

WAREHOUSE (DISTRIBUTION CENTRE)

PROPOSED LOT 102, FLAGSTONE LOGISTICS ESTATE, QLD 4280

LANDSCAPE CONCEPT REPORT

DA SUBMISSION

22.05.2024

ISSUE E



PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2023/1466

Date: 11 October 2024



DRAWING LIST:

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L-03	Landscape Design Philosophy
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L-16	Typical Landscape Details

CLIENT:

Charter Hall



LANDSCAPE ARCHITECT:



HABIT8

Landscape Architecture & Urbanism

SYDNEY (Gadigal country) BYRON BAY (Bundjalung country)
MELBOURNE (Wurundjeri country) SE QUEENSLAND (Yugambeh country)

www.habit8.com.au

DESIGN PRECEDENT IMAGES

FRONT SETBACK



PARKING AREA



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PROJECT THEMES:

1. Conservation of the natural environment.

This project will lead to the future enhancement of the increasing endemic canopy tree planting promotion of social, cultural, recreational, and educational opportunities within natural landscapes.

2. Increased access to open space

Improved connections to local destinations. The quantity, quality, distribution, and accessibility of Industrial office green spaces enables the delivery of multifunctional spaces that promote healthy work environments.

3. Improved connectivity to promote active living

Improvements to the office communal areas and frontages that promote exercise and alternative modes of transport such as walking and cycling.

4. Increase urban greening to ameliorate climate extremes

We incorporate the design of green cover strategies including street trees, front setback canopy trees, cooler pavement materials and WSUD. Our landscape scheme provides benefits such as improved amenity, comfort, health, reduced stormwater run-off, improved air and water quality, energy and resource efficiency.

a) THE RE-VEGETATION STRATEGY

The strategy for re-vegetating the site focuses on canopy tree planting to reduce the “urban heat island effect”. We have proposed a mix of local endemic, native and exotic trees to strengthen the urban design principles and to comply with current sustainability guidelines. Street verges, buffer tree planting to boundaries are densely planted with canopy trees ranging from 6m to 15m+ in height and canopy spread. Bush regeneration shall be implemented along major road setbacks for existing vegetation buffers. Car parks hard surfaces are shaded by tree planting between car parking spaces. Cycleways and path systems are also shaded by canopy tree planting. WSUD principles including soft engineering through bio-swales, detention basins and grey water re-use (co-ordinated with the civil engineer) shall help in maintaining and managing the re-vegetation areas.

b) STREETSCAPES + PUBLIC DOMAIN

All streetscapes and setbacks have been designed to be multifunctional and provide connectivity throughout the Estate for vehicles, pedestrians and cyclists. The streets and landscaped setbacks form the main “green spines” throughout development. The streetscape has been designed in accordance with City of Logan Council’s Public Domain policy. The main features of the public domain are:

1. Provide tree canopy cover and reduce the “urban heat island effect”;
2. Provide safe and comfortable transit for pedestrians and cyclists;
3. Strengthen canopy connectivity throughout the Estate;
4. Allow multi-functionality through the revisions of various transit lanes such as heavy vehicle, cars, pedestrian footpaths and cycleways;
5. Soften and screen the bulk of the warehouses;
6. Help create a cooler microclimate around buildings and along pedestrian routes;
7. Provide multiple opportunities to create an address for each warehouse project;
8. Integrate lighting for safety;

9. Allow safe passage for visitors and workers to experience the conservation area corridors interface;
10. Strengthen the connection to Mt Lindesay Highway, Crowson Lane and surrounding areas
11. Incorporate WSUD principles into the including water quality bio-swales and vegetated detention basins

THE LANDSCAPE STRATEGY:

- Retain as much significant landscape and built form fabric as possible.
- Incorporate a creative interpretation of place through the design and layout of proposed landscaping and people movement.

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WSUD Principles

Rainwater tanks to be installed on site in accordance with the Sustainability Report endorsed under Condition 67.

Fencing Earthing Requirements:

All fencing on or within the Powerlink easement must be:
- broken into sections not exceeding 20 - 30m each; and
- suitably gapped between sections by way of either air or insulating material such as timber (minimum 50mm - 100mm gap required).

Any barbed wire must also be discontinuous.

