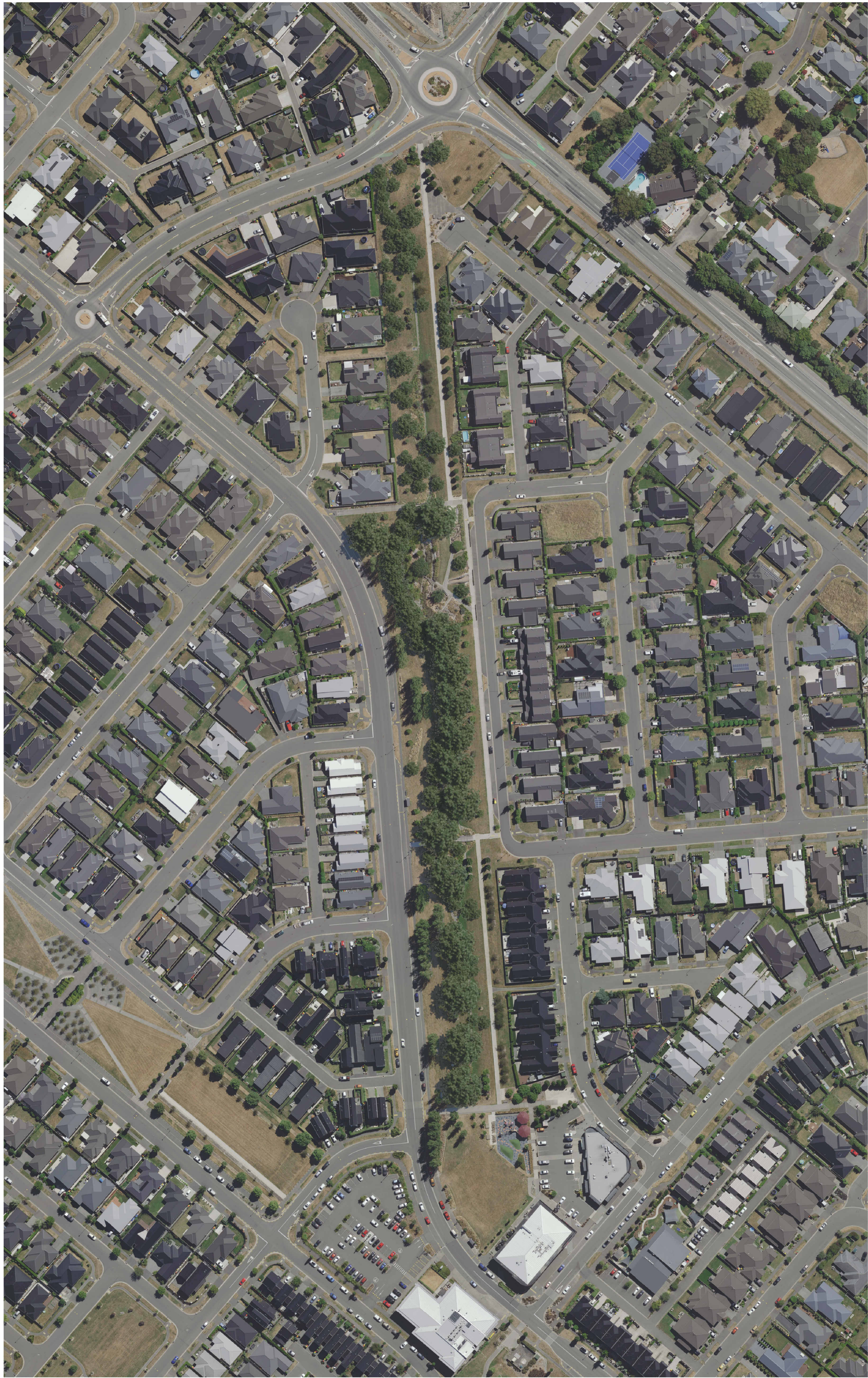




# Urban Forest Tree Planting Caulfield Drainage Reserve

PROJECT NUMBER: **BM240711** Concept Design

PROJECT ADDRESS: Caulfield Drainage Reserve,  
Halswell, Christchurch  
8025

CLIENT: Christchurch City Council

CLIENT ADDRESS: 53 Hereford Street  
Christchurch Central  
Christchurch 8013  
New Zealand

