




Department of **Biodiversity,
Conservation and Attractions**

Swan and Canning Rivers Management Act 2006

PART 5

DETERMINATION OF DEVELOPMENT APPLICATION

FILE NUMBER : 2017/1509
APPLICANT : Edge Holdings No. 3 (Edge Visionary Living)
AGENT'S ADDRESS : 

LANDOWNER : Western Australian Planning Commission and the Swan River Trust
LAND DESCRIPTION : Lot 558 on Diagram 91571 and Lot 559 on Diagram 91572 and Lot 302 on Plan 47452 (River Reserve 48325) adjacent to Lot 603 Riversdale Road, Rivervale
DEVELOPMENT : Establishment of a stormwater drainage swale and associated foreshore stabilisation and revegetation works
VALID FORM 1 RECEIVED : 16 March 2017
DETERMINATION : **APPROVAL WITH CONDITIONS**

The application to commence development in accordance with the information received on 16 March 2017, and the amended plans received on 21 July 2017 and 28 July 2017, is APPROVED subject to the following conditions:

1. Approval to implement this decision is valid for two (2) years from the date of the approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.

Prior to the commencement of works

2. The applicant shall notify the Department of Biodiversity, Conservation and Attractions in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
3. Prior to the commencement of works, a Construction Environmental Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions, on advice from the City of Belmont (see **Advice Note 2 and 8**).
4. Prior to the commencement of works, a Foreshore and Stormwater Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions on advice from City of Belmont (see **Advice Note 3 and 8**).
5. Prior to the commencement of works, detailed engineering designs/drawings and technical specifications for the proposed shall be submitted to, and approved by the Department of

Biodiversity, Conservation and Attractions, on advice from City of Belmont (see **Advice Notes 4 and 8**).

6. Prior to the commencement of works, a Monitoring and Maintenance Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions, on advice from City of Belmont and the Western Australian Planning Commission (see **Advice Note 5 and 8**).
7. Prior to commencement of works, an Arborist Method Statement shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions on advice from City of Belmont (see **Advice Note 6 and 8**).
8. Prior to commencement of works, an acid sulphate soil self assessment form, and if required, an acid sulphate soils investigation and management plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions, on advice from Department of Water and Environmental Regulation and City of Belmont (see **Advice Note 7 and 8**).

During works

9. All works shall be implemented in accordance with the plans and final designs/drawings approved under **Conditions 2-8**.
10. All fill and landscaping materials shall be clean, uncontaminated, and dieback disease free in accordance with the definition of 'clean fill' outlined in the Department of Environment Regulation's *Landfill Waste Classification and Waste Definitions 1996 (As amended December 2009)*.
11. No debris, rubbish or any other deleterious material shall be allowed to enter the river (including the freshwater seep) as a result of the works.
12. The applicant shall ensure that no damage to the foreshore or waterway (including infrastructure and vegetation) occurs as a result of the works. Should any inadvertent damage occur, the applicant is required to notify the Department of Biodiversity, Conservation and Attractions within 48 hours and make good any inadvertent damage.
13. Public access along the foreshore shall be maintained, or an alternative route provided with appropriate signage, for the entirety of the works to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

On completion of works

14. Upon completion of the works, all waste materials, equipment and machinery shall be removed and the site cleaned-up to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

Ongoing

15. On-going monitoring and maintenance of the vegetated drainage swale, including the associated foreshore stabilisation works, shall be undertaken in accordance with the approved Monitoring and Maintenance Plan, unless agreed in writing by the Department of Biodiversity, Conservation and Attractions.

ADVICE TO APPLICANT

1. Notification of commencement of work and plans can be emailed to rivers.planning@dbca.wa.gov.au.

2. The Construction Environmental Management Plan required under **Condition 3** shall describe how the proposed works will be managed to minimise environmental impacts and should address, but not limited to;
- scope of works, including details of ground excavations;
 - site access and management, including fencing requirement;
 - management of machinery and equipment, including refuelling procedure and spill response;
 - on-site storage of materials, equipment, chemicals and fuel;
 - sediment and turbidity management;
 - erosion control and contingencies;
 - acid sulphate soils management and dewatering requirements;
 - protection of vegetation;
 - protection of the river from inputs of debris, litter, rubbish or other deleterious material;
 - waste management;
 - public access and safety;
 - fauna management;
 - Aboriginal Heritage management;
 - hours of operation, timeframes and responsibility for tasks identified; and
 - complaints and incidents.

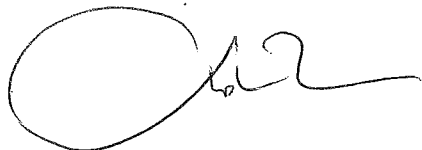
The plan should address the most appropriate means of sediment and turbidity management for the proposed works as determined by the applicant. This may include the use of a silt curtain. All reasonable efforts should be taken by the applicant to control plumes but where they occur, the applicant must stop work whilst the plume is addressed and should only recommence work once the integrity of the device is restored. Emergency spill kits should be onsite at all times and refuelling of machinery should be undertaken outside the Swan Canning Development Control Area. A site map showing the laydown area and vehicle entry/exit points should also be included. Please note that the City of Belmont has advised that access would not be permitted via the pedestrian pathway, and all access would be required from the adjacent residential development. Sand, soil, and any other finely grained material that is exposed or stockpiled on site shall be managed to prevent sediment mobilisation and discharge into the Swan River. In case of pollution events the Department of Biodiversity, Conservation and Attractions can be contacted on 9278 0900 or a/h 0419 192 845. Pedestrian and cyclist management during construction, including requirement for path closure and pedestrian/cyclist redirection will need to be provided.

3. In relation to **Condition 4**, the Foreshore and Stormwater Management Plan should be consistent with foreshore management recommendations and stormwater strategy outlined in the draft Foreshore and Stormwater Management Plan (Syrinx, March 2017), with further refinement on the following details below:
- a. A plant species list and densities within the proposed revegetation zones within the 'Vegetated Buffers', 'Lower Foreshore' and 'Drainage Swale', including a plan showing the extent of the revegetation works.
 - i. It is recommended that nutrient attenuating plants are planted within the drainage swale to assist with water quality improvement. Further guidance on suitable plant species and densities with high nutrient removal capabilities please refer to the 'Vegetation guidelines for stormwater biofilters in the south-west of Western Australia (Monash University 2014)' available from the New Water Ways website at http://www.newwaterways.org.au/files/files/381_Biofilter_vegetation_guidelines_for_southwestWA.pdf.
 - b. Planting schedule, including timing of works, site preparation, irrigation and fertiliser requirements. Please note that the City of Belmont advises that the

use of temporary fencing around revegetation areas is not supported, due to the low intensity of public use in this location.

- c. A weed control plan, including a schedule and details of weed control methods. A list of herbicides and application method, and other weed prevention methods (i.e. turf barriers and mulching) should be provided.
 - d. Further details of the foreshore treatment method to stabilise the lower foreshore (i.e. soil infill, rock rip-rap and revegetation).
 - e. Further details of the drainage swale and bubble up-pit, including erosion and scour protection method.
 - i. Other details such as the pre-development flow rates, stormwater detention times and the connection of the onsite stormwater treatment system to the bubble-up pit should also be provided
4. In relation to **Condition 5**, the detailed engineering design/drawings, including cross-sectional drawings, of the drainage swale and bubble-up pit, foreshore stabilisation works and any landscaping features are to be provided, showing the exact design and location of the structures.
 5. In relation to **Condition 6**, the Monitoring and Maintenance Plan should address the management actions required to ensure that the revegetation, weed control, drainage infrastructure and foreshore stabilisation outcomes are achieved, and should outline the required tasks, responsibilities and contingency actions. Following the establishment of the drainage swale, regular monitoring of the riverbank condition is required, with appropriate contingency/maintenance actions to be outlined. A post-construction water monitoring program should also be established to include water quality and quantity sampling. Please note that if a maintenance period between the developer, the City of Belmont and the Western Australian Planning Commission cannot be agreed upon, it will ultimately be the developer's responsibility for the ongoing monitoring and maintenance of the structures.
 6. In relation to **Condition 7**, the Arborist Method Statement shall be undertaken by a qualified and practising arborist and should identify all the vegetation likely to be impacted by the construction works, and outline management measures to protect and retain the vegetation.
 7. In relation to **Condition 8**, the applicant is advised that the proposed works are located within a high to moderate acid sulphate soil (ASS) risk areas. The Acid Sulphate Soils Guideline Series for guidance on the identification, assessment and management of acid sulphate soils in Western Australia is available from the Department of Water and Environment Regulation website at www.dwer.wa.gov.au. If any ASS is exposed during the works, the Contaminated Sites Branch of the Department of Water and Environmental Regulation should be contacted for further advice on 1300 762 982.
 8. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the drawing, designs and plans required under Condition 2 to 7 inclusive, the documents should be submitted to the Department of Biodiversity, Conservation and Attractions no later than 30 days prior to the expected commencement date.

9. The applicant is advised to contact the Department of Planning, Lands and Heritage to ensure that the proposed works do not breach any section of Part IV (Protection of Aboriginal Sites) of the *Aboriginal Heritage Act 1972* (the Act). Approval under section 18 of the Act may be required. It is recommended that the applicant present details of the proposal to the Wadjuk working group through the South West Aboriginal Land and Sea Council and seek advice on whether the works will impact the Aboriginal Site 3536 (Swan River). Please refer to the Aboriginal Heritage Due Diligence Guidelines when planning specific development within a Heritage area.



Hon Stephen Dawson MLC
MINISTER FOR ENVIRONMENT; DISABILITY SERVICES

Date: 6/10/12

DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS REPORT

PROPOSAL	: Establishment of a stormwater drainage swale and associated foreshore stabilisation and revegetation works
LOCATION	: Lot 558 on Diagram 91571 and Lot 559 on Diagram 91572 and Lot 302 on Plan 47452 (River Reserve 48325) adjacent to Lot 603 Riversdale Road, Rivervale
APPLICANT	: Edge Holdings No. 3 (Edge Visionary Living)
LANDOWNER	: Western Australian Planning Commission (Lot 558 on Diagram 91571 and Lot 559 on Diagram 91572) and Swan River Trust (River Reserve 48325)
LOCAL GOVERNMENT	: City of Belmont
MRS CLASSIFICATION	: Parks and Recreation and Waterways
DECISION TYPE	: Part 5, <i>Swan and Canning Rivers Management Act 2006</i> – Ministerial Determination
ATTACHMENTS	: <ol style="list-style-type: none">1. Location map2. Aerial photo of subject land3. Development approval for the Residential Development4. Existing Site Plan and Concept Landscaping Plan5. Concept Landscaping Plan with Pedestrian Access Ramp6. Concept Drainage Swale Design
RECOMMENDATION	: APPROVAL WITH CONDITIONS

REPORT

1.0 INTRODUCTION

- 1.1 The Department of Biodiversity, Conservation and Attractions (DBCA) has received an application from Edge Holdings No. 3 (Edge Visionary Living) to construct a drainage swale and associated foreshore works within the Swan Canning Development Control Area (DCA) adjacent to a residential development at Lot 603 Riversdale Road, Rivervale (2014/5593, DP/14/00029) (see **Attachment 1, 2 and 3**). The proposed works will be located on land reserved for Parks and Recreation (P&R) under the *Metropolitan Region Scheme* and the Swan River.

- 1.2 The proposal involves:
- The construction of a drainage swale (approximate footprint 7.5m wide and 9.42m long) and a bubble-up pit in the upper foreshore reserve. This will convey stormwater from the private development for events that generate stormwater in excess of 68kL (the 1-year, 1-hour ARI events generate approximately 60kL of water) to the Swan River;
 - Proposed revegetation and weed control of the swale and the surrounding foreshore area; and
 - Foreshore stabilisation works consisting of installing a rock rip rap and revegetation on the lower bank to protect the existing river retaining wall (see **Attachment 4**).
- 1.3 The proposed development is to occur on a lot located completely within the DCA and therefore the proposed works require an approval under Part 5 of the *Swan and Canning Rivers Management Act 2006* (SCRM Act).
- 1.4 The Director General of DBCA has prepared this report in accordance with Section 76 of the SCRM Act.

2.0 CONSULTATION

City of Belmont

- 2.1 The City of Belmont (the City) has assessed the application and advised that it supports the proposal subject to the following conditions:
- An Arborist Method Statement is to be provided and prepared by a qualified arborist that outlines the steps that will be taken to retain and protect all existing trees identified on the site. The construction area of the drainage swale includes some significant vegetation that needs to be protected (i.e. Eucalyptus tree and Zamia palm).
 - A Construction Environmental Management Plan is to be provided to address vegetation protection, acid sulphate soils management, site access and management, including fencing and laydown and storage area requirements, and traffic management (for pedestrian and cyclist access through the reserve).
 - An Acid Sulphate Soils self-assessment form is to be provided to address the proposed construction works for the swale, bubble-up pit and associated foreshore stabilisation works, including any dewatering requirements to be provided given the assumed minimum and maximum groundwater levels of 2.5 and 3m AHD.
 - The final designs/drawings for the drainage swale, foreshore stabilisation structures and any landscaping features (i.e. public art sculptures, seating and turf barrier) are to be provided.
 - A monitoring and maintenance plan for the drainage swale, foreshore stabilisation structures and landscaping will need to be provided to address the on-going monitoring and maintenance requirements and responsibilities.
- 2.2 The City further advised that Lots 558 and 559 are currently vested with the Western Australian Planning Commission (WAPC), and as such, it is not in the position to consider taking over the management of the proposed infrastructure, until a formal request from WAPC is provided. In addition, the matter may also need to be considered by the City's Council before an agreed management approach can be provided. Further discussion on monitoring and maintenance responsibilities are discussed in Section 6 of the report.

Western Australian Planning Commission

- 2.3 WAPC, as the current land owner of Lots 558 and 559, has no objections to the establishment of a drainage swale subject to the following conditions:
- Ongoing monitoring and maintenance of the drainage swale shall be the responsibility of the developer, unless otherwise agreed upon with the City. WAPC does not have the capacity to take on the additional maintenance of these assets.
 - Post-construction monitoring program of the vegetated swale (to be undertaken by the developer) should include water quality and quantity sampling.

Department of Aboriginal Affairs

- 2.4 The former Department of Aboriginal Affairs (now Department of Planning, Lands and Heritage, DPLH) reviewed the proposal and advised that the area of the proposed works (i.e. rock rip-rap and revegetation of the lower foreshore area) is partially within a Registered Site of Aboriginal Significance (Swan River, DAA 3536).
- 2.5 If the proposed works are to impact upon the Aboriginal site (i.e. excavation/disturbance), consent under Section 18 of the *Aboriginal Heritage Act 1972 (Aboriginal Heritage Act)* is likely to be required. It is advisable that the developer present details of the proposal to the Wadjuk working group through the South West Aboriginal Land and Sea Council and seek advice on whether the works will impact the Aboriginal Site 3536 (Swan River). The developer is also advised to contact DPLH seeking advice regarding the requirements under the *Aboriginal Heritage Act* and the proposed works.
- 2.6 It is further recommended that the applicant is referred to the Aboriginal Heritage Due Diligence Guidelines when planning specific development within a heritage area.

Department of Water

- 2.7 The former Department of Water (now Department of Water and Environmental Regulation), Floodplain Management Branch reviewed the proposal and advised that it has no objections to the proposed drainage swale, which will have minimal obstruction to flood flows.

3.0 PUBLIC COMMENT – SUBMISSIONS ON DRAFT REPORT

- 3.1 In accordance with the requirements of Part 5 of the SCRM Act, a copy of the draft report and proposed recommendations was provided to the applicant and the relevant external agencies. A copy was also published on the Department's website for a period of two weeks between 29 August 2017 and 13 September 2017 with an invitation for public submissions.
- 3.2 No public submissions were received during this period.

4.0 RELEVANT POLICIES AND PLANS

- ◆ State Planning Policy 2.10 – *Swan-Canning River System (SPP 2.10)*
- ◆ Corporate Policy Statement No. 42 - *Planning for Land Use, Development and Permitting Affecting the Swan Canning Development Control Area (Policy 42)*

- ◆ Corporate Policy Statement No. 49 - *Planning for Stormwater Management Affecting the Swan Canning Development Control Area* (Policy 49)

5.0 ENVIRONMENTAL AND PLANNING CONSIDERATIONS

- ◆ Stormwater Management
- ◆ Public Benefit and Ecological Values
- ◆ Management and Monitoring
- ◆ Acid Sulphate Soils
- ◆ Environmental Protection
- ◆ Heritage Management
- ◆ Flood Management
- ◆ Public Access and Safety

6.0 BACKGROUND

- 6.1 Hillam Architects on behalf of Motherwell Properties Pty Ltd applied to construct a residential development (Vantage Riverside Apartments) on Lot 603 Riversdale Road, Rivervale. The residential development will consist of 217 multiple dwellings and a cafe/restaurant. The development will be 13 storeys high, and will have a below ground carpark consisting of four levels. The site previously consisted of two (2) residential houses, which were demolished in 2009. The site currently consists of a sales office, parking lot and viewing deck.
- 6.2 The Metropolitan Joint Development Assessment Panel (DAP) granted a planning approval subject to conditions (see **Attachment 3**) for the residential development on 4 July 2014, in accordance with the City of Belmont Local Planning Scheme No. 15.
- 6.3 Condition 23 of the DAP approval requires all stormwater from the development to be collected and disposed of on-site. Condition 6 also requires a landscaping, irrigation and foreshore management plan for the development site, street verge and Swan River foreshore (i.e. Lots 558 and 559) to be prepared.
- 6.4 A geotechnical investigation for the residential development site indicated that due to the soil type (Guildford Formation clay) detected at the required depth of excavation for the development, on-site disposal (via infiltration) of stormwater will be limited. The City had also advised that discharge of excess stormwater to the local drainage network would not be possible due to capacity issues.
- 6.5 Following consultation with WAPC, the City and DBCA, it was determined that a combination of both onsite infiltration and offsite disposal of stormwater could be considered for the residential development. A drainage swale was discussed at the meeting on 31 August 2016 and the applicant was advised that a Part 5 Development Application would be required in accordance with the SCRM Act.
- 6.6 Currently, the foreshore reserve (Lot 558 and 559) consists of a turfed area (central and western portion), a freshwater seep (lower eastern portion) and vegetated bushland areas (eastern portion of the foreshore reserve and the western edge)

(see **Attachment 4**). A concrete retaining wall, supported by upright steel piles is present along the edge of the foreshore. It is understood a boatshed and jetty were previously constructed on the lower foreshore and adjacent river reserve, however these have been removed. A pedestrian bridge is also present, crossing over the freshwater seep and connecting with an existing pedestrian pathway network that goes through the lower foreshore area.

Initial Concept Plans

- 6.7 The plans submitted with the Part 5 Development Application initially included a proposed access ramp (approx. 18m) to facilitate access for future residents to the foreshore reserve (Lots 558 and 559). The proposed access ramp was to connect with the existing pathway at the lower section of the foreshore reserve.
- 6.8 The designs of the proposed access ramp indicated that earth batters and retaining walls (approximately 1m) would be required given the steeply sloping embankment (approximately 1:4) (see **Attachment 5**). The current topography ranges from 7.5m AHD (boundary of the residential development) to 2.5m AHD (at the existing pathway) along the proposed 18m long pedestrian access ramp. Proposed seating, public artwork and other landscaping features were also proposed as part of the access ramp structure.
- 6.9 Given the extent of the batters and retaining walls required, the overall footprint of the access ramp design had the potential to impact on the visual amenity and impede access to pedestrian on the upper foreshore area. WAPC advised that it did not support the proposal due to the impacts to community users, potential ground stability issues and the future precedent it may set for other developers proposing to install similar infrastructure on public reserves.
- 6.10 The applicant has subsequently removed the access ramp from its proposed plans, including landscaping features (i.e. seating) associated with the structure.

7.0 DISCUSSION

Stormwater Management

- 7.1 Policy 49 outlines that applications for the use of land in the DCA for stormwater management from new or existing residential developments, will only be supported if (but not limited to):
- the subject site is in close proximity to the urban development that is the source of the stormwater;
 - every practicable attempt has been made to manage the 1-year, 1-hour ARI events as high in the catchment and as close to the runoff source as possible;
 - the reasons that stormwater cannot be managed on the development site are provided and the need to locate the stormwater management system in the DCA is justified;
 - the proposal includes a demonstrable commitment to improve the quality of water entering the river system from the development site; and
 - the maintenance of the stormwater management system is addressed and evidence of an agreement with the land owner or vested authority is provided with the application.

