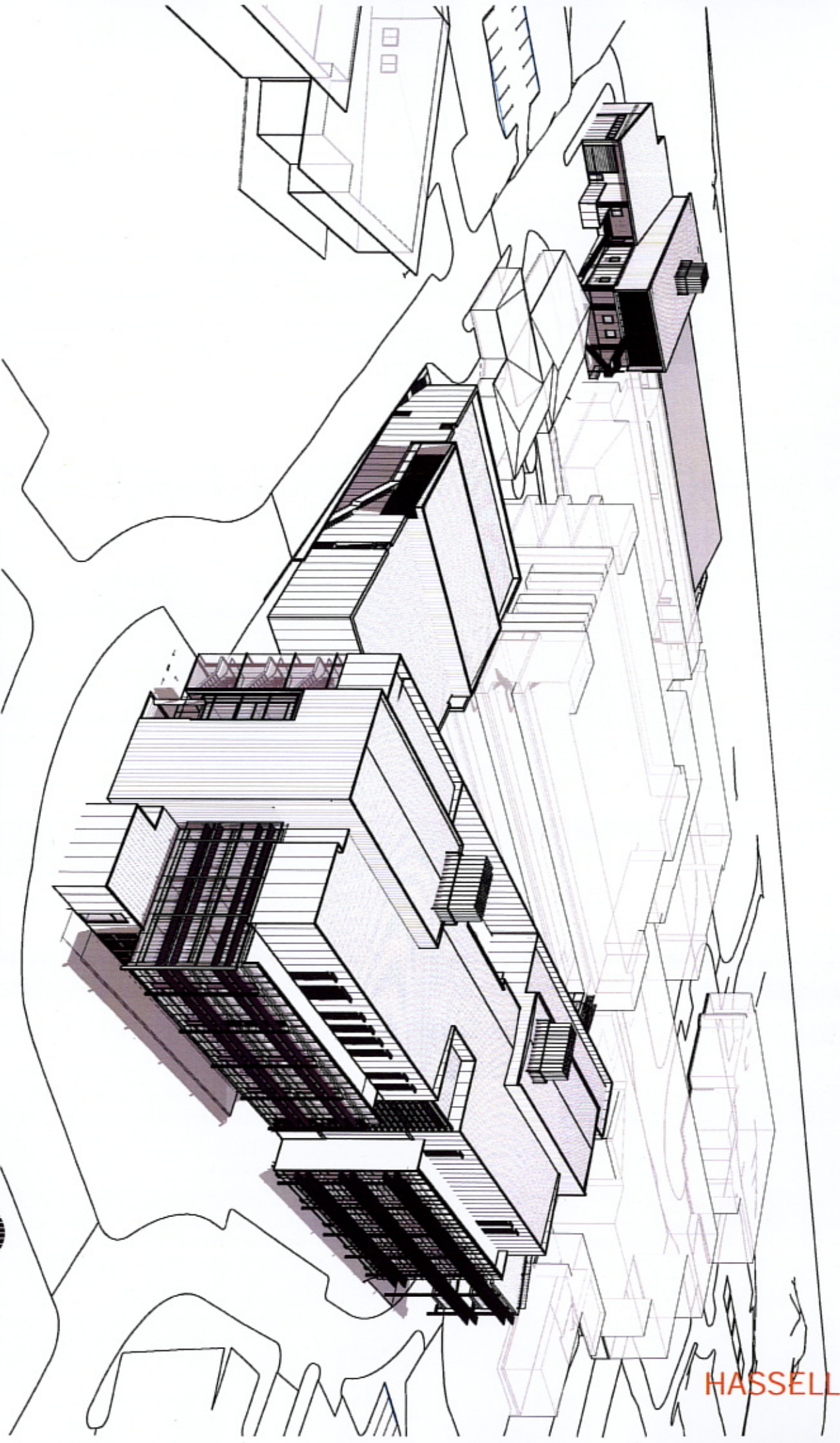
HASSELL



KBRB Health and Food Sciences Precinct Coopers Plains

SITE PLAN





HASSELL

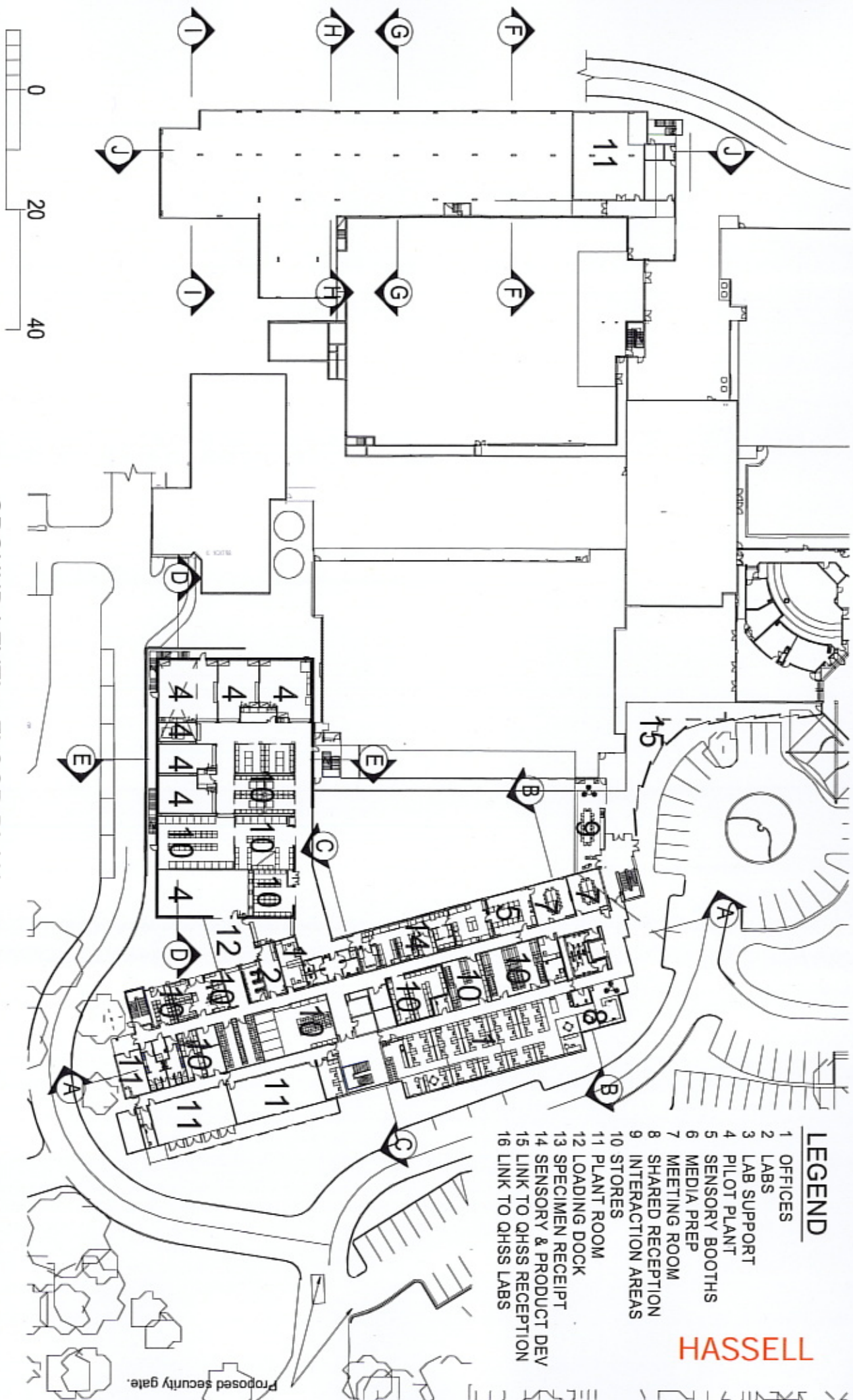
VIEW FROM NE CORNER OF SITE

KBRB Health and Food Sciences Precinct Coopers Plains



Sheet 20-29

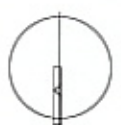
- LEGEND**
- 1 OFFICES
 - 2 LABS
 - 3 LAB SUPPORT
 - 4 PILOT PLANT
 - 5 SENSORY BOOTHS
 - 6 MEDIA PREP
 - 7 MEETING ROOM
 - 8 SHARED RECEPTION
 - 9 INTERACTION AREAS
 - 10 STORES
 - 11 PLANT ROOM
 - 12 LOADING DOCK
 - 13 SPECIMEN RECEIPT
 - 14 SENSORY & PRODUCT DEV
 - 15 LINK TO QHSS RECEPTION
 - 16 LINK TO QHSS LABS



