COMMONWEALTH
BUREAU OF METEOROLOGY

Proposed Fitout of New Leased Premises for the Bureau of Meteorology 700 Collins Street, Docklands, Victoria

Statement of Evidence and Supporting Drawings for Presentation to the Parliamentary Standing Committee on Public Works

Commonwealth Bureau of Meteorology
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Introduction

Proposal

1. This proposal covers the fit-out of new leased premises for the Commonwealth Bureau of Meteorology at 700 Collins Street, Docklands (Melbourne), Victoria. The new premises, with a net lettable area (NLA) of 16,901m^2, will accommodate both the Head and Victoria Regional Offices of the Bureau, currently collocated at 150 Lonsdale Street, Melbourne, and will comprise a number of special purpose facilities essential to the operation of the Bureau in addition to office space.

2. The accommodation will provide the 847 staff, meteorological trainees, visiting research scientists, venture partners and specialist consultants of the Bureau's Head Office and Victoria Regional Office (VRO) with a work environment which is space and energy efficient and meets contemporary occupational health and safety standards as well as enabling the Bureau to exploit advances in computing and communications technology necessary to its effective operation over the next 10-20 years. The Bureau's existing Lonsdale Street office complex, together with a specialist radar engineering workshop currently located in Collingwood, Victoria, will be vacated as a result of the reaccommodation proposal.

3. The Head Office of the Bureau has been accommodated in the Lonsdale Street Offices since October 1974: in 1986 the Bureau's Victoria Regional Office collocated to the same building. These 28 year old premises can no longer support either current or projected operational requirements for the Commonwealth Bureau of Meteorology – and in particular the special requirements for the Central Computing Facility - for floor safety and other reasons. All the options of separating the computing facility from the Head Office would increase costs and reduce efficiency to an unacceptable extent. A move out of the CBD was recommended by an external assessment and the proposed move is unavoidable and urgent. 700 Collins Street, Docklands, is a new private-sector development project. The Bureau is required to complete the move to its new accommodation by 1 April 2004. Accordingly, a pre-commitment lease has been signed with the developer of the new premises – Folkestone/Leighton JV Pty Ltd (FLJV) - and the building is currently under construction. The fit-out is proposed to be integrated with building construction where practicable.

4. The fit-out proposed in this submission will be in a new building, which is funded by the private sector and purpose-designed for the Bureau as the major tenant.

Commonwealth Bureau of Meteorology Organisational Description

Commonwealth Bureau of Meteorology Functions and Duties

5. The Commonwealth Bureau of Meteorology is the National Meteorological Service for Australia. The Bureau is an Executive Agency within the Environment and Heritage portfolio and operates under the authority of the *Meteorology Act 1955* which provides the explicit legal basis and basic charter for its activities.

6. The purpose of the Bureau is to contribute to Australia's social, economic, cultural and environmental goals through the performance of the functions of a National Meteorological Service 'in the public interest generally, and in particular:

- for the purposes of the Defence Force;
- for the purposes of navigation and shipping and civil aviation; and
- for the purpose of assisting persons and authorities engaged in primary production, industry, trade and commerce'.

7. The overall mission of the Bureau is to observe and understand Australian weather and climate and provide meteorological, hydrological and oceanographic services in support of Australia's national needs and international obligations. This overall mission involves four separate basic missions:

- Monitoring
  Observation and data collection to meet the needs of future generations for a reliable homogeneous national climatological data record;
- Research
  Research directed to the advancement of meteorological science and the development of a comprehensive description and scientific understanding of Australia's weather and climate;
- Services
  Provision of meteorological and related data, information, forecast, warning, investigation and advisory services on a national basis; and
- International
  Coordination of Australia's involvement in international meteorology.

8. The Meteorology Act defines the functions of the Bureau as:

- the taking and recording of meteorological observations and other observations required for the purposes of meteorology;
- the forecasting of weather and the state of the atmosphere;
- the issue of warnings and gales, storms and other weather conditions likely to endanger life or property, including weather conditions likely to give rise to floods or bushfires;
- the supply of meteorological information;
- the publication of meteorological reports;
- the promotion of the use of meteorological information;
- the promotion of the advancement of meteorological science, by means of meteorological research and investigation or otherwise;
- the furnishing of advice on meteorological matters; and
- cooperation with the authority administering the meteorological service of any other country in relation to any of the matters specified above.

9. The Act confers on the Director of Meteorology such powers as are necessary to enable the Bureau to perform its statutory functions and in particular to:

- establish meteorological offices and observing stations; and
- arrange with any Department, authority or person to take and record meteorological observations and transmit meteorological reports and information.

Bureau Structure and Staffing

10. The Bureau is currently structured on a matrix basis with a program and output-based Head Office in Melbourne and seven Regional Offices located in the State capitals and Darwin.

11. The Melbourne Head Office serves as both the administrative and operational headquarters of the Bureau and consists of an Executive (The Director of Meteorology, three Deputy Directors and a Chief Scientist) and four Divisions with their component Branches (except for the Bureau of Meteorology Research Centre) headed by Assistant Directors as follows:

- Systems Division with national program responsibility for the Monitoring and Prediction Program;
- Research Division (the Bureau of Meteorology Research Centre) with national responsibility for the Research and Development Program;
- Services Division with responsibility for all of the Bureau's Services Programs; and
- Corporate Division with responsibility for the Bureau's International Activities and Crosscutting and Corporate Activities Programs.

12. The seven State/Territory boundary-based Regions, each consist of:

- a Regional Office under a Regional Director responsible for all Bureau programs, activities and outputs within the Region; and
- a number of Field Offices with observing, forecasting and service functions.

13. The various major Head Office programs and services are:

- **Monitoring & Prediction** - Responsibility for the Monitoring & Prediction Program resides with the heads of the Head Office Branches of Observations & Engineering (OEB) and Central Operations & Systems (COSB). The broad rationale for the program is to provide, operate and maintain the basic observation, communications and data processing systems necessary to maintain round-the-clock, nation-wide weather watch and to meet present and future national and international needs for raw and processed meteorological data. Its component programs include Observations, Engineering, Communications, Computing and Analysis and Prediction. Much of the process and associated infrastructure supporting this Program is driven by compliance requirements with both national and international meteorological standards and conventions, necessary to ensure ongoing operational integrity and international uniformity.
- **Research & Development** - Responsibility for the Research & Development Program resides with the head of the Bureau of Meteorology Research Centre (BMRC). Its

specific objectives reflect a continuing strategic emphasis on research directed towards improving the quality of the Bureau's services and developing an improved understanding of some of the meteorological and oceanographic processes which are central to major issues such as global warming and environmental change. Many projects within the program include international and national collaboration.

- **Weather & Oceanographic Services** - Responsibility for the Weather Services and Oceanographic Services Programs resides with the head of Weather and Ocean Services Policy Branch (WOSPB). The component programs of Weather Services are Severe Weather Warning Services, Public Weather Services, Marine Weather Services, Aviation Weather Services, Defence Weather Services and Special Weather Services. Its overall objective is to meet the needs of the general public and specialised users for relevant, accurate and timely weather data, information and forecast and warning services.
- **Climate Services** - Responsibility for the Climate Services Program resides with the head of the Climate, Consultative & Hydrological Services Branch (CCHSB). Its objectives are to provide climate data, analyses, seasonal outlooks and advice to the general public and to a wide range of specialised users. Component programs include Climate Data Bank (involving the need to provide secure storage for long-term climate records), Climate Data Service and Climate Monitoring Service.
- **Consultative Services** - Responsibility for the Consultative Services program also resides with the head of CCHSB. The program has two components: Meteorological Advisory Services and Special Investigations. The Meteorological Advisory Program provides professional advice on meteorology and related oceanography and their applications and may be provided on a cost recovery basis. The Special Investigations Program undertakes theoretical, experimental or field studies to meet consultancy requests. The Special Services Unit of the Bureau operates within this program.
- **Hydrological Services** - Responsibility for Hydrological Services also resides with the head of CCHSB. The program encompasses the provision of flood warning services, hydrometeorological information and advice, and water resources assessment and design. Component programs include Water Resources Assessment, Flood Warning Service and the Hydrometeorological Advisory Service.
- **International Activities** - Responsibility for International Activities resides with the head of the Executive and International Affairs Branch (EIAB). The objectives of the program are to meet Australia's international obligations, advance Australia's interests and support the operations and services of the Bureau in, and through participation in, international meteorology and related fields.
- **Cross-cutting and Corporate Activities** - Responsibility for these activities is shared between the Bureau Executive, and the heads of the Executive and International Affairs and Management Branches. The program provides internal management services and overall coordination of Bureau activities. Component programs include Public Education (involving production of publications, staging of displays, hosting school and community groups, general promotion, etc), Training (involving professional, technical and management training for local staff and national and international trainees and to promote the learning and understanding of meteorology and related disciplines through

the maintenance and operation of the National Meteorological Library), Executive Management (aimed specifically at supporting effective overall planning and management of the Bureau in the performance of its responsibilities under the Meteorology Act) and Management Services (providing the administrative functions necessary to support the Bureau's core operations).

Commonwealth Bureau of Meteorology Accommodation Needs

Expiry of Lease at Current Premises and Issues with Current Accommodation

14. The Bureau of Meteorology's Head Office (HO) has been located at 150 Lonsdale Street since 1974; the Victoria Regional Office (VRO) moved to the same address in 1986. In May 1996 the Bureau renegotiated a lease with Perpetual Trustee Company Ltd (Macquarie Bank trustee) for approximately 18,300 sq m at 150 Lonsdale St; this lease expires on 31 March 2004 and no lease renewal option period was included in the agreement. Even prior to those lease negotiations there were serious concerns based on engineering consultants' reports that the building structure and associated services infrastructure of 150 Lonsdale St would not be adequate to meet Bureau requirements beyond 2003, in particular:

- difficulties in provision for the Central Computing Facility (CCF);
- level and quality of building services and general accommodation; and
- operating costs of the current accommodation.

15. A key issue in the discussion of accommodation options has been the future accommodation for the CCF which includes provision for the High Performance Communications and Computing Centre (HPCCC). Originally, commissioning of an upgraded supercomputer was planned for June 2003, however structural engineering advice confirmed that any new supercomputer would not be able to be collocated on Level 1 at 150 Lonsdale Street due to floor loading limitations. Works to remedy the situation, if this were possible, would be expensive and not guaranteed of success. Hence this matter would become an important factor in future decisions.

16. The CCF is currently located on Level 1 of 150 Lonsdale Street. Recently-purchased supercomputers are considerably heavier than previous models, and the floor loading is now at its design limit. Careful planning has to attend every change of equipment and even routine maintenance on this floor to avoid exceeding the loading limit, and there is no viable space available for any future expansion of the CCF.

17. The building at 150 Lonsdale Street is also old in building terms and has only marginally adequate building services such as air conditioning; in its present state it would be considered B to C-grade accommodation in commercial property market terms. A-grade accommodation is considered appropriate for Government agencies and this building therefore presently constitutes a less than satisfactory environment for Bureau staff. The age of the building also contributes to higher operating costs than are currently considered desirable since neither its overall design nor its building services are energy efficient. If the Bureau was to stay at 150 Lonsdale Street a major upgrade to services – particularly those

supporting the CCF - would need to be completed over the term of any renegotiated lease, and this would entail significant disruption to Bureau operations.

18. In consequence of these issues, the most recent renewal of the Bureau's lease at 150 Lonsdale Street was only for a period of seven years; this tied in with advice from engineering and building consultants that the building would only be likely to meet the Bureau's needs for this period of time, and that the Bureau should then reconsider its options.

19. Consequently, beginning in late 1999 there was a careful consideration of the potential accommodation options for the HO and VRO after 31 March 2004, with particular attention being given to the need to improve the accommodation for the CCF. The aim has been to determine a strategy which would meet the accommodation needs of Head Office and the Victoria Regional Office for the 10 to 20 year period following expiration of the lease at 150 Lonsdale Street.

Recommendation of Strategic Assessment

20. The Strategic Assessment of the Bureau conducted in late 2000/early 2001 noted the optimal location for the Bureau's Head Office would need to be guided by a need for collocation of key Bureau functions; close proximity to key customers for the Victoria Region; a meeting of space and operational requirements for present and future computing facilities; a need to take into account the preferences of staff, given their demography, in order to avoid significant skill loss; and a need to keep rental cost within budgetary limits.

21. It recommended that the Bureau's Head Office continue to be located within the Melbourne CBD while locating the computer facilities outside the CBD, or both be located in Melbourne but outside the CBD. Other options however were not specifically ruled out as unacceptable, provided the main criteria mentioned above were satisfied.

Assessment of Accommodation Options

22. Many new developments are currently in progress within or close to the Melbourne CBD and a number of options for alternative accommodation were therefore open to the Bureau. Several consulting firms were engaged to assist with identification of these options and their technical and financial analysis and to provide some broad rental and associated lease costs for a ten-year period, discounted over the period to their present day value or cost.

23. The options for HO/VRO accommodation identified and analysed in detail were:

Option A - Stay at 150 Lonsdale Street with a collocated CCF

Option B - Stay at 150 Lonsdale Street with a separate CCF

Option C - Secure alternative premises for HO/VRO including CCF (CBD/Fringe)

Option D – Secure alternative premises for HO/VRO, separate CCF (CBD/Fringe)

Option E – Secure alternative premises for HO/VRO including CCF (non CBD)

24. Following a detailed analysis of each option and in response to the criteria recommended in the Strategic Assessment, the Bureau Executive decided that the

optimum approach, when assessed on the 10 year time frame, would be to move to alternative (new or refurbished) premises in, or on the fringe of the CBD which, it was anticipated, will be less expensive to operate and of higher quality than the current accommodation and overall would serve the Bureau's needs better over the next 10-15 years. Noting the wide range and nature of options under consideration at that stage, indicative costs for all available options were in the range $51.18M - $59.33M.