- 7.2 The proposal provides consideration to stormwater management within the residential development site, however the soil type present are impermeable and provides limited opportunity for on-site disposal of all stormwater. The City also advised that it did not support the discharge of excess stormwater to the local drainage network.
- 7.3 A Draft Foreshore and Stormwater Management Plan (FSMP) was submitted as part of the application, proposing a combination of both onsite infiltration and offsite disposal of stormwater to the adjacent foreshore reserve (Lot 558 and 559) for the residential development.
- 7.4 The proposed residential development (3720m² total area) can be divided into three sub-catchments:
- Roof and paved terrace surface (approximately 3160m²), which generates mostly clean surface runoff.
 - Exposed carpark and driveway surfaces (approximately 180m²) which are subject to vehicle traffic and hydrocarbon contamination.
 - Exposed raised planter boxes (380m²) which will generate minor amounts of runoff in larger rainfall events.
- 7.5 The proposed stormwater drainage strategy for the residential development will consist of using a combination of soak wells and SPEL StormChamber units to manage the detention and infiltration of stormwater from the roof and paved surfaces, and a SPEL StormCeptor treatment unit to provide treatment of runoff from trafficable areas. All stormwater infrastructure will be installed beneath the basement of the building.
- Spel StormChamber Units are open bottomed chambers that allow for detention and infiltration of stormwater, similar to soakwells.
 - Spel StormCeptor Units are stormwater quality improvement devices designed to remove sediment, suspended soils, hydrocarbons.
 - It is noted that the devices have a limited capability to remove nutrients, with performance ratios of 11% and 23% for total phosphorus and nitrogen respectively, however the Draft FSMP states that given the minimal landscaped garden areas, the risk of nutrients being mobilised (from fertiliser application) is low. In addition, most of the nutrient load from hardstand areas is expected to be bound particulates that will be retained in the StormChambers and StormCeptor units.
- 7.6 The proposed onsite detention (and infiltration) will be 68.2 KL, comprising 55KL of soakwells and StormChambers units and a 12.7 KL StormCeptor tank unit, which exceeds both the 1-year, 1-hour ARI event (approx. 60kL) and the City's serviceability requirement for a 10 minute, 1 in 5-year ARI event (approx. 47kL).
- 7.7 Excess stormwater will be pumped to a bubble-up pit within the drainage swale, which will then be discharged to the fresh water seep, and eventually the river. The draft FSMP states that the maximum flow rate has been calculated to prevent erosion at the discharge point. The pre-development flow rate was not provided.
- 7.8 The drainage swale will have leaky weir rock structures to assist with stormwater infiltration, a stormwater flow dissipating structure (located at the interface of the drainage swale and freshwater seep) and vegetated zones (see **Attachment 6**). Rock pitching is also proposed around the bubble-up pit to minimise erosion. It is

recommended that nutrient attenuating plants are considered within the vegetated zones to provide additional water quality improvement.

- 7.9 Detailed drawings/designs (including cross-sectional drawings and technical specifications) of the bubble-up pit, drainage swale and foreshore stabilisation works will need to be provided with the Final FSMP. Other details such as the pre-development flow rates, stormwater detention times and the connection of the onsite stormwater treatment system to the bubble-up pit should also be provided.

Public Benefit and Ecological Value

- 7.10 Policy 49 indicates that applications for the use of land in the DCA for stormwater management from adjoining or nearby urban development will only be supported if the proposal will result in a demonstrable community benefit; the proposal will improve the ecological value of the foreshore and river system; the proposal will not unacceptably affect the amenity of the area; and the use of the DCA for stormwater management in the location will not unacceptably impede the use of the foreshore for public access, recreation and conservation.
- 7.11 In this case, the proposed development site has soil properties with limited infiltration capabilities (Guildford Formation clay with low permeability), so retention of all the stormwater onsite was not feasible.
- 7.12 The Draft FSMP states that although a specific fauna survey was not conducted at the site, the high level of tree canopy cover within the freshwater seep and vegetated buffer areas would provide significant habitat for local bird species, as well as potential reptiles and mammal species. The freshwater seep area would likely contain seasonal and resident populations of frog species, and the adjacent river reserve would provide suitable habitat for native fish species.
- 7.13 The Draft FSMP states that the proposed drainage swale will be designed to integrate with the existing foreshore environment. The proposed vegetation within the swale could potentially provide additional water quality treatment and assist with visually softening the structure within the surrounding bush area. Given that the vegetated swale will be located within the revegetation/vegetated buffer area, it is unlikely to impede public access through the foreshore reserve.
- 7.14 The vegetated swale will discharge water from the residential development to the freshwater seep, and ultimately to the Swan River. The Draft FSMP states that the existing vegetation adjacent to and within the freshwater seep area can also assist with dissipating excess stormwater flow, and infiltration through the root and soil matrix. The predominant species in the freshwater seep area, *L. gladiatum* has high root tensile strength and is effective at providing bank stabilisation. In addition, the proposed foreshore stabilisation works on the lower foreshore will also assist with minimising erosion risk from the excess stormwater flow.
- 7.15 Landscaping works will include:
- Expansion and supplementary planting of native tube stock within the Vegetated Buffers (eastern portion and western edge of the foreshore reserve) at a recommended planting density of 4-6 plants per m²;
 - Weed control within the proposed revegetated areas and turf area (e.g. broadleaf weeds) through combination of chemical control, manual removal and other prevention measures (i.e. weed barriers and mulching). The draft FSMP states

that a portion of the existing turf area would be retained for public amenity and access, however a turf barrier (e.g. 300mm depth plastic barrier) will be installed around the edges to minimise weed colonisation within the revegetation zones.

- Foreshore stabilisation measures to protect the existing river wall through the installation of 10m rock rip rap on either side of the wall, soil infill and revegetation within the intertidal area. It is noted that the existing retaining wall is near the end of its functional life, with flanking erosion detected at both upstream and downstream extents. The proposed foreshore stabilisation works will assist with mitigating the flanking erosion as an interim measure, and protect the wall from the additional stormwater discharge from the residential development.

- 7.16 The proposed landscaping works will improve the regional ecological linkages of the foreshore and river system, and provide additional habitat for native fauna.
- 7.17 The Draft FSMP and concept plans provide a general outline of the proposed revegetation, weed control, foreshore stabilisation and vegetated swale within the foreshore reserve, which should be developed further and consolidated into a Final FSMP as a condition of approval.
- 7.18 The applicant has provided information to support the proposal, which will result in a community benefit, an improvement to amenity of the area, and will not impede the use of the foreshore.

Management and Monitoring

- 7.19 To ensure adequate management of the drainage swale, WAPC has requested that the applicant be required to manage the drainage swale until such time as the management is taken over by another authority.
- 7.20 The City has indicated that it is currently not in the position to consider taking over the management of the proposed infrastructure, until a formal request from WAPC is provided for such an arrangement, and the matter may need to be considered by Council.
- 7.21 It is understood that negotiations between the developer, WAPC and the City are ongoing. The applicant has been advised that the monitoring and maintenance of the drainage swale and associated foreshore works will be its responsibility until arrangements can be finalised with the long-term foreshore manager.
- 7.22 The proposed stormwater excess discharge through the drainage swale and bubble-up pit in the foreshore reserve has the potential to exacerbate riverbank erosion and vegetation loss through increased stormwater flow. Following the establishment of the drainage swale, regular monitoring of the riverbank condition is required, with appropriate contingency/maintenance actions to be outlined.
- 7.23 The Draft FSMP provided with the application states that a comprehensive maintenance program will be implemented following the completion of the construction works. The program should address the management actions required to ensure that the revegetation, weed control, drainage infrastructure and foreshore stabilisation outcomes are achieved, and should outline the required tasks, responsibilities and contingency actions. Ongoing management and monitoring details, including responsibilities will need to be provided through the Final FSMP.

Acid Sulphate Soils

- 7.24 The site is identified as having a moderate to high risk of acid sulphate soils (ASS) within 3m of the soil surface.
- 7.25 The applicant has not provided any details on the volumes of soil required to be excavated or disturbed during construction, however the indicative width (4.8m) and slope of the swale (1:4 max) provided with the concept swale design suggest that shallow excavations (approximately 1m deep) are likely to be required for the works.
- 7.26 The draft FSMP states that an ASS self assessment form was previously submitted to the Department Water and Environmental Regulation. However, it is unclear whether the self assessment included the adjacent foreshore reserve (Lots 558 and 559).
- 7.27 It is recommended that a condition be included on the approval to require an ASS self Assessment Form to be completed for the works proposed on the foreshore reserve, and if required, details of ASS management and dewatering to be provided within a Construction Environmental Management Plan (CEMP).

Environmental Protection

- 7.28 Policy 42 aims to ensure that land use and development on and adjacent to the river system maintains and enhances the quality and amenity of the river environment. The proposed development should be carefully undertaken to prevent detrimental impacts to the river and adjacent foreshore area.
- 7.29 The proposed works will involve ground excavation for the establishment of the drainage swale, stormwater pipes and bubble-up pit along the upper sloping embankment, adjacent to a freshwater seep and area of natural bushland. According to the draft FSMP, the proposed drainage swale is located within an area classified as Vegetated Buffer. This area consists of a mixture of native and non-native over-storey and shrubs, with the overall condition of the vegetation considered to be good. The Freshwater Seep is characterised by very good native vegetation cover and condition, with the area showing a high level of native plant diversity with minimal weed species present. The City advised that the area affected by regrading for the swale includes a Eucalyptus tree, a large Zamia plant, Acacia (short-lived) and shrubs.
- 7.30 The proposed foreshore stabilisation works (i.e. rock rip rap) will be located on the edge of the river. According to the FSMP, the lower foreshore area is characterised by isolated native foreshore sedges, shrubs and tree species.
- 7.31 To ensure that vegetation is adequately protected during the construction works, an Arborist Method Statement, to be prepared by a suitably qualified practitioner, will be required as a condition of approval. The Arborist Method Statement will need to identify all the vegetation likely to be impacted by the construction works, and outline management measures to protect and retain the vegetation.
- 7.32 To ensure that all potential environmental impacts are identified and managed, a CEMP shall be required as a condition of approval and is to include details of vegetation protection (consistent with the Arborist Method Statement), construction methodology and extent of ground excavation/disturbance, erosion and sediment

control, management of machinery and equipment, site access and management, refuelling procedure and spill response, acid sulphate soils management and dewatering requirements, Aboriginal Heritage management, waste management public access and safety, and fauna management.

Heritage Protection

- 7.33 Policy 42 states that places of cultural and heritage significance, both Aboriginal and European, and of natural heritage are to be conserved.
- 7.34 A section of the proposal (i.e. lower foreshore stabilisation works) is within the boundaries of an Aboriginal site DAA 3536 (Swan River).
- 7.35 The former Department of Aboriginal Affairs advised that as the proposed works may impact upon DAA 3536 an approval under section 18 of the *Aboriginal Heritage Act 1972* is likely to be required.

Flood Management

- 7.36 The lower section of the subject foreshore area is within the Swan River floodplain. However, the drainage swale and associated structures are not expected to impede the flow of water during flood events, therefore there are no concerns with the proposal with regard to flooding.

Public Access and safety

- 7.37 SPP 2.10 states that public access to the river and foreshore should be maintained while protecting the river. It is important that development near the river and foreshore reserve does not impede or restrict public access.
- 7.38 Public access through the foreshore during the construction works should be maintained wherever possible, particularly access to the existing pedestrian pathway.
- 7.39 The applicant can be advised to outlined its site access arrangement and the maintenance of the pedestrian pathway within the CEMP.
- 7.40 As the drainage swale is located adjacent to the Freshwater Seep, and within an existing area of bushland, it is unlikely that the swale will impact on the public access to the foreshore reserve in the long term.

8.0 SWAN RIVER TRUST ADVICE

- 8.1 In accordance with section 75(3A) of the SCRM Act, the Swan River Trust (the Trust) considered the draft report at its meeting on 15 August 2017. The Trust resolved to support the report and recommendations.

9.0 CONCLUSION

- 9.1 The proposed drainage swale, revegetation and weed control, and foreshore stabilisation works will maintain, and improve the amenity, water quality and ecological values of the foreshore reserve and Swan River.

- 9.2 Potential environmental impacts during construction from the proposed works can be addressed through the preparation and implementation of an approved CEMP required as a condition of approval.
- 9.3 Future management of the proposed drainage swale and foreshore works, including contingency actions (i.e. erosion and water quality issues) will be addressed in a maintenance and monitoring program.
- 9.4 For these reasons, the proposal is recommended for approval subject to conditions and advice.

10.0 RECOMMENDATION – APPROVAL WITH CONDITIONS

That the Director General of the Department of Biodiversity, Conservation and Attractions advises the Minister for Environment that the Edge Visionary Living proposal to conduct drainage and landscaping works on Lot 558 on Diagram 91571 and Lot 559 on Diagram 91572 and Lot 302 on Plan 47452 (River Reserve 48325) adjacent to Lot 603 Riversdale Road, Rivervale, as described in the application received on 16 March 2017, and the amended plans received on 21 July 2017 and 28 July 2017, be approved subject to the following conditions:

1. Approval to implement this decision is valid for two (2) years from the date of the approval. If substantial on-site works have not commenced within this period, a new approval will be required before commencing or completing the development.

Prior to the commencement of works

2. The applicant shall notify the Department of Biodiversity, Conservation and Attractions in writing not less than seven (7) days prior to the commencement of works (see **Advice Note 1**).
3. Prior to the commencement of works, a Construction Environmental Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions, on advice from the City of Belmont (see **Advice Note 2 and 8**).
4. Prior to the commencement of works, a Foreshore and Stormwater Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions on advice from City of Belmont (see **Advice Note 3 and 8**).
5. Prior to the commencement of works, detailed engineering designs/drawings and technical specifications for the proposed shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions, on advice from City of Belmont (see **Advice Notes 4 and 8**).
6. Prior to the commencement of works, a Monitoring and Maintenance Management Plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions, on advice from City of Belmont and the Western Australian Planning Commission (see **Advice Note 5 and 8**).
7. Prior to commencement of works, an Arborist Method Statement shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions on advice from City of Belmont (see **Advice Note 6 and 8**).

8. Prior to commencement of works, an acid sulphate soil self assessment form, and if required, an acid sulphate soils investigation and management plan shall be submitted to, and approved by the Department of Biodiversity, Conservation and Attractions, on advice from Department of Water and Environmental Regulation and City of Belmont (see **Advice Note 7 and 8**).

During works

9. All works shall be implemented in accordance with the plans and final designs/drawings approved under **Conditions 2-8**.
10. All fill and landscaping materials shall be clean, uncontaminated, and dieback disease free in accordance with the definition of 'clean fill' outlined in the Department of Environment Regulation's *Landfill Waste Classification and Waste Definitions 1996 (As amended December 2009)*.
11. No debris, rubbish or any other deleterious material shall be allowed to enter the river (including the freshwater seep) as a result of the works.
12. The applicant shall ensure that no damage to the foreshore or waterway (including infrastructure and vegetation) occurs as a result of the works. Should any inadvertent damage occur, the applicant is required to notify the Department of Biodiversity, Conservation and Attractions within 48 hours and make good any inadvertent damage.
13. Public access along the foreshore shall be maintained, or an alternative route provided with appropriate signage, for the entirety of the works to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

On completion of works

14. Upon completion of the works, all waste materials, equipment and machinery shall be removed and the site cleaned-up to the satisfaction of the Department of Biodiversity, Conservation and Attractions.

Ongoing

15. On-going monitoring and maintenance of the vegetated drainage swale, including the associated foreshore stabilisation works, shall be undertaken in accordance with the approved Monitoring and Maintenance Plan, unless agreed in writing by the Department of Biodiversity, Conservation and Attractions.

ADVICE TO APPLICANT

1. Notification of commencement of work and plans can be emailed to rivers.planning@dbca.wa.gov.au.
2. The Construction Environmental Management Plan required under **Condition 3** shall describe how the proposed works will be managed to minimise environmental impacts and should address, but not limited to;
 - a. scope of works, including details of ground excavations;
 - b. site access and management, including fencing requirement;
 - c. management of machinery and equipment, including refuelling procedure and spill response;

- d. on-site storage of materials, equipment, chemicals and fuel;
- e. sediment and turbidity management;
- f. erosion control and contingencies;
- g. acid sulphate soils management and dewatering requirements;
- h. protection of vegetation;
- i. protection of the river from inputs of debris, litter, rubbish or other deleterious material;
- j. waste management;
- k. public access and safety;
- l. fauna management;
- m. Aboriginal Heritage management;
- n. hours of operation, timeframes and responsibility for tasks identified; and
- o. complaints and incidents.

The plan should address the most appropriate means of sediment and turbidity management for the proposed works as determined by the applicant. This may include the use of a silt curtain. All reasonable efforts should be taken by the applicant to control plumes but where they occur, the applicant must stop work whilst the plume is addressed and should only recommence work once the integrity of the device is restored. Emergency spill kits should be onsite at all times and refuelling of machinery should be undertaken outside the Swan Canning Development Control Area. A site map showing the laydown area and vehicle entry/exit points should also be included. Please note that the City of Belmont has advised that access would not be permitted via the pedestrian pathway, and all access would be required from the adjacent residential development. Sand, soil, and any other finely grained material that is exposed or stockpiled on site shall be managed to prevent sediment mobilisation and discharge into the Swan River. In case of pollution events the Department of Biodiversity, Conservation and Attractions can be contacted on 9278 0900 or a/h 0419 192 845. Pedestrian and cyclist management during construction, including requirement for path closure and pedestrian/cyclist redirection will need to be provided.

3. In relation to **Condition 4**, the Foreshore and Stormwater Management Plan should be consistent with foreshore management recommendations and stormwater strategy outlined in the draft Foreshore and Stormwater Management Plan (Syrinx, March 2017), with further refinement on the following details below:
 - a. A plant species list and densities within the proposed revegetation zones within the 'Vegetated Buffers', 'Lower Foreshore' and 'Drainage Swale', including a plan showing the extent of the revegetation works.
 - i. It is recommended that nutrient attenuating plants are planted within the drainage swale to assist with water quality improvement. Further guidance on suitable plant species and densities with high nutrient removal capabilities please refer to the 'Vegetation guidelines for stormwater biofilters in the south-west of Western Australia (Monash University 2014)' available from the New Water Ways website at http://www.newwaterways.org.au/files/files/381_Biofilter_vegetation_guidelines_for_southwestWA.pdf.
 - b. Planting schedule, including timing of works, site preparation, irrigation and fertiliser requirements. Please note that the City of Belmont advises that the use of temporary fencing around revegetation areas is not supported, due to the low intensity of public use in this location.