GROUND LEVEL - FLOOR PLAN

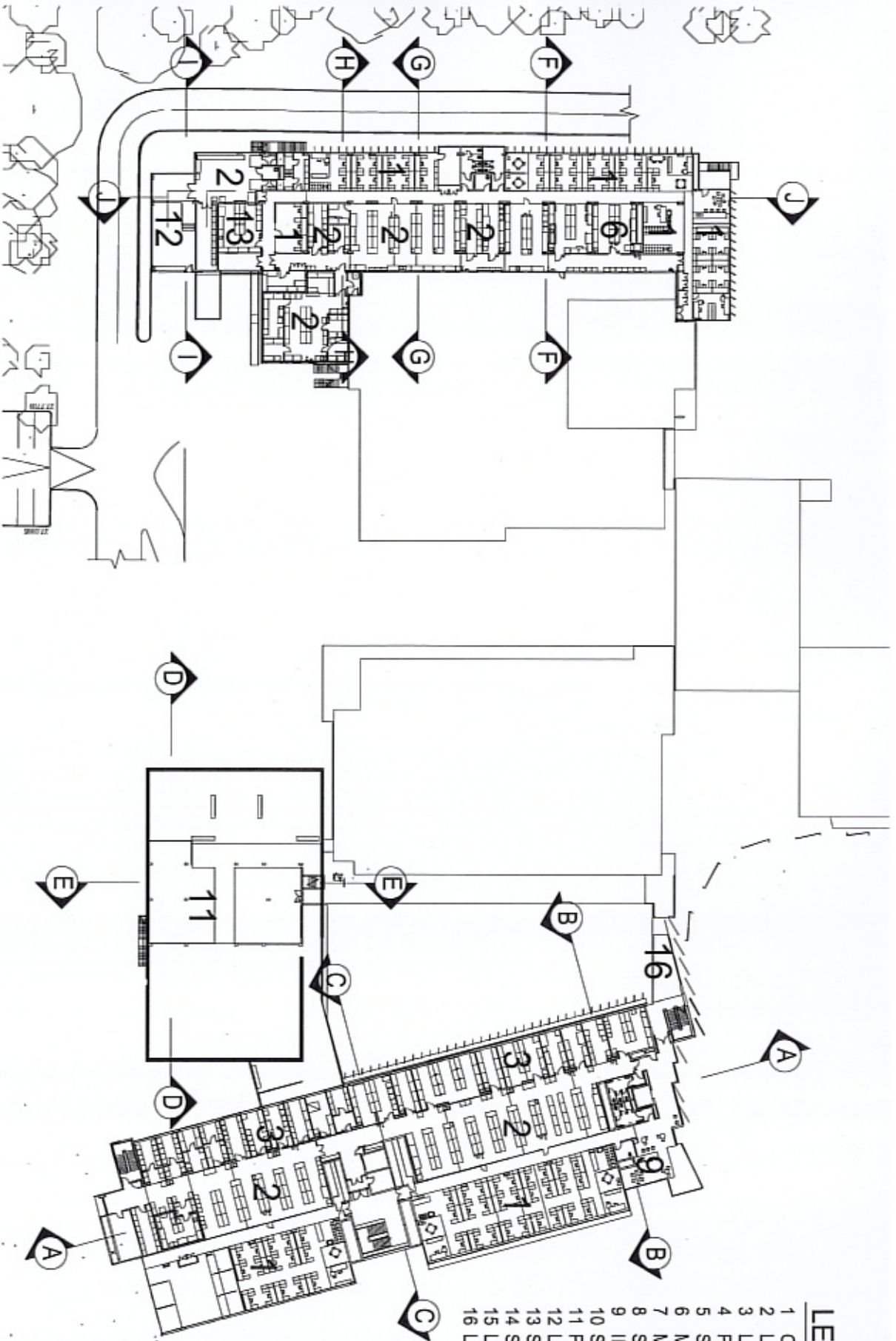
RL 24.010

KBRB Health and Food Sciences Precinct Coopers Plains

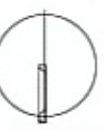


LEGEND

- 1 OFFICES
- 2 LABS
- 3 LAB SUPPORT
- 4 PILOT PLANT
- 5 SENSORY BOOTHS
- 6 MEDIA PREP
- 7 MEETING ROOM
- 8 SHARED RECEPTION
- 9 INTERACTION AREAS
- 10 STORES
- 11 PLANT ROOM
- 12 LOADING DOCK
- 13 SPECIMEN RECEIPT
- 14 SENSORY & PRODUCT DEV
- 15 LINK TO QHSS RECEPTION
- 16 LINK TO QHSS LABS



LEVEL 1 - FLOOR PLAN
RL 28.210



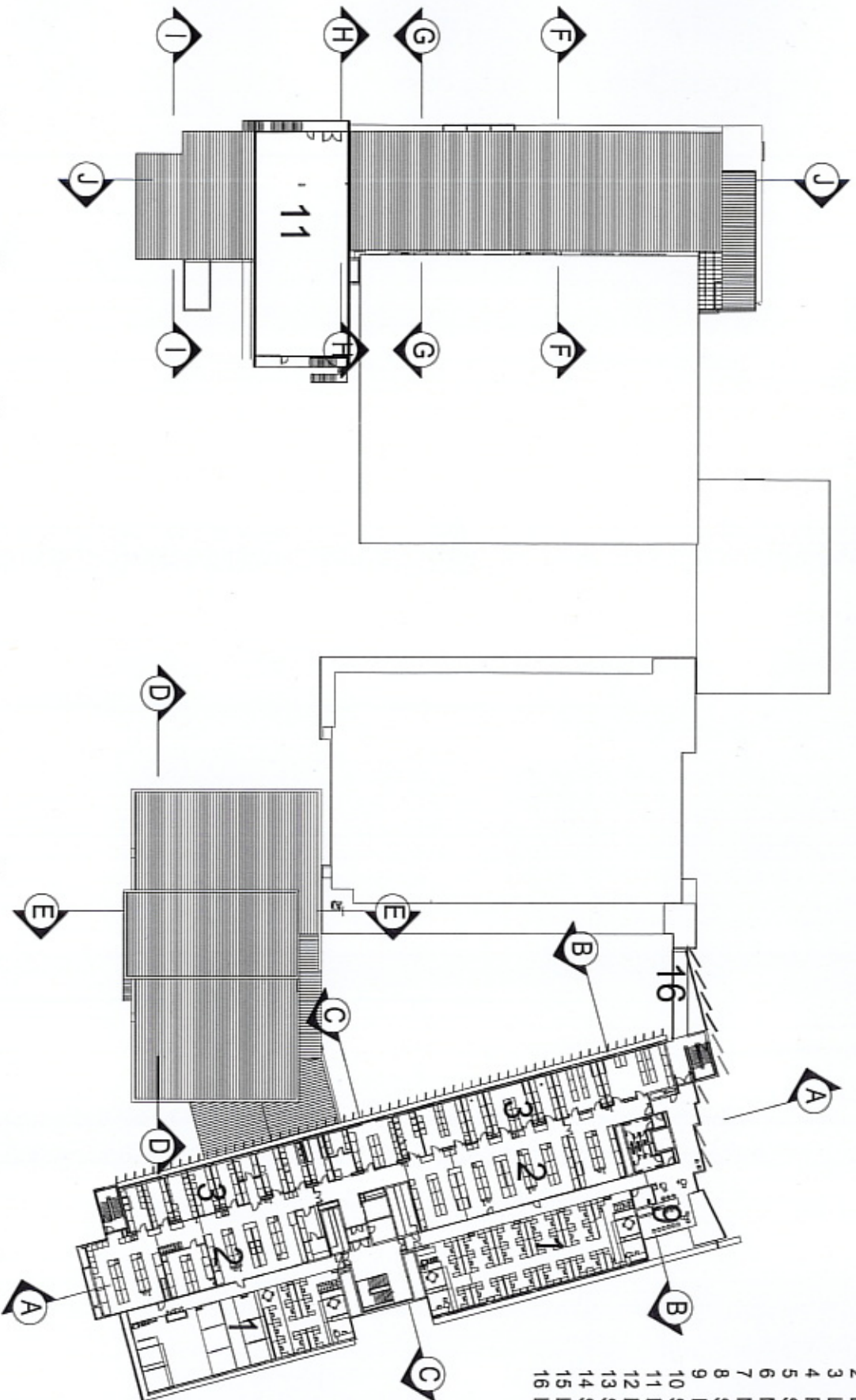
KBRB Health and Food Sciences Precinct Coopers Plains



Sheet 22-29

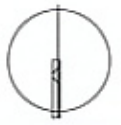
LEGEND

- 1 OFFICES
- 2 LABS
- 3 LAB SUPPORT
- 4 PILOT PLANT
- 5 SENSORY BOOTHS
- 6 MEDIA PREP
- 7 MEETING ROOM
- 8 SHARED RECEPTION
- 9 INTERACTION AREAS
- 10 STORES
- 11 PLANT ROOM
- 12 LOADING DOCK
- 13 SPECIMEN RECEIPT
- 14 SENSORY & PRODUCT DEV
- 15 LINK TO QHSS RECEPTION
- 16 LINK TO QHSS LABS



