

TREES



Eucalyptus marginata  
Height: 10m  
Spread: ~6m



Eucalyptus todiana  
Height: 15m  
Spread: ~5m



Eucalyptus decipiens  
Height: 9m  
Spread: 6m



Xanthorrhoea preissii  
Height: 2.5m  
Spread: 1.5m

PLANT MIX 1



Acacia pulchella  
Height: 0.5m



Anigozanthos humilis  
Height: 0.2m



Burchardia congesta  
Height: 0.3m



Conostylis aculeata  
Height: 0.5m

PLANT MIX 2



Calothamnus quadrifidus  
Height: 0.6m



Conostylis candicans  
Height: 0.4m



Dianella revoluta  
Height: 0.5m



Hardenbergia comptoniana  
Height: 0.5m

PLANT MIX3



Hemiandra pungens  
Height: 0.5m



Melaleuca seriate  
Height: 0.6m



Orthrosanthus laxus  
Height: 0.5m



Patersonia occidentalis  
Height: 0.6m

LANDSCAPING NOTES

1. SUB-CONTRACTOR SHALL DETERMINE IRRIGATION ZONES AND ALLOW FOR AUTOMATIC RETICULATION TO ALL LANDSCAPE AREAS WITH CONTROLLER LOCATED AS INDICATED ON THE ARCHITECTURAL PLANS. CONTROLLER MUST BE FITTED WITH A RAIN SENSOR.

2. SUB-CONTRACTOR SHALL DETERMINE THE LOCATION, DIRECTION AND TYPE OF SPRINKLERS AND ENSURE THAT NO WATER IS SPRAYED ONTO BUILDINGS, ROADS, CROSSOVERS, PATHS AND PAVED AREAS.

3. ALL LANDSCAPING BEDS MUST BE MULCHED TO A DEPTH OF 75MM WITH ORGANIC MULCH.

4. PLANTING BEDS MUST HAVE A MINIMUM DEPTH OF 300MM OF CLEAN TOP SOIL. TOP SOIL TO BE OF SUITABLE HORTICULTURAL QUALITY, FREE OF ALL CONTAMINANTS SUCH AS LIMESTONE ROAD BASE MATERIAL, CEMENT, CONCRETE, ROCK AND BUILDER'S RUBBLE.

5. ALL PLANTS EXCEEDING 900mm IN HEIGHT MUST BE SUPPORTED WITH 3 STAKES.

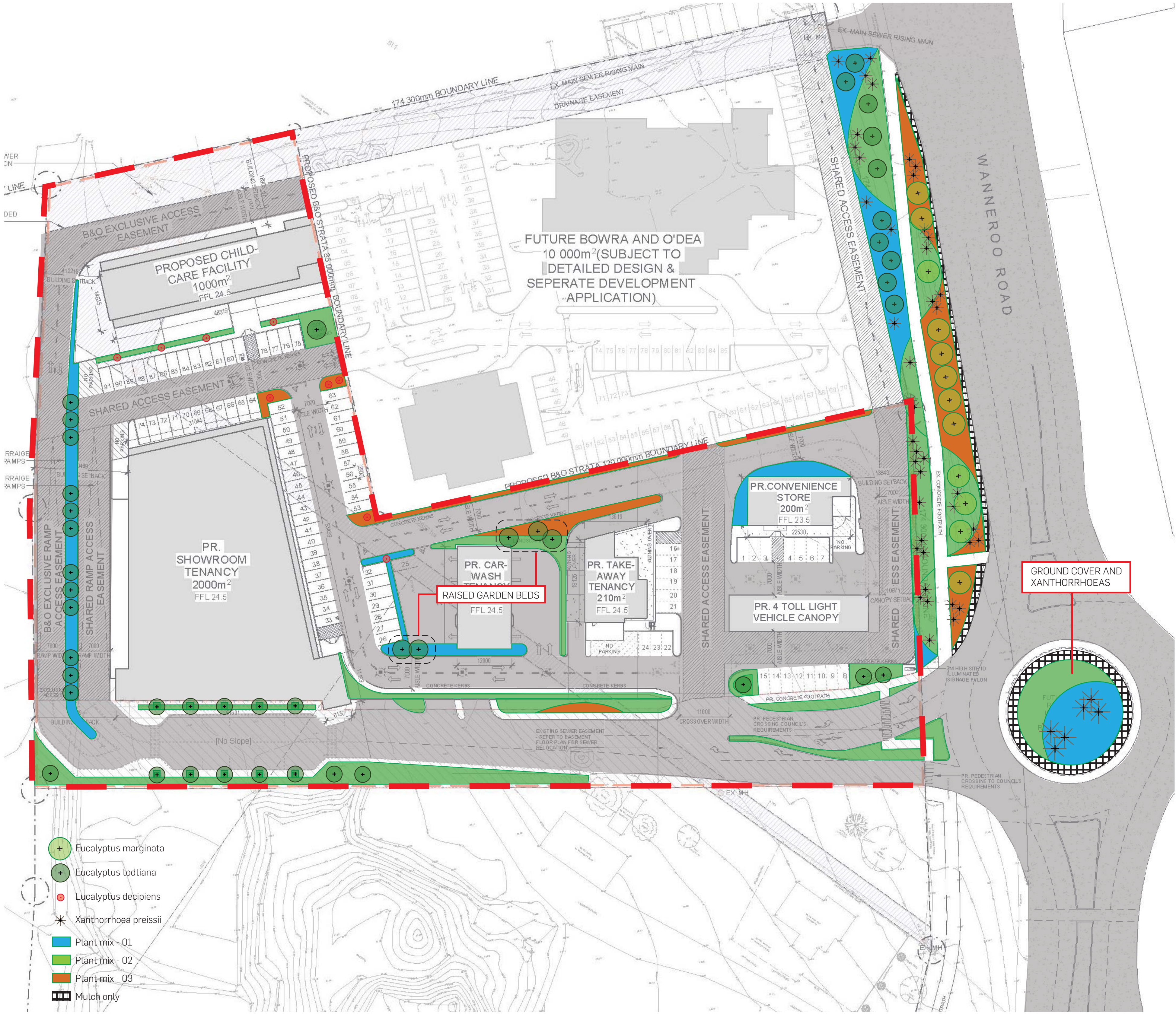
6. ALL PLANTS MUST BE FERTILIZED DURING PLANTING WITH A SLOW RELEASE FERTILIZER HAVING AN NPK + WETTING AGENT RATIO OF 18:2:6:10.

7. LANDSCAPE WORK TO VERGE MUST BE UNDERTAKEN IN ACCORDANCE WITH COUNCIL REQUIREMENTS

8. PLANTS MIX SPECIES MUST BE GROUPED IN CLUMPS OF 3-5-7 WITHIN NOMINATED AREA.

9. ALL UNDERSTORY PLANTS TO BE KEPT BELOW 600MM ON VERGES.

| Code          | Species                         | Common Name                 | Size | Max Height |
|---------------|---------------------------------|-----------------------------|------|------------|
| Trees         |                                 |                             |      |            |
| EUC dec       | <i>Eucalyptus decipiens</i>     | Redheart Moit               | 100L | 9m         |
| EUC mar       | <i>Eucalyptus marginata</i>     |                             | 100L | 40m        |
| EUC tod       | <i>Eucalyptus todiana</i>       | Coastal Blackbutt           | 100L | 15m        |
| Shrubs        |                                 |                             |      |            |
| XAN pre       | <i>Xanthorrhoea preissii</i>    | Grass Tree                  | 200L | 2.5m       |
| Ground Covers |                                 |                             |      |            |
| Plant Mix 1   |                                 |                             |      |            |
| ACA pul       | <i>Acacia pulchella</i>         | Prickly Moses               | 5L   | 0.5m       |
| ANG hum       | <i>Anigozanthos humilis</i>     | Catspaw                     | 5L   | 0.2m       |
| BUR con       | <i>Burchardia congesta</i>      | Milkmaids                   | 5L   | 0.3m       |
| CON acu       | <i>Conostylis aculeata</i>      | Prickly Conostylis          | 5L   | 0.5m       |
| Plant Mix 2   |                                 |                             |      |            |
| CAL qua       | <i>Calothamnus quadrifidus</i>  | One-sided Bottlebrush Dwarf | 5L   | 0.6m       |
| CON can       | <i>Conostylis candicans</i>     | Grey Cottonheads            | 5L   | 0.4m       |
| DIA rev       | <i>Dianella revoluta</i>        | Flax Lily                   | 5L   | 0.5m       |
| HAR com       | <i>Hardenbergia comptoniana</i> | Native Wisteria             | 5L   | 0.5m       |
| Plant Mix 3   |                                 |                             |      |            |
| HEM pun       | <i>Hemiandra pungens</i>        | Snake Bush                  | 5L   | 0.5m       |
| MEL ser       | <i>Melaleuca seriate</i>        |                             | 5L   | 0.6m       |
| ORT lax       | <i>Orthrosanthus laxus</i>      | Morning Iris                | 5L   | 0.5m       |
| PAT occ       | <i>Patersonia occidentalis</i>  | Western Patersonia          | 5L   | 0.6m       |



Landscape area: 1613.09sq.m  
Landscape %: 8.94%





**PROPOSED DEVELOPMENT**  
**WITH TENANCIES INCLUDING;**

- CONVENIENCE STORE
- DRIVE THROUGH FAST FOOD
  - CAR WASH
  - SHOWROOM
- CHILDCARE CENTRE
  - MEDICAL CENTRE
- SELF STORAGE UNITS



General Notes:

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**Status**  
DEVELOPMENT APPROVAL

**Project Name**  
PROPOSED MULTI-USE DEVELOPMENTS  
TAPPING DEVELOPMENT  
LOT 01 1369 WANNEROO ROAD, TAPPING  
SARACEN PROPERTIES





## PROJECT DETAILS

|                |          |              |         |
|----------------|----------|--------------|---------|
| Project number | 0013-17  | Sheet Number | Current |
| Date           | MAY 2017 | A001         |         |
| Drawn by       | LN       |              |         |
| Checked by     | LN       | Scale        | ON A1 S |

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**LEGEND:**

|   |                             |
|---|-----------------------------|
|    | PROPOSED EASEMENTS          |
|   | EXISTING DRAINAGE EASEMENTS |
|  | PROPOSED DRAINAGE EASEMENTS |
|  | APPLICATION AREA            |

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|-----------------|--------------------------------|--------------------|--------------------|--------------------------|
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| D               | T1 - CONVENIENCE STORE         | 200m <sup>2</sup>  | 14 BAYS            | 14 BAYS                  |
| D               | T2 - DRIVE THROUGH FOOD OUTLET | 210m <sup>2</sup>  | 15 BAYS            | 10 BAYS + 5 IN D/T QUEUE |
| D               | T3 - CAR WASH                  | 270m <sup>2</sup>  | 1 BAYS             | 1 BAYS                   |
| P               | T4 - SHOWROOM                  | 2000m <sup>2</sup> | 67 BAYS            | 53 BAYS                  |
| D               | T5 - CHILDCARE CENTRE          | 1000m <sup>2</sup> | 13 BAYS            | 13 BAYS                  |
| P               | T6 - MEDICAL CENTRE            | 1000m <sup>2</sup> | 42 BAYS            | 46 BAYS                  |
| D               | T7 - SELF STORAGE              | 4325m <sup>2</sup> | 87 BAYS            | 8 BAYS                   |
| TOTALS:         |                                | 9005m <sup>2</sup> | 239 BAYS           | 150 BAYS                 |

|  |
|--|
| <b>PARKING TOTALS:</b>                       |
| GROUND FLOOR - <b>91 BAYS</b>                |
| BASEMENT FLOOR - <b>46 BAYS</b>              |
| DRIVE THROUGH QUEUE - <b>5 BAYS</b>          |
| SERVICE STATION UNDER CANOPY - <b>8 BAYS</b> |
| <b>TOTAL - 150 PARKINGS</b>                  |

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DEVELOPMENT APPROVAL





**Project Name**  
**PROPOSED MULTI-USE DEVELOPMENTS  
 TAPPING DEVELOPMENT  
 LOT 01 1369 WANNEROO ROAD, TAPPING  
 SARACEN PROPERTIES**

## SITE PLAN

|                |          |              |                          |
|----------------|----------|--------------|--------------------------|
| Project number | 0013-17  | Sheet Number | Current Rev              |
| Date           | MAY 2017 | A002         |                          |
| Drawn by       | LN       |              |                          |
| Checked by     | LN       | Scale        | As indicated ON A1 SHEET |



**LEGEND:**

|   |                             |
|---|-----------------------------|
|    | PROPOSED EASEMENTS          |
|    | EXISTING DRAINAGE EASEMENTS |
|   | PROPOSED DRAINAGE EASEMENTS |
|  | APPLICATION AREA            |

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| D               | T3 - CAR WASH                  | 270m <sup>2</sup>  | 1 BAYS 1 BAYS                         |
| P               | T4 - SHOWROOM                  | 2000m <sup>2</sup> | 67 BAYS 53 BAYS                       |
| D               | T5 - CHILDCARE CENTRE          | 1000m <sup>2</sup> | 13 BAYS 13 BAYS                       |
| P               | T6 - MEDICAL CENTRE            | 1000m <sup>2</sup> | 42 BAYS 46 BAYS                       |
| D               | T7 - SELF STORAGE              | 4325m <sup>2</sup> | 87 BAYS 8 BAYS                        |
| TOTALS:         |                                | 9005m <sup>2</sup> | 239 BAYS 150 BAYS                     |

|  |
|--|
| <b>PARKING TOTALS:</b>                       |
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| <b>TOTAL - 150 PARKINGS</b>                  |

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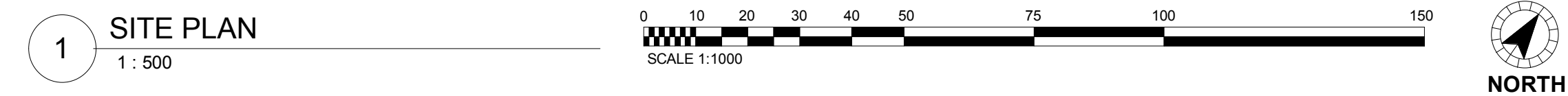
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| <u>Status</u>  |
|--|
| DEVELOPMENT APPROVAL   |
| <u>Project Name</u>  |
| PROPOSED MULTI-USE DEVELOPMENTS<br>TAPPING DEVELOPMENT<br>LOT 01 1369 WANNEROO ROAD, TAPPING<br>SARACEN PROPERTIES |

|                |  |  |  |          |  |              |  |                          |  |
|----------------|--|--|--|----------|--|--------------|--|--------------------------|--|
| Project number |  |  |  | 0013-17  |  | Sheet Number |  | Current Rev              |  |
| Date           |  |  |  | MAY 2017 |  | <b>A002</b>  |  |                          |  |
| Drawn by       |  |  |  | LN       |  |              |  |                          |  |
| Checked by     |  |  |  | LN       |  | Scale        |  | As indicated ON A1 SHEET |  |





LEGEND:

PROPOSED EASEMENTS

EXISTING DRAINAGE EASEMENTS

PROPOSED DRAINAGE EASEMENTS

APPLICATION AREA

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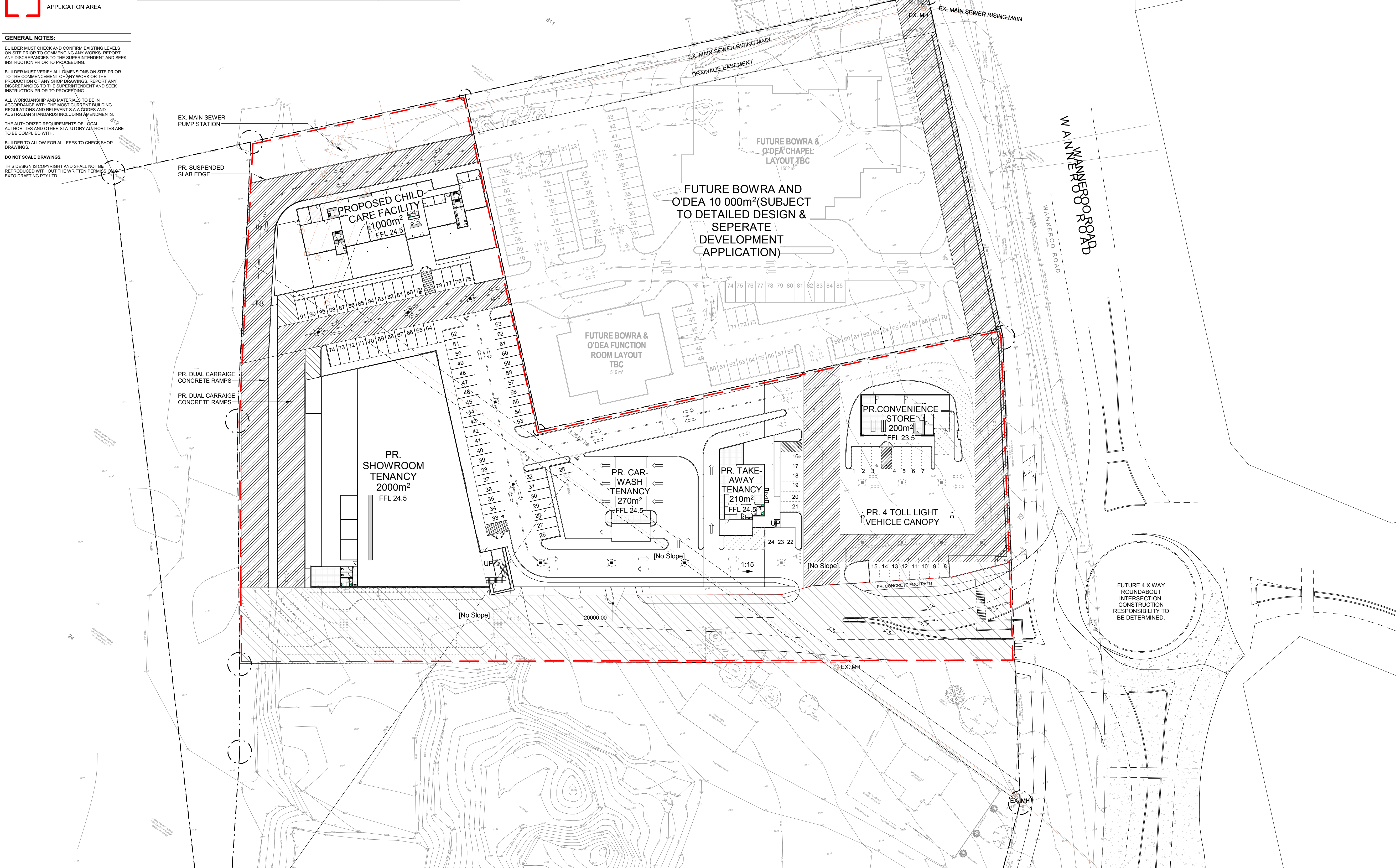
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| TOTALS:         |                                | 9005m² | 239 BAYS           | 150 BAYS                 |

| PARKING TOTALS:                       |  |
|---------------------------------------|--|
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**Status**  
DEVELOPMENT APPROVAL

**Project Name**  
PROPOSED MULTI-USE DEVELOPMENTS  
TAPPING DEVELOPMENT  
LOT 01 1369 WANNEROO ROAD, TAPPING  
SARACEN PROPERTIES

| OVERALL GROUND FLOOR PLAN |          |              |             |
|---------------------------|----------|--------------|-------------|
| Project number            | 0013-17  | Sheet Number | Current Rev |
| Date                      | MAY 2017 | A003         |             |
| Drawn by                  | LN       |              |             |
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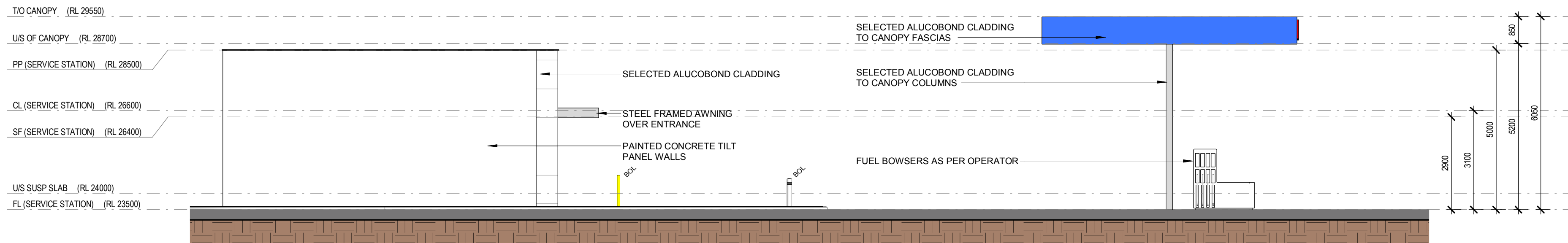
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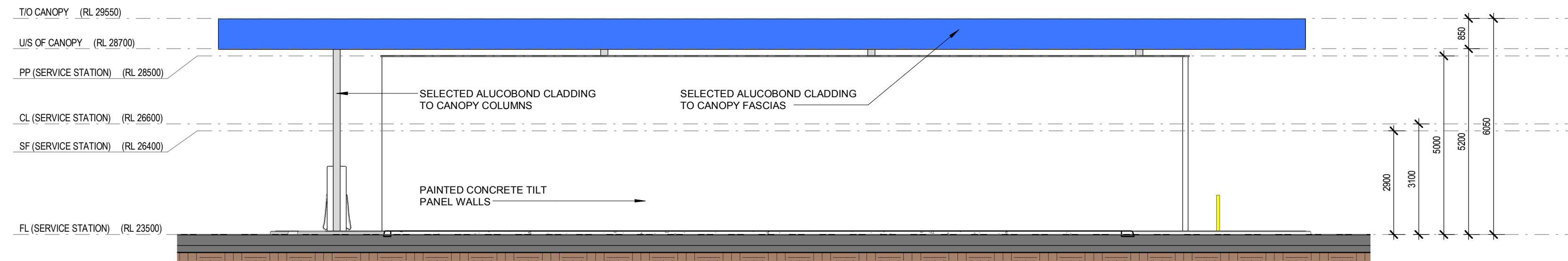
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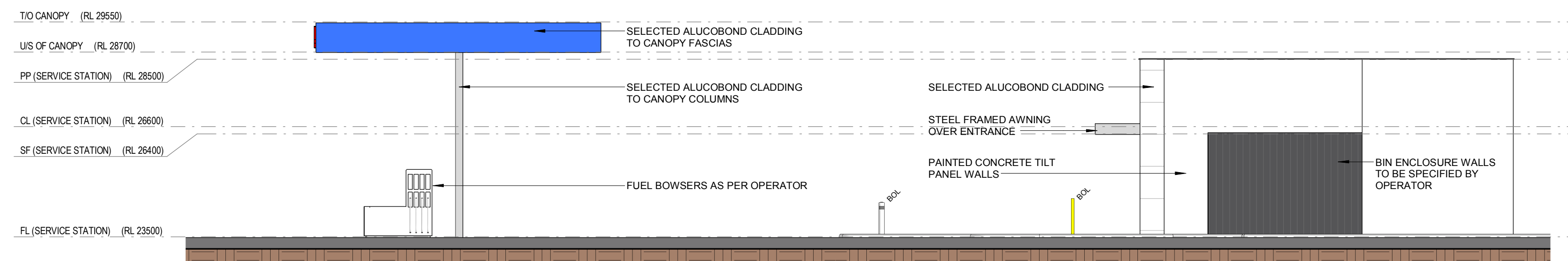
1 01 SERVICE STATION SOUTH-WEST ELEVATION  
1 : 100



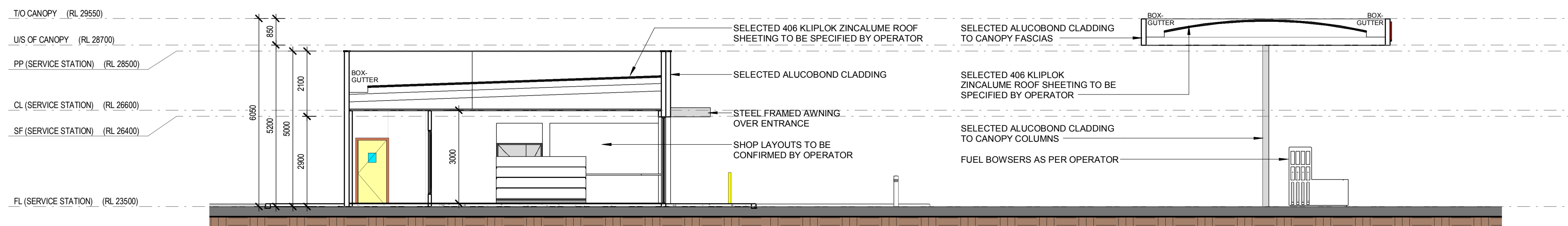
2 02 SERVICE STATION NORTH-WEST ELEVATION  
1 : 100



5 04 SERVICE STATION SOUTH-EAST ELEVATION  
1 : 100



3 03 SERVICE STATION NORT-EAST ELEVATION  
1 : 100



6 01 TENANCY 01 - SERVICE STATION SECTION  
1 : 100

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SARACEN PROPERTIES

TENANCY 01 - SERVICE STATION  
ELEVATIONS

|                |          |              |                     |
|----------------|----------|--------------|---------------------|
| Project number | 0013-17  | Sheet Number | Current Rev         |
| Date           | MAY 2017 | <b>A006</b>  |                     |
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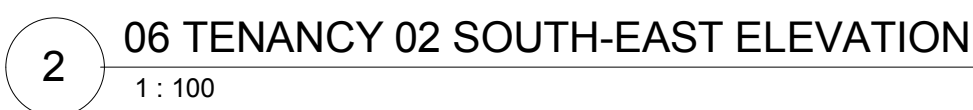
THE AUTHORIZED REQUIREMENTS OF LOCAL AUTHORITIES AND OTHER STATUTORY AUTHORITIES ARE TO BE COMPLIED WITH.

BUILDER TO ALLOW FOR ALL FEES TO CHECK SHOP DRAWINGS.

**DO NOT SCALE DRAWINGS.**

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|  |
|--|
| <b>PARKING TOTALS:</b>                       |
| GROUND FLOOR - <b>91 BAYS</b>                |
| BASEMENT FLOOR - <b>46 BAYS</b>              |
| DRIVE THROUGH QUEUE - <b>5 BAYS</b>          |
| SERVICE STATION UNDER CANOPY - <b>8 BAYS</b> |
| <b>TOTAL - 150 PARKINGS</b>                  |

[illegible]

and

*EXZO*

Unit 3, 1 President Street,  
Welshpool, Perth WA  
p - (08) 9470 5377  
drafting@exzo.com.au

**Project Name**  
**PROPOSED MULTI-USE DEVELOPMENTS**  
**TAPPING DEVELOPMENT**  
**LOT 01 1369 WANNEROO ROAD, TAPPING**  
**SARACEN PROPERTIES**

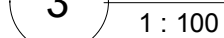
|                |          |              |                     |
|----------------|----------|--------------|---------------------|
| Project number | 0013-17  | Sheet Number | Current Rev         |
| Date           | MAY 2017 | A007         |                     |
| Drawn by       | LN       |              |                     |
| Checked by     | LN       | Scale        | 1 : 100 ON A1 SHEET |

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|                      |
|----------------------|
| TOTAL - 150 PARKINGS |
|----------------------|



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5. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL CONSULTANT DRAWINGS AND THE SPECIFICATIONS.