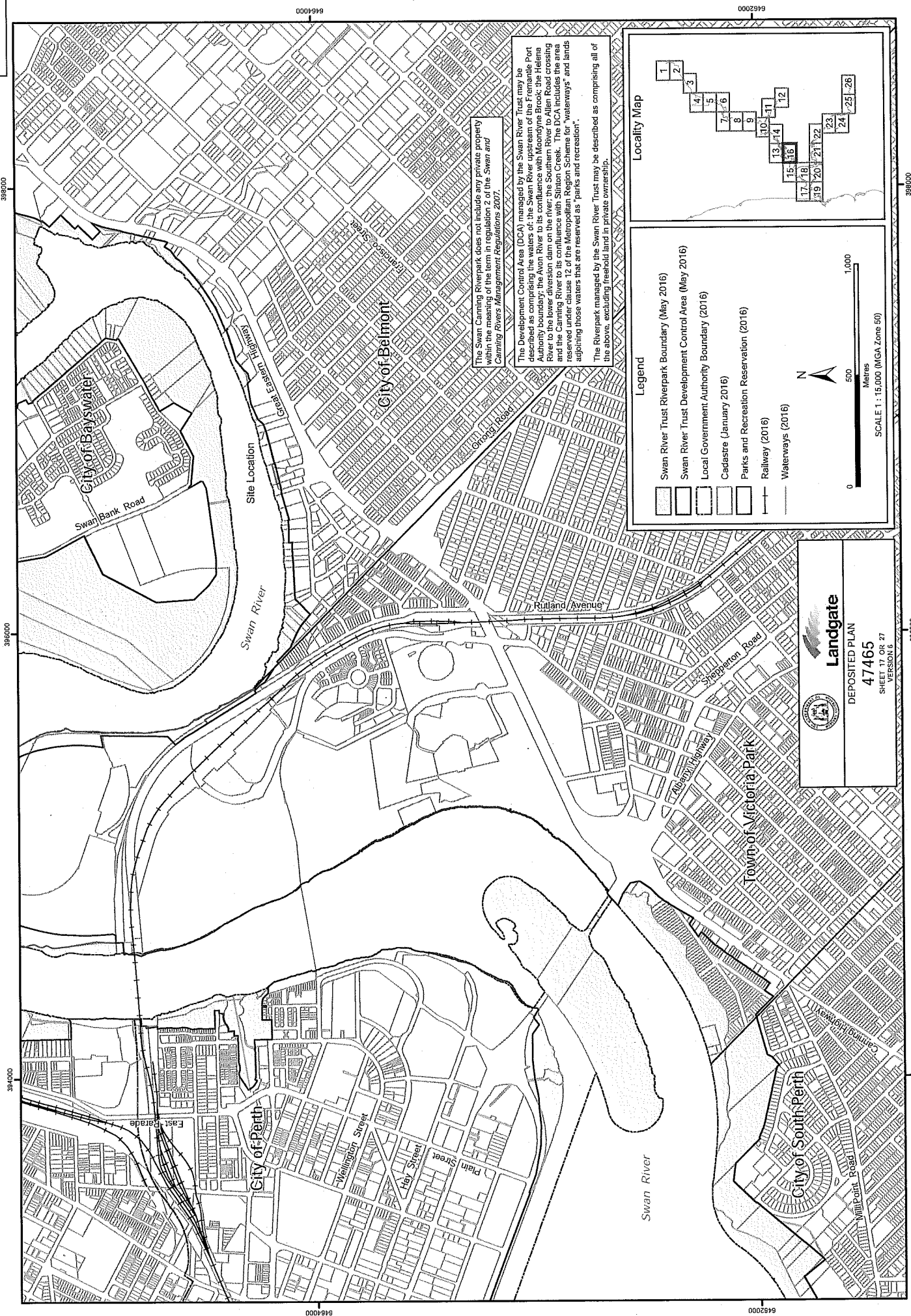
- c. A weed control plan, including a schedule and details of weed control methods. A list of herbicides and application method, and other weed prevention methods (i.e. turf barriers and mulching) should be provided.
 - d. Further details of the foreshore treatment method to stabilise the lower foreshore (i.e. soil infill, rock rip-rap and revegetation).
 - e. Further details of the drainage swale and bubble up-pit, including erosion and scour protection method.
 - i. Other details such as the pre-development flow rates, stormwater detention times and the connection of the onsite stormwater treatment system to the bubble-up pit should also be provided
4. In relation to **Condition 5**, the detailed engineering design/drawings, including cross-sectional drawings, of the drainage swale and bubble-up pit, foreshore stabilisation works and any landscaping features are to be provided, showing the exact design and location of the structures.
 5. In relation to **Condition 6**, the Monitoring and Maintenance Plan should address the management actions required to ensure that the revegetation, weed control, drainage infrastructure and foreshore stabilisation outcomes are achieved, and should outline the required tasks, responsibilities and contingency actions. Following the establishment of the drainage swale, regular monitoring of the riverbank condition is required, with appropriate contingency/maintenance actions to be outlined. A post-construction water monitoring program should also be established to include water quality and quantity sampling. Please note that if a maintenance period between the developer, the City of Belmont and the Western Australian Planning Commission cannot be agreed upon, it will ultimately be the developer's responsibility for the ongoing monitoring and maintenance of the structures.
 6. In relation to **Condition 7**, the Arborist Method Statement shall be undertaken by a qualified and practising arborist and should identify all the vegetation likely to be impacted by the construction works, and outline management measures to protect and retain the vegetation.
 7. In relation to **Condition 8**, the applicant is advised that the proposed works are located within a high to moderate acid sulphate soil (ASS) risk areas. The Acid Sulphate Soils Guideline Series for guidance on the identification, assessment and management of acid sulphate soils in Western Australia is available from the Department of Water and Environment Regulation website at www.dwer.wa.gov.au. If any ASS is exposed during the works, the Contaminated Sites Branch of the Department of Water and Environmental Regulation should be contacted for further advice on 1300 762 982.
 8. To allow sufficient time for the Department of Biodiversity, Conservation and Attractions to consider and approve the drawing, designs and plans required under Condition 2 to 7 inclusive, the documents should be submitted to the Department of Biodiversity, Conservation and Attractions no later than 30 days prior to the expected commencement date.
 9. The applicant is advised to contact the Department of Planning, Lands and Heritage to ensure that the proposed works do not breach any section of Part IV (Protection of Aboriginal Sites) of the *Aboriginal Heritage Act 1972* (the Act). Approval under section 18 of the Act may be required. It is recommended that the applicant present details of the proposal to the Wadjuk working group through the South West Aboriginal Land and Sea Council and seek advice on whether the works will impact the Aboriginal Site 3536

(Swan River). Please refer to the Aboriginal Heritage Due Diligence Guidelines when planning specific development within a Heritage area.

FINAL REPORT ENDORSED

Signed: *M Webb* Date: 27/9/17

Mark Webb
Director General



The Swan Canning Riverpark does not include any private property within the meaning of the term in regulation 2 of the *Swan and Canning Rivers Management Regulations 2007*.

The Development Control Area (DCA) managed by the Swan River Trust may be described as comprising the waters of the Swan River upstream of the Fremantle Port Authority boundary; the Avon River to its confluence with Moonshine Brook; the Helena River to the lower diversion dam on the river; the Southern River to Allen Road crossing and the Canning River to its confluence with Shinnon Creek. The DCA includes the area reserved under clause 12 of the Metropolitan Region Scheme for "waterways" and lands adjoining those waters that are reserved as "parks and recreation".

The Riverpark managed by the Swan River Trust may be described as comprising all of the above, excluding freeland lots in private ownership.

Legend

- Swan River Trust Riverpark Boundary (May 2016)
- Swan River Trust Development Control Area (May 2016)
- Local Government Authority Boundary (2016)
- Cadastral (January 2016)
- Parks and Recreation Reservation (2016)
- Railway (2016)
- Waterways (2016)



Locality Map

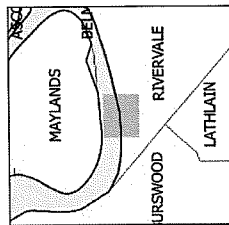
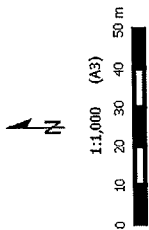
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SCALE 1 : 15,000 (MGA Zone 50)

Landgate
DEPOSITED PLAN
47465
SHEET 17 OF 27
VERSION 6

Attachment 2

Legend

-  Swan River Trust - DCA (2016)
-  Perth Central Cadastre (Land Parcels)



Department Biodiversity, Conservation and Attractions



Job Ref: 2017/1761
Produced at 11:08 AM on July 31, 2017



The Department of Parks and Wildlife does not guarantee the accuracy of this map. It is without flow of any kind and disclaimer of liability for any errors, loss or other consequences which may arise from reliance on any information provided. Roads and tracks on this map may contain unmarked holes and their surface condition is variable. Exercise caution and drive to conditions on all roads.



Government of Western Australia
Development Assessment Panels

LG Ref: 12/2013/DAP
DoP Ref: DAP/14/00029
Enquiries: Development Assessment Panels
Telephone: (08) 6551 9919

Mr David Hillam
Hillam Architects
2/31 Hood Street
SUBIACO WA 6008

Dear Mr David Hillam

**Metro Central JDAP – City of Belmont – DAP Application 12/2013/DAP
Lot 603 (60) Riversdale Road, Rivervale
217 Multiple Dwellings and Restaurant**

Thank you for your application and plans submitted to the City of Belmont on 23 December 2013 for the above development at the above mentioned site.

This application was considered by the Metro Central Joint Development Assessment Panel at its meeting held on 4 July 2014, where in accordance with the provisions of the City of Belmont Local Planning Scheme No.15, it was resolved to approve the application as per the attached notice of determination.

Should the applicant not be satisfied by this decision, a DAP Form 2 application may be made to amend or cancel this planning approval in accordance with Regulation 17 of the Development Assessment Panel Regulations 2011.

Also be advised that there is a right of review by the State Administrative Tribunal in accordance with Part 14 of the *Planning and Development Act 2005*. An application must be made within 28 days of the determination in accordance with the *State Administrative Tribunal Act 2004*.

Should you have any enquiries in respect to the conditions of approval please contact Mr Wilmot Loh at the City of Belmont on (08) 9477 7274.

Yours sincerely

DAP Secretariat

10/07/2014

Encl. DAP Determination Notice
Approved plans

Cc: Mr Wilmot Loh
City of Belmont
215 Wright Street
CLOVERDALE WA 6105



wa.gov.au

Postal address: Locked Bag 2506 Perth WA Street address: 140 William Street Perth WA 6000
Tel: (08) 6551 9919 Fax: (08) 6551 9961 TTY: 6551 9007 Infoline: 1800 626 477
daps@planning.wa.gov.au www.planning.wa.gov.au
ABN 35 482 341 493



Planning and Development Act 2005

City of Belmont Local Planning Scheme No.15

Metro Central Joint Development Assessment Panel

**Determination on Development Assessment Panel
Application for Planning Approval**

Location: Lot 603 (60) Riversdale Road, Rivervale
Description of proposed Development: 217 Multiple Dwellings and Restaurant

In accordance with Regulation 8 of the *Development Assessment Panels Regulations 2011*, the above application for planning approval was **granted** on 4 July 2014, subject to the following:

Approve DAP Application reference DP/14/00029 and accompanying plans received by the City of Belmont on 28 March 2014 in accordance with the City of Belmont Local Planning Scheme No. 15, subject to the following conditions:

Conditions

1. The development plans, as dated marked and stamped "Approved", together with any requirements and annotations detailed thereon by the City, are the plans approved as part of this application and shall form part of the planning approval issued.
2. A geotechnical report prepared by an appropriately qualified consultant certifying that the land is capable of accommodating the proposed development shall be lodged with the City, at the cost of the owner/applicant, prior to the lodgement of an application for a building permit to the satisfaction of the City's Manager Projects & Development.
3. Prior to the commencement of any site works, the applicant / owner shall:
 - (i) complete and submit an Acid Sulfate Soils Self-Assessment Form to the Department of Environment Regulation and City of Belmont; and
 - (ii) if required as a result of the self-assessment, subsequently prepare and submit an Acid Sulfate Soils Report and an Acid Sulfate Soils Management Plan to the Department of Environment Regulation and the City of Belmont for approval.

Where an Acid Sulfate Soils Management Plan is required to be submitted, all site works shall be carried out in accordance with the approved management plan.

4. A detailed schedule of external materials, finishes and colours to be used in the construction of the development shall be submitted to the City prior to lodgement of an application for a building permit to the satisfaction of the City's Director Community & Statutory Services, Manager Planning Services or Coordinator Planning Services.



5. Prior to the commencement of site works, the applicant shall arrange for the preparation of a construction management plan and traffic management plan in accordance with the requirements of AS1742 Pt 3 to the satisfaction of the City's Director Technical Services. The plan shall be thereafter implemented for the duration of the construction of the development.
6. A landscaping, irrigation and foreshore management plan for the subject development site, street verge and Swan River foreshore is to be prepared and submitted to the City for approval within 3 months of the date of this approval.
7. Prior to occupation or use of the development, landscaping, plants and irrigation are to be installed and thereafter maintained in accordance with the approved landscaping and irrigation plan for the duration of the approved development to the satisfaction of the City's Manager Parks and Environment.
8. No existing turf, irrigation or street trees located in the road verge abutting or adjacent to the subject land may be damaged or removed during the course of the development, unless separately approved in writing by the City.
9. The applicant shall ensure that no damage to the foreshore, riverbank, or waterway (including infrastructure and vegetation) occurs as a result of the works. Should any inadvertent damage occur, the applicant is required to notify the Swan River Trust within 48 hours.
10. No soil, building materials, rubbish or any other deleterious matter shall be placed on the Parks and Recreation Reserve or be allowed to enter the river as a result of the works.
11. The applicant shall not access the site via the Parks and Recreation Reserve unless authorised by the City of Belmont to do so.
12. Upon completion of the works all waste materials (including excess soil, building materials, rubbish and other deleterious matter) shall be removed from the site.
13. The door to the fire escape corridor on the ground floor of the development shall be relocated to address Crime Prevention through Environmental Design principles to the satisfaction of the City's Director Community and Statutory Services.
14. Noise attenuation measures to ameliorate the impact of noise from waste collection activities on Apartments 34, 35, 56 and 57 shall be implemented to the satisfaction of the City's Director Community & Statutory Services.
15. No services, such as air conditioners or water heaters shall be visible from the street.
16. All clothes drying devices and clothes drying areas shall be located and positioned so as not to be visible from the street or a public place.



17. Prior to occupation or use of the development, vehicle parking, manoeuvring and circulation areas shall be designed, constructed, sealed, drained, line marked and kerbed in accordance with:
 - (a) The approved plan (total of 322 spaces); and
 - (b) Australian Standard 2890.1.

The areas must be sealed in concrete or brick paving in accordance with the City of Belmont specifications, unless otherwise approved by the City's Director Technical Services. All parking bays must be clearly line marked.

18. A minimum of 44 visitor car parking bays are to be provided and maintained to the satisfaction of the City's Manager Projects and Development.
19. Prior to occupation of use or development, a Car Parking Management Strategy with respect to on-site car parking provision shall be prepared to the satisfaction of the City's Director Community and Statutory Services, Manager Planning Services or Coordinator Planning Services. The Management Strategy shall include details regarding the allocation of car parking bays for residents, tenancies and visitors, management and maintenance measures, and the promotion of non-car based travel modes, encourages the use of such as bicycles and public transport.
20. Prior to occupation of the development commencement of the use, a minimum of 22 bicycle bays accessible to visitors are to be installed and maintained for the course of the development to the specifications contained within the City's Supplementary Planning Guidelines for End of Trip Facilities, to the satisfaction of the City's TravelSmart Officer.
21. All access ways, parking areas and hard stand areas shall be maintained in accordance with the City's engineering requirements and design guidelines.
22. Prior to occupation of the development, a 2.0 metre wide concrete footpath shall be constructed in the Riversdale Road verge adjoining the road kerb for the full width of the property in accordance with the City's specifications to the satisfaction of the City's Director Technical Services.
23. All stormwater from roofed and paved areas shall be collected and disposed of on-site in accordance with the City of Belmont's engineering requirements and design guidelines.
24. Any lighting installed on the building, yard areas or car parking areas shall be located and designed in a manner that ensures:
 - (i) all illumination is confined within the boundaries of the property;
and
 - (ii) there will not be any nuisance caused to an adjoining residents or the local areato the satisfaction of the City's Manager Health and Rangers Services.
25. The approved waste and rubbish collection management plan shall be implemented for the duration of the development to the satisfaction of the City's Manager Health and Ranger Services.



26. Within 28 days of the date of this approval, the owner/applicant shall elect to either:
- Seek approval from the City of Belmont for an artist to provide public art on the development site to a minimum value of \$550,000; or
 - Make arrangements with the City of Belmont for a cash-in-lieu payment of \$550,000 being 1% of the estimated cost of the development to the satisfaction of the City's Coordinator Community Wellbeing.
27. Where public art will be provided on the development site in accordance with Condition 26, the approved concept/strategy shall be thereafter implemented and the artwork constructed and maintained for the life of the development to the satisfaction of the City's Coordinator Community Wellbeing.
28. Arrangements being made to the satisfaction of the City for the payment of the relevant development contribution to the infrastructure and administration items identified in Amendment No. 2 to the City of Belmont Local Planning Scheme No. 15, prior to the application for a building permit.
29. Prior to use or occupation of the development, on-site sustainability measures in line with Part 4 of Local Planning Policy No. 7 are to be implemented to the satisfaction of the City's Director Community & Statutory Services in consultation with the Manager Planning Services

This decision constitutes planning approval only and is valid for a period of two (2) years from the date of approval. If the subject development is not substantially commenced within the two (2) year period, the approval shall lapse and be of no further effect.

Advice Notes

1. A planning approval is not an approval to commence any works associated with the development. A building permit must be obtained prior to commencement of any site and building works. An application for a building permit will not be accepted unless proof of payment of all bonds and guarantees accompanies the application documents.
2. Fire requirements to be in accordance with the Building Code of Australia.
3. As of the 1 July 2003, Energy Efficiency requirements were implemented via the Building Code of Australia (BCA) Volume 2 and all residential buildings need to comply with the 'deemed to satisfy' requirements, or alternatively a compliant Energy Audit Report can be submitted by an accredited person. Please be advised that the granting of planning approval from the City is no indication that the approved plans conform to the BCA Volume 2 as amended.
4. Where construction works of the development may encroach onto the road reserve (verge) the applicant shall obtain a Materials On Verge licence for the entire verge for the entire duration of construction works.



5. The required geotechnical report under Condition 2 must identify the geotechnical conditions of the site (including acid sulphate soils) and certify to the City that any earthworks proposed are structurally sound. The earthworks must be carried out in accordance with the geotechnical report as modified (if at all) by the City. Due to excavation to proposed basement levels, the suitability of soil conditions and water table for drainage purposes shall be confirmed with the results of geotechnical investigation.
6. In relation to Condition 3, the required "Acid Sulfate Soils Self-Assessment Form" can be downloaded from the Western Australian Planning Commission's website at [http://www.planning.wa.gov.au/dop/pub/pdf/ASS \(ver 4.0\) Aug09 interactive .pdf](http://www.planning.wa.gov.au/dop/pub/pdf/ASS(ver%204.0)Aug09interactive.pdf).

Where required:

- any Acid Sulfate Soils investigation shall follow the provisions of the DEC's *Identification and Investigation of Acid Sulphate Soils and Acidic Landscapes* (May 2009), which can be downloaded from the DER website <http://www.dec.wa.gov.au/content/view/2864/1698/>; and
 - any Acid Sulfate Soils management plan shall follow the provisions of the DEC's *Treatment and Management of Soils and Water in Acid Sulfate Soil Landscapes* (July 2011), which can be downloaded from the DER website <http://www.dec.wa.gov.au/content/view/2864/1698/>.
7. In relation to Condition 5, the construction and traffic management plan shall include a dilapidation survey, dust and noise management arrangements, location of site office, materials storage, construction vehicles access, parking and any temporary road closures. The applicant is advised that any signage, road works or road marking made necessary by the proposed development shall be carried out at the developer's cost.
 8. The plan required by Condition 6 shall be a minimum size of A3, and is to contain a north point and a scale. The plan must show by numerical code, the botanical name of each plant species, proposed pot size, quantity and must also include the proposed treatments of:
 - (a) all areas of the property visible from the street;
 - (b) the street verge; and
 - (c) Swan River foreshore (as appropriate).

The plan should also demonstrate compliance with the Foreshore Reserve Provisions of the Riversdale Road North Precinct Detailed Area Plan in relation to edge treatments and built form within the principle rear setback area. In accordance with the detailed area plan, these should be designed to provide visual relief, a naturalistic appearance and human scale, to the satisfaction of the City of Belmont on advice from the Swan River Trust. Connectivity between the site and the foreshore path should also be addressed.

9. In relation to Condition 7, the plants are to be nurtured until they reach their typical mature dimensions, and shall thereafter be maintained at those mature dimensions unless Council approves otherwise in writing.



10. In relation to Condition 9, the applicant is advised that it is an offence under the *Swan and Canning Rivers Management Regulations 2007* to destroy, pull up, cut back or injure any tree, shrub, aquatic plant or perennial plant that is in the Swan River Trust Development Control Area, except with the approval of the Swan River Trust.
11. In regard to Condition 10, the applicant shall demonstrate how sand, building materials and rubbish will be prevented from entering the reserve during work for the approval of the City of Belmont on advice from the Swan River Trust.
12. This planning approval is not approval for the removal or alteration of any turf, irrigation or street tree. If during the course of the development any existing turf and/or irrigation is damaged or destroyed, the owner/applicant shall:
 - (a) repair, reinstate or replace the item in accordance with any written direction of the City's Manager Parks & Environment; and
 - (b) thereafter maintain the item for a period of 12 months, to the satisfaction of the City's Manager Parks & Environment.