LEVEL 2 - FLOOR PLAN
RL 32.410

KBRB Health and Food Sciences Precinct Coopers Plains



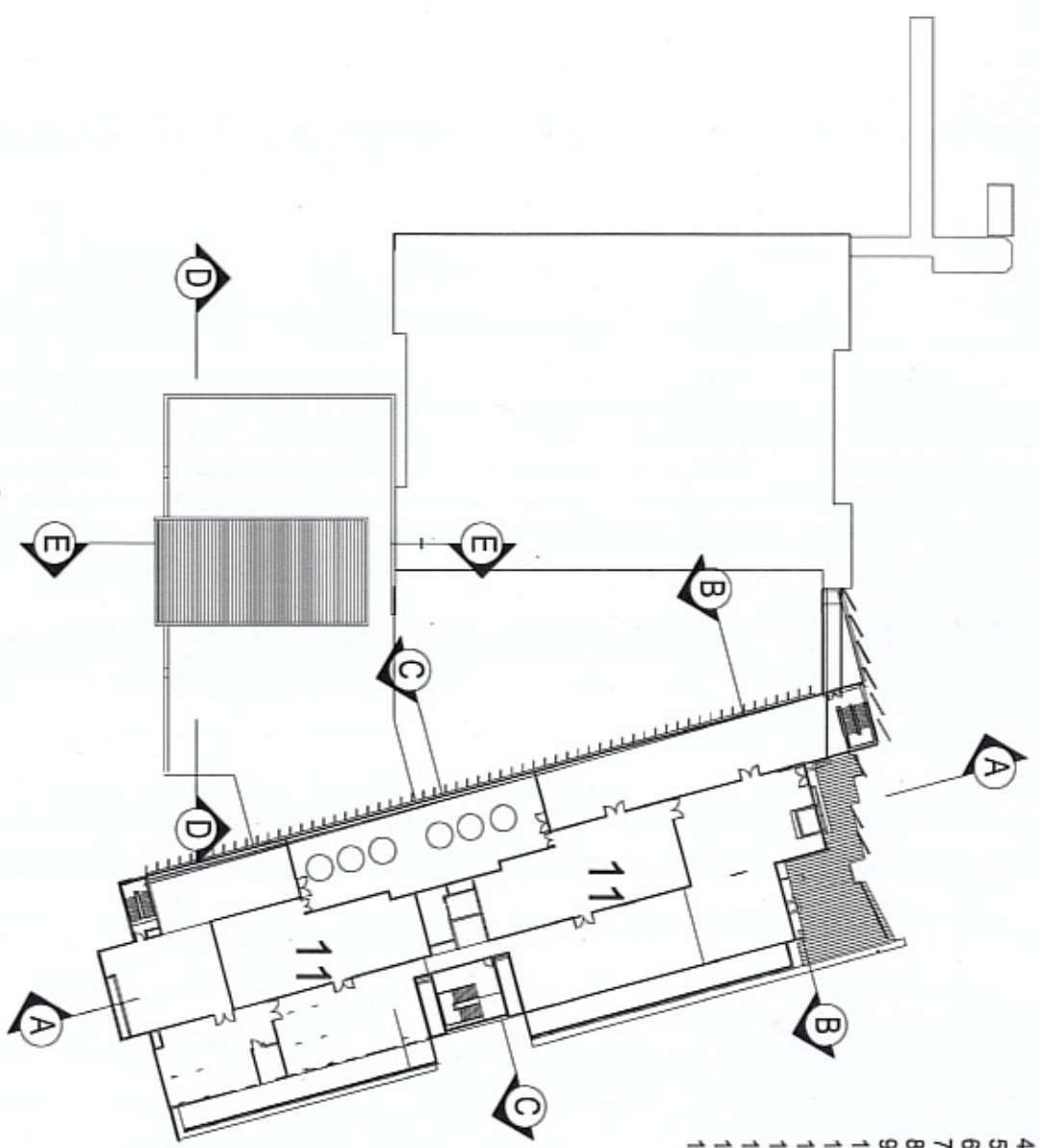
Queensland Government



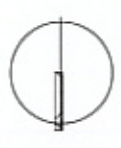
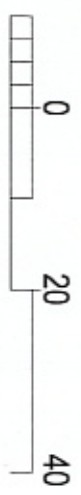
LEGEND

- 1 OFFICES
- 2 LABS
- 3 LAB SUPPORT
- 4 PILOT PLANT
- 5 SENSORY BOOTHS
- 6 MEDIA PREP
- 7 MEETING ROOM
- 8 SHARED RECEPTION
- 9 INTERACTION AREAS
- 10 STORES
- 11 PLANT ROOM
- 12 LOADING DOCK
- 13 SPECIMEN RECEIPT
- 14 SENSORY & PRODUCT DEV
- 15 LINK TO QHSS RECEPTION
- 16 LINK TO QHSS LABS

HASSELL



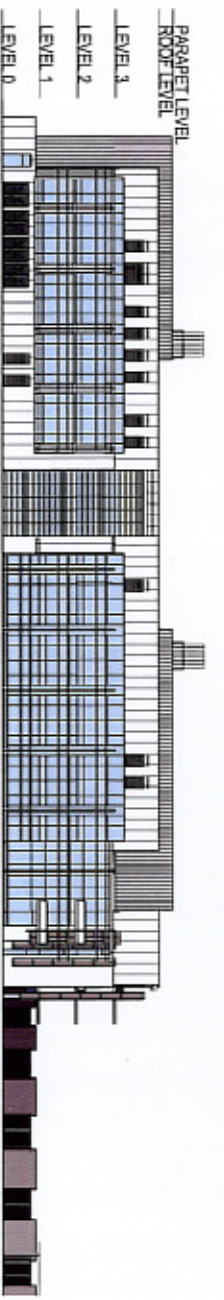
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RL 36.980



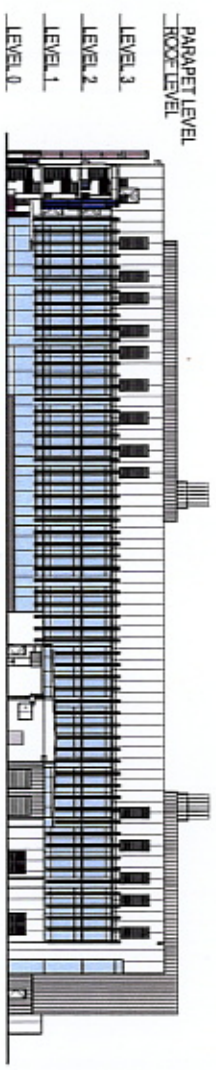
KBRB Health and Food Sciences Precinct Coopers Plains



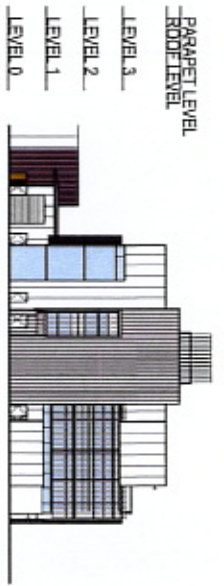
Sheet 24-29



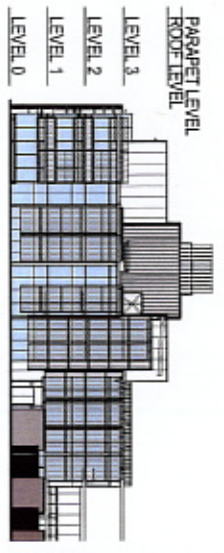
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BLOCK 10 - SOUTH ELEVATION

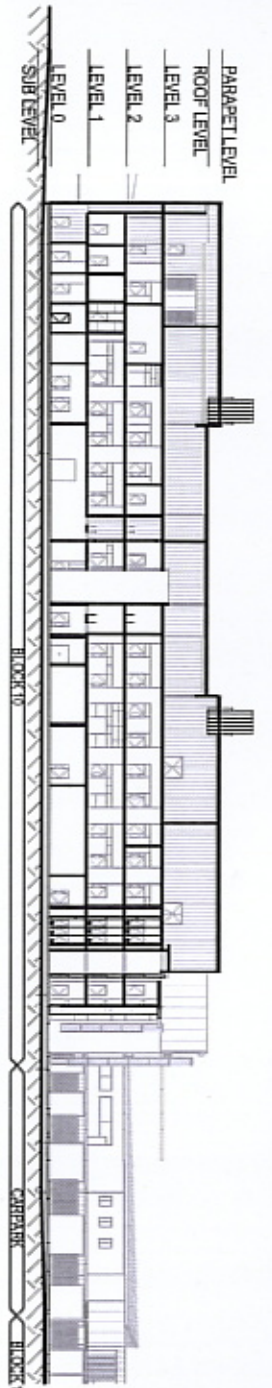


BLOCK 10 - EAST ELEVATION

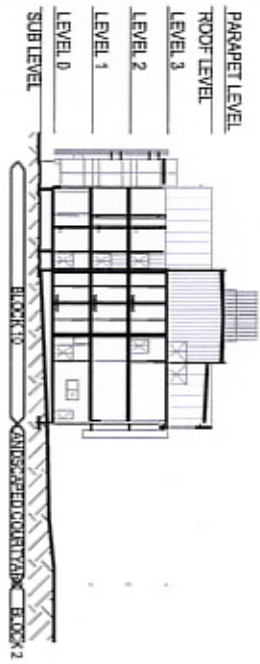


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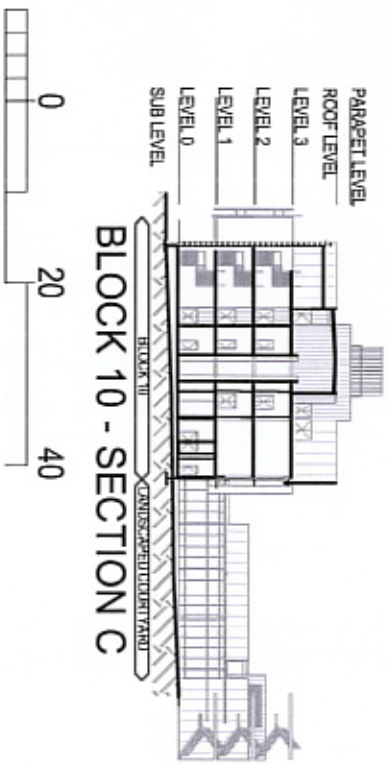