25. The details of the analysis of options are at Appendix A.

Future Accommodation Project Management Arrangements

26. In January 2002 a Future Accommodation Steering Committee, chaired by a Deputy Director and consisting of all Bureau Head Office Senior Executive Service (SES) officers and the Regional Director (Victoria), was formed to oversee the Project. In addition, a Project Management Group (PMG), which reports to the Steering Committee, was formed to take on the day-to-day running of the Project. The PMG consisted of senior Bureau staff covering services, technical, financial and legal areas and has been receiving support from a range of external consultants as required on specialist issues. The involvement of a range of experienced independent consultants and probity advisors assisted the Bureau greatly including in the achievement of a robust and well-structured tender process.

27. A table of consultants employed by the Bureau on the Future Accommodation Project, and an outline of their role, is contained in Appendix B. The two main consultants employed are United KFPW (formerly known as KFPW Pty Ltd – referred to hereafter as KFPW) and GHD (formerly Gutteridge Haskins & Davey).

28. KFPW is Australia's largest independent company specialising in the outsourced provision of Corporate Real Estate services. KFPW's experience in Government property work includes the management of the tender process for the Australian Customs Service in Sydney, 52 Centrelink offices, 6 Telstra call-centres and 17 precommitment leases for the Australian Taxation Office.

29. GHD is an Australian owned international company providing management, engineering, environmental, planning and design services with a commitment to balanced sustainable development. Operating continuously for over 70 years, GHD has been responsible for a wide variety of architectural projects at federal, state and local community level. These include the RG Casey Building for the Commonwealth Department of Foreign Affairs and the Treasury Building Refurbishment Project for the Department of Finance, both in Canberra, through to Regional Office accommodation for the Western Australian Department of Agriculture in Geraldton, WA. GHD provides comprehensive management and consulting services from in-house integrated project teams operating under a Practice Quality Management System certified to ISO 9001:1994.

30. The objectives of the Bureau's Future Accommodation Project have been identified as to:

- Investigate and analyse the options for future accommodation of HO and VRO beyond April 2004 and present an appropriate strategy to the Executive for approval;

- Manage the Request for Tender process ensuring the highest standards of probity within a risk management framework;
- Provide the Executive with recommendations for appropriate accommodation within the chosen option;
- Coordinate the design and manage the fit out of the accommodation to suit the Bureau's current and future needs; and
- Organise and manage the transition to the new arrangements, minimising consequent disruptions to Bureau services.

31. Key outcomes of the Project are that in the transition to new accommodation arrangements for HO and VRO:

- The needs of the Bureau, its staff, and its operations, including those of its users, are well served for at least the next 10-15 years;
- Operating costs are reduced over those in the current accommodation; and
- A high level of environmental management is achieved at the new accommodation; and
- Opportunities to build on current Bureau practice to achieve improvements to the Bureau's normal outputs or outcomes are fully exploited.

Commonwealth Government Approval for New Accommodation

32. Consistent with Government and Industry practice, and following expert advice from and with the assistance of the Bureau's property managers KFPW, and building on the experience of the Environment Australia Head Office relocation project, the Bureau carried out a three stage process to select a preferred tenderer.

Tender Stage 1: An "Invitation to Submit Proposals for the Provision of Office Accommodation in Melbourne" (commonly referred to as seeking Expressions of Interest) to test the interest in the property market;

Tender Stage 2: Issue of Request for Tender (RFT) to a group (six proponents) selected from Stage 1 and evaluation of offers to reach a short list of three proposals; and

Tender Stage 3: Detailed clarification of financial, legal and technical aspects of shortlisted proposals leading to a decision on a preferred tenderer.

33. The outcome of the tender process was the acceptance by the Bureau of a development proposal that will include the construction of a new, purpose-designed building for its future office accommodation and operational requirements. On 1July 2002 the Bureau signed a standard Commonwealth *Agreement to Design, Construct and Lease* with Folkestone/Leighton JV Pty Ltd that will see the Bureau of Meteorology as the sole tenant of levels 5 to 11 inclusive of 700 Collins Street, Docklands (Melbourne) plus 27 secure car parking bays in the basement. The Lease is to commence on 1 April 2004 for an initial term of 12 years with options for two (2) more terms of four (4) years.

34. Details of the conduct of the tender process are at Appendix C.

Local Impact of the Accommodation Project

Redevelopment of Docklands Area of Melbourne

35. The Docklands area of Melbourne, located just outside the current Melbourne CBD on the western side and covering a similar area, involves the redevelopment of the Melbourne Docklands waterfront. This is clearly a major task and construction is estimated to take approximately 15 years, spanning a number of economic cycles. Melbourne Docklands has an estimated $6 billion potential investment value and a total of $2 billion has already been committed in either construction activity or unconditional contractual arrangements from major Australian corporations.

36. The State Government expects that the redevelopment of the Docklands area will have a significant impact on Melbourne, with an estimated 20 million visitors each year, and 15,000 residents and 20,000 workers located in the district. The development of Docklands is also projected to create approximately 3,000 construction and permanent jobs each year. The State Government is highly committed to the success of the Docklands project which has positive implications for the success of the Bureau's own proposal.

37. The intention of the State Government is that the Melbourne Docklands should contain a mix of residential, office and other types of development. The development is being carried out in the main by private sector investment within a comprehensive planning framework provided by the State Government, covering aspects such as quality of design, full public access to Docklands' seven kilometres of waterfront, and integration of public parks, boat moorings, urban art and public transport. For example, the agreements between the Authority and successful developers require that 5% of the total land area be made available for community services and facilities, and a further 5% allocated for public open space.

38. In addition, the State Government is pursuing a Community Development Plan in conjunction with adjacent municipalities and community service providers. The plan will identify the services likely to be needed by the people who will live, work in, or visit Docklands, at all stages of its development. It will also address who will provide the services how they will be paid for. Further to this it will also propose the processes for ensuring that the services are provided in a timely manner.

39. Although Docklands development is currently in the relatively early stages, the approach being taken has highly positive implications for the longer-term amenity of the area for Bureau staff. In the interim, any services not available in the Docklands areas can be easily accessed from within the CBD.

40. The 10 hectare Batman's Hill Precinct is considered to be a pivotal location within Docklands. The precinct is adjacent to the western edge of the CBD (Spencer Street Station), the Yarra River and Flinders Street (Convention/Trade Centre), Telstra Dome (formerly Colonial Stadium) and Victoria Harbour. A mix of uses is envisaged for the precinct, including commercial, retail, entertainment, hotel, residential and cultural developments. The Collins Street Extension into the precinct provides sites with the frontage of a premium commercial street. Over half the precinct is already committed or under construction. 700 Collins Street is the first major development on the Collins Street

extension and is seen as a significant and important location within the Docklands area. The Bureau's tenancy is clearly highly valued by both the State Government and the developer Folkestone/Leighton JV Pty Ltd.

41. A major redevelopment is also planned for Spencer Street station which is one of the two major train stations in Melbourne and the main terminus for country and interstate trains. Currently the station is accessed via a subway constructed especially to link it with Docklands (distance about 200 metres); after redevelopment which will occur progressively over the next few years and encompass significant increases in retail and other services, there will be a major entrance to the station (to be renamed Southern Cross Station) on the Collins Street extension very close to the Bureau's proposed location. Again this has very positive implications for the long-term amenity of the location for Bureau staff.

42. The Bureau of Meteorology fit-out is part of a larger development project within the Docklands precinct. The impact on the Melbourne economy would be minor, however this project will provide further impetus for redevelopment/renewal in the Docklands precinct. The building and fit-out project will require a construction workforce ranging between 100 and 300 workers on site during the 20 month construction period, with flow-on benefits to the local economy. Construction activity will inevitably generate some noise but this will be maintained within the limits imposed by statutory controls.

43. Staff and visitors attending the completed Bureau facility will be mainly those now using the Lonsdale Street Offices and will produce no detrimental change in local Melbourne traffic or contribute to any additional noise at the new location.

Planning Approvals for 700 Collins Street

44. Responsibility for the development and building applications for 700 Collins Street, including environmental impact assessments, landscaping, and heritage considerations, rests with the developer FLJV, and would be carried out within the State Government planning framework applying to the Docklands area. The precommitment lease requires FLJV to comply with all relevant statutory requirements and obtain all statutory approvals and to notify the Bureau of building approvals.

45. Development approval for 700 Collins Street was granted by the Victorian Minister for Planning on 28 October 2002.

Consultations Conducted

Consultations with Staff and Staff Associations

46. In April 2002, when the need for an analysis of the Bureau's accommodation needs was established, the Bureau commenced consultation with a wide and representative cross-section of Bureau of Meteorology staff and management. A series of meetings and discussions took place during an information-gathering phase leading to the preparation of the Bureau's Development Brief, completed in April 2002 and which became part of the RFT documentation. During development of the Development Brief, the Bureau invited its major staff associations, the Community and Public Sector Union (CPSU), the Professional

Officers' Association of Victoria (POAV) and the Automotive, Food, Metals, Engineering, Printing and Kindred Industries Union (AMWU) to provide comment and input.

47. After the Bureau's signing of a precommitment lease with Folkestone/Leighton JV Pty Ltd in July 2002, a more structured and comprehensive consultation process commenced with an open staff meeting to explain the redevelopment proposal, answer initial questions from staff, and outline the consultation process proposed. A more formal Staff Information and Consultation Plan was then developed and promulgated to staff and unions. As part of this Plan, Advisory Groups were established for each Branch in HO and for VRO, composed of staff representatives and led by a Coordinator. The unions were invited to and represented at the staff meeting and were given the opportunity to nominate representatives for the Advisory Groups. The purpose of the Groups is to provide a specific mechanism, additional to the normal management process, for input from staff to the Future Accommodation Project Management Group.

48. Since September 2002, the Coordinators have had regular meetings (approximately fortnightly) with the Project Management Group to gather and share information on the Accommodation Project. Input from staff in all Branches and VRO on the fit-out proposals has been obtained using this mechanism, including extensive consultation to develop a detailed Fit-out Brief. Groups representing staff reviewed and commented on successive drafts of the Brief. The process culminated with the completion of the Fit-out Brief in December 2002.

49. Consultation and input from staff and management has also been obtained since March 2002 via the normal management provisions of the Bureau's structure and the additional structure established to manage the Accommodation Project, including:

- the Steering Committee – comprising the Deputy Director (Corporate Activities) who is a member of the Bureau Executive – as Chair , plus the heads of the 6 Branches, the Research Centre Chief Scientist and the Regional Director for Victoria;
- the Project Management Group (PMG) - comprising an overall Project Manager, experts in accommodation and Property Resources, Computing and IT Infrastructure, and General Services, plus the Branch Heads of both Management and Central Operations and Systems;
- via managers, senior managers and Branch Heads following the standard line management processes; and
- through Health and Safety, Workplace Diversity and Equal Employment Opportunity representatives on behalf of staff within their Designated Work Groups.

50. Such input from staff is distinguished from the technical input from qualified Bureau staff on such matters as the IT fit-out requirements and design and Workplace Diversity issues relating to the new building.

51. The Bureau has maintained a strong commitment to consulting its major staff associations, CPSU, POAV and AMWU, during development of the Fit-out Brief phase and will continue this commitment through the life of the project. Since the first open staff meeting the Bureau has kept the unions informed of Fit-out Brief progress and the timetable for comment on its successive drafts, has committed to providing minutes of Steering

Committee meetings and other key documents as they emerge, and will continue to offer consultation as the Fit-out Design stage develops and proceeds.

52. Specific major concerns advised by staff and unions have been relatively few. More recently since November when the Fit-out Brief was nearing completion, issues were raised by staff as to the extent of opportunity and time available for consultation with staff on schematic design layouts, and by the unions as to the process by which decisions are being made on the allocation of offices and individual work space. These issues have been handled successfully using the mechanisms outlined above.

Consultation with other stakeholders

53. Major user groups of the Bureau in Victoria are being informed and consulted on the planned relocation as part of the regular and routine liaison and consultation mechanisms carried out by the Victoria Regional Office of the Bureau. These groups include:

- Victorian State Emergency Service;
- Country Fire Authority; and
- Department of Natural Resources and Environment.

54. None of the user groups have identified any concerns at this stage provided that existing services are not compromised by the relocation. The Victorian State Emergency Service have expressed satisfaction that the move will put the Bureau in a more accessible location from their viewpoint; in the case of the Country Fire Authority the move makes no difference to accessibility; the future location of the Department of Natural Resources and Environment and hence the accessibility of the Bureau for this particular user group is uncertain. The Bureau will ensure all current levels of service are maintained during all phases of this project.

Bureau Fit-out Proposal

The New Building

Location

55. The new building will be located in the Docklands Precinct of Melbourne, with the Bureau's main address to be 700 Collins Street. The 700 Collins Street location will offer building users access to facilities other than currently available from Lonsdale Street, with closer proximity to rail, bus and tram interchanges.

Building design concept

56. The new building for the Bureau Head Office has been chosen to closely match Bureau operational requirements. Central to the design concept is a building form reflecting the latest in environmentally aware campus architecture, designed to minimise energy use through the use of "wintergardens" to provide good access to light for all occupants within the very large floor plates. The atria also improve connectivity between floors, encouraging a sense of community among Bureau staff. The flexibility offered by the 'wintergarden' zones means that the Bureau can tailor them to suit their own needs. More importantly the "wintergardens" connect both physically and visually the northern and southern plates on each typical floor.

57. The "wintergardens" or atria will accommodate important shared facilities and provide a stimulating and distinctive environment as a counterpoint to the closer focus of the workplace. Flooded with natural light, the "wintergarden" will be a substantial contributor to the building's energy efficiency. These atria also have a potential role in the ventilation and air conditioning of the building with openable windows which may be used as part of an automatic system to increase use of ambient air and for night purging of warm air inside the building.