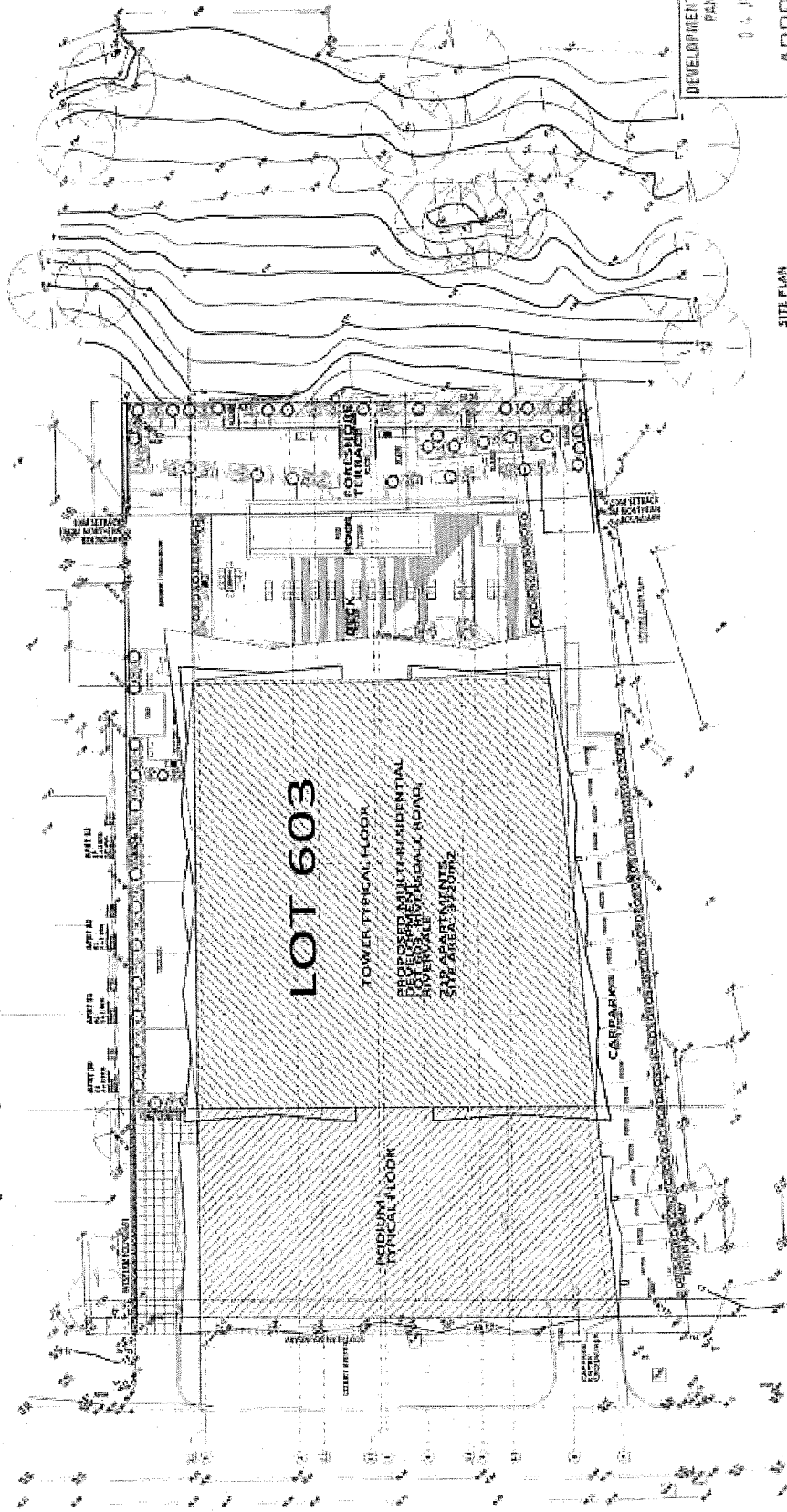
If during the course of the development any existing street tree is damaged or destroyed, the City shall repair or replace the street tree in accordance with any written direction of the City's Manager Parks & Environment. The owner/applicant shall:

- (a) be responsible for any costs associated with repair or replacement; and
 - (b) thereafter maintain the street tree for a period of 12 months, to the satisfaction of the City's Manager Parks & Environment.
13. In relation to Condition 14, measures to ameliorate the impact of noise on Apartments 34, 35, 56 and 57 may include reconfiguration of the apartments such that laundries, toilets and other non-habitable rooms are located on the western façade.
14. In relation to Condition 21, in the event that access ways, parking areas and hard stand is not satisfactorily maintained, the City's Director Technical Services may require by notice, in writing, that the area be brought up to a satisfactory standard within a specified period of time and the notice shall be complied with within that period. Without limitation, the notice may require that lines marking car bays be re-painted, pot holes be repaired, damaged kerbs be replaced and degraded access or parking areas be resurfaced generally in accordance with Council's Engineering Requirements and Design Guidelines.
15. Council's Engineering Requirements and Design Guidelines contains detailed specifications which must be adhered to in the preparation of plans submitted for approval in respect of such matters as drainage, paving, parking, accessways, crossovers, land fill and retaining.



16. Neither a planning approval nor a building permit constitutes an approval to construct a crossover to a property. Prior to occupation or use of the development, a separate application must be made to the City's Technical Services Department for approval to construct a crossover to the property (i.e. from the road to connect with the property's internal driveway). Failure to submit a separate application for crossover approval may result in delays in receiving a vehicle crossover subsidy.
17. Specification for construction of the crossover is outlined under item ST01D, contained within the Materials Schedule – Landscape Work Rev C2 (February 2010) for The Springs, the Applicant is advised to liaise with the City's Technical Services Department in regard to these specifications.
18. Signage is not approved as part of this application. A separate application for planning approval and building permit is required prior to display of any advertisements/signage.
19. In relation to Conditions 26 and 27, the City's Community Wellbeing Services will be required to give final consent for the proposed public art, including any cash-in-lieu arrangement. Full details and specifications should be submitted at the earliest opportunity to ensure that the finalisation of the public art does not delay the progression of the development.
20. Condition 28 is in acknowledgement of the obligations of all landowners within proposed Development Contribution Area 1 (The Springs Special Development Precinct) to make a development contribution for public infrastructure. The proposed development contribution applicable to Lot 603 Riversdale Road is \$529,723.13. This amount is to be paid to the City of Belmont prior to the application for a building permit. Alternatively, the City may permit the landowner to enter into a legal agreement with the City for an alternative payment arrangement to the satisfaction of the City's Director Corporate and Governance Services. Please contact the City's Planning Department for more information in relation to this condition.
21. The applicant and owner are advised that the City's Rates Department will confirm under separate letter the street numbering applicable for this property.
22. That the applicant is encouraged to work with the City of Belmont to examine the potential for up to four parallel parking embayments to be developed in the Riversdale Road verge in front of the proposed development.

Where an approval has so lapsed, no development shall be carried out without further approval having first been sought and obtained, unless the applicant has applied and obtained Development Assessment Panel approval to extend the approval term under regulation 17(1)(a) of the *Development Assessment Panel Regulations 2011*.



LOT 603

TOWER PHYSICAL FLOOR
 PROPOSED MULTI-RESIDENTIAL
 HOUSING DEVELOPMENT
 SITE AREA 1993072

MEDIUM PHYSICAL FLOOR

FORESTED TERRACE

CARPARK

RIVERSDALE ROAD

DEVELOPMENT ASSESSMENT
 PANELS
 7 JUL 2018
APPROVED

SITE PLAN
 4022 510001

CITY OF BRISBANE
 AMBROSE PLAINS
 RECEIVED 28/05/2018
 Application No. 12019704P

HILLAM ARCHITECTS

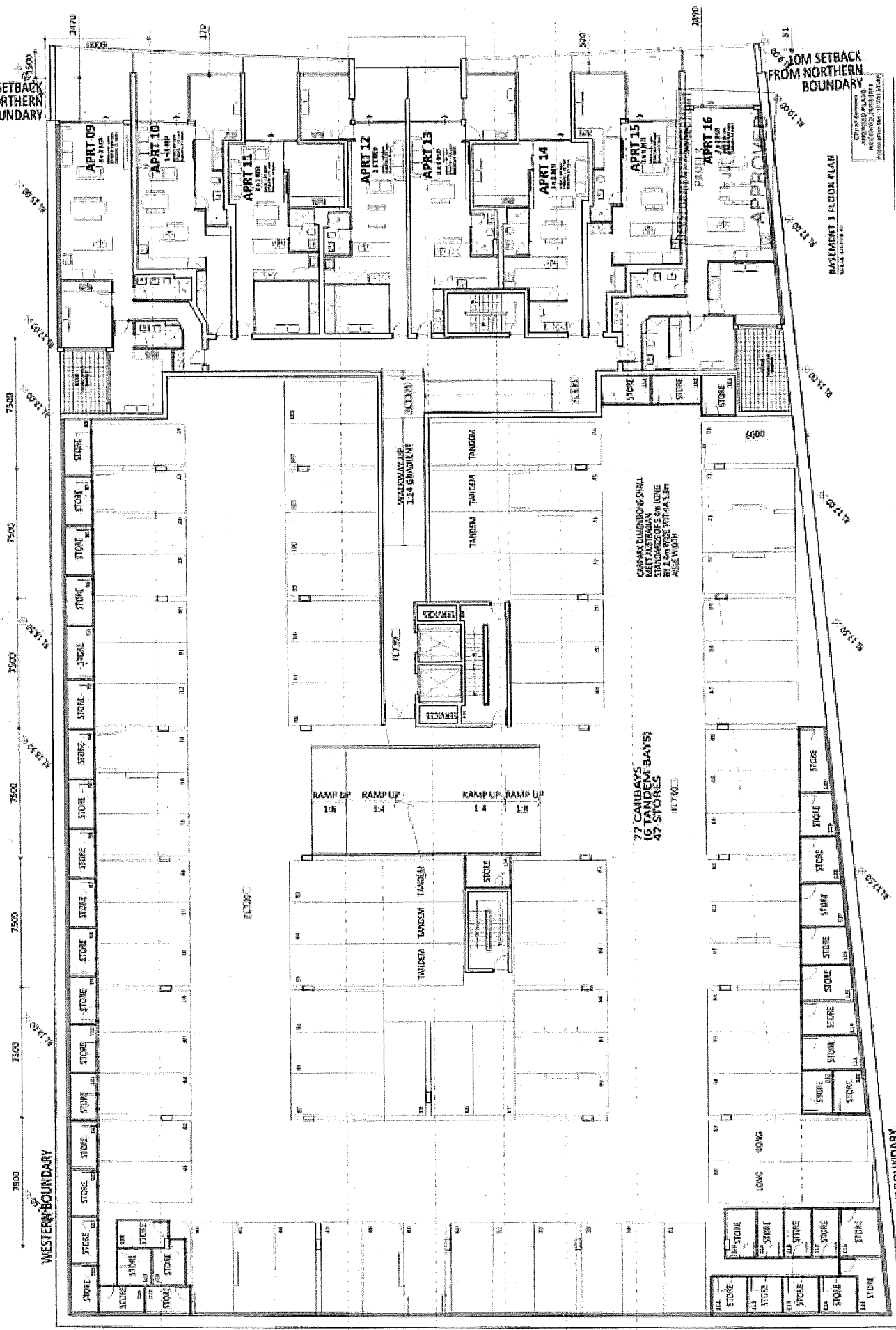
MULTI-RESIDENTIAL DEVELOPMENT
 LOT 603, RIVERSDALE ROAD, SPRINGS