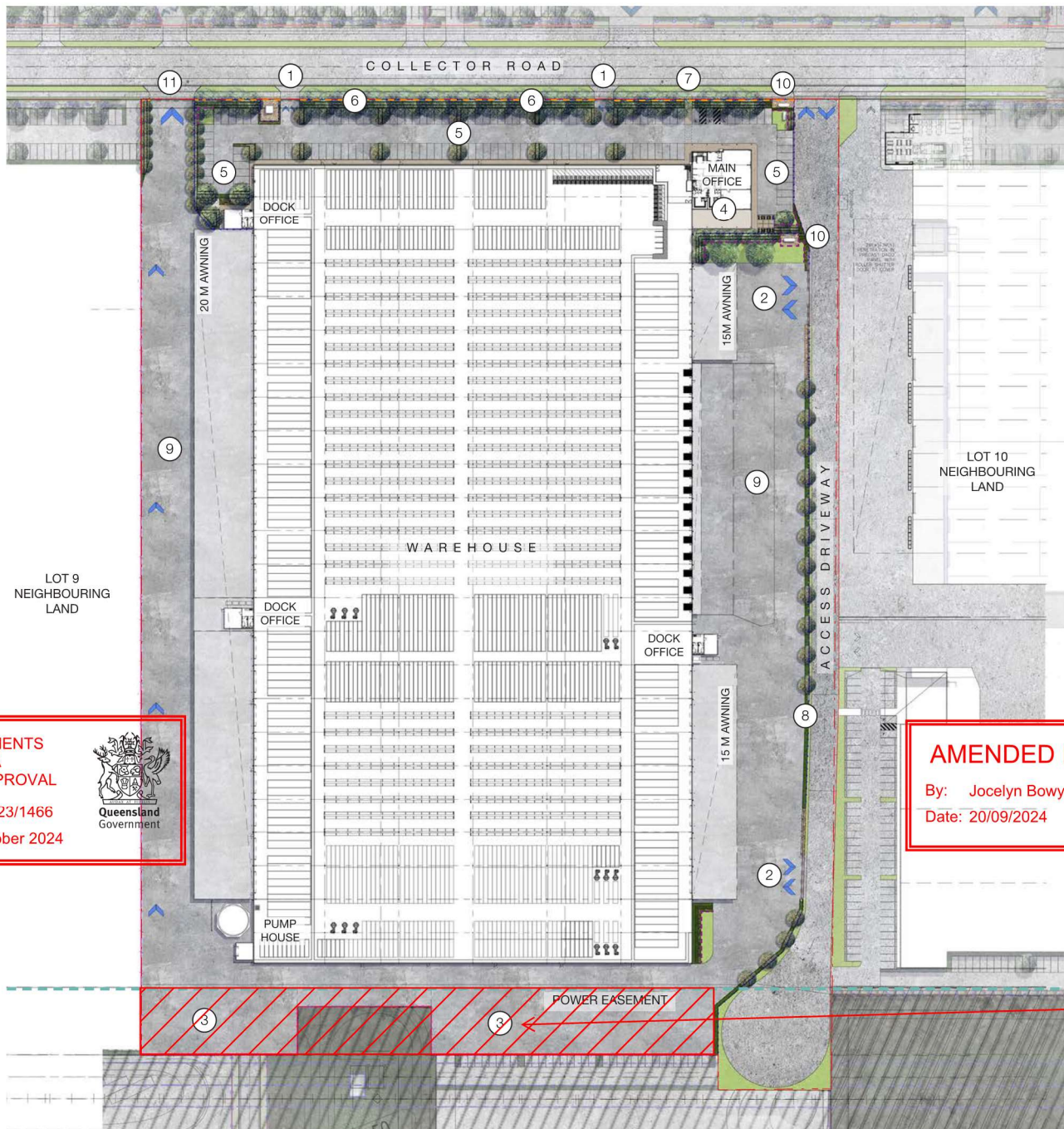
AMENDED IN RED

By: Jocelyn Bowyer

Date: 20/09/2024



OVERALL LANDSCAPE CONCEPT MASTERPLAN



KEY

- | | |
|---|---|
|  | SITE BOUNDARY |
|  | 2100mm HT PALASIDE/
DIPLOMAT TYPE FENCING
TO CH SPECIFICATION |
|  | 1800mm HT PVC COATED
CHAINMESH FENCING
TO CH SPECIFICATIONS |
|  | STEEL EDGING |
|  | CONCRETE EDGING |
|  | PROPOSED CANOPY TREE
PLANTING
REFER TO PLANT SCHEDULE |
|  | MASS PLANTING BEDS
REFER TO PLANT SCHEDULE |
|  | TURF |
|  | CONCRETE SURFACE
TO ENGINEER'S DETAILS |
|  | PAVED SURFACE
TO ARCHITECT'S DETAILS |

DESIGN NOTES

1. CAR ENTRY / EXIT
2. TRUCK ENTRY / EXIT
3. HD STORAGE AREA
4. OUTDOOR STAFF AREA
5. CARPARK AREA
6. LANDSCAPE SETBACK: LARGE CANOPY TREES (10m HT @10M OC)
AND MEDIUM TREES (6m HT @10M OC)
7. FOOTPATH / PEDESTRIAN ACCESS
8. BOUNDARY PLANTING: SCREENING HEDGES AND TREES
9. HARDSTAND
10. PYLON SIGN
11. TRUCK EXIT ONLY

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

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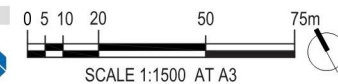
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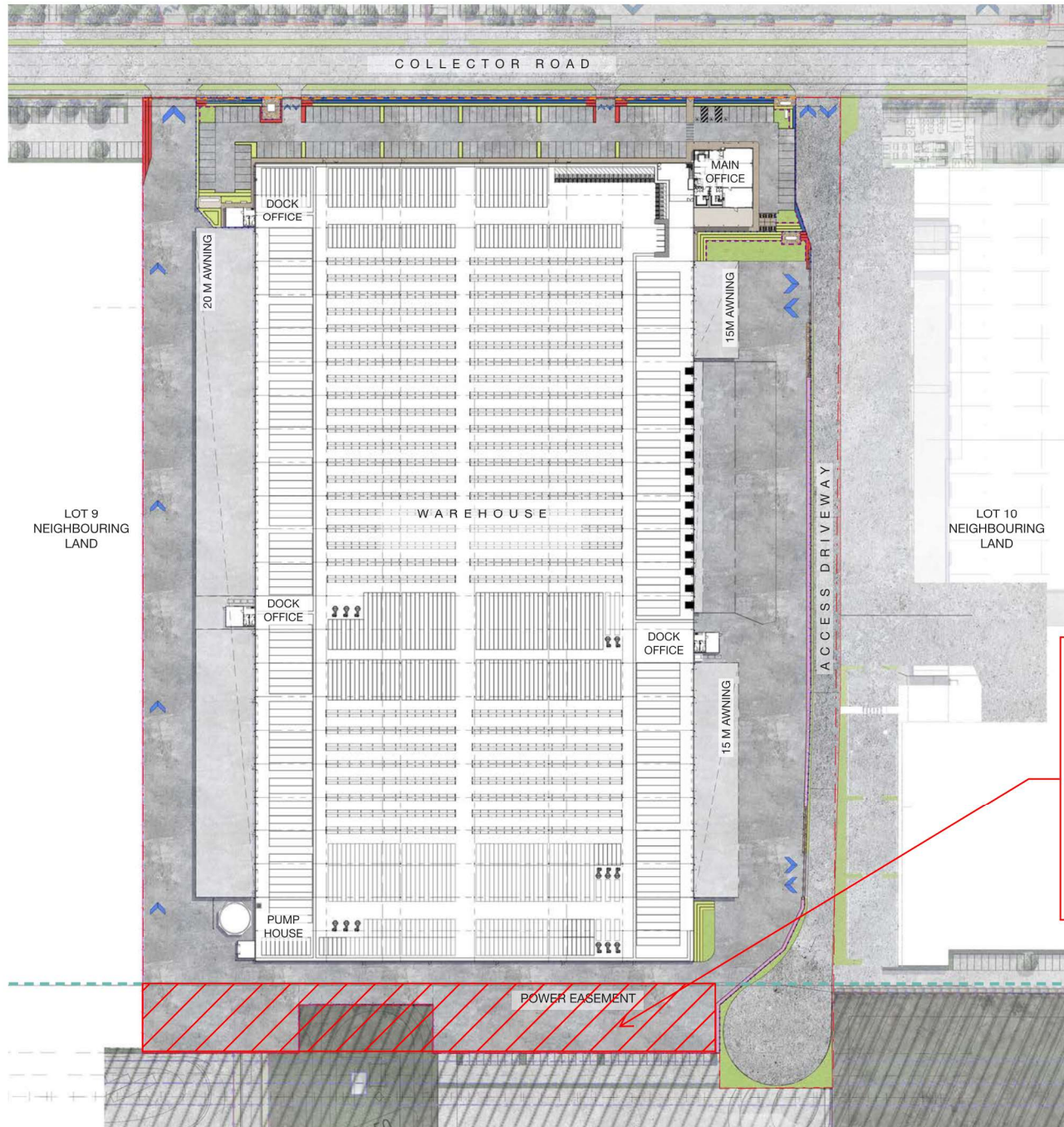
Retaining wall, fence, hardstand and other civil infrastructure in the approved plans permitted. Area to remain clear open space at all times except where Powerlink Queensland have approved activities within the easement through a co-use agreement.

Where a co-use agreement has not been issued, measures to be installed to prevent any activities within the exclusion zone.

PROJECT	DRAWING TITLE	PROJECT NO.	PURPOSE	SCALE	REVISION	DATE	DRAWN	CHECKED	PAGE	CLIENT
WAREHOUSE (DISTRIBUTION CENTRE) PROPOSED LOT 102, FLAGSTONE LOGISTICS ESTATE, QLD 4280	OVERALL LANDSCAPE CONCEPT MASTERPLAN	H8-23055	DA SUBMISSION	1:1500@A3	E	22.05.2024	KM	DV	L04	Char...