58. Public entry to the building will be via Collins Street. Levels 1 to 4 will be for car parking and services, level 5(Collins Street ground) will be the main entrance foyer and Central Computer Facility area and levels 6 - 11 will be office facilities. The Bureau of Meteorology will occupy Level 5 (Collins Street entry) and levels 6 through Level 11. Basement areas will provide storage and service spaces, alongside secure parking. General building air conditioning and ventilation plant will be housed in a rooftop enclosure. Central Computer Facility and 24/7 air conditioning plant and standby generators will be located on Levels 1 and 5 of the building. The office floors will have compact and uniformly shaped floor plates to create efficiencies in servicing the building and to minimise travel distance for the occupants. The regularity in floor plate shape and size will also add to planning flexibility for future changes in workplace layouts.

59. The Bureau will have its own reception area also located on Level 5, accessed from Collins Street. Other facilities for public use (such as meeting, interviews and media rooms and the Bureau library) will be clustered around the foyers of individual levels. Staff will be encouraged to use these facilities when meeting their clients or visitors. Entry to the secure

work zone will require passage through a security checkpoint, which will be separate from the building reception facility. Any visitors in the secure zone will be accompanied at all times.

60. Underground car park access will be by lifts and access cards will be needed to enter this secure area. Security access keys will control lifts to all work floor after regular business hours.

61. Within the security perimeter, access between floors will be by lifts, fire stairs located in the building cores or by stairways linking the skybridges on the eastern side of the building. One lift will serve as both a passenger and goods lift. Informal seating and tea areas on the connecting bridges will allow staff to meet or work informally in a relaxed environment.

62. The building floor plates will allow branches to be located closer together than at present. Meeting rooms can be shared across the Bureau. These facilities will be centrally managed to encourage staff to select the most suitable meeting space, rather than the closest room. Training rooms can be grouped as suites of flexible spaces for different functions, allowing for the development of a professional training facility without duplications of expensive infrastructure. Breakout spaces in the “winter gardens” will also be shared between divisions, encouraging staff to meet and mix with their colleagues in other sections, branches and divisions. The shared spaces will encourage movement, of people and of ideas, through the building.

Parking provisions

63. Short-term parking for visitors, with spaces for disabled drivers, will be available on Collins Street, close to the main ground floor entry. Secure parking will be provided under the building with goods access from Collins Street under-croft through a controlled entry point. Under building parking spaces for Bureau staff, tenants and visitors will be available on the north of the building with entry from North Lane controlled by electronic boom gate. Motorbike parking spaces will also be available. The total of car parking spaces available in the building will meet the requirements of the relevant Docklands Authority, with 27 secure spaces specifically provided for the Bureau of Meteorology as part of the lease agreement.

Description of the fit-out

64. The Bureau fit-out will configure the interior of the new building to match the operational needs of the organisation. It will create a general office environment to contemporary commercial standards, supported by specialist facilities, an advanced Information Technology installation and appropriate security provisions. The fit-out program will integrate the provision of work areas, amenities, ‘back-of-house’ service spaces and facilities for public use, totalling 16,901 m^2 (NLA), and related building services adjustments into the construction of the new building. The completed workplace will offer accommodation for 847 staff, meteorological trainees, visiting research scientists, venture partners and specialist consultants.

65. The fit-out works will encompass:

- Fit-out of the Central Computing Facility (including independent air conditioning, fire protection and high availability power supply system);
- A general office fit-out (including fixed partitioning and screens for open plan workstations);
- Construction and equipping of special purpose, shared-use facilities such as foyer reception areas, meeting rooms, equipment standards workshops, the National Meteorological Library, meteorological training facilities, the Bureau of Meteorology Research Centre, main conference facility and staff amenities;
- Provision of storage facilities for office floors;
- Fittings and equipment (including whitegoods and built-in items for tea points and audio-visual equipment for training rooms);
- Supplementary electrical, mechanical, hydraulics and fire services to extend base building provisions to the preferred layout;
- Physical and electronic security provisions; and
- An IT fit-out to the Bureau requirements (including cabling and communications infrastructure).

66. Loose furniture will be separately provided but has been included in the overall fit-out budget. Existing items will be reused as far as reasonably possible. Essential service facilities such as lifts, fire stairs, toilets, tearooms, cleaners' rooms, service risers, communications risers and security risers will be provided as components of the service cores in the base building. Carpets and window treatments to the perimeter windows also form part of the base building provision.

Space Requirements

67. The NLA provided by the new building will comprise:

Area	**m^2**	**Staff numbers**
Office space (HO & VRO)	10,820m^2	623
Central Computing Facility (including plant)	1520m^2	Nil
Library	515m^2	6
Regional Forecasting Centre (24hr/7day operations)	330m^2	23 shift staff
National Meteorological and Oceanographic Centre (24hr/7day operations)	320m^2	41 shift staff

Standards Laboratory/Workshops	1220m^2	9
Training facilities	500m^2	36 trainees
Bureau of Meteorology Research Centre	1676 m^2	109
Total	**16,901m^2**	**847**

Other areas agreed for exclusive Bureau use but not part of NLA are:

Staff showers	130m^2
Bicycle storage	125m^2
Basement storage	100m^2
Car parking	27 standard car bays (monthly rental applies)

68. The ongoing accommodation requirements of both the Bureau's Head and Victoria Regional Offices (HO/VRO) are expected to remain relatively stable and, accordingly, area allowances have been designed to align with current staff numbers. Notwithstanding this, should functional, operational or policy changes result in a significant reduction in future spatial accommodation needs, the Lease allows the Bureau to exercise either the option of a 10% partial surrender on the anniversary of the rent review or to sub-let part of the building.

Special Requirements

69. As a consequence of its role as the National Meteorological Authority for Australia and in order to fulfil its responsibilities under the Meteorology Act, the Bureau requires a number of special-purpose facilities each with particular needs and considerations in fit-out design. These are outlined below.

Central Computing Facility

70. The Central Computing Facility (CCF) is a purpose designed ‘computer room’, which houses the Bureau’s important operational computer systems. Modern meteorological operations are based on numerical models run on large-scale computer systems. Systems housed in the CCF represent capital investment in the order of $60M. As a partner with the CSIRO in the High Performance Computing and Communications Centre (HPCCC), the Bureau’s CCF houses two NEC SX-6 super computers and robotic tape mass data store, providing around 50 terra bytes (10^{12} bytes) of on-line data storage. A major new super computer purchase is planned within the next twelve months for collocation in the new accommodation.

71. The CCF also houses a number of mid range Unix servers, Windows 2000 work group servers, web servers, communications and networking equipment and the HO/VRO telephone PABX. Essentially, all systems required to gather meteorological data, process it

and disseminate it to users, both internal and external to the Bureau, are housed in the CCF. The CCF is the 'nerve centre' of the Bureau's weather forecasting and warning operations as well as climate modelling and research functions.

72. The new CCF will be designed to remove many infrastructure limitations of the current CCF at 150 Lonsdale Street. The new CCF will provide adequate secure electrical power with generator backup, air conditioning and environmental monitoring, fire detection and protection. Structural floor capacity of 8.5 kPa will allow complete freedom in placement of equipment. The 1520 square metre floor area (including the 24-hour dedicated support plant) will permit all systems to be efficiently laid out and allow parallel operation of old and new systems during major system upgrades (e.g. super computer systems).

World Meteorological Organization Role

73. The World Meteorological Organization (WMO) is an agency of the United Nations and the focus of longstanding and highly advanced international cooperation with regard to meteorological and related infrastructure, data and services. In order to fulfil Australia's obligations under the Convention of the WMO, and specifically with regard to Melbourne's designation as one of three World Meteorological Centres (the others being Moscow and Washington), and a Regional Telecommunications Hub, the Bureau requires additional specialised communications and computing infrastructure. The necessary infrastructure is seamlessly integrated with that needed for the Bureau's Australian operations.

Meteorological and Hydrological Operational Facilities

74. To meet its local, national and international monitoring and forecasting and warning responsibilities the Bureau has two discrete 24-hour a day, 7-day a week (24/7) operational areas: namely the Victoria Regional Office's Regional Forecasting Centre and the National Meteorological and Oceanographic Centre. These groups are responsible for services ranging through local weather and severe weather forecasting events to coordination of the international data communication hub as part of the Australian Bureau's role of one of only three World Meteorological Centres. The two groups are currently not collocated but will be collocated at 700 Collins Street to take advantage of efficiencies as far as consistent with operational requirements. To allow the specialist forecasters the best visual access to observe approaching weather patterns, and to aid in current forecasting and warning service accuracy, these groups will be located on the highest floor level available to the Bureau (level 11).

Standards 'Laboratory'/Workshops

75. In order to meet its local, national and international observing and forecasting obligations the Bureau must strategically deploy, maintain and regularly calibrate its surface observation, hydrological, satellite reception and weather radar surveillance equipment in accordance with both national and international standards. To successfully achieve this the Bureau operates a group of laboratory and electronic workshop facilities responsible for ensuring the day-to-day operational integrity of the various equipments involved.

76. To comply with both the appropriate Australian Standards in laboratory design and construction and other Occupational Safety and Health requirements associated with these types of facility their major component will be located on level 5 of the building where

appropriate exhaust venting and other services have been designed as part of the base building to conform to the relevant requirements.

National Meteorological Library

77. The National Meteorological Library is the national archive for all meteorological reference material, books and reports published in Australia. It is the totality of the collection in one location that is significant both nationally and internationally. As such, it is essential that a secure environment is created for the storage and preservation of historical material, and also that an appropriate space is allocated for other parts of the collection.

78. The Library maintains a pre-eminent collection of key meteorological books, reports and journals published in the English language. The National Meteorological Library participates in the National Bibliographic Database, coordinated by the National Library of Australia. Under this scheme all material received by the Library is catalogued onto the national database, and can be made available through interlibrary loan to requesting libraries. The National Meteorological Library's collection comprises approximately 30,000 books and reports, 50,000 bound volumes of journals, as well as videos, microfiche and CD-ROMs. Because it is a national resource, the Library collects material at a detailed research level.

79. The provision of high standard information services is also part of the Library's role. The Library coordinates access to a range of electronic databases and information resources that are focused to the needs of research scientists and the operations of the Bureau. The main user groups of the Library are the Bureau of Meteorology Research Centre (BMRC) and Bureau of Meteorology Training Centre (BMTC) staff and students. While concentrating on high quality information services to staff of the Bureau, the Library also provides services to government agencies such as the CSIRO, Universities, others with a particular interest in the science of meteorology and to the public at large. To satisfy its major stakeholders the National Meteorological Library will be located adjacent to both the Bureau's Research Centre and Training Centre where students, research staff and visiting research scientists will have ready access.

National and International Training Facilities

80. The Bureau of Meteorology Training Centre is the main focus of the Bureau's training activities. It operates a national training program, which provides specialised technical and professional knowledge and skills for new and existing Bureau staff, particularly initial courses for operational Meteorologists, Observers and Technical Officers (Engineering). Participants from overseas National Meteorological and Hydrological Services, and from the Royal Australian Navy attend these BMTC courses.

81. In-service training is also provided for all Bureau staff, in areas such as severe weather and other advanced forecasting techniques, new technology skills for specialised equipment, a full range of management development courses and activities.

82. Multiple training rooms are required for simultaneous lectures and presentations to different courses and groups, as well as some smaller rooms for group work. Other training "home" rooms are needed for full-time initial trainees, who require individual workstations, and adequate desk-space for chart analysis. Their training includes the simulation of

operational observing and forecasting office practices, and requires access to sophisticated Bureau systems (Australian Integrated Forecasting System, 3D Radar, etc.) tools, and software.

Bureau of Meteorology Research Centre

83. The Research Centre includes a very high proportion of senior staff carrying out high-level national and international liaison and collaboration in the field of meteorological research and working at any time with a numbers of postgraduate students and visiting research scientists on projects with time frames varying from a few months to several years.

84. Fit-out of this area must provide appropriate accommodation for both the seniority and variation in numbers of people working in the Research Centre.

Staff Shower/Change Facilities and Bicycle Storage

85. In recent years an increasing number of Bureau staff have chosen to avail themselves of the rapidly developing alternative transport infrastructure that now surrounds and connects the Melbourne CBD with suburban residential zones. A significant proportion relative to the total number of employees, cycle, jog or walk to work rather than rely on fossil fuel-dependent modes of transport, and many others take the opportunity to engage in running and walking activities during their lunch break. The Bureau encourages these activities and in the current accommodation at 150 Lonsdale Street has arranged with the building owner to provide secure bicycle parking at no additional cost to the Commonwealth. However the current bicycle storage area is shared with other tenants of the building and has become extremely crowded in recent years, and there are a limited number of showers and change facilities available, none of them close to the bicycle storage area. At 700 Collins Street, the Bureau has negotiated a secure shower/change/bicycle storage area as part of the base building design with exclusive access for Bureau staff. For maximum access and functionality these facilities will be located on the lowest level (Level 1) of the building; the capacity of the bicycle storage is significantly greater than in the current arrangements. There are additional change and bicycle storage facilities elsewhere in the parking levels of the building for other tenants.

General Office Fit-out

86. General workspaces provided by the fit-out will be based on principles developed for the purpose by the Bureau and are in accordance with former Commonwealth published guidelines and current precedents recently adopted by other Commonwealth agencies. They may be fully enclosed rooms or open plan workpoints defined by workstation screens.

87. Enclosed rooms will be provided for support spaces such as Utility Rooms and storage zones, modular sized offices for Senior Executive Service (SES) staff, Senior Research staff, senior Executive Level (EL) staff, and staff with special functional needs, large and small meeting rooms, conference rooms and training rooms. Partitions will be aligned with the ceiling grid and constructed using dry-wall methods in preference to demountable systems. Acoustic insulation will be installed in partition walls where needed to maintain quiet in the rooms or adjoining areas. Corporate Support spaces will be located away from the building perimeter, against the central core. Offices for EL2 staff will be in similar

internal locations. Offices for SES staff will be in positions that do not compromise the distribution of natural light to open plan work areas.