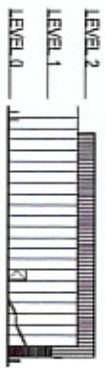
BLOCK 10 - SECTION A



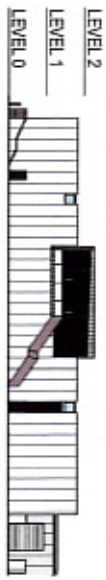
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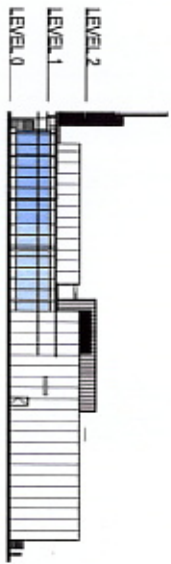
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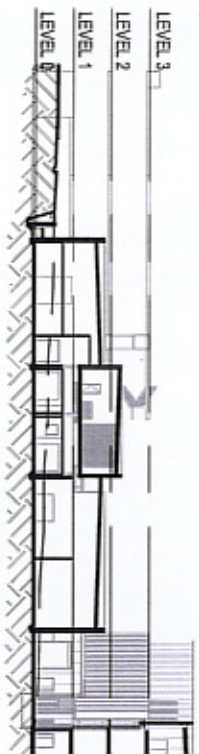
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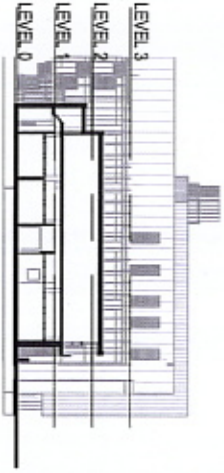
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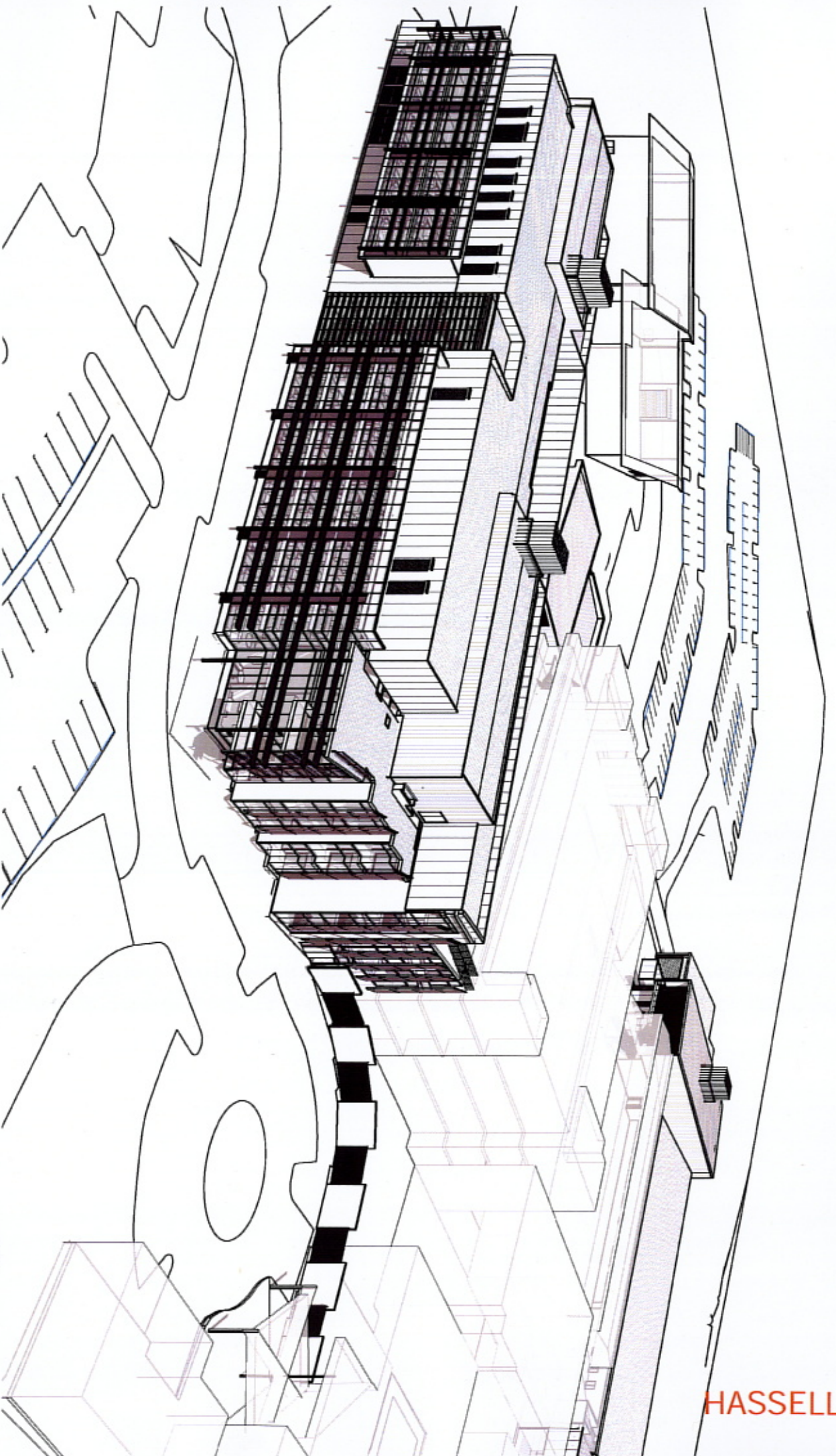
BLOCK 11 - WEST ELEVATION



BLOCK 11 - SECTION D



BLOCK 11 - SECTION E



HASSELL

VIEW FROM NW CORNER OF SITE

KBRB Health and Food Sciences Precinct



Sheet 28-29



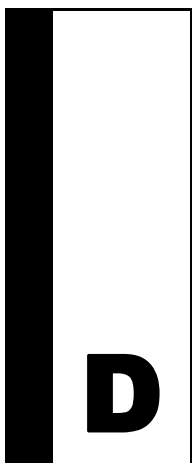
PERSPECTIVE VIEW FROM NE CORNER OF SITE LOOKING TOWARDS BLOCK 10



KBRB Health and Food Sciences Precinct Coopers Plains



Sheet 29-29



Appendix D – Official Transcript of Evidence



COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

JOINT COMMITTEE ON PUBLIC WORKS

Reference: CSIRO co-location with Queensland government on the ecosciences and health and food sciences precincts, Brisbane

MONDAY, 23 JULY 2007

BRISBANE

BY AUTHORITY OF THE PARLIAMENT

INTERNET

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To search the parliamentary database, go to:
<http://parlinfoweb.aph.gov.au>

**JOINT STATUTORY COMMITTEE ON
PUBLIC WORKS**

Monday, 23 July 2007

Members: Mrs Moylan (*Chair*), Mr Brendan O'Connor (*Deputy Chair*), Senators Hurley, Parry and Troeth and Mr Forrest, Mr Jenkins, Mr Ripoll and Mr Wakelin

Members in attendance: Senator Parry and Mrs Moylan and Mr Brendan O'Connor

Terms of reference for the inquiry:

To inquire into and report on:

CSIRO Co-Location with Queensland Government on the Eco-Sciences and Health and Food Sciences Precincts in Brisbane

WITNESSES

**ANKER, Mr Brian Andrew, Deputy Director General, Science, Technology and Innovation,
Queensland Government Department of State Development..... 2**

**JOHNSON, Dr Andrew Kenneth Leonard, Group Executive, Environment, Commonwealth
Scientific and Industrial Research Organisation 2**

**MOODY, Mr Trevor Laurence, General Manager, Property Services, Commonwealth Scientific
and Industrial Research Organisation..... 2**

**ROBERTSON, Mr Peter Charles, Principal Project Manager, Major Project, Project Services,
Department of Public Works 2**

ROEHRS, Mr Mark, Principal, Hassell Ltd 2

Committee met at 1.32 pm

CHAIR (Mrs Moylan)—I declare open this public hearing into the proposed CSIRO co-location with Queensland government on the ecosciences and health and food sciences precincts in Brisbane. This project was referred to the Public Works Committee on 10 May 2007 for consideration and report to parliament. In accordance with section 17(3) of the Public Works Committee Act 1969:

- (3) In considering and reporting on a public work, the Committee shall have regard to—
- (a) the stated purpose of the work and its suitability for that purpose;
 - (b) the necessity for, or the advisability of, carrying out the work;
 - (c) the most effective use that can be made, in the carrying out of the work, of the moneys to be expended on the work;
 - (d) where the work purports to be of a revenue-producing character, the amount of revenue that it may reasonably be expected to produce; and
 - (e) the present and prospective public value of the work.

Earlier the committee received confidential evidence from CSIRO representatives. The committee will now hear evidence from CSIRO representatives.

[1.33 pm]

JOHNSON, Dr Andrew Kenneth Leonard, Group Executive, Environment, Commonwealth Scientific and Industrial Research Organisation

MOODY, Mr Trevor Laurence, General Manager, Property Services, Commonwealth Scientific and Industrial Research Organisation

ANKER, Mr Brian Andrew, Deputy Director General, Science, Technology and Innovation, Queensland Government Department of State Development

ROBERTSON, Mr Peter Charles, Principal Project Manager, Major Project, Project Services, Department of Public Works

ROEHRS, Mr Mark, Principal, Hassell Ltd

Witnesses were sworn or affirmed—

CHAIR—Welcome. I thank the witnesses for coming to meet us today, and I thank CSIRO for facilitating the committee's inspection of the proposed sites this morning. The committee has received a statement of evidence from CSIRO, and this will be made available in a volume of submissions to the inquiry. It will also be available on the committee's website. Does CSIRO wish to propose any amendments to its submission to the committee?

Dr Johnson—We wish to make the following amendments to the statement of evidence: paragraph 1, delete 'mathematical information systems' and substitute 'mathematical and information sciences'; paragraph 19, delete the number '19' and substitute the number '17'; paragraph 80, delete the number '1300' and substitute the number '13,000'; paragraph 125, delete 'Heritage' and substitute 'Water Resources'; paragraph 144, delete '2006' and substitute '2007'; paragraph 147, delete 'along with key trade contractors'; paragraph 174, eighth dot point, delete 'distributed Central'; and in annexure B, 'Associated drawings' there are some general changes: (1) remove nominated scale where relevant—bar scale is retained and (2) enhance the legend where relevant. I will tender these changes.

