16.15 — 1Structure Plans

16.15.9 Flat Bush

[AM50][AM167]

16.15.9.1 Description of the Area

The Flat Bush structure plan area covers approximately 1730 hectares of land adjacent to the existing urban development in the south eastern corner of East Tamaki, and is the largest remaining greenfields area left in Manukau City. As at October 2010 the area incorporating Barry Curtis Park and the Town Centre was under development, with residential growth occurring in central and northern parts of Flat Bush. Farming and rural residential activities continue to be the dominant land uses in the Future Development area in the south of the catchment.

The Flat Bush Structure Plan area is identified on Figure 16.11(A) — Flat Bush Structure Plan. The area is generally bounded to the north by Gracechurch Drive and Point View Drive, to the west by Te Irirangi Drive, and to the south and east by Redoubt Road and its extension through to Ormiston Road.

The Flat Bush structure plan area contains the mid and upper parts of the Otara Stream catchment and can be divided into three broad areas which reflect their landscape character.

Identity Area 1 comprises of the land of flat to rolling contour in the west;

Identity Area 2 comprises the mid catchment foothills of gentle to moderate contour; and,

Identity Area 3 comprises the upper catchment of moderately steep to steep slopes, dissected by steep sided gully systems.

In general the pattern of activity that is proposed for the area includes a transition from lower intensity rural residential activities in the upper catchment, merging to medium density in the foothills region to highest density mixed uses being more appropriate on the easier contoured low land areas in the vicinity of the Town Centre, Barry Curtis Park, Neighbourhood Centres, Public Open Space Corridors and key transportation routes.

The landscape and ecological values identified in the Development East Tamaki Comprehensive Catchment Management Plan and the Flat Bush Masterplan 2010 are significant building blocks in determining the future urban pattern of development contained in the structure plan.

The Flat Bush Structure Plan area can be broken into three main staging areas identified on Figure 16.11D.

Stage 1 consists of the area released as part of Variation 13 to the Proposed Manukau District Plan in 2001 and included the Flat Bush Countryside Transition Zone around the top of the catchment. The total area of stage 1 is approximately 704 hectares.

Stage 2A and 2B were proposed for release as part of Plan Change 20 in 2010 and consist of approximately 208 hectares and 134 hectares respectively. Stage 2B will remain as Future Development zone until 1 January 2013 at which time the urban zones identified in the Structure Plan and zoning maps will take effect.

Stage 3 remains as Future Development zone and consists of approximately 215 hectares. A future District Plan change is necessary to bring about proposed urban zonings to the Stage 3 area. This future plan change will review and assess in detail the extent of the features shown on zoning maps and structure plan maps. It is anticipated that this area will not be released until 2016 at the earliest, depending upon a

number of factors including uptake of land in the Flat Bush area and addressing options in relation to the three overhead transmission lines that run across this area

16.15.9.2 Transport Network — Including Roading, Pedestrian and Cycle Facilities

The transport network is envisaged to form a critical part of the public realm in the Flat Bush area. Not only do streets provide an important transport function for cars they also form an important part of the public spaces of any community, potentially forming up to 30 percent of residential neighbourhoods. Streets provide a multiple range of functions including; neighbourhood identity, open space, a place to meet others, a place of recreation, a place for large street trees and a place for other forms of transportation such as cycling and walking.

There is a basic grid structure of main roads existing which are spaced approximately 800 metres apart through the area, and which will form the backbone of the future roading hierarchy in the Flat Bush area. These existing roads will require upgrading from the current rural standard to collector or arterial roads as development of the area progresses. A number of the roads including Ormiston Road, Murphy's Road, Flat Bush School Road, Stancombe Road and Baverstock Road are to have additional widening to allow for dedicated cycle lanes within the road reserves. There is also the opportunity to utilise the environmental corridors for walking and cycle connections.

In addition a number of proposed roads are shown on the structure plan to ensure that development provides roading connections to adjoining blocks of land and ensure that there is a degree of connectivity throughout the Flat Bush area, and in particular in the higher density areas located on the flatter land near the Town Centre and Barry Curtis Park.

The various roading types including road widening are identified in detail in Figure 16.11(c) — Flat Bush Required Roads and Road Types Subject to Specific Design. In addition for areas that have an urban zoning also refer to Chapter 17.10, Figure 17.10.2 — Flat Bush Required Roads and Road Types Subject to Specific Design.

There is an intention within the local road network to create a slow speed environment with a traffic design speed of 40kph. This will ensure that residential amenity is not degraded, safety for pedestrians and cyclists is provided and that the streets can be used for a wide range of functions as discussed previously.