88. Open plan work areas for general staff will be located on the perimeter of each floor close to windows. Workpoints will be enclosed by acoustic screens ranging in height from 900mm to 3/4 ceiling depending on the requirements of the particular workplace. Dividing screens will be independent of work surfaces to allow changes to furniture layouts without dismantling screens. Where required, workpoints will be able to be configured for specialist office equipment and reference materials needed in close proximity to a particular work group. Processing or special equipment areas will be located in standard-sized workpoints with furniture to suit the purpose (such as bookcase, computer desk, sorting table or library display shelves).

89. Corporate Support and kitchenette areas will be provided in similar locations on each office floor to accommodate potentially disruptive functions such as photocopying, faxing, printing, shredding and collating. The Corporate Support rooms will also include space for stationery storage and the holding of secure or non-secure waste. These rooms will be located away from the workstation environment and any adjacent office or meeting rooms will be insulated against noise transfer. The rooms will have separate exhaust systems to remove fumes and odours generated by equipment.

90. Workstations for Administrative Services Officer (ASO) 1-5 level staff or equivalent will each occupy 6.5m^2 and incorporate an 'L' shaped workstation (2400x2400x750), a lockable personal storage unit and an ergonomic clerical chair. Equipment and fittings will include a personal computer and telephone.

91. Workstations for ASO 6 level staff will each occupy 8.0m^2 and incorporate an 'L' shaped workstation (2400x2700x750), a lockable personal storage unit, ergonomic clerical chair, lockable cupboard, stationery drawer, file drawer, bookcase, bookshelf and visitors chair. Equipment and fittings will include a personal computer and telephone.

92. Workstations for EL 1 staff will each occupy 10.0m^2 of work area and incorporate a 'L" shaped workstation (2400x2700x750), 2x2/3 personal storage units, ergonomic clerical chair, bookcase, 2xbookshelf,1x4-drawer filing cabinet and 2xvisitors chairs. Equipment and fittings will include a personal computer and telephone.

93. Typical offices for EL 2 and Senior Research staff will each occupy 14.0m^2 of work area and incorporate a 'U' shaped workstation (2400x3100x2400x750), 2xlockable personal storage units, ergonomic clerical chair, 2xbookcases, 2x4-drawer filing cabinet and 3xvisitors chairs. Equipment and fittings will include a personal computer and telephone.

94. Typical offices for SES staff will each occupy 20 to 23 m^2 of work area and incorporate an 'L' shaped workstation, matching built-in joinery including fridge, coat cupboard, filing and shelving, 2xlockable personal storage units, ergonomic executive chair, meeting/coffee table and 4xvisitors chairs. Equipment and fittings will include a personal computer and telephone.

95. Workplace facilities will also include Quiet Areas on most floors for staff who need to work in seclusion for short periods. Each room will have a desk, chair and computer.

96. The building design will incorporate 'wintergardens', which will provide opportunity for informal gatherings and casual interaction between staff away from the immediate workplace. These spaces could offer café style and lounge seating suitable for small meetings, discussion or conversation depending on final design solutions. Adjacent tea points will be equipped for the service of beverages and heating of meals.

97. Meeting room facilities will, in general, be considered corporate or shared resources and will be distributed throughout the building. Sections with special needs will be given priority in booking arrangements for particular facilities. Large meeting and conference rooms will be centrally located as shared facilities, with nominated meeting rooms incorporating services to allow their use as project spaces. Small and medium sized meeting rooms will be similarly placed on each floor.

Special Facilities Fit-out

98. Specialised facilities for major meetings/conferences will be located on Level 6. These facilities will comprise a main conference area designed to accommodate 120 people and including multi-media facilities and an Executive Board Room.

99. **The Central Computing Facility** - The CCF will be located on Level 5 (Collins Street and main foyer level) of the building. This floor has been designed specifically for the purpose, having a load-bearing capacity of 8.5kpa and a specially set down slab level to accommodated the raised computer floor. Being the main building access floor, locating the CCF at this level also reduces problems associated with heavy equipment deliveries and installations.

100. **The National Meteorological Library**- The National Meteorological Library will be located on level 9, the second of the full “wintergarden” floor plates. The Library will be collocated on this floor with both the Training Centre and part of the Research Centre to allow both students and research staff ready access to its facilities. Special fit-out includes a preservation room designed specifically to house the Library's collection of aged and unique volumes. The Library will be positioned such that it 'flows over' into the “wintergarden” space to allow a more relaxed environment in its casual reading zone. This also provides for more direct access by the public.

101. **Bureau of Meteorology Training Centre** - The meteorological training facilities will also be located on level 9 with the Library. Specialist fit-out includes provision for 3 main lecture rooms, a dedicated IT training area, 'home' rooms for students where they can lay out personal work exercises outside the classroom environment, a student amenity area, personal secure locker spaces for students and quiet rooms for student/instructor counselling.

102. **24/7 Operational Areas –** The Bureau's two 24/7 areas - the Regional Forecasting Centre of the Victoria Regional Office and the National Meteorological and Oceanographic Centre - will both be located on level 11 of the building which is the highest floor occupied by the Bureau. Specialist fit-out includes provision for 24/7 emergency power, air conditioning and UPS systems and provision for a shared amenity/lounge area providing shift workers with a meal preparation, dining, entertainment and relaxation area.

Storage provisions

103. Four types of storage environment have been identified to meet the Bureau's needs:

- Personal storage at workstations;
- Common storage (including stationery, manuals, etc);
- Operational and corporate storage; and
- Basement storage.

104. Common storage facilities will be located close to the workgroups making continual use of them. This will be provided principally by centrally located store-rooms. The number and distribution of storage facilities will vary from floor to floor to suit the needs of workgroups on each floor. In addition to storage areas, small areas will be available in the open plan work areas for specialist equipment or processing requirements.

105. Storage will also be provided for files, equipment, furniture and other items not requiring frequent access. The fitting out of these areas will largely utilise existing and new compactus and other storage units. Space will be provided for:

- IT bulk equipment, communications and dispatch stores;
- General storage (including stationery store, library archives, central archives, furniture store, etc.);
- Regional maintenance stores.

106. Operational and corporate storage will be the subject of a separate consultant audit to be conducted in concert with the design development stage. The audit is designed to achieve a reduction in current in-house storage space by determining both current and future volumes and costs of storage requirements and to propose alternative storage equipment/media as well as considering prospects for further application of functional disposal authorities.

Fittings and equipment

107. The Bureau will be seeking every opportunity to limit the cost of fit-out by retaining existing fittings to the extent reasonably possible. For example, existing audio-visual facilities (including video conferencing) will be relocated to the new Executive Conference room. Security cabinets and a major portion of compactus units will also be reused.

108. Fittings and equipment provided under the fit-out will include some white goods and built-in items such as ceiling mounted projectors and audio-visual equipment for training rooms and other meeting facilities.

Building Services

Air conditioning and ventilation

109. General office areas will be air-conditioned to typical office comfort standards as part of the base buildings services provision. Mechanical ventilation will be similarly provided to toilets, cleaners' rooms, showers, storage areas and the underground car park. The fit-out

will make provision for boosted air supply and circulation for meeting, conference and training rooms to cope with their higher occupancy rates. Office equipment rooms and kitchenettes will have separate exhausts for the removal of fumes. Workshops will be provided with special exhausting and additional make-up air. A stand-alone air-conditioning system will be provided for the Bureau 24/7 areas and the Central Computer Facility.

Light and Power

110. Lighting and power to the workplace will be provided largely through provisions of the base building. The fit-out makes allowance for specialised lighting installations in areas such as executive areas, workshops, reception areas, 24/7 areas, large meeting rooms and conference facilities.

111. All lighting will be designed to provide illuminance levels complying with Australian Standard 1680. Natural light will be used to the greatest extent possible, where it is not detrimental to the functioning of the space concerned. The artificial lighting will be designed to provide energy efficient operation. Office lighting will be circuited to provide maintenance levels for cleaning and minimum level security lighting after hours.

112. A system of emergency and exit lighting, complying with Australian Standard 2293, will be installed in the base building. External security and car park lighting will provide minimum level security lighting, with locally initiated time circuits for after hours use.

Hydraulics

113. Fit-out of hydraulics installations will provide water supply and waste connection to workshops, kitchenette areas, breakout points, toilet facilities and tea points.

Fire protection

114. The base building will be fully sprinklered. The CCF will be protected with a VESDA smoke detection system and a pre-activated dry pipe sprinkler system. Fit-out works will include the adjustment of sprinkler layouts to suit specific floor and room layouts and the provision of an Early Warning and Intercommunication System (EWIS) throughout the building. These works will be integrated with the construction of the building to ensure their cost-effective completion.

Security

115. The Bureau security objectives will be met through the physical configuration of the base building and by systems installed as part of the fit-out. Important base building characteristics include:

- Within the tenancy, with the Bureau retaining control over the building perimeter at all times;

- Provision of a 24-hour secure perimeter to prevent unauthorised access to Bureau tenancy and through which non-Bureau personnel do not normally need to pass to use facilities accessible to them; and

- Building access limited to no more than one main entry point, with public contact areas confined to the main building entry point.

116. Specific security provisions of the fit-out will include:

- Provision of higher security areas inside the Bureau security perimeter for storage of sensitive material and vital operational equipment (CCF);
- Installation of a commercial grade intruder alarm system and Bureau electronic access control system and a monitored CCTV system in the CCF; and
- Protection of reception staff by installation of a duress alarm.

IT Fit-out

Data and communications cabling

117. Voice and data cabling will be installed throughout the Bureau tenancy as part of the fit-out. Structured cabling using fibre optic and category 6 unshielded twisted pair copper cabling will be provided in accordance with the latest relevant Australian Standards and industry best practice. Equipment racks will be provided telecommunications equipment rooms (TERs) on each floor for the Bureau to install and connect active equipment supporting computer networks and voice communications.

118. Modern voice communications and telephone services will be provided through equipment utilising Voice over IP (VoIP) technology. The telephone system will be selected through a public tendering process to be conducted early in 2003.

119. Power and communications cabling will, as far as possible, be located within the workstation cable ducting located at bench height within the screen system. This will provide maximum flexibility in workplace configuration and minimise whole-of-life costs associated with staff relocations.

120. The Bureau Central Computing Facility will house the organisation's shared (with CSIRO) High Performance Computing and Communications Centre and support facilities.

121. An uninterruptible power supply (UPS) will ensure continuity of power to the CCF and network communications equipment. In the event of mains power failure, the computer room and communications equipment will continue to operate on standby generators and battery backup for a minimum of 20 minutes, allowing an orderly shutdown of the computers. The proposed system will provide mains filtering in normal operation. In the event of a failure in the UPS or the need to service any of the equipment, the computer room will switch a mains power.

122. Two 750KVa generator sets will enable the Central Computer Facility and 24hour/7day areas to continue normal operations for up to 12 hours without refuelling.

Workplace Environment

Planning flexibility

123. The restructuring of activities to meet the changing needs of Bureau clients can require the relocation of staff and equipment within the workplace. The layout of the workplace and its fitting out will be designed to accommodate these adjustments with the least delay, disruption and cost, by employing a high degree of commonality between general workpoints and the centralisation and sharing of more specialised facilities. Individual work points will be designed to common modules, using standard dimensions and components. The minimisation of paper based storage and an adaptable IT infrastructure will allow staff to follow the work to where it is best undertaken.

Daylighting and outlook

124. The positioning of open plan work areas and enclosed offices, meeting rooms and utility rooms will ensure that staff have good access to natural light and to longer views for visual relief from work activities. Open plan work areas will generally be located no more than 12 metres from sources of natural light. Enclosed rooms, such as offices, utility rooms, file stores and the like, will adjoin the internal core of the building in positions that do not obstruct natural light or views from open work areas. Enclosed offices will obtain natural light and views through full height, glazed front walls. Meeting rooms that are used for short periods will be located internally adjacent to the service cores in each floor.

125. Window glare on video display unit (VDU) screens will be minimised through appropriate screen orientation, use of the internal atriums as a controlled natural light source and the provision of tinted external glazing with sun control blinds.

126. The acoustic conditions provided by the fit-out will allow staff to undertake concentrated work without undue distraction from noise. While a certain level of background noise is unavoidable, various measures will be used to reduce the effects of foreseeable, recurring or sporadic disruptive sounds. These measures will include:

- Location of office equipment such as printers and photocopiers in enclosed utility rooms located adjacent to the building's centre core and away from the general workplace;
- Sound insulation to the walls of offices, utility and meeting rooms to reduce the transmission of noise between neighbouring spaces;
- Use of sound absorbing ceiling tiles throughout the building and sound absorbing facings to workstation screens in open office areas;
- Sound insulation around air conditioning plant and potentially noisy building services such as plumbing; and
- Location of noisy plant and heavy equipment away from general office areas and public spaces.

127. For individual workers, a variety of environments will be available for use during the day. Open plan workstations will be supplemented by quieter spaces where individuals can withdraw to concentrate on project-type tasks. Ready access to meeting and conference rooms will also divert noisier collaborative activities.

Design standards

128. The fit-out will be designed in accordance with relevant Codes and Standards and the Bureau's detailed accommodation requirements recorded in the Fit-out Brief to provide imaginative and visually attractive office layouts. Major public-accessible areas of the Bureau will be accessed via traffic routes not less than 1500mm wide, with main staff access/egress paths at 1200mm minimum width.