PLANTING STRATEGY



KEY

- FEATURE ENTRY PLANTING**
Refer to Plant Schedule
- FRONT SETBACK PLANTING**
Refer to Plant Schedule
- CARPARK PLANTING AND OFFICE**
Refer to Plant Schedule
- BOUNDARY PLANTING AREA**
Refer to Plant Schedule
- TURF**

PLANS AND DOCUMENTS
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TREE CANOPY SHADOW ANALYSIS

DESIGN NOTES

1. CAR ENTRY / EXIT
2. TREE SHADOWS
3. TRUCK EXIT ONLY
4. STAFF AREA
5. CARPARK AREA
6. LANDSCAPE SETBACK: LARGE CANOPY TREES
(10-15m HT @10M OC) AND MEDIUM TREES (6-8m HT
@5M OC)
7. PEDESTRIAN ACCESS

TREE CANOPY COVER

(Carpark + Frontage only)

TREE NO.	TREE CANOPY	CANOPY AREA (m ²)	TOTAL CANOPY COVER (m ²)
5	3m	7	35
26	6m	30	780
18	8m	50	900
19	10m	78	1482

CARPARK + FRONTAGE AREA	5,621.77 m ²
TOTAL TREE NO.	68
TOTAL SQM CANOPY COVER	3,197 m ²
TOTAL CANOPY PERCENTAGE	56.87%
CARPARK + FRONTAGE	
LANDSCAPE AREA SQM	1,328.18
TOTAL LANDSCAPE PERCENTAGE	23.63%



KEY PLAN



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LANDSCAPE CONCEPT PLAN 01



KEY PLAN

KEY

- SITE BOUNDARY
- 2100mm HT PALASIDE/ DIPLOMAT TYPE FENCING TO CH SPECIFICATION
- 1800mm HT PVC COATED CHAINMESH FENCING TO CH SPECIFICATIONS
- STEEL EDGING
- CONCRETE EDGING
- PROPOSED CANOPY TREE PLANTING REFER TO PLANT SCHEDULE
- MASS PLANTING BEDS REFER TO PLANT SCHEDULE
- TURF
- CONCRETE SURFACE TO ENGINEER'S DETAILS
- PAVED SURFACE TO ARCHITECT'S DETAILS

DESIGN NOTES

- CAR ENTRY / EXIT
- TRUCK EXIT ONLY
- HARDSTAND
- OUTDOOR STAFF AREA (GRASS, SEATING, HEDGING)
- CARPARK AREA
- LANDSCAPE SETBACK: LARGE CANOPY TREES (10m HT @10M OC) AND MEDIUM TREES (6m HT @10M OC)
- FOOTPATH / PEDESTRIAN ACCESS
- BOUNDARY PLANTING: SCREENING HEDGES
- PYLON SIGN

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

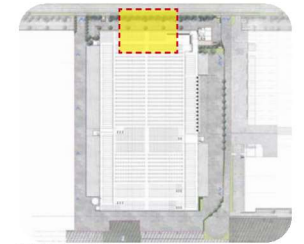
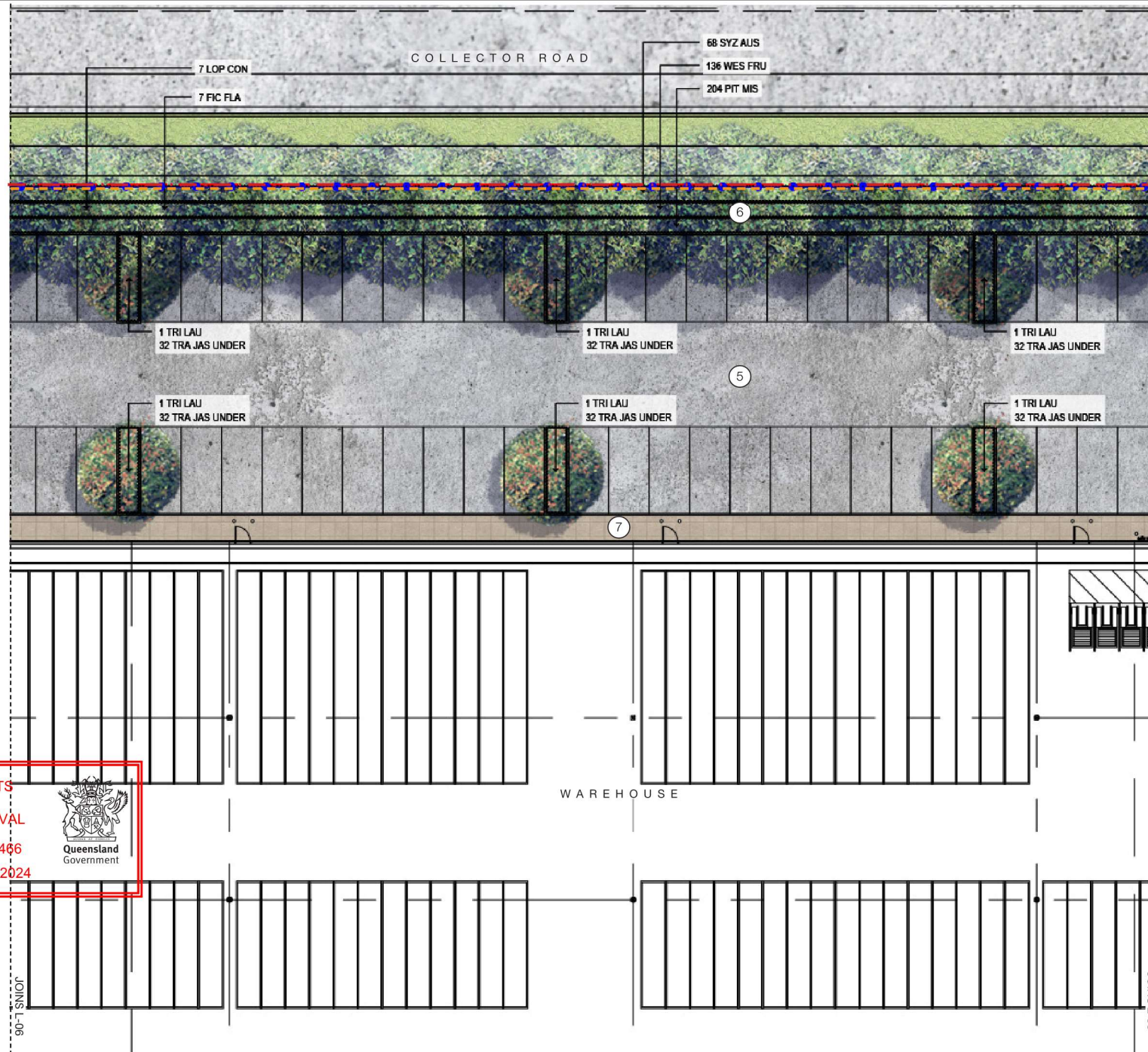
Approval no: DEV2023/1466
Date: 11 October 2024



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WAREHOUSE (DISTRIBUTION CENTRE) PROPOSED LOT 102, FLAGSTONE LOGISTICS ESTATE, QLD 4280	LANDSCAPE CONCEPT PLAN 01	H8-23055	DA SUBMISSION	1:250@A3	E	22.05.2024	KM	DV	L07	