CHAIR—The document as tabled will be included in the statements of evidence. I now invite a representative from CSIRO to make a brief opening statement and then we will go to questions.

Dr Johnson—This proposal brought before the Parliamentary Joint Standing Committee on Public Works is for the construction of two new joint research precincts in Brisbane that will enable the co-location of six CSIRO divisions and four national research flagships with the science capabilities of four Queensland government departments. A fundamental principle underpinning the co-location is the realisation of greater benefits to Australia, through the formation of new partnerships and the strengthening of existing partnerships to address the big sustainability challenges facing the nation.

The proposed CSIRO facilities will be an integral part of an ecosciences precinct at the Boggo Road Urban Village site at Dutton Park and a health and food sciences precinct at Coopers Plains.

CSIRO requires appropriately designed and equipped research facilities that will provide safe, healthy, effective and efficient working conditions for its staff. This staff undertakes a wide range of research that directly addresses national and industry priorities. R&D to be conducted at the Boggo Road and Coopers Plains precincts directly aligns with CSIRO's strategic objectives.

The proposed new precincts will provide facilities necessary for CSIRO to conduct leading edge scientific research. The design of the precincts reflects CSIRO's aspiration to provide an effective and efficient working environment that provides the flexibility and adaptability to meet present and future needs.

The proposed facilities will replace existing substandard, outdated and inefficient buildings at CSIRO's Cannon Hill, Indooroopilly and Cleveland sites. The precincts provide a unique opportunity to co-locate with Queensland government science agencies to generate strategic benefits. These benefits will be realised through increased scientific interactions collaborations, along with providing cost efficiencies through the sharing of equipment and resources.

The proposed precincts will accommodate approximately 1,200 Queensland government and CSIRO staff, of which 297 are staff from CSIRO Sustainable Ecosystems, CSIRO Land and Water, CSIRO Entomology, CSIRO Marine and Atmospheric Research, CSIRO Mathematical and Information Sciences, the CSIRO Science Education Centre and Food Science Australia.

The CSIRO facilities will comprise modern research laboratories, laboratory support areas, services and equipment rooms, office accommodation, staff support areas, field operation support areas, storage, glasshouse facilities and a food manufacturing pilot plant. All of these will be shared amongst the participating CSIRO and state agencies. Amenity and support facilities, including a cafe, reception, seminar and meeting rooms, will also be shared with the Queensland government. CSIRO and Queensland government scientists will be co-located in laboratory and office spaces to optimise the potential for sharing of equipment and the exchange of ideas, providing economies in capital and operating costs as well as providing an environment for greater collaboration.

The ecosciences precinct at Boggo Road will comprise a new nine-level laboratory complex of three interlinked blocks, with a total gross floor area of 51,200 square metres of which approximately 13,000 square metres will accommodate CSIRO components. The health and food sciences precinct facilities at Coopers Plains will comprise three blocks connected to existing Queensland Health laboratories of which CSIRO will occupy approximately 2,700 square metres.

Various options have been considered in developing this proposal, including: do nothing; remain on existing sites and refurbish existing CSIRO facilities; consolidate on an existing CSIRO site; and the proposed option to collocate with Queensland government departments on the Boggo Road and Coopers Plains precincts. The solution now proposed to this committee has been evaluated as optimal to meet the CSIRO's needs.

Both precincts have been the subject of detailed environmental and heritage evaluations as part of Queensland government and Brisbane City Council processes. Consultation will continue to ensure that all environmental management issues are properly evaluated and addressed. The proposed works have been referred to the Commonwealth Department of the Environment and Water Resources, consistent with the requirements of the Environment Protection and Biodiversity Conservation Act.

The proposal will incorporate various initiatives to minimise the impact on the environment, including selection of materials of proven sustainable manufacture, together with various passive and active energy and water conservation measures. The estimated out-turn cost, excluding GST, for the CSIRO component of this proposal is \$85 million at March 2007 prices, inclusive of escalation costs, contingencies, all professional fees and authorities' charges.

Construction is planned to commence in early 2008 and is programmed for completion in 2010. Funding for the CSIRO component will be derived from the sale of the CSIRO sites at Cannon Hill, Indooroopilly and Cleveland, with the balance of funding from CSIRO capital funds. The proposed ecosciences precinct and health and food sciences precinct will be constructed and owned by the Queensland government. CSIRO's capital contribution will secure a 99-year lease within the facilities.

In developing this proposal, CSIRO, the Queensland government and its consultants have contacted all interested groups, including CSIRO staff and unions, and local authorities having statutory responsibility over the locality and services. Support for the proposal has been received from staff, government and industry organisations. The proposed design fully meets the CSIRO functional brief and conforms to the technical requirements of local authorities. It will be designed and constructed according to the Building Code of Australia, relevant Australian standards and appropriate laboratory codes.

The CSIRO believes that the completed facilities will provide an appropriate workplace that will stimulate and promote research and development activities. The facilities will greatly enhance opportunities for collaboration and the conduct of nationally and internationally significant research. The new facilities will provide a powerful statement about CSIRO's ongoing commitment to research and development in promoting industry profitability, managing Australia's unique ecosystems, adapting to climate change, ensuring biosecurity and improving human health.

The CSIRO is satisfied that co-location with the Queensland government science agencies in the proposed developments are the most appropriate, timely and cost-effective way to provide effective and efficient accommodation that meets CSIRO's research and development needs. It therefore submits the proposal to the committee for examination and seeks its endorsement.

CHAIR—Thank you very much.

Mr BRENDAN O'CONNOR—Thank you for the submission. I apologise for not being able to inspect the sites this morning. I was unavailable. The submission from the CSIRO outlines the need for the project and that there are currently inadequate facilities to fulfil current and future needs. It also talks about the benefits of co-location and collaboration. Who actually proposed

the project and to whom? Did the state government or the Department of Public Works approach the CSIRO or was it the other way around?

Dr Johnson—It was the former, I believe. The project was initiated by the Queensland government and the CSIRO was approached.

Mr BRENDAN O'CONNOR—We heard earlier—and obviously I will not go to the detail of all that was put to us in the confidential hearing—that some form of agreement has been entered into between the CSIRO and, I assume, the Department of Public Works. Is that correct? Which bodies are the signatories to that memorandum?

Dr Johnson—The signatories are CSIRO and the state of Queensland.

Mr BRENDAN O'CONNOR—Who is representing the state of Queensland in discussions? Is it the Department of Public Works?

Dr Johnson—It is the Department of State Development.

Mr BRENDAN O'CONNOR—Is there a Department of Public Works in Queensland?

Mr Robertson—Yes.

Mr BRENDAN O'CONNOR—Why are the two departments involved?

Mr Anker—The role of the Department of State Development is to coordinate the activity from a science led solution. The Department of Public Works is then responsible for the actual build and the state's ownership of the land.

Mr BRENDAN O'CONNOR—I heard there will be more discussions and hopefully some resolution to those discussions in the form of subsequent agreements, particularly around the management of the project and the management of the site beyond the completion of the project. I might direct this to you, Dr Johnson, and then to either one or both of the state representatives here today. Are you confident that all bodies involved in this project are able to resolve any outstanding differences and are you confident that there will be a process set in place that will successfully reconcile differences that might occur from this point on?

Dr Johnson—Yes, I am.

Mr BRENDAN O'CONNOR—Mr Anker, I direct a similar question to you. Are you confident that the parties that are signatories to the current agreement and will be signatories to the subsequent agreements will be able to ensure that any differences will be resolved so that there will not be an impasse that cannot be properly resolved to ensure the construction of the project?

Mr Anker—I am totally confident that we will be able to reach agreement on the final versions of the documentation at hand. We have collectively been working on this project for some time now. I believe that we would have identified any issues to date had there been major stumbling blocks and I do not believe there were any.

Mr BRENDAN O'CONNOR—But the Department of Public Works will be the contract manager—is that right, Mr Robertson?

Mr Robertson—Yes. The understanding at the moment is that the Department of Public Works will be the facilities manager responsible for maintenance of the building fabric.

Mr BRENDAN O'CONNOR—Does that mean you have oversight of the construction? I am just trying to get a handle on who will be looking after the day-to-day construction and who will be responsible for—

Mr Robertson—The Department of Public Works is the construction authority for the state of Queensland. The principal of the building contract that will be formed in the future will be the state of Queensland through the Director-General of Public Works, and public works representatives will be responsible for the management of the contract throughout its progress.

Mr BRENDAN O'CONNOR—How do you envisage the CSIRO playing its role in order to protect its own interests in that particular process?

Mr Robertson—I feel that a set-up similar to what we have been carrying on through the design processes will be in effect, where we have structured committees involving the state, Public Works, State Development and CSIRO, who obviously have a guiding role within the conduct of the contract.

Mr BRENDAN O'CONNOR—Dr Johnson, do you feel confident that there is enough agreement in place to ensure that CSIRO's interests will be properly looked after in the current arrangement?

Dr Johnson—Yes, I do. I reinforce Mr Anker's comment that there is a longstanding history of cooperation between CSIRO and the state, supported by appropriate committees and governance mechanisms. I am absolutely confident that there will not be any impediments moving forward.

Senator PARRY—I will continue on the same theme. We did go into some of this in the confidential briefing so, without mentioning figures, which is quite important, I just had a quick look through the memorandum of understanding and it mentions lease documents. Have they been completed or drafted?

Mr Moody—The memorandum of understanding is really for the planning and design of the facility. As we stated in the earlier briefing session, a formal project agreement is close to finalisation, which will extend the project agreement through design and construction phases. The project agreement also makes reference to two other agreements, one being a building management agreement and the other being a lease agreement. Both of those will be in place prior to completion of the facility, and that will govern the ongoing operations and leasing arrangements for the facility.