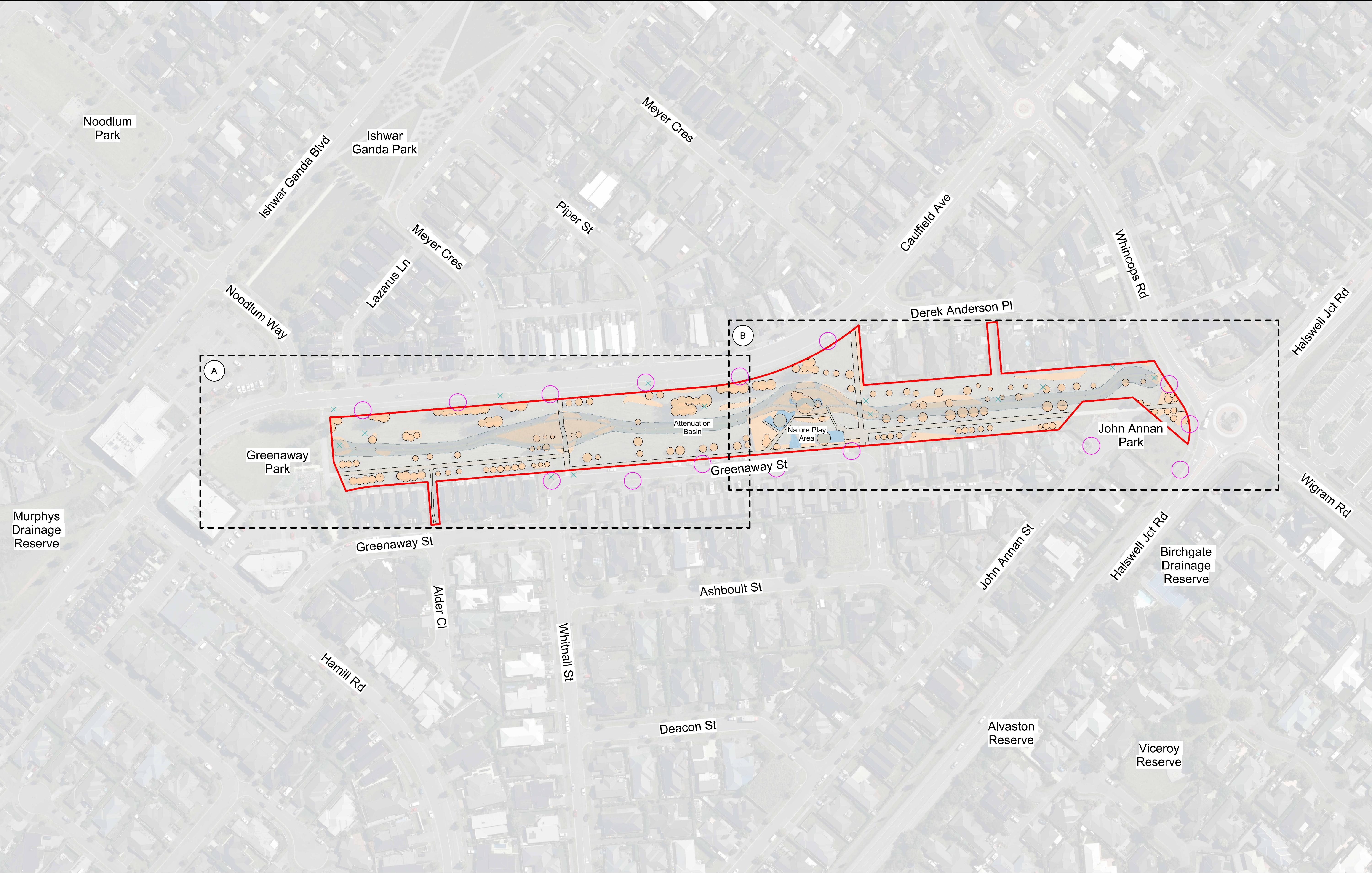


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141 Cambridge Terrace  
Christchurch 8013  
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www.boffamiskell.co.nz

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| A   | 12.12.2025 | Concept Design Draft |

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  - 210 Tree Height Capacities
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  - 300 Cross Section Studies of Potential Tree Heights
  - 301 Cross Section Studies of Potential Tree Heights
- 500 Planting**
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  - 501 Planting Plan



ORIGINAL IN COLOUR

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LEGEND

Existing Canopy Cover

Existing Lower Vegetation

Existing Lower Vegetation

Existing Pathways and Features

Existing Play Area

Lightpole Clearance

Stormwater Nodes

Vegetation cover mapped based on LINZ aerial photography dated September 2025, with site visit to verify existing conditions.

Existing Specimen Trees - 164

Existing Canopy Cover - 2526.11 m<sup>2</sup>

12.9%

Canopy coverage to existing site

REV DATE

A 12.12.2025

DESCRIPTION

Concept Design Draft

APR

HCO

Urban Forest Tree Planting

Caulfield Drainage Reserve

Existing Site

Design SYo

Drawn SYo

Check HCO

Scale

1:1000 @ A1

1:2000 @ A3

Date

12.12.2025

CONCEPT DESIGN

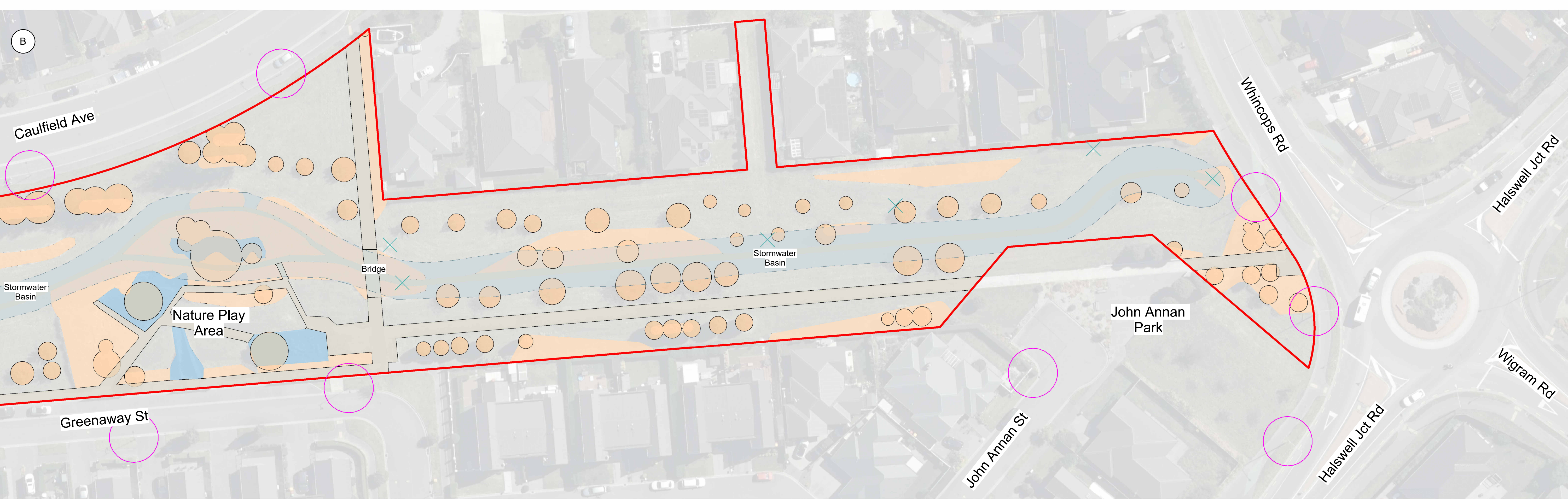
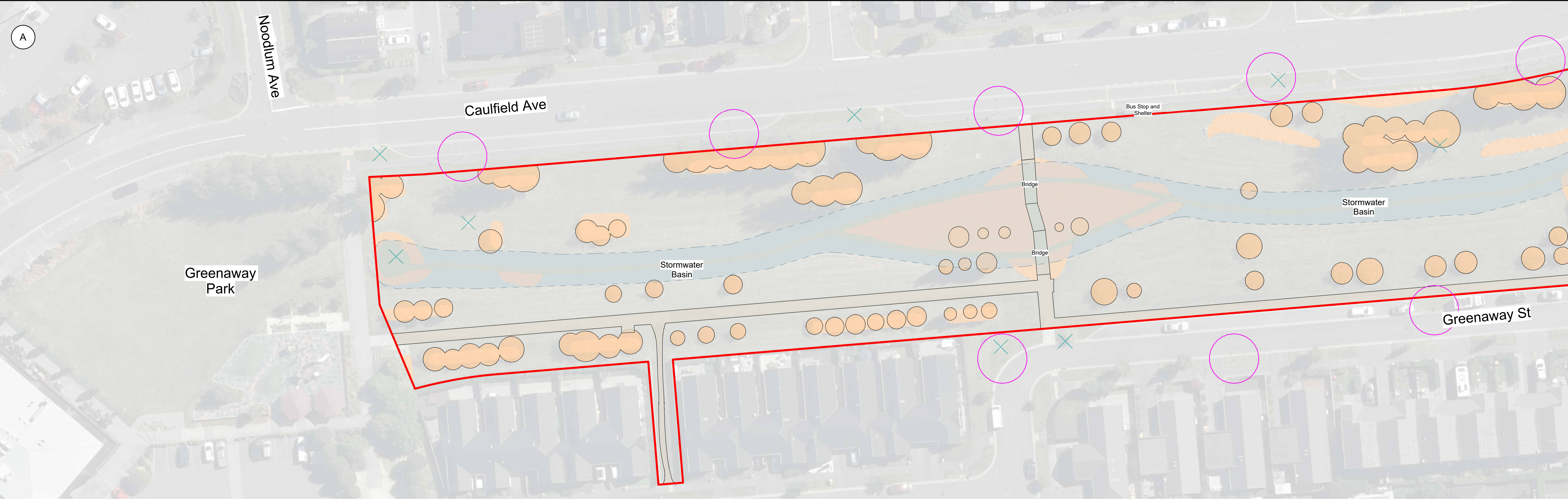
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ORIGINAL IN COLOUR

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LEGEND

Existing Canopy Cover

Existing Lower Vegetation

Existing Lower Vegetation

Existing Pathways and Features

Existing Play Area

Lightpole Clearance

Stormwater Nodes

Vegetation cover mapped based on LINZ aerial photography dated September 2025, with site visit to verify existing conditions.