LANDSCAPE CONCEPT PLAN 02



KEY PLAN

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- SITE BOUNDARY
- 2100mm HT PALASIDE/ DIPLOMAT TYPE FENCING TO CH SPECIFICATION
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- PROPOSED CANOPY TREE PLANTING REFER TO PLANT SCHEDULE
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- TURF
- CONCRETE SURFACE TO ENGINEER'S DETAILS
- PAVED SURFACE TO ARCHITECT'S DETAILS

DESIGN NOTES

1. CAR ENTRY / EXIT
2. TRUCK ENTRY / EXIT
3. HARDSTAND
4. OUTDOOR STAFF AREA (GRASS, SEATING, HEDGING)
5. CARPARK AREA
6. LANDSCAPE SETBACK: LARGE CANOPY TREES (10m HT @10M OC) AND MEDIUM TREES (6m HT @10M OC)
7. FOOTPATH / PEDESTRIAN ACCESS
8. BOUNDARY PLANTING: SCREENING HEDGES
9. PYLON SIGN

PLANS AND DOCUMENTS
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Queensland
Government

PROJECT: WAREHOUSE (DISTRIBUTION CENTRE)
DRAWING TITLE: LANDSCAPE CONCEPT PLAN 02
PROJECT NO.: H8-23055
PURPOSE: DA SUBMISSION
SCALE: 1:250@A3
REVISION: E
DATE: 22.05.2024
DRAWN: KM
CHECKED: DV
PAGE: L08
CLIENT: Charter Hall

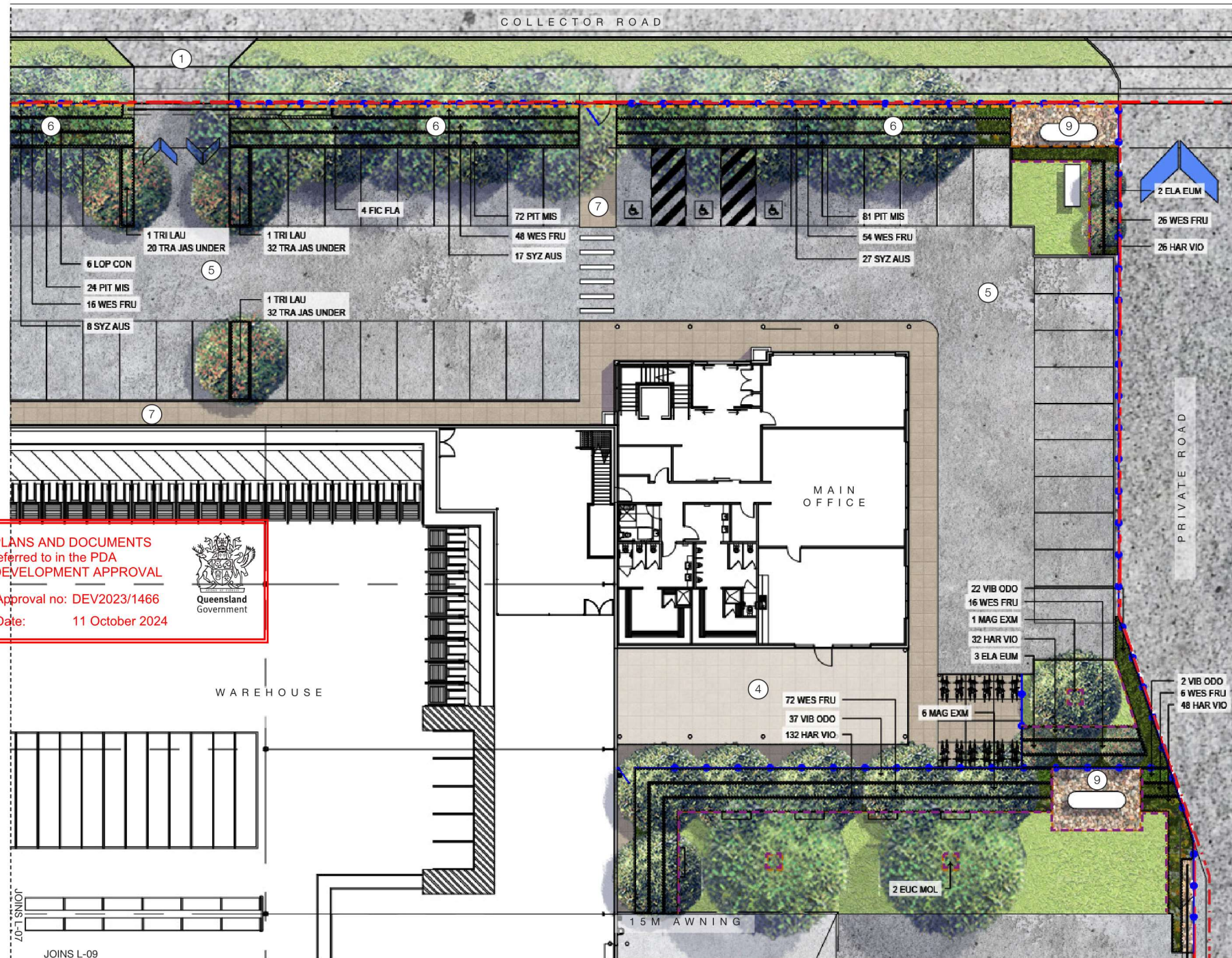
WAREHOUSE (DISTRIBUTION CENTRE)
PROPOSED LOT 102, FLAGSTONE LOGISTICS
ESTATE, QLD 4280

0 2.5 5 7.5 10 12.5m

SCALE 1:250 AT A3



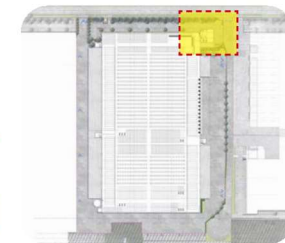
LANDSCAPE CONCEPT PLAN 03



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PLANTING
REFER TO PLANT SCHEDULE
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@10M OC)
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8. BOUNDARY PLANTING: SCREENING HEDGES
9. PYLON SIGN

PROJECT: WAREHOUSE (DISTRIBUTION CENTRE)
DRAWING TITLE: LANDSCAPE CONCEPT PLAN 03
PROJECT NO.: H8-23055
PURPOSE: DA SUBMISSION
SCALE: 1:250@A3
REVISION: E
DATE: 22.05.2024
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PAGE: L09
CLIENT: Charter Hall

