Landscaping adjacent to proposed carpark LOT 150 Welshpool Road East Wattle Grove



Prepared by

Plantation and Landcare Services Pty Ltd

ABN 32546652580 ACN 098754271

PO Box 591

Mount Lawley WA 6929

Bill Davey (Forester)

hone +61 8 9271 8725 all hours Mobile +61 0429961770

Email <u>bdavey@palservices.com.au</u>. <u>www.palservices.com.au</u>.

Disclaimer

Plantation and Landcare Services has developed this plan for its client, the development of lot 150 Welshpool Road Wattle Grove, to meet a condition of the Shire of Kalamunda.

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Taking landcare into the future.....

October 11 2016

Mr David Maiorana Dykstra Planning Perth WA

Landscaping adjacent to proposed carpark LOT 150 Welshpool East Road Wattle Grove

Plantation and Landcare Services has been consulted to produce a landscape plan that will fulfil the conditions attached with the overall development of lot 150.

This landscape plan combines with the Revegetation Plan for the NW corner at the rear of Lot 150. Both plans combine as part of the overall landscaping and long term land management which the owner wish's to implement.

History of area

Currently this lot is a vacant site since the purchase by the owner. Previously the lot was utilised for horse training and agistment. Overtime the lot has degraded as a result of poor management and of late a intensive summer bush fire in 2015. The whole area was heavily weed infested with numerous stands of trees and scrub with poor form and little environmental significance due to the impact of horses, the fire and surrounding neighbours who have very degraded properties.

The previous owner implemented some screening along Welshpool East Road with thickets of Melaleucas viminea which blended well with the natural M. raphophylla. Other specie planted included assorted Eucalyptus camaldulensis/rudis/wandoo many which have been trimmed by Western Power and the previous owners. Majority of these species are not local to the area.

Current site has little to no environmental components that need further assessment. Much of the vegetation has been planted over the years)



Pic 1: Large trees have been planted under/near the power lines as a result the trees have been trimmed by council/Western Power. These trees should be removed and re planted with suitable shrubs that wont encroach the power lines.

Proposed landscaping

It is proposed to re landscape the area running parallel to Welshpool Road East. The key objective of landscaping this area is to:

- Enhance the visual amenity of the area between the proposed carpark and Welshpool Road East
- Soften the development adjacent to the carpark
- Enhance the overall appearance of the development
- Dovetail into current revegetation and landscaping projects along Welshpool Road and Tonkin Highway
- Plantings will be low maintenance incorporating native shrubs that are water wise

The plantings will extend the full length of the owners Welshpool East boundary less the cross over at the eastern end (See Landscape Site Plan)

Pre development/site assessment



Pic 1: Isolated trees will be removed from the roadside and landscape area. Many hinder the visual truncation of proposed entrance ways as well overhead power lines. Large eucalyptus trees will be cleared



Pic 2: The location of the carpark will mean selected trees (<u>Eucalypts camadulensis/rudis</u>) will be removed as they have the potential to drop limbs.



Pic 3: Much of the proposed landscape site is grass. This will be sprayed and removed to reduce regermination throughout the area. Melaleuca viminea although well established should be removed to allow continuity within the landscape plan. Area in and around existing Melaleuca will be cleared and replanted with more appropriate shrubs. Any trees that are to be retained will be clearly tagged.



Pic 4: Melaleuca viminea although well-established will protrude into the carpark and require sever trimming top accommodate the development. It is suggested that low shrubs and perennials be planted. The tree is poor condition

Scheduling of proposed events and development of the site for landscaping

Once the development is approved. Landscaping will dovetail into the scheduling of the overall development. It is recommended that the landscaping is completed prior to or during the winter months. Even if the landscaping zone is irrigated. This will pay huge dividends in the overall vigour and health of the plantings.

<u>Location of services</u>: All services below and above ground will be located and pegged (Dial b4 u Dig) There is a power box within the project area and numerous irrigation pipework.

<u>Tagging of the remanent vegetation</u> that will be retained (if any) will be tagged with the help of the Shire of Kalamunda environmental team



<u>Clearing of vegetation</u> (most are not native to the area and have been pruned by Western Power and council over the years as they obstruct the power lines) that is under the power lines and obstructing the visual truncation of the proposed entry points and also prosed a damage to pedestrians and general public who will be parking their cars.

Surveying of landscape zone, carpark area and the Western block landscaping zone

<u>Weed control</u>: A spray program will be implemented to eradicate the grasses and weeds across the landscape site

Re shaping and removing all foreign weeds, grasses and debris from the proposed planting zone will enable a clean site to enhance the hygiene of the area and ultimately reduce long term maintenance. Ripping will loosen up topsoil and enhance long term root development

Tops soil, conditioner and mulch will be spread across the proposed planting site.