SK12-01

10M SETBACK FROM NORTHERN BOUNDARY

10M SETBACK FROM NORTHERN BOUNDARY

Grid lines: A, B, C, D, E, F, G, H



APRT 09

APRT 10

APRT 11

APRT 12

APRT 13

APRT 14

APRT 15

APRT 16

WALKWAY TO 2.5M GRABIRON

77 CARBAYS (6 TANDEM BAYS) 47 STORES

CARBAY DIMENSIONS SHALL MEET AUSTRALIAN STANDARDS OF 5M LONG BY 2.5M WIDE WITH A 3.8M AISLE WIDTH

RAMP UP 1.6 RAMP UP 1.4 RAMP UP 1.4 RAMP UP 1.6

WESTERN BOUNDARY

SOUTHERN BOUNDARY

EASTERN BOUNDARY

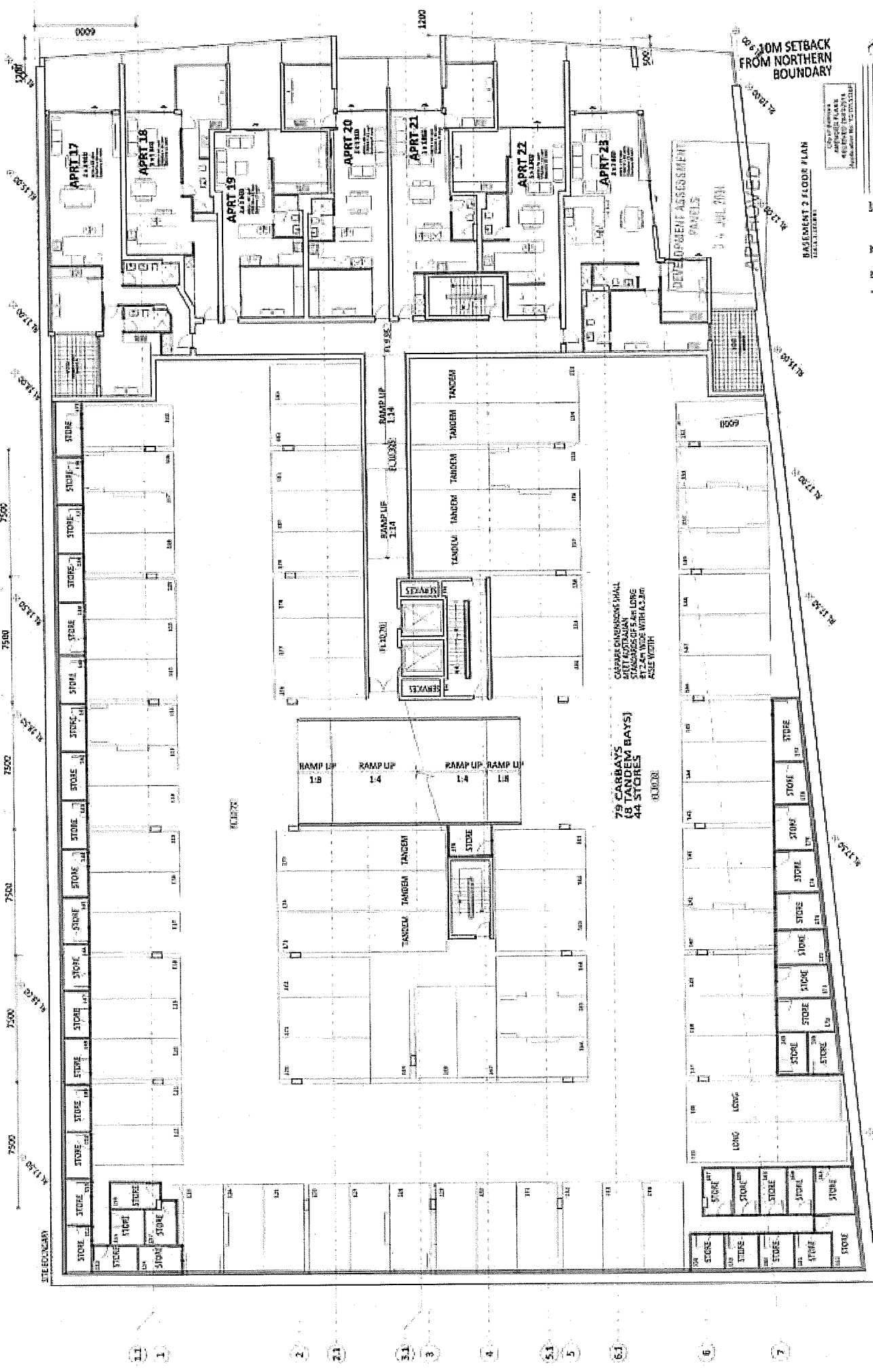
MULTI-RESIDENTIAL DEVELOPMENT LOT 503, RIVERSIDE ROAD, SPRINGS

HILLAM ARCHITECTS

SK12-03

APPROVED

BASEMENT 3 FLOOR PLAN



30M SETBACK FROM NORTHERN BOUNDARY

BASEMENT 2 FLOOR PLAN
ELEVATION

City of Brisbane
4/6/2017 14:32:14
Project Name: 17-103-0104

HILLIAM ARCHITECTS

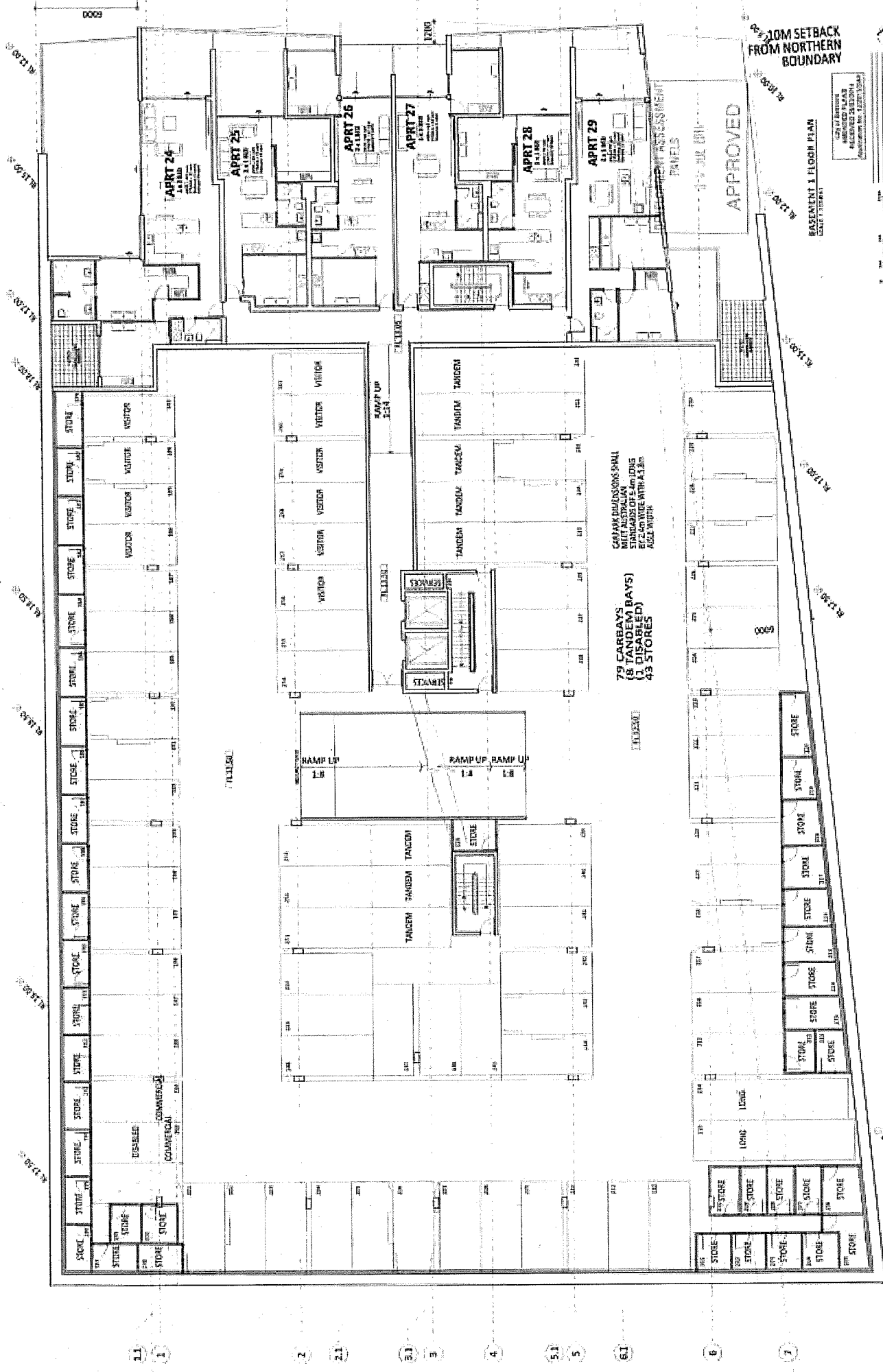
SK12-04

CASPERE CONDOMINIUMS HALL
BAPT BOUTRIAN
STAIRS OFF 4th FLOOR
STAIRS OFF 4th FLOOR
RAMP UP

79 CARBAYS
(8 TANDEM BAYS)
44 STORES

MULTI-RESIDENTIAL DEVELOPMENT
LOT 603, RIVERSDALE ROAD, SPRINGS

SITE PLAN



A B C D E F G H

1 2 3 4 5 6 7

10M SETBACK FROM NORTHERN BOUNDARY

APPROVED

BASEMENT 1 FLOOR PLAN

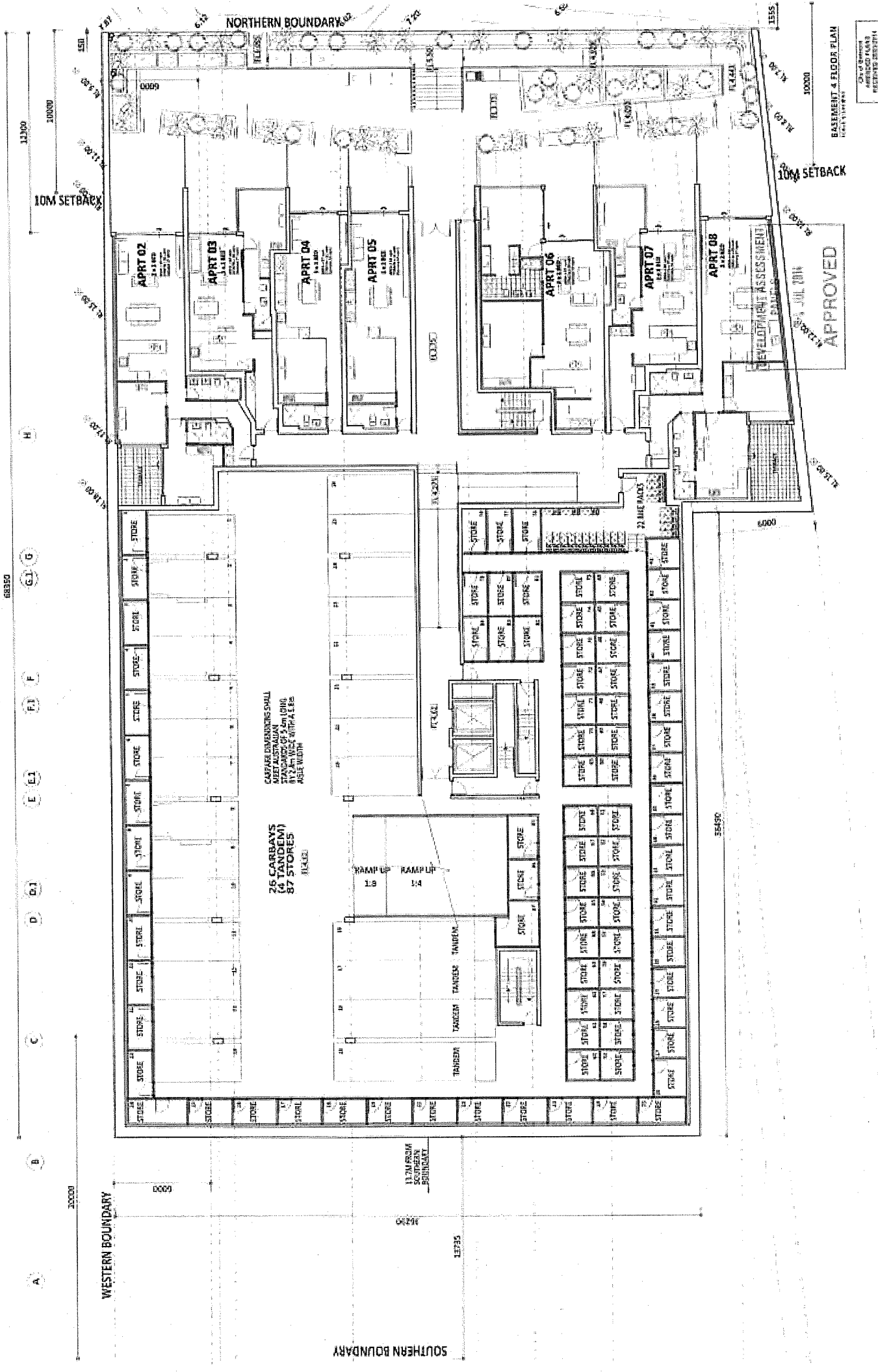
79 CARBAYS (8 TANDEM BAYS) (3 DISABLED) 49 STORES

CARBAY DIMENSIONS SHALL MEET AUSTRALIAN STANDARDS OF CARBAYS BE 2.4M WIDE WITH A 1.8M ASSE WIDTH

HILLAM ARCHITECTS

MULTI-RESIDENTIAL DEVELOPMENT
101 RIVERSIDE ROAD, SPRINGS

SK12-05



BASEMENT 4 FLOOR PLAN
1:100 (TYPICAL)

City of Brisbane
APPROVED
RECEIVED RESURTA
17th Floor, 12, 201, 12th St

APPROVED
12/20/2018
JUL 2018

HILLAM ARCHITECTS
ARCHITECTS

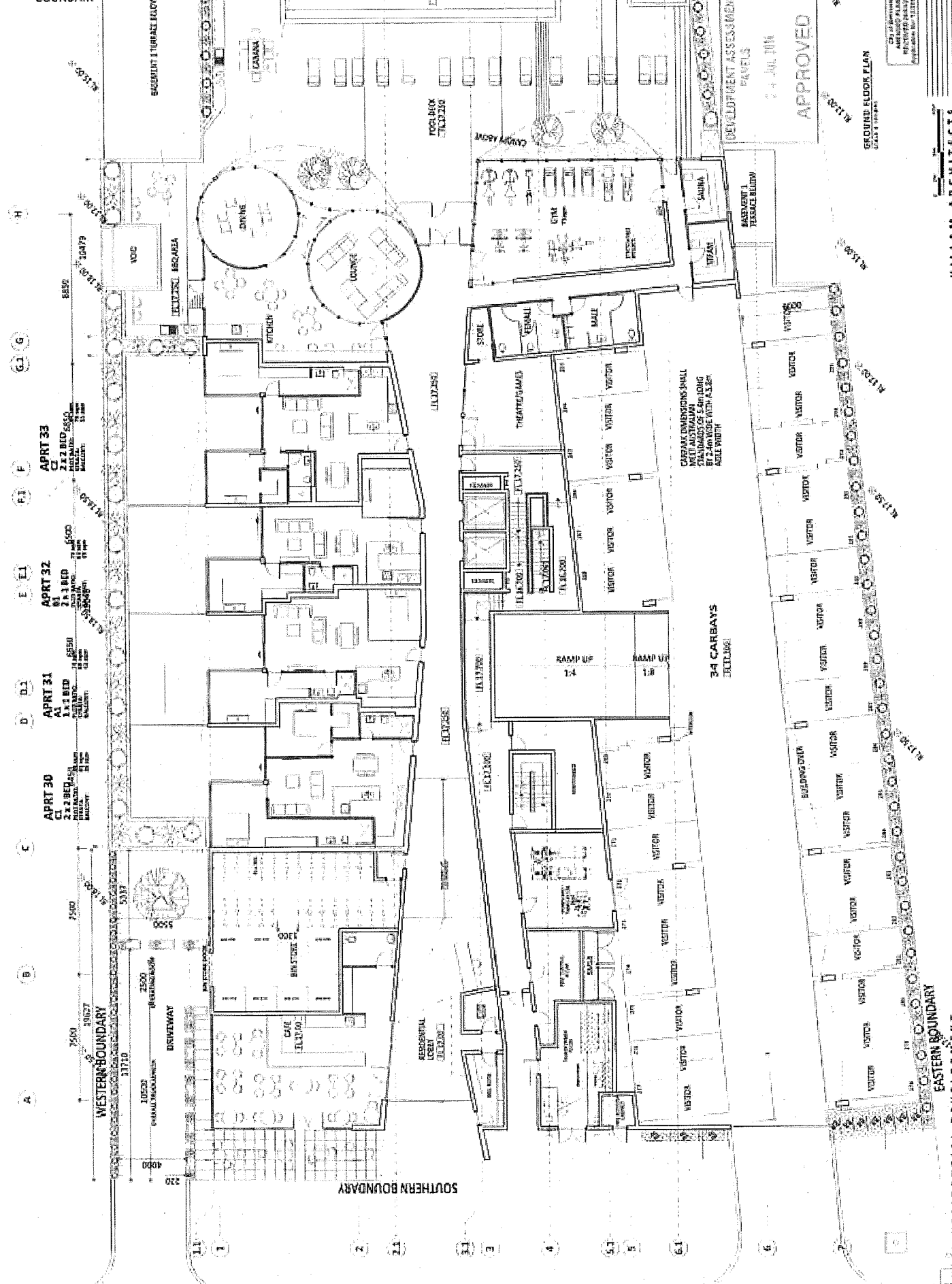
EASTERN BOUNDARY
MULTI-RESIDENTIAL DEVELOPMENT
LOT 603, RIVERSDALE ROAD, SPRINGGS

SK12-02

10M SETBACK FROM NORTHERN BOUNDARY

10M SETBACK FROM NORTHERN BOUNDARY

5K12-06



HILLAM ARCHITECTS

MULTI-RESIDENTIAL DEVELOPMENT
10701 BIVENS ROAD, SPRING

CARBAY DIMENSIONS SHALL
COMPLY WITH ALL APPLICABLE
CITY ORDINANCES AND BE
AT LEAST 2.4M WIDE WITH A 0.3M
ABLE PRIORITY

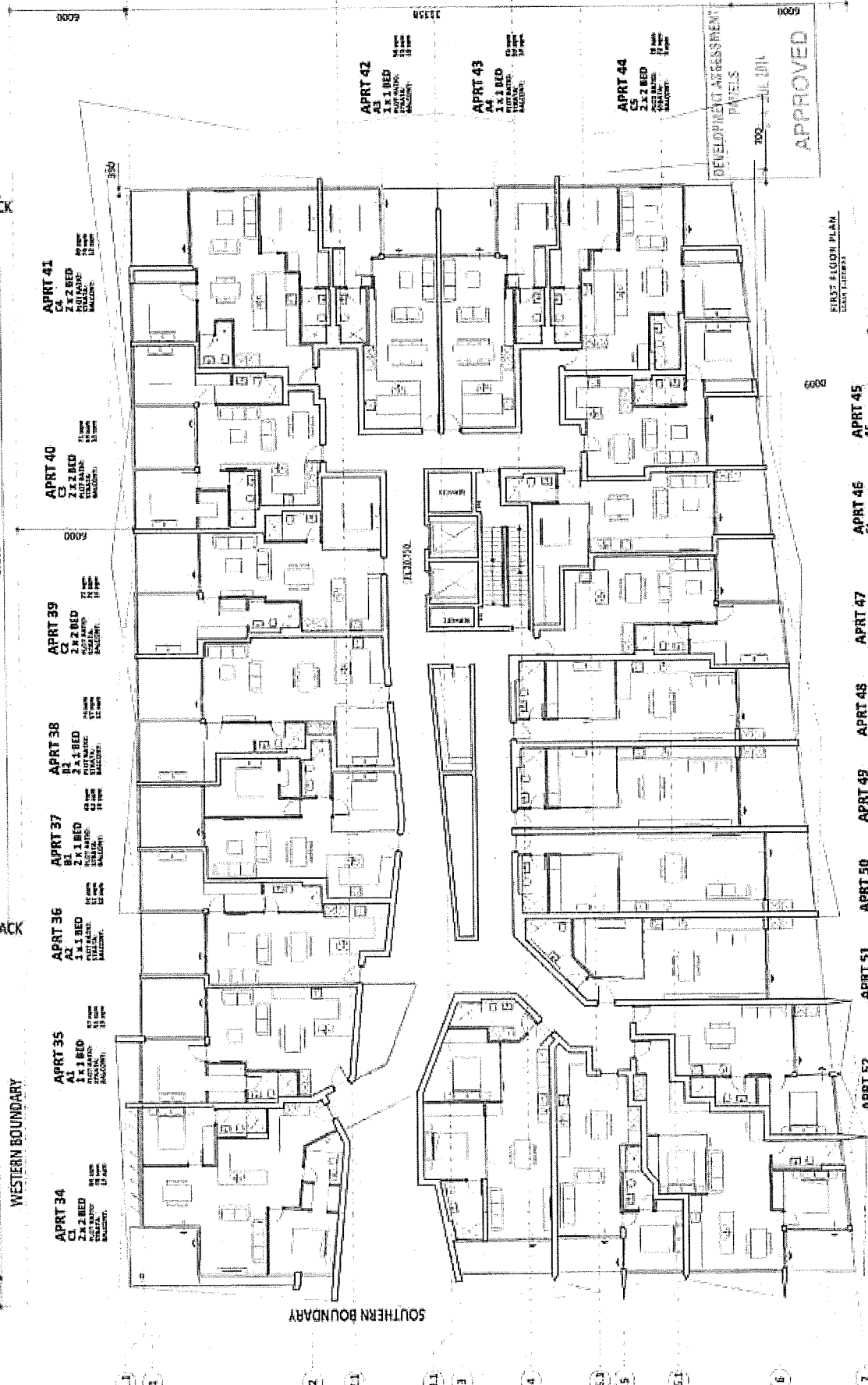
34 CARBAYS
TERRACE

DEVELOPMENT ASSESSMENT
DATE: 24 JUL 2016
APPROVED

GROUNDED FLOOR PLAN
DATE: 11/11/16

CITY OF BIRMINGHAM
RECEIVED
APPROVED FOR THE CITY

H 25M SETBACK
 8850
 6850
 6500
 57500
 6500
 6250
 6450
 8450
 7500
 1500
 19627
 C 20M SETBACK
 B
 A
 WESTERN BOUNDARY



APRT 34
 C1
 2x2 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 35
 A1
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 36
 A2
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 37
 B1
 2x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 38
 B3
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 39
 C4
 2x2 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 40
 C1
 2x2 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 41
 C4
 2x2 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 42
 A3
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 43
 A4
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 44
 S3
 2x2 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 45
 E1
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 46
 E1
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 47
 A6
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 48
 E2
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 49
 E3
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 50
 C4
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 51
 E3
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 52
 A7
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 53
 B3
 2x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 54
 A6
 1x1 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

APRT 55
 C6
 2x2 BED
 41 SQM
 12.5M² BALCONY
 10.5M² TERRACE
 1.5M² GARAGE

DEVELOPMENT ASSESSMENT
 PANELS
 APPROVED

FIRST FLOOR PLAN

COPY AS PRESENTED
 APPROVED PLAN
 REGISTERED ARCHITECT
 REGISTRATION NO. 112345678

HILLIAM ARCHITECTS

EASTERN BOUNDARY
 MULTI-RESIDENTIAL DEVELOPMENT
 LOT 603, RIVERSDALE ROAD, SPRING 5

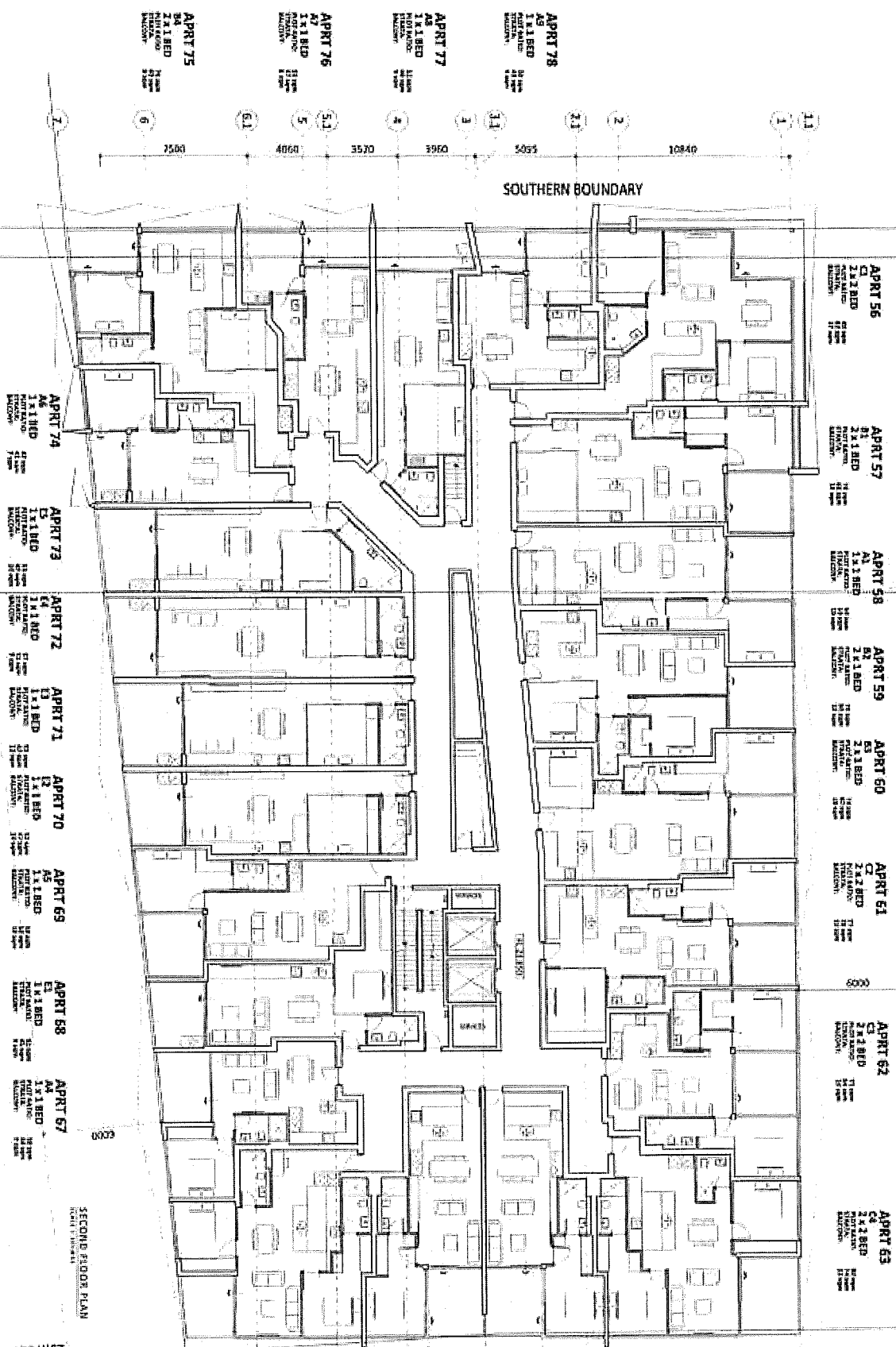
SK12-07

MULTI-RESIDENTIAL DEVELOPMENT
 LOT B03, RIVERSDALE ROAD, SPRINGS

EASTERN BOUNDARY

SOUTHERN BOUNDARY

WESTERN BOUNDARY



SECOND FLOOR PLAN
 NORTH IS NORTH

DEVELOPMENT ASSESSMENT
 PANEL 5
 2 JUL 2011
 APPROVED

APRT 66
 C5 2.2 BED
 1.5 BATH
 11.00M
 11.00M

APRT 65
 A3 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 64
 A2 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 63
 C6 2.2 BED
 1.5 BATH
 11.00M
 11.00M

APRT 62
 B2 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 61
 C2 2.2 BED
 1.5 BATH
 11.00M
 11.00M

APRT 60
 B3 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 59
 B2 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 58
 A1 2.2 BED
 1.5 BATH
 11.00M
 11.00M

APRT 57
 B1 2.1 BED
 1.5 BATH
 11.00M
 11.00M

APRT 56
 C1 2.2 BED
 1.5 BATH
 11.00M
 11.00M

APRT 78
 A3 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 77
 B3 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 76
 B2 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 75
 A2 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 74
 A6 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 73
 C3 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 72
 C4 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 71
 C3 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 70
 C2 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 69
 A5 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 68
 E1 1.1 BED
 1.0 BATH
 11.00M
 11.00M

APRT 67
 A4 1.1 BED
 1.0 BATH
 11.00M
 11.00M

HILLAM ARCHITECTS

5K12-08

FOR ALL DOCUMENTS
 RESERVEZ-TOURNAI
 ADMINISTRATION DE L'ENVIRONNEMENT

10M SETBACK

CITY OF BOSTON
DEPARTMENT OF PLANNING
APPROVALS DIVISION
Application No. 201811004P

SK12-09

25M SETBACK

25M SETBACK

6410 6550 6500 6550 6550 6550 6550
A B C D E F G H
37500
5000 5000 5000 5000
APR79 APR80 APR81
C1 2 BED 51 SQ FT 24 UNITS
C2 2 BED 51 SQ FT 24 UNITS
C3 2 BED 51 SQ FT 24 UNITS

