



**SUBMISSION TO THE
JOINT STANDING COMMITTEE
ON PUBLIC WORKS**

**PROPOSED CONSTRUCTION OF HOUSING FOR DEFENCE
AT
FAIRVIEW RISE, IPSWICH, QUEENSLAND**



Feature Streetscape – Road 2

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BACKGROUND

The Defence Housing Authority (DHA) owns a parcel of land located approximately six kilometres south east of Ipswich city centre and eight kilometres east of RAAF Base Amberley (see Location Map at [Supplementary Item 1](#)). This is the remaining undeveloped portion of approximately 54 hectares of land acquired by DHA in 1990. A DHA Joint Venture with the Mirvac Group undertook staged development of approximately 33 hectares yielding approximately 324 lots in an estate known as Fairview Rise. The DHA/Mirvac Joint Venture was terminated in 2002 leaving the remaining undeveloped land (an area of 19.64 hectares zoned Residential Low Density) under DHA ownership.

DHA now proposes to develop that land to help meet the housing requirements of ADF members in SE Queensland, particularly those located and to be located, at RAAF Base Amberley.

IDENTIFICATION OF THE NEED

1 OBJECTIVES

1.1 In this submission, the DHA seeks approval from the Joint Standing Committee on Public Works (PWC) to proceed with a major residential development at Ipswich, Queensland, at a cost of \$50.70 million.

1.2 The project objective, subject to Parliamentary approval, is to provide 162 fully serviced residential lots developed in two phases. Civil Works Phase 1, comprising 77 lots, will start in August 2006 and be complete in April 2007 allowing housing construction to commence immediately thereafter with completion in November 2008. Civil Works Phase 2, comprising 85 lots, will start in March 2007 and be complete in November 2007 allowing housing construction to commence immediately thereafter with completion in June 2009.

1.3 The project will provide modern community standard housing to meet the operational needs of the Australian Defence Force (ADF) and the requirements of the Department of Defence (Defence).

2 THE NEED

2.1 DHA's capital investment and residential construction program for Ipswich (mainly to service the RAAF Base Amberley) and incorporated in DHA's 2006-2010 capital programme, is summarised in the following table:

	06-07	07-08	08-09	09-10
DEFENCE HOUSING FORECAST	524	701	701	701
New Housing	85	107	45	32

DHA Housing Requirements for Ipswich

2.2 In addition to the increase in the housing requirement, there is a requirement that the programme provide for the expiry of existing leases. During the planning period 171 existing leases will expire.

2.3 From its recent consideration of the Defence submission to the PWC, "*RAAF Base Amberley Redevelopment Stage 2, Queensland*" (Report No 18/2005, tabled on 2 November 2005 refers) the Committee is aware that long-term defence planning provides for the retention of RAAF Base Amberley as a major defence base, and that it is intended to relocate elements of Army's 9th Force Support Battalion from Townsville, Sydney and Puckapunyal together with RAAF's No 33 Squadron from RAAF Richmond to be jointly located at RAAF Amberley. The substantial increase in the Australian Defence Force (ADF) housing requirement forecast advised by the Department of Defence (Defence) from 2007-08 onward is an outcome of the above Defence submission.

2.4 The 162 new properties that comprise the Fairview Rise project will assist DHA to deliver the requirements of DHA's capital program from 2007-08 onward. Recognising the significant and steep increase in Defence housing requirements in the area, it will be necessary to retain all created housing under DHA management initially. Increasingly, DHA is finding that significant numbers of Defence families support living in close proximity to each other in neighbourhoods where modern community standard housing is provided.

2.5 In order to meet ADF operational and Defence housing requirements, DHA uses a variety of delivery methods, including on-base and off-base construction, direct purchase, and various leasing arrangements.

2.6 In locations where there is a high level of Defence demand, constructed housing delivered through bulk procurement contracts is the most effective provisioning option as planning can be better geared to Defence requirements. Building lots for this purpose are usually sourced ready for construction from the local real estate markets, or developed/redeveloped by DHA. DHA development and construction is a particularly attractive option at Fairview Rise because the land is already owned by DHA and DHA has had relevant development experience as a land and housing developer in SE Queensland and elsewhere in Australia.

2.7 The development and construction of housing at Fairview Rise will make a significant contribution towards meeting the increased Defence housing requirement in the Ipswich area. Housing in this suburb is sought after by ADF members due to its close proximity to RAAF Amberley. The Fairview Rise suburb has proven popular with investors through the Sale and Leaseback programme.

3 DESCRIPTION OF THE PROPOSAL

3.1 The site is located within an urban residential area under the Ipswich Southern Corridor Structure Plan and will be developed in accordance with that Plan. The proposal incorporates the vacant land, which makes up the balance area of the existing Fairview Rise Estate in the suburb of Flinders View, which was first rezoned Residential Low Density in 1991.

3.2 The site will be used exclusively for detached housing. The development comprises the following:

- 162 residential lots;
- new road and open space;
- road connection/integration with existing and adjoining estates;
- strong pedestrian connectivity and walkability; and,
- clear sight lines which highlight significant views and vistas.

3.3 Infrastructure works involving roads, water, sewerage and storm water will be undertaken to current Ipswich City Council (ICC) standards. Installation of electrical reticulation, gas reticulation and telephone services will be undertaken primarily by Energex, Envestra and Telstra.

3.4 The development is well served by community and municipal services. The nearest shopping facility is located approximately 500 metres away at Winston Glades Shopping Centre and provides banking, retail and other services. A neighbourhood shopping centre is located at Ash Street Yamanto approximately four kilometres west of the site and provides convenience services such as fast food and video hire.

The nearest public transport is available along Reif Street which forms the northern boundary of the existing Fairview Rise Estate. The opportunity for an extended bus service to facilitate the completed housing development is still a topic of continued discussion with ICC. If an acceptable bus route can be introduced into Willowtree Drive the result would be bus stops within 400 metres for the majority of residents in the proposed development. This exceeds the current distances achieved which are 500-600 metres.

Educational facilities are located within reasonable proximity to the site. Primary schools, Bethany Lutheran and Raceview State School, are within a 2 kms of the site. Bremer High School is located within 6 kms of the site, with Ipswich Boys and Girls Grammar Schools, located near the Ipswich CBD.

3.5 The new housing will be sourced using DHA's project home procurement methodology and will comply with current Defence and community standards. All DHA residences will be 4 bedroom detached housing with ensuite and family room, double garage and at least 18m² of covered outdoor living area. The houses will be fully landscaped on completion. The house designs proposed will satisfy the criteria for DHA stock in that they will:

- be close to a major Defence base,
- be of good quality construction,
- be close to good transport links to both Brisbane and Ipswich; and,
- have potential for future capital gains and/or positive returns from Sale and Leaseback (SLB).