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|----------------|----------|--------------|---------------------|
| Project number | 0013-17  | Sheet Number | Current Rev         |
| Date           | MAY 2017 | A008         |                     |
| Drawn by       | LN       |              |                     |
| Checked by     | LN       |              |                     |
|                |          | Scale        | 1 : 100 ON A1 SHEET |



**GENERAL NOTES:**

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|----------------|--------------------------------|--------------------|--------------------|--------------------------|
| D              | T1 - CONVENIENCE STORE         | 200m <sup>2</sup>  | 14 BAYS            | 14 BAYS                  |
| D              | T2 - DRIVE THROUGH FOOD OUTLET | 210m <sup>2</sup>  | 15 BAYS            | 10 BAYS + 5 IN D/T QUEUE |
| D              | T3 - CAR WASH                  | 270m <sup>2</sup>  | 1 BAYS             | 1 BAYS                   |
| P              | T4 - SHOWROOM                  | 2000m <sup>2</sup> | 67 BAYS            | 53 BAYS                  |
| D              | T5 - CHILDCARE CENTRE          | 1000m <sup>2</sup> | 13 BAYS            | 13 BAYS                  |
| P              | T6 - MEDICAL CENTRE            | 1000m <sup>2</sup> | 42 BAYS            | 46 BAYS                  |
| D              | T7 - SELF STORAGE              | 4325m <sup>2</sup> | 87 BAYS            | 8 BAYS                   |
| <b>TOTALS:</b> |                                | 9005m <sup>2</sup> | 239 BAYS           | 150 BAYS                 |

|  |
|--|
| GROUND FLOOR - <b>91 BAYS</b>                |
| BASEMENT FLOOR - <b>46 BAYS</b>              |
| DRIVE THROUGH QUEUE - <b>5 BAYS</b>          |
| SERVICE STATION UNDER CANOPY - <b>8 BAYS</b> |
| <b>TOTAL - 150 PARKINGS</b>                  |



**Status**  
DEVELOPMENT APPROVAL

**Project Name**  
**PROPOSED MULTI-USE DEVELOPMENTS  
 TAPPING DEVELOPMENT  
 LOT 01 1369 WANNEROO ROAD, TAPPING  
 SARACEN PROPERTIES**

|                |          |              |                          |
|----------------|----------|--------------|--------------------------|
| Project number | 0013-17  | Sheet Number | Current Rev              |
| Date           | MAY 2017 | A009         |                          |
| Drawn by       | LN       |              |                          |
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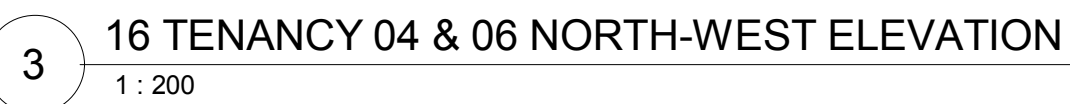
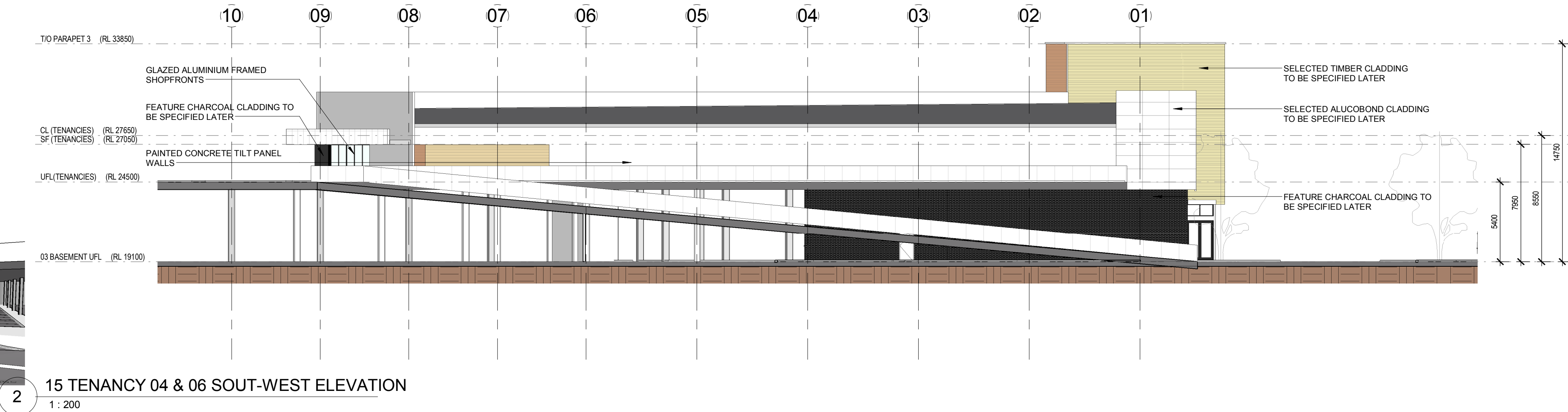
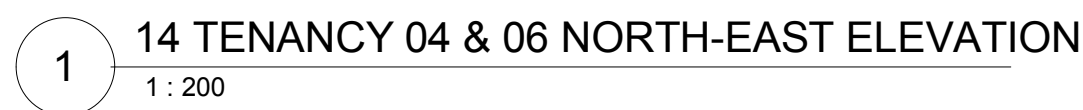
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[illegible]

*EXZOG*

TENANCY 04 &amp; 06 ELEVATIONS

|                |          |              |                          |
|----------------|----------|--------------|--------------------------|
| Project number | 0013-17  | Sheet Number | Current Revision         |
| Date           | MAY 2017 | <b>A010</b>  |                          |
| Drawn by       | LN       |              |                          |
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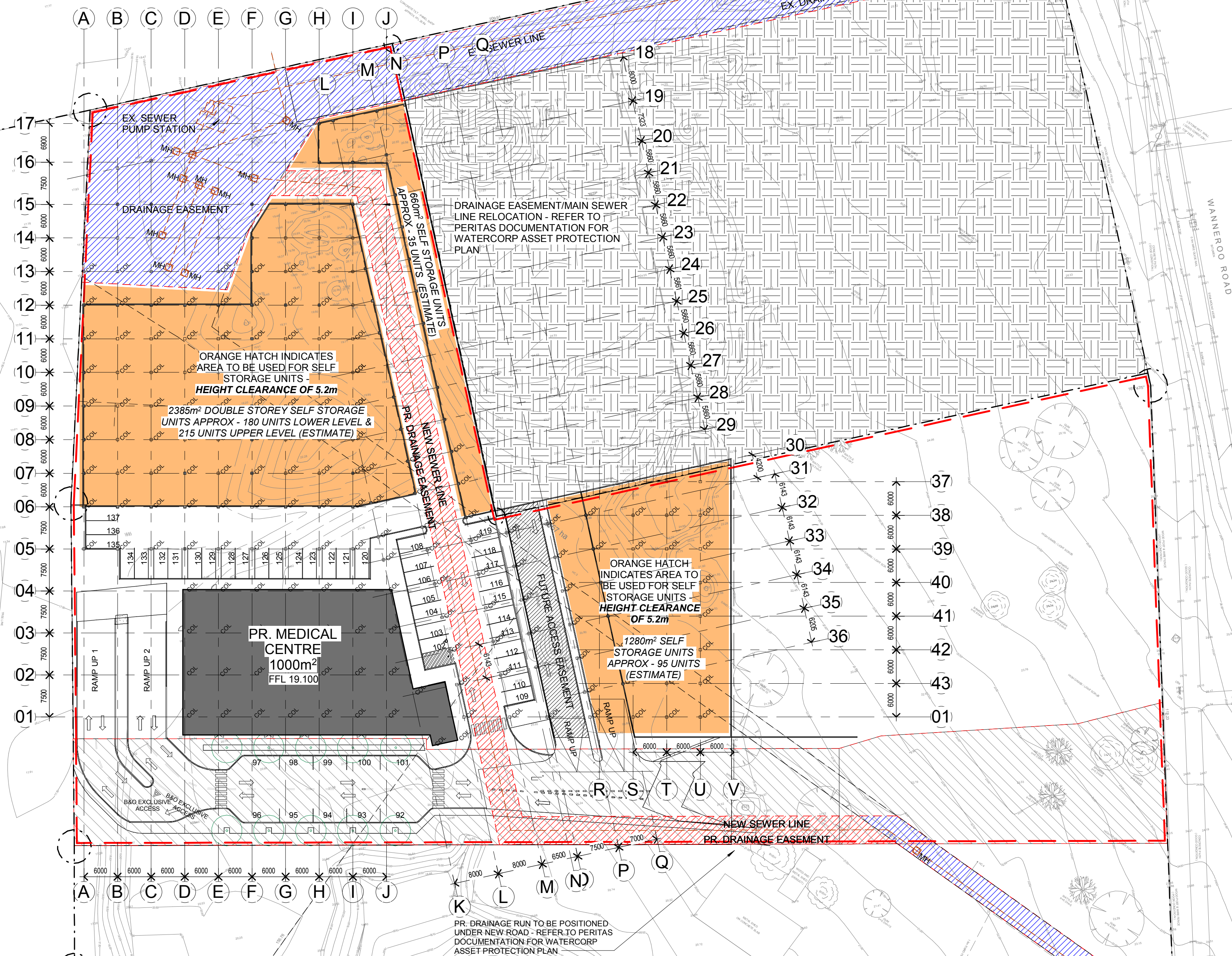


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| LAND USE TABLE: |                                |                    |                    |                          |
|-----------------|--------------------------------|--------------------|--------------------|--------------------------|
| CLASS:          | USE:                           | GLA:               | PARKINGS REQUIRED: | PARKINGS PROVIDED:       |
| D               | T1 - CONVENIENCE STORE         | 200m <sup>2</sup>  | 14 BAYS            | 14 BAYS                  |
| D               | T2 - DRIVE THROUGH FOOD OUTLET | 210m <sup>2</sup>  | 15 BAYS            | 10 BAYS + 5 IN D/T QUEUE |
| D               | T3 - CAR WASH                  | 270m <sup>2</sup>  | 1 BAYS             | 1 BAYS                   |
| P               | T4 - SHOWROOM                  | 2000m <sup>2</sup> | 67 BAYS            | 53 BAYS                  |
| D               | T5 - CHILDCARE CENTRE          | 1000m <sup>2</sup> | 13 BAYS            | 13 BAYS                  |
| P               | T6 - MEDICAL CENTRE            | 1000m <sup>2</sup> | 42 BAYS            | 46 BAYS                  |
| D               | T7 - SELF STORAGE              | 4325m <sup>2</sup> | 87 BAYS            | 8 BAYS                   |
| TOTALS:         |                                | 9005m <sup>2</sup> | 239 BAYS           | 150 BAYS                 |

|  |
|--|
| <b>PARKING TOTALS:</b>                       |
| GROUND FLOOR - <b>91 BAYS</b>                |
| BASEMENT FLOOR - <b>46 BAYS</b>              |
| DRIVE THROUGH QUEUE - <b>5 BAYS</b>          |
| SERVICE STATION UNDER CANOPY - <b>8 BAYS</b> |
| <b>TOTAL - 150 PARKINGS</b>                  |

| GENERAL NOTES:  |  |
|---|--|
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[illegible]

|  |
|--|
| <b><u>Status</u></b>   |
| DEVELOPMENT APPROVAL   |
| <b><u>Project Name</u></b>   |
| PROPOSED MULTI-USE DEVELOPMENTS<br>TAPPING DEVELOPMENT<br>LOT 01 1369 WANNEROO ROAD, TAPPING<br>SARACEN PROPERTIES |

## OVERALL BASEMENT FLOOR PLAN

|                |          |              |                          |
|----------------|----------|--------------|--------------------------|
| Project number | 0013-17  | Sheet Number | Current Rev              |
| Date           | MAY 2017 | <b>A004</b>  |                          |
| Drawn by       | LN       |              |                          |
| Checked by     | LN       | Scale        | As indicated ON A1 SHEET |



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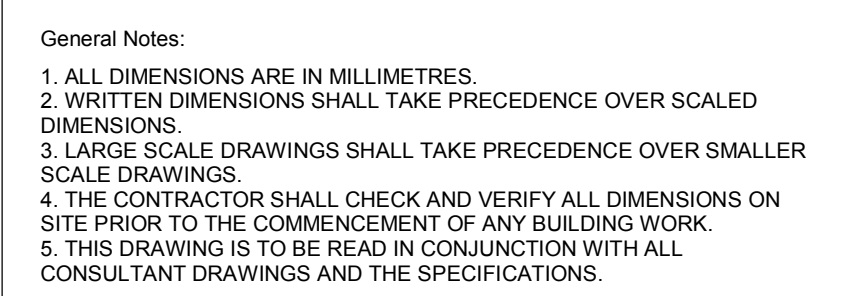
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| LAND USE TABLE: |                                |                    |                    |                          |
|-----------------|--------------------------------|--------------------|--------------------|--------------------------|
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| D               | T1 - CONVENIENCE STORE         | 200m <sup>2</sup>  | 14 BAYS            | 14 BAYS                  |
| D               | T2 - DRIVE THROUGH FOOD OUTLET | 210m <sup>2</sup>  | 15 BAYS            | 10 BAYS + 5 IN D/T QUEUE |
| D               | T3 - CAR WASH                  | 279m <sup>2</sup>  | 1 BAYS             | 1 BAYS                   |
| P               | T4 - SHOWROOM                  | 2000m <sup>2</sup> | 67 BAYS            | 53 BAYS                  |
| D               | T5 - CHILDCARE CENTRE          | 1000m <sup>2</sup> | 13 BAYS            | 13 BAYS                  |
| P               | T6 - MEDICAL CENTRE            | 1000m <sup>2</sup> | 42 BAYS            | 46 BAYS                  |
| D               | T7 - SELF STORAGE              | 4325m <sup>2</sup> | 67 BAYS            | 8 BAYS                   |
| <b>TOTALS:</b>  |                                | 9005m <sup>2</sup> | 239 BAYS           | 150 BAYS                 |

|  |
|--|
| <b>PARKING TOTALS:</b>                       |
| GROUND FLOOR - <b>91 BAYS</b>                |
| BASEMENT FLOOR - <b>46 BAYS</b>              |
| DRIVE THROUGH QUEUE - <b>5 BAYS</b>          |
| SERVICE STATION UNDER CANOPY - <b>8 BAYS</b> |
| <b>TOTAL - 150 PARKINGS</b>                  |

[illegible]

**l i t e**  
building design

associate member

 **BDAWA**

 **nabd**

**BDAWA**  
**NATIONAL**  
**ASSOCIATION**  
**BUILDING**  
**DESIGNERS**

p - 0467692361  
e - [lohannortie@gmail.com](mailto:lohannortie@gmail.com)

EXZODING

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p - (08) 9470 5377  
drafting@exzo.com.au

**Status**  
DEVELOPMENT APPROVAL

**Project Name**  
PROPOSED MULTI-USE DEVELOPMENTS  
TAPPING DEVELOPMENT  
LOT 01 1369 WANNEROO ROAD, TAPPING  
SARACEN PROPERTIES

TENANCY 06 BASEMENT FLOOR PLAN

|                |          |              |                                |
|----------------|----------|--------------|--------------------------------|
| Project number | 0013-17  | Sheet Number | Current Rev                    |
| Date           | MAY 2017 | A011         |                                |
| Drawn by       | LN       |              |                                |
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[illegible]

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### Status

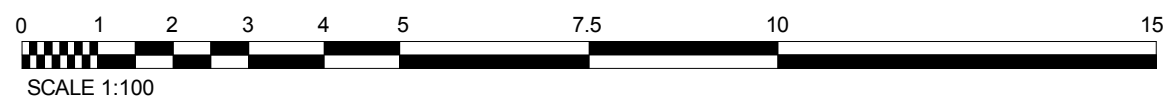
DEVELOPMENT APPROVAL

**Project Name**

PROPOSED MULTI-USE DEVELOPMENTS  
TAPPING DEVELOPMENT  
LOT 01 1369 WANNEROO ROAD, TAPPING  
SARACEN PROPERTIES

## TENANCY 05 GROUND FLOOR PLAN

|                |          |              |                     |
|----------------|----------|--------------|---------------------|
| Project number | 0013-17  | Sheet Number | Current Rev         |
| Date           | MAY 2017 | A012         |                     |
| Drawn by       | LN       |              |                     |
| Checked by     | LN       |              |                     |
|                |          | Scale        | 1 : 100 ON A1 SHEET |



**LAND USE TABLE:**

| CLASS:         | USE:                           | GLA:               | PARKINGS REQUIRED: | PARKINGS PROVIDED:       |
|----------------|--------------------------------|--------------------|--------------------|--------------------------|
| D              | T1 - CONVENIENCE STORE         | 200m <sup>2</sup>  | 14 BAYS            | 14 BAYS                  |
| D              | T2 - DRIVE THROUGH FOOD OUTLET | 210m <sup>2</sup>  | 15 BAYS            | 10 BAYS + 5 IN D/T QUEUE |
| P              | T3 - CAR WASH                  | 270m <sup>2</sup>  | 1 BAYS             | 1 BAYS                   |
| D              | T4 - SHOWROOM                  | 2000m <sup>2</sup> | 67 BAYS            | 53 BAYS                  |
| D              | T5 - CHILDCARE CENTRE          | 1000m <sup>2</sup> | 13 BAYS            | 13 BAYS                  |
| P              | T6 - MEDICAL CENTRE            | 1000m <sup>2</sup> | 42 BAYS            | 46 BAYS                  |
| D              | T7 - SELF STORAGE              | 4325m <sup>2</sup> | 87 BAYS            | 8 BAYS                   |
| <b>TOTALS:</b> |                                | 9005m <sup>2</sup> | 239 BAYS           | 150 BAYS                 |

|  |
|--|
| <b>PARKING TOTALS:</b>                       |
| GROUND FLOOR - <b>91 BAYS</b>                |
| BASEMENT FLOOR - <b>46 BAYS</b>              |
| DRIVE THROUGH QUEUE - <b>5 BAYS</b>          |
| SERVICE STATION UNDER CANOPY - <b>8 BAYS</b> |
| <b>TOTAL - 150 PARKINGS</b>                  |



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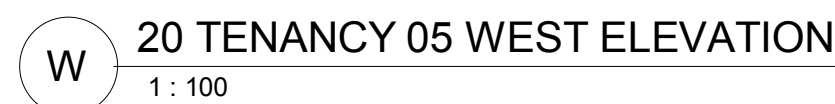
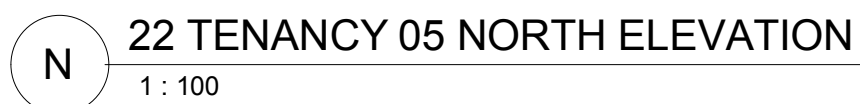
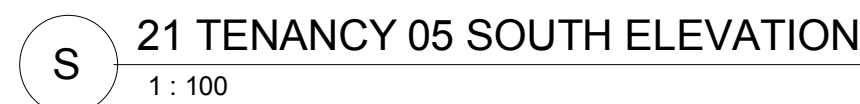
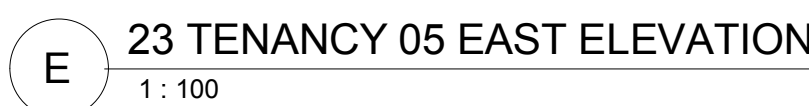
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and

*EXZO*

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Welshpool, Perth WA  
p - (08) 9470 5377  
drafting@exzo.com.au

**Project Name**  
**PROPOSED MULTI-USE DEVELOPMENTS**  
**TAPPING DEVELOPMENT**  
**LOT 01 1369 WANNEROO ROAD, TAPPING**  
**SARACEN PROPERTIES**

|                |          |              |                     |
|----------------|----------|--------------|---------------------|
| Project number | 0013-17  | Sheet Number | Current Rev         |
| Date           | MAY 2017 | A013         |                     |
| Drawn by       | Author   |              |                     |
| Checked by     | LN       | Scale        | 1 : 100 ON A1 SHEET |



TREES



Eucalyptus marginata  
Height: 10m  
Spread: ~6m



Eucalyptus todiana  
Height: 15m  
Spread: ~5m



Eucalyptus decipiens  
Height: 9m  
Spread: 6m



Xanthorrhoea preissii  
Height: 2.5m  
Spread: 1.5m

PLANT MIX 1



Acacia pulchella  
Height: 0.5m



Anigozanthos humilis  
Height: 0.2m



Burchardia congesta  
Height: 0.3m



Conostylis aculeata  
Height: 0.5m

PLANT MIX 2



Calothamnus quadrifidus  
Height: 0.6m



Conostylis candicans  
Height: 0.4m



Dianella revoluta  
Height: 0.5m



Hardenbergia comptoniana  
Height: 0.5m

PLANT MIX3



Hemiandra pungens  
Height: 0.5m



Melaleuca seriate  
Height: 0.6m



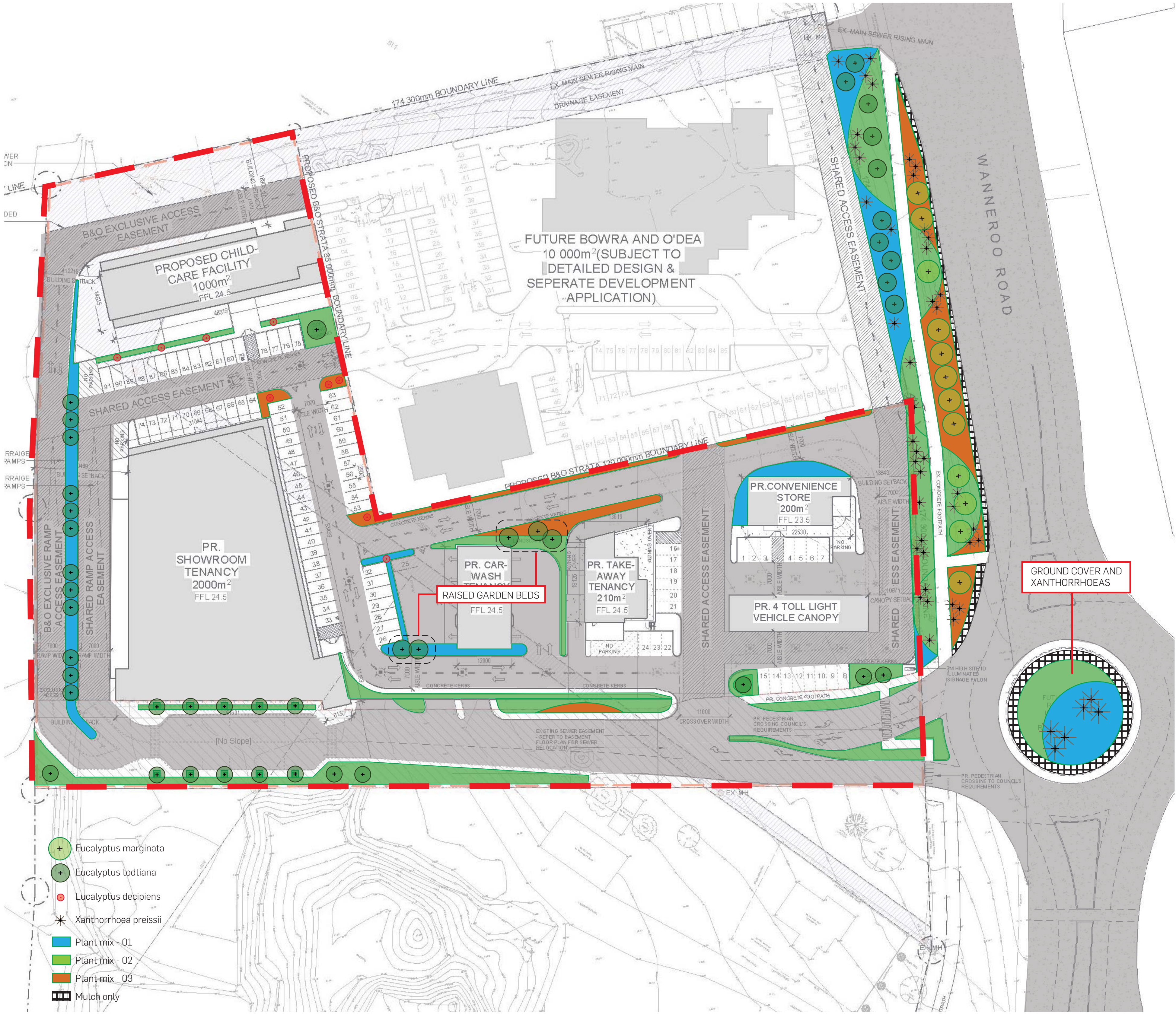
Orthrosanthus laxus  
Height: 0.5m



Patersonia occidentalis  
Height: 0.6m

LANDSCAPING NOTES  
1. SUB-CONTRACTOR SHALL DETERMINE IRRIGATION ZONES AND ALLOW FOR AUTOMATIC RETICULATION TO ALL LANDSCAPE AREAS WITH CONTROLLER LOCATED AS INDICATED ON THE ARCHITECTURAL PLANS. CONTROLLER MUST BE FITTED WITH A RAIN SENSOR.  
2. SUB-CONTRACTOR SHALL DETERMINE THE LOCATION, DIRECTION AND TYPE OF SPRINKLERS AND ENSURE THAT NO WATER IS SPRAYED ONTO BUILDINGS, ROADS, CROSSOVERS, PATHS AND PAVED AREAS.  
3. ALL LANDSCAPING BEDS MUST BE MULCHED TO A DEPTH OF 75MM WITH ORGANIC MULCH.  
4. PLANTING BEDS MUST HAVE A MINIMUM DEPTH OF 300MM OF CLEAN TOP SOIL. TOP SOIL TO BE OF SUITABLE HORTICULTURAL QUALITY, FREE OF ALL CONTAMINANTS SUCH AS LIMESTONE ROAD BASE MATERIAL, CEMENT, CONCRETE, ROCK AND BUILDER'S RUBBLE.  
5. ALL PLANTS EXCEEDING 900mm IN HEIGHT MUST BE SUPPORTED WITH 3 STAKES.  
6. ALL PLANTS MUST BE FERTILIZED DURING PLANTING WITH A SLOW RELEASE FERTILIZER HAVING AN NPK + WETTING AGENT RATIO OF 18:26:10.  
7. LANDSCAPE WORK TO VERGE MUST BE UNDERTAKEN IN ACCORDANCE WITH COUNCIL REQUIREMENTS  
8. PLANTS MIX SPECIES MUST BE GROUPED IN CLUMPS OF 3-5-7 WITHIN NOMINATED AREA.  
9. ALL UNDERSTORY PLANTS TO BE KEPT BELOW 600MM ON VERGES.