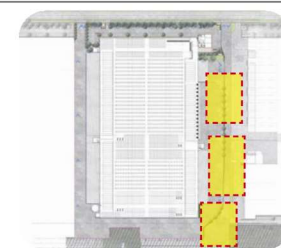
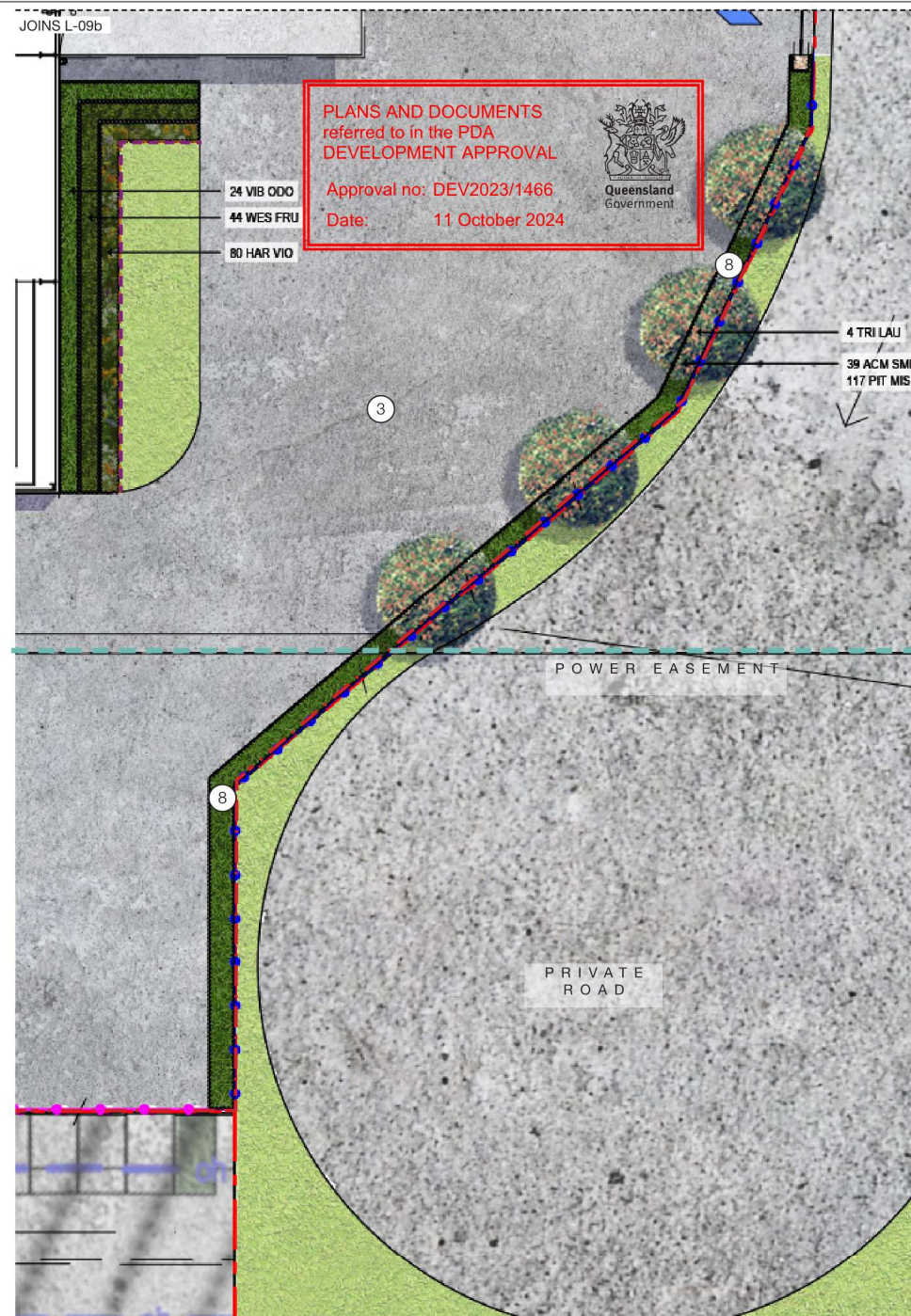
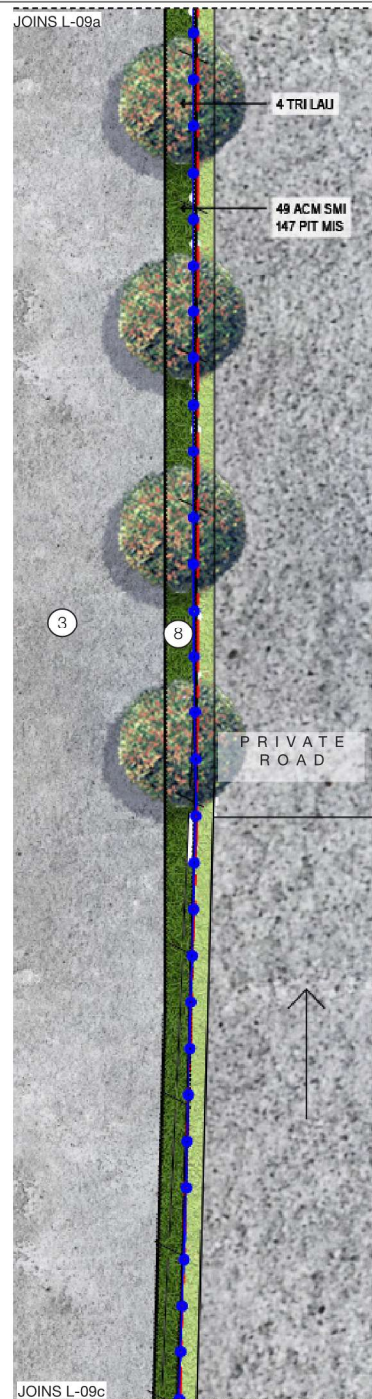
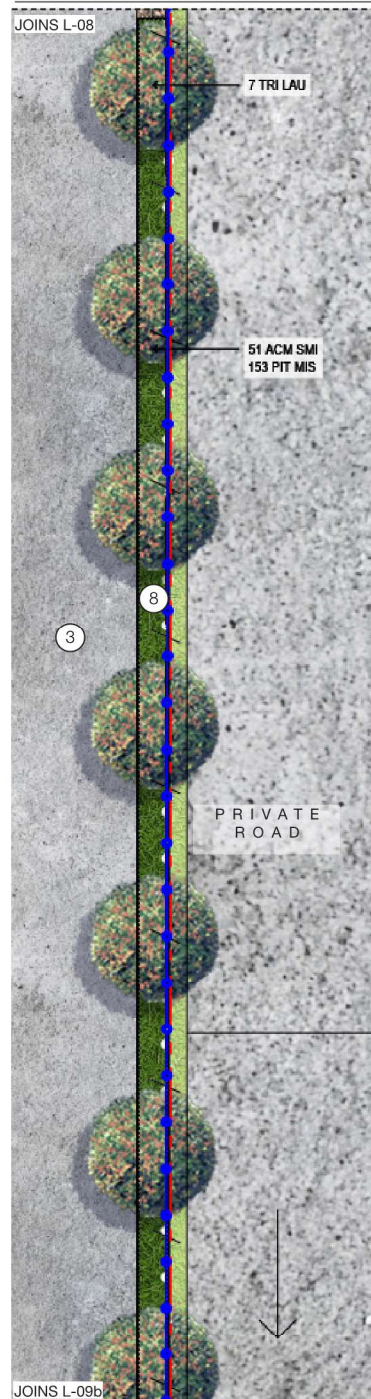
WAREHOUSE (DISTRIBUTION CENTRE)
PROPOSED LOT 102, FLAGSTONE LOGISTICS
ESTATE, QLD 4280

0 2.5 5 7.5 10 12.5m

SCALE 1:250 AT A3



LANDSCAPE CONCEPT PLAN 04



KEY PLAN

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DESIGN NOTES

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- TRUCK ENTRY / EXIT
- HARDSTAND
- OUTDOOR STAFF AREA (GRASS, SEATING, HEDGING)
- CARPARK AREA
- LANDSCAPE SETBACK: LARGE CANOPY TREES (10m HT @10M OC) AND MEDIUM TREES (6m HT @10M OC)
- FOOTPATH / PEDESTRIAN ACCESS
- BOUNDARY PLANTING: SCREENING HEDGES
- PYLON SIGN