3.6 A comprehensive development control plan will be developed by suitably qualified architectural/town planning consultants to regulate the material, finishes, and special features of housing in order to create individuality of the development cognisant of the environment within which it sits. The development control plan will also include the conditions of ICC and/or Department of Main Roads (DMR) required by the Development Approval (DA) conditions.

4 ENVIRONMENTAL CONSIDERATIONS

4.1 Ecological Values. There are no matters of national environmental significance located in the area of the proposed works, and there is no identified potential for external impacts on matters of national environmental significance.

4.2 The Environment Protection and Biodiversity Act 1999 (EPBC) (in as much as it applies to the proposed development) requires approval if an action, such as land development, is likely to have significant impact on a matter of national environmental significance. Of the matters of national significance listed, the only matters having any likelihood of being impacted by the proposed development are listed threatened species and communities and migratory species protected under international agreements. The other matters of national environmental significance listed are World Heritage properties, Ramsar wetlands of international importance, nuclear actions and Commonwealth marine environment.

4.2.1 An ecological assessment was undertaken by Chenoweth Environmental Planning and Landscape Architecture (EPLA) in November 2003. The EPBC report prepared by Chenoweth concluded that the field investigation of the site did not identify any listed threatened species and communities and migratory species protected under international agreements and did not warrant referral under the EPBC.

4.3 The Ecological Assessment Report prepared by Chenoweth EPLA for the site commissioned by DHA in April 2004 concluded that the site is of limited ecological value. The site has previously been cleared and is virtually entirely forested with regrowth. The vegetation on site is predominately Eucalyptus woodland. The trees are generally less than four meters in height and provide sparse cover to the site. The undergrowth is low and sparse and consists of grasses and low growing herbs. It has limited habitat value evidenced by the lack

of hollow bearing trees used by native fauna and the site's isolation from surrounding areas of remnant vegetation.

4.3.1 There is a natural flowpath located within the proposed vegetated open space in the southwest of the site which under normal circumstances has no standing water and alluvial deposits. This area of approximately two hectares will be retained as open space, in addition to completion of the park referred to in paragraph 8.8 below, and rehabilitated to a semi natural state to retain the sites best ecological values and treat stormwater flows. Retention of open space and its associated vegetation will create a habitat for a high proportion of the site's limited floral diversity and fauna currently utilising the site and provide a recreational use for residents. The open space will act as a visual buffer to the houses located in the southwest area of the site from the Cunningham Highway.

4.4 Noise impacts. The site is bounded by the Cunningham Highway to the South and, with the exception of the northern and south-western boundaries, the site slopes down to the Cunningham Highway. A noise impact report commissioned from TTM Consulting (GC) Pty Ltd (TTM) in June 2005 recommended that, based on estimated traffic levels up to 2015, 33 of the developed blocks should be covenanted for single storey buildings. The report also recommended construction of an acoustic barrier, constructed from a combination of earth mounding and screen fence type structure. The proposed acoustic barrier will achieve the required level of functionality whilst improving the visual setting for residents and users of the Cunningham Highway. The outdoor recreation areas of the proposed development are predicted to be at noise levels below DMR criteria, following construction of the acoustic barrier. The acoustic barrier construction is consistent with the guidelines and requirements of DMR. Both recommendations will be incorporated in the detailed design of the project.

4.5 Contamination. Jensen Bowers Consulting Engineers has confirmed, by using the web-based search tools of the Queensland Environmental Protection Agency, that the site is not listed on the Queensland Heritage Register, the Environmental Management Register or the Queensland Contaminated Land Register.

The test pits undertaken by both Golder Associates Pty Ltd and Douglas and Partners (refer section 11.1 and 11.2) during the geotechnical investigations did not uncover any indications of contamination.

TECHNICAL INFORMATION

5 LOCATION

The site is bounded to the south by the Cunningham Highway, a major arterial road, to the west by the unformed Whitehill Road and a residential development, and to the north and east by the existing Fairview Rise Estate. The site is located close to community facilities, shopping facilities and multi-denomination primary and high schools. The area is serviced by public transport and the local authority road network, and commuter rail connection between Ipswich and Brisbane.

6 LAND OWNERSHIP

The land is owned by DHA.

7 SITE DESCRIPTION

7.1 The site is formally described as Lot 718 on SP123676 Parish of Ipswich, County of Stanley.

7.2 The south-eastern boundary of the site is adjacent to the Cunningham Highway, which is a State-controlled road regulated by DMR. To the west, the site is bounded by the unformed Whitehill Road, which is reserved as a future transport corridor. ICC has advised that there are no immediate plans for its construction as a road. The access from the site on the western boundary is the continuation of Arnhem Street into the adjoining Kensington Hills Estate. To the north and east the site is bounded by the existing Fairview Rise Estate, with the site's traffic connection points being to the suburban loop road Willowtree Drive.

7.3 The site is moderately sloping rising to a central hill top, with a low ridge line central to the site running north south to the site's boundary with the Cunningham Highway. The ridgeline divides the site in two, the eastern slopes have a general northerly to easterly aspect whilst the western slopes have a general south-westerly aspect. A natural flowpath runs northwest from where the ridgeline meets the Cunningham Highway.

8 SCOPE OF WORK

8.1 The proposal is for the development of the site and provision of associated site services in two phases to provide a 162 lot low density residential development with service roads, park and semi-natural open space. A total of 162 four bedroom houses are to be constructed in phases, programmed to commence on completion of each stage of the civil engineering works.

8.2 Lot arrangement. The development utilises best practice urban design principles to achieve a functional, liveable and memorable community. The layout for the proposed development (Subdivision Plan at [Supplementary Item 3](#)) has been developed recognising the following urban design objectives:

- a highly interconnected street system which integrates both the existing Fairview Rise Estate and the proposed development;
- a highly integrated pedestrian movement network which acknowledges existing access points and places of interest;
- recognition of the particular physical qualities of the site such as the hill top and vegetated open space and the role these attributes play in creating a sense of place and ensuring uniqueness and identity for the locality;
- a subdivision layout which compliments the physical nature of the site and respects topographical and hydrological constraints;
- a layout which upholds the open space principles of Crime Prevention Through Environmental Design (CPTED) by providing casual surveillance opportunities by residents of houses overlooking open space areas;
- retention of significant areas of vegetation within the open space area; and,
- recognition of the scenic qualities of the site, in particular views west to the Great Dividing Range, north to Mount Crosby, Mount Glorious and Mount Nebo and south towards Ripley Valley.

8.3 Block sizes. The 162 developed lots will be sized as indicated in the Block Size Plan ([Supplementary Item 4](#)). Block sizes of 700m² to approximately 1000m² will create a sense of space in relation to housing, streetscape and suburb. ICC development density requirements are 10-15 dwellings per hectare with the proposed development delivering 12.7 dwellings per hectare. The block sizing will allow the inclusion of quality private open landscaped gardens to each of the houses. The sizing of the developed lots is consistent with Ipswich market requirements, comparable to neighbouring developments and provides a range of alternate lot sizes to those in the existing Fairview Rise Estate.