| Code          | Species                  | Common Name                 | Size | Max Height |
|---------------|--------------------------|-----------------------------|------|------------|
| Trees         |                          |                             |      |            |
| EUC dec       | Eucalyptus decipiens     | Redheart Moit               | 100L | 9m         |
| EUC mar       | Eucalyptus marginata     |                             | 100L | 40m        |
| EUC tod       | Eucalyptus todiana       | Coastal Blackbutt           | 100L | 15m        |
| Shrubs        |                          |                             |      |            |
| XAN pre       | Xanthorrhoea preissii    | Grass Tree                  | 200L | 2.5m       |
| Ground Covers |                          |                             |      |            |
| Plant Mix 1   |                          |                             |      |            |
| ACA pul       | Acacia pulchella         | Prickly Moses               | 5L   | 0.5m       |
| ANG hum       | Anigozanthos humilis     | Catspaw                     | 5L   | 0.2m       |
| BUR con       | Burchardia congesta      | Milkmaids                   | 5L   | 0.3m       |
| CON acu       | Conostylis aculeata      | Prickly Conostylis          | 5L   | 0.5m       |
| Plant Mix 2   |                          |                             |      |            |
| CAL qua       | Calothamnus quadrifidus  | One-sided Bottlebrush Dwarf | 5L   | 0.6m       |
| CON can       | Conostylis candicans     | Grey Cottonheads            | 5L   | 0.4m       |
| DIA rev       | Dianella revoluta        | Flax Lily                   | 5L   | 0.5m       |
| HAR com       | Hardenbergia comptoniana | Native Wisteria             | 5L   | 0.5m       |
| Plant Mix 3   |                          |                             |      |            |
| HEM pun       | Hemiandra pungens        | Snake Bush                  | 5L   | 0.5m       |
| MEL ser       | Melaleuca seriate        |                             | 5L   | 0.6m       |
| ORT lax       | Orthrosanthus laxus      | Morning Iris                | 5L   | 0.5m       |
| PAT occ       | Patersonia occidentalis  | Western Patersonia          | 5L   | 0.6m       |





# PROPOSED MIXED BUSINESS DEVELOPMENT

LOT 1 (NO. 1369) AND 132 (NO. 1351)  
WANNEROO ROAD, TAPPING



20 NOVEMBER 2017  
PA1468  
FINAL FOR LODGEMENT  
PREPARED FOR SARACEN





**URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:**

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| Project Code       | PA1468           |
| Report Number      | For Lodgement    |



# TABLE OF CONTENTS

|  |    |
|--|----|
| Introduction .....   | 1  |
| 1. Site Context .....  | 2  |
| 1.1. Location .....  | 2  |
| 1.2. Legal Description .....                                   | 3  |
| 1.3. Site Description .....                                    | 4  |
| 1.4. Traffic and Access .....                                  | 6  |
| 1.5. Local Context .....                                       | 6  |
| 1.6. Consultation .....  | 6  |
| 2. Proposal .....  | 7  |
| 2.1. Proposed uses .....                                       | 7  |
| 2.1.1. Convenience Store .....                                 | 7  |
| 2.1.2. Drive Through Food Outlet .....                         | 8  |
| 2.1.3. Carwash .....   | 8  |
| 2.1.4. Showroom .....  | 9  |
| 2.1.5. Medical Centre .....                                    | 9  |
| 2.1.6. Childcare Centre .....                                  | 9  |
| 2.1.7. Self-Storage .....                                      | 10 |
| 2.2. Colours and MATERIALS .....                               | 10 |
| 2.3. Parking and Access .....                                  | 10 |
| 2.4. Landscape and Amenity .....                               | 11 |
| 2.5. Servicing .....   | 11 |
| 3. Planning Framework and Assessment .....                     | 12 |
| 3.1. Framework for Consideration .....                         | 12 |
| 3.2. State Planning .....                                      | 12 |
| 3.3. Local Planning .....                                      | 15 |
| 3.3.1. City of Wanneroo District Planning Scheme No.2 .....    | 15 |
| 3.3.2. Carparking assessment .....                             | 16 |
| 3.3.3. Drovers Place Structure Plan No.80 .....                | 17 |
| 3.3.4. Drovers Place Central Precinct Detailed Area Plan ..... | 20 |
| 3.3.5. Other Relevant Planning Documents .....                 | 26 |
| 4. Conclusion .....  | 27 |
| Disclaimer .....   | 28 |

**Appendix A** Certificate of Title

**Appendix B** Development Application Plans

## FIGURES:

|  |           |
|--|-----------|
| <b>Figure 1 – Location Plan .....</b>                              | <b>2</b>  |
| <b>Figure 4 – Bushfire Prone Area .....</b>                        | <b>5</b>  |
| <b>Figure 5 – MRS Extract .....</b>                                | <b>14</b> |
| <b>Figure 6 – DPS2 Extract .....</b>                               | <b>15</b> |
| <b>Figure 7 – Drovers Place Structure Plan No.80 Extract .....</b> | <b>17</b> |
| <b>Figure 8 – Detailed Area Plan Extract .....</b>                 | <b>25</b> |

**No table of figures entries found.**Tables:



|   |           |
|---|-----------|
| <b>Table 1 – Summary of Proposal .....</b>  | <b>1</b>  |
| <b>Table 2 – Lot Details .....</b>  | <b>3</b>  |
| Table 3 – Surrounding Land Uses .....   | 6         |
| <b>Table 4 – Key State Planning Documents .....</b>                               | <b>12</b> |
| <b>Table 5 – Land Use Permissibility – DPS 2 .....</b>                            | <b>16</b> |
| <b>Table 7 – Assessment against Structure Plan provisions. ....</b>               | <b>18</b> |
| <b>Table 8 – Assessment against relevant Detailed Area Plan requirements.....</b> | <b>20</b> |
| <b>Table 9 – Key Local Planning Documents .....</b>                               | <b>26</b> |



# INTRODUCTION

This report has been prepared by Urbis on behalf of Saracen as part of an application for planning approval for the use and development of Lot 1 (No. 1369) and 132 (No. 1351) Wanneroo Road, Tapping. This application proposes a mixed use development on the subject site inclusive of a Medical Centre, Showrooms, Take-away food outlet/Drive Through food outlet, Car wash, Childcare Centre, Convenience Store and Warehouse (self-storage).

This report considers the planning context of the proposed development and provides an assessment of the application against the relevant State and local planning framework. The information contained in this report confirms that the proposed Service Centre is an appropriate and consistent outcome that reflects the applicable planning framework, most specifically the Drovers Place Structure Plan No.80 and Drovers Place Central Precinct Detailed Area Plan.

. The report has been set out in the following manner:

- **Site Details:** a brief contextual discussion and description of the site.
- **Proposal:** a description of the proposed development.
- **Planning Assessment:** an assessment of the proposal against applicable local and regional framework.

The following **Table 1** provides a summary of the proposal.

**Table 1 – Summary of Proposal**

| <b>Property Location</b>        | <b>Lot 1 (No. 1369) Wanneroo Road, Tapping</b> | <b>Lot 132 (No. 1351) Wanneroo Road, Tapping</b>  |
|---------------------------------|--|---|
| <b>MRS Zoning:</b>              | Urban  | Urban   |
| <b>DPS Zoning:</b>              | Urban Development                              | Urban Development   |
| <b>SP Use Class</b>             | Business                                       | Business  |
| <b>District Planning Scheme</b> | City of Wanneroo District Planning Scheme No.2 |   |
| <b>Structure Plan</b>           | Drovers Place Structure Plan No. 80            |   |
| <b>Detailed Area Plan</b>       | Drovers Place Central Precinct, Wanneroo       |   |
| <b>Existing Land Use</b>        | Vacant   | Single-detached dwelling – former Ernie Chitty House (Category 3 – Local Heritage Survey) |
| <b>Lot Size</b>                 | 3.28 hectares                                  | 3.40 hectares   |
| <b>Total Lot Area</b>           | 6.68 hectares                                  |   |



# 1. SITE CONTEXT

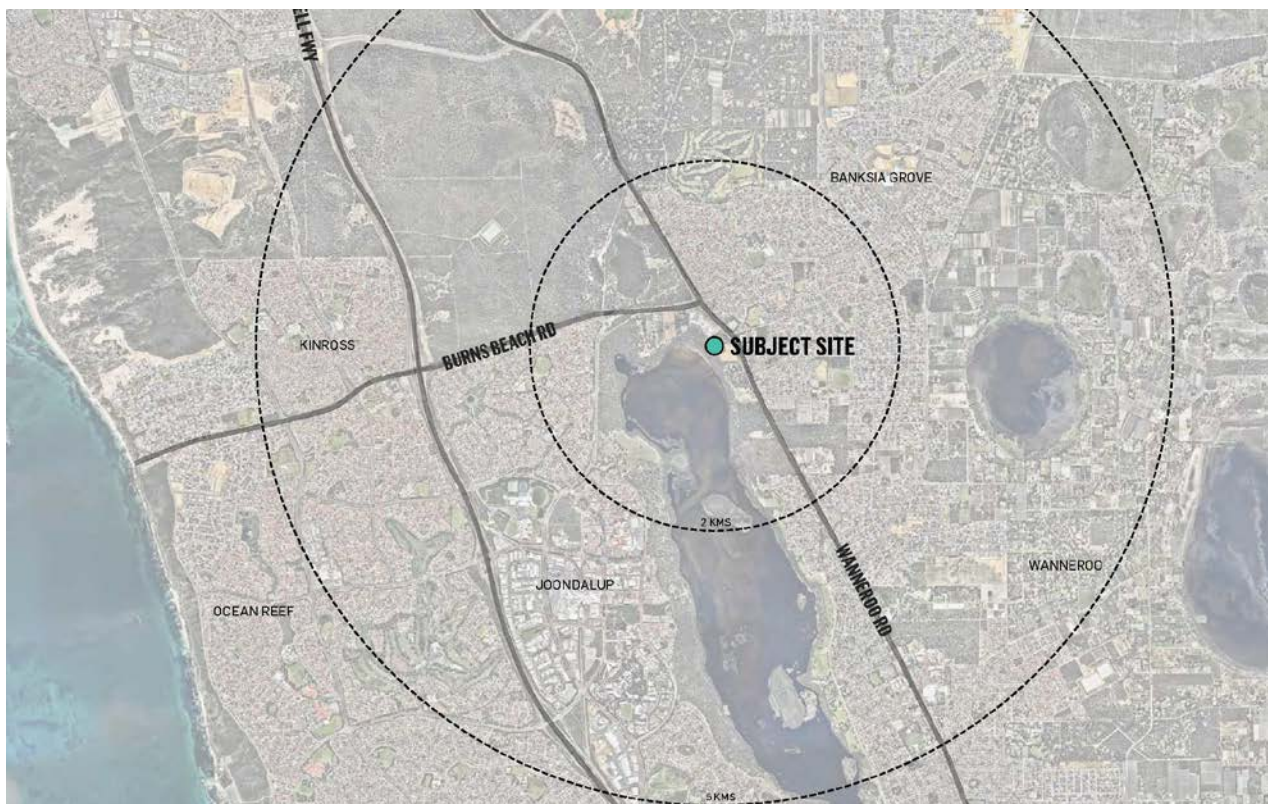
This section provides an overview of the key background information relating to the property at Nos. 1351 and 1369 Wanneroo Road, Tapping. In particular, this section outlines subject site's location, context and site characteristics.

## 1.1. LOCATION

The subject site comprises of Lot 1 (No. 1369) and 132 (No. 1351) Wanneroo Road and is located in the northern suburb of Tapping, within the City of Wanneroo. The site is located approximately 33km north of the Perth CBD and is well connected to the regional road network through direct connections to Wanneroo Road; Joondalup Drive 400m to the north; and the Mitchell Freeway 4km west. The area is further serviced by the Currambine Train Station, which is on the Joondalup train line and Joondalup Strategic Metropolitan Centre is located within 5km.

A context plan showing the subject site and its surrounding elements is provided in **Figure 1**.

**Figure 1 – Location Plan**



Source: Urbis



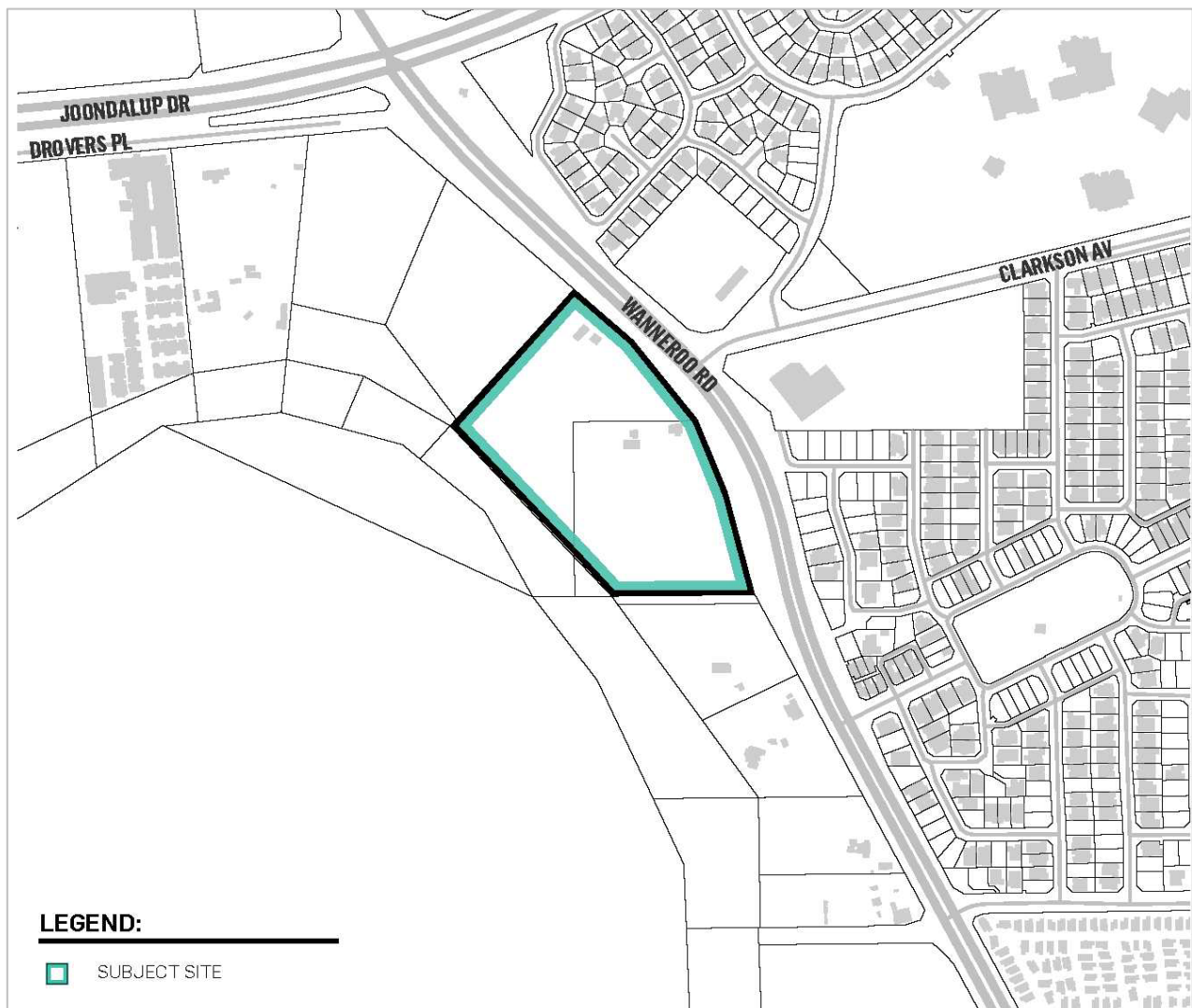
## 1.2. LEGAL DESCRIPTION

This development application refers to Lot 1 (No. 1369) and Lot 132 (No. 1351) Wanneroo Road, the details of which are provided in **Table 2** and **Figure 2** below. The Certificate of Title for the subject lots are attached at **Appendix A**.

Table 2 – Lot Details

| Lot | Plan    | Address                         | Vol/Folio | Area          | Proprietor              |
|-----|---------|---------------------------------|-----------|---------------|-------------------------|
| 1   | P007782 | 1369 Wanneroo Road,<br>Wanneroo | 28-14A    | 3.28 hectares | Bowra and O'Dea Pty Ltd |
| 132 | P231049 | 1351 Wanneroo Road,<br>Wanneroo | 1663-446  | 3.40 hectares | Lakewide Pty Ltd        |

Figure 2 – Cadastral Plan



Source: Urbis

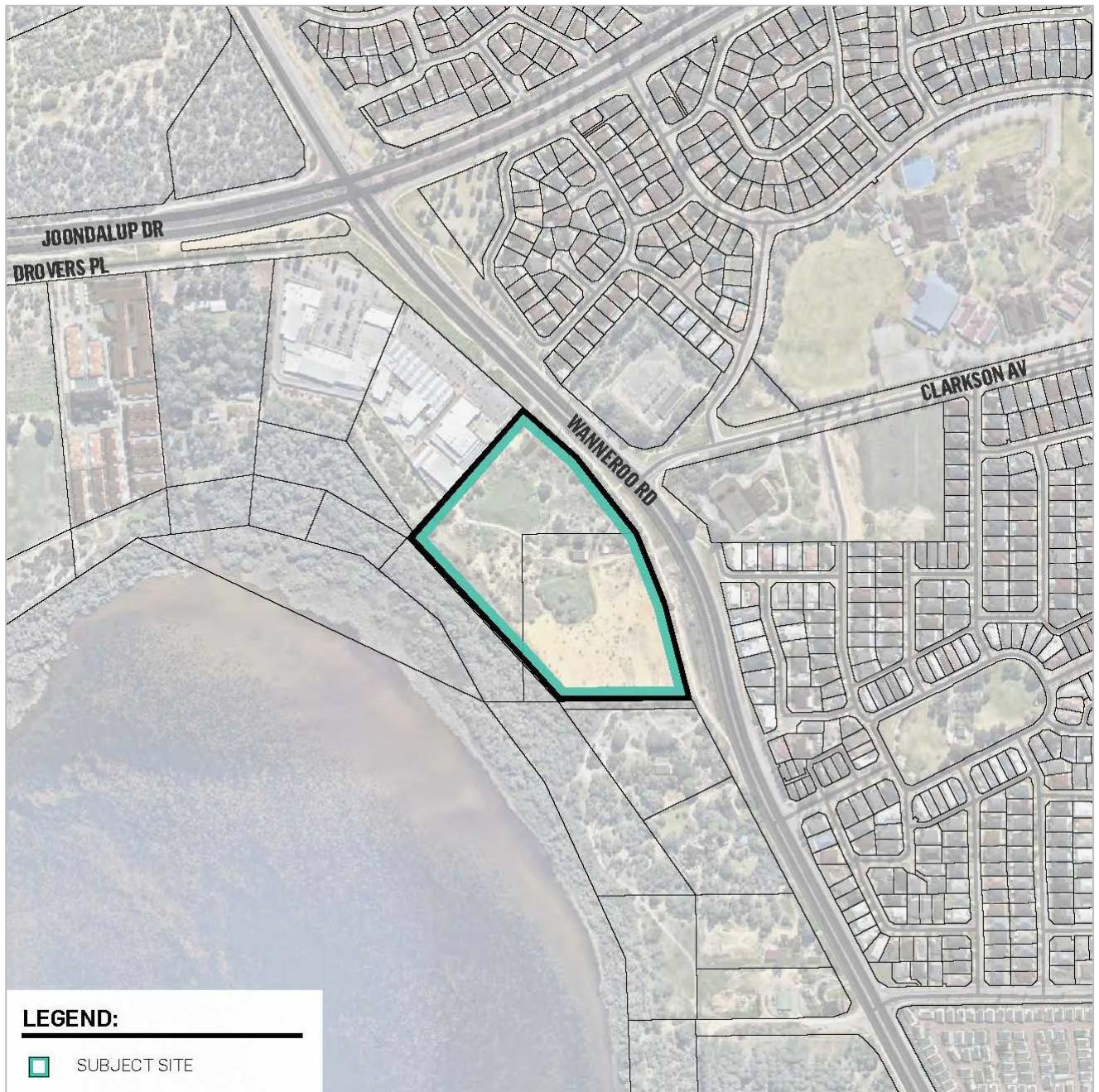


### 1.3. SITE DESCRIPTION

Lot 1 and Lot 132 are generally vacant and consist of sandy soils or low grass shrubs. There is a scattering of mature vegetation and a heritage dwelling is located in the north-eastern corner of Lot 132. The topography of the site slopes from the north of the site towards the south western boundary where the site abuts the regional park with a cross-fall of approximately 10m.

The subject site forms part of the Drovers Market Place which comprises of retail, bulky good, health services and light industrial land uses such as self-storage, Pet City, a medical centre and a butcher.

**Figure 3 – Aerial Plan**



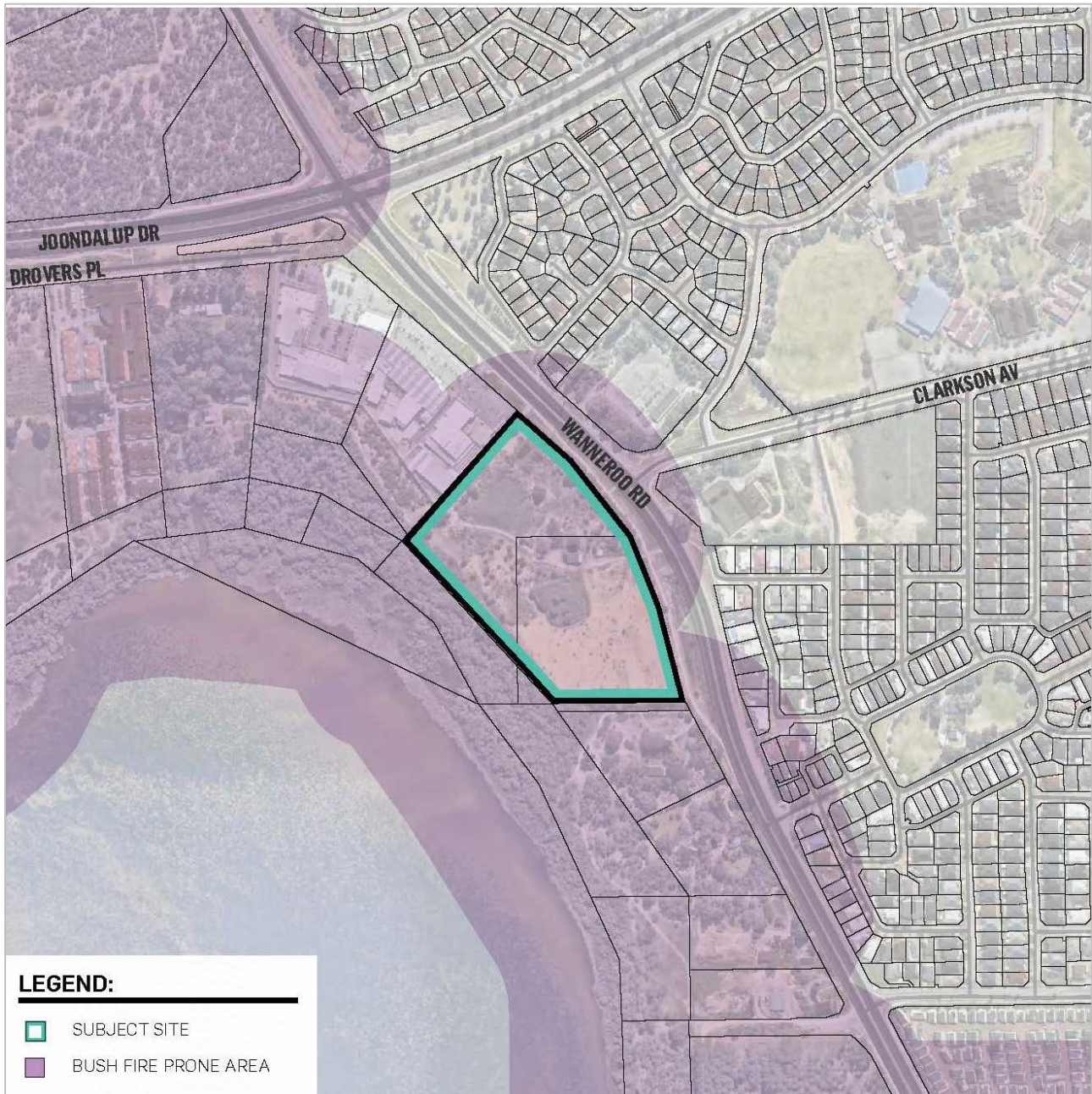
Source: Urbis



A review of the Department of Water and Environment Regulation's online contaminated database reveals that some of the site is identified as a known high to moderately contaminated site. Specifically Lot 132 is classified as containing acid sulphate soils. It is anticipated that appropriate conditions of development approval will be imposed in relation to these items.

The subject site directly abuts a significant Bush Forever Area. These areas have been identified by the Department of Fire and Emergency Services, as an area being subject, or likely to be subject to bushfire attack. As a result, the site is entirely identified as a bush fire prone area. A bushfire management plan has been drafted and will be submitted shortly after lodgement.

**Figure 2 – Bushfire Prone Area**



Source: Urbis

Three heritage sites are noted on the municipal heritage inventory as detailed by inherit:

- The Ernie Chitty House (09502) and Henry Chitty House (9522) are noted to be located on Lot 132. These dwellings are noted to be examples of post World War II market garden dwellings, highlighting the economic climate of the time where returned servicemen purchased dwellings and land off pastoral employees. These are Category 4 structures and should be retained or reserved if possible



otherwise afforded appropriate recognition and interpretation. A review of the site notes that only one of the structures remains. Chitty House is not intended to be retained as part of this development but reference to the historical context of the site will be incorporated into the detail landscape design.

- The Charles Ashby House (9504) is noted to be located on Lot 1. This is noted to be an example of a limestone cottage from the early 1900s associated with the first market gardens along Lake Joondalup. This is noted to be a Category 4 structure and should be retained or reserved if possible otherwise afforded appropriate recognition and interpretation. A review of the site notes that this structure no longer remains.

An existing sewer pump station is located within the drainage easement in the north-western corner of Lot 1. Two easements run through the site providing for the main sewer rising main and drainage infrastructure to and from this pump station.

## 1.4. TRAFFIC AND ACCESS

The subject site benefits from a primary frontage to Wanneroo Road. Wanneroo Rd is classified as a 'primary distributor' road under the Main Roads WA Function Road Hierarchy and a 'primary regional road' under the MRS. Nearby, Joondalup Drive is classified as a 'distributor A' road and a 'primary regional road' under the MRS.

## 1.5. LOCAL CONTEXT

The suburb of Tapping is generally characterised by low density residential development. Tapping is bordered by Joondalup Drive to the north, Conti Rd to the south, Pinjar Rd to the east and Wanneroo Road to the west.

Further details of the land uses surrounding the subject site have been summarised in **Table 3**:

Table 3 – Surrounding Land Uses

|       | Immediately Adjacent               | Zoning               | Further Surrounds                         | Zoning   |
|-------|------------------------------------|----------------------|---|--|
| North | Drovers Place Commercial Precinct. | Business             | Joondalup Drive<br>Neerabup Regional Park | Other Regional Road<br><br>Regional Parks and Recreation |
| South | Single residential<br>Vacant land  | Special Residential  | Public Open Space                         | Parks and Recreation                                     |
| East  | Residential development            | Residential R20      | Residential development                   | Residential R20  |
| West  | Yellagonga Regional Park           | Parks and Recreation | Lake Joondalup                            | Regional Parks and Recreation                            |

## 1.6. CONSULTATION

Pre-lodgement discussions were had with the City of Wanneroo, Department of Planning, Lands and Heritage and Main Roads in relation to this application, particularly associated with the site's vehicular access from Wanneroo Road. A meeting was also held in mid November 2017 with the Metropolitan Road Improvement Alliance to discuss the future design intentions for the Joondalup Drive interchange design and surrounding works.