Existing Specimen Trees

Existing Canopy Cover

- 164

- 2526.11 m<sup>2</sup>

12.9%

Canopy coverage to existing site

REV DATE

A 12.12.2025

DESCRIPTION

Concept Design Draft

APR

HCO

Urban Forest Tree Planting

Caulfield Drainage Reserve

Existing Site

Design SYo

Drawn SYo

Check HCo

Scale

1:400 @ A1

1:800 @ A3

Date

12.12.2025

Concept Design

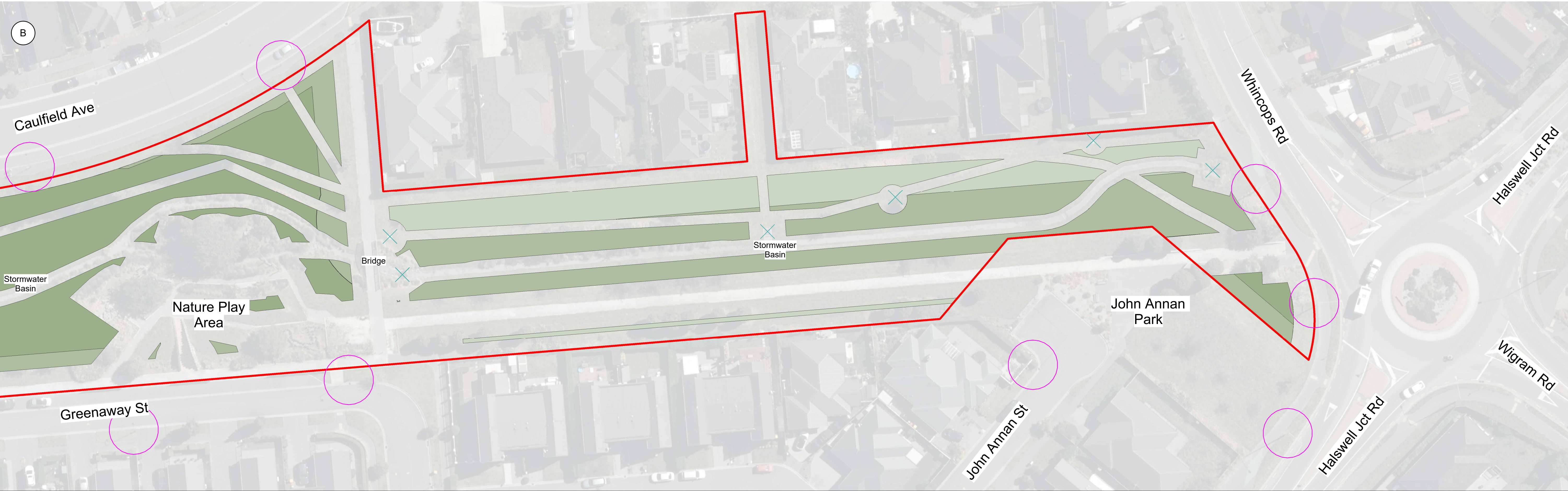
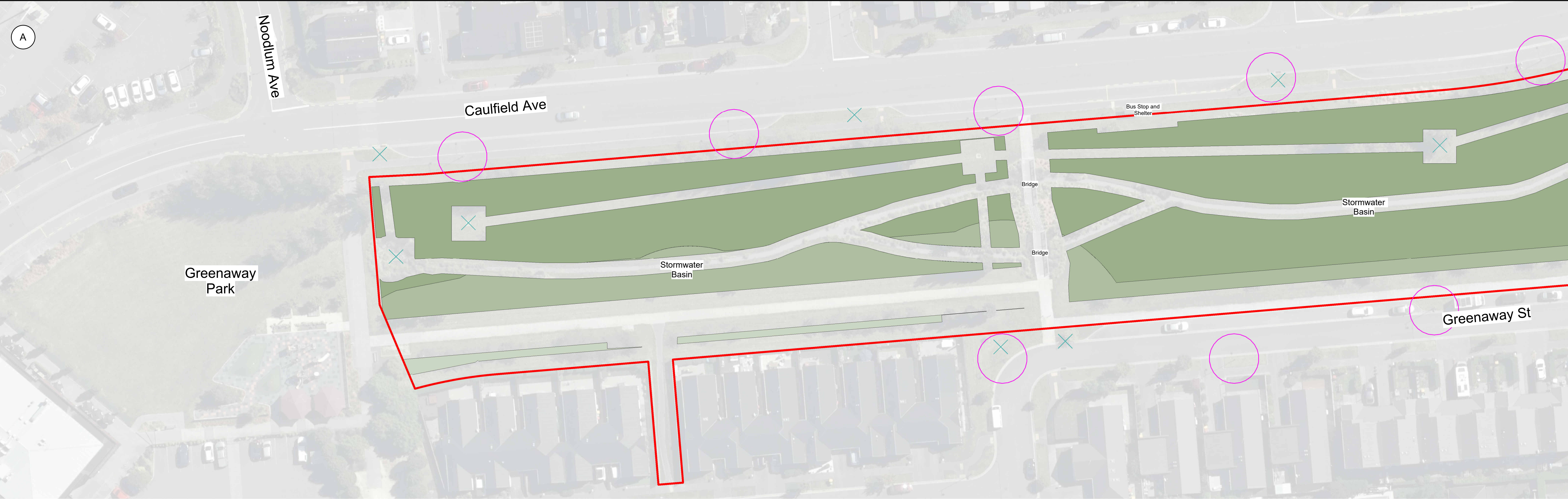
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REVISION

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**LEGEND**

- 20m+ Tree Height Area
- 10 - 20m Tree Height Area
- 5 - 10m Tree Height Area

The Tree Height Capacity model is derived from the following rules, supplied by CCC:

- No tree shall intrude through the recession plane at maturity
- No tree shall be planted closer than 3.0m from a pathway
- No tree shall be planted closer than 5.0m from a sports field and no tree canopy drip line shall extend above a sports field
- Tree spacings shall be a minimum of 5.0m apart to allow for easy lawn mowing
- Min. 2m offset for low voltage power
- Min. 3m offset for 11kv power
- Min. 5m offset for 33-66kv
- Min. of 1m offset for all other services and hard paving not mentioned above

REV DATE DESCRIPTION

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0m 4m 8m 16m

**Urban Forest Tree Planting**

**Caulfield Drainage Reserve**

Tree Height Capacities

Design SYo Scale Date

Drawn SYo 1:400 @ A1 12.12.2025

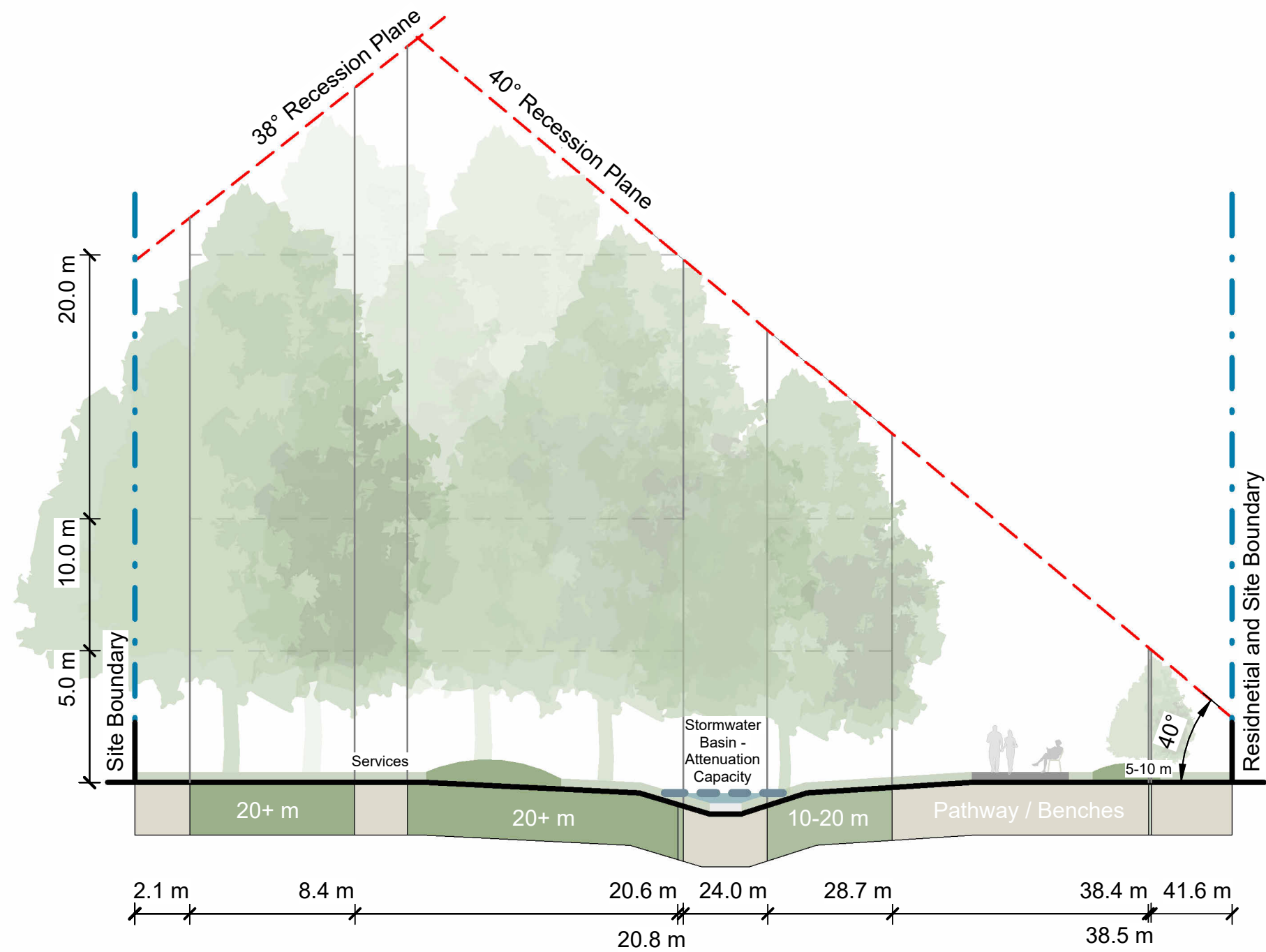
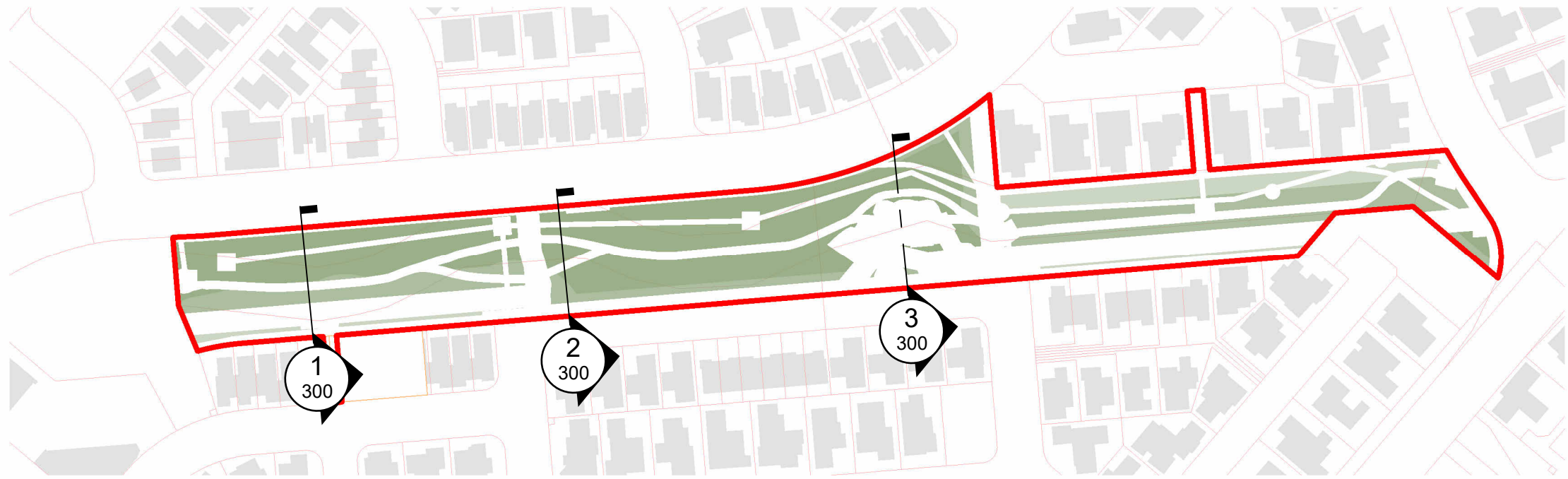
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**Concept Design**