Irrigation drip lines will be installed

Planting commenced and completed

<u>Maintenance scheduling</u> implemented after planting and approval for landscaping is received form the Shire of Kalamunda

Layout

Landscaping will take part inside the owner's boundaries. No planting of trees shrubs and herbs will take part on the road verge ie Shire of Kalamunda's property.

Concept:

To have larger native shrubs along the southern side of the carpark to filter noise and visually enhance this part of the site

Shrubs and herbs nearest to the carpark with be shrubs less than 1 m in height to help add colour and achieve better aesthetics. Small shrubs nearest to the carpark will reduce the encroachment of vegetation into the carpark area (longer term) see Landscape concept plan)

It is anticipated that a species spectrum of some 6-8 shrubs will be used. The following table 1 indicates the proposed shrubs and quantities. The shrubs highlighted in red will be used next to the roadside i.e. the southern side of the buffer. The balance near the verge of the carpark.

Trees/shrubs will be spaced randomly across the project area. Shrubs and herbs will be also spaced out in a random formation.

Large trees will be strategically planted within the carpark . Anticipated that 1 tree per 6 car bays

Density and quantities

Area 1: Carpark area

71m x 7 m wide landscape strip

Estimated total area to be landscaped: 500 m2
Density of Shrub planting at 0.5 tree/m2

Estimated area to be planted 250 m2 (estimate 50% to be planted with native trees and

shrubs)

Total shrubs to be planted125Density of small shrubs and herbs at1/m2Estimated area to be planted250 m2Total shrubs and herbs to be planted250

Area 2 Western block planting

46 m x 22 m western area

Estimated total area to be landscaped: 1012 m2
Density of Shrub planting at 0.5 tree/m2
Estimated area to be planted 506 m2

Total shrubs to be planted 250
Density of small shrubs and herbs at 1/m2
Estimated area to be planted 506 m2

Total shrubs and herbs to be planted 506

Table 1: Species to be planted and approximate numbers and size of stock

Symbol	species	Pot size	Approx. quantity	comments
AP AP	Acacia pulchella	140 -170 mm	126	Shrub to 1.5 m
S ca	Calothamnus quadrifidus	140-170 mm	126	Shrub 1-2 m
MR	Melaleuca radula	140- 170mm	126	Shrub to 2.5 m
Small shrubs and herbs				
HR	Hypocalymma robustrum	Forestry tube	151	Shrub to 1 m
VD	Verticordia densiflora	Forestry tube	151	Shrub to 1 m
AM	Angozanthos mangiesii	Forestry tube	151	Perennial herb to 1
СС	Conostylis candicans	Forestry tube	151	Perennial to 0.3 m
DR	Dianella revoluta	Forestry tube	151	Perennial shrub to 1 m
EF	Carpark trees	Eucalptus ficifolia/ torquata	1 tree per 6 bays. Strategically located within the carpark area and block zone. Numbers will be govern by the carpark size	Established trees in 45 litre bags)

Carpark trees

<u>Eucalyptus ficifolia/ Eucalyptus torquata</u> are to be used throughout the carpark to add shade and shelter to the cars and parking zone. Note all of one specie should be used to add continuity.

Quantity: 1 tree per 6 bays Size of trees: 45 litre pots

All trees to be planted with 33% soil improver and be staked with jarrah stakes (50x50x2100)

Mulching

All area should be mulched to a minimum thickness of 75 mm with certified mulch (ISO 9001:2008) from reputable supplier. An organic mulch should be composted to eradicate the introduction of weeds.

Irrigation

It is recommended that a simple drip irrigation system is installed. A mains outlet should be installed within the landscape zone. All carpark trees should be irrigated with industry standard drippers. A separate irrigation plan should dovetail in with the civil works plan

Note: Underground irrigation pipe work needs to be installed within the construction phase to the garden beds where the large carpark trees are to be planted.

Maintenance

Maintenance of the landscape zone will be the responsibility of the owner. Anticipated maintenance operations include:

- Checking of irrigation (especially prior to summer and throughout summer)
- Infill plant stock that has died especially over the initial 18 months.
- · Weed control where required.
- Mulch replenishment where required.
- Liaison with the shire landscape team regarding progress.