LANDSCAPE CONCEPT PLAN: OUTDOOR STAFF AREA (TYPICAL)



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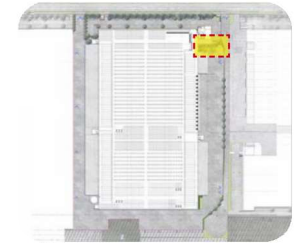
MAG EXM



ELA EUM



EUC MOL



KEY PLAN



KEY

- STEEL EDGING
- 2100mm HT PALASIDE/ DIPLOMAT TYPE FENCING TO CH SPECIFICATION
- PROPOSED CANOPY TREE PLANTING REFER TO PLANT SCHEDULE
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01 LANDSCAPE CONCEPT PLAN: OUTDOOR STAFF AREA (TYPICAL)
Scale 1:200@A3 / 1:100@A1

PLANS AND DOCUMENTS
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LANDSCAPE CONCEPT PLAN: SETBACK PLANTING (TYPICAL)



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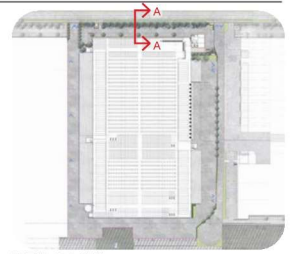
Queensland Government

LANDSCAPE SECTION A-A

PLANS AND DOCUMENTS
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KEY PLAN



01 SECTION A-A
Scale 1:100@A3

PLANTING AS
SPECIFIED
2100MM HT PALISADE
SECURITY FENCE
TO CH SPECIFICATIONS AND
CONCRETE EDGE TO BOUNDARY

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WAREHOUSE (DISTRIBUTION CENTRE) PROPOSED LOT 102, FLAGSTONE LOGISTICS ESTATE, QLD 4280	LANDSCAPE SECTION A-A	H8-23055	DA SUBMISSION	1:100@A3	E	22.05.2024	KM	DV	L 13	Charter Hall



PLANT SCHEDULE

PLANT LIST

	CODE	BOTANICAL NAME	POT SIZE	DENSITY	HT AT MATURITY	QTY.
		TREES				
	MAG EXM	Magnolia 'Exmouth'	200L	As Shown	3-5m	10
	LOP CON	Lophostemon confertus	100L	As Shown	9-12m	17
	ELA EUM	Elaeocarpus eumundi	200L	As Shown	3-5m	11
	TRI LAU	Tristaniaopsis laurina 'Luscious'	100L	As Shown	8-10m	34
	FIC FLA	Ficus hillii	100L	As Shown	5-10m	15
	EUC MOL	Eucalyptus moluccana	100L	As Shown	9-12m	2
		SHRUBS				
	ACM SMI	Acmena smithii 'Minor'	200mm	2/m²	3m	169
	SYZ AUS	Syzygium australe 'Aussie Boomer'	200mm	2/m²	3m	143
	VIB ODO	Viburnum odoratissimum	200mm	2/m²	3m	105
	WES FRU	Westringia fruticosa	200mm	2/m²	2m	584
	PIT MIS	Pittosporum tobira 'Miss Muffet'	200mm	3/m²	1m	957
		GROUNDCOVERS				
	HAR VIO	Hardenbergia violacea	150mm	4/m²	500mm	578
	TRA JAS	Trachelospermum jasminoides	150mm	4/m²	300mm	520

NOTES:
Planting sourced from City Of Logan Landscape Development Manual, The Water By Design Technical Guideline, City of Logan List of Approved Plants for Gardens on Footpaths, and Charter Hall Industrial & Logistics Landscape Guidelines 2022



MAG EXM



LOP CON



TRI LAU



ELA EUM



FIC FLA



EUC MOL



ACM SMI



SYZ AUS



VIB ODO



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CHARTER HALL STANDARD SPECIFICATION + MAINTENANCE NOTES

- The Charter Hall and Sprout KOP Annexure G is to be the over-riding document in any instance.
- A high standard of mature landscaping is expected leading to the customer entry. A fully designed low maintenance landscape plan with no turf shall be provided after reviewing the most recent copy of the Charter Hall Kit of Parts, to then be sent to Charter Hall for review and approval.
 - The landscaping design consider ongoing maintenance, clear lines of sight and general tidiness. For example - preference to gravel beds in car park landscaping. All stone products are to be environmentally friendly ie no river rocks.
 - The D&C Contractor shall provide an automatic watering system, connected to the rain water tanks and mains water back up, for the site with all landscaping and irrigation as per the applicable landscape drawings but not less than one tap per major garden bed and one within 30m of minor beds for hose access The Landscape Architect is to review irrigation design to ensure it is a performance based specification and adequate.
 - Irrigation to be linked to the water re-use system.
 - The contractor is to allow for all turfing and landscaping in the nature strip as required by Council.
 - 12 months' full maintenance is required after PC including a 3 month plant warranty.
 - All new trees shall be staked and tied. Existing trees deemed to remain shall be protected during construction and documented with an arborist report.
 - A follow up arborist report shall be undertaken prior to the conclusion of the 12 month defects liability period.
 - Landscape beds are to be clear of builders rubble which is not to be disposed of throughout the site.
 - Soil inside of the landscape beds are to be raised to a level that allows for importation of topsoil. Costs to remove excess filling to allow suitable topsoil placement will be charged to the builder.

SERVICES
Landscaping is to be completed to Authority requirements. Building & Estate Landscaping to be in line with the Charter Hall landscape specification and Assets Presentation Guidelines Annexure G
Remove all weed and other debris from planter beds and areas to be landscaped. Remove rocks and branches larger than 75mm.
Before landscape work is commenced the Landscape Contractor is to establish the position of all service lines and ensure tree planting is carried out at least 3 metres away from these services. Service lids, vents and hydrants shall be left exposed and not covered by any landscape finishes (turfing, paving, garden beds etc.)
Finish adjoining surfaces flush with pit lids.

PLANTING MIXTURE - (300mm DEPTH)
TURF SOIL UNDERLAY - (150mm DEPTH)
Imported Garden Mix,
Type: Premium
Available: Australian Native Landscapes (ANL)

TURF SOIL UNDERLAY

MULCH
APPLICATION: Place mulch to the required depth, (refer to drawings) clear of plant stems, and rake to an even surface finishing 25mm below adjoining levels. Ensure mulch is watered in and tamped down during installation.
MULCH TYPE:
Pine bark: From mature trees, graded in size from 15mm to 30mm, free from wood slivers. Dark brown in colour and texture.

COMPOST
Shall be "GO Compost" as available from Soilcoo or approved equal.

PLANT MATERIAL
All plants supplied are to conform with those species listed in the Plant Schedule on the drawings. Generally plants shall be vigorous, well established, hardened off, of good form consistent with species or variety, not soft or forced, free from disease or insect pests with large healthy root systems and no evidence of having been restricted or damaged. Trees shall have a leading shoot. Immediately reject dried out, damaged or unhealthy plant material before planting. All stock is to be container grown for a minimum of six (6) months prior to delivery to site.