Senator PARRY—The MOU also states that the terms of the project agreement will be completed by 2006. Are we running behind?

Mr Moody—Yes, we are.

Senator PARRY—The Coopers Plains site, which we did not have an opportunity to see today, has existing state government infrastructure. Could you describe the condition of the existing state government infrastructure in terms of maintenance and possible next refurbishment or what the whole-of-life aspect of the current state government buildings is?

Dr Johnson—That is for our colleagues in the Queensland government.

Mr Robertson—The Queensland Health Scientific Services complex is in reasonably good condition. It has a programmed period for maintenance and capital replacement as required. It is undergoing some extension and upgrade to services at the moment, but it comes under Department of Public Works maintenance arrangements and it is a fully maintained government asset. It is a critical asset to the state, and it is maintained as such.

Senator PARRY—What is the age of the facility?

Mr Robertson—They started construction of QHSS in the late eighties, so it is, I suppose, 25 years. There have been gradual additions to the complex since then. I do not have the date of when the last building was completed but there has been continuous progress since the early eighties.

Senator PARRY—The early or the late eighties?

Mr Robertson—I would have to get back to you on that. I suspect it was around 1984 or 1985 but I would need to get that confirmed.

Senator PARRY—Will there be any cost to the Commonwealth in doing additional work which would be regarded as maintenance work or capital improvement to the existing state facility in the proposed development?

Mr Robertson—Certainly not. The whole structure of the health and food sciences precinct at Coopers Plains has been as a stand-alone facility, and it will have self-contained maintenance and ongoing costs quite separate from the existing facilities.

Senator PARRY—If the Commonwealth leaves before the end of 99 years, which I understand is the term of the lease, does the infrastructure that the Commonwealth has invested in remain the property of the state of Queensland?

Mr Moody—The project agreement will have clauses in it which cover the relationship if CSIRO withdraws. I think from memory that there is a five-year vacation period.

Senator PARRY—I noticed that the MOU mentioned that the state could, after a 30-year lease, give five years notification of withdrawal. I did not read anything about the Commonwealth. I have only had a cursory glance, but it seemed to be one-sided. That is why I was interested in the lease documentation.

Mr Anker—The relevant section of the MOU, which you probably have access to, says that if the state ceases its ownership of the Boggo Road ecoscience precinct or ceases to use that precinct principally for ecoscience research, CSIRO may surrender the Boggo Road ecoscience precinct lease and, if it does so, the state will be liable to pay CSIRO reasonable compensation interest for the surrendered component part. That might give a bit of comfort that we will be dealing effectively, efficiently and also equitably with the partner.

Senator PARRY—Thank you. The state or Commonwealth can answer this question. Does the University of Queensland or any other university within the state of Queensland have any financial interest in this arrangement?

Dr Johnson—It does not.

Senator PARRY—There is obviously a keen research interest. Will the Commonwealth provide to the University of Queensland or any other state university any reduction in fees, any incentive or anything that will go back to the Queensland universities?

Dr Johnson—There is nothing going back directly to the university. Of course, it is within CSIRO's broader strategic interest to collaborate with the universities, and in particular we have an important role in the national innovation system in the training and development of scientists through joint supervision of students. Without doubt, there will be students located in both precincts but they will be enrolled through the University of Queensland, Griffith University and other universities. They will be physically located on either of these precinct sites. That would be the only material connection that would occur there. As part of our collaboration we would make space available—it is quite a routine thing—but otherwise there is no other material interest.

Senator PARRY—In paragraphs 35, 36 and 37 of the submission that CSIRO made to the Public Works Committee there is information about four options that are being considered for the proposal, and you have opted for the option that you are proposing to us today. I would like to ask about an unwritten fifth option: is there any chance that CSIRO could co-locate the facilities that exist here that are substandard to any other location in Australia? I know that option is not palatable to the Queensland dynamic but we need to be satisfied that we are not wasting resources and duplicating facilities.

Dr Johnson—The answer to that is no, and the principal reason is that we believe a very important part of conducting successful research and development is to have our scientists as close as physically possible to the issues they are addressing. Most of the research that is going on here is directly addressing priority issues that are geographically located within the Queensland region. We do not believe it is the most effective or efficient deployment of our staff to be servicing the needs of north eastern Australia out of any other location.

Senator PARRY—Does any other location within Australia handle matters that are handled here, or does Queensland have some unique aspects of research?

Dr Johnson—The answer is both. There is certainly CSIRO staff in other laboratories around Australia who from time to time will work in Queensland as appropriate and as the project demands require certain skill sets that they have. The issue we are dealing with here is that we are attempting to bring together the combined scientific talents of both the Queensland

government and the CSIRO staff to address national issues that happen to manifest here in the Queensland context.

Senator PARRY—Earlier this morning when we inspected the abattoir site at Cannon Hill there was an indication that that was going to cease. It is good to have that on the record. I understand that that is a diminishing arm of that institute, anyway. Is that correct?

Dr Johnson—That is correct.

Senator PARRY—If you do need any abattoir facilities there will be no need to duplicate or rebuild?

Dr Johnson—No.

Senator PARRY—Paragraph 140 of the submission indicates that there is support from the Premier—and the Deputy Premier, whose electorate this falls within so I imagine there would be strong support from the Deputy Premier. Has there been any opposition from any person? It is indicated in one of the annexures that there has been wide consultation with members of parliament and community groups. Has there been any group whatsoever that is opposed to the proposed developments?

Dr Johnson—I will ask Mr Anker to comment specifically. To the best of my knowledge there has been concern expressed primarily by one group only, which is the parents and citizens of the Dutton Park School, which immediately adjoins there. I will ask my colleague from the state to address that.

Mr Anker—A key component for Boggo Road is also the urban renewal that will occur there as a result of the Boggo Road Urban Village so there is an element of heightened community interest in what that will deliver the community in that general area. Generally there has been excellent support for what has been identified today as the parts of that village, which includes not only the science precinct but also a residential component and a commercial precinct. That coupled with a major bus-rail interchange and connectivity through the Eleanor Schonell green bridge to UQ actually activates an area that has sat there since the jail closed in about 1998. The community has been expecting and looking to government to show some leadership there and deliver a solution for what has been a vacant site for a number of years. There has been some interest expressed about the heritage jail component, and I am sure we are sensitive to whatever development may occur as a result of that. There is an existing group that run, for want of a better term, ghost tours in that facility. We are tuned into those sorts of things as we develop through. The particular interest has been: will it cause disturbance during construction and what does it mean for the school close to there? We have been able to work closely with the school and other community groups through the public consultative process as well as through other mechanisms to keep them fully informed. There has been letter drops, newsletters and public meetings.

Senator PARRY—Has that allayed the fears or concerns?

Mr Anker—I believe it has to a great degree. There is a requirement that the public look to that development as it occurs to ensure that commitments given today are maintained.

CHAIR—I would like to go to a few questions on the building itself. I am sure that members of the committee would agree with me that we are pleased to see the attention that has been paid to making these buildings environmentally friendly, and the sustainability in both energy conservation and water. But there are a few questions. At paragraph 134 you have outlined some of these measures. In terms of the building itself, in paragraph 132 you talk about ‘direct digital building management’ and ‘external monitoring and control’ and also ‘daylight compensation lighting control systems’. For the public record could you perhaps explain what they mean in terms of energy conservation?

Mr Roehrs—‘Direct digital control’ refers to the building management system and that is a computerised system that allows direct control of all of the service systems within the building. It means that all of the elements in the building can be fully programmed to be switched on or off to monitor energy consumption. We can fine tune all of the systems within the building to their optimal operability. There will be several thousand of these control points on all of the systems within the building and that gives us an enormous capacity to tailor and manage the energy.

CHAIR—Have you made a comparison between the situation if you did not put these measures in against what happens when you do use these measures in a building? Is it able to be quantified?

Mr Roehrs—I can give you an example. If a typical fume cupboard, of which there are many in this building, was left running at all times it would consume something like a typical domestic household’s energy consumption per annum, so one of the key energy savings is to make sure that the fume cupboard sashes are actually lowered and controlled and that alarm systems go off if the sashes are left open, we can make a very significant reduction in that sort of energy consumption. That obviously depends to a certain extent on the user interface but that is an example of how we can make very significant energy savings by putting systems in place to assist.

CHAIR—I think this is important to have on the public record because the government has a very strong commitment, as I am sure the opposition does, to making sure we do everything possible to reduce energy consumption and thus greenhouse gas emissions. It is important for government buildings to lead in this respect. That is why as a committee we put a fair emphasis on that, and I think it is helpful for the public to know just what the energy saving by using these measures is.

Mr Moody—CSIRO have been installing building management systems in all of our more recent buildings and the energy savings we are generating can be of the order of 15 to 20 per cent. The reason is that it gives us the ability to operate the building within different degrees of temperature and humidity within the building so we can tailor it to ambient conditions. The savings are related to the extent of people’s tolerance in terms of hot and cold conditions in the building in trying to achieve those savings. But they are significant and it is something where we get a payback in a very short time frame because of the energy savings that come from that.

CHAIR—I think it was when we did the Newcastle building that the Newcastle council gave us very impressive figures of their retrofitting of public buildings. I thought you may have had

some definitive figures on that. Can you tell us a little bit more about the daylight compensation lighting control systems?

Mr Roehrs—We are using a range of different systems within the building. Some of them will be motion detection activated. In other words, if someone has moved through a space and there is no further activity for a certain period, the lights will switch off. There are other systems where, particularly in relation to office spaces on the perimeter of buildings where light levels are at an acceptable level, light switches will switch off automatically. So there are a range of different electronic systems related to lighting, depending on the location within the building, which will control and modify the energy consumption through lighting to match the optimal lighting conditions.