Summary

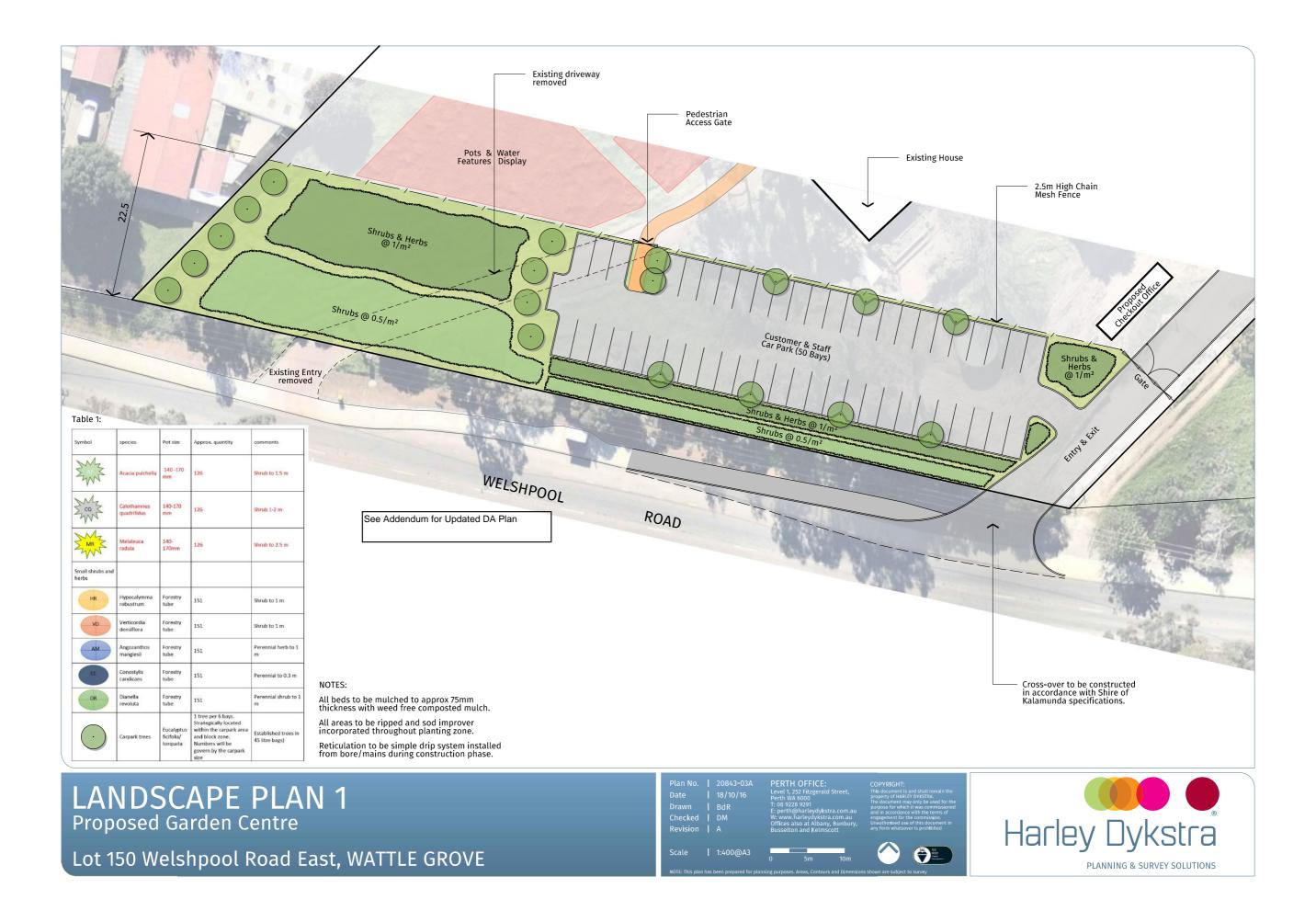
The landscape plan is one part of overall environmental project which the owner wish's to implement. Extensive revegetation along the stream channels on the NW corner will ensure the health of the neighbouring **Bush Forever** site will add environmental value to lot 150 and surrounding area

The landscape plan has been designed to provide visual enhancement of the site when viewed from Welshpool Road East. Selective native shrubs and perennials plant pallet will ensure the project will be of low maintenance, water wise. Strategic remnant vegetation within the landscaping zone will be retained, if possible, to help buffer the propose development.

Selected large trees will need to be removed as part of the carpark development. These trees displaying poor form and health which could result in falling limbs especially after civil works have taken place nearby.

A simple irrigation system is recommended. The design of this should be detailed in a separate plan after civil plans have been finalised.





ADDENDUM

UPDATED DEVELOPMENT APPLICATION PLANS AS AT OCTOBER 2022

Note: The attached amended DA Plans do not affect the landscaping plan which precedes this Addendum.