The structure plan proposes a greater connectivity and permeability to the roading network, which allows for traffic to be dispersed at low volumes through out the residential environment with short trips not necessarily requiring access to the main road network. Neighbourhoods made up of subdivisions with a well connected network of streets which combine vehicle, pedestrian, cycle and where appropriate passenger transport movement, will provide the following benefits:

- Improved contact between residents and the wider community;
- easy access to and from bus stops, shops, schools, work places, reserves and other amenities;
- ease of use and navigation by it's users;
- will assist the lower order streets in having more vehicle movement at quite times which will contribute to greater safety from crime for pedestrians and residents by offering increased informal surveillance;
- shorter car trips which offer economic benefits through fuel savings and environmental benefits due to less fuel emissions;
- greater convenience for pedestrians and cyclists and a reduction in car dependency;
- reduced congestion on arterial roads as local traffic can permeate through a connected street network; and

- improved health, social and recreational opportunities.

16.15.9.3 Development Pattern

Achieving an urban structure that promotes the sustainable management natural and physical resources of the Flat Bush area is fundamental to achieving the purposes of the Resource Management Act. The subdivision pattern contributes to establishing an urban structure that; creates a sense of community, improves safety, promotes alternative transport such as walking, cycling passenger transport, contributes to housing/living choices and protects and enhances important natural environments such as the stream systems and native bush. In addition the subdivision pattern becomes critical to ensure that the higher density housing proposed in some areas achieves quality environmental and amenity outcomes such as close proximity to quality public open spaces, attractive streetscapes and good on site amenity and privacy.

Specific controls relating to subdivision include:

- Compliance with the structure plan in terms of roading, and open space.
- Maximum block lengths and perimeter block distances.
- Limitations on the number of rear lots.
- Minimum lot widths and lengths according to the type of access proposed (e.g. whether it is off a back lane or off the street).

The development pattern reflects the constraints and opportunities of the natural and physical environment. In particular the important natural drainage system forms the backbone for the future development of the catchment in terms of managing water quality, flooding, ecological protection and enhancement and the provision of a quality open space network. Retention and enhancement of the natural environmental corridors will help to provide a logical structure to the urban development that will occur in the catchment, and provide a significant amount of open space which will offset the higher residential densities proposed on suitable land.

Residential

Residential zonings in the Flat Bush structure plan area consist of approximately 765 hectares in addition to approximately 358 hectares identified as Flat Bush Countryside Transition zone.

There are four residential zones, the Flat Bush Residential 1 zone, the Flat Bush Residential 2 zone, the Flat Bush Residential 3 zone and the Flat Bush Residential 4 zone. In total there are eight precincts which relate to the Flat Bush Residential 1, 3 and 4 zones. These precincts are shown on Figure 16.11(b) Flat Bush Precinct Areas. In addition for areas that have an urban zoning also refer to Chapter 17.10, Figure 17.10.1 — Flat Bush Precinct Areas.

Flat Bush Residential 1

(a) The Flat Bush Residential 1 zone is generally located on the flatter land within 1.5km of Barry Curtis Park and the proposed Flat Bush Town Centre. It consists of approximately 241 hectares.

(b) The area contains six precincts: Transition, General, Central, Arterial, Barry Curtis Park and Local Centre, which reflect their locational context, allow different densities and are subject to different development rules. For example the highest density target of at least 25 households per hectare is in the Central Precinct which is generally within 400m (5 minute walk) of the Town Centre. In addition the Local Centre Precinct which is within 400m (a 5 minute walk) of four of the five Neighbourhood Centres identified on the Structure Plan provides for higher residential densities as an option.

(c) The majority of this zone is taken up by the General precinct, which has a density target of at least 16.5 households per hectare. Current residential densities in the East Tamaki corridor are in the range of 12 to 16 households per hectare. As a point of comparison the Sacramento development near Botany achieves 35 households per hectare, while the East Park development (Ti Rakau Drive) achieves approximately 25 households per hectare.

(d) A Transition precinct is located at the northern part of the structure plan area where it is adjacent to the Main Residential development that is rapidly being completed in the Browns land/Gracechurch Drive area. The purpose of the Transition precinct is three fold:

(i) First it is intended to facilitate the continuation of the current momentum of residential development at the northern gateway to the Flat Bush area so as to substantially comply with policy 16.4.2 (which refers to the need to maintain sufficient vacant land zoned for residential activities) and also the accompanying explanation to 16.4.2 (which refers to the need to take into account the lead time required for residential development).

(ii) Secondly the transition precinct is intended to provide a graduated increase in densities from the present 12.5 dwellings per hectare currently being achieved in the main residential area to the north, and the higher densities proposed within the remainder of the Flat Bush 1 zone to the south. A general density target of at least 15 households per hectare is proposed for the Transition Precinct, although the higher densities required under the general precinct are still provided for as an option.

(iii) Thirdly the Transition Precinct is intended to enable the residential marketplace to adjust to the Council's proposed new controls as an interim step towards the development of other parts of the Flat Bush area.

Flat Bush Residential 2 Zone

(a) Is generally located in the mid catchment foothills area and consists of an area of approximately 94 hectares.