CHAIR—You also refer at paragraph 134 to the selection of materials with low volatile organic compound emissions and those of a proven sustainable manufacture. Can you, for the public record, give a little bit more information on why this is important?

Mr Roehrs—There is now quite a considerable body of evidence that indoor air quality has a significant effect on the wellbeing of the occupants of buildings. So we are increasingly focused on trying to make sure that the materials that are used have minimal off-gassing in relation to compounds that might affect health—for example, avoiding materials like PVCs and using things that use aromatic solvents, for example, that improve the air quality and contribute to sustainability. So we are looking for products that are not going to be using rainforest timbers and the like.

CHAIR—We have of course just heard quite a lot of public debate over the ABC buildings here and public health concerns. So obviously these are pretty important matters, and that takes me to some questions in that some of the operations going on in this building will be of a hazardous nature in terms of materials being used. For example, you need fume cupboards and so on. Can you tell us what measures you have taken to protect both people working in the building and those in the exterior? If there is a need for fume cupboards then presumably there will be airborne discharges. Can you tell us how you are proposing to manage those?

Dr Johnson—I can answer that, Madam Chair. You are correct: fume stacks will be constructed at both the ecoscience precinct site and the food science site. I can assure the committee that their design will meet all regulatory requirements for such. The exact specifications of those fume stacks are still being developed and we will be undertaking detailed plume studies to minimise any impacts of those.

CHAIR—Could you make sure that you further advise the committee on those measures as they are being developed?

Dr Johnson—Sure. I can also assure the committee that there will be no harmful substances discharged from those fume stacks whatsoever and that all air quality standards will be met.

CHAIR—What kinds of hazardous materials will you be catering for?

Dr Johnson—There are obviously a range of things that are possible. All contaminated waste and normal routine waste that is generated from laboratory buildings will be contained in secure

facilities on site that will meet all regulatory requirements. That waste will be disposed of by approved contractors. Any airborne contaminants, further to my previous answer, will also be contained using filter systems and such which, again, will meet all regulatory requirements to ensure that any hazardous substances will not be discharged.

CHAIR—Is it likely that there could be soil and water contamination as well?

Dr Johnson—There will certainly be soil and water materials on site, but, as in my previous answer, we believe we have the measures in place to make sure that they are contained on site and that they exit the site with the appropriate protocol.

CHAIR—I apologise for jumping around a bit with my questions, but as we are working over several sites it is difficult to get continuity. In terms of the hazardous materials and the sites you are vacating, what measures are being taken to make sure that any hazardous areas are properly remediated before those properties are disposed of?

Mr Moody—As a matter of course, before we dispose of any site, we undertake environmental audits. We have had preliminary audits, or stage 1 assessments, carried out on each of the three sites we are planning to sell. The extent of contamination on those sites is something that can be readily dealt with on each of them. We do not see it as a problem in meeting all the environmental standards prior to disposal.

CHAIR—So there will be some checking of this prior to disposal?

Mr Moody—There will be a second-stage environmental audit which will determine what remedial action needs to be taken, but our first-stage audit indicated there was minimal contamination on the site.

CHAIR—So you can assure the committee that all those necessary steps will be taken to make sure the existing sites that are being disposed of will be remediated and that any new construction will incorporate measures to ensure that the buildings are safe?

Mr Moody—Yes.

CHAIR—In that regard, I imagine that in your buildings the fire risk would be quite high. Can you, Mr Moody, or Mr Roehrs explain to the committee what measures have been taken and who has been consulted to ensure fire safety and appropriate evacuation procedures? You have quite a lot of people working on these sites. Can you explain to us what is happening there?

Mr Roehrs—Certainly. The flammable chemicals that are held on site fall well within the guidelines for laboratory projects. We are following part 10 of Australian Standard 2243 in terms of how those flammable goods are managed and distributed across laboratory floors. The loadings are relatively low compared to what the capacity could be under those guidelines for a building of this type. Nonetheless, fire safety is a very important part of what we do. We have been consulting with the Queensland Fire and Rescue Service as well as with our building certifier in relation to the Building Code of Australia. We also have active consultation occurring with the occupational health and safety representatives of all of the agencies to make sure that we have compliance in safety and egress procedures for the building.

CHAIR—We did notice the high level of attention paid to occupational health and safety on the last visit that we made to Indooroopilly, so thank you for that. There are two other issues before we go back to one of the others. One is in relation to access to the building for people with a disability. What provision has been made for that?

Dr Johnson—To ensure equitable access for all persons with disabilities, all buildings will be designed to meet the requirements of the relevant Australian standards and the Building Code of Australia. We are using the term ‘barrier-free access’ and I refer you to paragraphs 135 and 136 of our statement of evidence which I believe should give you a statement on what we will be doing.

CHAIR—Thank you. Given the number of additional people who will be moving to these two sites, what is being done to ensure appropriate traffic management on both sites—the ingress and egress and other issues around traffic management?

Dr Johnson—There are two responses to your question. At the macro level, I inform the committee that, as a general design philosophy on the site, we are trying to minimise the number of vehicles actually entering and exiting the site to a bare minimum. Our estimate at this point in time is that there will be only 174 vehicles on the site, and they will all be work related and required for field equipment and so on. There will be no parking for staff members on site because we believe, as an ecoscience precinct, we should be able to walk the talk.

Given that the precinct is immediately adjacent to major bus and rail interchanges, we need to show leadership here and minimise the number of vehicles entering and leaving the site every day. Obviously, the type of disruption that comes with having 1,200 folks on site is a potential concern to residents as well. At a macro level, the whole philosophy of the site is to minimise private vehicle access to the site. Of course, there will be individuals who will need private access from time to time and there will be a small reservoir of capacity there for people under particular circumstances; there will be visitor parking. Within the greater precinct at Boggo Road, there will be a two-hour parking area—a traffic controlled area—around the site again to minimise impacts on local residents. But overall the philosophy is about the use of public transport onto the site.

CHAIR—Returning briefly to the environmental issues, you mention here at paragraph 134 that there will be water saving devices and the collection of roof rainwater. Can you explain to us in a little more detail what amount of water you anticipate collecting and how far it will go to make the site reasonably sustainable in water?

Mr Roehrs—One of the big problems we have in Queensland at the moment with water is that, no matter how much water storage you have, you are not going to store enough. We are looking at significant volumes of water storage on both the Coopers Plains site and the Boggo Road site. We are looking at around 420,000 litres of storage for Boggo Road. We are still determining the exact storage amount for Coopers Plains, but it is probably in excess of 300,000 litres of storage. We are proposing to use that for a variety of activities on the site. Not only will we be collecting rainwater but also we are collecting the water that is required for testing the fire apparatus in the building—which, on its own, constitutes 250,000 litres a year—as well as our recycling of the RO waterways. We are looking at, wherever possible, focusing on water

consumption in terms of not only savings but also capture of whatever sources we can on the site.

CHAIR—I must say that we are very pleased to hear it. We have been having some robust discussions with other agencies about this particular subject and are glad to see you leading the way.

Senator PARRY—I am very intrigued with the parking. I suppose that means that corporate salaries will incorporate a pushbike now and not a car.

Dr Johnson—I will be taking the train and I am looking forward to it.

Senator PARRY—Very good. This would have to be the smallest number of car parks for a facility of that size that I have heard of. This is probably a design or management question, but can the greenhouses on the top of the Boggo Road precinct design be located on the ground? I have two reasons for asking this. It seems unusual to put greenhouses on the top of a building and there is the possibility of damage through cyclonic or storm activity, which could shoot them over the side as well as, equally, the contents of those buildings—and that is apart from the danger of debris. It is a design issue for the greenhouses. Why are they on the top rather than on the ground?

Mr Roehrs—The key characteristic of a greenhouse for research purposes is that it needs 100 per cent solar exposure, so they need to be able to get full solar exposure from first thing in the morning until late in the afternoon. That should not be impeded by trees or other buildings. In fact, the greenhouses that you saw at Indooroopilly have a major problem at the moment because eucalypts overshadow them. To get consistency in your research results, you need that constant and regular sunshade input. For that reason, with the proposed density of activity that occurs at the Boggo Road site, it is not possible to put them on the ground because they will be overshadowed by adjacent buildings.

Senator PARRY—Would they have been placed on the ground if you had the space? Would that have been the first preference?

Mr Roehrs—If you have the space, yes. But late afternoon shadows are so extensive from adjacent buildings that you really need to be almost in a rural area to effectively put in place that sort of facility. The roof space becomes a very effective way of doing that. We have one horizontal datum for the greenhouses. Obviously, we will be subject to wind loads, but the benefit of being higher is that we will probably get less debris up there than we would if we were down at ground level, where you are exposed to trees and other low-flying debris. In some ways it will be a more protected environment on the roof, but it will have slightly higher wind exposure.

Senator PARRY—How does that affect the safety aspect and the design of the greenhouses? Can you still effectively get a decent greenhouse and make it safe and secure?

Mr Roehrs—Yes, you can. All systems will have a wind speed design capacity that we will design to. The higher risk greenhouses will be of very substantial construction to make sure that their integrity is maintained in storm events and depending on the level of security that will

reduce accordingly. However, we will be designing structural systems for the wind load characteristics and similarly the glazing systems used will also be designed to withstand hail and wind events.

Mr BRENDAN O'CONNOR—I refer to paragraph 105 where, in the final sentence, it says:

Space for a future block is provided at the southern end of the site.

That may be a very innocuous sentence, unless it means that there is a likelihood of some construction that would be involved subsequent to this project. Is there something that CSIRO or indeed the state government is envisaging occurring beyond this project to utilise that space?