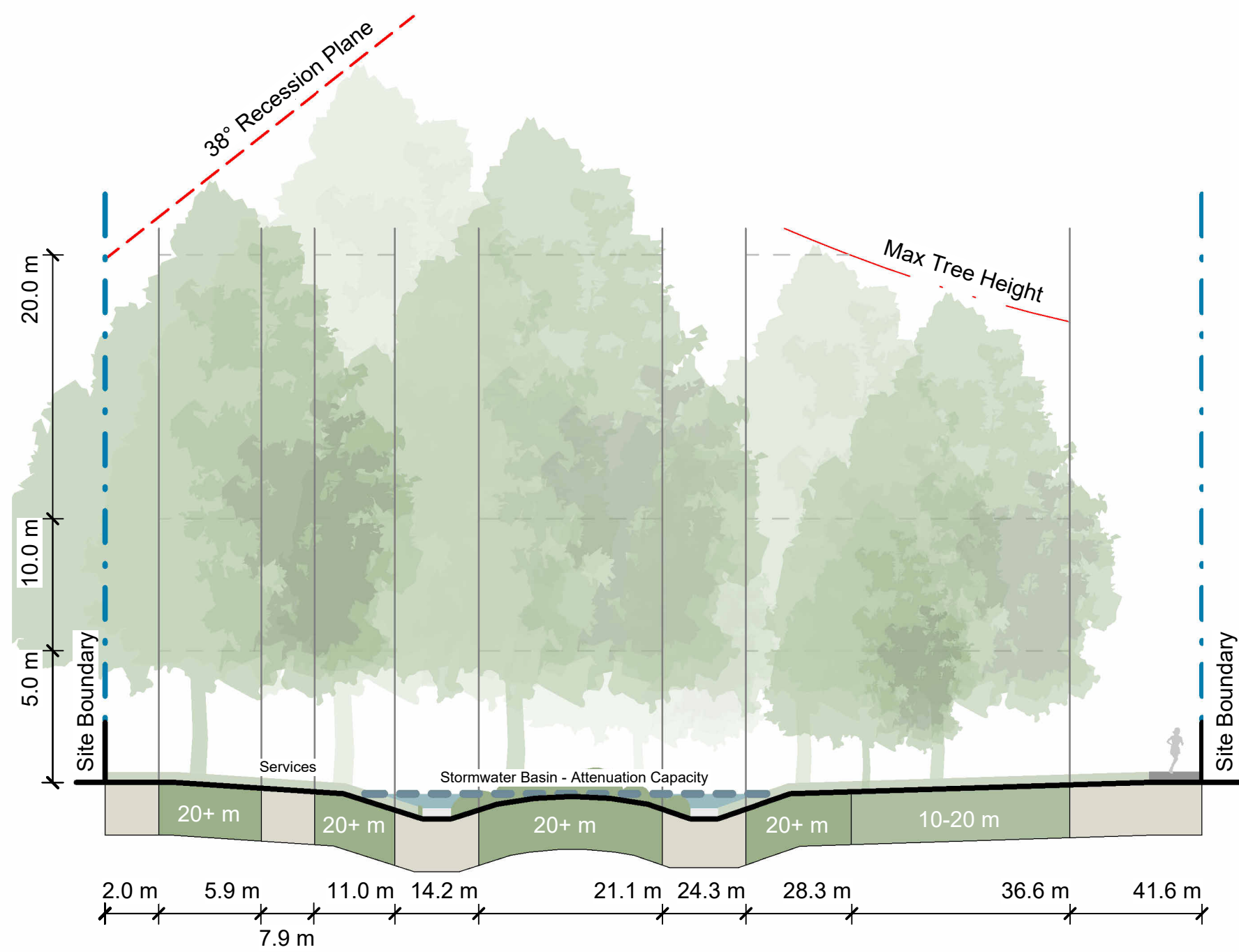
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BM240711\_210 (A)

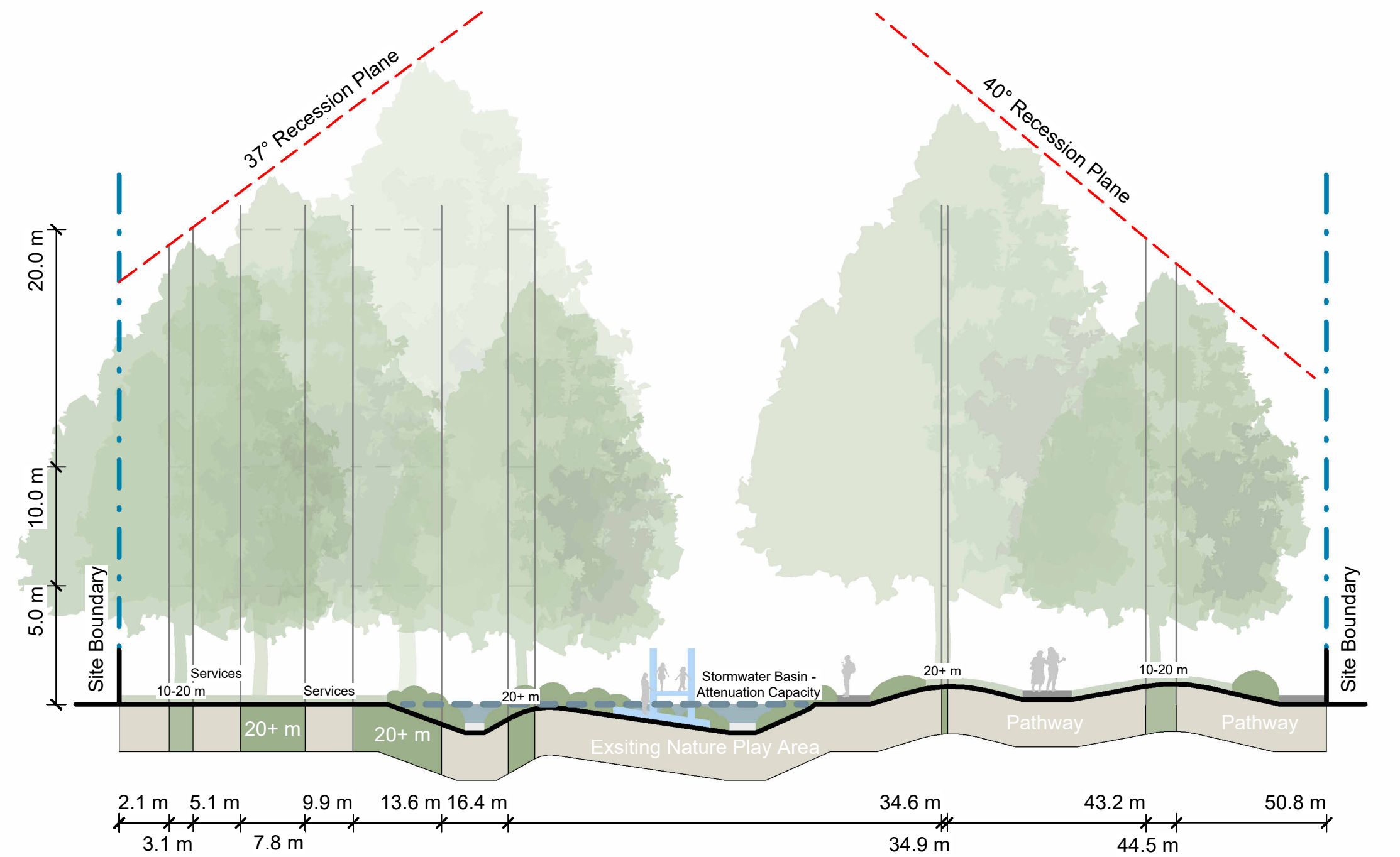
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1 West - East Cross Section  
Scale: 1 : 200