8.4 Views and vistas. The layout of the subdivision has been purposely designed to take advantage of existing views and vistas both within and external to the site, in particular views to the Great Dividing Range, north to Mount Crosby, Mount Glorious and Mount Nebo and south to Ripley Valley. Strong views lines are created by Arnhem Street and the existing road Lakewood Court, with vistas terminated in each instance by significant stands of planting. The highest point of the estate, located along Willowtree Drive, will be marked by feature trees. The urban design intent is to create a landmark for movement within the site drawing visitors and in particular pedestrians to the top of the site. From this landmark point, visitors and pedestrians are able to connect with the open space within the development and the existing neighbourhoods and parks, through the pedestrian footpath network provided by the development and the network proposed by ICC.

8.5 Connectivity & Movement. The subdivision layout provides a strong pedestrian axis north south through Road 2 to Road 5 to the existing road Lakewood Court and a strong axis on the western half of the site with Arnhem Street. The layout is also characterised by high levels of connectivity with existing and adjoining communities. There are existing pedestrian access points from

Kentia Court, Willowtree Drive, Dianthus Place, Lakewood Court and Arnhem Street, which will be retained to improve pedestrian access to this development's open space areas and integrate the existing Fairview Rise Estate with this development. The high degree of connectivity should maximise opportunity for community interaction.

8.6.1 Roads. Road design is based on ICC standards with Willowtree Drive and Arnhem Street maintaining an 18 metre road reserve width and pavement width of 8.5 metres. The remaining roads have a reserve width of 15 metres and pavement width of 6.5 metres. Willowtree Drive is the major traffic circulation path through the existing and proposed development and is expected to be the primary traffic carrier for traffic generated within the estate as a whole. Some traffic may enter the proposed development from the adjacent Kensington Hills Estate via Arnhem Street, however this is anticipated to be a minor traffic flow. As the density of development has not been increased to greater than that anticipated by ICC, traffic numbers generated by the proposed development were not considered to have a negative impact on the capability of the existing road network. Speed control will be achieved by slow point islands, road intersection deviations and the creation of a sense of enclosure from the location of building setbacks and street planting.

8.6.2 ICC requested that a road connection be formed linking the adjacent Kensington Hills Estate by crossing the unformed Whitehill Road. ICC have advised that Whitehill Road will remain unformed for the time being until a decision is made by the Department of Main Roads on its future.

8.7 Footpaths. Footpaths are to be provided to one side of all new roads and to both sides of feature Road 2. Foot paths will also be positioned adjacent to the open space to encourage pedestrians to make use of this semi natural bushland area. Pedestrian pavements were not required by ICC in the development of the existing Fairview Rise Estate, however they have been incorporated in the proposed development with appropriate connections to future extensions of the footpath network within the existing Fairview Rise Estate being planned by ICC.

8.8 Open space. An area of land located at the end of the existing road Lakewood Court is being landscaped to complete the park constructed under the previous joint venture arrangements. Approximately 2 hectares of open space will be provided in accordance with the conditions of the DA. The open space will be remediated by DHA and on completion will be returned to its semi-natural state. It is expected that some reshaping of the natural flowpath will occur to rectify areas of erosion which have occurred over time.

8.9 CPTED principles. The subdivision layout incorporates Crime Prevention Through Environmental Design (CPTED) principles in that high levels of surveillance are achieved by the location of roads adjacent to and houses overlooking open space areas.

8.10 Noise. As outlined in clause 4.4, the development will include the construction of earth mounding and acoustic fencing to ensure that the amenity of any new housing will not be adversely affected by noise generated from traffic flows on the Cunningham Highway. Measurement of existing noise levels were

obtained by consultants TTM in accordance with Australian Standard AS2702 – 1984: *Acoustics - Methods for the measurement of road traffic noise*. This data was then extrapolated to model the expected growth in traffic volumes as at the year 2015 and the sound attenuation measures designed to cope with the expected increase, will be incorporated in the development design.

9 HERITAGE CONSIDERATIONS

Jensen Bowers Consulting Engineers undertook the required web-based search of the Queensland Heritage Register and could not find a listing for the Fairview Rise site. Discussion with ICC and the reports prepared for the DA have not provided any indications that the site has any heritage value.

10 ZONING AND APPROVALS

The site is zoned Residential Low Density and is the remaining area of the existing Fairview Rise Estate, Flinders View, which was first rezoned at the end of 1991/1992. ICC provided DA on 12 January 2006 for reconfiguration of the proposed development into 162 lots.

11 SITE DEVELOPMENT CONSIDERATIONS

11.1 Subsurface conditions. A geotechnical assessment in accordance with AS 1726 Geotechnical Site Investigations Code carried out by Golder Associates Pty Ltd in July 2001 indicates that the site can be broadly categorized into two geotechnical areas (see Location Map at [Supplementary Item 6](#)). The geotechnical assessment utilised available topographical and geological maps, reviewed existing site investigation reports, which included some test locations on the proposed development, and included an onsite inspection and mapping exercise. The site was categorised into two zones and excavation pits were dug to provide information on subsurface conditions.

11.1.1 Zone A encompasses the majority of the site and includes the higher ground located at the end of the existing Willowtree Drive and also the southern areas between there and the Cunningham Highway. Subsurface conditions within Zone A comprise sandy clays of a generally low to medium plasticity, grading to clay/sand in some locations which overlays low to medium strength sandstone at levels consistent with founding depths.

11.1.2 Zone B comprises the lower slopes of the northern area of the site immediately adjacent to the existing Fairview Rise residential development. Subsurface conditions within Zone B comprise dark brown clays which overlays weathered brown basalt.

11.1.3 The report concluded that, subject to minor earthworks expected in the proposed subdivision works, geotechnical classifications for Zone A would require foundation design for Class 'S' to 'M' soil classifications in accordance with A2870-1996 (Site Classifications) and in Zone B Class 'H' to Class 'E' soil classification. The report noted that lot by lot classification on completion of bulk earthworks would determine the foundation systems to be designed.

11.1.4 The report also confirmed, from documentation held by and discussions held with Department of Mines and Energy, that underground mining has not taken place below the proposed development.

11.2 A second geotechnical report prepared by Douglas & Partners in May 2004 was undertaken to provide further information on the subsurface conditions that could be expected and included an individual lot by lot soil classification prediction on subdivision completion. The investigation comprised the excavation of 41 test pits, geotechnical laboratory testing, engineering evaluation, analysis and reporting. The site investigation in accordance with AS 1726 Geotechnical Site Investigations Code conducted by Douglas & Partners provided classifications in accordance with A2870-1996 (Site Classifications) and confirmed that Class 'S', 'M' and 'H' sites would be encountered and appropriate foundation designs would be readily incorporated in housing designs. Class S, M and H site classifications are consistent foundation design requirements of residential construction throughout Australia. The site is considered suitable for subdivision and housing construction using structural engineering and construction techniques consistent with the report recommendations.