- All plant material shall be obtained from an approved reputable nursery/supplier where plants are exposed and have been hardened-off in the open.
- Plants are to be healthy, well-grown specimens, free of pest, injury and diseases.
- Carry out the supply and installation of all planting as specified including preparation of tree holes, back filling, planting of trees, staking and tying and planting of garden beds as set out and scheduled on the Drawings.
- It is the Contractors responsibility to adequately protect and maintain vegetative material against any adverse or damaging climatic conditions before and during the planting procedure.
- Hardwood stakes, as per details are to be installed immediately after tree planting. Stakes are to be driven 600mm into the ground or deep enough to ensure that the stake will remain stable and vertical. Tie tree to stakes using 2 "figure eight" ties of canvas or approved equivalent.

FERTILISER
MASS PLANTING AREAS: Fertiliser shall be 'Nutricote' or approved equivalent in granule form intended for slow release of plant nutrients over a period of approximately nine months. Thoroughly mix fertiliser with planting mixture at the recommended rate, prior to installing plants.
TURF: Shall be Shirleys No. 17 or approved equal thoroughly mixed into the topsoil prior to placing turf.
SUPER ADVANCED TREES: Pellets shall be in the form intended to uniformly release plant food elements for a period of approximately nine months equal to Shirleys Kokei pellets, analysis 6.3:1.8:2.9. Kokei pellets shall be placed at the time of planting to the base of the plant, 50mm minimum from the root ball at a rate of two pellets per 300mm of top growth to a maximum of 8 pellets per tree.

STAKING AND TYING
Stakes shall be straight hardwood, free from knots and twists, pointed at one end and sized according to size

- of plants to be staked.
- a. 5-15 litre size plant 1x(1200x25x25mm)
 - b. 35-75 litre size plant 2x(1500x38x38mm)
 - c. 100-greater than 200litre 3x(1800x50x50mm)
- Ties shall be 50mm wide hessian webbing or approved equivalent nailed or stapled to stake. Drive stakes a minimum one third of their length, avoiding damage to the root system, on the windward side of the plant.

TURF
Obtain turf from a specialist grower of cultivated turf, turf shall be of even thickness, free from weeds and other foreign matter; lay in stretcher pattern with joints staggered and close butted, perpendicular to gradient of FSL. Water immediately after laying.
TURF TYPE: Couch (Confirm with Council)

- All turf to be laid within 24hrs after delivery to site.
- Roll soil to achieve an even and firm but not compacted surface before laying of turf. Finish topsoil so as to be 15mm below adjoining pavement surfaces to allow for turf thickness. Stagger joins in each new row and make sure all joints are tightly butt jointed together. Immediately water turf after laying of turf. On gradients, turf to be laid diagonally across the slope, peg turf in areas with slopes greater than 1:3. Ensure pegs are removed after turf has established.
- Water turf a minimum once a day for the first 7 days of installation and every 2 days thereafter from day 8-21 of installation. Additional hand sprigging will be required to any areas that have failed or where coverage is noticeably inconsistent.
- Turfing is undertaken between the months of November and March, ensure grassing is watered daily (at a minimum) for the first two weeks subsequent to laying.

DDA SEAT (FREE STANDING)
Type: Strabe Rondo Seat (DDA Compliant) Black powdercoat with hardwood Slats
Product Code: Rondo Seat
Size: 1800L x 855H x 567D
Web: https://strabe.com.au

LANDSCAPE MAINTENANCE PROGRAM

Maintenance shall mean the care and maintenance of the landscape works by accepted horticultural practice as rectifying any defects that become apparent in the landscape works under normal use. This shall include, but shall not be limited to, watering, mowing, fertilising, re-seeding, returfing, weeding, pest and disease control, staking and tying, replanting, cultivation, pruning, aerating, renovating, top dressing, maintaining the site in a neat and tidy condition as follows:-

GENERAL
The landscape contractor shall maintain the landscape works for the term of the maintenance (or Plant establishment) period to the satisfaction of the council. The landscape contractor shall attend to the site on a weekly basis. The maintenance period shall commence at practical completion and continue for a period of twenty six (26) weeks.

WATERING
Grass, trees and garden areas shall be watered regularly so as to ensure continuous healthy growth.

RUBBISH REMOVAL
During the term of the maintenance period the landscape contractor shall remove rubbish that may occur and reoccur throughout the maintenance period. This work shall be carried out regularly so that at weekly intervals the area may be observed in a completely clean and tidy condition.

REPLACEMENTS
The landscape contractor shall replace all plants that are missing, unhealthy or dead at the Landscape Contractor's cost. Replacements shall be of the same size, quality and species as the plant that has failed unless otherwise directed by the Landscape Architect. Replacements shall be made on a continuing basis not exceeding two (2) weeks after the plant has died or is seen to be missing.

STAKES AND TIES
The landscape contractor shall replace or adjust plant stakes, and tree guards as necessary or as directed by the Landscape Architect. Remove stakes and ties at the end of the maintenance period if so directed.

PRUNING
General: Prune to reflect the natural growth flowering and regrowth habit of the individual species. Shrubs: Prune after flowering - Spring and Summer and on a spot basis as required.
Hedge trimming: Schedule trimming at times which will maintain the character and design of hedges. Allow up to three times per season.
Tip pruning: To encourage development of new shoots during the active growing season. Do not remove buds before the flowering season in those plants that have terminal flowers.
Radical pruning: To maintain a hedge or formal shape or when a particular problem, growth habit, damage, or disease requires branch removal.
Trees: Prune to eliminate diseased or damaged growth, avoid inter-branch contact and thin out crowns in a natural manner, maintain sight lines to signs and lights, or maintain visibility for personal security. Tree branch removal to AS 4373. Give notice and engage a suitably qualified 'arborist'.

MULCHED SURFACES
All mulched surfaces shall be maintained in a clean and tidy condition and be reinstated if necessary to ensure that a depth of 75mm is maintained. Ensure mulch is kept clear of plant stems at all times. Remove all mulching materials off lawn or paved areas and maintain a clean and tidy appearance when viewed on a weekly basis.

PEST AND DISEASE CONTROL
The landscape contractor shall spray against insect and fungus infestation with all spraying to be carried out in accordance with the manufacturer's directions. Report all instances of pests and diseases (immediately that they

are detected) to the Landscape Architect.

GRASS AND TURF AREAS
The landscape contractor shall maintain all grass and turf areas by watering, weeding, re-seeding, rolling, mowing, trimming or other operations as necessary. Seed and turf species shall be the same as the original specified mixture. Grass and turf areas shall be sprayed with approved selective herbicide against broad leafed weeds as required by the Landscape Architect and in accordance with the manufacturer's directions. Grass and turf areas shall be fertilised once a year in autumn with "Dynamic Lifter" for lawns at a rate of 20kg per 100m2. Fertiliser shall be watered in immediately after application. Irregularities in the grass and turf shall be watered in immediately after application. Grass and turf areas shall be kept mown to maintain a healthy and vigorous sward. Mowing height: 30-50mm.

WEED ERADICATION
Eradicate weeds by environmentally acceptable methods using a non-residual glyphosate herbicide (eg. 'Roundup') in any of its registered formulae, at the recommended maximum rate. Regularly remove by hand, weed growth that may occur or recur throughout grassed, planted and mulched areas. Remove weed growth from an area 750mm diameter around the base of trees in grassed areas. Continue eradication throughout the course of the works and during the maintenance period.