129. Each workplace type will have a standard space allocation based on principles developed by the Bureau with reference to past formal accommodation standards. The principles acknowledge that space allocations should be allocated on an equitable basis and not be inconsistent with that offered in other Commonwealth agencies. Comparisons were sought from the Bureau's property lease managers KFPW and the Bureau is assured that the principles reflect contemporary Commonwealth allocations.

130. Workpoints will be equipped with standardised furniture components, including adjustable desktops, and ergonomically designed chairs. The fit-out finishes and materials, including partition walls, dividing screens and work surfaces, have been designed to achieve a minimum 12-year design life. Progressive replacement of loose furniture is expected within 10 years. Materials and components will be selected with due regard to their environmental sustainability where practicable and their life cycle costs over the 12-year period from the hand-over of the building.

Occupational Health and Safety

131. The Bureau building and fit-out will comply with requirements of the *Occupational Health and Safety (Commonwealth Employment) Act 1991* and with the series of Codes of Practice titled 'Occupational Health and Safety in Commonwealth Government Employment', AGPS, 1983.

132. The following Occupational Health and Safety issues, raised by Bureau staff as being of particular importance, will be specifically addressed in the fit-out design with the assistance of the Bureau of Meteorology OH&S expert;

- Indoor air quality, temperature control and after-hours workplace ventilation;
- Access around the workplace for people with disabilities;
- Workpoint ergonomics (including height adjustability of work surfaces);
- Reflections/glare on video display unit screens;
- Noise control in the workplace;
- Extract ventilation from workshops and office equipment;
- Safe handling of bulk materials around the workplace;
- Security and safety of isolated workers;
- Provision of adequate shower and change room facilities;
- Safe access from parking areas to the building; and
- Safe access and secure storage of bicycles.

133. Two first aid rooms will be provided in the building, One will be located with the on level 11 for convenience of staff working in the 24/7 operational facilities and the other adjacent to the family room on level 7.

Provisions for people with disabilities

134. The Bureau building and fit-out will comply in all respects with the disabled access requirements of the *Building Code of Australia, AS 1428.2 parts 1&2, 1993 Design for Access and Mobility, and the Disability Discrimination Act 1992.*

135. Toilets with shower facilities suitable for wheelchair access will be provided on every floor.

136. A dedicated lift will be provided for travel between the first floor entry from the staff car park and the ground floor security checkpoint. All other lifts will allow travel between all floors in the building. The timing of lift door and sliding door operation throughout the building will be considered to reduce the risk of entrapment.

137. Hearing augmentation will be provided in some meeting, conference and training rooms. During development of the design, further issues of concern to people with a disability other than impaired mobility will be considered.

Child Care and other Personal Support Provisions for Bureau Staff

138. At least one “multi-purpose” room will be provided in the new building (currently planned for Level 7 close to one of the first aid rooms. appropriately fitted out for a range of uses by staff including religious observances, emergency child-minding, other family commitments requiring somewhere for family members to wait, the needs of nursing mothers, or meditation.

139. The Bureau is not proposing to provide in-house child care facilities or pursue external arrangements for child care for Bureau staff. Several child care centres are located in or close to the CBD, including one at 600 Collins Street very close to the Bureau’s new accommodation; other centres are located in surrounding inter-city suburbs.

140. The relocation of the Bureau to an area still very close to the CBD should allow staff to continue current child care arrangements, and the Bureau’s flexible working arrangements will assist staff in meeting personal needs including those related to child care.

Energy Efficiency and Environmental Management Considerations

141. The Bureau’s objectives for the Accommodation Project refer specifically to a reduction in operating costs and achievement of a high level of environmental management. The Bureau has also noted the statutory requirements stemming from the Commonwealth Government “Greening of Government” framework of energy and environmental initiatives,. The Accommodation Project is clearly a major opportunity for the Bureau to commence implementation of these initiatives. The Bureau will fulfil both sets of obligations using a number of strategies as outlined in the following paragraphs.

142. The Bureau included energy and environmental considerations in the evaluation criteria used in the tender process to select new accommodation. The requirements

included conformity to the Commonwealth Building Minimum Energy Performance Standards including the 1994 BOMA Energy Guidelines and a minimum 4 star rating under the Australian Greenhouse Building Rating Scheme but left flexibility for any other features of offered buildings to be taken into account. The base building finally selected will incorporate many environmentally friendly features.

143. The Bureau is seeking information on ESD initiatives within the new building from the developer FLJV, as well as reports they may be required to make to the State Government relating to the Docklands redevelopment framework.

144. Energy targets are being developed for the new building based on achievement of a minimum four-star rating under the Government's Energy Policy. As the Bureau is probably the majority tenant in the building, it must meet the minimum interim standard from the 1994 BOMA Energy Guidelines. It should be noted that ratings are targets during design, with certification to occur 12 months after construction.

145. The Bureau's fit-out designs will aim for a four-star rating according to the *Queensland Government's Ecologically Sustainable Development (ESD) Office Fitout Guidelines.* This is a comprehensive set of guidelines relating specifically to fit-out and developed in Australia which also sets out a star rating system for fit-out, providing a useful matching approach to the energy-related star rating. The goal of achieving a four-star fit-out rating may require some integration with base building construction and management and this is currently being pursued with FLJV.

146. ESD measures which will be considered as part of the fit-out design and operation, including building services, in pursuit of the four-star rating, include:

- Air conditioning systems connected to the "winter garden" for mixed mode operations. This will allow the building to reduce its reliance on air-conditioning for heating and cooling by using natural ventilation in mild weather and minimise energy use;
- Electrical power and lighting services with power factor correction to minimise electrical energy usage;
- Lighting operation controlled by the Building Management System (BMS) and programmable overriding switches to ensure that lights do not operate after hours, except when intended;
- Conference rooms, small and medium meeting rooms and auxiliary rooms with sensor controlled switching to allow lights to be turned off when the rooms are vacant;
- External lighting controlled by photoelectric switching and the BMS to provide safe night-time access and egress whilst using a minimum of security lighting during early morning hours;
- The specification and use of plantation timbers throughout the project;
- Waste management practices that maximise recycling of materials where practicable.

147. An audit of current Bureau building energy, water and waste practices is being considered subject only to costings currently being prepared by GHD. It is envisaged that this would provide invaluable data on which to base energy targets and to provide a

baseline for demonstrating improvements on current practices after the move to new accommodation.

148. In light of all the above an ESD Brief for the Accommodation Project will be developed – this is a document that will be used to define and track the aims, and rating criteria of the Project. The Brief will confirm decisions including rating methodologies to ensure consistency of sustainable design decisions made through the project, and importantly, will ensure the longevity of these decisions by providing a reference point and record of ESD initiatives throughout the Project design, construction and operation.

149. The Accommodation Project may become the basis for EMS reporting in the Bureau's Annual Report in June 2003; this decision remains to be confirmed by the Bureau Executive. If this occurs, ISO 14000 certification will be sought for the Bureau's tenancy in the new building.

Cost and Project Delivery

Cost estimate

150. The current estimate of the total fit-out budget for the Bureau's proposals based on in-house estimation is $22.8 million. This figure includes loose furniture and fittings, relocation costs, all escalation costs, contingencies, professional and management fees and a 5% contingency allowance. It excludes any GST related costs. Of this total, $4.8 million relates to the fit-out of the CCF, and $13.6 million to the fit-out of the remainder of the tenancy, including special provisions for the National Meteorological Library, the 24/7 operational facilities, the Standards Laboratories/Workshops and the training facilities. The remainder of the total cost relates to fees and consultancies, the costs of relocation and remediation at 150 Lonsdale Street and the contingency allowance.

151. The cost per square metre of the fit-out proposals, based on exclusion of the CCF but inclusion of all other special facilities, is $884 per square metre. *Rawlinson's Australian Construction Handbook 2002* advises that for the Melbourne CBD, for a medium quality fit-out, the cost per square metre ranges from $740 to $1090 (full range from low to high quality fit-out is from $580 to $2000 per square metre). The Bureau's cost, even with the inclusion of all special facilities other than the CCF, falls around the midpoint of this range.

152. The final cost of the fit-out will be determined by the tender process to be conducted by FLJV. The Agreement to Design, Construct & Lease sets out a tender process allowing for input of the Bureau and requiring FLJV to obtain three quotes for each of the trade packages tendered, to ensure a competitive price is obtained. Every effort is being made to fully integrate fit-out with the base building construction; this generates a saving in cost of an estimated 15% (on the advice of KFPW and GHD) due to avoidance of the need to retro-fit the base building for services such as sprinkler head arrangement and air conditioning outlets. Integration also results in minimisation of the construction time.

153. An independent check on the above estimate and on prices to be obtained via the agreed tender process has been provided by the project cost planner Rawlinsons Group. This initial cost plan, based on the Fit-out Brief, shows a total cost of $24.7 million. This shows that the Bureau's in-house estimate is within reasonable bounds. The Fit-out Brief

constitutes a general description of the fit-out requirements based on data gathered from all Branches of the Bureau's HO and the VRO on their requirements. As the fit-out plans are refined, Rawlinsons Group will be refining their estimates to enable the Bureau to closely monitor and review the scope of works to ensure that costs are contained within the Bureau's budget provisions.

154. A detailed breakup of the current cost estimate is provided at Appendix D.

Lease Agreement

155. The rental under the Lease has been agreed at $265 m2 per annum net with annual increases in rent of 4% throughout the Lease, although at year 6 of the Lease a market review will be undertaken. This market review protects the Commonwealth from any large increase in the rental by limiting any variation in the rent to 15%.

Program

156. Construction of the new building started in September 2002 and is programmed for completion in December 2003. Stage 1 of the works involving the CCF needs to be completed earlier to allow the Bureau to install, test and commission its high-level computing and communications equipment by the relocation date. Subject to a favourable recommendation from the Public Works Committee and Parliamentary approval, fit-out of the CCF works will therefore commence on site in July 2003 for completion by October 2003. The rest of the fit-out will commence in August 2003 for completion in January 2004. Practical completion, commissioning and handover of the entire tenancy is scheduled for March 2004.

Request for PWC approval

157. The Bureau is satisfied that the proposed works and the procurement arrangements, as described in this submission, are the most appropriate, timely and cost effective way to provide effective and flexible work spaces for the Bureau's specialised operational requirements.

158. The fit-out design properly reflects the Bureau's Fit-out Brief and will cater for changes in Bureau operations within its designated lifetime. The Bureau of Meteorology therefore commends this proposal to the Parliamentary Standing Committee on Public Works.

Appendix A

Analysis of Accommodation Options

The options for HO/VRO accommodation identified and analysed in detail were:

Option A - Stay at 150 Lonsdale Street with a collocated CCF

Option B - Stay at 150 Lonsdale Street with a separate CCF

Option C - Secure alternative premises for HO/VRO including CCF (CBD/Fringe)

Option D – Secure alternative premises for HO/VRO, separate CCF (CBD/Fringe)

Option E – Secure alternative premises for HO/VRO including CCF (non CBD)

The strategy to determine accommodation options was to:

- assess the facilities requirements of the Bureau through to the lease expiration date, and for a further ten years, in consultation with key stakeholders in HO and VRO;
- determine the suitability of the current premises with reference to a report on current services and contemporary accommodation standards from Building Services Design and Management (BSDM)
- use the standards identified in the BSDM report to assess alternative accommodation options for the provision of appropriate accommodation;
- have the Bureau's property managers KFPW Pty Ltd prepare a listing of options available in the market with advice on likely costs and
- have the Bureau's engineering consultants GHD prepare a more detailed technical specification for a computer centre to assist in costings.

The Bureau's property managers KFPW used the following assumptions in preparing costing estimates:

- The Bureau was seeking a ten year tenancy, with two further five year options
- Space required was 17,000m^2 based on the probability of some space rationalisation (current tenancy totals is 18,300m^2)
- Preferred accommodation standard was A grade (for example 101 Collins Street is Premium grade) with an open floor-plate size of 1,500m^2 (average for 150 Lonsdale Street is 1,000m^2)
- Downsizing provisions able to be accessed without determination to be built into the lease
- Any new supercomputer facility to be provided as a fully managed facility of 1,000m^2 with adequate support to maintain a 24 hour per day, 7 days per week operation with no downtime (CCF currently occupies 663m^2 of space)
- 27 parking bays for SES and Bureau vehicles
- Costings to quantify the rental and associated lease costs for a ten year period discounted over the period to their present day value or cost ie. Net Present Value (NPV)

- Costs for the space of an alternative CCF, where collocated, are included but do not include the cost of the fit-out for the CCF.

Option A – Stay at 150 Lonsdale Street with a collocated CCF

The BSDM report of December 2001 on Services and Accommodation Standards at 150 Lonsdale Street noted that the building provides low to medium quality office accommodation but there are specific problems in maintaining an adequate computer centre at the site. BSDM had previously reported that floor loading limitations will preclude parallel siting of any new supercomputer making it impossible to proceed with installation on Level 1. These reports also noted additional CCF constraints for access to air conditioning, power and backup emergency generators. As it is not technically feasible to install a new supercomputer on Level 1 at its current floor loading, engineering consultants GHD estimated it would cost between $2.0M and $2.5M to strengthen the floor of Level 1 to a suitable level and refurbish the site, assuming the owner would permit the Bureau to upgrade the existing structure. The major restrengthening work would have required the relocation of the major computer systems, which is impractical and would result in major disruptions to services. Option A is not considered a viable option for the 10-year period.

NPV estimate of the total lease costs incorporating refurbishment options likely to be offered by the owner is $46.68M.

Option B – Stay at Lonsdale Street with a separate CCF

The building owner was keen to retain the Bureau as its anchor tenant and was thought likely to provide a competitive offer to renegotiate a lease. This could be expected to include a rental rebate/cash incentive equivalent to six to nine months rental in addition to a total upgrade of building services.