11.3 *Erosion and Sediment Control.* Civil Works will be undertaken in two phases to minimise the exposure of cleared land to sediment and erosion control issues. The Stormwater Management Plan prepared by Jensen Bowers in April 2005 identified the erosion and sediment control plan to be implemented during the construction phase of the development. The plan is consistent with ICC's Erosion and Sediment Control Standards.

11.3.1 Sedimentation basins will be located at low points of each of the four catchments identified on site and constructed during the construction phases. Sediment fences will be constructed to upstream identified buffer strips and at the base of all fill embankments. Areas of plant and construction material storage are to have diversion drains and spillage holding ponds. Diversion banks are to be constructed at the upstream boundary of the construction activities to allow upstream runoff to be diverted around any exposed earthworks. Catch drains will be created at the downstream boundaries of the construction activities. Silt fences and sand bag barriers will be installed along catch drains to slow velocities, reduce scour and capture runoff sediment. Site personnel will be trained in the importance and correct use of sediment and erosion control measures.

11.3.2 During construction progressive revegetation of filled areas and fill batters will take place. Construction areas will be limited to ensure only areas required to be worked on are exposed at any given time. Topsoil will be retained for final siteworks. Regular inspections and maintenance will be undertaken of all sediment and erosion control measures and remedial works promptly attended to. On completion of construction activities, revegetation and landscaping of remaining exposed areas will be undertaken, supported by a suitable watering and maintenance regime until the revegetation and landscaping works are established. The mitigation measures installed during the construction phase will be maintained until the completion of the ICC maintenance period.

11.4 The design and construction of the sediment and erosion control measures will be in accordance with the ICC Engineering Works Manual with water quality issues being addressed in accordance with the Stormwater Quality Management Plan prepared by Jensen Bowers and approved by ICC at Operational Works approval stage of the project.

12 ENGINEERING SERVICES

12.1 Water supply. Water Solutions Pty Ltd undertook a study to determine the hydraulic design of the water supply reticulation network for the development. The proposed water supply reticulation network incorporates 150mm and 100mm diameter PVC pipelines, with connection into the ICC's existing and surrounding network at Arnhem Street, Lillypilly Street, Sycamore Street, Road 1, Road 2, Lakeview Court, Dianthus Place, Willowtree Drive and Kentia Circuit. The designed network is compliant with ICC Water Supply Planning Guidelines and will be adequate for the number of houses proposed for the development.

12.2 Hydraulics and Drainage. A Stormwater Management Plan has been developed for DHA by Jensen Bowers Consulting Engineers Pty Ltd and agreed to by ICC. The existing stormwater conditions on site consist of an overland flow during storm events which leads, via gullies, to the stormwater systems in the existing Fairview Rise Estate to the north or to the Kensington Hills Estate to the west, eventually reaching the Bremer River via Deebing Creek which is located west of the site. ICC have confirmed that the site is not flood affected.

12.2.1 The Kensington Hills Estate detention system contains a design allowance for the portion of existing flow discharges from the proposed development west of the ridgeline. The allowance is sufficient to require no further detention basins be built in the southwest area of the site to cope with the increased flows post-development. The quality of the stormwater runoff through the natural flow path of the vegetated open space will require a degree of improvement before entering the open channel alongside Arnhem Street in the Kensington Hills Estate. Stormwater will be treated through a series of natural vegetated swales to ensure that downstream properties are not adversely affected by stormwater runoff from the proposed development any greater than that which existed pre-development. The stormwater will discharge via a low flow structure and pipe system, with higher flows discharging through a weir structure and overland flow channel to the Arnhem Street overland flow path.

12.2.2 The stormwater from the north-eastern portion of the site will discharge into the existing Fairview Rise stormwater system. The adequacy of the system has been confirmed, albeit that some work will be required to the downstream detention capability. A stormwater detention facility was constructed within Fairview Park in the area adjacent to Reif Street as part of the works approved for the original subdivision. Modifications to the spillway and outlets have, with DHA's agreement, formed part of the works of the DA. The modifications will improve stormwater management in the existing Fairview Rise Estate by modifying the design and operation of the existing detention facility to meet current design requirements.

12.2.3 All stormwater flows within and adjacent to the proposed development, other than inter-allotment drainage, will be confined to dedicated roads, drainage reserves, registered drainage easements or within parkland.

12.2.4 The design and construction of the stormwater system will be in accordance with the ICC Engineering Works Manual with water quality issues being in accordance with the Stormwater Quality Management Plan prepared by Jensen Bowers and approved by ICC at Operational Works approval stage of the project.

12.3 Electricity. A standard agreement will be entered into with Energex for the supply of electricity to the development. Energex has confirmed that the site is adequately serviced by the adjacent high voltage electricity network and that supply to the site will require a normal network extension. The development will be served by underground reticulation connected to the existing 11kV Energex network in Fairview Rise, with transformers supplying low voltage reticulation to each lot. The existing 11kV network is capable of sustaining the additional load of this development and no upgrades are required. Street lighting will be provided by DHA in accordance with the standard requirements of ICC.

12.4 Gas. Origin Energy has advised that gas is available in close proximity to the site and therefore the site is capable of being serviced.

12.5 Sewerage. The design of the sewerage system is in accordance with ICC Guidelines for the Planning and Design of Sewage Schemes Vol 1 and 2 produced by Queensland Department of Primary Industries Water Resource Commission AWWA. A reticulated gravity system with appropriate house connection branches will connect into the existing sewerage reticulation system at Arnhem Street, Dianthus Place and Kentia Circuit. Information supplied by ICC and studies completed by Jensen Bowers, have confirmed that the existing system capability and connection points are adequate to handle the expected increased sewage.

12.6 Telecommunications. Telephone services will be provided to all proposed lots within the development. Telstra has indicated that it can supply the necessary telecommunications to the proposed development, including all design and planning prior to construction. Should the existing capacity be less than required for the development, Telstra has advised that the required upgrades would be provided at their own cost.