(b) Has a target density of at least 14 households per hectare.

Flat Bush Residential 3 Zone

(a) The Flat Bush Residential 3 zone was developed in response to a review of the built form outcomes of the Stage 1 area in Flat Bush - the Flat Bush Spatial Structure and Built Form Review 2008. Although anticipating similar densities to the Flat Bush Residential 1 zone, a number of key changes have been made to ensure that quality outcomes are achieved at both a neighbourhood scale and at the individual property level. In particular a more regular block structure has been identified for the roading network which will ensure that a legible spatial pattern that reveals the landscape and contributes to a strong sense of identity is achieved and that high levels of privacy and onsite amenity can also be achieved. In addition an inherent flexibility has been built in to the regular block pattern to accommodate a wide range of potential densities both now and in the future.

(b) The Flat Bush Residential 3 zone includes four of the precinct overlays that are also found in the Residential 1 zone, namely, general precinct, arterial precinct, local centre precinct and Barry Curtis Park precinct. Similar minimum target densities to the Flat Bush Residential 1 zone are sought, although the potential to create multi unit developments with a density of less than 325m^2 is only possible as part of a

comprehensive integrated land use consent with a strong focus on quality urban design outcomes.

Flat Bush Residential 4 Zone

(a) The Flat Bush Residential 4 zone is located in the upper McQuoids Road / Flat Bush School Road area, an area of transition from the Flat Bush basin to the upper catchment. This area is characterised by a ridgeline with a wide plateau, moderate slopes and steep gullies. The zone therefore anticipates a medium to low density residential environment that has lots generally in the order of $520m^2$ - $1000m^2$ combined with development controls to ensure a degree of spaciousness is achieved and maintained. In addition, development is encouraged to stay out of the steep gully areas which are expected to undergo a significant restoration re-vegetation programme as part of the development process. Like the other Flat Bush Residential zones two new precincts overlay this residential zone. These precincts have been developed to reflect their location and geotechnical constraints. The zone provides for medium density housing along the plateau and low density housing in the steeper parts of the zone.

Business

A Flat Bush Town Centre is proposed on the eastern side of Barry Curtis Park as the focal point for the rapidly growing Flat Bush Community, which is anticipated to reach a population of 40,000 by 2021. It is envisaged that a wide range of activities will be provided in the town centre including a main street retail area, commercial, office, light industrial, small scale warehousing, education, health, community support, recreational and residential activities. These activities, managed appropriately, will enable the community to provide for its social economic and cultural well being and ensure that the adverse effects of these activities on the environment are avoided, remedied or mitigated.

Business activities are also provided throughout the Flat Bush area, including the identification of five Neighbourhood Centres, and along arterial routes. Council will employ contemporary urban design principles to maximise the desirability of the town and neighbourhood centres. Consideration will be given to social interaction, recreation, amenity, culture, delivery of support services and the transaction of commerce. The inspiration of mixed-use centres of commercial and community activities is created by building design and use relationships generating active streets and energetic public space.

The Council will manage the urban design implications of development and its impact on amenity values of the Town Centre and Neighbourhood Centres through Restricted Discretionary resource consent applications.

Countryside Transition Zone

The upper catchment area is identified as Flat Bush Countryside Transition zone and is an area that is characterised by steeper slopes and gullies with some remnant native bush areas. In this zone subdivision is possible down to as small as 2000m² provided that an overall average of 5000m² is retained. Some parts of this zone such as around Gracechurch Drive and Redoubt Road have already been developed into rural residential properties and will largely be unaffected by the provisions of the Flat Bush Countryside zone.

The steep gully areas and natural drainage areas have been identified by a Stormwater Management / Conservation Overlying area. The fundamental purpose of the overlying area is to improve the overall ecological condition of these gullies and waterways and ensure a level of open space by limiting development in these sensitive areas and undertaking riparian planting and allowing areas of existing native vegetation to regenerate. The purpose of such replanting is to enhance the ecological condition of streams, maintain stream bank stability and reduce the level of erosion and flooding created within the catchment.

The replanting required by the Stormwater Management / Conservation Overlying area is only required as part of a subdivision activity and is therefore unlikely to have a significant impact on existing properties that are less than 10,000m2 in size, given that the zone still requires an average lot size of 5000m² to be retained.

Public Open Space, Conservation of Natural Features, Landform Vegetation and other Heritage Features

The Flat Bush structure plan incorporates an integrated management approach to the development of the Flat Bush area. Generally the natural drainage pattern is protected through the establishment of a Public Open Space 6 Environmental Corridor zone, which is also overlaid with stormwater management areas. These corridors form the backbone of managing; water quality, flooding, ecological protection and enhancement, and (together with the riparian margins of the streams) the provision of a quality open space network contributing to overall amenity. The objective for these environmental corridors is that existing bush areas will not only be protected but also extended to include the riparian areas of the existing streams. This will protect streams from erosion in addition to providing an improved habitat for fish life and other wildlife.