## 2. PROPOSAL

The proposed mixed-use development includes a range of commercial land uses which are compatible not only with the proposed uses within the site, but with the surrounding commercial and residential development. The proposal incorporates a range of mixed business tenancies inclusive of commercial, food and beverage and community services.

The development utilises the Wanneroo Road frontage and topography of the site in order to maximise the development potential of the site in addition to maintaining the amenity, views and levels of the adjacent regional park as required by the local planning framework.

The site affords access via a to-be-constructed road running along the south-eastern boundary from Wanneroo Road. This road will be established by way of a subdivision application lodged with the WAPC concurrently with this development application. The intersection of the proposed road with Wanneroo Road will create a four-way intersection with Clarkson Avenue. The responsibility for the funding and construction of this intersection is to be determined through this development approval process. This is further detailed below.

The site layout makes use of the at-grade land abutting Wanneroo Road in order to facilitate the convenience store and fuel bowzers, inclusive of the underground components. Whilst minor retaining is required in order to lower the site from Wanneroo Road the corner location is generally at grade and allows for the excavation required to facilitate the infrastructure associated with the fuel bowser and underground tanks.

The establishment of an undercroft at the rear of the site in order to incorporate a number of additional uses which do not require high levels of exposure thus ensuring there are no underutilised spaces, and the full development potential of the site can be achieved without the requirement for significant retaining across the site. The upper level developments present at grade on a decked structure.

The incorporation of the under-croft also allows for the site to be developed around the existing drainage and sewer easement which runs through the site. The realignment of the easement and associated infrastructure within manoeuvring aisles in the basement level and the use of the decking structure opens up the site for development in a manner which has not previously been considered. This results in a development outcome which is of a higher quality built form, site layout and is financially viable.

It is noted the northern portion of the site is to be developed for the purposes of a funeral parlour run by Bowra and O'Dea. This portion is subject to detailed design and a stand-alone development application as such, this does not make up part of this application. The indicative layout has been shown in greyscale to demonstrate the ability for the development proposed under this application and the future funeral parlour site to develop on the site in a cohesive manner which allows for access easements both within the site and to the north to be achieved and appropriate interfaces to be established.

A full set of site plans and elevations supporting the development application are located in **Appendix B**.

### 2.1. PROPOSED USES

#### 2.1.1. Convenience Store

The proposed convenience store is located within the eastern corner of the application area, at the corner of Wanneroo Road and the proposed east – west road. The convenience store includes:

- A 200sq.m convenience store inclusive of the main convenience store, storage rooms, bathrooms and office
- A lockable service yard and bin store attached to the convenience store
- A four (4) bowser fuel pump with canopy (United Petroleum)
- Underground fuel tanks

In addition to enabling the construction of the infrastructure associated with this land use due to this point of the site being generally at-grade, the corner location promotes exposure to Wanneroo Road and thus capturing passing trade.

Access to the convenience store is via a crossover to the proposed road and shared access easement. The convenience store building is set back 14.6m from Wanneroo Road with the canopy being setback 11m. A



7m wide manoeuvring aisle surrounds the use allowing for the required swept paths of the fuel tankers in servicing the site. This manoeuvring aisle also makes up the shared access easement required in order to provide a link to Drovers Place to the north.

The convenience store and bowzers are oriented to the proposed road. The requirement for the access easement, fuel tanker manoeuvring and the height difference from Wanneroo Road restrict the ability for the tenancy to front onto Wanneroo Road and provide a meaningful interface. The service yard and bin store facilities, located adjacent to Wanneroo Road are to be enclosed with the façade treatment to be of a high quality in this location.

The convenience store includes signage associated with the operator of the tenancy inclusive of:

- 7m high, 2.1m wide pylon sign located on corner of proposed road and Wanneroo Road. This sign incorporates the United logo, fuel types provided and pricing of fuel.
- On façade signage – United logo located on the canopy and convenience store

### **2.1.2. Drive Through Food Outlet**

The proposed drive through food outlet is located south-east of the convenience store, adjacent the proposed road. The 210sq.m tenancy includes:

- Internal public service area inclusive of service counter and seating
- Undercover seating area (external)
- Back of house components inclusive of the cooking facilities, store, bin/plant
- Two drive through windows
- Drive through lane with partial awning over
- Amenities

The drive through food outlet is located at the transition from the at-grade portion of the site to the decked component. The tenancy in itself is raised along the north-east elevation with the south west elevation and drive through sitting level on the decked structure.

The front façade sits towards Wanneroo Road, directly fronting onto the north south shared access easement. Access and egress from the site and drive through lane is obtained via the shared access easement and internal access aisle.

The drive through food outlet includes signage associated with the operator of the tenancy inclusive of:

- On building signage noting the operator of the drive through food outlet
- Directional signage associated with the drive through
- Information / menu boards associated with the drive through

### **2.1.3. Carwash**

The proposed 210sq.m carwash facility is located between the drive through food outlet and the showroom tenancies, generally to the centre of the site. The carwash facility sits on the decked structure above the self-storage units. The carwash facility includes:

- One (1) auto wash bay
- Three (3) self serve wash bays
- Four (4) vacuum bays
- Plant room

The nature of the carwash facility means that there is no primary frontage and as such the location, to the centre of the site is optimal. The wash bays run from north east to south west and are generally screen from Wanneroo Road by the drive through food outlet.

The access to the carwash facility is provided via internal access aisles off the shared access easement.

The drive through food outlet includes signage associated with the operator of the tenancy inclusive of:

- On building signage noting the operator of the carwash
- Directional signage associated with the wash bays
- Informational signage associated with the wash bays and vacuum stations



### **2.1.4. Showroom**

The proposed showroom tenancy is located on ground level (on the decked structure) to the rear of the site. The 2110sq.m tenancy fronts the centre of the site and associated car parking. The Showroom consists of:

- Main showroom floor
- Storage
- Offices and staff amenities
- Bin store
- Loading zone

The Showroom provides an attractive frontage to the proposed road and a landmark feature with the projection associated with the lift and stairwell to the lower level parking and medical centre. The use of glazing, high quality materials such as timber and feature cladding creates high quality facades to the north east and south east. The rear of the showroom fronts onto the access ramp and the façade treatments reflect this in terms of the materials proposed.

Access to the showroom can be obtained via both the shared access easements and internal manoeuvring aisles. The share ramp access easement abuts the rear of the showroom tenancy and provides direct access for servicing and deliveries.

The showroom is setback 17.9m from the rear boundary and will have a nil setback from the proposed road.

The showroom includes on building signage associated with the tenant of the showroom.

### **2.1.5. Medical Centre**

The proposed medical centre consists of 1,000sq.m of medical suites and supporting facilities located within the under-croft to the rear of site, under showroom tenancy. The medical centre includes:

- Reception/waiting room
- Six (6) consulting rooms
- Nurses room
- Dental reception
- Dental treatment rooms
- Pathologist reception
- Pathology rooms
- Laboratory – dental and pathology
- Offices and staff facilities
- Amenities
- Pharmacy

The medical centre presents a nil setback to the proposed road and has a setback of 17.9m from the rear boundary.

The street frontage is to be constructed to a high standard, incorporating glazing, feature cladding and multiple openings to the street. The south-western façade incorporates an attractive façade however as this elevation directly abuts the shared access ramp incorporating further articulation of the façade is not feasible.

The medical centre is accessed via the proposed road with associated parking being located on the street or at basement level under the decked structure.

The medical centre includes on building signage associated with the operators of the subtenancies and signage located on the stairwell / landmark feature identifying the Tapping Medical Centre.

### **2.1.6. Childcare Centre**

The proposed childcare centre is located within the western corner of the application area. The centre includes 1,000sq.m of internal area with associated outdoor play areas.

- 5 internal rooms catering for babies to pre-schoolers
- Covered outdoor areas
- Offices, stores, staff room, reception, amenities, kitchen



The childcare centre is most directly accessed via the shared access ramp and western shared access easement. Alternative access can be obtained via the eastern shared access easement

The orientation and layout of the child care centre has been undertaken in order to maximise prevailing weather conditions in addition to the buffers associated with the adjacent sewer pump station.

The childcare includes on building signage associated with the operator of the childcare centre.

### **2.1.7. Self-Storage**

The proposed self-storage units are located within the under-croft to the rear of the site. The self-storage totals 525 units across 4,325sq.m in three (3) locations within the basement.

The location of the units within the under-croft allows for the use of space which would otherwise be vacant, and allows for a use which has very little opportunities in the way of active and attractive frontages to be established on the site.

Access to the self-storage units is obtained via the proposed road.

The self-storage units include on building and directional signage associated with the tenant.

## **2.2. COLOURS AND MATERIALS**

The proposal generally includes the use of corporate colours for tenancies, however has retained a level of consistency in order to present as a cohesive and high-quality development. The uses of concrete tilt up panels mixed with feature cladding and timber elements

It is requested that a condition be included on any approval requiring the preparation of a schedule of materials and colours be undertaken and lodged with the local authority prior to building permits are issued for each tenancy.

## **2.3. PARKING AND ACCESS**

The proposal includes a yet-to-be constructed road which is to be public in nature. This road is to be created by way of a subdivision application lodged concurrently with this development application. The road is public in nature and provides access to site, tenancies and pedestrian opportunities to regional park to west. The road reserve is proposed to be 20m in width with on street parking to the rear of the site and landscaped median strips on the eastern portion.

The proposal includes a number of shared access easements in order to facilitate access to each of the tenancies that make up part of this proposal. These access easements are connected via internal manoeuvring aisles. The shared access easements and internal aisles range from 7m to 11m in width dependant on function.

An exclusive access ramp is also provided for the future Bowra and O'Dea operation. This runs along the south western and north western boundary from the proposed road to the future Bowra and O'Dea site. It is proposed to construct this access ramp and easement as part of this development application due to the construction requirements associated with the ramp and benefits of constructing with the shared ramp access and decked structure.

In accordance with the requirements of the local planning framework the proposal includes a share access easement / 7m slip road running alongside Wanneroo road and connecting to Drovers Place in the north. This road will be constructed up to the north western boundary of the application area as part of this development application (i.e up to the boundary with the future Bowra and O'Dea site). The remainder of this access across the Bowra and O'Dea site is shown win greyscale in order to demonstrated that connection will be created to Drovers Place commercial development in future.

Pedestrian access through the site is both legible and safe with a number of pedestrian crossings located across the proposed road and through the car parking and raised kerbs providing for pedestrian pathways. A clear pedestrian path is provided from Wanneroo Road to the Yellagonga.

In accordance with the Drovers Place Structure Plan No.80, there is a requirement to upgrade the Wanneroo Road and Clarkson Avenue intersection. Whilst signalisation of this intersection has previously been suggested, detailed design consideration by the project Traffic engineer Transcore, has suggested that a roundabout would provide better levels of service and mitigate concerns of stacking through the intersection



as a result of access arrangements to the new development via the proposed public road. Further detail on this intersection and all internal access movements will be provided in a soon to be submitted Traffic Impact Statement.

The cost and responsibility for this intersection upgrade is not clearly defined in either the Drover Place Structure Plan or an associated developer contribution arrangement. Whilst Saracen Property acknowledge they should be a significant contributor to the upgrade, they do not believe they should be burdened with 100% of this cost. In this regard, it is anticipated that the City of Wanneroo and/or MRWA through the Metropolitan Road Improvement Alliance should contribute to this upgrade. The details of this apportionment are to be determined post-lodgement of this application.

Parking provision for different land uses within the development would meet and exceed the requirements of the City of Wanneroo DPS 2 except for the showroom (14 bays shortfall) and self-storage units (79 bays shortfall) which results in overall parking shortfall of 89 parking bays for the development. It should be noted that parking demand for the self-storage units has been calculated using the warehouse land use parking requirement within the TPS 2. In our view, this results in significant overestimation of the parking demand for the self-storage facility.

Considering the variety of the land uses within the proposed development, high level of cross-trade or multi-purpose trips (about 30%) are anticipated for the development. Applying the same ratio to the parking demand would result in parking demand of 168 bays which would reduce the parking shortfall to 18 bays. It should be noted that the peak day and peak hour of the proposed land-uses are not overlapping and therefore reciprocal parking arrangement would be available for the different land uses within the development and in particular for the self-storage units which would be typically utilised outside of the peak periods of the other land uses. Therefore, the parking supply of 150 bays is expected to be sufficient for the development.

## **2.4. LANDSCAPE AND AMENITY**

The proposal includes 1600sq.m of soft landscaping across the application area. This is interspersed across the application area to soften the amount of hardstand and built form and provide a link to the regional park to the south west. Landscaping is to be a mix of water tolerant species through the main site, with larger trees being planted within the proposed road, connecting the site to the adjacent regional park.

It is requested that a condition be included on any approval requiring the preparation of a landscaping plan be undertaken and lodged with the local authority prior to building permits are issued.

## **2.5. SERVICING**

A drainage easement and sewer line are to be realigned through the site to allow for development to proceed whilst access and clearance to these lines will be maintained through to the pump station. The applicant is currently working with the Water Corporation to confirm acceptance of this new infrastructure alignment corridor and the protection thereof.

An initial search of existing power and telecommunication infrastructure suggests the proposal can be readily services without major upgrade.



## 3. PLANNING FRAMEWORK AND ASSESSMENT

This section describes and confirms the proposal's alignments with planning framework. It is understood that the following key documents will be considered in the assessment of this application:

### 3.1. FRAMEWORK FOR CONSIDERATION

The proposed legislative framework and policy base providing for the assessment and determination of the application is as follows:

- City of Wanneroo District Planning Scheme No. 2 (DPS2). The application is to be determined in accordance with the provisions of Part IV – General Development Requirements.
- Drovers Place Structure Plan No. 80. The SP guides the detailed planning, subdivision and development of land, including land use classifications, zones and housing densities in residential areas.
- Drovers Place Central Precinct Detailed Area Plan. The detailed area plan outlines aspiration of the urban design and the overall look of the built area including streetscape, landscaping, building height and topography control measures.
- State Planning Policy 3.7: Planning in Bushfire Prone Areas and Guidelines for Planning in Bushfire Prone Areas (SPP 3.7);
- City of Wanneroo Local Planning Policies

### 3.2. STATE PLANNING

The proposed mixed business development strongly aligns with the relevant State planning framework as detailed in **Table 3** below.

**Table 4 – Key State Planning Documents**

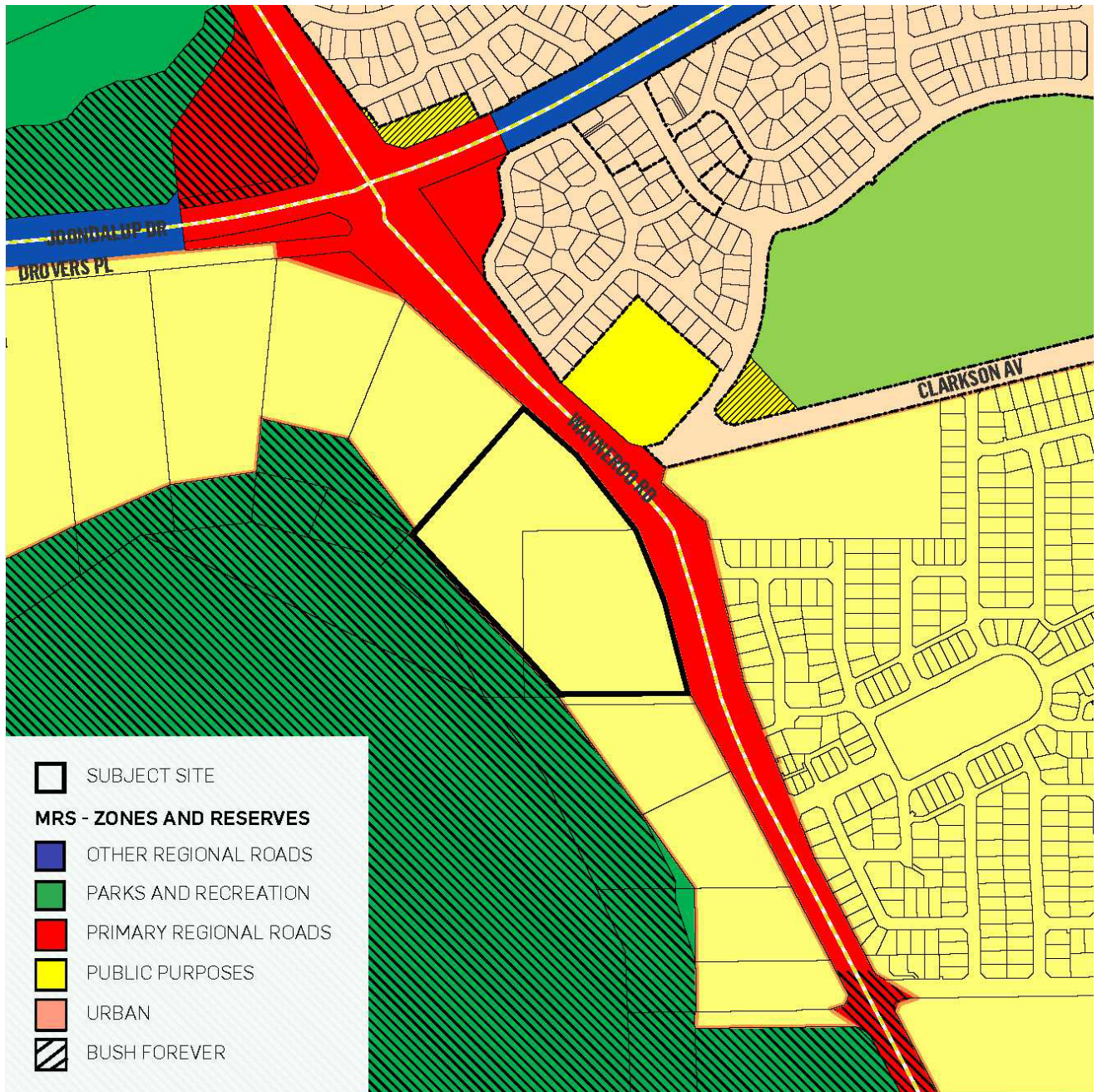
| Document   | Relevant Provisions/Objectives   | Compliance   |
|--|--|--|
| <b>Metropolitan Region Scheme</b><br><br><i>The Metropolitan Region Scheme (MRS) is a high level statutory land use plan over the metropolitan region.</i>   | The subject site is zoned 'Urban' – which allows for a range of activities including residential, commercial, recreational and light industry (Refer <b>Figure 5</b> ).  | The proposed mixed business development comprises of commercial and light industrial land uses and is therefore considered consistent with the intentions of the MRS 'Urban' zoning.   |
| <b>Directions 2031 and Beyond</b><br><br><i>High level strategic spatial plan which sets the vision for the future expansion of the Perth and Peel area.</i> | <p>This high-level spatial framework establishes a vision for the future expansion of Perth and a population of 3.5 million people by 2031.</p> <p>Directions 2031 estimates that the population of the north-west subregion will grow by approximately 39% by 2031. In addition, the document identifies that the region has a low rate of employment self-sufficiency and introduces an employment sufficiency target of 60% with 69,000 new jobs by 2031.</p> | The proposed mixed business development is consistent with the strategic intentions of Directions 2031 providing for necessary services within the Wanneroo/Tapping locality. The proposed development will contribute to the areas employment sufficiency target with the creation of a significant number of new jobs. |



| Document   | Relevant Provisions/Objectives   | Compliance   |
|--|--|--|
| <p><b>Perth and Peel @ 3.5 Million</b></p> <p><i>Perth and Peel @ 3.5million is an overarching document that buildings on the objectives of Directions 2031 and Beyond and provides a common link between the four sub-regional planning frameworks.</i></p> | <p>Perth and Peel @ 3.5million is an overarching document that buildings on the objectives of Directions 2031 and Beyond and provides a common link between the four sub-regional planning frameworks.</p> <p>The subject site has been zoned 'Urban - Developed' under the Perth and Peel @ 3.5million spatial plan. The 'Urban - Developed' zoning refers to areas that are currently zoned 'Urban' and have been developed.</p> | <p>The proposal will have no implications on the zoning of the subject site under the Perth and Peel @ 3.5million. Nor will the proposal have any implications on the indicative future locations of regional roads and public infrastructure.</p>   |
| <p><b>North West Metro-Sub-Regional Planning Framework (May 2015)</b></p> <p><i>The draft framework considers where future homes and jobs will be located and provides the spatial plan of the Perth and Peel regions for the next 35 – 40 years.</i></p>    | <p>The framework identifies key activity centres and community nodes whilst achieving a consolidated and robust urban form. The economy and employment are key objectives, building employment bases whilst utilising existing infrastructure in order to boost employment self-sufficiency within the sub-region.</p>   | <p>The proposal is consistent with the economic and employment objectives of the sub-regional planning framework. The proposal incorporates a range of land uses which will generate employment thus contributing to the local economy and employment self-sufficiency.</p>  |
| <p><b>SPP3.7 Planning in Bushfire Prone Areas</b></p> <p><i>State Planning Policy No. 3.7 (SPP 3.7) outlines the requirements and guidelines for development in bushfire prone areas.</i></p>  | <p>The subject site is identified as a bushfire prone area (Refer <b>Figure 4</b>) the following key objectives apply to the site:</p> <ul style="list-style-type: none"> <li>• The preservation of life and the management of bushfire impact are paramount; and</li> <li>• Identify apparent risks through all phases of decision making, in an effort to reduce vulnerability.</li> </ul>                                       | <p>The key bushfire risks associated with the subject site are considered to come from the vegetation on the adjacent public open space.</p> <p>A bushfire assessment is currently being undertaken on site. A copy of the bushfire attack level assessment and bushfire management plan will be provided in due course.</p> |



Figure 3 – MRS Extract



Source: *Urbis*

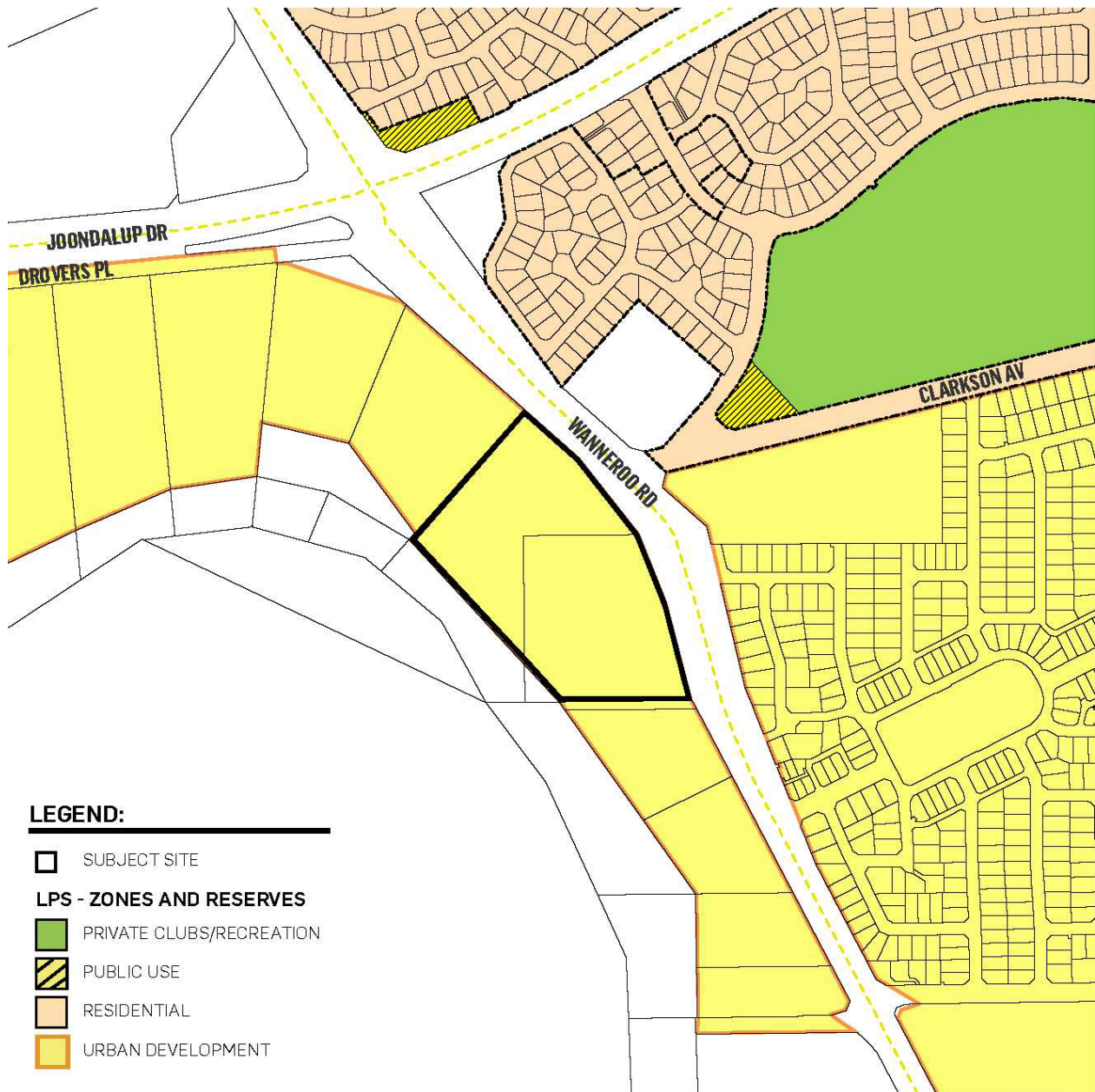


### 3.3. LOCAL PLANNING

#### 3.3.1. City of Wanneroo District Planning Scheme No.2

Under the City of Wanneroo's District Planning Scheme No.2 (DPS2), the subject site is zoned 'Urban Development'. An extract of the DPS2 zoning map has been provided in **Figure 6**. The objective of the Urban Development zone is to provide for the orderly planning of large areas of land in a locally integrated manner, which is to be facilitated through the means of a Structure Plan.

**Figure 4 – DPS2 Extract**



Source: Urbis

The development of the subject site is guided by the Drovers Place Structure Plan (the Structure Plan). In accordance with the Clause 3.14.3 of the DPS2 and Clause 2.2 of the Structure Plan, the permissibility of land uses in zones designated under a Structure Plan are to be guided by the DPS2 Zoning Table (as if the land was zoned under the DPS2). Therefore, the zoning of the subject site will be determined by the Drovers Place Structure Plan and the permissibility of the proposed land use will be in accordance with the DPS2 Zoning Table.



The subject site is zoned as 'Business' under the Drovers Place Structure Plan (as discussed in the following section). The land use permissibility for the proposed uses as defined by DPS2 is set out in **Table 5** below:

**Table 5 – Land Use Permissibility – DPS 2**

| CoW Use Class  | Permissibility |
|--|----------------|
| Drive Through food outlet  | D*             |
| Car Wash   | D*             |
| Showroom   | P**            |
| Childcare Centre   | D*             |
| Medical Centre   | P**            |
| Warehouse  | D*             |
| Convenience Store  | P**            |
| <p><i>* D - A use class that is not permitted, unless the Local government grants its approval after following the procedures laid down by subclause 6.2.2 -referencing matters to be considered under Clause 67 of the Planning and Development Regulations 2015</i></p> <p><i>** P – A use class that is permitted but which may be subject to any conditions that the Local government may wish to impose in granting its approval.</i></p> |                |

As such, the Council has discretion to approve the proposed development.