13 CODES AND STANDARDS

13.1 All design and construction work carried out as part of this project will be in accordance with statutory requirements and regulations including the current Building Code of Australia, relevant Federal and Queensland State law, and ICC codes and standards, including:

- The Queensland Urban Drainage Manual (QUDM), produced by the Queensland Department of Primary Industries;
- Australian Rainfall and Runoff (AR&R), produced by the Institute of Engineers, Australia;

- Soil Erosion and Sediment Control published by the Institution of Engineers Australia;
- Queensland Streets - The Design Guidelines for Subdivisional Street Works, prepared for the Institute of Municipal Engineers of Australia (Qld);
- The Australian Model Code of Residential Development (AMCORD) produced by the Commonwealth Department of Housing and Regional Development;
- The Queensland Department of Main Roads:
 - Manual of Uniform Traffic Control Devices (MUTDC); and,
 - Fire Hydrant Indication System Technical Guideline;
- Ipswich City Council's:
 - Planning Scheme Policy;
 - Subdivision Code; and,
 - Standard Drawings;
- Ipswich Water's:
 - Water Supply Planning Guidelines; and,
 - Guidelines for Planning and Design of Urban Water Supply Systems;
- Draft Queensland Water Quality Guidelines (EPA, 1998);
- Australia Water Quality Guidelines for Fresh and Marine Waters (ANZECC);
- Guidelines for Planning and Design of Sewerage Schemes – Volumes 1 & 2, produced by Queensland Department of Primary Industries Water Resources Commission and AWWA;
- Queensland Department of Main Roads Standard Specification for Landscape Works (MRS 11.16 - 1999); and,
- Australian Standard 1158.3.1 for installation of street lighting.

All construction requiring certification will be undertaken by ICC or by approved Private Certifiers.

14 CONSERVATION

14.1 Energy conservation will be a prime design consideration. Energy conservation principles have been applied to, and will continue to be applied to, a number of aspects of the project including urban design, engineering and housing design.

14.2 The urban design of the project discourages the dependence on cars and promotes walking and cycle use by providing pedestrian footpath networks, coordinated with the pedestrian network planned by ICC for Flinders View, with connectivity to key community destinations within and outside of the site. Future public bus route capability has been designed into the subdivision layout. Lot orientation has been designed to minimise solar exposure.

14.3 Stormwater engineering and landscaping have been integrated to reduce the quantity and improve the quality of stormwater runoff within the development

and minimise runoff by using water sensitive natural watercourses to the extent available in lieu of piped systems.

14.4 All houses built in the development will be required to provide optimal passive solar performance and achieve a minimum of 4-star energy rating. Houses will incorporate passive measures such as eaves overhangs, shades and hoods, landscape designs providing house shading, lightweight construction minimising solar mass. Internally, AAA shower heads, pressure limiting water supply devices, dual flush cisterns, gas powered 5-star energy efficient hot water units, energy efficient fluoro lighting and water tanks for reuse within the house will be incorporated.

15 LANDSCAPING

15.1 An Ecological Assessment Report was prepared by Chenoweth Environmental Planning and Landscape Architecture in April 2004 to determine the ecological impact of the proposed development on the ecology of the site. The report concluded that although the development will result in the loss of most of the existing vegetation cover, the existing vegetation cover is composed mostly of regrowth. There are no 'Endangered' Regional Ecosystems present and onsite studies indicate that the site is not used as a major corridor for transient fauna. Retention of the vegetated open space will capture the site's available floral diversity, protect an 'Of Concern' Regional Ecosystem and provide habitat for the species that may be currently using the site. The following recommendations will be incorporated in the development to minimise impacts on flora and fauna:

- natural ground layer cover will be retained in the vegetated open space;
- planting beds formed adjacent to the natural flowpath;
- use of native species or non-invasive species in the vegetated open space;
- placement of hollow logs and rocks as habitat for frogs and reptiles;
- placement of nest boxes in young trees along the flowpath;
- removal of termite nests; and,
- fauna spotting/catching during the clearing operations.

The natural flowpath and vegetated open space will be required to accommodate increased flows from urban runoff, but this requirement will sensitively incorporate the actions above as they apply to both areas.

15.2 Landscaping to the public domain, i.e. the landscape area which is not associated with the residential properties, has been formulated with an overall concept which addresses key characteristics of the existing topography. The high point of the site has been emphasised by its retention and by planting landmark trees. The ridgeline has been emphasised by creating the main road through the site with wide road reserves and planting of tall trees which provide a backdrop to views throughout the area. This theme has been extended to the other roads within the development which have avenue plantings. The vegetated open space has been retained and will be planted to reduce the erosion issues of the existing dispersive soils in the natural flowpath through the area and to provide a scenic space. Plantings adjacent to the Cunningham Highway form part of the acoustic barrier and will minimise the need for large-scale acoustic barriers.

15.3 Landscaping to public domain will comprise street trees, gardens at road intersections, feature median strip to Road 2 and a feature tree in the hilltop roundabout. The tree selections are natives and comply with the requirements of ICC. They have been selected for their ability to provide shade to pedestrians, act as feature plantings, their low water consumption and maintenance and suitability for the Ipswich climate and soil conditions.

15.4 Landscaping within residential properties will be low maintenance and low water demanding and will include paved driveways, pathways, timber yard fencing, terraced and grassed areas to create low maintenance native gardens incorporating privacy for occupants.

16 CONSTRUCTION PROGRAM

16.1 PROJECT PLAN. Subject to Parliamentary approval by August 2006, the significant milestones to achieve completion of the project by June 2009 are:

Activity	Start	Completion
Civil Engineering Works Phase 1	August 2006	April 2007
77 Houses Phase 1	April 2007	November 2008
Civil Engineering Works Phase 2	March 2007	November 2007
85 Houses Phase 2	November 2007	June 2009

16.2 Procurement methodology. Development and construction packages will be contracted on a fixed price lump sum basis to a select panel of tenderers who will have been successful in addressing the selection criteria from a publicly advertised open call for expressions of interest.

PROJECT PLANNING

17 PROJECT FEASIBILITY

The DHA Board is satisfied that the proposed development as described in this submission is an appropriate, timely and cost effective way to meet, in part, the housing needs of ADF personnel and their families in the Ipswich region.

18 COMMUNITY CONSULTATION

18.1 The DA process adopted by ICC for this project recognised the project as Code Assessable in accordance with the requirements of the Queensland State Integrated Planning Act and the development requirements of the ICC Planning Scheme. Under Code Assessable status, the DA is considered and approved by ICC planning officers without the requirement by ICC for a public notification process.

18.2 DHA recognises that, despite the requirement to the contrary, public engagement is important. DHA issued approximately 600 letters in January 2006 to residents of Fairview Rise and the neighbouring Kensington Hills Estate advising them of the development plans. Letters were also sent to DHA investors, who own properties in Fairview Rise, and who do not necessarily reside in Fairview Rise. The letters provided details of the project, information about a display at the nearby Winston Glades Shopping Centre held on 13 to 18 February 2006 and an invitation to a public information evening at the Brothers Leagues Club Raceview, located close to the development, on 7 March 2006. The letters also contained DHA contact information to allow non-attendees at the organised events to be provided with further information. Press advertisements in the local Ipswich newspapers were also run on 24 and 25 February and 3 and 4 March 2006 advising of the information evening. A press release was also issued in January and was included in the Queensland Times on 4 February 2006.

19 OTHER ORGANISATIONS CONSULTED

19.1 A project briefing has been provided to the local Federal Member of Parliament, Mr Cameron Thompson, Member for Blair.