2 West - East Cross Section  
Scale: 1 : 200

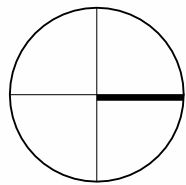


3 West - East Cross Section  
Scale: 1 : 200

ORIGINAL IN COLOUR



**Note:**  
Sections identify maximum acceptable proposed tree height and density.  
Existing vegetation not shown.  
Refer Planting Plans for proposed tree locations.



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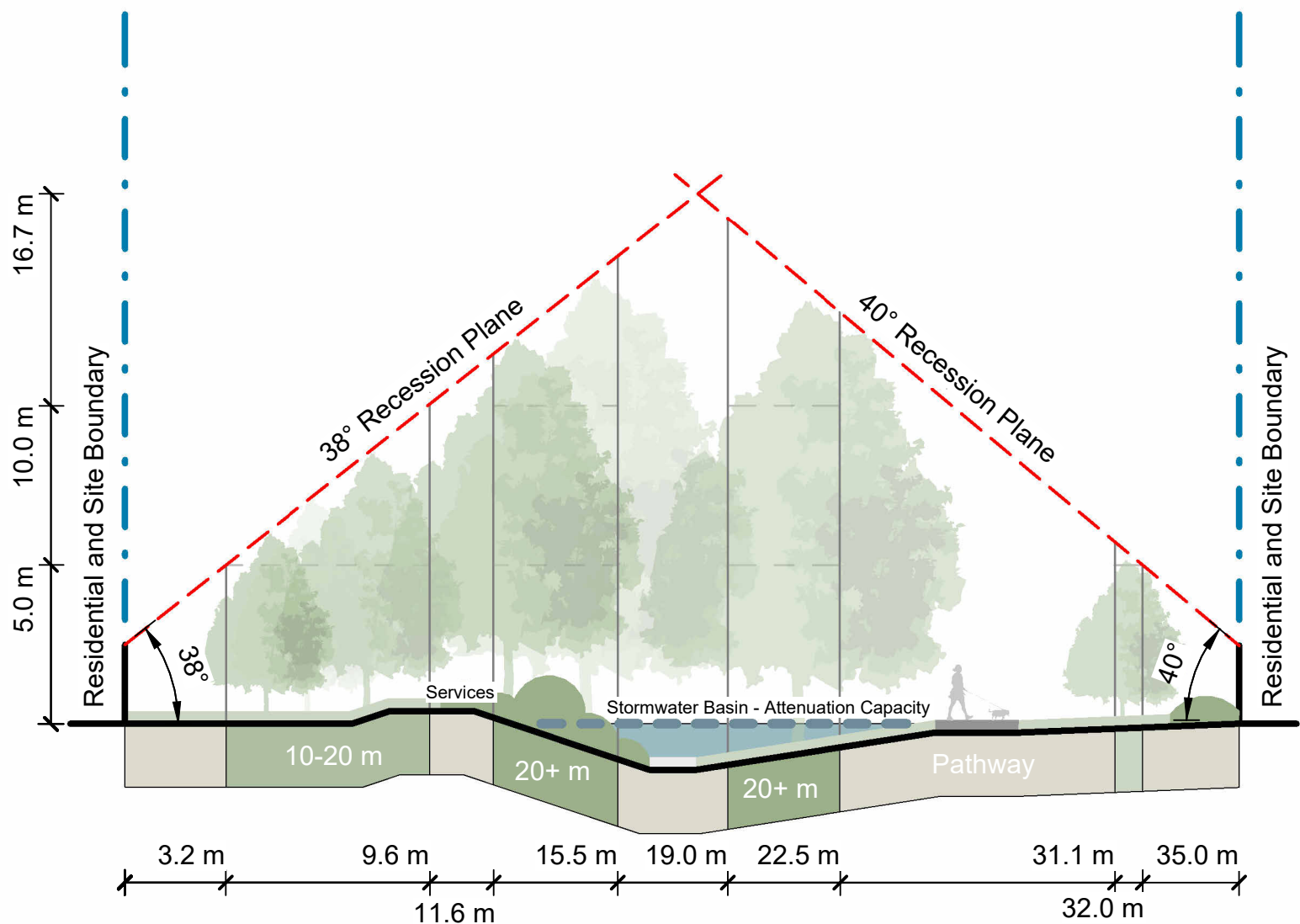
APR HCo  
**Urban Forest Tree Planting  
Caulfield Drainage Reserve**