### 3.3.2. Carparking assessment

A schedule of parking requirements and provision is provided below, with further rationale provided at Section 2.3.

**Table 6 – Car parking Assessment**

| CoW Use Class             | Ratio   | Provision                  |
|---------------------------|---|----------------------------|
| Drive Through food outlet | 1 per 4 guests in indoor and outdoor seated areas plus 7 per 100m2 NLA for non seated areas. Up to 50% of non seated area parking may be located in drive through queue | 15 (15 required by scheme) |
| Car Wash                  | Nil   | 1 (nil required by scheme) |
| Showroom                  | 1 per 30m2 GFA  | 53 (67 required by scheme) |
| Childcare Centre          |   | 13 (13 required by scheme) |
| Medical Centre            | 5 per practitioner plus 7 per 100m2 of pharmacy   | 46 (42 required by scheme) |
| Warehouse/Self Storage    | 1 per 50m2 GFA  | 8 (87 required by scheme)  |



| CoW Use Class     | Ratio   | Provision                   |
|-------------------|---|-----------------------------|
| Convenience Store | 7 per 100m2 NLA. Up to 50% of bays may be located in refuelling positions | 14 (14 required by scheme). |

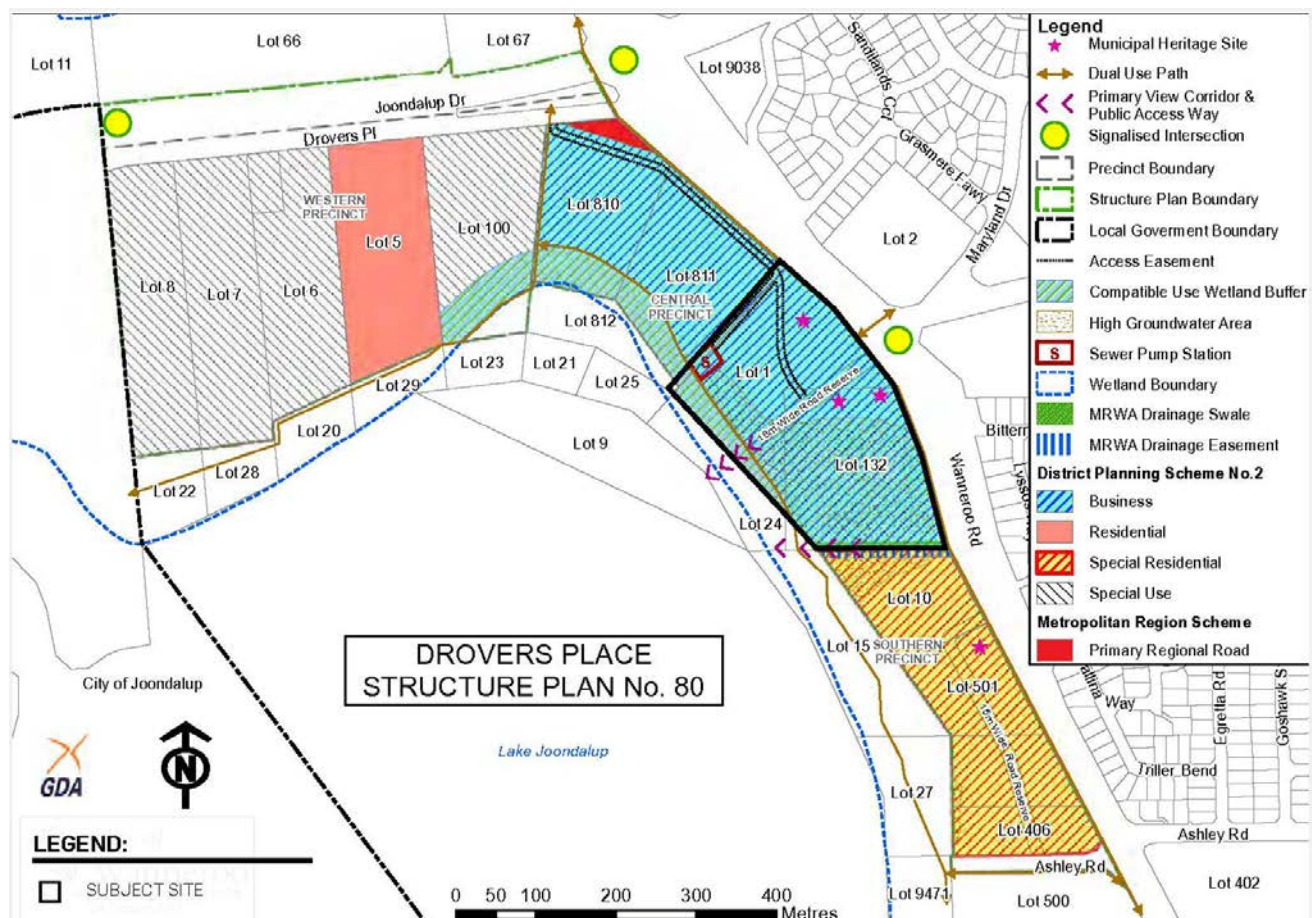
### 3.3.3. Drovers Place Structure Plan No.80

As outlined above, the subject site forms part of the DPS2 area identified within the Drovers Place Structure Plan No. 80 (Refer to **Figure 7**). The structure plan identifies how land is intended to be developed or is being developed. The structure plan sets the following general objectives for the site:

- Guide subdivision and provide for a variety of appropriate land uses and development in the three distinct precincts, where proposals will have high exposure to Yellagonga Regional Park, Wanneroo Road, Drovers Place and Joondalup Drive;
- For land within the Central Precinct, reflect the intent and land use permissibility of the Business zone in District Planning Scheme No. 2;
- Facilitate adaptive built form that maintains a visual relationship with and provides pedestrian access to Yellagonga Regional Park; and
- To protect and enhance the environmental, heritage, and landscape values of the Structure Plan area and adjacent regional park.

The subject site is within the Central Precinct shown in **Figure 7** and is within a 'business' zone.

**Figure 5 – Drovers Place Structure Plan No.80 Extract**





The objectives of the Central Precinct listed within the structure plan is to:

- *Provide for retail and commercial businesses which require large areas such as bulky goods as well as small scale complementary business services; and*
- *Ensure that development creates an attractive façade to the street for visual amenity.*

### **Drovers Place Structure Plan No.80 Development Provisions**

The development provisions of the Drovers Place Structure Plan No.80 apply to all the lands which is identified in **Figure 7** and subsequently the subject site.

The proposed development is generally consistent with the specific requirements of the development provisions. Where non-compliance is apparent, justification has been provided. A summary of third assessment has been provided in **Table 7**.

**Table 7 – Assessment against Structure Plan provisions.**

| <b>Development Provisions</b>  | <b>Comment</b>   | <b>Complies</b> |
|--|--|-----------------|
| <ul style="list-style-type: none"> <li>• Coordinate with Yellagonga Regional Park's natural levels at the common boundary.</li> </ul>  | <p>The south-western boundary interfaces with Lake Joondalup (Yellagonga Regional Park). The site slopes from the south-west to north-east with a contour of 17.5 at the south-western boundary increasing to 28.3 at the north-eastern boundary. The proposed development levels at the south-western boundary start at a Finished Floor Level (FFL) of 19.1 at the undercroft level containing the medical centre and self-storage units. The medical centre is separated from the Regional Park boundary by two ramps providing shared access to the northern and north-eastern portions of the site. The showroom which sits above of the medical centre, has a FFL of 24.5. The remaining tenancies also have a FFL of between 23.5 to 24.5.</p> <p>The development has been designed in a manner that seeks to maintain the slope of the land to create an appropriate interface to the lake. The natural south-west to north-east slope has been maintained with the south-western portion of the site being within an undercroft and upper level, and the eastern tenancies being single storey at street level.</p> | ✓               |
| <ul style="list-style-type: none"> <li>• Preserve the views, significance and character of and visual relationship to Yellagonga Regional Park. This includes providing for view corridors.</li> </ul> | <p>The east-west road from Wanneroo Road to Yellagonga Regional Park allows for the views and access to the park to be retained.</p> <p>The development levels have maintained the natural south-west to north-east slope to ensure the development provides an</p>  | ✓               |



| Development Provisions   | Comment  | Complies |
|--|--|----------|
|  | appropriate interface to the Regional Park. View corridors will be maintained for visitors to the site.  |          |
| <ul style="list-style-type: none"> <li>Inclusion of a connected access road to Wanneroo Road and easement as generally shown on Plan 1.</li> <li>Inclusion of across site access as shown on Plan 1.</li> </ul>  | <p>Access has been designed in accordance with Plan 1. Along Wanneroo Road, a shared access easement is proposed to provide access to adjoining Lot 811 abutting the north-west boundary of the site. Additional internal access easements are proposed to provide access to the future Bowra and O'Dea development site and to increase vehicle manoeuvrability throughout the development.</p> <p>A new access road of 20m wide is proposed along the south-eastern boundary of the site. The creation of this road is being progressed via a separate subdivision application.</p> <p>All access arrangements have been designed in accordance with the Plan 1.</p> | ✓        |
| <ul style="list-style-type: none"> <li>The owner of Lot 1 Wanneroo Road shall provide dedicated road access and frontage to the existing sewer pumping station and pressure main located along the northern boundary of the site. Any alternative arrangement for access will require the consent of the Water Corporation in writing, prior to the City approving any Detailed Area Plan, or supporting any subdivision or development for the site.</li> </ul> | Access to the existing sewer pumping station and pressure main will be maintained. An alternative alignment has been negotiated with the Water Corporation to minimise the impact on the development of the site. This provides for more conventional building typologies, allows for the site to be developed to its full potential and protects the easement for future access/maintenance.  |          |
| <ul style="list-style-type: none"> <li>Service Stations to be integrated within the development and designed to minimise negative visual impacts.</li> <li>Minimal impervious area to facilitate water sensitive urban design.</li> </ul>  | <p>The proposed service station fronts onto the internal access road, with an additional frontage to Wanneroo Road. The use is integrated with the takeaway food tenancy, car wash and showroom and medical centre. The proposal as a whole will present as a high quality commercial development when viewed from Wanneroo Road and the surrounding areas.</p> <p>The proposal is for a service commercial centre; which is consistent with the Drivers Precinct Structure Plan No.80. By character, such precincts do contain</p>  | ✓        |



| Development Provisions  | Comment   | Complies |
|---|---|----------|
|   | significant amounts of hard stand. This proposal however will incorporate substantial soft planting areas and detention areas for infiltration purposes.  |          |
| <ul style="list-style-type: none"> <li>Building facades to be of high architectural detail, glazing and a natural environment colour scheme.</li> </ul>   | The development will comprise a mix of timber cladding, concrete tilt panels, wall cladding, steel frames, glazing. External colour palettes can be provided as a reasonable condition of approval.   | ✓        |
| <ul style="list-style-type: none"> <li>Buildings are to provide opportunities for passive surveillance and be sited to enable and encourage pedestrian access to Yellagonga Regional Park.</li> </ul> | The site will provide a high level of passive surveillance with a number of uses that will have varying operating hours. The undercroft medical centre will provide good surveillance to the Regional Park. At the upper level the variety of uses including child care and service station will provide casual surveillance over a significant portion of the day. | ✓        |
| <ul style="list-style-type: none"> <li>A minimum of 8% of the site should be landscaped in addition to the Compatible-Use Wetland Buffer (defined in Plan 1).</li> </ul>                              | Areas of soft landscaping has been provided throughout the development and identified on the application plans. The area of landscaping totals 1600sq.m, a total of 8.8% of the application area.   | ✓        |

### 3.3.4. Drovers Place Central Precinct Detailed Area Plan

The Drovers Place Structure Plan No.80 structure plan requires the preparation of a Detailed Area Plan prior to subdivision or development approval in an 'Urban Development' zone. A Detailed Area Plan has already been prepared for the subject site (Refer to **Figure 8**). An assessment against the Detailed Area Plan requirements has been included in **Table 8**.

**Table 8 – Assessment against relevant Detailed Area Plan requirements**

| Development Provisions  | Comment   | Complies |
|---|---|----------|
| <b>Building Envelopes</b> <ul style="list-style-type: none"> <li>Buildings should generally be located within the building envelopes as depicted on the Detailed Area Plan. This may be varied at the City's discretion having regard for the following: <ul style="list-style-type: none"> <li>Ability to achieve a functional car parking and access layout that accommodates the required car</li> </ul> </li> </ul> | <p>Buildings have generally been designed to align with the buildings envelopes shown on the DAP. The development extends further south than depicted on the DAP and the proposed access road is also further south. The main building elements, access and view corridors have been maintained consistent with the DAP.</p> <p>The development has been design to provide frontage to both Wanneroo Road and the new access road. The Future development site for Bowra and O'Dea will</p> | ✓        |



| Development Provisions   | Comment  | Complies                              |
|--|--|---------------------------------------|
| <p>parking bays and reciprocal access arrangements;</p> <ul style="list-style-type: none"> <li>- Preservation of views to Yellagonga Regional Park;</li> <li>- Vehicle sight lines and impact on amenity as viewed from Wanneroo Road and Yellagonga Regional Park; and</li> <li>- Any other consideration to ensure the objectives of the DAP are not compromised.</li> </ul> | <p>provide further development in the north-east of the site consistent with the building envelopes.</p> <p>In terms of the Sewer Easement, an alternative alignment has been negotiated with the Water Corporation to minimum the impact on the development of the site. This provides for more conventional building typologies and protects the easement for future access/maintenance.</p> <p>Additional access easements have been provided throughout the site to increase vehicle manoeuvrability throughout the development.</p> <p>Whilst there are minor departures from the DAP building envelopes, the development provides a better outcome in terms of access, built form, protection of the sewer easement, view corridors and the interface to the Regional Park.</p>  |                                       |
| <p><b>Permitted Building Heights</b></p> <ul style="list-style-type: none"> <li>• Maximum building heights have been depicted in Figure 8. Minor protrusions up to 1.5 metres may be permitted.</li> </ul>   | <p>The proposed development has the following building heights:</p> <ul style="list-style-type: none"> <li>- Convenience Store – 5.0m, canopy 6.05m</li> <li>- Takeaway/Fast Food – 4.85m - 5.85m</li> <li>- Car Wash – 4.6m</li> <li>- Showroom / medical centre – 11.5m – 14.75m</li> <li>- Childcare – 5.288m</li> </ul> <p>The DAP identifies a maximum building height ranging from 6-8m across the site. The proposed development generally complies, except for the showroom building. Whilst there is a technical non-compliance, the showroom/medical centre building is located at the lowest point of the site with the under-croft area being occupied by the medical centre and self-storage containers at RL 19.1 and the upper level showroom at RL 24.5 to level with the balance of the development site.</p> | <p>A minor variation is requested</p> |



| Development Provisions  | Comment  | Complies                       |
|---|--|--------------------------------|
|   | <p>When viewed from Wanneroo Road, the showroom will appear as one storey at approximately 6.5m from the FFL of 24.5 with the corner of the building designed with an architectural feature that protrudes a further 3m above the main bulk of the building. The design of the building has been sympathetic to the slope of the site and to minimise the bulk and impact on views from Wanneroo Road and the new access road to the Regional Park.</p> <p>Despite the technical variation to the building height requirements, the development is considered compliant from a bulk and scale perspective.</p> |                                |
| <ul style="list-style-type: none"> <li>Buildings that abut the southern boundary shall have a maximum height of 3.5 metres within 3 metres of the southern boundary, which can be increased to a maximum height of 6 metres for the portion of the building/s that are setback at least 3 metres from the southern boundary.</li> </ul>   | N/A  |                                |
| <p><b>Built Form</b></p> <ul style="list-style-type: none"> <li>Mandatory active frontages (Refer to <b>Figure 8</b>) that incorporate: <ul style="list-style-type: none"> <li>A minimum of 60% glazing for the portion that extends to 2.7m above the FFL;</li> <li>Adjacent pedestrian footpaths;</li> <li>Eaves, awnings and/or colonnades that project 2m from the building and have a minimum of 2.75m clearance to ground floor; and</li> <li>Pedestrian entrances to buildings.</li> </ul> </li> </ul> | <p>All tenancies comply with the minimum glazing requirements up to 2.7m above the FFL.</p> <p>Pedestrian access is clear and legible from the parking areas.</p> <p>All awnings and eaves have a minimum clearance of 2.75m from the ground except for the fast food outlet which proposes a steel framed awning for the drive through of 2.55m.</p> <p>Pedestrian entrances are provided to all active frontages.</p>  | A minor variation is requested |
| <ul style="list-style-type: none"> <li>Secondary frontages (Refer to <b>Figure 8</b>) shall incorporate windows and/or secondary entries; CCTV; and lighting.</li> </ul>  | N/A  | N/A                            |
| <ul style="list-style-type: none"> <li>Buildings shall address Wanneroo Road through design, high quality</li> </ul>  | The development has been designed to provide frontage to both Wanneroo Road  | ✓                              |



| Development Provisions   | Comment   | Complies                       |
|--|---|--------------------------------|
| materials and location of major openings. Front entrances shall be located wherever possible to address Wanneroo Road.   | and the new access road. The Future development site for Bowra and O'Dea will provide further development in the north-east of the site consistent with the DAP.<br><br>The proposed development will have a frontage to both streets providing appropriate activation and high quality built form that responds to site constraints and the context of the area. |                                |
| <ul style="list-style-type: none"> <li>Buildings facing Wanneroo Road shall be designed to minimise blank walls.</li> </ul>  | <p>The majority of the service station will be an open canopy with the main building fronting the new access road. The narrowest part of the building faces Wanneroo road minimising the extent of any blank facades.</p> <p>The remainder of the Wanneroo Road frontage will be developed as part of a future application for Bowra and O'Dea.</p>               | A minor variation is requested |
| <ul style="list-style-type: none"> <li>Service areas shall be screened from view from Wanneroo Road, adjacent residential land and Yellagonga Regional Park.</li> </ul>  | All service areas have been designed to be screened from all road frontages and the Regional Park.  | ✓                              |
| <ul style="list-style-type: none"> <li>Where development directly has a physical or visual interface with residential development within the adjacent Southern Precinct, the development must incorporate: <ul style="list-style-type: none"> <li>Architectural treatment that breaks down building mass to provide visual relief; and</li> <li>Architectural elements and materials that contribute to an attractive façade.</li> </ul> </li> </ul> | <p>The balance of Lot 132 from the south will be developed for 'Business' uses in accordance with the Structure Plan zoning.</p> <p>The proposed development is further separated by the new access road of 20m.</p> <p>The tenancies provide an additional setback from the street to provide further separation from any nearby existing uses.</p>              | ✓                              |
| <ul style="list-style-type: none"> <li>Primary entrances to buildings are clearly defined and provided with shelter from the weather. Eaves, awnings and/or colonnades shall be provided at primary entrances to buildings. Awnings shall project 2m from the building and have a minimum of 2.75m clearance to the ground level.</li> </ul>   | All buildings have awnings to provide shelter and weather protection. All awnings and eaves have a minimum clearance of 2.75m from the ground except for the fast food outlet which proposes a steel framed awning for the drive thru of 2.55m.   | A minor variation is requested |

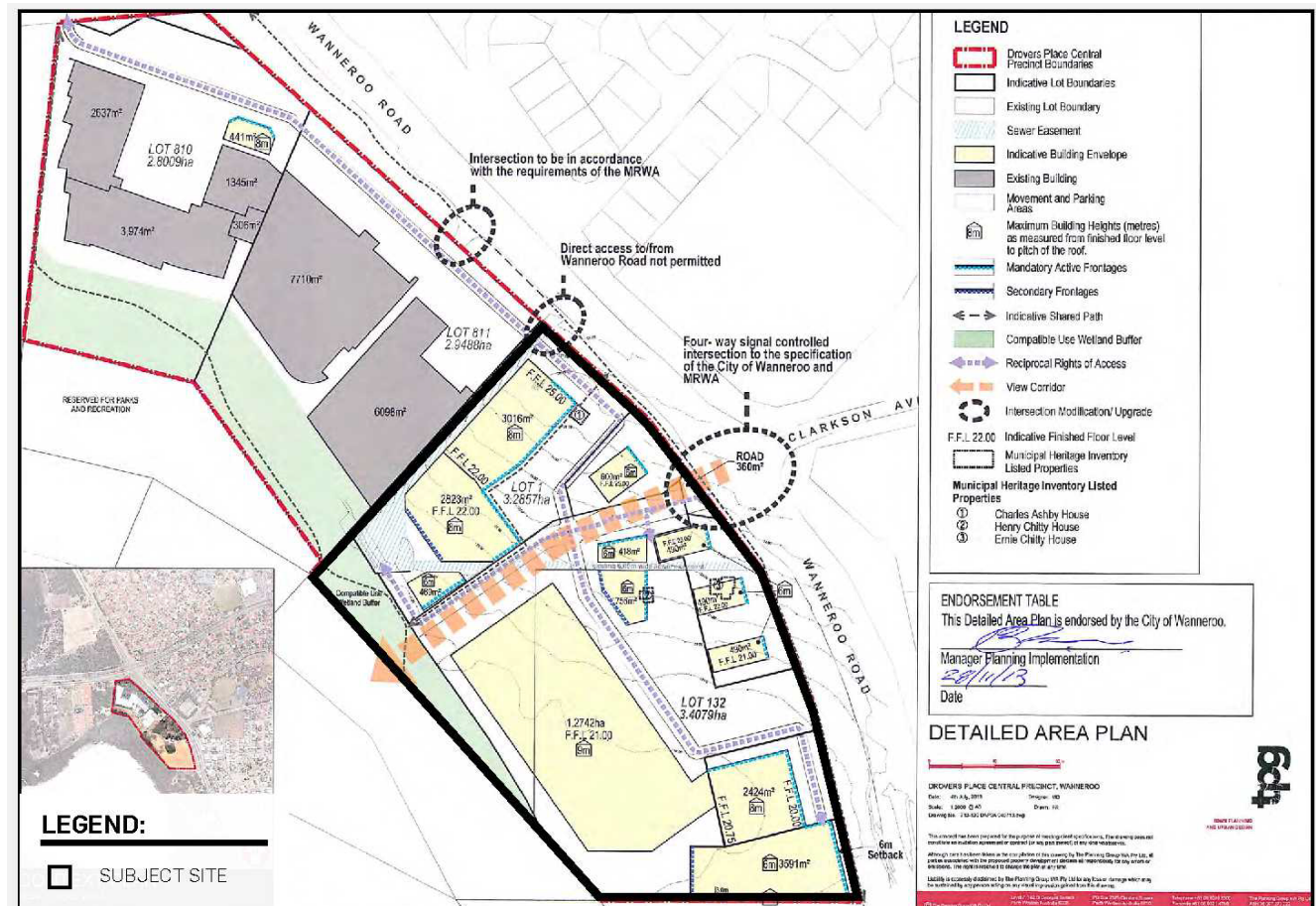


| Development Provisions   | Comment   | Complies                       |
|--|---|--------------------------------|
| <ul style="list-style-type: none"> <li>Development over the sewer easement is limited to a concrete pad, asphalt or paving.</li> </ul>   | <p>An alternative alignment has been negotiated with the Water Corporation to minimum the impact on the development of the site. This provides for more conventional building typologies and protects the easement for future access/maintenance. All areas in the location of the easement will be limited to concrete pads or paving.</p>   | ✓                              |
| <p><b>Earthwork Design Levels</b></p> <ul style="list-style-type: none"> <li>Development shall have general regard for the indicative finished floor levels (Refer to <b>Figure 8</b>)</li> </ul>  | <p>Finished Floor Levels range from 19.1 at the under-croft level containing the medical centre and self-storage units. The showroom which sits above of the medical centre, has a FFL of 24.5. The remaining tenancies also have a FFL of between 23.5 to 24.5.</p> <p>The development has been designed in a manner that seeks to maintain the slope of the land to create an appropriate interface to the lake. The natural south-west to north-east slope has been maintained with the south-western portion of the site being within an under croft and upper level, and the eastern tenancies being single storey at street level.</p> <p>Whilst there is a slight variation to the DAP finished floor levels, these are understood to be 'indicative' only. With that said, the development has been designed to respond to specific site constraints including levels, sewerage easement, access and the adjoining Regional Park.</p> | A minor variation is requested |
| <p><b>Other Requirements</b></p> <ul style="list-style-type: none"> <li>Have regard to the recommendations contained within the archival records prior to submitting a demolition licences for a Municipal Heritage Listed Property and reuse materials were practical.</li> </ul> | <p>The only remaining Municipal Heritage Listed property on the subject sites is located on Lot 132 (former Ernie Chitty House). It is recognised on the City of Wanneroo's Local Heritage Survey as a category 4 site which is the lowest listing and recommends recognition of heritage vale and encourages conservation.</p>   | ✓                              |
| <ul style="list-style-type: none"> <li>Development applications must include a plan demonstrating proposed building/s location in relation to the nominated building envelope (Refer to <b>Figure 8</b>).</li> </ul>   | <p>The proposed under-croft/decking structure along with the realignment of the easement allows for built form which meets the requirements of the easement but allows</p>  | A minor variation is requested |



| Development Provisions  | Comment  | Complies |
|---|--|----------|
| <ul style="list-style-type: none"> <li>Retaining wall height at the common boundary to Yellagonga Regional Park shall not exceed 1m measured from NGL.</li> </ul> | for the full development potential of the site to be realised. |          |
|   |  | ✓        |

Figure 6 – Detailed Area Plan Extract





### 3.3.5. Other Relevant Planning Documents

The proposed Service station and ancillary/associated uses strongly aligns with the relevant local planning framework as detailed in **Table 9** below.

**Table 9 – Key Local Planning Documents**

| <b>Document</b>  | <b>Relevant Provisions/Objectives</b>  | <b>Compliance</b>   |
|--|--|---|
| <b>Economic Development Strategy (EDS) 2016 - 2021</b> | <p>City of Wanneroo's EDS 2016 – 2021 sets the City's strategic economic direction:</p> <p><i>“to create a diverse range of job opportunities for residents by expanding the economic base and accessing new investment opportunities.”</i></p>  | The subject site is opposite the Wanneroo and Future East Wanneroo Area identified within this strategy. The proposal will contribute to the requirement to increase jobs from 7 200 to 15 000 within this area and promote local employment.   |
| <b>LPP 4.4 Urban Water Management</b>                  | <p>This policy aims to ensure that development optimises the use and management of urban water resources.</p> <p>Given that the subject site is considered high risk, it is recognised that the City of Wanneroo will require comprehensive information requirements including:</p> <ul style="list-style-type: none"> <li>• Detailed site investigations and modelling to determine management responses in terms of the site and sub-catchment;</li> <li>• Urban Water Management Plan; and</li> <li>• A full Better Urban Water Management (BUWM) checklist to be addressed in detail.</li> </ul> | A UWMP is to be prepared as a condition of development/subdivision approval.  |
| <b>LPP 4.12 Heritage Places</b>                        | This policy intends to provide an appropriate level of protection for heritage places identifies on the City's Local Heritage Places.  | Although three places within the subject site have been identified within the Municipal Heritage List, today the former Ernie Chitty House remains on Lot 132. This heritage place is classified as a Category 4 place and recommends interpretation and recognition of heritage value (for example with a plaque, place name or reflection in urban design) and encourages conservation. |



## 4. CONCLUSION

The proposed mixed use development has been designed to be site responsive with strong synergies to the surrounding residential development and adjacent regional park. The proposal is consistent with the relevant State and local planning framework and will contribute to the diversity of land uses and employment opportunities currently offered in the Tapping locality.