19.2 Consultation with ICC planning and engineering sections has been undertaken during the DA process. Consultation will be continuing as the project is taken through the design and delivery processes.

19.3 DMR is a concurrence agency with regard to this development due to the proximity of the site to the Cunningham Highway. DMR has been consulted and has provided conditions which have been incorporated in the DA.

19.4 The Queensland Herbarium and the Queensland Museum have been consulted in connection with the mapping of existing vegetation, identification of indeterminate plant species and fauna, in particular snail species.

19.5 RAAF Amberley Base Commander, Wing Commander John Martin has been briefed on the project and has provided his support (see Supplementary Item 7).

19.6 The Defence Families of Australia, National Convenor, Ms Maureen Greet and National Delegate South East Queensland, Ms Elizabeth Sayers have been briefed on the project and have provided their support (see Supplementary Item 8).

20 DEVELOPMENT APPLICATION

The DA has been approved after extensive discussion, review and negotiation with the ICC on the urban design and engineering outcomes required for the development. The DA was approved by ICC on 12 January 2006.

21 PROJECT ESTIMATES

21.1 The estimated overall project cost of \$50.70 million has been determined by a Consultant Quantity Surveyor, based on delivery by fixed price lump sum tenders from suitably experienced civil works and building contractors. The estimated

overall project cost includes civil engineering and housing construction costs, local authority fees and charges, design consultancy fees and construction contingency.

22 FINANCING

22.1 Funding for the proposal will be sourced by DHA from any or all of the sale of surplus housing stock, the public sale of development houses, funds realised from the sale and leaseback scheme, application of surplus operating capital, or debt financing.

22.2 It is intended to make all residences in this development available for Sale & Leaseback.

23 PROJECT MANAGEMENT

23.1 The project will be managed by DHA with the support of professional design consultants and civil engineering and building contractors.

ECONOMIC IMPACTS

24 LOCAL IMPACTS

The proposed project will have a positive economic effect during the development and construction period through economic activity generated by individuals and local businesses working directly on site but also through individuals and businesses off-site providing goods and services to support the project.

25 HOUSING MARKET IMPACTS

In the South East Queensland housing market and Ipswich market in particular, construction of 162 new houses over a period of more than two to three years is not expected to affect either the sale or rental markets for residential accommodation, particularly since all 162 new houses will be required for the increased numbers of ADF personnel moving to RAAF Amberley from interstate locations.

26 COMMUNITY IMPACTS

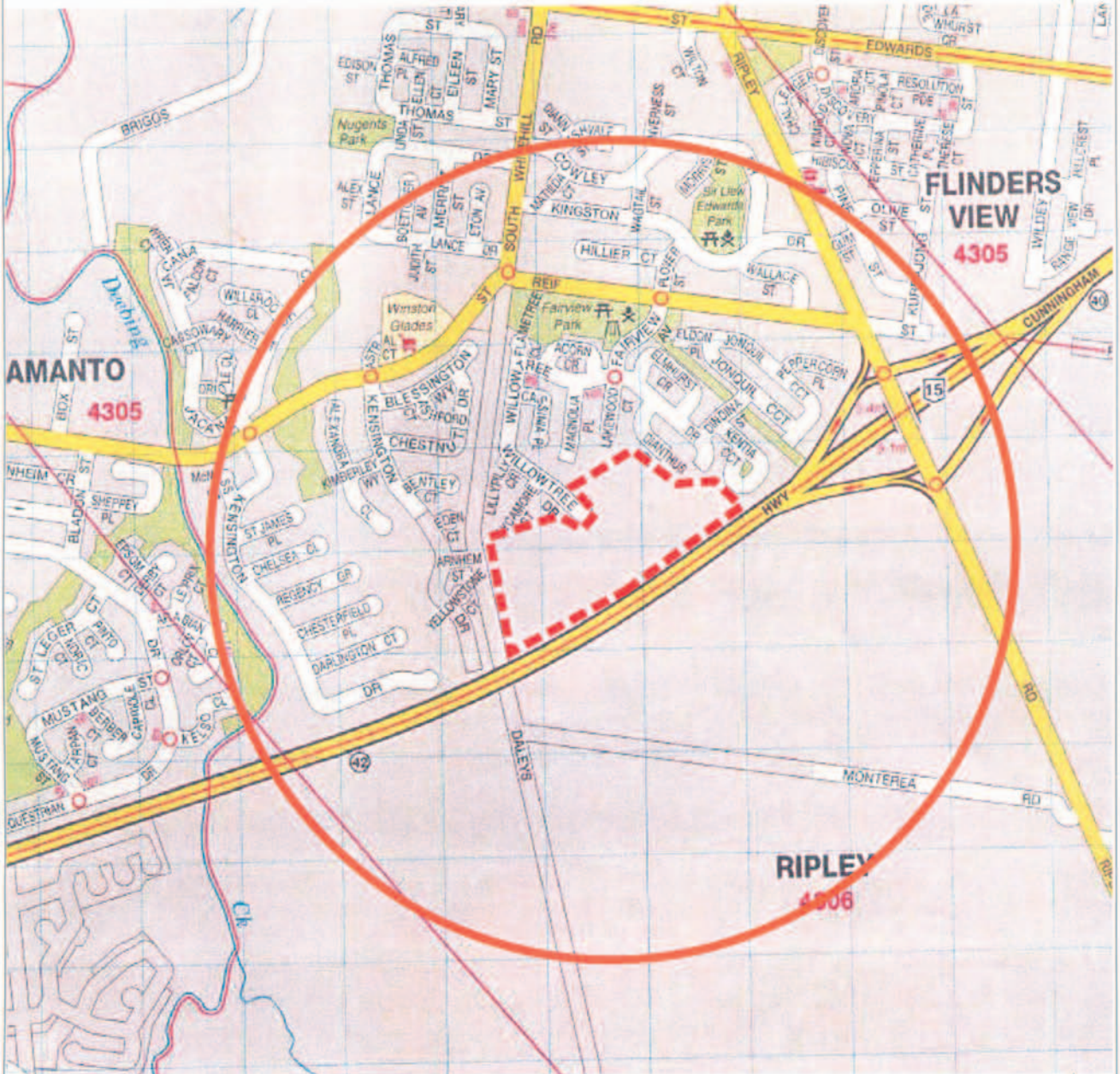
26.1 Potential community impact is assessed as low. Development of the site completes the development of Fairview Rise that has been ongoing since 1993. Rezoning was not a requirement and municipal services requirements are well known by the ICC planning section. The residential zoning for the site is for low density residential purposes with which the proposed project complies. The DA was required to comply with the ICC planning scheme requirements, predominantly:

- Land use and transport planning;
- Traffic, civil and hydraulic engineering;
- Environmental issues in particular acoustics;
- Ecology and biodiversity; and,
- Urban design.