20M SETBACK

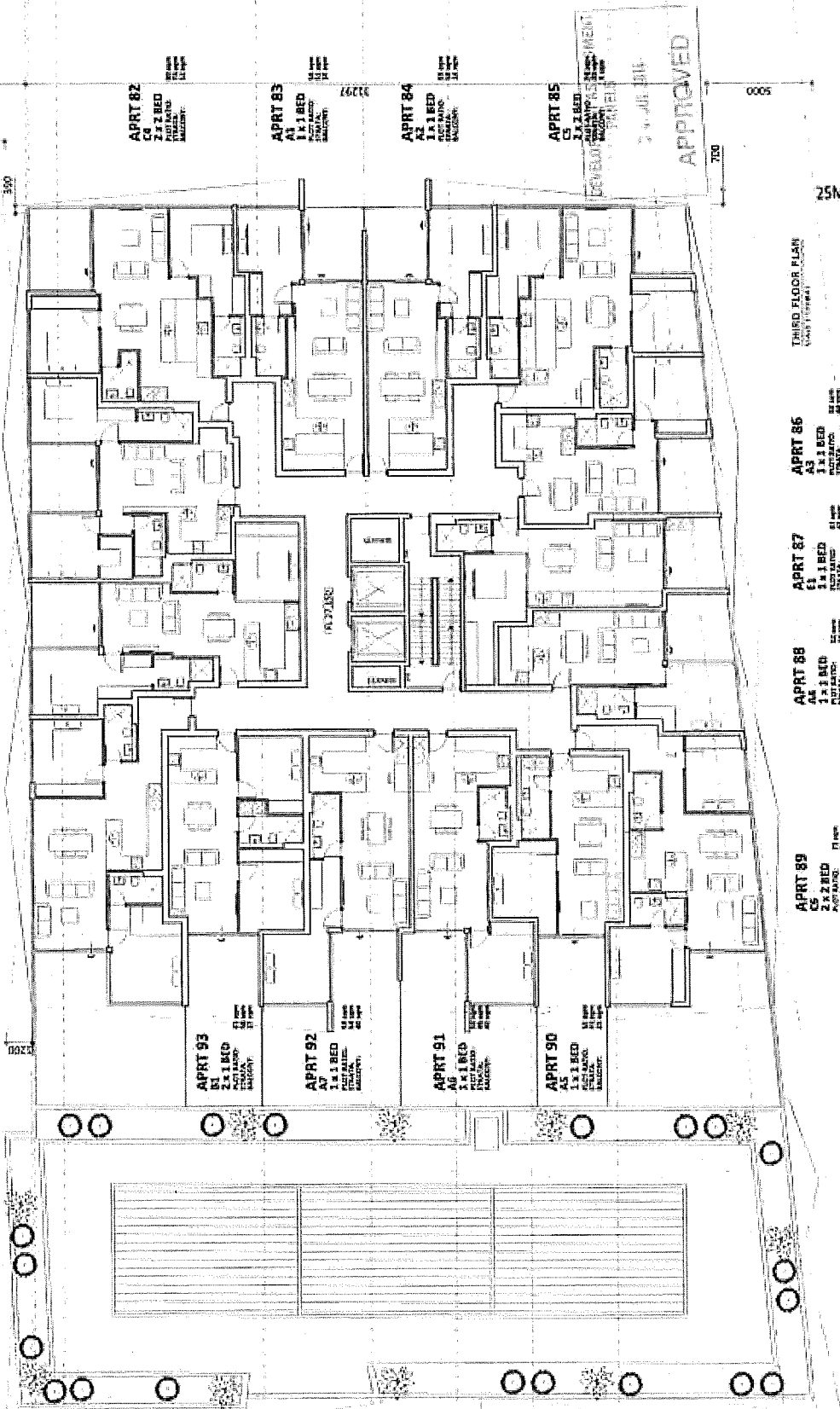
20M SETBACK

WESTERN BOUNDARY
15773

EASTERN BOUNDARY

SOUTHERN BOUNDARY

1 2 3 4 5 6 7



APPROVED
3 24 2018
CONVEYANCE TO THE CITY OF BOSTON

THIRD FLOOR PLAN
VOID THROUGH

MILLAM ARCHITECTS

MULTI-RESIDENTIAL DEVELOPMENT
LOT 603, RIVERSDALE ROAD, SPRINGS

10M OFFSET
10M SETBACK

25M SETBACK

8450

8650

8850

9050

9250

9450

9650

9850

10050

10250

10450

10650

10850

11050

11250

11450

11650

11850

12050

12250

12450

12650

12850

13050

13250

13450

13650

WESTERN BOUNDARY

SOUTHERN BOUNDARY

OPETE

700

FOURTH THROUGH TENTH FLOOR PLAN
CSZ TIER 2B

25M SETBACK

6000

20M SETBACK

10M SETBACK

APR 97, 112, 127
142, 157, 172, 187
C4
2 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 98, 113, 128
143, 158, 173, 188
A1
2 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 99, 114, 129
144, 159, 174, 189
A2
2 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 100, 115, 130
145, 160, 175, 190
C5
2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 96, 111, 126
141, 156, 171, 186
C3
2 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 95, 110, 125
140, 155, 170, 185
C2
2 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 94, 109, 124
139, 154, 169, 184
C1
2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 108, 123, 138
153, 168, 183, 198
B1
2 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 107, 122, 137
152, 167, 182, 197
A7
1 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 106, 121, 136
151, 166, 181, 196
A6
1 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 105, 120, 135
150, 165, 180, 195
A5
1 X 2 BED
PLAN AREA:
112 SQM
MAGNETY

APR 101, 116, 131
146, 161, 176, 191
A3
1 X 1 BED
PLAN AREA:
112 SQM
MAGNETY

APR 102, 117, 132
147, 162, 177, 192
C6
1 X 1 BED
PLAN AREA:
112 SQM
MAGNETY

APR 103, 118, 133
148, 163, 178, 193
C7
1 X 1 BED
PLAN AREA:
112 SQM
MAGNETY

APR 104, 119, 134
149, 164, 179, 194
C8
2 BED
PLAN AREA:
112 SQM
MAGNETY

DEVELOPMENT ASSESSMENT
PAID
2.1 JUL 2011
APPROVED

CITY OF BIRMINGHAM
APPROVED BY PLANNING DEPARTMENT
APPROVED FOR: 10/20/11

HILLIAM ARCHITECTS
101 603 RIVERSDALE ROAD, SPRINGSBURG, MO 65762
PH: 417-531-1100
WWW.HILLIAMARCHITECTS.COM

EASTERN BOUNDARY
MULTI-RESIDENTIAL DEVELOPMENT
101 603 RIVERSDALE ROAD, SPRINGSBURG, MO 65762
PH: 417-531-1100
WWW.HILLIAMARCHITECTS.COM

SK12-10

10M SETBACK

10M SETBACK

25M SETBACK

25M SETBACK

20M SETBACK

20M SETBACK

WESTERN BOUNDARY
3095W

EASTERN BOUNDARY
MULTI-RESIDENTIAL DEVELOPMENT
LOT 603, RIVERSDALE ROAD, SPRINGS

A B C D E F G

1 2 3 4 5 6 7

8450 6350 6500 6850 34607

APR 201
D1
3 x 2 BED
142 SQM
120 SQM
120 SQM
BALCONY

APR 200
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

APR 199
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

APR 208
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

APR 207
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

APR 206
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

APR 202
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

APR 203
D2
3 x 2 BED
142 SQM
120 SQM
120 SQM
BALCONY

APR 204
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

APR 205
C1
2 x 2 BED
100 SQM
80 SQM
80 SQM
BALCONY

ELEVENTH FLOOR PLAN
RESIDENTIAL

DEVELOPMENT ASSESSMENT
PARTICULARS
APR 201-208
APPROVED

City of Brisbane
REGISTRATION NO. 1402301X
Apprenticeship No. 142211424P

HILLAM ARCHITECTS

SR12-11

10m OFFSET
10M SETBACK

10M SETBACK

CITY OF BATHURST
APPROVED
RECEIVED: 28/02/2014
Application No: 12/2013/CDM

DEVELOPMENT ASSESSMENT
APPROVED

5812-12

HILLIAM ARCHITECTS

25M SETBACK

25M SETBACK

25M SETBACK

14607

8550

8550

8550

8550

8150

37694

APRT 211
D1
3 x 2 BED
150 SQM
150 SQM
150 SQM

APRT 210
C1
2 x 2 BED
100 SQM
100 SQM
100 SQM

APRT 209
C1
2 x 2 BED
100 SQM
100 SQM
100 SQM

APRT 218
C1
2 x 2 BED
100 SQM
100 SQM
100 SQM

APRT 217
C1
2 x 2 BED
100 SQM
100 SQM
100 SQM

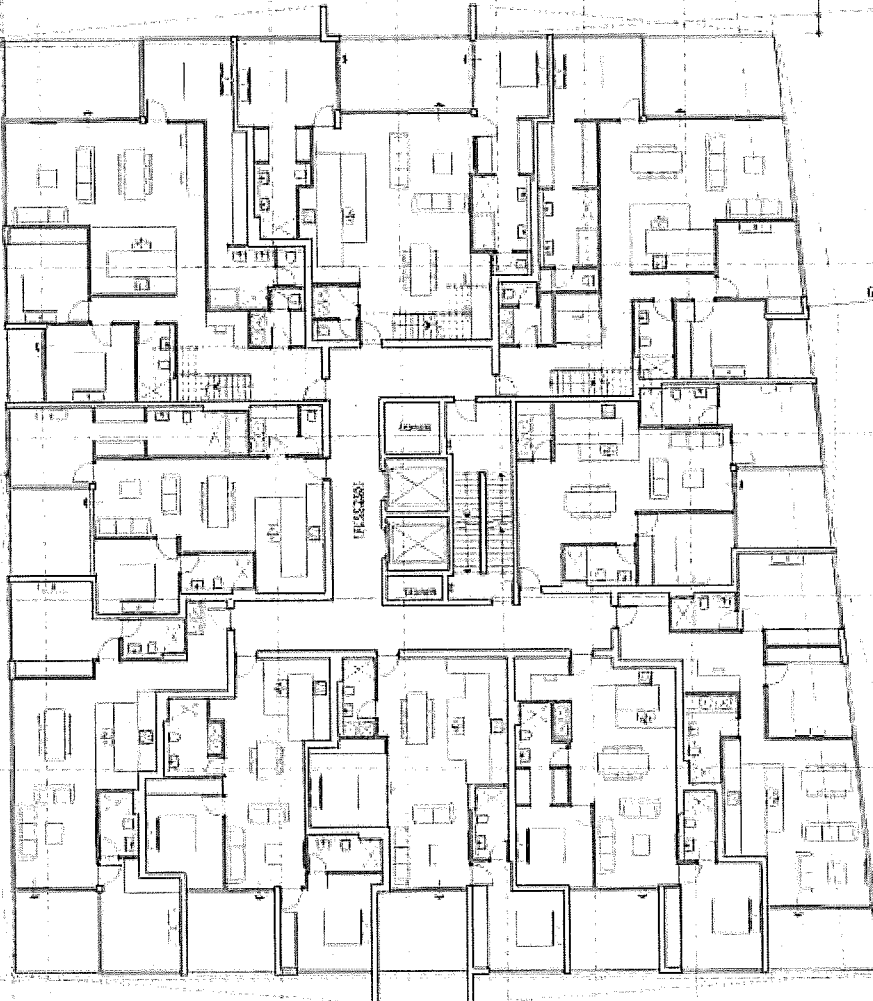
APRT 216
C1
2 x 2 BED
100 SQM
100 SQM
100 SQM

APRT 213
D1
3 x 2 BED
150 SQM
150 SQM
150 SQM

APRT 214
D1
3 x 2 BED
150 SQM
150 SQM
150 SQM

APRT 215
C1
2 x 2 BED
100 SQM
100 SQM
100 SQM

APRT 212
C1
2 x 2 BED
100 SQM
100 SQM
100 SQM



WESTERN BOUNDARY
E9933

SOUTHERN BOUNDARY

EASTERN BOUNDARY
MULTI-RESIDENTIAL DEVELOPMENT
LOT 603, RIVERSDALE ROAD, SPRINGS

A B C D E F G H

1 2 3 4 5 6 7

10030

5995

3950

3970

4060

7500

700

6000

10M SETBACK

10M SETBACK

25M SETBACK

25M SETBACK

20M SETBACK

20M SETBACK

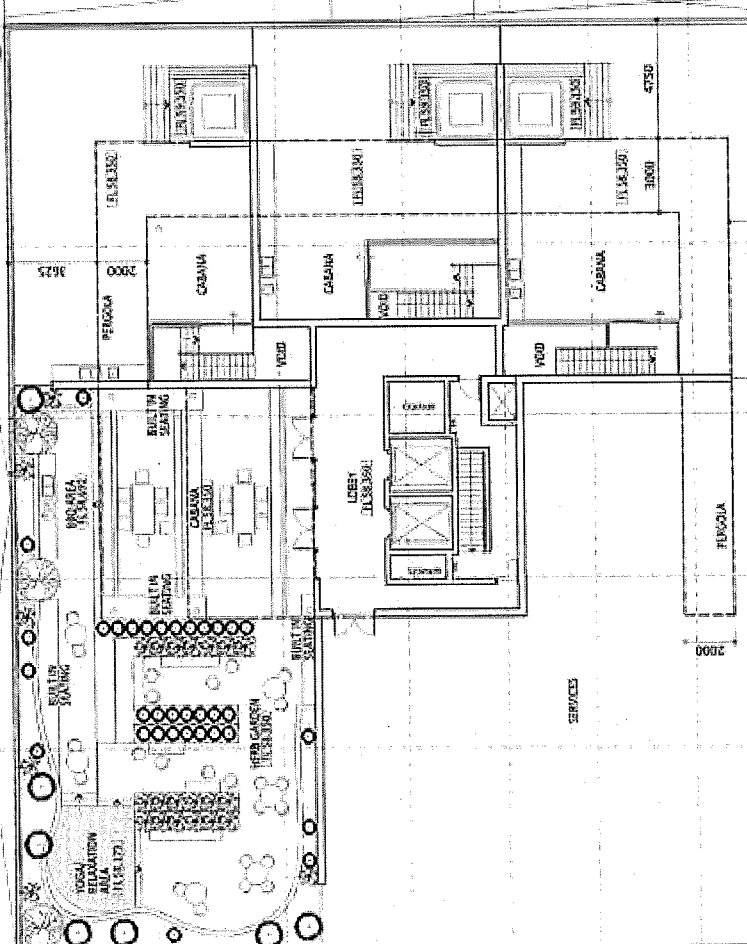
WESTERN BOUNDARY

SOUTHERN BOUNDARY

EASTERN BOUNDARY
MULTI-RESIDENTIAL DEVELOPMENT
LOT 603, RIVERSDALE ROAD, SPRINGS

H
G
F
E
D
C
B
A

1.1 1 2 2.1 3.1 3 4 5.1 5 6.1 6 7



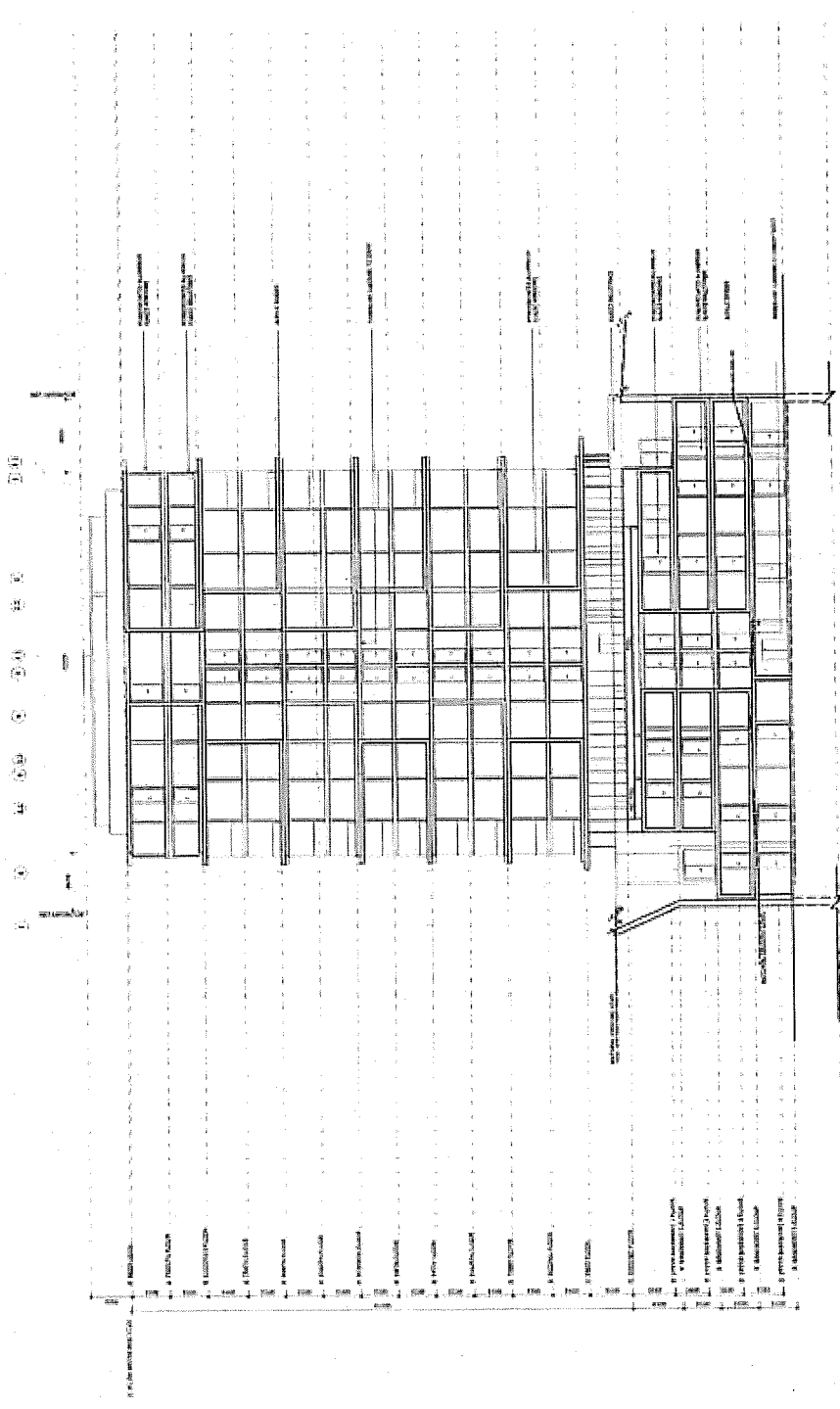
DEVELOPMENT ASSESSMENT
APPROVED

City of Adelaide
Development Assessment
RECEIVED: 28/03/18
Application No: 17794/2017

HILLAM ARCHITECTS

SK12-13

ROOF TERRACE PLAN
ASAT 2018/04/04



DEVELOPMENT ASSESSMENT
 PANELS
 14 JUL 2011
 APPROVED

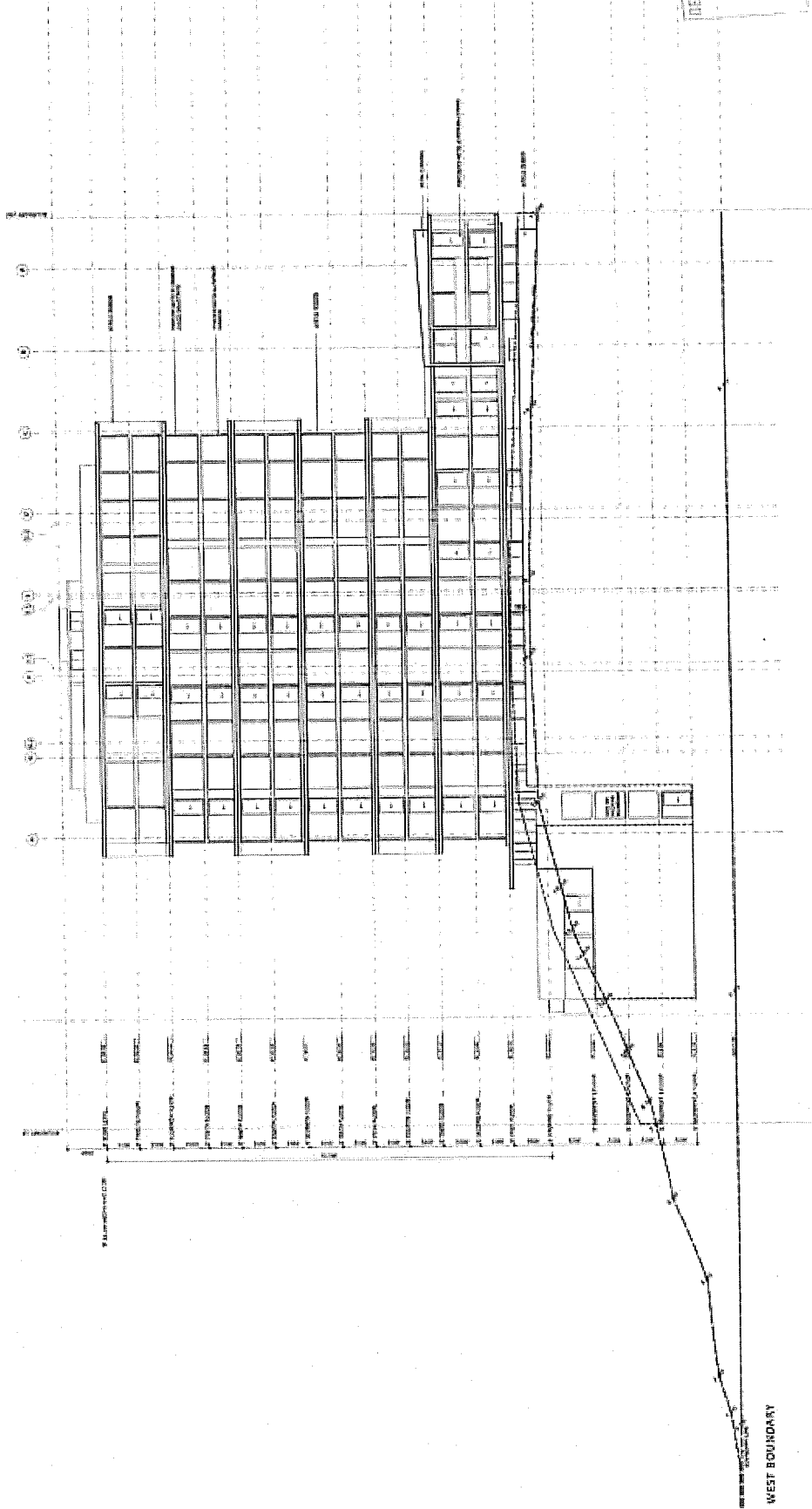
NORTH ELEVATION
 SCALE 1/8"=1'-0"