The BSDM report noted that 150 Lonsdale Street does provide marginally suitable office accommodation but it would require significant works by the owner to improve base building services to bring Bureau tenancies to the standard of other refurbished floors within the building. The building is 27 years old and, compared with buildings that are more modern, is below A grade standard. It has poor service levels for air conditioning, energy efficient lighting, cabling access and infrastructure. The quality of these services would make it difficult to achieve the levels recommended in the Measures for Improving Energy Efficiency in Commonwealth Operations.

For the Bureau to retain its Head Office and Victorian Regional Office at this site it would have had to accept significant disruption during any lease period that was renegotiated while services are upgraded. BSDM considered these issues can only be resolved by progressively vacating floors to allow the refurbishment to occur. The upgrade/ refurbishment would involve stripping the floor back to bare, replacing the air conditioning ductwork, light fittings, ceiling tiles, replacing the existing fit-out with new and reconstructing offices. Existing fit-out would not be able to be re-utilised as new ceiling gridwork is metrically based and additional costs of up to $0.5M per floor is estimated, depending on the office layout. It would be difficult to reduce space requirements to less than 17,000m^2 considering the restrictive floor-plate sizes available within 150 Lonsdale Street and noting

that Level 1 would retain computing infrastructure for administrative and research and development computing.

Various groups from within the Bureau would need to be relocated, preferably to space within close proximity to 150 Lonsdale Street, during the refurbishment program. The works envisaged would involve three floors being refurbished at a time for periods of six weeks each resulting in a total upgrade program of at least nine months. It is anticipated that the costs of moving and leasing alternative space would be negotiable with the owner as part of the deal to remain at 150 Lonsdale St. but disruption would be significant.

The dependence of Bureau operations and research activities on high availability of IT systems requires that technical specialists be readily available to attend to problems. Today, system planners are implementers are also the system maintainers. System specialists are on call to provide 24 hour, 7 day a week support of key systems as rapid responsiveness to problems is vital. Even with a remote CCF, a large IT infrastructure will continue to exist in the HO building for research and development purposes. The Bureau would have two computer centres to support and more systems staff would be required to achieve adequate support levels at both sites, than would be the case with HO and the CCF integrated.

NPV estimate of the total lease costs excluding the CCF but incorporating refurbishment options likely to be offered by the owner was $45.67M.

Option C – Alternative premises for HO/VRO with a collocated CCF (CBD/fringe)

The leasing market eased considerably in the last quarter of 2001 with international events and financial failures having a significant impact on business confidence. Option C could have involved moving to alternative leased premises under construction in the CBD or fringe, moving to existing fitted out/refurbished premises or moving to alternative leased premises to be constructed in the CBD or fringe via a pre-commitment lease. Any alternative which involves a pre-commitment required an early decision to ensure the necessary construction/refurbishment was completed and ready for occupation by April 2004.

A significant advantage of any alternative site would be the ability to reduce the total lettable area through better utilisation of accommodation on larger floor-plate sizes i.e. more useable space per floor. All NPVs were based on 17,000m^2 but a reduction to 15,000m^2 would achieve savings of more than 10% on the figures quoted. Other advantages would include more modern building services and facilities as provided in contemporary accommodation, lower energy requirements through use of more environmentally frendly facilities and improved technical infrastructure for modern desktop computing and communications systems. The Bureau's consultants GHD also indicated that there might be 15% savings in the collocation of the CCF with HO.

NPV estimates for

- alternative leased premises under construction with a collocated CCF is $54.45M.
- alternative leased accommodation within an available or refurbished site with a collocated CCF is $59.33M.

- alternative accommodation to be constructed in the CBD via a precommitment lease with a collocated CCF is $59.25M.

Option D – Alternative premises for HO/VRO with a separate CCF (CBD/fringe)

This option has the same comments and timelines as for Option C but with a slightly reduced space reflecting an alternative site for the CCF.

NPV estimate for:

- alternative leased premises under construction but with a separate CCF is $52.75M;
- alternative leased accommodation within an available or refurbished site but with a separate CCF is $57.44M; and
- alternative leased accommodation to be constructed and with a precommitment lease but with a separate CCF is $57.37M.

Option E – Alternative premises for HO/VRO with a collocated CCF (non CBD)

This option has the same comments as for Option C but reflects the variation in prices for a non CBD location. The most attractive non CBD sites are those in and around the Docklands Precinct which are being strongly promoted and offer favourable rents due to the non CBD location and early stage of development. Some of the advantages include sites serviced by the latest technology and general infrastructure which offer high data transfer rates as standard, good access to public transport within easy distance of amenities within the CBD. There are a number of projects awaiting a significant precommitment including Latrobe on Docklands, Docklands Gateway, New Quay Waterfront, Batman's Hill and Freshwater Place in Southbank. Alternatively a development is proposed for the corner of Leicester and Victoria Streets in Carlton.

NPV estimate for alternative leased premises to be constructed outside the CBD via a precommitment lease is $51.19M.

Appendix B – Commercial: In Confidence (Not available in electronic format for this document)

Conduct of Tender Process

Appendix C

Consultants employed by the Bureau of Meteorology

Consultant	Role in Future Accommodation Project
United KFPW (formerly known as KFPW Pty Ltd)	**Property Management** advise on the overall conduct of the tender process including management of the interface with industry on behalf of the Bureau. oversight of contract management from property management and legal perspective
Ladbray Consortium **(employed through United KFPW)**	**Legal Advice** o advise on legal aspects of tender process o preparation of contract documentation o legal advice on contract management
Australian Government Solicitor	**Probity and Risk Management** o advise on probity and risk aspects of tender process o advise on risks associated with project and risk management as required
GHD (formerly Gutteridge Haskins & Davey)	**Project/Contract Management** o act as formal Lessee's Representative with regard to Agreement to Design Construct & Lease **Design Management** o coordinate design of fit-out **Architectural, Electrical and Structural Engineering Design and Advice** o advise on building design matters during tender process o independently advise on building design & engineering matters during building construction o design of engineering aspects of fit-out **Energy Efficiency and Environmental Management Advice** o advise on how to achieve energy efficiency and environmental management objectives of project including in fit-out design o as required carry out energy efficiency and environment

	management audits, prepare operating plans, etc.
Rawlinsons Group **(employed through GHD)**	**Quantity Surveyor** o independent assessment of building variation costs o independent assessment of fit-out costs
The Gardiner Group **(employed through GHD)**	**Building Regulation and Compliance Advisors** o assessment of compliance of building with relevant standards o advice on compliance of fit-out proposals with regulations where necessary and appropriate
rice and skinner **(employed through GHD)**	**Interior Design** o design of general fit-out and of IT fit-out as required
Building Services Design & Management	**Mechanical/Electrical Engineering Design and Advice** o advise on building services during tender process o advise on building services issues during building construction o design of building services aspects of fit-out

Appendix D – Commercial: In Confidence (Not available in electronic format for this document)

Breakdown of Fit-out Cost Estimate

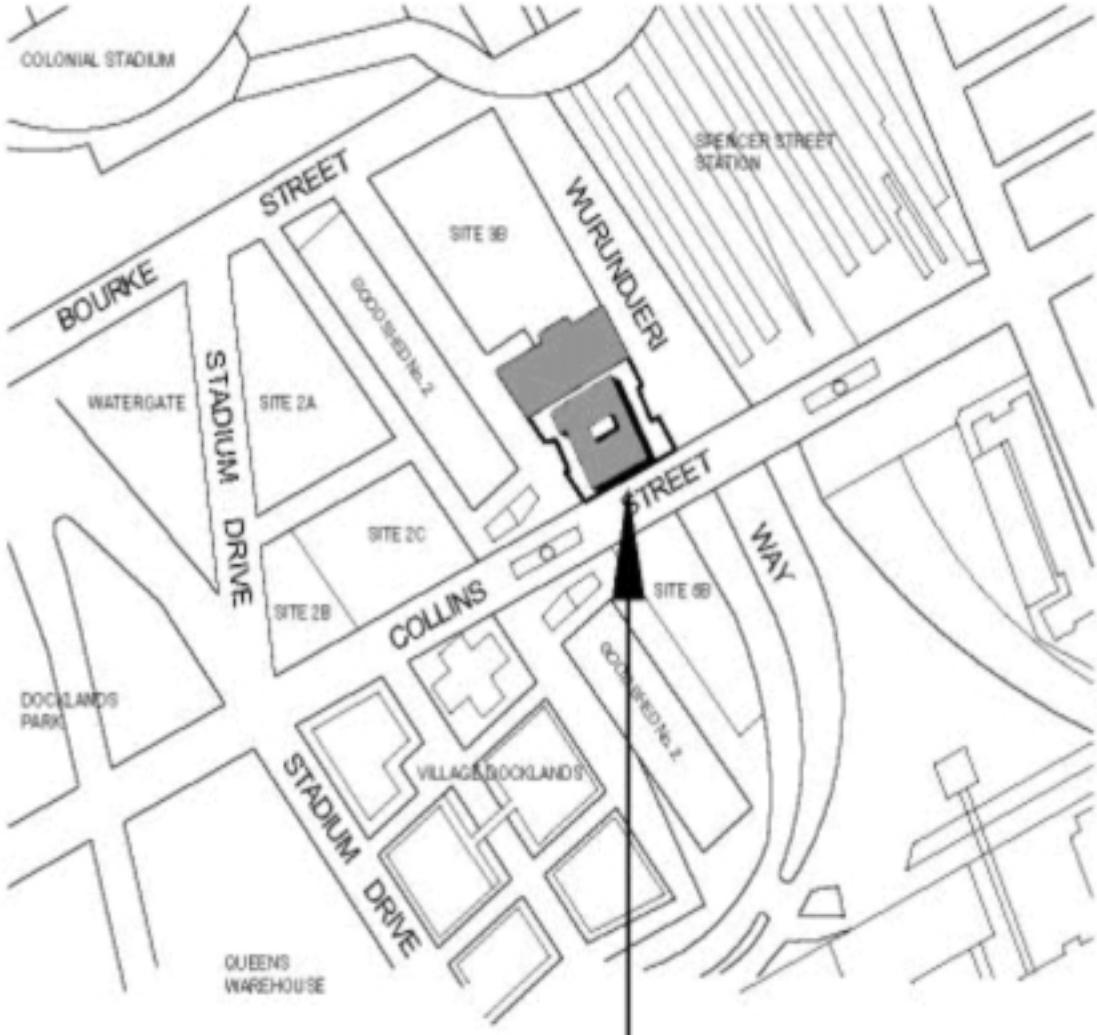
Appendix E

Drawings

Drawing Schedule

LOCATION PLAN

SITE PLAN


COLONIAL STADIUM
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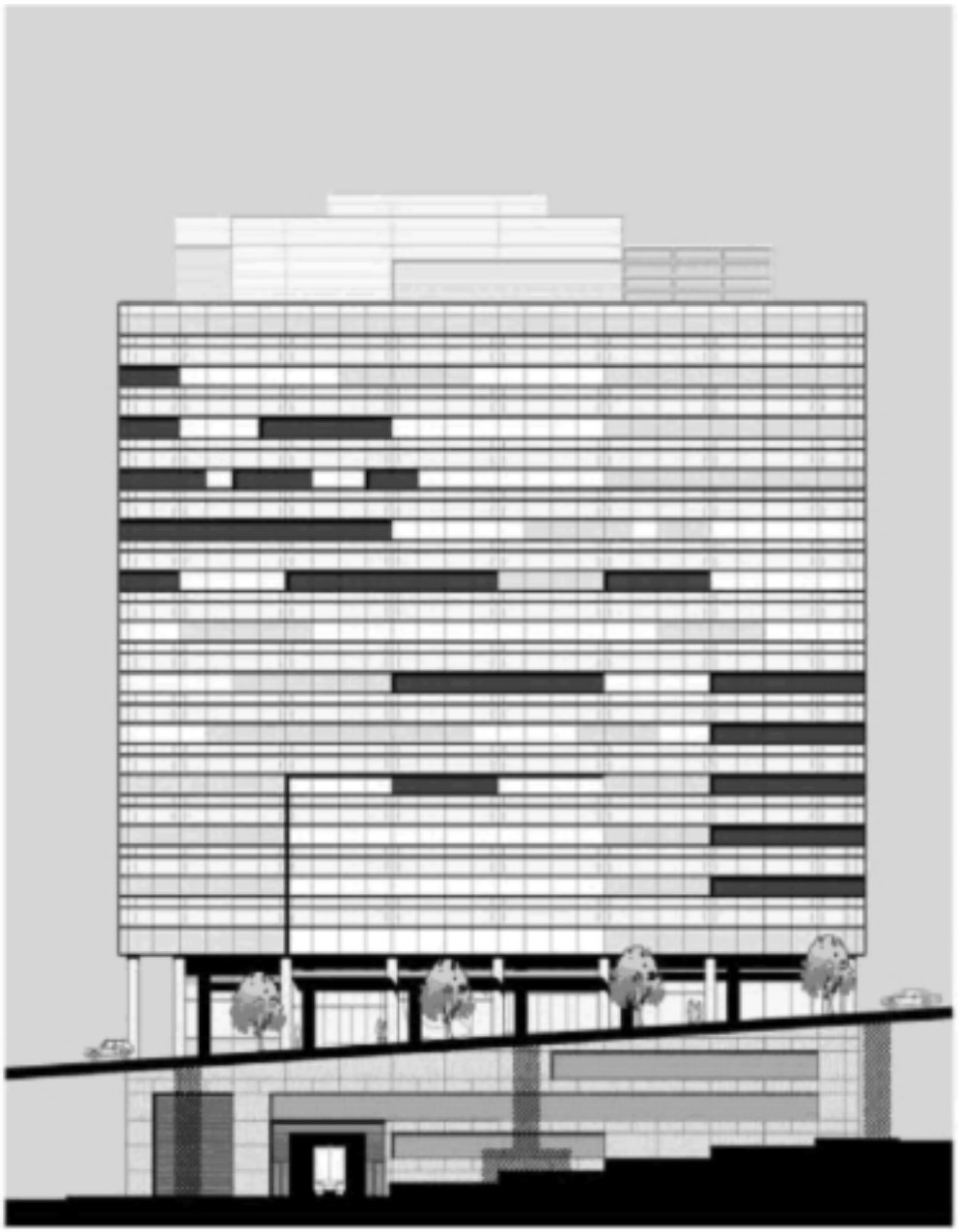
WURUNDJERI
SPENCER STREET STATION
WATERGATE
STADIUM DRIVE
SITE 2A
SITE 2C
SITE 2B
COLLINS STREET
WAY
SITE 9B
DOCKLANDS PARK
VILLAGE DOCKLANDS
STADIUM DRIVE
QUEENS WAREHOUSE
700 COLLINS STREET