26.2 Public open space has been incorporated in the form of the semi-natural area being remediated in the southwest area of the site. It is intended this space contribute not only to the overall amenity of the proposed development and be available to its residents, but also to the amenity of the Fairview Rise Estate in general and the residents of adjoining suburbs.

26.3 The proposed development incorporates and complies with all of these requirements and is seen as making a positive contribution to the local community.

Supplementary Information



LEGEND

-  SITE LOCATION
-  EXTENT OF WILNET SURVEY



Flinders View Subdivision

FIGURE 1
SITE LOCATION



NTS
03873 Dwn. DS 23 Jan '04
Source: UBD 2003

Level 20, 324 Queen Street
Brisbane, 4000 Australia
Telephone: +61 (0)7 3831 8882
Facsimile: +61 (0)7 3831 8883
E-mail: mail@chenoweth.com.au

FAIRVIEW RISE



Roundabout marks the top of the hill and provides visual cue and landmark for vehicles and pedestrian movement

Wide road reserve connects pedestrians to open space and creates strong central focus and sense of space.

Natural vegetated reserve retained for environmental, open space and stormwater management purposes.

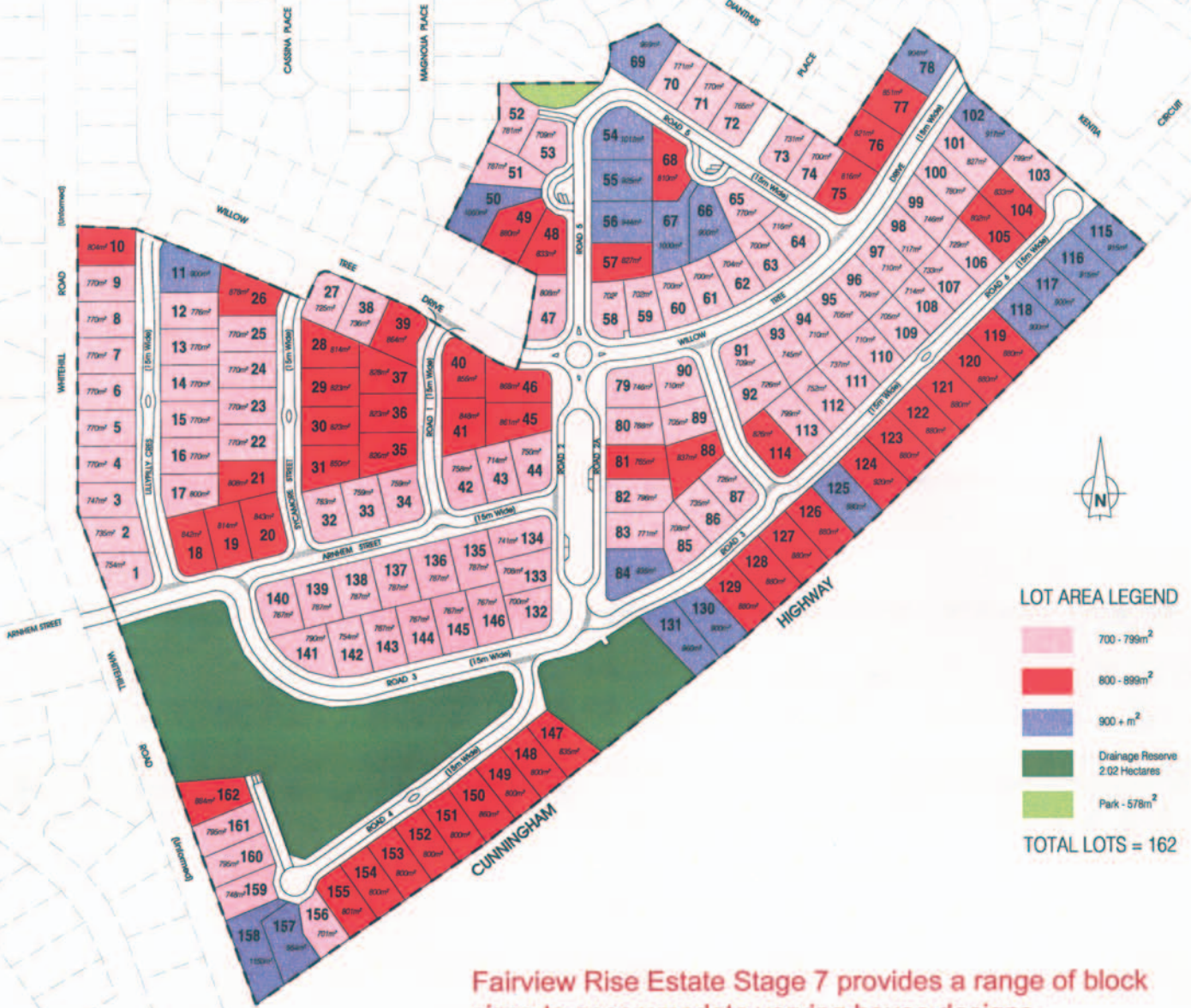
Landscaped mound to buffer highway noise.

Houses overlooking open space area enhances security and promotes ownership of space.



Fairview Rise Estate Stage 7 Subdivision Plan

FAIRVIEW RISE



LOT AREA LEGEND

- 700 - 799m²
- 800 - 899m²
- 900 + m²
- Drainage Reserve
2.02 Hectares
- Park - 578m²

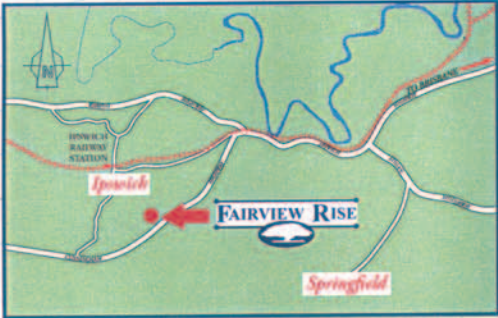
TOTAL LOTS = 162

Fairview Rise Estate Stage 7 provides a range of block sizes to accommodate varying house designs.