Cross Section Studies of Potential Tree  
Heights

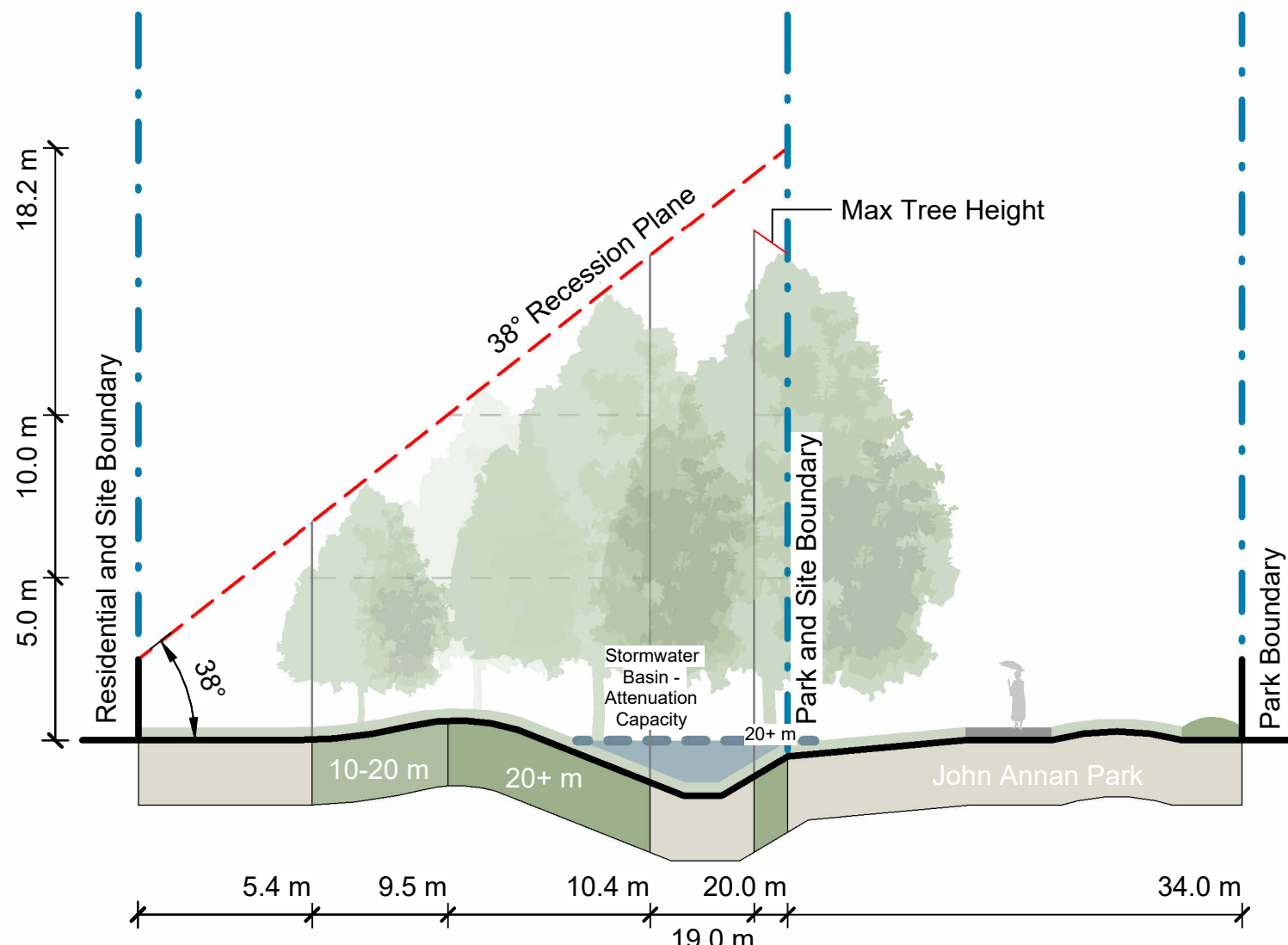
Design SYo Scale As Shown Date 12.12.2025  
Drawn SYo  
Check HCo

**Concept Design**

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4 West - East Cross Section  
Scale: 1 : 200

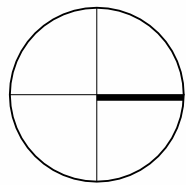


5 West - East Cross Section  
Scale: 1 : 200

ORIGINAL IN COLOUR



**Note:**  
Sections identify maximum acceptable proposed tree height and density.  
Existing vegetation not shown.  
Refer Planting Plans for proposed tree locations.



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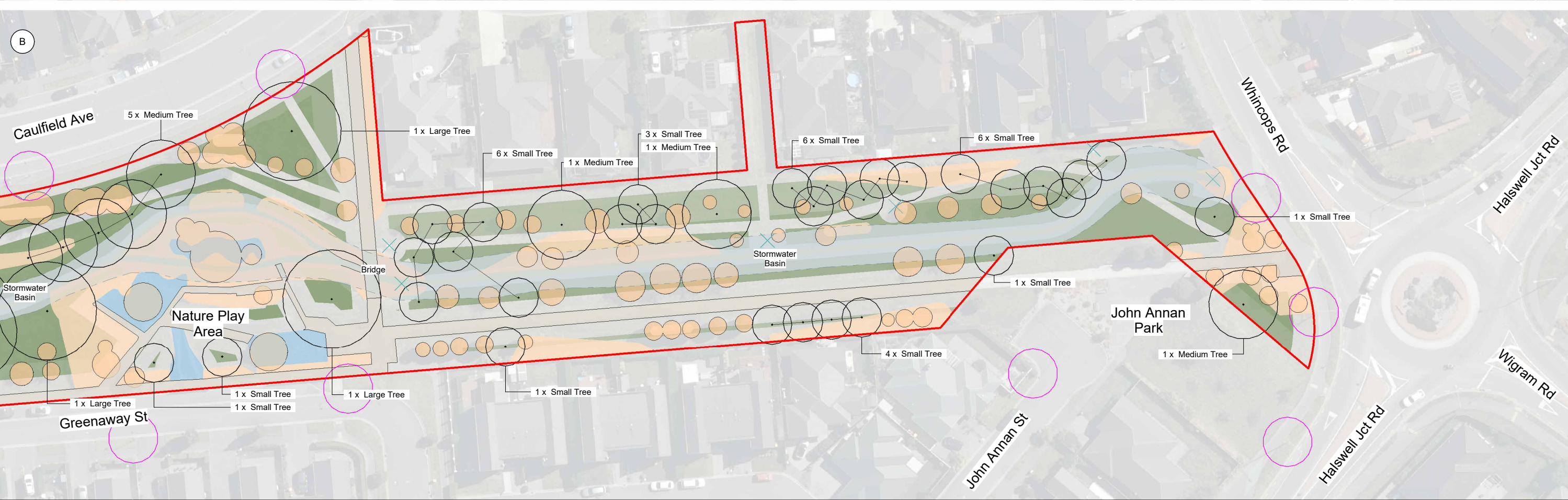
## Urban Forest Tree Planting Caulfield Drainage Reserve

Cross Section Studies of Potential Tree  
Heights

| Design | SYo | Scale    | Date       |
|--------|-----|----------|------------|
| Drawn  | SYo | As Shown | 12.12.2025 |
| Check  | HCo |          |            |

Concept Design

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| BM240711_301 | A        |



ORIGINAL IN COLOUR

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|                              |   |                             |            |                                  |
|------------------------------|---|-----------------------------|------------|----------------------------------|
| Existing Canopy Cover        | - | 2526.11 m <sup>2</sup>      | 12.9%      | Canopy coverage to existing site |
| Proposed Canopy Coverage     | - | 7476.99 m <sup>2</sup>      | 38.1%      | Proposed canopy coverage         |
| <b>Total Canopy Coverage</b> | - | <b>10003.1m<sup>2</sup></b> | <b>51%</b> | <b>Total canopy coverage</b>     |

| PLANTING SCHEDULE |                |                    |
|-------------------|----------------|--------------------|
| Qty               | Type           | Tree Height        |
| 12                | Large Tree     | Tree Height 15-20m |
| 12                | Medium Tree    | Tree Height 10-15m |
| 37                | Small Tree     | Tree Height 5-10m  |
| 164               | Existing Trees |                    |

|     |            |                      |
|-----|------------|----------------------|
| REV | DATE       | DESCRIPTION          |
| A   | 12.12.2025 | Concept Design Draft |