The following key matters should be considered on the assessment of this development application:

- The proposed commercial and light industrial land uses are consistent with the MRS 'Urban' zoning.
- The proposal will have no implications of the broader strategic planning of the Wanneroo/Tapping area outlined in Perth and Peel @ 3.5 million and associated state planning documents.
- The range of proposed uses are "P" and "D" uses and are consistent with the subject site's zoning, objectives and development intentions under DPS2 and Structure Plan.
- Council has discretion to approve the application provided it has given consideration to the matters in Clause 67 of the *Planning and Development Regulations 2015*.
- The proposal is in accordance with the requirements of the Local Structure Plan.
- The proposal is generally in accordance with the Structure Plan No. 80 and Drovers Place Detailed Area Plan. Deviations from the Structure Plan and Detailed Area Plan are required due to the nature of the proposed use and have been demonstrated to ensure that high quality built form outcomes are still achieved with the proposal.
- The proposed development proposes an appropriately designed and laid out built form incorporating appropriate design features and high-quality landscaping outcomes.
- The proposal will provide the local community and broader area with an everyday commercial service, supporting the hierarchy of the existing and future commercial developments within the vicinity.
- The proposal will create a variety of employment opportunities in the service and hospitality industry suitable for residents of all ages.

For these reasons, and the reasons outlined in this report, it is respectfully requested that the City of Wanneroo have regard to merits and broader benefits of the proposal when undertaking their assessment of the proposal and approve the application subject to fair and reasonable conditions.



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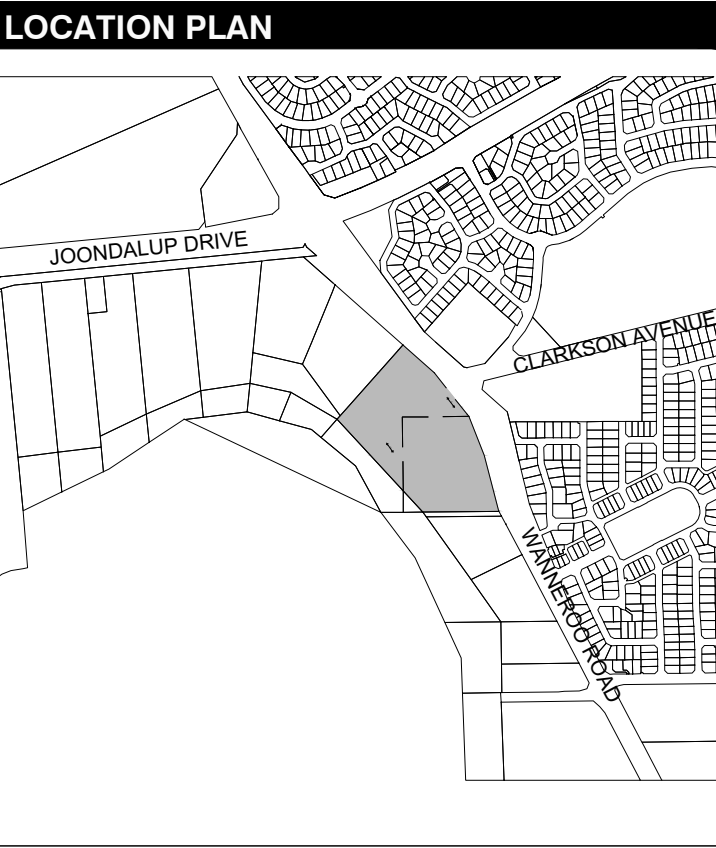
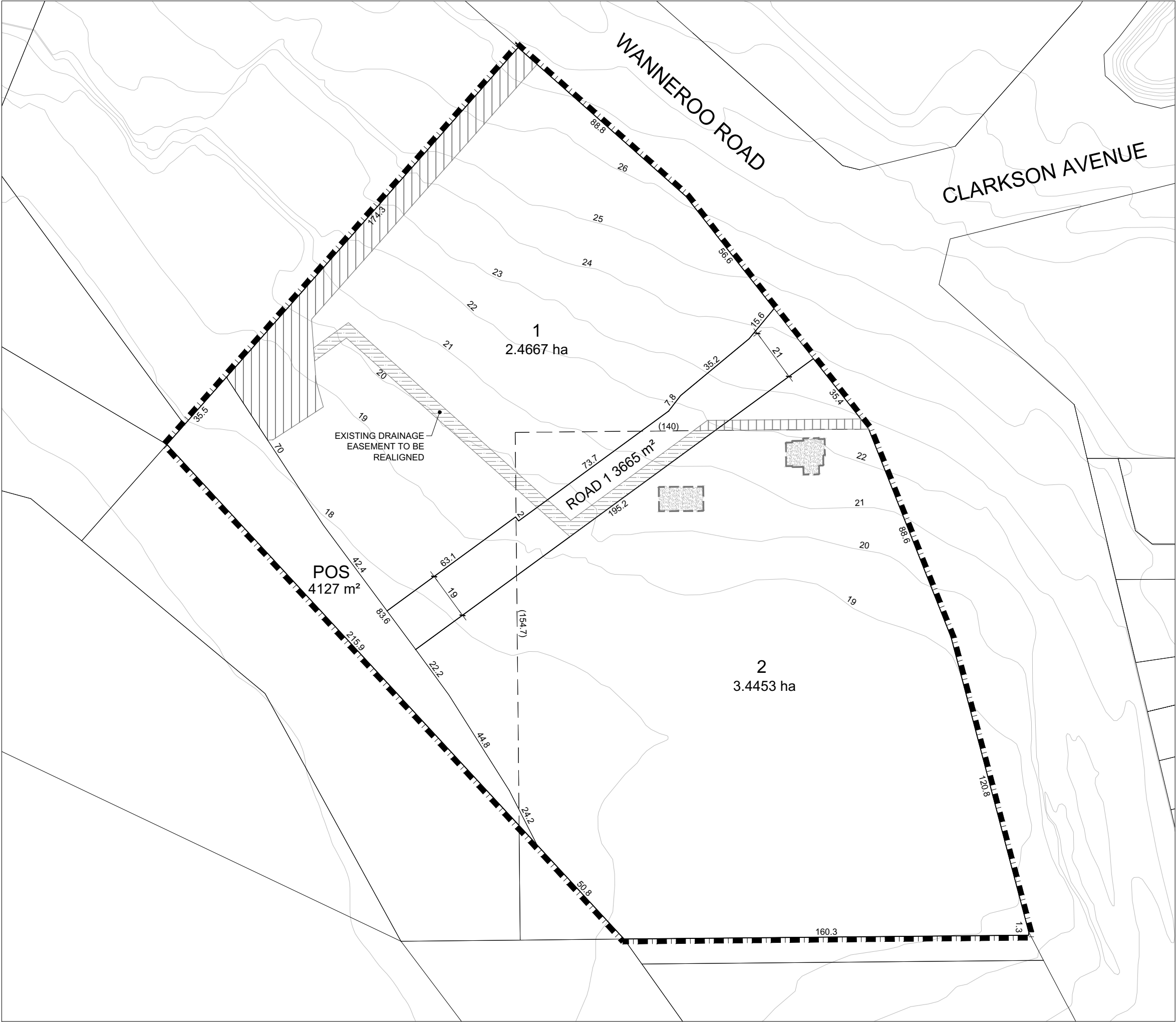






# **APPENDIX A      CERTIFICATE OF TITLE**





LEGEND

SUBJECT SITE

EXISTING DRAINAGE EASEMENT TO BE RETAINED

PROPOSED REALIGNMENT OF DRAINAGE EASEMENT

EXISTING BUILDING/STRUCTURE TO BE REMOVED

SUMMARY TABLE

|                            |           |
|----------------------------|-----------|
| APPLICATION AREA           | 6.6912 ha |
|                            |           |
| PROPOSED LOTS              | 5.912 ha  |
| PROPOSED POS               | 4127 m²   |
| PROPOSED ROAD              | 3665 m²   |
| EXISTING DRAINAGE EASEMENT | 2813 m²   |
| PROPOSED DRAINAGE EASEMENT | 992 m²    |



1351 and 1369 Wanneroo Road, Mixed Business Development

Acoustic Screening Assessment

## SPP 5.4 Implementation Guidelines (2014) Assessment

### SPP5.4 Screening assessment worksheet

Determine individual lot / site address 1351 and 1369 Wanneroo Road. Tapping Date of assessment 16/01/2018

Confirm if proposal has likely noise sensitive land usages such as:

- a building occupied solely or mainly for residential or accommodation purposes or rural premises;
- caravan park, camping ground or other tourist accommodation;
- hospital, home or institution for the care of persons, a rehabilitation centre, home or institution for persons requiring medical or rehabilitative treatments;
- tavern, hotel, club premises, reception lodge or other premises that provide accommodation for the public;
- educational institution;
- aged care or child care;
- prison or detention centre; and
- public worship.

| (a) List the nearest roads and any railways up to 300 metres from the site.   | (b) For each future road or railway, estimate the distance from property boundary to edge of road carriageway or centre of rail line, in metres. | (c) For each future road and railway, estimate latest average traffic volume per day (e.g. Main Roads Traffic Digest for roads), or forecast based on 20-year horizon.   | (d) Estimate $L_{Aeq,Day}$ from Table A.1, dB. |
|---|--|--|--|
| Wanneroo Road   | 120m   | 35,000 (forecasted)  | 59   |
|   |  |  |  |
|   |  |  |  |
|   |  |  |  |
| (e) Add correction if the two highest values in highlighted column (d) above are:<br>dB equal or within 1dB of each other = <b>+3dB</b> ; different by 2 or 3dB = <b>+2dB</b> , different by 4-7dB, <b>+1dB</b> >>> |  |  |  |
| (f) Add correction for forecast change in volume over 20 years dB (default is +2dB addition, and 0dB if forecasted volumes already used) >>>  |  |  |  |
| (h) Sum of maximum $L_{Aeq,Day}$ value from highlighted area of column (d) and above corrections >>>  |  |  | 59 dB  |
| From value obtained in (h) above, select as follows:  |  |  |  |
| $L_{Aeq,Day}$ is<br>• less than 55dB (day period noise target), OR<br>• less than 50dB for any freight rail.  |  | • No further measures are required.  |  |
| $L_{Aeq,Day}$ is<br>• between 55dB and 60dB inclusive, OR<br>• between 50dB and 55dB for any freight rail.  |  | <ul style="list-style-type: none"> <li>• Arrange for notification on each title of property affected according to Guidelines Section 4.5.</li> <li>• 'Mitigation measures' need to be implemented. Direct proponent may implement appropriate acceptable treatment provisions according to Section 6.3 of the SPP5.4 Guidelines, or engage specialist advice to otherwise address the requirements of the Policy (Section 6.4).</li> <li>• Seek evidence of implementation / compliance as deemed necessary.</li> </ul>  |  |
| $L_{Aeq,Day}$ is<br>• above 60dB (noise limit), OR<br>• above 55dB for any freight rail.  |  | <ul style="list-style-type: none"> <li>• Arrange for notification on each title of property affected according to Guidelines (Section 4.5).</li> <li>• Detailed noise assessment required by competent professional to the satisfaction of authorities. The assessment may recommend some application of acceptable treatment provisions according to Section 6.3 or alternatives according to Section 6.4.</li> <li>• Confirm proponent is committed to implementing the recommendations of the noise assessment or separate noise management plan, and seek evidence of installation as deemed necessary.</li> </ul> |  |

### Measures to be implemented

- Notification shall be placed on the certificate of title (as part of the current subdivision application) stating the following or similar (as directed by the WAPC): *This lot is in proximity of a transport corridor and is currently affected by transport noise. Transportation noise controls, at the cost of the developer, are required for sensitive receptors in order to achieve an acceptable level of noise reduction.*
- Noise attenuation in accordance with State Planning Policy 5.4 (Clauses 6.3 and 6.4) may be required for the construction of the childcare. This is to be determined by a qualified acoustic consultant at the time of building permit application.





# Lot 5 Wanneroo Road Proposed Mixed-Used Development Transport Impact Assessment

PREPARED FOR:  
Saracen Properties Pty Ltd

December 2017



## Document history and status

| Author    | Revision | Approved by | Date approved | Revision type |
|-----------|----------|-------------|---------------|---------------|
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**Client:** Saracen Properties Pty Ltd

**Project:** Lot 5 Wanneroo Road

**Document revision:** r01

**Project number:** t17.224

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# TABLE OF CONTENTS

|            |  |           |
|------------|--|-----------|
| <b>1.0</b> | <b>INTRODUCTION AND BACKGROUND .....</b>             | <b>1</b>  |
| <b>2.0</b> | <b>EXISTING SITUATION.....</b>                       | <b>3</b>  |
| 2.1        | EXISTING LAND USE.....                               | 3         |
| 2.2        | EXISTING ROAD NETWORK.....                           | 3         |
| 2.3        | PUBLIC TRANSPORT .....                               | 4         |
| 2.4        | PEDESTRIAN AND CYCLIST FACILITIES.....               | 5         |
| 2.5        | PUBLIC TRANSPORT NETWORK PLANNING.....               | 6         |
| 2.6        | CRASH DATA .....                                     | 7         |
| <b>3.0</b> | <b>DEVELOPMENT PROPOSAL.....</b>                     | <b>8</b>  |
| <b>4.0</b> | <b>CHANGES TO THE SURROUNDING ROAD NETWORK .....</b> | <b>9</b>  |
| <b>5.0</b> | <b>INTEGRATION WITH SURROUNDING AREA .....</b>       | <b>10</b> |
| <b>6.0</b> | <b>ANALYSIS OF THE TRANSPORT NETWORK.....</b>        | <b>11</b> |
| 6.1        | ASSESSMENT PERIOD .....                              | 11        |
| 6.2        | TRAFFIC GENERATION AND DISTRIBUTION.....             | 11        |
| 6.3        | TRAFFIC FLOW FORECASTS.....                          | 12        |
| 6.4        | INTERSECTION ANALYSIS.....                           | 15        |
| 6.5        | IMPACT ON NEIGHBOURING AREAS.....                    | 16        |
| 6.6        | TRAFFIC NOISE AND VIBRATION .....                    | 16        |
| 6.7        | ROAD SAFETY .....                                    | 16        |
| <b>7.0</b> | <b>PARKING.....</b>                                  | <b>17</b> |
| <b>8.0</b> | <b>PROVISION FOR HEAVY VEHICLES.....</b>             | <b>18</b> |
| <b>9.0</b> | <b>CONCLUSIONS.....</b>                              | <b>19</b> |

APPENDIX A: ENDORSED DETAILED AREA PLAN

APPENDIX B: PROPOSED ORIGINAL SITE PLAN

APPENDIX C: DEVELOPMENT SITE PLANS

APPENDIX D: ROUNDABOUT CONCEPT DESIGN

APPENDIX E: INTERSECTION ANALYSIS



## REPORT FIGURES

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|  |    |
|--|----|
| Figure 1: Location of the Central Precinct.....  | 1  |
| Figure 2: Wanneroo Road Looking South, at the Intersection of Clarkson Avenue<br>(source: Nearmap) ..... | 3  |
| Figure 3: Clarkson Avenue, Looking East (source: Nearmap).....   | 4  |
| Figure 4: Existing Bus Routes .....  | 5  |
| Figure 5: Bike Map .....   | 6  |
| Figure 7: Transperth Service Development Plan Map .....  | 7  |
| Figure 6: Regional Road Reservations in the Metropolitan Region Scheme (MRS).....                        | 9  |
| Figure 8: Central Precinct (including development) PM Peak Hour Traffic Distribution<br>.....            | 13 |
| Figure 9: Lot 5 Development Peak Hour Traffic Increase on the Surrounding Roads...                       | 14 |
| Figure 10: Lot 5 traffic distribution (vph).....   | 14 |

## REPORT TABLES

---

|   |    |
|---|----|
| Table 1: Trip generation calculation (vph) based on original site plan (shown in<br>Appendix B) ..... | 11 |
| Table 2: Trip generation calculation (vph) based on current plan for Lot 5 .....                      | 12 |



# 1.0 Introduction and Background

Transcore has been commissioned by Saracen Properties Pty Ltd to prepare a Traffic Impact Assessment (TIA) report in accordance with WAPC Guidelines for a proposed mixed use development to be located at Lot 5 Wanneroo Road. Lot 5 is located at the north-west corner of the future four-way intersection of Wanneroo Road/ Clarkson Avenue. This intersection serves the endorsed Detailed Development Plan (DAP) for Drovers Place Central Precinct to the west of Wanneroo Road, which Lot 5 is part of it. A copy of the endorsed DAP is provided in **Appendix A**.

The DAP included traffic signals at the intersection of Wanneroo Road and Clarkson Avenue. This intersection is currently a T-intersection and is proposed to be converted to a four-way intersection with the western leg of the intersection providing a connection to the DAP area and the Central Precinct. However, since the preparation and endorsement of the DAP, it is understood that that Main Roads WA's current practice and preference is for roundabouts in lieu of signalised intersections. Accordingly, a roundabout has been assumed for this intersection.

This TIA report will review the trip generation and distribution of the proposed development and will assess the impact of the proposed development traffic on the surrounding roads and intersection and in particular the proposed roundabout intersection on Wanneroo Road. For the assessment of the proposed roundabout intersection the estimated traffic from the entire central precinct area will be considered.

**Figure 1** illustrates the location of the Central Precinct and the subject site.



**Figure 1: Location of the Central Precinct**



Transcore prepared a Transport Impact Assessment (TIA) report in 2015 (t15.091mrr01) for the Drovers Place Central Precinct including Lots 1 & 132 and Lots 810 & 811. A copy of the Site Plan which was used for Transcore's 2015 TIA report is provided in **Appendix B**.

The site plan in Appendix B shows the following land uses for Lot 5 (which is subject of this TIA):

- Fast Food of 284m<sup>2</sup> GFA;
- Mixed Used Tenancy of 1,474m<sup>2</sup> GFA;
- Showroom Tenancies of 6,750m<sup>2</sup> GFA; and,
- Gym of 600m<sup>2</sup>.

The recent (2017) site plan for Lot 5 provides different land uses from the original 2015 plan which would generate different traffic volumes. Section 4.2 of this TIA report provides details on the trip generation of the above land uses and estimates the net traffic change due to the new proposal for Lot 5.



## 2.0 Existing Situation

---

### 2.1 Existing Land Use

Currently the site is vacant. The land to the south of the site is also mainly vacant with few dwellings. There are existing retail and commercial land uses within the northern part of the Central Precinct. On the eastern side of Wanneroo Road the existing land uses are predominantly residential dwellings.

### 2.2 Existing Road Network

**Wanneroo Road** is a dual divided carriageway in the vicinity of the subject site. It is reserved as a Primary Regional Road in the Metropolitan Region Scheme and is classified as a Primary Distributor Road in the Main Roads WA Metropolitan Functional Road Hierarchy. The latest traffic count information sourced from Main Roads WA indicates that Wanneroo Road (south of Joondalup Drive) carried approximately 28,473 vehicles per day (November, 2014). Reviewing the SCATS data for the intersection of Wanneroo Road/ Joondalup Drive indicates that the PM peak hour is between 17:00-18:00.

The intersection of Clarkson Avenue and Wanneroo Road is an un-signalised T-intersection with left and right turn pockets on Wanneroo Road. **Figure 2** shows Wanneroo Road at its intersection with Clarkson Avenue. Wanneroo Road and Joondalup Drive form a fully-channelised, four-way signalised intersection with turn facilities on all approaches to the intersection.



**Figure 2: Wanneroo Road Looking South, at the Intersection of Clarkson Avenue**  
(source: Nearmap)

There is an existing intersection on Wanneroo Road serving the existing retail/commercial complex located at lots 810 and 811. This intersection is located approximately 250m south of Wanneroo Road/Joondalup Drive signalised



intersection and operates as left-in/left-out/right-in, with a left-turn slip lane and right-turn pocket on Wanneroo Road.

**Drovers Place** provides access to properties along the northern frontage of the Drovers Place Precinct. It is constructed as a 6m-wide, kerbed single carriageway road and entails cul-de-sacs at both ends. Drovers Place is subject to the standard 50 km/h urban speed limit.

**Clarkson Avenue** is a single undivided carriageway with a shared path along its northern side. According to the Main Roads WA Metropolitan Functional Road Hierarchy, Clarkson Avenue is classified as an Access Road. According to the traffic count information sourced from the City of Wanneroo, Clarkson Avenue (west of Berigora Avenue) carried approximately 3,000 vehicles per weekday (November, 2010). According to the manual traffic counts undertaken by Transcore in April 2015 Clarkson Avenue carried about 295 vehicles during PM peak hour. **Figure 3** illustrates Clarkson Avenue immediately east of Wanneroo Road.



Figure 3: Clarkson Avenue, Looking East (source: Nearmap)

## ***2.3 Public Transport***

The closest existing bus route to the development area is Bus Route No. 468 from Whitfords Station to Joondalup Station (refer **Figure 4**). The closest bus stops are on Wanneroo Road in close proximity of the proposed development.



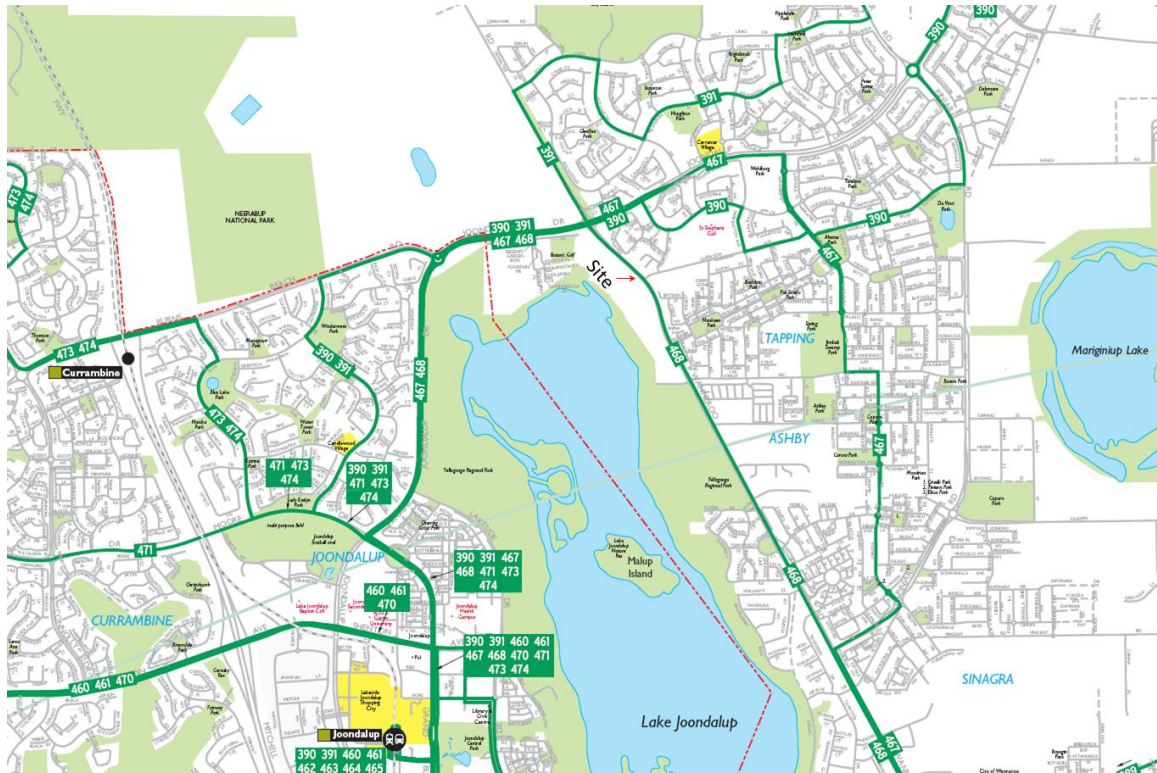


Figure 4: Existing Bus Routes

## 2.4 Pedestrian and Cyclist Facilities

Currently a concrete shared path exists along Wanneroo Road fronting the subject site. This shared path continues north and connects with Drovers Place and the signalised intersection of Wanneroo Road/Joondalup Drive.

The Department of Transport's Perth Bike Map series (see **Figure 5**) shows that Wanneroo Road also has a shared path on the eastern side which connects to the existing shared path on Clarkson Avenue.

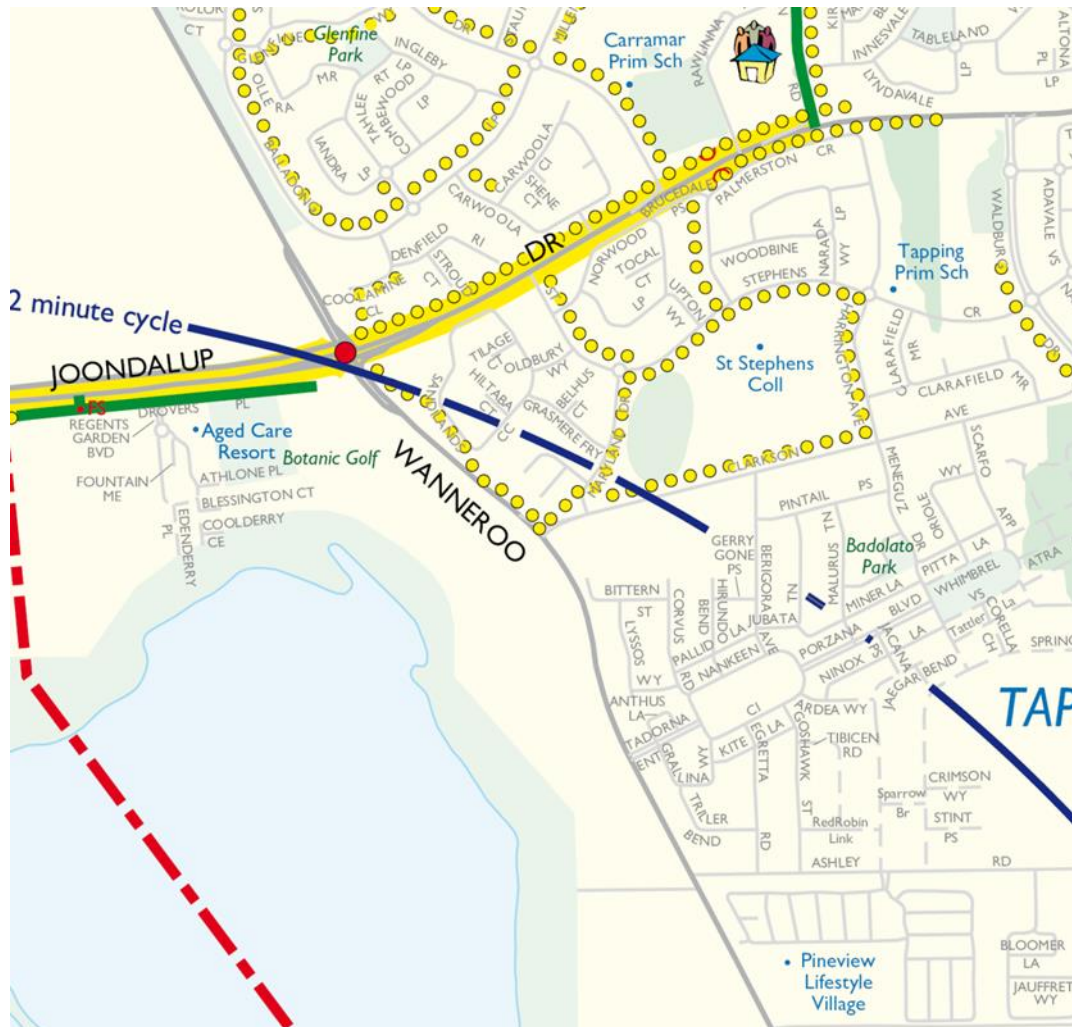


Figure 5: Bike Map

## 2.5 Public Transport Network Planning

The Department of Transport plan, Public Transport for Perth in 2031, envisages a combination of a future light rail and bus rapid transit route from Perth to Joondalup providing a cross-suburban link between these two areas. However, this is this is a long term plan beyond 2031 (refer Figure 6).