Fairview Rise Estate Stage 7 Block Size Plan

FAIRVIEW RISE

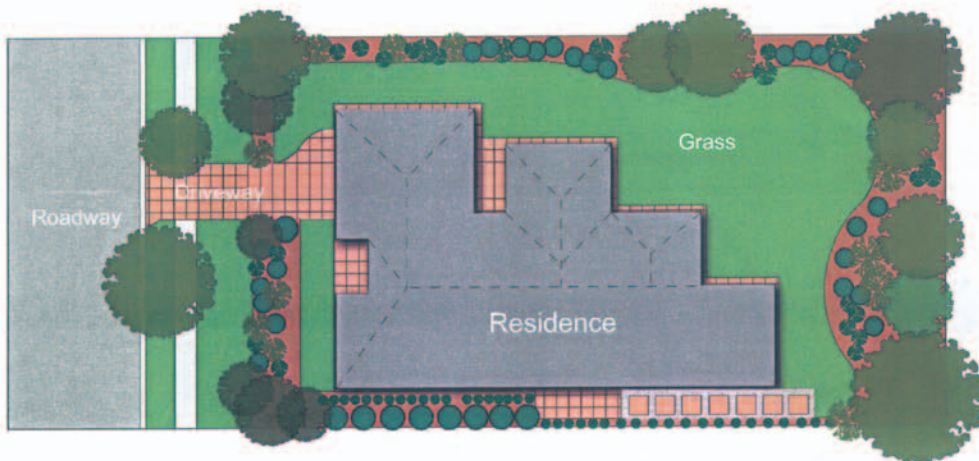
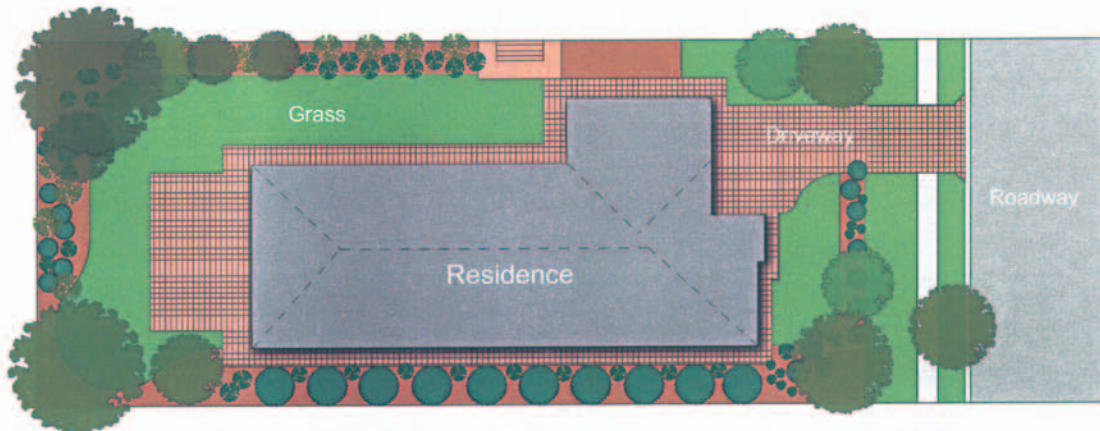


- Fairview Rise Estate Stage 7 is to be developed in two phases.
- Phase 1 anticipated to commence in July 2006.
- Phase 1 incorporates
 - Public Open Spaces
 - Feature Landscape Road 2
 - Connection to Kensington Hills Estate



Fairview Rise Estate Stage 7 Phasing Plan

FAIRVIEW RISE



Generous landscape opportunities.

Landscape designs to suit housing variety.

Native plantings and low watering requirements.



Fairview Rise Estate Stage 7 Indicative House Landscaping



**Headquarters
Combat Support Unit Amberley**

RAAF Base, AMBERLEY QLD 4306, AUSTRALIA

2004/1036810/5

Mr Richard Bear
General Manager Construction and Development
Defence Housing Authority
26 Brisbane Avenue
BARTON ACT 2600

Dear Mr Bear

FAIRVIEW RISE ESTATE

In my capacity as Base Commander RAAF Base Amberley, I would like to offer my strong support for the proposal for the Defence Housing Authority to construct 162 new residences on the Fairview Rise Estate in the Ipswich region. The proposed construction would provide a timely housing supplementation to cope with the increased demands of those new families expected to arrive in area as Base redevelopment makes way for new ADF elements to take up residency at RAAF Base Amberley.

Stage One of the redevelopment has been completed and Stage Two is about to commence and will focus on the construction of new facilities for the new Multi Role Tanker Transport (330 Airbus) and 9th Force Support Battalion. From a uniform perspective the potential increase on extant Base numbers could be as high as 800 personnel by the end of 2008.

Stage Three is currently in draft format and being prepared before eventual submission to Parliament, however, the planned redevelopment will provide new facilities to accommodate even more lodger units at RAAF Base Amberley.

Ultimately, the redevelopment of RAAF Base Amberley has the potential to double existing Base personnel numbers as the planned redevelopment takes shape. To that end, I fervently applaud the Defence Housing Authority's proposal to build more accommodation to house these new members and their families before they arrive at Amberley. Importantly, I see this proposal as an extension of our duty of care to our members and their families.

Yours sincerely,

J.L. MARTIN
Base Commander
RAAF Base Amberley
Tel: (07) 5461 4500

02 Mar 06

9 March 2006

Mr Richard Bear
General Manager
Development and Sales
Defence Housing Authority
26 Brisbane Avenue
BARTON ACT 2600

Dear Mr Bear

DEVELOPMENT OF HOUSING FOR DEFENCE – FAIRVIEW RISE, IPSWICH QLD

In my capacity as National Convenor for Defence Families of Australia (DFA), I would like to comment on the Defence Housing proposal to provide 162 new Service Residences in the Flinders View, Ipswich within the Fairview Rise Estate. My National Delegate, Elizabeth Sayers and I have both been briefed on the future planning for this project and would like to offer our support.

Due to the unique working and lifestyle conditions of ADF members and their families, we believe there are several points which need to be considered in regard to location when providing service residences:

- Providing a choice of residence in close proximity to RAAF Base Amberley, allows ADF members to live close to where they work minimising travel time. Due to the unusual working hours undertaken by many ADF members, this is particularly important. It increases time for families to be together, where long hours and extended periods of absence can take a toll on family life.
- As ADF personnel are deployed for lengthy periods of time, being able to live in a community close to other service families and to RAAF Base Amberley, provides both a family support network and security.

- Often ADF members are required to work any time of the day or night including weekends. This puts enormous strains on family life especially if the family has only one car. Close proximity to the Base really does alleviate this strain.
- The Base provides recreational and sporting facilities for use by members to maintain the required standard of physical fitness. These facilities also provide a social platform for spouses and a safe environment to get some exercise in, which in turn alleviates stress. The Base also offers spouses access to support groups throughout the year. During overseas deployments, the Base can offer an extensive support network as well as information sessions for the families which are vitally important in uncertain times.
- By building Service Residences in established suburbs, the families will have readily available access to schools, employment opportunities for spouses which are of particular note given Fairview Rise' relativity to the Ipswich CBD and local schools. It also provides child care options, shopping centres, hospitals etc, all of which have been proven to assist with the retention of ADF members and their families.

Both my National Delegate and I, as National Convener of DFA, fully support the Defence Housing Authorities' intention to build residences in close proximity to RAAF Base Amberley. We believe the initiative would not only provide modern residences which meet ADF families' needs, but give families an opportunity to belong to part of an established community. It will also facilitate family support for what is always a challenging career choice.

Yours sincerely



Maureen Greet
National Convener
Defence Families of Australia
Mob: 0410 626103