MULTI-RESIDENTIAL DEVELOPMENT
 LOT 603, RIVERSDALE ROAD, SPRINGS

HILLAM ARCHITECTS
 ARCHITECTS

SK12-15

City of Springs
 City of ID, FL 304
 RECEIVED 2012/07/14
 Application No: 120011ADP



DEVELOPMENT ASSESSMENT
 SPANES
 24 JUL 2018
 APPROVED

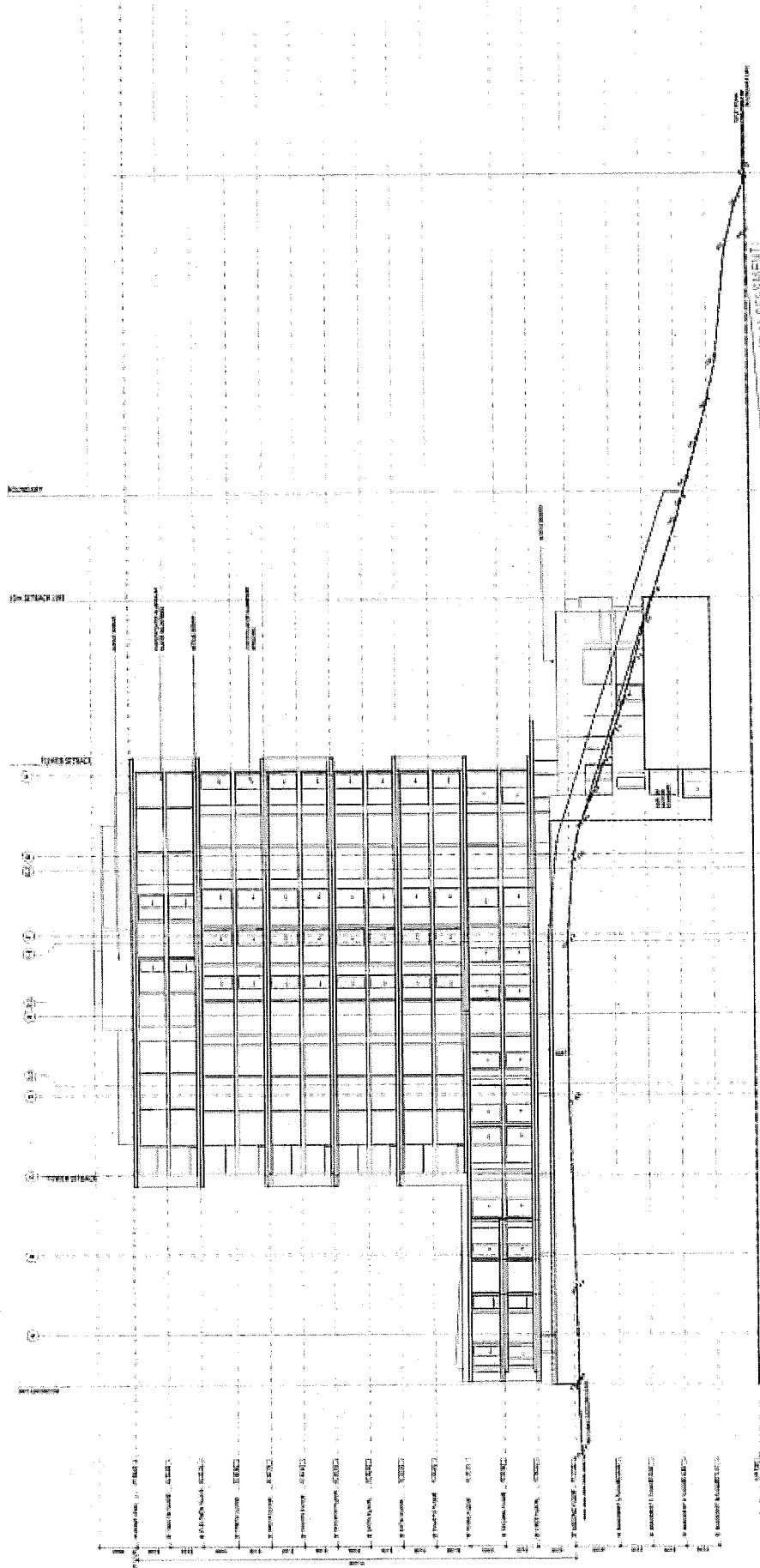
City of Baltimore
 MEMORANDUM
 RECORD NO. 1502014
 Application No. 1502013/04P

HILLAM ARCHITECTS
 1111 N. EIGHTH STREET, SUITE 200
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 FAX: 410.524.1112
 WWW.HILLAMARCHITECTS.COM

MULTI-RESIDENTIAL DEVELOPMENT
 LOT 603, RIVERSDALE ROAD, SPRINGS

WEST ELEVATION
 SCALE: 1/8"=1'-0"

SK 12-14



DEVELOPMENT ASSESSMENT
 PARCELS
 20 APR 2011
 APPROVED

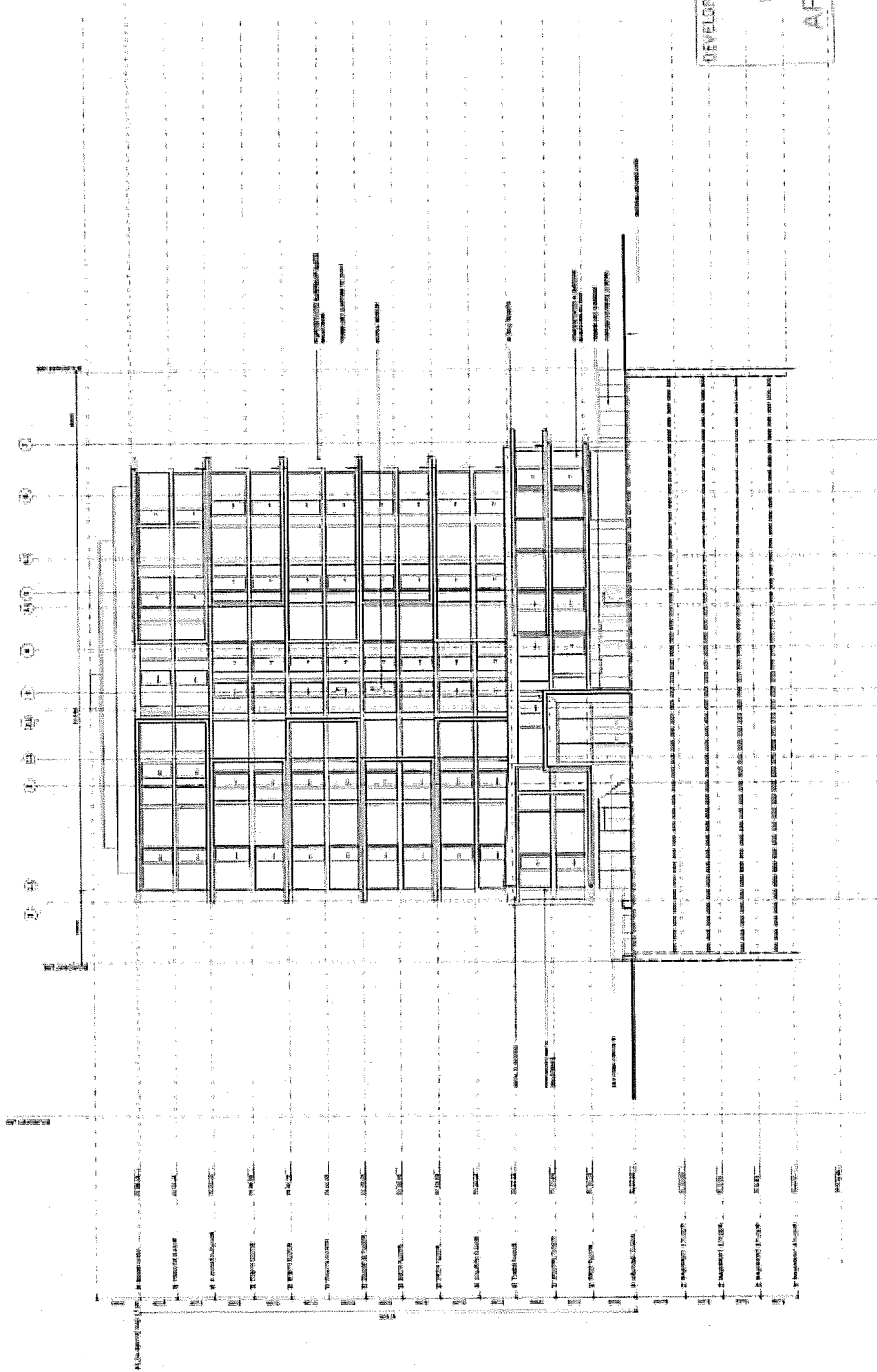
City of Belmont
 AMENDED PLANS
 RECEIVED 2/20/2011
 Application No. 110070041

EAST ELEVATION
 SCALE 1/3200=1

HILLAM ARCHITECTS

MULTI-RESIDENTIAL DEVELOPMENT
 107 E. J. RIVERSDALE ROAD, SPRING

5/12-16



DEVELOPMENT ASSESSMENT
 PROJECT
 JUL 2014
 APPROVED

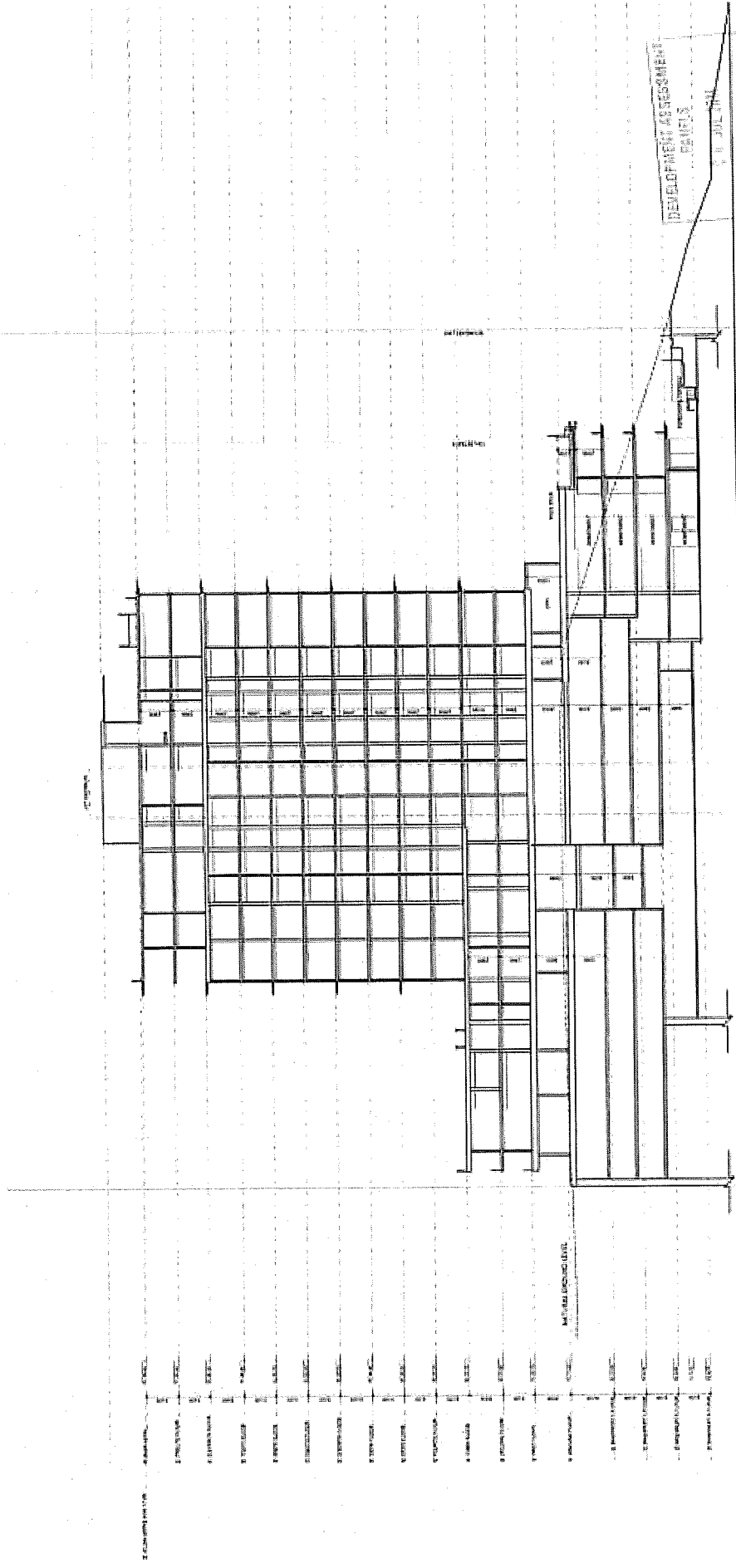
CITY OF SPRING
 AMENDED PLANS
 RECEIVED 06/03/2014
 Application No. 122813DAP

HILLAM ARCHITECTS
 11111 RIVERSIDE ROAD, SPRING, TX 77051
 (281) 499-1111
 www.hillamarchitects.com

MULTI-RESIDENTIAL DEVELOPMENT
 107 801 RIVERSIDE ROAD, SPRING

SOUTH ELEVATION
 SCALE 1/8"=1'-0"

SK12-17



SECTION AA
SOUTH ELEVATION

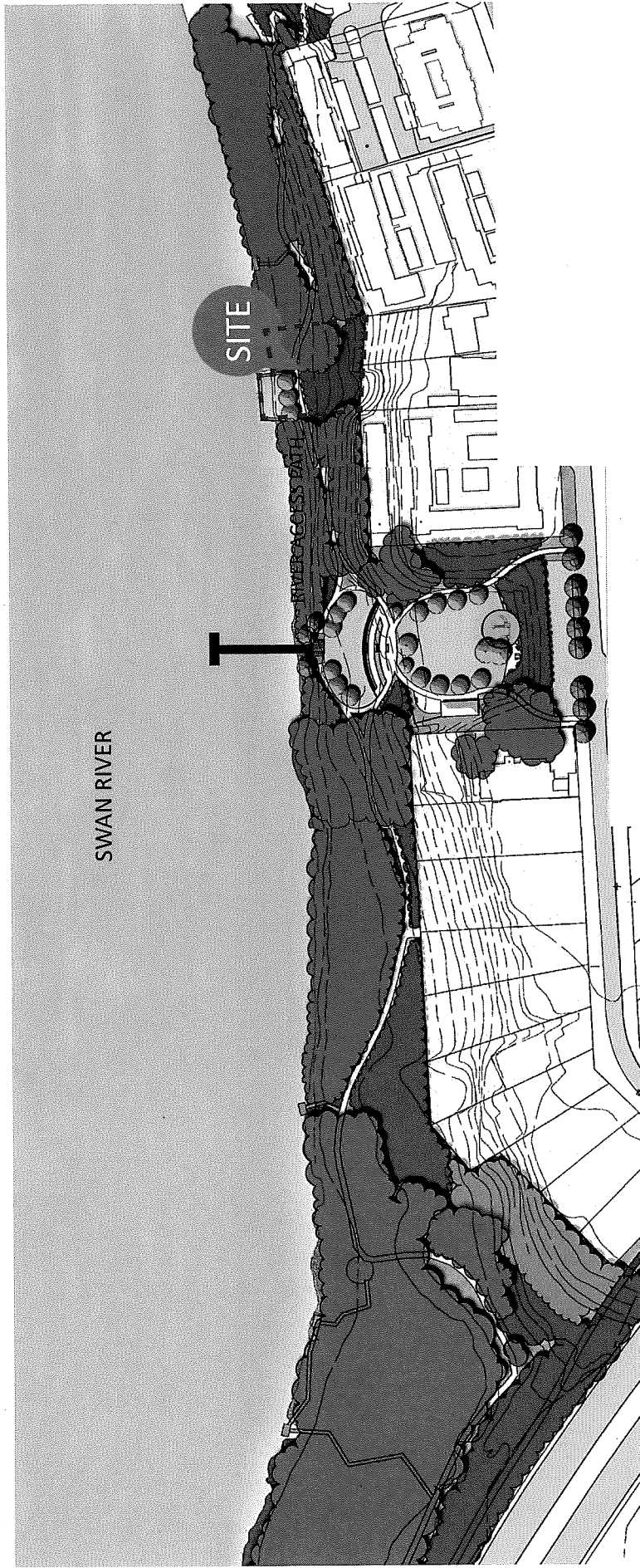
DEVELOPMENT AGREEMENT
 PANELS
 18 JULY 2011
 APPROVED

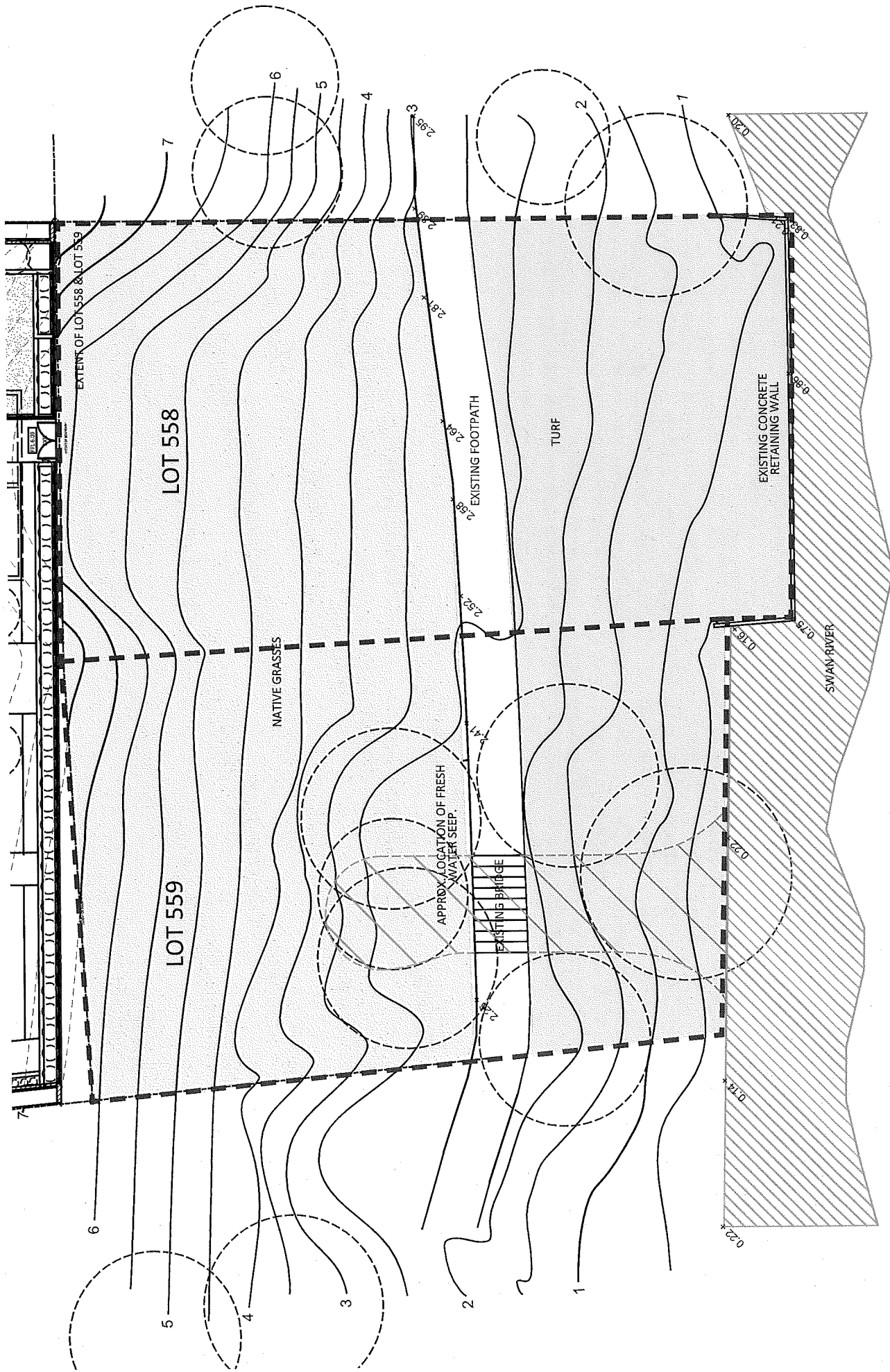
City of Belmont
 APPROVED PLAIN
 RECEIVED 11/15/11
 Application No. 028110048