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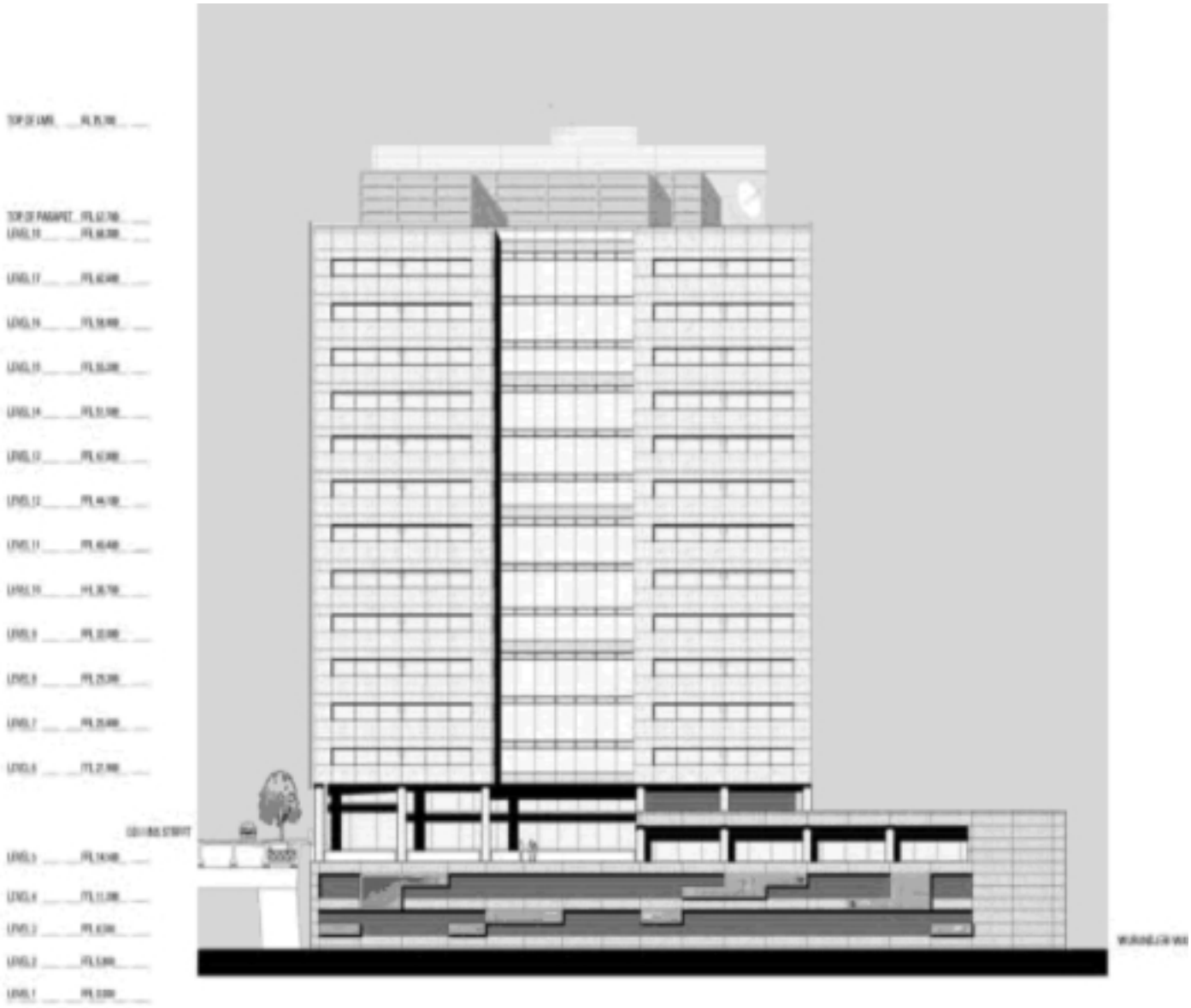

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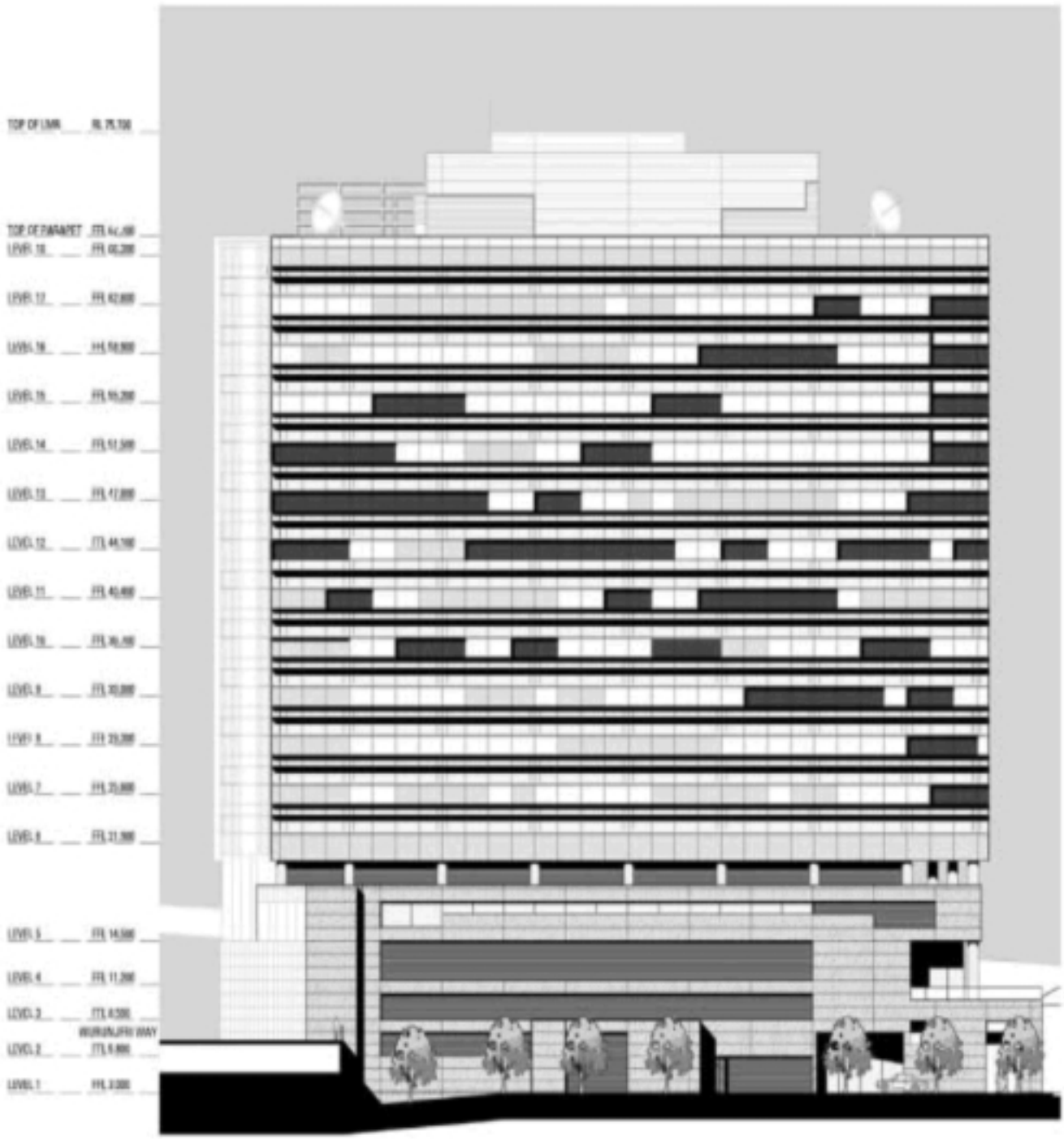
700 COLLINS STREET, DOCKLANDS WEST ELEVATION



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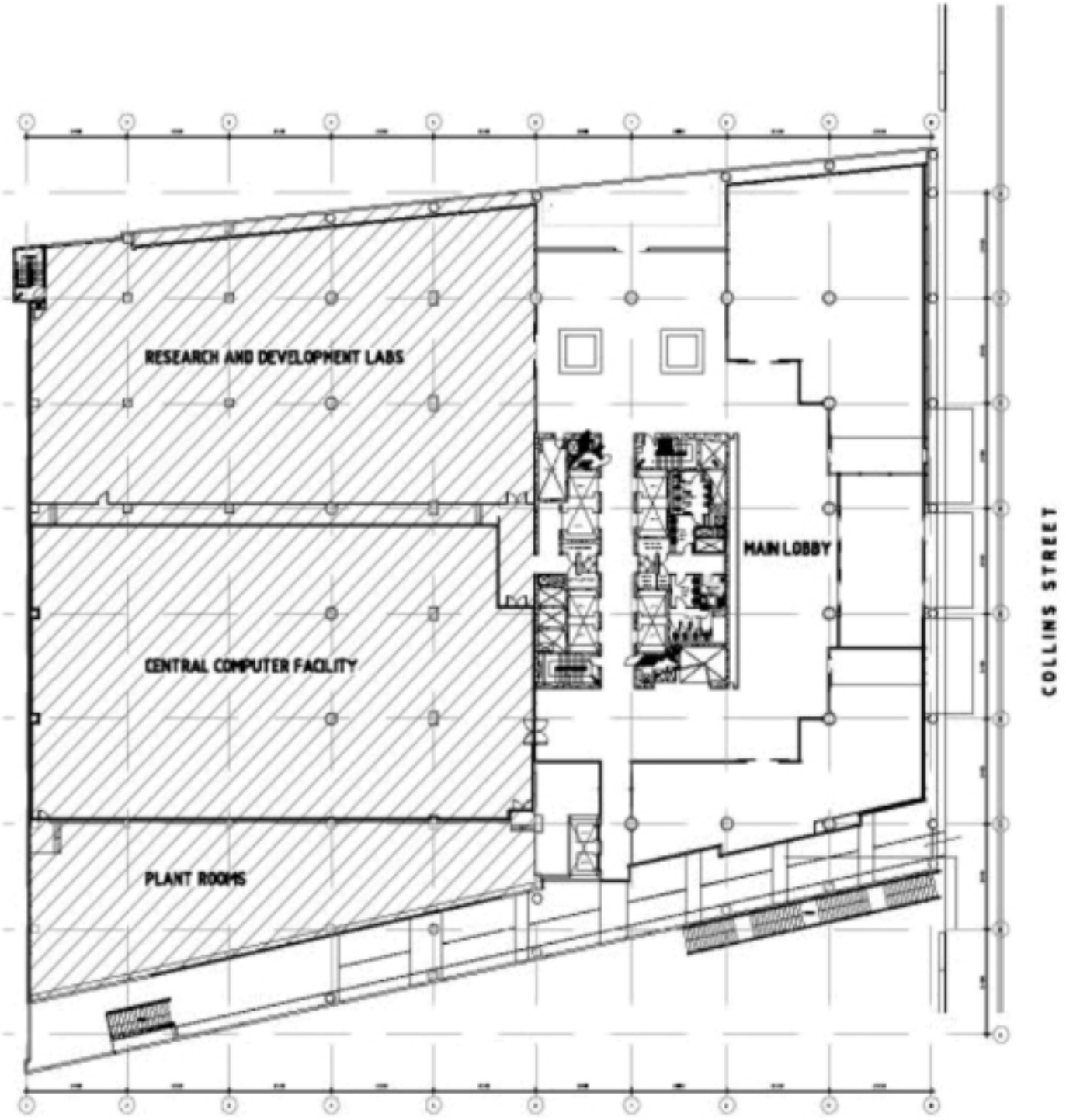