In the proposed urban (lower) catchment area the environmental corridors will be required to be vested with Council at the time of subdivision or development, with appropriate compensation being paid for these areas. A total of 49 stormwater ponds are identified throughout the catchment to manage both quantity and quality of stormwater before it is released into the natural drainage system. These will be progressively constructed by the development community and in some cases the Council.

The integrated structure planning approach undertaken for the Flat Bush has resulted in a substantial part of the catchment being retained in open space. Approximately 30% of the catchment has been identified for non urban purposes through a combination of Public Open Space 6 zoning, Public Open Space 6 overlying area, Stormwater Management areas and Conservation/Stormwater Management policy areas.

In total it is proposed that approximately 25 % of the area will end up in public ownership either as Public Open Space or Stormwater Management Areas.

In order to promote the integration of open space and in particular raising the profile of the environmental corridors a number of roads are identified alongside these corridors which will allow development on one side while keeping the other side open. This approach will significantly improve the amenity of the whole Flat Bush area, help to offset some of the effects of the higher densities generally proposed and will also lead to an improvement in the safety of these areas through the informal surveillance of adjoining houses, passing local traffic and enhanced use of open space.

Schools

The Ministry of Education has indicated to Council the need to provide for additional schools in the Flat Bush structure plan area. Where new schools may be located in the Moderate Aircraft Noise Area (MANA), Auckland International Airport Limited (AIAL) and the Board of Airline Representatives of New Zealand (BARNZ) should be consulted. It would be desirable for the locations of these schools to be resolved as early as possible as they are major urban structuring elements in the area.

Infrastructure and services works

(i) Roading

Roading, including new roads and upgrading of existing roads, will be required to be provided in accordance with Chapter 9 — Land Modification, Development and Subdivision and the additional provision of 17.10 Flat Bush Special Area.

(ii) Stormwater Disposal

The area lies within the Otara Catchment. A Comprehensive Catchment Management Plan has been prepared by Council which has formed the basis of a comprehensive stormwater discharge consent approved by the Auckland Regional Council. The Catchment Management Plan and the structure plan require the following responses in terms of development the catchment:

- To protect and enhance principal streams in terms of fish passage and habitat;
- To provide for flood peak attenuation from each development area so that overall the extreme flood peaks do not increase;
- To reduce frequent flood peaks so that stream erosion does not increase;
- To provide for stormwater quality improvement measures which remove a high proportion of water-borne contaminants from discharges in accordance with the best practicable option available;
- To protect flood plain areas from development so that flood storage and watercourse capacity is retained and there is no building in at risk areas.

(iii) Sewer

The existing Tamaki south east branch Interceptor (Sewer) is currently (as at 2001) being extended eastwards from Te Irirangi Drive to link up with Chapel/Baverstock Road corner and the Chapel/Stancombe Road corner. In addition detailed design is being undertaken for the extension of the main sewer line eastwards along Ormiston Road towards the Town Centre. Further extension will follow development patterns within the urban zoned land in the structure plan area.

Asbestos Containing Materials

An investigation was initiated by Council in 1998, to ascertain the presence or otherwise of asbestos containing material (ACM) in the general area of Flat Bush. This investigation together with other work concludes that it is likely for ACM to have been used for farm tracks, as base course or similar in the Flat Bush rural areas that are earmarked for future urban development. This material can potentially pose a health risk. A site investigation protocol and district plan rules have been developed to enable any bulk ACM to be remediated prior to urban development occurring.

Overhead Transmission lines

The southern part of the Structure Plan Area is crossed by three separate existing National Grid 220kV overhead transmission lines. The lines are the Otahuhu — Whakamaru A and B single circuit lines and Otahuhu — Whakamaru C double circuit line. These lines are of vital strategic importance to the Auckland Region and beyond as they form the critical "backbone" of the national grid supply to Auckland and Northland. The position of these existing lines is identified on Figure 16.11A Flat Bush Structure Plan.

Under the Electricity Act 1992, a landowner may, at that person's own expense, ask Transpower to move its existing transmission lines located on their property. Transpower must give serious consideration to any such request and either give consent, with reasonable conditions imposed, or not unreasonably refuse that consent.

The potential for adverse effects arising from the proximity of buildings to the existing overhead transmission lines will need to be considered in relation to the release of the land for urban purposes. Such adverse effects can include potential adverse effects on the safe and efficient operation of the network

utility and/or on people's health and safety. The overhead transmission lines could have a significant effect on the future urban amenity of land in their vicinity which will need to be carefully considered at the time of development. A number of potential options may be available to the developer to minimise the amenity impacts including possible undergrounding, relocation, consolidation of lines and subdivision design.

Regardless of whether the existing overhead lines remain in situ or are relocated, appropriate protection will need to be established to ensure that for activities in and around the lines at least the mandatory statutory clearance distances are complied with.