Figure 6: Transperth Service Development Plan Map

## 2.6 Crash Data

Information available on the Main Roads WA website for the existing intersection of Wanneroo Road/ Clarkson Avenue indicates 5 rear end crashes during the five-year period ending December 2016.

### 3.0 Development Proposal

---

Copies of the proposed development plans for Lots 5 are provided in **Appendix C** of this report. The proposed development is a mixed-used development including the following land uses:

- Service station with convenience store;
- Drive through food outlet;
- Carwash;
- Showroom;
- Childcare centre;
- Medical Centre; and,
- Self-storage.

The proposed land uses will be developed in two levels. The basement level will include the medical centre and the self-storage units with 46 car bays. The rest of the land uses will be developed on the ground level. 91 parking bays are proposed for the ground level. On Ground level there are additional 5 car stacking space associated with the drive through food outlet and 8 stacking space under the canopy of the service station. Therefore, minimum total of 150 cars can be accommodated within the proposed development.

The site plan for Lot 5 shows the future Bowra & O'Dea Chapel and Function Room which is not part of this Development Application (DA) and will be subject of a separate DA. However, for the purpose of a robust assessment, the trip generation of this development is considered in the traffic modelling.

Access and egress to/ from the proposed development would be mainly from Wanneroo Road and the proposed roundabout intersection of Wanneroo Road/ Clackson venue. The development plan allows for a connection to the existing land uses to the immediate north.

There are a number of crossovers proposed along the internal road within the Central Precinct to facilitate access/egress for the proposed development. The service station crossover is located about 50m to the west of the future roundabout intersection on Wanneroo Road. This crossover is designed to accommodate 19m fuel tankers.

There are two separate crossovers which provide access to the basement area. One of these crossovers is dedicated to the future Bowra & O'Dea development. Similarly two separate up ramps are proposed at the western end of the development which provides access to the developments on the upper level (ground level).



## 4.0 Changes to the Surrounding Road Network

Changes to the surrounding road network includes a proposed roundabout at the intersection of Wanneroo Road and Clarkson Avenue converting the existing T-intersection to four-way intersection with the western leg of the intersection providing a connection to the Central Precinct.

The closure of the existing left in/left out crossover intersection on Wanneroo Road at the northern end of the Central Precinct is also proposed.

Structure Plan 80 (SP80) also proposes a signalised intersection for the connection from Drovers Place to Joondalup Drive within Drovers Place Western Precinct.

The intersection of Wanneroo Road and Joondalup Drive is ultimately planned to be grade separated. The land affected by this future interchange is shown by the red Primary Regional Roads reservation in the Metropolitan Region Scheme (MRS) map, in **Figure 7**. It is anticipated that Wanneroo Road and Joondalup Drive in this vicinity will also be upgraded to six lanes divided standard sometime in the future. It is Transcore's understanding that the upgrade of Wanneroo Road/ Joondalup Drive intersection would start in mid-2018.

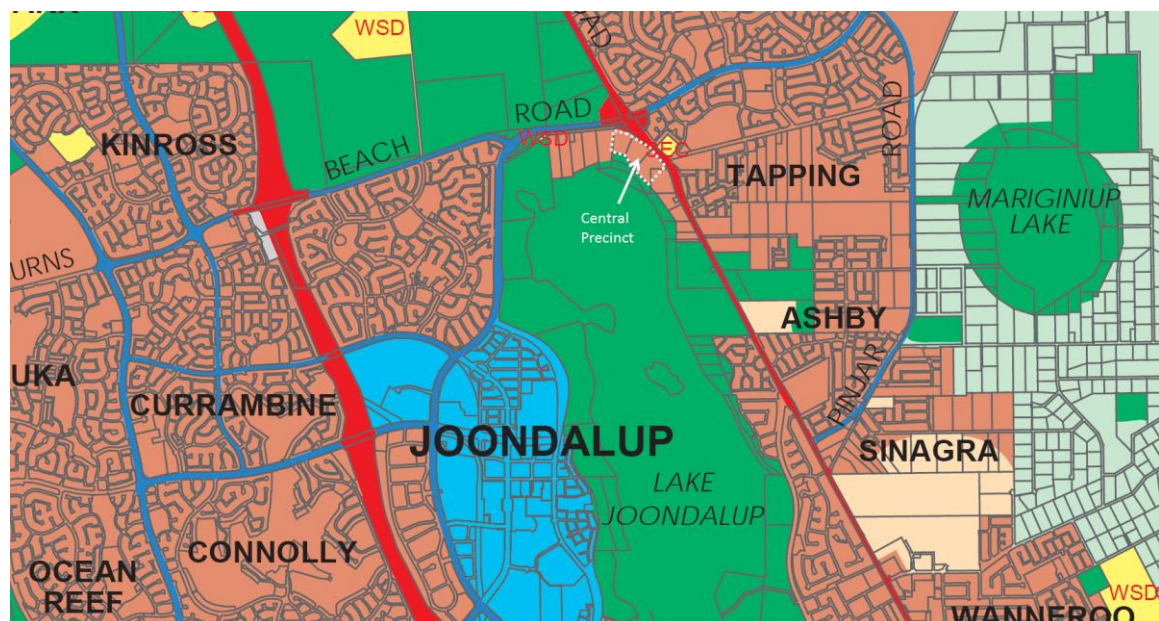


Figure 7: Regional Road Reservations in the Metropolitan Region Scheme (MRS)

## 5.0 Integration with Surrounding Area

---

The proposed development is in line with existing and planned uses in the locality.



## 6.0 Analysis of the Transport Network

### 6.1 Assessment Period

WAPC Transport Assessment guidelines require the assessment of the developments to be undertaken for the opening year plus 10 year post development time horizon scenario. Accordingly, the intersection analysis has been undertaken for year 2018 and year 2028. The proposed developments within Central Precinct are predominantly a mixture of showroom, warehouse and retail and, therefore, it is expected that the peak combination of development traffic and road network traffic occur during the typical weekday evening peak periods.

Accordingly, based on existing traffic counts for the surrounding road network and other available information, the combination of the traffic generated by the subject development and the peak road network traffic period will result in the greatest demand on the road network during the typical Thursday PM peak hour. Therefore, trip generation is estimated and traffic analysis is undertaken for Thursday PM peak hour.

### 6.2 Traffic generation and distribution

In order to establish the net traffic change (increase/ decrease) for Lot 5 based on the new proposal (2017 plan) and the previous proposal (original plan shown in Appendix B) trip generation calculation was undertaken for both development plans.

The document “Land Use Traffic Generation Guidelines, Director-General of Transport, South Australia” and the “Guide to Traffic Generating Developments, Roads and Traffic Authority (RTA) of New South Wales” (2002) documents were used to establish the applicable traffic generation rates for various land uses within the development. For the proposed service station in 2017 site plan trip rates have been sourced from “Institute of Transportation Engineers” (ITE) document.

**Table 1** and **Table 2** summarises the PM peak hour trip rates and trip generation of the various proposed land uses within Lot 5 for the new and the original plans respectively.

**Table 1: Trip generation calculation (vph) based on original site plan (shown in Appendix B)**

| Land use  | GFA (m <sup>2</sup> ) | Trip Rate (vph) | Trips (vph) |
|-----------|-----------------------|-----------------|-------------|
| Fast food | 284                   | 0.5             | 142         |
| Mixed Use | 1,474                 | 0.03            | 44.22       |
| Showroom  | 6750                  | 0.025           | 169         |
| Gym       | 600                   | 0.09            | 54          |
| Total     |                       |                 | 409         |

**Table 2: Trip generation calculation (vph) based on current plan for Lot 5**

| Land use                               | GFA (m2)     | Trip Rate (vph)  | Trips (vph) |
|--|--------------|------------------|-------------|
| Service Station with Convenience Store | 8 bowser     | 11.93 per bowser | 96          |
| Carwash                                | 3 stall      | 6 per stall      | 18          |
| Drive through food outlet              | 210          | 0.5              | 105         |
| Showroom                               | 2000         | 0.02             | 40          |
| Childcare                              | 100 Children | 0.42/ child      | 42          |
| Medical Centre                         | 1000         | 0.05             | 50          |
| Self-storage                           | 4325         | 0.0025           | 11          |
| <b>Total</b>                           |              |                  | <b>362</b>  |

The site plan for Lot 5 shows future Bowra & O'Dea Chapel and Function Room which would be used occasionally for the funeral ceremonies. It should be noted that this development is subject to a separate Development Application (DA) and is not part of this application, however in order to provide a robust assessment, traffic modelling and analysis undertaken allows for the trip generation of this development.

The trip generation of this development is estimated based on the parking supply (93 bays) and assuming that 80% of the parking bays would be utilised during the ceremony which would take about 2 hours. On these bases the total trip generation of the future Bowra & O'Dea site is estimated to be about 74vph.

Accordingly, total trip generation of the Lot 5 as per the new site plan is estimated as 436vph ( $362 + 74 = 436\text{vph}$ ) which is about 27vph higher than the 2015 site plan. The additional 27vph is not expected to alter the level of external trips and in particular the estimated trips that would be distributed to the proposed new intersection on Wanneroo Road. It also should be noted that the majority of the service station and drive through food outlet trips in the new site plan would be associated with passing traffic and therefore the service station and drive through food outlet components of the development would not add any significant additional traffic on Wanneroo Road.

### ***6.3 Traffic Flow Forecasts***

Considering that the net traffic increase from the proposed development is marginal, therefore it would not change the total traffic generation and distribution of the Central Precinct in any significant way and therefore the previous trip generation and distribution documented in the 2015 TIA report for the Central Precinct is considered to be still valid.



**Figure 8** illustrates the distributed traffic from Central Precinct on the surrounding intersections. In this figure the additional traffic distributed from Lot 5 is shown in red and the additional traffic associated with other land used within the Central Precinct area is shown in black. For a robust assessment, it is assumed that the majority of Lot 5 traffic would be distributed to the proposed roundabout intersection on Wanneroo Road.



**Figure 8: Central Precinct (including development) PM Peak Hour Traffic Distribution**

**Figure 9** shows the peak hour traffic increase on the surrounding roads due to the traffic generated from the proposed development on Lot 5. Accordingly, the highest traffic increase on the surrounding roads is expected to be on Wanneroo Road, immediately south of Joondalup Drive (about 166 vehicles during PM peak hour).

Figure 10 illustrates the Lot 5 traffic during the PM peak hours on the internal road crossovers. This Figure also shows the traffic generation of the future Bowra & O'Dea development (in blue).



Figure 9: Lot 5 Development Peak Hour Traffic Increase on the Surrounding Roads

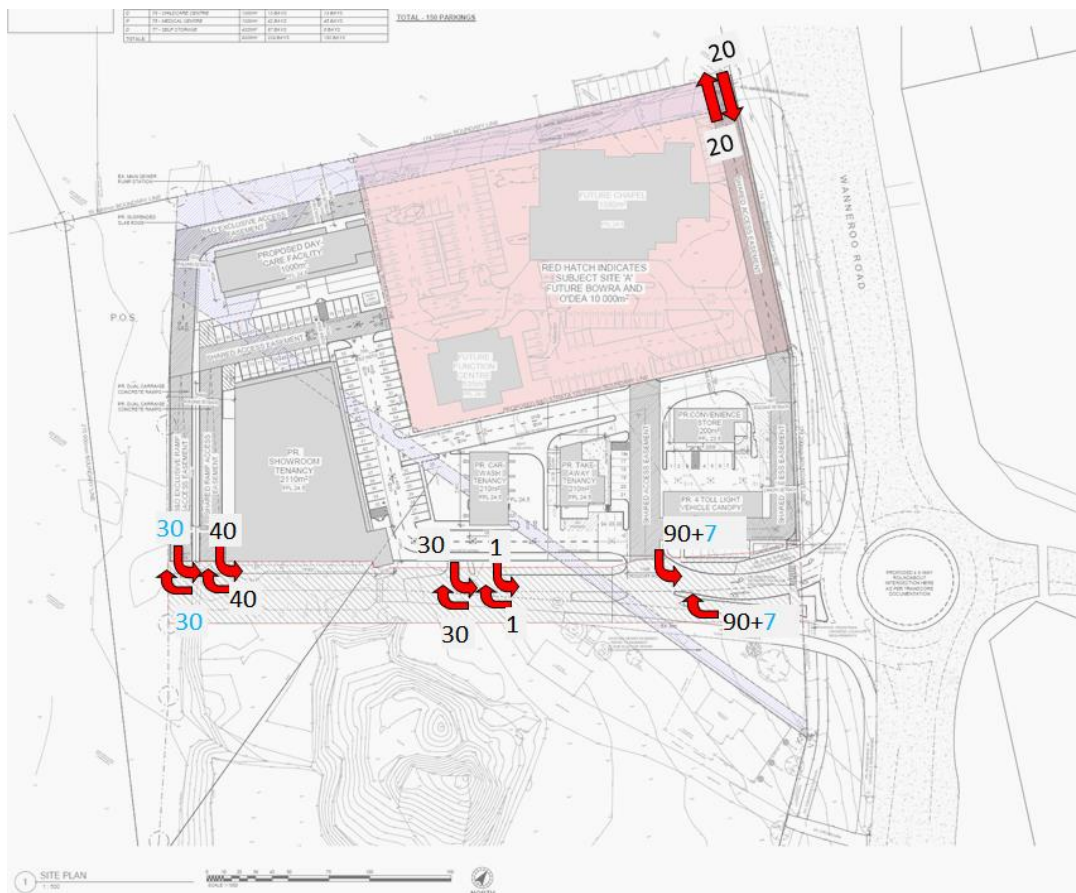


Figure 10: Lot 5 traffic distribution (vph)



## 6.4 Intersection Analysis

In order to assess the performance of the proposed roundabout intersection on Wanneroo Road capacity analysis using SIDRA computer package was undertaken for post development (2018) and ten year post development (around 2028) scenarios. The through traffic on Wanneroo Road for the opening year and 10 year post development was established by utilising the available traffic volumes sourced from Main Roads WA for the existing and future scenarios.

SIDRA is an intersection modelling tool commonly used by traffic engineers for all types of intersections. SIDRA outputs are presented in the form of Degree of Saturation, Level of Service, Average Delay and 95% Queue. These characteristics are defined as follows:

- Degree of Saturation is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for infrequent traffic flow up to one for saturated flow or capacity.
- Level of Service is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. In general, there are 6 levels of service, designated from A to F, with Level of Service A representing the best operating condition (i.e. free flow) and Level of Service F the worst (i.e. forced or breakdown flow).
- Average Delay is the average of all travel time delays for vehicles through the intersection.
- 95% Queue is the queue length below which 95% of all observed queue lengths fall.

Transcore has prepared a Concept Designs for the roundabout intersection of Wanneroo Road/ Clackson Avenue. **Appendix D** shows the proposed Concept Design. This design was used to inform the SIDRA intersection layout for the purpose of intersection analysis.

The results of the SIDRA analysis for year 2018 and 2028 are summarised in **Appendix E**.

The analysis indicates that a dual lane roundabout operates satisfactorily and well within capacity with overall Level of service A and B during the post development and 10 year post development scenarios respectively. The highest reported queues on the precinct access road (internal road) are about 17m and 33m during the post development and 10 year post development scenarios respectively.

In order to investigate the queue distance at the proposed service station crossover on the internal road, SIDRA intersection analysis was undertaken for this crossover. The crossover layout modelled in SIDRA is shown in Figure E4 in Appendix E and the results of the analysis are demonstrated in Table E5. Analysis undertaken indicates that this crossover would work satisfactorily with overall level of service A

and minimum queue (less than a car) on the internal road and would not impact the operation of the Wanneroo Road roundabout.

### ***6.5 Impact on Neighbouring Areas***

The traffic generated by the proposed development would have minimal impact on nearby areas. The majority of the development traffic would be distributed on Wanneroo Road which is a Primary Regional Road and will attract reasonable passing trade traffic.

### ***6.6 Traffic Noise and Vibration***

It generally requires a doubling of traffic volumes on a road to produce a perceptible 3dB (A) increase in road noise. The proposed development will not increase traffic volumes or noise on surrounding roads near this level to result in any perceptible increase in traffic noise.

### ***6.7 Road Safety***

No particular road safety issues have been identified for the proposed development.



## 7.0 Parking

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The parking calculation for the proposed development calculated the parking demand for the self-storage units using the warehouse land use parking rate in accordance with the TPS 2. This results in significant overestimation of the parking demand for the self-storage facility. This approach results in a total parking shortfall of 89 bays (79 bays for self-storage and 14 bays for showroom).

It should be noted that the peak day and peak hour operations of the proposed land-uses are not overlapping and therefore reciprocal parking arrangement would be available for the different land uses within the development and in particular for the self-storage units which would be typically used outside of the peak periods of the other land uses.

## 8.0 Provision for Heavy Vehicles

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The fuel delivery trucks are expected to enter and exit the proposed service station from the roundabout intersection on Wanneroo Road and the proposed full movement crossover on the internal road. This crossover has been designed to accommodate the 19.0m fuel tankers.

Relevant turn path analysis was undertaken to ensure satisfactory operation of the fuel tankers entering and existing the service station.



## 9.0 Conclusions

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The proposed land uses within Drovers Place Central Precinct are conservatively estimated to generate traffic flows of approximately 1,657 vehicles during the Thursday PM peak hour, out of which 362vph is associated with the proposed developments on Lot 5.

The endorsed Detailed Area Plan (DAP) for Drovers Place Central Precinct contemplated installation of traffic signals at the intersection of Wanneroo Road and Clarkson Avenue converting this existing T-intersection to four-way intersection with the western leg of the intersection providing a connection to the Central Precinct.

Since the preparation and endorsement of the DAP, it is understood that that Main Roads WA's current practice and preference is for roundabouts in lieu of signalised intersections. Accordingly, analysis was undertaken for a roundabout intersection on Wanneroo Road which indicates that a dual lane roundabout will operate satisfactorily and within capacity during the typical Thursday PM peak hour for the post development (2018) and 10 year post development (2028) scenarios.

Traffic modelling and analysis undertaken demonstrates that the proposed developments on Lot 5 will have insignificant impact on the traffic operations of the surrounding road network and the proposed roundabout intersection on Wanneroo Road.

# Appendix A

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## ENDORSED DETAILED AREA PLAN



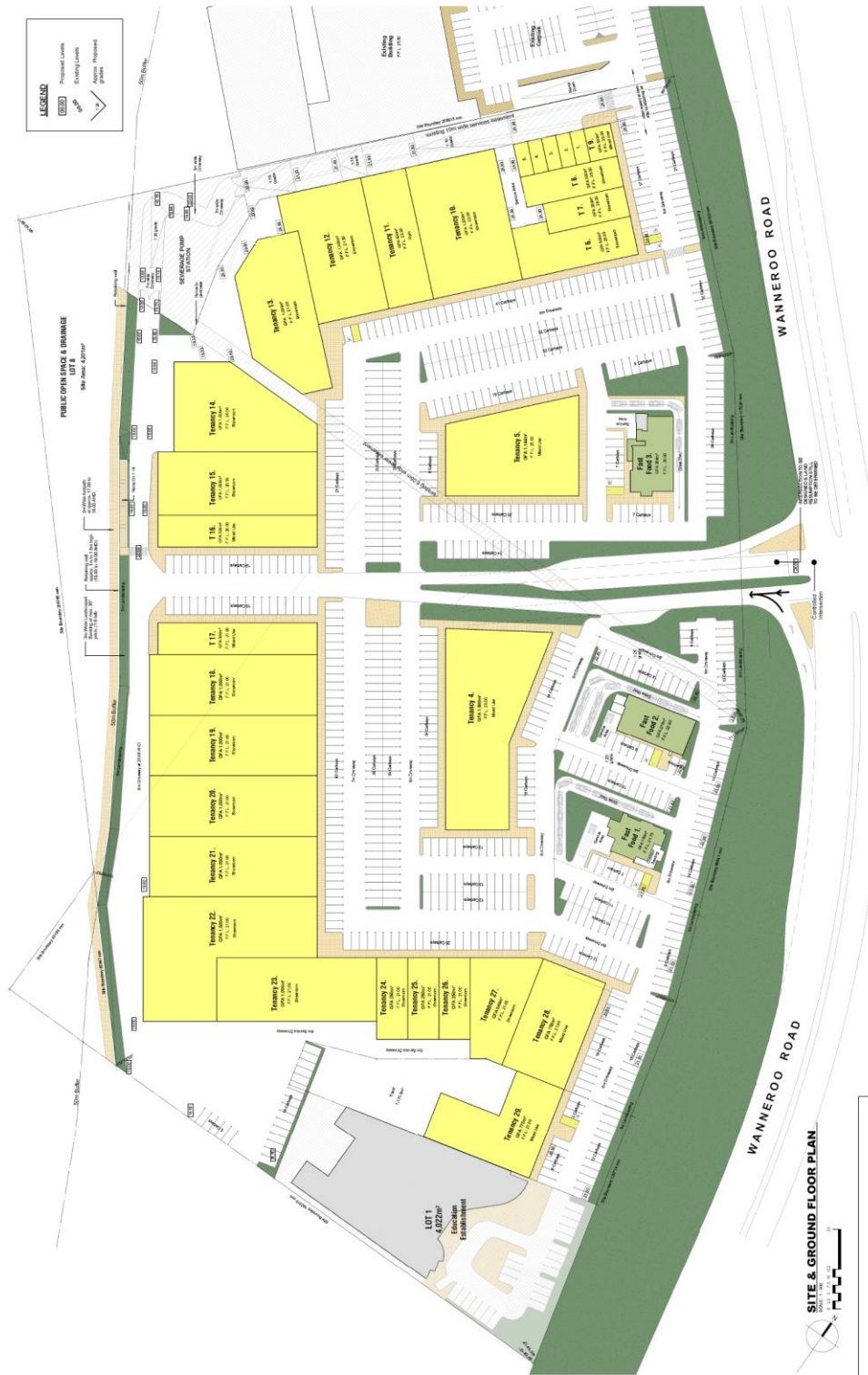


# Appendix B

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## PROPOSED ORIGINAL SITE PLAN





**COMPOSITE SITE CRITERIA**

|                          |                          |
|--------------------------|--------------------------|
| 1. Site Area             | 62.77 ha                 |
| 2. Land Use (G% of site) | 62.77 ha                 |
| 3. Floor Area            | 1,111,111 m <sup>2</sup> |
| 4. Car Parking Required  | 742 cars                 |

CLARKSON AVENUE

WANNERO ROAD

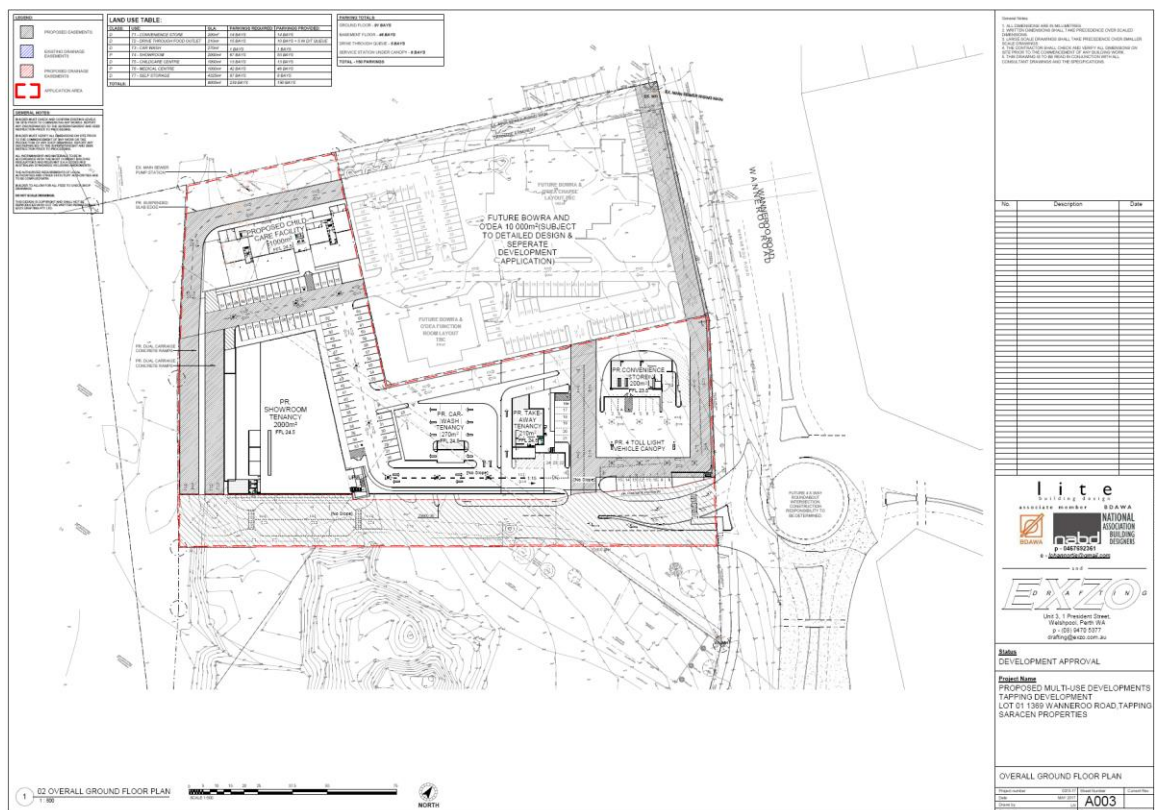
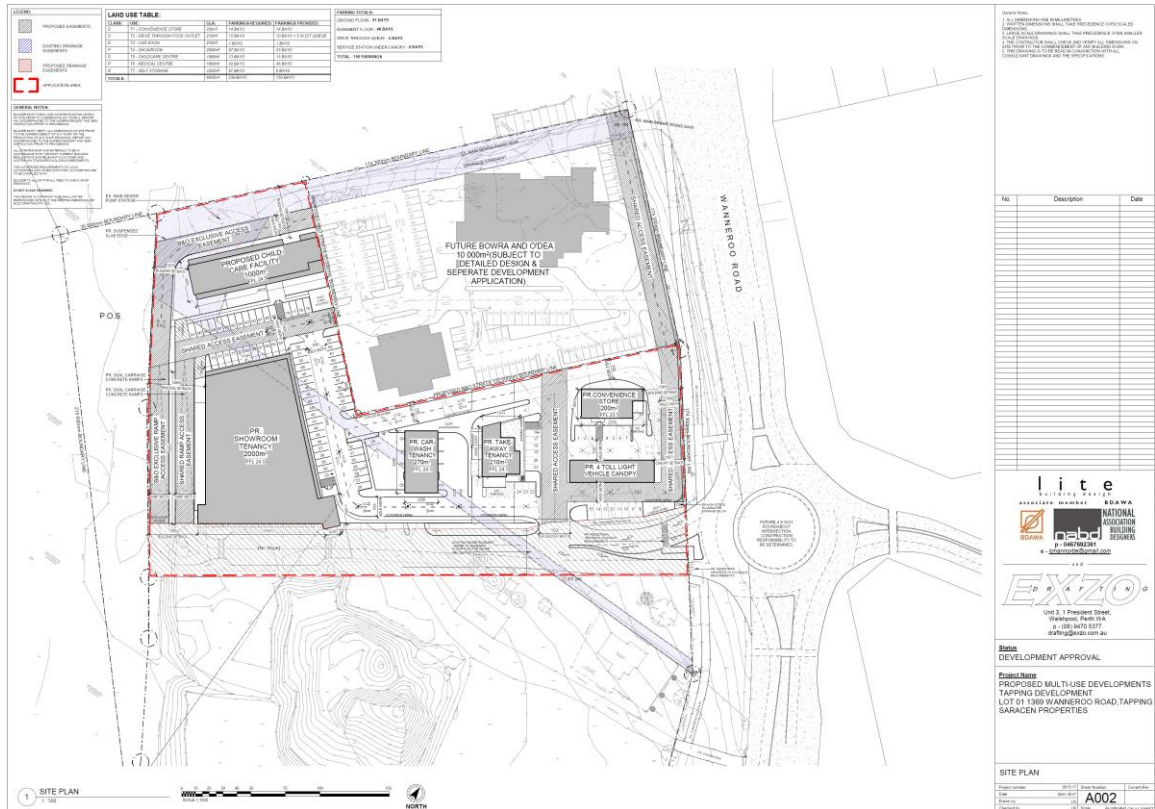