Dr Johnson—Certainly from the CSIRO's perspective there is nothing planned in the foreseeable future. I believe the intent of that paragraph is merely just to inform the committee that, should demand for CSIRO's work necessitate additional staffing levels over and above the capacity in the building currently, there is flexibility on the site.

Mr BRENDAN O'CONNOR—So that space is the space that you are leasing?

Dr Johnson—No, it is a separate space to the south of the building.

Mr BRENDAN O'CONNOR—So in other words it is not under the lease?

Dr Johnson—No, it is not.

Mr BRENDAN O'CONNOR—Can I refer you to paragraph 138, childcare provisions. It says:

The Queensland Government supports establishment of a private sector childcare centre within the Boggo Road Urban Village.

It makes the point:

No childcare facilities are located on the Queensland Health Scientific Services campus.

That does not go a long way to saying what is likely to occur with childcare services but, whilst there is in principle support from the government, is there any intention by either the Queensland government or CSIRO to have a private sector provider lease an area of the site?

Dr Johnson—I will let the Queensland government answer for itself but with respect to CSIRO's position on child care, it is our understanding that child care is a permissible use on the site. Under the material change of use application that the state has made with the Brisbane City Council, it is an allowable use on mixed use sites such as the ecosciences precinct. So our perspective is that any provision of child care on that site will be the responsibility of the private sector and we support that. The social amenity and impact assessment report that was prepared for the MCU application identified approximately 12 facilities offering childcare services including before and after school care, vacation care and long day care in the suburbs immediately surrounding the ecosciences precinct. Our belief is that the market will respond to

the need. There are 12 facilities in the immediate surrounding area and our view is that there will be ample opportunity for staff members who have children requiring care to take advantage of local facilities.

Mr BRENDAN O'CONNOR—How do you know that, other than as indicated—

Dr Johnson—A social and amenity impact assessment report was done as part of the project.

Mr BRENDAN O'CONNOR—Has that looked at not only the number of service providers but also their vacancies?

Dr Johnson—Yes. Again I stand to be corrected here, but I believe that it has looked also at the demographic of staff members who are likely to occupy the site.

Mr BRENDAN O'CONNOR—Have you surveyed your own staff on their need for childcare provision?

Dr Johnson—Yes, we have. We have also undertaken a survey on transport needs.

Mr BRENDAN O'CONNOR—Just generally, in your opening statement you talked about consultation with staff.

Dr Johnson—Yes.

Mr BRENDAN O'CONNOR—What form of consultation occurred?

Dr Johnson—We have undertaken three core forms of consultation. We have a staff newsletter that briefs staff on the conduct of the project as it is undertaken. Senior colleagues, some of whom are present here today, and I have undertaken personal briefings of staff as the project has proceeded. There is also a CSIRO project control group, which I chair, which contains staff representatives and which has, as a permanent member, a representative of the CSIRO staff association; so the union is formally represented on that control group. I should also add that in the design process there has been very heavy engagement from staff in the design of the layouts of laboratories and office spaces. Staff working groups have been working with the architect, for example. So those folks who are very important stakeholders in this process are having a say in how the thing will operate.

Mr BRENDAN O'CONNOR—Again I might be better informed about this if I had been here this morning, but can you see any downsides to the location? Clearly, overall, on the face of it, it would appear that the objectives will be fulfilled: the synergies providing benefits that do not currently exist and, of course, having more up-to-date advanced facilities. But are there any downsides? For example, is there any staff disruption—and you may not be able to avoid it—which, in the end, will still be a problem even though not to the degree as would prevent you from proceeding?

Dr Johnson—My experience in these things—I am sure your experience is the same—is that there will always be some element of staff disruption. What we are seeking to do at the moment is to minimise that. As I said before, we have undertaken a transport study to try to better

understand what might be the impact on travel times and staff movements—just as an example. I do not sound very excited today because I have one foot in the grave.

Mr BRENDAN O’CONNOR—Metaphorically speaking.

Dr Johnson—Metaphorically speaking, yes. But my view of this project is that it is truly unique and very exciting. An opportunity, such as this, to bring together so much of CSIRO with our colleagues in the state does not come along very often. In fact, such opportunities do not come along. This is the first time in nearly 20 years of work in this sector that I have seen such an opportunity.

The other upside for me on this project is the fact that, through some vision of and leadership by our colleagues in the state agencies, this proposal is part of a much bigger picture of science innovation investment here in Brisbane. With the linkages with the University of Queensland all the way up through the Griffith University, the Princess Alexandra Hospital, the Queensland University of Technology, Kelvin Grove Village and the Royal Brisbane Hospital, this will be a globally unique set of research and development investments in the spine of Brisbane. CSIRO feels that, as an institution that sees itself as a global leader, it is very important to be part of that. Overall, my view is that the strong benefits this project brings will offset the inevitable impacts.

Mr BRENDAN O’CONNOR—Just going back to the inevitable, because I guess that is what I was referring to, I think I am making the right assumption too that there is a net gain, and you have put it quite well. I just wonder what those problems are. Do they include, for example—and you can refute some of them—problems with moving from locations that allow for car parking to locations that allow for no parking?

Dr Johnson—Yes.

Mr BRENDAN O’CONNOR—If you live in a particular part of Brisbane, it might well be that getting on a train is a wonderful thing, but some who live in the outer suburbs of Brisbane might find that less wonderful. I am thinking of those sorts of issues.

Dr Johnson—I consider that to be the sole area of staff concern, moving forward, and it is really localised to one of our sites, which is at Cleveland. Those of you who are familiar with Brisbane would know that Cleveland is approximately 30 kilometres from the CBD. Staff down there have basically had a nice community life at the beach and we are asking them to move up to a CBD location. There is no doubt that for some—but not all—of those staff, there will be a material impact on them in terms of their travel time to work. So we are working closely with them to look at options for how we might address that.

Mr BRENDAN O’CONNOR—That may include impacts on their families—in balancing family, picking up kids et cetera.

Dr Johnson—Correct. There are all those sorts of things. So we have quite openly recognised that this is a challenge. We realise it is a point of sensitivity for a number of staff down there, and it is occupying a significant amount of focus for the project team as to how we address that particular issue, recognising that for some folks it is going to come down to a matter of choice as to whether they want to commute. But, wherever possible, the organisation has given an

undertaking to those staff that we will assist them. Likewise, for some staff, who live in the far western suburbs, one of the joys and hassles of having a river like the Brisbane River is that it does not give direct access. Again, we are investigating opportunities for staff to commute as far as here and then connect with the public transport system across the Green Bridge and through the tunnel. So, you are right, there are those issues. But I can give the committee my assurance that we are treating them seriously and that we are working with staff. We have three years, with your blessing, to get these issues in hand as best we can.

CHAIR—These questions probably go more to Mr Anker or Mr Robertson. Has a managing contractor been appointed yet?

Mr Robertson—No, not as yet. We are looking at going to tender in August, with a managing contractor formally entering into a contract early in the new year, around February, to construct the building.

CHAIR—Have expressions of interest been called for?

Mr Robertson—Yes, there have been. There was a two-stage expression of interest process undertaken. The first stage was a briefing to industry and a general registration of interest in respect of a number of capital works projects that the Queensland government is putting out to the market in the near future. Only those companies which pre-qualified under what we call our PQC system—which is a pre-qualification for tenderers to be able to tender for government work—were eligible for consideration. The second stage was a formal expression of interest allowing contractors to target projects that suited their capability and capacity and their business. Each contractor was required to provide a formal submission against set criteria. An evaluation panel within DPW was formed to assess the submissions. I might add that what DPW was doing was selecting contractors across a range of major projects which are on our forward program at the moment. The final tender list will be determined based on the assessment of the earlier expression of interests that we had some time ago. I am anticipating that we will have a tender list of emerging contractors by around August to September.

CHAIR—For the public record, what is the project delivery time line?

Mr Robertson—We intend to start construction in February 2008 and complete around August 2010, which is a period of some 2½ years for the ecosciences precinct. The health and food sciences precinct will start at the same time, in February 2008. However, it has a year less of construction time, so we are looking at completion in mid-2009.

CHAIR—When does CSIRO propose to move? What is the anticipated date of decanting people from existing buildings?

Mr Moody—The Coopers Plain complex will be completed in 2009. Immediately after that is completed, we will be relocating our staff from Cannon Hill to the Coopers Plain site. In a similar way, if August 2010 is the completion date for the ecosciences precinct, we will then move our remaining people from Indooroopilly, those from QBP who are coming across and those from Cleveland. That will be from August 2010 or immediately or soon after completion.

CHAIR—Are you confident that the time lines can be met?

Mr Moody—In our experience—the state is probably more experienced in what happens in Queensland—certainly we believe that the time for completion for the scale of the project is realistic.

CHAIR—I think Queensland like Western Australia probably has a fairly robust building program. Is this creating difficulties in completing projects on time and on budget?

Mr Robertson—It certainly has not to date to my knowledge. I am confident that those times are quite reasonable for the scale of the projects that we are anticipating at the ecosciences precinct and the health and food sciences precinct.

CHAIR—I asked the question because this committee has in the past seen quite a number of projects come in late and therefore experience cost blow-outs. We want to be reasonably assured that there are realistic contingencies and we will not be seeing cost blow-outs in the project.

Dr Johnson—I think you were given that assurance in the in camera session.

CHAIR—I would like to thank all the witnesses who appeared before the committee today.

Resolved (on motion by **Mr O'Connor**, seconded by **Mrs Moylan**):

That, pursuant to the power conferred by section 2(2) of the Parliamentary Papers Act 1908, this committee authorises publication of the evidence given before it and submissions presented at public hearing this day.

Committee adjourned at 2.37 pm