A Transmission Line Options Study is proposed to assess the logistical, technical and financial feasibility of a number of main options including under-grounding, relocation and/or consolidation of lines.

The land affected by the overhead transmission lines is in the Stage 3 area to be released for urban development in Flat Bush. This area will retain a Future Development Zone until such time as a District Plan Change is undertaken. In the interim period, emphasis will be given to the protection of the rural character of this area. This approach will promote the logical and timely development of this corridor.

Natural Gas Pipeline

Figure 16.11 A indicates the location of the High Pressure Natural Gas pipeline, which runs through the Flat Bush area. This pipeline should be taken into account at the time of subdivision or road upgrading, including an independent risk analysis which may result in the need for high visibility signage, concrete slabbing installed over the pipeline and daily road patrols in order to reduce the risks to as low as practicable.

Auckland International Airport

The Auckland International Airport is located approximately 10km from the western edge of Flat Bush. The Airport is an important mover of people and goods, both nationally and internationally, is a significant employer in the City and region, and will continue to grow and increase in importance with the addition of the second runway. There are significant benefits to the City, the region, and the nation from Auckland International Airport, including a large contribution both directly and indirectly to the economy.

Aircraft landing and taking off from the Airport generates levels of aircraft noise which extend for some distance eastwards from the Airport over the City including Flat Bush. Noise levels from the use of the existing runway are expected to increase in the future as the runway reaches capacity. Most of this noise will be confined to the High Aircraft Noise Area (HANA), Moderate Aircraft Noise Area (MANA) and Aircraft Noise Notification Area (ANNA) shown on Appendix 2F to the Planning Maps. The MANA and ANNA areas are also shown on Figure 16.11A Flat Bush Structure Plan. No land in the Flat Bush area is impacted by the HANA but approximately 180 ha is impacted by the MANA.

Land Information Memoranda for all sites in the HANA, the MANA and the ANNA will include a statement that the subject sites are or may in the future be subject to aircraft noise and that land use restrictions may apply to Activities Sensitive to Aircraft Noise (ASANs) in the HANA and MANA areas. Reference should be made to Chapter 5, Rule 5.21 and the planning maps of the District Plan and Designation 231 for greater detail.

In Flat Bush, within the ANNA no noise insulation or ventilation requirements are required and there are no restrictions on ASANs. Within the MANA however, acoustic insulation is required, along with mechanical ventilation systems, to ensure that when exterior doors and windows are closed the effects of aircraft noise levels on the internal environment are mitigated.

Detailed provisions relating to the airport and limitations on activities in the HANA and MANA are contained in Rule 5.21 and 17.6 Special Areas — Airport Activities.

In order to reduce the potential for noise related complaints and in turn additional limitations being established on operational aspects of the Airport, the Plan limits maximum density levels within the MANA in the Flat Bush area. Proposals that exceed these density levels are non-complying activities and are discouraged from establishing within the MANA in order to reduce the potential for reverse sensitivity complaints from residents against airport operations.

Some flexibility is allowed for development proposals within the MANA which will enable higher densities to be established in some locations provided such densities are off-set by lower densities in other locations, and also provided that the total population residing within the MANA is similar to the overall average which might otherwise be realistically expected to be achieved (as at 19 January 2006) having regard to the limits required in 17.10.11.4 Table 3 Lot Sizes and 17.10.12.1 Table 5 Household Density to be Achieved on Lots Greater than 1000m^2.