HILLAM ARCHITECTS

MULTI-RESIDENTIAL DEVELOPMENT
 LOT 603, RIVERSDALE ROAD, SPRINGS

SK12-1R





VANTAGE - STORMWATER SWALE
 LOTS 558 & 559 RIVERSDALE ROAD, RIVERVALE
 EDGE VISIONARY LIVING



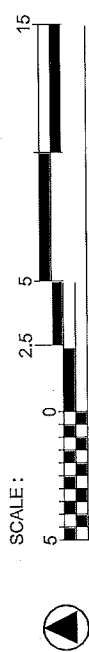
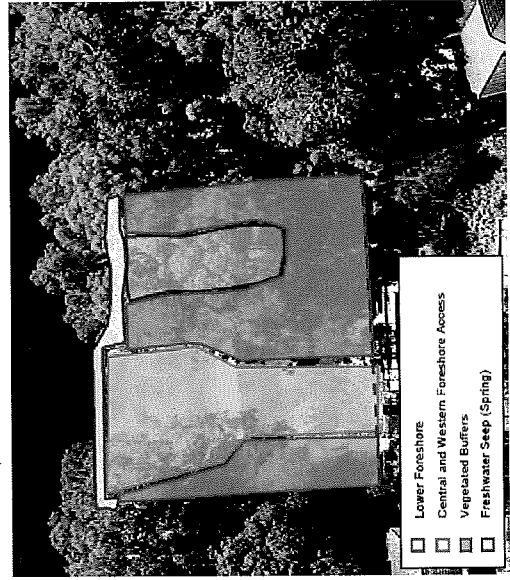
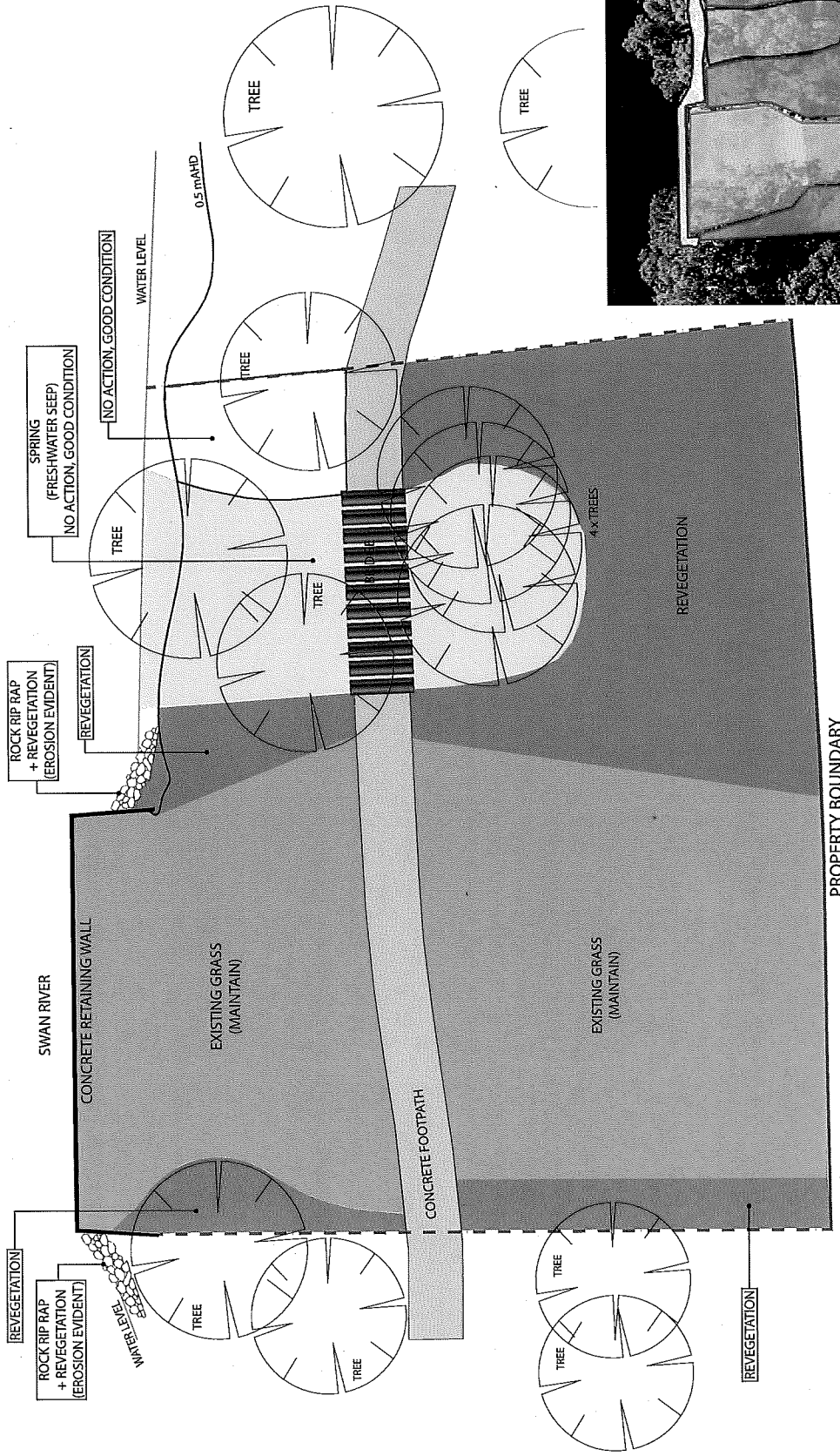
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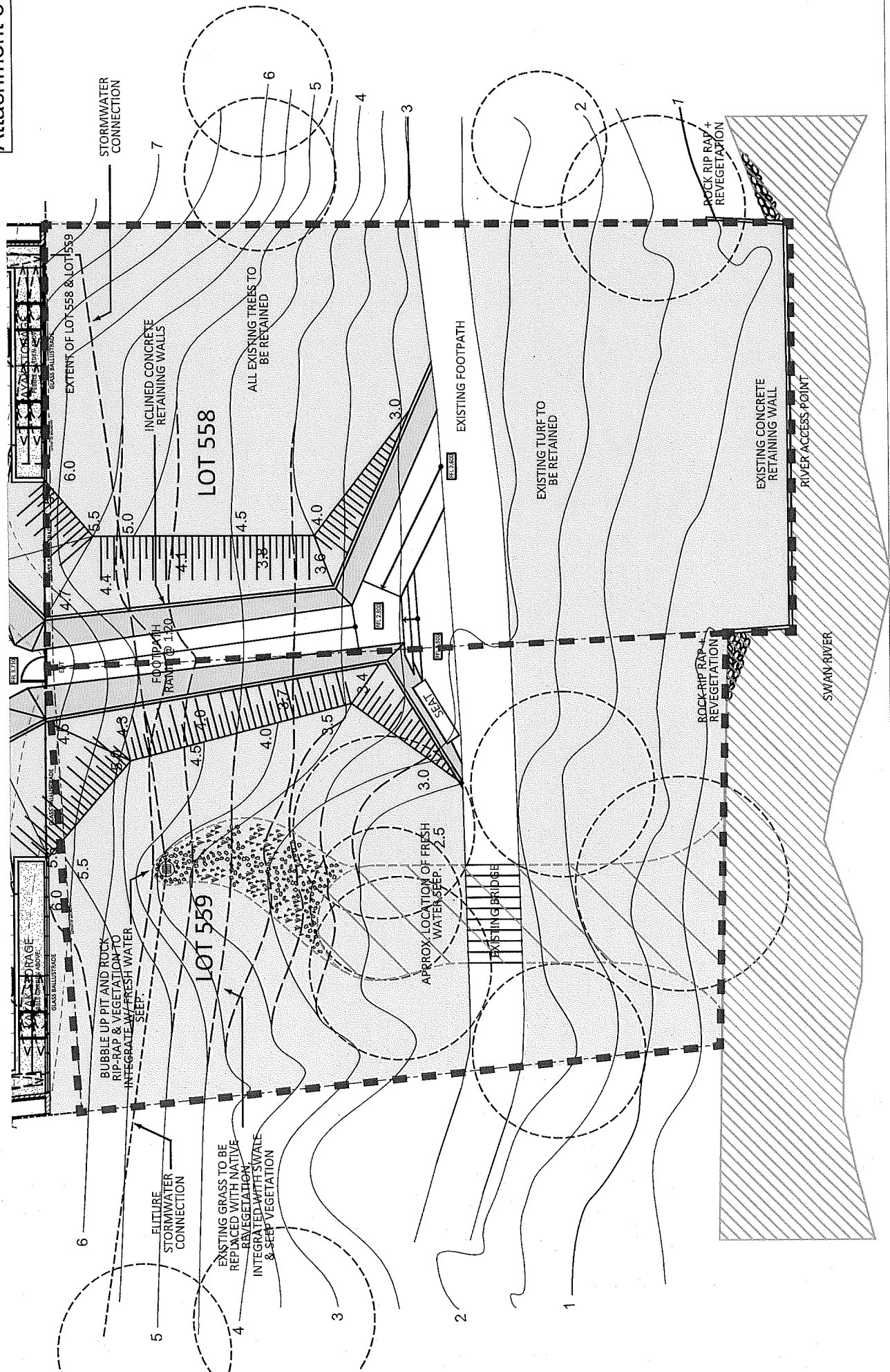
SCALE
 1:200



DATE ISSUED 20.06.17
 DRAWN NAME EXISTING BASEMENT 4

DWG No. SK-004
 REV 3





DWG No. SK-005
REV 1

DATE ISSUED 20.06.17
DRAWN BY PROPOSED BASEMENT 4 & PEDESTRIAN PATH

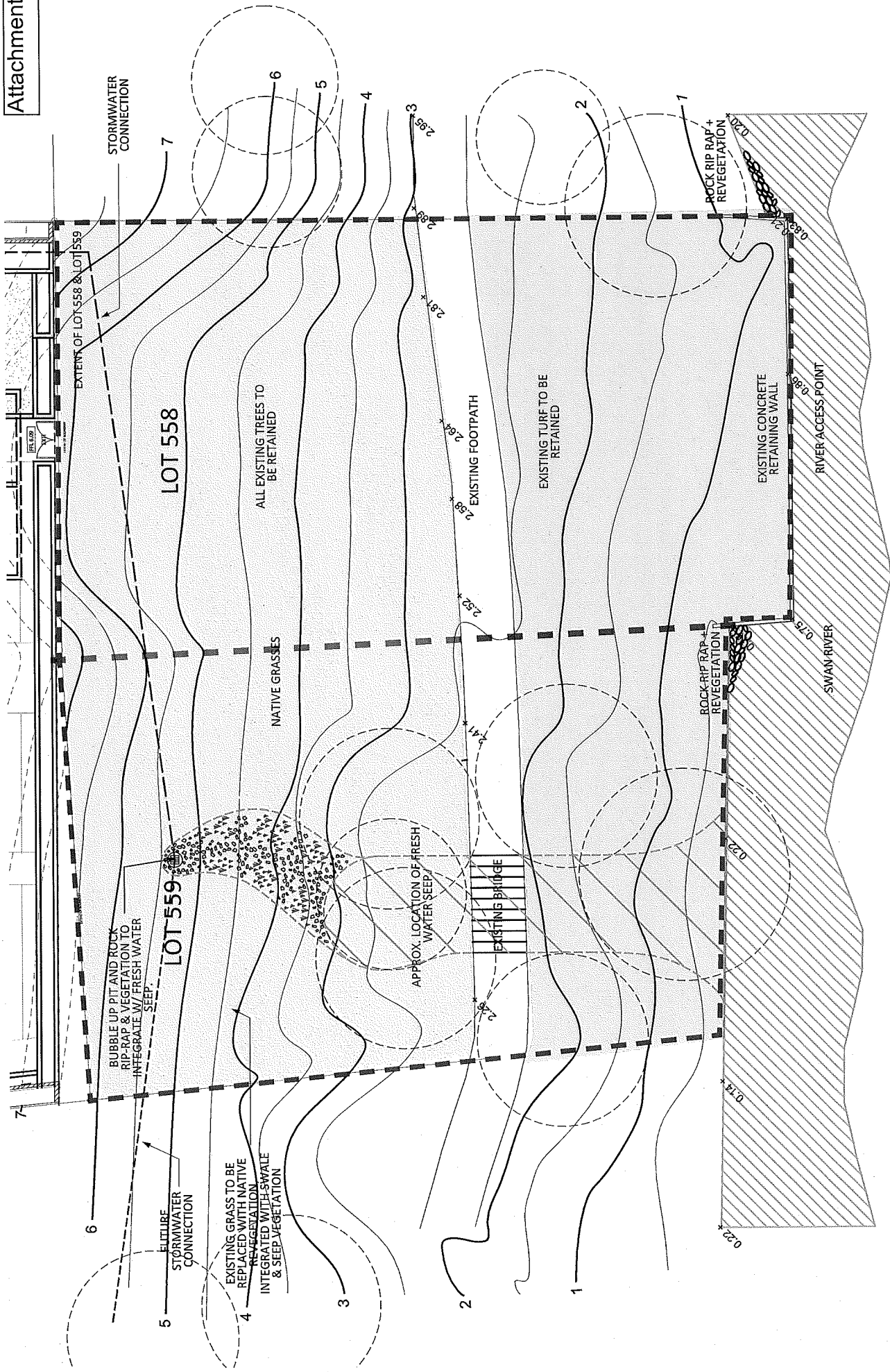


SCALE 1:1000
NTS

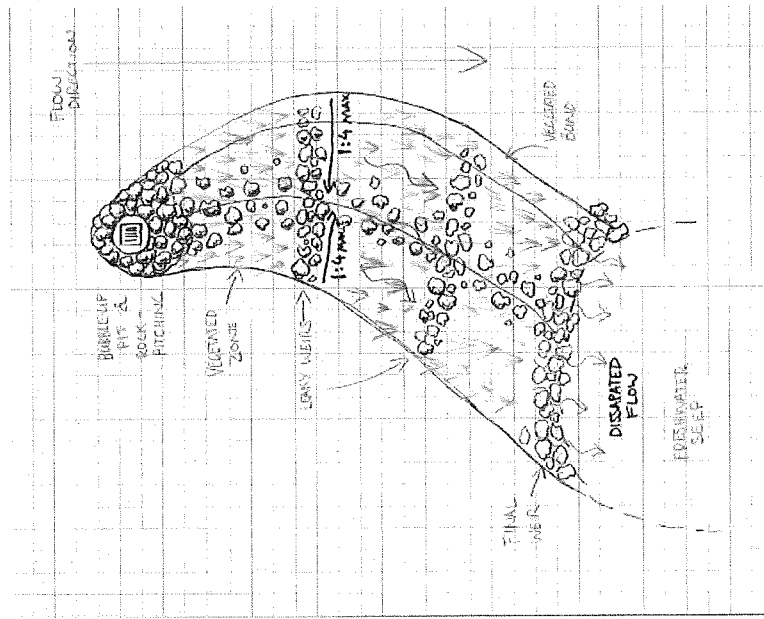
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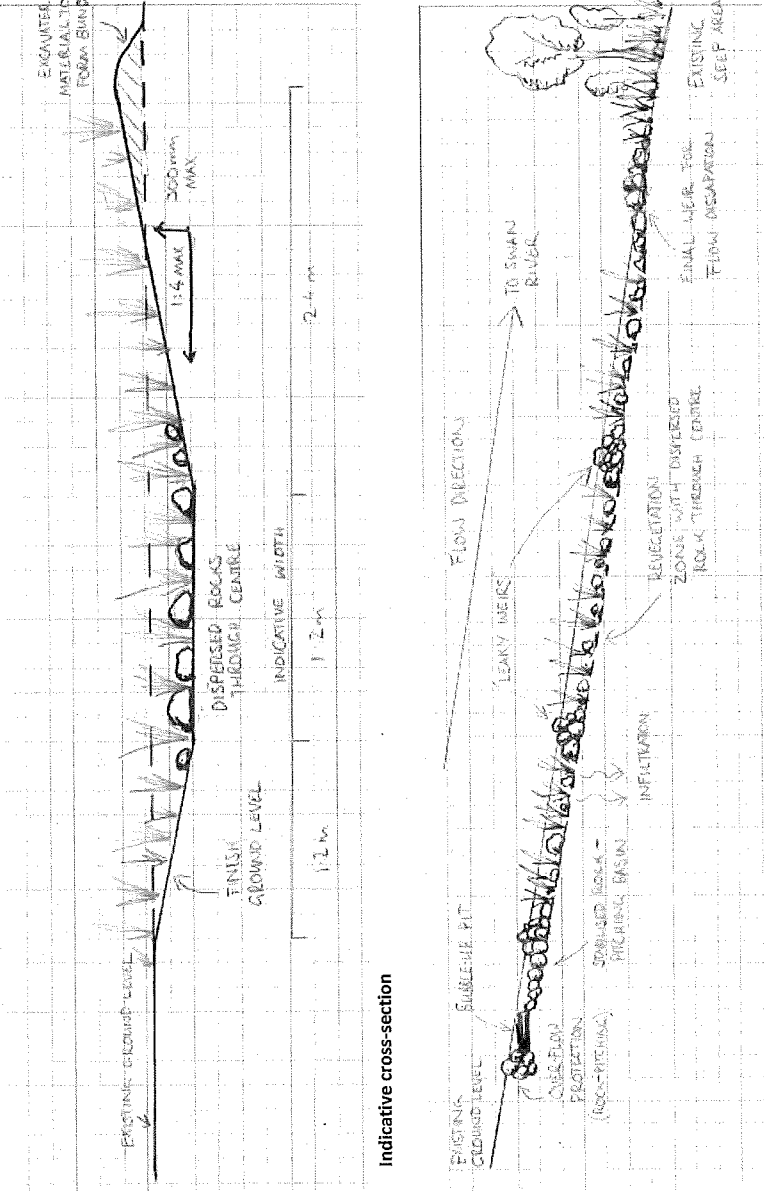
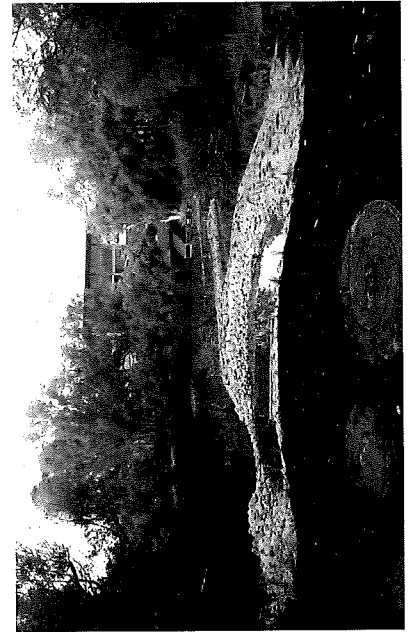
VANTAGE - RIVER ACCESS PATH
LOTS 558 & 559 RIVERSDALE ROAD, RIVERVALE
EDGE VISIONARY LIVING



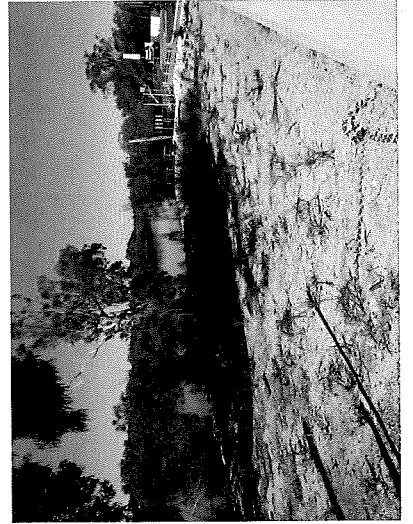
Vantage Riverside Apartments Stormwater Discharge Revised Option – Vegetated infiltration swale



Indicative concept plan



Indicative cross-section



Indicative longitudinal section