# Appendix C

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## DEVELOPMENT SITE PLANS





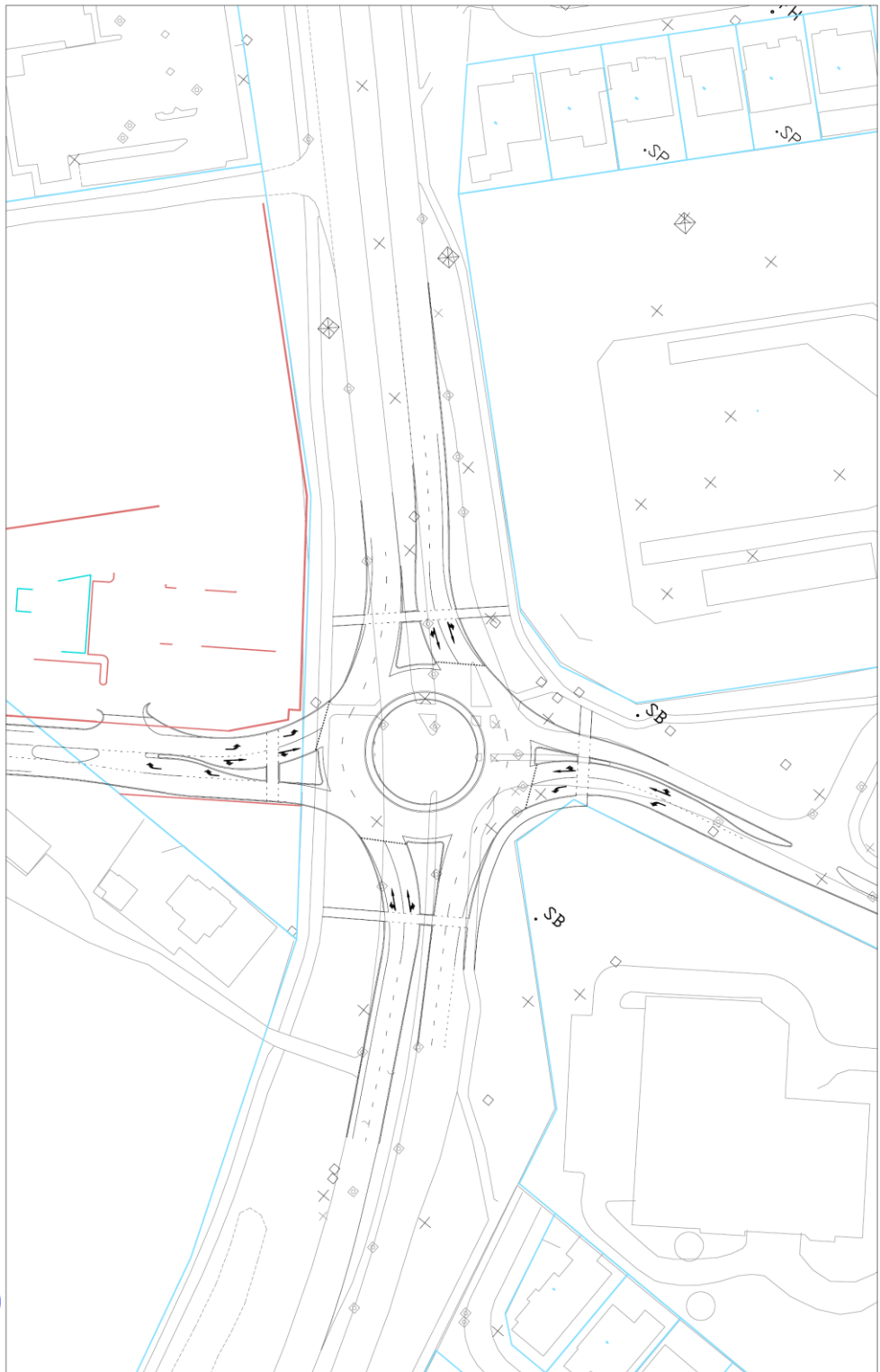
# Appendix D

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## ROUNDAABOUT CONCEPT DESIGN



PROPOSED DEVELOPMENT - LOT 5  
 WANNEROO ROAD INTERSECTION - OPTION 3 - ROUNDABOUT



t17.224-sk03  
 SCALE 1:1000 @A3  
 12/12/2017



# Appendix E

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## INTERSECTION ANALYSIS



Figure E3. Wanneroo Road / Clarkson Avenue/ Precinct Access Road signalised intersection layout analysed in SIDRA (post development and 10 year post development)

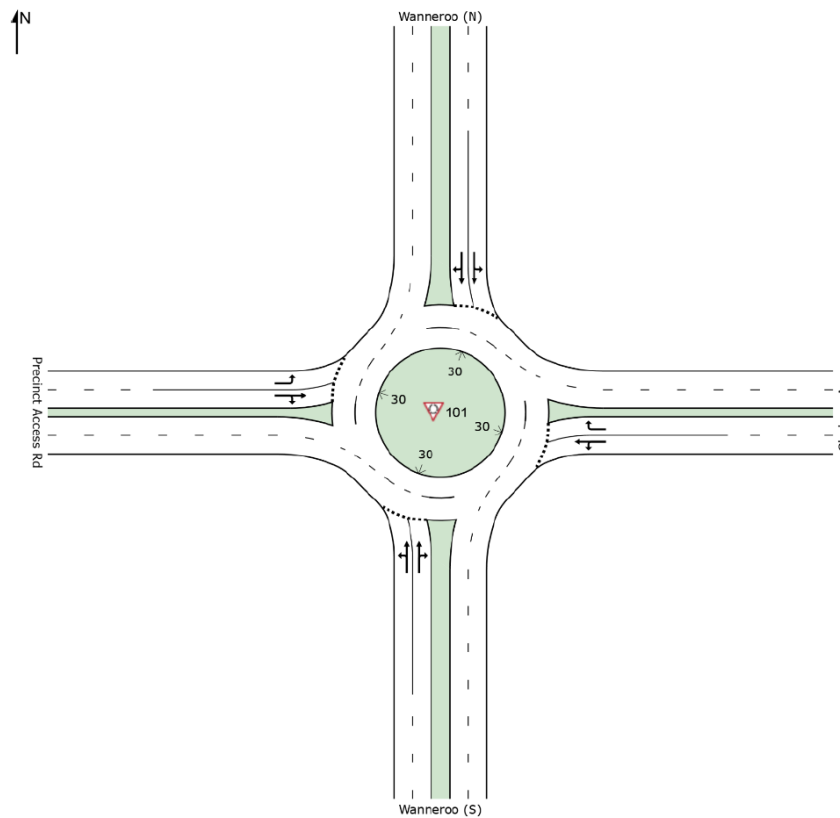


Table E3. SIDRA results – Wanneroo Road / Clarkson Avenue/ Precinct Access Road roundabout intersection (post development)

| Movement Performance - Vehicles |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
|---------------------------------|--------|--------------------|------------|---------------|-------------------|------------------|--------------------------------|------------|--------------|-----------------------------|--------------------|
| Mov ID                          | OD Mov | Demand Total veh/h | Flows HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate per veh | Average Speed km/h |
| South: Wanneroo (S)             |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 1                               | L2     | 150                | 0.0        | 0.665         | 6.8               | LOS A            | 5.8                            | 46.7       | 0.71         | 0.76                        | 53.1               |
| 2                               | T1     | 1095               | 22.6       | 0.665         | 7.7               | LOS A            | 5.8                            | 46.7       | 0.72         | 0.81                        | 53.9               |
| 3                               | R2     | 96                 | 0.0        | 0.665         | 13.1              | LOS B            | 5.7                            | 46.2       | 0.73         | 0.85                        | 54.1               |
| Approach                        |        | 1341               | 18.5       | 0.665         | 8.0               | LOS A            | 5.8                            | 46.7       | 0.72         | 0.80                        | 53.8               |
| East: Clarkson Ave              |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 4                               | L2     | 120                | 0.0        | 0.271         | 7.0               | LOS A            | 1.5                            | 10.2       | 0.78         | 0.78                        | 53.1               |
| 5                               | T1     | 80                 | 0.0        | 0.271         | 6.9               | LOS A            | 1.5                            | 10.2       | 0.78         | 0.78                        | 54.8               |
| 6                               | R2     | 125                | 0.0        | 0.229         | 13.6              | LOS B            | 1.1                            | 7.6        | 0.76         | 0.92                        | 51.1               |
| Approach                        |        | 325                | 0.0        | 0.271         | 9.5               | LOS A            | 1.5                            | 10.2       | 0.77         | 0.83                        | 52.7               |
| North: Wanneroo (N)             |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 7                               | L2     | 114                | 0.0        | 0.580         | 6.1               | LOS A            | 4.8                            | 37.7       | 0.70         | 0.66                        | 53.1               |
| 8                               | T1     | 857                | 17.0       | 0.580         | 6.6               | LOS A            | 4.8                            | 37.7       | 0.70         | 0.69                        | 53.9               |
| 9                               | R2     | 220                | 0.0        | 0.580         | 12.2              | LOS B            | 4.7                            | 36.2       | 0.71         | 0.75                        | 53.6               |
| Approach                        |        | 1191               | 12.2       | 0.580         | 7.6               | LOS A            | 4.8                            | 37.7       | 0.71         | 0.70                        | 53.8               |
| West: Precinct Access Rd        |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 10                              | L2     | 220                | 0.0        | 0.423         | 9.5               | LOS A            | 2.3                            | 16.1       | 0.82         | 0.94                        | 51.8               |
| 11                              | T1     | 80                 | 0.0        | 0.407         | 7.7               | LOS A            | 2.4                            | 17.0       | 0.83         | 0.92                        | 51.8               |
| 12                              | R2     | 206                | 0.0        | 0.407         | 13.4              | LOS B            | 2.4                            | 17.0       | 0.83         | 0.92                        | 52.1               |
| Approach                        |        | 506                | 0.0        | 0.423         | 10.8              | LOS B            | 2.4                            | 17.0       | 0.82         | 0.93                        | 51.9               |
| All Vehicles                    |        | 3363               | 11.7       | 0.665         | 8.4               | LOS A            | 5.8                            | 46.7       | 0.73         | 0.79                        | 53.4               |

Table E4. SIDRA results – Wanneroo Road / Clarkson Avenue/ Precinct Access Road  
roundabout intersection (10 year post development)

| Movement Performance - Vehicles |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
|---------------------------------|--------|--------------------|------------|---------------|-------------------|------------------|--------------------------------|------------|--------------|-----------------------------|--------------------|
| Mov ID                          | OD Mov | Demand Total veh/h | Flows HV % | Deg. Satn v/c | Average Delay sec | Level of Service | 95% Back of Queue Vehicles veh | Distance m | Prop. Queued | Effective Stop Rate per veh | Average Speed km/h |
| South: Wanneroo (S)             |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 1                               | L2     | 150                | 0.0        | 0.896         | 12.6              | LOS B            | 16.0                           | 130.2      | 0.98         | 1.16                        | 49.5               |
| 2                               | T1     | 1547               | 22.6       | 0.896         | 14.2              | LOS B            | 16.0                           | 130.2      | 0.99         | 1.19                        | 49.8               |
| 3                               | R2     | 96                 | 0.0        | 0.896         | 19.9              | LOS B            | 15.5                           | 126.9      | 1.00         | 1.23                        | 49.6               |
| Approach                        |        | 1793               | 19.5       | 0.896         | 14.4              | LOS B            | 16.0                           | 130.2      | 0.99         | 1.19                        | 49.8               |
| East: Clarkson Ave              |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 4                               | L2     | 120                | 0.0        | 0.370         | 9.2               | LOS A            | 2.3                            | 15.8       | 0.90         | 0.95                        | 52.0               |
| 5                               | T1     | 80                 | 0.0        | 0.370         | 9.1               | LOS A            | 2.3                            | 15.8       | 0.90         | 0.95                        | 53.7               |
| 6                               | R2     | 125                | 0.0        | 0.330         | 16.1              | LOS B            | 1.7                            | 12.0       | 0.86         | 0.97                        | 49.5               |
| Approach                        |        | 325                | 0.0        | 0.370         | 11.8              | LOS B            | 2.3                            | 15.8       | 0.88         | 0.95                        | 51.4               |
| North: Wanneroo (N)             |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 7                               | L2     | 114                | 0.0        | 0.772         | 8.8               | LOS A            | 10.2                           | 80.4       | 0.88         | 0.89                        | 52.1               |
| 8                               | T1     | 1234               | 17.0       | 0.772         | 9.5               | LOS A            | 10.2                           | 80.4       | 0.89         | 0.92                        | 52.7               |
| 9                               | R2     | 220                | 0.0        | 0.772         | 15.2              | LOS B            | 9.9                            | 76.5       | 0.89         | 0.95                        | 52.3               |
| Approach                        |        | 1568               | 13.4       | 0.772         | 10.3              | LOS B            | 10.2                           | 80.4       | 0.89         | 0.92                        | 52.6               |
| West: Precinct Access Rd        |        |                    |            |               |                   |                  |                                |            |              |                             |                    |
| 10                              | L2     | 220                | 0.0        | 0.723         | 22.2              | LOS C            | 4.8                            | 33.6       | 0.94         | 1.11                        | 43.9               |
| 11                              | T1     | 80                 | 0.0        | 0.636         | 15.4              | LOS B            | 4.7                            | 33.0       | 0.98         | 1.10                        | 47.1               |
| 12                              | R2     | 206                | 0.0        | 0.636         | 21.1              | LOS C            | 4.7                            | 33.0       | 0.98         | 1.10                        | 47.4               |
| Approach                        |        | 506                | 0.0        | 0.723         | 20.7              | LOS C            | 4.8                            | 33.6       | 0.96         | 1.10                        | 45.8               |
| All Vehicles                    |        | 4192               | 13.3       | 0.896         | 13.4              | LOS B            | 16.0                           | 130.2      | 0.94         | 1.06                        | 50.4               |

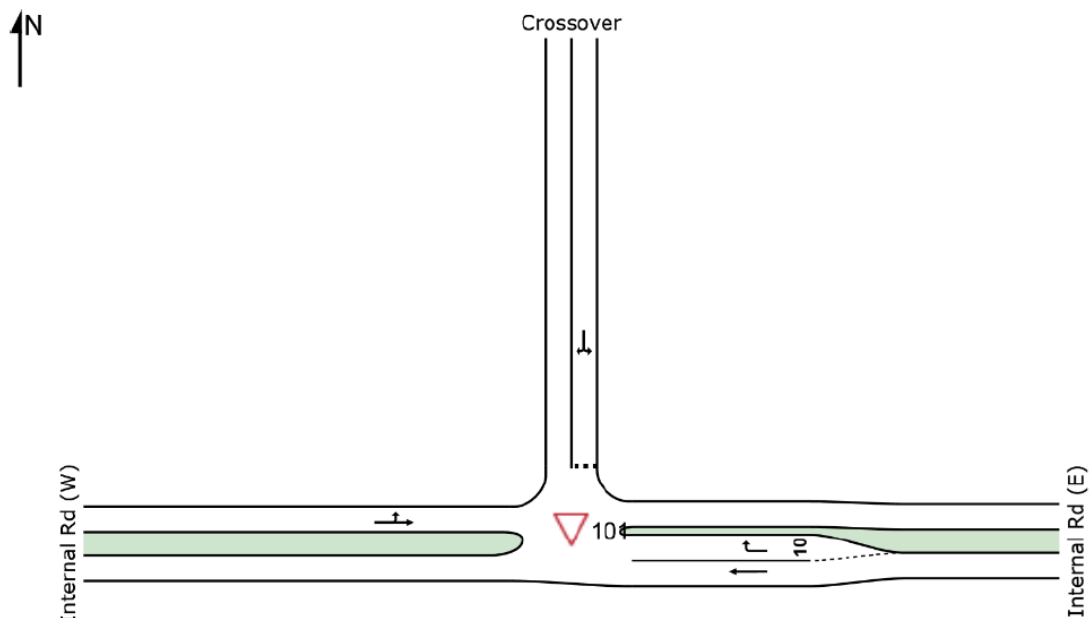


Figure E4. Intersection layout analysed in SIDRA (post development)



Table E5. SIDRA results – Service station crossover (post development)

| Movement Performance - Vehicles |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |
|---------------------------------|--------|-----------------------|---------------|------------------|----------------------|------------------|-----------------------------------|---------------|--------------|--------------------------------|-----------------------|
| Mov ID                          | OD Mov | Demand Total<br>veh/h | Flows HV<br>% | Deg. Satn<br>v/c | Average Delay<br>sec | Level of Service | 95% Back of Queue<br>Vehicles veh | Distance<br>m | Prop. Queued | Effective Stop Rate<br>per veh | Average Speed<br>km/h |
| East: Internal Rd (E)           |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |
| 5                               | T1     | 295                   | 0.0           | 0.151            | 0.0                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.00                           | 60.0                  |
| 6                               | R2     | 102                   | 0.0           | 0.081            | 6.8                  | LOS A            | 0.4                               | 2.5           | 0.44         | 0.64                           | 52.0                  |
| Approach                        |        | 397                   | 0.0           | 0.151            | 1.8                  | NA               | 0.4                               | 2.5           | 0.11         | 0.17                           | 57.7                  |
| North: Crossover                |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |
| 7                               | L2     | 102                   | 0.0           | 0.089            | 6.9                  | LOS A            | 0.3                               | 2.4           | 0.41         | 0.64                           | 52.3                  |
| 9                               | R2     | 1                     | 0.0           | 0.089            | 7.6                  | LOS A            | 0.3                               | 2.4           | 0.41         | 0.64                           | 51.8                  |
| Approach                        |        | 103                   | 0.0           | 0.089            | 6.9                  | LOS A            | 0.3                               | 2.4           | 0.41         | 0.64                           | 52.3                  |
| West: Internal Rd (W)           |        |                       |               |                  |                      |                  |                                   |               |              |                                |                       |
| 10                              | L2     | 1                     | 0.0           | 0.190            | 5.6                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.00                           | 58.3                  |
| 11                              | T1     | 368                   | 0.0           | 0.190            | 0.0                  | LOS A            | 0.0                               | 0.0           | 0.00         | 0.00                           | 59.9                  |
| Approach                        |        | 369                   | 0.0           | 0.190            | 0.0                  | NA               | 0.0                               | 0.0           | 0.00         | 0.00                           | 59.9                  |
| All Vehicles                    |        | 869                   | 0.0           | 0.190            | 1.6                  | NA               | 0.4                               | 2.5           | 0.10         | 0.15                           | 57.9                  |

## Appendix A2: Checklists for individual development transport impact assessment



# TRANSPORT IMPACT ASSESSMENT GUIDELINES

## Checklist for a transport impact assessment for individual development

- Tick the provided column for items for which information is provided.
- Enter N/A in the provided column if the item is not appropriate and enter reason in comment column.
- Provide brief comments on any relevant issues.
- Provide brief description of any proposed transport improvements, for example, new bus routes or signalisation of an existing intersection.

| ITEM  | PROVIDED | COMMENTS/PROPOSALS  |
|---|----------|---|
| <b>Summary</b>  | NO       |   |
| <b>Introduction/Background</b>                                      | YES      |   |
| name of applicant and consultant                                    | YES      |   |
| development location and context                                    | YES      | Refer page 1 of the TIA   |
| brief description of development proposal                           | YES      | Refer Page 8 of the TIA   |
| key issues  | YES      | Impact of the proposed development traffic on the surrounding roads and in particular the proposed roundabout intersection on Wanneroo Road was investigated in the TIA |
| background information  | YES      | Transcore TIA report in 2015 (t15.091mrr01) for the Drivers Place Central Precinct including Lots 1 & 132 and Lots 810 & 811 was acknowledged in the TIA                |
| <b>Existing situation</b>   |          |   |
| existing site uses (if any)   | YES      | Currently the site is vacant  |
| existing parking and demand (if appropriate)                        | N/A      |   |
| existing access arrangements  | N/A      |   |
| existing site traffic   | N/A      |   |
| surrounding land uses   | YES      | The proposed development is in line with existing and planned uses in the locality  |
| surrounding road network  | YES      | Refer page 9 (Changes to the Surrounding Road Network) of the TIA   |
| traffic management on frontage roads                                | YES      | Refer Page 3 and 4 of the TIA   |
| traffic flows on surrounding roads (usually AM and PM peak hours)   | YES      | Refer Page 3 and 4 of the TIA and Appendix E  |
| traffic flows at major intersections (usually AM and PM peak hours) | YES      | Refer Page 3 and 4 of the TIA and Appendix E  |
| operation of surrounding intersections                              | YES      | Operation of the proposed roundabout intersection on Wanneroo Road was investigated in the TIA  |
| existing pedestrian/cycle networks                                  | YES      | Refer Page 5 and Figure 5   |
| existing public transport services surrounding the development      | YES      | Refer Page 4 and Figure 4 of the TIA  |

# TRANSPORT IMPACT ASSESSMENT GUIDELINES

|            |     |  |
|------------|-----|--|
| crash data | YES | Refer Page 7. Information available on the Main Roads WA website for the existing intersection of Wanneroo Road/ Clackson Avenue indicates 5 rear end crashes during the five-year period ending December 2016 |
|------------|-----|--|



# TRANSPORT IMPACT ASSESSMENT GUIDELINES

| ITEM   | PROVIDED | COMMENTS/PROPOSALS  |
|--|----------|---|
| <b>Development proposal</b>  |          |   |
| regional context   | YES      | Refer page 8 and 9 of the TIA   |
| proposed land uses   | YES      | Refer page 8 of the TIA   |
| table of land uses and quantities                                    | YES      | Refer page 12 of the TIA  |
| access arrangements  | YES      | Refer page 8 and Figure 10  |
| parking provision  | YES      | Refer Page 8 and 17 of the TIA  |
| end of trip facilities   | NA       |   |
| any specific issues  | NA       |   |
| road network   | YES      | The proposed development road network includes internal driveway and parking aisles   |
| intersection layouts and controls                                    | YES      | All internal crossovers are controlled as give way intersections.   |
| pedestrian/cycle networks and crossing facilities                    | YES      | The design of the internal driveway includes pedestrian/ cycle crossing facility at the intersection with Wanneroo Road.  |
| public transport services  | YES      | Refer Page 4 and Figure 4   |
| <b>Integration with surrounding area</b>                             | YES      |   |
| surrounding major attractors/ generators                             | YES      | Refer Page 3 (Existing Land Use)  |
| committed developments and transport proposals                       | YES      | The future traffic volumes on Clarkson Avenue includes the traffic generation of the the Approved Development Application Plan for Lot 19 Clackson Avenue.  |
| proposed changes to land uses within 1200 metres                     | NO       | Same trip distribution assumption was adopted for consistency with the previous works undertaken by Transcore for Lakewide and GHD for Structure Plan 80.   |
| travel desire lines from development to these attractors/ generators | NO       | Same trip distribution assumption was adopted for consistency with the previous works undertaken by Transcore for Lakewide and GHD for Structure Plan 80.   |
| adequacy of existing transport networks                              | YES      | The existing standard of Wanneroo Road would be able to accommodate the development traffic. The additional traffic on Drovers Place due to the proposed development is considered to be minimal. |
| deficiencies in existing transport networks                          | NA       |   |
| remedial measures to address deficiencies                            | NA       |   |
| <b>Analysis of transport networks</b>                                |          |   |
| assessment years   | YES      | Refer page 11 of the TIA  |
| time periods   | YES      | Refer page 11 of the TIA  |
| development generated traffic  | YES      | Refer Page 13 and 14 of the TIA   |
| distribution of generated traffic                                    | YES      | Refer Page 13 and 14 of the TIA   |

# TRANSPORT IMPACT ASSESSMENT GUIDELINES

|   |     |  |
|---|-----|--|
| parking supply and demand                 |     |  |
| base and 'with development' traffic flows | YES | Refer Page 13 and 14 of the TIA for development traffic, base traffic is reported in page 3 and 4 of the TIA |
| analysis of development accesses          | YES | Refer Page 15 and Appendix E   |
| impact on surrounding roads               | YES | Refer Figure 9 in Page 14  |
| impact on intersections                   | YES | Refer Page 15 and Appendix E   |



# TRANSPORT IMPACT ASSESSMENT GUIDELINES

| ITEM  | PROVIDED | COMMENTS/PROPOSALS  |
|---|----------|---|
| <b>Analysis of transport networks (cont.)</b>                                 |          |   |
| impact on neighbouring areas  | YES      | Refer Page 16 of the TIA  |
| road safety   | YES      | Refer Page 16 of the TIA, No particular road safety issues have been identified for the proposed development. |
| public transport access   | YES      | Refer Figure 4 and 6 of the TIA   |
| pedestrian access/amenity   | YES      | Refer Figure 5 of the TIA   |
| cycle access/amenity  | YES      | Refer Page 5 of the TIA   |
| analysis of pedestrian/cycle networks   | NA       |   |
| safe walk/cycle to school (for residential and school site developments only) | NA       | The site is not residential   |
| traffic management plan (where appropriate)                                   | NA       |   |
| <b>Conclusions</b>  | YES      | Refer Page 19 of the TIA  |

**Proponent's name:**

Mohammad Rasouli.....

**Company** .....Transcore..... **Date** .....18/01/2018.....

**Transport assessor's name** .....

**Company** ..... **Date** .....