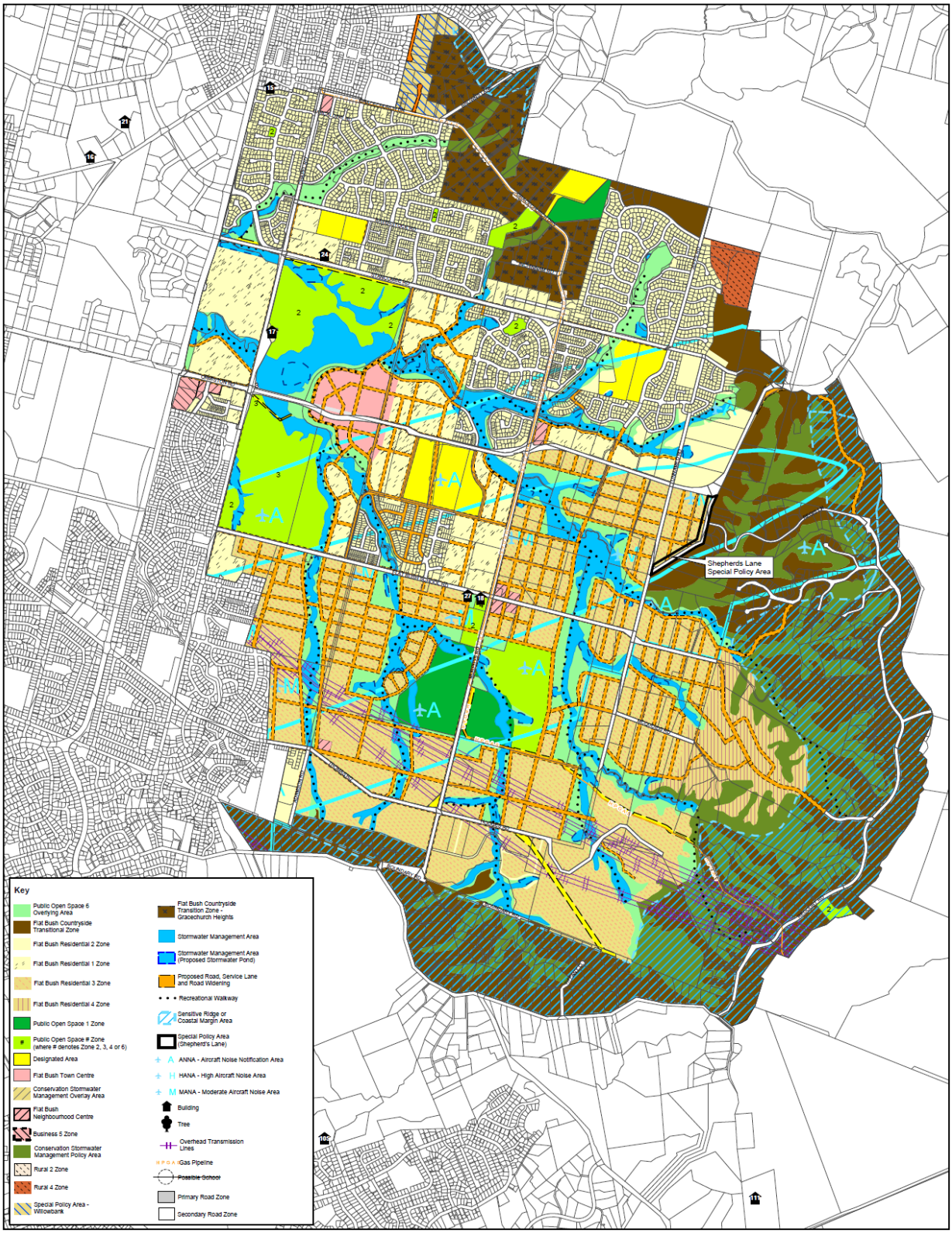

FIGURE 16.11.A FLAT BUSH STRUCTURE PLAN

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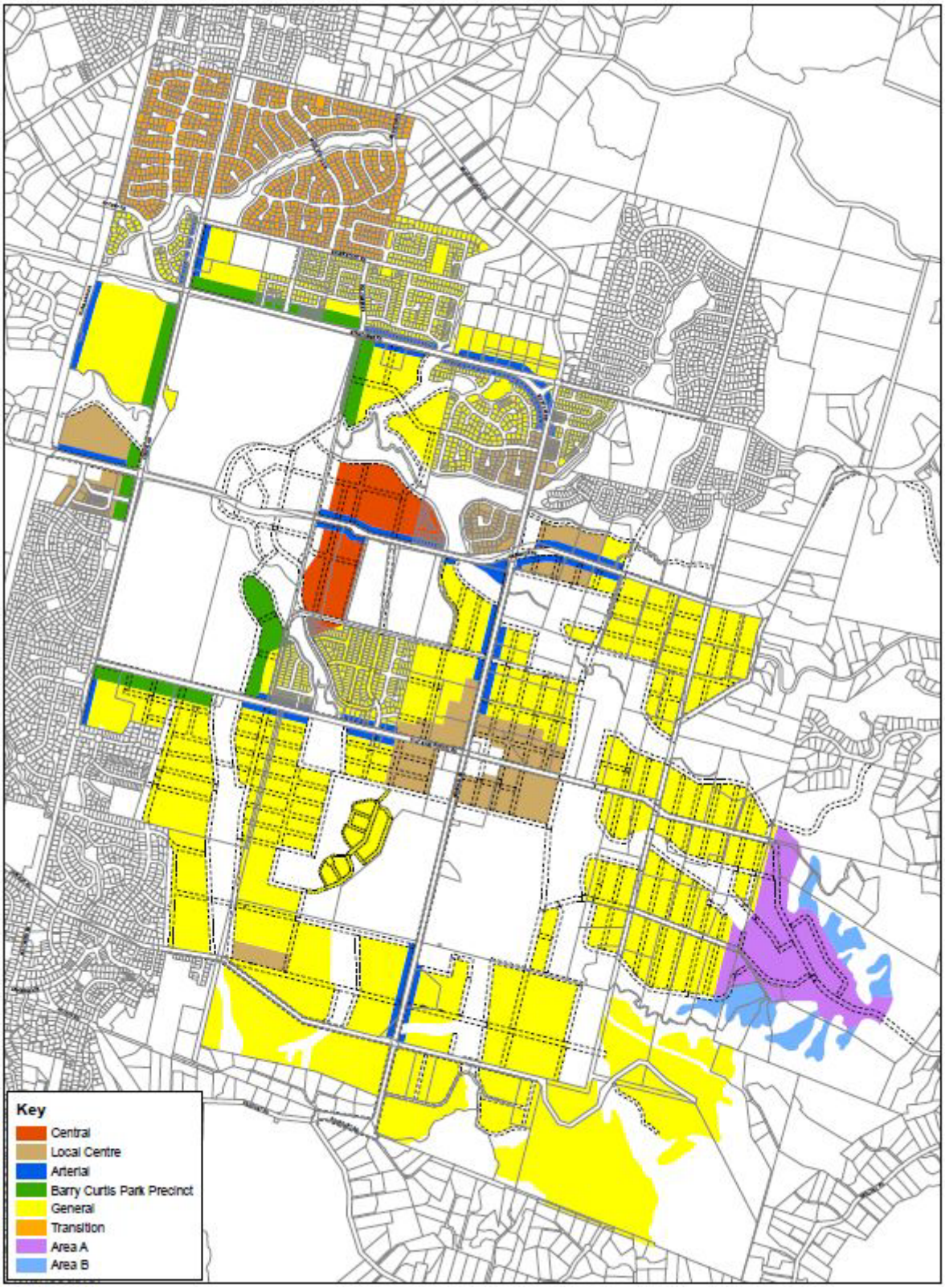