SOIL SUBSIDENCE
Any soil subsidence or erosion which may occur after the soil filling and preparation operations shall be made good by the landscape contractor at no cost to the client.

MAINTENANCE PERIOD:
The maintenance period for all landscaping is 12 months from Practical Completion and an establishment warranty period of 3 months from Practical Completion.
During the maintenance period:
· The Contractor is responsible for the satisfactory establishment of all soft works and parts thereof prior to the issuance of the Final Completion Certificate.
· Establishment shall mean the care and maintenance of the contract area by accepted horticultural practices, as well as rectifying any defects that may become apparent in the Works under normal use within 14 days of the defect being noted.
· Keep a log book recording when and what maintenance work has been done and what materials, including toxic materials, have been used. Make the log book available for inspection on request.
During the warranty period:
· The Landscape Contractor is responsible for all losses of plant material due to nursery stock failure or improper horticultural care during the landscape maintenance / plant establishment period. If plants die as a result of poor horticultural practice, they are to be replaced within 48 hours. If plants die or are removed for other reasons, such as theft or vandalism, the Contractor is to notify the Superintendent immediately and replace the effected planting within 48 hours.

IRRIGATION (PERFORMANCE SPECIFICATION)

IRRIGATION OVERVIEW - Confirm with Project Manager at tender stage.

EXTENT
All mass planting landscape areas and trees are to have full coverage by a fully automatic irrigation system. The design, materials and installation are to be in accordance with City West Water Codes and all relevant Australian Standards.

1. An automatic irrigation system is to be installed to all turf and garden bed areas.
2. The irrigation system shall be designed and installed by a licensed contractor to relevant Australian standards and City West water guidelines.
3. The irrigation system shall be connected into the rainwater tank system and pump.

DIPLINE
Provide 13mm dripline to all garden bed areas with appropriate 13mm joiners. Dripline to be Toro drip or similar with 400mm centre drippers. Install line at 500mm spacings with the first line to be 150mm in from edge.
Install dripline after planting and prior to mulching to allow for an adequate mulch cover. Anchor at 1.5m maximum intervals with u-shaped stakes. Dripline pattern to suit planting.

CONTROL VALVES
24V solenoid actuated hydraulic valve with flow control. Control valves to be Toro ezflow series solenoids 25mm or approved equal. Provide a gate valve of the same size immediately upstream of each valve. House both valves in a high impact plastic valve box with a high impact plastic cover at finished ground level. Support the box with bricks on each side.
Controller to be Toro greenkeeper or approved equal with a rain switch.
Install a master valve/pressure regulating valve equal to Toro p220 with xreg pressure regulation valve. Filter to be installed equal to Toro y filter 75mm screen filter.
CONTROL WIRES
Connect the control valves and soil moisture sensor to the controller with double insulated underground cables laid alongside piping where possible. Lay intertwined for their full length without joints except at the valves and branches off common wires. Provide waterproof connectors.
Provide a backflow prevention device to Australian standards AS 3500.
DEFECTS LIABILITY PERIOD
The irrigation system shall be subject to a 12 month defects and liability period.
RELEVANT AUSTRALIAN STANDARDS

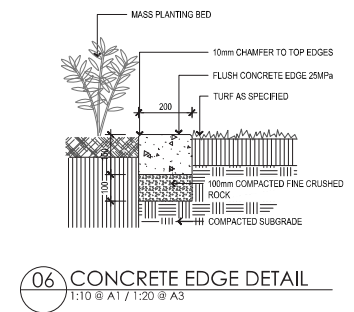
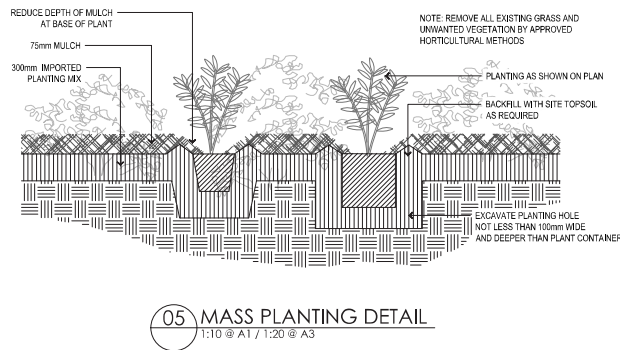
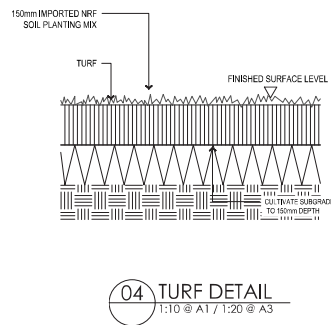
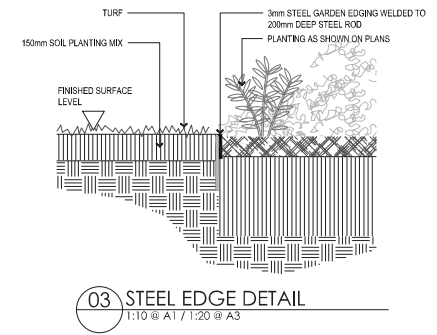
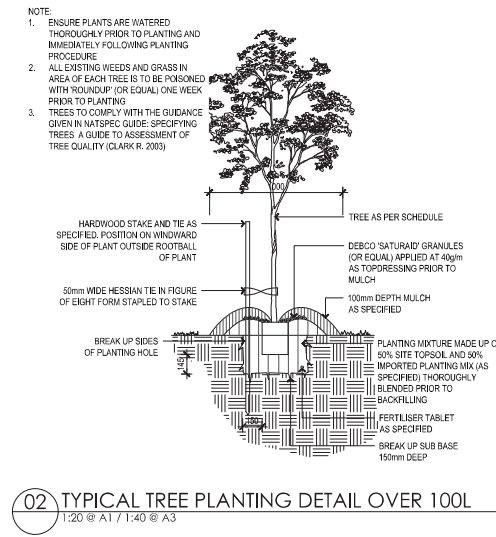
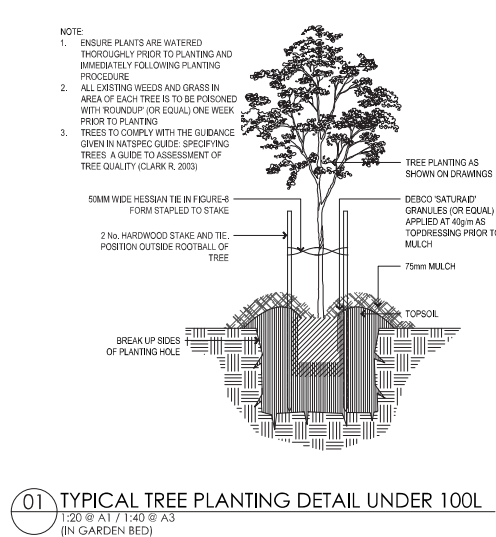
Soil: AS4419, AS3743, AS4454
Mulch: AS4454
Tree: AS2303
Pruning: AS4373
Tree Protection: AS4970
Contractor to comply with the above Australian Standards

PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2023/1466
Date: 11 October 2024



TYPICAL LANDSCAPE DETAILS



PLANS AND DOCUMENTS
referred to in the PDA
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