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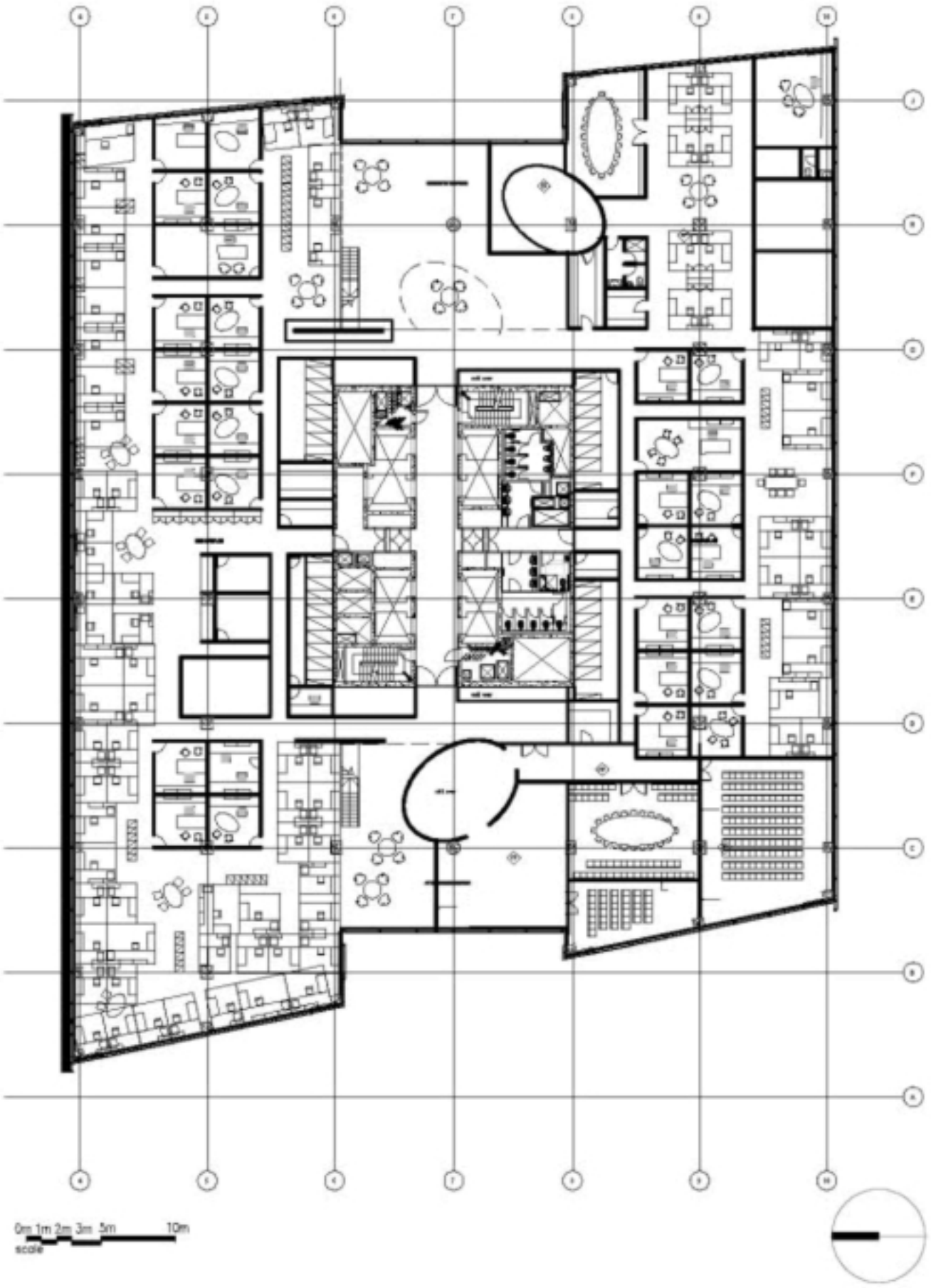

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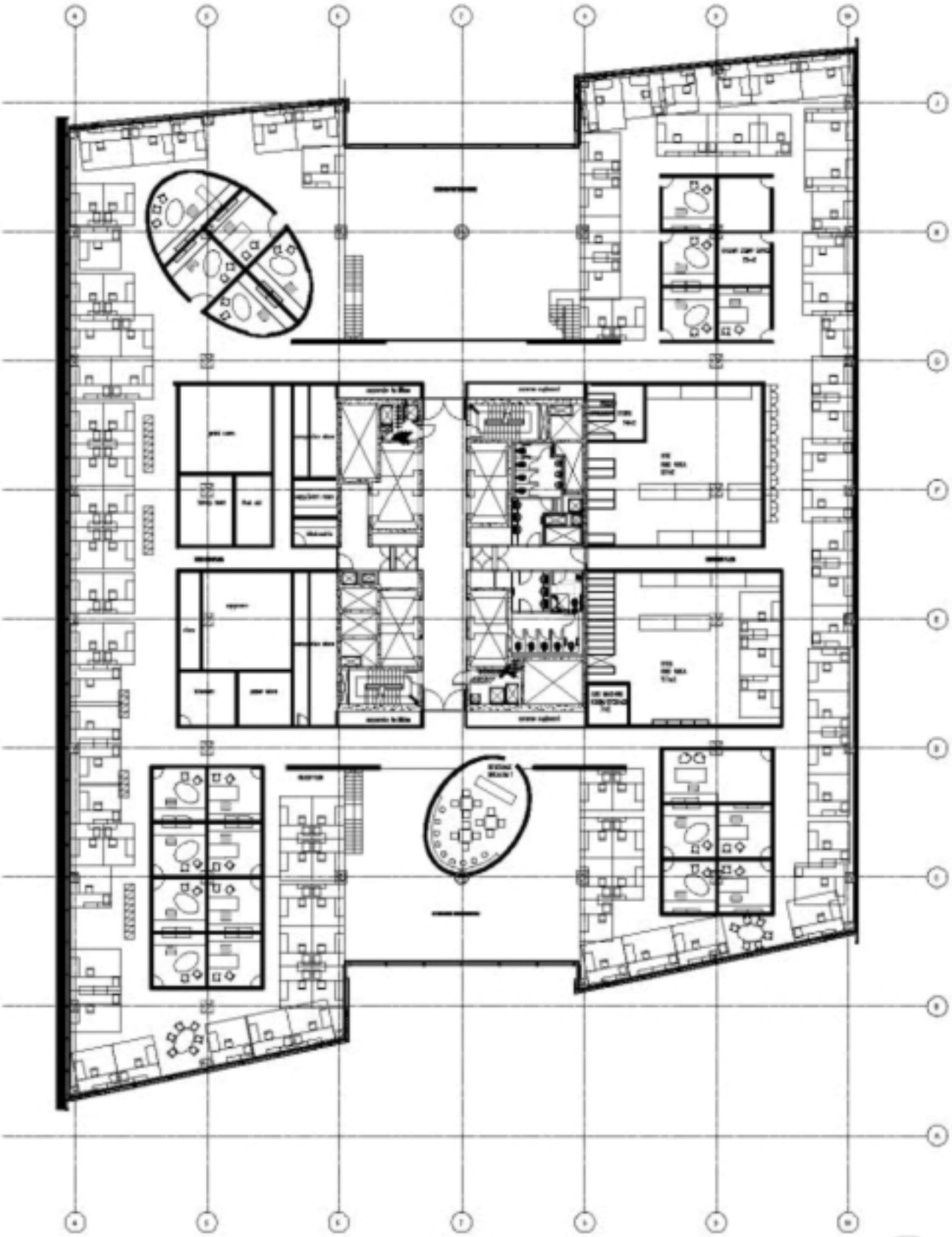

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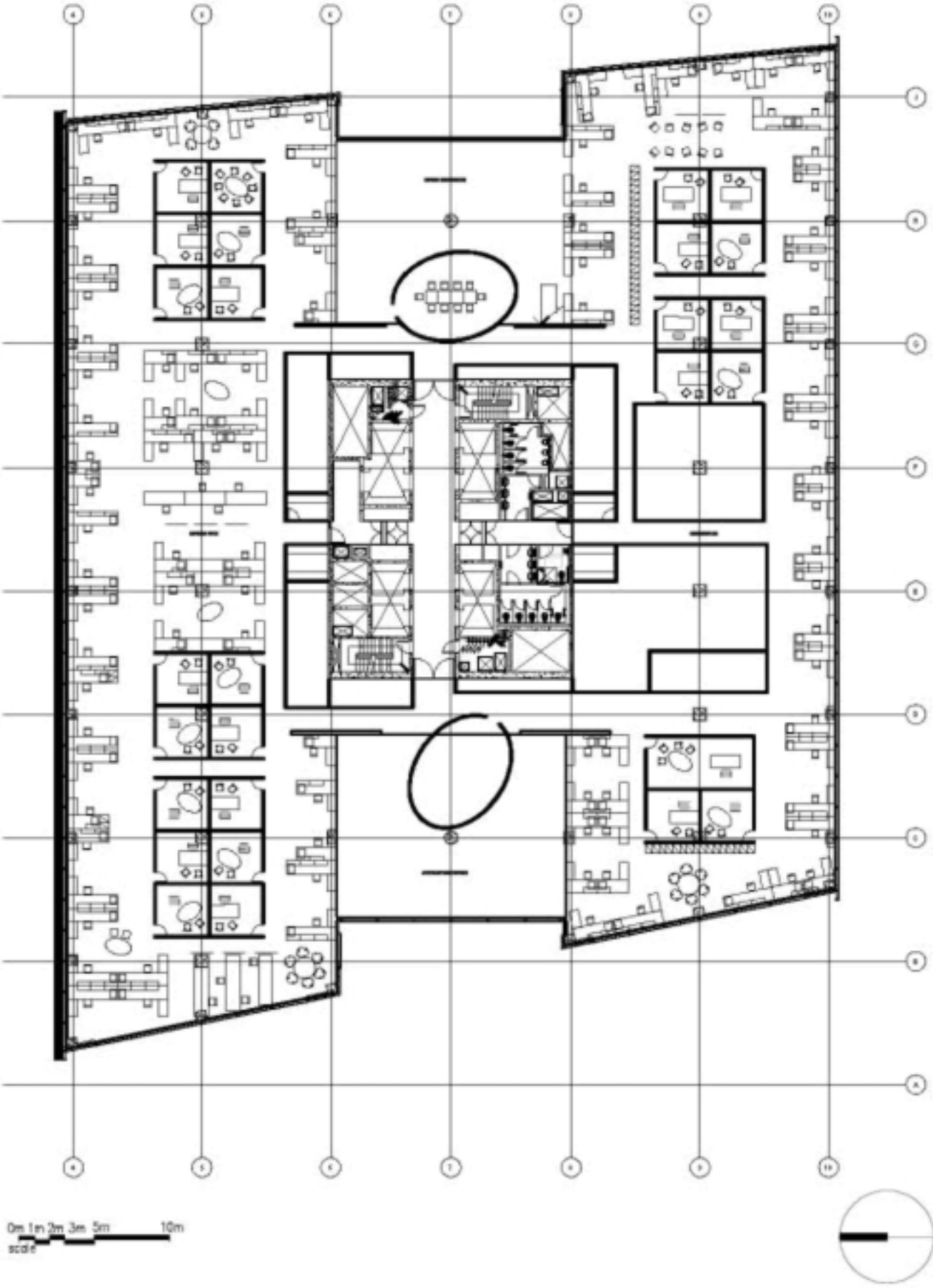

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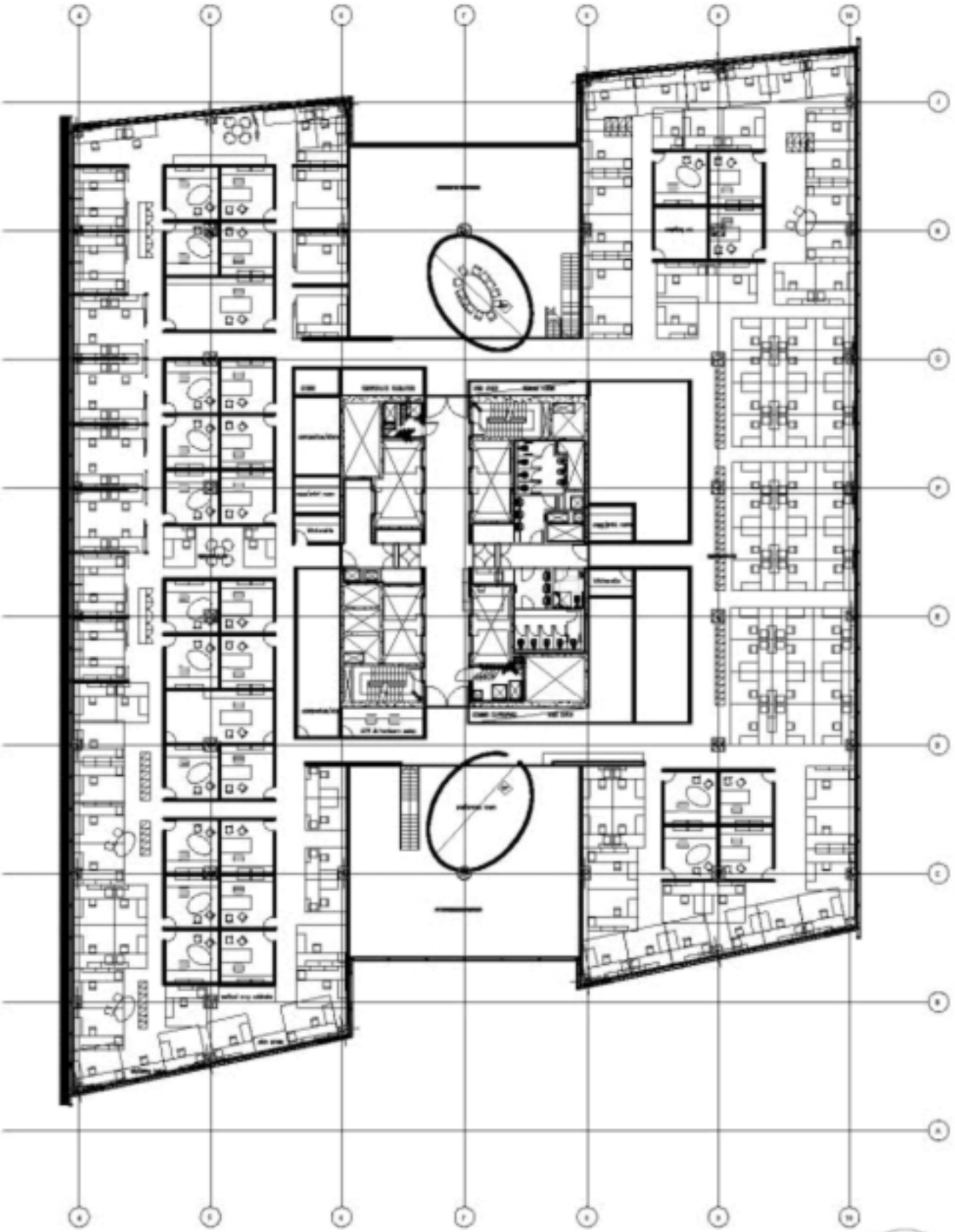

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700 COLLINS STREET, DOCKLANDS LEVEL 11