FIGURE 16.11.B FLAT BUSH PRECINCT AREAS

[AM50][AM167]

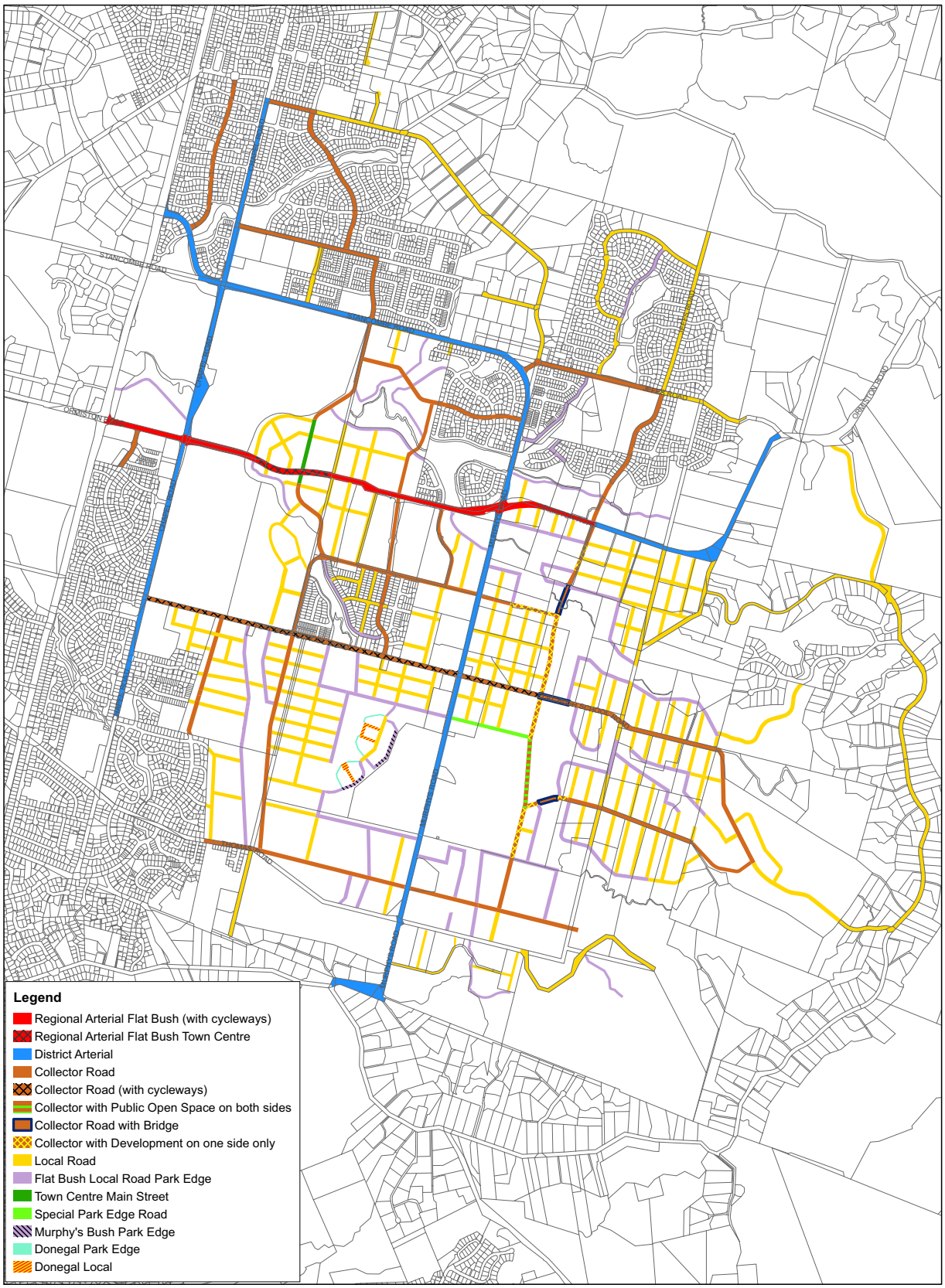

FIGURE 16.11.C REQUIRED ROADS AND ROAD TYPES SUBJECT TO SPECIFIC DESIGN