APR HCo

**Urban Forest Tree Planting**  
**Caulfield Drainage Reserve**

Planting Plan

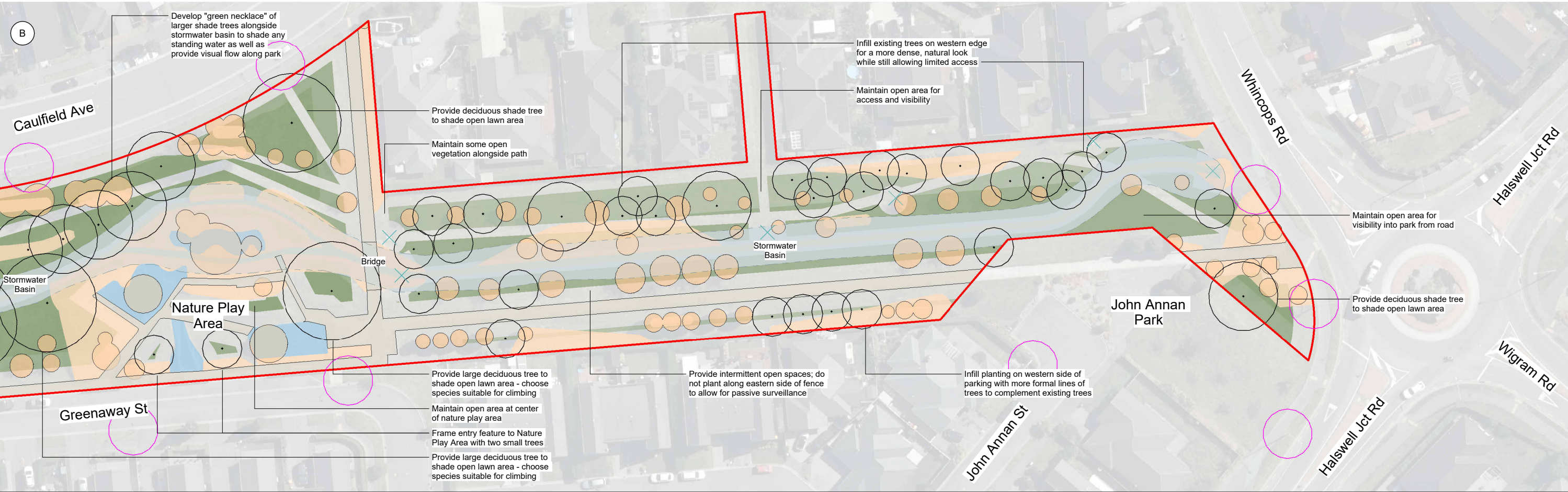
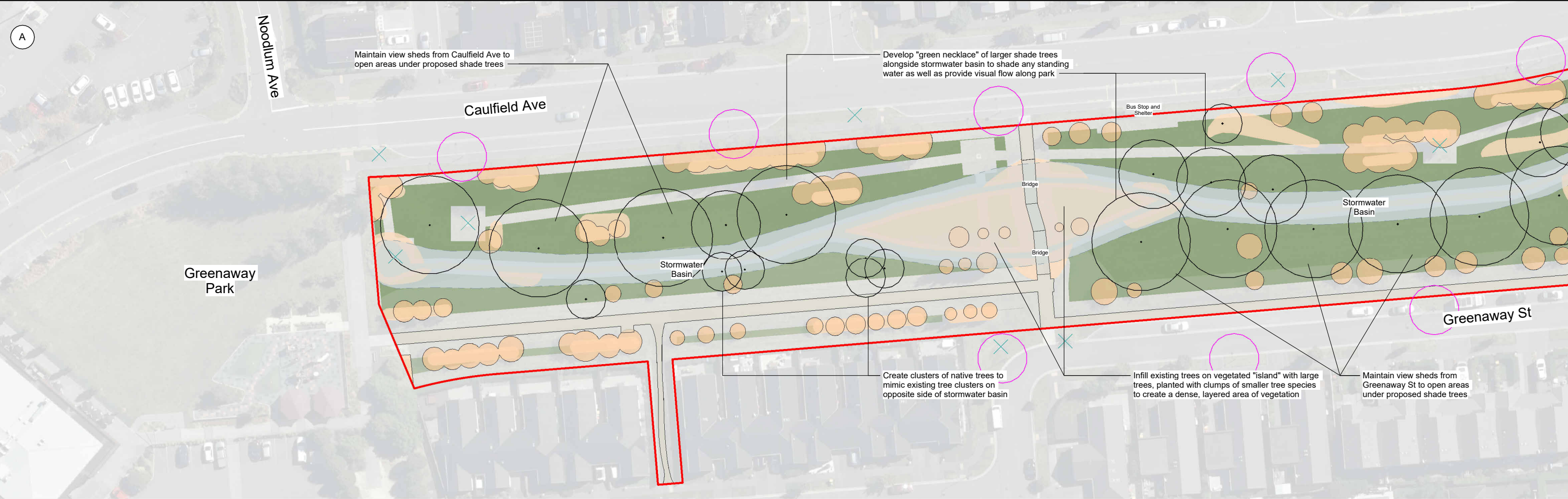
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| Design | SYo | Scale      | Date       |
| Drawn  | SYo | 1:400 @ A1 | 12.12.2025 |
| Check  | HCo | 1:800 @ A3 |            |

**Concept Design**

DRAWING NO. **BM240711\_500**

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ORIGINAL IN COLOUR

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|                              |   |                             |            |                                  |
|------------------------------|---|-----------------------------|------------|----------------------------------|
| Existing Canopy Cover        | - | 2526.11 m <sup>2</sup>      | 12.9%      | Canopy coverage to existing site |
| Proposed Canopy Coverage     | - | 7476.99 m <sup>2</sup>      | 38.1%      | Proposed canopy coverage         |
| <b>Total Canopy Coverage</b> | - | <b>10003.1m<sup>2</sup></b> | <b>51%</b> | <b>Total canopy coverage</b>     |

**PLANTING SCHEDULE**

| Qty | Type           | Tree Height        |
|-----|----------------|--------------------|
| 12  | Large Tree     | Tree Height 15-20m |
| 12  | Medium Tree    | Tree Height 10-15m |
| 37  | Small Tree     | Tree Height 5-10m  |
| 164 | Existing Trees |                    |

0 m 4 m 8 m 16 m

|     |            |                      |
|-----|------------|----------------------|
| REV | DATE       | DESCRIPTION          |
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APR HCO

**Urban Forest Tree Planting**  
**Caulfield Drainage Reserve**

Planting Plan

|        |     |            |            |
|--------|-----|------------|------------|
| Design | SYo | Scale      | Date       |
| Drawn  | SYo | 1:400 @ A1 | 12.12.2025 |
| Check  | HCo | 1:800 @ A3 |            |

**Concept Design**

DRAWING NO. **BM240711\_501** REVISION **A**

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