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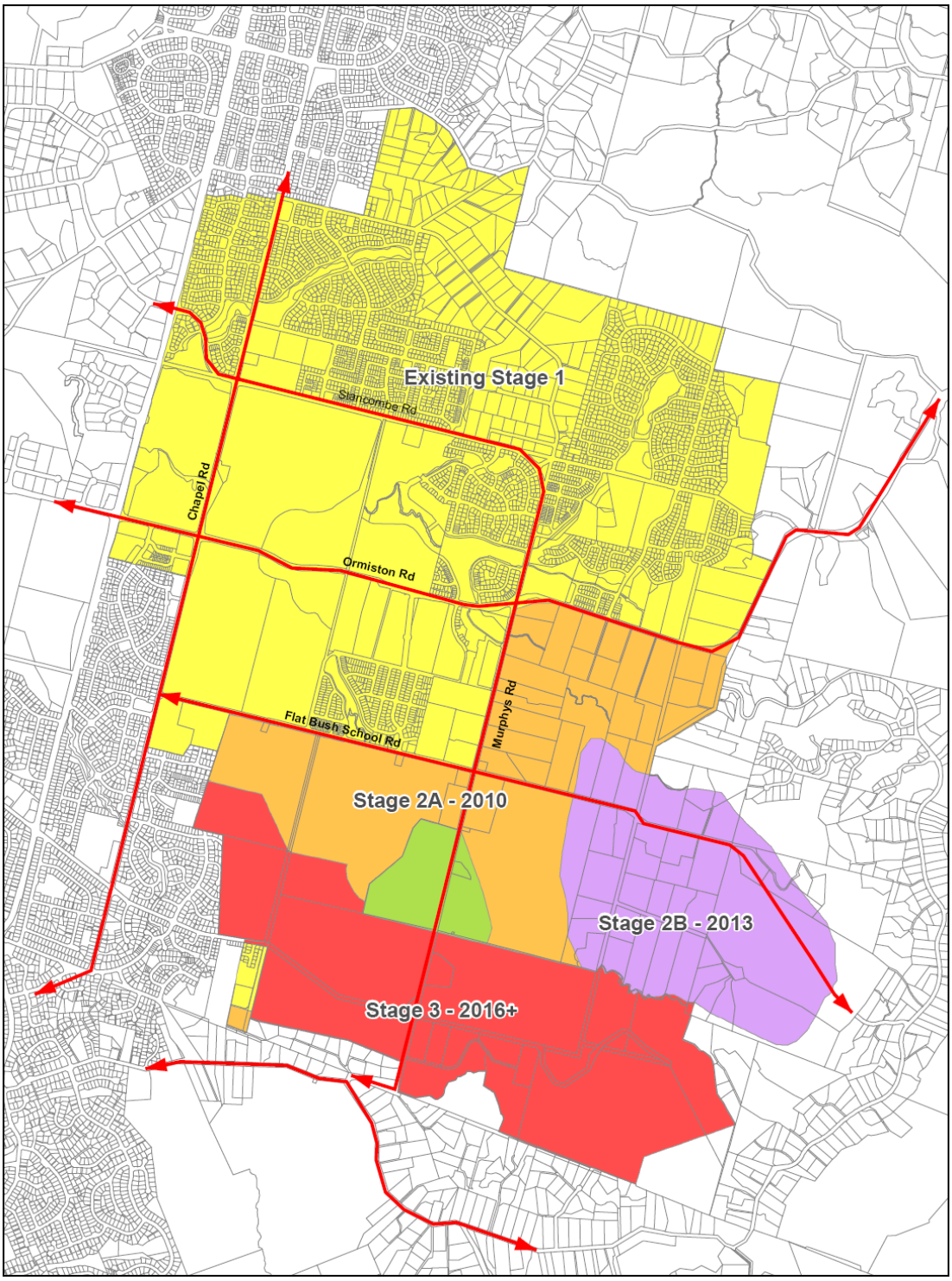

FIGURE 16.11.D FLAT BUSH STAGING

[AM167]